Long Term Pollution Prevention & Stormwater System Operation and Maintenance Plan

Boynton Meadows at Gibbet Hill
Blacksmith Row
134 Main Street
Groton, MA

July 2011

Submitted to:
Groton Planning Board
Groton Town Hall
173 Main Street
Groton, MA 01450

Submitted by:
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Project No:
111007

GPR Engineering Solutions for Land & Structures

LONG TERM POLLUTION PREVENTION AND STORMWATER SYSTEM OPERATION AND MAINTENANCE PLAN

Preface:

The goal of this manual is to improve water quality by initiating performance standards for the operation and maintenance of stormwater management structures, facilities, and recognized practices. The stormwater performance standards are set up to meet the statutory and regulatory authorities of the Department of Environmental Protection, including the Wetland Protection Act, surface water discharge permits under the Clean Waters Act, the 401 certification program for fill in wetlands, and the 401 certification of federal permits based on the water quality standards.

The local Conservation Commission and the Department of Environmental Protection are responsible for ensuring the protection of wetlands through the issuance of permits for activities in flood plains and in or near wetlands, as per the Wetlands Protection Act, MGL c.131 s. 40. Proposed work within a resource area or a one hundred (100') foot buffer zone requires an order of conditions.

Resource areas include freshwater and coastal wetlands, banks, beaches, and dunes bordering on estuaries, streams, riverfront, ponds, lakes, or the ocean; lands under any of these bodies of water; land subject to tidal action, coastal storm flowage, or flooding.

The discharge of pollutants to water of the Commonwealth without a permit is prohibited under the state Clean Waters Act, MGL c. 21, ss 26-53. Stormwater discharges are subject to regulations when two criteria are met under 314 CMR 3.04(2). First, there must be "conveyance or system of conveyances (including pipes, ditches, and channels) primarily used for collecting and conveying stormwater runoff." 314 CMR 3.04(2)(a). Second, the stormwater runoff must be "contaminated by contact with process wastes, raw materials, toxic pollutants, hazardous substances, or oil and grease," or, be designated on a case-by-case basis. Such designations must be made when the "stormwater discharge" is subject to effluent or toxic pollutant limitations, is located in an industrial plant area, or may be a significant contributor of pollutants to waters of the Commonwealth. Any activity resulting in a discharge to waters of the United States must comply with Section 401 of the Federal Clean Water Act and comply with state water quality standards. All stormwater discharges must be set back from the receiving waters or wetlands and best management practices (BMP) must be implemented. A permit is required for any stormwater discharge to an Outstanding Resource Water (ORW) which meets the regulatory definition in 314 CMR 3.04(2). Outstanding Resource Waters are defined under Surface Water Quality Standards 314 CMR 4.06 and include public surface water supplies, coastal and some inland Areas of Critical Environmental Concern (ACECs), and certified vernal pools.

This manual is set up to explain how to operate and maintain Best Management Practices that control erosion and minimize delivery of sediment and other pollutants to surrounding water and air.

Chapter 1 is an introduction to the site and describes the Best Management Practices used on this site.

Chapter 2 outlines the inspection and maintenance schedules for the site.

Chapter 3 shows the location of the Best Management Practices used on-site.

Chapter 4 outlines the operation and function of the Best Management Practices.

Chapter 5 describes how and when the Best Management Practices should be inspected and how frequently they must be maintained and cleaned.

1. Introduction:

The existing site contains three buildings with a mailing address of 134 Main Street, approximately 800± feet south of Groton Town Hall, containing 4.2± acres of land. An existing driveway located to the south of the structure located along Main Street serves as the access for the three buildings and a mowed meadow area. A wetland resource and protected habitat area covers the northeastern portion of the property, each of which limits begin near the edge of the existing meadow. The wetland resource area and protected habitat areas are protected by, but not limited to, the Wetlands Protection Act, the Endangered Species Act, Massachusetts Department of Environmental Protection, Natural Heritage & Endangered Species Program and the Town of Groton Conservation Commission.

The proposed development will include the construction of seven residential dwellings being comprised of one to three family units and modification and addition of the existing structure closest to Main Street, which will have retail suites on the first level and residential units on the second. The structures will be accessed via a new driveway on the north side of the existing structure which will have a cul-de-sac loop located within the limits of the existing meadow.

