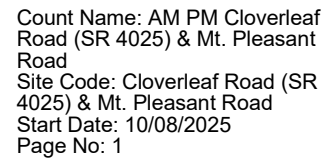


Appendix B:

Traffic Count Data



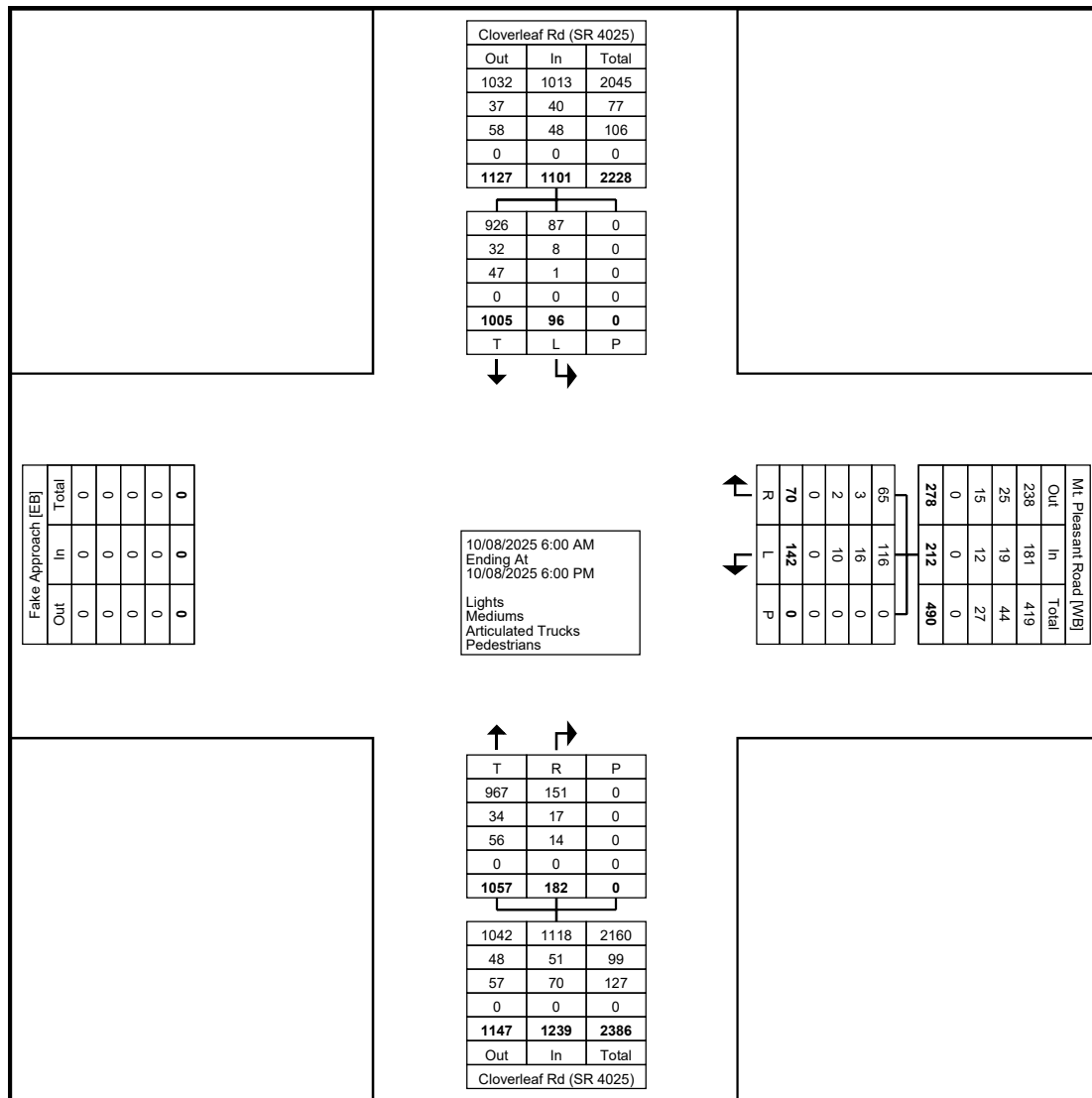


Start Time	Mt. Pleasant Road Westbound				Cloverleaf Rd (SR 4025) Northbound				Cloverleaf Rd (SR 4025) Southbound				Int. Total
	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	
6:00 AM	3	1	0	4	12	1	0	13	1	29	0	30	47
6:15 AM	3	3	0	6	23	1	0	24	3	42	0	45	75
6:30 AM	8	2	0	10	23	2	0	25	1	52	0	53	88
6:45 AM	9	3	0	12	20	5	0	25	3	61	0	64	101
Hourly Total	23	9	0	32	78	9	0	87	8	184	0	192	311
7:00 AM	11	1	0	12	41	6	0	47	2	50	0	52	111
7:15 AM	10	1	0	11	28	2	0	30	12	55	0	67	108
7:30 AM	15	2	0	17	31	3	0	34	1	67	0	68	119
7:45 AM	6	2	0	8	40	4	0	44	6	44	0	50	102
Hourly Total	42	6	0	48	140	15	0	155	21	216	0	237	440
8:00 AM	2	3	0	5	34	6	0	40	5	40	0	45	90
8:15 AM	11	1	0	12	25	6	0	31	5	52	0	57	100
8:30 AM	11	2	0	13	40	2	0	42	3	33	0	36	91
8:45 AM	7	4	0	11	32	4	0	36	3	42	0	45	92
Hourly Total	31	10	0	41	131	18	0	149	16	167	0	183	373
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	6	9	0	15	37	12	0	49	4	28	0	32	96
3:15 PM	1	1	0	2	57	13	0	70	3	27	0	30	102
3:30 PM	6	5	0	11	70	17	0	87	1	40	0	41	139
3:45 PM	3	2	0	5	62	13	0	75	7	36	0	43	123
Hourly Total	16	17	0	33	226	55	0	281	15	131	0	146	460
4:00 PM	4	2	0	6	64	10	0	74	3	48	0	51	131
4:15 PM	3	3	0	6	56	6	0	62	4	42	0	46	114
4:30 PM	3	3	0	6	68	14	0	82	7	35	0	42	130
4:45 PM	6	6	0	12	76	9	0	85	4	40	0	44	141
Hourly Total	16	14	0	30	264	39	0	303	18	165	0	183	516
5:00 PM	2	2	0	4	68	10	0	78	5	35	0	40	122
5:15 PM	4	4	0	8	61	16	0	77	3	55	0	58	143
5:30 PM	5	5	0	10	49	11	0	60	6	21	0	27	97
5:45 PM	3	3	0	6	40	9	0	49	4	31	0	35	90
Hourly Total	14	14	0	28	218	46	0	264	18	142	0	160	452
Grand Total	142	70	0	212	1057	182	0	1239	96	1005	0	1101	2552
Approach %	67.0	33.0	-	-	85.3	14.7	-	-	8.7	91.3	-	-	-
Total %	5.6	2.7	-	8.3	41.4	7.1	-	48.6	3.8	39.4	-	43.1	-
Lights	116	65	-	181	967	151	-	1118	87	926	-	1013	2312
% Lights	81.7	92.9	-	85.4	91.5	83.0	-	90.2	90.6	92.1	-	92.0	90.6
Mediums	16	3	-	19	34	17	-	51	8	32	-	40	110
% Mediums	11.3	4.3	-	9.0	3.2	9.3	-	4.1	8.3	3.2	-	3.6	4.3
Articulated Trucks	10	2	-	12	56	14							



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Count Name: AM PM Cloverleaf
Road (SR 4025) & Mt. Pleasant
Road
Site Code: Cloverleaf Road (SR
4025) & Mt. Pleasant Road
Start Date: 10/08/2025
Page No: 2

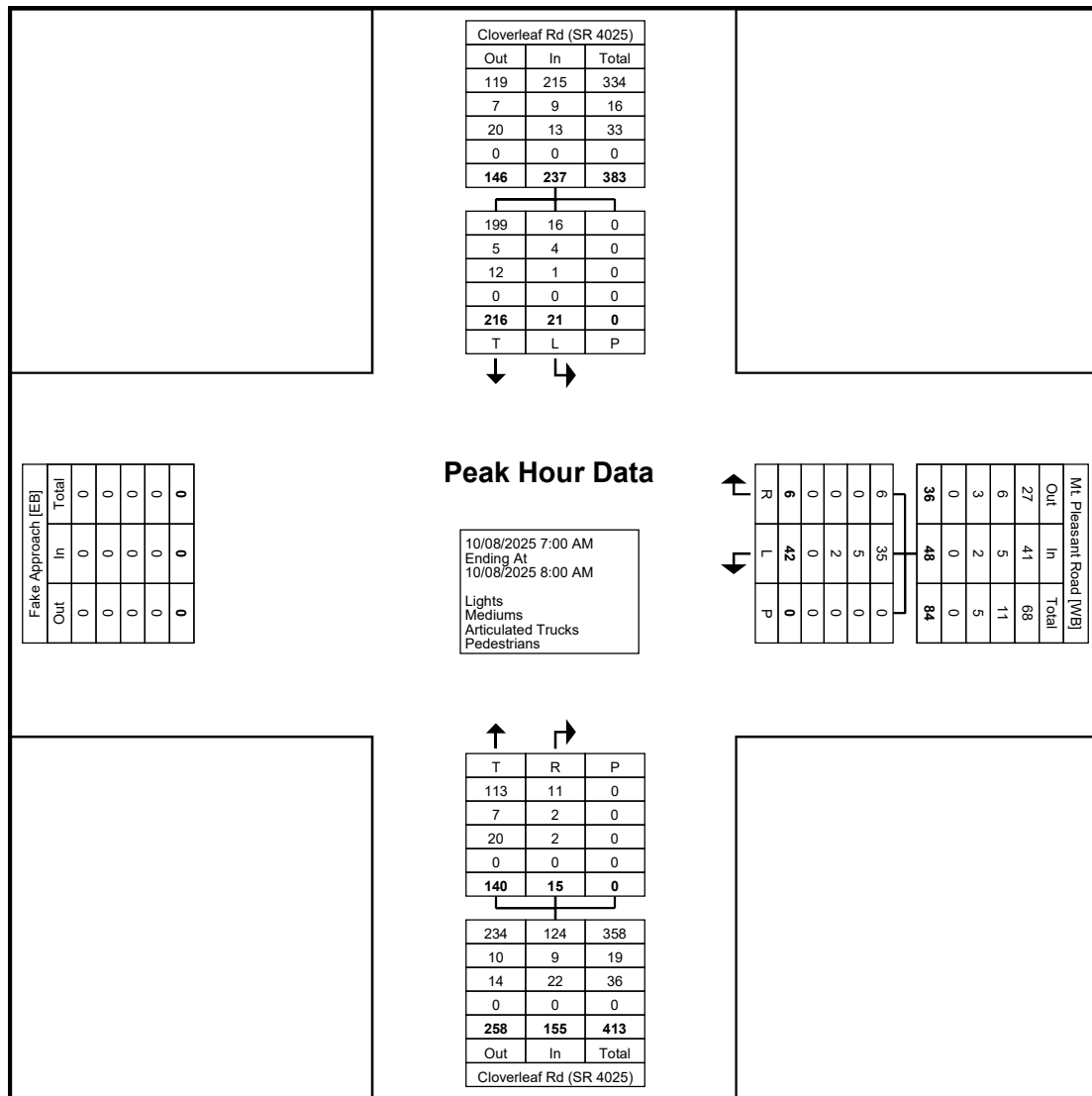


Turning Movement Data Plot

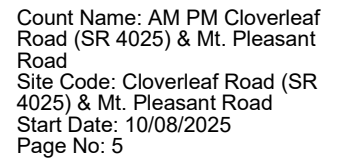


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Start Date: 10/08/2025
Page No: 4



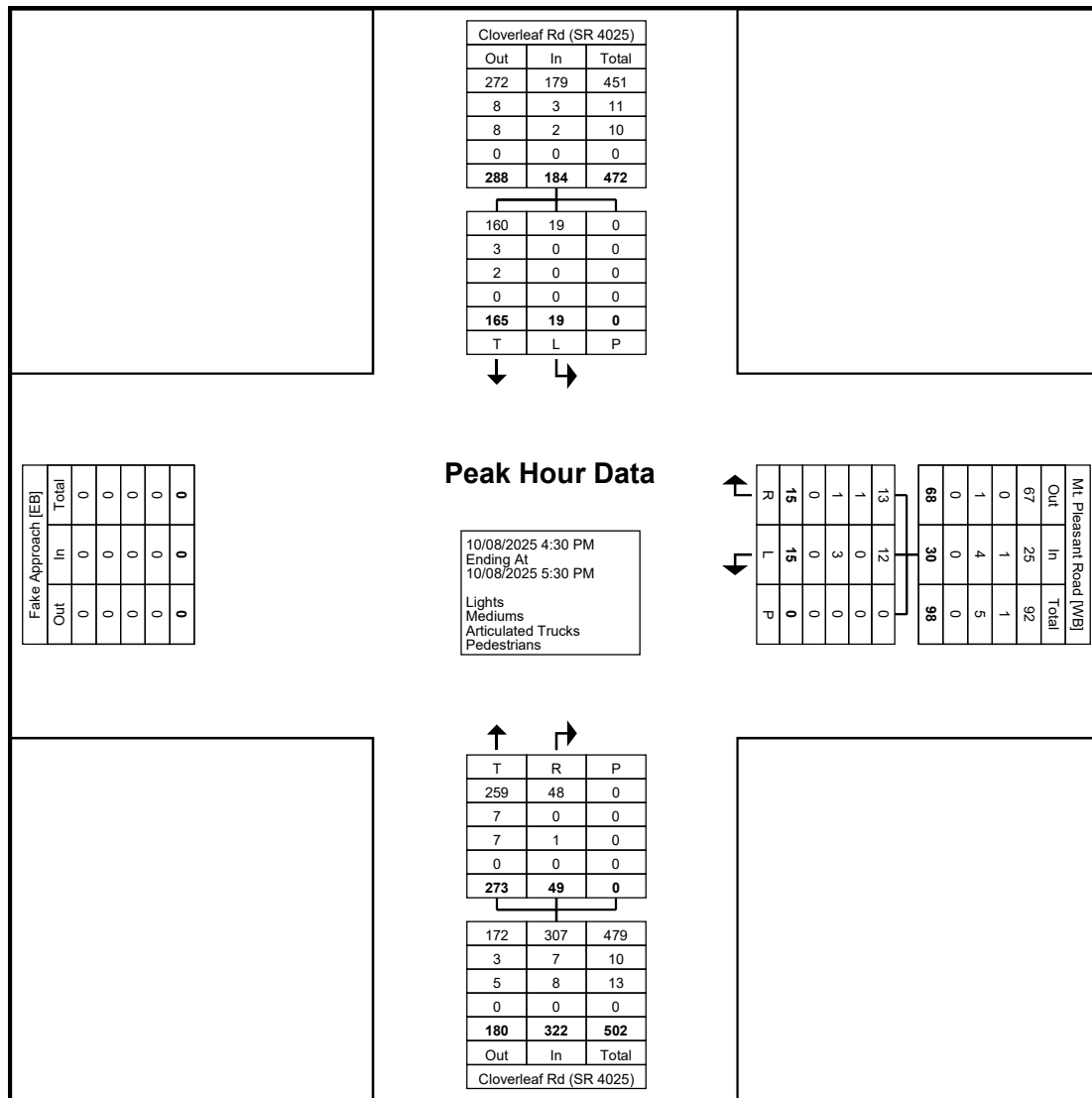
Turning Movement Peak Hour Data Plot (7:00 AM)

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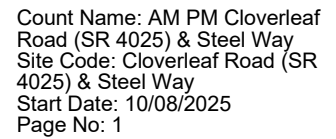


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Road (SR 4025) & Mt. Pleasant
Road
Site Code: Cloverleaf Road (SR
4025) & Mt. Pleasant Road
Start Date: 10/08/2025
Page No: 6



Turning Movement Peak Hour Data Plot (4:30 PM)

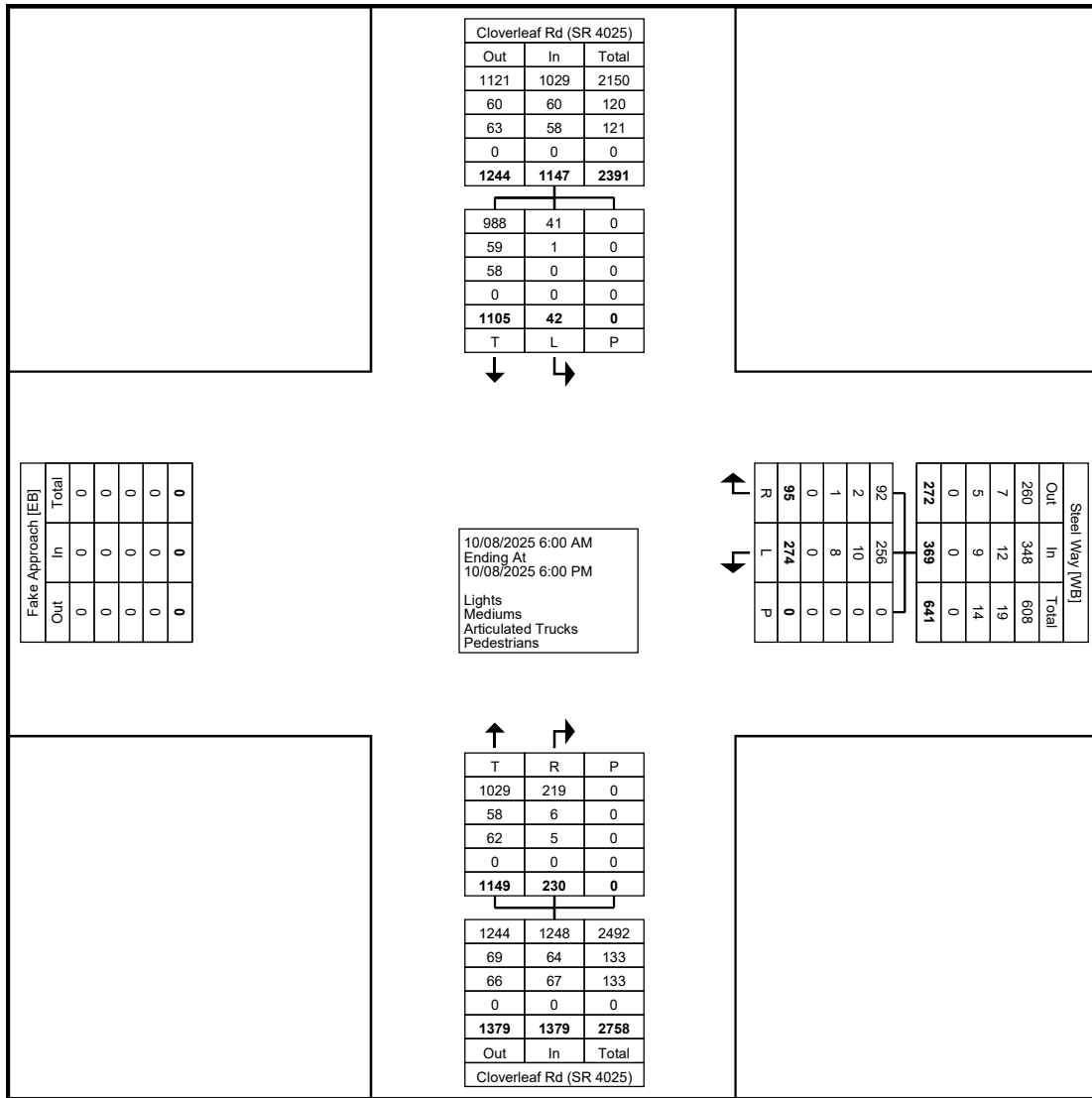


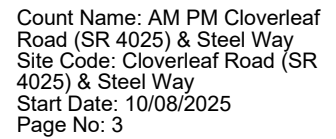
Start Time	Steel Way Westbound				Cloverleaf Rd (SR 4025) Northbound				Cloverleaf Rd (SR 4025) Southbound				Int. Total
	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	
6:00 AM	2	2	0	4	14	5	0	19	2	33	0	35	58
6:15 AM	0	0	0	0	25	18	0	43	2	47	0	49	92
6:30 AM	0	0	0	0	26	22	0	48	9	49	0	58	106
6:45 AM	5	1	0	6	26	34	0	60	11	63	0	74	140
Hourly Total	7	3	0	10	91	79	0	170	24	192	0	216	396
7:00 AM	4	0	0	4	48	14	0	62	1	55	0	56	122
7:15 AM	10	0	0	10	28	17	0	45	2	71	0	73	128
7:30 AM	1	0	0	1	38	10	0	48	2	77	0	79	128
7:45 AM	1	0	0	1	42	15	0	57	2	43	0	45	103
Hourly Total	16	0	0	16	156	56	0	212	7	246	0	253	481
8:00 AM	1	0	0	1	39	14	0	53	1	41	0	42	96
8:15 AM	5	1	0	6	29	7	0	36	1	60	0	61	103
8:30 AM	4	0	0	4	40	5	0	45	0	43	0	43	92
8:45 AM	3	0	0	3	40	2	0	42	0	48	0	48	93
Hourly Total	13	1	0	14	148	28	0	176	2	192	0	194	384
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	11	2	0	13	46	6	0	52	1	35	0	36	101
3:15 PM	14	4	0	18	69	15	0	84	0	27	0	27	129
3:30 PM	73	36	0	109	52	2	0	54	1	45	0	46	209
3:45 PM	18	9	0	27	61	5	0	66	2	36	0	38	131
Hourly Total	116	51	0	167	228	28	0	256	4	143	0	147	570
4:00 PM	28	11	0	39	60	2	0	62	0	56	0	56	157
4:15 PM	19	2	0	21	67	4	0	71	1	39	0	40	132
4:30 PM	19	10	0	29	76	1	0	77	0	36	0	36	142
4:45 PM	10	1	0	11	78	7	0	85	1	51	0	52	148
Hourly Total	76	24	0	100	281	14	0	295	2	182	0	184	579
5:00 PM	20	9	0	29	71	9	0	80	0	35	0	35	144
5:15 PM	7	4	0	11	68	7	0	75	2	55	0	57	143
5:30 PM	14	3	0	17	52	5	0	57	1	25	0	26	100
5:45 PM	5	0	0	5	54	4	0	58	0	35	0	35	98
Hourly Total	46	16	0	62	245	25	0	270	3	150	0	153	485
Grand Total	274	95	0	369	1149	230	0	1379	42	1105	0	1147	2895
Approach %	74.3	25.7	-	-	83.3	16.7	-	-	3.7	96.3	-	-	-
Total %	9.5	3.3	-	12.7	39.7	7.9	-	47.6	1.5	38.2	-	39.6	-
Lights	256	92	-	348	1029	219	-	1248	41	988	-	1029	2625
% Lights	93.4	96.8	-	94.3	89.6	95.2	-	90.5	97.6	89.4	-	89.7	90.7
Mediums	10	2	-	12	58	6	-	64	1	59	-	60	136
% Mediums	3.6	2.1	-	3.3	5.0	2.6	-	4.6	2.4	5.3	-	5.2	4.7
Articulated Trucks	8	1	-	9	6								



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Count Name: AM PM Cloverleaf
Road (SR 4025) & Steel Way
Site Code: Cloverleaf Road (SR
4025) & Steel Way
Start Date: 10/08/2025
Page No: 2

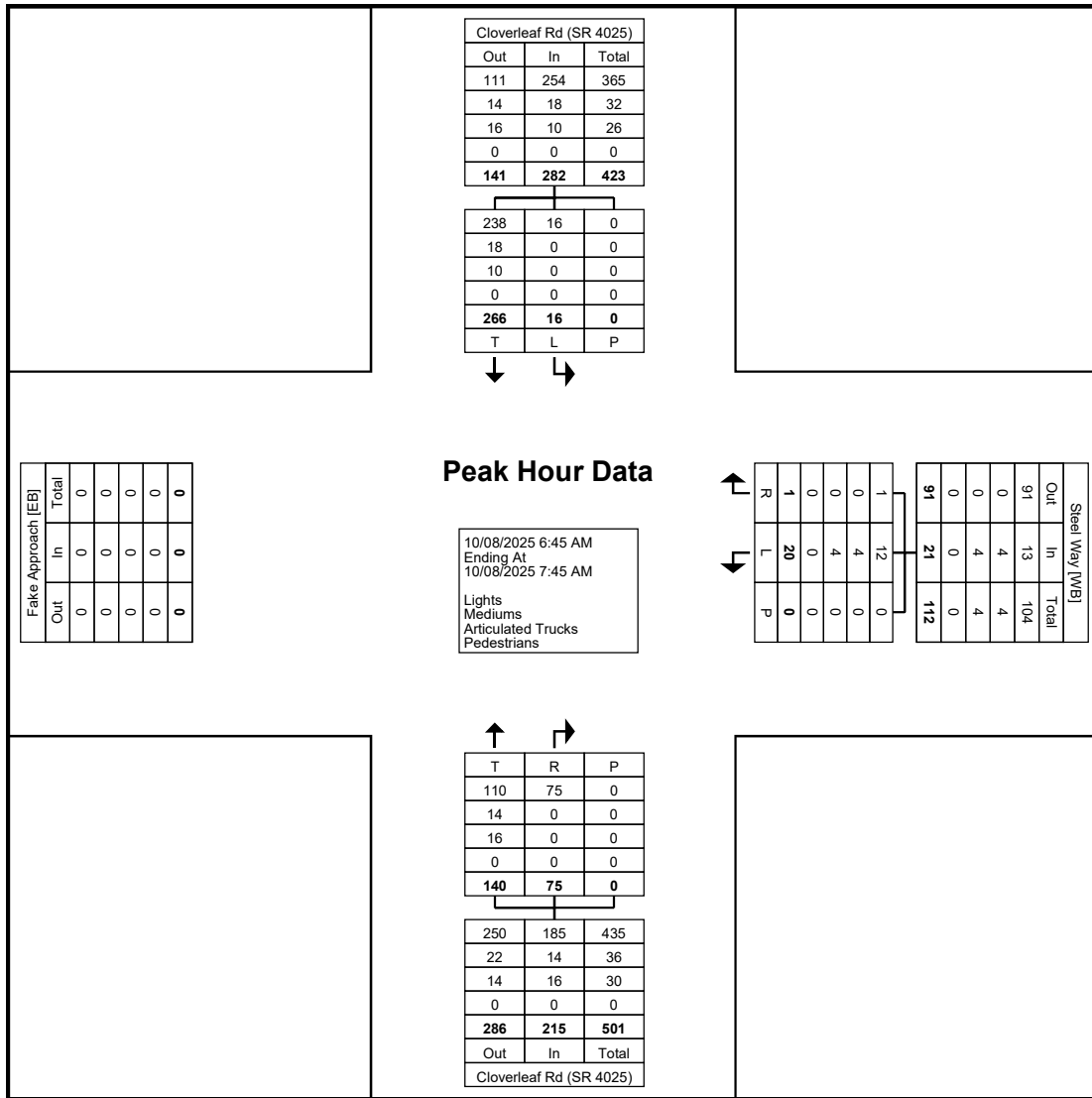


[illegible]

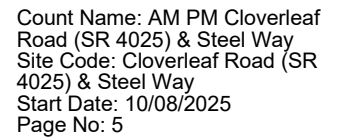


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Count Name: AM PM Cloverleaf
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Site Code: Cloverleaf Road (SR
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Start Date: 10/08/2025
Page No: 4



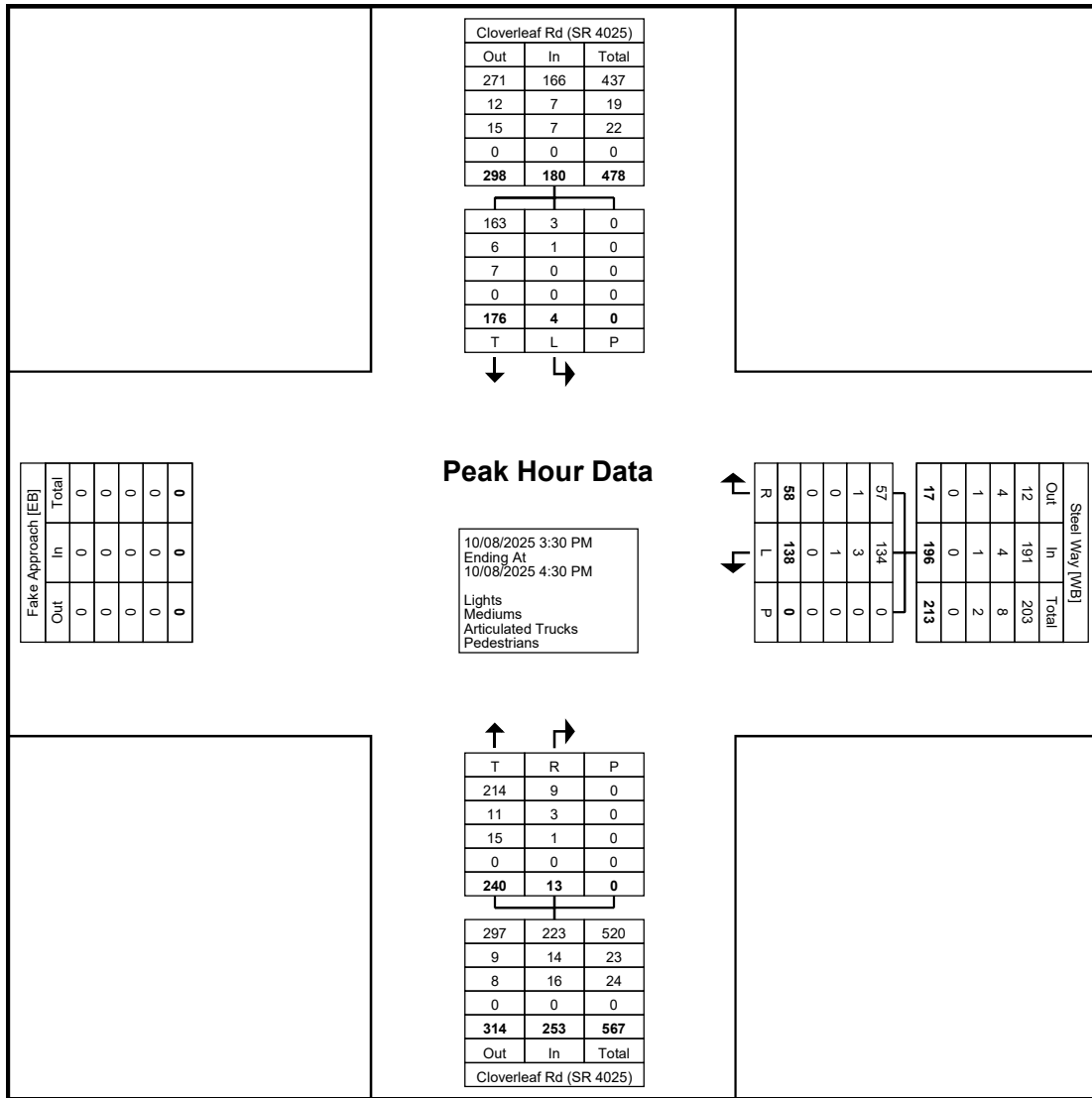
Turning Movement Peak Hour Data Plot (6:45 AM)

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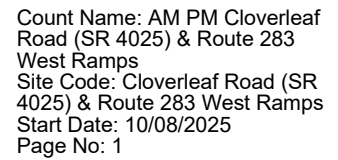


