

November 15, 2022

SENT VIA E-MAIL

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

**RE: TDE Review – Traffic Analysis Review:
Relocated Costco Main Entrance off Rapp Road Follow-up**

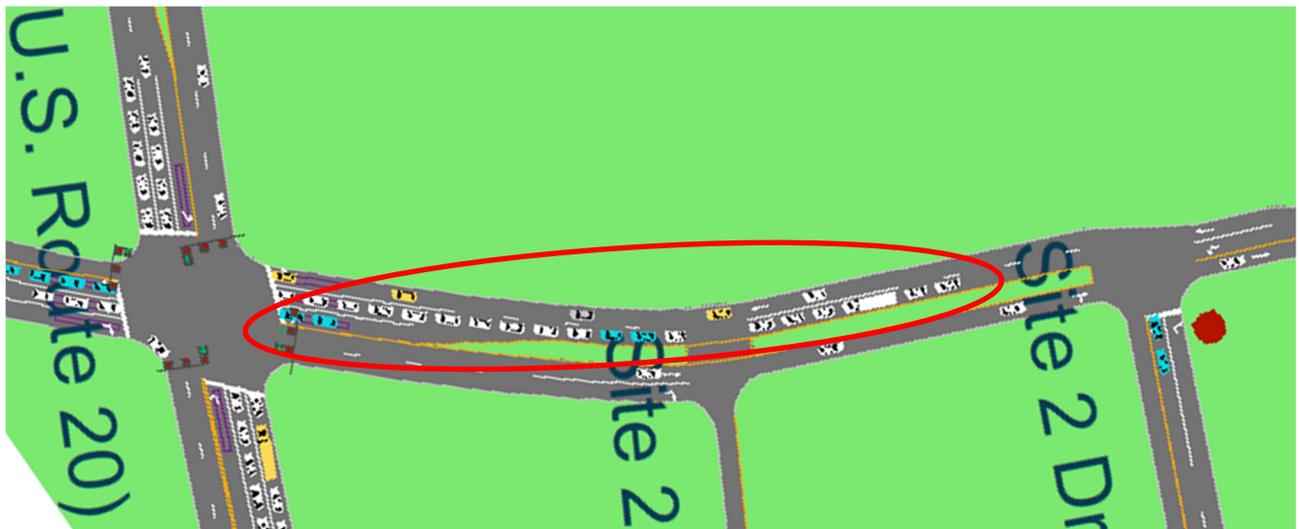
Dear Mr. Kovalchik,

GPI has received the following documents provided by JMT of New York, Inc.:

- Traffic analysis Follow-up letter for Relocated Full Access Driveway on Rapp Road, dated November 11, 2022

GPI has completed our review of the materials submitted and offer the following technical comments and recommendations:

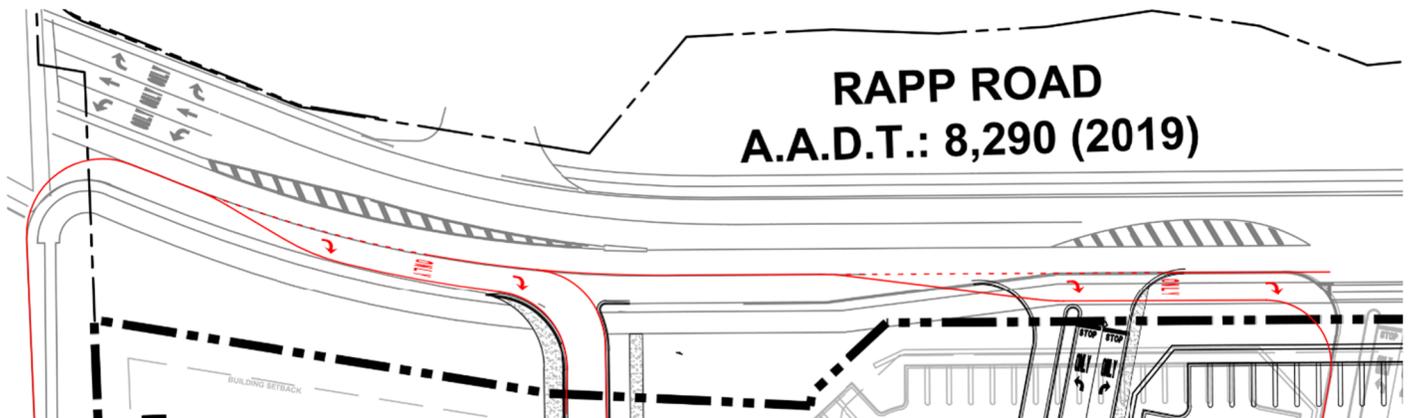
1. Traffic review letter discusses the parking area access for the northeastern section of the lot that currently has only a single access point. In the letter it is proposed to adjust the design to add a secondary egress point on the northside of this parking area that directly accesses Gabriel Terrace. This egress will be right turn out only, and with reconfigured roadway curvature will meets sight distance requirements. GPI does not object to this access point and believes this will provide better parking area access in cases of emergency. However, it is critical that this egress point be properly marked with “one-way” and “do not enter” signs to reduce the likelihood of vehicles entering the site at this location.
2. The letter reasserts that queues from Western Avenue will not exceed 300 feet, so shifting the main entrance to 450 feet from Western avenue should be acceptable. However, this assessment does not take into account the 140 feet queue shown in the SimTraffic Analysis for the southern Costco site access intersection, which brings the total queue close to 450 feet. This can be observed in the SimTraffic simulation, as well as being listed in the tables provided, see below:



Intersection	Existing Year 2019						No-Build Year 2022						Build Year 2022 Alt 1						Build Year 2022 Alt 2						
	Mvmt	LOS	Syn Delay (sec)	Sim Delay (sec)	V/C	Syn 95th Queue	Sim 95th Queue	LOS	Syn Delay (sec)	Sim Delay (sec)	V/C	Syn 95th Queue	Sim 95th Queue	LOS	Syn Delay (sec)	Sim Delay (sec)	V/C	Syn 95th Queue	Sim 95th Queue	LOS	Syn Delay (sec)	Sim Delay (sec)	V/C	Syn 95th Queue	Sim 95th Queue
3. Rapp Road/ Southerly Driveway (unsignalized)														A	0.0	0.3	-	-	-	A	0.0	1.4	-	-	-
NB	T													A	0.0	0.1	0.11	-	-	A	0.0	0.1	0.17	-	-
	R													A	0.0	0.1	0.09	-	-	A	0.0	0.1	0.04	-	-
	Approach													A	0.0	-	-	-	-	A	0.0	-	-	-	-
SB	T													A	0.0	0.5	0.21	-	65	A	0.0	2.1	0.23	-	140
	Approach													A	0.0	-	-	-	-	A	0.0	-	-	-	-
4. US 20/ Rapp Road (signalized)	D	50.0	33.5	-	-	-	D	49.5	36.4	-	-	-	D	53.6	48.7	-	-	-	D	54.9	52.6	-	-	-	
EB	L	E	72.1	60.4	0.54	251	228	D	45.6	50.3	0.45	162	217	E	59.4	55.1	0.69	277	218	E	58.6	55.0	0.68	279	221
	T/R	D	40.3	24.4	0.73	573	342	D	44.8	24.9	0.81	601	359	D	45.4	27.3	0.81	586	359	D	45.9	28.0	0.81	587	360
	Approach	D	44.1	-	-	-	-	D	44.9	-	-	-	-	D	47.8	-	-	-	-	D	48.1	-	-	-	-
WB	L	E	60.8	59.2	0.33	231	222	C	31.6	52.8	0.26	121	213	C	30.7	71.2	0.26	123	221	C	30.6	76.5	0.25	119	220
	T/R	D	44.2	33.5	0.88	1063	721	D	47.8	41.9	0.93	1140	942	E	56.2	69.9	0.98	1259	1077	E	58.0	77.0	0.99	1245	1068
	Approach	D	45.5	-	-	-	-	D	p	-	-	-	-	D	54.2	-	-	-	-	E	55.9	-	-	-	-
NB	L	F	101.0	70.2	0.81	197	193	F	96.5	66.5	0.82	187	179	F	99.5	65.9	0.83	187	184	F	99.2	67.6	0.82	187	182
	T/R	E	75.7	61.7	0.52	170	240	E	69.3	59.0	0.50	163	217	E	68.6	60.2	0.50	162	222	E	69.5	62.2	0.50	162	208
	R	A	7.8	34.8	0.15	46	136	A	7.0	29.1	0.14	43	113	A	6.6	28.7	0.14	42	110	A	6.7	28.9	0.14	42	109
	Approach	E	68.7	-	-	-	-	E	64.6	-	-	-	-	E	65.6	-	-	-	-	E	65.7	-	-	-	-
SB	L	E	57.9	63.4	0.35	151	192	D	53.3	58.3	0.36	142	180	D	54.5	58.4	0.39	149	174	E	61.3	62.3	0.55	206	197
	T	F	96.4	55.9	0.84	348	319	F	91.2	50.3	0.84	333	324	F	89.5	50.2	0.82	320	263	F	90.9	61.3	0.83	326	300
	R	D	44.5	32.8	0.62	399	303	D	40.1	28.9	0.61	371	263	D	39.9	57.3	0.61	361	251	D	41.5	28.6	0.64	398	269
	Approach	E	63.5	-	-	-	-	E	58.8	-	-	-	-	E	58.1	-	-	-	-	E	60.0	-	-	-	-

Additionally, the queuing shown in the model doesn't even include the departure lane striping required to accommodate the southbound left turn lane at the main entrance, which if moved south would reduce the available lanes within this queuing area and will likely increase the queue length seen. GPI still feels shifting the Main Entrance to the south would be problematic and would cause a safety concern because of this queuing issue. We also feel that the newly proposed driveway, which ends within the parking lot at a T-intersection, provides poor traffic circulation within the site, so this driveway location is also not preferred because of that. If this driveway shift is pursued by the applicant, GPI recommends that this site driveway be changed to a right-in/right-out only access.

- There is also a concern, regarding the site access points along Rapp Rd that vehicles entering the rightmost lane northbound that want to continue through to the mall do not have sufficient space to safely merge. That the current northbound Rapp Rd lane configuration can be considered confusing and could be a safety concern. It is recommended that the rightmost lane be closed at the Western Avenue intersection and that only one receiving lane be present at the intersection, this lane would continue up to Crossgates, Mall Rd. Right turn lanes at the two Costco site entrances could be formed individually from that singular through lane, see below for rough concept:



4. It is understood that site along Lawton Terrace will not be pursued, so no additional analysis will be required for that alternative.

That completes our comments concerning the submitted traffic analysis follow-up letter. 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

GPI/GREENMAN-PEDERSEN, INC.



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