Stormwater runoff from the development will be collected in a number of Best Management Practices (BMP's), including a deep sump hooded catch basin and drainage manholes, tree box filters, a sediment forebay, constructed stormwater wetlands, a bioretention area, a grassed channel, dry wells and other subsurface infiltration areas. Stormwater runoff from the front part of the new access driveway will be directed to one of two tree box filters or the deep sump hooded catch basin located along the edge of the new access drive prior to being discharged into the existing drainage system within Main Street through a series of drainage manholes and connecting pipes. A dry well with micro pool depression is also provided within the area of the former access driveway to capture and detain surface runoff from the abutting property to the south prior to discharging to the Main Street gutter and existing drainage system. The remaining portion of the new access driveway, from the high point near the commercial parking area, through the cul-de-sac loop at the residential structures will be directed into a sediment forebay and constructed stormwater wetland located within the center of the cul-de-sac before ultimately being discharged to the wetland resource area to the north.

Surface runoff from the northern most residential structure's driveways and front yards will be directed into a grassed channel prior to or directly into a bioretention area before continuing to the wetland system. Some of the roof runoff from the proposed residential structures and existing structure to remain and its addition will be captured with gutters and directed to subsurface infiltration areas with overflows. Some of the residential roof runoff will be directed directly into the overflow system which discharges the clean collected water to the wetland system.

To control erosion and minimize delivery of sediment and other pollutants into the atmosphere and adjacent wetlands, Best Management Practices (BMP's) have been provided within the site's stormwater management system. These practices include but are not limited to:

- Bioretention Area
- Constructed Stormwater Wetland;
- Deep Sump Hooded Catch Basin and Drainage Manholes;
- Grassed Channels;
- Sediment Forebay;
- Street Sweeping;
- Subsurface Infiltration Areas and Drywells;
- Tree Box Filters.

This manual is designed to help responsible parties become aware of urban non-point pollution problems and to provide detailed information about operating and maintaining stormwater management practices. The success of the Best Management Practices is dependent on their continued operations and maintenance.

2. Maintenance Requirements:

BMP's Owners:

- The OWNERS of the BMP's shall be the person, persons, trust, corporation, etc., or their successors who have title to the land on which the BMP is located. It is anticipated that all BMP's will be owned and maintained by Mountain Laurel Development, LLC, until the title of land upon which they are located is transferred. At that time, the purchaser of the property will assume all responsibilities set forth within this document.

Operation and Maintenance Responsibilities:

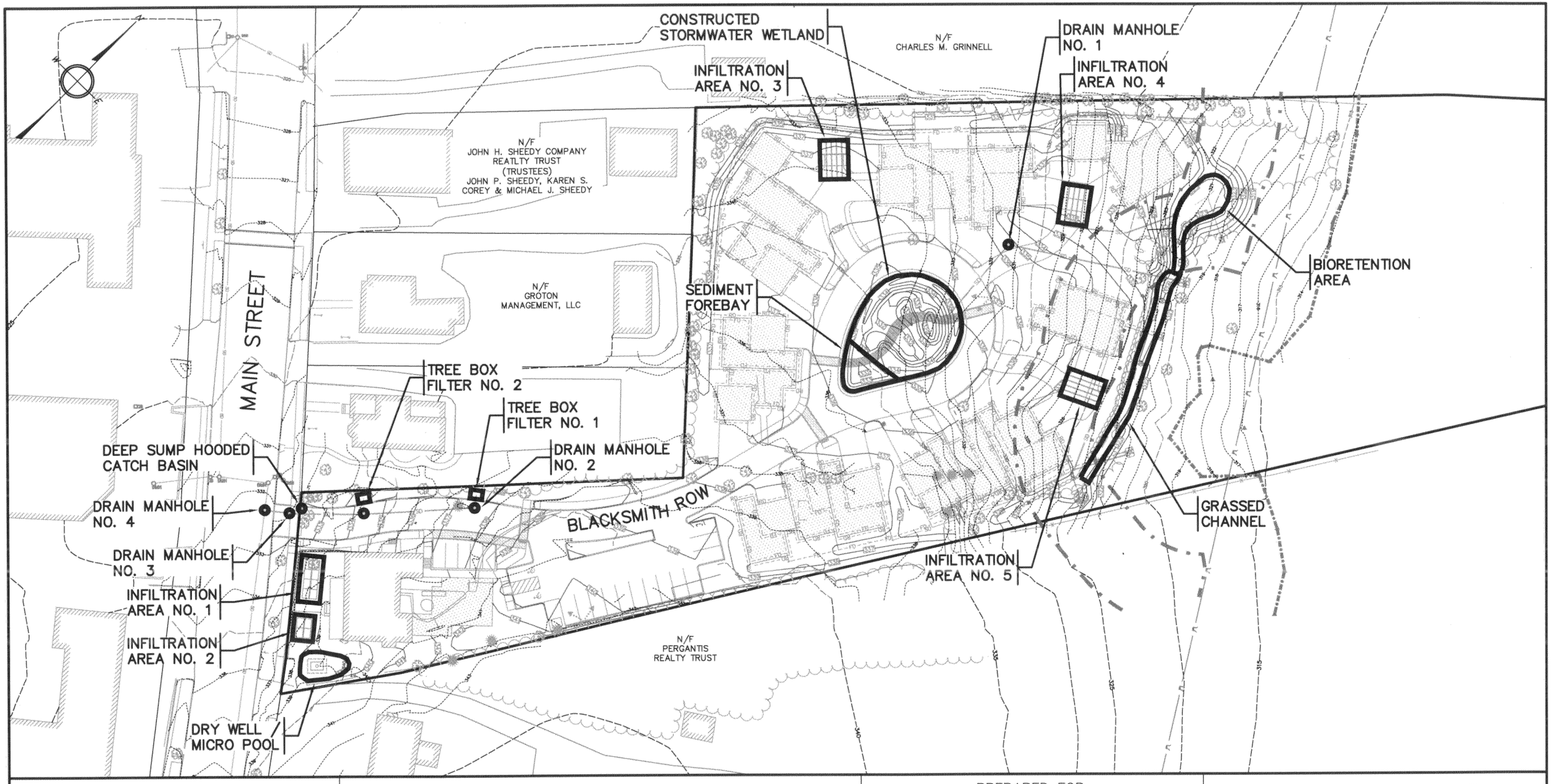
- The party or parties responsible for the funding, operation and maintenance of the BMP's shall be the OWNER or their designees.
- BMP's each have specific maintenance requirements to ensure long-term effectiveness. These stormwater management systems will be operated, inspected and maintained on a regular basis **by a qualified professional with expertise in inspecting drainage system components**. All of the stormwater BMP's shall be kept in good working order at all times.
- A maintenance agreement providing for the funding, operation and maintenance of all the stormwater management BMP's shall be provided.

Source of Funding for Operation and Maintenance:

- The party or parties responsible for the funding, operation and maintenance of the BMP's shall be the OWNER or their designees.
- A maintenance agreement providing for the funding, operation and maintenance of all the stormwater management BMP's shall be provided.
- Approximate estimated annual maintenance costs for the site are:
    - Deep sump hooded catch basins - $300
    - Manhole and connecting pipes - $100 / structure
    - Bioretention area - $750
    - Constructed stormwater wetland - $500
    - Grassed swale - $250
    - Infiltration areas - $300 per area
    - Tree box filters - $150 per area
    - Street sweeping - $1,000 to $10,000 (depending on frequency and type of sweeping preformed)

Schedule for Inspection and Maintenance:

* BMP's each have specific maintenance requirements to ensure long-term effectiveness. These stormwater management systems will be operated, inspected and maintained on a regular basis in accordance with this manual. All of the stormwater BMP's shall be kept in good working order at all times.
* As a minimum, the OWNER shall follow the general guidelines outlined herein for the BMP's provided on this site.
* An Operation and Maintenance log must be maintained for the last three years, outlining inspections, repairs, replacement and disposal for each Best Management Practice (BMP). In the case of disposal, the log shall indicate the type and material and the disposal location. This rolling log shall be made available to the Mass DEP and/or the Groton Conservation Commission upon request.



