

CIVIL ENVIRONMENTAL CONSULTANTS LLC ENGINEERS AND LAND SURVEYORS

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Sept 12, 2025
Tinh Vien Quan Am Pagoda
41-1/2 Kernwood Avenue
Haverhill MA

RE: Conservation Commission Comments on 41-1/2 Kernwood Avenue.

In regards to the Comments on the above referenced address from the Previous Conservation Commission meeting, CEC Responds with the following information:

In Regards to Comment #1:

A DEP Filing number has been issued, it is MA-DEP# 033-1589

In Regards to Comment #2

It is proposed to pave within both the No build and No disturb zones, vehicles have been parking in the this area for at least the past 9 years. (see attached Satellite Image Dated April 2016 showing the parking area) and the client is wanting to make making said parking area easier to maintain.

In Regards to Comment #3

CEC had no prior knowledge about this matter.

In Regards to Comment #4

CEC had no prior knowledge about this matter

In Regards to Comment #5

(a)

As of this time there has been no test pit dug to determine depth to groundwater. If required, CEC will witness a test pit being dug to determine ground water depth.

(b)

Infiltration rate was determined from USDA's National Resources Conservation Service Web Soil Survey Website, which utilizes data from the Soil Survey of Essex County Massachusetts, Northern Part dated 1981. The results of this data determine what infiltration rate was used.

The Soil in the proposed infiltration area is Hydrologic Soil Group A which per the MA Stormwater Handbook, can have an infiltration rate between 2.41 inches per hr to 8.27 inches per hr. For the Drainage Report, CEC used the Lower number of 2.41 inches per hr.

(c)

CEC has placed the overflow to maintain the least amount of disturbance to the buffer zone for the overflow pipe, per the design, this overflow pipe is significantly higher than the inlet pipes, with the overflow existing from the top of the chambers, so that prior to any discharge of stormwater from the system, the system has to be full, which means, according to the current design there will over 13,600 gallons of water in the infiltration system before the overflow is utilized. This should only happen for storms that exceed the 25 yr storm

(d)

The O&M plan has been modified to include the Catch Basin Cleaning.