June 28, 2019

Ms. Winifred I. Li, Chair
Zoning Board of Appeals
Town of Weston, P.O. Box 378
Weston, MA 02493

Subject: Transportation Peer Review Comments
751-761 Boston Post Road (Route 20) 40B Development
Weston, MA

Dear Chair and Board Members:

MDM Transportation Consultants, Inc. (MDM) is pleased to provide you with the following transportation review comments for the above-referenced project. These comments have been prepared based on a site visits in May and June 2019 and review of the documents identified below. To facilitate response by Applicant, review items requiring response are noted in **Bold Italic**.

In summary, MDM finds that the Traffic Impact and Access Study (TIAS) has been prepared in general conformance with industry standards and reasonably quantifies existing/baseline traffic conditions for Route 20, traffic generation characteristics for the Site, and traffic impacts/operations at the Site driveway and nearby study intersections.

Several Preliminary Site Layout comments are noted, including AutoTurn® vehicle turn analysis by the Applicant to verify that adequate maneuvering area is provided to/from and within the Site to accommodate Town fire apparatus and service vehicles. Clarification of surface parking distribution is also requested to ensure that adequate parking supply proximate to the two larger apartments buildings is available to support anticipated peak parking demands.

MDM concurs with Applicant’s proposed mitigation actions relative to Transportation, further recommending that the Applicant further promote resident access to available or planned nearby recreational opportunities that include the Central Mass Rail-Trail and Jericho Town Forest via Gun Club Lane through enhanced path connections and wayfinding. We further recommend that the Applicant implement near-term safety improvements to be identified in the Applicant-sponsored Road Safety Audits (RSAs) to the completed for the Route 20...
intersections at Highland Street and Old Connecticut Path including intersections within immediate influence of these locations (Plain Street and Boston Post Road).

Documents Reviewed

MDM has reviewed the following documents to gain an understanding of the project and determine if industry standards have been applied in determining the potential impacts of the project. The following relevant documents were reviewed:

- Preliminary Site Layout Plan, Modera Weston, 751-761 Boston Post Road, Weston, Massachusetts, prepared by Howard Stein-Hudson, dated March 7, 2019.

Proposed Development

The proposed site development, as presented in the TIAS and associated Preliminary Site Layout Plan, consists of 180 residential units comprising 132 apartment units in two (2) buildings and 48 townhome units in five (5) buildings. Access to the Site is to be provided by a single unsignalized driveway located along Route 20 opposite Sutton Place with secondary means of emergency-only access via a gated connection to Elliston Road. Parking includes a total of approximately 317 parking spaces comprising 96 “tandem” spaces (garage plus surface space behind) for the townhomes, 176 garage spaces below the apartment buildings and 48 single marked surface spaces at various locations within the Site representing a per-unit parking ratio of approximately 1.76 spaces.

Traffic Impact and Access Study Comments

Existing Conditions

1. Study Area: The study area includes locations along Route 20 that include the proposed Site driveway/Sutton Place, Old Connecticut Path (Wayland), Plain Road (Wayland/Weston), Boston Post Road and Highland Street. These locations are consistent with recommended study area identified by MDM in an initial scoping session held with the Applicant; MDM concurs that these study locations are appropriate and in context with the likely traffic impacts for the Project.
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2. Traffic Volumes: Traffic volumes for study locations were conducted in February 2019 for the weekday AM and PM peak hours, adjusted to reflect seasonal correction factors derived from nearby MassDOT permanent count stations. VAI also conducted supplemental traffic counts in June 2019 when schools in Weston and Wayland were in session as a means of comparing the seasonally-adjusted count data used in the TIAS which MDM received on June 28, 2019. MDM has reviewed these seasonally-adjusted data against the provided supplemental June 2019 count data as well as traffic volumes along Route 20 from prior studies. The seasonally-adjusted traffic volumes presented in the TIAS are a reasonable representation of typical/average (and likely above-average) traffic volume conditions for weekday peak AM and PM peak hours along Route 20.

3. Accidents/Crash Data: The TIAS presents relevant crash data for the study intersections for the period 2012-2016 and confirms that there are two locations that are classified by MassDOT as high crash locations: Route 20 at Highland Street and Route 20 at Old Connecticut Path. Both locations are listed as Highway Safety Improvement Program (HSIP) crash clusters. Crash summaries indicate primary conflict movements at Highland Street as angle-type movements; rear-end movements at Boston Post Road; angle movements at Plain Street and a combination of angle and rear-end type movements at Old Connecticut Path.

