Site Owner's Manual

BLAIR SQUARE SITE IMPROVEMENTS

0 Railroad Bed Holliston, Massachusetts

Prepared for: Holliston Planning Board 703 Washington Street Holliston, MA 01746

Prepared by:



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TABLE OF CONTENTS

1.0 II	NTRODUCTION	1-1
2.0 S	SITE OWNER'S AGREEMENT	2-1
2.1	OPERATION AND MAINTENANCE COMPLIANCE STATEMENT	2-1
2.2	STORMWATER MAINTENANCE EASEMENTS	2-1
2.3	RECORD KEEPING	2-1
2.4	Training	2-2
3.0 L	ONG-TERM POLLUTION PREVENTION PLAN	3-1
3.1	STORAGE OF MATERIALS AND WASTE	3-1
3.2	VEHICLE WASHING	3-1
3.3	ROUTINE INSPECTIONS AND MAINTENANCE OF STORMWATER BMPS	3-1
3.4	SPILL PREVENTION AND RESPONSE	3-1
3.5	MAINTENANCE OF LAWNS, GARDENS, AND OTHER LANDSCAPED AREAS	3-2
3.6	STORAGE AND USE OF FERTILIZERS, HERBICIDES, AND PESTICIDES	3-2
3.7	PET WASTE MANAGEMENT	3-2
3.8	SNOW AND DEICING CHEMICAL MANAGEMENT	3-2
4.0 L	ONG-TERM OPERATION AND MAINTENANCE PLAN	4-1
4.1	STORMWATER MANAGEMENT SYSTEM COMPONENTS	4-1
4.2	INSPECTION AND MAINTENANCE SCHEDULES	4-1
4	4.2.1 Rain Gardens	4-1
4	1.2.2 Permeable Pavers	4-2
4.3	ESTIMATED OPERATION AND MAINTENANCE BUDGET	4-2
4.4	Public Safety Features	4-2

FIGURES

FIGURE 1: SITE PLANS

APPENDICES

APPENDIX A: OPERATION AND MAINTENANCE LOG APPENDIX B: LIST OF EMERGENCY CONTACTS



1.0 INTRODUCTION

The Site Owner's Manual complies with the Long-Term Pollution Prevention Plan (Standard 4) and the Long-Term Operation and Maintenance Plan (Standard 9) requirements of the 2008 Massachusetts Department of Environmental Protection (DEP) Stormwater Handbook. The Manual outlines source control and pollution prevention measures and maintenance requirements of stormwater best management practices (BMPs) associated with the proposed development.



2.0 SITE OWNER'S AGREEMENT

2.1 Operation and Maintenance Compliance Statement

Site Owner: Town of Holliston

703 Washington Street Holliston, MA 01746

Responsible Party: Town of Holliston

The Town of Holliston shall maintain ownership of the on-site stormwater management system as well as the responsibility for operation and maintenance during the post-development stages of the project. The site has been inspected for erosion and appropriate measures have been taken to permanently stabilize any eroded areas. All aspects of stormwater best management practices (BMPs) have been inspected for damage, wear and malfunction, and appropriate steps have been taken to repair or replace the system or portions of the system so that the stormwater at the site may be managed in accordance with the Stormwater Management Standards. Future responsible parties shall be notified of their continuing legal responsibility to operate and maintain the BMPs. The operation and maintenance plan for the stormwater BMPs is being implemented.

Responsible Party Signature	Date

2.2 Stormwater Maintenance Easements

There are no off-site areas utilized for stormwater control, therefore no stormwater management easements are required. The Site Owner will have access to all stormwater practices for inspection and maintenance, including direct maintenance access by heavy equipment to structures requiring regular maintenance.

2.3 Record Keeping

The Site Owner shall maintain a rolling log in which all inspections and maintenance activities for the past three years shall be recorded. The Operation and Maintenance Log includes information pertaining to inspections, repairs, and disposal relevant to the project's stormwater management system. The Log is located in Appendix A.

