



Memo

To: Arash Mirhoseini, M.Sc., EIT

From: Martin Asurza, M.Eng., P. Eng.

Date: February 2, 2022

Ref: Traffic Impact Study Report – January 31, 2022
Residential Development (West of CR10)

Our company received comments provided by Arash Mirhoseini from Stantec on our Traffic Impact Study Report dated June 11, 2021 prepared for the proposed residential development next to Fallis Line, west of CR10 in Millbrook. Clarifications and required updates have been provided on a new traffic report dated January 31, 2021. However, there are two comments that were not addressed and supplemented here, in this memo.

A. Stantec Comment: In Appendix B - CR10 / Fallis Line existing peak hour traffic volume table, for 2021 trip generation by Millbrook Community Center, there are some northbound left-turn trips but there are no eastbound right-turn trips. It is recommended to check if the volumes accurately used in the study.

Our Response: The column noted as eastbound left turns (7 for the am, 14 for pm and 7 for sat) should be for the right turns. Left turn volumes should be "0". The updated report still has this transposed information; however, the volumes are very minor to change the overall results. The volumes were corrected and updated tables with the resulting capacity operations are enclosed; however, this update doesn't change the overall results neither the recommended actions.

B. Stantec Comment: By using Google Map's "Measure Distance" tool, the storage lane length and taper length for the southbound left-turn movements at the CR 21 and CR 10 intersection are approximately 14m and 20m. Based on the Synchro outputs for the existing conditions in 2021 in Appendix C, the 95th queue lengths for southbound left-turn traffic are 16.9m, 29.8m and 18m during AM peak hour, PM peak hour and Saturday Midday peak hour. All are longer than 14m. The issue of potential vehicle spillback to the southbound through/right-turn shared lane was not identified in the TIS report.

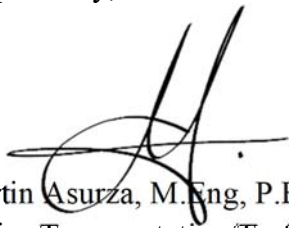
Our Response: We amend our recommendations to add the following:

CR10/CR21/Distillery Rd Intersection

Extend the existing exclusive southbound left turn lane to 50 m and provide a taper length according to Table 9.17.1 of the TAC for 60 km/h design speed.

C. Additional Information: We believe that the Trip Generation estimation for the proposed Commercial and Residential development (East of CR10) will be beneficial to follow the peer review; the trip generation table is enclosed.

Respectfully;

A handwritten signature in black ink, appearing to be 'Martin Asurza', written over a horizontal line.

