

June 6, 2024

Ms. Alison Manugian, Community Development Director  
Town of Dracut  
62 Arlington Street  
Dracut, MA 01826

Subject: Transportation Peer Review Comments  
Proposed Residential Development – 135 Greenmont Avenue  
Dracut, MA

Dear Ms. Manugian:

MDM Transportation Consultants, Inc. (MDM) is pleased to provide you with the following initial transportation review comments for the above-referenced project. These comments have been prepared based on a site visit in June 2024 and review of the documents identified below. To facilitate response by Applicant, review items requiring response are noted in ***Bold Italic***.

MDM finds that the Traffic Impact Assessment (TIA) has been prepared in general conformance with industry standards and reasonably quantifies existing/baseline traffic, traffic generation, and safety conditions for locations in the project vicinity.

Our principal comments requiring substantive response by Applicant include (a) recommendations for improvements to the pedestrian network, pavement markings, and signage along Greenmont Avenue or alternatively to assist the Town in pursuing Safe Routes to School application for funding to achieve improved pedestrian and bicycle connections in the neighborhood; (b) expanded safety/crash analysis for study locations; and (c) swept path analysis/exhibit for Dracut Fire apparatus to ensure the site provides adequate maneuvering area for this vehicle type.

## **Documents Reviewed**

MDM has reviewed the following documents to gain an understanding of the project and determine if industry standards have been applied in determining the potential impacts of the project. The following relevant documents were reviewed:

- *Traffic Impact and Access Study, 135 Greenmont Avenue, Dracut, Massachusetts, prepared by TEPP LLC dated March 19, 2024.*
- *Layout and Utilities Plan, 16 Greenmont Avenue, Dracut, Massachusetts, prepared by Cornerstone Land Associates, LLC, dated May 18, 2023.*

## **Existing Site Conditions and Proposed Development**

The Site at 16 Greenmont Avenue, is currently occupied by a single-family home on 2.45± acres of land. Access includes one driveway along Greenmont Avenue serving the single-family home.

The proposed site development comprises the construction of 28 single-family, attached homes supported by individual garage and driveway spaces that will accommodate two (2) vehicles per unit. Access to the Site is to be provided by a single full-access driveway at the approximate location of the existing residential driveway.

## **Traffic Impact and Access Study Comments**

### Existing Conditions

1. *Study Area:* Study locations include three (3) intersections in the Site vicinity plus proposed Site access along Greenmont Avenue. Primary unsignalized study locations include the “gateway” intersections serving the Site at Greenmont Avenue/Pleasant Street, Greenmont Avenue/Bridge Street, and Pleasant Street/Arlington Street/Bridge Street.

*Comment 1: MDM concurs that the “gateway” study locations are appropriate and in context with the likely traffic impacts for the Project for capacity and safety analyses. Relative project impacts at these locations as cited in the TIAS represent less than a 5 percent change in peak volumes – a threshold within which additional study locations are not warranted.*

2. *Traffic Volumes:* Traffic volumes for study locations were conducted in November 2023 for the weekday AM and PM peak hours. Although MassDOT seasonal correction factors indicate October is an above-average month, no downward adjustment (reduction) in volumes was applied to present a conservative analysis condition.

*Comment 2: MDM has reviewed the November 2023 data against other area historic count data (October 2022) and finds that traffic volumes presented in the TIAS are consistent with and slightly higher than these prior count data. Accordingly, baseline traffic volume data in the TIS presents a reasonable basis for analysis purposes; no further comment.*

3. *Pedestrian and Bicycle Facilities:* The Site is currently not directly served by any pedestrian or bicycle facilities. Furthermore, there are no bicycle facilities in the surrounding area.

*Comment 3: Given the proximity of the project to the Greenmont Avenue Elementary School, potential exists for increased pedestrian and bicycle activity in the project area by school age children. The nearest available sidewalks are located along Pleasant Street where a crossing is provided to Greenmont Avenue. MDM recommends Applicant discuss with the Town means of improved pedestrian accommodation along Greenmont Avenue to include connections to Bridge Street and Pleasant Street and enhancement of the existing Pleasant Street pedestrian crossing to ensure compliance with ADA requirements. Potential improvements include near-term improvements such as roadway shoulder markings/bike "sharrows" to enhance pedestrian and bicycle accommodations. Alternatively, consider assistance to the Town for pursuing "safe routes to school" funding application to identify and pursue similar improvements in the neighborhood given the site proximity to the school and current lack of pedestrian and bicycle features.*

4. *Public Transportation:* LRTA Route 10 bus service that directly links the Kennedy Center Busway in Lowell, MA via Greenmont Avenue in the study area. On-demand bus services for disabled and elderly residents are also available.

