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October 13, 2026

Mr. Benjamin S. Craddock, P.E.
Lancaster Civil Engineering Co.
P.O. Box 8972
Lancaster, PA 17604

**RE: Greiner Development Project
Review of Transportation Impact Study
Mount Joy Township, Lancaster County
TRG Project No. 512.020.26**

Dear Mr. Craddock:

Transportation Resource Group, Inc. has completed the review of the Transportation Impact Study (TIS) for the Greiner Development Project located to the north of Mt. Pleasant Road, between Cloverleaf Road and Stauffer Road. The property address is 2843 Mt Pleasant Road. The TIS dated November 13, 2025 (Revised September 8, 2026) and Response Letter dated September 8, 2026, were prepared by Traffic Planning and Design, Inc. Based on the review, we offer the following comments:

1. The trip generation for the proposed development assuming both land use codes 150 and 154 as proposed in the TIS will result in 199 total AM peak hour, 229 total PM peak hour, and 2,422 total daily trips. Truck trips will account for 43 AM peak hour, 44 PM peak hour, and 383 daily trips. The use of Warehousing for all 3 buildings as shown in Table R1.1 will increase the trip generation to 223 AM, 259 PM and 2,410 total daily trips. Truck trips will account for 43 AM peak hour, 50 PM peak hour, and 509 daily trips. Per the response to previous comment number 1 presented in TPD's September 8, 2026, response letter, alternative trip generation scenarios will yield similar results to the results found in the TIS. We agree with the findings presented in the alternative scenarios.
2. As requested, TPD included the additional background developments in the revised TIS. Additionally, TPD used the PennDOT recommended 0.46% yearly growth rate to establish future 2030 and 2035 baseline traffic volumes. We agree with the calculations for the future traffic volumes.
3. The study recommends intersection improvements required to mitigate the impact of the proposed development in accordance with SALDO Section 119-32(C)(5)(i)(1). This section states that "If the necessary improvements are programmed by the Roadway Sufficiency Analysis and Transportation Capital Improvements Plan, the applicant may consider those improvements to be constructed by others." All of the recommendations included in the TIS assume that the improvements in the Transportation Capital Improvements Plan will be made

prior to the 2030 opening year analysis. The following improvements have been recommended as part of the TIS.

- a. Modify intersection geometry at the **Cloverleaf Road & Steel Way** intersection to allow tractor trailers to turn to/from the south without encroaching on opposing lanes. We concur with this geometric improvement, however a concept plan showing the recommended improvements should be added to the TIS. The improvements assumed to be constructed by others as part of the Transportation Capital Improvements Plan include the installation of a traffic signal, construction of NB and SB left turn lanes, and the construction of the Route 283 WB Ramp to create a 4-legged intersection.
- b. Construct **Archers Lane** connecting Steel Way to Mt Pleasant Road. This improvement is included on the Township's Official Map. We concur with this improvement.
- c. Construct the **Proposed Western Site Driveway** to include a full movement low volume driveway. The radii will be constructed to prevent truck turns at the intersection. All truck traffic to and from the site will be accessed via Archers Lane.
- d. Construct the **Proposed Eastern (Car Only) Site Driveway** to include a full movement low volume driveway.
- e. Construct a 150' left turn lane with a 75' bay taper on **Steel Way at the proposed Archers Lane** if feasible. The warrants for a left turn lane are not met at this intersection. However, due to the amount of truck traffic anticipated to make this movement, a left turn lane is desirable. The left turn lane is shown on the concept plan provided and noted as a "possible left turn lane".

This comment has been acknowledged by TPD.

4. The following Transportation Capital Improvements Plan improvements were assumed for both the 2030 opening year and 2035 horizon year to be completed by others. The level of service results shown in Tables 9 and 10 include the following improvements.
 - a. Cloverleaf Road & Steel Way
 - i. Install Traffic Signal
 - ii. NB and SB Left Turn Lanes
 - iii. Construction of the Route 283 WB Ramp to create a 4-legged intersection
 - b. Cloverleaf Road & Route 283 West Ramps
 - i. Remove existing traffic signal
 - ii. Convert WB 283 Ramp to right turn only movements
 - c. Cloverleaf Road & Route 283 East Ramps
 - i. Install traffic signal
 - d. Cloverleaf Road & Merts Drive
 - i. Close intersection
 - e. Cloverleaf Road & Schwanger Road
 - i. Signal retiming

This comment has been acknowledged by TPD and provided an exhibit showing the CIP improvements.

