

February 15, 2023



Town of Chester Planning Board
1786 Kings Highway
Chester, NY 10918
Attn: Don Serotta, Chairman

RE: Colliers Engineering and Design January 30, 2023 Comment Letter on Traffic Impact Study for Proposed Light Industrial Development, Lake Station Road, Town of Chester, Orange County, New York; CM Project No. 121-204

Dear Chairman Serotta,

Creighton Manning Engineering, LLP (CM) has reviewed the comments contained in the January 30, 2023 review memorandum prepared by Colliers Engineering and Design (Colliers). Below is a summary of the comments and our responses, and attached to this letter are associated technical materials.

Comment 1. - Based on the size of the project and the expected traffic distributions, the evaluation of other intersection including Kings Highway By-Pass at Bellvale Road and Kings Highway at Laroe Road/Leone Lane should also be evaluated together with any others that Board believes should be addressed in more detail. Specifically, the Kings Highway at Laroe Road/Leone Lane intersection has been an intersection of concern for the OCDPW relative to the overall operation and safety of the intersection and OCDPW should also be contacted for coordination.

Response: Please refer to the revised Traffic Impact Study (TIS) that evaluates the Kings Highway By-Pass/Bellvale Road and Kings Highway/Laroe Road/Leone Lane intersections. CM spoke with the OCDPW on February 14, 2023 regarding the potential improvements for the Kings Highway/Laroe Road/Leone Lane intersection. Michael Villarosa from the OCDPW indicated that the intersection is currently being studied by GPI. While the study results and recommendations are still forthcoming, Mr. Villarosa indicated that the improvements would focus predominantly on the minor street approaches of Laroe Road and Leone Lane. As the results are still forthcoming, the No-Build and Build conditions of the TIS reflect the existing configurations of the intersection. If the modifications are realized, the intersection operations are expected to improve.

Comment 2. - The description of the area roadways covers key factors and identifies the roadway system, but it should be expanded to include a reference to the description of the Kings Highway By-Pass (CR13A) vs. Kings Highway (CR13).

Response: Comment noted. Please refer to Section 2.0 Existing Conditions of the revised TIS.

Comment 3. - The traffic study identifies existing signed 10-ton weight limit restriction along Kings Highway through the Hamlet of Sugar Loaf. The study also indicated that an Access Highway Designation Request was submitted to the NYSDOT on January 19, 2022, and approved by NYSDOT on April 7, 2022, which included a truck routing map. This information has not been provided to our office for review but should a minimum be provided to the Board for confirmation if it has not already been provided.

Response: Comment noted. Please refer to Section 2.0 Existing Conditions of the revised TIS, which includes the NYSDOT SDV documents under Attachment B.

Comment 4. - Some of the 2021 existing traffic volumes were collected in July 2021 when school were not in session. It is recommended that new spot counts be conducted to confirm the traffic volumes and capture any school bus traffic that may be traveling through the study area intersections.

Response: CM conducted additional turning movement counts at the Lake Station Road/Bellvale Road intersection on Wednesday, February 8, 2023. CM compared these counts to the 2021 counts and found that

the total two-hour intersection volumes varied by 10 or fewer trips (2021 vs 2023 | AM: 253 vs 263 | PM: 174 vs 168). Given the minor difference between the July 2021 and February 2023 counts, no adjustments were made to the 2021 volumes for the Lake Station Road/Bellvale Road and Lake Station Road/Kings Highway intersections. The traffic analysis is considered representative of current traffic operations and conditions.

Comment 5. - The use of a 2024 design year seems aggressive considering it is already 2023. The adequacy of this analysis design year should be discussed with the Board.

Response: Please refer to the revised TIS, which now considers a 2025 Build year. The study conservatively assumes that all existing traffic volumes are from 2021.

Comment 6. - It should be verified that there are no other significant development planned that could affect the background traffic conditions.

