TETRA TECH

April 4, 2024

Mr. Richard S. Novak, Chair
Sherborn Zoning Board of Appeals
Town Hall
19 Washington Street

Re: Washington Street Sherborn Homes Residential Development – Comprehensive Permit
Engineering Peer Review – Traffic
121-129 Washington Street
Sherborn, MA

Dear Mr. Novak:

Tetra Tech (TT) has performed a review of the specific submittal materials for the above-referenced Project as they relate to transportation to assist the Town of Sherborn Zoning Board of Appeals (Board) in its Comprehensive Permit review of the proposed Washington Street Sherborn Homes development (the Project). The Project is located at 121-129 Washington Street (Route 16) in Sherborn, Massachusetts. The Applicant proposes the construction of 40 multifamily residential units.

TT is in receipt of the following materials:

- A plan (Plans) set titled "Permit Site Plan for Washington Street Sherborn Homes at 0 Washington Street in Sherborn, MA" dated January 23, 2024 (as revised February 9, 2024), prepared DGT Surveying and Engineering.
- A Traffic Study titled "Transportation Impact Assessment, Proposed Multifamily Residential Development, 121-129 Washington Street (Route 16), Sherborn, Massachusetts" dated September 5, 2023, Prepared by Vanasse & Associates Inc. (VAI)

Tetra Tech has reviewed the September 2023 Traffic Impact Assessment (TIA) for conformance with standard professional practices in the Commonwealth of Massachusetts for the preparation of traffic impact studies for Projects of the size and nature of the proposed development. The Project was also reviewed for good engineering practice and overall site circulation.

The TIA generally conforms to accepted industry practices. However, there are several elements that are either missing, require updates or need further evaluation. Tetra Tech recommends that the appendix materials referenced in the TIA be provided including all supporting calculations and background data used in the technical analyses. Tetra Tech's specific comments on the above-mentioned materials are as follows.

TRAFFIC REVIEW

Project Study Area Intersections

1. The TIA evaluated three intersections along Washington Street (Route 16): Greenwood Street, Woodland Street and the proposed site driveway. Tetra Tech recommends that the Applicant provide an evaluation of the Washington Street/Old Orchard Road intersection given its proximity to the site (approximately 125 feet east of the proposed site driveway).

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Study Time Periods

2. The study includes an impact analysis of the weekday morning (7am-9am) and weekday evening (4pm-6pm) peak periods when the combination of site-generated traffic and volumes on the adjacent roadways is expected to be greatest. The time periods chosen for detailed analysis are generally appropriate for the residential uses proposed.

Traffic Volumes

3. Automated traffic recorder counts (ATRs), including speed data, were conducted on Tuesday, February 14, 2024 and Wednesday, February 15, 2024 on Washington Street in the vicinity of the site. Turning movement count (TMC) data was also collected at the study area intersections on Tuesday, February 14, 2024 when schools were in session. The TIA states that a 3 percent adjustment (increase) was applied to the observed traffic volumes to account for seasonal fluctuations based on data published by the Massachusetts Department of Transportation (MassDOT). Tetra Tech generally concurs with this methodology.

Public Transportation

4. The TIA states that regularly scheduled public transportation service is not provided within the Town of Sherborn. The TIA states that the Sherborn Council of Aging provides discounted taxi rides through an agreement with JFK Transportation. The trip generation estimates presented in the TIA do not take a credit (reduction) for transit use. Tetra Tech generally concurs with this methodology.

Crash Analysis

5. The TIA includes a crash analysis for the existing study intersections between 2016 and 2020 based on MassDOT crash data. The current MassDOT crash database includes data through 2022 (years 2021 and 2022 are still open and subject to change pending MassDOT's completion of processing all crash reports for these two years). Tetra Tech recommends that the Applicant review the two additional years of data to confirm the findings are consistent with the 2016 through 2020 data. The backup crash data and crash rate worksheets should be provided in the appendix for the Town's review.

Study Time Horizon

6. The TIA utilized a seven-year planning horizon (2030 Future Year condition) which is consistent with MassDOT traffic study guidelines.

Future No-Build Traffic Volumes

7. A one-and-a-half percent per year growth rate was applied to the 2023 Existing Conditions peak hour traffic volumes (for the 7-year forecast period from 2023 to 2030) to estimate peak hour traffic volumes in the planning year 2030 based on MassDOT count data. Tetra Tech generally agrees with this methodology.

