Engineering, Architecture, Surveying, D.P.C.

January 20, 2022

Mr. Doug Finch, Town Manager Town of Canandaigua 5440 Routes 5 & 20 West Canandaigua, New York 14424

RE: INGRAHAM RESIDENCE - 5015 SENECA POINT ROAD

SITE PLAN REVIEW

TAX MAP NO. 153.00-1-15.300

**CPN No. 21-096** 

MRB PROJECT NO.: 0300.12001.000 PHASE 269

Dear Mr. Finch:

MRB has completed a review of the submitted Site Plan regarding the above referenced project, dated December 8, 2021, last revised December 16, 2021, and Drainage Calculations dated December 16, 2021, both prepared by Marks Engineering. We offer the following comments for the Planning Board's consideration. A brief written response to each comment should be provided by the design engineer.

- 1. The Planning Board will need to discuss how this application complies with the Town's Steep Slope Protection Law. The design engineering should consider providing written notice describing how the proposed application complies with the Steep Slope Protection Law.
- 2. Approval signature lines should be provided for the Town Engineering and Town Highway & Water Superintendent.
- 3. The survey certification statement is to be signed prior to submitting for approval signatures.
- 4. The proposed septic system and leaching area design is to be reviewed and approved by the Canandaigua Lake Watershed Inspector and NYSDOH prior to issuance of a C/O.
- 5. The minimum lot standards table should identify the required lot width as 225'. Maximum building height, proposed building height, maximum building coverage on lot, and proposed building coverage on lot should also be included. Any existing non-conforming dimensions should be identified as such.
- 6. The limits of tree clearing should be identified on the plans.
- 7. Will the proposed barn include any utility connections? Will a driveway connection be provided? If so, this should be shown on the plans.

- 8. Where swales discharge to grade, a level spreader, flow diffuser, or other suitable, approved method of diffusing channel flow into sheet flow shall be provided. Due to excessive flow lengths and slopes, this may require calculations or modeling to demonstrate adequacy of the proposed improvements.
- 9. The catchment for the culvert crossing of the driveway nearest to the house should be deepened. The drainage calculations should demonstrate the adequacy of the catchment depth/volume and the sizing of the culvert.
- 10. Check dams should be provided at a maximum spacing of 1 check dam every 2' of elevation change. Temporary sediment traps should also be provided due long slope/swale lengths.
- 11. The silt fence runs shown should be extended further to ensure full coverage of disturbed areas (except at point discharges such as swales). Additional rows of silt fence are likely to be required in order to comply with NYS Blue Book standards.
- 12. All proposed steep slope areas (3:1 h:v or steeper) are to be treated with erosion control blankets and steep slope seed mix. A note to this effect is to be added to the plans, all proposed steep slope areas are to be hatched out and labeled on the plans, and a detail is to be provided.
- 13. A riprap protected outlet is to be provided for the proposed SWMF. The drainage calculations should also demonstrate that the SWMF can safely convey large storm events without erosion or failure. At least 1 foot of freeboard should be provided. Additional contour labels should be shown within and around the SWMF. An outlet control structure should also be provided.
- 14. A dry swale detail is to be provided.
- 15. Permanent water bars should be provided along the steeper sections of the proposed driveway.
- 16. The culverts and roof leaders should include riprap outlet protection, and the dimensions of riprap outlet protection should be labeled on the plans. A riprap outlet protection detail is to be added to the plans.
- 17. The sequence of construction should be site specific and should identify the timing of the following items at a minimum: construction of buildings, utility installations, construction of driveway, construction of SWMF, and construction of swales.
- 18. How would the construction staging area, concrete washout area, and topsoil stockpile be accessed during construction? It appears that the proposed swales and house would block access to these areas. Any temporary culverts and temporary construction drives required to access these areas should be shown on the plans. Silt fence should be provided downslope of the staging area.

- 19. All stabilization timing notes should be updated as necessary to indicate that in areas where soil disturbance activities have temporarily or permanently ceased, stabilization measures shall be initiated by the end of the next business day and completed within fourteen days (seven days if over 5-acres of disturbance, or three days if between November 15<sup>th</sup> and April 1<sup>st</sup>).
- 20. The concrete washout area detail should indicate that the liner is to be replaced whenever the washout area is emptied, and whenever any tears are noted in the liner.
- 21. The out of date Town of Canandaigua Typical Driveway Apron detail included on the plans should be replaced with the most current version.
- 22. As the proposed project includes disturbance area of greater than 1 acre, the project will be required to obtain coverage under the NYS SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001, and shall include the preparation of an Erosion Control SWPPP. A draft SWPPP is to be provided for review and approval.
- 23. A detail should be provided for the proposed private well and water service.

## **Drainage Calculations**

- 24. As the proposed project is located within the Canandaigua Lake watershed and includes disturbance of greater than 20,000 square feet, the proposed project will be required to provide WQv for the 1-year design storm event and mitigate the effects of the 2-year design storm. The WQv requirement calculations in the drainage calculations are to be revised to meet enhanced phosphorus removal requirements (1-year, 24-hour design storm).
- 25. As there are two dry swales, two separate worksheets should be used. The reported longitudinal slope does not match the slope shown on the plans, and it appears that the slope limit is exceeded. The dry swales should be adjusted to reduce the slope to within the 4% limit as much as feasible.
- 26. The following comments pertain to the hydrology modeling:
- 27. Drainage maps should be provided to support the hydrology modeling provided. An NRCS soils report should also be provided to support the HSG percentages indicated.
- 28. The existing conditions row crops should be modeled as meadow conditions per the requirements of the NYS Stormwater Management Design Manual. Also, the model shows the existing row crops as being HSG C, and the replacement grass as being HSG B. The is discrepancy is to be resolved.
- 29. Both the existing and proposed conditions subcatchments include 2.5 acres of gravel roads. This area is not shown on the plans. Also, this CN description includes right of way area.

- 30. The existing and proposed conditions subcatchments show significantly less woods area than is shown on the plans. The plans show approximately 4.4 acres of woods in the existing conditions. Also, the proposed conditions should show a small loss in woods area.
- 31. The proposed pond should exclude exfiltration as an outlet unless soil testing demonstrates that sufficient infiltration capacity exists, in which case the pond should be designed as an infiltration basin. The pond should also be set with a starting water elevation at the lowest outlet invert.

If you have any questions, comments or concerns regarding any of the above comments please call me at our office.

Sincerely,

Lance S. Brabant, CPESC

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Director of Planning and Environmental Services