May 5, 2026

NEX-2300215.00.00

Mr. Pascal Rettig
Planning Board Chair
City of Amesbury
62 Friend Street
Amesbury, MA 02913

SUBJECT: Response to VHB Transportation Letter Review Comments – April 6, 2026
Proposed Mixed-Use Development
1-9 Oakland Street – Amesbury, Massachusetts

Dear Mr. Rettig:

Greenman-Pedersen, Inc. (GPI) has prepared this Response to Comments (RTC) letter to address the second round of transportation-related comments received by the City of Amesbury's transportation engineering peer review consultant, VHB, in a memorandum dated April 6, 2026, regarding the *Trip Generation & Site Access Letter* prepared by GPI for the proposed mixed-use development to be located at 1-9 Oakland Street in Amesbury, Massachusetts. GPI's responses to the Transportation Letter Review comments are summarized below and the review letter is attached for reference. The responses to the Project Site Plans comments will be provided under separate cover.

GPI Transportation Letter Review Comments

VHB Comment 3: ***Sight Distance*** *– The sight distance evaluation was conducted using speed measurements conducted by GPI on both Oakland Street and Chestnut Street. These observations were conducted for eleven of fewer vehicles per direction, possibly due to the low number of vehicles traveling along both roadways. Speeds for one hundred or more vehicles in each direction typically are checked for speed zoning purposes. However, the 25 miles per hour (mph) to 31 mph reported "85th percentile" speeds are consistent with that observed by VHB during off-peak field visits. These design speeds also are higher than the 25 mph regulatory speeds for both roadways. Accordingly, the speed measurements provided reasonably can be used for this analysis. For consistency, the desirable intersection sight distance levels should be based on these same observed speeds, and not the values based on the 25-mph regulatory speed shown in Table 1. The analysis also appropriately considered adjustments accounting for the grades of both roadways.*

GPI acknowledges the 188 feet of available intersection sight distance looking to the north falls below the required 215-foot distance. GPI should confirm that this measurement was taken 14.5 feet from the edge of the Chestnut Street traveled way following American Association of State Highway and Transportation Officials (AASHTO) standards. VHB agrees that exiting motorists may pull closer to the road to help improve the sight line, and a 10-foot setback is frequently used to reflect that condition. GPI should conduct this measurement using this 10-foot setback to document the resulting sight line looking to the north. Some motorists may also use an even shorter setback with the front of their vehicle positioned at the edge of the road, though that is not a desirable condition. If the required intersection sight distance cannot be met, corrective measures will be required.

GPI Response 3: GPI has updated the desirable ISD calculations based on the design speeds (as opposed to the regulatory speeds). The updated calculations and the marked-up Sight Distance Summary Table (Table 1) from the *Trip Generation and Site Access Letter* are attached for reference.

The 188 feet of available ISD was taken 14.5 feet from the edge of the Chestnut Street traveled way, measured in the field. As suggested, the available ISD looking north has been re-evaluated from 10 feet back (as opposed to 14.5 feet back). Based on a 10-foot setback, the corner of the building marginally inhibits sight lines. However, the 215-foot minimum required ISD can be achieved from 9'-8" from edge of traveled way. Based on AASHTO,[1] "*The vertex (decision point) of the departure sight triangle on the minor road should be 14.5 ft [4.4 m] from the edge of the major-road traveled way. This represents the typical position of the minor-road driver's eye when a vehicle is stopped relatively close to the major road. Field observations of vehicle stopping positions found that, where needed, drivers will stop with the front of their vehicle 6.5 ft [2.0 m] or less from the edge of the major-road traveled way. Measurements of passenger cars indicate that the distance from the front of the vehicle to the driver's eye for the current U.S. passenger car population is nearly always 8 ft [2.4 m] or less (21).*" Accordingly, it is anticipated that the 9'-8" setback is sufficient based on the vehicles expected to be parking in the garage as well as the low volume of traffic on Chestnut Street. A two-dimensional Sight Distance Plan is attached for reference.

