

CITY OF HINESVILLE STORMWATER FACILITY MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this day of _____, 20__, by and between _____ (hereinafter called the "Landowner") as party of the first part, and the City of Hinesville, Georgia, a political subdivision of the STATE OF GEORGIA, (hereinafter called the "City") of the second part;

WITNESSETH

WHEREAS, the Landowner is the owner of that certain real property lying and being in the _____ and being more particularly described by deed as recorded in the land records of Liberty County, Georgia, _____, hereinafter called the "Property", and

WHEREAS, the Landowner is proceeding to build on and develop the property; and has submitted the Site Plan/Subdivision Plan known as _____ hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City, provides for detention of storm water within the confines of the property; and

WHEREAS, the City and the Landowner, its successors and assigns, including any homeowners association, agree that the health, safety, and welfare of the residents of Hinesville, Georgia, require that on-site storm water management facilities be (or has been) constructed and maintained on the Property; and

WHEREAS, the City requires that on-site storm water management facilities as shown on the Plan be constructed and adequately maintained by the Landowner, its successors and assigns, including any homeowners association.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The on-site storm water management facilities, hereinafter called the "Facilities", shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the Plan.
2. The Landowner, its successors and assigns, shall at all times adequately maintain the Facilities. Such maintenance obligation shall include the obligation to properly maintain all pipes, channels or other conveyances built to convey storm water to and from the Facilities, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the storm water. Adequate maintenance is herein defined as keeping the Facilities and all components thereof in good working condition so that these Facilities continue to perform their design functions. The Storm water Structural Control Maintenance Checklist described in the approved maintenance plan attached, herewith as Attachment A, is to be used to establish the good working condition that is acceptable to the City. In the event that maintenance plan has not been filed for the site, the City's Storm water Structural Control Maintenance Checklist will be used to establish what good working condition is acceptable to the City. The maintenance standards as described in the current edition of Georgia's Storm water Manual and/or the current edition of the Coastal Storm water Supplement will be used as guidelines for maintenance definition(s).
3. The Landowner, its successors and assigns, shall inspect the Facility annually in accordance with the approved maintenance plan. The purpose of the inspection is to assure safe and proper functioning of the Facilities. The inspection shall cover the entire Facilities including, but not limited to, embankments,

berms, inlet and outlet structures, pond areas, access roads, etc. Deficiencies shall be noted in the inspection report and forwarded to the City of Hinesville or its designee. Contact information for both the Landowner and the City is included after the signature block of this agreement.

4. The Landowner, its successors and assigns, hereby grants to the City, its authorized agents and employees, a nonexclusive perpetual easement of ingress and egress over, across, under and through the Property for the purpose of inspecting the Facilities. Said facilities shall be inspected by the City on an annual basis. The purpose of such inspections is for compliance, to follow-up on reported deficiencies and/or to respond to citizen complaints. The City shall provide the Landowner, its successors and assigns, copies of any inspection findings and a directive to commence with the repairs if necessary.

5. In the event the Landowner, its successors and assigns, fails to maintain the Facilities in good working condition acceptable to the City and after notice by the City in accordance with current code of ordinance's Chapter 6, Drainage, Soil Erosion, Sedimentation and Pollution Control, Article II ("Code"), the City may enter upon the Property and take such steps as are necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Landowner, its successors and assigns, and may subject the Landowner, its successors and assigns, to the penalties as described in the Code. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Landowner, its successors and assigns, outside of the easement for the Storm water management facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

6. The Landowner, its successors and assigns, shall perform all work necessary to keep the Facilities in good working order. In the event a maintenance schedule for the storm water management facilities (including sediment removal) is outlined on the approved plans, the Landowner shall comply with such schedule.

7. In the event the City performs work of any nature on the Facilities in accordance with this Agreement, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City hereunder.

