



Memorandum

Date: March 19, 2026

To: Paul Materazzo, Director of Planning & Land Use
Community Development & Planning
Town of Andover
36 Bartlet Street
Andover, MA 01810

From: Jane R. Davis, P.E.
Ryan Kloiber, E.I.T.

CC: James Fitzgerald, P.E., LEED AP

Subject: Traffic Peer Review #1 – 100 Old River Road Development
Review of Transportation Impact Assessment, Proposed Multifamily Residential Development

Apex Companies, LLC (Apex) has reviewed the Transportation Impact Assessment (TIA) dated November 2025, and prepared by Vanasse & Associates Inc (VAI) for the proposed multifamily redevelopment (“the Project”) located at 100 Old River Road in the Town of Andover, Massachusetts (“the Town”). After performing a cursory review, Apex met with VAI on February 23, 2026 to discuss findings and request supplemental analysis that was provided in a memorandum dated February 27, 2026. The supplemental analysis was also reviewed with regard to the requests made in the meeting with VAI.

In general, VAI has prepared these assessments in a professional manner, consistent with standard engineering practices. The following is a summary of Apex’s traffic review. Comments on items that are minor in nature and are not anticipated to impact the findings of the TIAs or Apex’s recommendations have been omitted for brevity. We also note that some comments require no action, but we included them as they were part of cursory review.

Project Description

The TIA outlines the following project description:

“The Project will entail the construction of a multifamily residential development to be located at 100 Old River Road in Andover, Massachusetts. The Project site is located within the Multifamily Overlay Zoning District that was adopted at the April 2024 Town Meeting as a part of the Massachusetts Bay Transportation Authority (MBTA) Communities Zoning law. The Multifamily Overlay Zoning allows for the construction of a four-story, 336-unit multifamily residential development at the Project site. Applying the density bonus that is allowable under the MBTA Communities Zoning law as approved by the Andover Town Meeting, the number of residential units that could be constructed at the Project site would increase to 432-units in a five-story residential building. In addition, the Project is envisioned to include supporting retail space (approximately 2,750± square feet (sf))... that will be open to the public and amenities for residents of the Project. The Project site encompasses approximately 9.62 ± acres of land that is bounded by Old River Road to the north and east, and River Road and the on-ramp to Interstate 93 (I-93) northbound to the south and west. The Project site is currently improved

with a 121,615± square foot (sf) office building with 403 parking spaces in a surface parking lot and supporting driveways and appurtenances, all of which will be removed to accommodate the Project. The office building was vacated in April 2025. Figure 1 depicts the Project site in relation to the existing roadway network.

Access to the Project site will be provided by way of two (2) full-access driveways that will intersect the south side of Old River Road approximately 175 feet northwest of Campanelli Drive (approximately 360 feet northwest of River Road) and approximately 400 feet northwest of New England Business Center Drive, respectively. The existing driveways that serve the Project site will be closed in conjunction with the Project.

On-site parking will be provided for approximately 648 vehicles in a surface parking lot and central parking garage, of which 636 parking space will support the residential component of the Project, or a parking ratio of 1.47 parking spaces per unit, and approximately 12 parking spaces will be provided to support the retail component, or a parking ratio of 4.0 parking spaces per 1,000 sf (based on 2,950± sf). The parking ratio for the residential component of the Project (1.47 parking spaces per unit) is within the range of observed parking demands for a multifamily residential development located in a similar setting documented by the ITE.”

The Project includes the following study roadways:

- Old River Road
- River Road

The Project includes the following study intersections:

- River Road and North Street / Greater Lawrence Tech Driveway
- River Road and Old River Road / Federal Street
- River Road and Interstate-93 (I-93) Northbound Ramps
- River Road and I-93 Southbound Ramps
- River Road and Shattuck Road / Minuteman Road
- Old River Road and South Project Site Driveway (Proposed)
- High Street and North Project Site Driveway (Proposed)

Comments

Introduction

1. The TIA states that “applying the density bonus that is allowable under the MBTA Communities Zoning law as approved by the Andover Town Meeting, the number of residential units that could be constructed at the Project site would increase to 432-units in a five-story residential building.” The analysis is based on the site having 432 units, which is a density of 45 units per acre. Per the Multifamily Overlay District Zoning Bylaw approved in 2024, this density is only permitted with a Special Permit. Apex requests confirmation that this permit is being applied for or has been granted.

