



## Memorandum

To: Pascal Rettig  
Planning Board Chair  
City of Amesbury  
62 Friend Street  
Amesbury, MA 02913

Date: February 9, 2026

Project #: 200430.000

From: Patrick Dunford, P.E.  
Senior Project Manager

Re: Proposed Multi-Family Residential Development  
Rocky Hill MBTA Community – Elm Street, Amesbury, Massachusetts  
**Transportation Engineering Peer Review**

As requested by the City of Amesbury, VHB conducted an independent peer review of the Transportation Impact Assessment (TIA) submitted for the proposed Rocky Hill MBTA Community residential development (the "Project"). This Project will be located within the Rocky Hill Multi-family Overlay District (RH-MFOD) in Amesbury, Massachusetts (the "Site"). The proposed Project involves a new multi-family residential development with associated site improvements.

This review considers the TIA and how it complies with the requirements of Amesbury's Zoning Bylaws, industry standards for the preparation of Transportation Impact Assessments, and standard engineering practice.

A separate memorandum summarizing VHB's civil engineering and stormwater review will be provided to the Amesbury Planning Board under separate cover. VHB will supplement that with a subsequent memorandum evaluating the transportation aspects of the internal Site design.

### Proposed Project

The Project involves the construction of approximately 400 units of primarily multi-family residential development at 265, 277, 281, 287, 287R, and 287½ Elm Street within the RH-MFOD in Amesbury, Massachusetts. The development consists of multiple residential buildings (rental and ownership) with a new internal roadway network and associated driveways, parking areas, utilities, grading, landscaping, and stormwater management systems.

Vehicular access is proposed to be provided via a single full access curb cut on Elm Street. The parking needs for the Project will be accommodated by a combination of individual unit garage spaces, surface parking lot spaces, and on-street parallel parking.

The findings of our review are presented in the following sections.

### Scope of Review

The focus of this peer review was on the following material which was provided to VHB for review by the Amesbury Planning Board:

- › "Draft Environmental Impact Report – Transportation Impact Assessment" prepared by Vanasse & Associates Inc. (VAI) dated November 2024.

These documents were reviewed for consistency and general compliance with the following:

- › Amesbury Zoning Ordinance and Map (adopted April 12, 1971 with revisions through April 30, 2025); and
- › *Transportation Impact Assessment (TIA) Guidelines*, Massachusetts Department of Transportation, March 13, 2014.

While not included as part of the official submittal, VHB also has obtained a copy of the Project's August 15, 2025 Final Environmental Impact Report (FEIR). Among other details, the FEIR documents the progression of the design of the

off-site improvements. The FEIR should officially be submitted by the Applicant via the online portal to be included as part of the official Project record. The most recent TIA provided for review (the DEIR analysis) still presents a roundabout option on Route 110 (Macy Street), which has since been eliminated from consideration, along with other outdated information. While other items in this review memorandum still need to be addressed, this FEIR analysis still should be provided so that the most current material is being reviewed. The applicant also recently provided a copy of the MassDOT Section 61 Findings (November 7, 2025) to VHB. That document also should officially be uploaded to the Project submittal portal for completeness.

## Transportation Impact Assessment review

VHB has reviewed the TIA prepared by VAI relative to the regulations and standards noted above. Overall, the study was thorough and well-prepared and follows appropriate, accepted analysis procedures. A technical appendix was not provided as part of the official submittal. While this has not prevented this review of the main TIA the appendices for both the DEIR and FEIR transportation analysis should be provided for the official Project record. The following comments and requests are being provided using the same general order and format of the study provided. VHB may provide additional comments related to the site plan and/or TIA following the review of any additional material which may be provided in response to this letter, or other items discussed at subsequent Project meetings.

