



City of Seattle

Appendix B - Additional Submittal Requirements

City of Seattle
Stormwater Manual
July 2021

Note:

Some pages in this document have been purposely skipped or blank pages inserted so that this document will copy correctly when duplexed.

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B-1. Preliminary Drainage Control Review Submittal Requirements for Master Use Permits

Preliminary Drainage Control Review is required for certain Master Use Permit (MUP) applications per SMC 22.807.020.A (refer to *Volume 1, Section 8.1*). The general submittal requirements are described in *Volume 1, Section 8.1*. However, different types of MUPs require different levels of drainage review and detail.

The following describes the specific submittal requirements and drainage review process for the most common types of MUP that will typically require drainage review.

B-1.1. Subdivisions and Short Plats

B-1.1.1. Subdivisions

“Full” Subdivisions per SMC 23.22 require a high level of detail for approval of Preliminary Drainage Control Review. Prior to Preliminary Plat Approval, a Preliminary Drainage Control Plan, Preliminary Drainage Report (Report), and all supporting documents as described in *Volume 1, Section 8.1* must be submitted and approved. The Preliminary Drainage Control Plan and Report shall identify all BMPs necessary to meet the minimum requirements (e.g., on-site stormwater management, flow control, water quality treatment, etc.) including size and location. The level of detail required is the same as required for Standard and Comprehensive Drainage Control Review.

The Preliminary Drainage Control Plan approval does not constitute approval for construction. A Standard or Comprehensive Drainage Control Plan and Report must be submitted with a construction permit. Depending on the scope and location, required construction permit will be a Grading Permit, Building Permit, or a Seattle Department of Transportation (SDOT) Street Improvement Plan (SIP) Permit.

Subsequent construction permits in the subdivision must demonstrate with Standard or Comprehensive Drainage Control Plans that they are compliant with the intent of the approved Preliminary Drainage Control Plan.

Note: Additional requirements apply to permitting and construction of drainage control facilities and drainage systems that will be shared by multiple parcels, lots, tracts, etc., within the Subdivision. Refer to *Section B-1.1.3*.

B-1.1.2. Short Plats

Short Plats (a.k.a. Short Subdivisions) per SMC 23.24 require a similar level of detail as Full Subdivisions for approval of Preliminary Drainage Control Review.

Deferred Drainage Plans for Some Projects: The requirement for a Preliminary Drainage Control Plan and Report may be deferred until the construction permit by the Director if all of the following conditions are met:

1. The full development potential in the Short Plat, including all lots, parcels, and tracts, does not exceed the thresholds established for flow control or water quality treatment or require a mainline extension,
2. The project has an approved offsite discharge point for drainage (e.g., public storm drain),
3. The downstream drainage system has adequate capacity,
4. Drainage Condition #1 in *Section B-1.1.4* is placed on the first sheet of the recorded plat.

Otherwise, a Preliminary Drainage Control Plan and Report, and all supporting documents as described in *Volume 1, Section 8.1* must be submitted and approved prior to approval of the Short Plat. Depending on the scope and location, this will require a Grading Permit, Building Permit, or an SDOT SIP Permit.

Subsequent construction permits in the short subdivision must demonstrate with Standard or Comprehensive Drainage Control Plans that they are compliant with the intent of the approved Preliminary Drainage Control Plan.

Note: Additional requirements apply to permitting and construction of drainage control facilities and drainage systems that will be shared by multiple parcels, lots, tracts, etc., in the Subdivision. Refer to *Section B-1.1.3*.

B-1.1.3. Shared Drainage Control Facilities and Systems for Subdivisions and Short Plats

Drainage control facilities and systems proposed on Preliminary Drainage Control Plans that will serve multiple parcels, lots, tracts, etc., in a Subdivision or Short Plat are subject to the following code requirement.

