

Section VIII: Appendix



Part K.

MAINTENANCE PLAN & BUDGET

SAMPLE MAINTENANCE PLAN & BUDGET

"XYZ" Leasing Company Stormwater Management System Maintenance Plan

1. Responsibility for Maintenance

- a. During construction, it is the developer's responsibility to perform the maintenance.
- b. Following construction, it will be the responsibility of "XYZ" Company to perform the maintenance.
- c. The Master Deed will specify that routine maintenance of the stormwater facilities must be completed within ____ days of receipt of written notification that action is required, unless other acceptable arrangements are made with the (Township of _____), (Washtenaw County Commissioner) or successors. Emergency maintenance (i.e. when there is endangerment to public health, safety or welfare) shall be performed immediately upon receipt of written notice. Should "XYZ" Company fail to act within these time frames, the (Township) (County) or successors may perform the needed maintenance and assess the costs against "XYZ" Company.

2. Source of Financing

"XYZ" Company is required to pay for all maintenance activities on a continuing basis.

3. Maintenance Tasks and Schedule

- a. See the charts on the next two pages: The first describes maintenance tasks during construction to be performed by the developer, the second describes maintenance tasks by "XYZ" Company.
- b. Immediately following construction, the developer will have the stormwater management system inspected by an engineer to verify grades of the detention and filtration areas and make recommendations for any necessary sediment.

Refer to the **Low Impact Development Manual for Michigan** for maintenance task checklists for permanent BMPs and create a table of applicable maintenance tasks and schedules for the project.

The BMP maintenance checklists in the LID Manual include:

- Detention (ponds, basins, wetlands)
- Infiltration (basins, trenches)
- Bioretention
- Bioswales, vegetated filter strips

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MAINTENANCE TASKS AND SCHEDULE DURING CONSTRUCTION

TASKS	COMPONENTS											SCHEDULE		
	Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Casings	Ditches and Swales	Outflow Control Structure	Rip-Rap	Filtration Basins	Storm Detention Areas	Wetlands	Emergency Overflow				
Inspect for sediment accumulation	X	X		X	X		X	X						Weekly
Removal of sediment accumulation	X	X		X	X		X	X						As needed* & prior to turnover
Inspect for floatables and debris			X	X	X		X	X						Quarterly
Cleaning of floatables and debris			X	X	X		X	X						Quarterly & at turnover
Inspection for erosion				X	X		X	X						Weekly
Re-establish permanent vegetation on eroded slopes				X			X	X						As needed & at turnover
Replacement of Stone					X									As needed* & prior to turnover
Mowing			X	X	X	X		X						0 to 2 times per year
Inspect Stormwater system components during wet weather and compare to as-built plans (by professional engineer reporting to XYZ Co.)				X	X		X	X						Annually and at turnover
Make adjustments or replacements as determined by annual wet weather inspection	X	X	X	X	X	X	X	X						As needed

*as needed means when sediment has accumulated to a maximum of one foot depth

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PERMANENT MAINTENANCE TASKS AND SCHEDULE										
TASKS	COMPONENTS									SCHEDULE
	Catch Basin Inlet Casings	Ditches and Swales	Outflow Control Structure	Rip-Rap	Filtration Basins	Storm Detention Areas	Wetlands	Emergency Overflow		
Inspect for sediment accumulation		X	X		X	X				Annually
Removal of sediment accumulation		X	X		X	X				Every 2 years as needed
Inspect for floatables and debris	X	X	X		X	X				Annually
Cleaning of floatables and debris	X	X	X		X	X				Annually
Inspection for erosion		X	X		X	X				Annually
Re-establish permanent vegetation on eroded slopes		X			X	X				As Needed
Replacement of Stone			X							Every 3-5 years as needed
Clean Streets										Semi-Annually
Mowing		X			X	X				0-2 times per year
Inspect Stormwater system components during wet weather and compare to as-built plans (by professional engineer reporting to XYZ Co.)	X	X	X	X	X	X			X	Annually
Make adjustments or replacements as determined by annual wet weather inspection	X	X	X	X	X	X			X	As needed
Keep records of all inspections and maintenance activities and report to XYZ Co.										Annually
Keep records of all costs for inspections, maintenance and repairs. Report to XYZ Co.										Annually

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TASKS	COST
Annual inspection for sediment accumulation	\$100.00
Removal of sediment accumulation every 2 years as needed	\$500.00
Inspect for floatables and debris annually and after major storms	\$100.00
Removal of floatables and debris annually and after major storms	\$150.00
Inspect system for erosion annually and after major storms	\$100.00
Re-establish permanent vegetation on eroded slopes as needed	\$350.00
Replacement of stone	\$100.00
Mowing 0-2 times per year	\$400.00
Inspect structural elements during wet weather and compare to as-built plans every 2 years	\$150.00
Make structural adjustments or replacements as determined by inspection as needed	\$400.00
Have professional engineer carry out emergency inspections upon identification of severe problems	\$200.00
A. Total Annual Budget	\$2,550.00

Note: Maintenance Plans and budgets vary widely due to the size and unique characteristics of each stormwater management system proposed. Appendix K is intended for use as a starting point in the development of an appropriate maintenance plan specific to the size and components of each system.