Martin Asurza, M.Eng, P.Eng.
Senior Transportation/Traffic Engineer

Updated Tables for Traffic Report

Volumes at AM, PM and SAT Peak Hours

CR10 / Fallis Line			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2017	AM	10	0	15	15	215	0	0	0	0	0	162	5	Registered Volumes
April	2017	PM	4	0	18	19	170	1	0	0	0	0	230	11	
August	2017	SAT	7	0	18	21	180	0	0	0	0	0	185	10	
Annual Growth Rate 2.00%															
	2021	AM	11	0	16	16	233	0	0	0	0	0	175	5	Existing Volumes (Projected)
	2021	PM	4	0	19	21	184	1	0	0	0	0	249	12	
	2021	SAT	8	0	19	23	195	0	0	0	0	0	200	11	
		AM	109	0	49	16	0	0	0	0	0	0	0	36	Tower Hills South Trips
		PM	71	0	32	55	0	0	0	0	0	0	0	121	
		SAT	86	0	39	45	0	0	0	0	0	0	0	99	
		AM	0	0	7	14	6	0	0	0	0	0	3	0	Millbrook Community Centre
		PM	0	0	14	14	6	0	0	0	0	0	6	1	
		SAT	0	0	7	8	5	0	0	0	0	0	2	0	
	2021	AM	120	0	72	46	239	0	0	0	0	0	178	41	Total Existing Volumes
	2021	PM	75	0	65	90	190	1	0	0	0	0	255	134	
	2021	SAT	94	0	65	76	200	0	0	0	0	0	202	110	
	2025	AM	12	0	18	18	252	0	0	0	0	0	190	6	Background Volumes (Projected)
	2025	PM	5	0	21	22	199	1	0	0	0	0	269	13	
	2025	SAT	8	0	21	25	211	0	0	0	0	0	217	12	
		AM	109	0	56	30	6	0	0	0	0	0	3	36	Tower Hills South & M. Community Centre
		PM	71	0	46	69	6	0	0	0	0	0	6	122	
		SAT	86	0	46	53	5	0	0	0	0	0	2	99	
		AM	70	0	128	95	9	0	0	0	0	0	26	44	Development "A" & School
		PM	35	0	60	86	28	0	0	0	0	0	16	56	
		SAT	47	0	78	82	26	0	0	0	0	0	25	50	
		AM	31	0	25	23	0	0	0	0	0	0	0	48	Development "B"
		PM	77	0	35	31	-12	0	0	0	0	0	-12	39	
		SAT	60	0	58	40	0	0	0	0	0	0	0	61	
		AM	0	5	0	0	23	5	75	11	44	121	-40	0	Development "C" 100% Commercial 50% Residential
		PM	0	14	0	0	35	15	151	7	46	136	-48	0	
		SAT	0	11	0	0	50	11	144	9	68	202	-65	0	
	2025	AM	222	5	227	166	290	5	75	11	44	121	179	134	Total Background Volumes 2025
	2025	PM	188	14	162	208	256	16	151	7	46	136	231	230	
	2025	SAT	201	11	203	200	292	11	144	9	68	202	179	222	
	2025	AM	61	40	33	13	0	7	14	14	27	8	0	20	Site Generated Trips 50% of Development
	2025	PM	29	28	36	45	0	19	16	44	12	25	0	58	
	2025	SAT	49	34	33	32	0	13	14	38	20	24	0	58	
	2025	AM	283	45	260	179	290	12	89	25	71	129	179	154	Total Trips 2025
	2025	PM	217	42	198	253	256	35	167	51	58	161	231	288	
	2025	SAT	250	45	236	232	292	24	158	47	88	226	179	280	

		Existing 2021											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS
CR10 / Larmer Line	EB-LTR	0.11	13.6	2.7	B	0.03	12.1	0.8	B	0.08	13.4	1.9	B
	WB-LTR	0.05	13.1	1.2	B	0.06	15.7	1.3	C	0.07	15.1	1.8	C
	NB-LTR	0.01	0.3	0.2	A	0.01	0.6	0.3	A	0.01	0.6	0.3	A
	SB-LTR	0.00	0.2	0.1	A	0.01	0.3	0.2	A	0.00	0.1	0.1	A
CR10 / Fallis Line	EB-TL	0.30	14.2	9.7	B	0.24	14.8	7.0	B	0.26	14.3	8.0	B
	EB-R	0.30	14.2	9.7	B	0.24	14.8	7.0	B	0.26	14.3	8.0	B
	WB-LTR	0.00	0.0	0.0	A	0.00	0.0	0.0	A	0.00	0.0	0.0	A
	NB-L	0.04	7.8	0.9	A	0.09	8.5	2.1	A	0.07	8.2	1.7	A
	NB-TR	0.15	0.0	0.0	A	0.12	0.0	0.0	A	0.13	0.0	0.0	A
	SB-TL	0.00	0.0	0.0	A	0.00	0.0	0.0	A	0.00	0.0	0.0	A
	SB-R	0.03	0.0	0.0	A	0.09	0.0	0.0	A	0.07	0.0	0.0	A
Fallis Line / Tapley Q. Line	WB-LR	0.06	8.8	1.5	A	0.03	8.7	0.6	A	0.03	8.7	0.6	A
	NB-TR	0.02	0.0	0.0	A	0.03	0.0	0.0	A	0.02	0.0	0.0	A
	SB-LTR	0.01	3.2	0.2	A	0.04	4.0	1.0	A	0.02	3.0	0.4	A
CR10 / Kiing St / Distillery Rd	EB-LTR	0.11	8.4	14.9	A	0.31	11.0	21.8	B	0.11	8.4	11.9	A
	WB-LTR	0.19	8.2	20.2	A	0.31	10.3	16.7	B	0.18	8.1	17.2	A
	NB-LTR	0.03	7.8	14.5	A	0.09	9.2	14.1	A	0.03	7.9	11.6	A
	SB-L	0.16	8.5	16.9	A	0.43	12.8	26.8	B	0.17	8.6	18.0	A
	SB-TR	0.13	7.0	14.9	A	0.18	8.0	17.9	A	0.13	7.1	23.0	A

