Operation and Maintenance Plan

The Residences at Ashland

61 Waverly Street
Ashland, MA 01721

01/23/2026

SMMA
1000 Massachusetts Ave.
Cambridge, MA 02138

Operation and Maintenance Plan

This Operation and Maintenance (O&M) Plan has been developed in accordance with the Massachusetts DEP Stormwater Management Guidelines Standard No. 9 to ensure that the proposed stormwater management system functions as designed.

Owner and Responsible Party

The Applicant/Owner, The Gutierrez Company, shall be the party responsible for adherence to the DEP Stormwater Management Policy after completion of construction and until a Certificate of Compliance (CoC) is issued by the Town of Ashland Conservation Commission. The Applicant/Owner shall designate a Site Supervisor who shall assume responsibility for this post construction maintenance plan, after a CoC has been issued. The Applicant/Owner shall be responsible for financing maintenance activities and both anticipated and emergency repairs of the system.

If the property owner changes, it shall be the responsibility of Applicant/Owner to notify the future owner of the stormwater management system and its components as well as the requirements for operation and maintenance.

The Town of Ashland Zoning Board of Appeals (ZBA) and Conservation Commission shall be allowed to enter the property at reasonable times and in a reasonable manner for the purposes of inspection of the systems.

Stormwater Management Maintenance

The following site maintenance activities are required to maintain the optimal pollutant attenuation by the drainage system. A maintenance schedule follows in this plan.

Area Drains, Catch Basins, and Manholes

Proper maintenance includes inspection of all grates, sumps, and outlets. Any debris or obstructions should be removed. Catch basins should be inspected, and inlet grates cleaned at a minimum of 4 times per year. Structural damage should be recorded and reported. The amount of sediment in each catch basin should be recorded. The catch basin sumps shall be cleaned when they are half full of sediment or debris (approximately two feet below outlet pipe.)

Water Quality Units

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument.

The water quality system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement

is recorded, it should be compared to the as-built drawing for the unit to determine whether the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning of the systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole cover and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be cleaned to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Polluted water or sediments removed from the CDS is to be disposed of in accordance with all applicable local, state and federal laws and regulations including M.G.L.c. 21C and 310 CMR 30.00.

Surface Detention Basin

Detention basins are prone to clogging and failure, so it is imperative to implement aggressive maintenance plans and schedules. Perform inspections and preventive maintenance at least twice a year, and after every time drainage discharges through the high outlet orifice. Pretreatment BMPs should be inspected in accordance with the minimal requirements specified for those practices and after every major storm event.

Once the basin is in use, inspect it after every major storm for the first few months to ensure it is stabilized and functioning properly and if necessary, take corrective action. A major storm event is defined as a storm that is equal to or greater than the 2-year, 24-hour storm (3.3 inches in a 24-hour period). If the ponding is due to clogging, immediately address the reasons for the clogging (such as upland sediment erosion, excessive compaction of soils, or low spots).

Thereafter, inspect the detention basin at least twice per year. Important items to check during the inspection include:

- Signs of differential settlement,
- Cracking,
- Erosion,
- Leakage in the embankments
- Tree growth on the embankments
- Condition of riprap,
- Sediment accumulation and
- The health of the turf.

At least twice a year, mow the buffer area, side slopes, and basin bottom. Remove grass clippings and accumulated organic matter to prevent an impervious organic mat from forming. Remove trash and debris at the same time. Use deep tilling to break up clogged surfaces, and revegetate immediately. Remove sediment from the basin as necessary, but wait until the floor of the basin is thoroughly dry. Use light

equipment to remove the top layer so as to not compact the underlying soil. Deeply till the remaining soil, and revegetate as soon as possible. Inspect and clean pretreatment devices associated with basins at least twice a year, and ideally every other month.

Subsurface Infiltration and Detention Systems

The inlet and outlet of each system should be inspected and cleared of any debris that might clog the system. The system should be checked to ensure functionality after installation. The area above and immediately adjacent to the system should be checked for depressions. The area above and adjacent to the system should also be inspected to ensure that no unauthorized modifications have been made.

Roof Drain System

The roof drain collection system, and associated elements including the gutter, leader, and roof drain inlets, should be inspected and cleaned at a minimum of twice per year. Cleanouts are located at several places along each underground roof drain network to provide access for inspection and cleaning of the drain system.

Other Site Maintenance

Pavement and Grass Areas

The pavement areas should be swept to remove solids and reduce the amount of suspended solids in the runoff. All accumulated trash and litter throughout the site should be collected and discarded.