VHB Response 3: *VHB acknowledges that motorists generally will pull closer to the edge of the traveled way in circumstances such as those found at this Site, so adjustments to the AASHTO-specified 14.5-foot setback can appropriately be made. While the 9'8" setback used for the analysis above is higher than the 8-foot distance suggested by AASHTO, it is lower than the 10-foot setback typically used for instances like this. The Applicant should explore where a minor chamfer cut to the lower level of the building to the north of this driveway is feasible to help improve sight lines. Another option is to explore traffic calming measures or sign installation on the Chestnut Street southbound approach to this location to help reduce travel speeds closer to the 25-mph regulatory speed limit. Under that condition, the 188 feet of measured intersection sight distance would exceed the AASHTO-specified desirable intersection sight distance for a 25-mph speed.*

GPI Response 3: The Applicant is amenable to modifications to the lower level of the building to the north of the proposed site driveway location on Chestnut Street to enhance sight distance, as depicted on the most recent plan sets submitted for the project. The updated sight line plan, depicting the building modification, is attached for reference and demonstrates that the 215-foot minimum requirement is met from the 10-foot setback, and can be met for a setback distance up to 11.5-feet.

VHB Comment 7: ***Parking Generation*** *– The Project narrative indicates that a 1.24 space per unit parking ratio will be provided for the residential uses, while the retail shops will rely on nearby public parking. As this falls below the 1.5 space/unit Zoning Bylaw requirements, the applicant has indicated that a waiver request would be provided if necessary. Analysis should be provided documenting the anticipated demand for the residential and retail uses compared to the available parking supply. This can be based on data from ITE, the Metropolitan Area Planning Council (MAPC), or other sources. The applicant also should provide discussion regarding how parking will be managed (i.e., bundled with leases, if residents will need to pay for parking, etc.).*

[1] *A Policy on Geometric Design of Highways and Streets*; American Association of State Highway and Transportation Officials (AASHTO); 2018.

GPI Response 7: Based on the ITE *Parking Generation Manual, 6th edition*, the cumulative average peak parking demand is 164 parking spaces on a typical weekday and 140 parking spaces on a Saturday. This cumulative parking demand assumes the peak demands for each use (residential and retail) will occur at the same time of day; however, in reality, the peak demand for the retail use occurs during the middle of the day when demand for the residential uses is lowest. **The maximum demand is anticipated to occur between midnight and 4:00 AM and is expected to be 153 parking spaces on a weekday and 129 parking spaces on a Saturday. The site will provide 153 total spaces (130 garage spaces and 23 surface spaces), accordingly, based on time-of-day maximum demand, sufficient parking is provided.** The parking calculations are attached for reference.

Specific elements of the overall site parking management program (lease agreements, payment for parking, etc.) will be addressed by the Applicant's project team under separate cover.

VHB Response 7: *The estimated parking demand estimates noted above are based on standard ITE data for average conditions. The typical industry practice in estimating the "maximum" anticipated parking demand is to use ITE rates for an 85th percentile condition (which only would be exceeded 15 percent of the time) as opposed to the average results presented. The estimated 85th percentile parking demand for a weekday would be 180 vehicles for the residential component and 18 vehicles for the retail component. The resulting combined 198-space demand would exceed the proposed 153-space parking supply. VHB acknowledges the different peak times for residential and retail, so the actual 85th percentile demand should not exceed 180 vehicles (the overnight residential demand). It also is anticipated that the retail component may draw most of its business from walk-up traffic or residents living on site. Furthermore, VHB believes that the ITE-based parking estimates may be overstated. The Metropolitan Area Planning Council (MAPC) has published data from greater Boston sites, including data for north shore communities. This information indicated lower parking demands than those shown by the ITE data. The ITE 85th percentile estimates noted above should be compared to relevant data from the MAPC database, or other sources, to confirm the appropriateness of the proposed parking supply.*