Updated Table 2: Existing 2021 Intersection Capacity – AM, PM, SAT Peak Hour

		Background 2025											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS
CR10 / Larmer Line	EB-LTR	0.33	26.9	10.4	D	0.13	16.9	3.3	C	0.37	35.3	11.9	E
	WB-LTR	0.29	38.3	8.7	E	0.23	34.1	6.5	D	0.54	90.2	18.1	F
	NB-LTR	0.04	0.9	0.9	A	0.04	1.4	1.0	A	0.05	1.3	1.2	A
	SB-LTR	0.01	0.2	0.2	A	0.01	0.2	0.2	A	0.01	0.2	0.1	A
CR10 / Fallis Line	EB-TL	2.36	660.5	304.8	F	2.67	819.9	267.4	F	3.85			F
	EB-R	2.36	660.5	304.8	F	2.67	819.9	267.4	F	3.85			F
	WB-LTR	1.15	194.9	64.6	F	2.69	872.1	161.9	F	3.44			F
	NB-L	0.15	8.5	3.9	A	0.21	9.3	6.1	A	0.19	9.0	5.4	A
	NB-TR	0.19	0.0	0.0	A	0.17	0.0	0.0	A	0.19	0.0	0.0	A
	SB-TL	0.11	3.9	2.7	A	0.12	3.8	3.0	A	0.18	5.3	4.9	A
	SB-R	0.09	0.0	0.0	A	0.15	0.0	0.0	A	0.14	0.0	0.0	A
Fallis Line / Tapley Q. Line	WB-LR	0.12	9.1	3.0	A	0.06	8.9	1.5	A	0.07	9.0	1.6	A
	NB-TR	0.03	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LTR	0.03	5.0	0.7	A	0.08	4.9	1.9	A	0.05	4.5	1.1	A
CR10 / Kiing St / Distillery Rd	EB-LTR	0.24	10.6	19.6	B	0.58	18.9	25.9	C	0.26	11.0	16.4	B
	WB-LTR	0.41	11.3	24.1	B	0.60	18.0	24.9	C	0.45	12.1	23.6	B
	NB-LTR	0.06	9.2	15.0	A	0.18	12.1	14.4	B	0.07	9.5	13.3	A
	SB-L	0.40	12.2	20.3	B	0.84	37.3	24.7	E	0.45	13.3	20.8	B
	SB-TR	0.33	9.5	22.7	A	0.36	11.5	20.0	B	0.36	10.1	22.4	B

Updated Table 3: Background 2025 Intersection Capacity – AM, PM, SAT Peak Hour

		Background 2030											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS
CR10 / Larmer Line	EB-LTR	0.40	33.1	13.6	D	0.16	20.5	4.4	C	0.46	46.1	16.1	E
	WB-LTR	0.36	46.2	11.2	E	0.43	75.5	13.4	F	0.70	131.7	23.9	F
	NB-LTR	0.04	1.0	0.9	A	0.05	1.2	1.1	A	0.06	1.5	1.4	A
	SB-LTR	0.01	0.2	0.2	A	0.01	0.3	0.3	A	0.01	0.2	0.1	A
CR10 / Fallis Line	EB-TL	2.97	944.2	343.5	F	3.48			F	5.20			F
	EB-R	2.97	944.2	343.5	F	3.48			F	5.20			F
	WB-LTR	1.57	360.5	102.4	F	3.98			F	4.78			F
	NB-L	0.15	8.5	4.1	A	0.22	9.5	6.4	A	0.20	9.1	5.6	A
	NB-TR	0.21	0.0	0.0	A	0.20	0.0	0.0	A	0.21	0.0	0.0	A
	SB-TL	0.12	4.0	3.0	A	0.14	4.0	3.7	A	0.20	5.6	5.8	A
	SB-R	0.09	0.0	0.0	A	0.15	0.0	0.0	A	0.14	0.0	0.0	A
Fallis Line / Tapley Q. Line	WB-LR	0.12	9.1	3.1	A	0.06	8.9	1.5	A	0.07	9.0	1.7	A
	NB-TR	0.03	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LTR	0.03	4.9	0.7	A	0.08	5.0	2.0	A	0.05	4.5	1.1	A
CR10 / Kiing St / Distillery Rd	EB-LTR	0.26	11.0	19.9	B	0.66	23.4	26.6	C	0.29	11.5	17.0	B
	WB-LTR	0.45	12.1	29.3	B	0.69	22.9	30.1	C	0.49	13.1	24.7	B
	NB-LTR	0.07	9.5	15.5	A	0.21	13.1	16.3	B	0.08	9.8	14.1	A
	SB-L	0.42	12.9	22.0	B	0.96	58.0	29.9	F	0.48	14.3	20.3	B
	SB-TR	0.35	10.0	21.2	B	0.42	13.0	20.9	B	0.39	10.7	20.1	B

