

# EPA Example Construction SWPPP:

## Small Commercial Site (< 5 acres)

### Introduction

This example Stormwater Pollution Prevention Plan (SWPPP) was prepared using the U.S. Environmental Protection Agency's (EPA's) guide, *Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Operators* and its accompanying SWPPP template. Both the SWPPP Guide and the SWPPP template are available at <http://www.epa.gov/npdes/swpppguide>. The instructions and references in this SWPPP refer to the SWPPP template and are left in for illustrative purposes. The SWPPP guide, SWPPP template, and this hypothetical SWPPP example are provided for compliance assistance purposes only; for a complete list of permit requirements, refer to EPA's Construction General Permit at: <http://www.epa.gov/npdes/stormwater/cgp>.

### Use of this example SWPPP

This example SWPPP represents a hypothetical project for the construction of a postal and distribution center on less than 5 acres in New Hampshire. For this example, the SWPPP was prepared in March 2006 with construction beginning in April 2006. To illustrate how an actual SWPPP should be used, this example SWPPP includes marked-up edits to pages and copies of records such as inspection reports. For purposes of this example, this SWPPP was copied on July 20, 2006. Therefore, inspection reports and other records are current as of that date.

This example SWPPP was developed for EPA's 2003 Construction General Permit (CGP), as modified effective January 21, 2005. If you are subject to a different general permit issued by a state or EPA Region, your requirements and SWPPP template might be slightly different.

### Disclaimer

This SWPPP is for a hypothetical project. Any similarities to actual construction projects, operators, or places are purely coincidental.

Do not copy this SWPPP for your project! The best management practices and explanatory text in this SWPPP are intended to apply only to this hypothetical site. Each SWPPP must be created on a case-by-case basis to address the unique conditions and issues at a given construction site. Relying on the wording in this hypothetical SWPPP is discouraged and will not necessarily result in compliance with the Construction General Permit.

# Stormwater Pollution Prevention Plan

## for:

Stormville Postal and Distribution Center  
3100 Sixth Avenue  
Stormville, NH 03061  
(603) 444-3333

## Operator(s):

United States Postal Service (USPS)  
Russ Braybrooks  
1125 Capital Street, NE  
Boston, MA 02101  
Office Phone: (617) 333-1122  
Office Fax: (617) 333-1121

Advanced Construction Contractors (ACC)  
Joe Butler  
5800 Washington Avenue  
Nashua, NH 03064  
Office Phone: (603) 444-3210  
Office Fax: (603) 444-3211

## SWPPP Contact(s):

Martina Davis  
Advanced Construction Contractors  
5800 Washington Avenue  
Nashua, NH 03064  
Office Phone: (603) 444-3210  
Office Fax: (603) 444-3211

## SWPPP Preparation Date:

**03/01/2006**

### *Estimated Project Dates:*

**Start of Construction: 04/05/2006**  
**Completion of Construction: 04/05/2007**

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# SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

## 1.1 Project/Site Information

**Instructions:**

- In this section, you can gather some basic site information that will be helpful to you later when you file for permit coverage.
- For more information, see *Developing Your Stormwater Pollution Prevention Plan: A SWPPP Guide for Construction Sites* (also known as the *SWPPP Guide*), Chapter 2
- Detailed information on determining your site's latitude and longitude can be found at [www.epa.gov/npdes/stormwater/latlong](http://www.epa.gov/npdes/stormwater/latlong)

Project/Site Name: Stormville Postal and Distribution Center

Project Street/Location: 3100 Sixth Avenue

City: Stormville State: NH ZIP Code: 03061

County or Similar Subdivision: Hillsborough County

Latitude/Longitude (Use **one** of three possible formats, and specify method)

- |  |  |
|--|--|
| Latitude:  | Longitude:   |
| 1. ___ ° ___ ' ___ " N (degrees, minutes, seconds) | 1. ___ ° ___ ' ___ " W (degrees, minutes, seconds) |
| 2. ___ ° ___ . ___ ' N (degrees, minutes, decimal) | 2. ___ ° ___ . ___ ' W (degrees, minutes, decimal) |
| 3. 42.7168 ° N (decimal)                           | 3. 71.4658 ° W (decimal)                           |

Method for determining latitude/longitude:

- USGS topographic map (specify scale: \_\_\_\_\_)       EPA Web site       GPS  
 Other (please specify): \_\_\_\_\_

Is the project located in Indian country?       Yes       No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." \_\_\_\_\_

Not Applicable

Is this project considered a federal facility?       Yes       No

NPDES project or permit tracking number\*: ACC - NH 103201; USPS - NH 10 BK02

\*(This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate National Pollutant Discharge Elimination System (NPDES) construction general permit.)

## 1.2 Contact Information/Responsible Parties

**Instructions:**

- List the operator(s), project managers, stormwater contact(s), and person or organization that prepared the SWPPP. Indicate respective responsibilities, where appropriate.
- Also, list subcontractors expected to work on-site. Notify subcontractors of stormwater requirements applicable to their work.
- See *SWPPP Guide*, Chapter 2.B and EPA's Construction General Permit (CGP) Part 3, Subparts 3.2, 3.3.A, and 3.4.A.

**Operator(s):**

<b>OPERATOR</b>	
<b>Contact Information</b>	<b>Geographic Area of Control*</b>
United States Postal Service (USPS) Russ Braybrooks 1125 Capital Street, NE Boston, MA 02101 Office Phone: (617) 333-1122 Office Fax: (617) 333-1121	The United States Postal Service (USPS) is the principal land owner and contract manger for the project. USPS has contracted Advanced Construction Contractors (ACC) to develop and implement the SWPPP and build the Stormville Postal and Distribution Center. USPS will be responsible for general oversight of the project and will retain operational control over construction plans and specifications, including review of the SWPPP and any amendments, inspection reports, corrective actions and changes to stormwater conveyance or control designs. USPS will participate, when possible, on self-inspections conducted by ACC.
<p><b>* See Construction Operator's Cooperative Agreement</b></p>	

<b>OPERATOR</b>	
<b>Contact Information</b>	<b>Geographic Area of Control*</b>
Advanced Construction Contractors (ACC) Joe Butler 5800 Washington Avenue Nashua, NH 03064 Office Phone: (603) 444-3210 Office Fax: (603) 444-3211	ACC has entered into a contract with USPS to develop and implement the SWPPP and perform all construction activities at the site. ACC will implement and maintain the best management practices (BMPs) specified in Sections 2 and 3, conduct inspections (Section 5) and address stormwater over the entire site including all areas disturbed by construction activities, areas used for materials storage, discharge points, and construction exits.
<p><b>* See Construction Operator's Cooperative Agreement</b></p>	

## **Construction Operators' Cooperative Agreement**

This cooperative agreement describes stormwater responsibilities for the United States Postal Service (USPS) and Advanced Construction Contractors (ACC) regarding the Stormville Postal and Distribution Center project. The operators below agree to abide by the following conditions throughout the duration of the construction project, effective the date of signature.

This project is subject to EPA's NPDES General Permit for Stormwater Discharges from Construction Activities (Construction General Permit or CGP). The goal of this permit is to prevent the discharge of pollutants associated with construction activity from entering the storm drain system or surface waters. ACC has developed a SWPPP for the Stormville Postal and Distribution Center project and the SWPPP has been reviewed by USPS. The SWPPP is available for review at the on-site construction trailer.

### **USPS Responsibilities:**

- USPS will be responsible for general oversight of the project, including review of the SWPPP and any amendments, inspection reports, and corrective actions.
- USPS will participate, when possible, on self-inspections conducted by ACC.
- USPS will participate in biweekly meetings to discuss CGP compliance issues.

### **ACC Responsibilities:**

- ACC will maintain the SWPPP documentation and will conduct and document self-inspections required under Part 3.10 of the CGP on a weekly basis and within 24 hours of the end of a storm event of one-half inch or greater in all areas of the site covered by this SWPPP.
- ACC will provide copies of inspection reports to USPS within 24 hours following each inspection. Incidents of non-compliance will be immediately brought to the attention of Russ Braybrooks, USPS.
- ACC shall be responsible for maintaining compliance with the applicable sections of the SWPPP, including installation of erosion and sediment controls, and all requirements in the CGP. Any BMP changes that would trigger the need for a SWPPP modification shall be promptly communicated to USPS.
- ACC will maintain erosion and sediment control Best Management Practices (BMPs) in all areas of the site under its day-to-day control.
- ACC will provide adequately designated concrete washout areas throughout the construction project and will be responsible for proper disposal of the concrete, mortar or grout collected there.
- ACC will be responsible for maintaining the cleanliness of the streets (Johnson Street and Sixth Avenue) and storm drain inlet protection BMPs throughout the construction project. ACC will conduct street sweeping on a weekly basis and prior to forecasted rain events. ACC will also inspect and replace storm drain inlet protection BMPs as necessary.
- ACC shall not store erodible or hazardous materials on any roadway.
- ACC will hold biweekly meetings to discuss CGP compliance issues.

# Construction Operators' Cooperative Agreement

## Joint Responsibilities:

- Each operator shall file a Notice of Intent (NOI) to be covered by the Construction General Permit before beginning construction at the project, and permit coverage will be maintained throughout the project.
- Operators shall not file a Notice of Termination (NOT) until all disturbed areas of the site under its day-to-day control have been effectively stabilized with permanent erosion controls that satisfy the final stabilization requirement in the CGP.
- Operators will maintain a clean site. Trash and debris will be picked up and disposed of properly by the end of each day.
- Each operator is responsible for advising employees and subcontractors working on this project of the requirements in the CGP and applicable SWPPP. Particular emphasis should be placed on ensuring that employees and subcontractors do not damage BMPs and do not introduce pollutants into the storm drain system.

The undersigned agree to abide by the terms and conditions of this cooperative agreement as described above.

USPS

Russ Benzbraker  
Operator Name

Russ Benzbraker  
Signature

D+C Proj. Mgr.     3/12/06  
Title                      Date

Advanced Construction Contractors

Joe Butler  
Operator Name

Joe Butler  
Signature

Owner             3/12/06  
Title                      Date



**Project Manager(s) or Site Supervisor(s):**

Advanced Construction Contractors  
Bill Rustler, Project Manager  
5800 Washington Avenue  
Nashua, NH 03064  
Office Phone: (603) 444-3210  
Office Fax: (603) 444-3211  
Site Phone: (603) 444-3333

Mr. Rustler is responsible for managing day-to-day site operations at the site.

**SWPPP Contact(s):**

Advanced Construction Contractors  
Martina Davis, Stormwater Compliance Officer  
5800 Washington Avenue  
Nashua, NH 03064  
Office Phone: (603) 444-3210  
Office Fax: (603) 444-3211  
Site Phone: (603) 444-3333

Martina Davis is the primary SWPPP contact and is responsible for site compliance with the SWPPP and EPA's Construction General Permit.

**This SWPPP was Prepared by:**

Mattock Compliance  
Roy Mattock  
2588 Paver Avenue, Suite 310  
Boston, MA 02101  
Office Phone: (617) 222-2221  
Office Fax: (617) 222-2222

Mr. Mattock was contracted by ACC to develop this SWPPP.