The Operation and Maintenance Log shall be made available to the Conservation Commission and the DEP upon request. The Conservation Commission and the DEP shall be allowed to enter and inspect the premises to evaluate and ensure that the responsible party complies with the maintenance requirements for each BMP.



2.4 Training

Employees involved in grounds maintenance and emergency response will be educated on the general concepts of stormwater management and groundwater protection. The Site Owner's Manual will be reviewed with the maintenance staff. The staff will be trained on the proper course of action for specific events expected to be incurred during routine maintenance or emergency situations.



3.0 LONG-TERM POLLUTION PREVENTION PLAN

In compliance with Standard 4 of the 2008 DEP Stormwater Management Handbook, this section outlines source control and pollution prevention measures to be employed on-site after construction.

3.1 Storage of Materials and Waste

The site shall be kept clear of trash and debris at all times. Certain materials and waste products shall be stored inside or outside upon an impervious surface and covered, as required by local and state regulations.

3.2 Vehicle Washing

No commercial vehicle washing shall take place on site.

3.3 Routine Inspections and Maintenance of Stormwater BMPs

See Section 4.0 Long-Term Operation and Maintenance Plan, for routine inspection and maintenance requirements for all proposed stormwater BMPs.

3.4 Spill Prevention and Response

A contingency plan shall be implemented to address the spill or release of petroleum products and hazardous materials and will include the following measures:

- Equipment necessary to quickly attend to inadvertent spills or leaks shall be stored on-site in a secure but accessible location. Such equipment shall include but not be limited to the following: safety goggles, chemically resistant gloves and overshoe boots, water and chemical fire extinguishers, sand and shovels, suitable absorbent materials, storage containers and first aid equipment (i.e. Indian Valley Industries, Inc. 55-gallon Spill Containment kit or approved equivalent).
- Spills or leaks shall be treated properly according to material type, volume of spillage and location of spill. Mitigation shall include preventing further spillage, containing the spilled material in the smallest practical area, removing spilled material in a safe and environmentally-friendly manner, and remediation of any damage to the environment.
- 3. For large spills, Massachusetts DEP Hazardous Waste Incident Response Group shall be notified immediately at 888-304-1133 and an emergency response contractor shall be consulted.



3.5 Maintenance of Lawns, Gardens, and other Landscaped Areas

Lawns, gardens, and other landscaped areas shall be maintained regularly by the site owner. Vegetated and landscaped BMPs will be maintained as outlined in Section 4.0.

3.6 Storage and Use of Fertilizers, Herbicides, and Pesticides

All fertilizers, herbicides, and pesticides shall be stored in accordance with local, state, and federal regulations. The application rate and use of fertilizers, herbicides, and pesticides on the site shall at no time exceed local, state, or federal specifications.

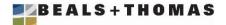
3.7 Pet Waste Management

Pet owners shall be required to pick up after their animals and dispose of waste in the trash.

3.8 Snow and Deicing Chemical Management

Snow removal at the proposed development shall comply with the following requirements:

- Plowed snow shall be placed in the areas outside of stormwater best management practices. The following maintenance measures shall be undertaken at all snow disposal sites:
 - Debris shall be cleared from an area prior to using it for snow disposal.
 - Debris and accumulated sediments shall be cleared from the site and properly disposed of at the end of the snow season and no later than May 15.
 - Sanding shall not be performed on permeable paver surface as this will clog the pore space within the stone aggregate.



4.0 LONG-TERM OPERATION AND MAINTENANCE PLAN

This section outlines the stormwater best management practices (BMPs) associated with the proposed stormwater management system and identifies the long-term inspection and maintenance requirements for each BMP.

4.1 Stormwater Management System Components

The following table outlines the type and quantity of the BMPs and their general location. Please reference the site plan(s) provided in the Figures section for exact location.