Updated Table 4: Background 2030 Intersection Capacity – AM, PM, SAT Peak Hour

		Total 2025											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS
CR10 / Larmer Line	EB-LTR	0.43	24.1	16.2	C	0.24	15.8	9.6	B	0.35	19.2	13.5	B
	WB-LTR	0.29	30.3	13.4	C	0.22	33.7	12.7	C	0.30	34.9	14.7	C
	NB-L	0.06	2.5	3.5	A	0.08	2.4	3.1	A	0.10	2.9	3.9	A
	NB-TR	0.56	5.2	72.6	A	0.39	3.0	39.9	A	0.51	4.4	58.5	A
	SB-L	0.01	2.5	1.1	A	0.02	2.1	1.2	A	0.01	2.4	0.8	A
	SB-TR	0.31	3.1	30.1	A	0.52	4.0	65.7	A	0.54	4.8	66.8	A
	Overall	0.56	6.2	-	A	0.52	4.6	-	A	0.54	5.9	-	A
CR10 / Fallis Line	EB-L	0.75	35.0	60.9	D	0.55	26.5	46.2	C	0.65	29.8	53.3	C
	EB-TR	0.67	14.2	31.3	B	0.65	16.6	28.2	B	0.67	15.5	30.6	B
	WB-L	0.31	22.4	20.7	C	0.51	26.6	36.0	C	0.50	25.5	33.9	C
	WB-TR	0.40	17.6	17.1	B	0.46	24.7	23.5	C	0.51	20.5	23.8	C
	NB-L	0.26	8.7	26.4	A	0.41	10.8	37.1	B	0.35	10.4	35.1	B
	NB-T	0.37	17.3	59.6	B	0.33	17.5	52.2	B	0.39	18.8	61.1	B
	NB-R	0.02	10.6	3.9	B	0.05	8.2	6.9	A	0.04	9.8	5.9	A
	SB-L	0.22	8.6	19.4	A	0.27	9.3	23.9	A	0.41	11.1	34.3	B
	SB-T	0.23	15.9	36.8	B	0.31	17.3	46.8	B	0.24	16.9	37.6	B
	SB-R	0.20	3.5	11.3	A	0.36	3.4	14.8	A	0.35	3.5	14.9	A
	Overall	0.75	17.0	-	B	0.65	15.8	-	B	0.67	16.2	-	B
Fallis Line / Tapley Q. Line	WB-LR	0.13	9.2	3.5	A	0.07	8.9	1.6	A	0.07	9.0	1.8	A
	NB-TR	0.03	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LTR	0.03	5.1	0.7	A	0.09	5.2	2.2	A	0.05	4.7	1.2	A
CR10 / Kiing St / Distillery Rd	EB-LTR	0.25	11.0	21.8	B	0.67	23.8	29.0	C	0.29	11.7	21.5	B
	WB-LTR	0.44	12.0	28.6	B	0.70	23.3	27.8	C	0.51	13.6	23.8	B
	NB-LTR	0.07	9.4	13.2	A	0.21	13.2	13.3	B	0.08	9.9	13.8	A
	SB-L	0.45	13.3	19.3	B	0.97	60.3	31.3	F	0.51	14.9	20.3	B
	SB-TR	0.37	10.2	19.5	B	0.42	13.0	34.8	B	0.41	11.1	22.5	B

