

Sheetflow Dispersion

This checklist is intended to highlight items critical to the performance of sheetflow dispersion that need to be addressed in the design plans and verified by a City of Seattle (COS) Seattle Public Utilities (SPU) plan reviewer or a designated representative. Some items have detailed requirements that may not be explicitly stated; refer to the Stormwater Flow Control and Water Quality Treatment Technical Requirements Manual (Manual) for specifics. Resources and their links are listed at the bottom of this checklist.

Items identified by a **FC** are GSI Engineering Design Feasibility Considerations, as discussed in Appendix B of the “Requirements for Green Stormwater Infrastructure to the Maximum Extent Feasible” Director’s Rule, which may prevent this technology from being implemented on the project site.

Technology Description
Sheetflow dispersion BMPs can be used for any impervious or pervious surface that is graded so as to avoid concentrating flows.

Design Requirements (Manual Volume 3, Section 4.4.4)

	Review Item
FC	1. Applicable for impervious surfaces with slopes less than 15 %, such as driveways, sport courts, patios, and roof without gutters, or other situations where concentration of flows can be avoided.
FC	2. Dispersion area minimum requirements:
	<ul style="list-style-type: none"> ▪ A 2-foot wide transition zone to discourage channeling is shown between the edge of the contributing impervious area and the downslope vegetation.
	<ul style="list-style-type: none"> ▪ A vegetated buffer width of 10 feet is provided for up to 20 feet of width of contributing impervious surface. An additional 5 feet of width is added for each additional 20 feet of width of contributing area or fraction thereof.
	<ul style="list-style-type: none"> ▪ Vegetated flow path is covered with well-established lawn or landscape area (in accordance with the amended soil requirements), landscaping with well-established groundcover, or native vegetation with natural groundcover
	<ul style="list-style-type: none"> ▪ Dispersion area is not located within Landslide-Prone Critical Areas as defined by the Regulations for Environmental Critical Areas (SMC 25.09.020)
	<ul style="list-style-type: none"> ▪ Dispersion area is not located within a setback above a Steep Slope Critical Area (SMC 25.09.020), calculated as 10 times the height of the slope rise (to a 500 foot maximum), unless demonstrated as feasible by a geotechnical analysis.
	<ul style="list-style-type: none"> ▪ Dispersion area is not located within 100 feet of a known or contaminated site or abandoned landfill.
	<ul style="list-style-type: none"> ▪ If site has a septic system, the dispersion area is located down gradient of the drainfield.
	3. Overflow conveyance minimum requirements:
	<ul style="list-style-type: none"> ▪ Dispersion area conveys flows, to an approved discharge point per Section

	4.2.5. Large storms are considered.
	▪ Drawings indicate that no erosion or flooding of downstream properties will result.
	4. Flow Control Credit
	▪ Credits provided based on Table 4.12 or dispersion is evaluated using continuous modeling and the assumption in Table 4.11.

Resources:

- Green Stormwater Infrastructure (GSI) website (specifications, CADD drawings, plant lists, links to other resources)
<http://www.seattle.gov/util/greeninfrastructure>
- Seattle Right-of-Way Improvements Manual
<http://www.seattle.gov/transportation/rowmanual/manual/>
- Stormwater Code, Director's Rules (Manual and GSI to MEF), Client Assistance Memos (CAMs), GSI and flow control calculators for pre-sized facilities
<http://www.seattle.gov/dpd/Codes/StormwaterCode/Overview/default.asp>