



Memorandum

To: Jeffrey Adler, P.E.
From: Lucy Gibson, P.E.
Date: October 4, 2017
Re: Review of Chester/Candia Traffic Impact and Site Access Assessment

This memorandum summarizes our review of the traffic impact and site access assessment, entitled “*Traffic Impact and Site Access Study: Proposed Residential Subdivision, Chester/Candia, New Hampshire*,” prepared by Prepared by Stephen G. Pernaw and Company, Inc. This memorandum summarized my findings in the review of this study.

Traffic Volumes

- 1) The data collection methodology and adjustments of raw turning movement counts to reflect peak hour conditions are both reasonable.
- 2) The adjustments to future year traffic volumes are reasonable, and reflect conservative assumptions for future traffic growth, both for background and other development volumes.

Site Access Configurations

- 3) The report presents three possible configuration for the eastern site access, but does not provide sufficient detail on the characteristics of each option or make a recommendation on which option should be selected.

Collisions

- 4) The crash data utilized in this report is consistent with low-volume rural roads and does not indicate any specific areas of concern.

Speed Measurements

- 5) Speed data was collected and indicates that in the 85th percentile speeds (38mph) are exceeding the posted limit of 25mph.

Capacity Analysis

- 6) The methodology and assumptions used for the capacity analyses are reasonable. The conclusion that the development should not result in traffic congestion appears to be valid. Three configurations were proposed for the intersection of Crowley Road/Proposed Tanglewood Drive-East, and the level of service analysis for all three scenarios are acceptable in terms of capacity.

Turn Lane Warrant Analysis

- 7) The analysis utilized using conventional warrant analysis methodology, and found that turning lanes are not warranted at either entrance.

Sight Distance

- 8) The report indicates that sight distance for the Tanglewood Drive-West “exceeds 300 feet,” which meets AASHTO stopping sight distance guidelines for the 85th percentile of speed on Crowley Road. AASHTO Stopping Sight Distance guidelines are typically considered the minimum design requirements for intersection sight distance.
- 9) Sight distances for the Tanglewood Drive-East intersection are not explicitly indicated, although the report does mention concerns with intersection Configuration A with regard to sight distance, making appear to be the least desirable configuration for this reason. Greater clarity with regard to sight distances for Configurations B and C is necessary to determine the most optimal alignment and a final determination with regard to which alignment is proposed should be included.

Multimodal Safety

- 10) The study does not address pedestrian or bicycle safety. Increased pedestrian and bicycle travel from the proposed 61 unit residential development is highly likely. It appears that road shoulders are either inadequate, or absent on Crowley Road. With the combination of factors of limited sight distance, high speeds, narrow or non-existent shoulders, and increased bicycle and pedestrian travel, there are potential safety concerns. Traffic calming and other accommodations for bicycle/pedestrian traffic should be considered.