

February 19, 2020

Karen Sherman, Town Planner
Town of Holliston
703 Washington Street
Holliston, MA 01746

Subject: Transportation Peer Review Comments
555 Hopping Brook Road
Holliston, MA

Dear Ms. Sherman:

MDM Transportation Consultants, Inc. (MDM) is pleased to provide you with the following initial transportation review comments for the above-referenced project. These comments have been prepared based on a site visits in February 2020 and review of the documents identified below. To facilitate response by Applicant, review items requiring response are noted in ***Bold Italic***.

MDM finds that the Traffic Impact Assessment (TIA) has been prepared in general conformance with industry standards and reasonably quantifies existing/baseline traffic conditions for study roadways, traffic impacts/operations at the Hopping Brook Park driveway and identifies mitigative actions aimed at improving safety and operations to offset project impacts.

Notwithstanding certain requested supplemental safety data, updates to trip generation and clarification of signal warrants analysis, our principal comments requiring substantive response by Applicant include an update to mitigation requirements for the Hopping Brook Park as outlined in the Supplemental Environmental Impact Report (SEIR) Certificate issued by MEPA in 2003 and subsequent MassDOT Section 61 Finding. Consistent with the SEIR Certificate and MassDOT correspondence of September 2003, MDM recommends that the Applicant advance a conceptual plan for signal improvements for the Washington Street/Hopping Brook Road intersection to identify potential implementation issues including land acquisition requirements. This conceptual plan will allow the Applicant to engage in discussions with MassDOT District 3 Office to gauge support and feasibility of advancing signal improvements. Likewise, conceptual plans for the Upper Charles Trail crossing improvements at Hopping Brook Road should be advanced by the Applicant to identify specific design elements to bring

the crossing to current standards. Finally, a package of Transportation Demand Management (TDM) measures should be identified by the Proponent, consistent with the aforementioned Section 61 Finding and MEPA Certificate for Hopping Brook Park. Site Plan commentary focuses on ensuring compliance with applicable pedestrian and bicycle accommodation, emergency vehicle circulation and driveway sight line requirements.

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:

- *Traffic Impact Assessment, 555 Hopping Brook Road, Holliston, Massachusetts*, prepared by Engineering Design Consultants, Inc. dated January 20, 2020
- *Definitive Site Plan, 555 Hopping Brook Road, Holliston, Massachusetts*, prepared by Engineering Design Consultants, Inc., dated November 16, 2019.

MDM has also reviewed and considered the following supplemental correspondence as part of its review and commentary:

- Certificate on Notice of Project Change EEA #4411 (Hopping Brook Park) dated May 24, 2002
- MassDOT Comment Letter on the Supplemental EIR, EEA #4411 (Hopping Brook Park) dated September 11, 2003
- Certificate on Supplemental Environmental Impact Report EEA #4411 (Hopping Brook Park) dated September 15, 2003
- Technical Memorandum, Response to Planning Board Comments for Hopping Brook Business Park prepared by Abend Associates dated September 22, 2005.

Proposed Development

The proposed site development, as presented in the TIA and associated Site Plan, consists of an 800,000 sf "high cube" warehouse supported by 129 parking spaces, 170 truck docks and 423 trailer spaces. Access to the Site is provided by Hopping Brook Park Road, which meets Washington Street (Route 16) at an unsignalized intersection. Development of the subject parcel within Hopping Brook Park represents a component of a larger 3 Million SF master plan development of the park as referenced in the MEPA Certificate on the SEIR. Current

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development within Hopping Brook Park totals approximately 805,212 SF based on current occupancy data provided to MDM by the Town.

Traffic Impact Assessment Comments

Existing Conditions

1. *Study Area:* The TIA presents a limited study area that includes only the Washington Street intersection at Hopping Brook Park Road. Within the Town of Holliston, this represents a reasonable focus of the TIA on the basis that trip impacts to/from the east of Hopping Brook Park are likely to be limited, representing less than a 5 percent change in traffic volumes on Route 16 during peak hours. Principal impacts west of Hopping Brook Park are at signalized intersections located within the Town of Milford, also expected to represent less than a 5 percent change in traffic volumes as a result of the subject project.

MDM concurs that these study locations are appropriate and in context with the likely traffic impacts for the Project.

