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Memorandum

To:	Bryan Baker and Steven Kleppin; City of Norwalk
From:	Michael Beattie, PE, PTOE
Date:	October 28, 2021
Re:	283 Richards Avenue: Proposed Sikh Religious Center – Site Application Review
cc:	Marissa Tarallo, PE, PTOE; AKRF, Inc.

This memorandum summarizes AKRF's review of the following documents in connection with the proposed Sikh Religious Center - Gurudwara located at 238 Richards Avenue in Norwalk, CT:

- August 2, 2021 Traffic Impact Study (TIS) prepared by SLR
- September 28, 2021 Supplemental traffic information prepared by SLR
- July 21, 2021 Site Plan prepared by Cabezas DeAngelis Engineers & Architects

PROJECT DESCRIPTION

The Proposed Project is an 18,000 square foot religious center with a 53-space parking lot and a stated attendance capacity of 240 patrons. The religious center would offer a variety of services throughout the week with the peak attendance, and peak traffic generation and parking demand, occurring on Friday evenings and Sunday middays for the Kirtan.

TRAFFIC STUDY

STUDY AREA

The traffic analysis assessed operations at the following locations:

- Richards Avenue/Fillow Street
- Richards Avenue/Scribner Avenue/Generva Road
- Richards Avenue/Project Driveway (Build condition only)

Based on the estimated number of project generated trips and assignment patterns, the study locations are adequate to identify potential impacts to traffic operations due to the Proposed Project.

TRIP GENERATION

The peak trip generation was developed by applying a vehicle occupancy factor to the Friday and Sunday expected attendance for the Kirtan. A vehicle occupancy of 2.5 was based on anecdotal information from the Applicant. While the 2.5 people per vehicle is reasonable, the Applicant should consider conducting surveys to verify the vehicle occupancy factor.

Based on the expected maximum attendance, the Proposed Project is expected to generate 25 vehicle trips during the Friday arrival (20 in and 5 out) and Friday departure (5 in and 20 out) times and 115 vehicles trips during the Sunday arrival (100 in and 15 out) and Sunday departure (15 in and 100 out) times. The

Applicants should clarify why vehicles exit during the arrival hour before service starts and enter during the departure hour when service has ended. It is unclear if these represent vehicles that drop off and pick-up attendees without parking on-site.

VOLUME DEVELOPMENT

Provide documentation or communication with CTDOT to verify the direction to not adjust 2021 counts and to apply a 0.6 percent growth rate to develop future 2023 volumes.

INTERSECTION ANALYSES

The intersection analyses were conducted correctly indicating with the Proposed Project all intersection approaches would operate at LOS C or better. However, Figure 8 (2023 Background Sunday Midday Departure Hour Volumes) has 25 northbound left vehicles at Richards Avenue and Fillow Street. This should be 45 vehicles as coded in the HCS file.

PARKING

The Proposed Project provides 53 parking spaces which would exceed the City code (one parking space for every five seats provided in a place of worship) by five parking space. However, this assumes fixed seating. The Applicant should confirm the seating is fixed to ensure the one space per five seats parking rate is appropriate.

While the parking supply meets the City code, based on the trip generation estimates there appears there could be a parking shortfall. If 100 vehicles enter the site during the peak hour and only 15 leave, that would indicant at least 85 vehicles would park on-site, resulting in a 32 parking space shortfall. It's important the site provide adequate parking as Richards Avenue does not allow on-street parking, therefore there is no overflow parking areas to absorb parking shortfalls.

SITE PLAN

INTERNAL VEHICLE AND PEDESTRIAN CIRCULATION

The project site provides 53 parking spaces accessed by two one-way driveways. The parking space and aisle width dimensions meet the standards per section 118-1230 D.1 of the City Code.

The northern driveway is a one-way enter only driveway while the southern driveway is a one-way exit driveway. With the proposed one-way circulation, there are four parking spaces that are slightly angled in the opposite direction of the one-way system (See highlighted area in **Figure 1**). The Applicant should conduct an AutoTurn analysis for these parking spaces to ensure a vehicle has adequate space to pull into and back out of the parking space.

