



Construction Inspection

Checklist:

Spec 10: Dry Swale

Level 1 _____ Level 2 _____

Project Name: _____

Plan Number: _____

Address/Location: _____

LND Number: _____

Phase/Section: _____

VSMP Permit #: _____

Contractor & Phone#: _____

Inspector's Name: _____

Certifying Professional & Phone #*: _____

Date of Inspection: _____

***Certifying professional must be a licensed Professional Engineer (PE), Landscape Architect (LA), or Land Surveyor (LS) in the state of Virginia.**

The following checklist provides a basic outline of the anticipated items for the construction inspection of Dry Swale. This checklist does not necessarily distinguish between all the design variations and differences in construction between the families of practices. Inspectors should review the plans carefully and adjust these items and the timing of inspection verification as needed to ensure the intent of the design is met. The standard of design of this practice is based on **Virginia Stormwater BMP Clearinghouse** and **Prince William County Design and Construction Standards Manual (DCSM)**.

All items should be checked when completed. Items labeled "Certification of..." must be crossed off, dated and initialed by certifying inspector.

	1. Pre-Construction Meeting	Yes	No	N/A	Date
1.1	Pre-construction meeting with the contractor designated to install the dry swale has been conducted.				
1.2	Identify the tentative schedule for construction and verify the requirements and schedule for interim inspections and sign-off.				
1.3	Subsurface investigation and soils report supports the placement of a dry swale in the proposed location.				
1.4	Impervious cover has been constructed/installed and area is free of construction equipment, vehicles, material storage, etc.				
1.5	All pervious areas of the contributing drainage areas have been adequately stabilized with a thick layer of vegetation and erosion control measures have been removed				
1.6	Area of the dry swale has not been impacted during construction.				
1.7	Stormwater has been diverted around the area of the dry swale and perimeter erosion control measures to protect the facility during construction.				

	2. Excavation	Yes	No	N/A	Date
2.1	Compare the dry swale surface and invert design elevations with the actual constructed elevations of the inflow and outlet inverts and adjust design elevations as needed.				
2.2	Area of dry swale excavation is marked and the size and location conforms to plan.				
2.3	If the excavation area has been used as a sediment trap: verify that the bottom elevation of the proposed stone reservoir is lower than the bottom elevation of the existing trap.				
2.4	For Level 2 dry swale, ensure the bottom of the excavation is scarified prior to placement of stone				
2.5	Subgrade surface is free of rocks and roots, and large voids. Any voids should be refilled with the base aggregate to create a level surface for the placement of aggregates and underdrain (if required).				
2.6	No groundwater seepage or standing water is present. Any standing water is dewatered to an acceptable dewatering device.				
2.7	Excavation of the dry swale has achieved proper grades, longitudinal slope and the required geometry and elevations without compacting the bottom of the excavation. Photo required.				
Certification of Excavation Inspection:					Date
Inspector certifies the successful completion of the excavation steps listed above.					

	3. Filter Layer, Underdrain, Stone Reservoir Placement:	Yes	No	N/A	Date
3.1	All aggregates, including, as required, the filter layer (choker stone & sand), the stone reservoir layer or infiltration sump conform to specification as certified by quarry.				
3.2	Underdrain size and perforations meet the specifications.				
3.3	For Level 2 installation: placement of filter layer and initial lift of stone reservoir layer aggregated with underdrain or infiltration sump, spread (not dumped) to avoid aggregate segregation; or				

3.4	Impermeable liner, when required, meets project specifications and is placed in accordance with manufactures specifications.				
3.5	Sides of excavation covered with geotextile, when required, prior to placing stone reservoir aggregate; no tears holes, or excessive wrinkles are present.				
3.6	Placement of underdrain, observation wells, and underdrain fittings (45 degree wyes, cap at the upstream end, etc.) are in accordance with the approved plans. Photo required.				
3.7	Elevations of underdrain and outlet structure are in accordance with the approved plans, or as adjusted to meet field conditions.				
3.8	Placement of remaining lift of stone reservoir layers as needed to achieve the required reservoir depth.				
Certification of Filter Layer and Underdrain Placement Inspection					Date
Inspector certifies the successful completion of the soil media steps listed above. Photos and material delivery tickets for these items are attached.					

	4. Dry Swale Soil Media Placement	Yes	No	N/A	Date
4.1	Soil media is certified by supplier or contractor as meeting the project specifications.				
4.2	Soil media is placed in 12-inch lifts to the design top elevation of the dry swale. Elevation has been verified after settlement (2 to 4 days after initial placement).				
4.3	Side slopes of ponding or flow area are feathered back at the required slope (no steeper than 3H: IV).				
4.4	Dry Swale length, bottom width, side slopes, and longitudinal slope are in accordance with the approved plans. Photo required.				
Certification of Soil Media Placement Inspection					Date
Inspector certifies the successful completion of the soil media steps listed above.					

	5. Pretreatment and Check Dam Installation:	Yes	No	N/A	Date
5.1	Placement of energy dissipaters and pretreatment practices (forebays, gravel diaphragms, etc.) are installed in accordance with the approved plans. Photo required.				
5.2	Riser, overflow weir, or outflow structure is set to the proper elevation and functional; or				

5.3	External bypass structure is built in accordance with the approved plans. Photo required.				
5.4	Appropriate number and spacing of check dams are installed in accordance with the approved plans (verification of energy dissipaters at downstream toe, depth keyed into dry swale flow line, and tied back into dry swale side slopes). Photo required.				
5.5	Plant installation conforms to approved plans, and all plants are healthy. Photo required.				
5.6	Apply erosion control matting as required by approved plans or as needed to ensure adequate stabilization.				
5.7	All external erosion and sediment control practices have been removed.				
5.8	Follow-up inspection and as-built survey/certification has been scheduled.				
5.9	GPS coordinates have been documented for all dry swale installations on the parcel.				

All items checked above have been inspected by me (or an individual under my responsible charge) and have been completed to my satisfaction and meet the approved plans (or deviations are noted here).

Signature: _____ Date: _____

Certifying Professional's License Number: _____
(Seal)