8. The City is permitted to discharge storm water per the conditions set forth by its National Pollution Discharge Elimination System (NPDES) permit. This permit is subject to renewal every five years. If the City's new NPDES permit required upgrades to the existing facilities, the Landowner shall make such upgrades at the Landowner's cost. The current NPDES permit is on file at the Office of the City Engineer as shown after the after the signature block of this agreement.

9. This Agreement imposes no liability of any kind whatsoever on the City and the Landowner agrees to hold the City harmless from any liability in the event the storm water management facilities fail to operate properly.

10. This Agreement shall be recorded among the deed records of Liberty County, Georgia, and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interests, including any homeowners association.

IN WITNESS THEREOF, the parties hereto acting through their duly authorized agents have caused this Agreement to be signed sealed and delivered:

By: Landowner Name(s)

Landowner's Signature

Print name and title

The foregoing Agreement was acknowledged before me this _____ day of _____, 20__,
by: _____

NOTARY PUBLIC

My Commission Expires: _____ (Seal)

COUNTY OF _____, GEORGIA

By: City of Hinesville

City's Signature

Print name and title

The foregoing Agreement was acknowledged before me this _____ day of _____, 20__,
by: _____

NOTARY PUBLIC

My Commission Expires: _____ (Seal)

COUNTY OF _____, GEORGIA

CONTACT INFORMATION:

LANDOWNER:

Business Name: _____

Address: _____

Telephone number and email: _____

Authorized Agent: _____

Telephone number and email: _____

FORWARD INSPECTION REPORTS TO:

CITY ENGINEER

Liberty Consolidated Planning Commission
100 Main Street, Suite 7520
Hinesville, GA, 31309
Attn: Engineering Department
912-408-2041 enadji@thelcpc.org

Paul Simonton, PE
P.C. Simonton and Associates
309 North Main Street
Hinesville, GA 31324
912-368-5212 psimonton@pcsimonton.com

Exhibit "A"

STORMWATER MAINTENANCE PLAN

PRIVATE RETENTION/DETENTION PONDS

Facility Name: _____

Project Location: _____

Owner: _____ Date: _____

DETENTION/ RETENTION PONDS:

These facilities basically provide storage for increased surface water flow resulting from development. Detention is a collection and temporary storage of surface water with an outflow rate restriction. Retention is a permanent storage facility with adequate storage to hold a temporary storage for surface water runoff with an outfall rate restriction.

Required Maintenance:

1. Check the outlets regularly for clogging and clean when necessary (spring and fall).
2. Mow grass along the side of slopes, bottom minimum twice a year.
3. Inspect entire system including inlet and outlet pipes.
4. Check banks and bottom for erosion and correct as necessary.
5. Remove sediment when accumulation reaches 6 inches.
6. Stabilize eroded banks and re-seed banks near inlet and outlets if necessary.
7. Remove dead vegetation that obstructs flow (early spring and late fall).
8. If outlet is pumped, an inspection is required annually. All maintenance and inspection are to be performed by a licensed electrician.

No chemicals should be applied to detention basin or side slopes.

VEGETATION SWALES:

1. Mowing throughout the summer months.
2. Periodic sediment cleanout.

CLOSED CONDUIT:

1. Typical cleaning closed drains and pipes (every 10 years).
2. Video inspections (every 10 years).
3. Problem areas as determined by the City shall be cleaned (every 5 years).
4. Culvert cleaning (annually).

BASIN OUTLET STRUCTURES:

Outlet structures are used to regulate storm water discharges from detention basins into receiving waterways or an offsite storm water system.

- 1. Check inlet and outlet for clogging on monthly basis.
- 2. Clean inlet and outlets as necessary.
- 3. Remove sediment if accumulation reaches 6 inches.
- 4. Inspect pipes to verify that the outlet is not damaged.

CATCH BASINS:

A below ground conduit designed to collect and convey water into the storm water system. Catch basins can be located in parking areas and roadways of the development. The following needs to be checked as recommended.