5. The study shows that with the improvements listed in comment number 3 and number 4 above, all of the intersections will operate at acceptable levels of service with the exception of the Cloverleaf & Schwanger Road intersection. This intersection will operate with a northbound and southbound level of service F during the AM peak hour and a southbound level of service F during the PM peak hour with the recommended signal retiming at this intersection. The study states that a second northbound through lane and a second southbound through lane would be required to achieve an LOS D for all movements at this intersection. However, no improvements are recommended in the TIS since these improvements are required with or without the proposed development. The TPD response letter states that a southbound right turn lane on Cloverleaf Road will improve the intersection level of service, but will not improve to an LOS D or better on the approaches. The southbound right turn lane was not proposed in the TIS.
6. While the SALDO states that the improvements listed in comment no. 4 should be assumed to be constructed by others, it is not likely that all of these improvements listed will be constructed prior to opening of the proposed Greiner Development Project. To address previous review comments, TPD provided an additional analysis showing the levels of service and queues with the proposed development but without the Transportation Capital Improvements Plan improvements. A discussion of improvements required to allow for safe and efficient operation of the proposed Greiner Development Project was included in TPD's response letter.

TPD states in their response letter that the TIS was completed in accordance with Township requirements. The study does not propose any of the possible off-site improvements when the CIP improvements have been removed. However, the response letter and TIS suggest that the following possible HOP improvements could be made.

- a. Cloverleaf Road & Steel Way
 - i. Install NB right turn lane
- b. Cloverleaf Road & Route 283 West Ramps
 - i. Signal timing / split optimization
- c. Cloverleaf Road & Route 283 East Ramps
 - i. Installation of a new three-phase traffic signal
 - ii. Southbound left turn phase (protected/permitted)
- d. Cloverleaf Road & Merts Drive
 - i. Prohibition of left turn movements from Merts Drive
- e. Cloverleaf Road & Schwanger Road
 - i. Signal timing / split optimization
 - ii. Southbound right turn lane on Cloverleaf Road approach

The above improvements would result in overall levels of service D or better with no failing movements or approaches with the exception of:

- a. Cloverleaf Road & Route 283 West Ramps – LOS F for the NB left movement during the AM peak hour and overall LOS E and LOS F for the WB left/through movement during the PM peak hour.
- b. Cloverleaf Road & Schwanger Road – Overall LOS E and LOS F for the NB through/right movements during the AM peak hour.

The TIS states that an “Alternative Design” approach, including construction of roundabouts at each of the above intersections could be pursued as part of a public/private partnership approach.

7. The “Projected Improvements – Act 209” section found on page 28 and 29 of the TIS states that although the applicant is not required to construct off-site Act 209 improvements, the Applicant is committed to being a long-term community partner and is prepared to voluntarily collaborate with the Township, PennDOT, and other agencies to advance improvements at the Cloverleaf/I-283 interchange. Appendix I of the TIS includes an “Alternative Design” showing roundabouts at both the 283 eastbound and westbound intersections with Cloverleaf Road. The study states that the advancing of the Alternative Design would help unlock the approximately \$4 million in state grant funding previously awarded to the Township for improvements at the Schwanger Road and Cloverleaf Road intersection. The study states that the Applicant is willing to consider contributing substantial voluntary funds, resources, and expertise above and beyond all ordinance requirement and Act 209 impact fees.

We recommend discussions between the Applicant and Township to determine if improvements can be made within the study area.

If you have any questions regarding the above review comments, please feel free to give me a call.

Very truly yours,

Transportation Resource Group, Inc.



Christopher E. Schwab, P.E.
Senior Associate