Existing Conditions

2. We note the following discrepancies and omissions in the existing conditions descriptions. We note these items only for consistency as they are not anticipated to impact the findings of this TIA.
 - River Road and North Street / Greater Lawrence Tech Driveway
 - The westbound approach contains four lanes: one left-turn lane, two through lanes, and one right-turn lane that exits by way of a channelized lane
 - A crosswalk is provided on the River Road east leg, rather than west
 - Pedestrian signal equipment is not provided to cross North Street and Greater Lawrence Tech Driveway

- The layout of the shoulders on River Road suggests that they function as bicycle lanes, despite symbols not being provided
 - The travel way width of the North Street approach is only 12 feet, which is lower than the minimum required to be considered a shared traveled-way
 - River Road and Old River Road / Federal Street
 - We note that bicycle accommodations are not provided on any approaches other than the shared traveled-way on Old River Road.
 - River Road and I-93 Northbound Ramps
 - The shoulders appear to range from one (1) to six (6) feet wide.
 - River Road and Shattuck Road / Minuteman Road
 - It appears that pedestrian signal equipment is only provided for the crossing across River Road and not Minuteman Road.
 - We note that bicycle accommodations are not provided on any approaches other than the bicycle lane on River Road eastbound, which does terminate just before the intersection.
3. Based on our review of the existing traffic volumes, it appears that volumes were balanced between the following three intersections, which was verified by VAI during our meeting and as outlined in the supplementary memo:

- River Road and Old River Road / Federal Street
- River Road and I-93 Northbound Ramps
- River Road and I-93 Southbound Ramps

Apex takes no exception to this methodology; however, we do note that this balancing increased movement volumes by up to approximately 80 vehicles.

4. The TIA reports that the Merrimack Valley Transit (MeVa) serves the Project site via Route 37; we note that the MEVA website indicates this route is Route 7, "Beacon St/Mount Vernon". While this does not impact the findings of the TIA itself, we note the discrepancy with regards to the information that will be disseminated as part of the Transportation Demand Management (TDM) discussed in the Recommendations Section at the end of the TIA.
5. While the crash rates are below the statewide and district averages, indicating no significant safety deficiency, we note that the intersections of River Road at North Street / Greater Lawrence Tech Driveway and River Road at I-93 Southbound Ramps experience crash rates that are just below these averages. Furthermore, the majority of crashes at these two locations are rear-end type, which may be susceptible to improvement by modifying signal timing clearances if deemed inadequate. As such, Apex recommends reviewing vehicle clearances and proposing modifications to the Build Mitigated signal timings as necessary.

Future Conditions

6. The no-build condition shown in Figures 5 and 6 of the TIA use a 1.5% background growth rate for movements where background growth is expected to increase, i.e. along the mainline and to/from I-93. No background growth was assumed for turning movements to/from the side roads, as the side roads within the study area primarily provide access to existing or proposed developments with an assumed relatively static trip generation. Apex takes no exception to this methodology; however, we note that any existing vehicles traveling to the side roads along this corridor from I-93 were included in the increase for background growth at the intersections of River Road at the I-93 Ramps, and therefore this imbalance was applied to the mainline through movements, resulting in increases of up to 70 vehicles for each analysis period. The methodology was not applied consistently through the roadway network

and appears to primarily impact the resultant traffic volumes at the intersection of River Road at Old River Road and Federal Street. However, given the acceptable operations at this intersection, we do not anticipate a substantial impact to the operations.

