

LONG TERM OPERATION AND
MAINTENANCE PLAN
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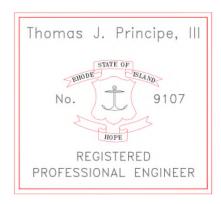
# AP 47, LOT 3 206 Bayview Avenue Bristol, RI 02809

# **Prepared For:**

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- Operation, Maintenance and Management Inspection Checklists
- Maintenance Agreement
- BMP Location Map

In order to minimize the stormwater management system deterioration, the owner shall adhere to the following Operation and Maintenance Plan as well as any additional requirements pertaining to inspection and maintenance measures for this site provided in Appendices E and G of the Rhode Island Stormwater Design and Installation Standards Manual.

#### **Infiltration Basin**

A legally binding and enforceable maintenance agreement shall be executed between the facility owner and the responsible authority to ensure the following: – Infiltration practices shall never serve as a sediment control device during site construction phase. Great care must be taken to prevent the infiltration area from compaction by marking off the location before the start of construction at the site and constructing the infiltration practice last, connecting upstream drainage areas only after construction is complete, and the contributing area is stabilized. In addition, the ESC plan for the site shall clearly indicate how sediment will be prevented from entering the site of an infiltration facility. - An observation well shall be installed in every infiltration trench or chamber system, consisting of an anchored 4- to 6-inch diameter perforated PVC pipe with a lockable cap installed flush with the ground surface. The approving agency may require multiple observation wells for large underground chamber systems. Infiltration practices shall be inspected annually and after storms equal to or greater than the 1-year, 24hour Type III storm event. If sediment or organic debris build-up has limited the infiltration capabilities (infiltration basins) to below the design rate, the top 6 inches shall be removed and the surface roto-tilled to a depth of 12 inches. The basin bottom should be restored according to original design specifications.

### **Permeable Paving**

A legally binding and enforceable maintenance agreement shall be executed between the facility owner and the responsible authority to ensure the following: Areas where infiltrating permeable pavement practices shall never serve as a sediment control device during site construction phase. Great care must be taken to prevent the permeable pavement area from compaction. Permeable paving surfaces require regular vacuum sweeping or hosing (minimum every three months or as recommended by manufacturer) to keep the surface from clogging. Maintenance frequency needs may be more or less depending on the traffic volume at the site. The use of sand and salt shall be minimized during the winter months. Permeable

pavement areas shall not be repaved or resealed with impermeable materials. The permeable pavement area shall be inspected annually for deterioration or spalling.

Snow shall not be stockpiled on permeable pavement. Contractors shall be notified to prevent unintentional stockpiling on permeable pavement.

#### **Bioretention**

A legally binding and enforceable maintenance agreement shall be executed between the facility owner and the responsible authority to ensure the following: - Sediment shall be cleaned out of the sediment forebay when it accumulates to a depth of more than ½ the design depth. Vegetation within the sediment forebay shall be limited to a height of 18 inches. The sediment chamber outlet devices shall be cleaned/repaired when drawdown times exceed 36 hours. Trash and debris shall be removed as necessary. - Silt/sediment shall be removed from the filter bed when the accumulation exceeds one inch. When the filtering capacity of the filter diminishes substantially (i.e., when water ponds on the surface of the filter bed for more than 48 hours), the top few inches of discolored material shall be removed and shall be replaced with fresh material. The removed sediments shall be disposed in an acceptable manner at an approved and permitted location.

For unique installations in extremely tight sites or redevelopment/infill projects where pretreatment strips have been downsized, enhanced maintenance shall be required through more frequent inspections, more frequent sediment removal, and enhanced landscape maintenance.

During the six months immediately after construction, filter practices shall be inspected following at least the first two precipitation events of at least 1.0 inch to ensure that the system is functioning properly. Thereafter, inspections shall be conducted on an annual basis and after storm events of greater than or equal the 1-year, 24-hour Type III precipitation event.

## **De-icing and Salt Storage**

De-icing and sanding operations are often necessary for safety during winter storms; however, the materials used create water quality problems. Use deicing chemicals and sand judiciously. The information in Table G-1 from Appendix G of the RISDISM shall be utilized when selecting a deicer.

# **Snow Disposal**

Improper snow disposal can be a threat to public health and the environment. Disposal shall consider site selection, site preparation and maintenance, and emergency snow disposal locations and procedures. Refer to DEM's Snow Disposal Policy for more details on these topics. Snow storage in the infiltration basins is not allowed.

### **Pavement Sweeping & Vacuuming**

Pavement sweeping and vacuuming shall be conducted on a quarterly basis. Some debris collected from parking lots may be regulated as a hazardous waste. For these cases, debris must be disposed of in accordance with appropriate practice and applicable regulatory standards. Appendix A of the *Rules and Regulations for Composting Facilities and Solid Waste Management Facilities*, which is entitled "Management of Street Sweepings in Rhode Island," shall be reviewed. For further information, contact the DEM Office of Waste Management.

#### **APPENDIX:**

- A. Operation, Maintenance and Management Inspection Checklist
- B. BMP Location Plan
- C. Maintenance Agreement