GPI Response 7: Data from the MAPC's Perfect Fit Parking Initiative indicates that during peak demand, the average total parking supply in North Shore communities was 1.25 spaces per unit, whereas the average parking demand was 0.95 space per unit. These communities included Beverly, Danvers, Peabody, and Salem. While Beverly and Salem benefit from commuter rail access, Danvers and Peabody do not. Accordingly, Danvers and Peabody were evaluated independently to provide a more direct comparison to Amesbury, which similarly does not benefit from commuter rail access. The parking demand per unit was published as follows:

- Danvers – 1.11 occupied spaces/occupied units
- Peabody – 1.26 occupied spaces/occupied units

This information indicates parking demand to be more analogous to the ITE average parking demand of 1.23 spaces per dwelling unit, rather than the 85th percentile parking demand of 1.45 spaces/dwelling units. As such, the 153 proposed spaces are expected to sufficiently satisfy time-of-day maximum parking demand (overnight, between midnight and 4:00 AM). Data published by MAPC are attached to this letter for reference.

We hope this letter adequately addresses any outstanding transportation related matters. However, should you have any questions or require additional information throughout the review process, please feel free to contact me directly at (603) 766-5229 or bbollinger@gpinet.com.

Sincerely,

GREENMAN-PEDERSEN, INC.

Robert E. Bollinger
Assistant Vice President / Traffic Engineering Department Head
116 S. River Road, Bldg. B, Suite 1
Bedford, NH 03110

Enclosures:

1. VHB Transportation Engineering Review Letter – April 6, 2026
2. Updated Sight Distance Plan
3. MAPC Parking Data

Memorandum

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

Date: April 6, 2026

Project #: 201612.000

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

Re: Proposed Mixed-use Development
1-9 Oakland Street, Amesbury, Massachusetts
Transportation Engineering 2nd Peer Review

As requested by the City of Amesbury, VHB has completed a second review of transportation-related material submitted in support of the proposed residential development (the "Project") for 1-9 Oakland Street in Amesbury, Massachusetts (the "Site"). Since the time of VHB's initial review, 9 Oakland Street Amesbury LLC (the "Applicant") has submitted responses to VHB's February 11, 2026 comment memorandum through its Project team and has provided updated plans and material. Specifically, VHB reviewed the following transportation-related items for this second review:

- "Response to VHB Transportation Letter Review Comments – February 11, 2026 – Proposed Mixed-Use Development" prepared by Greenman-Pedesrson, Inc. (GPI) dated February 25, 2026;
- "Proposed Site Plan Plans – Carriage Hill Lofts at Oakland Street" prepared by Millennium Engineering, Inc. dated September 23, 2025 (revised through March 30, 2026); and
- "Carriage Hill Lofts – Renovation and Addition" prepared by SV Design LLC dated March 9, 2026.

GPI Transportation Letter Review

VHB has reviewed the transportation-related aspects of the material noted above. The following comments are being provided following the same general format of the prior VHB review memorandum. For ease of review, comments from the prior review memorandum are shown in plain text, followed by responses from GPI provided in underlined and italicized text, with any additional comments from VHB provided in **bold text**.

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

Existing Conditions

1. **Geometry** – The descriptions of Oakland Street and Chestnut Street near the Site are accurate. A description of the Chestnut Street/Oakland Street intersection is not provided. The Oakland Street approach to Chestnut Street currently functions under Stop sign control with a Stop line also provided on Oakland Street. However, the Stop sign is mounted on a utility pole on the west side of Chestnut Street. This sign should be removed and a new sign should be posted at the northeast corner of the intersection following standards outlined in the Manual on Uniform Traffic Control Devices (MUTCD)[1].

   Response: *Comment acknowledged. Below is a photo of the referenced Stop sign from May 2025. The Applicant is amenable to removing the existing Stop sign and replacing it with a new sign on the northeast corner*

[1] Manual on Uniform Traffic Control Devices, 11th Edition; U.S. Department of Transportation Federal Highway Administration, Washington DC, December 2023.