7. As described in the TIA, the nearby project at 3000 Minuteman Road includes the optimization of the four coordinated traffic signals on River Road as part of the mitigation for that project, but does not include any changes to the uncoordinated intersection of River Road and North Street / Greater Lawrence Tech Driveway. We note that this intersection appears to have been included in the optimization to obtain the no-build condition as well. As this intersection was optimized again as part of the mitigation for the subject project and given the acceptable operations, we request no further revisions to the analysis.
8. As discussed in the supplemental memorandum, since no pass-by data is available for the weekday morning peak hour, VAI used the lowest available percentage to apply to this peak hour. While we take no exception to using the available data, without knowing the type of retail proposed for the site, one could argue that there may not be many, if any, pass-by trips at this time. However, we note that this only equates to a reduction of two (2) vehicle trips during the weekday morning peak hour, which is well within a normal fluctuation of traffic, and no further revisions are requested.

Traffic Operations Analysis

9. Based on discussions with the Town, it is our understanding that the office development at the existing site has been underutilized for many years (up to approximately 20 years), generating significantly fewer vehicles than a fully-occupied building. To establish the future No-Build conditions, VAI incorporated the impacts of the fully-occupied building, under which the site is currently approved to operate. Through our discussions, the Town indicated a concern about overestimating the impacts of the existing project when compared to the proposed project. As such, during our meeting with VAI, Apex requested that they prepare a future No-Build condition that only accounts for a projection of the existing traffic volumes without the assumption of a fully-occupied building, which was included in the supplemental memorandum prepared by VAI. The following summarizes our findings based on the revised traffic analysis:
 - a. All intersections are expected to operate at an overall Level of Service (LOS) C or better during both the weekday morning and evening peak hours under the future conditions, with or without the project.
 - b. At the intersection of River Road at North Street and Greater Lawrence Tech Driveway, the North Street northbound left-turn lane is expected to operate at an unacceptable LOS E during the morning peak hour under the future No-Build conditions, and is expected to continue to operate at an LOS E with approximately two (2) additional seconds of delay under the Build conditions due to the impacts of the Project. However, based on the Build Mitigated conditions, this movement is expected to improve to an acceptable LOS D.
 - c. At the intersection of River Road at Old River Road and Federal Street, the Old River Road southbound shared left-turn/through lane is expected to operate at an acceptable LOS D during the morning peak hour under the future No-Build conditions, and is expected to degrade to an unacceptable LOS E under the Build conditions due to the impacts of the project, with a notable additional 20 seconds of delay between No-Build and Build conditions. We note that the operations for all movements at this intersection look very similar between the Build and Build Mitigated conditions, and that there appears to be additional capacity for many of the other movements that could potentially allow further optimization to improve the operations for the southbound movement. Apex requests clarification on the optimized timings selected for this mitigation and if changes could be applied to improve upon the southbound operations.

- d. There are several movements that are expected to experience slightly more delay as a result of the project (up to four (4) seconds additional delay) but are still expected to operate at an acceptable LOS D or better. In some cases, these degradations have been mitigated under the Build Mitigated conditions.
10. Through discussions with the Town, it seems that the traffic analysis does not capture certain peak hours when vehicles are queued along River Road; these queues appear to be a result of traffic on I-93, which subsequently backs up along the I-93 Northbound On-Ramp, and onto River Road westbound, and further extends through the intersection of River Road at Old River Road and Federal Street. We note that the Synchro analysis would not account for such backups as the software does not account for impacts to operations based on other intersections and external factors outside of the study area. There is concern that the additional traffic from the development may further exacerbate the traffic that is unaccounted for in the analysis. While the corridor has been optimized as mitigation for this project, we note that the analysis may not reflect the operations that are currently experienced.
11. Under existing conditions, the intersection of River Road at Old River Road and Federal Street does not include a pedestrian phase in the signal timing. We note that if an exclusive pedestrian phase was added as part of improvements to the intersection, the traffic operations may be significantly impacted.
12. In the supplemental analysis, the 2032 Build operations reported in Table 10R for the River Road and North Street / Greater Lawrence Tech Driveway intersection do not match the Synchro analysis sheets for the weekday evening peak hour. It appears the operations were not updated from the original analysis.

