



---

April 15, 2022

Mr. Alex Rossetti  
Planning & Zoning Administrator  
City of Shelton  
54 Hill Street  
Shelton, CT 06848

**Re: On-Call Peer Review Services  
265 Bridgeport Avenue  
Shelton, Connecticut  
SLR #141.12472.00018**

Dear Mr. Rossetti,

At the request of the City of Shelton, SLR International Corporation (SLR) has conducted a review of the *Traffic Impact Study* prepared by KWH Enterprise for the proposed development to be located at 265 Bridgeport Avenue consisting of 4,060 square feet (SF) of convenience market space, ten gas fueling stations, and 4,060 SF of second-floor office space, with 36 parking spaces.

The following documents were provided to us for our review:

- Report titled "Traffic Impact Study, 265 Bridgeport Avenue and Three Cots Street, Shelton, Connecticut," prepared by KWH Enterprise, LLC, for Shelton Plaza Realty, LLC, dated November 2021
- Letter containing the update to the Traffic Impact Study prepared by KWH Enterprise, LLC, dated January 13, 2022
- Letter containing a review by SIMCO Engineering, D.P.C. of the Traffic Impact Study, dated January 25, 2022
- Site plan sheet SE-1 of "Site Development Plan Depicting Shelton Plaza," prepared by Redniss & Mead, revised February 3, 2022; site plan set of the same name revised October 14, 2021
- Letter titled "Break in the Non-Access Highway Line – Shelton" from Marie B. Brand of the State of Connecticut Department of Transportation, dated January 3, 2022
- Sheet "Signing & Pavement Marking Plan Sta. 10+00 to Sta. 19+50" for the project "Extension of Constitution Boulevard West," prepared by DeCarlo & Doll, Inc., dated October 19, 2021, including meeting notes and markups; "Overall Roadway Plan" for the same project, dated September 29, 2021, meeting notes and markups

---

## TRAFFIC IMPACT STUDY REVIEW COMMENTS

Please find our comments below regarding the Traffic Impact Study and associated traffic, access, and circulation aspects of the site plan for the proposed development.

I. **Summary**

No comments

II. **Project Description**

No comments

III. **Existing Traffic Conditions**

1. Based on the trip generation provided, the project adds less than 100 total trips to any intersection and less than 50 trips to any left-turn movement, which are the Connecticut Department of Transportation (CTDOT) thresholds for inclusion in any Office of the State Traffic Administration (OSTA) application. Based on that criterion, the study area is acceptable.
2. Traffic counts were collected for the peak weekday morning, afternoon, and Saturday midday periods in October 2021. The traffic counts were adjusted by CTDOT seasonal factors as attached in the appendix to reflect peak summer volumes. While it is not typical to adjust traffic volumes to peak summer conditions unless traffic in the vicinity of the project or the project itself has seasonal fluctuation, it appears the adjustments were minor. These volumes were generally higher compared to the pre-pandemic 2015 volumes from the Towne Center at Shelter Ridge traffic study prepared by others. Consequently, the traffic volumes used are considered acceptable.
3. Table 2 shows the summary of capacity analysis results for existing conditions. The analysis was reviewed, and the results are acceptable.

IV. **Future Traffic Conditions**

1. The no-build traffic conditions were developed using a growth rate of 1.2 percent per year, which was provided by CTDOT, to arrive at projected 2023 traffic volumes. This is acceptable.
2. The study explains in Section III that the Towne Center at Shelter Ridge development trip generation was not included in the no-build traffic volumes since it has not been approved by OSTA. Therefore, they did not include it in their background traffic. Inclusion of this development traffic and offsite improvements should be based on whether there is a valid local approval since this is a local application.