GRAPHIC SCALE

60 0 30 60 120

(IN FEET)

1 INCH = 60 FEET

GPR

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BEST MANAGEMENT PRACTICES LOCUS

BOYNTON MEADOWS AT GIBBET HILL
BLACKSMITH ROW
GORTON, MA

DES'D BY: NMP	CHK'D BY: DEM
DATE: JULY 2011	PROJECT: 111007

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4. Operation of Best Management Practices:

Bioretention Area – bioretention is a technique that uses soil, plants, and microbes to treat stormwater before it is infiltrated and/or discharged. Bioretention areas are shallow depressions filled with sandy soil topped with a thick layer of mulch and planted with dense native vegetation that are sometimes divided into sub-areas. Stormwater runoff is directed into the area via piped or sheet flow. The runoff percolates through the sandy soil media that acts like a filter. There are two types of bioretention areas; those designed to function solely as an organic filter, called a filtering bioretention area, and those configured to recharge groundwater in addition to acting as a filter, called an exfiltrating bioretention area. A filtering bioretention area includes an impermeable liner and underdrain that intercepts the runoff before it reaches the groundwater table so that it can be conveyed to a discharge outlet, other BMP or a municipal storm drain system. Some exfiltrating bioretention areas also have an underdrain system designed to enhance exfiltration of runoff into the groundwater. The functions of a bioretention area include:

- Provide groundwater recharge and preserves the natural water balance of the site;
- Supply shade, absorbs noise and provides windbreaks;
  Remove other pollutants beside Total Suspended Solids (TSS) including nitrogen, phosphorus and metals.

Constructed Stormwater Wetlands – are systems that maximize the removal of pollutants from stormwater runoff through wetland vegetation uptake, retention and settling. Constructed stormwater wetlands provide high pollutant removal efficiencies for soluble pollutants and particulates, as well as nitrogen, phosphorus and oil and grease at a relatively low annual maintenance cost prior to discharging. The functions of constructed stormwater wetlands include:

- Provide highly efficient BMP for removal of Total Suspended Solids, (TSS), total nitrogen, total phosphorus, metals and pathogens within stormwater runoff;
- Enhance the aesthetics value and character of the site;
- Provide supplemental wildlife habitat to those of the surrounding area.

Deep Sump Hooded Catch Basins – are underground concrete structures which are designed to retain removed trash, debris and coarse sediment from stormwater runoff and serve as temporary spill containment devices for floatables such as oil and greases prior to discharge into a storm sewer pipe. The functions of a deep sump hooded catch basin include:

- A grate and/or vertical notch found in the curbing, that allow stormwater to enter the structure while filtering out larger objects such as trash and leaves;
- A four foot (minimum) sump below the invert of the storm sewer pipe provides an area for detention time which allows sands and other sediments to settle out of the runoff prior to discharge.

Grassed Channel – are traditional vegetated open channels that are designed to provide for non-erosive conveyance of stormwater runoff. The functions of the grassed drainage channels include:

- Vegetated, stormwater conveyance;
- Compatible with LID design practices and accents landscaping;

- Less expensive than curb and gutter.

Sediment Forebays – is a post-construction practice consisting of an excavated pit, bermed area or cast (in-place or pre-) structure combined with a weir, designed to slow incoming stormwater runoff and facilitating the gravity separation of suspended solids prior to flowing to a subsequent BMP or system discharge. The functions of the sediment forebays include:

- Filter out sediments within the stormwater runoff
- Reduce runoff velocities;
- Reduce peak discharge flows.

Street Sweeping – is a nonstructural source control preformed by mechanical means in an effort to limit sediment and particulates from impervious surfaces as an effort to control or limit the sediment migration to other stormwater BMP's during storm events. There are three typical types of sweeping methods, including mechanical, regenerative air and vacuum filter. Mechanical sweepers are the most common and use brooms or brushes to scour the pavement. Regenerative air sweepers blow air onto the impervious surface causing sediment and other fine particles to be blown from the surface so they can be vacuumed. Vacuum filter sweepers are available in wet and dry types. Dry types use brooms to agitate the sediment prior to vacuuming. Wet types work in a similar fashion but use water to suppress dust during the collection activity. The functions of street sweeping include:

- Limit sediment and other fine particulates on impervious surfaces from entering other BMP's;
- Remove and prevent the accumulation of sediment along road and driveway edges.

