

**EROSION AND SEDIMENTATION CONTROL PLAN**  
**130 EASTERN PROMENADE**  
**PORTLAND, MAINE**  
June 21, 2011

**Introduction**

The following plan for controlling sedimentation and erosion in this project is based on conservation practices found in the Maine Erosion & Sediment Control BMPS Manual, Maine Department of Environmental Protection, latest edition. The contractor who implements this plan shall be familiar with this publication and adhere to it and the practices presented herein.

The project site is located at 130 Eastern Prom, in Portland, Maine. The property is approximately 0.18 acres ±. The applicant plans to renovate the Building and Site, which includes complete renovation of the main 3-story structure and removal of the one-story additions along the side and rear of the building. Building additions include a small addition on the east side of the building and construction of an open carport area in the southeast corner of the structure. Site improvements include new driveway and off-street parking, sidewalks, and a small terrace/garden along the east side of the property.

Please reference the Site Preparation Plan (L1.0), which shows the locations and types of proposed measures contained in this report.

**General Erosion and Sedimentation Control Practices**

The following is a list of general erosion control practices that will be used to prevent erosion and sedimentation before, during and after the construction of this project. In addition, special care shall be used at all times to:

- 1) Limit disturbance and, hence, erosion,
- 2) Correct any erosion problems immediately,
- 3) Regularly monitor the implemented practices, especially after every rainfall,
- 4) Revegetate disturbed areas as soon as possible after construction.

**Silt Fence and/or Erosion Control Mix Berms**

As noted on the plans silt fence and/or erosion control mix berms will be installed at the toe of slopes and at the toe of cleared areas.

### **Construction Phase**

The following general practices will be implemented to prevent erosion during construction on this project:

1. Only those areas under active construction will be cleared and left in an untreated or unvegetated condition. Once construction of an area is complete, final grading, loaming and seeding shall occur immediately (refer to "Erosion Control Seeding Notes" section). If final grading, loaming and seeding cannot occur immediately, it shall be done prior to any storm event and within 7 days of completing construction in the area. If final grading, loaming, and seeding cannot occur within 7 days, or if the area is not under active construction for a period longer than 7 days, see Item No. 4 below.
2. Prior to the start of construction in a specific area, silt fencing and/or erosion control mix berms will be installed at the toe of slopes and cleared areas, and in areas as located on the plans to protect against any construction-related erosion.
3. Topsoil will be stockpiled when necessary in areas which have minimum potential for erosion and will be kept as far as possible from existing drainage areas and wetlands. All stockpiles expected to remain longer than 15 days shall be:
  - A. Treated with anchored mulch (within 5 days of the last deposit of stockpiled soil).
  - B. Seeded with conservation mix and mulched immediately.

Stockpiles expected to remain longer than 3 days shall be encircled with erosion control mix berms or silt fence at the toe of the pile.

4. All disturbed areas expected to remain longer than 15 days (7 days at stream crossings) shall be:
  - A. Treated with straw at a rate of 70-90 lbs. per 1000 square feet from 4/14 to 10/1, or at a rate of 150-200 lbs. per 1000 square feet from 10/1 to 4/15.
  - B. Seeded with conservation mix of perennial rye grass (1.0 lbs/1000 sq.ft.) and mulched immediately. From 10/1 to 4/15, follow the seeding rates as outlined below in sub-section 4.D. of the "Post Construction Revegetation" section.
  - C. Monitored every two weeks and before/after rain events until permanent seeding can occur and remulched as needed to protect slopes.

5. All grading will be held to a maximum 3:1 slope where practical. Greater slopes may be used where the banks are protected with soft armour matting, erosion control matting, or riprap. All slopes will be stabilized with permanent seeding immediately after final grading is complete. (It is understood that immediately means within 7 days of the completion of work. See Post-Construction revegetation for seeding specification.)