**Emergency 24-Hour Contact:**

Advanced Construction Contractors  
Martina Davis, Stormwater Compliance Officer  
Site Phone: (603) 444-3333  
Cellular Phone: (603) 235-2222

<b>SUBCONTRACTOR(S)</b>	
<b>Contact Information</b>	<b>Area of Control*</b>
Jim Young, Owner JY Street Sweeping, Inc. 345 Liberty Avenue Nashua, NH 03064 (603) 444-0987	JY Street Sweeping has entered into a contract with USPS and ACC to perform street sweeping for Johnson Street and Sixth Avenue.
Bill Ways, Vice President Ways Waste and Sanitary Services 56 Washington Road Nashua, NH 03064 (603) 444-0044	Ways Waste and Sanitary Services have entered into a contract with USPS and ACC to deliver dumpsters and temporary sanitary facilities to the site. They will also be responsible for dumpster and recycling waste pick up and disposal of sanitary wastes from the temporary sanitary facilities.
George Smith, Owner Smith Plumbing Company 234 Dunn Way Nashua, NH 03064 (603) 444-3333	Smith Plumbing Company has entered into a contract with USPS and ACC to install plumbing fixtures for the postal and distribution center.
Bart Thomas, Owner Thomas Electric 6502 Capital Avenue Nashua, NH 03064 (603) 444-0000	Thomas Electric has entered into a contract with USPS and ACC to install electrical components for the postal and distribution center.
Jean Askew, Owner Askew Foundations, LLC 78 Toms Road Nashua, NH 03064 (603) 444-7777	Askew Foundations has entered into a contract with USPS and ACC to construct the foundation for the postal and distribution center.
<b>* See Appendix H – Subcontractor Certifications/Agreements</b>	

### 1.3 Nature and Sequence of Construction Activity

**Instructions:**

- Briefly describe the nature of the construction activity and approximate time frames (one or more paragraphs, depending on the nature and complexity of the project).
- For more information, see *SWPPP Guide*, Chapter 3.A. and EPA's CGP Part 3, Subparts 3.3.B.1 and 2, and 3.4.A.

Describe the general scope of the work for the project, major phases of construction, etc:

ACC is contracted by the USPS to build an 18,000-square-foot postal and distribution center at 3100 Sixth Avenue, Stormville, Hillsborough County, New Hampshire. ACC is responsible for overall site development and building construction. Soil disturbing activities will include clearing and grubbing; installing stabilized construction exits; installing erosion and sediment controls; grading; installation of the building foundation; excavation for utilities and parking lots; and installation of post-construction controls.

What is the function of the construction activity?

- Residential   
  Commercial   
  Industrial   
  Road Construction   
  Linear Utility  
 Other (please specify):

Estimated Project Start Date:                      **04/05/2006**

Estimated Project Completion Date:              **04/05/2007**

Table 1. Timeline of Activity: ACC will follow the sequence of activities below for major construction activities and BMP installation.

Estimated timeline of activity	Construction activity and BMP descriptions
04/05/06 – 05/01/06	<p><b><i>Before any site grading activities begin</i></b></p> <ol style="list-style-type: none"> <li>1. Install perimeter silt fences (See Section 2, Part 2.7)</li> <li>2. Install storm drain inlet protection on Johnson Street and Sixth Avenue (Section 2, Part 2.6)</li> <li>3. Construct stabilized construction exits (Section 2, Part 2.9)</li> <li>4. Construct vegetated swale along the north perimeter (Section 2, Part 2.3)</li> <li>5. Construct sediment trap (Section 2, Part 2.8)</li> </ol>
05/01/06 – 05/16/06	<p><b><i>Site grading</i></b></p> <ol style="list-style-type: none"> <li>1. Begin site clearing and grubbing operations</li> <li>2. Begin overall site grading and topsoil stripping</li> <li>3. Establish topsoil stockpile (Section 2, Part 2.1)</li> <li>4. Install silt fences around stockpile and cover stockpiles (Section 2, Part 2.1)</li> <li>5. Disturbed areas where construction will cease for more than 14 days will be stabilized with erosion controls (Section 2, Part 2.4)</li> </ol>
05/16/06 – 07/02/06	<p><b><i>Infrastructure (utilities, parking lot, etc.)</i></b></p> <ol style="list-style-type: none"> <li>1. Construct staging and materials storage area (Section 3, Part 3.2)</li> <li>2. Install temporary sanitary facilities and dumpsters (Section 3, Part 3.1)</li> <li>3. Install utilities, sanitary sewers, and water services</li> </ol>

07/02/06 – 02/20/07	<p><b><i>Building Construction</i></b></p> <ol style="list-style-type: none"> <li>1. Construct temporary concrete washout area (Section 3, Part 3.3)</li> <li>2. Begin construction of building foundation and structure</li> <li>3. Install gutters, curbs, and prepare pavement subgrade</li> <li>4. Parking lot paved, exterior building constructed (by Sept. 30<sup>th</sup>)</li> <li>5. Remove temporary concrete washout area (Section 3, Part 3.3)</li> <li>6. Implement winter stabilization procedures (Section 2, Part 2.4)</li> </ol>
02/20/07 – 04/05/2007	<p><b><i>Final stabilization and landscaping</i></b></p> <ol style="list-style-type: none"> <li>1. Finalize pavement activities</li> <li>2. Convert sediment trap to a permanent bioretention area</li> <li>3. Install infiltration trench, porous pavers and tree box filters</li> <li>4. Remove all temporary control BMPs and stabilize any areas disturbed by there removal with erosion controls</li> <li>5. Prepare final seeding and landscaping</li> <li>6. Monitor stabilized areas until final stabilization is reached</li> </ol>

### **1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns**

<p><b>Instructions:</b></p> <ul style="list-style-type: none"> <li>– Describe the existing soil conditions at the construction site including soil types, slopes and slope lengths, drainage patterns, and other topographic features that might affect erosion and sediment control.</li> <li>– Also, note any historic site contamination evident from existing site features and known past usage of the site.</li> <li>– This information should also be included on your site maps (See <i>SWPPP Guide</i>, Chapter 3.C.).</li> <li>– For more information, see <i>SWPPP Guide</i>, Chapter 3.A and EPA's CGP Part 3, Subpart 3.3.C.</li> </ul>
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**Soil type(s):**

According to a review of the USDA Natural Resource Conservation Service soils map for Hillsborough County, New Hampshire, on-site soils consist of Ridgebury, Canton, Udorthents, and Chatfield. These soils are classified as hydrologic groups A, B, and C soils, respectively. The site consists primarily of hydrologic soil group A; therefore, the site has well-drained soils.

**Slopes (describe current slopes and note any changes due to grading or fill activities):**

The site is a relatively flat site (less than 2 percent slopes) and does not contain any major slopes.

**Drainage Patterns (describe current drainage patterns and note any changes due to grading or fill activities):**

- Preconstruction stormwater runoff flows northwest over the undeveloped site to Stormville’s municipal separate storm sewer system (MS4) on Johnson Street. (See Appendix B – Pre-Construction Site Map)

- Following overlot grading, stormwater runoff will flow to the northwest corner of the site to a temporary sediment trap. Excess stormwater runoff will be diverted to the town's MS4 on Johnson Street through a raised outlet structure in the temporary sediment trap. Runoff from the adjacent property to the north will be captured by the vegetated swale and diverted to the town's MS4. (See Appendix B – Site Map)

Vegetation:

The site supports unvegetated soil areas and blocks of shrubs, grass and other undergrowth.

## 1.5 Construction Site Estimates

Instructions:

- Estimate the area to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas.
- Calculate the percentage of impervious surface area before and after construction
- Calculate the runoff coefficients before and after construction.
- For more information, see *SWPPP Guide*, Chapter 3.A and EPA's CGP Part 3, Subpart 3.3.B.

The following are estimates of the construction site:

Total project area:	4.36 acres
Construction site area to be disturbed:	4.36 acres
Percentage impervious area before construction:	5 %
Runoff coefficient before construction:	.0715
Percentage impervious area after construction:	21 %
Runoff coefficient after construction:	.3145

Because this site disturbs less than 5 acres, ACC also calculated the rainfall erosivity factor for the site and period of construction activity. An R factor of 103 was calculated using EPA's *Rainfall Erosivity Factor Calculator*; therefore, this project is not eligible for the rainfall erosivity waiver because the R factor was greater than 5.

## 1.6 Receiving Waters

### Instructions:

- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes, coastal waters, and wetlands. Describe each as clearly as possible, such as *Mill Creek, a tributary to the Potomac River*, and so on.
- Indicate the location of all waters, including wetlands, on the site map. For more information, see EPA's CGP Part 3, Subparts 3.3.B.4 and 3.3.C.6.
- Note any stream crossings, if applicable.
- List the storm sewer system or drainage system that stormwater from your site could discharge to and the waterbody(s) that it ultimately discharges to.
- If any of the waterbodies above are impaired and/or subject to Total Maximum Daily Loads (TMDLs), please list the pollutants causing the impairment and any specific requirements in the TMDL(s) that are applicable to construction sites. Your SWPPP should specifically include measures to prevent the discharge of these pollutants. For more information, see EPA's CGP Part 1, Subpart 1.3.C.5 and Part 3, Subpart 3.14.
- For more information, see *SWPPP Guide*, Chapter 3.A and 3.B.
- Also, for more information and a list of TMDL contacts and links by state, visit [www.epa.gov/npdes/stormwater/tmdl](http://www.epa.gov/npdes/stormwater/tmdl).

### Description of receiving waters and storm sewer system:

Stormwater runoff, except run-on entering the vegetated swale, will be discharged to a temporary sediment trap during construction without direct discharge to any surface waters. As an emergency overflow, the sediment trap will have a raised outlet structure connected to the town of Stormville's MS4 on Johnson Street. Run-on captured by the vegetated swale will be discharged to the MS4 on Johnson Street through a raised outlet structure.

After construction, stormwater runoff will discharge to the stormwater bioretention area, with an outlet structure connected to the MS4 on Johnson Street. The vegetated swale will remain as a permanent stormwater conveyance following construction.

The town of Stormville's MS4 discharges to Fern Creek, a tributary to the Pine River. The MS4 discharge point is 0.5 mile south of the city. Fern Creek has a reach of 4 miles and flows southeast before entering the Pine River. Fern Creek is designated for the following uses under New Hampshire's Water Quality Standards: Secondary Contact Recreation, Agricultural Water Supply, and Wildlife Habitat.

### Description of impaired waters or waters subject to TMDLs:

Mattock Compliance conducted a review of Fern Creek and the Pine River to determine if the above receiving waters were impaired or subject to TMDLs. Mattock Compliance first reviewed the 2006 303(d) list for the state of New Hampshire available at <http://www.des.state.nh.us/WMB/swqa/303dList.html> (accessed 01/20/06). Mattock Compliance did not identify Fern Creek or the Pine River as impaired waters or subject to TMDLs.

To verify that Fern Creek and the Pine River are not impaired waters or subject to TMDLs, Mattock Compliance contacted Margaret Foss with the New Hampshire Department of Environmental Services. Mattock Compliance described the project location, MS4, and receiving waters during the conversation on 01/20/06 (see Appendix L – Telephone Log #1). Ms. Foss verified during the telephone call that Fern Creek and the Pine River are not impaired waters or subject to TMDLs.

## **1.7 Site Features and Sensitive Areas to be Protected**

**Instructions:**

- Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved.
- Describe measures to protect these features.
- Include these features and areas on your site maps.
- For more information, see *SWPPP Guide*, Chapter 3.A and 3.B.

Description of unique features that are to be preserved:

This site does not contain any unique features or sensitive areas to be preserved.

Describe measures to protect these features:

N/A

## **1.8 Potential Sources of Pollution**

**Instructions:**

- Identify and list all potential sources of sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- Identify and list all potential sources of pollution, other than sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- For more information, see *SWPPP Guide*, Chapter 3.A and EPA's CGP Part 3, Subpart 3.1.B.

Potential sources of sediment to stormwater runoff:

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling

- Landscaping operations

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Area—small fueling activities, minor equipment maintenance, sanitary facilities, and hazardous waste storage.
- Materials Storage Area—general building materials, solvents, adhesives, paving materials, paints, aggregates, trash, and so on.
- Construction Activity—paving, curb/gutter installation, concrete pouring/mortar/stucco, and building construction
- Concrete Washout Area

For all potential construction site pollutants, see Table 2 below.

