

April 5, 2023

SENT VIA E-MAIL

Kenneth Kovalchik  
Town Planner  
Town of Guilderland  
P.O. Box 339  
Guilderland, NY 12084-0339

**RE: TDE Review – Emergency Vehicle Turning Movements:  
Intersections and Roadways Around the Proposed Costco Facility**

Dear Mr. Kovalchik,

GPI has received the Special Use Permit application set for the proposed Costco development project, provided by Colliers Engineering & Design and JMT. This review letter is intended to summarize the traffic review elements, roadway turning movements, and internal site turning movements based on the latest versions of the submitted materials and any outstanding comments to this date. The comments provided have been separated into lists based on the submitted materials they pertain to. The materials used for the review of the proposed development are listed below.

**Traffic:**

- Traffic Modeling (dated 11/23/2022)
- Comment Response (dated 11/23/2022)

**Internal Site Turning Movements:**

- Four (4) figures for Turning Movements (dated 2/9/2023)
- Site Plan Set (dated 3/15/2023)

**Roadway Turning Movements:**

- Four (4) figures for Turning Movements (dated 2/9/2023)
- Turning movement AutoCAD files (dated 10/26/2022)
- Turning movement figures (dated 10/26/2022)

GPI has completed our review of the materials submitted, consolidated the comments from previous reviews, and offer the following technical comment lists and recommendations for each of the elements surrounding the proposed project:

**TRAFFIC COMMENTS SUMMARY:**

GPI has reviewed the information provided by JMT and has worked with JMT through multiple review periods to address our comments. A summary of our findings is as follows:

1. The “Main” site entrance on Crossgates Mall Rd (formerly called Rapp Rd in previous comments) is located such that vehicular queues from Western Ave should not impede operations, and sight distance is marginally acceptable. GPI takes no exception to the placement of this access point. Requested street trees along Crossgates Mall Rd (formerly called Rapp Rd) should not be located where they would limit sight distance.
2. Internal site configuration at the “Main” entrance has been modified to not allow cut-through traffic and to minimize parked cars being “trapped” by long vehicle queues. GPI takes no exception to the current configuration.
3. The site access along Gabriel Terrace appears adequate and the proposed intersection configuration of Gabriel Terrace at Crossgates Mall Rd with signalized control appears to adequately accommodate the new site traffic. It should be noted that the timings at this signal should be

coordinated with the adjacent signals on either side to reduce the likelihood of queue back-ups causing any operational issues.

4. Geometry proposed along Crossgates Mall Rd appears acceptable to accommodate future traffic volumes.
5. The only GPI comment concerning access that appears not to be addressed is that Crossgates Mall Rd (formerly called Rapp Rd in previous comments) should be restriped northbound at the Western Ave intersection such that only one receiving lane is utilized. The right turn only lane for the COSTCO gas station entrance, should be formed after that. This configuration will greatly reduce weaving and merging traffic adjacent to the site and will create a safer ingress.
6. Outside of comment 5 & 6, GPI finds the currently proposed access configuration acceptable, and we believe this configuration will sufficiently mitigate the impacts of the new COSTCO development.

#### **ROADWAY TURNING MOVEMENT COMMENTS (October 2022 & February 2023):**

##### **Crossgates Mall Road (E-W) and Crossgates Mall Road (N-S) (formerly called Rapp Rd) Intersection:**

1. The left turn from Crossgates Mall Rd (traveling North) striped median onto Crossgates Mall Road going west appears to have adequate room for the necessary fire truck turning movements now that the end of the grass median has been pulled back from the intersection.
2. The right turn from Crossgates Mall Rd (traveling North) striped median onto Crossgates Mall Road going East shows a slight movement into the oncoming traffic lane but appears to have adequate room for the necessary fire truck turning movements.
3. The right turn from Crossgates Mall Rd (traveling North) lane onto Crossgates Mall Road appears to have adequate room for the necessary fire truck turning movements.