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Count Name: AM PM Cloverleaf
Road (SR 4025) & Steel Way
Site Code: Cloverleaf Road (SR
4025) & Steel Way
Start Date: 10/08/2025
Page No: 6



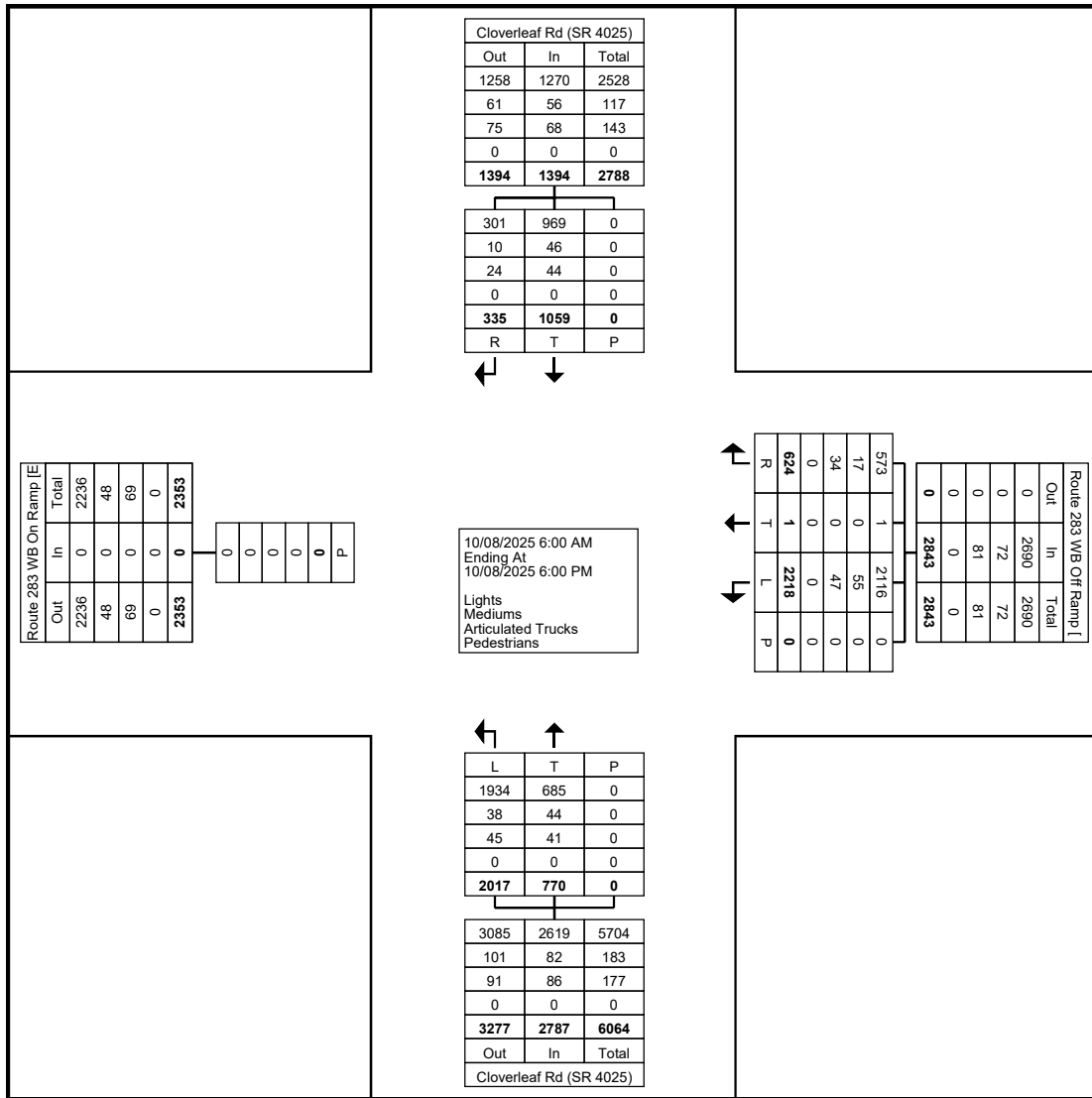
Turning Movement Peak Hour Data Plot (3:30 PM)



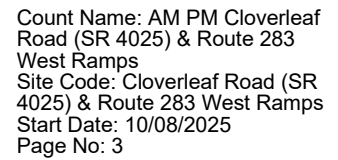


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Count Name: AM PM Cloverleaf
Road (SR 4025) & Route 283
West Ramps
Site Code: Cloverleaf Road (SR
4025) & Route 283 West Ramps
Start Date: 10/08/2025
Page No: 2



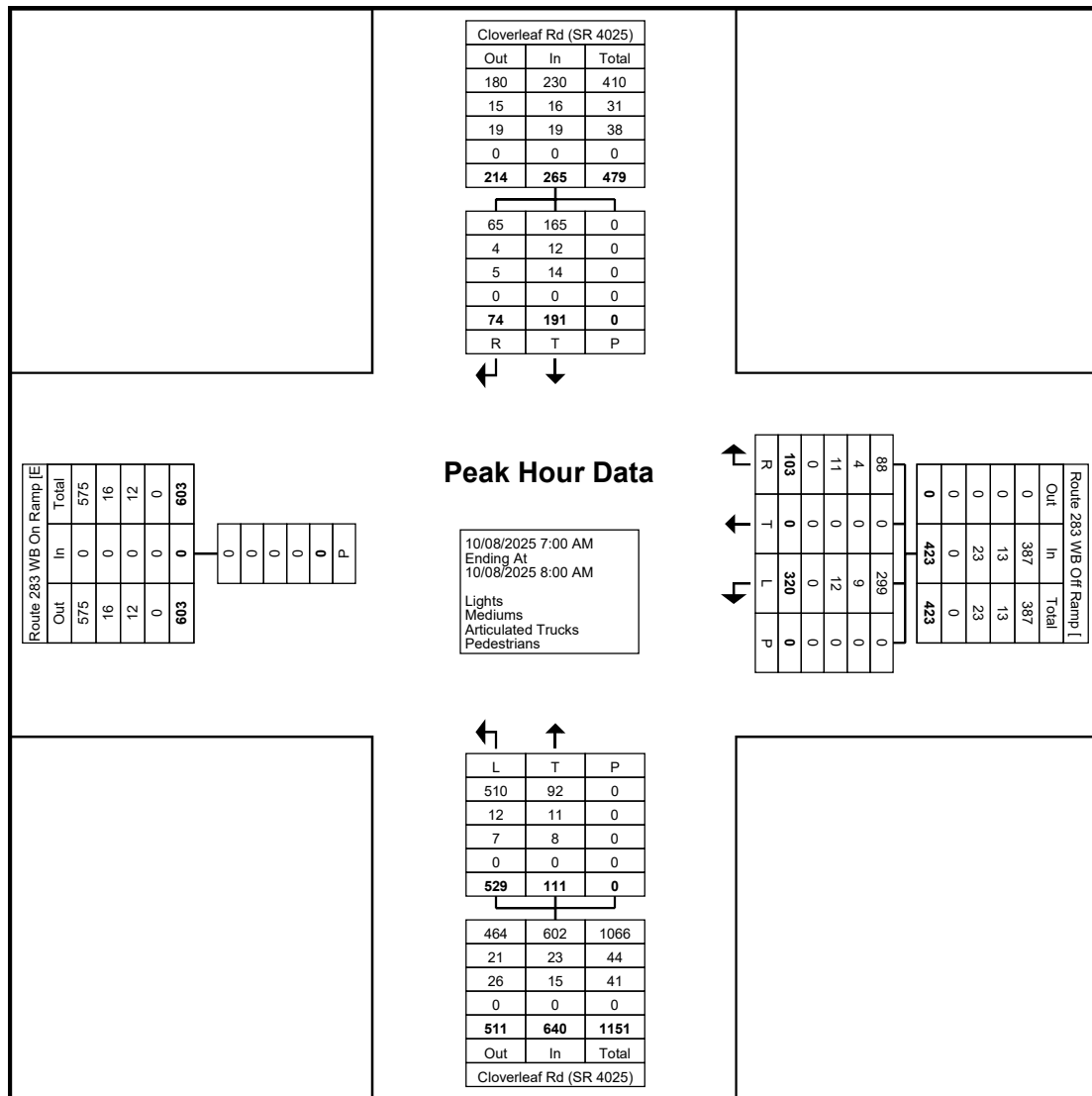
Turning Movement Data Plot

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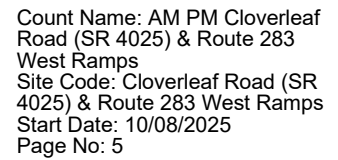


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Count Name: AM PM Cloverleaf
Road (SR 4025) & Route 283
West Ramps
Site Code: Cloverleaf Road (SR
4025) & Route 283 West Ramps
Start Date: 10/08/2025
Page No: 4



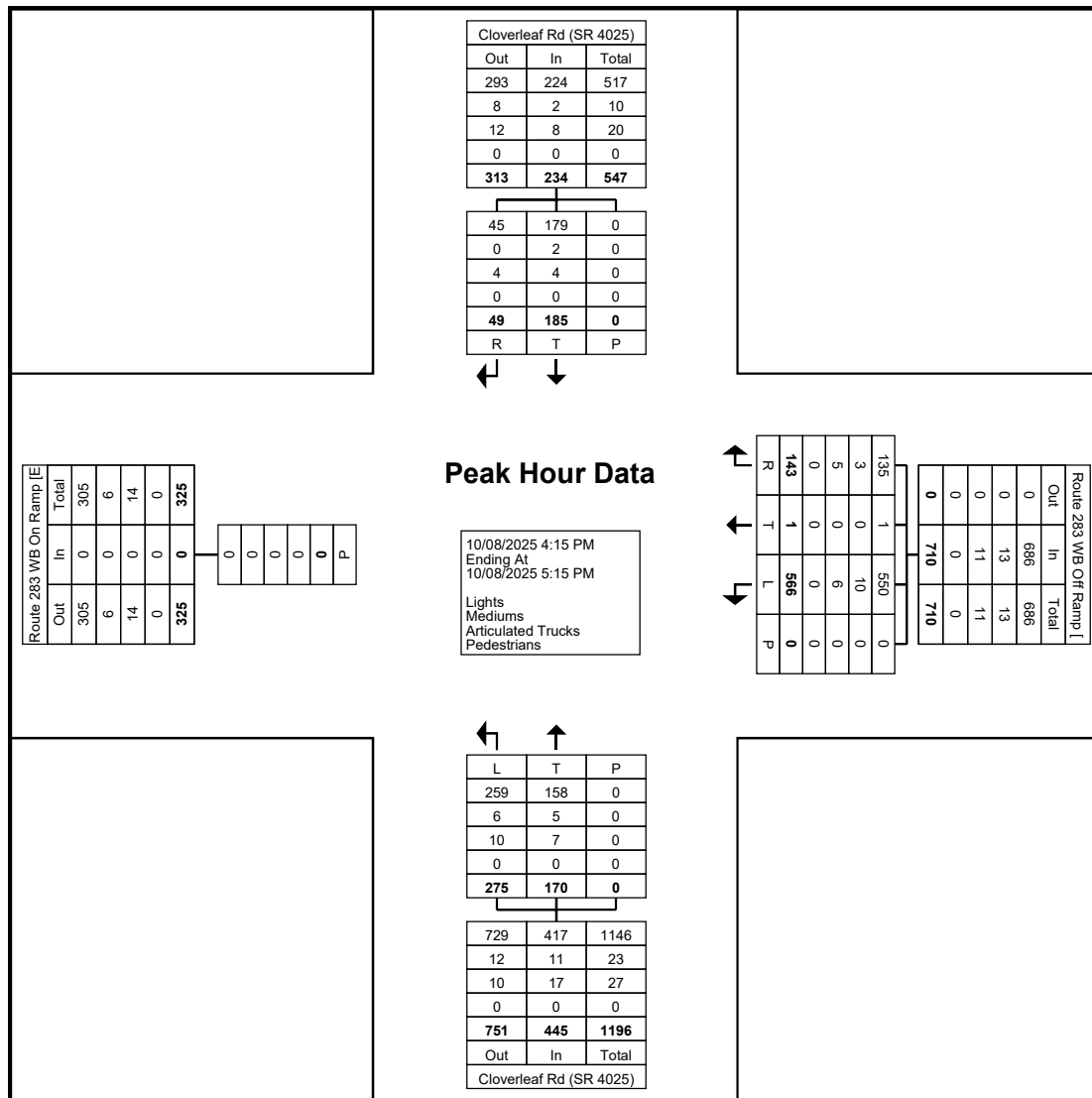
Turning Movement Peak Hour Data Plot (7:00 AM)

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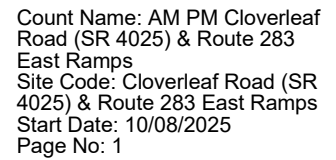


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West Ramps
Site Code: Cloverleaf Road (SR
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Start Date: 10/08/2025
Page No: 6



Turning Movement Peak Hour Data Plot (4:15 PM)

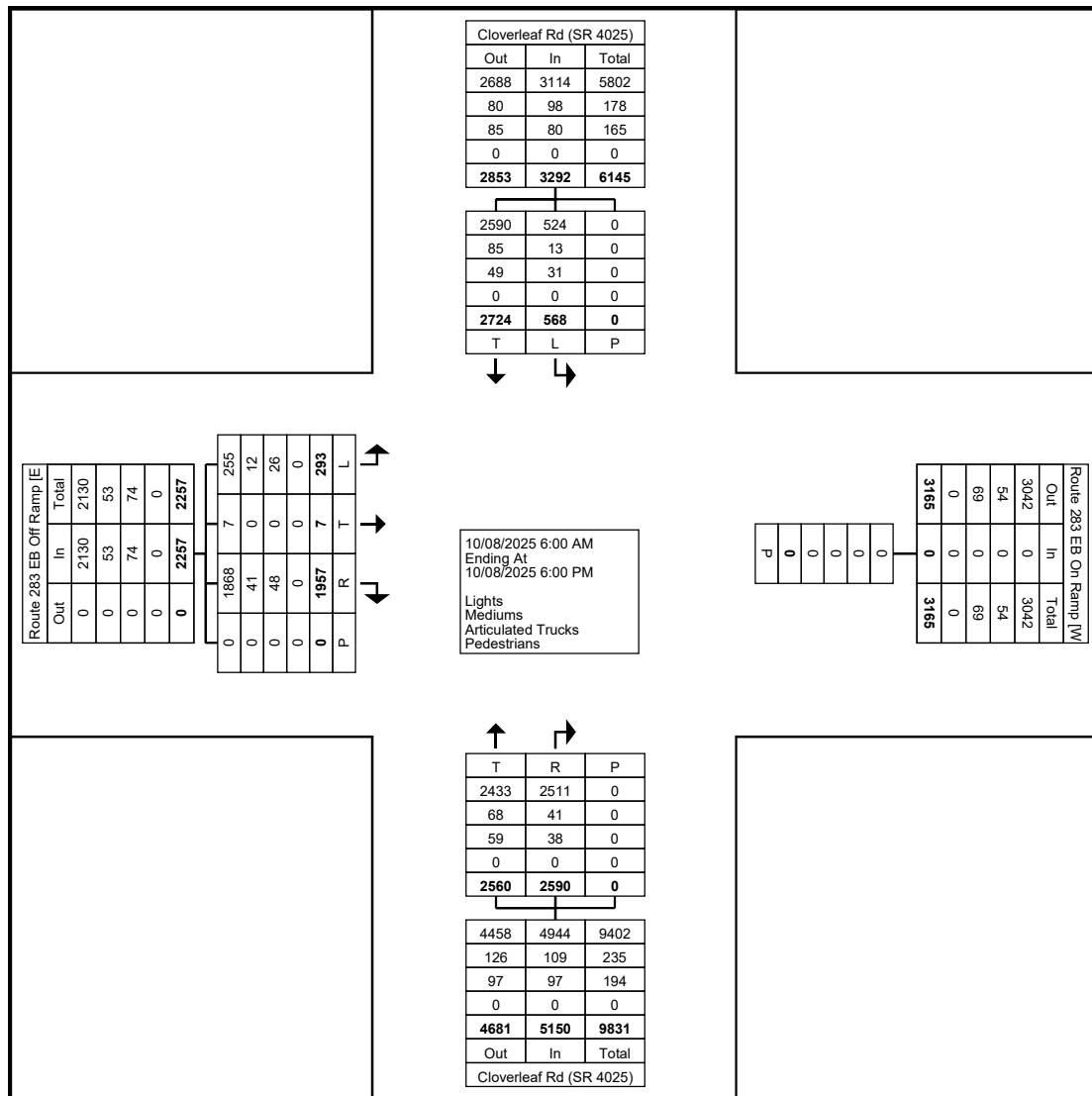


Start Time	Route 283 EB Off Ramp					Route 283 EB On Ramp		Cloverleaf Rd (SR 4025)				Cloverleaf Rd (SR 4025)				Int. Total
	Eastbound					Westbound		Northbound				Southbound				
	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	
6:00 AM	6	1	36	0	43	0	0	84	65	0	149	16	35	0	51	243
6:15 AM	9	0	36	0	45	0	0	128	91	0	219	26	43	0	69	333
6:30 AM	9	0	32	0	41	0	0	133	147	0	280	18	58	0	76	397
6:45 AM	16	0	42	0	58	0	0	124	122	0	246	29	75	0	104	408
Hourly Total	40	1	146	0	187	0	0	469	425	0	894	89	211	0	300	1381
7:00 AM	8	1	45	0	54	0	0	168	141	0	309	32	61	0	93	456
7:15 AM	8	0	58	0	66	0	0	171	159	0	330	34	97	0	131	527
7:30 AM	4	1	73	0	78	0	0	168	152	0	320	42	121	0	163	561
7:45 AM	12	0	69	0	81	0	0	140	106	0	246	19	117	0	136	463
Hourly Total	32	2	245	0	279	0	0	647	558	0	1205	127	396	0	523	2007
8:00 AM	15	0	49	0	64	0	0	135	106	0	241	18	91	0	109	414
8:15 AM	8	0	48	0	56	0	0	111	103	0	214	27	86	0	113	383
8:30 AM	8	0	53	0	61	0	0	124	104	0	228	23	84	0	107	396
8:45 AM	11	0	45	0	56	0	0	74	74	0	148	14	88	0	102	306
Hourly Total	42	0	195	0	237	0	0	444	387	0	831	82	349	0	431	1499
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	7	0	80	0	87	0	0	62	92	0	154	17	114	0	131	372
3:15 PM	21	2	103	0	126	0	0	84	102	0	186	17	125	0	142	454
3:30 PM	7	0	100	0	107	0	0	73	107	0	180	50	144	0	194	481
3:45 PM	15	0	104	0	119	0	0	75	128	0	203	21	145	0	166	488
Hourly Total	50	2	387	0	439	0	0	294	429	0	723	105	528	0	633	1795
4:00 PM	16	0	107	0	123	0	0	78	120	0	198	38	148	0	186	507
4:15 PM	22	0	114	0	136	0	0	101	115	0	216	24	166	0	190	542
4:30 PM	18	0	117	0	135	0	0	99	101	0	200	21	169	0	190	525
4:45 PM	16	0	138	0	154	0	0	101	106	0	207	19	164	0	183	544
Hourly Total	72	0	476	0	548	0	0	379	442	0	821	102	647	0	749	2118
5:00 PM	14	1	126	0	141	0	0	92	91	0	183	20	175	0	195	519
5:15 PM	18	1	119	0	138	0	0	92	99	0	191	22	165	0	187	516
5:30 PM	12	0	171	0	183	0	0	80	83	0	163	14	111	0	125	471
5:45 PM	13	0	92	0	105	0	0	63	76	0	139	7	142	0	149	393
Hourly Total	57	2	508	0	567	0	0	327	349	0	676	63	593	0	656	1

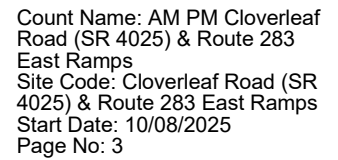


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Count Name: AM PM Cloverleaf
Road (SR 4025) & Route 283
East Ramps
Site Code: Cloverleaf Road (SR
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Start Date: 10/08/2025
Page No: 2



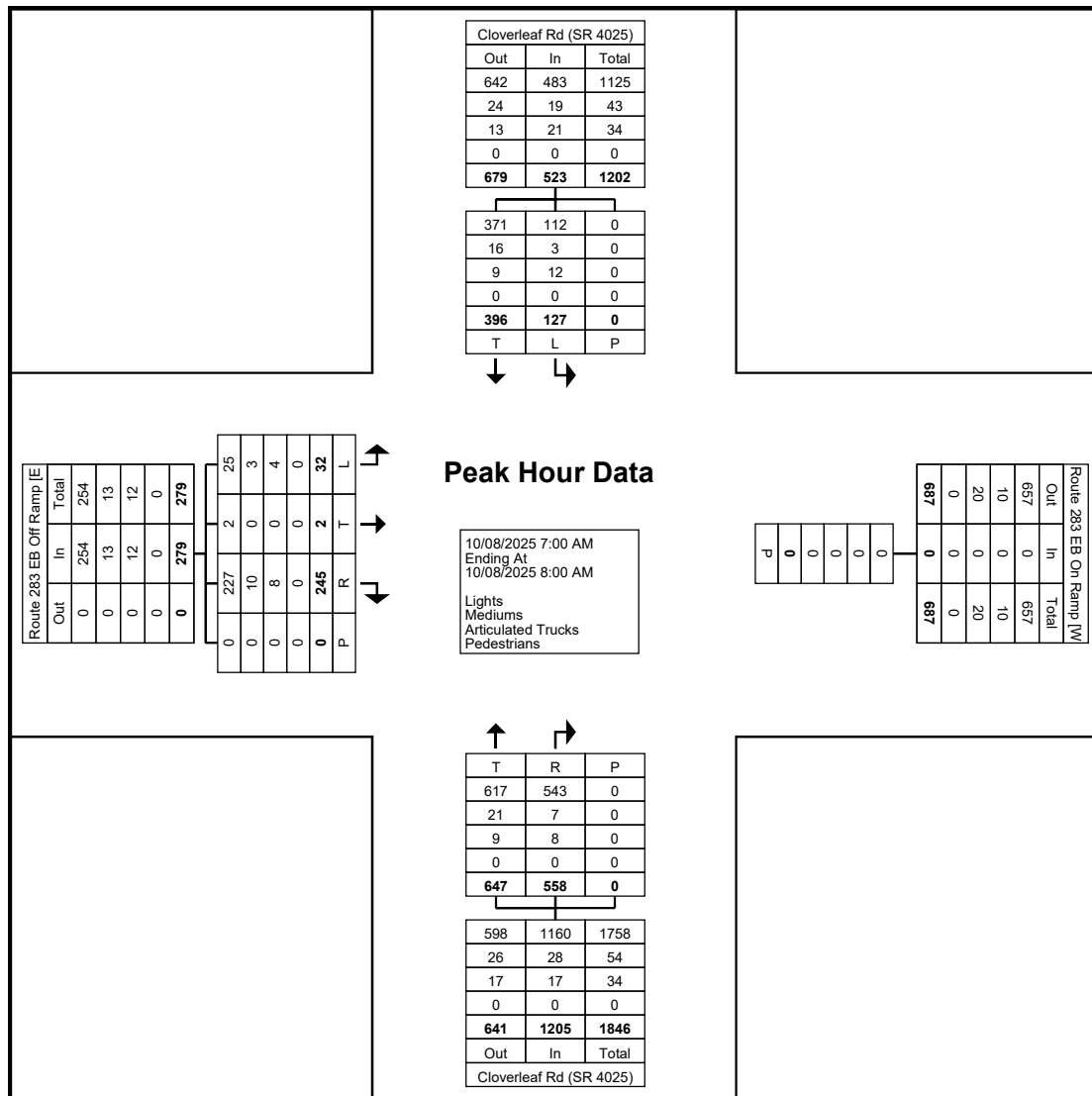
Turning Movement Data Plot

[illegible]

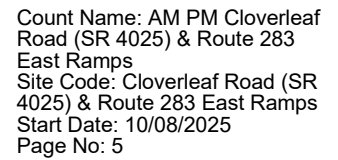


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Start Date: 10/08/2025
Page No: 4



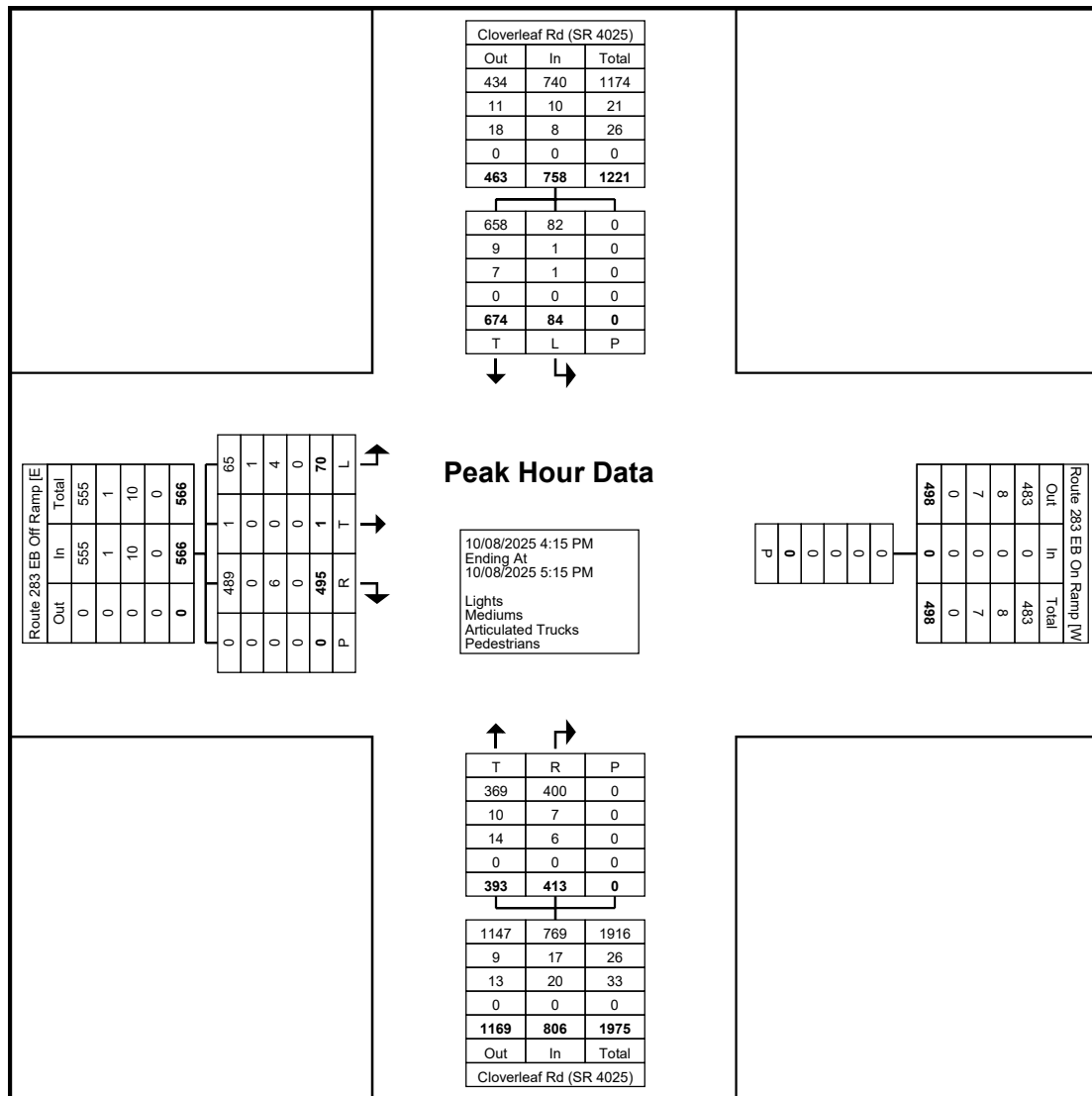
Turning Movement Peak Hour Data Plot (7:00 AM)

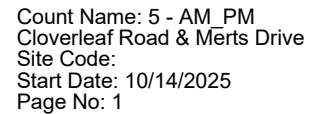
[illegible]



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Count Name: AM PM Cloverleaf
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East Ramps
Site Code: Cloverleaf Road (SR
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Start Date: 10/08/2025
Page No: 6





