

June 18th, 2025
7462

Littleton Conservation Commission
37 Shattuck Street
1st Floor, B100
Littleton, MA 01460

**RE: Notice of Intent (DEP File #204-1018 & 204-1019)
64 Beaver Brook Road, Lot 1 & 3
Littleton, MA**

Dear Commission Members:

We have received comments from the Town of Littleton Conservation Commission pertaining to the Notice of Intent applications for 64 Beaver Brook Road. The comments were received during the May 13th public hearing & the May 28th site walk with the Littleton Conservation Commission. Additional review comments received by MassDEP's Central Regional Office have been included within this letter as well. On behalf of the Applicant, Hannah & Michael Gruar, we have prepared this letter to address the comments and provide a summary of the plan related revisions below:

Comments from Opening Public Hearing (5/13/25):

1. *Comment – Describe the configuration of the wetlands to the south of the property.*

DR Response – The edge of wetlands extends south at approximately the same width on the subject property. The wetlands were reviewed during the May 28th site walk with the Littleton Conservation Commission.

2. *Comment – Revise wetland crossing to span the BVW area.*

DR Response – The proposed wetland crossing has been redesigned to meet the criteria of Massachusetts Stream Crossing Standards. The previously proposed HDPE culverts have been replaced with a concrete box culvert to span the crossing. We've reviewed each of the Stream Crossing Standards below:

- ❖ ***Spans (bridges, 3-sided box culverts, open-bottom culverts, or arches) that preserve the natural stream channel are strongly preferred.***

The revised crossing proposes an embedded concrete 6' x 6' box culvert to span the subject crossing. The selected dimension of culvert is a wide-span, low-rise structure that requires minimal cover depth to withstand H20 loading situations. The depth has been sized to exceed the required openness ratio which ensures adequate wildlife passage and minimizes channel constriction.

❖ *If a culvert, then it should be embedded:*

- *A minimum of 2 feet for all culverts*
- *A minimum of 2 feet and at least 25% for round pipe culverts*
- *When embedment material includes elements > 15 inches in diameter, embedment depths should be at least twice the D84 (particle width larger than 85% of particles) of the embedment material.*

The proposed box culvert will be buried to a depth of 2-feet (including the 6” of substrate in the bottom of the culvert. Refer to the Proposed Culvert Profile for a cross-sectional detail on Sheet 3.

❖ *Spans channel width (a minimum of 1.2 times the bankfull width)*

The existing channel width is approximately 4.8 feet at its widest section along the proposed crossing. The proposed box culvert spans 6 feet, which is greater than 1.2 times the bankfull width.

❖ *Natural bottom substrate within the structure.*

The proposed culvert will include a natural bottom substrate within the structure.

❖ *Designed with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows.*

The proposed culvert has been designed to accommodate the expected runoff volume during the 100-year storm. The culvert will be installed to mimic the bed forms and streambed characteristics of the existing channel.

❖ *Openness Ratio > 0.82 feet (0.25 meters)*

$$\text{Openness Ratio} = \frac{\text{Cross – Sectional Area of the Crossing}}{\text{Length of the Crossing}}$$

$$\text{Proposed Openness Ratio} = \frac{24 \text{ Square Feet}}{28 \text{ Feet}} = 0.86$$

The proposed box culvert provides an Openness Ratio of 0.86 feet which is greater than the required 0.82 feet.

- ❖ **Banks should be present on each side of the stream matching the horizontal profile of the existing stream and banks.**

The inlet and outlet portion of the bank will match the horizontal profile of the existing edge of wetlands. No streambed is present at the location of the proposed wetland crossing.

3. *Comment - Define the snow storage and relocate the turnouts outside the buffer zone if possible.*

DR Response – The turnouts have been removed from the proposed common driveway as this project is not subject to the provisions of the Littleton Common Driveway Regulations which applies to developments of 3 or more units. Snow Storage locations have been provided on the revised plan.

4. *Comment – Review the impacts of a larger storm event.*

DR Response – The project has been designed with the latest point precipitation frequency estimates from the NOAA Atlas 14, Volume 10 Version 3. The 2-, 10-, 25-, 50- and 100-year storm events have been analyzed and incorporated into the stormwater design.

5. *Comment – Disturbance within the 50-foot No Disturb Buffer on Lot 3*

DR Response – Lot 3 has been revised to not propose any alteration within the 50-Foot No Disturb Buffer.

6. *Comment - Mitigation plantings for the trees removed in the buffer zones.*

DR Response – A tree removal exhibit has been prepared to illustrate which trees are proposed for removal. Mitigation plantings have been incorporated into the revised plans within the 100-Foot Buffer Zone.

7. *Comment - Tabulation of the proposed disturbed areas on site by Lot and by resource area (BVW, 50-foot and 100-foot).*

DR Response – A tabulation of the Buffer Zone disturbances by lot has been added to plan sheet 3.

8. *Comment – Provide a 3:1 wetland replication ratio.*

DR Response – The wetland replication area has been relocated and has been increased to 1,050 S.F. of mitigation. This results in a 3:1 wetland replication ratio (347 SF of BVW disturbance).