2. *Traffic Volumes:* Traffic volumes for study locations were conducted in December 2019 for the weekday AM and PM peak hours, which are confirmed to represent slightly above average conditions based on seasonal indices derived from regional MassDOT permanent count stations. MDM concurs that data in the TIA presents a reasonable representation of typical/average traffic volume conditions along Route 16 and the Hopping Brook Park for analysis purposes.

3. *Accidents/Crash Data:* *The TIA does not present any safety analysis of the study intersection at Washington Street. Relevant crash data should be obtained and evaluated for the study intersection as available through the MassDOT crash data portal for the latest available 3-year period (2017 to 2019). This evaluation will provide a basis for determining whether safety-based mitigation actions or countermeasures are necessary to address documented incident trends.*

4. *Vehicle Speeds and Sight Lines:* Route 16 in the study area is posted at 40 miles per hour eastbound and 45 mph westbound. A measured 85th percentile travel speed of 43 mph is noted in the TIA which MDM concurs provides an appropriate basis for determining sight line requirements at Hopping Brook Road and signal warrant criteria.

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6. Public Transportation: Public transportation in the site vicinity should be documented including service provided by the MetroWest Regional Transit Authority (RTA) which includes the MWRTA Route 6. Connections to this service may be a component of a Transportation Demand Management (TDM) program for the Site as identified under Comment 14.

Future Conditions

7. *Traffic Growth:* Future traffic volumes are projected to a 7-year horizon using 1 percent annualized growth plus permitted but unbuilt area projects that include commercial development within Hopping Brook Park and at 56 Boynton Road. 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 TIA.

8. *Trip Generation:* Trip estimates for the Project are based on characteristics published by the Institute of Transportation Engineers (ITE) in Trip Generation 10th Edition for Land Use Code (LUC) 155 - Fulfillment Centers and LUC 156 - High Cube Parcel Hub Warehouse with consideration of empirical data for similar land uses published by ITE and the Florida DOT. On this basis, projected net new trip generation is estimated to range from 104 to 72 vehicle-trips for weekday peak hours and 1,488 trips daily.

Since issuance of the TIA, ITE has augmented the Trip Generation 10th Edition database with a Supplement that includes additional data for LUC 156 – High Cube Parcel Hub Warehouse. Application of trip rates for this land use category, which is generally consistent with the likely programming of the subject building, results in trip estimates of 120 (AM peak) to 128 (PM peak) vehicle-trips for weekday commuter hours, and potentially higher hourly trip activity for the facility peak periods of operation. Accordingly, MDM recommends that the Applicant update trip estimates and associated capacity and signal warrant analysis to reflect the ITE trip generation supplement based on LUC 156.

9. *Trip Distribution:* Regional trip patterns for Site traffic presented in the TIA are based on existing documented trip patterns for Hopping Brook Park. MDM generally concurs with the resulting estimated trip patterns, which indicate approximately 70 percent of trips are oriented to/from the west of the Hopping Brook Business Park.

10. *Operations Analysis:* Operational analyses are presented in the TIA follow generally accepted traffic engineering practices and protocols, indicating longer delays (LOS F) for left-turns exiting Hopping Brook Road during peak hours. *Updates to trip generation as requested under*

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Comment No. 8 will result in similar results with longer delays and queues for left-turn movements from Hopping Brook Road.

Mitigation Comments

11. *Signal Warrant Analysis.* Implementation of intersection improvements including a traffic signal at Washington Street is subject to MassDOT approval. The Applicant's initial signal warrants analysis suggests that applicable warrants are met for signal control at the intersection with Hopping Brook Road under a future projected traffic conditions with the Project built and operational.

MassDOT will require a more detailed warrants analysis that is based on weekday 12-hour turning movement counts (TMCs) that quantify left-turn versus right-turn trip activity for Hopping Brook Road. To ensure applicable MUTCD Warrant 1 criteria are met, and to facilitate Applicant discussion with MassDOT District 3 on feasibility of and support for signal control at Hopping Brook Road MDM recommends that supplemental/expanded counts be conducted under normal peak operating conditions over a 12-hour period. The warrants analysis should consider only the left-turn exiting volumes for both existing and future/projected conditions for determining whether Warrant 1 Condition B volume criteria are met, under which scenario the mainline lanes are assumed at 1 in each direction and 1 lane (left-turn) on Hopping Brook Road (53 vehicle minimum threshold for 8 hours of a day).