Updated Table 6: Total traffic Volumes Operations Results – Horizon Year 2025

		Total 2030											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS	V/C	Delay (s)	Q ₉₅ (m)	LOS
CR10 / Larmer Line	EB-LTR	0.45	24.3	17.3	C	0.26	15.3	9.9	B	0.38	19.0	14.6	B
	WB-LTR	0.31	30.5	14.2	C	0.22	33.5	12.6	C	0.34	35.8	15.6	D
	NB-L	0.07	2.7	4.0	A	0.10	2.7	3.5	A	0.15	3.5	4.9	A
	NB-TR	0.66	7.0	108.1	A	0.44	3.3	47.8	A	0.58	5.4	78.9	A
	SB-L	0.02	2.7	1.1	A	0.02	2.2	1.2	A	0.01	2.4	0.8	A
	SB-TR	0.35	3.4	36.1	A	0.61	5.1	91.7	A	0.63	6.2	94.7	A
	Overall	0.66	7.3	-	A	0.61	5.2	-	A	0.63	7.0	-	A
CR10 / Fallis Line	EB-L	0.89	48.6	82.6	D	0.66	29.3	52.2	C	0.84	43.7	73.7	D
	EB-TR	0.83	36.5	96.1	D	0.83	35.9	66.8	D	0.87	41.3	83.5	D
	WB-L	0.42	23.4	25.4	C	0.62	28.4	41.7	C	0.60	27.6	38.9	C
	WB-TR	0.49	15.3	24.4	B	0.62	35.0	43.4	C	0.68	33.5	47.6	C
	NB-L	0.32	11.1	29.4	B	0.54	15.0	46.4	B	0.45	13.3	40.6	B
	NB-T	0.45	21.1	67.2	C	0.38	20.3	58.0	C	0.44	21.6	66.3	C
	NB-R	0.04	10.8	5.9	B	0.11	8.7	11.1	A	0.08	9.9	9.4	A
	SB-L	0.29	11.0	22.5	B	0.38	12.0	31.1	B	0.55	15.4	41.6	B
	SB-T	0.28	18.8	41.5	B	0.36	20.1	54.2	C	0.28	19.3	41.9	B
	SB-R	0.24	3.7	12.2	A	0.43	3.7	16.3	A	0.42	3.7	16.2	A
	Overall	0.89	24.8	-	C	0.83	20.8	-	C	0.87	24.1	-	C
Fallis Line / Tapley Q. Line	WB-LR	0.15	9.3	4.1	A	0.07	9.0	1.7	A	0.08	9.1	2.1	A
	NB-TR	0.03	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LTR	0.03	5.0	0.8	A	0.10	5.4	2.5	A	0.06	4.9	1.3	A
CR10 / Kiing St / Distillery Rd	EB-LTR	0.29	11.9	21.3	B	0.81	35.4	34.7	E	0.36	13.3	18.0	B
	WB-LTR	0.51	13.8	27.8	B	0.85	38.0	41.2	E	0.63	17.4	22.1	C
	NB-LTR	0.08	9.9	18.1	A	0.26	14.9	22.2	B	0.10	10.7	19.4	B
	SB-L	0.53	15.6	19.9	C	1.20	137.2	39.4	F	0.61	19.2	22.7	C
	SB-TR	0.44	11.6	20.4	B	0.53	16.8	92.8	C	0.50	13.4	21.4	B

Updated Table 7: Total traffic Volumes Operations Results – Horizon Year 2030

Additional Information

Trip Generation for Proposed Commercial and Residential
Development (East of CR10)