Response: CM spoke with Chairman Serotta on January 12, 2023 in order to develop the list of other developments considered for the revised TIS. It is CM's understanding that the list is complete.

Comment 7. - A review of the 2024 No-Build Traffic Volumes indicates some discrepancies from the Existing to No-Build Volumes. Based on spot checks of the 2024 No-Build Traffic Volumes the following intersection movement volumes were found to not sum to the expected numbers. Some of these discrepancies may be the result of round errors, while others appear to be more significant. These only represent spot checks of some of the traffic volumes, not all volumes have been confirmed. The Applicant's traffic consultant should review and confirm the 2024 No-Build Traffic Volume calculations.

Response: Comment noted. CM has reviewed the study volumes. Several of the discrepancies were the result of rounding when applying the background growth rate. However, some of the discrepancies were the result of error and have been corrected.

Comment 8. - There appears to be an anomaly if the ITE data between the AM and PM Peak Hour traffic generation that results in the PM Peak Hour traffic generation being half the AM Peak Hour based on the ITE Equations rates. If the PM Peak Hour traffic generation were calculated based on the ITE Average rate the total estimated traffic generation would be 108, which is more consistent with the ITE AM Peak Hour data. Furthermore, the ITE data indicates the facility traffic generation during the facilities Peak Hour Generator could be as much as 115 total trips. However, it is possible that the hours of operation of the facility will result in peak hours of generation that do not coincide exactly with the peak hours of adjacent street traffic. The Applicant should confirm hours of operate and shift times (if any are anticipated to better assess the adequacy of the traffic generation estimates.

Response: The revised TIS utilizes the applicable trip generation rate equations based on guidance in the *Trip Generation Manual*. Regardless, the revised TIS provides a conservative analysis as the proposed use would be operated by as many as 45 employees. During both study peak hours, the trip generation is commensurate to or greater than the number of trips generated by a 45-employee single-shift condition. For these reasons, the PM peak-hour trip generation was not revised in the TIS.

Comment 9. - Relative to the hours of operation and shift times, the Traffic Study Project Description indicates the facility will have a single shift from 8:00 AM to 6:00 PM consisting of 45 employees, while the Conclusion indicates "It is anticipated that the largest shift will consist of 45 employees." Lastly, the EAF (Section D.2.j) indicates hours of operation between 7:00 AM and 7:00 PM. These should be confirmed and adjusted for consistency.

Response: Please refer to the revised TIS, which consistently states that the facility will have a single shift from 8:00 AM to 6:00 PM of 45 employees. The EAF also states the hours of operation from 8:00 AM to 6:00PM.

Comment 10. - The EAF (Section D.2.j) also indicates "An average of 40 semi-trailer truck trips per day and 40 cars per day per" which is not consistent with the estimates provided in the Traffic Impact Study.

Response: The EAF is generally consistent with the realistic operations of the site given the 45-employee sight shift. The revised TIS used the higher ITE results to provide a conservative analysis.

Comment 11. - Finally, the EAF (Section D.2.j) indicates a total of 332 parking spaces are proposed, however the Site Plan indicates 63 proposed passenger car spaces and 13 truck spaces proposed on the Site. These number should be confirmed and adjusted for consistency.

Response: Please refer to the revised EAF.

Comment 12. - Although not critical to the traffic analysis, the Traffic Study notes that passenger car and truck traffic will be separated on the site with all passenger car parking utilizing the first driveway to Davidson Drive and all truck traffic utilizing the second driveway Davidson Drive. However, the site plan appears to show 13 passenger car parking spaces provided behind the building to be accessed via the second driveway to Davidson Drive. This should be clarified.

Response: Comment noted. This has been corrected.

Comment 13. - The truck distributions indicate that all truck traffic will arrive to and from the north on Kings Highway and utilizing 17M to the west. However, it would appear that truck traffic to and from the east along Route 17 may be more likely to utilize the Exit 127 ramp intersections to Route 17M and Lehigh Avenue east of Kings Highway. Given the limited amount of truck traffic to be generated by the Site, this should not significantly change the analysis results or conclusions of the traffic study.

