

HANCOCK ASSOCIATES

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#24679

May 3, 2022

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

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

Mr. Ethan Parsons and Planning Board Members:

On behalf of Ora, Inc., Hancock Associates is pleased to respond to comments given by Robert Puff, P.E. in his 3rd drainage and stormwater management review dated March 14, 2022, for the above referenced project with respect to regulatory standards of the Planning Board and good engineering design practice for drainage and stormwater management facilities.

The following comments are offered in response to Robert Puff's letter.

Peer review comment:

Remaining Items:

1. *It is presumed that all proposed peastone areas are intended to have a 'soil stabilizer' (i.e., geogrid) used as foundation material. As such, the details entitled 'Section for Peastone' and 'Soil Stabilizer for Peastone' should reflect the intent that the soil stabilizer shall apply to all peastone surfaced areas.*
 - a. *It should be further specified that the geogrid utilized should be capable of supporting fire apparatus and all anticipated truck traffic loads at the site.*

Hancock's response:

A note is added to the "Section for Peastone" and "Soil Stabilizer for Peastone" stating that "The peastone stabilizer shall apply to all peastone areas." and "The geogrid shall be capable of supporting H-20 loading."

Peer review comment:

2. Directional flow arrows should be added to the plans indicating the intended drainage flow direction along the easterly side of the peastone parking field (i.e., in a southerly direction) and the general location where drainage will flow across the main driveway (i.e., from the upper portion of subcatchment 2 to the lower pasture stormwater management area).

Hancock's response:

Directional flow arrows have been added to the plans to indicate the path of stormwater from peastone parking area to the stormwater management area. The drive area has been graded to allow stormwater to sheet across the drive to the lower pasture stormwater management area.

Peer review comment:

3. *Time of concentration for post development subcatchment P3 is higher than the corresponding existing condition value and is based on an incorrect flow length. The value, and resulting subcatchment output, should be revised for the record.*

Hancock's response:

The proposed HydroCAD calculation has been revised. There was no impact on peak rates of runoff.

Peer review comment:

4. *DEP Stormwater Management Standard 4 – As noted in prior reviews, the Long-Term Pollution Prevention Plan (LTPPP) continues to be unsatisfactory with respect to the topics contained in the 'Checklist for Stormwater Report.' The document should be revised and reformatted as needed to address these topics.*

Hancock's response:

The LTPPP has been revised to reflect the requirements in the stormwater checklist.

Peer review comment:

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. *It should be noted that stormwater impacts associated with the initial 500 linear feet of driveway widening proposed in Phase 1A are proposed to be mitigated in conjunction with Phase 1B development. As such, additional temporary mitigation should be provided if Phase 1A is to be constructed significantly in advance of Phase 1B.*

Hancock's response:

The plans have been revised to clarify that work associated with improvements to the site access and driveway widening for the west side of the site will be part of Phase 1B.

Peer review comment:

2. *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.*
 - a. *The engineering report should specifically speak to the ability of runoff from the peastone parking area (i.e., the northerly portion of subcatchment P2) to flow across the project driveway and into the lower pasture area, as assumed in the calculations.*

Hancock's response:

The Applicant takes no exception with the Planning Board including a condition to address this comment.

Peer review comment:

3. *Because existing topographical depressions within the pasture 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.*

Hancock's response:

The Applicant takes no exception with the Planning Board including a condition to address this comment.

Peer review comment:

4. *The following documents are suggested to be incorporated as part of any Planning Board approval:*
 - a. *The 'Construction Period Pollution Prevention Plan' to clarify 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.*

Hancock's response:

The Applicant takes no exception with the Planning Board including a condition to address this comment.

We look forward to discussing these issues at the next Planning Board hearing.

Sincerely,

HANCOCK ASSOCIATES on behalf of Ora, Inc.



Charles E. Wear, III, P.E.
Engineering Manager/Senior Project Manager

cc: Robert Puff, P.E.