Table 2. Potential construction site pollutants

Material/Chemical	Physical Description	Stormwater Pollutants	Location*
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Plaster	White granules or powder	Calcium sulphate, calcium carbonate, sulfuric acid	Building construction
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Glue, adhesives	White or yellow liquid	Polymers, epoxies	Building construction
Paints	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	Building construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	Timber pads and building construction
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment/staging area



Material/Chemical	Physical Description	Stormwater Pollutants	Location*
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment/staging area
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area

\*(Area where material/chemical is used on-site)

## 1.9 Endangered Species Certification

### Instructions:

- Before beginning construction, determine whether endangered or threatened species or their critical habitats are on or near your site.
- Adapt this section as needed for state or tribal endangered species requirements and, if applicable, document any measures deemed necessary to protect endangered or threatened species or their critical habitats.
- For more information on this topic, see *SWPPP Guide*, Chapter 3.B and EPA's CGP Part 1, Subpart 1.3.C.6 and Appendix C.
- Additional information on Endangered Species Act (ESA) provisions for EPA's Construction General Permit is at [www.epa.gov/npdes/stormwater/esa](http://www.epa.gov/npdes/stormwater/esa)

Are endangered or threatened species and critical habitats on or near the project area?

Yes       No

Describe how this determination was made:

Mattock Compliance conducted a review of any potential endangered or threatened species or their critical habitats on or near the Stormville Postal and Distribution Center in Hillsborough County, New Hampshire. Mattock Compliance first reviewed the Endangered Species Act (ESA) review procedures and endangered species list for New Hampshire at <http://cfpub.epa.gov/npdes/stormwater/esa.cfm> (accessed on 01/20/06). Mattock Compliance did not identify any endangered or threatened species or critical habitats on or near the project area.

Mattock Compliance also reviewed the endangered or threatened species and critical habitat listings available from the New Hampshire Fish and Game Department at [http://www.wildlife.state.nh.us/Wildlife/Nongame/endangered\\_list.htm](http://www.wildlife.state.nh.us/Wildlife/Nongame/endangered_list.htm) (accessed on 01/20/06) and [http://www.wildlife.state.nh.us/Wildlife/Wildlife\\_Plan/critical\\_habitats\\_species.htm](http://www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/critical_habitats_species.htm) (accessed on 01/20/06). To verify that there were no endangered or threatened species or critical habitats on or near the project area; Mattock Compliance contacted John Canter of the New Hampshire Fish and Game Department, Wildlife Division on 01/21/06 (see Appendix L – Telephone Log #2). Mattock Compliance described the location of the construction project, and Mr. Canter verified in the telephone call that there were no endangered or threatened

species or critical habitats on or near the project area.

Because no endangered or threatened species or their critical habitats were found during the screening process, Criterion A will be reported on the NOI form.

If yes, describe the species and/or critical habitat:

N/A

If yes, describe or refer to documentation that determines the likelihood of an impact on identified species and/or habitat and the steps taken to address that impact. (Note, if species are on or near your project site, EPA strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife Service or National Marine Fisheries Service. For concerns related to state or tribal listing of species, please contact a state or tribal official.)

N/A

## 1.10 Historic Preservation

### Instructions:

- Before you begin construction, you should review federal and any applicable state, local, or tribal historic preservation laws and determine if there are historic sites on or near your project. If so, you might need to make adjustments to your construction plans or to your stormwater controls to ensure that these historic sites are not damaged.
- For more information, see *SWPPP Guide*, Chapter 3.B or contact your state or tribal historic preservation officer.

Are there any historic sites on or near the construction site?

Yes       No

Describe how this determination was made:

Mattock Compliance reviewed the New Hampshire State Register of Historic Places available from the New Hampshire Division of Historical Resources at <http://www.nh.gov/nhdhr/barnstaterereg.html> (accessed on 01/24/06) and the National Register Information System available from the National Park Service at <http://www.nr.nps.gov/> (accessed on 1/24/06) to determine if any historic sites are on or near the Stormville Postal and Distribution Center in Hillsborough County, New Hampshire. No historic sites were identified from the review.

To verify that there were no historic sites on or near the project area, Mattock Compliance contacted James Mcconaha, State Historic Preservation Officer, of the New Hampshire Division of Historical Resources on 01/25/06 (See Appendix L – Telephone Log #3). Mattock Compliance described the location of the project, and Mr. Mcconaha verified in the telephone call that there were no historic sites on or near the project area.

If yes, describe or refer to documentation that determines the likelihood of an impact on this historic site and the steps taken to address that impact.

N/A

### **1.11 Applicable Federal, Tribal, State or Local Programs**

**Instructions:**

- Note other applicable federal, tribal, state or local soil and erosion control and stormwater management requirements that apply to the construction site. See EPA's CGP Part 3.9.

- An Alteration of Terrain Application has been submitted to New Hampshire DES (see Appendix D). To complete this application, ACC reviewed the EPA fact sheet *Storm Water Permit Basics: New Hampshire Digging Needs a Federal Permit*, which is also included in Appendix D.
- The SWPPP complies with Stormville's erosion and sediment control requirements, including the requirement that sediment traps be designed for a minimum of 1,800 cubic feet of storage per acre of drainage area [REG 24.56].
- The SWPPP also complies with erosion and sediment control requirement that vegetated swales must have a minimum length of 100 feet, be vegetated with water-tolerant, erosion-resistant grasses, and be at least 2 feet above the seasonal high water table and bedrock [REG 25.40 (b)(1-6)].

## 1.12 Maps

### Instructions:

- Attach site maps. For most projects, a series of site maps is recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or for more complicated sites show the major phases of development.

### These maps should include the following:

- Direction(s) of stormwater flow and approximate slopes before and after major grading activities;
- Areas and timing of soil disturbance;
- Areas that will not be disturbed;
- Natural features to be preserved;
- Locations of major structural and non-structural BMPs identified in the SWPPP;
- Locations and timing of stabilization measures;
- Locations of off-site material, waste, borrow, or equipment storage areas;
- Locations of all waters, including wetlands;
- Locations where stormwater discharges to a surface water;
- Locations of storm drain inlets; and
- Areas where final stabilization has been accomplished.
- For more information, see SWPPP Guide, Chapter 3.C and EPA's CGP Part 3, Subparts 3.1.B.1 and 3.3.C.

See Appendix B – Site Maps

## SECTION 2: EROSION AND SEDIMENT CONTROL BMPs

### Instructions:

- Describe the BMPs that will be implemented to control pollutants in stormwater discharges. For each major activity identified, do the following
  - ✓ Clearly describe appropriate control measures.
  - ✓ Describe the general sequence during the construction process in which the measures will be implemented.
  - ✓ Describe the maintenance and inspection procedures that will be used for that specific BMP.
  - ✓ Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
  - ✓ Identify staff responsible for maintaining BMPs.
  - ✓ (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
- Categorize each BMP under one of the following 10 areas of BMP activity as described below:
  - 2.1 *Minimize disturbed area and protect natural features and soil*
  - 2.2 *Phase Construction Activity*
  - 2.3 *Control Stormwater flowing onto and through the project*
  - 2.4 *Stabilize Soils*
  - 2.5 *Protect Slopes*
  - 2.6 *Protect Storm Drain Inlets*
  - 2.7 *Establish Perimeter Controls and Sediment Barriers*
  - 2.8 *Retain Sediment On-Site and Control Dewatering Practices*
  - 2.9 *Establish Stabilized Construction Exits*
  - 2.10 *Any Additional BMPs*
- Note the location of each BMP on your site map(s).
- For any structural BMPs, you should provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information, see *SWPPP Guide*, Chapter 4 and EPA's CGP Part 3, Subparts 3.3.B.2 and 3.4.A-D, and Part 4, Subpart 4.5.
- Consult your state's design manual or one of those listed in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs  
<http://www.epa.gov/npdes/stormwater/menuofbmps>

## 2.1 Minimize Disturbed Area and Protect Natural Features and Soil

### Topsoil

**BMP Description:** Topsoil stripped from the immediate construction area will be stockpiled as identified on the site map (See Appendix B). The stockpile will be in an area that will not interfere with construction phases and at least 15 feet away from areas of concentrated flows or pavement. The slopes of the stockpile will not exceed 2:1 to prevent erosion. A silt fence will be installed around the perimeter of the stockpile, in accordance with the design specifications in Section 2, Part 2.7. The stockpile will be temporarily stabilized with erosion controls as described in Section 2, Part 2.4.

<b>Installation Schedule:</b>	Topsoil stockpiles will be established during grading activities. Temporary stabilization will be applied immediately after the slopes of the stockpile have been graded and construction equipment transverses the slopes.
<b>Maintenance and Inspection:</b>	The area will be inspected weekly for erosion and immediately after storm events. Areas on or around the stockpile that have eroded will be stabilized immediately with erosion controls. Maintenance and inspection procedures for the silt fence are described in Section 2, Part 2.7.
<b>Responsible Staff:</b>	ACC

## 2.1 Minimize Disturbed Area and Protect Natural Features and Soil

**Instructions:**

- Describe the areas that will be disturbed with each phase of construction and the methods (e.g., signs, fences) that you will use to protect those areas that should not be disturbed. Describe natural features identified earlier and how each will be protected during construction activity. Also describe how topsoil will be preserved. Include these areas and associated BMPs on your site map(s) also. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 1.)
- Also, see EPA's *Preserving Natural Vegetation BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/perserve\\_veg](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/perserve_veg)

**Topsoil**

*AMENDMENT # 5 7/19/06 MD*

~~**BMP Description:** Topsoil stripped from the immediate construction area will be stockpiled as identified on the site map (See Appendix B). The stockpile will be in an area that will not interfere with construction phases and at least 15 feet away from areas of concentrated flows or pavement. The slopes of the stockpile will not exceed 2:1 to prevent erosion. A silt fence will be installed around the perimeter of the stockpile, in accordance with the silt fence design specifications in Section 2, Part 2.7. The stockpile will be covered with a commercially available tarp and secured with sand bags.~~

<del><b>Installation Schedule:</b></del>	<del>Topsoil stockpiles will be established during grading activities. The silt fence, tarp and sand bags will be installed immediately after the stockpile has been established.</del>
<del><b>Maintenance and Inspection:</b></del>	<del>The area will be inspected weekly and immediately after storm events to ensure the stockpile is covered and sandbags are in place. The tarp will be inspected for holes or tears and replaced if any holes or tears are found. Maintenance and inspection procedures for the silt fence are described in Section 2, Part 2.7.</del>
<del><b>Responsible Staff:</b></del>	<del>ACC</del>

## 2.2 Phase Construction Activity

**Instructions:**

- Describe the intended construction sequencing and timing of major activities, including any opportunities for phasing grading and stabilization activities to minimize the overall amount of disturbed soil that will be subject to potential erosion at one time. Also, describe opportunities for timing grading and stabilization so that all or a majority of the soil disturbance occurs during a time of year with less erosion potential (i.e., during the dry or less windy season). (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 2.) It might be useful to develop a separate, detailed site map for each phase of construction.
- Also, see EPA's *Construction Sequencing BMP Fact Sheet* at [http://www.epa.gov/npdes/stormwater/menuofbmps/construction/cons\\_seq](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_seq)

**BMP Description:** The proposed site is too small for phased grading to be practical. To minimize erosion during grading activities, grading and site work will be conducted in late April and May after snowmelt and during periods of predicted dry weather. The areas of the site that will remain vegetated after construction will be graded first and stabilized with hydromulch or seeding immediately after grading activities are completed. All other areas of the construction site will be stabilized if site work is not planned for more than 14 days. To minimize potential erosion from the site, only areas necessary to construct the vegetated swale, sediment trap, and construction exits will be disturbed initially. These areas will be cleared, grubbed, and graded and the above measures will be installed. These areas will be stabilized immediately after construction but no later than 14 days after construction ceases. Overall grubbing, clearing, grading will be conducted over a 2-week period in May to limit erosion from the site. Areas graded during this time period will be stabilized with hydromulch immediately after construction but no later than 14 days after construction ceases.

