

December 21, 2021

Mr. Robert Hummel  
Senior Planner  
Town of Belmont  
19 Moore Street  
Belmont, MA 02478

RE: McLean Zone 3 – 115 Mill Street  
Transportation Peer Review – Sight Distance Evaluation

Dear Mr. Hummel:

As requested, BSC Group, Inc. (BSC) conducted a review of the sight distance evaluation prepared by Vanasse & Associates Inc. (VAI) and Vanasse Hangen Brustlin (VHB) dated December 20, 2021 for a the proposed residential development within Zone 3 of the McLean District in Belmont, Massachusetts.

The sight distance evaluation was conducted for the curb cuts at the Eliot Chapel and the adjacent garage along the north side of Olmsted Drive in the northern portion of the site. A diagram was prepared by VAI overlaid on the site plan prepared by VHB that depicts available sight lines and required stopping sight distances (SSD) for both eastbound and westbound approaches at the driveways.

VAI used a design speed of 25 miles per hour (mph) to conduct this evaluation, which corresponds to the expected vehicular speeds throughout the site. Typically, the prevailing 85<sup>th</sup> percentile speed is used to calculate required sight distances. However, due to the lack of available speed data, the design speed of 25 mph was selected for evaluation.

The SSD is the total distance required for a motorist traveling along a segment of roadway to perceive an object, react to it, apply the brakes, and decelerate to a complete stop. This is the minimum distance that is required for roadway design. The sight distance requirements used by VAI are consistent with the methodology outlined in the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (The “Green Book”). Based on this evaluation, a total of 140 feet is required for SSD for vehicles traveling eastbound due to the uphill grade of 10 percent. A total of 158 feet is required for vehicles traveling westbound due to the downhill grade of 3 percent. The site plan indicates that there is a total of 195 feet of sight distance for the eastbound direction and 225 feet of sight distance for the westbound direction, both exceeding the required minimums based on the methodologies described in the Green Book.

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The evaluation indicates that there is sufficient sight distance at the Eliot Chapel driveways along Olmsted Drive based on the design speed of 25 mph.

Please do not hesitate to contact our office with any inquiries you may have.

Very truly yours,

BSC Group, Inc.

Michael A. Santos, PE, PTOE  
Project Manager

cc: Sam Offei-Addo, PE, PTOE