- 1. Surface of all catch basins shall be checked for debris on monthly basis.
- 2. Typical cleaning once every 3 to 5 years. The City will monitor the system to determine how often the catch basin will need cleaning.
- 3. Inspect the damaged or missing block and mortar annually.

VEGETATED BUFFER MAINTENANCE:

The principal maintenance objective for vegetated buffer strips is to achieve the pollutant removal efficiency of the buffer strip, as designed, by maintaining a dense, healthy vegetated cover. Routine maintenance activities, and the frequency at which they will be conducted, are shown in the table below.

1. Mow turf grass to [12" HEIGHT]. Remove grass cuttings. Avoid producing ruts when mowing.	Every 6 months
2. Remove obstructions and trash from vegetated buffer strip and dispose of properly.	Monthly, or as needed
3. Inspect buffer strip to check for erosion and sediment and debris accumulation. Dispose of sediment and debris properly.	Twice a year: 1) one inspection at the end of the wet season in order to plan and schedule summer Maintenance, 2) the other inspection after periods of heavy runoff (1" or greater)
4. Remove sediment accumulating near culverts and in channels when it builds up to 75 millimeters (3 inches) at any spot, or if it covers vegetation. Dispose of sediment properly.	As needed

INSPECTION

The Vegetated Buffer Strip Inspection and Maintenance Checklist provided in the attachments shall be used to conduct inspections monthly (or as needed), identify needed maintenance, and record maintenance that is conducted.

POROUS PAVEMENT OPERATION AND MAINTENANCE

The primary goal of porous pavement maintenance is to prevent the pavement surface and/or the underlying infiltration bed from being clogged with fine sediments. To keep the system clean throughout the year and prolong its lifespan, the pavement surface should be vacuumed biannually with a commercial cleaning unit. All inlet structures within or draining to the infiltration beds should also be cleaned out on a biannual basis. Planted areas adjacent to porous pavement should be well maintained to prevent soil washout onto the pavement. If any washout does occur it should be cleaned off the pavement immediately to prevent further clogging of the pores. Furthermore, if any bare spots or eroded areas are observed within the planted areas, they should be replanted and/or stabilized at once. Planted areas should be inspected on a semi-annual basis. All trash and other litter that is observed during these inspections should be removed.

Vacuuming

Vacuuming porous asphalt and concrete pavement with a vacuum sweeper on a biannual basis. Acceptable types of vacuum sweepers include the Elgin Whirlwind and the Allianz Model 650. Though much less effective than “pure” vacuum sweepers, regenerative air sweepers, such as the Tymco Model 210, Schwarze 348, Victory, and others, are sometimes used. These units contain a blower system that generates a high velocity air column, which forces the air against the pavement at an angle, creating a 'peeling' or 'knifing' effect. The high volume air blast loosens the debris from the pavement surface, then transports it across the width of the sweeping head and lifts it into the containment hopper via a suction tube. Thus, sediment and debris are loosened from the pavement and sucked into the unit. (Note: simple broom sweepers are not recommended for porous pavement maintenance.)

If the pavement surface has become significantly clogged such that routine vacuum sweeping does not restore permeability, then a more intensive level of treatment may be required. The usefulness of washing porous pavements with clean, low pressure water, followed by immediate vacuuming. Combinations of washing and vacuuming techniques have proved effective in cleaning both organic clogging as well as sandy clogging. Maintenance crews are encouraged to determine the most effective strategy of cleaning their porous installations. For smaller installations, such as sidewalks, plazas, or small parking lots, “walk behind” vacuum units may prove most effective.

Repairs

Potholes in the porous pavement are extremely unlikely, though settling might occur if a soft spot in the subgrade is not removed during construction. For damaged areas of less than 50

square feet, a declivity could be patched by any means suitable with standard pavement, with the loss of porosity of that area being insignificant. The declivity can also be filled with porous mix. If an area greater than 50 SF is in need of repair, approval of patch type must be sought from either the engineer or owner. Under no circumstance is the pavement surface to ever be seal coated. Any required repair of drainage structures should be done promptly to ensure continued proper functioning of the system.