Page No: 1

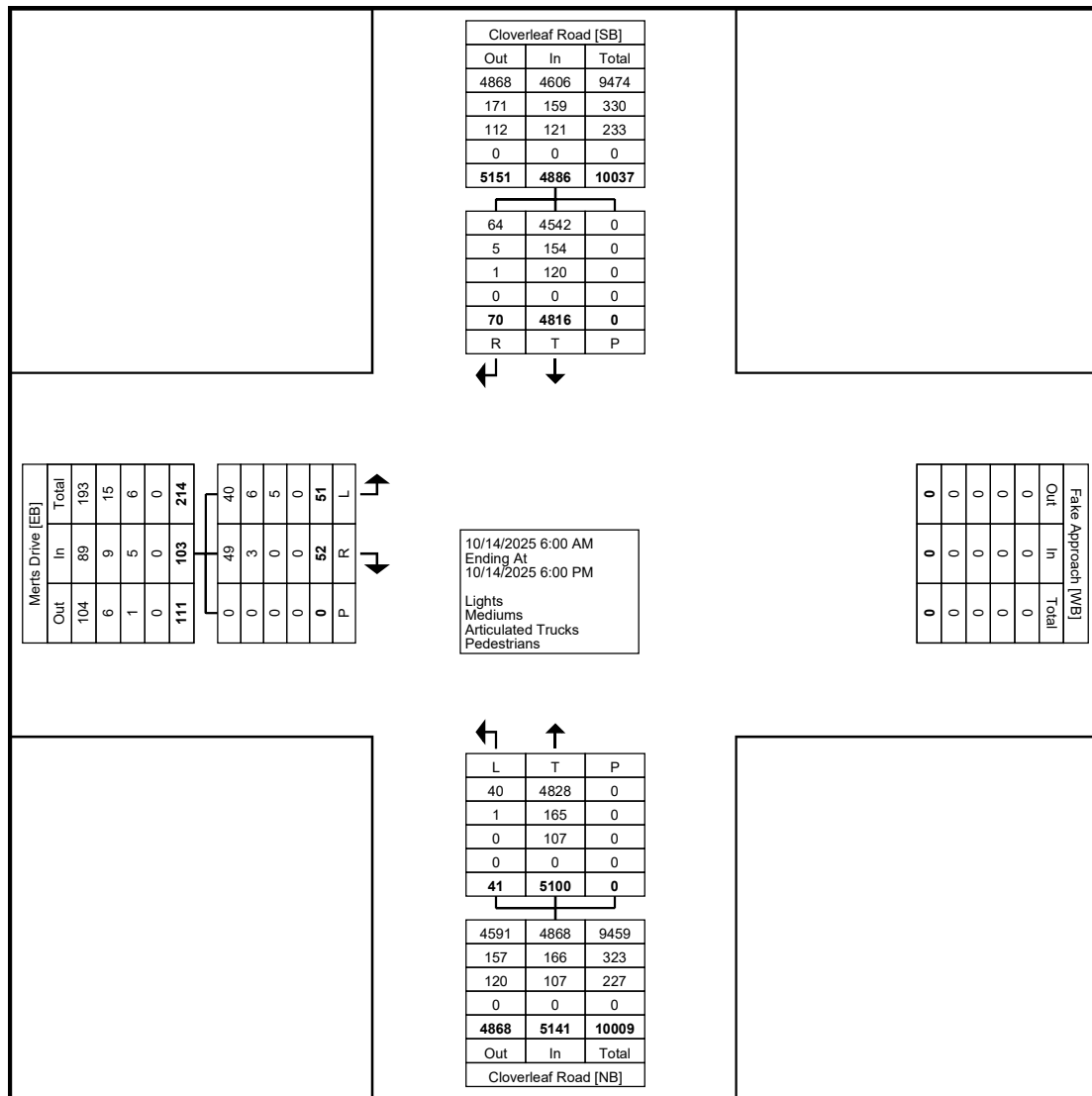
Start Time	Merts Drive Eastbound				Cloverleaf Road Northbound				Cloverleaf Road Southbound				Int. Total
	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	
6:00 AM	0	0	0	0	0	163	0	163	63	0	0	63	226
6:15 AM	0	0	0	0	1	199	0	200	114	1	0	115	315
6:30 AM	0	0	0	0	0	272	0	272	96	0	0	96	368
6:45 AM	2	1	0	3	1	278	0	279	115	5	0	120	402
Hourly Total	2	1	0	3	2	912	0	914	388	6	0	394	1311
7:00 AM	0	3	0	3	2	301	0	303	120	2	0	122	428
7:15 AM	1	3	0	4	1	345	0	346	146	6	0	152	502
7:30 AM	0	1	0	1	1	317	0	318	183	5	0	188	507
7:45 AM	3	2	0	5	4	226	0	230	204	4	0	208	443
Hourly Total	4	9	0	13	8	1189	0	1197	653	17	0	670	1880
8:00 AM	2	1	0	3	4	189	0	193	142	10	0	152	348
8:15 AM	1	1	0	2	6	239	0	245	146	6	0	152	399
8:30 AM	0	2	0	2	5	194	0	199	129	8	0	137	338
8:45 AM	0	0	0	0	3	165	0	168	142	3	0	145	313
Hourly Total	3	4	0	7	18	787	0	805	559	27	0	586	1398
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	4	0	0	4	1	190	0	191	210	5	0	215	410
3:15 PM	3	7	0	10	1	167	0	168	237	3	0	240	418
3:30 PM	1	8	0	9	1	212	0	213	265	3	0	268	490
3:45 PM	0	2	0	2	0	190	0	190	270	1	0	271	463
Hourly Total	8	17	0	25	3	759	0	762	982	12	0	994	1781
4:00 PM	4	0	0	4	1	181	0	182	290	2	0	292	478
4:15 PM	2	2	0	4	1	182	0	183	301	0	0	301	488
4:30 PM	4	2	0	6	3	203	0	206	288	0	0	288	500
4:45 PM	2	1	0	3	0	178	0	178	288	1	0	289	470
Hourly Total	12	5	0	17	5	744	0	749	1167	3	0	1170	1936
5:00 PM	7	7	0	14	0	207	0	207	302	0	0	302	523
5:15 PM	4	2	0	6	2	162	0	164	274	1	0	275	445
5:30 PM	5	3	0	8	2	185	0	187	267	2	0	269	464
5:45 PM	6	4	0	10	1	155	0	156	224	2	0	226	392
Hourly Total	22	16	0	38	5	709	0	714	1067	5	0	1072	1824
Grand Total	51	52	0	103	41	5100	0	5141	4816	70	0	4886	10130
Approach %	49.5	50.5	-	-	0.8	99.2	-	-	98.6	1.4	-	-	-
Total %	0.5	0.5	-	1.0	0.4	50.3	-	50.8	47.5	0.7	-	48.2	-
Lights	40	49	-	89	40	4828	-	4868	4542	64	-	4606	9563
% Lights	78.4	94.2	-	86.4	97.6	94.7	-	94.7	94.3	91.4	-	94.3	94.4
Mediums	6	3	-	9	1	165	-	166	154	5	-	159	334
% Mediums	11.8	5.8	-	8.7	2.4	3.2	-	3.2	3.2	7.1	-	3.3	3.3
Articulated Trucks	5	0	-	5	0	107	-	107	120	1	-	121	233
% Articulated Trucks	9.8	0.0	-	4.9	0.0	2.1	-	2.1	2.5	1.4	-	2.5	2.3
Pedestrians	-	-	0	-	-	-	0	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-



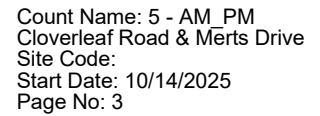
Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 5 - AM_PM
Cloverleaf Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 2



Turning Movement Data Plot

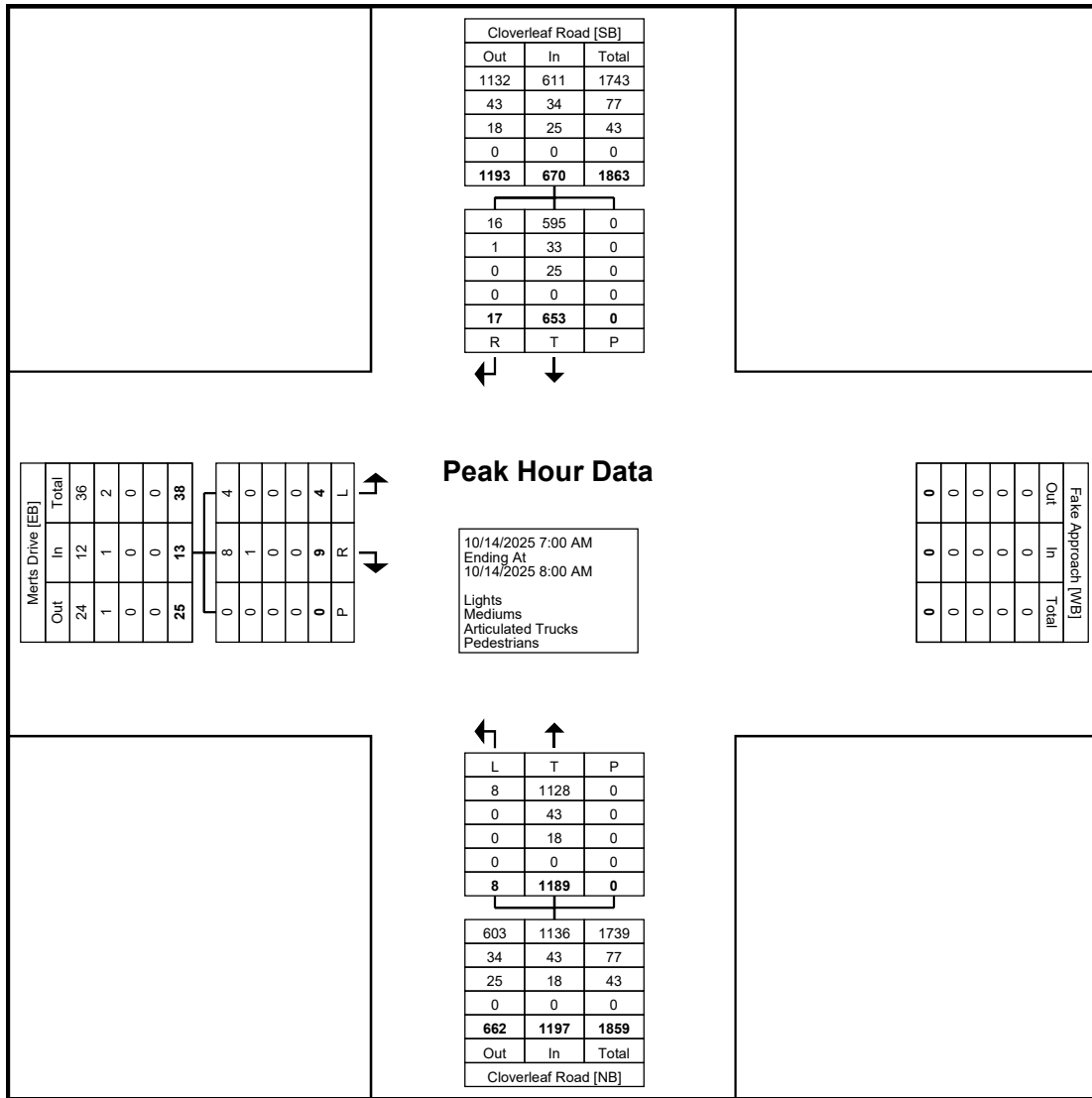
[illegible]



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Site Code:
Start Date: 10/14/2025
Page No: 5

Turning Movement Peak Hour Data (4:15 PM)

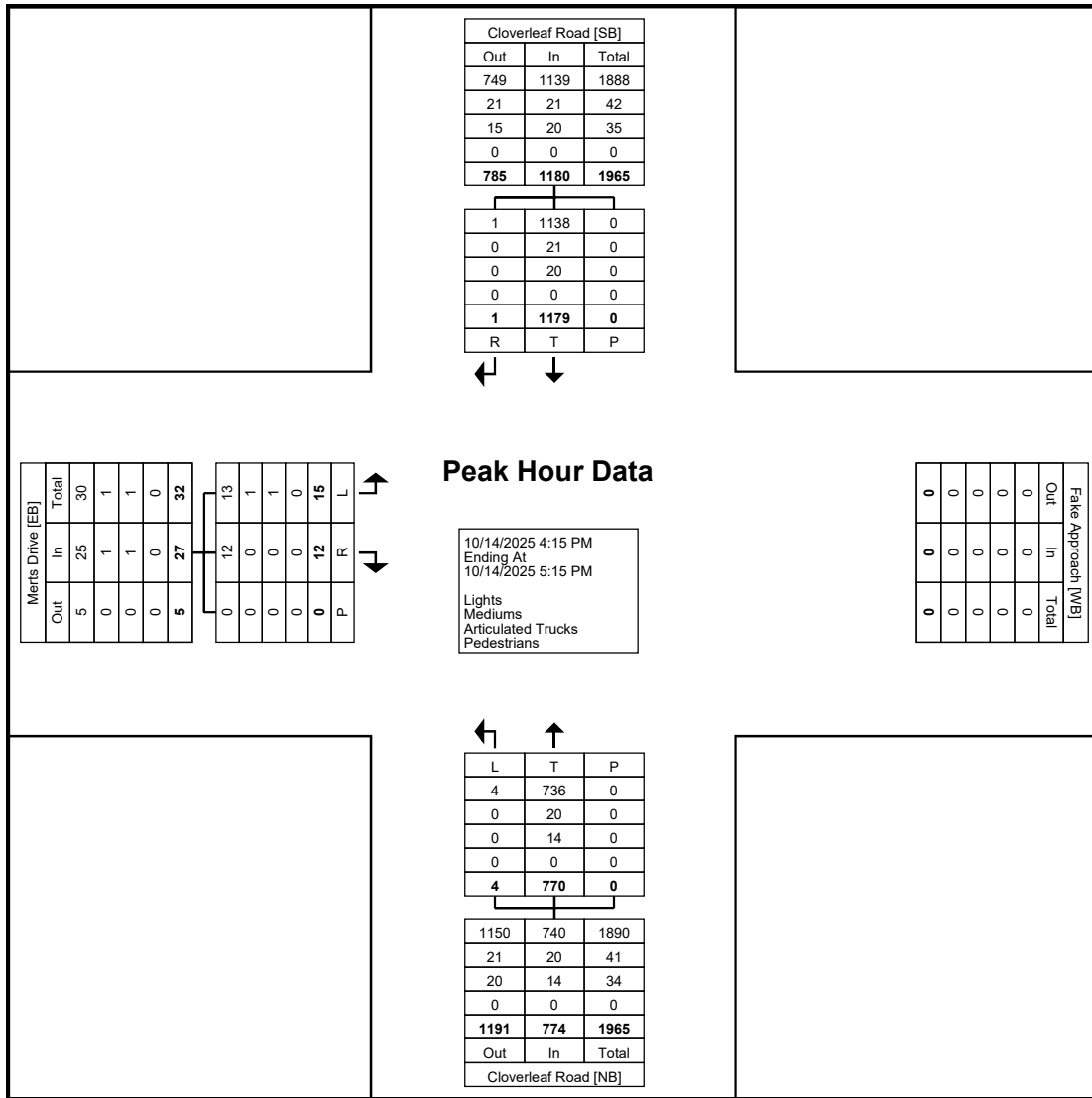
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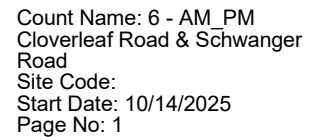
Counter Mio:
Set up by JH:

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Count Name: 5 - AM_PM
Cloverleaf Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 6



Turning Movement Peak Hour Data Plot (4:15 PM)



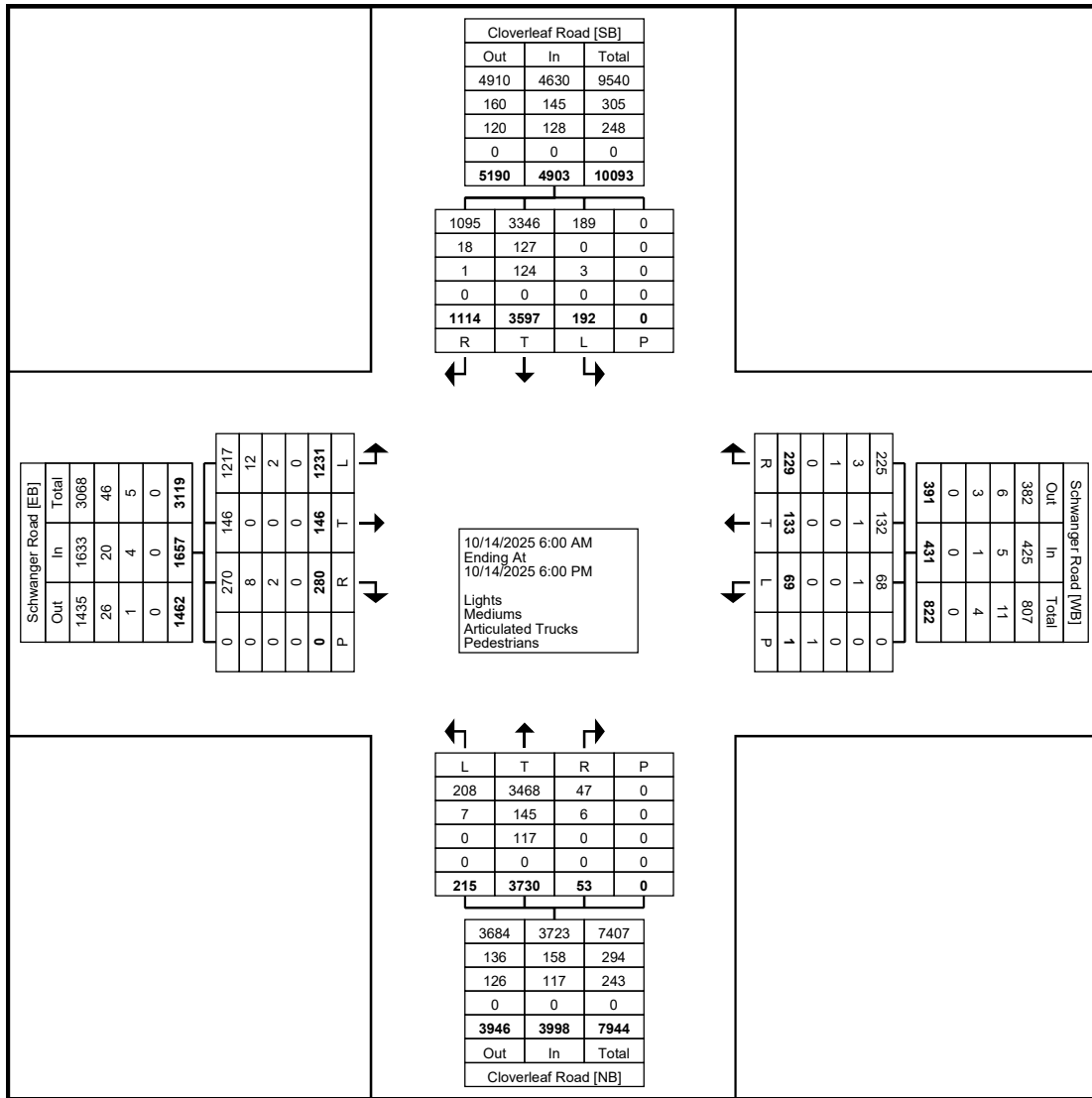
Start Time	Schwanger Road Eastbound						Schwanger Road Westbound						Cloverleaf Road Northbound						Cloverleaf Road Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
6:00 AM	40	1	2	4	0	47	1	1	2	2	0	6	4	125	0	0	0	129	0	56	6	0	0	62	244
6:15 AM	40	4	5	7	0	56	1	0	6	4	0	11	2	159	0	0	0	161	1	95	12	2	0	110	338
6:30 AM	61	2	1	4	0	68	0	0	9	2	0	11	1	207	0	0	0	208	0	85	8	2	0	95	382
6:45 AM	62	5	6	9	0	82	3	2	13	6	0	24	5	207	0	0	0	212	1	95	17	1	0	114	432
Hourly Total	203	12	14	24	0	253	5	3	30	14	0	52	12	698	0	0	0	710	2	331	43	5	0	381	1396
7:00 AM	62	5	3	5	0	75	2	1	21	4	0	28	8	220	5	0	0	233	2	102	19	3	0	126	462
7:15 AM	88	4	7	7	0	106	1	2	19	1	0	23	5	245	1	0	0	251	2	111	34	4	0	151	531
7:30 AM	86	8	4	8	0	106	3	5	8	3	0	19	3	219	0	0	0	222	5	147	27	6	0	185	532
7:45 AM	55	9	12	9	0	85	1	6	7	6	0	20	8	160	1	0	0	169	7	151	47	4	0	209	483
Hourly Total	291	26	26	29	0	372	7	14	55	14	0	90	24	844	7	0	0	875	16	511	127	17	0	671	2008
8:00 AM	47	3	6	4	0	60	7	4	1	8	0	20	8	144	4	0	0	156	2	112	25	2	0	141	377
8:15 AM	53	4	9	2	0	68	4	6	5	3	0	18	15	168	3	0	0	186	10	108	28	2	0	148	420
8:30 AM	62	4	3	2	0	71	1	6	3	4	0	14	12	135	3	0	0	150	3	104	30	0	0	137	372
8:45 AM	37	5	5	5	0	52	2	5	2	3	0	12	7	126	1	0	0	134	1	113	27	3	0	144	342
Hourly Total	199	16	23	13	0	251	14	21	11	18	0	64	42	573	11	0	0	626	16	437	110	7	0	570	1511
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3:00 PM	48	8	9	11	0	76	3	2	5	5	0	15	11	126	4	0	0	141	13	138	53	4	0	208	440
3:15 PM	39	6	10	4	0	59	3	11	4	1	0	19	13	131	4	0	0	148	11	174	56	3	0	244	470
3:30 PM	62	7	12	8	0	89	1	11	4	2	0	18	13	149	2	0	0	164	7	202	73	4	0	286	557
3:45 PM	52	10	11	6	0	79	3	8	10	3	0	24	14	132	1	0	0	147	11	192	74	1	0	278	528
Hourly Total	201	31	42	29	0	303	10	32	23	11	0	76	51	538	11	0	0	600	42	706	256	12	0	1016	1995
4:00 PM	48	7	7	1	0	63	4	10	2	2	0	18	8	126	2	0	0	136	18	209	66	5	0	298	515
4:15 PM	42	8	6	4	0	60	2	8	2	3	0	15	10	142	2	0	0	154	15	198	71	2	0	286	515
4:30 PM	32	9	6	0	0	47	2	12	3	0	0	17	12	171	3	0	0	186	17	209	66	3	0	295	545
4:45 PM	48	11	12	6	0	77	2	11	6	5	0	24	8	116	6	0	0	130	7	197	74	2	0	280	511
Hourly Total	170	35	31	11	0	247	10	41	13	10	0	74	38	555	13	0	0	606	57	813	277	12	0	1159	2086
5:00 PM	56	10	11	2	0	79	6	8	0	6	0	20	14	150	0	1	0	165	20	209	58	8	0	295	559
5:15 PM	32	10	7	0	0	49	8	3	2	7	0	20	13	132	5	0	0	150	14	211	58	7	0	290	509
5:30 PM	44	2	1	2	0	49	4	5	3	7	1	19	12	130	1	0	0	143	19	198	64	1	0	282	493
5:45 PM	35	4	12	3	0	54	5	6	1	4	0	16	9	110	4	0	0	123	6	181	51	1	0	239	432
Hourly Total	167	26	31	7	0	231	23	22	6	24	1	75	48	522	10	1	0	581	59	799	231	17	0	1106	1993
Grand Total	1231	146	167	113	0	1657	69	133	138	91	1	431	215	3730	52	1	0	3998	192	3597	1044	70	0	4903	10989
Approach %	74.3	8.8	10.1	6.8	-	-	16.0	30.9	32.0	21.1	-	-	5.4	93.3	1.3	0.0	-	-	3.9	73.4	21.3	1.4	-	-	-
Total %	11.2	1.3	1.5	1.0	-	15.1	0.6	1.2	1.3	0.8	-	3.9	2.0	33.9	0.5	0.0	-	36.4	1.7	32.7	9.5	0.6	-	44.6	-
Lights	1217	146	162	108	-	1633	68	132	136	89	-	425	208	3468	46	1	-	3723	189	3346	1028	67	-	4630	10411
% Lights	98.9	100.0	97.0	95.6	-	98.6	98.6	99.2	98.6	97.8	-	98.6	96.7	93.0	88.5	100.0	-	93.1	98.4	93.0	98.5	95.7	-	94.4	94.7
Mediums	12	0	4	4	-	20	1	1	2	1	-	5	7	145	6	0	-	158	0	127	16	2	-	145	328
% Mediums	1.0	0.0	2.4	3.5	-	1.2	1.4	0.8	1.4	1.1	-	1.2	3.3	3.9	11.5	0.0	-	4.0	0.0	3.5	1.5	2.9	-	3.0	3.0
Articulated Trucks	2	0	1	1	-	4	0	0	0	1	-	1	0	117	0	0	-	117	3	124	0	1	-	128	250
% Articulated Trucks	0.2	0.0	0.6	0.9	-	0.2	0.0	0.0	0.0	1.1	-	0.2	0.0	3.1	0.0	0.0	-	2.9	1.6	3.4	0.0	1.4	-	2.6	2.3
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-



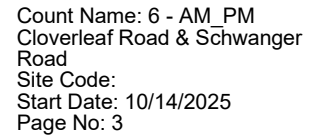
Counter Mio:
Set up by JH:

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2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 6 - AM PM
Cloverleaf Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 2



Turning Movement Data Plot

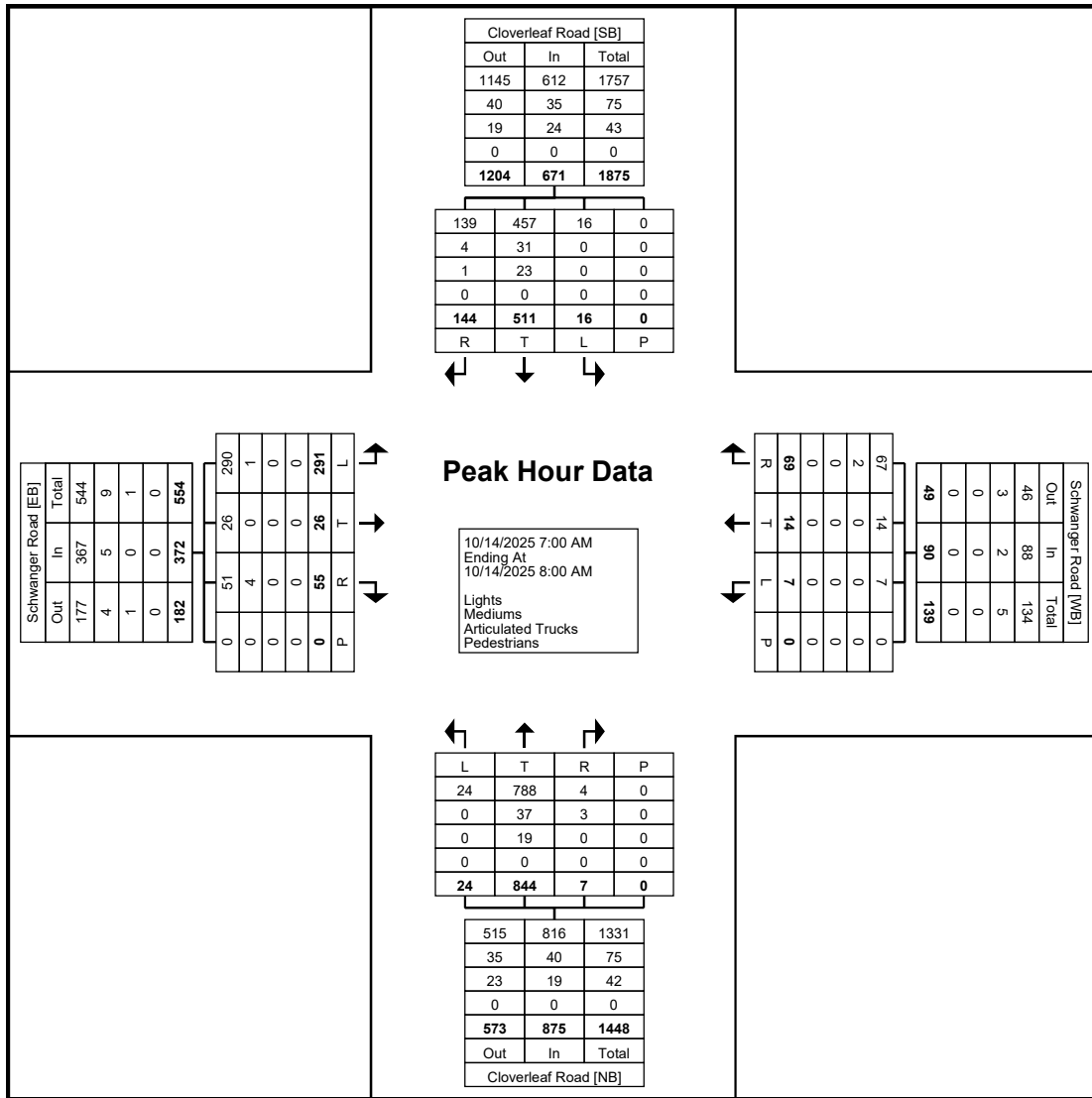


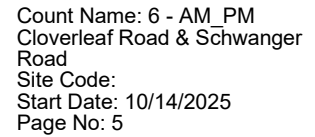


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Count Name: 6 - AM PM
Cloverleaf Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 4



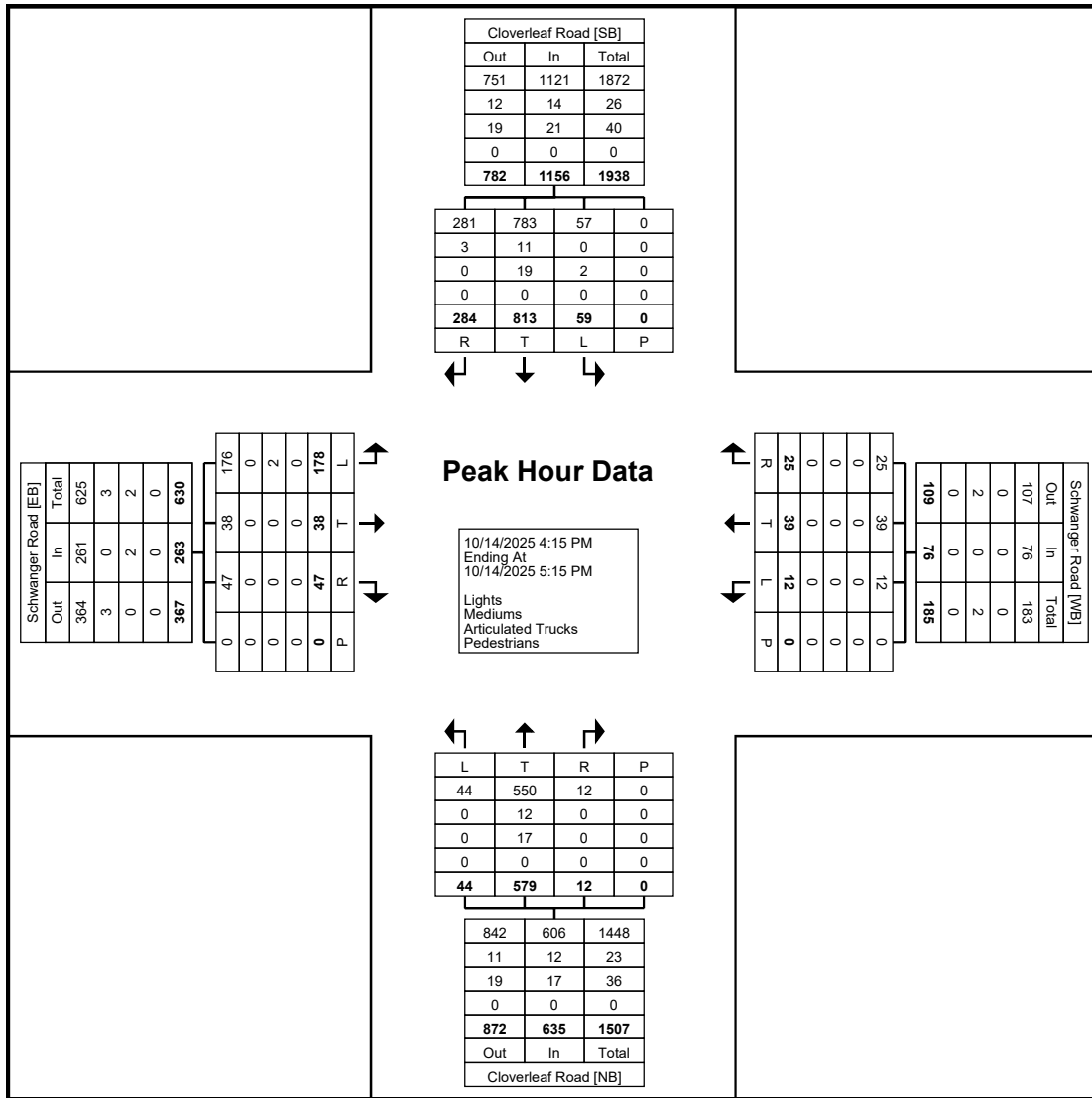
[illegible]



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2500 East High Street
Suite 650
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Count Name: 6 - AM PM
Cloverleaf Road & Schwanger
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Site Code:
Start Date: 10/14/2025
Page No: 6





Counter Mio:
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Count Name: 7 - AM PM
Schwanger Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 1

