Appendix C

Operation and Maintenance Plan and Long-term Pollution Prevention Plan

Green Line Test Track

Stormwater Management System Operation and Maintenance Plan and Long-Term Pollution Prevention Plan

Newton

PREPARED FOR

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Stormwater Management System Operation and Maintenance (O&M) Plan

This Stormwater Management System Operation and Maintenance (O&M) Plan describes the approach for inspection and maintenance of drainage infrastructure to minimize contaminant loading for the Green Line Test Track project in Newton, Massachusetts. In general, inspection and maintenance activities will be conducted consistent with the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4) and the MBTA's anticipated NPDES Transportation Separate Storm Sewer System (TS4) Permit.

This document has been prepared per the requirements of Massachusetts Department of Environmental Protection (MassDEP) Regulations 310 CMR 10.05 (6)(k)(9) and satisfies the requirements of Massachusetts Stormwater Standard 9.

1.1 Responsible Party

In accordance with MBTA procedures, the MBTA office in Boston, MA, is responsible for the maintenance of all stormwater management systems on MBTA tracks within the project area.

Questions or concerns regarding activities associated with this O&M Plan should be addressed to the MBTA's office located at 10 Park Plaza, Boston, MA, or by phone at (617) 222-3200, from 6:30 am to 8:00 pm on weekdays.

1.2 Inspection and Maintenance Measures and Record-Keeping

See Appendix C of the Stormwater Management Report for the proposed stormwater system within the project limits. The stormwater management system covered by this O&M Plan consists of deep-sump catch basins.

The MBTA uses a performance-based inspection and maintenance program for catch basins. For catch basins, the MBTA's overall approach is to perform maintenance at an interval that maintains the functionality of the catch basin (e.g., sump is less than 50% full of sediment). Catch basin inspections, including documentation of sediment accumulation, and maintenance will generally occur simultaneously.

The MBTA's O&M program is data driven. Inspections and maintenance are recorded by personnel using hand-held tablets in the field to document sediment accumulation, maintenance action performed, and follow-up actions needed. Data are recorded in the

MBTA's asset management system which is accessible in the field (mobile) or the office (desktop).

The table below summarizes data that is generally collected for the relevant asset type, inlets. For all assets, the inspector and inspection date are recorded. Photo documentation of structure condition is taken and attached to the inspection record.

Inspection Form	Applicable Stormwater Assets	Information Collected
Inlets	› Catch basins › Outlet control structures	› Sediment accumulation › Trash/Debris accumulation › Signs of contamination › Frame and grate condition › Overall structure condition

Inspection and maintenance records can be made available using the asset management system through request with the MBTA. Records will be kept for at least three years. Representatives of the Newton Conservation Commission(s), MassDEP, and US EPA may obtain access to these records, upon request. Additionally, the MBTA will allow members and agents of MassDEP and the Conservation Commission(s) to enter and inspect the premises, upon request, to evaluate and ensure that the Operation and Maintenance Plan requirements for each drainage structure are being followed.

Maintenance actions will not occur at any set frequency, but rather will be based on condition and impact to functionality. Maintenance to be performed on the stormwater system includes:

Based on the results of the inspection, repairs will be made in accordance with MBTA standard practices. Maintenance will be prioritized given the urgency of the required maintenance and availability of staff, contracts, etc. Maintenance may require contracting if existing contracts are unavailable to perform the work. More intensive remedial activities may require permitting and/or an engineering solution.

1.3 Erosion and Sediment Control Measures during Maintenance Activities

For maintenance activities that could result in discharges of sediments or other contaminants into wetlands, waterways, or other resource areas regulated under 310 CMR 10.00, the responsible maintenance personnel will employ measures to prevent migration of these sediments/contaminants. Such temporary measures may include, but are not necessarily limited to, the use of siltation barriers, catch basin silt sacks/filter bags, pipe plugs, cofferdams deployed within the stormwater structure, turbidity curtains, or other practices designed to prevent such discharges.

See the following resources for more guidance on erosion and sediment (E&S) control design:

- The Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas[1] is an authoritative reference on erosion prevention measures.
- The Massachusetts Nonpoint Source Pollution Management Manual[2] provides an innovative user interface to present comprehensive detailed guidance on E&S controls for construction projects.

