March 23, 2018

Mr. Richard Seegal, Chair
Zoning Board of Appeals
Town of Wellesley
525 Washington Street
Wellesley, MA 02482

Re: Transportation Peer Review
Wellesley Square Residences
8 Delanson Circle
Wellesley, Massachusetts

Dear Mr. Seegal and members of the Zoning Board of Appeals:

BETA Group, Inc. (BETA) has reviewed the Applicant's responses dated March 15, 2018, to BETA Comments dated February 15, 2018 regarding the proposed Delanson Circle redevelopment. Additional comments based on these responses are provided below.

1. Intersection operations at the intersection of Weston Road at Linden Street are directly impacted by the operations of a traffic signal at the intersection of Central Street at Weston Road due to its close proximity. The signalized intersection at Central Street was omitted from the study area. It is known that Weston Road (southbound) regularly queues back to Curve Street (1,200 feet) and occasionally to Turner Road (2,500 feet) under existing conditions. Curve Street is used as a cut-through due to the queue problem. This queue also blocks vehicles from exiting and entering Linden Street which further increases queues on Linden Street. **The queue analysis results (zero and one car queue) revealed in the TIAS for the Weston Road approaches do not represent the operational condition at this intersection.**

   Response 1. It is acknowledged that vehicle queueing along Weston Road exceeds the vehicle queues that are predicted in the November 2017 TIA during specific periods of the day and that queueing at the intersection and the associated motorist delays are influenced by operation of the traffic signal system at the Central Street/Weston Road intersection. That being said, the represented impact of the Project on intersection operations and safety is appropriately presented, and the Applicant has proposed improvements at the intersection that commensurate with the Project's impacts, a conclusion that was similarly reached by VHB/Vanasse Hangen Brustlin, Inc. (VHB) as part of their review on behalf of the Zoning Board of Appeals.

   While the Applicant acknowledged the inconsistency in the analysis results between the TIA and the actual field operational condition, the analysis was not updated. The results presented in Table 10R, which shows zero to one car queue on the Linden Street approaches are misleading. As part of the mitigation, the Applicant proposed to facilitate the completion of a Road Safety Audit (RSA) in order to identify improvements strategies for the Linden Street and Weston Road intersection. It is unclear if the Applicant will be responsible and pay for

any of the identified improvements. At a minimum, the Applicant should make a contribution towards the future improvements of the intersection. As part of the RSA improvement strategy, we recommend that Peer to Peer traffic signal system operation be considered between the two signals (Central and Linden Street at Weston Raod).

2. The analysis revealed that the Linden Street and Crest Road intersection will experience queuing problems ranging from 15 vehicles (375 feet) to 19 vehicles (475 feet) for the Linden Street westbound approach. The Site Drive/MBTA Driveway is located approximately 220 feet east of this intersection. **Other signal phasing and timing plans should be explored to improve the overall traffic operations of this intersection.** For example, a dynamic maximum operation can adjust green times for the westbound approach based on traffic volume variations. In addition, the Linden Street traffic signal phasing for the westbound approach should be evaluated to allow only the through movement to stay green during the Linden Street eastbound green phase considering the eastbound approach left turn volume is negligible (zero to one vehicle).

   Response 2. In order to reduce vehicle queuing at the Linden Street/Crest Street intersection, the Applicant will design and implement an optimal traffic signal timing and phasing plan, to include the implementation of dynamic maximum operation to accommodate traffic volume fluctuations on the approaches to the intersection that occur over the course of the day to the extent that such operations can be implemented within the confines of the existing traffic signal equipment. In addition and to the extent so desired by the Town, the Applicant will install "Do Not Block" signs and pavement markings at the Linden Street/Hollis Street intersection.

   BETA requests the Applicant provide the proposed signal timing, phasing, and signing plans for Town review.

3. The trip distribution revealed that Crest Road and Oak Street will be used by the site traffic. These streets are currently used as a cut-through street. A detailed post traffic monitoring program should be established to monitor these neighborhoods. A 48-hour ATR count should be obtained now to establish a base line for post traffic volume comparisons as part of the program. In the event the post traffic monitoring revealed traffic impact issues, an escrow account should be established to provide future traffic mitigations. The traffic monitoring should consist of two phase monitoring, one in six months after full occupancy and the other in 12-months after full occupancy.

   Response 3. The Project is not expected to result in a significant increase in traffic using either Crest Road or Oak Street, with predicted volume increases of less than five (5) vehicles during the peak hours, or less than one (1) additional vehicle every 12-minutes. That being said, the Applicant is conducting baseline traffic counts (weekday 48-hour automatic traffic recorder count) on both Crest Road and Oak Street as requested.

   The Applicant did not mention our suggested post traffic monitoring program. In addition to the baseline data collection, BETA recommends the Applicant provide a post traffic monitoring program by collecting additional 48-hour traffic data six months and 12 months after full occupancy. An escrow account should be established to provide for future traffic mitigation should the traffic monitoring reveal neighborhood impacts.

4. The TIAS conducted traffic counts between 7:00-9:00AM and 4:00-6:00PM on a Wednesday. It was noted in the TIAS that counts were collected between 2:00-6:00PM however data from 2:00-4:00PM could not be found in the Appendix.

Response 4. The manual turning movement counts and vehicle classification counts that were presented in the November 2017 TIA were conducted on an average weekday from 7:00 to 9:00 AM and from 4:00 to 6:00 PM. The reference to the evening counts commencing at 2:00 PM was a carry-over from a prior assessment and does not apply to the assessment that was prepared for the Project.

Response noted. No further comment.

5. The intersection peak hours were found to be consistent with the arrival of an inbound MBTA Commuter Rail train in the morning and an outbound Commuter Rail train in the evening. The raw peak hour traffic volumes at the intersection of Linden Street at Crest Street and Linden Street at Delanson Circle/MBTA Lot did not balance (approximately 20 vehicles) despite the closeness of the two intersections.

Response 5. Traffic volumes between the Linden Street/Crest Street and Linden Street/Delanson Circle/MBTA Driveway intersections were appropriately balanced on traffic volume networks (Figures 3 and 4 of the November 2017 TIA) in order to eliminate the variation between the intersections that was reflected in the raw traffic count data.

Response noted.

6. Construction traffic should be discussed and managed to avoid neighborhood roadway impacts.

Response 6. A construction management plan is being developed for the Project, a central element of which will be to avoid parking and traffic impacts in residential areas.

BETA requests the Applicant provide the construction management plan for Town review.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Kien Ho, P.E., PTOE
Vice President

cc: Meghan Jop, Assistant Executive Director
Tyler deRuiter, PE, BETA Group, Inc.
Job No: 5475-09