3. The study does not mention any other background developments that might affect area traffic. It should be confirmed with the City of Shelton and CTDOT that there are no other developments planned nearby that would impact traffic in this vicinity of Bridgeport Avenue.
4. *Trip Generation* – The Institute of Transportation Engineers’ (ITE) *Trip Generation Manual*, 10<sup>th</sup> Edition, land use codes 960 (Super Convenience Market/Gas Station) and 710 (General Office Building) were used to estimate the number of traffic trips the development would generate. Although a newer ITE publication, the 11<sup>th</sup> Edition, is available, trip generation rates are likely not significantly different. The use of LUC 710 (General Office Building) is typically used for large, multi-tenant office buildings and is not very applicable to small office spaces such as the one proposed; however, given the small square footage of office space proposed, the produced trip generation for each is minimally different (about five trips). Consequently, the trip generation estimates are acceptable.
5. A pass-by trip rate of 62 percent was applied to the trip generation. It should be verified that CTDOT confirmed this as an acceptable pass-by trip rate.
6. The trip generation traffic volume figures should show pass-by trips and new trips in separate figures or distinctly from each other.
7. The site-generated traffic was distributed to be 50 percent to/from the north and 50 percent to/from the south along Bridgeport Avenue. The distribution among the site driveways should also be explained.
8. Revised figures for the latest access plan showing trip generation distributed along the network should be provided in addition to the revised build conditions figures provided.
9. *Capacity Analysis* – Two site layout scenarios were analyzed in the original traffic analysis: 1) with two driveways on Bridgeport Avenue plus the Cots Street driveway, and 2) with one driveway on Bridgeport Avenue plus the Cots Street driveway. It is our understanding that CTDOT has approved a scenario with one right-in/right-out-only driveway on Bridgeport Avenue via a Break in the Non-Access Highway Line (BNAHL) plus the Cots Street driveway as stated in the Department’s January 3, 2022, letter. An updated traffic analysis reflecting this scenario (scenario 3) was provided by KWH dated January 13, 2022. This scenario results in Level of Service (LOS) F operations at the Cots Street approach to Bridgeport Avenue during each peak hour. The updated analysis states that delays at this location can be expected to be much shorter outside of the peak hours, which is valid. It should still be noted, however, that delays during peak hours increase significantly from LOS C through E under no-build conditions to LOS F (exceeding 100 seconds) under build conditions at Cots Street. Since all left turns must happen at Cots Street under this

scenario, it performs worse operationally than the previous scenarios. The right-in/right-out driveway along Bridgeport Avenue would operate at LOS B during each peak hour.

The poor operations from Cots Street to Bridgeport Avenue will also have a residual effect on the nearby intersection with Old Bridgeport Avenue. We are concerned that the queuing from Cots Street approach will block access to Old Bridgeport Avenue. This has the additional residual effect of blocking vehicles from entering Cots Street westbound from Bridgeport Avenue. CTDOT would be concerned with blocked traffic backed onto Bridgeport Avenue blocking southbound traffic. The applicant should address this and offer a solution.

10. It should be noted that the capacity analysis results were reported based on *Synchro 10* - HCM 2000 evaluation criteria. The most recent HCM evaluation criteria, also a module in *Synchro 10*, are the HCM 6<sup>th</sup> Edition criteria. In response to this review, the applicant should provide new analysis results based on the HCM 6<sup>th</sup> Edition criteria.

## V. Conclusions

The applicant indicates that delays for motorists exiting an unsignalized driveway would be typical for convenience markets and gas stations along thoroughfares. However, in this case, there would be residual impacts from queuing at the existing Cots Street approach to Bridgeport Avenue. This is an uncommon situation and, as discussed earlier, should be addressed by the applicant.

## SITE PLAN

1. It should be indicated which driveway(s) trucks will use, and truck turning templates should be provided for the design vehicle and emergency vehicles (firetruck) navigating through the site and driveway(s).
2. A No Left Turn (Symbol) sign (31-1603) should be provided at the right-only egress.

## ADDITIONAL CONSIDERATIONS

1. Sight line analysis was not provided. An analysis and discussion of sight lines from the proposed driveways should be provided.
2. Crash analysis was not provided. An analysis and discussion of the last 3 years of crash history within the site vicinity should be provided. We would recommend the following locations: Bridgeport Avenue at Cots Street, Bridgeport Avenue along the site frontage, and Bridgeport Avenue at Constitution Boulevard.

---

## CONSTITUTION BOULEVARD WEST

One complicating factor is the planned extension of Constitution Boulevard to the west from its current terminus at Bridgeport Avenue. There does not appear to be any traffic operations data associated with this project, which will be needed, particularly since the intersection geometry and traffic signal will require significant work on Bridgeport Avenue, a state highway. Consequently, there is no way to evaluate the impact of the proposed gas station on those future operations.

It is our opinion that the construction project should be treated how another development proposal would be treated to determine whether it should be considered in this application. That is, the first-in rule should apply. In this case, the study and documentation needed for the Constitution Boulevard West project should consider the convenience market/gas station traffic and not the other way around.

That said, we feel that the roadway extension project will be a net positive for this development's impact. The ability to leave the proposed site, turn right onto Cots Street, and access the new Constitution Boulevard West to access the Bridgeport Avenue traffic signal is a positive.

We hope this letter is useful in the City of Shelton's review of the proposed development. Please let us know if you have any questions or concerns. Additional review comments may be provided depending on the applicant's responses to our comments above.

Sincerely,

### SLR International Corporation



David G. Sullivan, PE  
US Manager of Traffic & Transportation Planning



Carl Giordano, PE, CNU-A  
Associate Transportation Engineer

12472.00018.a1522.ltr.docx