BMP Type	Quantity	Location
Permeable Pavers	1	Northeastern portion of the site.
Rain Garden	3	Throughout the site.

4.2 Inspection and Maintenance Schedules

4.2.1 Rain Gardens

Annual maintenance of all rain garden components, including plants, soil, and mulch, shall be performed to ensure the overall success. Specific maintenance activities and their required frequency are outlined below:

- Vegetation shall be watered at the end of the day for 14 consecutive days after planting.
- Trash shall be removed from the surface monthly.
- The soil surface shall be inspected on a monthly basis and any observed erosion shall be repaired.
- All void areas within the bioretention area shall be remulched on an annual basis. If the existing mulch layer has deteriorated, it shall be removed prior to applying the new layer.
- All dead and diseased vegetation shall be removed and replaced on an annual basis. Diseased trees and shrubs shall be treated as necessary.
- Inlet and outlet pipes shall be inspected every 6 months and after major storm events (rainfall totals greater than 2.5 inches in 24 hours) for evidence of clogging.
- During and after major storm, the length of time standing water remains in the rain garden area shall be recorded:
 - If the time is greater than 72 hours, thoroughly inspect the basin for signs of clogging.



 A corrective action plan shall be developed by a qualified professional to restore infiltrative function. The Site Owner shall take immediate action to implement these corrective measures.

4.2.2 Permeable Pavers

Frequent cleaning and maintenance of permeable pavers is critical to prevent clogging. Required operation and maintenance measures include the following:

- Informational signs identifying permeable paver areas shall be posted.
- No winter sanding shall be conducted on the permeable pavers.
- Salt use during winter months shall be minimized.
- Adjacent landscaped areas shall be well maintained to prevent soil from being transported onto pavement.
- Surface of permeable pavers shall be cleaned using vacuum sweeping machines monthly.
- Permeable paver areas shall be monitored regularly to ensure proper drainage after storm events.
- Permeable pavers shall never be resealed or repaved with impermeable materials.
- Surface shall be inspected annually for deterioration.

4.3 Estimated Operation and Maintenance Budget

An operations and maintenance budget was prepared to approximate the annual cost of the inspections required in compliance with the DEP Stormwater Management Policy. The table below estimates the annual cost to inspect and maintain each proposed BMP, based on the requirements in Section 4.2.

ВМР Туре	# of BMPS	Annual O&M Cost (per BMP) ¹	Total Cost
Rain Gardens	3	\$200-\$400	\$600-\$1200
Permeable Pavers	1	\$300-\$400	\$300-\$400
		Total	\$900-\$1600

4.4 Public Safety Features

Appropriate signage will be provided within the premises for public safety.

¹ Annual maintenance cost is based on estimate of the cost to complete all inspection and maintenance measures outlined in Section 4.2. For BMPs that require sediment removal at regular intervals (i.e. every 5 or 10 years), the annual cost includes the annual percentage of that cost.



Figures

Figure 1: Site Plans (attached separately)



Appendices



Appendix A

Operation and Maintenance Log



OPERATION AND MAINTENANCE LOG

This template is intended to comply with the operation and maintenance log requirements of the 2008 DEP Stormwater Management Handbook. Copies of this log should be made for all inspections and kept on file for three years from the inspection date.

Name/Company of Inspector:		
Date/Time of Inspection:		
Weather Conditions: (Note current weather and any recent precipitation events)		

Stormwater BMP	Inspection Observations	Actions Required



Appendix B

List of Emergency Contacts



List of Emergency Contacts

Massachusetts DEP Hazardous Waste Incident Response Group (617) 792-7653

Town of Holliston Fire Department

Emergencies: Dial 911 59 Central Street Holliston, MA 01746 Tel: (508) 429-4631

Fire Chief: Michael R. Cassidy

Town of Holliston Police Department

Emergencies: Dial 911

550 Washington Street (Rt. 16)

Holliston, MA 01746 Tel: (508) 429-1212

Police Chief: Matthew Stone

