Construction Activity Pollution Prevention

During Construction

2014

1. Overview

This document has been prepared to outline the requirements for Erosion and Sedimentation Control (ESC) measures for UIUC Center for Veterans in Higher Ed. This plan is to be adopted by the General Contractor, Broeren Russo Construction, promoting the coordination between the contractor and subcontractors to prevent soil erosion and air pollution. The following outlines the means and methods necessary for implementing the erosion control measures.

2. Project Information

Project Name:	UIUC Center for Veterans in Higher Ed
Project Address:	908 W Nevada St, Urbana, IL 61801
LEED Rating System:	LEED v3-2009 for New Construction

3. Intent

Control site erosion and air pollution by implementing measures to reduce the negative impacts on the local water system and surrounding air quality.

4. Objectives

Minimize the amount of disturbance to the existing site soil. Prevent the loss of soil during construction by stormwater runoff and/or wind erosion, including protecting existing topsoil stockpiled on site. Minimize the velocity of runoff flows across the site and prevent and/or minimize the transportation of sediment by vehicles entering and exiting the site.

5. Requirements

Implement sediment and erosion control measures specified in the construction documents that adhere to the 2003 EPA Construction General Permit Requirements for Erosion and Sedimentation Control.

6. Description of Temporary Measures:

Temporary measures are intended to protect site soil and surrounding stormwater inlets from construction activities. Temporary measures are intended to be left in place until all site work is complete or all permanent erosion and sedimentation control measures are installed.

6.1 *Silt Fence*—a non-woven fabric (filter fabric) consisting of pervious sheets of propylene, nylon, polyester or ethylene yarn with the following properties:

6.1.1 Minimum tensile strength-maximum elongation at 45 pounds is 50%; Apparent opening size meets is <60mm; ultra violet exposure strength retention of 70% at 500h.

6.1.2 The fabric should be fastened directly to posts spaced no greater than 6ft to 8ft on center. The support posts should be installed a minimum of 2ft into the ground and the filter fabric will be secured approximately 6 inches into the ground and rise 2-3 feet above grade.

6.1.3 All silt fence details, installation instructions, and fence locations shown on the project documents should be followed.

6.2 *Construction Entrance Stabilization*—a gravel or paved construction vehicle entrance will be installed. The entrance should include a minimum of 6 inches of CA3- or 11-gravel over filter fabric, or over an impervious pavement that drains into a protected storm drain or silt fence/hay bail. The entrance should be a minimum of 30 feet in the direction of vehicle travel and a minimum of 15 feet wide. Additional provisions will include a truck rinse for cleaning and removal of any material off the vehicle's wheels prior to leaving the project site.

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6.3 *Exposed and Stockpiled Soil*—after stockpiled soil has been stabilized, a perimeter silt fence or mulch will be installed to control soil runoff.

6.4 *Inlet Straw/Hay Bale Barriers*—each bale will contain a minimum of 5 cubic feet of material. The bales will be bound with wire or nylon and secured with two steel or wooden tie-down stakes. Each inlet will have a minimum of four bales.

6.5 *Manhole and Stormwater Protection*—filter fabric will be installed under each manhole and/or stormwater inlet, both those directly on sites and serving the site.

6.6 *Site Grading*—the site will be graded to maintain the drainage patters established in the site grading plan.

6.7 *Street Cleaning*—streets will be cleaned to remove construction dust and debris.

6.8 *Dust and Particulate Matter* – temporary construction fence will be installed along the site to prevent debris from construction activity from affecting passersby. Heavy sheeting i.e. tarpualins, plywood, plastic coverings etc will be installed on areas where heavy dust from construction activity could occur. During foundation work (caisson installation or excavation), spraying of the site (water) will be performed as to mitigate loose dust and particulate matter from affecting the site air quality.

7. Description of Permanent Measures

Permanent measures are intended to protect site soil and surrounding stormwater inlets after construction completion.

7.1 *Permanent Seeding and Sodding*—permanent vegetation will be installed on all exposed areas of the site per the landscape plan.

7.2 *Stormwater Drainage and Detention Structures*—the designed stormwater drainage and detention structures will be construction per the design documents and completed before the removal any temporary ESC measures.

8. Implementation

The site construction manager will be responsible for implementing, monitoring and reporting the status of the Construction Activity Pollution Prevention Plan. Construction manager's responsibilities will include the following:

8.1 Verify all control measures are properly installed prior to the commencement of any excavation, grading or site disturbance.

8.2 Required control measures will be installed and verified within 7 days of the complete of any new inlet, property entrance or other site work requiring protection per this plan.

8.3 Verify all control measures are properly maintained throughout the entire construction process.

8.4 Ensure all runoff originating from the project site will pass through one or more measures to minimize the offsite impact of construction activities.

8.5 Ensure, that to the maximum extent possible, all flows originating off the construction site will be diverted around disturbed areas or will be conveyed through the site in a manner that untreated onsite runoff does not mix with offsite or treated runoff.

8.6 Maintain site drainage patterns throughout the entire construction process.

8.7 Located all onsite soil stockpile storage areas on well drained land, with appropriate controls installed.

8.8 Make every effort to properly size construction equipment to minimize exhaust, noise and vibration.

8.9 Inform all subcontractors of proper Construction Activity Pollution Prevention procedures.

9. Reports

Ongoing progress reports will be provided to verify progress towards achieving the project goal of diverting a minimum of 75% of the project's construction waste from landfills. The waste diversion reports will include the following information:

Material Description
Generation Point of Waste

Total Quantity of Waste by Volume/Weight
Quantity of Waste Salvaged or Recycled
Quantity of Waste Sent to Landfill or Incinerator
Total Cost of Waste Diverted as a Percentage of the Total Waste
Cost per Container

10. Submittals

An electronic copy of the log or three hard copies will be submitted with each concurrent application for payment. At substantial completion of the project the following information will be submitted:

10.1 Final activities log listing control measures, verification dates, and any corrective action taken.

10.2 Photos of installed and verified erosion and sedimentation control measures.

11. Verification

The general contractor is responsible for the implementation and verification off all Construction Activity Pollution Prevention measures. The contractor may be contacted for further information and verification that all measures were in place and followed as stated in the above plan.