### Existing Conditions

1. **Study Area** – The study area appropriately considers the key roadway and intersections most likely to experience any impacts as a result of the Project. Figures 2 and 3 accurately depict roadway jurisdiction, lane use/geometry, and pedestrian facilities at the study area locations. No expansion or modification of this study area is required.
2. **Traffic Volumes** – The underlying peak period turning movement counts (TMCs) for the TIA analysis were conducted in July 2023, February 2024, and September 2024. These counts were conducted during the typical weekday morning and evening peak periods. A seasonal adjustment factor was applied to the February traffic counts while none was applied to the July or September counts due to those having been conducted in months shown to experience higher-than-average volumes. The observed 2023 volumes also were increased using an appropriate annual growth rate to reflect the 2024 existing conditions evaluated in this study.

Separate from the local approval process, additional counts were conducted at the Route 110 (Macy Street) Elm Street/Clark's Road intersection in April 2025. These counts were conducted on April 30, 2025 (from 7 AM and 7 PM) as part of the Functional Design Report (FDR)<sup>1</sup> which evaluates this and other locations along Route 110 (Macy Street). That design submittal is currently being reviewed by MassDOT. That study also included analysis of Saturday conditions using TMCs conducted on July 15, 2023 from 11 AM to 2 PM. The Saturday FDR analysis of that location should be provided for reference (in addition to the prior FEIR analysis noted earlier). Also, analysis of the proposed Elm Street Site driveway should be provided for the Saturday peak hour based on these or other available volumes.

<sup>1</sup> "Functional Design Report/Project Framework Document – Route 110 Improvements, Amesbury, Massachusetts, VAI (Andover, Massachusetts), August 2025.

3. **Pedestrian and Bicycle Facilities** – the TIA provides detail descriptions of current pedestrian and bicycle accommodations in the study area with a corresponding graphic. A brief narrative also is provided documenting the minimal pedestrian and biking activity which currently exists in this area.
4. **Public Transportation** – the TIA provides an appropriate inventory of existing MeVA public transportation accommodations within the area. Potential improvements associated with the existing Elm Street bus stop are discussed later in this memorandum.
5. **Crash Analysis** – The study provides a comprehensive crash analysis which indicates a relatively low crash experience in recent years within the study area. Notwithstanding the low crash history, a Roadway Safety Audit (RSA) was conducted in June 2025 in association with this Project. The RSA evaluated both the intersections of Route 110 with Elm Street/Clark's Road and Merrill Street/Rabbit Road (within the Town of Salisbury). Project mitigation proposed to address the existing deficiencies identified in the RSA are discussed later in this memorandum.
6. **Vehicle Speeds** – The data collection for the study indicates that the current "85<sup>th</sup> percentile speed" on Clark's Road is 33 miles per hour (mph) heading northbound and 29 mph heading southbound. Both are higher than the statutory 25 mph speed limit on this roadway. The exact location of these speed measurements is not identified and should be provided relative to the proposed Site driveway location.

### Future Conditions

1. **Future Traffic Growth** – the TIA appropriately considers potential future traffic growth based on typical background growth and site-specific traffic generated by other planned development projects in the area. VHB agrees with both the 1.5-percent annual traffic growth rate identified (which is consistent with other recent studies in the area) and the list of six nearby development projects. Traffic assignment for the background project was done following accepted industry practices.
2. **Planned Roadway Improvements** – VHB agrees with the inclusion of both the recently awarded MassWorks grant improvements at the Route 110 (Macy Street)/Elm Street/Clark's Road intersection and the planned Starbuck's Clark's Road mitigation as being significant future projects within the study area. The TIA references a 250-foot segment of Clark's Road being widened. However, the limits of the work currently under construction at this location appear to be only 150 feet to the south of the intersection before starting its taper back to a single lane. The extent and timing for completion of this work should be clarified.
3. **Project-Generated Traffic** – Project trip generation was calculated appropriately based on the 11<sup>th</sup> edition of the "Trip Generation Manual<sup>2</sup>" published by the Institute of Transportation Engineers (ITE). This database includes studies of several comparable residential developments and use of the ITE data is the accepted industry standard for estimating trip generation. VHB agrees with this methodology and the study conservatively did not reduce the project automobile values due to the nearby public transportation and/or walking and biking. However, ITE recently published an updated 12<sup>th</sup> edition of this manual in August 2025. While the resulting trip generation estimates based on the newer data should not differ significantly compared to those based on the 11<sup>th</sup> edition, this should be documented. Also, trip generation for Saturday daily and peak-hour conditions also should be provided.