12. *Intersection and Traffic Signal Improvements Plan.* The TIA recommends intersection improvements at Washington Street/Hopping Brook Road including potential widening of Washington Street for an exclusive left-turn lane, modified island feature, markings/signs and signal control.

(a) To determine feasibility of these improvements and to facilitate Applicant consultation with MassDOT District 3 on feasibility and support for such improvements MDM recommends that the Applicant prepare a conceptual improvement plan indicating the general layout of any widenings, signal equipment locations and bicycle/pedestrian features (a requirement of the MassDOT Healthy Transportation Initiative/HTI policy). The concept plan should identify any potential land acquisition or other constraints that may bear consideration for feasibility of the improvements. MDM notes that MassDOT's correspondence of September 11, 2003 on the Supplemental EIR also required preparation of a conceptual plan for this location to "gauge the feasibility of the proposed geometric improvements", citing that a new traffic signal at this location may require land takings.

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(b) MDM recommends that the Applicant meet with MassDOT District 3 once the recommended (expanded) signal warrant analysis is completed, and conceptual plan is developed to gauge feasibility and support for the improvements.

13. *Pedestrian and Bicycle Accommodation Improvements.* The TIA recommends improvements for the Upper Charles Trail crossing at Hopping Park Road including advance warning signs and crossing markings.

MDM concurs that improvements are necessary for this crossing, which should be shown conceptually on a plan to define features per current MUTCD standards. A good example of these features as recently built for a similar crossing can be found at Monroe Drive (located approximately ½ mile east of Hopping Park Road).

14. *Transportation Demand Management (TDM) Programming.* No TDM program is identified for the project. Current practices for similar development in the Commonwealth, particularly those subject to MEPA and MassDOT review, include relevant TDM programming and commitments. We further note that the Supplemental EIR Certificate and MassDOT correspondence on the SEIR specifically request consideration of relevant TDM programs, including on-site convenience amenities, potential transit connection to the Framingham commuter rail station, and coordination with the relevant Transportation Management Association (TMA) "...to identify and participate in future TDM strategies and long-term transportation plan for the region".

Integration of public transportation and associated Transportation Demand Management (TDM) programs should be a consideration for the project, consistent with the MEPA SEIR Certificate current transportation planning practices in the Commonwealth. MDM recommends that the Proponent develop a comprehensive TDM program to encourage and facilitate alternative travel modes by facility employees including rideshare/carpool/vanpool opportunities, emergency ride home program, bicycle accommodation and other measures as may be available through membership in the MW495 Transportation Management Association (TMA). MDM also advises consultation with the MWRTA to consider Hopping Park Road as a potential service stop, including a commitment to provide appropriate accommodations such as a bus shelter. Applicant should document its coordination efforts and outcomes with specific locations for potential bus accommodations/shelter locations.

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Parking, Access and Circulation Comments

15. *Site Parking: The Site Plans indicate a proposed employee/visitor parking supply of 129 spaces plus supporting docks and trailer parking. MDM recommends that a parking analysis be conducted based on applicable ITE Parking Generation 5th Edition rates (both average and 85th percentile (peak) parking demands) and Town ordinance requirements to reasonably ensure that sufficient employee/visitor parking is provided to support potential tenant(s).*

16. *Site Access Design: 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. 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."*

17. *Site Circulation: Applicant should confirm that the Site Layout Plan provides sufficient maneuvering area to accommodate the Town's largest responding fire apparatus (ladder truck) by conducting AutoTurn® vehicle turn analysis/exhibits.*

18. *General Site Plan Comments (Transportation):*

(a) Consideration should be given to installing electric vehicle (EV) charging stations within the Project Site at convenient and easily accessible locations to encourage EV use.

(b) Americans with Disabilities Act (ADA) compliant wheelchair ramps and crossings should be identified on the Site Plan for likely pedestrian crossings internal to the Project site.

(c) Location and number of bike racks serving retail uses should be identified to support and encourage bicycle use to and within the Site, with provisions for clearly marked bicycle lanes and/or "Sharrow" markings on Site circulating lanes that lead to Hopping Brook Road which in turn connects to the Upper Charles Trail.

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February 19, 2020
Page: 8

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

Sincerely,



Robert J. Michaud, P.E.
Managing Principal

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