Turning Movement Data

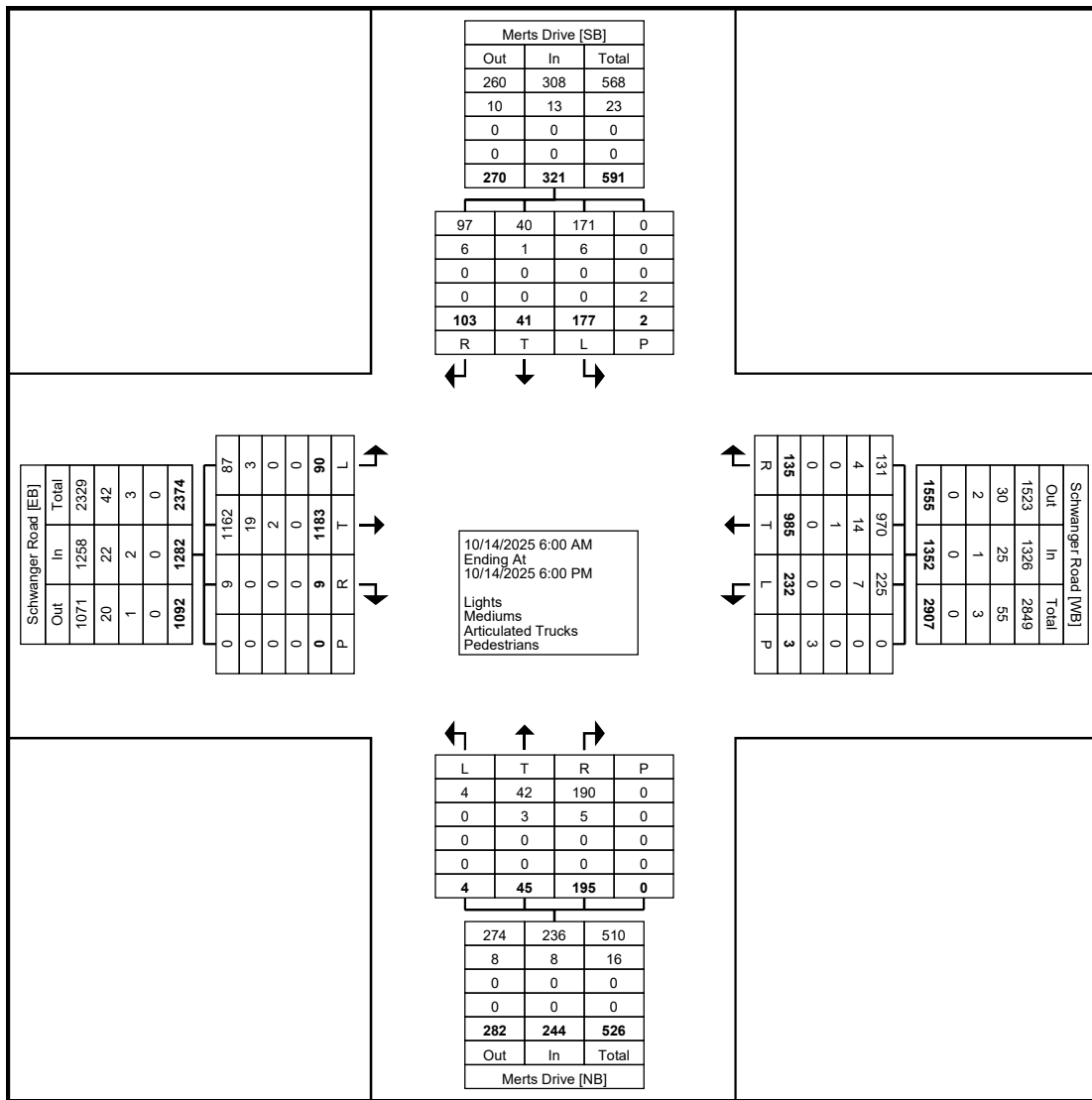
Start Time	Campus Road Eastbound					Schwanger Road Westbound					Schwanger Road Northbound					Merts Drive Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	28	0	0	28	0	10	1	0	11	0	0	2	0	2	8	1	1	0	10	51
6:15 AM	2	20	0	0	22	2	12	0	0	14	1	2	4	0	7	15	1	5	0	21	64
6:30 AM	2	44	0	0	46	2	23	0	0	25	0	0	7	0	7	5	2	1	0	8	86
6:45 AM	2	38	0	0	40	2	22	0	0	24	0	2	7	0	9	14	2	4	0	20	93
Hourly Total	6	130	0	0	136	6	67	1	0	74	1	4	20	0	25	42	6	11	0	59	294
7:00 AM	1	38	0	0	39	4	28	1	0	33	0	1	7	0	8	6	0	6	0	12	92
7:15 AM	2	54	1	0	57	4	47	1	0	52	0	0	12	0	12	14	1	10	1	25	146
7:30 AM	5	66	0	0	71	5	31	0	0	36	0	0	10	0	10	9	3	4	0	16	133
7:45 AM	4	58	0	0	62	6	55	2	0	63	0	3	5	0	8	9	0	3	0	12	145
Hourly Total	12	216	1	0	229	19	161	4	0	184	0	4	34	0	38	38	4	23	1	65	516
8:00 AM	1	39	0	0	40	4	25	6	0	35	0	0	7	0	7	6	0	0	0	6	88
8:15 AM	1	35	0	0	36	7	39	4	1	50	0	1	9	0	10	12	3	7	0	22	118
8:30 AM	2	44	0	0	46	9	40	0	0	49	0	0	9	0	9	11	0	3	0	14	118
8:45 AM	3	48	1	0	52	2	43	2	1	47	0	2	3	0	5	5	0	4	0	9	113
Hourly Total	7	166	1	0	174	22	147	12	2	181	0	3	28	0	31	34	3	14	0	51	437
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	7	64	1	0	72	15	33	7	0	55	0	2	8	0	10	2	3	5	0	10	147
3:15 PM	3	45	0	0	48	12	47	7	0	66	0	2	6	0	8	6	3	4	0	13	135
3:30 PM	6	73	3	0	82	22	59	10	0	91	0	2	10	0	12	5	2	2	0	9	194
3:45 PM	11	71	0	0	82	16	49	12	0	77	0	1	5	0	6	5	2	5	0	12	177
Hourly Total	27	253	4	0	284	65	188	36	0	289	0	7	29	0	36	18	10	16	0	44	653
4:00 PM	4	62	1	0	67	25	54	7	0	86	0	5	10	0	15	4	1	5	1	10	178
4:15 PM	2	52	0	0	54	16	48	12	1	76	1	0	8	0	9	3	3	4	0	10	149
4:30 PM	4	47	0	0	51	13	53	14	0	80	0	5	15	0	20	2	4	3	0	9	160
4:45 PM	5	66	0	0	71	20	58	11	0	89	1	4	10	0	15	5	2	6	0	13	188
Hourly Total	15	227	1	0	243	74	213	44	1	331	2	14	43	0	59	14	10	18	1	42	675
5:00 PM	8	61	1	0	70	14	57	6	0	77	0	2	10	0	12	6	2	8	0	16	175
5:15 PM	2	41	0	0	43	12	48	11	0	71	0	4	12	0	16	8	1	8	0	17	147
5:30 PM	9	45	0	0	54	12	51	12	0	75	1	2	12	0	15	10	4	2	0	16	160
5:45 PM	4	44	1	0	49	8	53	9	0	70	0	5	7	0	12	7	1	3	0	11	142
Hourly Total	23	191	2	0	216	46	209	38	0	293	1	13	41	0	55	31	8	21	0	60	624
Grand Total	90	1183	9	0	1282	232	985	135	3	1352	4	45	195	0	244	177	41	103	2	321	3199
Approach %	7.0	92.3	0.7	-	-	17.2	72.9	10.0	-	-	1.6	18.4	79.9	-	-	55.1	12.8	32.1	-	-	-
Total %	2.8	37.0	0.3	-	40.1	7.3	30.8	4.2	-	42.3	0.1	1.4	6.1	-	7.6	5.5	1.3	3.2	-	10.0	-
Lights	87	1162	9	-	1258	225	970	131	-	1326	4	42	190	-	236	171	40	97	-	308	3128
% Lights	96.7	98.2	100.0	-	98.1	97.0	98.5	97.0	-	98.1	100.0	93.3	97.4	-	96.7	96.6	97.6	94.2	-	96.0	97.8
Mediums	3	19	0	-	22	7	14	4	-	25	0	3	5	-	8	6	1	6	-	13	68
% Mediums	3.3	1.6	0.0	-	1.7	3.0	1.4	3.0	-	1.8	0.0	6.7	2.6	-	3.3	3.4	2.4	5.8	-	4.0	2.1
Articulated Trucks	0	2	0	-	2	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	3
% Articulated Trucks	0.0	0.2	0.0	-	0.2	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	0	-	-	-	-	3	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: 7 - AM PM
Schwanger Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 2



Turning Movement Data Plot



Counter Mio:
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Count Name: 7 - AM PM
Schwanger Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

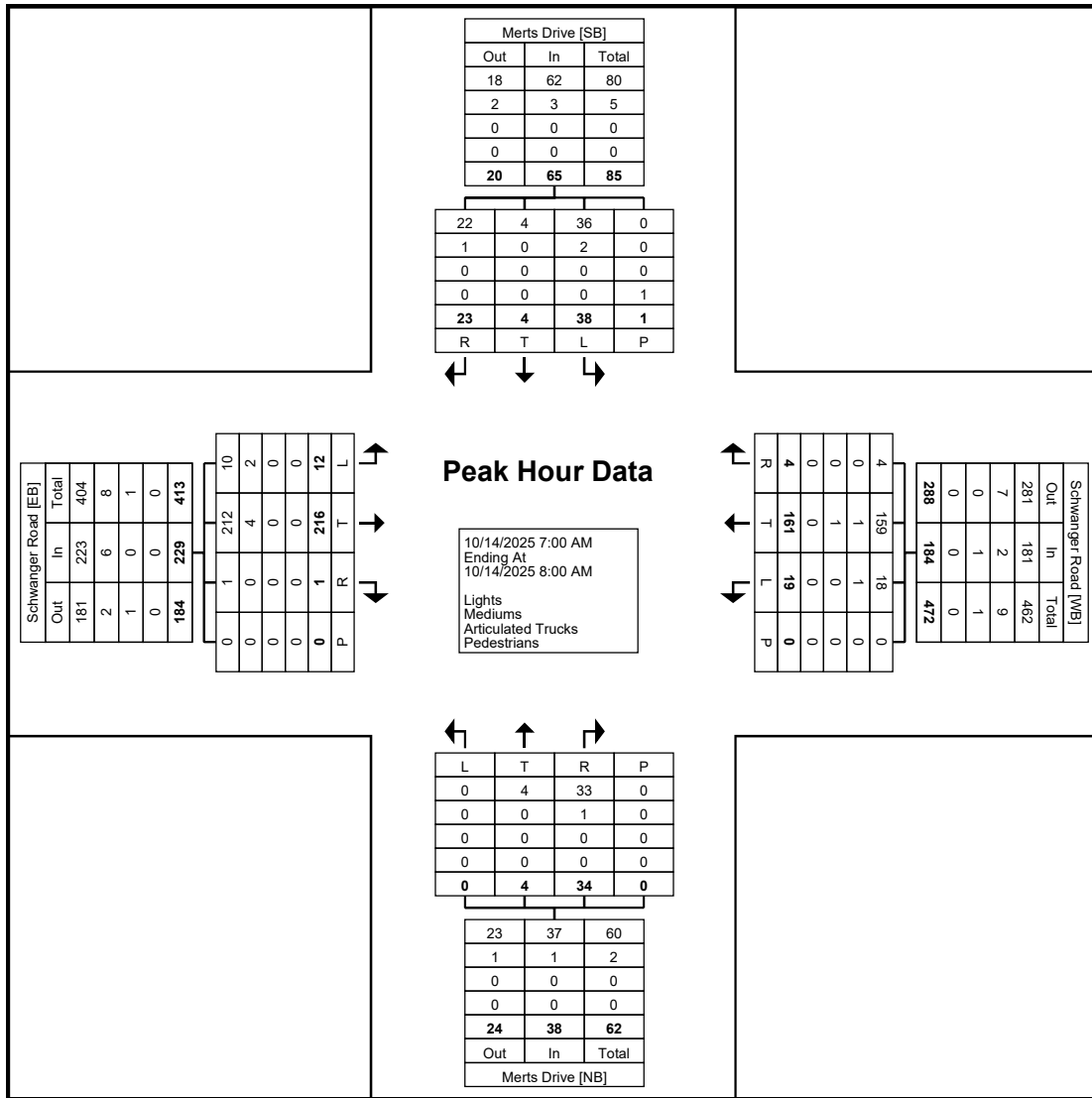
Start Time	Campus Road Eastbound					Schwanger Road Westbound					Schwanger Road Northbound					Merts Drive Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	38	0	0	39	4	28	1	0	33	0	1	7	0	8	6	0	6	0	12	92
7:15 AM	2	54	1	0	57	4	47	1	0	52	0	0	12	0	12	14	1	10	1	25	146
7:30 AM	5	66	0	0	71	5	31	0	0	36	0	0	10	0	10	9	3	4	0	16	133
7:45 AM	4	58	0	0	62	6	55	2	0	63	0	3	5	0	8	9	0	3	0	12	145
Total	12	216	1	0	229	19	161	4	0	184	0	4	34	0	38	38	4	23	1	65	516
Approach %	5.2	94.3	0.4	-	-	10.3	87.5	2.2	-	-	0.0	10.5	89.5	-	-	58.5	6.2	35.4	-	-	-
Total %	2.3	41.9	0.2	-	44.4	3.7	31.2	0.8	-	35.7	0.0	0.8	6.6	-	7.4	7.4	0.8	4.5	-	12.6	-
PHF	0.600	0.818	0.250	-	0.806	0.792	0.732	0.500	-	0.730	0.000	0.333	0.708	-	0.792	0.679	0.333	0.575	-	0.650	0.884
Lights	10	212	1	-	223	18	159	4	-	181	0	4	33	-	37	36	4	22	-	62	503
% Lights	83.3	98.1	100.0	-	97.4	94.7	98.8	100.0	-	98.4	-	100.0	97.1	-	97.4	94.7	100.0	95.7	-	95.4	97.5
Mediums	2	4	0	-	6	1	1	0	-	2	0	0	1	-	1	2	0	1	-	3	12
% Mediums	16.7	1.9	0.0	-	2.6	5.3	0.6	0.0	-	1.1	-	0.0	2.9	-	2.6	5.3	0.0	4.3	-	4.6	2.3
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.6	0.0	-	0.5	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 7 - AM_PM
Schwanger Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 4





Counter Mio:
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Count Name: 7 - AM PM
Schwanger Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 5

Turning Movement Peak Hour Data (3:30 PM)

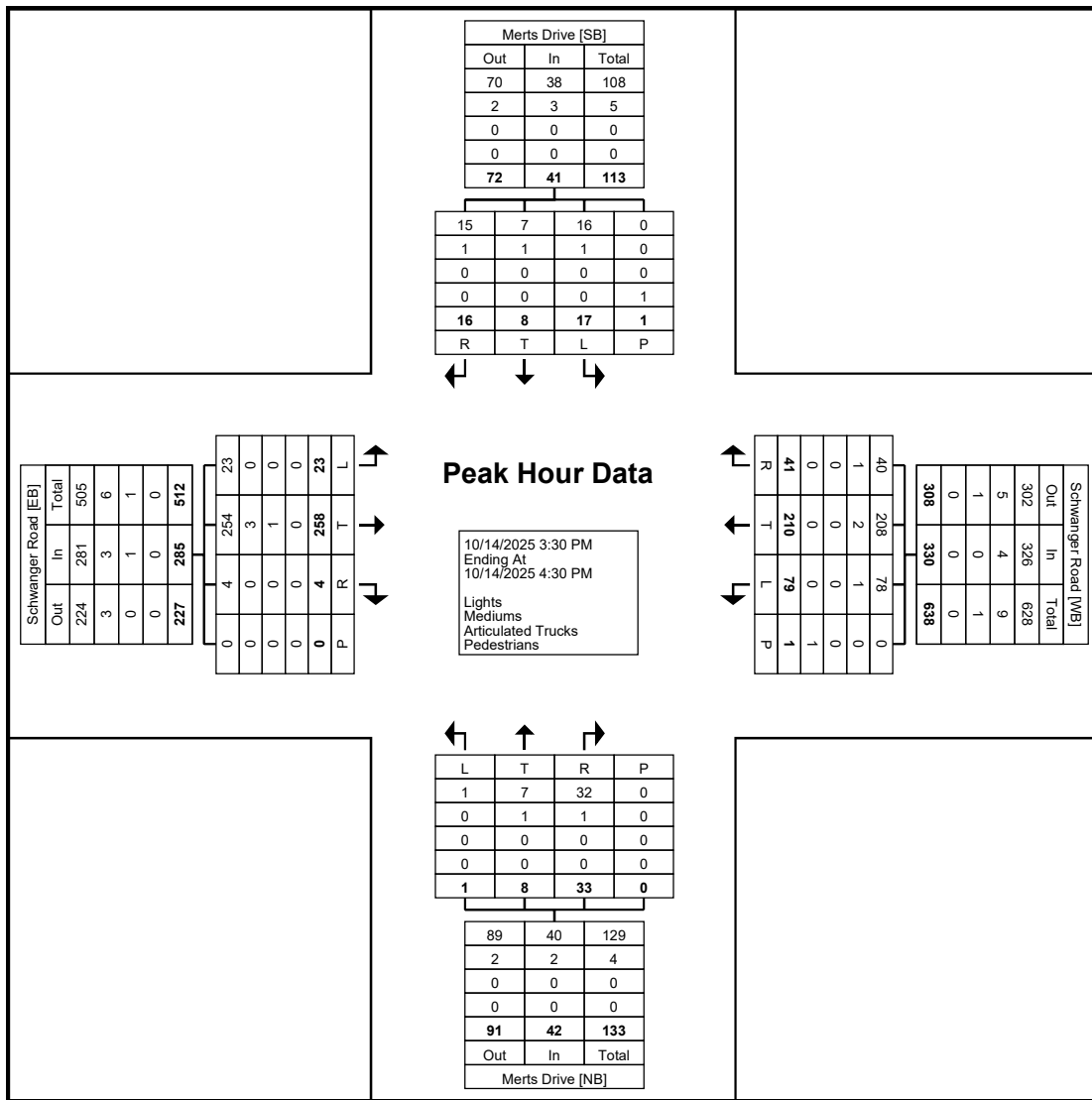
Start Time	Campus Road Eastbound					Schwanger Road Westbound					Schwanger Road Northbound					Merts Drive Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
3:30 PM	6	73	3	0	82	22	59	10	0	91	0	2	10	0	12	5	2	2	0	9	194
3:45 PM	11	71	0	0	82	16	49	12	0	77	0	1	5	0	6	5	2	5	0	12	177
4:00 PM	4	62	1	0	67	25	54	7	0	86	0	5	10	0	15	4	1	5	1	10	178
4:15 PM	2	52	0	0	54	16	48	12	1	76	1	0	8	0	9	3	3	4	0	10	149
Total	23	258	4	0	285	79	210	41	1	330	1	8	33	0	42	17	8	16	1	41	698
Approach %	8.1	90.5	1.4	-	-	23.9	63.6	12.4	-	-	2.4	19.0	78.6	-	-	41.5	19.5	39.0	-	-	-
Total %	3.3	37.0	0.6	-	40.8	11.3	30.1	5.9	-	47.3	0.1	1.1	4.7	-	6.0	2.4	1.1	2.3	-	5.9	-
PHF	0.523	0.884	0.333	-	0.869	0.790	0.890	0.854	-	0.907	0.250	0.400	0.825	-	0.700	0.850	0.667	0.800	-	0.854	0.899
Lights	23	254	4	-	281	78	208	40	-	326	1	7	32	-	40	16	7	15	-	38	685
% Lights	100.0	98.4	100.0	-	98.6	98.7	99.0	97.6	-	98.8	100.0	87.5	97.0	-	95.2	94.1	87.5	93.8	-	92.7	98.1
Mediums	0	3	0	-	3	1	2	1	-	4	0	1	1	-	2	1	1	1	-	3	12
% Mediums	0.0	1.2	0.0	-	1.1	1.3	1.0	2.4	-	1.2	0.0	12.5	3.0	-	4.8	5.9	12.5	6.3	-	7.3	1.7
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.4	0.0	-	0.4	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-



Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 7 - AM PM
Schwanger Road & Merts Drive
Site Code:
Start Date: 10/14/2025
Page No: 6





Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 8 - AM_PM Mt.
Pleasant Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 1

Turning Movement Data

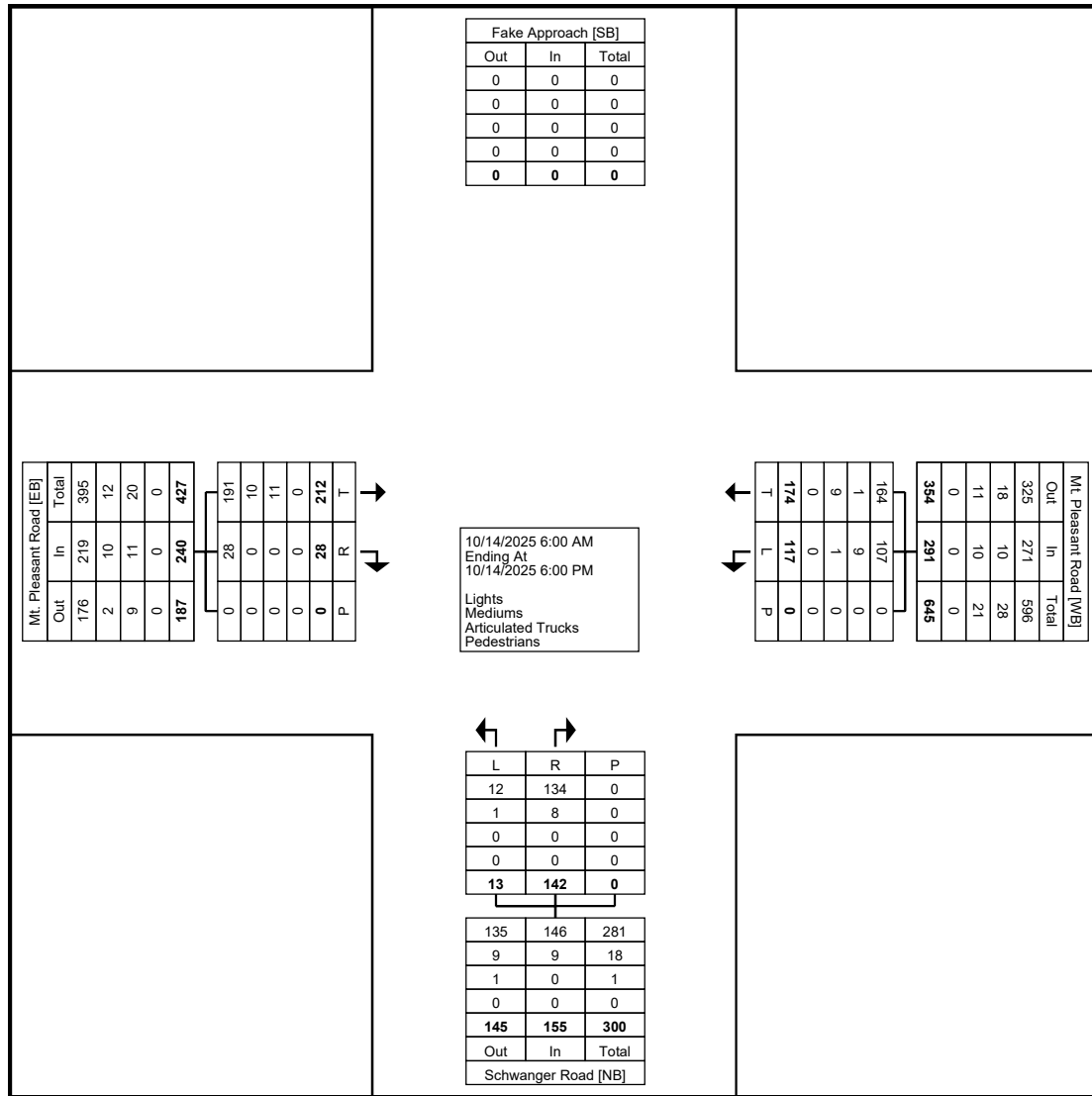
Start Time	Mt. Pleasant Road Eastbound				Mt. Pleasant Road Westbound				Schwanger Road Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
6:00 AM	2	0	0	2	1	10	0	11	0	3	0	3	16
6:15 AM	6	0	0	6	0	6	0	6	0	3	0	3	15
6:30 AM	6	1	0	7	4	10	0	14	0	4	0	4	25
6:45 AM	3	1	0	4	2	13	0	15	0	4	0	4	23
Hourly Total	17	2	0	19	7	39	0	46	0	14	0	14	79
7:00 AM	4	0	0	4	0	4	0	4	1	10	0	11	19
7:15 AM	8	0	0	8	4	12	0	16	0	6	0	6	30
7:30 AM	8	1	0	9	2	7	0	9	1	5	0	6	24
7:45 AM	13	1	0	14	5	13	0	18	1	6	0	7	39
Hourly Total	33	2	0	35	11	36	0	47	3	27	0	30	112
8:00 AM	2	2	0	4	5	11	0	16	0	3	0	3	23
8:15 AM	4	2	0	6	11	5	0	16	0	6	0	6	28
8:30 AM	3	1	0	4	3	5	0	8	0	4	0	4	16
8:45 AM	11	2	0	13	2	4	0	6	0	7	0	7	26
Hourly Total	20	7	0	27	21	25	0	46	0	20	0	20	93
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	7	2	0	9	4	5	0	9	2	11	0	13	31
3:15 PM	8	1	0	9	7	8	0	15	0	7	0	7	31
3:30 PM	24	3	0	27	6	4	0	10	0	6	0	6	43
3:45 PM	18	2	0	20	11	8	0	19	1	5	0	6	45
Hourly Total	57	8	0	65	28	25	0	53	3	29	0	32	150
4:00 PM	14	0	0	14	6	9	0	15	1	6	0	7	36
4:15 PM	13	1	0	14	3	9	0	12	2	6	0	8	34
4:30 PM	6	1	0	7	7	6	0	13	0	5	0	5	25
4:45 PM	12	2	0	14	1	4	0	5	0	8	0	8	27
Hourly Total	45	4	0	49	17	28	0	45	3	25	0	28	122
5:00 PM	13	0	0	13	11	4	0	15	1	7	0	8	36
5:15 PM	12	2	0	14	10	4	0	14	0	6	0	6	34
5:30 PM	4	3	0	7	5	9	0	14	1	9	0	10	31
5:45 PM	11	0	0	11	7	4	0	11	2	5	0	7	29
Hourly Total	40	5	0	45	33	21	0	54	4	27	0	31	130
Grand Total	212	28	0	240	117	174	0	291	13	142	0	155	686
Approach %	88.3	11.7	-	-	40.2	59.8	-	-	8.4	91.6	-	-	-
Total %	30.9	4.1	-	35.0	17.1	25.4	-	42.4	1.9	20.7	-	22.6	-
Lights	191	28	-	219	107	164	-	271	12	134	-	146	636
% Lights	90.1	100.0	-	91.3	91.5	94.3	-	93.1	92.3	94.4	-	94.2	92.7
Mediums	10	0	-	10	9	1	-	10	1	8	-	9	29
% Mediums	4.7	0.0	-	4.2	7.7	0.6	-	3.4	7.7	5.6	-	5.8	4.2
Articulated Trucks	11	0	-	11	1	9	-	10	0	0	-	0	21
% Articulated Trucks	5.2	0.0	-	4.6	0.9	5.2	-	3.4	0.0	0.0	-	0.0	3.1
Pedestrians	-	-	0	-	-	-	0	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-



Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 8 - AM_PM Mt.
Pleasant Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 2

Counter Mio:
Set up by JH:



Turning Movement Data Plot



Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 8 - AM_PM Mt.
Pleasant Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 3

Turning Movement Peak Hour Data (7:15 AM)

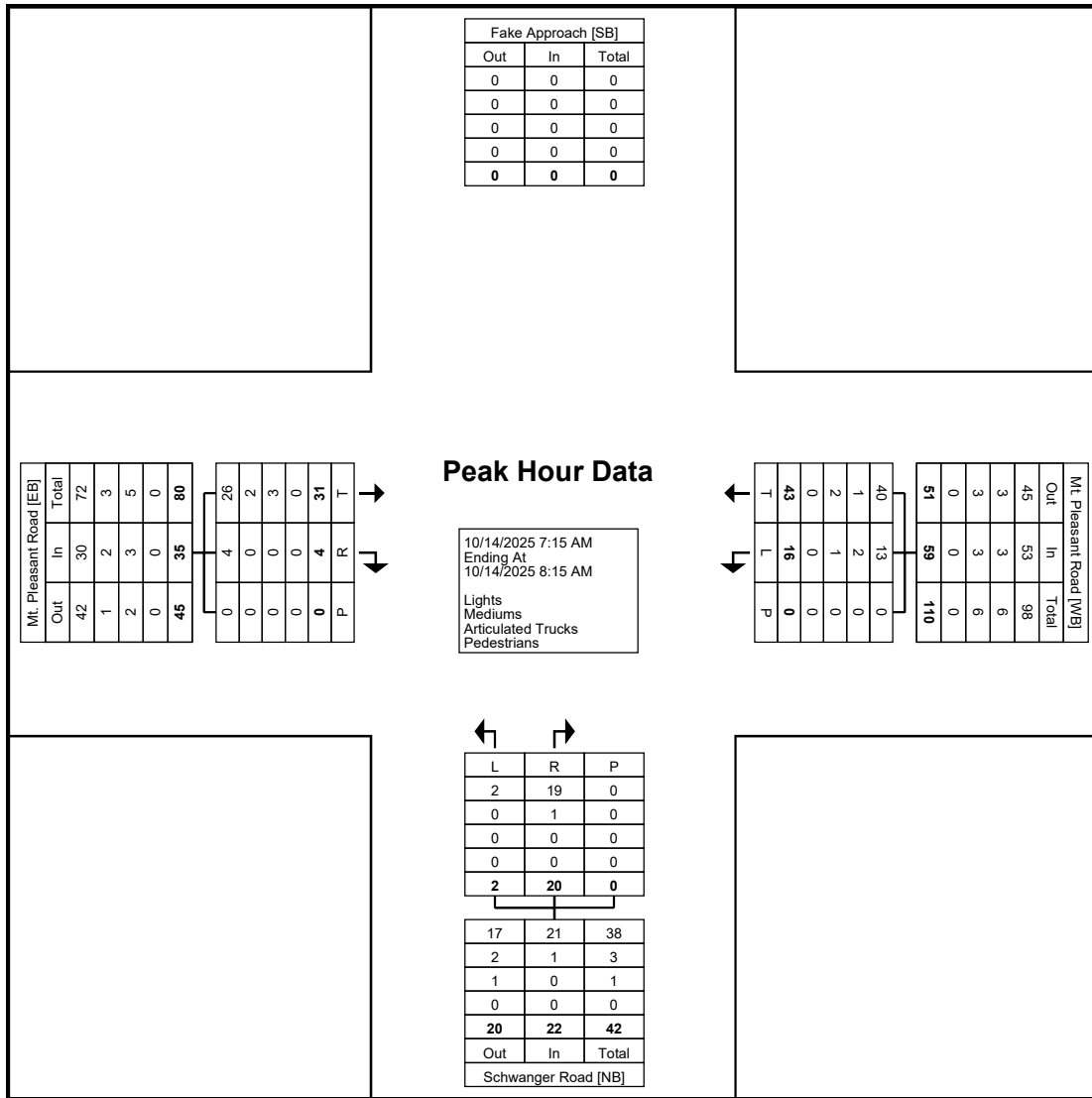
[illegible]



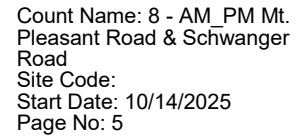
Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
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610.326.3100 dzerphey@trafficpd.com

Count Name: 8 - AM_PM Mt.
Pleasant Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)