<b>Installation Schedule:</b>	For a timeline of construction activity, see Section 1.3.
<b>Responsible Staff:</b>	ACC

### **2.3 Control Stormwater Flowing onto and through the Project**

<p>Instructions:</p> <ul style="list-style-type: none"> <li>– Describe structural practices (e.g., diversions, berms, ditches, storage basins) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. (For more information, see <i>SWPPP Guide</i>, Chapter 4, ESC Principle 3.)</li> </ul>
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#### **Vegetated Swale**

**BMP Description:** A vegetated swale will be installed along the northern perimeter of the site to capture stormwater run-on from the adjacent property. The swale will convey stormwater to a raised storm drain inlet in the northwest corner of the site. The inlet will be raised 1 foot above the bottom of the swale to allow for infiltration of the run-on. The vegetated swale will have a trapezoidal shape with a slope ratio of 2:1. The bottom of the swale will be at least 2 feet above the seasonal high water table and bedrock. The slopes of the swale will be stabilized with a dense cover of water-tolerant, erosion-resistant grasses, mulch and erosion control blankets immediately after final grade is reached. The vegetated swale will remain as a permanent stormwater structure after construction is complete. For design specifications, see Figure 1.

<b>Installation Schedule:</b>	The vegetated swale will be installed before site grading operations begin at the construction site.
<b>Maintenance and Inspection:</b>	The swale will be inspected for erosion and structural failures weekly and immediately after storm events. Before vegetation has been established in the swale, it will be inspected for erosion and accumulation of debris and sediment. Remove debris, sediment, and repair erosion and embankments immediately.
<b>Responsible Staff:</b>	ACC



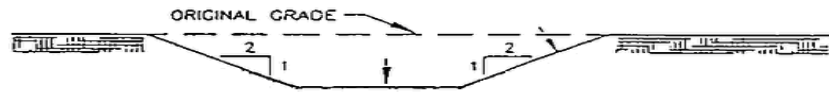


Figure 1. Vegetated swale

### Design Specifications

1. The swale will have side slopes no steeper than 2:1 and a minimum length of 100 feet, per Stormville’s erosion and sediment control requirements [REG 25.40 (b)(1-2)].
2. The slopes of the swale will be stabilized with a dense cover of water-tolerant, erosion-resistant grasses, per Stormville’s erosion and sediment control requirements [REG 25.40 (b)(5)].
3. The bottom of the swale will be at least 2 feet above the seasonal high water table and bedrock, per Stormville’s erosion and sediment control requirements [REG 25.40 (b)(6)].
4. The swale will have a positive drainage to convey runoff to the storm drain inlet.

## 2.4 Stabilize Soils

### Instructions:

- Describe controls (e.g., interim seeding with native vegetation, hydroseeding) to stabilize exposed soils where construction activities have temporarily or permanently ceased. Also describe measures to control dust generation. Avoid using impervious surfaces for stabilization whenever possible. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 4, EPA’s CGP Part 3, Subpart 3.13.D.)
- Also, see EPA’s *Seeding BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/seeding](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/seeding)

### Temporary Stabilization

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**BMP Description:** Hydromulching will provide immediate protection to exposed soils where construction will cease for more than 14 days and over the winter months. Straw mulch and wood fiber will be mixed with a tackifier (amount specified per manufacturer’s instructions) and applied uniformly by machine with an application rate of 90–100 pounds (2–3 bales) per 1,000 square feet or 2 tons (100–200 bales) per acre. If the tackifier does not appear effective in anchoring the mulch to the disturbed soil, crimping equipment will be used to provide additional binding to the soil. The mulch will cover 75 to 90 percent of the ground surface. In areas, where hydromulching is inaccessible, straw mulch will be applied by hand with an application rate of 90–100 pounds (2–3 bales) per 1,000 square feet.

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Winter stabilization will occur between November 15 and March 15. All disturbed areas are scheduled to be stabilized well before winter; however, if any vegetated areas show signs of erosion, mulch will be applied at the same rate as described above.

<input type="checkbox"/> <i>Permanent</i> <span style="margin-left: 150px;"><input checked="" type="checkbox"/> <i>Temporary</i></span>	
<b><i>Installation Schedule:</i></b>	Portions of the site where construction activities will temporarily cease for more than 14 days will be stabilized with mulch. Winter stabilization will occur between November 15 <sup>th</sup> and March 15.
<b><i>Maintenance and Inspection:</i></b>	Mulched areas will be inspected weekly and after storm events to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, the surface will be repaired, and new mulch will be applied to the damaged area.
<b><i>Responsible Staff:</i></b>	ACC

**Permanent Stabilization**

***BMP Description:*** Permanent stabilization will be done immediately after the final design grades are achieved but no later than 14 days after construction ceases. Native species of plants will be used to establish vegetative cover on exposed soils. Permanent stabilization will be completed in accordance with the final stabilization procedures in Section 7.

<input checked="" type="checkbox"/> <i>Permanent</i> <span style="margin-left: 150px;"><input type="checkbox"/> <i>Temporary</i></span>	
<b><i>Installation Schedule:</i></b>	Portions of the site where construction activities have permanently ceased will be stabilized, as soon as possible but no later than 14 days after construction ceases.
<b><i>Maintenance and Inspection:</i></b>	All seeded areas will be inspected weekly during construction activities for failure and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is reached.
<b><i>Responsible Staff:</i></b>	ACC

**Dust Control**

***BMP Description:*** Dust from the site will be controlled by using a mobile pressure-type distributor truck to apply potable water to disturbed areas. The mobile unit will apply water at a rate of 300 gallons per acre and minimized as necessary to prevent runoff and ponding.

<b><i>Installation Schedule:</i></b>	Dust control will be implemented as needed once site grading has been initiated and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water will be performed no more than three times a day during the months of May–September and
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	once per day during the months of October–April or whenever the dryness of the soil warrants it.
<b>Maintenance and Inspection:</b>	At least one mobile unit will be available at all times to distribute potable water to control dust on the project area. Each mobile unit will be equipped with a positive shutoff valve to prevent over watering of the disturbed area. For vehicle and equipment maintenance practices, see Section 3, Part 3.4.
<b>Responsible Staff:</b>	ACC

## 2.5 Protect Slopes

<p>Instructions:</p> <ul style="list-style-type: none"> <li>– Describe controls (e.g., erosion control blankets, tackifiers) including design specifications and details that will be implemented to protect all slopes. (For more information, see <i>SWPPP Guide</i>, Chapter 4, ESC Principle 5.)</li> <li>– Also, see EPA’s <i>Geotextiles BMP Fact Sheet</i> at <a href="http://www.epa.gov/npdes/stormwater/menuofbmps/construction/geotextiles">www.epa.gov/npdes/stormwater/menuofbmps/construction/geotextiles</a></li> </ul>
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### Geotextile Erosion Control Blanket

**BMP Description:** Geotextile erosion control blankets will be used to provide stabilization for the slopes in the vegetated swale and sediment trap. The blanket will cover the entire area of the graded slope and bottom channel. The bottom and side slopes will be seeded and mulched before the blanket is applied. The blanket will be installed by digging a small trench on the upside of the slope, 12 inches wide by 6 inches deep, and stapling the leading edge of the blanket in the trench. The blanket will be rolled down the slope slowly to maintain soil contact and stapled in 12-inch intervals. If the blanket cannot cover the entire slope, the blankets will be overlapped (minimum of 2 inches) and stapled at the overlapped edge. The erosion control blanket will always be installed according to the manufacturer’s instructions and specifications. For design specifications, see Figure 2.

<b>Installation Schedule:</b>	The erosion control blankets will be installed once the vegetated swale and sediment trap have reached final grade.
<b>Maintenance and Inspection:</b>	The erosion control blanket will be inspected weekly and immediately after storm events to determine if cracks, tears, or breaches have formed in the fabric; if so, the blanket will be repaired or replaced immediately. Good contact with the soil must be maintained and erosion should not occur under the blanket. Any areas where the blanket is not in close contact with the ground will be repaired or replaced.
<b>Responsible Staff:</b>	ACC

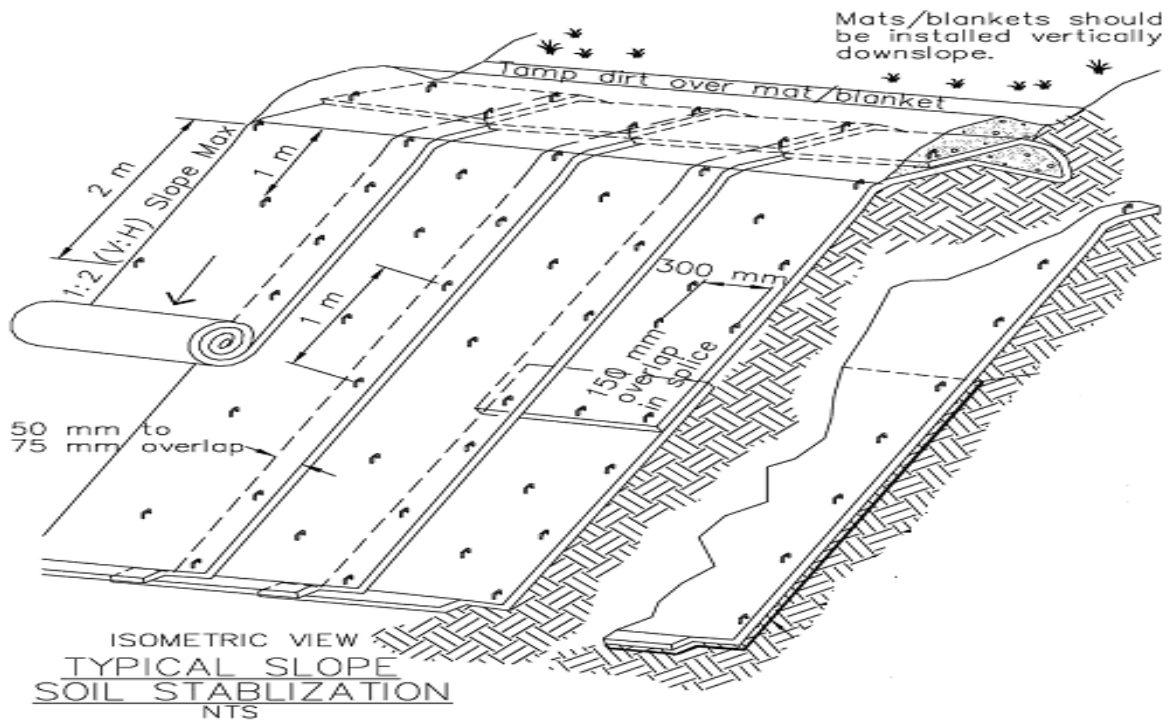


Figure 2. Erosion control blanket

### Design Specifications

1. Slope surface will be free of rocks, clods, sticks and grass. The blankets will have good soil contact.
2. Lay blankets loosely and staple to maintain direct contact with the soil. Do not stretch.
3. Install per manufacturer's recommendations.

## 2.6 Protect Storm Drain Inlets

**Instructions:**

- Describe controls (e.g., inserts, rock-filled bags, or block and gravel) including design specifications and details that will be implemented to protect all inlets receiving stormwater from the project during the entire project. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 6.)
- Also, see EPA's *Storm Drain Inlet Protection BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/storm\\_drain](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/storm_drain)

**Existing Storm Drain Inlets**

**BMP Description:** Existing storm drain inlets on Johnson Street and Sixth Avenue will be protected from sediment by commercially available catch basin inserts. Commercial devices, such as the catch basin inserts that are installed inside the inlet, will be used because of the large traffic volumes on these roads. These commercial devices were selected over gravel bag or block and gravel filters because of safety concerns. The catch basins will be removed once the construction site has been permanently stabilized.

