Post-Construction Stormwater Management Plan

Dated: May 16, 2014

321, 327 Commercial Street

Portland, ME

Tax Map 40, Block E, Lot 3

Owner:
J.B. Brown & Sons
Portland, Maine 04112

Reference Deeds:
Book 749 Page 43
Book 4208 Page 56
Book 4486 Page 50

Municipal Requirements per Chapter 32 of the City of Portland Code of Ordinances:

Any person owning, operating, or otherwise having control over a BMP required by a post construction stormwater management plan shall maintain the BMPs in accordance with the approved plan and shall demonstrate compliance with that plan as follows:

(a) *Inspections.* The owner or operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMP(s), including but not limited to any parking areas, catch basins, drainage manholes, pipes, rain garden and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

(b) *Maintenance and repair.* If a BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP(s) shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the department of public services ("DPS") in the annual report.

(c) *Annual report.* The owner or operator of a BMP or a qualified stormwater BMP inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS on a form provided by DPS, certifying that the person has inspected the BMP(s) and that the BMP(s) are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action(s) taken.

(d) *Filing fee.* Any persons required to file and annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.

(e) *Right of entry.* In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMPs.

Stormwater Management Narrative:

Stormwater runoff from a majority of the impervious areas will be controlled and treated by the use of roof drains, curbing, rain garden, curb inlets, catch basins, drainage manholes and pipes. Maintaining a clean and obstruction-free drainage system helps to ensure the system performs the intended function reduces the risk of damage due to flooding or pollution.

Inspection and maintenance reports should be completed and retained from each inspection. Utilize an annual inspection & maintenance log, an inspection schedule, and an inspection checklist to document and keep a record of efforts.

The owner or its designee operator is responsible for complying with all federal, state, and local laws and regulations when disposing of materials collected from the drainage system during maintenance.

For system design and details, obtain plans from the owner or the plans are on file at the City of Portland Planning Department

Inspection and Maintenance Narrative:

- **Vegetated and landscape areas** should be inspected annually early spring and after heavy rains.
  Inspect for signs of the following:
  - Check for erosion
  - Check for sediment build-up
  - Check for vegetation loss, sparse growth or bare soil
  - Emphasis should be giving to slopes and embankments

  Maintenance activities can include the following:
  - Mow vegetation as desired, but should not be trimmed extremely short
  - Remove trash, debris and accumulated sediment.
  - Seed or re-vegetate areas that have sparse growth or is bare (till if necessary)
  - Any rill erosion should be stabilized by armoring with riprap and/or diverting the runoff to a stable area.
  - Eliminating the source of any erosion problem

- **Paved areas** should be inspected annually spring or as needed.
  Inspect for signs of the following:
  - Check for sediment accumulation
  - Check for debris

  Maintenance activities can include the following:
  - Clear and remove accumulated winter sand in parking lots and along roadways
  - Sweep pavement to remove sediment
  - Grade any shoulders to remove accumulated winter sand
  - Clean-out the sediment within any paved channels or at curb inlet openings
  - Ensure that stormwater runoff is not impeded by sediment

- **Catch Basins, Manholes and Curb Inlets** should be inspected annually in the spring.
  Inspect for signs of the following:
  - Check for sediment accumulation
  - Check for debris and oils
  - Check grate, structure, inlet and outlet appurtenances for damage

  Maintenance activities can include the following:
  - Repair damage if any is observed
  - Removal of sediment and debris from the bottom of the basin and inlet grate
  - Remove floating debris and oils (using oil absorptive pads) from any trap

- **Rain garden area** should be inspected annually in the spring and late fall. Note that the soil media, mulch and vegetation coverage is integral to the performance of the system, including infiltration rate and nutrient uptake. Vegetation care is important to system productivity and health. Also, record should be kept of the time to drain for the system completely after a storm event. The system should drain completely within 72 hours.

  Inspection of the rain garden area:
  - Check to standing water, insure the soil media is draining within a 72 hours
  - Check inlet and overflow for leaves and debris
  - Check for holes in the soil media such as animal burrows
  - Check for accumulated sediment
  - Check for distressed plants during extended periods without rainfall
  - Check structure to ensure good condition and no evidence of deterioration.
  - Check to see if high-flow bypass channel is functioning properly
  - Check for robust vegetation coverage throughout the system
  - Check for dead or dying plants, and general long term health of plants

Maintenance of the rain garden area:

- The most common maintenance activity is the removal of leaves and debris from the system and bypass channel
- If filter bed not draining, then remove top few inches of discolored material. Till or rake underneath material and replace any loss soil media with a 50% sand, 20% woodchips, 20% compost, 10% soil mixture
- Fill and lightly compact any holes such as animal boroughs
- Remove sediment as necessary. Replace any loss soil media.
- Replace mulch as necessary.
- Repair or replace any damaged any structural parts, inlets, outlets, sidewalls.
- Reinforcement planting should be performed if 50% of vegetation is not established within 2-years.
- Non-established vegetation should be cut and removed from the system.
- Remove dead or decaying plant material.
- Separate herbaceous vegetation rootstock when over-crowding is observed
- If underdrains appear clogged, jet clean or rotary cut debris/roots the drain pipes.