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May 28, 2020
C-18997-0019

Mr. John M. Barrett
Township Manager
South Fayette Township
515 Millers Run Road
South Fayette, PA 15064

TRANSMITTED via EMAIL

Re: Proposed The Piazza Development, South Fayette Township – Transportation Impact Study Review

Dear Mr. Barrett:

The Gateway Engineers, Inc. (Gateway) has reviewed the *Revised Transportation Impact Study (TIS) for the Proposed The Piazza Retail Development* dated May 5, 2020 prepared by Civil & Environmental Consultants, Inc. (CEC). The following is a summary of Gateway's previous review comments followed by the status of each:

Summary: (***no change from Gateway's 4/20/2020 review letter***)

- The development is projected to generate 499 AM peak hour trips (275 entering / 224 exiting); 529 PM peak hour trips (288 entering / 241 exiting); and 751 SAT midday peak hour trips (381 entering / 370 exiting). The property is in the South Transportation Service Area (TSA) and is subject to transportation impact fees. Based upon the trip generation estimates presented in the report, transportation impact fees are owed for 297 new PM peak hour trips. At $1,418 per new PM peak hour trip in the South TSA, this amounts to $421,146 (this amount may change as a result of responses to technical comments below).

Technical comments:

1. The eastbound through volumes at the Millers Run Road (SR 0050) and Newbury Drive intersection appear to have a mathematical error, and the background trips were added twice. This was carried through the future conditions and analyses.

   Status: Comment addressed. The revised TIS includes updated volumes in response to this comment.

2. The entering/exiting trips are reversed for multiple scenarios including SAT peak hour of generator for LUC 934, PM peak hour of adjacent street for LUC 933, and PM peak hour of adjacent street for LUC 912.

   Status: Comment addressed. Additional clarification was provided.

3. Gateway could not replicate the global distributions. Additionally, when reviewing the existing count data, the variability of the traffic for each for each node and the directional distributions of traffic indicate that it would be appropriate to utilize individual peak hour distributions percentages. This may result in significant differences in the distributions through the study intersections.

   Status: Comment addressed. Additional clarification was provided.

4. Gateway disagrees with the entering split from Route 50 westbound. Nearly all of the trips were assumed to continue to the Todd A. Miller Drive to access the site; however, this intersection provides prohibited left turn phasing only whereas permitted/protected is provided at Hickory Grade Road. With the inclusion of the right-in/right-out access on Hickory Grade Road along with the left turn phasing on Route 50, we would expect at least 50% of the traffic to utilize the Hickory Grade Road intersection to access the site from Route 50 westbound. Revise the analyses accordingly. If the desire is to maintain the distribution in the TIS, eliminate the right-in/right-out driveway on Hickory Grade Road.

   Status: Comment partially addressed. The distribution from Route 50 westbound was revised accordingly; however, Gateway has concerns with the amount of westbound left turn traffic that will be added to the Hickory Grade Road intersection. The existing turn lane is already maximized and cannot be extended because of the proximity to the I-79 Southbound Ramp intersection. As such, queues are likely to extend through the I-79 Southbound Ramps intersection and could cause residual delays. Even though the results show queues that do not extend back through the I-79 Southbound Ramps intersection, observations in recent years reveal that the turn lane currently extends beyond the storage. As such, the model results do not appear to be consistent with actual conditions. It is Gateway's position that in order to direct the majority of traffic to the main site access (Todd M. Miller Drive), the proposed right-in/right-out driveway along Hickory Grade Road should be eliminated.

5. Gateway could not replicate the pass-by distribution percentages utilized in the TIS. The percentages should be established based upon the sum of the total volumes considered for pass-by.

   Status: Comment addressed. Additional clarification was provided.

6. The heavy vehicle percentages coded into the Synchro do not seem to match those identified in the count data. This is carried through the capacity analyses as well as the turn lane warrant analyses.

   Status: Comment addressed.

7. How is it that the LOS and delays for the Build Conditions improve when compared to the No Build Conditions? Intuitively, the LOS and delays should degrade (even if only slightly) when over 700 peak hour trips are added to the study area. Because we were not provided the Synchro files, we could not verify how this was the case. Please provide digital copies of the Synchro files with the next submission.

   Status: Comment addressed. Due to limitations with the model, some LOS and delay improvements are still being realized; however, they are not significant and do not impact the results of the study.

8. During the AM peak hour, the eastbound through/right turn lane on Route 50 at Hickory Grade Road is anticipated to experience an increase in queues of more than one (1) vehicle and is projected to extend beyond the available storage in both the Opening and Design Years. What would be required to mitigate this impact?

   Status: Comment addressed. In order to mitigate increases in queues, an additional through lane would be required along Route 50. A project of that scope and size is not economically feasible for a project of this type and size. Further, the LOS and delay impacts are within the acceptable thresholds per Township and PennDOT criteria. Lastly, current traffic modeling software does not have the capability of modeling an adaptive traffic signal system, and as a result, the results are likely overestimated.

9. During the PM peak hour, the westbound through/right turn lane on Route 50 at Hickory Grade Road is anticipated to experience an increase in queues of more than one (1) vehicle and is projected to extend beyond the available storage in both the Opening and Design Years. What would be required to mitigate this impact?

   Status: Comment addressed. See previous comment.

10. During the PM peak hour, the eastbound through lane on Route 50 at I-79 Southbound is anticipated to experience an increase in queues of more than one (1) vehicle and is projected to extend beyond the available storage in both the Opening and Design Years. What would be required to mitigate this impact?

    Status: Comment addressed. See previous comment.

11. The TIS should be submitted to PennDOT for review and comment. Even though an HOP is not going to be sought because access already exists, Gateway believes that the TIS should be reviewed by PennDOT because Route 50 is a critical corridor. Any comments from PennDOT should be forwarded to the Township upon receipt.

    Status: Comment addressed. PennDOT's review letter should be submitted to Gateway and South Fayette Township upon receipt.

At this time, the majority of Gateway's comments have been addressed. The only outstanding comment is with regard to the inclusion of the proposed right-in/right-out driveway along Hickory Grade Road. It is Gateway's position that this driveway is not necessary for site access and operations and that it should be eliminated from the plan.

If you should have any questions, please call me at 412-409-2393.

Sincerely,
THE GATEWAY ENGINEERS, INC.

Michael J. Haberman, P.E.
Township Traffic Engineer

Cc: Andrew Blenko – S.F. Twp. (via email)