<b>Installation Schedule:</b>	Inlet catch basins will be installed along Johnson Street and Sixth Avenue before construction activities begin on-site.
<b>Maintenance and Inspection:</b>	The catch basin inserts will be inspected weekly and immediately after storm events. If the basin insert becomes clogged with sediment, the insert will be removed and cleaned or replaced per the manufacturer’s recommendations.
<b>Responsible Staff:</b>	ACC

**2.7 Establish Perimeter Controls and Sediment Barriers**

Instructions:

- Describe structural practices (e.g., silt fences or fiber rolls) including design specifications and details to filter and trap sediment before it leaves the construction site. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 7.)
- Also see, EPA’s *Silt Fence BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/silt\\_fences](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/silt_fences) or *Fiber Rolls BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/fiber\\_rolls](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/fiber_rolls)

**Silt Fence**

**BMP Description:** Silt fences will be installed along the north and west perimeters of the site and around the topsoil stockpile. Silt fences will be installed by excavating a 12-inch-deep trench along the line of proposed installation. Wooden posts supporting the silt fence will be spaced 4 to 6 feet apart and driven securely into the ground; a minimum of 18 to 20 inches deep. The silt fence will be fastened securely to the wooden posts with wire ties spaced every 24 inches at the top, mid section, and bottom of the wooden post. The bottom edge of the silt fence will extend across the bottom of the trench and the trench will be backfilled and compacted to prevent stormwater and sediment from discharging underneath the silt fence. For design specifications, see Figure 3.

<b>Installation Schedule:</b>	The silt fences will be installed before construction begins at the site and around topsoil stockpiles once they have been established.
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<p><b><i>Maintenance and Inspection:</i></b></p>	<p>Silt fences will be inspected weekly and immediately after storm events to ensure it is intact and that there are no gaps where the fence meets the ground or tears along the length of the fence. If gaps or tears are found during the inspection, the fabric will be repaired or replaced immediately. Accumulated sediment will be removed from the fence base if it reaches one-third the height of the silt fence and hauled off-site for disposal at Middletown Landfill. If accumulated sediment is creating noticeable strain on the fabric and the fence might fail from a sudden storm event, the sediment will be removed more frequently. Before the fence is removed from the project area, the sediment will be removed. The anticipated life span of the silt fence is 6 months and will likely need to be replaced after this period.</p>
<p><b><i>Responsible Staff:</i></b></p>	<p>ACC</p>

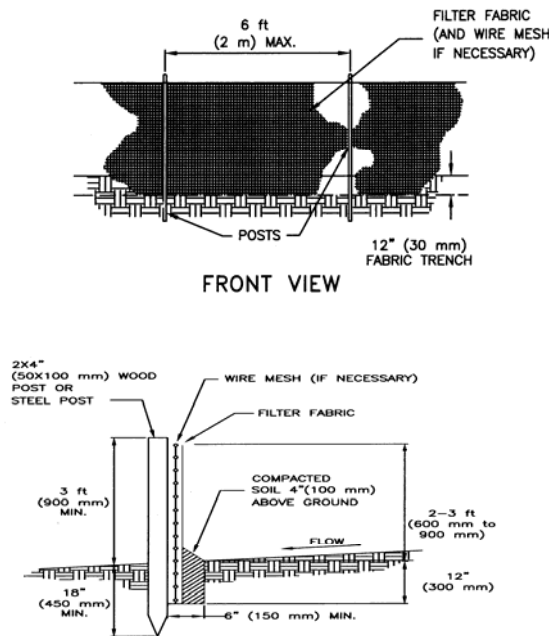


Figure 3. Silt fence

### Design Specifications

1. The silt fence will be constructed long enough to extend across the expected flow path.
2. The support posts will be a minimum of 4.5 feet and driven a minimum of 18 to 20 inches in the ground. Posts will be spaced a maximum of 6 feet apart. Fabric will be securely fastened to posts with half-inch staples or 16-gauge wire ties spaced a maximum of 6 inches.
3. A 12-inch trench will be excavated along the uphill side of the silt fence posts. The bottom edge of the fabric will extend across the bottom of the trench. The trench will be backfilled to 4 inches above ground and compacted to bury and secure the bottom of the filter fabric.

## 2.8 Retain Sediment On-Site

**Instructions:**

- Describe sediment control practices (e.g., sediment trap or sediment basin), including design specifications and details (volume, dimensions, outlet structure) that will be implemented at the construction site to retain sediments on-site. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 8 or EPA’s CGP Part 3.13.E.)
- Also, see EPA’s *Sediment Basin BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/sediment\\_basins](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/sediment_basins)

### Sediment Trap

**BMP Description:** A temporary pipe outlet sediment trap will be constructed on the northwest portion of the construction site to remove sediment from stormwater runoff for the site. The trap will be constructed to have a total volume of 7,500 cubic feet. The design volume is based on Stormville’s erosion and sediment control requirements (REG 24.56), which requires a minimum of 1,800 cubic feet of storage per acre of drainage area for a sediment trap.

The trap will discharge through a riser outlet with a trash rack. The pipe outlet will be connected to the town’s storm sewer system and is designed to discharge only for storms one-half inch or greater. The slopes of the trap will be stabilized with erosion control blankets. Influent to the trap will be supplied from natural drainage of the site. For design specifications, see Figure 4. The sediment trap will be converted to a permanent stormwater bioretention area following construction activities, see Section 4.

<b>Installation Schedule:</b>	The sediment trap will be installed before overlot grading operations commence at the construction site.
<b>Maintenance and Inspection:</b>	The trap will be inspected weekly and after storm events. The trap will be checked for signs of erosion, seepage, and structural damage. The outlet and trash rack will be checked for any damage or obstructions and any damage present will be repaired and obstructions removed. Sediment will be removed and the trap restored to its original dimensions when the sediment has accumulated to one-half the design depth of the trap. The removed sediments will be hauled off-site for disposal at Middletown Landfill.
<b>Responsible Staff:</b>	ACC

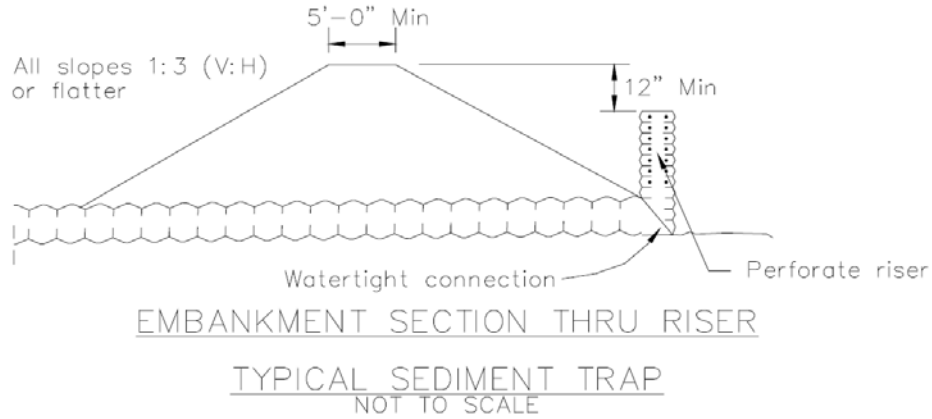


Figure 4. Pipe outlet sediment trap

### Design Specifications

1. The area will be cleared, grubbed, and stripped of any vegetation and root mat.
2. The fill material of the embankment will be free any vegetation, root mat, rocks, or oversized stones. The embankment will be compacted by traversing with equipment.
3. Slopes will be stabilized in accordance with Part 2.4 of this section.

## 2.9 Establish Stabilized Construction Exits

### Instructions:

- Describe location(s) of vehicle entrance(s) and exit(s), procedures to remove accumulated sediment off-site (e.g., vehicle tracking), and stabilization practices (e.g., stone pads or wash racks or both) to minimize off-site vehicle tracking of sediments and discharges to stormwater. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 9 and EPA’s CGP Part 3, Subparts 3.4.G and 3.13.B.)
- Also, see EPA’s *Construction Entrances BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/cons\\_entrance](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_entrance)

### Stabilized Construction Exits

**BMP Description:** Anti-tracking pads consisting of stone and corrugated steel panels (*rumble pad*) will be installed at the exits to Sixth Avenue, as identified on the site map, to prevent the off-site transport of sediment by construction vehicles. The anti-tracking pads will be at least 50 feet long, a minimum of 10 feet wide, flared at the end closest to the paved road, and will consist of a 6-inch-thick layer of crushed stone (2 inches in diameter). The crushed stone will be placed over a layer of geotextile filter fabric to reduce the mitigation of sediment from the underlying soil. The *rumble pad* will be placed on top of the stone. Orange-colored plastic mesh fence will be installed along the length of the construction exit to keep construction vehicles and equipment on the anti-tracking pads. For design specifications, see Figure 5.

### Installation Schedule:

The stabilized exits will be installed before construction begins on the site. The stone will remain in place until the subgrade of pavement is installed at the site. The anti-tracking pads will be



	placed on the pavement and will remain until all areas of the site have been stabilized.
<b>Maintenance and Inspection:</b>	The exits will be inspected weekly and after storm events or heavy use. The exits will be maintained in a condition that will prevent tracking or flowing of sediment onto Sixth Avenue. This could require adding additional crushed stone to the exit. All sediment tracked, spilled, dropped, or washed onto Sixth Avenue will be swept up immediately and hauled off-site for disposal at Middletown Landfill. Sediment will be swept from the anti-tracking pad at least weekly, or more often if necessary. If excess sediment has clogged the pad, the exit will be topdressed with new crushed stone. Replacement of the entire pad might be necessary when the pad becomes completely filled with sediment. The pad will be reshaped as needed for drainage and runoff control. Broken road pavement as a result of construction activities on roadways immediately adjacent to the project site will be repaired immediately. The stone anti-tracking pad will be removed before the subgrade of pavement is applied to the parking lot. The removed stone and sediment from the pad will be hauled off-site and disposed of at Middletown Landfill.
<b>Responsible Staff:</b>	ACC

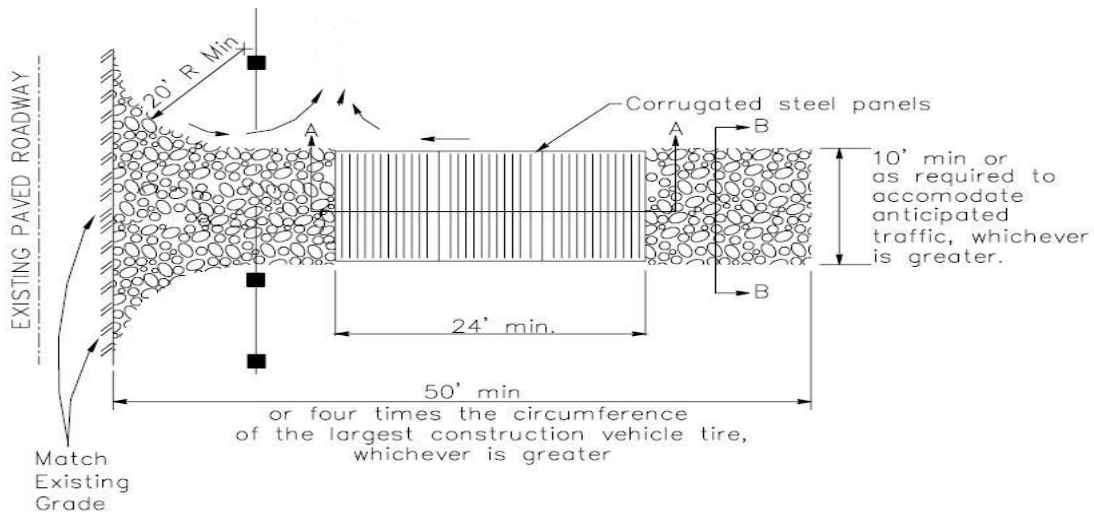


Figure 5. Stabilized construction exit

### Design Specifications

1. Stone applied to the pad will be 2-inch stone.
2. The length of the pad will not be less than 50 feet.
3. The thickness of the pad will not be less than 6 inches.
4. The width of pad will be a minimum of 10 feet.
5. Filter fabric will be placed over the entire area before placing the stone.