DEP Comments pertaining to Lot 1:

9. *DEP Comment - The Commission may consider requesting supporting documentation on the Representative's site review including a Bordering Vegetated Wetland (BVW) Determination Form (Form). The Commission should verify the delineation and confirm if there is a stream channel within the BVW in the vicinity of the proposed driveway crossing.*

DR Response –Wetland Delineation forms have been attached to this response letter.

10. *DEP Comment - Should a channel be present, Bank should be shown on the plans, and the Applicant should demonstrate how the proposed crossing structures meet Bank performance standards found at 310 CMR 10.54(4) and specifically the Stream Crossing Standards in accordance with the regulations found at 310 CMR 10.54(4)(a)6.*

DR Response – Please refer to comment response #2 in this letter.

11. *DEP Comment - Under 310 CMR 10.55(4), the Issuing Authority should evaluate the extent to which adverse impacts can be avoided and the extent to which adverse impacts are minimized. Has the Applicant explored alternative crossing structures, minimizing driveway width and associated grading, which could minimize BVW alteration? The Commission may consider requesting an alternative analysis that avoids and minimizes wetland impacts.*

DR Response – Please refer to comment response #2 in this letter.

12. *DEP Comment - The plans should include the proposed grading for the replication area. The Commission may want to consider including conditions that require at least a two-year monitoring period and steps to ensure the proposed restoration area will meet or exceed the performance standards outlined in 310 CMR 10.55(4)(b)1-7. Conditions for the restoration area should it fail to meet the standards may include the Commission requiring additional measures that ensure the function and value of the restoration area prior to issuance of a Certificate of Compliance. The Commission may want to include a condition that the restoration area must achieve 75% survival of all planted strata to be considered in compliance.*

DR Response – Grading has been provided for the new wetland replication area. The applicant has no disputes with the suggested conditions to ensure the proposed restoration area will meet or exceed the performance standards.

13. *DEP Comment - As stormwater management is proposed as a requirement at the local level, MassDEP offers the following comments for the Commission's consideration. Infiltration BMPs are required to be set back a minimum of 50 ft from a surface water and test pits are required at the location of infiltration BMPs to verify seasonal high groundwater and soil type as identified in V.2 Ch.2 of the MA Stormwater Handbook. The Applicant should verify the function of the structure located along the driveway (i.e. infiltration or treatment). The Commission may consider requesting test pit data for infiltration BMPs, TSS Worksheets and may want to consider perpetual conditions for O&M activities.*

DR Response – The proposed stormwater management area which was initially located closer than 50-feet from the surface water has been relocated to be more than 50-feet away. Please refer to the revised Stormwater Report attached to this response letter for more information.

14. *DEP Comment - The Project appears to qualify as a “Real Estate Subdivision,” and will be required to obtain a 401 Water Quality Certification under 314 CMR 9.04(3). This requirement will be waived by MassDEP if the Proponent places “a recorded deed restriction providing notice to subsequent purchasers limiting the amount of fill for the single and complete project to less than 5000 square feet cumulatively of bordering and/or isolated vegetated wetlands and land under water,” on all lots within the Project.*

DR Response – The proposed project is limited to the scope of work as shown on the attached site plan. There is no intent from the applicant to further develop these properties in the future.

DEP Comments pertaining to Lot 3:

15. *DEP Comment - The Commission may consider requesting supporting documentation on the Representative’s site review including a Bordering Vegetated Wetland (BVW) Determination Form (Form).*

DR Response – Wetland Delineation forms have been attached to this response letter.

16. *DEP Comment - As stormwater management is proposed as a requirement at the local level, MassDEP offers the following comments for the Commission’s consideration. Test pits are required at the location of infiltration BMPs to verify seasonal high groundwater and soil type as identified in V.2 Ch.2 of the MA Stormwater Handbook. The Commission may consider requesting test pit data for infiltration BMPs and may want to consider perpetual conditions for O&M activities.*

DR Response – The proposed stormwater management area which was initially located closer than 50-feet from the surface water has been relocated to be more than 50-feet away. Please refer to the revised Stormwater Report attached to this response letter for more information.

17. *DEP Comment - The Project appears to qualify as a “Real Estate Subdivision,” and will be required to obtain a 401 Water Quality Certification under 314 CMR 9.04(3). This requirement will be waived by MassDEP if the Proponent places “a recorded deed restriction providing notice to subsequent purchasers limiting the amount of fill for the single and complete project to less than 5000 square feet cumulatively of bordering and/or isolated vegetated wetlands and land under water,” on all lots within the Project.*

DR Response – The proposed project is limited to the scope of work as shown on the attached site plan. There is no intent from the applicant to further develop these properties in the future.

We trust this meets your needs at this time. If you have any questions or require any additional information, please do not hesitate to contact me.

Regards,

DILLIS & ROY
CIVIL DESIGN GROUP, INC.



Ryan Vickers, E.I.T.
Civil Engineer



Gregory S. Roy, P.E.
Principal

cc: Tim Pearson, Littleton Conservation Agent
Hannah Gruar, Applicant
Michael Gruar, Applicant