

APPENDIX A-1:

STREET CONSTRUCTION INSPECTION SCHEDULE

The following is an inspection schedule for construction of all streets and roads in the Town of Greenfield. An inspection shall be performed for each item and documented by the Town's Engineer or designated representative, as part of an inspection checklist.

1. Pre-construction conference with the Town's Engineer, contractor, developer and Town Public Works Director.
2. Review of design engineer's layout and wetlands marking.
3. Inspection of clearing and grubbing and erosion control measures.
4. Inspection of fill placement. In place compaction testing of fill is required every 1,000 c.y. or as directed by the inspector:
5. Inspection of drainage piping and buried utilities. Full time inspection is required including the trench backfilling.
6. Inspection of subgrade and slope work.
7. Inspection of gravel grade. Compaction testing of the gravel course is required every 200 linear feet of roadway.
8. Inspection of crushed gravel grade. Compaction testing of the crushed gravel course is required every 200 linear feet of roadway.
9. Inspection of final ditch work, slope work, landscaping and erosion control measures.
10. Inspection of headwall construction.
11. Inspection of binder course paving. Full time inspection will be performed during the paving. After the binder course pavement and all work required prior to that point has been completed, the developer can request, in writing, a reduction of the roadway bond. The exact amount of the bond reduction is to be determined by the Planning Board.
12. Remaining work inspection by the Developer and Inspector.
13. Final walk through inspection by the Planning Board, Board of Selectmen and Town Engineer
14. Follow up inspection.

**APPENDIX B:
STORMWATER MANAGEMENT AND EROSION CONTROL REGULATION**

A. GENERAL

The purpose of this regulation is to control runoff and soil erosion and sedimentation resulting from site construction and development of one acre or greater. Subdivision and site plans shall include plans for managing stormwater and controlling erosion and sedimentation as provided below.

B. DEFINITIONS

- (1) Best Management Practice (BMP): A proven or accepted structural, non-structural, or vegetative measure the application of which reduces erosion, sediment, or peak storm discharge, or improves the quality of stormwater runoff.
- (2) Critical Areas: Disturbed areas of any size within 50 feet of a stream, bog, waterbody, or poorly or very poorly drained soils; disturbed areas exceeding 2,000 square feet in highly erodible soils; or, disturbed areas containing slope lengths exceeding 25 feet on slopes greater than 15 percent.
- (3) Development: Any construction or land construction or grading activities other than for agricultural and silvicultural practices.
- (4) Disturbed Area: An area where the natural vegetation has been removed exposing the underlying soil, or vegetation has been covered.
- (5) Erosion: The detachment and movement of soil or rock fragments by water, wind, ice, or gravity.
- (6) Highly Erodible Soils: Any soil with an erodibility class (K factor) greater than or equal to 0.43 in any layer as found in Table 3-1 of the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire."
- (7) Project Area: The area within the subdivision or site plan boundaries.
- (8) Sediment: Solid material, either mineral or organic, that is in suspension, is transported, or has been moved from its site of origin by erosion.
- (9) Stabilized: When the soil erosion rate approaches that of undisturbed soils. Soils that are disturbed will be considered protected when covered with a healthy, mature growth of grass or a good covering of hay or straw mulch (2 tons/acre). Mulch is only a temporary measure; ultimately, the site needs vegetation.
- (10) Stormwater Runoff: The water from precipitation that is not absorbed, evaporated, or otherwise stored within the contributing drainage area.
- (11) Stream: Areas of flowing water occurring for sufficient time to develop and maintain defined channels but may not flow during dry portions of the year. Includes but is not limited to all perennial and intermittent streams located on U.S. Geological Survey Maps.

C. APPLICABILITY

The applicant shall submit a stormwater management and erosion control plan to the Planning Board for any tract of land being developed or subdivided, where one or more of the following conditions are proposed:

- (1) A cumulative disturbed area exceeding one acre.
- (2) Construction or reconstruction of a street or road.
- (3) A subdivision of more than three building lots.
- (4) Disturbed critical areas.

