TOWN OF MILFORD

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OFFICE OF PLANNING
AND ENGINEERING

Michael Dean, P.E.
Town Engineer

December 4, 2017

David R. Consigli, Chairman
Milford Zoning Board of Appeals (ZBA)
52 Main Street
Milford, MA 01757

Re: **Robsham Village – Application for Comprehensive Permit (40B)**

Dear Mr. Consigli:

The Application is for a Comprehensive Permit (40B), the project is referred to as Robsham Village a proposed 300-unit development with two, five (5) story buildings off of East Main Street. The Applicant is E M Street Milford LLC, 171 Locke Drive, Marlborough, MA.

The parcel consists of 116.9 Acres of land that is zoned Business Park (BP), not Residential. The parcel is shown on Assessor's Map 30 Lot 34. The northern property line of the subject property (locus) is the Town Line of Milford and Holliston.

The documents reviewed are:

- Application, pursuant to G.L.c. 40B- Comprehensive Permit, Dated November 01, 2017.
- Contained in the Application is a Traffic Impact and Access Study- Robsham Village, Prepared by VHB, Dated July 14, 2017.
- Plans submitted as part of the Application, "Permit Plan Set", Dated October 23, 2017, containing Civil Engineering Plans by Beals and Thomas, Inc. and the Architectural Plans from Bennett Sullivan Associates, Inc.

Following a Preliminary review of the above referenced documents I offer the following comments:

1. The Traffic Impact and Access Study, more specifically, Sight Distance Analysis, Table 6 and Sight Distance Graphic. The information does not clearly indicate that there is adequate sight distance available at the proposed Access Drive and East Main Street (Route 16). Table 6 includes a *footnote "b"*, which states "*ISD Measurement is approximate, estimated based on reviewing aerial images and record plans when existing vegetation along the site frontage is cleared. The 560' sight line looking left out of the site traverses the adjacent property*". There are distances, under the "measured" column (of Table 6) that show measurements of 700', there is no sight distance looking left out of the new access drive that measures 700' (See Exhibit A).

   It is unclear what the actual sight distances are at the proposed access drive. Without knowing what the sight distance is, it is not clear that this new intersection is safe. This was one of my major concerns during my initial review of the project in July, 2016 and still appears to have not been clearly addressed. This is a safety concern.

2. The Traffic Impact and Access Study, under the Site Access section states "*the driveway will be median-divided*", there is no median shown on any of the site plans. Typically, a median is used to address safety concerns associated with a development with only one, lengthy access drive.

3. The project shows a total of 529 proposed parking spaces, of which 181 spaces are below the apartments in a parking garage setting. There are 12 spaces designated for Electric Car spaces, 36 as Compact Car spaces and 16 are Accessible spaces, a total of 64 spaces that have some type of designation assigned to them (vs. standard). The total of 529 proposed spaces for 300-units, calculates to be 1.76 spaces per unit. In previous informal meetings between the Applicant and Town Representatives / Department Heads it was made clear the Town wanted to see 2.0 spaces per unit.

4. The parking spaces that are designated as Electric and Compact Cars are in front of storage units. The designated type of parking space along with an assigned storage unit could pose problems logistically.

5. The Project, when submitted to the MassHousing for Project Eligibility (Site Approval), showed the development as tying into Town Sewer. The Site Plans now show a Privately Owned Wastewater Treatment Facility (PWTF) onsite. There has been no design information submitted to the Town regarding the PWTF. There has been no information, to my knowledge, submitted to the Milford Board of Health. This PWTF will be permitted through the States Division of Water Pollution Control, 314-CMR 5.0-Ground Water Discharge Permit Program.

6. The PWTF poses an entirely new set of challenges to ensure the plant is constructed and operated properly. Proper operation of a PWTF is essential to ensure the system will not infiltrate contaminated effluent into the ground and potentially degrade the localized ground water and wetlands system.