Summary

1. Prevent Clogging of Pavement Surface with Sediment Vacuum pavement twice per year
 - ☑ Maintain planted areas adjacent to pavement immediately clean any soil deposited on pavement
 - ☑ Do not allow construction staging, soil/mulch storage, etc. on unprotected pavement surface
 - ☑ clean inlets draining to the subsurface bed twice per year.

2. Repairs Surface should never be seal-coated Inspect for pavement rutting/raveling on an annual basis (some minor ruts may occur in the porous pavement from stationary wheel rotation) Damaged areas less than 50 square feet can be patched with porous or standard asphalt Larger areas should be patched with an approved porous asphalt.

UNDERGROUND STORMWATER RETENTION/DETENTION MAINTENANCE

Underground storm water retention/detention systems should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities rather than the size or configuration of the system. If accumulated silt is interfering with the operation of the detention system (i.e.: blocking outlet pipes or deposits significantly reduce the storage capacity of the system) it should be removed. It is easiest to maintain a system when there is no flow entering. For this reason, cleanout should be scheduled during dry weather. It is important to block the orifice in the Containment Row diversion manhole weir prior to maintenance to limit the potential for pollutants to be flushed downstream. A vacuum truck or other similar devices can be used to remove sediment from the treatment train. Starting upstream, maintain manholes with sumps and any pre-treatment devices (following manufacturer recommended procedures). Once maintenance is complete, replace all caps, lids and covers. It is important to document maintenance events on the Inspection and Maintenance Log.

Sediment Removal

Unless otherwise specified in the storm water management plan, sediment clean out is recommended in accordance with manufacturer's specifications for the devices being used. Any variation from the manufacturer's specification should only be considered once an established sediment removal pattern has developed suggesting that sediment removal should be conducted more, or less frequently.

Inspection Frequency

Inspections are recommended at a minimum annually. The first year of operation may require more frequent inspections. Frequency of inspections will vary significantly on the local site conditions. An individual inspection schedule should be established for each site.

Manifold System Inspection

The main manifold pipe can be inspected from the diversion manhole upstream. When a quarter of the pipe volume has been filled with sediment the header system should be maintained.

Inspection & maintenance Log

Location:

Date:

Inspector:

1. Visual observation and confirmation of any modification of the size of the contributory watershed. yes No
2. Visual observation for accumulated liter, debris and sediments on contributory impervious areas and in underground systems that may be clogging, limiting, or blocking system operation between inlet and outlet points. Yes No
3. Visual observation of any sediment control devices or discharge control structures to ensure that the systems filtering, trapping, cleansing or other sediment control measures are being maintained in accordance with the manufactures specifications. Yes No
4. Visual observation to monitor the level of accumulated sediment in underground system. yes No
5. Visual observation to monitor underground system for evidence of oil, gasoline, or other contaminants. Yes No

OIL/WATER SEPARATOR (OWS) MAINTENANCE

Oil/water separators (OWS), also known as gas/oil separators, are structural devices intended to provide pretreatment of floor drain water from industrial and garage facilities. An OWS allows oils (and substances lighter than water) to be intercepted and be removed for disposal before entering the sanitary sewer system. Substances heavier than water settle into sludge at the bottom of the unit. The remaining water passes through the unit into the sanitary sewer system.

OWS units are generally required where petroleum-based products, wastes containing petroleum, or oily and/or flammable materials are used, produced, or stored. OWS units should not be used to manage storm water or flow from vehicle washing facilities. High flow rates through an OWS will reduce the structure's ability to separate materials. Detergents and solvents can emulsify oil and grease, allowing the particles to enter the sewer, so these should not be disposed of in drains entering the OWS.