Stormwater Code Language	References
<p><i>SMC 22.805.010.E. Construction of drainage control facilities and drainage systems for plats.</i></p> <p><i>1. In the case of a subdivision under Chapter 23.22, drainage control facilities or drainage systems that are identified on the associated preliminary drainage control plan or the approved preliminary plat and will serve multiple proposed lots, parcels, tracts, or rights-of-way shall be constructed prior to approval of the final plat unless a bond is provided according to subsection 23.22.070.C. If a bond is provided in lieu of construction prior to approval of the final plat, the construction permit for the facilities or systems must be issued prior to issuance of any building permit for any other construction within the subdivision and construction of the facilities or systems shall be completed and final inspection approved prior to final inspection approval of any building permit for any other construction within the subdivision and prior to occupancy of any buildings, but in no event later than two years after final plat approval.</i></p> <p><i>2. In the case of a short plat under Chapter 23.24 with shared drainage control facilities or drainage systems that are identified on the preliminary drainage control plan and will serve multiple proposed lots, parcels, tracts, or rights-of-way, the following shall occur:</i></p>	<ul style="list-style-type: none"> ● <i>Volume 1, Section 8.1 – Preliminary Drainage Control Review</i> ● <i>SMC 22.807.020.A – Thresholds for Drainage Control Review</i> ● <i>SMC, Chapter 23.22 – Subdivisions</i> ● <i>SMC, Chapter 23.24 – Short Plats</i>

Stormwater Code Language	References
<p>a. The construction permit for the shared facilities or systems shall be issued prior to issuance of any building permit for any other construction within the lots, parcels, tracts, or rights-of-way served by the shared facilities or systems; and</p> <p>b. Construction of the shared facilities or systems shall be completed and final inspection approved prior to final inspection approval of any building permit for any other construction within the lots, parcels, tracts, or rights-of-way served by the shared facilities, and prior to occupancy of any buildings on these lots, parcels, or tracts.</p>	

In addition, shared drainage control facilities and shared service drains require a joint use and maintenance agreement (JUMA) between the parcels, lots, tracts, etc. that are served by the shared feature per the requirements of the Side Sewer Code (SMC, Section 21.16.250.C).

B-1.1.4. Typical Drainage Conditions for Subdivisions and Short Plats

Subdivisions and Short Plats will require one or more drainage conditions. The applicable drainage conditions must be placed on the first sheet of the plat that will be recorded. The following are some of the typical drainage conditions that may apply. The conditions may require modifications per the reviewer and additional drainage conditions may apply as required by the Director.

Typical Drainage Condition #1. (Required on all Subdivisions and Short Plats): The subdivision of the property will not reduce the requirements of the Seattle Stormwater Code and the Seattle Side Sewer Code. The proposed parcels within this [Subdivision/Short Plat] will meet the standards required by the higher area threshold of the entire property being subdivided rather than the standards required for each of the proposed parcels individually.

Typical Drainage Condition #2. (Required for all Subdivisions or Short Plats that require submittal of Preliminary Drainage Control Plans): Approval of the Preliminary Drainage Control Plans and Report reviewed with this Subdivision/Short Subdivision is preliminary. A Standard or Comprehensive Drainage and Wastewater Control Plan, a Construction Stormwater Control and Soil Management Plan, a Drainage Report (if triggered), and all supporting documents will be required for all future construction permits within this Subdivision/Short Subdivision to demonstrate compliance with the approved Preliminary Drainage Control Plan.

Typical Drainage Condition #3 (Required if the Preliminary Drainage Control Plan shows drainage control facilities that will serve multiple lots, parcels, or tracts within the Subdivision/Short Subdivision): The construction permit for the shared facilities or systems shown on the preliminary drainage plan shall be issued prior to issuance of the any building permit for any other construction within the lots, parcels, tracts, or rights-of-way served by the shared facilities or systems; and construction of the shared facilities or systems shall be completed and final inspection approved prior to final inspection approval of any building permit for any other construction within the lots, parcels, tracts, or rights-of-way served by the shared facilities, and prior to occupancy of any buildings of these lots, parcels, or tracts. [for full subdivisions: but in no event later than two years after final plat approval.]

