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May 11, 2022  
VIA EMAIL

Ipswich Planning Board  
Town Hall  
25 Green Street  
Ipswich, MA 01938

RE: 55 Waldingfield Road – Phase 1B  
Site Plan Review & Special Permit Applications  
3<sup>rd</sup> Drainage and Stormwater Management Review (Task 3)

Mr. Ethan Parsons and Planning Board Members:

As requested, I have continued a drainage and stormwater management review of the above referenced project. In response to the second (Task 2) review dated March 15, 2022, I have received the following supplemental or revised plans and documents as prepared by Hancock Associates of Danvers, MA (unless otherwise noted).

- Copy of correspondence from Hancock Associates to the Ipswich Planning Board, dated May 3, 2022, regarding response to the ‘Task 2’ review.
- “Permit Site Plan Phase 1B (to accompany a Great Estate Preservation Development Special Permit) 55 Waldingfield Road....” consisting of twelve (12) sheets, dated October 21, 2021, and revised to May 3, 2022.
- “Stormwater Report in Support of A Great Estate Preservation Development (GEPD) Special Permit for 55 Waldingfield Road Phase 1B...” dated October 2021, and revised to April 2022, including appendices for a Long Term Pollution Prevention Plan, a Construction Period Pollution Prevention Plan, and an Operation and Maintenance Plan.
- “Ora at Waldingfield, Rain Garden Planting Plans” dated April 9, 2022 and prepared by Laura Gibson, ASLA, of Manchester, MA.

At this time, the following remaining comments and opinions are offered for your consideration.

**Stormwater Management, Drainage, and Grading:**

1. In the Task 2 review, comment #1 noted that the proposed drainage area flowing into the Rain Garden was underestimated based on the proposed site grading. In my opinion, the response from HSA is insufficient and the comment is inadequately addressed. As graded, the southerly watershed boundary for subcatchment PB-2 should be re-examined and shifted further south, thereby increasing the drainage area contributing to proposed Rain Garden.
  - a. The expanded peastone diaphragm along the eastern parking field will also intercept and convey additional drainage towards the drainage swale and rain garden. This additional drainage area does not appear to be properly accounted.

- b. Clarify why the peastone area in subcatchment PB-2 is decreased by more than one third and the grass area more than doubles. No significant difference in surface treatment was observed when comparing this revision to the prior submittal.
2. On plan sheet 3, the limits of driveway widening should be specified and coordinated with the driveway widening limits specified in the Phase 1A development proposal.
3. Coordinate the weir length specified on the plan and detail with that used in the calculations.
4. The following construction details were provided on prior plan submissions, but do not appear on the current revision, and should be added back onto the plan set.
  - a. Peastone Diaphragm cross section.
  - b. Construction Entrance detail.
  - c. Cross section specifying Rain Garden planting media and minimum depth.

**DEP Stormwater Management Standards:**

1. Standard 4 – In the ‘Long Term Pollution Protection Plan’ under the heading ‘Winter Road Salt and/or Sand use and storage restrictions’ it is stated that salt storage piles be located outside of the 100 year buffer zone and shall be covered. It is strongly suggested that permanent on-site salt storage piles be discouraged by the Planning Board unless a building enclosure is provided.
2. Standard 8 – In the ‘Construction Pollution Prevent Plan’ coordinate the timing of inspections. The narrative description contained in the ‘Inspection Schedule and Procedures’ differs from that contained in the ‘Inspection Schedule and Evaluation Checklist.’

**Additional Planning Board Considerations:** The following items are suggested for consideration by the Planning Board in relation to quality assurance and long term care of the drainage and stormwater management infrastructure.

1. To ensure that construction of the stormwater management system is conducted in accordance with the design, an as-built plan of the completed project should be submitted to the Planning Board along with a report from the engineer of record indicating whether or not construction complies with the design intent. The as-built plan and engineering report should also be appended to the final version of the 'Operation and Maintenance Plan' prepared for the stormwater management system, for the property owner's future use and reference.
2. Because existing topographical depressions within the property are being utilized as part of the stormwater management system, any earthwork that would alter these depressions from what is proposed on the plans should be subject to appropriate hydrologic/hydraulic study and Planning Board review to ensure that the stormwater management design intent is not adversely impacted.
3. Consistent with the calculations, all roof runoff shall be conveyed to the Rain Garden. If cisterns are utilized to collect roof runoff, appropriate provision shall be made to convey overflow from the cisterns to the Rain Garden
4. The following documents are suggested to be incorporated as part of any Planning Board approval:
  - a. The ‘Construction Period Pollution Prevention Plan’ CPPPP) and the Stormwater Pollution Prevention Plan (SWPPP) to identify actions and responsibilities relative to sedimentation and erosion control during construction.
  - b. The ‘Operation and Maintenance Plan’ to provide guidance for the long term inspection and maintenance of the drainage and stormwater management systems.
  - c. The ‘Long Term Pollution Prevention Plan’ (LTPPP) to provide guidance relative to long term management of the site.

Please feel free to contact me if you have any remaining questions or require any additional clarification of the above comments and opinions.

Very truly yours,

*R.E. Puff*

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Robert E. Puff, Jr., PE

cc: C Wear, PE (via email)