General OWS Maintenance Requirements

1. Each OWS at a facility may receive different materials in different quantities, so the cleanout schedule may not be the same for every OWS at a facility.
2. Employees performing inspections of an OWS must be properly trained and be familiar with the maintenance of that specific structure, since function can vary based on design. Third-party firms may be utilized to perform quarterly inspections.
3. Do not drain petroleum, oil, or lubricants directly to an OWS. The structures are designed to manage these materials at low and medium concentrations in sanitary sewage, not as slug loads.
4. Do not drain antifreeze, degreasers, detergents, fuels, alcohols, solvents, coolant, or paint to the OWS.
5. Separator compartment covers should be tightly sealed to ensure floor drainage only enters the first compartment of the OWS.
6. Drains should be kept free of debris and sediment to the maximum extent practicable.
7. Spill cleanup materials should be maintained in the area served by the OWS. For more information on spill cleanup and response materials, refer to SOP 4, "Spill Response and Cleanup Procedures".

OWS Inspection Procedures

Daily inspection of an OWS should include a visual examination of the area served by the OWS for evidence of spills or leaks.

Weekly inspections of an OWS should include the following:

1. Visually examine the area served by the OWS for evidence of spills or leaks.
2. Inspect the point of discharge (i.e., sewer manhole) for evidence of petroleum bypassing the OWS.
3. Inspect drains for any signs of unauthorized substances entering the OWS.
4. Examine the OWS for signs of leaks or any malfunction.

OWS Cleaning Procedures

Cleaning of the OWS is required when there has been a spill to the OWS that exceeds ten gallons of oil, one gallon of detergent or solvent, or any material prohibited by the owner of the sanitary sewer. Cleaning is also required when the levels of accumulated sludge and/or oil meet the manufacturer's recommended levels for cleaning. This will vary based on the manufacturer of the OWS. If the manufacturer's recommendations are unknown, the following guidelines are appropriate for determining

When to clean:

1. When sludge accumulates to 25% of the wetted height of the separator compartment; or
2. When oil accumulates to 5% of the wetted height of the separator compartment; or
3. When 75% of the retention capacity of the OWS is filled.

Cleaning should be performed a minimum of once per year. When cleaning is required, it shall be performed by licensed OWS maintenance companies. Materials removed from the OWS must be disposed of in accordance with Health Department Hazardous Waste Regulations.

Documentation of Cleaning and Service

The operator of the premises where the OWS is located shall maintain a log describing the date and type of all inspections, service and maintenance performed in connection with the Separator. Documentation shall include the identity of the inspector (or the identity of the person or entity that performed the service and/or maintenance). Records shall also document the amount of residue removed from the OWS each time it was cleaned, and how removed materials were disposed. This documentation shall be maintained for a minimum of six years.

Exhibit "B"

STORM WATER UTILITY TYPE II EXEMPTION

(COH, CH. 6, ART. VI, SECTION 6-304)

Facility Name: _____

Project Location: _____

Owner: _____ Date: _____

Storm water quality Credit:

A. Parcels with on-site storm water management and treatment facilities that are designed to properly manage the storm water runoff from impervious surface areas in accordance with one or more of the storm water criteria described by the Georgia Storm water Management Manual may be eligible to be exempted from a portion of the storm water service charge.

1. Is the maintenance plan on file? Yes No

2. Does the facility designed to meet the channel protection standard? Yes No
Eligible to 10% reduction in storm water service charged

3. Does the facility designed to meet the channel protection and the Yes No
over bank standard?
Eligible to 25% reduction in storm water service charged

4. Does the facility designed to meet the channel protection, over Yes No
bank and flood protection standard?
Eligible to 50% reduction in storm water service charged

B. Parcels with on-site storm water management and treatment facilities that are designed to properly manage the storm water runoff from impervious surface areas in accordance with one or more of the storm water criteria described by the Georgia Storm water Management Manual may be eligible to be exempted from a portion of the storm water service charge.

1. Is maintenance on file with the department? Yes No

2. Facilities designed to remove no less than 80 % of the average Yes No
annual sediment load from storm water runoff from the site.
eligible for a 50 % reduction in the storm water service charge for the property.

Inspected By: _____

(Signature) _____