



Clallam County Residential Driveway Stormwater Best Management Practices (BMP) Packet

Residential driveways that serve single-family residences, duplexes, or triplexes may use this packet to comply with the requirements in Chapter 27.14 of the Clallam County Code. The applicant must demonstrate to the County that they have employed one or more of the Stormwater Best Management Practices (BMPs) to manage the stormwater runoff from the residential driveway. Applicants shall provide the County with receipts from the purchase of materials to construct the applicable BMP as proof of installation. These BMPs shall be designed to accept the stormwater runoff from driveway impervious surfaces which shall not count towards the site's hard surfaces for the purposes of applying the minimum requirements in the applicable stormwater manual.

Option 1: BMP T5.12: Sheet Flow Dispersion

Sheet flow dispersion is the simplest method of runoff control. This BMP can be used for any impervious or pervious surface that is graded to avoid concentrating flows. Because flows are already dispersed as they leave the surface, they need only traverse a narrow band of adjacent vegetation for effective on-site stormwater management.

Applications and Limitations

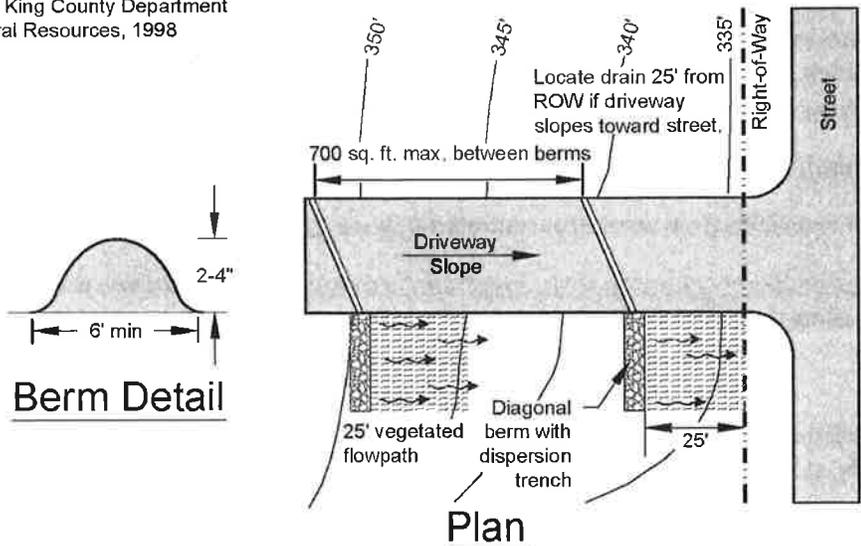
Use this BMP for flat or moderately sloping (< 15% slope) surfaces such as driveways, sports courts, patios, roofs without gutters, lawns, pastures; or any situation where concentration of flows can be avoided.

Design Guidelines

- See [Figure V-3.2: Sheet Flow Dispersion for Driveways](#) for details for driveways.
- See [BMP T5.10B: Downspout Dispersion Systems](#) for dispersion trench design criteria.
- Provide a 2-foot-wide transition zone to discourage channeling between the edge of the impervious surface (or building eaves) and the downslope vegetation. This transition zone may consist of an extension of subgrade material (crushed rock), modular pavement, drain rock, or other material acceptable to the Local Plan Approval Authority.
- Provide a 10-foot-wide vegetated buffer for up to 20 feet of width of paved or impervious surface. Provide an additional 10 feet of vegetated buffer width for each additional 20 feet of impervious surface width or fraction thereof. For example, if a driveway is 30 feet wide and 60 feet long provide a 20-foot wide by 60-foot long vegetated buffer, with a 2-foot by 60-foot transition zone.
- The design must not result in erosion or flooding of downstream properties.

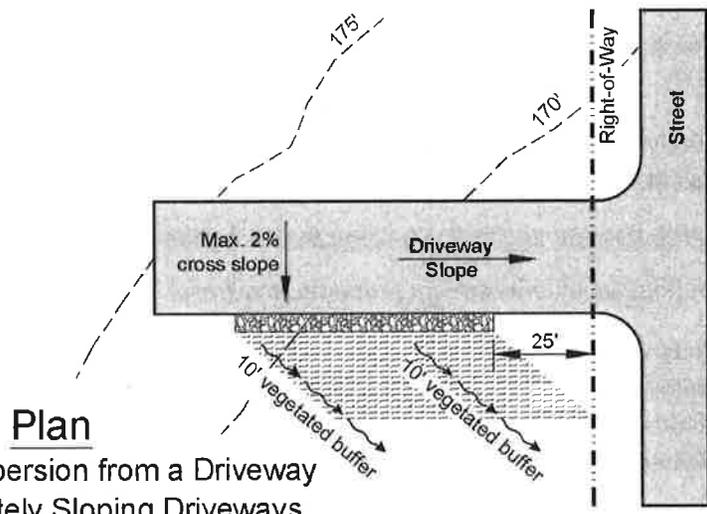
- Runoff discharge toward landslide hazard areas must be evaluated by a geotechnical engineer or a qualified geologist. Do not allow sheet flow on or above slopes greater than 20%, or above erosion hazard areas, without evaluation by a geotechnical engineer or qualified geologist and approval by the Local Plan Approval Authority.
- For sites with septic systems, the discharge area must be ten feet downgradient of the drainfield primary and reserve areas ([WAC 246-272A-0210](#)). A Local Plan Approval Authority may waive this requirement if site topography clearly prohibits flows from intersecting the drainfield.