Typical Drainage Condition #4 (Required if a Public Storm Drain mainline extension is required.): The public storm drain shall be extended across the full street frontage of the Subdivision/Short Plat per SMC 22.805.020.L-N unless an adjustment or exception is approved by the Director of Seattle Public Utilities per SMC 22.800.040.B or C. The permits for the public storm drain extension must be issued prior to issuance of the first building permit in the subdivision, and construction of the public storm drain must be completed before final approval of any building permit within the subdivision.

B-1.1.5. Easements for Subdivisions and Short Plats

All lots, parcels, tracts must be demonstrated to have access through easements for the proposed drainage features or conveyance systems that must cross the other lots, parcels, tracts within the subdivision or short plat and for all shared drainage facilities. Easements must be either established in the plat; or the previously recorded easement shall be shown and called out on the plat, including the King County recording number.

Note: Per SPU Policy DWW-160 “The City does not allow the use of an easement in lieu of an extension of the public storm or sewer system (i.e., public sanitary sewer [PSS], public combined sewer [PS], public storm drain [PSD]). Any adjustments or exceptions to this restriction must be authorized by the SPU General Manager/CEO or a designee.” A mainline extension may be required if there are any proposed lots that abut a public street right-of-way where there is no existing public piped storm drain. Refer to the Public Drainage System Requirements Director’s Rule (SPU Director’s Rule DWW-210).

B-1.1.6. Determining Minimum Requirements for Subdivisions and Short Plats

The steps to determine the minimum requirements that apply to Subdivisions and Short Plats are described in *Volume 1, Chapter 2*. The project type for Subdivisions and Short Plats is parcel-based, regardless of the land use zoning; and the boundaries of the project site include the full area of the Subdivision or Short Plat. The following code section includes requirements for calculating the new plus replaced hard surface for a Subdivision or Short Plat.

Stormwater Code Language	References
<p><i>SMC 22.805.010.D</i></p> <p><i>In the case of a subdivision under Chapter 23.22 and short plat under Chapter 23.24, unless an adjustment pursuant to subsection 22.800.040.B is approved by the Director, for the purposes of applying the thresholds in Chapter 22.805, the hard surface coverage is the maximum lot coverage allowed per Subtitle III of Title 23, Land Use Code, plus required and proposed pedestrian and vehicular access and amenities, including driveways, walkways, plazas, and patios identified on the preliminary drainage control plan and associated preliminary site plan.</i></p>	<ul style="list-style-type: none"> ● <i>Volume 1, Section 2.5 – Step 5 – Calculate Land-Disturbing Activity and New Plus Replaced Hard Surface</i> ● <i>Volume 1, Section 2.6 – Calculate New Plus Replaced Pollution Generating Surface</i> ● SMC 22.800.040.B – Adjustments ● SMC, Chapter 23.22 – Subdivisions ● SMC, Chapter 23.24 – Short Plats

B-1.2. Unit Lot Subdivisions

Unit Lot Subdivisions per SMC 23.22.062 and 23.24.045 typically have a building permit that is already issued or is being reviewed simultaneously with the Unit Lot Subdivision. If Standard or Comprehensive Drainage Review is already completed or in process for a Building Permit that includes all proposed development in the Unit Lot Subdivision, then the Drainage Control Plan and Drainage Report are not required to be submitted with the Unit Lot Subdivision submittal.

In the case where an application for a Building Permit that covers all development in the Unit Lot Subdivision has not been made, a Preliminary Drainage Plan and Drainage Report (if required), and all supporting documents must be submitted with the Unit Lot Subdivision application (similar to Short Plats and Subdivisions).