## 2.10 Additional BMPs

**Instructions:**

- Describe additional BMPs that do not fit into the above categories.

### Street Sweeping

**BMP Description:** Super Sweeping will perform street sweeping and vacuuming on Johnson Street and Sixth Avenue. Super Sweeping will use a regenerative air sweeper to remove sediments and other contaminants directly from the paved surfaces.

<b>Installation Schedule:</b>	Street sweeping will occur weekly and before forecasted storm events on Johnson Street and Sixth Avenue.
<b>Maintenance and Inspection:</b>	All materials collected during street sweeping will be disposed of at an off-site location by the subcontractor.
<b>Responsible Staff:</b>	ACC

### Cooperative Agreement and Operator Communication

**BMP Description:** All construction operators working on the Stormville Postal and Distribution Center project are required to sign the Construction Operator’s Cooperative Agreement (see Section 1, Part 1.2) and agree to abide by the conditions of the agreement throughout the duration of the construction project. ACC will attend biweekly meetings with the USPS to discuss any issues related to implementation of this SWPPP and compliance with the Construction General Permit. ACC will maintain the SWPPP documentation and will conduct and document self-inspections in all areas of the site. ACC will provide copies of inspection reports to USPS immediately following each inspection.

<b>Responsible Staff:</b>	ACC
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## SECTION 3: GOOD HOUSEKEEPING BMPS

**Instructions:**

- Describe the key good housekeeping and pollution prevention (P2) measures that will be implemented to control pollutants in stormwater.
- Categorize each good housekeeping and pollution prevention (P2) BMP under one of the following seven categories:
  - 3.1 *Material Handling and Waste Management*
  - 3.2 *Establish Proper Building Material Staging Areas*
  - 3.3 *Designate Washout Areas*
  - 3.4 *Establish Proper Equipment/Vehicle Fueling and Maintenance Practices*
  - 3.5 *Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing*
  - 3.6 *Spill Prevention and Control Plan*
  - 3.7 *Any Additional BMPS*
- For more information, see *SWPPP Guide*, Chapter 5 and EPA's CGP Part 3, Subparts 3.4.(F), (G), (H), and (I).
- Consult your state's design manual or resources in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPS, see EPA's National Menu of BMPS  
<http://www.epa.gov/npdes/stormwater/menuofbmeps>

### 3.1 *Material Handling and Waste Management*

**Instructions:**

- Describe measures (e.g., trash disposal, sanitary wastes, recycling, and proper material handling) to prevent the discharge of solid materials to waters, except as authorized by a permit issued under section 404 of the CWA (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 1.)
- Also, see EPA's *General Construction Site Waste Management BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmeps/construction/cons\\_wasteman](http://www.epa.gov/npdes/stormwater/menuofbmeps/construction/cons_wasteman)

#### **Waste Materials**

**BMP Description:** All waste materials will be collected and disposed of into two metal trash dumpsters in the materials storage area. Dumpsters will have a secure watertight lid, be placed away from stormwater conveyances and drains, and meet all federal, state, and municipal regulations. Only trash and construction debris from the site will be deposited in the dumpster. No construction materials will be buried on-site. All personnel will be instructed, during tailgate training sessions, regarding the correct disposal of trash and construction debris. Notices that state these practices will be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.

**Installation Schedule:**

Trash dumpsters will be installed once the materials storage area has been established.

<b><i>Maintenance and Inspection:</i></b>	The dumpsters will be inspected weekly and immediately after storm events. The dumpster will be emptied weekly and taken to Middletown Landfill by Ways Waste and Sanitary Services. If trash and construction debris are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently.
<b><i>Responsible Staff:</i></b>	ACC

**Hazardous Waste Materials**

***BMP Description:*** All hazardous waste materials such as oil filters, petroleum products, paint, and equipment maintenance fluids will be stored in structurally sound and sealed shipping containers, within the hazardous materials storage area. Hazardous waste materials will be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment will be provided for all waste materials in the hazardous materials storage area and will consist of commercially available spill pallets. Additionally, all hazardous waste materials will be disposed of in accordance with federal, state, and municipal regulations. Hazardous waste materials will not be disposed of into the on-site dumpsters. All personnel will be instructed, during tailgate training sessions, regarding proper procedures for hazardous waste disposal. Notices that state these procedures will be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed.

<b><i>Installation Schedule:</i></b>	Shipping containers used to store hazardous waste materials will be installed once the site materials storage area has been installed.
<b><i>Maintenance and Inspection:</i></b>	The hazardous waste material storage areas will be inspected weekly and after storm events. The storage areas will be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer.
<b><i>Responsible Staff:</i></b>	ACC

**Sanitary Waste**

***BMP Description:*** Two temporary sanitary facilities (portable toilets) will be provided at the site throughout the construction phase. The toilets will be in the staging area. The portable toilets will be located away from a concentrated flow paths and traffic flow and will have collection pans underneath as secondary containment.

<b><i>Installation Schedule:</i></b>	The portable toilets will be brought to the site once the staging area as been established.
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<b><i>Maintenance and Inspection:</i></b>	All sanitary waste will be collected from the portable facilities a minimum of three times per week by Ways Waste and Sanitary Services. The portable toilets will be inspected weekly for evidence of leaking holding tanks. Toilets with leaking holding tanks will be removed from the site and replaced with new portable toilets.
<b><i>Responsible Staff:</i></b>	ACC

### Recycling

***BMP Description:*** Wood pallets, cardboard boxes, and other recyclable construction scraps will be disposed of in a designated dumpster for recycling. The dumpster will have a secure watertight lid, be placed away from stormwater conveyances and drains and meet all local and state solid-waste management regulations. Only solid recyclable construction scraps from the site will be deposited in the dumpster. All personnel will be instructed, during tailgate training sessions, regarding the correct procedure for disposal of recyclable construction scraps. Notices that state these procedures will be posted in the office trailer, and the individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed.

<b><i>Installation Schedule:</i></b>	Designated recycling dumpsters will be installed once the combined staging area has been established.
<b><i>Maintenance and Inspection:</i></b>	The recycling dumpster will be inspected weekly and immediately after storm events. The recycling dumpster will be emptied weekly and taken to an approved recycling center by Ways Waste and Sanitary Services. If recyclable construction wastes are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently.
<b><i>Responsible Staff:</i></b>	ACC

## 3.2 Establish Proper Building Material Staging Areas

<p>Instructions:</p> <ul style="list-style-type: none"> <li>Describe construction materials expected to be stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater. (For more information, see <i>SWPPP Guide</i>, Chapter 5, P2 Principle 2 and EPA's CGP Part 3.4.H.)</li> </ul>
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### Materials Storage Area

***BMP Description:*** Construction equipment and maintenance materials will be stored at the combined staging area and materials storage areas. Gravel bag berms will be installed around the perimeter to designate the staging and materials storage area. A watertight shipping container will be used to store hand tools, small parts, and other construction materials.

Nonhazardous building materials such as packaging material (wood, plastic, and glass), and construction scrap material (brick, wood, steel, metal scraps, and pipe cuttings) will be stored in a separate covered storage facility adjacent to the shipping container. All hazardous-waste materials such as oil filters, petroleum products, paint, and equipment maintenance fluids will be stored in structurally sound and sealed containers under cover within the hazardous materials storage area.

Very large items, such as framing materials and stockpiled lumber, will be stored in the open in the materials storage area. Such materials will be elevated on wood blocks to minimize contact with runoff.

<b>Installation Schedule:</b>	The materials storage area will be installed after grading and before any infrastructure is constructed at the site.
<b>Maintenance and Inspection:</b>	The storage area will be inspected weekly and after storm events. The storage area will be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners will be repaired or replaced as needed to maintain proper function.
<b>Responsible Staff:</b>	ACC

### 3.3 Designate Washout Areas

**Instructions:**

- Describe location(s) and controls to eliminate the potential for discharges from washout areas for concrete mixers, paint, stucco, and so on. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 3.)
- Also, see EPA's *Concrete Washout BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/concrete\\_wash](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/concrete_wash)

**Concrete Washout**

AMENDMENT # 3 7/11/06 MD

CONCRETE WASHOUT MOVED NW OF CURRENT LOCATION

**BMP Description:** A designated temporary, above-grade concrete washout area will be constructed ~~on the northeast portion of the site,~~ as detailed on the site map. The temporary concrete washout area will be constructed as shown in Figure 5, with a recommended minimum length and minimum width of 10 feet, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area will be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Signs will be posted marking the location of the washout area to ensure that concrete equipment operators use the proper facility.

Concrete pours will not be conducted during or before an anticipated storm event. Concrete mixer trucks and chutes will be washed in the designated area or concrete wastes will be properly disposed of off-site. When the temporary washout area is no longer needed for the construction project, the hardened concrete and materials used to construct the area will be removed and

disposed of according to the maintenance section below, and the area will be stabilized. For design specifications, see Figure 5.

<b>Installation Schedule:</b>	The washout area will be constructed before concrete pours occur at the site.
<b>Maintenance and Inspection:</b>	The washout areas will be inspected daily to ensure that all concrete washing is being discharged into the washout area, no leaks or tears are present, and to identify when concrete wastes need to be removed. The washout areas will be cleaned out once the area is filled to 75 percent of the holding capacity. Once the area's holding capacity has been reached, the concrete wastes will be allowed to harden; the concrete will be broken up, removed, and taken to Middletown Landfill for disposal. The plastic sheeting will be replaced if tears occur during removal of concrete wastes from the washout area.
<b>Responsible Staff:</b>	ACC

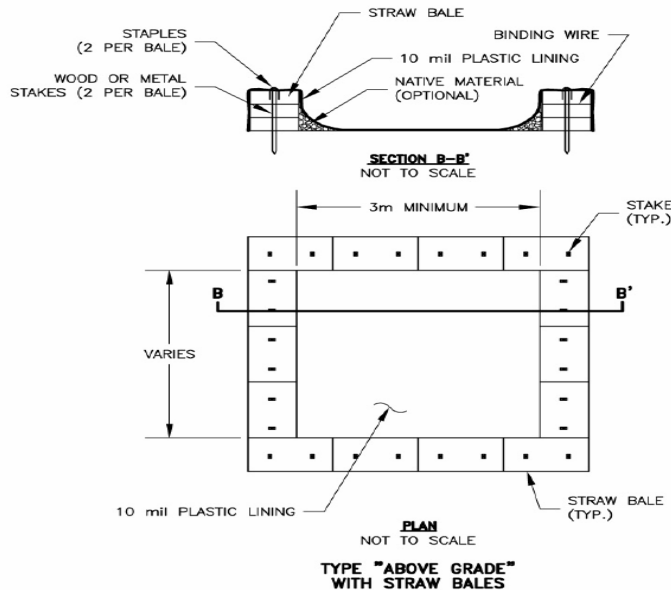


Figure 6. Above grade concrete washout

### Design Specifications

1. Temporary concrete washout type *Above Grade* will be constructed as shown above, with a recommended minimum length and minimum width of 10 feet.
2. The washout will be a minimum of 50 feet from storm drain inlets.
3. Plastic lining will be free of holes, tears, or other defects that compromise the impermeability of the material.

### 3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

**Instructions:**

- Describe equipment/vehicle fueling and maintenance practices that will be implemented to control pollutants to stormwater (e.g., secondary containment, drip pans, and spill kits) (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 4.)
- Also, see EPA’s *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile\\_maintain](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile_maintain)

#### Vehicle/Equipment Fueling and Maintenance

**BMP Description:** Several types of vehicles and equipment will be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, and forklifts. All major equipment/vehicle fueling and maintenance will be performed off-site. A small, 20-gallon pickup bed fuel tank will be kept on-site in the combined staging area. When vehicle fueling must occur on-site, the fueling activity will occur in the staging area. Only minor equipment maintenance will occur on-site. All equipment fluids generated from maintenance activities will be disposed of into designated drums stored on spill pallets in accordance with Part 3.1. Absorbent, spill-cleanup materials and spill kits will be available at the combined staging and materials storage area. Drip pans will be placed under all equipment receiving maintenance and vehicles and equipment parked overnight.