8. The TIA indicated that the Applicant consulted with Town of Sherborn Planning staff to identify specific background development Projects for consideration in the development of future traffic volumes. The TIA determined that the traffic associated with the background projects identified could be generally accounted for in the background growth rate. The background projects listed in the TIA are generally located more than 1 mile from the 121-129 Washington Street project's TIA study area with multiple travel routes between the site and these area background developments. Therefore, Tetra Tech generally concurs with the use of a general traffic growth rate to account for traffic increases associated with these area background development projects in the development of future year traffic volumes.

Trip Generation

9. Vehicle trip generation estimates for the proposed Project were based on trip generation rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition for Land Use Code (LUC) 220 (Multifamily Housing – Low-Rise) applied to on 40 units. Tetra Tech generally agrees with this methodology.

Trip Distribution/Trip Assignment

10. The trip distribution patterns presented in the TIA were based on existing travel patterns and US Census Journey to Work data which is generally consistent with standard industry practice for the proposed residential land uses. Tetra Tech generally concurs with this methodology.

Intersection Operational Analysis

11. The TIA states that it utilized the capacity analysis methodologies from the Highway Capacity Manual (HCM) 6th Editions using Synchro software. Tetra Tech generally concurs with this methodology.

Sight Distance

12. The TIA states that it conducted a sight distance analysis at the proposed site driveway on Washington Street based on AASHTO's *A Policy on Geometric Design of Highways and Streets, 7th Edition* (2018). It is recommended that the supporting sight distance calculations be provided to the Town for review.
13. Tetra Tech recommends that the sight distance plans and profiles for the site driveway be added to the site plans to confirm that adequate sight distance will be provided at this location. Any existing vegetation or guardrail required to be removed to provide adequate sight lines should be identified for the Town's review. Additionally, the Applicant should ensure that all proposed landscaping and signage internal to the site (where vehicle conflicts may occur) will not impede sight lines.
14. The TIA recommends that any snow windrows at the proposed site driveway be promptly removed to sufficiently ensure adequate sight distance. Tetra Tech generally concurs with this recommendation.

Site and Emergency Vehicle Access/Circulation

15. The project site plan included in the TIA attachments is inconsistent with the January 23, 2024 (revised February 9, 2024) site plan. Tetra Tech recommends that the Applicant confirm the latest site layout plan proposed for the project and confirm that no updates to the traffic assessment are warranted as a result of the change in site layout.
16. The Applicant included a turning analysis of a fire ladder truck. The analysis indicates that a ladder truck may need to use the majority of the site driveway width when entering/exiting the site. Additionally, the proposed grade of the site driveway is stated to be approximately 8 percent. Tetra Tech recommends that the Applicant review the site access and circulation with the Fire Department to confirm that the Town's largest emergency apparatus can adequately access the site.
17. The site plan indicates that the site driveway will be 22 feet wide between the parking field and Route 16. Tetra Tech recommends that on-street parking be prohibited along this portion of the site driveway to ensure that site access and circulation is not impeded.
18. Tetra Tech recommends that the Applicant describe anticipated trash removal and delivery vehicle operations. Tetra Tech recommends that the Applicant conduct a truck turning analysis of trash removal vehicles and the largest delivery vehicle anticipated at the site to ensure that they can be adequately

accommodated on-site without impeding site access and circulation particularly in areas where the site driveway would potentially require a truck to navigate the site in reverse.

19. Tetra Tech recommends that the site driveway be signed and marked with Stop sign control consistent with the Manual on Uniform Traffic Control Devices (MUTCD).
20. Tetra Tech recommends that the Applicant label the snow storage areas and ensure that adequate snow storage will be available on-site without impeding parking, site access, sight distance and circulation.
20. The TIA recommends a sidewalk be constructed along one side of the driveway that should connect the proposed building to Route 16, where a widened sidewalk area should be provided to serve as a school bus waiting area. Tetra Tech agrees with this suggestion and recommends that the Applicant discuss the potential bus stop location(s) with the Dover-Sherborn School Department staff.
21. There are currently no dedicated pedestrian or bicycle accommodations along Route 16 in the site vicinity. Tetra Tech recommends that the Applicant explore the feasibility of implementing such accommodations in the study area, including but not limited to, a non-vehicular connection to the nearby Bailey Trail System trailhead and existing sidewalk on Old Orchard Road.

These comments are offered as guides for use during the Town's review and additional comments may be generated during the course of review. The Applicant shall be advised that any absence of comment shall not relieve them of the responsibility to comply with all applicable local, state and federal regulations for the Project. If you have any questions or comments, please feel free to contact us at (508) 786-2200.

Very truly yours,

Courtney E. Sudak

Courtney E. Sudak, P.E.
Project Manager

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