

**To:** Ms. Katie Whewell  
Planning Associate  
City of Newton, Massachusetts

**Date:** September 26, 2019

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**From:** Michael A. Santos, PE, PTOE

**Proj. No.** 28402.02

**Re:** Transportation Peer Review – Marijuana Dispensary  
58 Cross Street/1089 Washington Street  
Newton, Massachusetts

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As requested, BSC Group, Inc. (BSC) conducted a peer review of the Traffic Review Letter prepared for the proposed marijuana dispensary at the 1089 Washington Street and 58 Cross Street in the village of West Newton in Newton, Massachusetts.

The purpose of this review is to ensure that the traffic analysis conforms to industry standards, to confirm that the traffic study methods are appropriate for the setting, and to ensure that the recommendations and proposed mitigation adequately address potential project impacts and are consistent with the City of Newton's recommended guidelines for transportation improvements.

The Project site is located at the corner of Washington Street and Cross Street, approximately 0.4 miles east of West Newton Square. The Project will reuse part of the existing building on the site, which formerly contained an 8,500 square foot (sf) Beacon Hill Athletic Club. The proposed development will consist of approximately 5,000 sf of gross floor area to be used by the marijuana dispensary. A total of 28 parking spaces will be provided on the site (inclusive of two accessible spaces). Access to the site will be provided at two locations: an entrance-only driveway along Washington Street and an exit-only, right-turn only driveway along Cross Street. The driveways will be located in the approximate locations of the existing curb cuts that serve the site.

The key findings of our review of the Traffic Review Letter are presented in the following sections. **BSC's comments and recommendations are presented in bold.**

## Scope of Review

The following topics were reviewed in the Traffic Review Letter as part of the peer review:

- Study methodology
- Existing traffic volumes
- Crash Analysis
- Trip distribution and trip generation
- Parking Analysis, Sight Distance, and Site Plan

## Study Methodology

The traffic analysis provided in the Traffic Review Letter presented a limited evaluation of the impacts of the Project. The evaluation included traffic counts along Washington Street, a trip generation, distribution, and assignment analysis, a review of motor vehicle crash data, a parking analysis, and sight distance

measurements. The evaluation did not include peak-hour turning movement volumes or a traffic operations analysis at any intersections and did not provide information related to pedestrian and bicycle travel to/from the site. The evaluation also did not present specific mitigation or transportation demand management measures to be implemented by the Applicant as part of the Project.

- 1. BSC recommends the City request the Applicant to conduct peak hour turning movement counts during the weekday morning, weekday evening, and Saturday midday peak hours at the intersection of Washington Street at Cross Street.**
- 2. A traffic operations analysis should be conducted at the intersection of Washington Street at Cross Street and at the driveway locations for the Existing, No-Build, and Build conditions, in accordance with the MassDOT Traffic Impact Assessment (TIA) Guidelines, to determine if improvements or modifications to existing traffic control are needed to accommodate the Project.**
- 3. Mitigation was not proposed in the Traffic Review Letter. Based on the results of an operations analysis, mitigation should be explored to offset any Project-related impacts. At a minimum, the Applicant should upgrade the existing sidewalks adjacent to the Project site and ensure that they are compliant with the requirements of the Americans with Disabilities Act (ADA). A crosswalk should be installed across Cross Street at its intersection with Washington Street and the curb ramps should be reconstructed to include detectable warning panels.**
- 4. The Applicant should develop a transportation demand management (TDM) plan to reduce the number of single-occupancy vehicles that travel to the site.**
- 5. The Applicant should include a description and qualitative evaluation of the pedestrian and bicycle facilities that serve the Project site. Due to the site's location near West Newton Square, we expect that some of the trips to and from the site will be made by non-motorized modes of travel.**

## **Existing Traffic Volumes**

The Applicant collected automatic traffic recorder (ATR) counts and speed measurements along Washington Street, east of Cross Street, on Thursday March 28, 2019. Washington Street currently carries approximately 12,585 vehicles on a typical weekday in March. The 85<sup>th</sup> percentile speeds along Washington Street were measured to be 52 miles per hour (mph) in the westbound direction and 43 mph in the eastbound direction.

- 6. As previously stated, BSC recommends that the City request the Applicant to conduct weekday morning, weekday evening, and Saturday midday peak hour turning movement counts at the intersection of Washington Street at Cross Street. The Applicant should also research seasonal adjustment factors for the traffic counts and apply them accordingly.**

## **Crash Analysis**

The Applicant provided crash data obtained from the MassDOT Crash Portal for portions of roadway “along Washington Street and Cross Street in the vicinity of the site driveways.” A total of six crashes were reported over the most recent three years of available data.