Response: Comment noted. CM agrees that the use of Exit 127 for trucks from the east is a plausible and legal route. As noted by Colliers, revising the study to account for this potential route is not expected to significantly alter the results of the TIS since the ITE peak-hour projection is at most two truck trips (one entering and one exiting). Therefore, the revised TIS does not account for trucks from the east accessing the site via this route.

Comment 14. - A review of travel time and distance based on google maps and roadway inspections, taking into account typical traffic conditions indicates that the fast route between the Route 17 Exit 126/Route 94 interchange and the Project site could be to utilize the Nucifora Boulevard/Elizabeth Drive/Leone Lane. This should be factored into the anticipated arrival and departure distributions.

Response: Comment noted. CM agrees that the use of Leone Lane to access NYS Route 17 via Summerville Way is a plausible route. However, in order to provide conservative analyses of the Kings Highway/Lehigh Avenue/NYS Route 17M intersection, all northbound site generated trips were applied to the intersection with no diversion of trips to Leone Lane. Use of this alternate route would lessen the theoretical impact on intersections along NYS Route 17M.

Comment 15. - It appears the Level of Service Summary Table contained on Page 7 of the Traffic Impact Study should be labelled as Table No. 3 not Table No. 2 as indicated in the report.

Response: Comment noted. This has been corrected.

Comment 16. - It is unclear how the intersection of NYS Route 17M/Lehigh Avenue/Kings Highway was conducted. Based on the analysis reports it appears that this intersection was analyzed as two separate intersections rather than a clustered intersection as would be anticipated for a clustered intersection. This should be clarified. It would be beneficial for the Synchro analysis files to be provided to our office for review of this item.

Response: The intersection was modeled as a clustered intersection. Each intersection was analyzed using HCM 2000 methodology, with the results listed in Table 3 of the revised TIS. The synchro files will be provided via zip file in an email directly to Mr. Richard D'Andrea of Colliers.

Comment 17. - Traffic Impact Study Section 4 – Site Access, Circulation, & Parking indicates that the proposed portion of Davidson Drive to be built as part of the Project will connect to the existing portion of Davidson Drive to the north of the site. However, the Site Plan (Sheet No. 4 of 21) dated 3/11/22 does not appear to show any connection to Davidson Drive. It should be clarified whether the project will have a connection to the existing portion of Davidson Drive and if so, whether this connection will be a full connection or emergency access only connection.

Response: As shown on the Site Plan and as noted in the revised TIS, Davidson Drive will terminate at the proposed northerly site driveway.

Comment 18. - Traffic Impact Study Section 4 – Site Access contradicts with Section 1 – Project Description. Section 4 indicates the northerly driveway site driveway to Driveway Drive will be used by trucks and passenger cars, which is consistent with the Site Plans. Section 1 indicates one of the driveways will be dedicated for truck use. Please clarify.

Response: The revised TIS has been corrected to consistently state that the northerly driveway will be for passenger vehicle and truck access as there are parking spaces for both vehicles in the northerly lot.

Comment 19. - Additional information should be provide relative to sight distance at the Site Access intersection. While it appears sufficient sight distance will be provided, sight distance triangles should be provide on the plans to identify any areas of required clearing east and west of the driveway and also the areas of maintenance of any proposed landscaping in order to maintain the required sight distances.

Response: Please refer to the revised TIS Section 4.0 Site Access, Circulation, and Parking, which includes a discussion on the sight distance evaluation conducted at the site driveway based on AASHTO methodology. The Site Plan also depicts the clearing limits in order to achieve sight lines for an operating speed of 45-mph, which is well above the posted speed of Lake Station Road (30-mph).

Comment 20. - The recommended signing changes are appropriate. Input should be provided by the OCDPW since Kings Highway is a County Road and the modification will require their review and approval.

