



165 East Grove Street  
Middleborough, MA 02346  
Tel # 508-946-9231 Fax # 508-947-8873

[www.outback-eng.com](http://www.outback-eng.com)

Civil Engineers † Land Surveyors † Wetland Scientists † Soils Laboratory

September 30, 2016

Medway Zoning Board of Appeals  
155 Village Street  
Medway, Massachusetts 02053

**Subject: Drainage Report with Added Plan Details**  
**Timber Crest Estates Comprehensive Permit per MGL Ch.40B**  
**Job #OE-2765**

Dear Chairman Cole and Members of the Board,

On behalf of Timber Crest LLC, we are submitting a Preliminary Drainage Report (dated September 26, 2016) associated with the 157-lot subdivision layout for Timber Crest Estates. As a result of the drainage calculations, we are also submitting updated Comprehensive Permit Plans (revision date 9/26/16 with 10 plan sheets) with additional details shown for the drainage system. The majority of the additional details are related to showing catch basins and grading of stormwater basins, but includes some refinements of grading on the roadways and utility locations in general.

As was noted in our July 21, 2016 response letter to TetraTech's comments on the prior plan submission, we completed 50 test pits across the majority of the site where stormwater basins are proposed to collect information on soil types and depths to groundwater (the test pit locations are shown on Sheets 2, 5, 6 and 7, and soil logs are on Sheet 10). Based on this soil and groundwater information, we've sited detention and infiltration basins, as well as rain gardens and underground leaching chambers, according to MassDEP Stormwater Management Regulations for setbacks to wetlands and minimum separation to groundwater. Based on this drainage analysis, we have controlled runoff rates and volumes below existing conditions (refer to Section 5 of the drainage report for a summary of runoff rates and volumes at the design points). Also as noted in the response letter, additional work remains to be done to provide other stormwater related calculations and details on the plans (such as required recharge and water quality volumes, TSS removals, sediment forebay sizing, groundwater mounding calculations, operation and maintenance plans, and a DEP Stormwater Checklist), however, the drainage calculations show that stormwater can be controlled to meet the regulations.

Please note also, the plans show the following utilities:

- proposed water mains in all roads with hydrant locations and proposed connections to existing water mains in Winthrop Street and Ohlson Circle for the West Side, and in Fairway Lane, Holliston Street, and Fern Path for the East Side.
- Gravity sewer for the West Side to connect to existing SMH at Buttercup Lane (last 6 homes closest to Winthrop Street to have E-One sewage pumps).

- Gravity sewer on East Side to flow to a proposed sewer pump station off Road F between lots 151 and 152 that will pump to the existing SMH in Fern Path (4 homes on Fern Path Extension to have E-One sewage pumps).

We appreciate your consideration and review of this request, and look forward to your reply. Should you have any comments or need additional information, please feel free to call me.

Sincerely,  
**Outback Engineering, Inc.**

*James A. Pavlik*

James A. Pavlik, P.E.  
Principal

cc: Mounir Tayara, Timber Crest  
Chris Agostino, RIW (via email)  
Paul Cusson, Delphic (via email)