Subsurface Infiltration Areas and Dry Wells – are underground area consisting of prefabricated chambers installed in a volume of crushed stone which stores captured stormwater runoff conveyed to it by other BMP's until it infiltrates into the groundwater through gravel and the present parent material of the site. The functions of a subsurface infiltration area include:

- Provide a volume of stormwater runoff per storm to be recharged into the ground and eventually groundwater;
- Reduce runoff velocities and volumes from impervious surfaces;
- Isolate "clean" stormwater runoff from building roofs from runoff required to be treated.

Tree Box Filters – are mini bioretention areas comprised of an open bottom concrete section filled with a porous soil media topped with a layer of bark mulch, an underdrain with emergency inlet grate above the mulch surface and planted shrub(s) and/or tree(s). Stormwater is directed from surrounding impervious surfaces and on to the bark mulch layer through a curb cut. A riprap apron at the curb cut prevents erosion of the mulch layer. The surface runoff infiltrates through the soil media to the underlying ground. The emergency inlet, set above the mulch layer, provides a bypass for stormwater within the tree box filter to be directed directly into the underdrain system below grade as a pool builds once the soil media has reached its capacity. The surface runoff directed into the tree box filters helps irrigate the tree(s) and other vegetation planted in the soil mix. The functions of a tree box filter include:

- Provide pretreatment of surface runoff when used in a treatment train process;
- Provide pollutant removal through sedimentation, filtration, nutrient uptake and infiltration;
- Causes little to no entrapment hazard for amphibians or other mall animals;
- Provides an aesthetically pleasing alternative Stormwater Management System inlet.

5. Inspection and Maintenance of Best Management Practices:

Bioretention Areas - at a minimum, the bioretention area shall be inspected after every major storm event (1-inch or greater) for the first six (6) months and monthly thereafter. Miscellaneous trash and liter shall be removed at the time of each inspection. During each inspection, areas of vegetation and soil shall be identified for repair prior to the next inspection.

Grasses within the area will be mowed at a minimum of twice a year during the time between the winter snow melt and first frost of the following winter. Remove grass clippings and other organic matter after mowing. Eroded or barren areas in the mulch layer shall be re-mulched as needed. The entire mulch layer shall be replaced every two years in the early spring. Removal of dead vegetation and invasive species shall be done as needed and pruning of plants will be done once a year.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from the bioretention area deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Constructed Stormwater Wetlands – at a minimum the constructed stormwater wetland should be inspected 4 times annually, twice during the typical growing season and twice during the non-growing season, for the first three years after construction and twice per year, once during the growing and once during the non-growing season, thereafter.

During each inspection the following must be recorded:
- Types and distribution of the dominant wetland plant in the marsh;
- Presence and distribution of the planted wetland species;
- Presence and distribution of invasive wetland species (must be removed)
- Indications that other species are replacing the originally planted species;
- Percentage of standing water that is unvegetated (excluding the deep water permanent pool area)
- Maximum elevation and vegetative condition of each zone
- Stability of the original depth zones
- Accumulation of sediment in the forebay and micro pool and;
- Survival rate of plants

Miscellaneous trash and liter shall be removed at the time of each inspection. Area of erosion and dead plants shall be re-stabilized and replanted prior to the next routine inspection. Invasive species shall be removed immediacy upon their discovery. Accumulated sediment within the forebay area once per year and within the wetland system once per 10 years, or as

needed to ensure the proper working of the wetland area. Materials should be removed with rakes rather than heavy construction equipment to avoid compaction of the soils within the constructed wetland area. If heavy construction equipment is used, it should operate outside the limits of the wetland, reaching inside the wetland area from the paved access drive cul-de-sac to remove the sediment