Engineers | Scientists | Planners | Designers
260 Arsenal Place #2, Watertown, Massachusetts 02472
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of the intersection following MUTCD standards. The exact location will be determined by City Staff and/or their peer review engineer, VHB.

VHB Response: The sign shown above has since been removed after the photo was taken, but VHB understands that the Applicant will replace this as requested. No further comments regarding this item.

2. **Collisions** – The low crash experience noted is consistent with the low-volume, low-speed nature of the surrounding roads. Due to there only being one single crash reported in the five years studied, it is not possible to identify any correctable crash trends.

   Response: *Comment acknowledged.*

Design Conditions

3. **Sight Distance** – The sight distance evaluation was conducted using speed measurements conducted by GPI on both Oakland Street and Chestnut Street. These observations were conducted for eleven of fewer vehicles per direction, possibly due to the low number of vehicles traveling along both roadways. Speeds for one hundred or more vehicles in each direction typically are checked for speed zoning purposes. However, the 25 miles per hour (mph) to 31 mph reported "85th percentile" speeds are consistent with that observed by VHB during off-peak field visits. These design speeds also are higher than the 25 mph regulatory speeds for both roadways. Accordingly, the speed measurements provided reasonably can be used for this analysis. For consistency, the desirable intersection sight distance levels should be based on these same observed speeds, and not the values based on the 25-mph regulatory speed shown in Table 1. The analysis also appropriately considered adjustments accounting for the grades of both roadways.

   GPI acknowledges the 188 feet of available intersection sight distance looking to the north falls below the required 215-foot distance. GPI should confirm that this measurement was taken 14.5 feet from the edge of the Chestnut Street traveled way following American Association of State Highway and Transportation Officials (AASHTO)[2] standards. VHB agrees that exiting motorists may pull closer to the road to help improve the sight line, and a 10-foot setback is frequently used to reflect that condition. GPI should conduct this measurement using this 10-foot setback to document the resulting sight line looking to the north. Some

2 A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2018.

Memorandum

motorists may also use an even shorter setback with the front of their vehicle positioned at the edge of the road, though that is not a desirable condition. If the required intersection sight distance cannot be met, corrective measures will be required.

Response: *GPI has updated the desirable ISD calculations based on the design speeds (as opposed to the regulatory speeds). The updated calculations and the marked-up Sight Distance Summary Table (Table 1) from the Trip Generation and Site Access Letter are attached for reference.*

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4. **Trip Generation** – Project trip generation was calculated based on the 11th edition of the "Trip Generation Manual[3]" published by the Institute of Transportation Engineers (ITE). This database includes studies of several comparable residential developments and commercial uses. Estimating trip generation using the ITE data is the accepted industry standard. However, ITE recently published an updated 12th edition of this manual in August 2025. However, the resulting trip generation estimates based on the newer data do not differ significantly compared to those based on the 11th edition. This should be documented by GPI. The trip generation estimates are conservative in that they do not account for internal trip sharing between the residential and retail uses. This likely would result in fewer net new trips than are reflected by the estimates in Table 2.

3 Trip Generation Manual (12th Edition), Institute of Transportation Engineers (Washington, DC), 2025.

Response: *The trip generation has been prepared based on the 12th edition. The calculations and trip generation comparison are attached for reference. It can be confirmed that the 12th edition data does not differ significantly from the 11th edition data.*

VHB Response: Comment resolved.

5. **Trip Distribution** – Trip distribution was estimated was based on U.S. census data, which is an accepted and appropriate methodology. No further analysis is required.

   Response: *Comment acknowledged.*

6. **Traffic Increases** – VHB agrees with the trip assignment shown in Figure 1. These resulting additional volumes on the surrounding roadways generally would not be considered significant, While no traffic data collection was conducted as part of the study, the nearby existing roadways themselves currently appear to carry low volumes.