- 7. It is unclear if crash data was provided for the intersection of Washington Street at Cross Street. The Applicant should provide clarification on the location of the crashes. Crashes that occurred at the intersection of Washington Street at Cross Street should be included in the analysis and a**

**crash rate should be calculated for the intersection and compared to the MassDOT District 6 average for unsignalized intersections to determine if there is an existing safety issue that should be addressed as part of the Project.**

## **Trip Distribution and Trip Generation**

The Traffic Review Letter estimates the trips generated by the Project based on the *Institute of Transportation Engineers (ITE)'s Trip Generation, 10<sup>th</sup> Edition*, using Land Use Code (LUC) 882 – Marijuana Dispensary. The trips related to the athletic club previously occupying the site were also estimated based on LUC 493 – Athletic Club. Based on the evaluation provided in the Traffic Review Letter, the dispensary is expected to generate 52 trips during the weekday morning peak hour, 109 trips during the weekday evening peak hour, and 182 trips during the Saturday midday peak hour. This represents an increase of 25 trips during the weekday morning peak hour and 56 trips during the weekday evening peak hour when compared with the former athletic club that previously occupied the site. Trip generation estimates were only provided for the re-use of 5,000 sf of the 8,500 sf building.

- 8. BSC generally agrees with the methodology to estimate the peak hour trip generation and the trip distribution for the Project. The ITE LUCs that were used are appropriate for the previous and proposed land uses. Trip generation estimates were not provided for the remaining 3,500 sf of space in the building. In order to compare trip generation characteristics between the former uses and the full re-occupancy of the building, estimates should be provided for the re-use of the additional 3,500 sf in the building.**
- 9. We recommend that the City request the Applicant to estimate the additional Saturday midday peak hour trips generated by the Project. The Project is expected to generate more trips during Saturday midday peak hour than either of the weekday peak hours. Accordingly, the Saturday peak hour should be included in any additional analyses.**
- 10. It is expected that some trips will occur by non-vehicular modes such as walking and bicycling. It is also expected that some trips may occur in the form of pass-by trips, which represent vehicles already traveling along Washington Street that stop at the site as they travel to their final destination. The Applicant should apply appropriate mode share and expected pass-by percentages to the trip generation estimates.**

## **Parking Analysis, Sight Distance, and Site Plan**

The Applicant provided a parking analysis based on requirements of the City of Newton Zoning Ordinance. Based on the ordinance, a total of 24 spaces are required (1 space per 300 sf and an additional space per 3 employees). A total of 28 parking spaces will be provided on the site, including two accessible spaces. The parking supply meets the zoning requirements.

- 11. The parking supply shown on the site plan is adequate and meets the needs of the Project. However, the site plan shows that the Project will occupy 5,000 sf of the 8,500 sf of the existing building on the site. Should the other portion of the site become occupied, a parking analysis will be required to ensure that the parking supply is adequate to support additional future uses on the site.**

Access to the site will be provided by an entrance-only driveway along Washington Street and an exit-only driveway on Cross Street. The Cross Street driveway will be limited to left-turns only and will prohibit vehicles from traveling through the residential neighborhood north of the site.

- 12. The site plan should show the proposed traffic control at both site driveways and should clearly indicate how right-turns will be restricted from exiting the site on to Cross Street.**
- 13. An evaluation of loading, deliveries, and trash pick-up was not provided in the Traffic Review Letter. The Applicant should provide information related to these activities, including indicating the anticipated design vehicle for loading and servicing, the frequency of deliveries, and the anticipated time of day for deliveries. The Applicant should provide a design to allow all loading and servicing to occur on the site to minimize impacts to the public right-of-way and surrounding transportation network.**
- 14. An evaluation of existing pedestrian and bicycle infrastructure was not provided in the Traffic Review Letter. The Applicant should indicate the location and condition of bicycle and pedestrian facilities that serve the site. As previously noted, it is expected that this facility will generate pedestrian and bicycle trips due to the nature of its location near West Newton Square and the surrounding residential neighborhoods. Based on the requirements in the City of Newton Zoning Code (Chapter 30: Zoning Ordinance, Section 5.1.11), one bicycle space shall be provided per ten parking stalls. The Applicant should commit to providing at least three bicycle spaces and indicate where they will be located on the site plan.**

The Applicant provided a sight distance analysis at the proposed exit-only driveway along Cross Street. Based on the design speed of 30 mph, a total of 365 feet is recommended for intersection sight distance (ISD), which is the distance needed for a vehicle to exit a side street or driveway and make a left-turning maneuver onto the intersecting roadway. Based on the evaluation, adequate sight distance is provided at the Cross Street driveway.

- 15. An evaluation of sight distance was not provided for the entrance-only driveway along Washington Street. Although vehicles will not exit the driveway, sight distance should still be provided for left-turning vehicles into the site. At a minimum, stopping sight distance (SSD) should be provided for vehicles traveling along Washington Street in the westbound direction. Based on a speed of 55 mph, which is 3 mph higher than the measured 85<sup>th</sup> percentile speed, a total of 495 feet is required for SSD. The segment of Washington Street adjacent to the site is generally straight and flat and provides adequate sight distances in excess of 700 feet in both directions. No additional sight distance evaluation is needed.**

## **Conclusions**

BSC reviewed the Traffic Review Letter submitted for the proposed marijuana dispensary located at 1089 Washington Street and 58 Cross Street. Based on the trip generation estimates presented in the letter, we recommend further study of the surrounding transportation network, including an operations analysis of the intersection of Washington Street at Cross Street. We also recommend that the City of Newton require the Applicant to respond to and address all BSC's numbered comments in this letter and submit a response letter for our review.