Where maintenance occurs in areas that are confined, with no risk of discharge to adjacent water bodies, no special measures may be needed. Examples include, but are not limited to: catch basin cleaning where the activity is limited to removing material from a sump below the elevation of the outlet pipe.

1.4 O&M Budget

The MBTA performs maintenance for stormwater management systems as part of their routine operation and maintenance budget for roadways and bridges.

1 See Complete Erosion and Sedimentation Control Guidelines: A Guide for Planners, Designers, and Municipal Officials (May 2003) at: https://www.mass.gov/service-details/stormwater.

2 See Massachusetts Nonpoint Source Pollution Management Manual at: https://megamanual.geosyntec.com/npsmanual/default.aspx.

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Long-Term Pollution Prevention Plan

This Long-Term Pollution Prevention Plan (LTPPP) describes the approach for pollution prevention and related maintenance activities for the Green Line Test project in Newton, Massachusetts. In general, long-term pollution prevention and related maintenance activities will be conducted consistent with:

- The National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4),
- The MBTA's anticipated NPDES Transportation Separate Storm Sewer System (TS4) Permit, and
- Measures outlined in the MBTA's Stormwater Pollution Prevention Plan (SWPPP), which will be submitted prior to the start of construction.

This LTPPP satisfies the requirements related to pollution prevention under Massachusetts Stormwater Standards 4, 5, 6, and 10.

2.1 Practices for Long-Term Pollution Prevention

For the facilities covered, long-term pollution prevention includes the following measures.

- good housekeeping;
- storing materials and waste products inside or under cover;
- vehicle washing;
- spill prevention and response;
- maintenance of lawns, gardens, and other landscaped areas;
- storage and use of fertilizers, herbicides, and pesticides;
- pet waste management;
- operation and management of septic systems; and
- proper management of deicing chemicals and snow.

2.1.1 Litter Pick-up

The MBTA will conduct litter pick-up from the stormwater management facilities in conjunction with routine maintenance activities.

2.1.2 Inspection and Maintenance of Stormwater Assets

The MBTA will conduct inspection and maintenance of drainage infrastructure in accordance with the O&M Plan, as described in Section 1.

2.1.3 Maintenance of Landscaped Areas

Routine mowing will be conducted according to standard MBTA practices.

Except in rare circumstances, the MBTA does not use fertilizers, herbicides, and pesticides for the maintenance of facilities. Exceptions include using fertilizer to ensure the survival of new plantings and herbicides to control invasive plants. Use of fertilizers and herbicides is reviewed and approved by the MBTA prior to application. Local Conservation Commission review may also be required.

2.1.4 Snow and Ice Management

Snow and Ice Management will be conducted consistent with the practices outlined in the MBTA's Snow and Ice Control Program Environmental Status and Planning Report (ESPR).

In accordance with the Snow and Ice Control ESPR, no sand is used on MBTA properties for snow and ice control. The exception to this rule is within reduced salt areas where high sodium levels have been found in drinking water sources.

2.1.5 Prohibition of Illicit Discharges

The MassDEP Stormwater Management Standard 10 prohibits illicit discharges to the stormwater management system. Illicit discharges are discharges that do not consist entirely of stormwater, except for certain specified non-stormwater discharges.

In accordance with the existing MS4 permit and anticipated TS4 permit requirements, examples of discharges from the following sources are not considered illicit discharges:

- Firefighting activities*
- Foundation drains
- Water line flushing
- Footing drains
- Landscape irrigation
- Individual residential car washing
- Uncontaminated groundwater
- Rising groundwater
- Diverted stream flows
- Flows from riparian habitats/wetlands
- Potable water sources
- Dechlorinated swimming pool water
- Street wash waters
- Wash water from residential buildings (no detergents)
- Condensation from air conditioning units
- Run-on from private driveways caused by precipitation
- Lawn watering
- Water from crawl space pumps

*Water from firefighting activities is allowed and need only be addressed where they are identified as significant sources of pollutants to waters of the United States.

Based on plan review and confirmation in the field, there are no known or proposed illicit connections associated with the project area. Should an interconnection to the stormwater management system be identified, the MBTA PM will coordinate with the Permits Engineer to confirm if the connections are authorized. For unauthorized connections, the MBTA PM and/or MBTA Environmental Services Section will investigate the connections and if they are determined to be illicit, the connections will be managed through the MBTA's Illicit Discharge Detection and Elimination (IDDE) program and/or through other agencies.