Construction/Repairs & Maintenance of Public Facilities

Construction Site Inspection

By making use of some simple Best Management Practices (BMPs) a construction site operator can do his or her share to protect waters of the state from the harmful effects of sediment. The topography of the site and the extent of the construction activities will determine which of these practices are applicable to any given site, but the BMPs listed here are applicable to most construction sites. For details on the installation and maintenance of these BMPs, please refer to Stormwater Construction Technical Standards (dnr.wi.gov/topic/stormwater/standards/const_standards.html)

Construction Entrances

Construction entrances are installed to minimize off-site tracking of sediments. A stone access drive should be installed at every point where vehicles enter or exit the site. Every individual lot should also have its own drive once construction on the lot begins. See WDNR Standard 1057 in Appendix C.

Sediment Basin

Sediment basins are required for construction areas with concentrated runoff, when the design capacity of silt fence or inlet protection is exceeded, or for drainage areas with 1 or more disturbed acres. The outlet is an engineered rise pipe with a skimmer or similar device used to dewater the pond at the surface. Often a permanent stormwater management pond, such as a retention or detention basin, can be modified to act as a sediment basin during construction. See WDNR Standard 1064 in Appendix C.

Silt Fence

Silt fence is typically used at the perimeter of a disturbed area. It's only for small drainage areas on relatively flat slopes or around small soil storage piles. It is not suitable where runoff is concentrated in a ditch, pipe, or through streams. For large drainage areas where flow is concentrated, collect runoff in diversion berms or channels and pass it through a sediment pond prior to discharging it from the site. Combination barriers constructed of silt fence supported by straw bales or silt fence embedded within rock check dams may be effective within small channels. As with all sediment controls, silt fence must be capable of pooling runoff so sediment can settle out of suspension. Silt fence must be installed within 7 days of first grubbing the area it controls. See WDNR Standard 1056 in Appendix C.

Inlet Protection

Inlet protection must be installed on all yard drains and curb drains when these inlets do not drain to a sediment trap or basin. Even if there is a sediment trap or basin, inlet protection is still recommended, as it will increase the overall sediment removal efficiency. See WDNR Standard 1060 in Appendix C.

Seeding and Mulching

All areas at final grade must be permanently stabilized within 7 days of reaching final grade. This is usually accomplished by using seed and mulch, but special measures are sometimes required. Special measures can include land application of anionic polyacridimide. See WDNR Standards 1050, 1058, and 1059 in Appendix C.

Inspection Sheet

Inspections must be conducted once every 7 days and within 24 hours of a 0.5" or greater rainfall. All sediment controls must be installed prior to grading.

General Inspection Information

Construction Site Inspection Date _____ Inspector Name _____

Storm Events – Last 7 Days

Event Date	Event Time	Event Duration	Total Rainfall (in)	Discharge Occurring? (Y/N)

Weather Information at Time of Inspection

Temp. _____ Climate (Sun/Clouds/Rain) _____ Is there stormwater discharge?_____

Along with a narrative inspection log, the inspector shall use a sketch or reduced photocopy of site plan showing locations of stormwater outfalls, storm drain inlets, as well as the location and types of control measures. Problems observed at these locations, or at other locations on the construction site, should be highlighted and any corrective measures undertaken should be drawn in and noted in detail on the sketch.

Construction Entrances

Ke	y thi	ngs to look for	Y	Ν
	1.	Has the drive been constructed by placing geotextile fabric under the stone?		
	2.	Is the stone 3-inch diameter or larger?		
	3.	Has the stone been placed to a depth of 12", 10' wide, and 50' in length?		
	4.	If the drive is placed on a slope, has a diversion berm been constructed across		
		the drive to divert runoff away from any street or water resource?		
	5.	If drive is placed across a ditch, was a culvert pipe used to allow runoff to		
		flow across drive?		