D. MINIMUM REQUIREMENTS

- (1) The Planning Board may waive the requirement for all or part of a stormwater management and erosion control plan if it determines that a plan is unnecessary because of the size, character, or natural conditions of a site.
- (2) All requests for waivers and action thereon shall be made in writing by the applicant with supporting technical documentation to demonstrate minimal environmental impact.
- (3) The following minimum requirements apply to all projects, regardless of size:
 - (i) Site drawing of existing and proposed conditions:
 - (a) Locus map showing property boundaries
 - (b) North arrow, scale, date
 - (c) Property lines
 - (d) Easements
 - (e) Structures, utilities, roads and other paved areas
 - (f) Topographic contours
 - (g) Critical areas
 - (h) Surface water and wetlands, drainage patterns, and watershed boundaries
 - (i) Vegetation
 - (j) Soils information for design purposes or for determining highly erodible soils shall be determined from a National Cooperative Soil Survey (NCSS) soil series map. A High Intensity Soil Map of the site, prepared in accordance with SSSNNE Special Publication No. 1, can only be used for design purposes and not for determining highly erodible soils.
 - (k) Temporary and permanent stormwater management and erosion and sediment control BMPs
 - (l) Areas and timing of soil disturbance
 - (m) A schedule for the inspection and maintenance of all BMPs
 - (ii) Narrative section including discussion of each measure, its purpose, construction sequence, and installation timing as they apply to the site.

E. DESIGN STANDARDS

The following standards shall be applied in planning for stormwater management and erosion control:

- (1) All measures in the plan shall meet as a minimum the Best Management Practices set forth in the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire," Rockingham County Conservation District, NH Department of Environmental Services, Soil Conservation Service (now the Natural Resources Conservation Service), August 1992, as amended.

- (2) Whenever practical, natural vegetation shall be retained, protected or supplemented. The stripping of vegetation shall be done in a manner that minimizes soil erosion.
- (3) Appropriate erosion and sediment control measures shall be installed prior to soil disturbance.
- (4) The area of disturbance shall be kept to a minimum. Disturbed areas remaining idle for more than 30 days shall be stabilized.
- (5) Measures shall be taken to control erosion within the project area. Sediment in runoff water shall be trapped and retained within the project area using approved measures. Wetland areas and surface waters shall be protected from sediment.
- (6) Off-site surface water and runoff from undisturbed areas shall be diverted away from disturbed areas where feasible or carried non-erosively through the project area. Integrity of downstream drainage systems shall be maintained.
- (7) Measures shall be taken to control the post-development peak rate of runoff so that it does not exceed pre-development runoff for the 2-year, 24-hour storm event and for additional storm event frequencies as specified in the design criteria of the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire."
- (8) Priority should be given to preserving natural drainage systems including perennial and intermittent streams, wetlands, swales, and drainage ditches for conveyance of runoff leaving the project area.
- (9) All temporary erosion and sediment control measures shall be removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized within 30 days unless conditions dictate otherwise.

F. COMPLETED APPLICATION REQUIREMENTS

The Planning Board shall require each of the following in the final plan unless the project is deemed of minimal impact.

- (1) Construction drawings
 - (a) Existing and proposed conditions:
 - (i) Locus map showing property boundaries
 - (ii) North arrow, scale, date
 - (iii) Property lines
 - (iv) Structures, roads, utilities, earth stockpiles, equipment storage, and stump disposal
 - (v) Topographic contours at two-foot intervals
 - (vi) Critical areas, stockpile and staging areas
 - (vii) Within the project area and within 400 feet of project boundary surface waters, wetlands, and drainage patterns and watershed boundaries
 - (viii) Vegetation
 - (ix) Extent of 100-year flood plain boundaries if published or determined

- (x) Soils information for design purposes from a National Cooperative Soil Survey (NCSS) soil series map or a High Intensity Soil Map of the site, prepared in accordance with SSSNNE Special Publication No. 1. Highly erodible soils shall be determined by soil series.
 - (xi) Easements
 - (xii) Areas of soil disturbance
 - (xiii) Areas of cut and fill
 - (xiv) Areas of poorly or very poorly drained soils including any portion to be disturbed or filled
 - (xv) Location of all structural, non-structural, and vegetative stormwater management and erosion control BMPs
 - (xvi) Identification of all permanent control BMPs
 - (xvii) Tabulated sequence of construction
- (b) Other plan requirements:
- (i) Construction schedule
 - (ii) Earth movement schedule
 - (iii) A proposed schedule for the inspection and maintenance of all BMPs
 - (iv) Description of temporary and permanent vegetative BMPs including seeding specifications
 - (v) Description of all structural and non-structural BMPs with detailed drawings of each as appropriate

