DuBois & King inc.

322211P
December 5, 2014

Ms. Marcia Gasses
Town Planner and Land Use Administrator
Town of Barrington, Land Use Department
PO Box 660
Barrington, NH 03825

SUBJECT: Homestead Subdivision
Engineering Review

Dear Ms. Gasses:

As requested, we have completed our review of materials submitted by MJS Engineering, PC for the above referenced project with respect to drainage and roadway design. The following materials were provided for our review:

- Full size plan sets consisting of 23 sheets entitled "The Homestead Subdivision – Phase II, for Gerrior Lane Trust, 1550 Falmouth Road, Suite 15, Centerville, MA 02632," dated May 15, 2013 and last revised November 24, 2014.
- Draft Test Pit Evaluation Reports dated 12/18/13 – 12/23/13 by NH Soil Consultants, Inc.
- Waiver request from Article 12.2.1 for shoulder width in cut, dated July 21, 2014.
- Drainage analysis dated May 15, 2014 and last revised November 24, 2014.
- Response letter dated November 24, 2014.
- Response letter dated July 21, 2014.

The following were noted during our review:

DRAINAGE COMMENTS

1. Our previous review comments noted that the HydroCAD input for Pond 1 does not match the conditions depicted on Sheet 5 of 6 prepared by Doucet Survey. Revisions were made to the HydroCAD Post-Development analysis, however there are still some minor differences in the Pre-Development analysis that are not likely to alter the conclusions of the report.

2. Having received the test pit logs, we have completed our review of the gravel wetland design. Based on Test Pit #7, the groundwater elevation in the area of the gravel wetland ranges from about 321.0 to 321.5. We recommend that the engineer review the design relative to the weir elevation, weir orifice size and elevation, and volume of the gravel wetland cells to verify that

pond will function as it is intended. Based on our review, we suspect the wetland may be submerged to elevation 320.0. Thus, the storage capacity between elevations 318.0 and 320.0 should be excluded from the calculations.

ROADWAY COMMENTS

1. We recommend that underdrain outlets be revised to discharge on the side of the road they serve for ease of maintenance. We further recommend that the outlet for the underdrain on the inside of the cul-de-sac be shown on the plans.

If you should have any questions or comments, please call me.

Very truly yours,

DuBOIS & KING Inc.

Jeffrey A. Adler, P.E.
Senior Project Manager

JAA/mto

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