



October 12, 2017
15071-01

Ms. Maureen O'Meara, Town Planner
Town of Cape Elizabeth
320 Ocean House Road
Cape Elizabeth, ME 04107

Maxwell Woods Multi-plex Development – Entrance Road Alignment

Dear Ms. O'Meara:

On behalf of Maxwell Woods, LLC, we have prepared the following letter responding to the Planning Board's discussion at the site walk of September 28, 2017 regarding the intersection alignment of Aster Lane at Spurwink Avenue. The main item of discussion was the alignment and position of exiting vehicles and the corresponding vehicle headlight alignment as it relates to the property across the street.

The location of the intersection was determined through a thoughtful process that considered many factors to achieve a safe and appropriate means of access to the project site. To assist the Planning Board in understanding the alignment, we offer the following for consideration and the attached graphics.

1. The Maxwell Farm owners established the proposed Right-of-Way as part of their farms long term planning and to provide a through connection to the existing Aster Lane serving the Cottage Brook Condominium and Spurwink Woods Subdivision. The alignment of the Right-of-Way (ROW) follows the existing farm road accessing the property. Following the existing farm road alignment is imperative since this area of the site is located within the RP-1 Buffer. We understand that proposed roadway must be follow this existing alignment to be allowed by ordinance.
2. Alignment of intersections are preferred to be at a 90-degree (right angle) alignment to the adjacent street. The Town's roadway design standards, states "roads shall be laid out so as to intersect as nearly as possible at right angles." The project design includes a right-angle layout. This is desirable for turning movements of vehicles in and out of the roadway. Skewed angles result in awkward turning movement's and create difficulty for larger vehicle's turning movements. Therefore, the intersection was aligned at a right angle (90 degrees).
3. The position of the intersection was based upon maximizing sight distance while minimizing the extent of disturbance of adjacent areas. Our design submittal includes a very specific sight distance plan to meet town ordinance requirements. The alignment of this roadway was positioned to meet the sight distance requirements. Any shift in the intersection would result in reduced sight distance that is not in compliance with ordinance requirements and would reduce safety at the intersection.
4. The project includes a very specific stormwater management plan compliant with MDEP Stormwater Management regulations. These regulations require treatment of runoff from the roadway areas. In order to meet this requirement an underdrained soil filter was located on the

northerly side of the access roadway near the intersection where topographical, soil and drainage conditions are conducive for this system. The physical requirements for the system do not allow for any alternatives to meet the regulatory requirements. As a result, the system consumes the available land to the north of the intersection making it not possible to move Aster Lane northerly.

5. Moving the intersection southerly is also not possible as the sight distance decreases as the intersection is moved southerly due to the vertical alignment of Spurwink Road and ledge outcrop.
6. As shown on the attached graphic, the intersection aligns with the driveway of the residence across from Aster Lane. This is a preferred alignment since vehicles exiting the site at night would have headlights aligned with an existing driveway. An existing hedge row provides an excellent screen as vehicles turn southerly from Aster Lane onto Spurwink Avenue.

We would note that if the driveway were moved northerly, the night time head lights of the exiting vehicles turning south would be angled (during the turning movement) such that lights bridge the driveway gap directing lights towards the residence. Therefore, moving the driveway northerly would create an undesirable condition.

In addition, the vertical alignment of Aster Lane at the intersection of Spurwink Road matches the Spurwink road cross-slope resulting in a fairly level approach to the intersection. This alleviates any concerns of headlights "pointing up" at the intersection. Instead, the lights will be a street level.

7. As shown on the site and subdivision plan, the Aster Lane extension includes a significant horizontal curve near the intersection of Spurwink Road. This curve provides both an aesthetic benefit and traffic calming to keep speeds lower through roadway geometry. Straitening the roadway out to shift the intersection northerly would remove the curve and negate the benefit of the roadway geometry that is proposed.

As described above there were many considerations in the planning and design of Aster Lane. The applicants project team has strived to be thoughtful of the many considerations to develop a best suited plan for Aster Lane. We appreciated the conversation during the site walk and the opportunity to provide this summary of the design considerations.

Sincerely,

SEBAGO TECHNICS, INC.



Owens A. McCullough, P.E., LEED AP
Vice President of Engineering

OAM: oam

Enc.

cc: Joel Fitzpatrick, Maxwell Woods, LLC



PHOTO LOOKING ACROSS SPURWINK FROM ASTER LANE