7. The submitted documents do not include any Hydraulic / Hydrologic Calculations; therefore, it is not possible to determine if the drainage system is designed in accordance with the States Stormwater Management Regulations.

8. The wetland crossing / filling associated with the main Access Drive does not appear to provide a hydraulic connection from one side of the Access Drive to the other, essentially creating a dam and preventing water flow with in the wetland system itself.

9. There are no areas shown for Trash Collection / Dumpster locations.

The above items are following a preliminary review of the submitted documents. I will be providing more detailed comments when more detailed information is submitted and following a review by the Towns peer review consultant. There will also be further evaluations once the project is submitted to the Milford Conservation Commission.

Sincerely,

Michael Dean, P.E.
Town Engineer

EXHIBIT A

street approach (i.e., Site driveway) decides to execute the maneuver. For the subject intersection, calculation for the critical ISD includes the time to (1) turn left and (2) accelerate to the operating speed on Route 16 without causing approaching vehicles on the roadway to unduly reduce their speed. In this context, ISD can be considered as a desirable visibility criterion for the safe operation of an unsignalized intersection.

An additional criterion that is used especially in areas with sight line constraints in proximity to driveways, is the use of "minimum ISD". This essentially involves the comparison of the available ISD to the SSD measurement to ensure that if the available ISD is not sufficient to cause approaching vehicles on the main road to only reduce their speed (as in the case of desirable ISD), that it is at least adequate for the approaching vehicle to come to a stop at the driveway, if necessary.

To calculate the SSD and ISD at the Site driveway intersection, VHB used the observed 85th percentile speeds of approximately 42 mph in the eastbound and 39mph in the westbound directions on Route 16. Table 6 summarizes the sight distance analysis.

Table 6 Sight Distance Analysis Summary

Intersection	Stopping Sight Distance			Intersection Sight Distance		
	Traveling	Required [a]	Measured	Looking	Required [a]	Measured [b]
Route 16 at Proposed Site Driveway	Eastbound on Route 16	325'	>700'	Looking Right from Site Driveway	465'	682'
	Westbound on Route 16	290'	>700'	Looking Left from Site Driveway	465'	560'

Source: Based on guidelines established in A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials [AASHTO], 2004.