MDM recommends that the Applicant complete Road Safety Audits (RSAs) in accordance with MassDOT guidelines for the Route 20 intersections at (a) Old Connecticut Path, inclusive of the Plain Street intersection which is within the immediate influence area of this HSIP location; and (b) Highland Street, inclusive of Boston Post Road which is within the immediate influence area of this HSIP location. The Applicant should further commit to implementing the identified near-term safety recommendations of the RSAs at both locations which typically comprise low-cost/readily implementable improvements subject to applicable permits and approvals through MassDOT’s Access Permit process.

4. Vehicle Speeds: Vehicle speeds presented in the TIAS are derived from 48-hour automatic traffic recorder (ATR) counts conducted by an independent third-party vendor. MDM concurs with the methodology used to calculate average and 85th percentile travel speeds along Route 20, and which serve as the basis for calculating driveway sight line criteria. The reported travel speed data are also generally consistent with field observations conducted by MDM under non-peak travel conditions.

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5. Driveway Sight Distance: Calculated sight distance requirements for the proposed driveway is range from 360 feet (minimum) to 430 feet (ideal) based on measured 85th percentile travel speeds following AASHTO and MassDOT guidance. MDM concurs with these calculated minimum and ideal distances.

MDM recommends that the applicable sight line triangles be shown on the Site Layout Plan along with measured sight lines indicating that minimum sight line criteria are met, and if possible the ideal Intersection Sight Distance (ISD) of 430 feet. The sight line triangles should not encroach onto adjoining (private) property to achieve sight line criteria. The Site Layout Plan should also include a note citing that “Signs, landscaping and other features located within sight triangle areas shall be designed, installed and maintained so as not to exceed 2.5-feet in height. Snow windrows located within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed.”

6. Public Transportation: The TIAS identifies a public transportation initiative by the MWRTA to test a new shuttle service along the Route 20 corridor connecting to the MBTA Riverside Station in Newton. MDM further notes that the Town of Weston is evaluating feasibility of a shuttle pilot project that will provide a connection to the MBTA Kendal Green station on Church Street.

MDM recommends that the Applicant, as part of its Transportation Demand Management programming, engage in discussions with the MWRTA to consider the Site as a potential service stop following initial building occupancy. Likewise, the Applicant should consider participation in the Town’s pilot shuttle service to/from Kendal Green station, including a potential funding contribution to be used toward testing or implementation of such a service.

Future Conditions

7. Traffic Growth: Future traffic volumes are projected to a 7-year horizon using 2 percent annualized growth plus permitted but unbuilt area projects that include residential development at 104 Boston Post Road and a 60-unit residential development in Wayland (“Cascade Wayland”). MDM concurs that these growth factors are consistent with protocols customary to the industry and present a reasonable basis for estimating “No Build” traffic volume conditions for purposes of the Project TIAS. MDM further notes that use of a 2 percent annualized growth rate is conservatively higher than traditionally applied to projects along the Route 20 corridor, which typically utilize a 1 percent annualized growth rate. Accordingly, growth assumptions used in the TIAS inherently account for other smaller area development projects that are not specifically cited in the TIAS and presents a reasonable basis for analysis under future-year conditions.
8. Trip Generation: Trip estimates for the Project are appropriately based on characteristics published by the Institute of Transportation Engineers (ITE) in *Trip Generation* 9th Edition for mid-rise residential use, Land Use Code (LUC) 221. Resulting peak-hour trip estimates are modest and range from 61 to 78 vehicle-trips during AM and PM peak hours, respectively using this methodology.

An alternative trip generation methodology was considered by MDM that applies ITE LUC 220 trip rates (“low-rise” residential) to the 48-unit/2 story townhome portion of the project – a land use code that better represents these particular units at the Site – with the balance of trips estimated by applying ITE LUC 221 rates to the 132 unit/3-story apartment buildings. The resulting trip estimates are slightly higher than reported in the TIAS (69 to 89 vehicle trips during AM and PM peak hours, respectively). However, the alternate trip methodology is only 8 to 11 vehicle-trips higher than reported in the TIAS and consequently does not represent a materially greater impact to area roadways than reported in the TIAS.

9. Trip Distribution: Regional trip patterns for Site traffic presented in the TIAS are based on US Census Journey-to-Work data and existing travel patterns on area roadways which indicate a high orientation to/from the east (toward I-95) during peak hours. MDM finds that the resulting trip distribution is generally consistent with observed patterns and prior submitted TIAS evaluations for residential projects along the Route 20 corridor. Trip distribution patterns are therefore in the opinion of MDM a reasonable representation of likely patterns for impact analysis purposes.

