

SECTION 14: Basic Standards

Chapter 500 of the Stormwater Law is applicable to this project. In addressing this section of the Site Law standards, the applicable provisions are:

B. Basic standards. The basic standards apply to all projects described above. The applicant must demonstrate that the erosion and sedimentation control, inspection and maintenance, and housekeeping standards specified in Appendices A, B, and C to this Chapter, respectively, are met, and that the grading or other construction activity will not impede or otherwise alter drainageways so as to have an unreasonable adverse impact on a wetland or waterbody, or an adjacent downslope parcel.

A. Narrative:

1. Soil Types: Soil data was collected from NRCS Soil Survey, the subsurface wastewater soils investigation, wetland investigation, and the geotechnical investigation, the principal overburden strata are sand with interbeds of fluvial sands in the coastal arrangement of the landform. Additionally, hydric soils are present, in areas delineated as wetlands. The upland soils in the area of development on this site are classified as sands in the Hydrologic Group A (Colton) and A/D. The measure of soil erodability, or K factor, is the susceptibility of a soil particle to detachment and transport by rainfall. Soil properties affecting K factor include texture, organic matter content, structure, and saturated hydraulic conductivity. It has been reported by NRCS that K factors for soil in Maine vary from 0.02 to 0.69. The higher the value, the more susceptible the named soil is to sheet or rill erosion by water. The K factors of the identified soils in the development area range from 0.17 to 0.2 (in the surficial layers of Colton and Kinsman) to 0.49 (in the deepest layer of the Kinsman-Wosnqueak complex) which have permissible velocities of 2 to 3 feet per second in the unvegetated state. Unvegetated conditions require stabilization and limits on duration of exposure as stipulated in the plan notes on the drawings. Permissible velocities in the vegetated state range from 4 to 4.5 feet per second.
2. Existing erosion problems: There are no known existing erosion problems on the site.
3. Critical areas: There are no steep slopes or critical areas within the proposed development area.
4. Protected natural resources: Adjacent wetlands are protected natural resources on the site and, beyond the limits of work, shall be protected from sedimentation. For this purpose, the perimeter sediment barrier will be double layered adjacent to PNRs.
5. Erosion control measures: Measures shall adhere to the DEP Best Management Practices Manual, and shall be installed prior to initiating grubbing, stump removal, and earthwork. Minimum required Erosion control measures are noted in the Erosion and Sedimentation Control Plan. A continuous sediment barrier as shown on the plan will surround the construction area. Sediment barriers adjacent to wetland edges and the shoreline shall be doubled. ECM mix berms will be preferentially used for their longevity of function. Owing to the duration of the project, locations of planned stormwater management features will be utilized for construction phase sedimentation basins. Delayed construction of stormwater measures will be implemented so that they are constructed after significant portions of their finished tributary area are stabilized. Prepared slopes steeper than 1:3 will be treated with rolled erosion control product stabilization and anchoring using the material specified upon completion of shaping.

6. Site stabilization: See plan drawing in this submission for the limits of construction, and the location of proposed erosion control measures. Detail drawings in this submission contains construction details and notes for erosion control measures to be used.
- B. Final Stabilization Date: The project's construction operations duration is expected to be in excess of three years until final stabilization, beginning Q4, 2021 or Q1, 2022. Estimated final stabilization is Spring, 2025. As the project will be subject to winter conditions, the Erosion and Sedimentation control plan incorporates standards for late season and overwinter stabilization measures. Implementation schedule will always begin with installation of Erosion and Sedimentation Control Measures. All sediment barriers will be in place prior to any development activity and will remain in place until final stabilization. A designated inspector will perform weekly site inspections during the phases of the development where any area in excess of 1 acre is not stabilized and provide the Department of Environmental Protection with copies of the inspection reports with photographs.
- C. Development Plans are enclosed with the submission to depict the locations of roads, lot boundaries, buildings, parking lots, material stockpiles, existing and proposed culverts, drainage channels, catch basins, subsurface drainage pipes, stormwater measures and storm drain outfalls.
- D. Erosion and sedimentation control plans are appended for limits of construction and the location of erosion control measures, temporary structures including sedimentation basins, and slope protection. Details and specifications: Drawing appended to this section contains specifications, construction details and notes for erosion control measures to be used. Provisions will include sectioning the development areas, establishing sedimentation basins and concrete washout locations, permanent work limit barriers as applicable, and locations for sediment barrier and temporary mulching provisions.
- E. Disturbance limits are shown on the site plan.
- F. Drawings and specifications for temporary and permanent erosion and sedimentation control are appended. Detail sheets and specifications for stabilizing areas disturbed during construction are included.
- G. Calculations: Sediment barriers are identified based on spacing per the Erosion and Sedimentation Control Handbook for Construction: BMPs. Sediment basins are similarly sized.
- H. Winter Stabilization: Stabilization is required for the duration of earthwork activities until final stabilization, and will extend over late growing season and winter periods. Specific provisions for limiting opening new areas outside growing seasons will be implemented. Particularly to activity in non-growing season, disturbed soil areas which will not be worked for one month will be covered. Cover must be deployed over bare soil, rather than over snow cover. Preference for cover will be anchored erosion control mesh, alternatively areas can be mulched with straw at 150 to 200 pounds per 1000 square feet, and anchored with stake and twine.
- I. In-water work: Turbidity curtains will be deployed in intertidal areas during in-water work.
- J. Notice to commence. Based on the project scale and permitting requirements, the Contractor will be provided with copies of all applicable permits and conditions thereof. Contractor and owner shall report commencement and termination dates in accordance with the relevant permits.