---

2 Trip Generation Manual (12<sup>th</sup> Edition), Institute of Transportation Engineers (Washington, DC), 2025.

4. **Trip Distribution and Assignment** – The regional assignment of Project trips was based on U.S. census data and observed travel patterns. The resulting regional trip distribution is appropriate for use on this Project.
5. **Future Traffic Volumes – Build Condition** – VHB agrees with the documentation presented which indicates that the Project should result less than a three-percent increase in traffic volumes on any of the study area roadways compared to the 2032 No-Build condition.
6. **Parking Generation** – A parking demand analysis should be provided comparing the anticipated compared to the on-site parking supply. While the Project exceeds zoning requirements, identifying the likely peak demand based on standard ITE data would be helpful.

### Sight Distance Evaluation

1. **Sight Distance** – Both the stopping sight distance and intersection sight distance measurements were compared to industry standards<sup>3</sup> based on a 35-mph design speed for Elm Street. This results in a slightly conservative analysis as the observed 85<sup>th</sup> percentile speeds were 33 mph and 29 mph in the respective northbound and southbound directions. A detailed discussion of this analysis and the standards referenced are provided in the TIA. Stopping sight distance refers to the sight lines of traffic approaching the Site driveway from either direction on Elm Street. Intersection sight distance refers to the sight lines of exiting Site traffic looking to the left and right. The TIA documents that both of these standards are satisfied.

### Traffic Operations Analysis

The following comments concern study area intersections in Amesbury with notable operations under either existing or future conditions with or without the Project.

1. **Route 110 (Macy Street) at Carriagetown Marketplace** – The TIA analysis indicates that the Project will have a negligible impact at the Route 110 (Macy Street)/Carriagetown Marketplace signalized driveway. This location is projected to operate at LOS A and LOS B under the 2032 Build condition. No further analysis is required for the TIA's evaluation of this location (which is not part of the MassWorks design project).
2. **Route 110 (Macy Street) at I-95 North and I-95 South** – The critical turning movements from both the I-95 North and I-95 South ramps are projected to operate at LOS F during both critical peak hours. However, both locations are included in the planned Route 110 (Macy Street) MassWorks roadway improvements project. This will include a new signal at the Route 110 (Macy Street)/ I-95 South intersection. This intersection is project to operate at LOS A during both critical peak hours.

While the Route 110 (Macy Street)/ I-95 North intersection will remain unsignalized, the critical Route 110 (Macy Street) eastbound left-turn movement will improve to LOS B and LOS C during the weekday morning and evening peak hours, respectively. The right-turn movement from the I-95 North ramp will function at LOS A under both peak hours. Both improvements in LOS are primarily due to the addition of a third westbound travel lane on Route 110 (Macy Street).

No further analysis is required of these locations for VHB's review of the TIA. However, conditions at both intersections should continue to be evaluated by others as part of the ongoing design work along the Route 110 (Macy Street) corridor. Both MassDOT and the Amesbury Department of Public Works (DPW) have put considerable effort into reviewing the MassWorks design to date. To avoid duplicating efforts, the DPW

---

3 A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2011.

should provide a summary of its review to document the findings to date. This also could be supplemented with a public presentation of these findings, which would be helpful to address concerns unrelated to the potential impacts of this single development Project. This meeting would be held by the City independent of this Project (and at no cost to the applicant).