##### **Crossgates Mall Road (E-W) and Gabriel Terrace:**

4. The right turn from Crossgates Mall Road traveling East onto Gabriel Terrace shows that the fire truck would need to veer into the oncoming traffic lane. Vehicles may be stopped at this intersection and might not be able to move out of the way of the fire truck making this turning movement. It is suggested that the pavement edge radius be increased to provide room for the fire truck to turn without needing to drive in the oncoming lane.
5. The left turn from Crossgates Mall Road traveling West onto Gabriel Terrace also appears to drive through a small portion of the oncoming traffic lane. The striped separation between the left turn lane and the through lane on Crossgates Mall Road could be narrower to allow for the fire truck to complete the turn without passing through the oncoming lane on Gabriel Terrace.
6. The right turn from Gabriel Terrace onto Crossgates Mall Road going East appears to have adequate room for the necessary fire truck turning movements based on the starting orientation of the fire truck.

##### **Crossgates Mall Road Edge (E-W):**

7. The southern edge of Crossgates Mall Road behind the building may need to be used as a staging area for emergency vehicles. The vehicle movements provided show that cars should have enough room to maneuver around stopped emergency vehicles, provided that the emergency vehicles are parked directly at the edge of pavement. It is suggested that the subgrade materials from the roadway be extended beyond the pavement edge to allow for emergency vehicles to partially pull off of Crossgates Mall Road.

##### **Western Avenue and Gabriel Terrace:**

8. A left turn from Western Avenue onto Gabriel Terrace is shown but would be an illegal maneuver as the intersection with Gabriel Terrace is a Right in/Right turn out only intersection.
9. The right turn from Western Avenue onto Gabriel Terrace shows that the fire truck will need to veer significantly into the oncoming lane to straighten the fire truck's driving path. Increasing the radius of

the pavement edge or adding additional shoulder width could provide enough room for the fire truck to complete the turn without driving in the oncoming lane.

10. The right turn from Gabriel Terrace onto Western Avenue appears to provide sufficient room for the fire truck's turning movement. However, the fire truck would need to use both lanes of traffic to complete the turn which may not be desirable if Western Avenue is congested.

#### **INTERNAL SITE TURNING MOVEMENT COMMENTS (February & March 2023):**

1. The submitted Special Use Permit Site Plans show striping, pavement limits and changes to the surrounding intersections that have been updated since the October 26, 2022 materials. The Applicant should update the surrounding roadway to reflect any changes to Crossgates Mall Road and Gabriel Terrace.
2. Several turning movements provided show vehicle movements that start and stop for individual turns, but do not show a cohesive vehicle path navigating through the site. Some of the vehicle starting locations may not be possible based on the previous turns. At least one continuous vehicle path should be provided in and out of the site for each of the vehicles to show that the vehicles can access parts of the site shown by other turning movements.
3. Turning movements between the site and Gabriel Terrace entrance show vehicles veering through the oncoming drive lanes which may cause delays or impacts to vehicles. Emergency vehicle turning movements should minimize driving/turning through oncoming travel lanes to the greatest extent possible.
4. The trucks leaving the site via Gabriel Terrace are only shown going south, which would require the trucks to turn right (west) onto Western Avenue. The nearest access to the highways from the site appears to be the east. Please confirm if this is the intended truck route or if modifications to this turning movement would be required.
5. Trucks turning into the site from Crossgates Mall Rd (formerly called Rapp Rd) near the fuel station appear use a mountable concrete curb island to access the site. The heavy-duty pavement section does not extend south enough to account for the vehicle movements and should be extended.

#### **Additional Turning Movements Required:**

- A. Left and Right turn from Crossgates Mall Rd (formerly called Rapp Rd) into the "main" entrance for emergency vehicles.
- B. The Westmere Aerial truck on the west side of the proposed building should have movements shown to leave the site.
- C. Left turn out of the site onto and along Gabriel Terrace
- D. Turning movements for the Westmere Aerial truck at the Gabriel Terrace and Western Avenue intersection (both to and from the site)
- E. Turning movement through the "S" curve on Gabriel Terrace to ensure that the vehicles will not impede on the opposite lane.

Please feel free to contact us with any questions.

Regards,

**GPI/GREENMAN-PEDERSEN, INC.**



Ryan Trunko, PE  
Project Manager  
80 Wolf Road, Suite 300, Albany, NY 12205  
518-898-9551 | [rtrunko@gpinet.com](mailto:rtrunko@gpinet.com)

**GPI/GREENMAN-PEDERSEN, INC.**



Michael R. Wieszchowski, P.E., PTOE  
Vice President | Director of Traffic Engineering