   Response: *Comment acknowledged.*

7. **Parking Generation** – The Project narrative indicates that a 1.24 space per unit parking ratio will be provided for the residential uses, while the retail shops will rely on nearby public parking. As this falls below the 1.5 space/unit Zoning Bylaw requirements, the applicant has indicated that a waiver request would be provided if necessary. Analysis should be provided documenting the anticipated demand for the residential and retail uses compared to the available parking supply. This can be based on data from ITE, the Metropolitan Area Planning Council (MAPC), or other sources. The applicant also should provide discussion regarding how parking will be managed (i.e., bundled with leases, if residents will need to pay for parking, etc.).

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   Specific elements of the overall site parking management program (lease agreements, payment for parking, etc.) will be addressed by the Applicant's project team under separate cover.

   VHB Response: The estimated parking demand estimates noted above are based on standard ITE data for average conditions. The typical industry practice in estimating the "maximum" anticipated parking demand is to use ITE rates for an 85th percentile condition (which only would be exceeded 15 percent of the time) as opposed to the average results presented. The estimated 85th percentile parking demand for a weekday would be 180 vehicles for the residential component and 18 vehicles for the retail component. The resulting combined 198-space demand would exceed the proposed 153-space parking supply. VHB acknowledges the different peak times for residential and retail, so the actual 85th percentile demand should not exceed 180 vehicles (the overnight residential demand). It also is anticipated that the retail component may draw most of its business from walk-up traffic or residents living on site. Furthermore, VHB believes that the ITE-based parking estimates may be overstated. The Metropolitan Area Planning Council (MAPC) has published data from greater Boston sites, including data for north shore

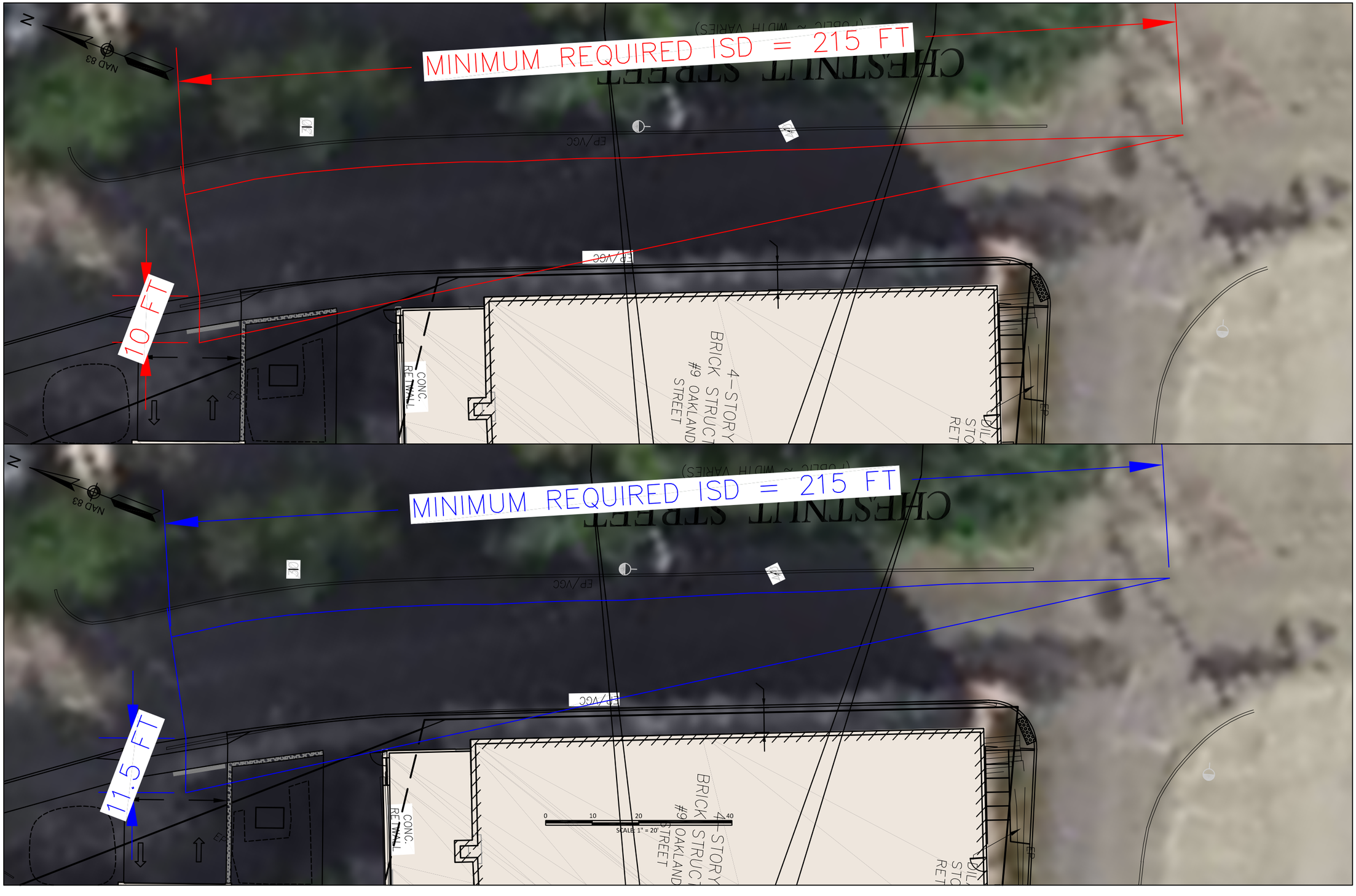
communities. This information indicated lower parking demands than those shown by the ITE data. The ITE 85th percentile estimates noted above should be compared to relevant data from the MAPC database, or other sources, to confirm the appropriateness of the proposed parking supply.

