



Ref.: 21009

September 7, 2021

Mr. Frederick Casavant IV, Chairman  
Pembroke Zoning Board of Appeals  
100 Center Street  
Pembroke, MA 02359

Reg.: River Marsh Village – 3<sup>rd</sup> Traffic Review  
Proposed 56-Townhouse Units (40B Development)  
274 Water Street, Pembroke, Massachusetts

Dear Chairman Casavant and Members of the Board:

***Ron Müller & Associates*** (RMA) has reviewed the following additional information submitted by the applicant in response to our June 29, 2021 second review letter:

- *Response to 2<sup>nd</sup> Traffic Review Memorandum, Proposed 40B Residential Development, 274 Water Street, Pembroke, MA*; prepared by Vanasse & Associates, Inc. (VAI); July 27, 2021.
- *Comprehensive Permit Peer Review Comments Letter, River Marsh Village, Water Street, Pembroke, MA*; prepared by McKenzie Engineering Group, Inc. (MEG); August 31, 2021.
- *Comprehensive Permit Plan, River Marsh Village, Pembroke, MA*; prepared by McKenzie Engineering Group, Inc.; last revised August 31, 2021.
- *River Marsh Comprehensive Permit Application, Water Street, Pembroke MA Letter* from Baker, Braverman & Barbadoro, P.C. to the Pembroke Zoning Board of Appeals; June 8, 2021.
- *River Marsh Comprehensive Permit Application, Water Street, Pembroke MA Comment 24, Ron Müller & Associates Letter* from Baker, Braverman & Barbadoro, P.C. to the Pembroke Zoning Board of Appeals; August 3, 2021.
- *River Marsh Comprehensive Permit Application, Water Street, Pembroke MA Letter* from Baker, Braverman & Barbadoro, P.C. to the Pembroke Public Schools; August 5, 2021

The comments in this letter are numbered to correspond with our original review and are paraphrased below, followed by the applicant's response, and any additional comments we have at this time. For ease of reading, comments that had previously been addressed to our satisfaction are omitted from this letter.

## TRAFFIC ASSESSMENT REVIEW

Comment 1: We recommended the applicant prepare a conceptual plan showing the recommended improvements to the intersection of Water Street and Cross Street.

VAI provided the requested plan, which shows installation of centerline pavement markings and STOP signs and stop lines on both Cross Street approaches to Water Street. We concur with the proposed improvements, **but recommend that a YIELD sign and yield line also be installed on the north side of the delta island where Water Street left turns onto Cross Street are in conflict with Water Street right turns onto Cross Street. Water Street right turns onto Cross Street should have the right-of-way.**

Comment 8: We recommended that the Town of Pembroke require the property owner at 248 Water Street to relocate the fence outside of the Water Street layout so that the proposed southerly driveway can function as a full access/egress driveway without any turn restrictions that would otherwise be difficult to enforce.

The applicant responded that in accordance with Section IV.4.D.8 of the Pembroke Zoning Bylaws, the town has procedures in place to enforce the removal of the fence outside the town right-of-way. Once the fence is relocated, the south driveway can function as a full egress driveway. In the meantime, the south driveway will restrict left turns out due to insufficient sight lines caused by this fence location. **We agree that without the fence relocation, which requires action by the Town of Pembroke, the south driveway should restrict left turns onto Water Street. We recommend that the site plan incorporate appropriate signs (R3-2 – NO LEFT TURN) and arrow pavement markings to ensure compliance with the turn restriction. We also continue to recommend that the Town of Pembroke require the property owner at 248 Water Street to relocate the fence outside of the Water Street layout, in which case the turn restriction would not be necessary.**

Comment 10: We recommended that the sight triangles shown on the site plan be revised to reflect the minimum requirements as established by VAI and any trees or other obstructions within these sight triangles be identified to be trimmed or removed to assure that the minimum required sight lines can be maintained without impacting adjacent properties.

The updated site plan now incorporates the appropriate sight triangles on Sheet C-9 of the plan set and notes have been added to the plan to remove any obstructions and maintain vegetation to assure adequate sight lines. Comment resolved.

Comment 13: We recommended that Keep Right (R4-7) signs be installed at both ends of the raised median at the north driveway and that the proposed stop line on the driveway exit to Water Street extend across the entire approach width to assure that entering traffic does not turn into the driveway on the wrong side of the median. We also recommended that No Parking signs be posted along the internal site roadways.

The updated site plan now shows Keep Right signs on the median facing exiting traffic and No Parking signs have been added to the internal roadways. **Additional Keep Right (R4-7) signs should be posted on the median for entering traffic and the stop line on the driveway exit to Water Street should extend across the entire approach width.**

Comment 15: The applicant has made a commitment to working with the Town of Pembroke towards the development of a pavement marking and signage plan to improve the geometry and safety of the Church Street and Water Street intersection. We recommended the applicant submit a conceptual plan showing the improvements for review, including how Water Street will be realigned, what signs are proposed, and where vegetation and roadside fixtures will be trimmed and/or removed.