<b>Installation Schedule:</b>	BMPs implemented for equipment and vehicle maintenance and fueling activities will begin at the start of the project.
<b>Maintenance and Inspection:</b>	Inspect equipment/vehicle storage areas and fuel tank weekly and after storm events. Vehicles and equipment will be inspected on each day of use. Leaks will be repaired immediately, or the problem vehicle(s) or equipment will be removed from the project site. Keep ample supply of spill-cleanup materials on-site and immediately clean up spills and dispose of materials properly.
<b>Responsible Staff:</b>	ACC

### 3.5 Control Equipment/Vehicle Washing

**Instructions:**

- Describe equipment/vehicle washing practices that will be implemented to control pollutants to stormwater. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 5.)
- Also, see EPA’s *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile\\_maintain](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile_maintain)



<b>BMP Description:</b> All equipment and vehicle washing will be performed off-site.	
<b>Installation Schedule:</b>	N/A
<b>Maintenance and Inspection:</b>	N/A
<b>Responsible Staff:</b>	ACC

### 3.6 Spill Prevention and Control

<p>Instructions:</p> <ul style="list-style-type: none"> <li>– Describe the spill prevention and control procedures to include ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control. (For more information, see <i>SWPPP Guide</i>, Chapter 5, P2 Principle 6 and EPA’s CGP Parts 4.3 and 4.4.)</li> <li>– Also, see EPA’s <i>Spill Prevention and Control Plan BMP Fact sheet</i> at <a href="http://www.epa.gov/npdes/stormwater/menuofbmps/construction/spill_control">www.epa.gov/npdes/stormwater/menuofbmps/construction/spill_control</a></li> </ul>
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#### Spill Prevention and Control Procedures

**BMP Description:**

- i. Employee Training: All employees will be trained via biweekly tailgate sessions, as detailed in Section 6, Part 6.3.
- ii. Vehicle Maintenance: Vehicles and equipment will be maintained off-site. All vehicles and equipment including subcontractor vehicles will be checked for leaking oil and fluids. Vehicles leaking fluids will not be allowed on-site. Drip pans will be placed under all vehicles and equipment that are parked overnight.
- iii. Hazardous Material Storage: Hazardous materials will be stored in accordance with Section 3, Part 1 and federal and municipal regulations.
- iv. Spill Kits: Spill kits will be within the materials storage area and concrete washout areas.
- v. Spills: All spills will be cleaned up immediately upon discovery. Spent absorbent materials and rags will be hauled off-site immediately after the spill is cleaned up for disposal at Middletown Landfill. Spills large enough to discharge to surface water will be reported to the National Response Center at 1-800-424-8802.
- vi. Material safety data sheets, a material inventory, and emergency contact information will be maintained at the on-site project trailer.

<b>Installation Schedule:</b>	The spill prevention and control procedures will be implemented once construction begins on-site.
<b>Maintenance and Inspection:</b>	All personnel will be instructed, during tailgate training sessions, regarding the correct procedures for spill prevention and control. Notices that state these practices will be posted in the office trailer, and the individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed.
<b>Responsible Staff:</b>	ACC

### 3.7 Any Additional BMPs

**Instructions:**

- Describe any additional BMPs that do not fit into the above categories. Indicate the problem they are intended to address.

**BMP Description:** No Additional BMPs were identified.

<b>Installation Schedule:</b>	N/A
<b>Maintenance and Inspection:</b>	N/A
<b>Responsible Staff:</b>	ACC

### 3.8 Allowable Non-Stormwater Discharge Management

**Instructions:**

- Identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified in Part 1.3.B of EPA’s CGP include
  - ✓ Discharges from fire-fighting activities
  - ✓ Fire hydrant flushings
  - ✓ Waters used to wash vehicles where detergents are not used
  - ✓ Water used to control dust in accordance with EPA’s CGP, Part 3, Subpart 3.4.G
  - ✓ Potable water including uncontaminated water line flushings
  - ✓ Routine external building wash down that does not use detergents
  - ✓ Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
  - ✓ Uncontaminated air conditioning or compressor condensate
  - ✓ Uncontaminated ground water or spring water
  - ✓ Foundation or footing drains where flows are not contaminated with process materials such as solvents
  - ✓ Uncontaminated excavation dewatering
  - ✓ Landscape irrigation
- Identify measures used to eliminate or reduce these discharges and the BMPs used to prevent them from becoming contaminated.
- For more information, see *SWPPP Guide*, Chapter 3.A or EPA’s CGP Part 1.3.B and 3.5.

List allowable non-stormwater discharges and the measures used to eliminate or reduce them and to prevent them from becoming contaminated:

Any changes in construction activities that produce other allowable non-stormwater discharges will be identified, and the SWPPP will be amended and the appropriate erosion and sediment control will be implemented.

### Water Used to Control Dust

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**BMP Description:** Dust control will be implemented as needed once site grading has begun and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water at a rate of 300 gallons per acre or less will be performed by a mobile pressure-type distributor truck no more than three times a day during the months of May–September and once per day during the months of October–April or whenever the dryness of the soil warrants it.

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<b>Responsible Staff:</b>	ACC
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### Uncontaminated Excavation Dewatering

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**BMP Description:** Because construction for this site is being conducted during the dry season, dewatering activities are not expected to occur at the project site. If dewatering does occur, the SWPPP will be revised to address the need for appropriate BMPs.

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<b>Responsible Staff:</b>	ACC
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### Landscape Irrigation

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**BMP Description:** Irrigation waters will not be sprayed onto impermeable surfaces such as paved driveways and roads. Waters will be directed onto soil and lawns by using hoses and correctly sized sprinklers with adjustable spray patterns. To avoid discharges of irrigation waters, the sprinklers will have low-flow rates and increased watering time. The irrigated area will be inspected for excess watering and to adjust watering times and schedules.

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<b>Responsible Staff:</b>	ACC
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## SECTION 4: SELECTING POST-CONSTRUCTION BMPs

### Instructions:

- Describe all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed. Examples of post-construction BMPs include the following:
  - ✓ Biofilters
  - ✓ Detention/retention devices
  - ✓ Earth dikes, drainage swales, and lined ditches
  - ✓ Infiltration basins
  - ✓ Porous pavement
  - ✓ Other proprietary permanent structural BMPs
  - ✓ Outlet protection/velocity dissipation devices
  - ✓ Slope protection
  - ✓ Vegetated strips and/or swales
- Identify any applicable federal, state, local, or tribal requirements for design or installation.
- Describe how low-impact designs or smart growth considerations have been incorporated into the design.
- For any structural BMPs, you should have design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information on this topic, see your state's stormwater manual.
- You might also want to consult one of the references listed in Appendix D of the *SWPPP Guide* and EPA's CGP Part 3, Subparts 3.4.E and 3.9.
- Visit the post-construction section of EPA's Menu of BMPs at: [www.epa.gov/npes/menuofbmps](http://www.epa.gov/npes/menuofbmps)

### Bioretention Area

**BMP Description:** During the final stabilization phase of construction, the sediment trap will be converted to a permanent bioretention area. The existing sediment trap will be graded and excavated to a minimum depth of 5 feet. The outlet structure does not need to be modified for this conversion process. An underdrain will be installed and tied into the bottom of the existing outlet structure to completely drain the planting soil to avoid oversaturation. The underdrain will be covered with 8 inches of 1- to 2-inch pea gravel and backfilled with a homogeneous soil mix, consisting of sand (50 percent), topsoil (20–30 percent) and organic leaf compost (20–30 percent). The backfill will extend to a depth of 12 inches below the top of the bioretention area, which allows a ponding depth of approximately 6–8 inches. The bioretention area will be planted with native species of vegetation consisting of small trees, shrubs, and grasses. A 2- to 3-inch layer of wood mulch will be applied after planting stabilize the area and allow vegetation to be established. Two riprap spillways will be constructed, as detailed on the site map, to reduce runoff velocity before entering the bioretention area. Design specifications are omitted from this example SWPPP.

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<b><i>Installation Schedule:</i></b>	The basin will be converted to a permanent bioretention area during the final stabilization phase of construction.
<b><i>Maintenance and Inspection:</i></b>	The bioretention area will be inspected weekly and after storm events during construction. The area will be checked for signs of erosion, seepage, and structural damage. Erosion, seepage, and structural damage will be repaired immediately. The outlet and trash rack will be checked for any damage or obstructions and any damage found will be repaired and obstructions removed. Immediately after the completion of construction, the plant material will be watered for 14 consecutive days unless there is sufficient natural rainfall. The area will be monitored until final stabilization is reached. Following completion of site construction and final stabilization, maintenance and inspection responsibilities (see Appendix L – Post-Construction Maintenance Plan) will be taken over by Russ Braybrooks, USPS.
<b><i>Responsible Staff:</i></b>	ACC

### **Vegetated Swale**

***BMP Description:*** The vegetated swale as described in Section 2, Part 2.3 will remain as a permanent stormwater management structure for the site. The swale will convey runoff to an overflow inlet in the northwest corner of the site.

<b><i>Installation Schedule:</i></b>	The vegetated swale will be installed before site grading begins.
<b><i>Maintenance and Inspection:</i></b>	See Section 2, Part 2.3 for maintenance and inspection procedures for the vegetated swale. Following completion of site construction and final stabilization, maintenance and inspection responsibilities (see Appendix L – Post-Construction Maintenance Plan) will be taken over by Russ Braybrooks, USPS.
<b><i>Responsible Staff:</i></b>	ACC

### **Infiltration Trench**

***BMP Description:*** An infiltration trench without a stormwater outlet will be installed in the north parking area to control stormwater runoff from that parking area. The infiltration trench will consist of an excavated, shallow trench backfilled with sand, coarse stone, and pea gravel, and lined with a filter fabric. The trench will be 65 feet long, 5 feet wide, and have a depth of 3 feet. Design specifications are omitted from this example SWPPP.

<b><i>Installation Schedule:</i></b>	The infiltration trench will be installed during the final stabilization phase of construction.
<b><i>Maintenance and Inspection:</i></b>	The trench will be inspected weekly and after major storm events during construction. The area will be checked for signs of erosion, seepage, and structural damage. Erosion, seepage, and structural damage will be repaired immediately. Following completion of site construction and final stabilization, maintenance and

	inspection responsibilities (see Appendix L – Post-Construction Maintenance Plan) will be taken over by Russ Braybrooks, USPS.
<b>Responsible Staff:</b>	ACC

**Porous Pavers**

**BMP Description:** Interlocking concrete paving blocks will installed in the north and south overflow parking areas as detailed on the post-construction site map. The voids in the concrete paving blocks will be filled with soil and seeded to allow vegetation to grow. Design specifications are omitted from this example SWPPP.

<b>Installation Schedule:</b>	The infiltration trench will be installed during the final stabilization phase of construction.
<b>Maintenance and Inspection:</b>	The porous paver’s area will be inspected weekly and after major storm events during construction. Any structural damage found during the inspection will be repaired immediately. After installation of the porous pavers, the plant material will be watered for 14 consecutive days unless there is sufficient natural rainfall. The area will be monitored until vegetation is established. Following completion of site construction and final stabilization, maintenance and inspection responsibilities (see Appendix L – Post-Construction Maintenance Plan) will be taken over by Russ Braybrooks, USPS.
<b>Responsible Staff:</b>	ACC

**Tree Box Filter**

**BMP Description:** Tree box filters will installed at the site, as detailed on the site map, to control runoff from portions of the parking area. Runoff will be directed to the tree box, where it will be cleaned by vegetation and soil before infiltrating into the surrounding soil. The filters will consist of a container filled with a soil mixture, mulch layer, perforated under-drain system and vegetation. The filters will be designed and installed according to the manufacturer’s specifications. Design specifications are omitted from this example SWPPP.