The outlet control structure shall be inspected during each inspection to ensure that the orifices, overflow grate and outlet pipe are free of sediment, debris and other materials that would block or clog them and prevent proper operation. The structure shall be inspected for any cracks, breaks, or deformations of the structure. Any function of the structure that is not in working order will be replaced with similar materials, as per the detail, to prevent the wetland system from failing.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from the infiltration galley area deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Deep Sump Hooded Catch Basins and Manholes - at a minimum, deep sump hooded catch basin and manhole inlets shall be inspected four times per year. Inlet inspection should be conducted at the end of the foliage and snow removal seasons. Each structure should be cleaned whenever the depth of sediment deposits is greater than or equal to one half the depth of the sump from the bottom of the structure to the bottom of the lowest pipe invert. Structures shall be inspected for a buildup of sediments, oils and debris, cracks, breaks, or deformations. Any function of the catch basin or manhole structure that is not in working order will be replaced with similar materials, as per the detail, to prevent the storm sewer system from failing.

The catch basins and manhole sumps will be cleaned by means of hand held shovels, scallop shovel and/or vactor trucks. The grate opening shall be clear of any foreign or lodged object. Sands and salts used in the winter will be removed from the catch basin sumps in the early spring. Leaves, pine needles, and branches brought down by autumn winds, rain, and cold weather will be removed from the catch basins sumps in the late fall.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from a catch basin deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Grassed Channels - At a minimum, the grass channel shall be inspected after every major storm event (1-inch of rain or greater) for the first six (6) months and twice per year thereafter. Sediment and debris shall be removed from the grass channel once per year. Sediment should be removed from the channel by hand methods in a manner to limit the disturbance of vegetation and underlying soils. Grass within the channel shall be mowed as necessary to maintain the grass height between three (3) and six (6) inches. Remove grass clippings and inspect for signs of erosion and the formation of rills and/or gullies. Reseed or re-sod with an alternative grass species if the original grass cover is not successfully established. When

reseeding, incorporate practices such as hydroseeding with a tackifier, blanket or similar practice to ensure that no scour occurs in the grass channel, while the seeds germinate and develop roots.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from the grass channel deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Sediment Forebay - At a minimum, the forebay shall be inspected after every major storm event (1-inch of rain or greater) for the first six (6) months, then monthly thereafter. Sediment and debris should be removed a minimum of four (4) times per year, starting in the spring and spaced at even time increments until the late fall season, thereafter.

Grass vegetation within the sediment forebay will be mowed, at a minimum of twice a year, keeping the height of the grass between three (3) and six (6) inches. Inspections should identify areas of rilling and gullying or other areas which need to be reestablished. Replace any vegetation damaged during cleaning by reseeding or resodding. When reseeding, incorporate practices such as hydroseeding with a tackifier, blanket or similar practice to ensure that no scour occurs in the sediment forebay, while the seeds germinate and develop roots.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from the sediment forebay deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Street Sweeping / Pavement Area - At a minimum, will be inspected every spring to determine if any damage has occurred from snow plowing operations. Additionally, asphalt and curbing should be checked every six (6) months [Spring & Fall] in high traffic areas and truck travel areas for damage.

Curbing and/or asphalt is to be repaired using similar materials, to prevent erosion to surrounding soils.

Access drives and parking areas aggressively maintained through the use of mechanical sweepers. Vacuum, regenerative air or rotary broom sweepers may be used at the minimum schedule outlined below:

Vacuum Sweeper (wet or dry)	An average of once per month over the period of each year
Regenerative Air Sweepers	An average of once every two weeks over the period of each year
Rotary Broom Sweepers	An average of once per week over the period of each year

Regardless of type of sweeper used, sweeping will be scheduled primarily in the spring

immediately following winter snowmelt and again prior to the first frost of the year in the fall, with the remaining sweepings at regular intervals between these times. The above schedule may be modified in connection with the use of alternative de-icing methods to impervious surfaces during the winter months, such as brine solutions that are applied as a liquid rather than traditional sand and salt methods.

Snow shall not be stockpiled in wetland areas or any of the Best Management Practice areas. Every effort shall be made to plow snow so when it melts, the runoff will be toward a best management practice which provides treatment.

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Subsurface Infiltration Areas / Dry Well / Micro Pool - A minimum amount of sediment and debris should enter the subsurface infiltration areas since only flows from the roof will be directed into the system.