Response: CM contacted the OCDPW regarding the proposed improvements. See appended email. Feedback is forthcoming and will be shared with the Planning Board and its consultant when received.

Comment 21. - Considering the anticipated additional traffic at the intersection of Kings Highway & Lake Station Road as a result of the Project, the installation of stop bar and double yellow centerline striping along Lake Station Road should be considered.

Response: Comment noted. Lake Station Road is currently improved with a double yellow centerline. A stop bar will be included on the Site Plan for the proposed driveway.

Comment 22. - The installation of a stop bar along Lake Station Road at Bellvale Road should also be considered.

Response: Comment noted. This striping improvement can be included in a future submission along with the potential widening improvements at the intersections, once the concept is approved.

Comment 23. - The pavement structure and physical condition of Town roadways should be addressed by the Applicant's engineer with the Highway Superintendent.

Response: Pavement cores of Lake Station Road were extracted and provided to the Town Highway Superintendent, who indicated that the roadway structure was acceptable in a September 15, 2022 letter, which is appended.

Comment 24. - Input should be sought from both OCDPW and NYSDOT on this Project. Input from OCDPW is especially important given that primarily County roadways will be utilized for local access to the Project.

Response: As noted in the response to Comment No 1, CM spoke with OCDPW regarding the proposed project on February 14, 2023. The OCDPW did not provide any comments regarding the proposed project. CM has also been in contact with the NYSDOT regarding the proposed project when requesting the SDV access, which was granted. The NYSDOT did not provide any additional comments during their review for SDV access.

Comment 25. - Plan Sheet 15 of 21 shows the WB-67 vehicle making a right turn out of the Site. The Traffic Study indicates all truck will make a left turn out of the Site. This should be clarified.

Response: Comment noted. This has been corrected and the right-turn movement for a truck out of the site driveway is no longer depicted. Further, trucks will be prohibited from turning right out of the site via the applicable MUTCD sign.

Comment 26. - The truck maneuvers at the Site access intersection (Sheet 15 of 21) appear to show that a truck turning into the site will not be able to make this maneuver at the same time that another vehicle is also exiting the site. Potential improvements should be identified by the Applicant's engineers and this should be reviewed further by the Board.

Response: The driveway opening and throat have been widened to allow for a truck to enter and exit with an opposing vehicle waiting to maneuver into the site. Given the low frequency of truck trips (two trips in the peak hour), overlap with trucks is unlikely. Designing the driveway to allow for simultaneous entering and exiting maneuvers would result in over-construction of impervious surface.

Comment 27. - The truck maneuvers for trucks at the back of the building (Sheet No. 15 of 21) appear to indicate that trucks would be unable to back into or out of truck spaces if a truck is already parked in the immediately adjacent spaces. This needs to be reviewed further as it may require some modification to the building or paved area in this vicinity.

Response: Please refer to Sheet 15 of 23 for the revised truck maneuvers.

Comment 28. - Truck turning maneuvers for trucks at the intersection of Bellvale Road and Lake Station Road (Sheet No. 16 of 21) appear to show trucks using significantly more than the available roadway width to make a right turn from Bellvale Road southbound onto Lake Station Road. The limits of available pavement and the turning maneuvers at this intersection should be clarified. It also appears that maneuvers at this intersection would not be possible at the same time as a vehicle stopped waiting to exit Lake Station Road.

Response: The turning maneuvers have been revised. Conceptual line work has been provided depicting potential widening of Lake Station Road to account for vehicle maneuvers when turning right from Bellvale Road to Lake Station Road. These improvements are conceptual and would be further designed upon conceptual approval. Furthermore, these concepts are based on available public survey data and will be dependent on the availability of public right-of-way.

Comment 29. - The truck turning maneuvers for trucks at the intersection of Bellvale Road and Lake Station Road (Sheet 16 of 21) also show trucks turning left onto Lake Station Road from Bellvale Road northbound. The traffic study indicates all trucks will be traveling to and from the north. This should be clarified.

