



September 3, 2021

Mr. Joshua Berry, AICP  
Senior Planner  
Cranston City Hall  
869 Park Avenue  
Cranston, RI 02910

Re: Development of the former Trolley Barn Site Cranston, RI  
Traffic Study Peer Review  
Fuss & O'Neill Reference No. 20200078.T20

Dear Mr. Berry:

Fuss & O'Neill has conducted a review of the traffic study and associated Master Plan relating to the proposed development at 777 Cranston Street in Cranston, RI, also referred to as the former Trolley Barn site. The development consists of an AutoZone and warehouse, a bank with a drive-thru window, a fast-food restaurant with a drive-thru window, and a convenience market/gas station.

**Materials Reviewed:**

1. Traffic Impact Study completed by BETA Group, Inc. titled "Trolley Barn Plaza" dated 7/30/2021.
2. Master Plan Set entitled "Master Plan Submission; 777 Cranston Street, Cranston, Rhode Island" prepared by DiPrete Engineering dated 7/14/2021 (4 sheets)

We offer the following comments:

**General**

1. The number of parking spaces provided on site (180) exceeds the number required by the Cranston Zoning Code (103) by 77. The need for additional parking should be justified by the proponent.
2. The land uses at this proposed development are not expected to generate significant internal capture. More complementary uses should be considered to take advantage of the large development area and reduce trip generation. Additionally, the proposed uses require parking during daytime hours, and not at night. A co-located residential land use could better utilize the parking spaces on a 24-hour basis.

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Mr. Joshua Berry, AICP

September 3, 2021

Page 2

3. The proposed development is designed exclusively for vehicle traffic. Given the site's proximity to transit (RIPTA Route 30 Bus) and the Washington Secondary Bike Trail, as well as its location adjacent to densely populated residential neighborhoods, this site should be designed to serve all roadway users. We recommend a reduction in vehicle parking, the construction of sidewalks on site, and including bicycle parking onsite.

### **3.0—Existing Conditions**

#### 3.1—Roadways

4. The proponent does not analyze existing bicycle facilities in the area or assess the potential for implementing bicycle facilities on the project area roadways. Rhode Island's longest bike path, the Washington Secondary Trail, starts and ends approximately one quarter mile southeast of the proposed site driveway.

Additionally, the City of Cranston future land use map, developed in 2012 identifies the parcel immediately adjacent to the west side of the site as a potential future bike path location. For this reason, we believe the existing roadway network should be evaluated for the potential to introduce bicycle infrastructure.

#### 3.3—Traffic Flow Data

5. The 2019 traffic count data in Appendix A only includes automobile and truck traffic. We request that pedestrian count data be included in the appendix as well if it is available.

### **4.0—Safety Analysis**

6. The proponent should address pedestrian safety in the report and indicate if any collisions with pedestrians took place in the study area. If pedestrian safety is found to be of concern, pedestrian safety improvements should be recommended.
7. We concur with all other safety recommendations in this section.

### **5.0—Impact Analyses**

#### 5.1—Trip Generation

8. Anticipated Trip Generation for the development has been calculated for the morning and afternoon peak hours. We recommend the Saturday midday peak hour also be included in analysis, as the development is expected to generate significant traffic at that time.

Mr. Joshua Berry, AICP

September 3, 2021

Page 3

9. More information about the operation of the warehouse portion of the AutoZone is required to determine if the trip generation prediction for this land use is reasonable. The study conducted by the proponent does not account for employee trips or deliveries to the site, only deliveries deployed by the site. We recommend the proponent provide further justification or use ITE Land Use Code 150 “Warehousing.”
10. Anticipated Trip Generation for the proposed Fast-Food restaurant has not been calculated for the weekday morning peak hour. Unless the operating hours of the restaurant are known to fall outside of the morning peak hour, it is assumed that this land use will generate traffic during the morning peak hour and therefore should be included in the morning peak hour analysis.

#### 5.2—Future Traffic Volumes

11. We recommend the proponent contact the City of Cranston to determine if any other approved developments in the area should be considered in the development of the No-Build condition.
12. We recommend a computer drafted volume figure be provided of the 2024 No-Build Traffic Condition for comparison with the Build Condition.
13. A computer drafted volume figure of the anticipated trip distribution percentages should be provided for clarity.
14. The 2024 Build Condition AM weekday peak hour traffic distribution figure in Appendix C contains a volume balancing error at the western site driveway.

#### 5.3—Operational Analysis

15. The proponent has observed intersection blocking during the afternoon peak hour in the existing condition that causes extended delays and congestion. However, reported 95<sup>th</sup> percentile queues in the existing condition analysis do not appear to exceed available storage length. The proponent should clarify this inconsistency.
16. The proponent states that capacity analysis is performed using HCM methodology, however the capacity analysis worksheets in the appendix do not appear to include HCM analysis. Capacity analysis should be re-done using HCM methodology.



Mr. Joshua Berry, AICP  
September 3, 2021  
Page 4

We appreciate the opportunity to provide the City of Cranston with this peer review. Please do not hesitate to contact us with any questions.

Sincerely,

A handwritten signature in black ink that reads 'Katherine O'Shea'.

Katherine O'Shea, EIT  
Transportation Engineer

A handwritten signature in blue ink that reads 'Matt Skelly'.

Matthew W. Skelly, PE, PTOE  
Project Manager