**< Please insert name of site>**

**<Location or address>**

*This Operation & Maintenance Plan is to be completed for development or re-development of all commercial, industrial, subdivision and condo developments that disturb at least one or more acres, including projects less than an acre that are part of a larger common plan of development or sale and require the operation and maintenance of storm water drainage systems and/or structural and vegetative best management practices.*

1. **Responsibility for Maintenance:**
	1. **During Construction**: **<name of site>** or the contractor has the responsibility to perform the maintenance.
	2. **Following Construction**: **<name of site>** is responsible to perform the maintenance.
		1. Routine maintenance of the storm water facilities must be completed on a scheduled basis by the owner or lessee. All catchbasins/manholes/rear yard basins, detention basins, flow restrictors, or other stormwater structures must be maintained and inspection on a scheduled basis.
		2. Any structural and/or best management practices (BMPs) must be installed and implemented properly to meet the performance standards.
		3. If the site is notified by Carrollton Twp. DPW, zoning administrator or municipal engineer, either verbally or in writing, within 10 calendar days of this notification action is required, unless other acceptable arrangements are made with Carrollton Township. Emergency maintenance (when there is endangerment to public health, safety or welfare) shall be performed immediately upon receipt of verbal or written notification. If the **<name of site>** fails to act within these timeframes, Carrollton Township or successors may perform the needed maintenance and assess the cost against the **<name of site>,** plus an administrative fee. This does NOT mean it is the responsibility of the Township, it is the OWNER’S responsibility.
2. **Funding:**

The **<name of site>** is required to pay for all continued maintenance activities.

1. **Maintenance Tasks and Schedule:**
	1. **During Construction:**
		1. Properly plug and abandon any existing storm sewer to prevent any sediment from entering the existing system.
		2. Establish and maintain soil erosion and sediment control ‘BMP’s to prevent sediment from leaving the site.
	2. **Post-Construction:**
		1. Perform scheduled semi-annual inspections and inspections following major storm events to check for floatables and debris within the system. Remove floatables and debris as required.
		2. Twice per year inspect for sediment within the catch basin sumps. Removal of sediment is required if within 12 inches of an inlet or outlet pipe in the structure.
		3. Twice per year inspect the structural elements of the storm system (restrictor, catch basins, etc.) noting any failures. Correct as needed.
		4. If catch basin inserts are in place, inspect every 6 months and replace screens, filters or cloth as necessary for the particular type of insert. Delete this item if CB inserts are not used on the site (these are not the fabric SESC inserts)
		5. Mow detention basins on a regular basis; no cattails, Phragmites, or other plants can grow unrestricted in these basins.
		6. Ensure long-term operation and maintenance of all structural and vegetative best management practices installed and implemented.
		7. If the site has underground detention, use this area to complete the maintenance plan, otherwise delete this line item.
		8. If the site has bio-detention or rain gardens, provide the plan for care of the vegetation. If there is not any bio-detention or rain gardens, delete this line item.

***Rain Gardens – vegetated infiltration basins: Delete this section if this practices not used.***

1. Access to the rain gardens shall be safe and efficient. Obstacles preventing

 maintenance personnel and/or equipment access to the components of the facility shall be removed.

2. Debris and litter shall be removed to prevent channelization, clogging, and

 interference with plant growth. Fallen leaves and debris from deciduous plant

 foliage shall be raked and removed.

3. Erosion damage shall be identified and controlled when native soil is exposed, or erosion channels are forming.

4. Grasses in rain gardens shall be mowed to 4"-9" high and grass clippings shall be removed no less than 2 times per year.

5. Rain gardens shall be excavated and cleaned, and soil shall be replaced to correct low infiltration rates.

6. Inlets shall be cleared when conveyance capacity is plugged to ensure unrestricted stormwater flow from the rain garden.

7. Mulch shall be replenished as needed to ensure healthy plant growth.

8. Nuisance vegetation such as blackberries and English Ivy shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.

9. Inlets shall be cleared when 50% of the conveyance capacity is plugged.

10. Sedimentation build-up near or exceeding 2" in depth shall be hand-removed with minimum damage to vegetation using proper erosion control measures. Sediment shall be removed if it is more than 4 inches thick or so thick as to damage or kill vegetation.

11. Slopes shall be stabilized using appropriate measures when native soil is exposed.

12. Vegetation shall be healthy and dense enough to provide filtering while protecting underlying soils from erosion. Dead vegetation shall be removed to maintain less than 10% of area coverage or when vegetative filter function is impaired. Vegetation shall be replaced immediately to control erosion where soils are exposed and within three (3) months to maintain cover density.

1. **Records:**
	1. The **<name of site>** shall keep a written log of both preventive and corrective maintenance activities. At minimum, the log shall contain the date of the inspection, the reason for the inspection, the conditions encountered and the resulting activities. The log shall be available for review at the request of Carrollton Township**.**
	2. If a site is sold to another, this Operation and Maintenance agreement must be transferred to the new owner and Carrollton Township must be informed of the change in ownership within 14 days of the sale.
	3. Annually, a compliance statement must be sent to Saginaw Area Storm Water Authority (SASWA) when requested by email. The owner or operator of the site will at minimum provide the date of inspection(s) and any maintenance performed, if applicable. This can be accomplished by email to the email address listed below of the responsible party.
	4. If the owner or operator of the site does not respond to the compliance statement with verification of site inspection and maintenance of storm water structural controls and best management practices within 14 days from the day of receiving the email, the municipality, or representative for the municipality, will perform an inspection and an administrative fee will be charged to the owner or operator.
2. **Site Access:**
	1. If there is a drainage issue/problem on a site that has to do with the storm drainage system, best management practices, or is discharging too much storm water or water that does not appear to meet water quality standards, the owner must let the municipality or designee onto the property for the following:
		1. Inspect the structural or vegetative best management practice(s), drainage issue/problem, or discharge problem.
		2. Perform the necessary maintenance or corrective actions neglected by the BMP owner or operator.
	2. Any and all necessary maintenance or correction actions that Carrollton Township or its designated contractor performs will be charged to the owner or operator of **<name of site>. The Owner is responsible to maintain and pay for their property maintenance.**
3. **Operation and Maintenance Verification:**

**I have read this document and agree to implement the operation and maintenance procedures listed for this site to protect storm water quality leaving this site and to ensure best management practices are installed and being implemented.**

**Typed or Legibly Printed Name(s)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Authorized Signature Date**

**Typed Email address of responsible party: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**NOTE: if the above person responsible for Maintenance and Operation is no longer responsible for this site a new contact and email must be provided to the Carrollton Township DPW within 5 business days.**