Response: Comment noted. This has been corrected and the left-turn movement for a truck from Bellvale Road onto Lake Station Road is no longer depicted.

Comment 30. - Plan Sheet No. 17 of 21 shows truck turning maneuvers at the intersection of Kings Highway and Lake Station Road. The traffic study indicates that there will be no trucks from the Site utilizing this intersection. This should be clarified.

Response: Comment noted. This has been corrected and truck maneuvers at the Lake Station Road/Kings Highway intersection are no longer depicted.

Comment 31. - If trucks are anticipated to utilize the Kings Highway Lake Station Road Plan Sheet 17 of 21 should be clarified to identify the roadway pavement limits at this intersection. It appears only GIS parcel data is utilized to show the truck turning movements at this intersection.

Response: Comment noted. As previously stated, truck maneuvers are not proposed at the Lake Station Road/Kings Highway intersection.

CM acknowledges that the Colliers comment letter also states that collision data for the most recent five years should be obtained and summarized for the key roadways. At the time this letter is being written, a response from the NYSDOT regarding the FOIL request for that information is forthcoming. CM will notify the Planning Board and its consultant upon receipt and promptly follow up with the requested summary tables. We appreciate Colliers' comments as well as the Town's attention to this project. Please feel free to call our office if you have any questions or comments regarding the above comment responses.

Respectfully submitted,
Creighton Manning Engineering, LLP



Frank A. Filiciotto, PE
Associate



Starke W. Hipp, PE
Project Engineer

cc:

Starke Hipp

From: Starke Hipp
Sent: Wednesday, February 15, 2023 11:38 AM
To: Villarosa, Michael; 'Trochiano, Anthony'
Cc: Frank Filiciotto
Subject: Potential Improvements on Kings Highway at Lake Station Road

Hey Mike/Anthony,

We are working through the entitlement process with the Town of Chester for a commercial development on Lake Station Road. As part of that process, the Town has asked us to look at potential mitigation measures in regards to sight distance concerns at the Kings Highway/Lake Station Road intersection. We performed a desktop review of Kings Highway in the vicinity of its intersection with Lake Station Road. Currently, there is a flashing yellow signal spanning the Kings Highway/Wickham Drive intersection, which is approximately 130-ft south of the Kings Highway/Lake Station Road intersection. Approaching these intersections, there are "Intersection Ahead" (W2-2) signs. Based on feedback from the public regarding safety concerns at this intersection, consideration could be given to the existing "Intersection Ahead" (W2-2) signs be replaced with "Intersection Ahead – Offset" (W2-7L/R). These signs would better depict the intersection configuration drivers are approaching. Can you provide feedback on your thoughts about this potential improvement?

Thanks,

Starke W. Hipp, PE
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Project Engineer

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September 15, 2022

Honorable John Reilly III
Highway Superintendent
Town of Chester
1786 Kings Highway
Chester, NY, 10918

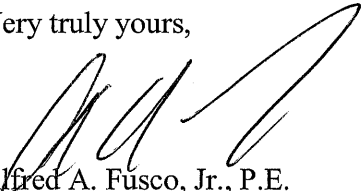
Re: Davidson Drive Warehouse
Planning Board
Orange County, New York
Our File #CH-114

Dear Superintendent Reilly,

We have reviewed the core samples taken as requested by the Planning Board of the above noted project. The cores show adequate asphalt material, and we also inspected the roadway and see no issue for the longer tractor trailers on the roadway. I do suggest a \$20,000.00 to \$30,000.00 bond for the Highway Department during construction of the project for cleaning or damage by track or other equipment.

Please advise if you have any questions.

Very truly yours,



Alfred A. Fusco, Jr., P.E.
Fusco Engineering
& Land Surveying, D.P.C.

CC: Honorable Robert Valentine
Don Serotta Planning Board Chairman
Michael Morgante P.E.
Alfred A. Fusco, Jr., P.E.