Easements

All unit lots must be demonstrated to have access through easements for the proposed drainage features or conveyance systems that must cross the other unit lots within the subdivision and for all shared drainage facilities. Easements must be either established in the Unit Lot Subdivision or the previously recorded easement shall be shown and called out on the Unit Lot Subdivision plat, including the King County recording number.

B-1.3. Lot Boundary Adjustments

Preliminary Drainage Review for Lot Boundary Adjustments (LBA) per SMC 23.28 is required. A separate Preliminary Drainage Control Plan is not required with the Master Use Permit (MUP) submittal if:

1. Drainage infrastructure is accessible to each adjusted lot, and
2. All lots that abut the public place (i.e., street right-of-way) have a public drainage system in their street frontage or access directly to a receiving water.

If the adjusted lots that abut the public place (i.e., street right-of-way) do not have a public piped storm drain (PSD) in their street frontage or access directly to a receiving water, then the following LBA Drainage Adequacy Note #1 must be added to the first page of the recorded LBA plat.

LBA Drainage Adequacy Note #1

There is no available public piped storm drain (PSD) in the street frontage of one or more of the adjusted lots. An extension of the public storm drain may be required across the full street frontage of the adjusted lot/s if required per SMC 22.805.020.L unless an alternative is allowed by the SPU Public Drainage System Requirements Director's Rule DWW-210 (e.g., use of a ditch, culvert, public piped combined main; curb weep or on-site infiltration for small projects). Note: the thresholds for determining requirements include all "Closely Related Projects" as described in the SMC 22.805.010.B/Seattle Stormwater Manual Volume 1, Section 2.1.2.

If an extension of a public drainage system is infeasible as determined by the Director, a Preliminary Drainage Control Plan and associated documents must be submitted to demonstrate that the potential development on each lot can be constructed with infiltration or dispersion BMPs to meet the requirements of *Volume 1, Section 4.3.2*. In this scenario, LBA Drainage Adequacy Note #2 must be added to the first page of the recorded LBA plat.

LBA Drainage Adequacy Note #2

A Preliminary Drainage Control Plan was submitted to demonstrate adequacy of drainage for potential development on the adjusted lots using [_____] (onsite infiltration or dispersion BMPs). Approval of this plan is preliminary. A Drainage and Wastewater Control Plan, a Construction Stormwater Control and Soil Management Plan, a Drainage Report, and all supporting documents will be required for all future construction permits within each of the lots and must comply with the provisions of the Preliminary Drainage Control Plan.

The level of detail required on the Preliminary Drainage Control Plan must include a Site Plan showing the proposed or potential development and the sizes and possible locations of stormwater BMPs that will manage the runoff fully on site.

Easements

All adjusted lots must be demonstrated to have legal access for the proposed drainage features or conveyance systems that must cross the other lots to reach street frontage where drainage infrastructure is located or will be extended or have access to a receiving water. Easements must be either established in the LBA; or the previously recorded easement shall be shown and called out on the LBA plat, including the King County recording number.

Note: Per SPU Policy DWW-160, “*The City does not allow the use of an easement in lieu of an extension of the public storm or sewer system (i.e., public sanitary sewer [PSS], public combined sewer [PS], public storm drain [PSD]). Any adjustments or exceptions to this restriction must be authorized by the SPU General Manager/CEO or a designee.*” A mainline extension may be required if there are any adjusted lots that abut a public street right-of-way where there is no existing public piped storm drain (PSD). Refer to the Public Drainage System Requirements Director’s Rule (SPU Director’s Rule DWW-210).

B-2. Drainage Report Format/Content Requirements

Drainage Reports are a required part of many Drainage Control Plans as indicated in *Volume 1, Chapter 8*. The following table describes the typical, required elements and recommended format for Drainage Reports. Elements that are not applicable to a particular project may be indicated as “not applicable” in the Drainage Report. Additional information that is not included in this table may be as described in *Volume 1, Section 8.4*.

