



March 29, 2022
19586

Mr. Richard Ganong, Chair
Town of Arundel Planning Board
257 Limerick Road
Arundel, Maine 04046

**Site Plan Review Application: Response to Engineering Review Comments
Strickland Lane, Arundel**

Dear Mr. Ganong,

On behalf of Signature Holdings, LLC we are pleased to submit the following letter and associated attachments to address the review comments provided by Jay Stephens of Civil Consultants on January 28, 2022, for the above-referenced project. We have organized the comment reponse to have the comment in *italics* and the response called out in **bold**.

General:

- *Plan Set Sheet 3 (Overall Site Plan). Contour lines would help put the site in perspective with adjacent properties*

Response: It is not in Sebago Technics' standards to include proposed contours on the site plan, please refer to the grading plan for more information. The grading plan previously did not have the existing contours shown and has been revised to show the existing contours for better context of the site and how the proposed contours tie into the existing landform.

- *Plan Set Sheet 4 (Site Plan). Again, contour lines would help with evaluating site layout*

Response: See response above.

- *Wetland setback lines are not shown for all wetlands.*

Response: 25-foot (red) and 75-foot (blue) setbacks are shown on the grading and site plan.

- *While there are two Stormwater Detention Areas shown, there is no information as to how they drain.*

Response: The two detention basins are designed to hold runoff from the proposed project during a 25-year storm without exceeding existing conditions peak rates. The detention basins have been improved to include a spillway and field inlet to allow for controlled runoff release. Please see sheet 5 for updated grading and utility plans.

- *Geometry for pavement edges (including radii, etc.) as well as for stormwater detention areas (radii, widths, lengths, etc.) is not shown which will make construction difficult.*

Response: Geometry for pavements has been added to the site plan for reference.

- *No fire protection information is shown on the plan.*

Response: The building shall have 2-hour fire rating interior walls and a 24-hour fire alarm monitoring system installed. Please see the added call-out on site plan as well as the architectural plans attached to this response.

- *While a bench mark is shown there is no description of what it is.*

Response: Benchmark description has been added to the notes and legend sheet.

- *Existing contours do not appear to be shown on the plan.*

Response: The grading plan has been revised to have the existing contours turned on.

- *While erosion control measures are shown, none appear near the wetlands located to the Northwest or East sides of the project area. Based on the minimal information provided, the Filter Barrier shown on the Northside of the site appears to be on the uphill side of the project area and would be ineffective.*

Response: Filter barriers have been added to the downhill sides of the proposed areas adjacent to the wetlands.

- *There appears to be a culvert (w/size, material, inv in & inv out). This pipe starts in the middle of the northern stormwater detention area near the westerly end and runs southeast to the guard rail at the edge of the parking area. Based upon the inverts, this pipe is located about 2' below the bottom of the detention pond with no way for water to enter or exit the pipe and no obvious purpose.*

Response: This is an existing pipe that is now noted to be removed.

- *If the Stormwater Detention Areas were shown on this plan, it would show that the River Birch tree located North of the northern parking area is located in (or near) the middle of the Stormwater Detention Area.*

Response: The River Birch has been relocated to avoid conflict with the detention areas.

- *The River Birch tree is shown easterly of the commercial building and northwesterly of the garage building should be located outside of the snow storage.*

Response: The River Birch has been relocated to avoid conflict with the snow storage areas.

- *Loam & Seed (soil Subgrade) detail refers to a Geotechnical Report that was not provided. For construction purposes, the specified areas in the Geotechnical Report need to be outlined in the plan. This is particularly important for the Stormwater Detention Areas (see the following Drainage review Comments).*

Response: Geotechnical Report reference within the Loam & Seed detail has been removed, and for more soil information please refer to the Web Soil Survey attached to the Site Plan Application.

- *There were no calculations provided to show the volume of water being diverted to an area or the size of the receiving area to conform to adequate capacity for the same.*

Response: Please refer to the HydroCAD report for runoff of impervious and pervious areas directed to the basins.

- *The required size of the detention areas needs to include the flows from the contributing previous area as well as the impervious area (since both will need to be held in the detention area).*

Response: Per the HydroCAD model the basins are sized to store runoff from both adjacent pervious and impervious areas.

- *There is no soil information provided to show that the water in the stormwater detention areas will infiltrate within 24 hours to provide capacity for the next storm event.*

Response: The proposed detention areas are not designed to be infiltration basins – as soils on site are not hydrologic soil groups A or B. Per the Web Soil Survey report the project site consists of soil group D which is acceptable for a detention basin. The detention basins have also been sized to hold a 25-year storm event while also maintaining peak flows.

- *Whereas the 2-year storm event has a rainfall of 3.3 inches and the stormwater detention areas are only being designed to hold 1" of rainfall, there will be significant stormwater flows that will flow into the wetlands. The volumes will be significantly higher for larger storm events. The present design directs all flows to the detention areas meaning all excess flows will be in a concentrated form flowing into the adjacent wetlands. The present plans do not address these potentially erosive conditions (part of the MeDEP Basic Standard is ensuring wetlands will not be unreasonably impacted).*

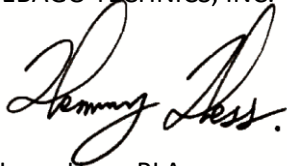
Response: During a 25-year storm, runoff stored within the basins will discharge via a spillway/field inlet and be directed towards the wetlands, to where runoff from the basin would flow over vegetated ground cover before entering the wetland.

- *Section 10.6.4.5. of the Arundel Land Use Ordinance states that: "The project must provide adequate stormwater management facilities for produce no additional peak runoff from the site during a 25-year storm event and will not have an undue impact on municipal stormwater facilities or downstream properties."*

Response: Post-peak runoffs do not exceed pre-peak runoffs, please refer to the stormwater narrative and HydroCAD model for more information.

We are hopeful that this letter and the enclosed associated information adequately address the review comments such that the stormwater management and erosion control review may be finalized.

Sincerely,
SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Henry Hess". The signature is written in a cursive style with a large initial "H" and "H" for "Hess".

Henry Hess, RLA
Project Manager
Main Licensed Landscape Architect