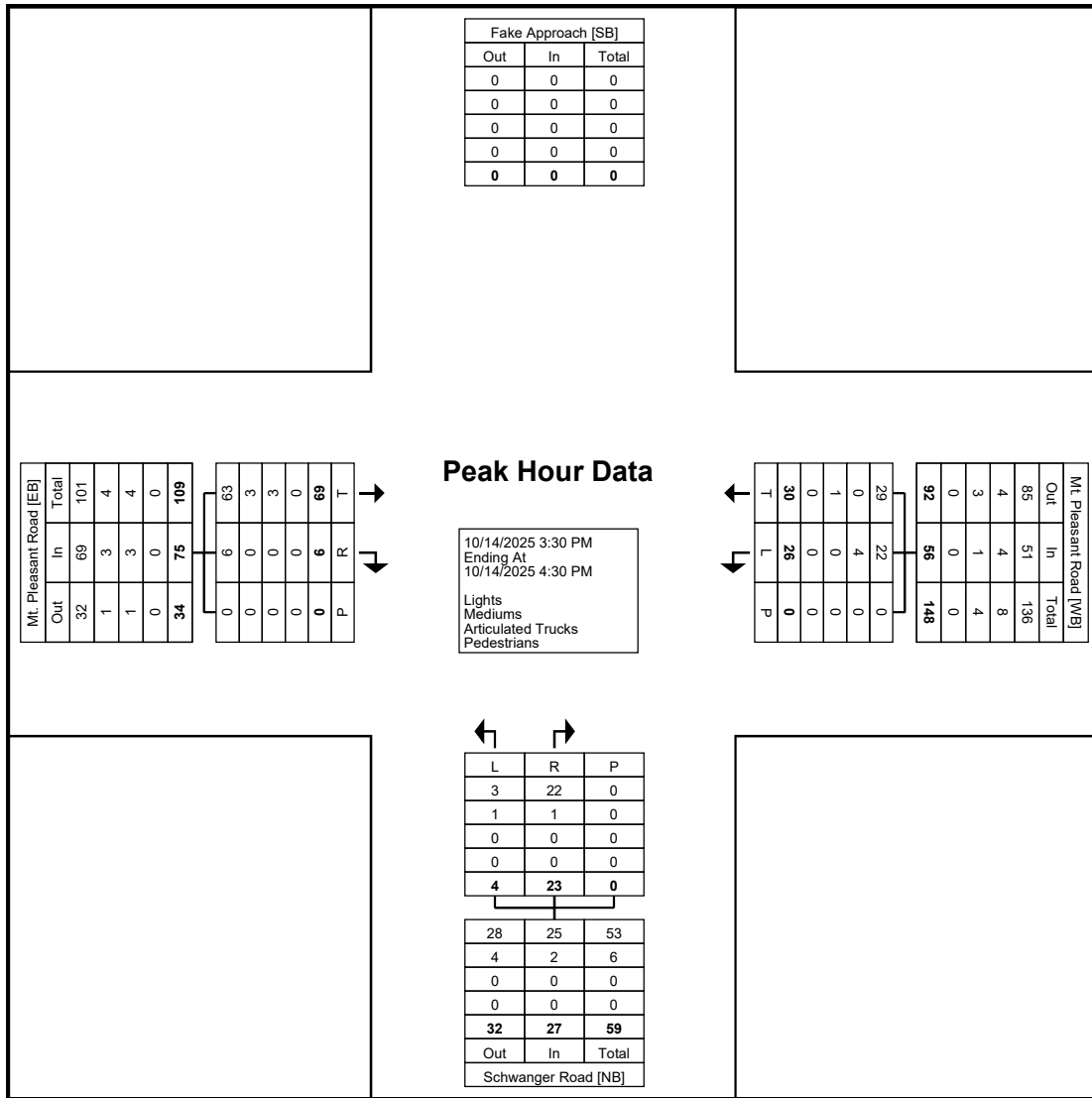
[illegible]



Counter Mio:
Set up by JH:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 dzerphey@trafficpd.com

Count Name: 8 - AM_PM Mt.
Pleasant Road & Schwanger
Road
Site Code:
Start Date: 10/14/2025
Page No: 6



Turning Movement Peak Hour Data Plot (3:30 PM)

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Cloverleaf Rd
Location: 155 ft S of Steel Way
Counter: 40620

Site Code: 1
Station ID:
A to B NB

Latitude: 40° 8.7239 North

Start	Tuesday, October 28, 2025		Wednesday, October 29, 2025		Thursday, October 30, 2025		Friday, October 31, 2025		Saturday, November 1, 2025		Sunday, November 2, 2025		Monday, November 3, 2025		Week Average	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	15	14	14	15	15	16	21	12	19	13	15	8	16	13
01:00	*	*	6	8	10	7	12	10	14	7	11	6	4	3	10	7
02:00	*	*	14	23	11	24	17	27	14	7	7	7	12	6	12	16
03:00	*	*	20	15	18	20	7	22	10	12	4	4	19	18	13	15
04:00	*	*	50	45	52	36	51	28	23	10	13	4	62	35	42	26
05:00	*	*	87	98	95	89	93	75	33	32	16	19	86	105	68	70
06:00	*	*	212	198	169	178	168	169	42	64	20	30	189	220	133	143
07:00	*	*	241	221	190	252	219	266	62	63	24	69	215	261	158	197
08:00	*	*	159	221	135	162	142	188	76	152	87	138	150	202	125	177
09:00	*	*	146	168	136	133	156	169	110	139	87	129	145	153	130	148
10:00	168	153	157	171	131	107	157	178	159	164	130	106	145	161	150	149
11:00	146	173	168	183	146	164	175	179	128	186	142	150	151	161	151	171
12:00 PM	190	212	184	176	173	192	199	234	228	188	250	167	201	215	204	198
01:00	192	186	155	172	170	160	188	186	165	177	177	163	170	177	174	174
02:00	215	184	222	207	184	185	203	229	172	159	152	151	218	189	195	186
03:00	275	309	248	307	245	316	241	305	162	160	151	163	229	288	222	264
04:00	332	275	292	271	240	268	281	241	145	132	120	141	308	263	245	227
05:00	246	215	269	209	246	210	193	232	128	147	96	118	263	210	206	192
06:00	153	140	166	160	147	129	124	117	116	97	91	63	122	134	131	120
07:00	103	75	116	84	110	83	107	80	98	57	70	49	82	57	98	69
08:00	73	45	125	63	94	49	112	60	112	66	64	41	88	46	95	53
09:00	56	35	86	48	79	36	83	46	76	32	49	41	52	29	69	38
10:00	34	19	42	28	33	23	52	25	57	31	15	22	27	7	37	22
11:00	21	14	24	14	22	8	29	18	34	15	14	6	23	13	24	13
Total Day	2204	2035	3204	3154	2850	2846	3024	3100	2185	2109	1809	1800	2976	2961	2708	2688
	4239		6358		5696		6124		4294		3609		5937		5396	
AM Peak	10:00	11:00	07:00	07:00	07:00	07:00	07:00	07:00	10:00	11:00	11:00	11:00	07:00	07:00	07:00	07:00
Vol.	168	173	241	271	190	252	219	266	159	186	142	150	215	261	158	197
PM Peak	16:00	15:00	16:00	15:00	17:00	15:00	16:00	15:00	12:00	12:00	12:00	12:00	16:00	15:00	16:00	15:00
Vol.	332	309	292	307	246	316	281	305	228	188	250	167	308	288	245	264

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Cloverleaf Rd
Location: 155 ft S of Steel Way
Counter: 40620

Site Code: 1
Station ID:
A to B NB

Latitude: 40° 8.7239 North

Start Time	Tuesday, November 4, 2025		Wednesday, November 5, 2025		Thursday, November 6, 2025		Friday, November 7, 2025		Saturday, November 8, 2025		Sunday, November 9, 2025		Monday, November 10, 2025		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	14	15	11	11	*	*	*	*	*	*	*	*	*	*	12	13
01:00	13	6	10	13	*	*	*	*	*	*	*	*	*	*	12	10
02:00	10	20	13	29	*	*	*	*	*	*	*	*	*	*	12	24
03:00	19	14	17	13	*	*	*	*	*	*	*	*	*	*	18	14
04:00	65	40	73	40	*	*	*	*	*	*	*	*	*	*	69	40
05:00	100	92	89	98	*	*	*	*	*	*	*	*	*	*	94	95
06:00	186	225	183	196	*	*	*	*	*	*	*	*	*	*	184	210
07:00	218	301	*	*	*	*	*	*	*	*	*	*	*	*	218	301
08:00	189	223	*	*	*	*	*	*	*	*	*	*	*	*	189	223
09:00	147	173	*	*	*	*	*	*	*	*	*	*	*	*	147	173
10:00	142	155	*	*	*	*	*	*	*	*	*	*	*	*	142	155
11:00	166	140	*	*	*	*	*	*	*	*	*	*	*	*	166	140
12:00 PM	179	185	*	*	*	*	*	*	*	*	*	*	*	*	179	185
01:00	177	191	*	*	*	*	*	*	*	*	*	*	*	*	177	191
02:00	203	194	*	*	*	*	*	*	*	*	*	*	*	*	203	194
03:00	254	305	*	*	*	*	*	*	*	*	*	*	*	*	254	305
04:00	311	271	*	*	*	*	*	*	*	*	*	*	*	*	311	271
05:00	255	213	*	*	*	*	*	*	*	*	*	*	*	*	255	213
06:00	124	105	*	*	*	*	*	*	*	*	*	*	*	*	124	105
07:00	110	58	*	*	*	*	*	*	*	*	*	*	*	*	110	58
08:00	77	52	*	*	*	*	*	*	*	*	*	*	*	*	77	52
09:00	56	26	*	*	*	*	*	*	*	*	*	*	*	*	56	26
10:00	34	19	*	*	*	*	*	*	*	*	*	*	*	*	34	19
11:00	16	12	*	*	*	*	*	*	*	*	*	*	*	*	16	12
Total Day	3065	3035	396	400	0	0	0	0	0	0	0	0	0	0	3059	3029
AM Peak Vol.	07:00 218	07:00 301	06:00 183	06:00 196	-	-	-	-	-	-	-	-	-	-	07:00 218	07:00 301
PM Peak Vol.	16:00 311	15:00 305	-	-	-	-	-	-	-	-	-	-	-	-	16:00 311	15:00 305

Comb. Total	10339	7154	5696	6124	4294	3609	5937	11484
ADT	ADT 5,521	AADT 5,521						

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Mt. Pleasant Rd
Location: 2175 ft W of Stauffer Rd
Counter: 39602

Site Code: 2
Station ID:
A to B EB

Latitude: 40° 8.68'18 North

Start Time	Tuesday, October 28, 2025		Wednesday, October 29, 2025		Thursday, October 30, 2025		Friday, October 31, 2025		Saturday, November 1, 2025		Sunday, November 2, 2025		Monday, November 3, 2025		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	3	1	2	0	2	0	4	0	3	0	7	0	4	0
01:00	*	*	0	0	2	3	3	2	5	0	0	0	1	0	2	1
02:00	*	*	2	1	1	1	1	2	1	0	1	0	0	0	1	1
03:00	*	*	2	1	1	1	1	2	2	0	1	0	4	0	2	1
04:00	*	*	2	4	2	2	2	2	3	0	2	0	8	0	3	2
05:00	*	*	6	19	5	17	6	12	4	0	3	0	26	0	8	8
06:00	*	*	20	30	14	25	13	21	10	0	5	0	51	0	19	13
07:00	*	*	24	52	32	54	27	45	18	0	14	0	74	0	32	25
08:00	*	*	24	35	19	32	45	17	19	0	25	0	52	0	31	14
09:00	*	*	18	32	20	20	40	0	30	0	26	0	53	0	31	9
10:00	*	*	28	22	11	14	37	0	47	0	30	0	45	0	33	6
11:00	19	20	26	22	29	29	39	0	49	0	37	0	50	0	36	10
12:00 PM	19	32	25	23	21	26	53	0	62	0	57	0	62	0	43	12
01:00	23	20	20	20	16	20	44	0	46	0	43	0	40	0	33	9
02:00	37	35	28	34	33	33	70	0	43	0	52	0	67	0	47	15
03:00	54	38	49	30	62	36	69	0	55	0	63	0	97	0	64	15
04:00	60	27	56	33	55	24	79	0	55	0	55	0	92	0	65	12
05:00	65	28	47	29	44	22	64	0	34	0	32	0	62	0	50	11
06:00	25	19	32	21	22	13	31	0	27	0	16	0	37	0	27	8
07:00	17	12	20	13	11	12	25	0	22	0	14	0	19	0	18	5
08:00	14	7	18	15	15	10	26	0	27	0	15	0	20	0	19	5
09:00	3	6	11	12	3	13	11	0	18	0	18	0	15	0	11	4
10:00	3	2	7	5	2	4	12	0	11	0	7	0	3	0	6	2
11:00	3	1	4	3	2	1	3	0	4	0	4	0	6	0	4	1
Total Day	342	247	472	457	424	417	703	103	596	0	523	0	891	0	589	189
AM Peak Vol.	11:00	11:00	10:00	07:00	07:00	07:00	08:00	07:00	11:00	-	11:00	-	07:00	-	11:00	07:00
PM Peak Vol.	17:00	15:00	16:00	14:00	15:00	15:00	16:00	-	12:00	-	15:00	-	15:00	-	16:00	14:00
	65	38	56	34	62	36	79	-	62	-	63	-	97	-	65	15

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Mt. Pleasant Rd
Location: 2175 ft W of Stauffer Rd
Counter: 39602

Site Code: 2
Station ID:
A to B EB

Latitude: 40° 8.68'18 North

Start Time	Tuesday, November 4, 2025		Wednesday, November 5, 2025		Thursday, November 6, 2025		Friday, November 7, 2025		Saturday, November 8, 2025		Sunday, November 9, 2025		Monday, November 10, 2025		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	5	0	1	0	*	*	*	*	*	*	*	*	*	*	3	0
01:00	2	0	2	0	*	*	*	*	*	*	*	*	*	*	2	0
02:00	1	0	2	0	*	*	*	*	*	*	*	*	*	*	2	0
03:00	4	0	3	0	*	*	*	*	*	*	*	*	*	*	4	0
04:00	6	0	8	0	*	*	*	*	*	*	*	*	*	*	7	0
05:00	22	0	19	0	*	*	*	*	*	*	*	*	*	*	20	0
06:00	52	0	45	0	*	*	*	*	*	*	*	*	*	*	48	0
07:00	107	0	*	*	*	*	*	*	*	*	*	*	*	*	107	0
08:00	60	0	*	*	*	*	*	*	*	*	*	*	*	*	60	0
09:00	40	0	*	*	*	*	*	*	*	*	*	*	*	*	40	0
10:00	36	0	*	*	*	*	*	*	*	*	*	*	*	*	36	0
11:00	49	0	*	*	*	*	*	*	*	*	*	*	*	*	49	0
12:00 PM	54	0	*	*	*	*	*	*	*	*	*	*	*	*	54	0
01:00	40	0	*	*	*	*	*	*	*	*	*	*	*	*	40	0
02:00	61	0	*	*	*	*	*	*	*	*	*	*	*	*	61	0
03:00	96	0	*	*	*	*	*	*	*	*	*	*	*	*	96	0
04:00	115	0	*	*	*	*	*	*	*	*	*	*	*	*	115	0
05:00	76	0	*	*	*	*	*	*	*	*	*	*	*	*	76	0
06:00	32	0	*	*	*	*	*	*	*	*	*	*	*	*	32	0
07:00	35	0	*	*	*	*	*	*	*	*	*	*	*	*	35	0
08:00	22	0	*	*	*	*	*	*	*	*	*	*	*	*	22	0
09:00	15	0	*	*	*	*	*	*	*	*	*	*	*	*	15	0
10:00	4	0	*	*	*	*	*	*	*	*	*	*	*	*	4	0
11:00	4	0	*	*	*	*	*	*	*	*	*	*	*	*	4	0
Total Day	938	0	80	0	0	0	0	0	0	0	0	0	0	0	932	0
AM Peak Vol.	07:00 107	-	06:00 45	-	-	-	-	-	-	-	-	-	-	-	07:00 107	-
PM Peak Vol.	16:00 115	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00 115	-

Comb. Total	1527	1009	841	806	596	523	891	1710
ADT	ADT 798	AADT 798						

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Schwanger Rd
Location: 790 ft W of Homestead Rd
Counter: 40589

Site Code: 3
Station ID:
A to B EB

Latitude: 40° 8.3919 North

Start Time	Tuesday, October 28, 2025		Wednesday, October 29, 2025		Thursday, October 30, 2025		Friday, October 31, 2025		Saturday, November 1, 2025		Sunday, November 2, 2025		Monday, November 3, 2025		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	0	0	1	0	0	0	1	1	0	3	0	3	1	1
01:00	*	*	0	1	0	0	1	1	1	1	3	0	0	0	0	1
02:00	*	*	1	2	0	1	1	1	3	2	0	0	0	1	1	1
03:00	*	*	0	2	1	1	0	1	0	1	0	0	1	0	0	1
04:00	*	*	5	1	4	0	5	0	2	1	3	0	3	4	4	1
05:00	*	*	6	12	5	6	6	11	3	1	6	4	8	4	6	6
06:00	*	*	12	13	16	13	13	10	3	6	0	1	20	14	11	10
07:00	*	*	25	20	26	15	32	18	8	9	3	3	33	21	21	14
08:00	*	*	21	23	21	21	26	28	16	13	15	19	22	29	20	22
09:00	*	*	21	21	13	16	23	17	18	13	13	12	13	17	17	16
10:00	*	*	17	12	3	9	17	19	21	20	15	15	16	21	15	16
11:00	*	*	15	20	11	12	20	19	20	23	29	12	19	21	19	18
12:00 PM	20	14	30	20	14	16	25	22	20	27	30	14	18	11	22	18
01:00	19	19	22	18	22	14	25	33	18	19	24	24	9	19	20	21
02:00	22	37	27	29	22	28	27	21	22	19	22	25	20	28	23	27
03:00	46	25	21	17	37	26	22	20	13	20	27	30	28	32	28	24
04:00	39	36	35	35	34	37	25	28	18	33	24	18	40	42	31	33
05:00	28	36	28	27	22	26	22	23	13	8	10	18	22	22	21	23
06:00	21	19	32	22	17	14	17	12	17	19	7	14	15	9	18	16
07:00	17	12	15	10	13	16	6	6	15	7	7	16	11	5	12	10
08:00	8	8	9	11	6	4	13	9	8	6	13	6	5	3	9	7
09:00	4	7	9	9	11	6	12	7	8	3	14	1	5	4	9	5
10:00	3	2	1	2	1	4	3	7	3	5	2	1	1	0	2	3
11:00	1	1	3	0	4	3	4	1	4	1	3	0	3	0	3	1
Total Day	228	216	355	327	304	288	345	314	255	259	270	236	312	311	313	295
	444		682		592		659		514		506		623		608	
AM Peak Vol.	-	-	07:00 25	08:00 23	07:00 26	08:00 21	07:00 32	08:00 28	10:00 21	11:00 23	11:00 29	08:00 19	07:00 33	08:00 29	07:00 21	08:00 22
PM Peak Vol.	15:00 46	14:00 37	16:00 35	16:00 35	15:00 37	16:00 37	14:00 27	13:00 33	14:00 22	16:00 33	12:00 30	15:00 30	16:00 40	16:00 42	16:00 31	16:00 33

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Schwanger Rd
Location: 790 ft W of Homestead Rd
Counter: 40589

Site Code: 3
Station ID:
A to B EB

Latitude: 40° 8.3919 North

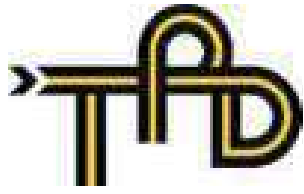
Start Time	Tuesday, November 4, 2025		Wednesday, November 5, 2025		Thursday, November 6, 2025		Friday, November 7, 2025		Saturday, November 8, 2025		Sunday, November 9, 2025		Monday, November 10, 2025		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	0	1	1	0	*	*	*	*	*	*	*	*	*	*	0	0
01:00	0	2	0	1	*	*	*	*	*	*	*	*	*	*	0	2
02:00	0	0	0	1	*	*	*	*	*	*	*	*	*	*	0	0
03:00	1	0	1	1	*	*	*	*	*	*	*	*	*	*	1	0
04:00	5	1	4	3	*	*	*	*	*	*	*	*	*	*	4	2
05:00	8	6	5	5	*	*	*	*	*	*	*	*	*	*	6	6
06:00	23	11	12	5	*	*	*	*	*	*	*	*	*	*	18	8
07:00	37	32	30	25	*	*	*	*	*	*	*	*	*	*	34	28
08:00	27	35	*	*	*	*	*	*	*	*	*	*	*	*	27	35
09:00	23	27	*	*	*	*	*	*	*	*	*	*	*	*	23	27
10:00	22	21	*	*	*	*	*	*	*	*	*	*	*	*	22	21
11:00	21	19	*	*	*	*	*	*	*	*	*	*	*	*	21	19
12:00 PM	24	21	*	*	*	*	*	*	*	*	*	*	*	*	24	21
01:00	30	25	*	*	*	*	*	*	*	*	*	*	*	*	30	25
02:00	35	38	*	*	*	*	*	*	*	*	*	*	*	*	35	38
03:00	52	35	*	*	*	*	*	*	*	*	*	*	*	*	52	35
04:00	44	63	*	*	*	*	*	*	*	*	*	*	*	*	44	63
05:00	35	45	*	*	*	*	*	*	*	*	*	*	*	*	35	45
06:00	27	27	*	*	*	*	*	*	*	*	*	*	*	*	27	27
07:00	16	13	*	*	*	*	*	*	*	*	*	*	*	*	16	13
08:00	9	3	*	*	*	*	*	*	*	*	*	*	*	*	9	3
09:00	4	6	*	*	*	*	*	*	*	*	*	*	*	*	4	6
10:00	2	2	*	*	*	*	*	*	*	*	*	*	*	*	2	2
11:00	3	2	*	*	*	*	*	*	*	*	*	*	*	*	3	2
Total Day	448	435	53	41	0	0	0	0	0	0	0	0	0	0	437	428
AM Peak Vol.	07:00 37	08:00 35	07:00 30	07:00 25	-	-	-	-	-	-	-	-	-	-	07:00 34	08:00 35
PM Peak Vol.	15:00 52	16:00 63	-	-	-	-	-	-	-	-	-	-	-	-	15:00 52	16:00 63

Comb. Total	1327	776	592	659	514	506	623	1473
ADT	ADT 643	AADT 643						

Cloverleaf Road (155' South of Steel Way)	
Day	ADT
Monday (11/03/2025)	5,937
Tuesday (11/04/2025)	6,100
Wednesday (10/29/2025)	6,358
Thursday (10/30/2025)	5,696
Friday (10/31/2025)	6,124
Average Weekday	6,043
Saturday (11/01/2025)	4,294
Sunday (11/02/2025)	3,609

Mt. Pleasant Road (2,175' West of Stauffer Road)	
Day	ADT
Monday (11/03/2025)	891
Tuesday (11/04/2025)	938
Wednesday (10/29/2025)	929
Thursday (10/30/2025)	841
Friday (10/31/2025)	806
Average Weekday	881
Saturday (11/01/2025)	596
Sunday (11/02/2025)	523

Schwanger Road (790' West of Homestead Road)	
Day	ADT
Monday (11/03/2025)	623
Tuesday (11/04/2025)	883
Wednesday (10/29/2025)	682
Thursday (10/30/2025)	592
Friday (10/31/2025)	659
Average Weekday	688
Saturday (11/01/2025)	514
Sunday (11/02/2025)	506



CIP Manual Count Adjustments



Study Name AM PM Cloverleaf Road (SR 4025) & Route 283 West Ramps
Start Date 10/08/2025
Start Time 6:00 AM
Site Code Cloverleaf Road (SR 4025) & Route 283 West Ramps
Project

Type Road
Classification **Adjusted Count Data**

Start Time	Route 283 WB On Ramp Eastbound			Route 283 WB Off Ramp Westbound			Cloverleaf Rd (SR 4025) Northbound			Cloverleaf Rd (SR 4025) Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
6:00 AM						12			93			45
6:15 AM						14			132			73
6:30 AM						23			146			86
6:45 AM						20			140			102
7:00 AM						29			166			100
7:15 AM						23			157			127
7:30 AM						20			165			155
7:45 AM						31			152			129
8:00 AM						16			145			109
8:15 AM						14			121			107
8:30 AM						13			130			118
8:45 AM						19			80			100
3:00 PM						27			71			122
3:15 PM						37			105			144
3:30 PM						33			84			194
3:45 PM						26			81			180
4:00 PM						38			99			181
4:15 PM						27			115			211
4:30 PM						36			117			169
4:45 PM						41			109			175
5:00 PM						39			104			196
5:15 PM						40			115			168
5:30 PM						25			89			135
5:45 PM						21			71			151

150	886
219	1031
255	1119
262	1204
295	1254
307	1229
340	1164
312	1085
270	972
242	
261	
199	
220	1104
286	1202
311	1269
287	1280
318	1318
353	1339
322	1309
325	1236
339	1154
323	
249	
243	

PHF 0.92

PHF 0.95

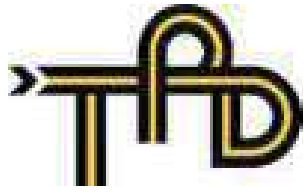
Study Name **AM PM Cloverleaf Road (SR 4025) & Steel Way**
Start Date **10/08/2025**
Start Time **6:00 AM**
Site Code **Cloverleaf Road (SR 4025) & Steel Way**
Project **ETHD.00004**

Type Road
Classification Adjusted Count Data

Start Time	Route 283 WB On/Off Ramp Eastbound				Steel Way Westbound				Cloverleaf Rd (SR 4025) Northbound				Cloverleaf Rd (SR 4025) Southbound			
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
6:00 AM			23			2	2		82	14	5		2	33		163
6:15 AM			41			0	0		108	25	18		2	47		241
6:30 AM			55			0	0		114	26	22		9	49		275
6:45 AM			62			5	1		96	26	34		11	63		298
7:00 AM			55			3	1		132	48	14		1	40		309
7:15 AM			69			7	3		141	28	17		2	51		338
7:30 AM			103			1	0		136	38	10		2	55		367
7:45 AM			93			1	0		120	42	15		2	31		316
8:00 AM			75			1	0		109	39	14		1	41		280
8:15 AM			56			5	1		98	29	7		1	60		257
8:30 AM			78			4	0		98	40	5		0	43		268
8:45 AM			62			3	0		59	40	2		0	48		214
3:00 PM			84			11	2		47	46	6		1	35		232
3:15 PM			103			14	4		58	69	15		0	27		290
3:30 PM			105			73	36		56	52	2		1	45		370
3:45 PM			137			18	9		49	61	5		2	36		317
4:00 PM			114			28	11		69	60	2		0	56		340
4:15 PM			156			15	4		68	67	4		1	31		356
4:30 PM			133			15	4		77	76	1		0	28		352
4:45 PM			126			8	2		67	78	7		1	40		341
5:00 PM			151			16	4		63	71	9		0	28		358
5:15 PM			116			7	4		77	68	7		2	55		336
5:30 PM			107			14	3		54	52	5		1	25		261
5:45 PM			114			5	0		39	54	4		0	35		251

PHF
0.91

PHF
0.98



Appendix C:

Nearby Development Information



Transportation Impact Study

for the

Proposed Westmount Development

Mount Joy Township
Lancaster County, Pennsylvania

prepared for

Vistablock

November 2022

prepared by



Daniel J. Thornton, P.E.
Pennsylvania P.E. No. 060406

EXECUTIVE SUMMARY

A summary of key findings is presented below followed by the recommendations.

1. Currently, the tract of land is vacant and is located to the north of Harrisburg Avenue (SR 4018) in Mount Joy Township, Lancaster County. It is proposed to develop the land and construct approximately 216 townhomes and 72 apartments for a total of 288 units. All the buildings will be 3 stories or less. The proposed development is anticipated to be fully developed by the year 2026.
2. Two (2) access points are proposed along Harrisburg Avenue (SR 4018). One access point will be to the west of Nolt Road and the other access point will be to the east of Nolt Road. Due to the size of the proposed development, two (2) access points will help in distributing the site traffic as well as provide an additional access in case there is an emergency that closes one of the access points. The site along Harrisburg Avenue (SR 4018) exceeds 2,000 feet in length. Both access points have been located to maximize the sight distance along Harrisburg Avenue (SR 4018).
3. The following intersections were selected for detailed analysis based on the approved scoping application:
 - West Main Street (SR 0230)/Cloverleaf Road & Colebrook Road (SR 4025)
 - Harrisburg Avenue (SR 4018)/Colebrook Road (SR 4025)
 - Harrisburg Avenue (SR 4018)/Proposed West Access
 - Harrisburg Avenue (SR 4018)/Nolt Road
 - Harrisburg Avenue (SR 4018)/Proposed East Access
 - West Main Street (SR 0230)/Harrisburg Avenue (SR 4017)
4. Currently, the study intersections operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours.
5. There are multiple other developments in the area that will be adding traffic to the roadway network. The following other developments site traffic will be added to the background traffic growth:
 - Pennmark Properties
 - 156 Harrisburg Avenue Warehouse
 - Wisler Tract
 - Westbrooke IV Development
6. In the year 2026 without the proposed Westmount Development, the study intersections will continue to operate at an acceptable overall level of service (LOS D or better) during the AM and PM peak hours. There are a few movements at the Main Street (SR 0230)/Colebrook Road & Cloverleaf Road (SR 4025) intersection that operate below a LOS D.
7. In the year 2031 without the proposed Westmount Development, the study intersections will continue to operate at acceptable overall LOS D or better during the AM and PM peak hours. There

are a few movements at the Main Street (SR 0230)/Colebrook Road & Cloverleaf Road (SR 4025) intersection that operate below a LOS D.