Project Site Plans

In addition to VHB's review of the GPI transportation analysis, VHB also provided comments regarding the Project Site plans which have not been addressed. These are provided again for reference to be addressed by GPI, Millennium Engineering, Inc., or other Project team members as appropriate.

VHB's peer review also includes a technical review of the transportation aspects of the Project Site plans prepared by Millennium Engineering, Inc. dated September 23, 2025. VHB also is providing the following comments for consideration:

1. Stop lines and Stop signs should be provided facing exiting Site traffic at both driveways.
2. AAB-compliant tactile warning panels should be provided on both sides of the sidewalks intersecting each driveway.
3. The Project's parking management should be discussed in terms of if parking stickers or other means will be provided to control parking. Consideration should be given to unbundling parking from the leasing of units so that any residents choosing not to own a vehicle would not have to lease a space.
4. The Applicant should discuss how move-in/move-out activities are managed at other existing properties controlled by the Applicant. While this activity occurs at any residential site, there is limited room to accommodate delivery trucks, which should be discussed.
5. The Zoning table on Sheet C5.0 "Civil Site Plan" should be modified to include the Project parking.
6. The proposed surfacing parking lot next to Oakland Street shows a total of 24 spaces, while the SV Design LLC plans show 23 spaces. This discrepancy should be resolved. Also, the SV Design LLC plans indicate that the eleven spaces immediately next to Oakland Street are designated for visitor use. This distinction also should be shown on the civil engineering plans (which show twelve spaces in this area).



