

## PLAINVILLE BOARD OF HEALTH

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

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Any Applicant who seeks review comments for a subdivision plan, site plan, or other project plan submitted to the Plainville 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 has been submitted.
- 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 – The following checklist is provided as a guideline only for the plan preparation and review purposes. The designer must also refer to Board of Health and state regulations and guidelines, as well as sound engineering practice, and is responsible for full compliance with the performance and other standards therein. Failure to follow the requirements herein and to provide all data in a clear and correct manner can cause a significant delay of the review process.**

- 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).

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- \_\_\_ Proposed system has been analyzed for the 1, 2, 10, 25 and 100-year storm events as established from 24-hour precipitation 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 22<sup>nd</sup> and 29<sup>th</sup> 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.

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- 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.

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- \_\_\_ 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 empty (infiltrate) in 24 hours maximum.
- \_\_\_ 100-year storm will empty (infiltrate) in 72 hours maximum.
- \_\_\_ Underground Infiltration Facilities to be preceded by an Innovative/Alternative stormwater quality enhancement system that has been evaluated for performance verification by the Massachusetts Strategic Envirotechnology Partnership (STEP). Capacity of the unit shall be based upon the peak flow of the 2-inch NRSCS Type III storm without bypass.

**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: \_\_\_\_\_