Sedim	ent Basins/Traps		
Key things to look for			Ν
1.	Are concentrated flows of runoff directed to a sediment basin/trap?		
2.	Have the embankments of the sediment basin and areas that lie downstream of the pond been stabilized?		
3.	For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped?		
4.	Is the length-to-width ratio between inlet(s) and outlet at least 2:1? If not a baffle should be added to lengthen the distance.	·	
5.	Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet?		
6.	Was the basin installed prior to grading the site?		
7.	Is it time to clean-out the sediment pond to restore its original capacity?		
	Stabilize the dredged sediments with seed and mulch.	aı <i>f-</i> full.	
8.	Is the basin/trap itself stabile (not having slope stability failures)?		
9.	Does the outlet control structure need to be cleaned?		

Note areas where repairs or maintenance is needed or where this practice needs to be applied

Silt Fence Key things to look for... Y Ν 1. Is the fence at least 4-6" into the ground? ____ 2. Is the trench backfilled to prevent runoff from cutting under fence? _ __ 3. Is the fence pulled tight to prevent sagging when water builds up behind it? ____ 4. Are the ends brought upslope of the rest of the fence to prevent runoff from going around the ends? _ __ 5. Is the fence placed on a level contour? ____ 6. Have all the gaps and tears been eliminated? _ __

Inlet Protection			
Key things to look for		Y	Ν
1.	Does water pond around the inlet protection when it rains?		
2.	Does the fabric require replacement (tears, sags or ½ full)?		
3.	For curb inlet protection, does the fabric cover the entire grate, including 2" of the curb window?		
4.	For yard inlet protection, does the structure encircle the entire grate or has a bag under the casting been installed?		
5.	Is the fabric properly entrenched so that water passes through it, not under?		
6.	For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces or straw bales.		
7.	Is sediment that has accumulated around the inlet in need of removal or maintenance?		
8.	If silt sock is used, is it filled with the media that is heavy enough on its own, or does it require staking down to prevent floating?		
9.	If silt sock is used, is it 8" or 12" and is that the appropriate size for the application?		
10.	If silt sock is used, are any overlapping areas properly done?		

Note areas where repairs or maintenance is needed or where this practice needs to be applied

Temp	orary Stabilization		
Key thi	Key things to look for		
1.	Are there any areas of the site that are disturbed, but will likely lie dormant for over 14 days?		
2.	Have all dormant, disturbed areas been temporarily stabilized in their entireties with temporary seeding or polymer?		
3.	Have disturbed areas outside the silt fence been seeded or mulched?		
4.	Have soil stockpiles that will sit for over 14 days been seeded/polymered or have perimeter control in place?		
5.	Has seed or mulch blown away? If so, repair and consider matting.		

Pe	rma	nent Stabilization		
Ke	Key things to look for			Ν
	1.	Are there areas at final grade?		
	2.	Has the soil been properly prepared to accept permanent seeding?		
	3.	If rainfall has been inadequate, are seeded areas being watered?		
	4.	For drainage ditches, has matting been applied to the ditch bottom?		
	5.	Has rock rip-rap or other stabilization method been placed under all		
		stormwater outfall pipes to prevent scouring in the receiving stream or		
		erosion of the receiving channel?		

Non-So Key thi	ediment Pollution Control	Y	N
ney em		•	
1.	Has an area been designated for washing out concrete trucks?		
	Washings must be contained on site within a bermed area until they harden. The w	ashing	IS
	should never be directed toward a waterway, ditch, or storm drain. Are streets swe	pt as o	ften as
	necessary to keep them clean and free from sediment? Note: Sediment should be sw	vept b	ack
	onto the lot, not down the storm sewer		
2.	Are stockpiles of soil or other materials stored away from any waterway,		
	ditch, or storm drain?		
3.	If an area of the site is being dewatered, is it being pumped from a sump pit		
	or is the discharge directed to a treatment system?		
4.	If groundwater is being lowered via a point well system, a WDNR discharge		
	permit is required. Have the necessary permits been obtained?		
Note a	reas where repairs or maintenance is needed or where this practice needs to be app	lied	