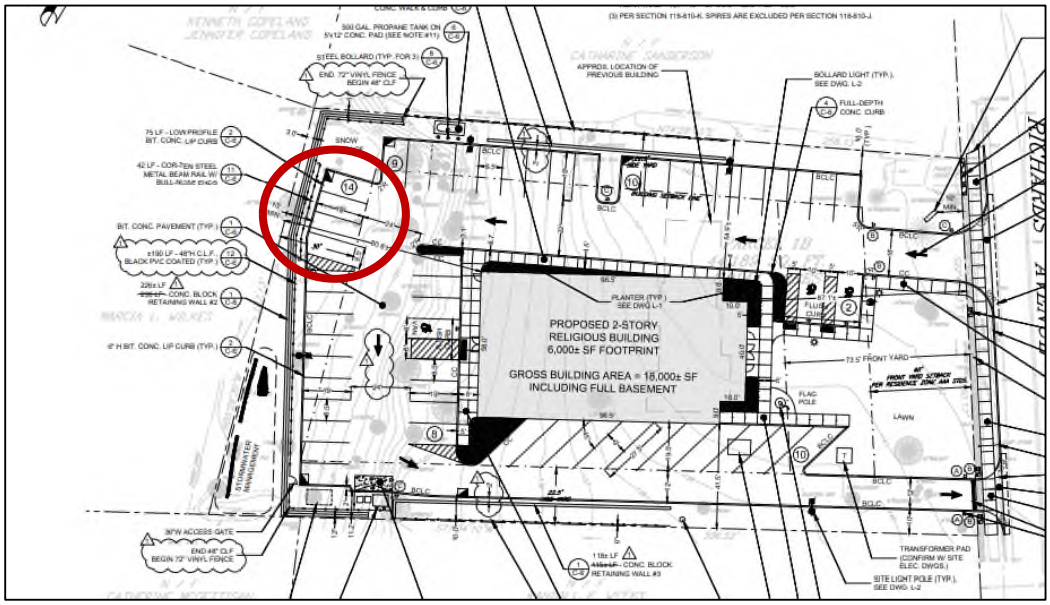

Figure 1 – Parking Lot Layout

In addition, an AutoTurn analysis should be conducted for the following:

- An emergency vehicle circulating the parking lot
- A garbage truck accessing the dumper enclosure

SIGHT DISTANCE CALCULATIONS

Sight distance calculations were provided in the August 2021 TIS. However, the site plan has been updated since the publication of the TIS. Therefore, the applicant should provide sight distance calculations for the southern one-way driveway to ensure there are no visual obstructions for vehicles exiting the Project Site.

SUMMARY OF AKRF FINDINGS AND COMMENTS

Based on a review of the provided material, AKRF concurs the Proposed Project would not create a significant impact on traffic operations in the study area. However, there are site plan concerns regarding the parking supply and layout. A summary of our comments is provided below:

1. Provide documentation or communication with CTDOT to verify the direction to not adjust 2021 counts and to apply a 0.6 percent the growth rate to develop future 2023 volumes.
2. Figure 8 – the northbound left at Richards Avenue/Fillow Street should be revised to show 45 vehicles.
3. The Applicant should clarify what the outbound trips during the arrival hour and inbound trips during the departure hour represent.
4. The Applicant should confirm the 240 seats are fixed to ensure the one space per 5 seats parking rate is appropriate.
5. The Applicant should respond to the parking supply provided versus the number of vehicles that appear to park on site based on the trip generation estimates.
6. The Applicant should conduct an AutoTurn analysis at the highlighted parking spaces to ensure a vehicle has adequate space to pull into and back out of the parking space.

7. AutoTurn analysis should be conducted for an emergency vehicle to ensure adequate space for emergency vehicle circulation.
8. AutoTurn analysis should be conducted to ensure a garbage truck can access the dumper enclosure.
9. Applicant should provide sight distance calculations and sight distance triangles to ensure there are no visual obstructions for vehicles exiting the Project Site.