Sight Distance Evaluation

13. The TIA states that tree trimming and removal, regrading of embankment areas, and modification of a stone wall are necessary to provide the sight distances reported at the site driveways. Apex reviewed the line of sight triangle provided on the overall landscape plan of the project site plans. The plan appears to indicate approximately 200 feet of intersection sight distance looking both north and south on Old River Road, which is less than the reported 281 feet looking south and 251 feet looking north, assuming the clearing and modifications discussed above. We note that 200 feet meets the minimum required Stopping Sight Distance (SSD) but does not meet the desired Intersection Sight Distance (ISD).

Conclusions and Recommendations

14. The TIA states that drive aisles will be a minimum of 23-feet wide in places where perpendicular parking is proposed. We note that according to the Town of Andover zoning bylaws, a minimum width of 24-feet is required for two-way drive aisles.
15. The TIA outlines recommendations for off-site improvements to the River Road corridor traffic signal system, which includes optimizing traffic signal timing, phasing, and coordination. Apex understands that since some of the intersections along the corridor are under MassDOT jurisdiction, improvements would have to be addressed with MassDOT. We recommend Town involvement and coordination with both MassDOT and the Applicant to provide input on any off-site improvements. The Board may wish to consider further coordination regarding off-site improvements as a condition of any approval that may issued.
16. The TIA states that the Project proponent proposes to provide a financial contribution to the Town for improvements, the amount of which will be determined in consultation with the Town. The TIA also states that the Project proponent will partner with the Town to prepare an application for a MassWorks or HousingWorks grant to construct the off-site improvement measures. Apex recommends establishing the level of off-site improvements before submitting the grant application and

determining and agreeing upon a contribution from the Project proponent outside of the grant funding that is commensurate with the impacts of the Project.

17. The TIA also outlines recommendations for mobility improvements along Old River Road. These improvements include constructing a sidewalk along the north side of Old River Road from the south Project site driveway to Campanelli Drive, installing a crosswalk across Old River Road with a Rectangular Rapid Flashing Beacon (RRFB), and constructing pedestrian ramps in compliance with Americans with Disabilities Act (ADA). Apex notes that these improvements leave a relatively short gap in pedestrian connectivity to the intersection of River Road at Old River Road/Federal Street (approximately 200 feet to the south) and the existing sidewalk along the south side of River Road. The TIA notes that this extension could be provided as part of a larger improvement project with the grant funding assistance; however, we note that this pedestrian connectivity would benefit the residents and visitors of the development and if these improvements were done as part of a larger project, they would likely not be implemented until after the development has been completed. As such, Apex recommends consideration be made for extending the sidewalk along Old River Road to the intersection with River Road, as well as installing a crosswalk across River Road, constructing ADA-compliant pedestrian ramps, and installing pedestrian signal equipment at both the existing and proposed crosswalks for continuous pedestrian connectivity.
18. Apex recommends that the TDM plan be formalized and mutually agreed upon between the Applicant and the Town.

Summary

Through the supplemental memorandum, VAI addressed most of our comments that may have impacted the findings of the study, which have been incorporated in our comments outlined herein. Most of the remaining comments are included for consistency and not anticipated to impact the findings of this TIA.

Based on the revised analysis, traffic operations appear to be minimally impacted by the Project. However, as noted, the analysis may not reflect the operations that are experienced along the corridor as a result of external factors that would not be accounted for due to the analysis software's limitations.

The more substantial comments outlined herein are primarily related to the mitigation for the Project. These comments include the following:

- Apex recommends reviewing vehicle clearance timings at the traffic signals along the corridor and implementing modifications if necessary.
- Apex requests clarification on the optimized timings selected for mitigation at the intersection of River Road at Old River Road and Federal Street and if changes could be applied to improve upon the southbound operations.
- Apex recommends continued coordination between the Town, the Applicant, and MassDOT regarding off-site improvements along the River Road corridor.
- Apex recommends that the Town and the applicant establish the level of off-site improvements to include in a grant application prepared in coordination between the two entities and agree upon an amount to be contributed by the applicant outside of the grant funding that is commensurate with the impacts of the Project.
- Apex recommends consideration be made for providing continuous pedestrian connectivity from the Project site to the intersection of River Road at Old River Road/Federal Street as part of the mitigation.

We appreciate the opportunity to be able to assist you with this project. We remain available for any questions or additional review.