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PREPARED FOR
Sweet Management, Inc.
PO Box 1079
Kingston, NH 03848

SIGHT LINE PLAN
MIXED-USE DEVELOPMENT
AMESBURY, MASSACHUSETTS

REVISIONS

NO.	REVISION	DATE

MAY 4, 2026

DRAWN/DESIGN BY	CHECKED BY
CJD	REB

SIGHT DISTANCE PLAN

SCALE: 1"=20'

NEX-2300215.00

1 OF 1

MAPC
METROPOLITAN AREA PLANNING COUNCIL

Memorandum

To: **Beverly, Danvers, Peabody, and Salem Planning Staff**

From: Liana Banuelos, MAPC Transportation Department

On: January 21, 2020

Re: Perfect Fit Parking Initiative: Phase 3 Update

MAPC's Perfect Fit Parking Initiative is an effort to better understand the factors that influence parking demand at multifamily developments. Over two phases of research, MAPC surveyed nearly 200 sites throughout the Inner Core, and found 30% of spaces sitting vacant during peak demand times. While the average parking supply was exactly one space per unit, the actual parking demand was 0.73 spaces per unit. This indicates that there is more work to be done to align parking supply with demand and limit the construction of excess parking spaces. Excess parking is not only costly to construct, but is associated with more driving (and therefore more traffic congestion). With greater parking also comes increased housing costs, and more land area dedicated to asphalt rather than open space or other amenities.

The Inner Core, however, is distinct from other subregions in terms of greater population and employment density, more transit options, and greater access to jobs. Therefore, to better understand how these findings translate in more cities and towns beyond the inner core, MAPC collected similar overnight parking data for four communities in the North Shore: Beverly, Danvers, Peabody, and Salem.

MAPC worked with municipal staff to identify buildings that met the same criteria as Phase 2 of our Perfect Fit Initiative:

- Apartments or condominiums with 9 units or more;
- On-site parking is provided for residents, and;
- The building was constructed after the year 1999.

After surveying property managers from buildings throughout the four communities, MAPC conducted overnight parking counts at the surface lots and garages associated with these properties to measure parking demand. As has been the case in previous phases of this research, overnight counts took place overnight on a weeknight when it was assumed most residents were home and parking occupancy was at its peak.

Average parking utilization in North Shore communities echoed the findings from Phase 2 of Perfect Fit. During peak demand, 76% of parking spaces at observed multi-family residential developments were occupied. At these properties, the average total parking supply was 1.25 spaces per unit, whereas

average parking demand was 0.95 space per unit. For more information, please see the attached spreadsheet of findings.[1]

Perfect Fit Phase 3 Findings:
Properties Surveyed – 20 (mix of apartments and condos, studios to three bedroom units)

Municipalities – Danvers (1), Peabody (5), Salem (4), and Beverly (10)

Average Utilization Rate – 76%
Utilization Rate Dataset Range – 0.45 to 1.0

Average Parking Demand – 0.95
Parking Demand Dataset Range – 0.30 to 1.53 spaces per unit

Average Parking Supply – 1.25 spaces per unit
Parking Supply Dataset Range – 0.43 to 2.09 spaces per unit

Sites observed in the North Shore experienced greater parking demand and supply than those observed in the Inner Core. This is likely due in part to a greater share of commutes made using cars among North Shore residents, and fewer transit options. However, there was still an observed discrepancy between supply and demand at multi-family residential buildings. If this trend continues, valuable real estate will be devoted to spaces that sit empty, rather than using that space to build common areas, retail, or additional housing.

In previous phases of research, MAPC's Data Services staff analyzed over two dozen variables to better understand what building and neighborhood characteristics influence parking demand. Parking supply stood out as the primary factor influencing demand. In other words, the provision of ample parking at multifamily sites likely attracts car-owning residents. Two additional factors proved significant in determining parking demand—the number of jobs accessible by transit, and the percentage of units that are deed-restricted affordable. In this case, as the number of jobs accessible by transit increased and the percentage of deed-restricted affordable units increased, parking demand decreased. One major takeaway these findings offer is that parking requirements should be nuanced and context-specific, rather than a one-size-fits-all approach ascribed to an entire city or town.