10. Operations Analysis: Operational analyses are presented in the TIAS follow generally accepted traffic engineering practices and protocols, indicating ample capacity at study intersections to accommodate Project trip increases. While longer delays are reported for turns from side-street approaches to Route 20 (particularly the Site Driveway), modest trip increases due to the Project are not expected to materially change operations or delays relative to “No Build” conditions.

Site Parking, Access and Circulation Comments

11. Site Parking: The proposed parking supply for the project in the aggregate represents a parking ratio of approximately 1.76 spaces per residential unit which MDM finds adequate to accommodate anticipated peak parking demands per ITE Parking Generation (5th Edition) standards. However, closer analysis of proposed parking indicates that the location of
proposed surface spaces within the Site may result in some inconvenience for the two
apartment buildings and the possibility that some residents or visitors of these buildings may
opt to park in undesignated curbside areas/circulation aisles during peak demand periods. For
instance, the effective “near-building” parking supply for Building A is 1.45 spaces/unit (74
garage spaces plus 13 nearby surface spaces for 60 units) and for Building B is 1.56 spaces/unit
(99 garage spaces plus 13 nearby surface spaces for 72 units). The bulk of additional surface
spaces (22) are located near the townhouse units T6 through T8.

(a) MDM suggests the Applicant to consider supplemental (or relocated) surface spaces that
are proximate to the Courtyard or townhome units T1 and T2 to better support peak
parking demands of the apartment buildings. The sixteen surface spaces nearest townhome
units T7 and T8 are fairly remote to the apartment buildings and are not served by sidewalk
connections.

(b) Bicycle parking should be provided at an appropriate location within the Project site
and shown on the Site Development Plans.

12. Site Access Design: Proposed Site driveway at Route 20 is located opposite Sutton Place and
is subject to MassDOT review and approval. Several considerations are noted that should be
addressed by the Applicant as follows:

(a) MDM recommends that the applicable sight line triangles be shown on the Site Layout
Plan along with measured sight lines to confirm that minimum sight line criteria are
met, and if possible the ideal Intersection Sight Distance (ISD) of 430 feet. The sight line
triangles should not encroach onto adjoining (private) property to achieve sight line
criteria.

(b) The Site Layout Plan should also include a note citing that “Signs, landscaping and
other features located within sight triangle areas shall be designed, installed and
maintained so as not to exceed 2.5-feet in height. Snow windrows located within sight
triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines
shall be promptly removed.”
(c) The proposed driveway location requires modification of the stone wall along the Route 20 property frontage. As Route 20 is a designated Scenic Road in Weston, the Applicant should be aware that removal/modification or relocation of the stone wall and removal of any significant trees is subject to Planning Board approval in accordance with Article XXIII of the Town of Weston General Bylaw. Widening of the Site Driveway to accommodate separate turn lanes may require additional/expanded wall modifications that may be a factor in the Planning Board considerations.

13. Site Circulation:

(a) Applicant should confirm that the Site Layout Plan provides sufficient maneuvering area to accommodate the Town’s largest responding fire apparatus (ladder truck) and service vehicles (SU-30 type design vehicles or equivalent) by conducting AutoTurn® vehicle turn analysis/exhibits.

(b) Applicant should consult with the Weston Fire Department to determine requirements for emergency vehicle circulation around proposed apartment buildings; as currently designed, only access along the building frontage is provided. The need for additional structured/reinforced travel ways sufficient to accommodate emergency apparatus along additional building areas should be determined.

14. General Site Plan Comments:

(a) A school bus waiting area should be provided at an appropriate location near the Site driveway. This area may also serve as a waiting area for MWRTA shuttle service along Route 20 (currently being evaluated by MWRTA).

(b) Consideration should be given to installing electric vehicle (EV) charging stations within the Project Site.

(c) Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided at all pedestrian crossings internal to the Project site.

(d) Sidewalk connections to the surface parking spaces located near townhome units T7 and T8 should be provided to the extent these spaces remain as shown on the Preliminary Site Layout.
Transportation Demand Management (TDM) Programming

15. TDM Programming: **MDM concurs with Applicant’s proposed mitigation actions relative to Transportation, further recommending that the Applicant further promote resident access to available or planned nearby recreational opportunities that include the Central Mass Rail-Trail and Jericho Town Forest via Gun Club Lane. This should include possible enhancements to existing pathways that exist of the Site along with wayfinding signs and inclusion of these elements in promotional materials provided to residents at move-in.**

MDM appreciates the opportunity to provide Transportation Planning & Engineering Services to the Town of Weston and look forward to discussing our findings at the upcoming Zoning Board hearing. If you have any questions or concerns, please feel free to contact this office.

Sincerely,

Robert J. Michaud, P.E.
Managing Principal