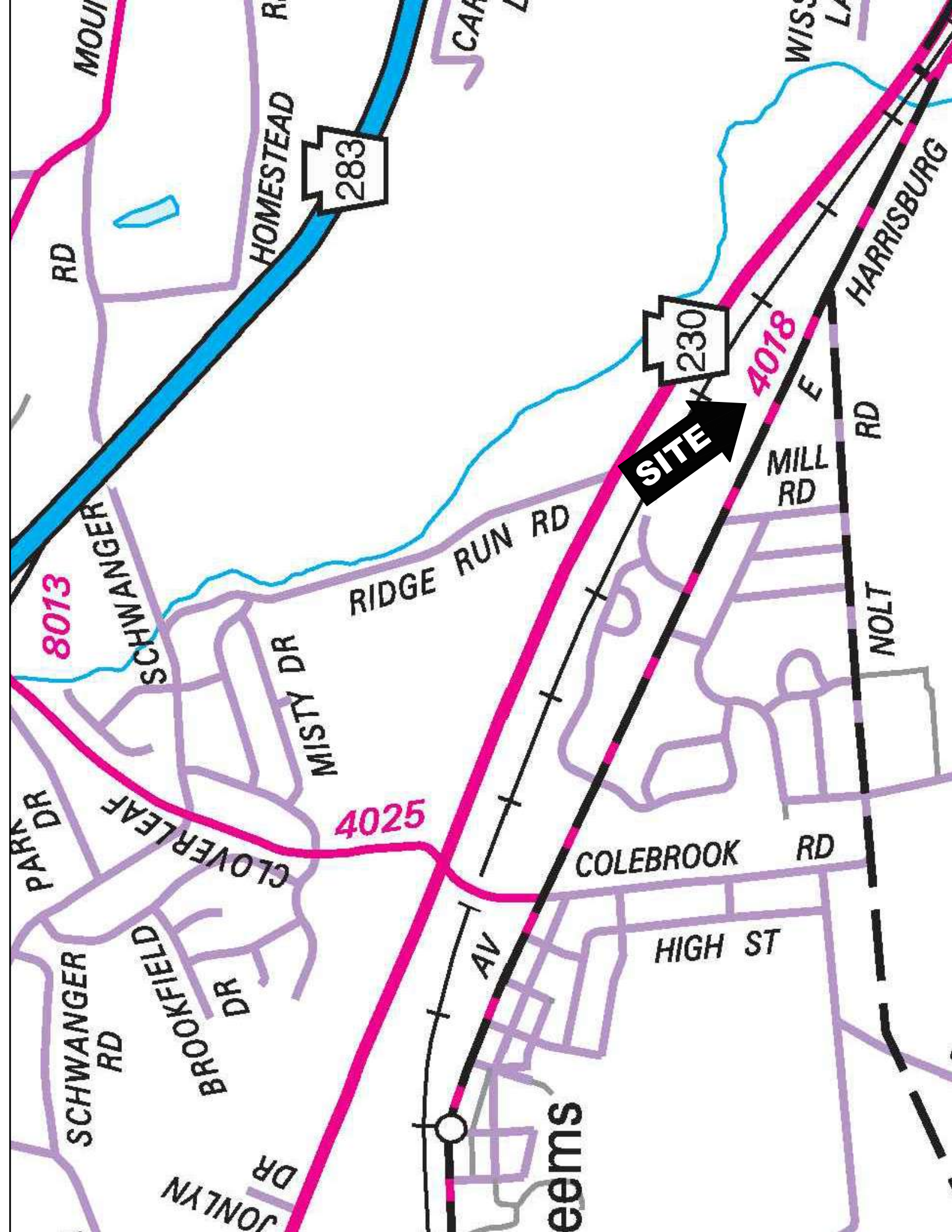
8. The proposed Westmount Development is anticipated to generate an estimated 152 AM and 178 PM peak hour site trips. On a weekday daily basis, an estimated 2,132 site trips will be generated.
9. In the year 2026 with the proposed Westmount Development, the study intersections will continue to operate at an acceptable overall level of service (LOS D or better) during the AM and PM peak hours. There are a few movements at the Main Street (SR 0230)/Colebrook Road & Cloverleaf Road (SR 4025) intersection that operate below a LOS D. The proposed site access intersections with Harrisburg Avenue (SR 4018) are anticipated to operate with acceptable levels of service.
10. In the year 2031 with the proposed Westmount Development, the study intersections will continue to operate with acceptable overall levels of service during the AM and PM peak hours. There are a few movements at the Main Street (SR 0230)/Colebrook Road & Cloverleaf Road (SR 4025) intersection that operate below a LOS D. The proposed site access intersections with Harrisburg Avenue (SR 4018) are anticipated to operate with acceptable levels of service.
11. A left and right turn lane analysis was conducted in accordance with PennDOT Publication 46 at the proposed access points to Harrisburg Avenue (SR 4018). The analysis shows that neither a left nor right turn lane is warranted at the analyzed intersections.
12. Sight distance was field measured at the proposed access points to Harrisburg Avenue (SR 4018) and it was found that the available sight distance will exceed the PennDOT minimum intersection sight distance requirements. The site access points were located to maximize the sight distance along Harrisburg Avenue (SR 4018).
13. A queue analysis found that the available storage lengths can accommodate the anticipated 2031 queues with the proposed development with the exception of the eastbound and westbound left turn lanes on West Main Street (SR 0230) at Colebrook Road & Cloverleaf Road (SR 4025). The proposed Westmount Development does not impact the queues for these movements, therefore no improvements are required to mitigate the proposed development.

RECOMMENDATIONS

A summary of the recommendations to ensure safe and efficient traffic movements is presented below. All improvements will be constructed to accommodate non-motorized access/circulation and be ADA compliant unless otherwise approved the Department.

Site Access

1. The developer will construct a local road (Proposed East Access) intersecting Harrisburg Avenue (SR 4018) to the east of Nolt Road to PennDOT and Township standards. A stop sign will be installed on the proposed access approach. Sight distance will be maintained at the intersection.
2. The developer will construct a local road (Proposed West Access) intersecting Harrisburg Avenue (SR 4018) to the west of Nolt Road to PennDOT and Township standards. A stop sign will be installed on the proposed access approach. Sight distance will be maintained at the intersection.



283

230

SITE

8013

4025

4018

eems

RD

HOMESTEAD R

RIDGE RUN RD

COLEBROOK RD

HARRISBURG

MILL RD

NOLT

CLOVERLEAF

BROOKFIELD DR

PARK DR

SCHWANGER RD

JONLYN DR

MISTY DR

AV

HIGH ST

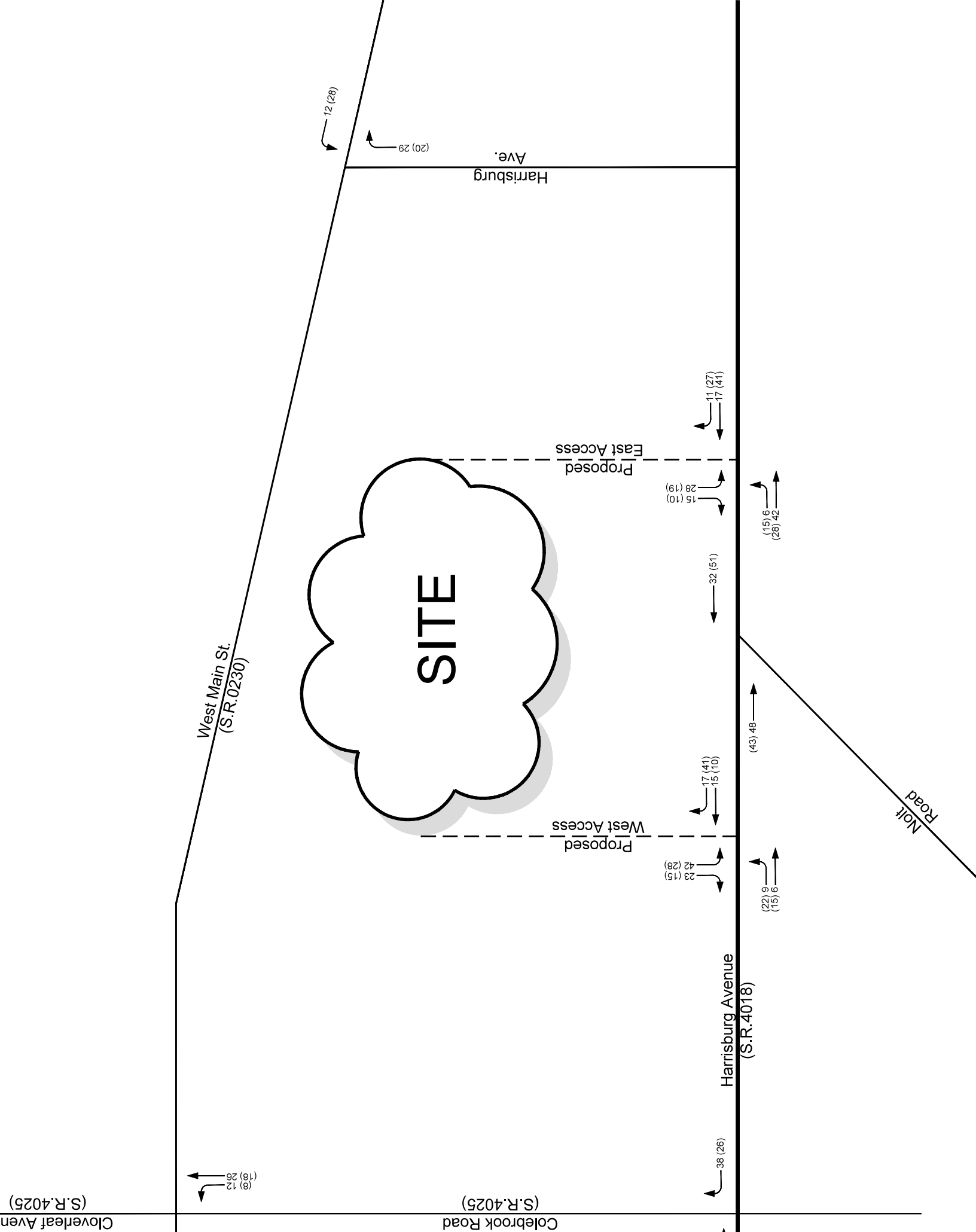
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**TRAFFIC IMPACT ASSESSMENT
FOR THE
WESTBROOKE IV – PHASE 1
RESIDENTIAL DEVELOPMENT**

**MOUNT JOY TOWNSHIP
LANCASTER COUNTY**

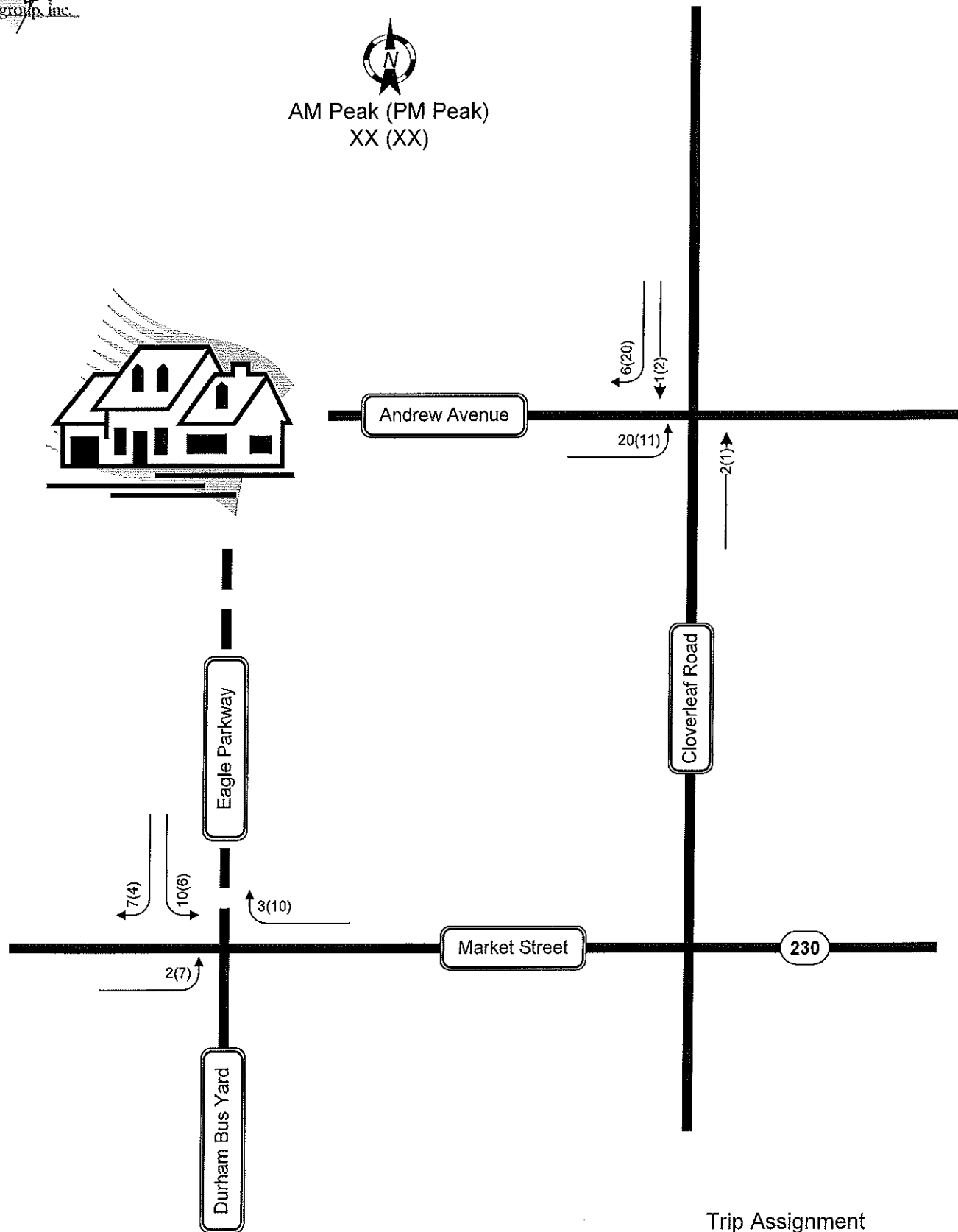
**FEBRUARY 2018
REVISED MAY 2018**

PROJECT 481-037

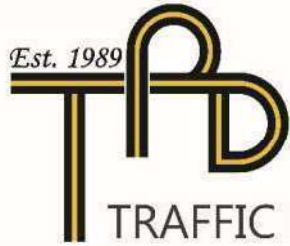
Prepared by: Mark L. Henise, P.E., PTOE



**ELA GROUP, INC.
LITITZ, PA
05/12/2018**



Trip Assignment
Exhibit 7



TRAFFIC PLANNING AND DESIGN, INC.



Transportation Impact Assessment

Catalyst Warehouse – 156 W. Harrisburg Ave.
West Donegal Township, Lancaster County, PA

For Submission To:

*West Donegal Township, Lancaster County, PA
PennDOT District 8-0*

CATALYST WAREHOUSE - 156 W. HARRISBURG AVENUE TRANSPORTATION IMPACT ASSESSMENT

FOR SUBMISSION TO:

West Donegal Township, Lancaster County, PA
& PennDOT District 8-0

Prepared For:

156 W Harrisburg Ave Associates, LLC

One Tower Bridge

100 Front Street, Suite 560

West Conshohocken, PA 19428

610.825.1653

June 9, 2022

Last Revised September 21, 2022

TPD# CACD.00005

EPS Scope App: S0820220003

Prepared By:

Traffic Planning and Design, Inc.

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Harrisburg, PA 18015

Phone: (717) 234-1430

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9/21/22

Craig D. Mellott, P.E., PTOE

Vice President

Pennsylvania License Number PE071485

EXECUTIVE SUMMARY

The purpose of this Transportation Impact Assessment (TIA) is to examine the potential traffic impact associated with the proposed Catalyst warehouse development at 156 W. Harrisburg Avenue on the roadway network in West Donegal Township, Lancaster County, PA. Based on this evaluation, the following conclusions were reached:

1. This report has been prepared in accordance with Appendix A - Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permits of PennDOT *Publication 282*, dated July 2017 and §200-19 of the West Donegal Township Subdivision and Land Development Ordinance as applicable.
2. The project scope and the extent of the study area were based on the contents of the TIS Scoping Application and the associated feedback from representatives of PennDOT and the municipalities during a TIA Scoping Meeting held on March 16, 2022. The study area intersections included in this TIA are as follows:
 - W. Harrisburg Avenue (SR 4018) & Existing Site Driveway/Heisey Quarry Road;
 - W. Harrisburg Avenue (SR 4018) & Cloverleaf Road (SR 4025)/Colebrook Road;
 - SR 0230 & Cloverleaf Road (SR 4025);
 - Schwanger Road & Cloverleaf Road (SR 4025);
 - SR 0283 East Ramps & Cloverleaf Road (SR 4025);
 - SR 0283 West Ramps & Cloverleaf Road (SR 4025).
3. The project site is located on the southern side of W. Harrisburg Avenue (SR 4018) just east of Heisey Quarry Road. The site is currently (partially) occupied by existing warehousing/industrial uses. The proposed development will involve construction of a warehouse building approximately 392,040 s.f. in size on undeveloped land along the southern boundary of the property; the existing warehousing/industrial uses on-site are anticipated to remain.
4. Access for the development is proposed via one full-movement driveway to W. Harrisburg Avenue (SR 4018), just east of the intersection of W. Harrisburg Ave/Anchor Road/Heisey Quarry Road. The existing site is currently served by two wide, undefined driveways; the easternmost existing driveway will be removed, while the western driveway will be modified (as noted above) to comply with PennDOT standards. The proposed site driveway is to become a fifth leg to the existing all-way stop-controlled intersection.
5. Based on ITE trip generation data, the proposed warehouse is anticipated to generate 71 total trips during the weekday A.M. peak hour and 74 total trips during the weekday P.M. peak hour.
6. Capacity analyses were conducted to determine the quality of operation (LOS) at the study area intersections for the 2022 existing, 2024 base (no-build), and 2024 projected (build) conditions. The capacity analyses were conducted in accordance with the standards contained in *Appendix A - Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permits of PennDOT Publication 282*, dated July 2017 and West Donegal Township Subdivision and Land Development Ordinance requirements.
7. Levels of Service (LOS) for the study area intersections have been summarized in matrix form. **Table I** details the overall intersection LOS for each study area intersection for the analyzed conditions and time periods. **Table 12** of the report detail the LOS for all approaches and movements at the study area intersections for the analyzed conditions and time periods.

TABLE I
OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Time Period	2021 Existing	Build-Out Year 2024		Meets LOS Requirements?
			Base	Projected	
SR 0283 West Ramps & Cloverleaf Road	AM Peak	B (14.3)	B (14.6)	B (15.2)	YES
	PM Peak	B (19.5)	C (20.0)	C (20.6)	YES
SR 0283 East Ramps & Cloverleaf Road	AM Peak	A (3.0)	A (3.1)	A (3.2)	YES
	PM Peak	B (10.4)	B (11.7)	B (12.7)	YES
Schwanger Road & Cloverleaf Road	AM Peak	B (13.9)	B (14.3)	B (14.4)	YES
	PM Peak	C (20.9)	B (19.0)	B (20.0)	YES
SR 0230 & Cloverleaf Road	AM Peak	C (21.7)	C (22.0)	C (22.4)	YES
	PM Peak	C (30.5)	C (30.7)	C (31.9)	YES
W. Harrisburg Avenue & Cloverleaf Road/Colebrook Road	AM Peak	B (12.6)	B (12.9)	B (13.8)	YES
	PM Peak	B (14.9)	C (15.5)	C (17.8)	YES
W. Harrisburg Avenue & Heisey Quarry Road/Anchor Road & Proposed Site Driveway	AM Peak	A (8.2)	A (8.1)	A (4.3) ¹	YES
	PM Peak	A (8.5)	A (8.5)	A (4.9) ¹	YES

Base = No-Build scenario; Projected = Build scenario

Unsignalized ILOS calculated in accordance with Figure 5 of Policies and Procedures for Transportation Impact Studies

¹ = SimTraffic delay reported as 5-legged intersections are not supported in HCM 6th Edition via Synchro 11

8. Under the 2024 (build) conditions with implementation of the recommended improvements, the study area intersections will operate in accordance with the standards contained in *Appendix A - Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permits of PennDOT Publication 282*, dated July 2017.
9. Since the proposed warehousing for the development is speculative (there are no specific tenants at this stage), the Applicant will enter into an agreement with West Donegal Township to monitor trip generation of the actual warehouse tenant versus trip generation assumptions made in this TIS.
10. Traffic Planning and Design Inc. (TPD) recommends the following roadway improvements as outlined at the study area intersections:

W. Harrisburg Avenue (SR 4018) & Proposed Site Driveway

- “ Given the close proximity of the site driveway to the existing intersection of Harrisburg Avenue (SR 4018)/Anchor Road/Heisey Quarry Road, incorporate the proposed site driveway into the adjacent intersection as a fifth leg with a “Stop” sign on the egress driveway approach.
- “ Remove the “Except Right Turn” placard below the existing “Stop” sign on the westbound W. Harrisburg Avenue approach.
- “ Establish/re-establish stop bars on all five approach legs of the intersection.

- “ Reconstruct the existing western site access as a full-movement low-volume driveway per PennDOT standards.
- “ Provide one entering and one exiting lane for the site driveway.
- “ Provide geometry to accommodate the turning movements of a WB-67 tractor trailer to/from the east.
- “ Provide a “Stop” sign (PennDOT designation R1-1) to control exiting traffic on the proposed site driveway.
- “ Install “No Left Turn” signs with a “Trucks” placard on the egress driveway approach to prevent trucks from travelling westbound on W. Harrisburg Avenue.
- “ Provide and perpetually maintain required sight distances.

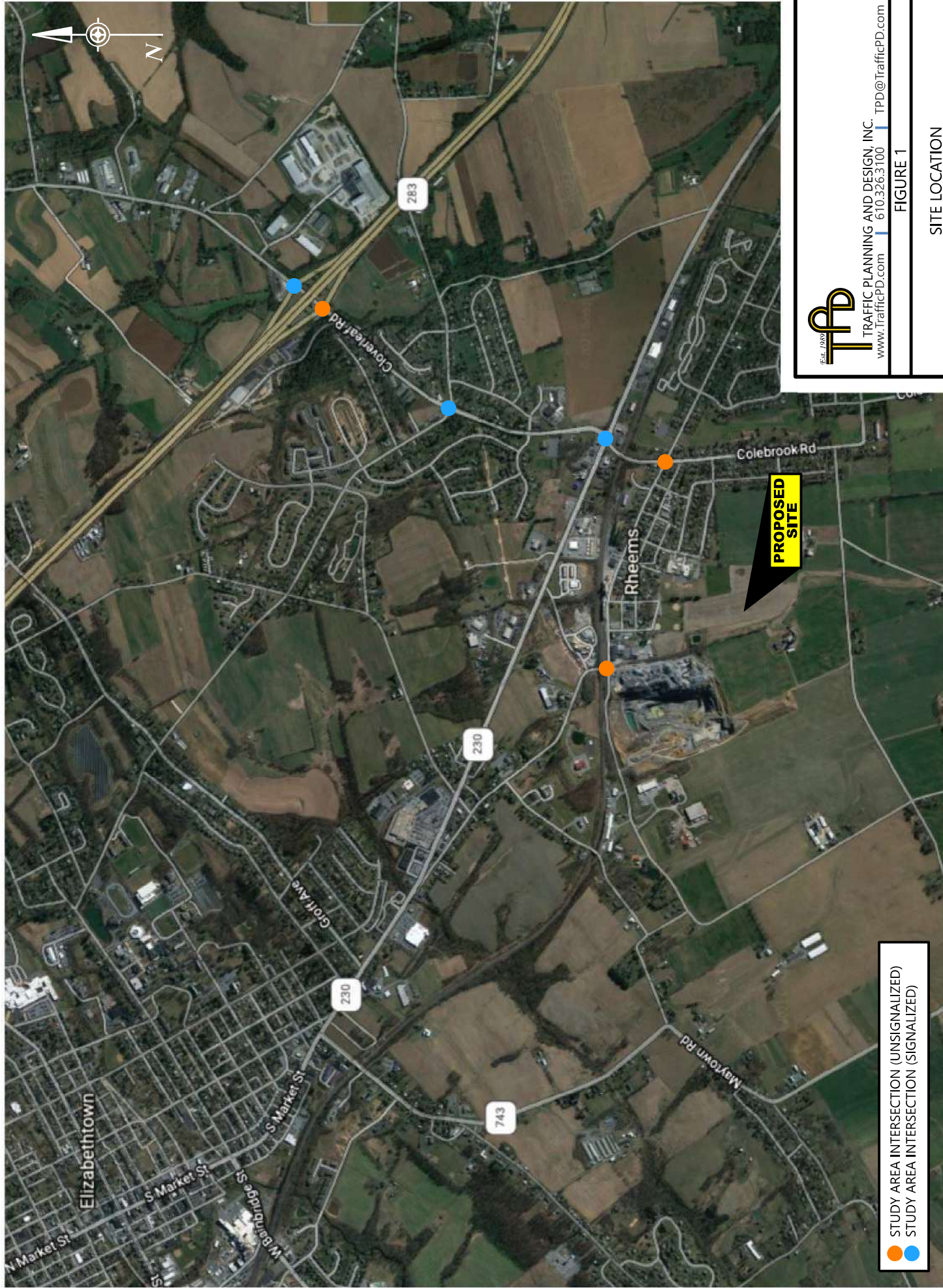
W. Harrisburg Avenue (SR 4018) & Colebrook Road/Cloverleaf Road

- “ Re-establish stop bars on the eastbound leg of the intersection to accommodate turning movements of a WB-67 from southbound Cloverleaf Road and eastbound W. Harrisburg Avenue.
- “ In conjunction with re-establishment of stop bar locations during the HOP process, coordinate with the property owner on the northwest corner of the intersection to remove/relocate the existing shrub shown below in red to provide clear sight lines. Since this shrub appears to be located on property not controlled by the Applicant, removal/relocation of the vegetation is not guaranteed, but reasonable efforts will be made and documented in cooperation with the local municipalities. It is noted that WB-67 vehicles make southbound and eastbound turning movements today, and therefore the need for the subject stop bar adjustments pre-dates the proposed development.



- “ Provide a “Stop” and an “All Way” sign (PennDOT designations R1-1 and R1-3P, respectively) to control exiting traffic on the residential driveway at 160 E. Harrisburg Avenue, if necessary. At the request of PennDOT, during the HOP process, the applicant will contact the property owner at 160 E. Harrisburg Avenue to see if this owner would be willing to eliminate their minimum use driveway to Harrisburg Avenue since they also have access to a rear alley. Since the Applicant does not control this property, removal of the subject driveway cannot be guaranteed, but reasonable efforts will be made and documented in cooperation with the local municipalities.

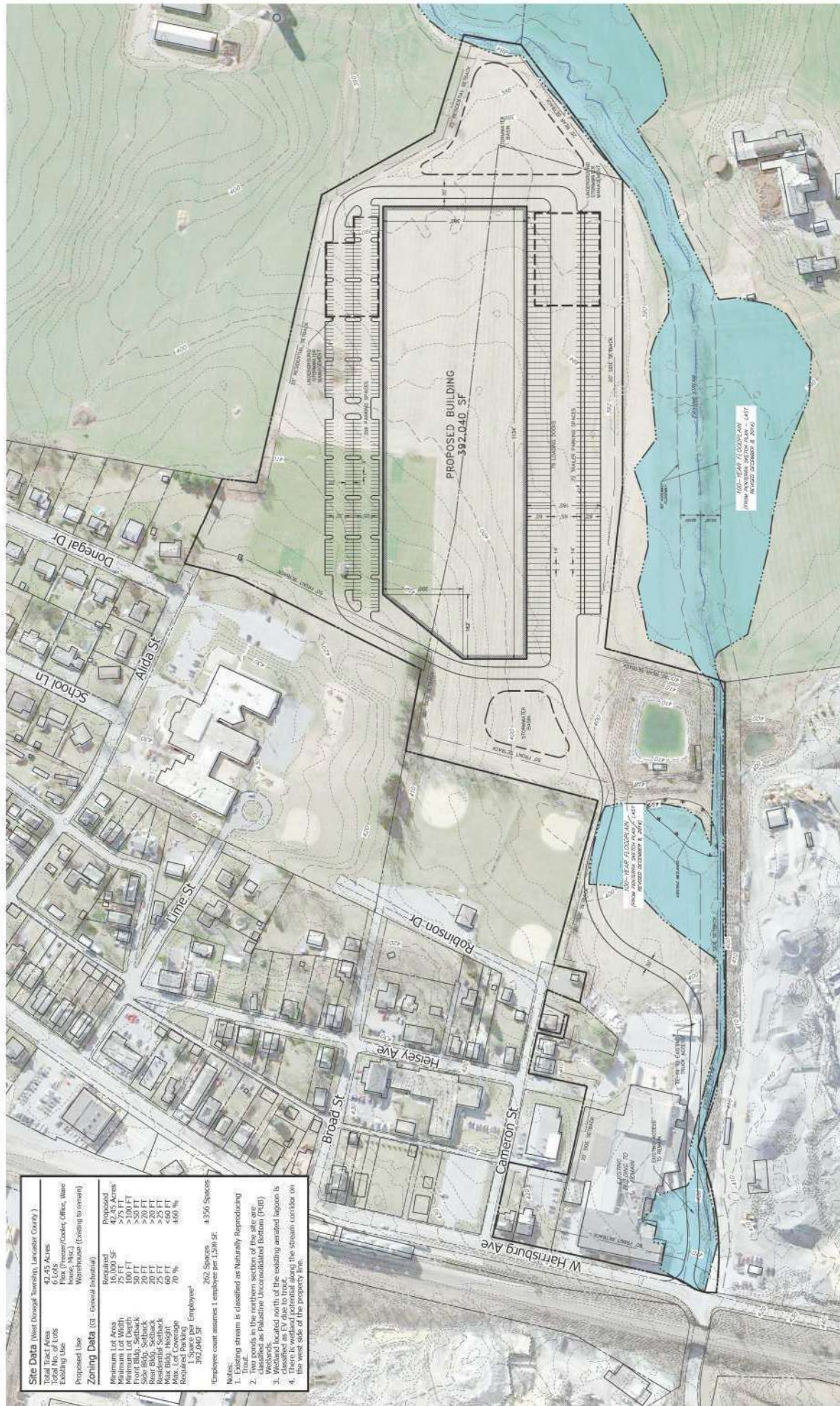
As part of PennDOT’s HOP process, the applicant will coordinate and fund the implementation of the recommended roadway improvements. Conceptual traffic plans for the improvements proposed are provided in **Appendix F**. Additionally, all improvements will be constructed to accommodate non-motorized access/circulation and be ADA-compliant unless otherwise approved by the Department.