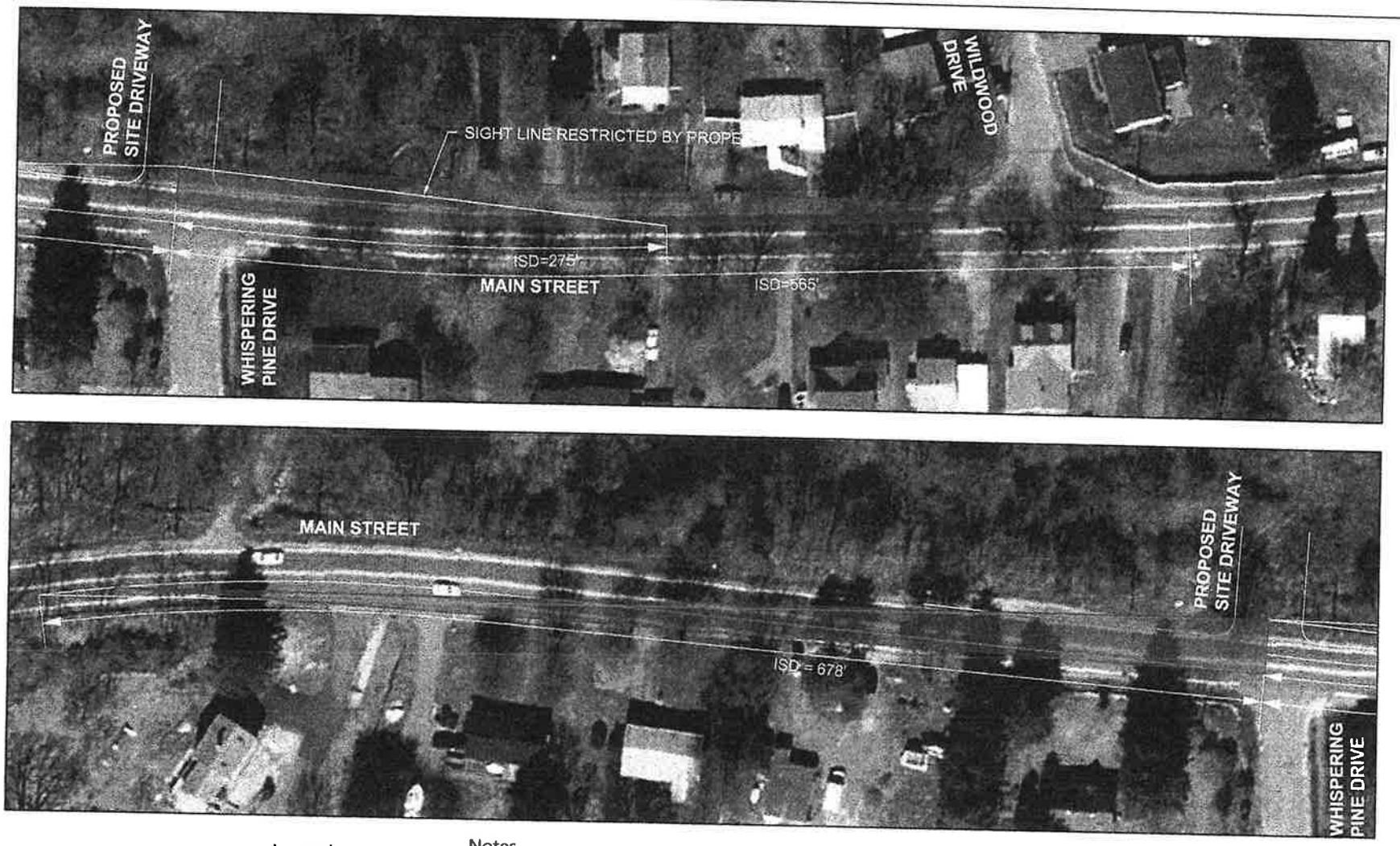
a Required sight distance in feet, calculated based on observed 85th percentile speed of approximately 42 miles per hour in the eastbound and 39mph in the westbound directions on Route 16.

b ISD measurement is approximate, estimated based on reviewing aerial images and record plans when existing vegetation along the site frontage is cleared. The 560' sight line looking left out of the Site traverses the adjacent property.

As summarized in Table 6, adequate SSD, which represents the minimum required, is available on both Route 16 approaches. Currently, the available sight lines to and from the proposed Site driveway are obstructed by vegetation along the Site frontage. As part of the Project, the vegetation will be cleared to provide adequate sight distance. After clearing of the vegetation, it is estimated that adequate Intersection Sight Distance (ISD) will be available looking in both directions. As noted in the footnote 'b' of Table 6, the ISD line looking to the left of the Site driveway traverses the adjacent property. While this sight line is available currently, VHB also calculated the available ISD should the sight line be restricted to not

Sight Distance Graphic

\\vhb\proj\Wat-TS\13810.00 East Main St Milford\cad\ts\planmisc\Sightlines\Route 16 - Milford (REV).dwg



0 25 50 FEET

Legend

SIGHT LINE TRIANGLE

Notes

1. THIS GRAPHIC DISPLAYS SIGHT LINES AVAILABLE UNDER EXISTING CONDITIONS.
2. VEGETATION, FENCES, AND SIMILAR OBSTRUCTIONS WITHIN THE SIGHT LINE SHOULD BE LIMITED TO 3.5 FEET IN HEIGHT ABOVE THE ADJACENT PAVEMENT ELEVATION.

vhb

Intersection Sight Triangles

Proposed Residential Development
Milford, Massachusetts

Figure A-1