Dumping of landscape debris, including leaves, grass clippings and brush, within wetland areas shall be prohibited.

Snow Removal

Maintenance activities during the winter months are primarily limited to snow removal activities and removal of debris and trash throughout the site.

Snow removal operations will adhere to *the Massachusetts Department of Environmental Protection – Bureau of Resource Protection Guidelines (dated March 8, 2001)*. Snow will be stockpiled as far away from wetland areas as possible and removed as necessary under larger snow events. Stockpiling snow in this manner will allow meltwater to enter the drainage system and thereby receive pretreatment prior to discharging to receiving waters. Snow and ice that has accumulated around catch basin grates will be removed.

DEP prohibits snow disposal in stormwater basins including the surface basin onsite.

Winter Salt and Sand Use

For concrete walkways and plaza areas, no binary chloride compounds shall be applied, i.e. sodium chloride, calcium chloride or magnesium chloride, for a minimum of 6 months after concrete installation is complete. This allows the concrete to cure to its optimal strength. For the first year, an aggressive snow removal process through mechanical means or hand shoveling followed by the use of sand or fine gravel mixtures optimal for the life of the sidewalks and plaza systems.

Maintenance Schedule

Required Action	Frequency
Catch Basins and Manholes	
Inspect for depth of sediment, obstructions, structural damage, or other malfunction	At least 4 times per year
Clean inlet grate	At least 4 times per year
Clean sumps of accumulated sediment	When structures are ½ full of sediment/debris (approximately two feet below outlet pipe) once per year minimum
Surface Detention Basin	
Preventative maintenance	Twice per year
Inspect to ensure proper functioning	After every major storm during first 3 months of operation and twice a year thereafter and when there are discharges through the high outlet orifice
Mow the buffer area, side slopes, and basin bottom if grassed floor; rake if stone bottom; remove trash and debris, remove grass clipping and accumulated organic matter	Twice per year
Inspect and clean pretreatment devices	Every other month recommended and at least twice per year and after every major storm event.
Subsurface Infiltration and Detention Systems	
Inspect inlets and outlet and remove any debris	Quarterly in first year; at least twice per year after
Inspect system for functionality	After first major rainfall following installation
Check for depressions in areas above and surrounding the system	Once per year
Confirm that no authorized modifications have been performed to the site around (including over) the system	Once per year
Inspect interior of system	Once per year
Pavement and Grass Areas	
Sweep pavement areas	At least twice per year: after final snow melt and after final leaf fall and as necessary in summer months
Remove accumulated litter, debris, and discarded materials throughout the site	Once per week
Water Quality Units	

Inspect for depth of sediment, obstructions, structural damage, and other malfunction	Twice per year in spring and fall
Remove sediment and pollutants	When level of sediment in structure's sump reaches 75% of capacity or when appreciable level of hydrocarbons and debris has accumulated; at a minimum of once per year
Roof Drain System	
Inspect gutters, leaders, and inlets and remove any debris	Twice per year in spring and fall

Reporting and Documentation

The Site Supervisor for the Applicant/Owner shall be responsible for maintaining an accurate Site Maintenance Log. The Site Maintenance Log shall be located on site and made available to the Town of Ashland Conservation Commission upon request.

The Site Maintenance Log shall:

- Document the completion of planned maintenance tasks
- Identify the person responsible for the completion of tasks
- Identify any outstanding problem, malfunction, or inconsistency identified during the course of routine maintenance

The Site Supervisor shall be responsible for ensuring that the scheduled tasks area appropriately completed as described in this plan and the Site Maintenance Log accurately represents activities carried out as described in this plan.

Site Maintenance Log

A Site Maintenance Log shall be completed as described above and shall, at a minimum, include the following items:

- Completed Inspection Checklist
- Date of activity performed
- Specific maintenance task
- Structural components maintained, as identified on the O&M Plan
- Staff person or contractor performing activity on behalf of the Applicant/Owner
- Supervisor verification of maintenance activity
- Recommended additional maintenance task
- Means to document identified areas of concern, erosion, or system discrepancies requiring attention

Public Safety Features

On-site public safety features include the following:

- Heavy-duty covers and grates on all manholes and catch basins designed to withstand H20 loading
- Maintain or reduce peak stormwater runoff rates from pre-development to post-development
- Creation and implementation of an O&M Plan to ensure the ability of the stormwater management system to continue to operate as designed

Inspection Checklist

Date of Inspection _____ Checklist Completed By _____

Reviewed by Supervisor _____

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