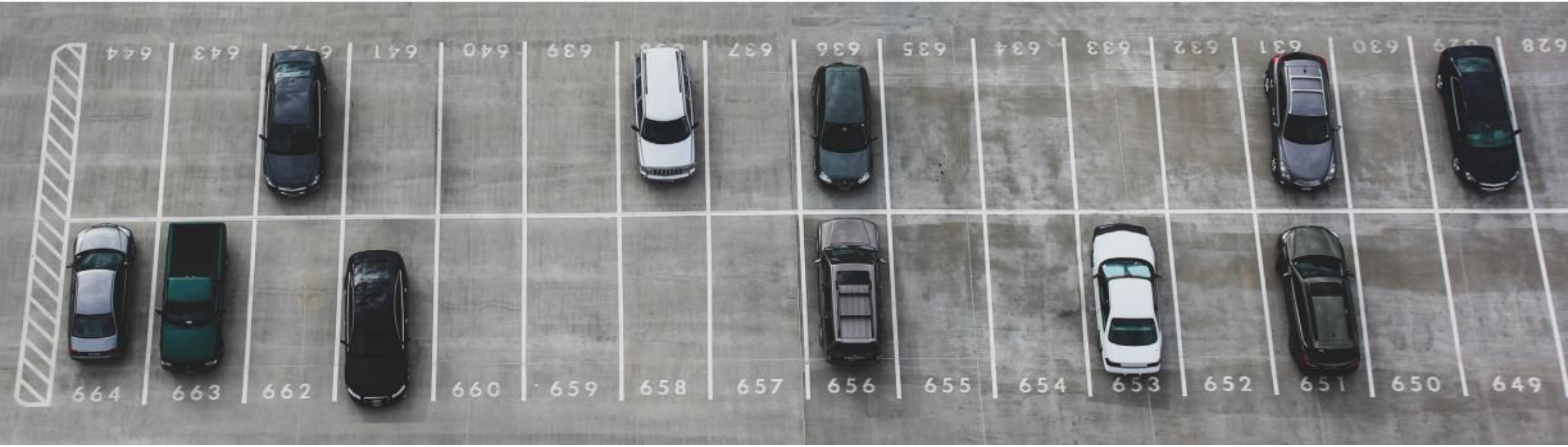
Looking ahead, we will work with our Data Services team to determine what additional analysis can be done with the data collected in the North Shore. As a next step for our Perfect Fit Parking Initiative as a whole, we are eager to continue our work with cities and towns to assess what zoning and local policy changes can be made to modernize local parking requirements and regulations. Please do not hesitate to contact us if you have any questions about the data collected or are interested in us working with us to consider parking reforms in your community.

For more information about the Perfect Fit Parking Initiative, please visit https://perfectfitparking.mapc.org/.

[1] There were two properties in Danvers, three in Peabody, one in Salem, and one in Beverly for which MAPC was able to obtain survey information, but was not able to gather overnight parking occupancy data. For the vast majority of these sites (six of seven), there were individual garaged parking spaces for each unit. Furthermore, the cost of the parking spaces were bundled with rental costs, so there was no way to estimate the number of parking spaces occupied based on any discrete parking revenue information. One additional mixed-use site in Peabody was excluded from the analysis because there was insufficient information provided through the property manager and no visible distinction between residential spaces and spaces allocated for other users of the site.

Perfect Fit Parking Initiative

Presentation to North Shore Task Force (NSTF) Subregion



Metropolitan Area Planning Council

October 19, 2023
Adi Nochur (anochur@mapc.org)
Senior Transportation Planner

MAPC

Phase 3: North Shore (2019-2020)

Municipality	Number of Sites	Parking Supply Per Unit $\frac{\text{Total Spaces}}{\text{Total Units}}$	Parking Demand Per Unit $\frac{\text{Occupied Spaces}}{\text{Occupied Units}}$	Parking Utilization % $\frac{\text{Occupied Spaces}}{\text{Total Spaces}}$
Beverly	10	1.17	0.88	73%
Danvers	1	1.83	1.11	61%
Peabody	5	1.44	1.26	84%
Salem	4	1.11	0.83	75%
All Sites	**20**	**1.25**	**0.95**	**76%**