

**Long Term Stormwater Best Management Practices**  
**Operation and Maintenance Plan**  
for the  
**Residential Development**  
of  
**Lot 8 – 280 Rowley Bridge Road**  
**Topsfield, Massachusetts**

December 13, 2019

The following operation and maintenance plan has been provided associated with development of the site and associated infrastructure. The success of the Stormwater Management Plan depends on the proper implementation, operation and maintenance of several management components. The following procedures shall be implemented to ensure success of the Stormwater Management Plan:

1. The contractor shall comply with the details of construction of the site as shown on the approved plans.
2. The drainage systems shall be inspected and maintained as indicated below.
3. Effective erosion control measures during and after construction shall be maintained until a stable turf is established on all altered areas.

**Basic Information**

Stormwater Management System Owner: TBD

Topsfield Department of Public Works: 279 Boston Street  
Topsfield, MA 01983  
P: (978) 887-1517

Topsfield Planning Board: Topsfield Town Offices  
8 West Common Street  
Topsfield, MA 01983  
P: (978) 887-1504

**Erosion and Sedimentation Controls during Construction:**

The site and drainage construction contractor shall be responsible for maintaining the stormwater system during construction. Routine maintenance of all items shall be performed to ensure adequate runoff and pollution control during construction.

Proposed erosion controls will be placed as shown on the Site Plan prior to the commencement of any clearing, grubbing, and earth removal or construction activity. The integrity of the erosion control barrier will be maintained by periodic inspection and replacement as necessary. The erosion control barrier will remain in place until the first course of pavement has been placed and all side slopes have been loamed and seeded and vegetation has been established.

**General Conditions**

1. The developer shall be responsible for scheduling regular inspections and maintenance of the stormwater BMP's. The BMP maintenance shall be conducted as detailed in the following long-term pollution prevention plan and illustrated on the approved design plans:

"Sanitary Disposal System Design Plan in Topsfield, Massachusetts, Lot 8 – 280 Rowley Bridge Road (Assessor's Map 83, Portion of Lot 2)", prepared by The Morin-Cameron Group, Inc. dated November 25, 2019 as revised

2. The owner shall:
  - a. Maintain an Operation and Maintenance Log for the last three years. The Log shall include all BMP inspections, repairs, replacement activities and disposal activities (disposal material and disposal location shall be included in the Log);
  - b. Make the log available to the Topsfield Department of Public Works and Planning Board upon request;
  - c. Allow members and agents of the Topsfield Department of Public Works and Planning Board to enter the premises and ensure that the Owner has complied with the Operation and Maintenance Plan requirements for each BMP.
3. A recommended inspection and maintenance schedule is outlined below based on statewide averages. This inspection and maintenance schedule shall be adhered to at a minimum for the first year of service of all BMP's referenced in this document. At the commencement of the first year of service, a more accurate inspection/maintenance schedule shall be determined based on the level of service for this site.
4. Inspections and maintenance activities for this residential development will generally be performed by the developer or future homeowner. If major repairs are required, then detailed cost estimates will be provided by local landscaping companies prior to commencement of work.

## **Long-Term Pollution Prevention Plan (LTPPP)**

### **Vegetated Areas:**

Immediately after construction, monitoring of the erosion control systems shall occur until establishment of natural vegetation. Afterwards, vegetated areas shall be maintained as such. Vegetation shall be replaced as necessary to ensure proper stabilization of the site.

### **Stone Infiltration Trenches:**

The stone infiltration trench shall be checked regularly to ensure that the surface is free of debris such as leaves, sticks and trash. Remove and dispose of any debris. If surface ponding is visible, remove top course of crushed stone and accumulated sediment and replace with clean stone. Material removed from the basin shall be disposed of in accordance with all applicable local, state, and federal regulations. In the case that water remains in the infiltration facilities for greater than three (3) days after a storm event, an inspection is warranted and necessary maintenance or repairs should be addressed as necessary.

Cost: Consult with local landscaping companies for associated costs if necessary.

### **Grassed Infiltration Basin:**

The infiltration basin shall be inspected after every major storm event for the first 3 months after construction: a major storm event is 3.9 inches of rainfall in a 24-hour period (5-year storm). Thereafter, the depression shall be inspected twice per year. All debris and sediment shall be removed and disposed of properly. If the system does not drain within 72 hours of a rainstorm, the operator shall inform the design engineer.

Cost: Consult with local landscaping companies for associated costs if necessary.

### **Level Spreader:**

The rip-rap basin overflow berm shall be inspected after every major storm event for the first 3 months after construction; a major storm event is 3.1 inches of rainfall in a 24 hour period (2 year storm). Thereafter, the system shall be inspected on an annual basis, typically in the spring months. Any signs of erosion shall be repaired immediately, and any trash or debris shall be removed,

Cost: Consult with local landscaping companies for associated costs if necessary.

### **Debris & Litter:**

All debris and litter shall be removed from the driveway/parking areas as necessary to prevent migration into the drainage system.

### **Pesticides, Herbicides, and Fertilizers:**

Pesticides and herbicides shall be used sparingly. Fertilizers shall be restricted to the use of organic fertilizers only. All fertilizers, herbicides, pesticides, sand and salt for deicing and the like shall be stored in dry area that is protected from weather.

### **Prevention of Illicit Discharges:**

Illicit discharges to the stormwater management system are not allowed. Illicit discharges are discharges that are not comprised entirely of stormwater. Pursuant to Mass DEP Stormwater Standards the following activities or facilities are not considered illicit discharges: firefighting, water line flushing, landscape irrigation, uncontaminated groundwater, potable water sources, foundation drains, air conditioning condensation, footing drains, individual resident car washing, flows from riparian habitats



and wetlands, De-chlorinated water from swimming pools, water used for street washing and water used to clean residential building without detergents.

To prevent illicit discharges to the stormwater management system the following policies should be implemented:

1. Provisions For Storing Materials And Waste Products Inside Or Under Cover
2. Vehicle Maintenance And Washing Controls
3. Requirements for Routine Inspections of the Stormwater Management Systems
4. Spill Prevention and Response Plans.