Drainage Report Section		Stormwater Manual Reference	Submittal Notes (if applicable)
1. Introduction	1.1. Project overview	<i>Volume 1, Chapter 8</i>	Narrative describing the project.
	1.2. Existing and Proposed Conditions		Describe the existing and proposed conditions including a summary of existing hard surface area.
2. Determining minimum requirements	2.1. Define the boundaries of the project site	<i>Volume 1, Section 2.1</i>	Include a vicinity map highlighting the project area
			Include a description of the drainage basin(s) where the project is located and a map highlighting the areas in the project that are in different drainage basins (if applicable).
			If there are multiple basins, include a table with area calculations and identification of drainage basins.
	2.2. Identify the type of project	<i>Volume 1, Section 2.2</i>	The project will be classified as a specific project type; this will determine the minimum requirements.
	2.3. Identify the receiving water and downstream conveyance	<i>Volume 1, Section 2.3</i>	Include at least one map that shows the existing drainage infrastructure per basin.
			Include a table or narrative describing the type of receiving water/s and types downstream conveyance systems per basin.
	2.4. Perform site assessment and planning	<i>Volume 1, Section 2.4</i>	The Drainage Report shall contain, at a minimum, the evaluation and conclusion of each of these items (Section 2.4.1 through 2.4.11) when applicable.
	2.4.1. Project boundaries	<i>Volume 1, Section 7.2</i>	
	2.4.2. Setbacks		
	2.4.3. Location of buildings		
2.4.4. Foundation and footing drains			
2.4.5. Soil condition assessment and infiltration feasibility analysis	<i>Volume 1, Section 7.3; Volume 3, Section 3.2</i>		

Drainage Report Section		Stormwater Manual Reference	Submittal Notes (if applicable)
2. Determining minimum requirements (continued)	2.4.6. Environmentally critical areas (ECAs)	<i>Volume 1, Section 7.4</i>	
	2.4.7. Dewatering (Temporary and Permanent)	<i>Volume 1, Section 7.5</i>	Identify any temporary or permanent groundwater that the project will discharge and include estimates of the discharge rates from a licensed professional.
	2.4.8. Topography	<i>Volume 1, Section 7.6</i>	
	2.4.9. Site Assessment	<i>Volume 1, Section 7.7</i>	
	2.4.10. Landscaping principles	<i>Volume 1, Section 7.8</i>	
	2.4.11. Site design considerations and dispersion feasibility	<i>Volume 1, Section 7.9</i> <i>Volume 3, Section 3.2</i>	
	2.5. Calculate land disturbing activity and new plus replaced hard surface	<i>Volume 1, Section 2.5</i>	Provide a map highlighting the project's new plus replaced hard surface and limits of disturbance per basin. Provide a color map that identifies different types of surfaces (i.e., hard vs. pervious) and area calculations.
	2.6. Calculate new plus replace pollution generating surface	<i>Volume 1, Section 2.6</i>	If water quality treatment is required, provide a map highlighting the pollution generating hard and pervious areas per basin and delineate the areas tributary to each Water Quality BMP.
	2.7. Determine which minimum requirements apply	<i>Volume 1, Section 2.7</i>	Include a summary of all minimum requirements that apply.
3. Minimum requirements for all projects	3.1. Maintaining natural drainage patterns	<i>Volume 1, Section 3.1</i>	The Drainage Report shall contain, at a minimum, an evaluation and conclusion of each of these items (<i>Section 3.1</i> through <i>3.12</i>) when applicable.
	3.2. Discharge point	<i>Volume 1, Section 3.2</i>	
	3.3. Flood-prone areas	<i>Volume 1, Section 3.3</i>	

