



# **Appendix E: Erosion and Sedimentation Control Measures**

As part of the Notice of Intent process, an erosion and sedimentation control plan will be developed, and will include measures such as those described below.





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## **Erosion and Sedimentation Control Measures**

The following erosion and sedimentation controls are for use during the earthwork and construction phases of the project. The following controls are provided as recommendations for the site contractor and do not constitute or replace the final Stormwater Pollution Prevention Plan that must be fully implemented by the Contractor and owner in Compliance with EPA NPDES regulations.

### **Straw Wattles, Compost Berms and Straw Bale Barriers**

Straw bale barriers, straw wattles and compost berms will be placed to trap sediment transported by runoff before it reaches the drainage system or leaves the construction site. The bales, wattles and berms will be set at least four inches into the existing ground to minimize undercutting by runoff.

### **Silt Fencing**

In areas where high runoff velocities or high sediment loads are expected, straw bale barriers will be backed up with silt fencing. This semi-permeable barrier made of a synthetic porous fabric will provide additional protection. The silt fences and straw bale barrier will be replaced as determined by periodic field inspections.

### **Catch Basin Protection**

Newly constructed and existing catch basins will be protected with straw bale barriers (where appropriate) or silt sacks throughout construction.

### **Gravel and Construction Entrance/Exit**

A temporary crushed-stone construction entrance/exit will be constructed. A cross slope will be placed in the entrance to direct runoff to a protected catch basin inlet or settling area. If deemed necessary after construction begins, a wash pad may be included to wash off vehicle wheels before leaving the project site.

### **Diversion Channels**

Diversion channels will be used to collect runoff from construction areas and discharge to either sedimentation basins or protected catch basin inlets.



## **Temporary Sediment Basins**

Temporary sediment basins will be designed either as excavations or bermed stormwater detention structures (depending on grading) that will retain runoff for a sufficient period of time to allow suspended soil particles to settle out prior to discharge. These temporary basins will be located based on construction needs as determined by the contractor and outlet devices will be designed to control velocity and sediment. Points of discharge from sediment basins will be stabilized to minimize erosion.

## **Vegetative Slope Stabilization**

Stabilization of open soil surfaces will be implemented within 14 days after grading or construction activities have temporarily or permanently ceased, unless there is sufficient snow cover to prohibit implementation. Vegetative slope stabilization will be used to minimize erosion on slopes of 3:1 or flatter. Annual grasses, such as annual rye, will be used to ensure rapid germination and production of root mass. Permanent stabilization will be completed with the planting of perennial grasses or legumes. Establishment of temporary and permanent vegetative cover may be established by hydro-seeding or sodding. A suitable topsoil, good seedbed preparation, and adequate lime, fertilizer and water will be provided for effective establishment of these vegetative stabilization methods. Mulch will also be used after permanent seeding to protect soil from the impact of falling rain and to increase the capacity of the soil to absorb water.

## **Street Sweeping**

Street sweeping of Chestnut and Eliot Street will be completed throughout construction as necessary.

## **Maintenance**

- The contractor or subcontractor will be responsible for implementing each control shown on the Sedimentation and Erosion Control Plan. In accordance with EPA regulations, the contractor must sign a copy of a certification to verify that a plan has been prepared and that permit regulations are understood.
- The on-site contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on-site by the contractor.



- Silt shall be removed from behind barriers if greater than 6-inches deep or as needed.
- Damaged or deteriorated items will be repaired immediately after identification.
- The underside of straw bales and straw wattles should be kept in close contact with the earth and reset as necessary.
- Sediment that is collected in structures shall be disposed of properly and covered if stored on-site.
- Erosion control structures shall remain in place until all disturbed earth has been securely stabilized. After removal of structures, disturbed areas shall be regraded and stabilized as necessary.

The sedimentation and erosion control plan is included in project plan set; a reduced version and Erosion Control Maintenance checklist is included here for quick reference.

Refer to the plans for full proposed erosion and sedimentation control.





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## Construction Best Management Practices - Maintenance/Evaluation Checklist





**The Lantern at Warren Woods, Ashland, Massachusetts  
Construction Best Management Practices – Maintenance/ Evaluation Checklist**

Best Management Practice	Inspection Frequency	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed <input type="checkbox"/> yes <input type="checkbox"/> no (List Items)	Date of Cleaning/Repair	Performed by:
Erosion Control Barriers/Silt Fencing	Weekly and after ½” storm events or greater			Inspect for deterioration or failure. Remove sediment as necessary.	<input type="checkbox"/> yes <input type="checkbox"/> no		
Gravel Construction Entrance	Weekly and after ½” storm events or greater			Inspect for breakdown of crushed-stone. Reapply stone if necessary to depths specified in construction documents	<input type="checkbox"/> yes <input type="checkbox"/> no		
Catch Basin Protection	Weekly and after ½” storm events or greater			Inspect for proper operation of catch basin. If clogged, dispose of sediment.	<input type="checkbox"/> yes <input type="checkbox"/> no		
Diversion Channels	Weekly and after ½” storm events or greater			Inspect for proper function. Correct if necessary.	<input type="checkbox"/> yes <input type="checkbox"/> no		
Temporary Sedimentation Basins	Weekly and after ½” storm events or greater			Inspect for proper function. Correct if necessary.	<input type="checkbox"/> yes <input type="checkbox"/> no		
Vegetated Slope Stabilization	Weekly and after ½” storm events or greater			Inspect for erosion. Correct if necessary.	<input type="checkbox"/> yes <input type="checkbox"/> no		
Street Sweeping	Weekly and after ½” storm events or greater			Inspect Chestnut Street and Eliot Street. Remove sediment as necessary.	<input type="checkbox"/> yes <input type="checkbox"/> no		

Stormwater Control Manager \_\_\_\_\_