Source: King County Department of Natural Resources, 1998



Plan

Driveway Dispersion Trench
 Driveway Slope Varies and Slopes Toward Street



Plan

Sheet Flow Dispersion from a Driveway
 Flat to Moderately Sloping Driveways

NOT TO SCALE



DEPARTMENT OF
ECOLOGY
 State of Washington

Sheet Flow Dispersion for Driveways

Revised December 2016

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Option 2: BMP T5.11: Concentrated Flow Dispersion

Dispersion of concentrated flows from driveways or other pavement through a vegetated pervious area attenuates peak flows by slowing entry of the runoff into the conveyance system, allowing for some infiltration, and providing some water quality benefits.

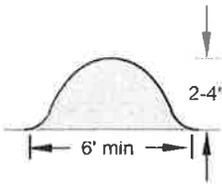
Applications and Limitations

- Use this BMP in any situation where concentrated flow can be dispersed through vegetation.
- [Figure V-3.1: Typical Concentrated Flow Dispersion for Steep Driveways](#) shows two possible ways of spreading flows from steep driveways.

Design Guidelines

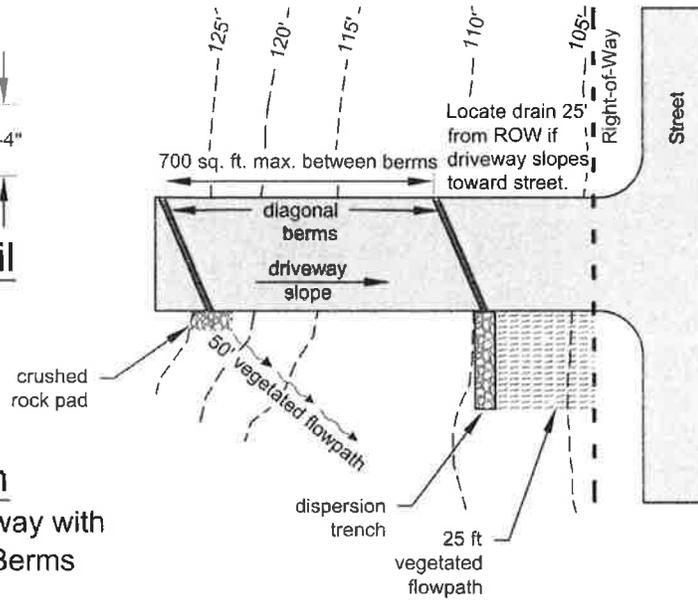
- Maintain a vegetated flow path of at least 25 feet between the discharge point and any property line, structure, steep slope, stream, wetland, lake, or other impervious surface.
 - If the vegetated flow path is 25 - 50 ft, the design must include a dispersion trench prior to discharge over the vegetated flow path.
 - If the vegetated flow path is 50 ft or more, the design may use either a dispersion trench or a pad of crushed rock (as described below) prior to discharge over the vegetated flow path.
- A maximum of 700 square feet of impervious area may drain to each concentrated flow dispersion BMP.
- Provide a pad of crushed rock (a minimum of 2 feet wide by 3 feet long by 6 inches deep) at each discharge point.
- See [BMP T5.10B: Downspout Dispersion Systems](#) for dispersion trench design criteria.
- No erosion or flooding of downstream properties may result.
- Runoff discharged towards landslide hazard areas must be evaluated by a geotechnical engineer or qualified geologist. Do not place the discharge point on or above slopes greater than 20%, or above erosion hazard areas, without assessment by a geotechnical engineer or qualified geologist and approval by the Local Plan Approval Authority.
- For sites with septic systems, the discharge point must be ten feet downgradient of the drainfield primary and reserve areas ([WAC 246-272A-0210](#)). A Local Plan Approval Authority may waive this requirement if site topography clearly prohibits flows from intersecting the drainfield.

NOT TO SCALE

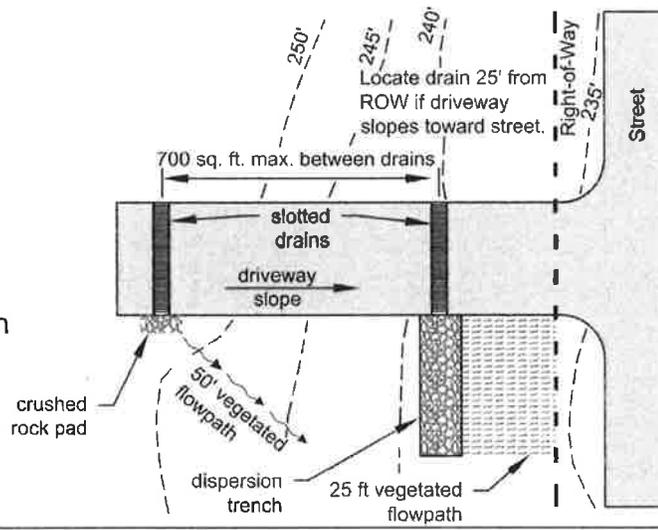


Berm Detail

Plan Steep Driveway with Diagonal Berms



Plan Steep Driveway with Slotted Drains



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Typical Concentrated Flow Dispersion for Steep Driveways

Revised May 2019