(2) Report section including:

- (a) Design calculations for all temporary and permanent structural control BMP measures
- (b) A proposed schedule for the inspection and maintenance of all BMPs
- (c) Identification of all permanent control measures and responsibility for continued maintenance
- (d) Drainage report with calculations showing volume, peak discharge, and velocity of present and future runoff
- (e) When detention structures are planned to reduce future condition peak discharge the soil cover complex method shall be used to compute the runoff volume and peak discharge for designing the structure. The design will conform to the criteria outlined for those types of structures given in the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire".

G. RESPONSIBILITY FOR INSTALLATION/CONSTRUCTION

- (1) The applicant shall bear final responsibility for the installation, construction, inspection and disposition of all stormwater management and erosion control measures required by the provisions of this regulation.
- (2) The Planning Board may require a bond or other security in an amount and with surety conditions satisfactory to the Board, providing for the actual construction and installation of such measures within a period specified by the Planning Board and expressed in the bond or the surety.

- (3) Site development shall not begin before the stormwater management and erosion control plan receives conditional approval. Best Management Practices shall be installed as designed and scheduled as a condition of final approval of the plan.

H. PLAN APPROVAL AND REVIEW

- (1) The Planning Board shall indicate approval of the stormwater management and erosion control plan, as filed, if it complies with the requirements and objectives of this regulation. Such approval shall be a component of subdivision or site plan approval. If disapproved, a list of plan deficiencies and the procedure for filing a revised plan will be given to the applicant.
- (2) Technical review of any stormwater management and erosion control plan prepared under this regulation shall be reviewed by a qualified professional consultant, as determined to be appropriate by the planning board, at the expense of the applicant.

I. MAINTENANCE AND INSPECTION

- (1) A narrative description of on-going maintenance requirements for water quality measures required by stormwater management and erosion and sediment control plans after final planning board approval shall be recorded on the deed to the property on which such measures are located. The description so prepared shall comply with the requirements of RSA 478:4-a.
- (2) The purpose of this article is to enact locally the administrative and enforcement procedures set forth in RSA 676 of the existing planning and land use statutes.
- (3) The planning board may require routine inspections to verify on-going maintenance of water quality protection measures. Such inspections shall be performed by the designated agent at reasonable times to the landowner. Any costs incurred by inspections will be borne by the landowner.
- (4) If permission to inspect is denied by the landowner, the designated agent shall secure an administrative inspection warrant from the district or superior court under RSA 595-B.

**APPENDIX C:
CRITERIA FOR DETERMINING REGIONAL IMPACT**

Impact Criteria shall include, but not be limited to, the following items. These shall in no way be considered exhaustive, but rather guidelines for the Board to follow in making a determination of impact within the Region.

- A. RESIDENTIAL DEVELOPMENT:** Proposals for lots or dwellings that would increase the existing housing stock of the town by more than 25%.

- B. COMMERCIAL DEVELOPMENT:** Proposals for new or expanded space of 50,000 square feet or greater.

- C. INDUSTRIAL DEVELOPMENT:** Proposals for new or expanded space of 100,000 square feet or greater.

- D. OTHER FACTORS TO BE CONSIDERED:**
 - 1. Proximity to other municipal boundaries.
 - 2. Traffic impacts on the regional road network.
 - 3. Potential effect on groundwater, surface water and wetlands that transcend municipal boundaries.
 - 4. The potential to disturb or destroy a significant or important natural environment or habitat.
 - 5. The necessity for shared public facilities such as schools or solid waste disposal.
 - 6. Anticipated emissions such as light, noise, smoke, odors, or particulates.
 - 7. The potential for accidents that would require evacuation of a large area.
 - 8. The generation and/or use of any hazardous materials.