TRAFFIC PLANNING AND DESIGN, INC.
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FIGURE 1

SITE LOCATION



Date: September 8, 2021

Project #: 111902013



BETHEA 1981

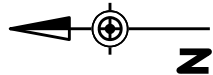
Catalyst - 156 W Harrisburg Ave
Concept Plan



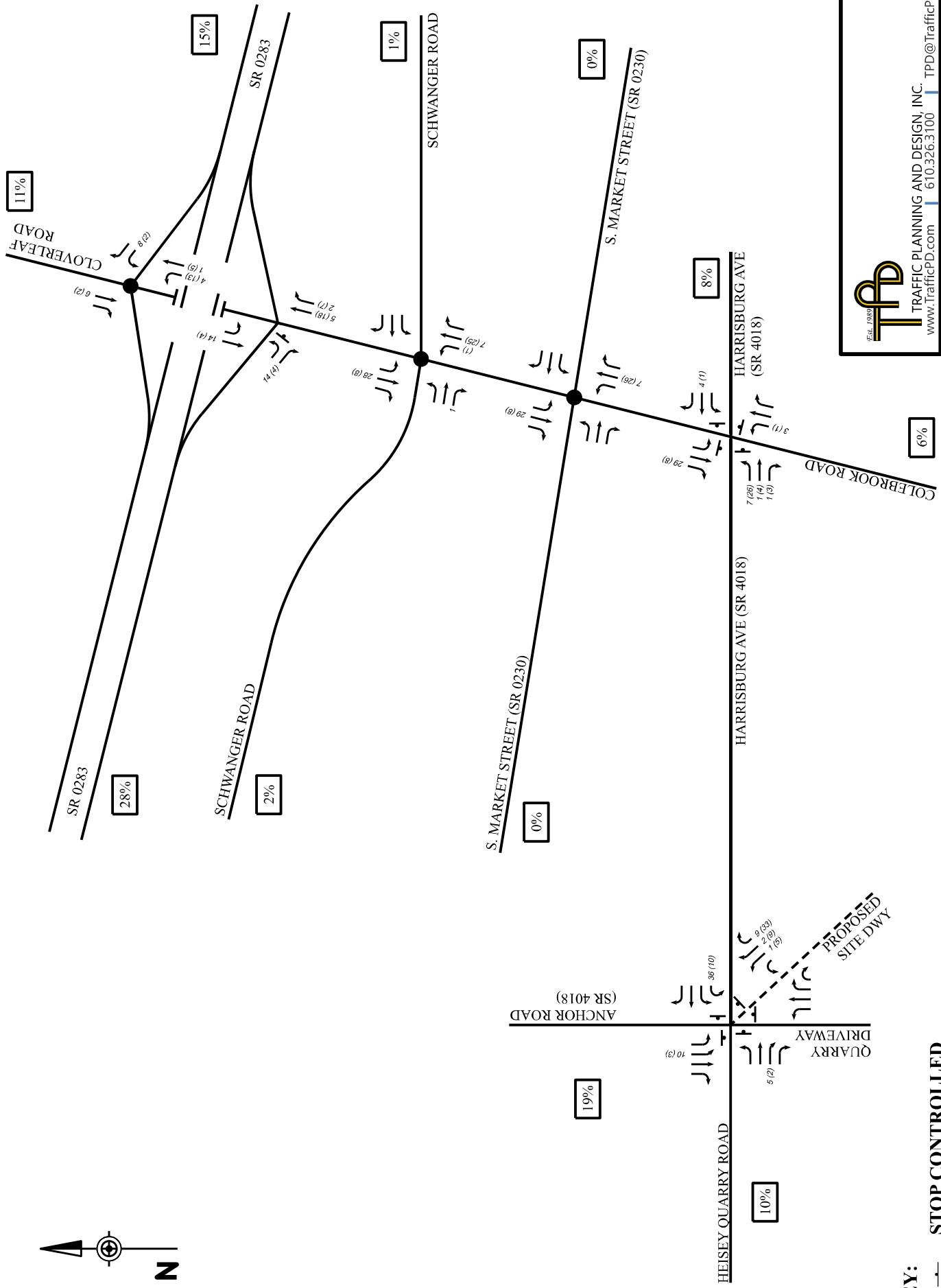
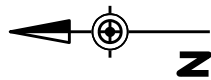
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FIGURE 2

SITE PLAN


$$X(Y) = AM(PM)$$


SITE TRIP DISTRIBUTIONS TRUCKS



- KEY:**
- STOP CONTROLLED
 - SIGNALIZED INTERSECTION
 - - - PROPOSED DRIVEWAY
- X (Y) = AM (PM)



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FIGURE 6B
TRIP DISTRIBUTIONS
PASSENGER CARS

Transportation Impact Study for the Proposed 1376 Campus Road Development

Mount Joy Township, Lancaster County

Prepared for:

Catalyst Development Group

June 2021



Transportation Impact Study

for the

Proposed 1376 Campus Road Development

Mount Joy Township
Lancaster County, Pennsylvania

prepared for

Catalyst Development Group

June 2021

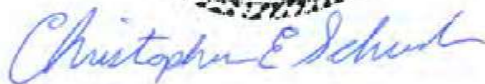
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Christopher E. Schwab, P.E.
Pennsylvania P.E. No. 074341

Project No.228.024.21

EXECUTIVE SUMMARY

A summary of key findings is presented below followed by the recommendations.

1. The proposed 1376 Campus Road Development will be located to the south of Campus Road and to the west of Sheaffer Road in Mount Joy Township, Lancaster County. The tract of land is 126.5 acres and is zoned Medium Density Residential District (R-2). The project is proposed to include a total of 200 single family homes and 280 apartment units.
2. Access to the proposed development will be provided by two new streets intersecting Campus Road. The proposed west access will be constructed as a roundabout (aligning with the proposed 1925 Sheaffer Road development street to the north of Campus Road). The proposed east access will be a T-intersection. Additional access will be provided to Groff Avenue by connecting to Woodland Avenue, an existing stub street located on the west side of the site.
3. The proposed Campus Road roundabout is currently being designed by Mount Joy Township. Construction will occur as part of the 1376 Campus Road development.
4. The study area was selected based on those intersections that will be impacted the greatest by the proposed development. The following intersections were selected for detailed analysis as determined during the scoping application process with Mount Joy Township.
 - Campus Road / Groff Avenue – Ridge Road
 - Campus Road / Sheaffer Road
 - S. Market Street (S.R.0230) / Sheaffer Road
 - S. Market Street (S.R.0230) / Groff Avenue
 - Groff Avenue / Proposed Access
 - Campus Road / Proposed West Access
 - Campus Road / Proposed East Access
5. Currently, the study intersections operate at an acceptable overall levels of service during the AM and PM peak hours. However, the southbound left turn movement on Groff Avenue at the S. Market Street (S.R.0230)/Groff Avenue intersection, located in Elizabethtown Borough, operates at an LOS F during the PM peak hour.
6. The following nearby developments were included in the background traffic calculations as recommended by Mount Joy Township:
 - Raffenberger Tract
 - Westbrooke IV
 - 1925 Sheaffer Road development

7. In the year 2032 without the proposed development, the study intersections will continue to operate at acceptable levels of service during the AM and PM peak hours. The S. Market Street (S.R.0230)/Groff Avenue intersection, located in Elizabethtown Borough, will experience long delays on the side streets during the PM peak hour, operating at an LOS F, although the overall intersection level of service will operate at an LOS B.
8. Intersection sight distance was field measured at the site access intersections. Sight distance was found to exceed PennDOT's minimum and desirable sight distance requirements.
9. Estimated site trips for the proposed development were computed using the latest ITE Trip Generation Manual. The proposed development is anticipated to generate 254 total trips during the AM peak hour and 332 total trips during the PM peak hour. On a weekday daily basis, it is estimated that the site will generate 3,619 trips.
10. In the year 2032 with the proposed development, the study intersections, including the proposed access intersections, will operate at acceptable overall levels of service during the AM and PM peak hours. The S. Market Street (S.R.0230)/Groff Avenue, located in Elizabethtown Borough, will continue to experience long delays on the side streets during the PM peak hour, although overall the intersection will operate at an LOS C. It should be noted that the 1376 Campus Road development will account for approximately 5% of the total traffic at this intersection.
11. A preliminary signal warrant analysis conducted at the S. Market Street (S.R.0230)/Groff Avenue intersection found that traffic signal warrants are not met for existing conditions or the year 2032 traffic volumes with full buildout due to the relatively low number of southbound left turns from Groff Avenue.
12. A turn lane analysis was conducted at the site access intersections. The analysis shows that neither left nor right turn lanes are warranted at any of the site access intersections.
13. The proposed development is located within an area which is subject to a traffic impact fee. Per the Mount Joy Township Capital Improvements Plan, the proposed project requires an impact fee paid based on the number of new PM peak hour trips generated by the development. The current fee is \$1,766.00 per new PM peak hour trip. The traffic impact fee for the proposed development is calculated as follows:

- 332 PM Peak Hour Trips x \$1,766.00 per PM Peak Hour Trip = \$586,312.00

RECOMMENDATIONS

A summary of the recommendations to ensure safe and efficient traffic movements is presented below. All improvements will be constructed to accommodate non-motorized access/circulation and be ADA compliant unless otherwise approved by the Township.

1. The developer will participate in the construction of the planned roundabout currently under design by Mount Joy Township. Per the Mount Joy Township Transportation Impact Fee, Chapter 125.10.B – Credits, construction of this roundabout may be eligible for a partial or full credit of calculated impact fees.
2. The developer will construct the proposed east access street intersecting Campus Road in accordance with Mount Joy Township requirements. A stop sign should be installed on the proposed street and adequate sight distance shall be maintained.
3. The developer will construct the proposed access street connection to Woodland Avenue intersecting Groff Avenue in accordance with Mount Joy Township requirements.
4. Elizabethtown Borough should monitor the intersection of S. Market Street (S.R.0230)/Groff Avenue. The analysis shows that traffic signal volume warrants are not met at this intersection due to the relatively low number of left turns from Groff Avenue. Additionally, this intersection may be located too closely to adjacent signalized intersections on S. Market Street (S.R.0230) for traffic signalization to be feasible.

5. DEVELOPMENT DESCRIPTION

Proposed Development

The proposed development will be located to the south of Campus Road and to the west of Sheaffer Road in Mount Joy Township, Lancaster County, PA. The tract of land is approximately 126.5 acres and is zoned Medium Density Residential District (R-2). The project is proposed to include a total of 200 single family homes and 280 apartment units. The apartment will be a mix of two-story and three-story buildings. The current plan shows 200 three-story mid rise apartments and 80 two-story low rise apartments.

Access to the proposed development will be provided by two new streets intersecting Campus Road. The proposed west access will be constructed as a roundabout (aligning with the proposed 1925 Sheaffer Road development street to the north of Campus Road). The proposed east access will be a T-intersection. Additional access will be provided to Groff Avenue by connecting to Woodland Avenue, an existing stub street located on the west side of the site.

The proposed Campus Road roundabout is currently being designed by Mount Joy Township. This roundabout intersection will provide access to the 1376 Campus Road development and the planned 1925 Sheaffer Road development located to the north of Campus Road.

Sight Distance Analysis

Intersection sight distance was field measured at the proposed access roads to determine if the available sight distance would exceed the PennDOT minimum and desirable intersection sight distance. The required and measured intersection sight distances are included in the Appendices. The available sight distance for the proposed roadways does exceed the minimum and desirable sight distances.

Site Trip Generation

The level of traffic likely to be generated by the proposed development has been estimated using procedures in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed. 2017) to determine the potential traffic impact on the study intersections. Land use code 210, Single Family Detached Housing, Land Use Code 220, Multifamily Housing (Low-Rise), and Land Use Code 221, Multifamily Housing (Mid-Rise) were utilized for the development. The number of units was used as the independent variable. Details of this trip generation analysis can be found in the Appendices. Table 3 summarizes the estimated site trip generation for the proposed development during the typical weekday AM and PM peak hours and during the typical weekday.

Table 3: Estimated Site Trip Generation

Land Use (Code)	AM Peak Hour			PM Peak Hour			ADWT
	Enter	Exit	Total	Enter	Exit	Total	
Single Family Detached Housing 200 Units (210)	37	110	147	125	73	198	1,967
Multifamily Housing (Low Rise) 80 Apartments (220) New	9	30	39	30	18	48	564
Multifamily Housing (Mid Rise) 200 Apartments (221)	18	50	68	52	34	86	1,088
TOTAL	64	190	254	207	125	332	3,619

ADWT – Average Daily Weekday Traffic

Modal Split

Because there is not sufficient pedestrian or transit facilities provided within the study area, a trip reduction due to modal split is not applicable and was not assumed for this study.

Site Trip Distribution and Assignment

Figure 8 in the Appendices shows the trip distribution percentages for the new site traffic on the roadway system. The site trip distribution was based on a cordon line methodology and utilized the existing traffic patterns, knowledge of the study area, and engineering judgment. The site trip distribution was submitted previously for review and approved.

The distribution used for the new site traffic is as follows:

- 5% oriented to/from the west on Campus Road
- 5% oriented to/from the north on Ridge Road
- 50% oriented to/from the east on Campus Road
- 15% oriented to/from the west on S. Market Street (S.R.0230)
- 5% oriented to/from the south on Sheaffer Road
- 20% oriented to/from the west on S. Market Street (S.R.0230)

Site traffic was assigned to the access roadways based on the layout of the development and the proximity to each access intersection. Figure 9 shows the site trips generated by the proposed development and assigned to the roadway network. Details of the site trip distribution and assignment are included in the Appendices.

Traffic Impact Fee Calculation

According to the Township's Capital Improvements Plan (February 2016), the project study area is located within the Transportation Service Area which is subject to a traffic impact fee. In accordance with Mount Joy Township Ordinance, the proposed project will require an impact fee be paid based on the number of new PM peak hour trips generated by the development. The current fee is \$1,766.00 per new PM peak hour trip. Therefore, the traffic impact fee for the 198 single-family homes and 276 apartment unit development is shown below:

- 332 PM Peak Hour Trips x \$1,766.00 per PM Peak Hour Trip = \$586,312.00

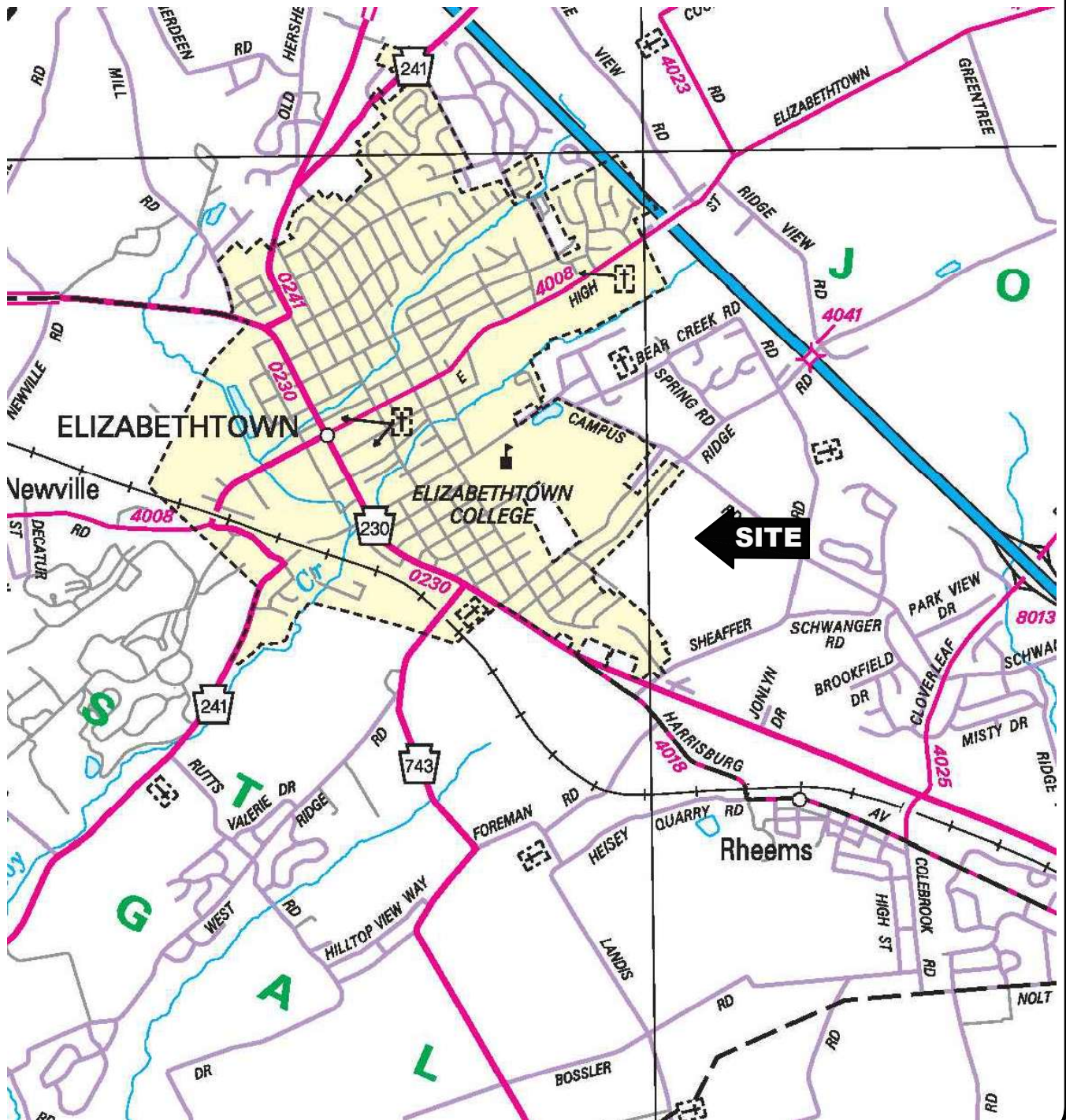
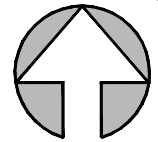


FIGURE 1

SITE LOCATION MAP

TRANSPORTATION IMPACT STUDY

1376 CAMPUS ROAD

MT. JOY TOWNSHIP
LANCASTER COUNTY, PA



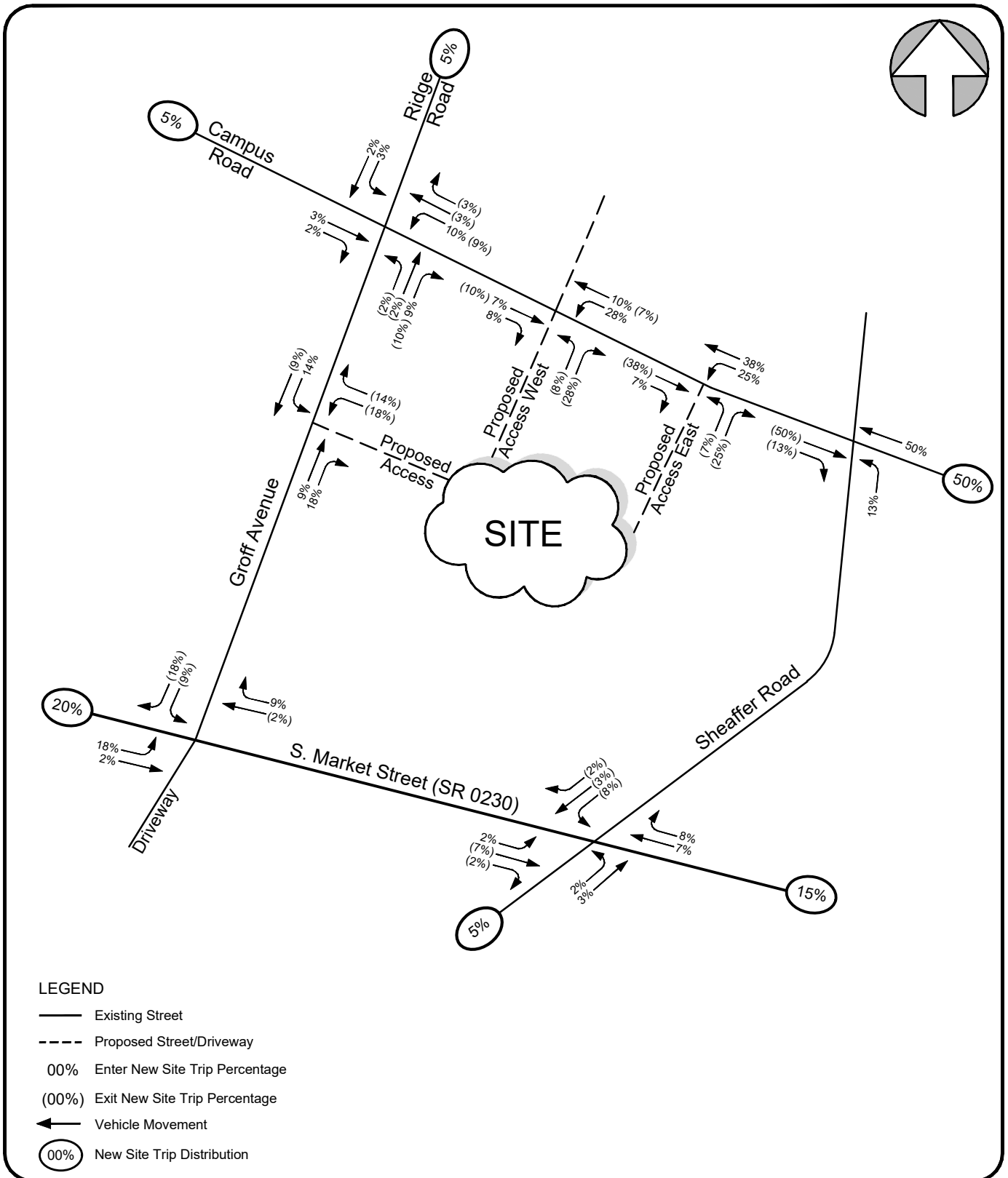


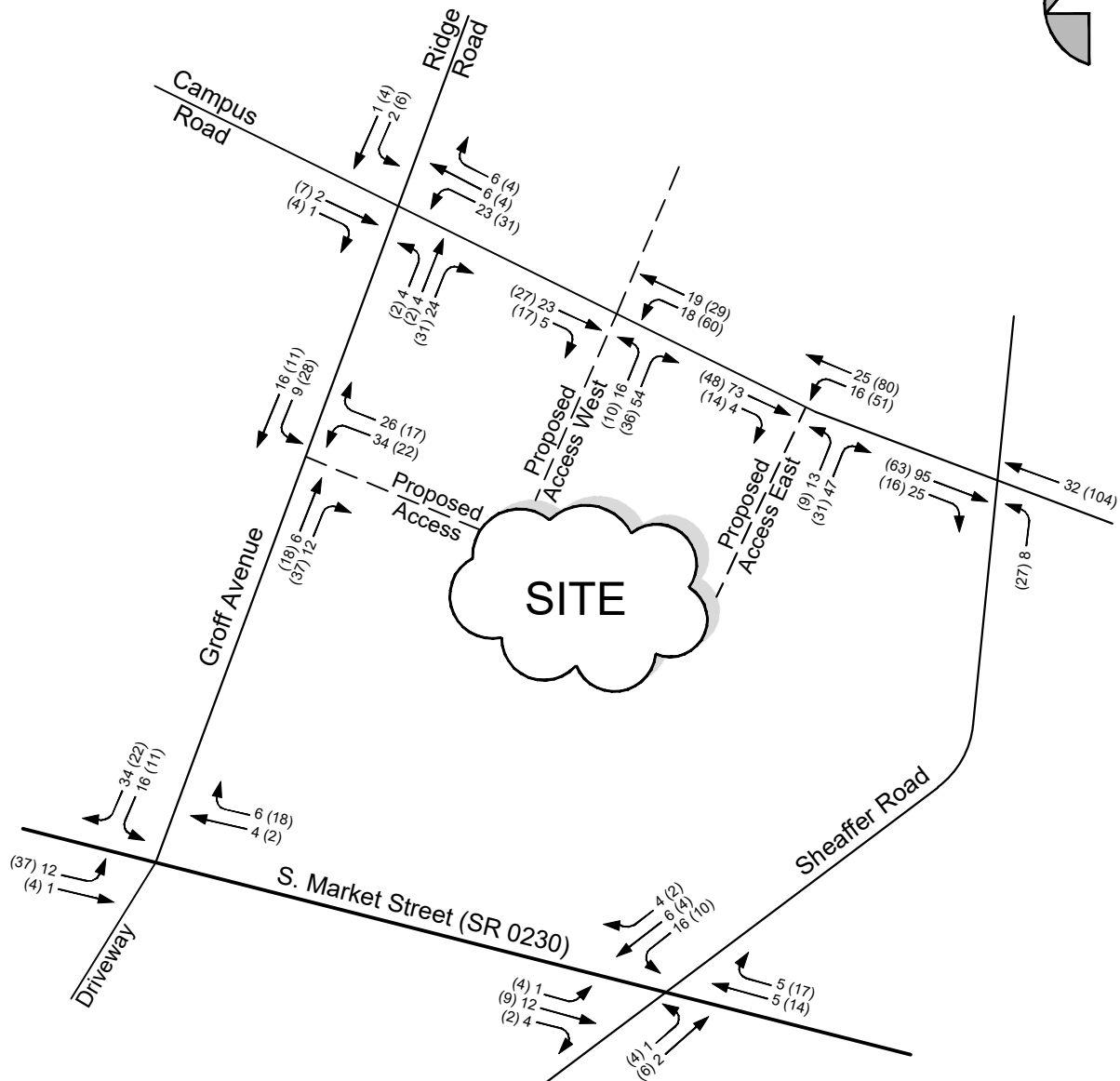
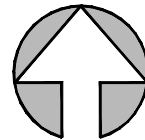
FIGURE 8

NEW SITE TRIP DISTRIBUTION
AND ASSIGNMENT

TRANSPORTATION IMPACT STUDY

1376 CAMPUS ROAD

MT. JOY TOWNSHIP
LANCASTER COUNTY, PA



LEGEND

— Existing Street

- - - Proposed Street/Driveway

000 AM Peak Hour Total Site Trips

(000) PM Peak Hour Total Site Trips

← Vehicle Movement



FIGURE 9

TOTAL SITE TRIPS
AM & PM PEAK HOURS

TRANSPORTATION IMPACT STUDY

1376 CAMPUS ROAD

MT. JOY TOWNSHIP
LANCASTER COUNTY, PA

Transportation Impact Study for the Proposed 1925 Sheaffer Road Development

Mount Joy Township, Lancaster County

Prepared for:

Hershey Developers LLC

June 2021



Transportation Impact Study

for the

Proposed 1925 Sheaffer Road Development

Mount Joy Township
Lancaster County, Pennsylvania

prepared for

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June 2021

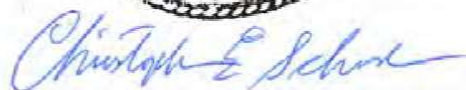
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Christopher E. Schwab, P.E.
Pennsylvania P.E. No. 074341

Project No.516.001.21

EXECUTIVE SUMMARY

A summary of key findings is presented below followed by the recommendations.

1. The proposed 1925 Sheaffer Road Development will be located to the north of Campus Road and to the west of Sheaffer Road in Mount Joy Township, Lancaster County. The tract of land is 53.41 acres and is zoned Medium-Density Residential (R-2). The project is proposed to include a total of 294 townhomes and 80 apartment units.
2. Access to the proposed development will be provided by two new streets. The proposed access to Campus Road will be constructed as a roundabout (aligning with the proposed 1376 Campus Road development street to the south of Campus Road). Two additional access intersections will be provided to Sheaffer Road. The north access will align with the existing Sheaffer Road Self Storage driveway. The south access on Sheaffer Road will be located approximately 900 feet south of the proposed north access.
3. The proposed Campus Road roundabout is currently being designed by Mount Joy Township. Construction will occur as part of the 1925 Sheaffer Road development.
4. The study area was selected based on those intersections that will be impacted the greatest by the proposed development. The following intersections were selected for detailed analysis as determined during the scoping application process with Mount Joy Township.
 - Campus Road / Groff Avenue – Ridge Road
 - Campus Road / Sheaffer Road
 - S. Market Street (S.R.0230) / Sheaffer Road
 - S. Market Street (S.R.0230) / Groff Avenue
 - Ridge Road/Sheaffer Road
 - Campus Road / Proposed Access
 - Sheaffer Road / Proposed North Access
 - Sheaffer Road / Proposed South Access
5. Currently, the study intersections operate at an acceptable overall levels of service during the AM and PM peak hours. However, the southbound left turn movement on Groff Avenue at the S. Market Street (S.R.0230)/Groff Avenue intersection, located in Elizabethtown Borough, operates at an LOS F during the PM peak hour.
6. The following nearby developments were included in the background traffic calculations as recommended by Mount Joy Township:
 - Raffensberger Tract
 - Westbrooke IV
 - 1376 Campus Road development

7. In the year 2032 without the proposed development, the study intersections will continue to operate at acceptable levels of service during the AM and PM peak hours. The S. Market Street (S.R.0230)/Groff Avenue intersection, located in Elizabethtown Borough, will experience long delays on the side streets during the PM peak hour, operating at an LOS F, although the overall intersection level of service will operate at an LOS B.
8. Intersection sight distance was field measured at the site access intersections. Sight distance was found to exceed PennDOT's minimum and desirable sight distance requirements.
9. Estimated site trips for the proposed development were computed using the latest ITE Trip Generation Manual. The proposed development is anticipated to generate an estimated 125 total trips during the AM peak hour and 157 total trips during the PM peak hour. On a weekday daily basis, it is estimated that the development will generate 2,033 trips.
10. In the year 2032 with the proposed development, the study intersections, including the proposed access intersections, will operate at acceptable overall levels of service during the AM and PM peak hours. The S. Market Street (S.R.0230)/Groff Avenue intersection, located in Elizabethtown Borough, will continue to experience long delays on the side streets during the PM peak hour, although overall the intersection will operate an LOS C. It should be noted that the 1925 Sheaffer Road development will account for approximately 1% of the total traffic at this intersection.
11. A preliminary signal warrant analysis conducted at the S. Market Street (S.R.0230)/Groff Avenue intersection found that traffic signal warrants are not met for existing conditions or the year 2032 traffic volumes with full buildout due to the relatively low number of southbound left turns from Groff Avenue.
12. A turn lane analysis was conducted at the site access intersections. The analysis shows that neither left nor right turn lanes are warranted at any of the site access intersections.
13. The proposed development is located within an area which is subject to a traffic impact fee. Per the Mount Joy Township Capital Improvements Plan, the proposed project requires an impact fee paid based on the number of new PM peak hour trips generated by the development. The current fee is \$1,766.00 per new PM peak hour trip. The traffic impact fee for the proposed development is calculated as follows:

- 157 PM Peak Hour Trips x \$1,766.00 per PM Peak Hour Trip = \$277,262.00

RECOMMENDATIONS

A summary of the recommendations to ensure safe and efficient traffic movements is presented below. All improvements will be constructed to accommodate non-motorized access/circulation and be ADA compliant unless otherwise approved the Township.

1. The developer will construct the planned roundabout currently under design by Mount Joy Township. Per the Mount Joy Township Transportation Impact Fee, Chapter 125-10.B – Credits, construction of this roundabout may be eligible for a partial or full credit of calculated impact fees.
2. The developer will construct the proposed north access street intersecting Sheaffer Road in accordance with Mount Joy Township requirements. A stop sign should be installed on the proposed street and adequate sight distance shall be maintained.
3. The developer will construct the proposed south access street intersecting Sheaffer Road in accordance with Mount Joy Township requirements. A stop sign should be installed on the proposed street and adequate sight distance shall be maintained.
4. Elizabethtown Borough should monitor the intersection of S. Market Street (S.R.0230)/Groff Avenue. The analysis shows that traffic signal volume warrants are not met at this intersection due to the relatively low number of left turns from Groff Avenue. Additionally, this intersection may be located too closely to adjacent signalized intersections on S. Market Street (S.R.0230) for traffic signalization to be feasible.

5. DEVELOPMENT DESCRIPTION

Proposed Development

The proposed development will be located to the north of Campus Road and to the west of Sheaffer Road in Mount Joy Township, Lancaster County, PA. The tract of land is approximately 53.41 acres and is currently zoned Medium-Density Residential (R-2). The project is proposed to include a total of 294 townhomes and 80 apartment units. The apartment buildings and townhomes will all be three-stories.

Access to the proposed development will be provided by two new streets. The proposed access to Campus Road will be constructed as a roundabout (aligning with the proposed 1376 Campus Road development street to the south of Campus Road). Two additional access streets will be provided to Sheaffer Road. The north access will align with the existing Sheaffer Road Self Storage driveway. The south access on Sheaffer Road will be located approximately 900 feet south of the proposed north access.

The proposed Campus Road roundabout is currently being designed by Mount Joy Township. This roundabout intersection will provide access to the 1925 Sheaffer Road development and the planned 1376 Campus Road development located to the south of Campus Road.

Sight Distance Analysis

Intersection sight distance was field measured at the proposed access roads to determine if the available sight distance would exceed the PennDOT minimum and desirable intersection sight distance. The required and measured intersection sight distances are included in the Appendices. The available sight distance for the proposed roadways does exceed the minimum and desirable sight distances.

Site Trip Generation

The level of traffic likely to be generated by the proposed development has been estimated using procedures in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed. 2017) to determine the potential traffic impact on the study intersections. Land Use Code 221, Multi-family Housing (Mid-Rise) was utilized for the development. The number of units was used as the independent variable. Details of this trip generation analysis can be found in the Appendices. Table 3 summarizes the estimated site trip generation for the proposed development during the typical weekday AM and PM peak hours and during the typical weekday.