<b>Installation Schedule:</b>	The tree box filters will be installed during the final stabilization phase of construction.
<b>Maintenance and Inspection:</b>	Immediately after installation of the tree box filters, the plant material will be watered for 14 consecutive days unless there is sufficient natural rainfall. Following completion of site construction and final stabilization, maintenance and inspection responsibilities (see Appendix L – Post-Construction Maintenance Plan) will be taken over by Russ Braybrooks, USPS.
<b>Responsible Staff:</b>	ACC

## SECTION 5: INSPECTIONS

### 5.1 Inspections

**Instructions:**

- Identify the individual(s) responsible for conducting inspections and describe their qualifications. Reference or attach the inspection form that will be used.
- Describe the frequency that inspections will occur at your site including any correlations to storm frequency and intensity.
- Note that inspection details for particular BMPs should be included in Sections 2 and 3.
- You should also document the repairs and maintenance that you undertake as a result of your inspections. These actions can be documented in the corrective action log described in Part 5.3 below.
- For more on this topic, see *SWPPP Guide*, Chapters 6 and 8 and EPA's CGP Part 3, Subparts 3.6.A, 3.10 and 3.11.C.
- Also, see suggested inspection form in Appendix B of the *SWPPP Guide*.

**1. Inspection Personnel:** Identify the person(s) who will be responsible for conducting inspections and describe their qualifications:

- Ms. Martina Davis is the stormwater compliance officer for ACC and is responsible for site compliance with the SWPPP and EPA's Construction General Permit. Ms. Davis will conduct inspections for all areas of the site disturbed by construction activities, areas used for storage of materials that are exposed to precipitation, discharge points, and construction exits.

In absence of Ms. Davis, Mark Smith, Associate Compliance Officer for ACC, will conduct inspections.

- **Qualifications:**

Martina Davis

1. Ms. Davis has 15 years of experience complying with stormwater regulations and has developed construction SWPPPs for more than 40 different construction projects and conducted inspections for those projects.
2. Received certification as a Certified Professional in Erosion and Sediment Control (CPESC) in August 2000 (see Appendix L).
3. Completed the IECA training course *The Best of BMPs: Application, Implementation, and Maintenance* in Reno, Nevada, July 2004 (see Appendix L).
4. Completed the *University of New Hampshire Stormwater Center: Stormwater Concepts, Regulatory Concepts, Hydrology and Design* training course in Concord, New Hampshire, September 2005.

Mark Smith

1. Mr. Smith has developed construction SWPPPs for 10 different construction projects and conducted inspections for those construction projects.
2. He received certification as a Certified Professional in Erosion and Sediment Control (CPESC) in May 2003.

**2. *Inspection Schedule and Procedures:***

Describe the inspection schedules and procedures you have developed for your site (include frequency of inspections for each BMP or group of BMPs, indicate when you will inspect, e.g., before/during/and after rain events, spot inspections):

- Inspections of the site will be performed once every 7 days and within 24 hours of the end of a storm event of one-half inch or greater. The inspections will verify that all BMPs required in Sections 2 and 3 are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials. For detailed inspection procedures, see Sections 2 and 3.
- All inspections will be coordinated with an inspector from the USPS. A USPS inspector will accompany Ms. Davis, when possible, during inspections.

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections.

If corrective actions are identified by Ms. Davis during the inspection, she will notify and submit a copy of the inspection report to the project managers, Bill Rustler and Russ Braybrooks. For corrective actions identified, Mr. Rustler will be responsible for initiating the corrective action within 24 hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, Mr. Rustler will notify Russ Braybrooks, as soon as possible, before initiating the corrective action.

Attach a copy of the inspection report you will use for your site:

For a copy of the inspection report, see Appendix E.



## 5.2 Delegation of Authority

**Instructions:**

- Identify the individual(s) or specifically describe the position where the construction site operator has delegated authority for the purposes of signing inspection reports, certifications, or other information.
- Attach a copy of the signed delegation of authority form that will be used.
- For more on this topic, see *SWPPP Guide*, Chapter 7 and Appendix G, Subsection 11 of EPA's CGP.

**Duly Authorized Representative(s) or Position(s):**

Advanced Construction Contractors  
Ms. Martina Davis  
Compliance/Inspection Officer  
5800 Washington Avenue  
Nashua, NH 03064  
Office Phone: (603) 444-3210  
Office Fax: (603) 444-3211

See Appendix K – Delegation of Authority

## 5.3 Corrective Action Log

**Instructions:**

- Create here, or as an attachment, a corrective action log. This log should describe repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures described above. Actions related to the findings of inspections should reference the specific inspection report.
- This log should describe actions taken, date completed, and note the person that completed the work.

Corrective Action Log:

See Appendix F – Corrective Action Log

## SECTION 6: RECORDKEEPING AND TRAINING

### 6.1 Recordkeeping

**Instructions:**

- The following is a list of records you should keep at your project site available for inspectors to review:
- Dates of grading, construction activity, and stabilization (which is covered in Sections 2 and 3)
- A copy of the construction general permit (attach)
- The signed and certified NOI form or permit application form (attach)
- A copy of the letter from EPA or/the state notifying you of their receipt of your complete NOI/application (attach)
- Inspection reports (attach)
- Records relating to endangered species and historic preservation (attach)
- Check your permit for additional details
- For more on this subject, see *SWPPP Guide*, Chapter 6.C and EPA's CGP Part 3, Subparts 3.4.C, 3.8, 3.10.G and 3.12.A.

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Date(s) when major grading activities occur:

See Appendix I – Grading and Stabilization Activities Log

Date(s) when construction activities temporarily or permanently cease on a portion of the site:

See Appendix I – Grading and Stabilization Activities Log

Date(s) when an area is either temporarily or permanently stabilized:

See Appendix I – Grading and Stabilization Activities Log

### 6.2 Log of Changes to the SWPPP

**Instructions:**

- Create a log here, or as an attachment, of changes and updates to the SWPPP. You should include additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on.

Log of changes and updates to the SWPPP

See Appendix G – SWPPP Amendment Log

## 6.3 Training

### Instructions:

- Training your staff and subcontractors is an effective BMP. As with the other steps you take to prevent stormwater problems at your site, you should document the training that you conduct for your staff, for those with specific stormwater responsibilities (e.g. installing, inspecting, and maintaining BMPs), and for subcontractors.
- Include dates, number of attendees, subjects covered, and length of training.
- For more on this subject, see *SWPPP Guide*, Chapter 8.

### Individual(s) Responsible for Training:

Ms. Dorothy Williams

### Describe Training Conducted:

- General stormwater and BMP awareness training for staff and subcontractors:  
Ms. Davis will conduct informal training for all staff, including subcontractors, on the site. The training will be conducted primarily via tailgate sessions and will focus on avoiding damage to stormwater BMPs and preventing illicit discharges. The tailgate sessions will be conducted biweekly and will address the following topics: Erosion Control BMPs, Sediment Control BMPs, Non-Stormwater BMPs, Waste Management and Materials Storage BMPs, and Emergency Procedures specific to the construction site. (See Appendix J – SWPPP Training Log)
- Detailed training for staff and subcontractors with specific stormwater responsibilities:  
Ms. Davis will provide formal training to all staff and subcontractors with specific stormwater responsibilities, such as installing and maintaining BMPs. The formal training will cover all design and construction specifications for installing the BMPs and proper procedures for maintaining each BMP. Formal training will occur before any BMPs are installed on the site. (See Appendix J – SWPPP Training Log)

## SECTION 7: FINAL STABILIZATION

### Instructions:

- Describe procedures for final stabilization. If you complete major construction activities on part of your site, you can document your final stabilization efforts for that portion of the site. Many permits will allow you to then discontinue inspection activities in these areas (be sure to check your permit for exact requirements). You can amend or add to this section as areas of your project are finally stabilized.
- Update your site plans to indicate areas that have achieved final stabilization.
- For more on this topic, see *SWPPP Guide*, Chapter 9 and EPA's CGP Part 3, Subparts 3.11 and 3.13.D, and Part 5, Subpart 5.1.

### Permanent Seeding

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***BMP Description:*** Permanent seeding will be applied immediately after the final design grades are achieved on portions of the site but no later than 14 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated will be removed and hauled off-site for disposal at Middletown Landfill. Construction debris, trash and temporary BMPs (including silt fences, material storage areas, sanitary toilets, and inlet protection) will also be removed and any areas disturbed during removal will be seeded immediately.

#### *Seedbed Preparation*

- a. In areas where disturbance results in subsoil being the final grade surface, topsoil will be spread over the finished area at minimum depth of 2 to 6 inches.
- b. The seedbed will be free of large clods, rocks, woody debris and other objectionable materials.
- c. Fertilizer and lime will be applied to the seedbed according to the manufacturer's recommendations or soil tests (soil tests are omitted from this example SWPPP).
- d. The top layer of soil will be loosened to a depth of 3–5 inches by raking, tilling, disking or other suitable means.

#### *Grass Selection/Application*

- a. Common areas at the site will be stabilized with a mixture of Tall Fescue, Creeping Red Fescue and Redtop at an application rate of 30 pounds per acre or 0.95 pounds per 1,000 square feet. Lawns will be stabilized with a mixture of Kentucky Blue Grass and Creeping Red Fescue at an application rate of 100 pounds per acre or 2.3 pounds per 1,000 square feet.
- b. Seed will be applied uniformly by hydroseeding or broadcasting. Where broadcasting is used, the seed will be covered with .25 inch of soil or less, by cultipacking or raking.

*Mulching*

- a. Hydromulch will be applied immediately following seeding at an application rate of 90–100 pounds (2–3 bales) per 1,000 square feet.

<b><i>Installation Schedule:</i></b>	Portions of the site where construction activities have permanently ceased will be stabilized, as soon as possible but no later than 14 days after construction ceases.
<b><i>Maintenance and Inspection:</i></b>	All seeded areas will be inspected weekly during construction activities for failure and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is reached.
<b><i>Responsible Staff:</i></b>	ACC

## SECTION 8: CERTIFICATION AND NOTIFICATION

**Instructions:**

- The SWPPP should be signed and certified by the construction operator(s). Attach a copy of the NOI and permit authorization letter received from EPA or the state in Appendix D.
- For more information, see EPA's CGP Part 3, Subpart 3.12.A-D and Appendix G, Section 11.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Joe Butler Title: Owner  
Signature: Joe Butler Date: 3/12/06

## SECTION 8: CERTIFICATION AND NOTIFICATION

### Instructions:

- The SWPPP should be signed and certified by the construction operator(s). Attach a copy of the NOI and permit authorization letter received from EPA or the state in Appendix D.
- For more information, see EPA's CGP Part 3, Subpart 3.12.A-D and Appendix G, Section 11.

### Project Information:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Russ Bray Brooks Title: DESIGN + CONST. PROJECT MANAGER  
Signature: Russ Bray Brooks Date: 3/12/04

## SWPPP APPENDICES

Attach the following documentation to the SWPPP:

***Appendix A – General Location Map***

***Appendix B – Site Maps***

***Appendix C – Construction General Permit***

***Appendix D – NOI and Permit Authorization Letter from  
EPA/State, Alteration of Terrain Application, and  
Storm Water Permit Basics: New Hampshire  
Digging Needs a Federal Permit Fact Sheet***

***Appendix E – Inspection Reports***

***Appendix F – Corrective Action Log***

***Appendix G – SWPPP Amendment Log***

***Appendix H – Subcontractor Certifications/Agreements***

***Appendix I – Grading and Stabilization Activities Log***

***Appendix J – Training Log***

***Appendix K – Delegation of Authority***

***Appendix L – Additional Information***