*Comment 4: MDM acknowledges that the site is well served by LRTA bus service and nearby stops; enhanced pedestrian and bicycle infrastructure/features as described under Comment 3 would further encourage these connections and transit use/convenience and safety.*

5. *Speed Measurements and Sight Lines:* Spot speeds were conducted along Greenmont Avenue in the site vicinity. Observed 85<sup>th</sup> percentile speeds are noted be less than the regulatory speed limit of 30 mph. The mean travel speeds on Greenmont Avenue were 22 mph and 23 mph in the eastbound and westbound directions, respectively.

*Comment 5: MDM concurs with the use of a 30 mph design speed for sight line analysis purposes. On this basis, available driveway sight lines for both Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD) meet or exceed applicable criteria.*

*MDM recommends that the applicable sight line triangles be shown on the Site Layout Plan along with measured sight lines indicating that minimum sight line criteria are met. The Site Layout Plan should also include a note citing that "Signs, landscaping and other features located within sight triangle areas shall be designed, installed and maintained so as not to exceed 2.5-feet in height. Snow windrows located within sight triangle areas that exceed 3.5-feet in height above driveway grade or that would otherwise inhibit sight lines shall be promptly removed."*

6. *Accidents/Crash Data:* The TIAS presents relevant crash data for the study intersections for the five-year period of 2016-2020 and confirms that crash rates are at or below district averages; no high crash clusters ("HSIP" clusters) are documented for the study area.

*Comment 6: MDM concurs that the crash rates for the study intersections are below district averages and as such do not warrant immediate safety countermeasures. However, we recommend expanding the crash analysis to include available data in the MassDOT crash portal for the years 2021-2023 to confirm these crash rates remain at or below district averages.*

#### Future Conditions

7. *Traffic Growth:* Future traffic volumes are projected to a 7-year horizon using 1 percent annualized growth. Additionally, three nearby developments were identified as potentially having future impacts on the study intersections. Additional project-specific trips associated with the proposed age-restricted residential development at 144 Greenmont Avenue, Bridge Street Landing commercial redevelopment at 5 Arlington Street and Genest Street residential development are also estimated and added to the future traffic networks. MDM concurs that the general growth factor applied is consistent with other prior area studies.

*Comment 7: MDM concurs that future traffic projections as documented in the TIAS present a reasonable basis for analysis; no further comment.*

8. *Trip Generation:* Trip estimates for the Project are based on characteristics published by the Institute of Transportation Engineers (ITE) in Trip Generation 11<sup>th</sup> Edition for Land Use Code (LUC) 215 – Single Family Attached Housing. Net new trip generation is estimated to range

from 8 to 12 vehicle-trips for weekday peak hours assuming a trip credit for the existing residential home to be razed.

*Comment 8: MDM concurs with the methodology used to determine project-related trips, noting that the TIAS incorrectly cited the use of ITE LUC 220 trip rates (Multifamily Low-Rise). Trips reported in the TIAS are correctly based on ITE LUC 215 trip rates and methodology. No further comment.*

9. *Trip Distribution:* Regional trip patterns for Site traffic presented in the TIS are based on existing area travel patterns and US Census Journey-to-Work data.

*Comment 9: MDM concurs with the methodology used to determine trip distribution; no further comment.*

10. *Future Traffic Volumes:* Site-generated trips were added to the No-Build figures to result in the Build figures. The proposed trips were then compared to the No-Build traffic volumes to determine the increase over No-Build traffic, which showed marginal increases at all study intersections.

*Comment 10: MDM concurs with the methodology used to determine future traffic volumes; no further comment.*

11. *Operations Analysis:* Operational analyses presented in the TIAS follow generally accepted traffic engineering practices and protocols.

*Comment 11: MDM concurs with the methodology used in the operations analysis; no further comment.*

#### Access and Circulation Comments

12. *Site Access and Area Roadway Marking and Controls:* Several suggested area improvements should be considered to enhance vehicle and pedestrian travel to/from the property as follows:

- (a) Pavement Markings and Signs: Applicant should consult with the Town on implementation of pavement markings, including solid white edge lines, centerlines, STOP bars and MUTCD-compliant signage along Greenmont Avenue to promote positive driver guidance and travel safety in this area.*

Ms. Alison Manugian/Planning Department

June 6, 2024

Page: 6

*(b) Pedestrian Enhancements: Given the proximity of the project to this school and the possibility that additional pedestrian activity may be generated by the project MDM recommends Applicant discuss with the Town means of improved pedestrian accommodation between the site and Greenmont Avenue Elementary School and local roadways of Bridge Street and Pleasant Street. Refer to Comment 3.*

13. Site Circulation:

*Comment 14: Site plans should include a swept path exhibit using AutoTurn® software for the Town's largest responding vehicle type (Dracut Ladder 1 tower vehicle) to ensure that adequate maneuvering area is available to accommodate this design vehicle.*

MDM appreciates the opportunity to provide Transportation Planning & Engineering Services to the Town of Dracut and looks forward to discussing our findings at the upcoming Planning Board hearing. If you have any questions or concerns, please feel free to contact this office.

Sincerely,



Robert J. Michaud, P.E.  
Managing Principal

MDM