



TOWN OF NORFOLK BOARD OF HEALTH

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NORFOLK, MASSACHUSETTS 02056

NORFOLK BOARD OF HEALTH

SUBMITTAL GUIDELINES FOR SUBDIVISION PLANS, SITE PLANS OR OTHER TYPES OF PROJECT PLANS - 2

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Any Applicant who seeks review comments for a subdivision plan, site plan, or other project plan submitted to the Norfolk Board of Health for review and approval, shall have the project designer complete the checklist below and follow the guidelines that are herein described. The project designer is also referred to the actual applicable Board of Health regulations that are available at the Board of Health office, and which contain the complete requirements.

_____ Any plan and related documents being submitted for review by the Board of Health and/or its agent, regardless of whether such information is being referred as part of a subdivision, site plan, or special permit process, shall be signed and stamped by a Professional Engineer, Registered in the Commonwealth of Massachusetts.

_____ No plan shall be deemed to be "**SUBMITTED**" under Board of Health regulations, until (1) an application has been completely executed, (2) two copies all of the required plans, calculations, and other required documents, have been submitted, (3) the required fee has been paid, and (4) a copy of this executed guidelines checklist.

_____ All submittal items required by the Planning Board shall be included in the submittal to the Board of Health.

The Plan Content shall include all items required by the Planning Board Regulations as well as those required by the Board of Health.

STORMWATER MANAGEMENT — While the following checklist is provided as a guideline for review purposes, the designer must refer to the Board of Health regulations and is responsible for full compliance with the performance and other standards therein.

_____ Designer has a copy of the Board of Health Stormwater and Runoff Management Regulations.

_____ Hydrologic Report has been prepared which is stamped and signed by a Professional Engineer, Registered in the Commonwealth of Massachusetts, and includes a Table of Contents and has sequentially numbered pages throughout, and is based upon the

methodology of the United States Department of Agriculture (USDA), Natural Resources Soil conservation Service (NRSCS).

_____ Proposed system has been analyzed for the 2-inch storm, and 1, 10, 50, and 100-year storm events as established from data of the Northeast Regional Climate Center.

_____ Both volume and rate of runoff amounts have been calculated. A tabular summary of results has been prepared.

_____ Separate overlays have been included of pre- and post- development watershed catchment areas, including the soil types, hydrologic categories, CN values of the NRSCS, and the Time of Concentration flow paths and design points delineated.

_____ Best Management Practices have been provided for removal of contaminants from the peak runoff from the 2-inch storm. Specific calculations have been prepared.

_____ High groundwater determinations have been made in the areas of any detention or infiltration basins based upon soil morphology or by use of an adjustment satisfactory to the Board of Health based upon the methodology of Frimpter. The location of all test holes and monitor wells shall be shown, including elevation of top of monitor well, elevation of ground, date of water level readings (should usually be taken between the 22nd and 29th of the month), and groundwater adjustment used with supporting data, where applicable.

Hydrology Calculations

_____ The methodology of the NRSCS has been used.

_____ Overall watershed contour map at a scale of 1" = 500' or larger. This typically may extend outside the boundary of the project. Show Tc, CN, and Drainage Area for each subarea on the map. Indicate relevant structures.

_____ Large-scale map at a scale of 1" = 100 feet or larger, showing different soils within each sub-area boundary, which may also be used to delineate drainage areas. Show Tc calculation and path used for each sub-area.

_____ CN value calculations and work sheets included.

_____ Times of Concentration calculations and work sheets included. Note that sheet flow components should not exceed 50 feet and are usually less.

_____ Hydrographs printed out and show data and graphical representation for pre- and post-development conditions.

_____ Tabular sheet showing stage-discharge-storage volumes for detention/retention facilities, along with supporting calculations. Include drawings of structures and cross sections showing elevations and dimensions used in the calculations.

_____ Tabular sheet showing stormwater flow rates and volumes generated prior to development, for the development without attenuation, and the final discharge.

Basin Design

_____ Plan of basin at scale of 1 inch = 20 feet provided.

_____ Geometric Design follows both Board of Health requirements and DEP Stormwater Handbook. Note that 4:1 side slopes and 10' safety bench is required. The width of the top of the containment berm must be at least 10' wide.

_____ Water depth shall not exceed 3 feet.

_____ Emergency spillway provided.

_____ Maintenance Plan submitted.

Detention Basin

_____ 24-hour average detention provided for 2-inch storm.

_____ Inlet and outlet separation has been maximized.

_____ Inlet energy dissipater and forebay is provided.

_____ Maintenance access has been provided.

_____ Multi-stage outlet provided.

Infiltration Structure

_____ Soil hydraulic conductivity based upon borehole permeability test.

_____ Complete Boring Logs and Details of Calculations submitted.

_____ Elevation of high ground water, elevation of underlying impervious layer (ledge or clay), and saturated thickness of underlying aquifer has been determined.

_____ Mounding of Groundwater shall be considered in the design.

_____ An infiltration structure for a 2-year storm will have a minimum of 2 feet of vertical clearance (preferably 4 feet) to the high ground water with consideration of the groundwater mound.

_____ Ten-year storm will infiltrate in 24 hours maximum.

_____ 100-year storm will empty in 72 hours maximum.

_____ Underground Infiltration Facilities to be preceded by an Innovative/Alternative stormwater quality enhancement system that has been evaluated and approved by the Massachusetts Strategic Envirotechnology Partnership (STEP).

OPERATION AND MAINTENANCE PLAN

_____ Stormwater management system has an operation and maintenance plan satisfactory to the Board of Health in accordance with Mass DEP guidelines and good engineering practice to ensure that systems function as designed.

WATER SUPPLY AND SEWAGE. DISPOSAL

_____ Source of water supply is identified. If an on-site well water supply is proposed, evidence is provided that the proposed source will provide a quantity and quality in accordance with town, state and federal standards for the proposed use

_____ Soil data, including percolation rates and high groundwater data, is provided to demonstrate that all building sites are suitable for the subsurface disposal of sanitary sewage where applicable.

Name of person completing this guideline: (print) _____

Signature: _____ Date: _____