Drainage Report Section		Stormwater Manual Reference	Submittal Notes (if applicable)
3. Minimum requirements for all projects (continued)	3.4. Construction site stormwater pollution prevention control	<i>Volume 1, Section 3.4; Volume 1, Chapter 8; Volume 2, Chapter 2</i>	Include small- or large-project CSC checklist and CSC plan. A narrative is also required and a short narrative describing the selected BMPs and the results of any required calculations.
	3.5. Protect wetlands	<i>Volume 1, Section 3.5</i>	
	3.6. Protect streams and creeks	<i>Volume 1, Section 3.6</i>	
	3.7. Protect shorelines	<i>Volume 1, Section 3.7</i>	
	3.8. Ensure sufficient capacity	<i>Volume 1, Section 3.8</i>	
	3.9. Install source control BMPs	<i>Volume 1, Section 3.9; Volume 4, Section 1.6</i>	Include the Worksheet for Identifying Applicable Source Control BMPs (<i>Volume 4, Table 1</i>)
	3.10. Do not obstruct watercourses	<i>Volume 1, Section 3.10</i>	
	3.11. Comply with side sewer code	<i>Volume 1, Section 3.11</i>	Side sewers in ROW shall be shown on SIP plans but require a separate permit.
	3.12. Extension of public drainage system	<i>Volume 1, Section 3.12</i>	
	3.13. Public drainage system requirements	<i>Volume 1, Section 3.13</i>	
	3.14. Maintenance and inspection	<i>Volume 1, Section 3.14</i>	

Drainage Report Section		Stormwater Manual Reference	Submittal Notes (if applicable)	
4. Minimum requirements based on project type	4.1. Soil amendment	<i>Volume 1, Section 5.1</i>	Include site plans highlighting the area requiring soil amendment (disturbed area)	
	4.2. On-site Stormwater management	<i>Volume 1, Section 5.2; Volume 3, Chapter 3</i>	Include a narrative with a summary of the BMPs selected and describe any modeling required for the sizing of the BMPs or special considerations such as presettling. Describe in the infeasibility criteria for On-site Stormwater Management BMPs that were not selected. Reference the appropriate Appendix of the Report for the On-site Stormwater Management Calculator and any other required infeasibility documentation.	
	4.3. Flow control	5.3.1. Wetland protection standards	<i>Volume 1, Section 5.3; Volume 3, Sections 3.4 and 4.1</i>	When using hydrologic modeling software, provide conclusions for each simulation to explain how the proposed flow control BMP complied with SMC, Section 22.805.080. Include a map identifying the tributary area connected to the flow control BMP that specifies the amount of area been collected.
		5.3.2. Pre-developed forest standard		
		5.3.3. Pre-developed pasture standard		
		5.3.4. Existing condition standard		
		5.3.5. Peak control standard		
	4.4. Water quality treatment	5.4.1. Basic treatment	<i>Volume 1, Section 5.4; Volume 3, Section 3.5</i>	
		5.4.2. Oil treatment		
		5.4.3. Phosphorus treatment		
5.4.4. Enhanced treatment				
5. Conclusion			Describe the project and how each of the requirements were met, giving a summary of the problems and solutions proposed for this project.	

Drainage Report Section		Stormwater Manual Reference	Submittal Notes (if applicable)
Appendix A	Figures and Maps		
Appendix B	Construction Stormwater Control and Temporary Dewatering Calculations		
Appendix C	On-site Stormwater Management Workbook and any related documentation or calculations		Include the full workbook and any required documentation to justify infeasibility criteria selected (e.g., financial infeasibility criteria, rainwater demand analysis for rainwater harvesting, Geotechnical Engineering analysis and recommendations, etc.).
Appendix D	Flow Control Calculations (if required)		
Appendix E	Water Quality Calculations (if required)		
Appendix F	Landscape Management Plan (if required)		
Appendix G	Source Control Calculations (if required)		
Appendix H	Infiltration Checklist and Documentation		
Appendix I	Soil and Infiltration Investigation Documentation		Infiltration checklists and documentation. Groundwater investigation and estimated flowrate documentation. Geotechnical Report
Appendix J	Inspections and Operations and Maintenance (O&M) Requirements and schedule		

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