**Post Construction Revegetation**

The following general practices will be implemented to prevent erosion as soon as an area is ready to undergo final grading:

1. A minimum of 4" of loam will be spread over disturbed areas and graded to a uniform depth and natural appearance.
2. If final grading is accomplished during the normal growing season (4/15 to 10/1), permanent seeding will be done as specified below. Prior to seeding, limestone shall be applied at a rate of 100 lbs/1000 sq. ft. and 10:20:20 fertilizer at a rate of 18.4 lbs/1000 sq. ft. will be applied. Broadcast seeding at the following rates:

<u>Lawns</u>		<u>Swales</u>	
Kentucky Bluegrass	0.46 lbs/1000 sf	Creeping Red Fescue	0.46 lbs/1000 sf
Creeping Red Fescue	0.46 lbs/1000 sf	Red Top	0.05 lbs/1000 sf
Perennial Ryegrass	0.11 lbs/1000 sf	Tall Fescue	0.46 lbs/1000 sf

If permanent seeding areas that have received winter mulching, the top two inches of winter mulching should be removed.

3. An area shall be mulched immediately after it has been seeded. Mulching shall consist of hay mulch, hydro-mulch or any suitable substitute deemed acceptable by the Design Professional.
  - A. Hay mulch shall be applied at the rate of 2 tons per acre. Hay mulch shall be secured by one of the following:
    1. Drive over with tracked construction equipment on grades of 5% and less.
    2. Blanket with tacked photodegradable/biodegradable netting on grades greater than 5%.
  - B. Hydro-mulch shall consist of a mixture of asphalt, wood fibre or paper fibre and water which is sprayed over a seeded area. Hydro-mulch shall not be used between 10/1 and 4/15.

4. Construction shall be planned to eliminate the need for seeding between October 1st and April 15th. Should seeding be necessary between these dates, the following procedure shall be followed:
  - A. Only unfrozen loam shall be used.
  - B. Loaming, seeding and mulching will not be done over snow or ice cover. If snow exists, it must be removed prior to placement of seed.
  - C. Where permanent seeding is necessary, Annual Winter Rye (1.2 lbs/1000 s.f.) shall be sown instead of the previously noted seeding rate.
  - D. Where temporary seeding is required, Annual Winter Rye (2.5 lbs/1000 s.f.) shall be sown instead of the previously noted seeding rate.
  - E. Fertilizing, seeding and mulching shall be done on loam the day the loam is spread.
  - F. Hay mulch shall be secured with photodegradable/biodegradable netting. Tracking by machinery alone will not suffice. Winter mulching rates, as specified above in subsection 5.A. of the "Construction Phase" section, should be applied during this period.
  
5. Following final seeding, the site will be inspected every 30 days until 80% cover has been established. Reseeding will be carried out by the contractor within 10 days of notification by the design professional that the existing catch is inadequate.

### **Monitoring Schedule**

The contractor shall be responsible for installing, monitoring, maintaining, repairing, replacing and removing all of the erosion and sedimentation controls or appointing a qualified subcontractor to do so.

Maintenance measures will be applied as needed during the entire construction cycle. Immediately following any significant rainfall, and at least once a week, a visual inspection will be made of all erosion and sedimentation controls as follows:

1. Erosion control mix berms and silt fence shall be inspected and repaired. Sediment trapped behind these barriers shall be excavated when it reaches a depth of 6" and redistributed to areas undergoing final grading.

### **Erosion Control Removal**

An area is considered stable if it is paved or if 80% growth of planted seeds are established. Once an area is considered stable, the erosion control measures can be removed as follows:

1. **Erosion Control Mix Berms and Silt Fence**  
The erosion control mix berms and silt fence shall be disposed of legally and properly off-site. All sediment trapped behind these controls shall be distributed to an area undergoing final grading or removed and relocated off-site.
2. **Miscellaneous**  
Once all the trapped sediments have been removed from the temporary sedimentation devices, the disturbed areas must be regraded in an aesthetic manner to conform to the surrounding topography. Once graded these disturbed areas must be loamed (if necessary), fertilized, seeded and mulched in accordance with the rates previously stated.

The above erosion controls must be removed within 30 days of final stabilization of the site.

Conformance with this plan, and following these practices will result in a project that complies with the State Regulations and the Standards of the Natural Resources Protection Act, and will protect water quality in areas downstream from the project.