VAI provided a conceptual plan, which shows the installation of new pavement markings to delineate entering and exiting Water Street traffic and creation of a short left-turn pocket to allow tight-turning traffic to bypass any vehicles waiting to turn left onto Church Street. While these changes do clearly delineate entering and exiting Water Street traffic and “square off” the approach for left-turning vehicles, they still maintain a very skewed angle approach for right-turning vehicles creating significant sight distance issues and conflicts with two adjacent driveways. **We recommend that the Town of Pembroke consider requiring that the Water Street approach be “squared off” for**

**both left- and right-turning vehicles through the installation of curbing and removal of existing pavement. Separate left- and right-turning lanes are not necessary given the low volume of traffic on the Water Street approach. In addition, the areas for trimming and/or removing vegetation to improve sight lines should be shown on the plan.**

Comment 16: We recommended that the Town of Pembroke consider requiring construction of a sidewalk along Water Street from the site to the existing sidewalk provided along Church Street.

VAI previously responded that a sidewalk is not proposed along Water Street in conjunction with the project and the applicant continues to take that position. **Our original comment therefore still stands.**

## **SITE PLAN REVIEW**

Comment 17: We commented on the proposed turn restriction at the south site drive. MEG referred to the response by VAI. **Please see our additional comments regarding this issue in Comment 8.**

Comment 18: We recommended that a sidewalk be provided along at least one side of each internal roadway to allow safe pedestrian movements within the site. In addition, given this roadway width, on-street parking should be prohibited along all internal roadways.

The revised site plan now shows a sidewalk along one side of each internal roadway and “No Parking” signs have been added as requested. No further comment.

Comment 19: We recommended that all pedestrian accommodations comply with the Americans with Disabilities Act (ADA). MEG responded that notes and details have been added to the plans to reflect this requirement. **We note that the internal four-way intersection has sidewalks proposed along all four corners, yet crosswalks with associated wheelchair ramps are only provided across two legs of the intersection. Crosswalks and wheelchair ramps should also be provided across the remaining legs of the intersection.**

Comment 20: We recommended that all proposed signs and pavement markings conform with the Manual on Uniform Traffic Control Devices (MUTCD). MEG responded

that a note has been added to the plans to reflect this requirement. Comment resolved.

Comment 22: We requested additional turning analysis for Pembroke Fire trucks as well as a turning analysis for delivery trucks particularly at the south site driveway intersection with Water Street where only a 15-foot corner radius is proposed.

MEG provided the requested turning analysis for the Pembroke Ladder Truck that shows that all turns into and out of the site can be accommodated at both site driveways as well as internal to the site. **The turning analysis provided for delivery vehicles was made using a van as the design vehicle. This plan should be updated using an SU-30 truck as the design vehicle.**

Comment 23: We commented that the access road to Building-8 is a dead-end street that would require fire trucks to back out to exit. MEG responded that the plans have been revised to include a 20-foot-wide gravel access turnaround at Building 8 and the fire truck turning analysis confirms that fire trucks can make the required turns. Comment resolved.

Comment 24: We commented that the plans show a relocation of the driveway to 248 Water Street onto the south site driveway and requested that the applicant confirm that this driveway relocation is acceptable to the property owner. The project attorney, Baker, Braverman & Barbadoro, PC responded that the property owner at 248 Water Street has a written driveway easement over a portion of the site and that the applicant is allowed to relocate the driveway under established law. **We recommend the Town attorney confirm this position.**

Comment 25: We recommended the applicant contact the Pembroke School Department to determine where students will be picked up and dropped off and to consider an on-site school bus waiting area including provision of a parking area for parents if the bus will only stop along Water Street. The project attorney, Baker, Braverman & Barbadoro, PC submitted a letter to the School Department requesting guidance on potential bus stops within the site and suggesting that the parking area across from Building 3 could be used as a waiting area by parents who drive their kids to be picked up if the bus will only stop along Water Street. **To the best of our knowledge, the Pembroke School Department has not yet responded. We recommend that the School Department provide a response to this request before any action is taken on this project.**

Comment 27: We recommended that the sight line triangles shown on the plans be revised to reflect the minimum requirements as established by VAI and any trees or other obstructions within these sight triangles be identified to be trimmed or removed to assure that the minimum required sight lines can be maintained without impacting adjacent properties.

The updated site plan now incorporates the appropriate sight triangles on Sheet C-9 of the plan set and notes have been added to the plan to remove any obstructions and maintain vegetation to assure adequate sight lines. Comment resolved.

Please feel free to contact me if you have any questions regarding this review.

Sincerely,

***Ron Müller & Associates***

A handwritten signature in black ink, appearing to read "Ronald Müller", written in a cursive style.

Ronald Müller, P.E.  
Principal

cc: Peter Palmieri, Merrill Inc.