3. **Elm Street at Rocky Hill Road** – During the weekday morning and evening peak hours there currently are 102 and 94 vehicles turning right onto Rocky Hill Road from Elm Street. With only roughly twenty houses along this roadway, a significant portion of this traffic may be cut through traffic heading to Route 110 (Macy Street) heading westbound. This should be evaluated with potential mitigation (speed humps, speed feedback signs, or other measures) explored to help discourage this pattern. While the Project would not be adding to this movement. However, it could increase the volume of left turns from Elm Street onto Rocky Hill Road. This would be due to residents potentially turning right from the Site instead of making the more difficult exiting left-turn movement and then needing to pass through the Route 110 (Macy Street)/Elm Street/Clark's Road signalized intersection.
4. **Elm Street at the Carriagetown Marketplace** – The critical exiting movements from Carriagetown Marketplace at its intersections with Elm Street will operate at or near capacity during peak-hour conditions under the 2032 Build condition. However, the Project should not be adding any traffic to the critical exiting left-turn movements onto Elm Street and, therefore, will have a negligible impact at this location.
5. **Route 110 (Macy Street)/Elm Street/Clark's Road** – This intersection is projected to operate at LOS F during both the weekday morning and evening peak hours under the 2032 Build condition. However, significant improvements are planned at this and other locations along Route 110 (Macy Street) as part of the planned MassWorks improvements project. Following those improvements, the overall intersection LOS will remain at LOS F during the weekday morning peak hour but will improve slightly to LOS E during the weekday evening peak hour. With the improvements in place, there also will be reduced delays and queuing for some movements. Conditions along this corridor also will benefit from the implementation of the planned Route 110 (Macy Street) coordinated signal system extending from the Carriagetown Marketplace to Merrill Street/Rabbit Road in Salisbury. The design of these planned improvements is currently under review by MassDOT as part of the ongoing state design/review process. VHB understands that the proposed lane configuration for the Clark's Road approach has since changed, with a shared left-/through- lane and exclusive right-turn lane now proposed. Updated analysis should be provided reflecting this condition, including the FDR analysis of Saturday peak hour conditions.

As noted earlier, the future conditions analysis considers multiple definitively known developments projects which could impact traffic conditions in the study area. This includes a potential "40R" residential project including 110 multifamily units and eight single-family homes. Access to this property would be provided via "Elm Street extension". This existing roadway runs generally parallel to Route 110 (Macy Street) roughly 120 feet to the north of that roadway's signalized intersection with Elm Street. Providing safe and efficient access to that development ultimately will be the responsibility of the developer of that project. However, the applicant should identify any accommodations that were considered in the off-site improvements design to help minimize impacts associated with this future development. While that development may not generate significant volumes, the proximity of Elm Street extension to the Route 110 (Macy Street)/Elm Street/Clark's Road intersection could impact the overall operation of this location.

As noted earlier, it would be beneficial to have the Amesbury DPW provide a summary of its review of this location to date. VHB's current review is focused on the Project's potential impacts to the area, and not the precise MassWorks design details which have been evaluated thoroughly by MassDOT and the Amesbury DPW.

6. **Elm Street/Proposed Site driveway** – As noted earlier, the TIA did not include counts or analysis of Saturday conditions. Capacity analysis should be provided for the proposed Elm Street Site driveway intersection using the previously conducted traffic counts in this area as discussed earlier. Exiting Site traffic is projected to operate at LOS F during both critical peak hours, but with queues not exceeding 125 feet in length within the Site. Negligible delays and queues are projected for traffic turning left into the Site. Exiting traffic is planned to be under Stop control. While this appears appropriate in the context of Elm Street, a signal warrant analysis should be conducted for this location. This should include analysis of eight-hour signal warrants using available count data for Elm Street in this area. Signalization or other potential access control measures should be discussed.

The proposed Site driveway is slightly offset by the existing Hampton Inn driveway on the west side of Elm Street. Consideration should be given to shifting the Site driveway slightly to the west. Consistent with the low volumes of traffic observed at the hotel site, there is negligible queueing for entering and exiting traffic. In addition to the mitigation analysis requested above, “Do not block the box” striping on Elm Street may be beneficial for both the Hampton Inn and the proposed Site driveways. While the analysis indicates Elm Street vehicle queues should not extend to this location, this level of queueing has been observed under current conditions. Maintaining clear access to both properties is critical to provide appropriate emergency vehicle access.

