June 10, 2022

Mr. Doug McLean
Principal Planner
Cranston City Hall
869 Park Avenue
Cranston, RI 02910

Re: Proposed Mixed-Use Redevelopment
661 Park Avenue, Cranston, RI
Responses to Traffic Peer Review Comments

Dear Mr. McLean:

BETA Group, Inc. (BETA) is pleased to submit the following responses to review comments received from the City's Peer Review consultant, Fuss & O'Neill for the above referenced development project in the City of Cranston. We offer the following responses to address these comments:

Review Comments

3.0 – Existing Conditions

1. We find the existing conditions assessment to be satisfactory.

   No Response Required.

4.0 – Safety Analysis

2. Intersection sight distance from Doric Avenue appears to be unobstructed based on a 15- foot offset from the edge of the travel way. However, a high number of angle crashes suggests that sight distance could be inadequate. This could be due to the stop bar location or existing building setback. Consider a recommendation to increase the sight distance by adding sidewalk bump-outs on Park Avenue to adjust the crosswalk location or by adjusting the proposed building setback.

   As the study states and as noted above, the roadway's physical geometry including the parking restriction at this intersection provides for the required sight distance for safe and adequate access to and from the main roadway at the intersection. Analysis of the crash data determined that there was only one reported angle crash that involved a vehicle exiting from southbound Doric Avenue turning onto Park Avenue. The single crash in the three year period involving this type of movement indicates there is not a high number of angle crashes and no need for implementation of additional safety measures at the junction.

BETA GROUP, INC.
701 George Washington Highway, Lincoln, RI 02865
P: 401.333.2382 | F: 401.333.99225 | W: www.BETA-Inc.com

3. Crosswalks in the project area are generally not equipped with signage recommended by the Manual of Uniform Traffic Control Devices (MUTCD). Consider a recommendation to install crosswalk signage or to install sidewalk bump-outs to increase visibility for crossing pedestrians.

   BETA agrees that pedestrian crossing signs, though optional per the MUTCD, can be installed for the marked crosswalks along Park Avenue at the intersections with South Clarendon Street and Doric Avenue to alert road users of potential pedestrian crossing at both locations.

   Regarding improved pedestrian visibility, an option to increase sight lines could be the implementation of parking restrictions in advance of the crosswalk. In accordance with the City of Cranston regulations, restrictions could be enforced a minimum of 25 feet east and west of the marked crosswalk along Park Avenue at the intersection with South Clarendon Street. As noted previously in response to No. 2, parking restriction exists along Park Avenue at the intersection of Doric Avenue that enhances visibility of pedestrians at this location. These measures can be coordinated with the city through the review process.

5.0 – Impact Analysis

5.1– Trip Generation

4. The proponent discusses using the ITE Trip Generation Manual Land Use Codes 221 for "Multifamily Housing" to determine the proposed development trip generation in the AM and PM peak hours. This land use code may be expected to provide a reasonable estimate for the trip generation of this development. Table 2 shows the PM peak hour use code as Use Code 230 "Low-Rise Residential with Ground Floor Commercial". Please clarify the use code in the table.

   The Land Use Code (LUC) 230 and description shown in Table 2 under the Weekday PM Peak Hour is a reference typo. The trip number values are correct utilizing LUC 221 – Multifamily Housing and are consistent with the calculations provided in Attachment C (Trip Generation) of the report.

5. The number of anticipated trip generation of 42 trips in the AM peak hour and 43 trips in the PM peak hour does not appear to be aligned with the proposed 97 parking spaces shown on the site plan. It is recommended that the proponent consider reducing the number of parking spaces on site to better align with the trip generation estimate or consider differed parking of about 20 spaces in the northwest corner. In the case of deferred parking, the proponent could be responsible for expanding parking into that area, in agreement with the city, if more parking is needed after one year of use.

   Alternatively, if the number of proposed employee/visitor parking spaces on site is required for operations, the predicted trip generation may be too low. If this is the case, a more accurate trip generation estimate should be calculated using the number of employees and residents, or by representing the facility with a different industrial land use code.

   It is not appropriate to "align" peak hour vehicle trips for a residential use with parking demands of the site, these are two different values, one having nothing to do with the other. Residential trips are dispersed over multiple hours in the AM and PM periods where space utilization decreases and increases gradually over extended hours and peaks overnight. The parking need is further confirmed by the ITE Parking Generation Manual where it is estimated

that the proposed multi-family residential units require a minimum of 91 parking spaces based on the number of dwelling units (74).

Regarding the number of parking spaces and need, based on the City's parking regulations, the proposed mixed-use development requires a total of 155 spaces (148 residential / 7 retail). As such, the proposed mixed-use development will require a variance from the city as only 100 spaces are proposed.

5.2 – Future Traffic Volumes

6. The conditions analyzed include the 2021 existing condition and the 2026 Build condition. To determine the impact of this development, the 2026 Build condition must be compared to a 2026 No-Build condition. Comparing the future Build condition to the existing condition may incorrectly attribute the impact of ambient traffic growth to the proposed development even if the anticipated growth is low (1%).

   Due to the small-scale of the proposed mixed-use redevelopment and time frame to approve and construct, coupled with the lack of traffic growth anticipated during this period, it was determined that a Future No-Build condition analysis was not warranted for this project as the exercise would provide no beneficial information in determining the potential impact of the development and requisite mitigation if warranted. It is estimated that future base traffic should be similar to current traffic conditions upon completion and occupancy of the development. This was confirmed through our coordination with the City Planning Department where no planned future developments in the project vicinity would impact base traffic volumes as the area is in a heavily developed section of the community.

7. A computer drafted volume figure should be provided of the 2026 No-Build Traffic Condition for comparison with the Build Condition.

   The figures presented in the report provide the reader with graphic presentation of existing and future build conditions to define the estimated changes at the study intersections if the project were to be constructed. Detailed turning movement figures identifying each study intersection and the period reviewed, Existing and Future Build conditions are provided for the technical reviewer in the Appendix.

5.3 – Operational Analysis

8. Capacity analysis should be updated to include the 2026 No-Build Condition.

   Refer to Response to Comment No. 6.

9. Level of Service analysis should be performed to determine if a four-way stop is feasible at the intersection of Doric Avenue and Park Avenue. The Doric Avenue approach shows a future LOS of F and safety concerns exist due to a high number of angle crashes.

   This intersection does not satisfy any of the four MUTCD criteria to warrant an all-way stop condition that includes minor approach volume thresholds and/or the minimum number of reported crashes (five or more) in a 12-month period that can be corrected by an all-way stop. The reference to a high number of angle crashes was addressed in Response No. 2.

In addition, the future conditions analysis determined that the intersection will experience acceptable delays and no traffic congestion similar to existing conditions where typically only one to two vehicles would be queued on the minor approach waiting to turn onto Park Avenue during the daily peak hours of traffic. Park Avenue is a high volume critical east/west arterial through the city, which flow should not be interrupted by the installation of a stop sign in an effort to accommodate a minor volume residential side street. Intersection control along this route is limited to major junctions of high volume roadways, where signalization is required and provided to accommodate conflicting demands.

Should you have any questions or require additional information, please contact us at your earliest convenience in order to facilitate review of the application.

Very truly yours,
BETA Group, Inc.

Herman C. Peralta, PE
Project Manager

Paul J. Bannon
Associate

cc: file