At a minimum, the dwelling gutter system should be inspected twice per year and maintained free of all accumulated debris. Visual observation of the roof leader overflow flap valve should be inspected twice annually also. Monitor the roof leader overflow points for discharge during storm events. Discharge from the overflow may be a sign the infiltration galley area is clogged and no longer able to infiltrate.

A minimum amount of sediment and debris should enter the dry well / micro pool area since only flows from pervious grassed and landscaped areas should enter into the system.

At a minimum, keep the inlet of the dry well grate clear of debris and grass clippings. Remove the inlet grate once per year to determine the accumulation of sediment and debris. Sediment should be removed when it accumulates to a depth of 6 inches or more within the dry well structure. Cleaning of the vault may be performed by hand by someone trained in confined space entry or by a vacuum system gaining access from the inlet location.

Grass vegetation within the micro pool area will be mowed, at a minimum of twice a year or at least as frequently as other grassed and landscaped areas are maintained throughout the property, keeping the height of the grass between two (2) and five (5) inches. Inspections should identify areas of rilling and gullying or other areas which need to be reestablished. Replace any vegetation damaged during cleaning by reseeding or resodding. When reseeding, incorporate practices such as hydroseeding with a tackifier, blanket or similar practice to ensure that no scour occurs in the sediment forebay, while the seeds germinate and develop roots.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from the infiltration galley area deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Tree Box Filters – At a minimum, the tree box filter should be inspected for trash and other debris four times per year. The surface media should be raked to maintain permeability a minimum of twice per year with any accumulation of sediment removed prior to raking.

Schedule one media raking and sediment accumulation after the spring thaw. Replenish the mulch layer annually during the post spring thaw raking.

Care and maintenance of planted trees and/or shrubs, as well as any other vegetation within the tree box filter, is similar to any other landscape vegetation material. Check the health and condition of the tree(s) and/or shrub(s) annually and conduct any maintenance required. While the surface runoff will aid in the irrigation of the planted vegetation within the tree box filter, other means of irrigation similar to other landscaped areas may be required during periods of infrequent rain events and droughts. Remove and replace dead or deceased plants with new similar plants. The expected tree(s) and/or shrub(s) life within the tree box filter is between 5 and 10 years, depending on the sediment load generated by its contributing area. The soil mix media should also be replaced when the tree(s) and/or shrub(s) are replaced, or a minimum of once every ten (10) years.

Collected sediment and debris will be properly disposed of per local, state and federal requirements. Any sediment and debris removed from the infiltration galley area deemed to be contaminated must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

Best Management Practices (BMP) Inspection Log

General Information			
Project Name	Boynton Meadows at Gibbet Hill, Blacksmith Row		
Location	134 Main Street, Groton, MA		
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Type of Inspection: ❑ Regular ❑ Emergency			
Weather Information			
Weather at time of this inspection? ❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snowing ❑ High Winds ❑ Other: Temperature:			
Are there any discharges at the time of inspection? ❑Yes ❑No **If yes, describe:**			

Site-specific BMPs

- *The structural BMPs are identified on the BEST MANAGEMENT PRACTICES LOCUS included within the LONG TERM POLLUTION PREVENTION & STORMWATER SYSTEM OPERATION & MAINTENANCE PLAN. Carry a copy of the Locus map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
1		❑Yes ❑No	❑Yes ❑No	
2		❑Yes ❑No	❑Yes ❑No	
3		❑Yes ❑No	❑Yes ❑No	
4		❑Yes ❑No	❑Yes ❑No	
5		❑Yes ❑No	❑Yes ❑No	
6		❑Yes ❑No	❑Yes ❑No	
7		❑Yes ❑No	❑Yes ❑No	
8		❑Yes ❑No	❑Yes ❑No	
9		❑Yes ❑No	❑Yes ❑No	
10		❑Yes ❑No	❑Yes ❑No	

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are discharge points and receiving waters free of any sediment deposits?	❑Yes ❑No	❑Yes ❑No	
2	Are storm drain inlets properly working?	❑Yes ❑No	❑Yes ❑No	
3	Is trash/litter from site areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No	
4	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No	
5	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No	
5	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No	
6	(Other)	❑Yes ❑No	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance not described above:

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: _____

Signature:_____ Date:_____