7. **Elm Street crossing / bus stop** – The TIA notes that the Project applicant proposes to install a Rectangular Rapid Flashing Beacon (RRFB) at the existing crosswalk across Elm Street adjacent to the Site. The applicant also has committed to installing a bus shelter at the existing MeVA bus stop to the northwest of the Site. An update should be provided regarding the status of this commitment and if there are any right-of-way constraints or other issues associated with this mitigation and any sidewalk modifications.

For regional context, discussion should be provided regarding the long-planned connection between the Riverwalk Trail to the south and the Amesbury Ghost Trail and how these facilities could be accessed by Site residents.

## Mitigation summary

VAI presented a summary of the Project’s mitigation commitments at a September 22, 2025 public meeting for the Project. That mitigation, as summarized on VAI’s presentation material from that meeting, is provided below for reference. The following information which should be confirmed, updated, or supplemented by the Applicant as needed:

### Route 110 Coordinated Traffic Signal System

- › Design and implement an optimal traffic signal timing, phasing and coordination plan inclusive of the following intersections:
  - Route 110 at the Carriagetown Marketplace Driveway;
  - Route 110 at Elm Street and Clark’s Road;
  - Route 110 at the I-95 Southbound Off-Ramp (future); and
  - Route 110 at Merrill Street and Rabbit Road (not currently coordinated)

The initial traffic signal timing improvements will be completed prior to the issuance of any Certificate of Occupancy for the Project and will be reviewed thereafter as a part of the annual traffic Monitoring and Reporting Program.

### Route 110 Corridor Improvements

- › Prepare an Interchange Improvement Study (IIS) and a MassWorks grant application for submission by the City for the design and construction of the identified improvements. The MassWorks grant application and supporting plans have been submitted by the City and are currently under review by the state.

### Route 110 at Elm Street and Clark's Road

- › In an effort to improve operating conditions at the Route 110/Elm Street/Clark's Road intersection and within the Route 110/I-95 interchange, the following improvements at the Route 110/Elm Street/Clark's Road intersection:
  - Widen Route 110 westbound to accommodate three (3) through travel lanes between the I 95 southbound off-ramp to a point approximately 300 feet west of Elm Street;
  - Reconstruct the intersection and traffic signal system to accommodate the additional through travel lane, including a section of the Salisbury Point Ghost Trail that is situated along the north side Route 110; and
  - Design and implement an optimal traffic signal timing, phasing and coordination plan.

### Safety Improvements

- › In an effort to off-set the predicted impact of the Project and to improve safety at Route 110/Merrill Street/Rabbit Road and Route 110/Elm Street/Clarks Road intersection intersections, the Project proponent will:
  - i) facilitate the completion of a Road Safety Audit (RSA) at both intersections (complete); and
  - ii) design and implement the short-term, low-cost improvements that are identified as an outcome of the RSA.

### Elm Street Pedestrian Crossing

- › To facilitate pedestrian access to the Project and connectivity to public transportation (discussion follows), the Carriagetown Marketplace and the Salisbury Point Ghost Trail, a pedestrian actuated Rectangular Rapid Flashing Beacon (RRFB) will be installed at the existing crosswalk across the Elm Street northwest leg of the Elm Street/Hampton Inn Amesbury driveway intersection to include pedestrian crossing warning signs at and in advance of the crossing.

The applicant also has committed to implement a comprehensive Transportation Demand Management (TDM) program to help minimize travel to and from the Site by single-occupant automobile. The applicant also will conduct an annual post-opening traffic monitoring program of multiple study area locations for five years.

As requested earlier, it would be helpful to have a similar summary of the primary design elements of the MassWorks Route 110 (Macy Street) design by the Amesbury DPW.