TRIP GENERATION RATES BY LAND USE											
ITE	ITE	Unit of	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Measure	Rate	In	Out	Rate	In	Out	Rate	In	Out
210	Single-Family Detached Housing	Dwelling Units	0.74	25%	75%	0.99	63%	37%	0.93	54%	46%
220	Multifamily Housing (Low Rise)	Dwelling Units	0.46	23%	77%	0.56	63%	37%	0.70	50%	50%
710	General Office Building	GFA	1.16	86%	14%	1.15	16%	84%	0.53	54%	46%
720	Medical-Dental Office Building	GFA	2.78	78%	22%	3.46	28%	72%	3.10	57%	43%
850	Supermarket	GFA	3.82	60%	40%	9.24	51%	49%	10.34	51%	49%
934	Fast-Food Restaurant with Drive-Through Window	GFA	40.19	51%	49%	32.67	52%	48%	54.86	51%	49%
945	Gasoline/Service Station with Convenience Market	Fueling Positions	12.47	51%	49%	13.99	51%	49%	19.28	50%	50%
Pass By Reduction	General Office Building		0%			0%			0%		
	Medical-Dental Office Building		0%			0%			0%		
	Supermarket		40%			36%			26%		
	Fast-Food Restaurant with Drive-Through Window		49%			50%			50%		
	Gasoline/Service Station with Convenience Market		62%			56%			56%		
Internal Trip Reduction			20%			20%			20%		

ESTIMATED NUMBER OF TRIPS BY LAND USE - RESIDENTIAL BLOCK (YEAR 2025)											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
210	Single-Family Detached Housing	53	39	10	29	52	33	19	49	27	23
220	Multifamily Housing (Low Rise)	24	11	3	9	13	8	5	17	8	8
710	General Office Building (Commercial Block 116)	2.6	3	3	0	3	0	2	1	1	1
TOTAL TRIPS RESIDENTIAL			53	15	38	69	42	27	67	36	32

ESTIMATED NUMBER OF TRIPS BY LAND USE - RESIDENTIAL BLOCK (YEAR 2030)											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
210	Single-Family Detached Housing	106	78	20	59	105	66	39	99	53	45
220	Multifamily Housing (Low Rise)	48	22	5	17	27	17	10	34	17	17
710	General Office Building (Commercial Block 116)	5	6	5	1	6	1	5	3	1	1
TOTAL TRIPS RESIDENTIAL			106	30	77	138	84	54	135	71	63

ESTIMATED NUMBER OF TRIPS BY LAND USE - COMMERCIAL BLOCK (YEAR 2025)											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
710	General Office Building	15.8	18			18			8		
	Internal Trips		4			4			2		
			Total	In	Out	Total	In	Out	Total	In	Out
	Pass By Trips		0	0	0	0	0	0	0	0	0
	New Trips		15	13	2	15	2	12	7	4	3
	External Trips		15	13	2	15	2	12	7	4	3
720	Medical-Dental Office Building	25.76	72			89			80		
	Internal Trips		14			18			16		
			Total	In	Out	Total	In	Out	Total	In	Out
	Pass By Trips		0	0	0	0	0	0	0	0	0
	New Trips		57	45	13	71	20	51	64	36	27
	External Trips		57	45	13	71	20	51	64	36	27
850	Supermarket	26.59	102			246			275		
	Internal Trips		20			49			55		
			Total	In	Out	Total	In	Out	Total	In	Out
	Pass By Trips		33	16	16	71	35	35	57	29	29
	New Trips		49	29	20	126	64	62	163	83	80
	External Trips		81	46	36	197	100	97	220	112	108
934	Fast-Food Restaurant with Drive-Through Window	3.50	141			114			192		
	Internal Trips		28			23			38		
			Total	In	Out	Total	In	Out	Total	In	Out
	Pass By Trips		55	28	28	46	23	23	77	38	38
	New Trips		57	29	28	46	24	22	77	39	38
	External Trips		113	57	56	92	47	45	154	78	76
945	Gasoline/Service Station with Convenience Market	8.00	100			112			154		
	Internal Trips		20			22			31		
			Total	In	Out	Total	In	Out	Total	In	Out
	Pass By Trips		49	25	25	50	25	25	69	35	35
	New Trips		30	15	15	39	20	19	54	27	27
	External Trips		80	40	40	90	45	44	123	62	62
TOTAL TRIPS COMERCIAL			AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
			Trips	In	Out	Trips	In	Out	Trips	In	Out
TOTAL PASS BY TRIPS			137	69	69	167	83	83	203	102	102
TOTAL NEW TRIPS			208	131	77	297	130	166	365	189	175
TOTAL TRIPS AT DRIVEWAYS			346	200	146	463	214	250	568	291	277