Table 3: Estimated Site Trip Generation

Land Use (Code)	AM Peak Hour			PM Peak Hour			ADWT
	Enter	Exit	Total	Enter	Exit	Total	
Multifamily Housing (Mid Rise) 374 Townhome/ Apartment Units (221)	32	93	125	96	61	157	2,037

ADWT – Average Daily Weekday Traffic

Modal Split

Because there is not sufficient pedestrian or transit facilities provided within the study area, a trip reduction due to modal split is not applicable and was not assumed for this study.

Site Trip Distribution and Assignment

Figure 8 in the Appendices shows the trip distribution percentages for the new site traffic on the roadway system. The site trip distribution was based on a cordon line methodology and utilized the existing traffic patterns, knowledge of the study area, and engineering judgment. The site trip distribution was submitted previously for review and approved.

The distribution used for the new site traffic is as follows:

- 5% oriented to/from the west on Campus Road
- 5% oriented to/from the north on Ridge Road
- 50% oriented to/from the east on Campus Road
- 15% oriented to/from the west on S. Market Street (S.R.0230)
- 5% oriented to/from the south on Sheaffer Road
- 20% oriented to/from the west on S. Market Street (S.R.0230)

Site traffic was assigned to the access roadways based on the layout of the development and the proximity to each access intersection. Figure 9 shows the site trips generated by the proposed development and assigned to the roadway network. Details of the site trip distribution and assignment are included in the Appendices.

Traffic Impact Fee Calculation

According to the Township's Capital Improvements Plan (February 2016), the project study area is located within the Transportation Service Area which is subject to a traffic impact fee. In accordance with Mount Joy Township Ordinance, the proposed project will require an impact fee be paid based on the number of new PM peak hour trips generated by the development. The current fee is \$1,766.00 per new PM peak hour trip. Therefore, the traffic impact fee for the 294 townhomes and 80 apartment unit development is shown below:

- 157 PM Peak Hour Trips x \$1,766.00 per PM Peak Hour Trip = \$277,262.00

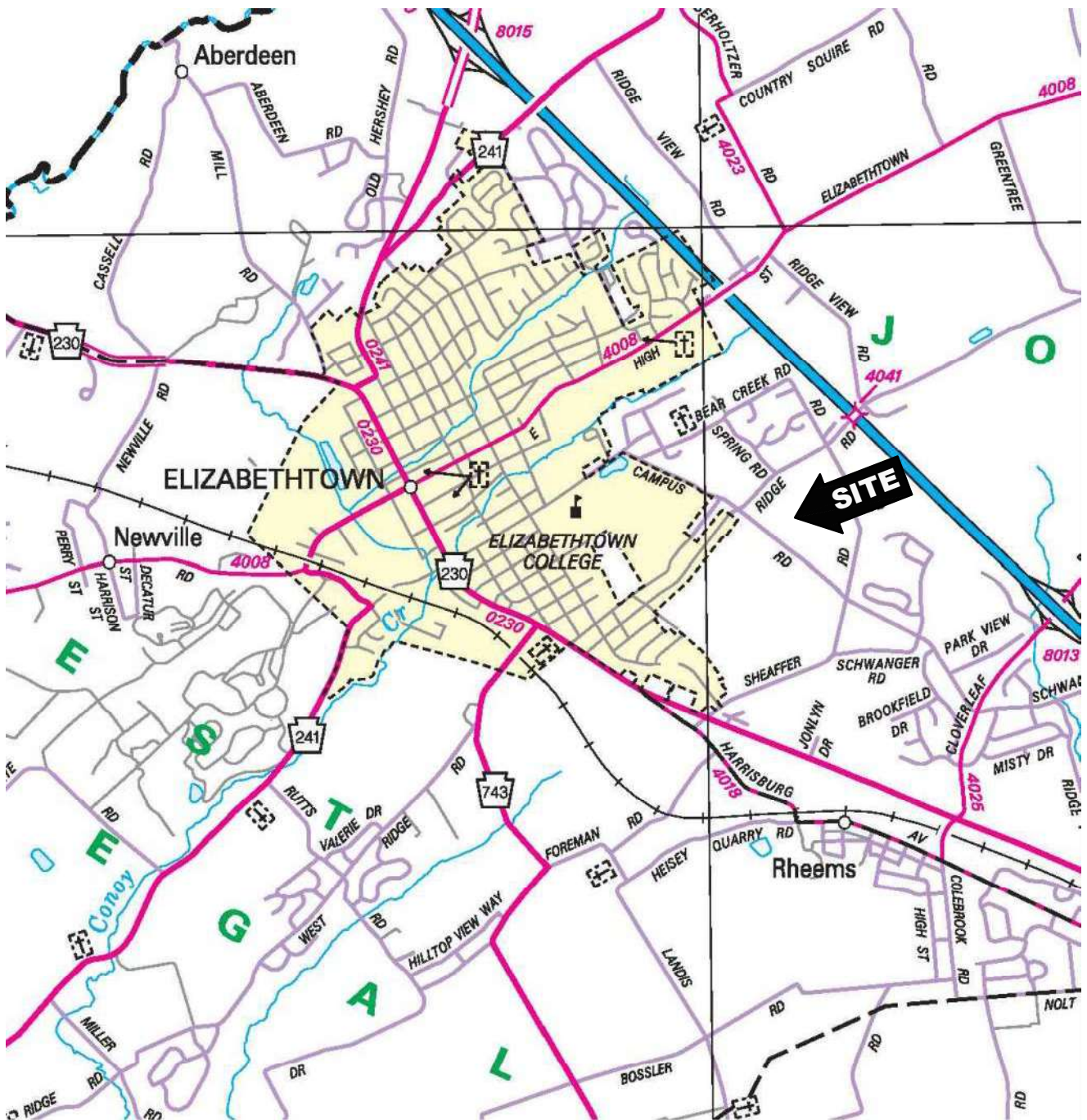
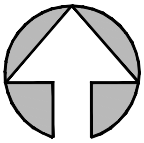


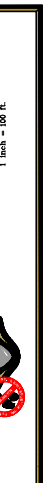
FIGURE 1

SITE LOCATION MAP

TRANSPORTATION IMPACT STUDY

1925 SHEAFFER ROAD

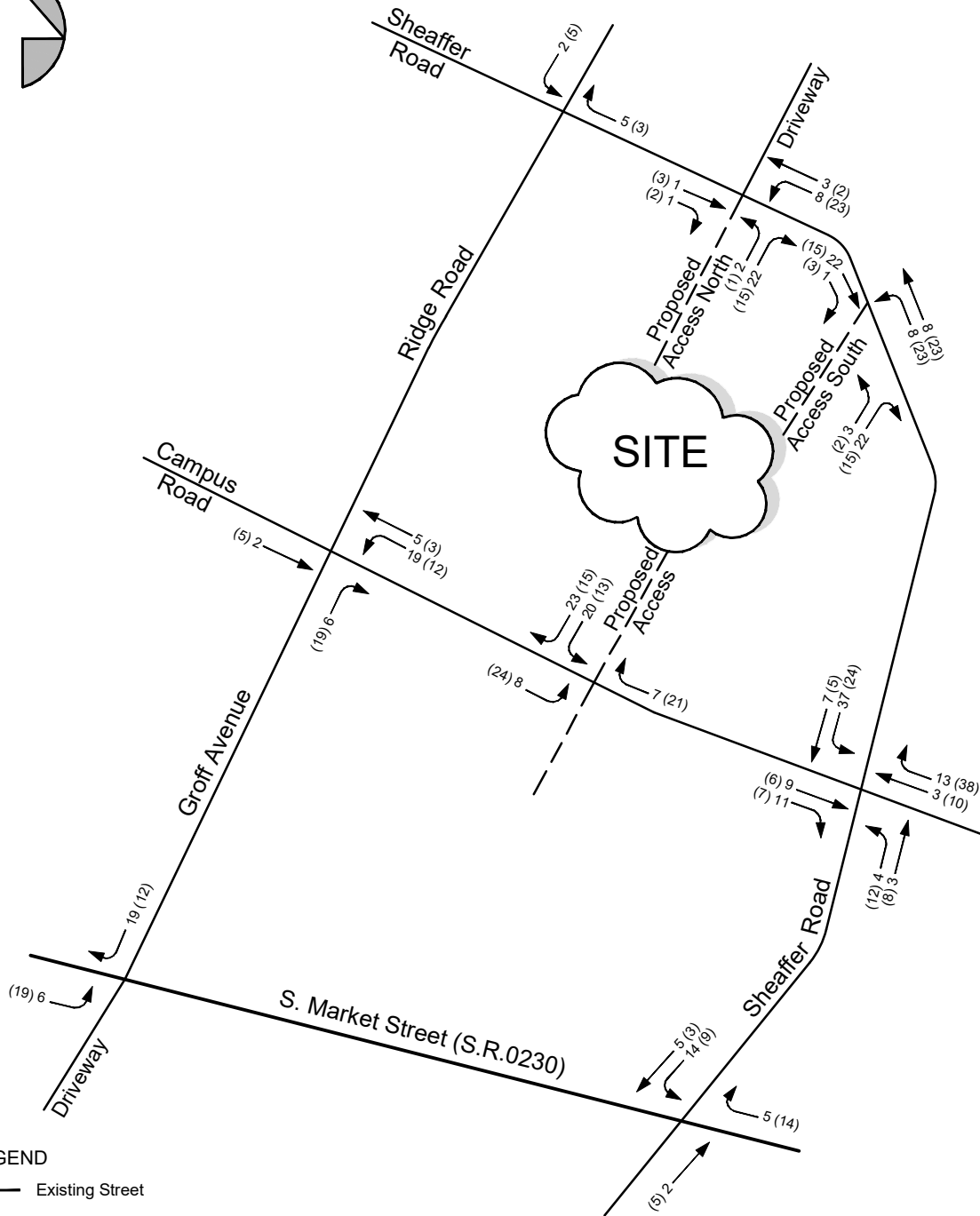
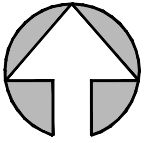
MT. JOY TOWNSHIP
LANCASTER COUNTY, PA





NEW SITE TRIP DISTRIBUTION AND ASSIGNMENT

MT. JOY TOWNSHIP
LANCASTER COUNTY, PA



LEGEND

— Existing Street

--- Proposed Street/Driveway

000 AM Peak Hour Total Site Trips

(000) PM Peak Hour Total Site Trips

← Vehicle Movement

FIGURE 9

TOTAL SITE TRIPS
AM & PM PEAK HOURS

TRANSPORTATION IMPACT STUDY

1925 SHEAFFER ROAD

MT. JOY TOWNSHIP
LANCASTER COUNTY, PA



August 2023
Revised September 2024

VOLUME 1

TRANSPORTATION IMPACT STUDY

for

MOUNT JOY TOWN CENTER

on

Existing Commercially Zoned Land

in

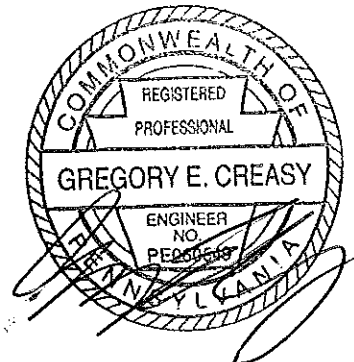
**Mount Joy Township
Lancaster County, Pennsylvania**

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EXECUTIVE SUMMARY

A retail development, Mount Joy Town Center, is proposed for a tract of land in Mount Joy Township, Lancaster County. The site is located in the northeast corner of the intersection of SR 0230 and Cloverleaf Road (SR 4025). This Transportation Impact Study (TIS) was performed assuming the following land uses:

Convenience Store with Gasoline Pumps
127,000 square feet of general retail space

It is noted that the current plans shows approximately 105,000 square feet of general retail space, so the trip generation projections used in this TIS result in conservative analyses.

Currently proposed access locations are as follows:

- 1) Signalized access onto SR 0230 located approximately 1,050 feet east of Cloverleaf Road via extension of Norlanco Drive
- 2) Right-In Only Driveway onto Cloverleaf Road on north side of convenience store parcel
- 3) Right-In/Right-Out Driveway onto Cloverleaf Road located 550 feet north of SR 0230
- 4) Right-In Only Driveway onto SR 0230 on the east side of the convenience store lot located approximately 425 feet from the stop bar at the signalized intersection of SR 0230/Cloverleaf Road

This TIS was prepared for a 2025 Opening Year and a 2030 Horizon Year. The proposed development will not impact the ability of pedestrians or bicycles to cross roadways. The following conclusions and recommendations, to be constructed by the developer, are provided for the study area and the study area intersections (all

improvements will be constructed to be ADA compliant as required and approved by the Department in the HOP process):

SR 0230 and SR 0743 (Maytown Road)

■ The intersection analyses indicate that the addition of a 75-foot eastbound right turn lane would mitigate the impacts of the minor amount of traffic that the proposed development is projected to add to this off-site intersection. This intersection is approximately two (2) miles from the proposed development site and is located in a different municipality than the proposed development site. The analyses show that movements at the intersection will operate at LOS “E” in the No Build condition, and the increase in overall intersection average delay per vehicle is less than 12 seconds. Traffic from the proposed development is projected to account for the following percentages of the 2025 Opening Year Build condition peak hour volumes: 7.6% during the AM peak hour; 7.4% during the PM peak hour; and 9.2% during the Saturday peak hour. Given the disproportionate cost of mitigation to the magnitude of the improvement impact, combined with the distance and disconnection between the intersection and the project site, it is not recommended that the developer provide improvements at this intersection.

SR 0230 and Groff Avenue

■ There are deficient levels of service on the southbound (Groff Avenue) approach left turn lane in Existing and No Build conditions. Many of the residential developments that were included in the background traffic projections will contribute to traffic volumes at this intersection as well. The intersection is in Elizabethtown Borough. The Elizabethtown Regional Transportation Improvements Map does not include any geometric or traffic control improvements. There are deficient levels of service on the southbound (Groff Avenue) approach left turn lane in Existing and No Build conditions. Left turn

volumes are not at a level that warrant traffic signal control (right turns are made from a separate lane and do not experience significant delay).

■ The intersection analyses indicate that Groff Avenue movements currently operate at LOS “F” in the existing conditions. This intersection is approximately 1.7 miles from the proposed development site and is located in a different municipality than the proposed development site. The analyses show that the overall intersection is expected to operate at an overall LOS “A” or “B” through the 2030 Horizon Year without and with development traffic. Traffic from the proposed development is projected to account for the following percentages of the 2025 Opening Year Build condition peak hour volumes: 8.0% during the AM peak hour; 7.1% during the PM peak hour; and 8.8% during the Saturday peak hour. It is not recommended that the developer provide improvements due to the distance the intersection is from the development site, the fact that the side street (Groff Avenue) movements and approaches are projected to operate at failing levels of service without the proposed development, and the traffic from the proposed development is not expected to compromise a significant amount of the future traffic volumes at the intersection.

SR 0230 and Giant Plaza Driveway/Carey Lane

■ No improvements are necessary to mitigate the impact of traffic from the proposed development.

SR 0230 and Speedway Driveway/Market Square Driveway

■ No improvements are necessary to mitigate the impact of traffic from the proposed development.

SR 0230 and Sheaffer Road

■ No improvements are necessary to mitigate the impact of traffic from the proposed development.

SR 0230 and Cloverleaf Road/Colebrook Road

- Minor traffic signal timing adjustments will be implemented during the PM and Saturday peak hours to mitigate impacts of the proposed development traffic.

SR 0230 and Ridge Run Road

- No improvements are necessary to mitigate the impact of traffic from the proposed development.

Colebrook Road and Harrisburg Avenue

- Installation of traffic signal control will be implemented to mitigate the impact of traffic from the proposed development. It is noted that traffic signal installation at this intersection is identified as a future intersection improvement in the Mount Joy Township Capital Improvements Plan.

- The proposed traffic signal will be added to the existing signal system on Cloverleaf Road.

Cloverleaf Road and Andrew Avenue/Norlanco Drive

- Construction of a 150-foot northbound left turn lane and a 275-foot southbound left turn lane on Cloverleaf Road will be implemented to mitigate impacts of the proposed development traffic. It is noted that these left turn lanes are identified as future intersection improvements in the Mount Joy Township Capital Improvements Plan.

Cloverleaf Road and Schwanger Road

- Construction of a 400-foot southbound right turn lane, with a 100-foot taper will be implemented to mitigate impacts of the proposed development traffic. It is noted that this additional lane would fall within the improvements identified as future intersection improvements in the Mount Joy Township Capital Improvements Plan.

Cloverleaf Road and Merts Drive

- No improvements are necessary to mitigate the impact of traffic from the proposed development.

Cloverleaf Road and PA Route 283 Eastbound Ramps

- Installation of traffic signal control will be implemented to provide adequate levels of service at this proposed intersection. It is noted that this traffic signal installation would fall within the improvements identified as future intersection improvements in the Mount Joy Township Capital Improvements Plan.
- This proposed traffic signal will be added to the existing signal system on Cloverleaf Road.

Cloverleaf Road and PA Route 283 Westbound Ramps

- Traffic signal timings modifications will be implemented to mitigate the impact of traffic from the proposed development.

SR 0230 and Right-In Access (near Convenience Store)

- Right turn lane analyses indicate that a 150-foot westbound right turn lane, with a 100-foot taper, is warranted along SR 0230 for traffic entering the proposed Right-In Access using 2030 Horizon Year traffic volumes.
- The Right-In Driveway is expected to have an ADT of 596 trips. This places the driveway in the Low Volume classification.

SR 0230 and Norlanco Drive Extension

- Installation of traffic signal control will be implemented to provide adequate levels of service at this proposed intersection. A 175-foot westbound right turn lane, with a 100-foot taper, will be constructed to accommodate traffic entering the Norlanco Drive Extension. The existing two-way center left turn only lane will

be restriped to show a 250-foot eastbound left turn lane and a 75-foot westbound left turn lane. Two (2) exiting lanes will be provided on the Norlanco Drive Extension.

- Sight distances for traffic entering and exiting the Norlanco Drive Extension are in excess of PennDOT sight distance criteria.

- The Norlanco Drive Extension is expected to have an ADT of 7,302 trips. The Norlanco Drive Extension will be a Local Road.

- This proposed traffic signal will be added to the existing signal system on Cloverleaf Road.

Cloverleaf Road and Right-In Access (near Convenience Store)

- Right turn lane analyses indicate that a 150-foot northbound right turn lane is warranted along Cloverleaf Road for traffic entering the proposed Right-In Access using 2030 Horizon Year traffic volumes. Given that the available space between the intersection with SR 0230 and the Right-In Access is approximately 130 feet and there will be no queuing in the right turn lane due to free flowing movement, it is recommended to provide a 55-foot right turn lane with a 75-foot taper.

- The Right-In Driveway is expected to have an ADT of 596 trips. This places the driveway in the Low Volume classification.

Cloverleaf Road and Eastern Parcels Access

- The Eastern Parcels Access will be designed to permit right-in/right-out movements. A raised, mountable-curb pork-chop island, meeting current PennDOT District 8-0 design expectations, will be provided to restrict entering and exiting left turn movements.

- The Eastern Parcel Access is expected to have an ADT of 3,279 trips. This places the driveway in the High Volume classification.
- Right turn lane analyses indicate that a 150-foot northbound right turn lane, with a 100-foot taper, is warranted along Cloverleaf Road for traffic entering the proposed Eastern Parcels Access using 2030 Horizon Year traffic volumes.
- It is recommended that STOP (R1-1, 30"x30") and NO LEFT TURN (R3-2, 30"x30") be provided on the proposed Eastern Parcels Access approach for traffic exiting the development site.
- It is recommended that NO LEFT TURN (R3-2, 30"x30") be provided on the southbound Cloverleaf Road approach on the near right corner and the far left corner.

Adjacent Vacant Land

- The parcel of land between Nolanco Drive Extension and Ridge Run Road will remain zoned Agricultural. If that parcel is rezoned in the future, an updated traffic study will be required to be submitted to PennDOT for review and approval.

The sight distance evaluations indicate that the lines of sight at the proposed site access locations are acceptable and provide for safe traffic movements. Documentation of sight distance evaluations is provided in Appendix N.

Trip Generation

The Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021) was used to estimate the number of trips which could be generated by the Mount Joy Town Center site. Table 5 summarizes the trip generation projections for the site, and trip generation calculation worksheets are provided in Appendix J.

Table 5. Proposed Land Use and Trip Generation Summary

Land Use (Code)	Daily Trips	Peak Hour Trips					
		AM Enter	AM Exit	PM Enter	PM Exit	SAT Enter	SAT Exit
Retail (821)	11,213	279	171	526	570	557	536
Pass-By Trips	–	0	0	210	228	173	166
New Trips	–	279	171	316	342	384	370
Conv. Store (945)	3,690	189	190	161	162	175	182
Pass-By Trips	–	144	144	121	121	114	118
New Trips	–	45	46	40	41	61	64
Total Site Trips	14,903	468	361	687	732	732	718
Total Pass-By Trips	–	144	144	331	349	287	284
Total New Trips	–	324	217	356	383	445	434

For the Convenience Store land use, trip generation calculations were performed using the number of vehicle fueling positions category with the building square footage as the secondary variable, and then with the building square footage category with the number of fueling positions as the secondary variable to determine the most conservative estimates. The most conservative estimate was used in the trip generation projections.

Pass-By Trips

Pass-By Trips are applicable to land uses associated with this development and were applied based on the following percentages:

- Shopping Plaza (40,000-150,000 sq. ft.) - 40% PM, 31% SAT
- Convenience Store - 76% AM, 75% PM, 65% SAT (assume 10% less than PM)

Documentation is provided in Appendix J.

Internal Capture Trips

Internal capture trips are applicable to the proposed land uses.

Trip Distribution/Assignment

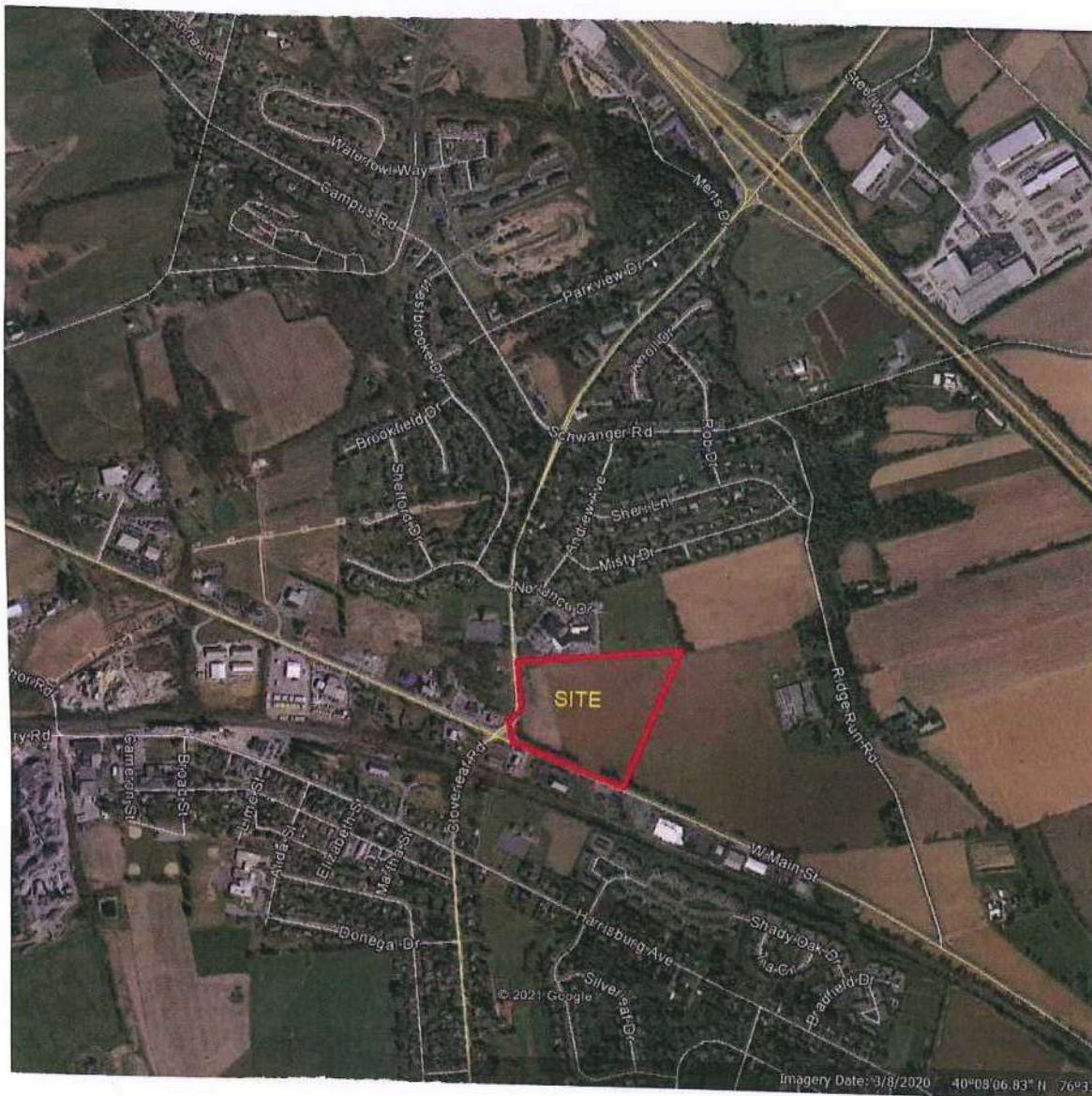
New and pass-by trips generated by the proposed development were distributed onto the surrounding roadway network based on gravity models as approved during the TIS Scoping Application process. The trip distributions for the peak hours are shown in Appendix B, Figures 4a and 4b. Additional trip distribution documentation is provided in Appendix K.

OPENING YEAR CONDITIONS WITH DEVELOPMENT

Traffic analyses conducted for conditions with the development are documented in this report section. The 2025 Opening Year was analyzed.

Volumes and Capacity Analysis

Capacity and queue analyses were completed using Synchro Software, Version 11.1, Build 3, Revision 34. The traffic signal timings that were optimized for No Build conditions were utilized for Build conditions. Capacity analyses for Opening Year traffic conditions with development at study area intersections are summarized in Appendix A, Tables 1, 3, and 5. Projected traffic volumes at study area intersections are shown in Appendix C, Figure 5b for the Opening Year. The capacity analyses worksheets are provided in Appendix L.

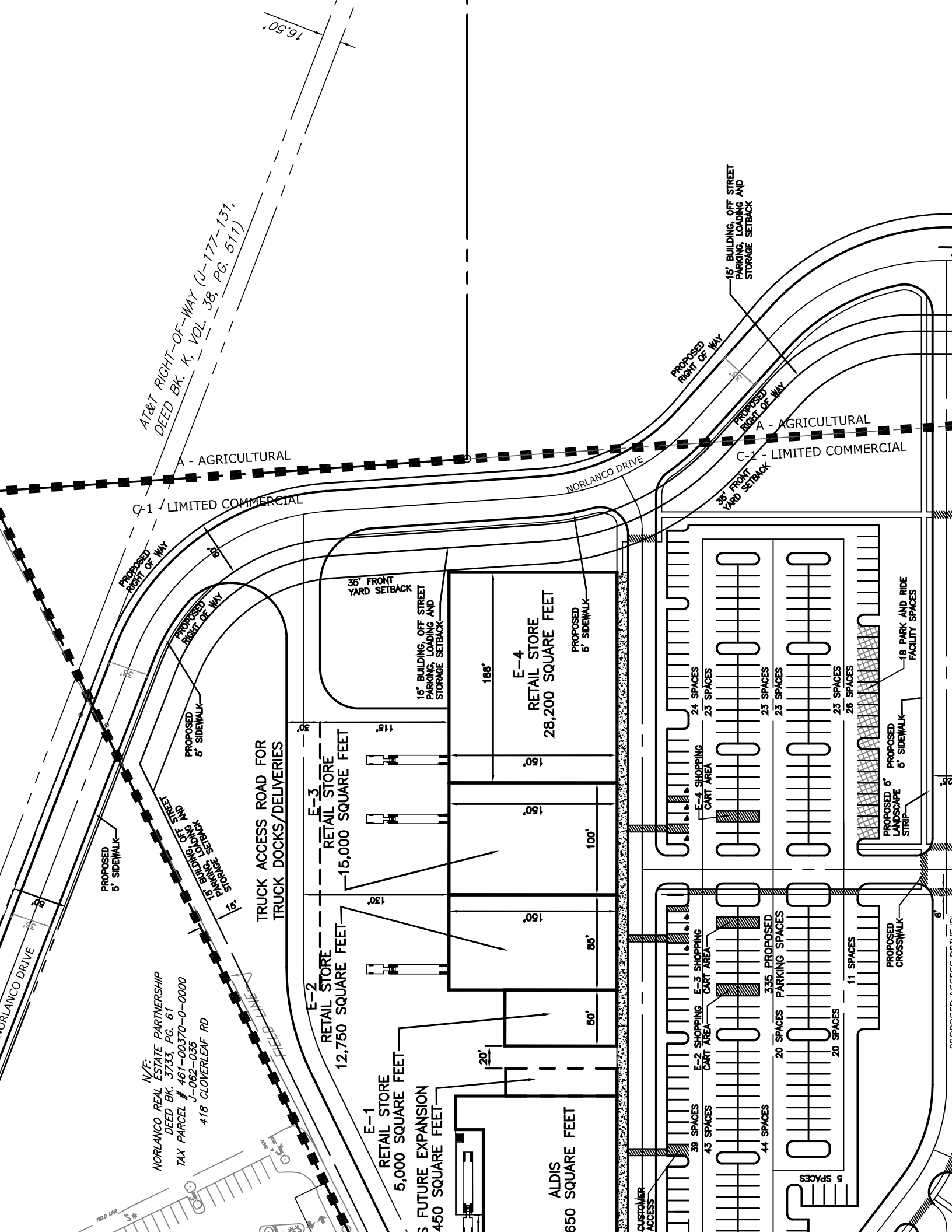


Transportation Impact Study

PENNMAR
PROPERTY

Mount Joy Township, Lancaster County

FIGURE 1
LOCATION MAP



AT&T RIGHT-OF-WAY (J-177-131, DEED BK. K, VOL. 38, PG. 511)

A - AGRICULTURAL

C-1 - LIMITED COMMERCIAL

PROPOSED RIGHT OF WAY

A - AGRICULTURAL

C-1 - LIMITED COMMERCIAL

35' FRONT YARD SETBACK

15' BUILDING, OFF STREET PARKING, LOADING AND STORAGE SETBACK

PROPOSED 5' SIDEWALK

PROPOSED 5' SIDEWALK

N/E:
NORLANCO REAL ESTATE PARTNERSHIP
DEED BK. 3733, PG. 61
TAX PARCEL # 461-00370-0-0000
J-062-035
418 CLOVERLEAF RD

TRUCK ACCESS ROAD FOR TRUCK DOCKS/DELIVERIES

E-2
RETAIL STORE
12,750 SQUARE FEET

E-3
RETAIL STORE
15,000 SQUARE FEET

E-1
RETAIL STORE
5,000 SQUARE FEET
FUTURE EXPANSION
450 SQUARE FEET

E-4
RETAIL STORE
28,200 SQUARE FEET

ALDIS
6650 SQUARE FEET

E-4 SHOPPING CART AREA
24 SPACES
23 SPACES

E-2 SHOPPING CART AREA
39 SPACES
43 SPACES

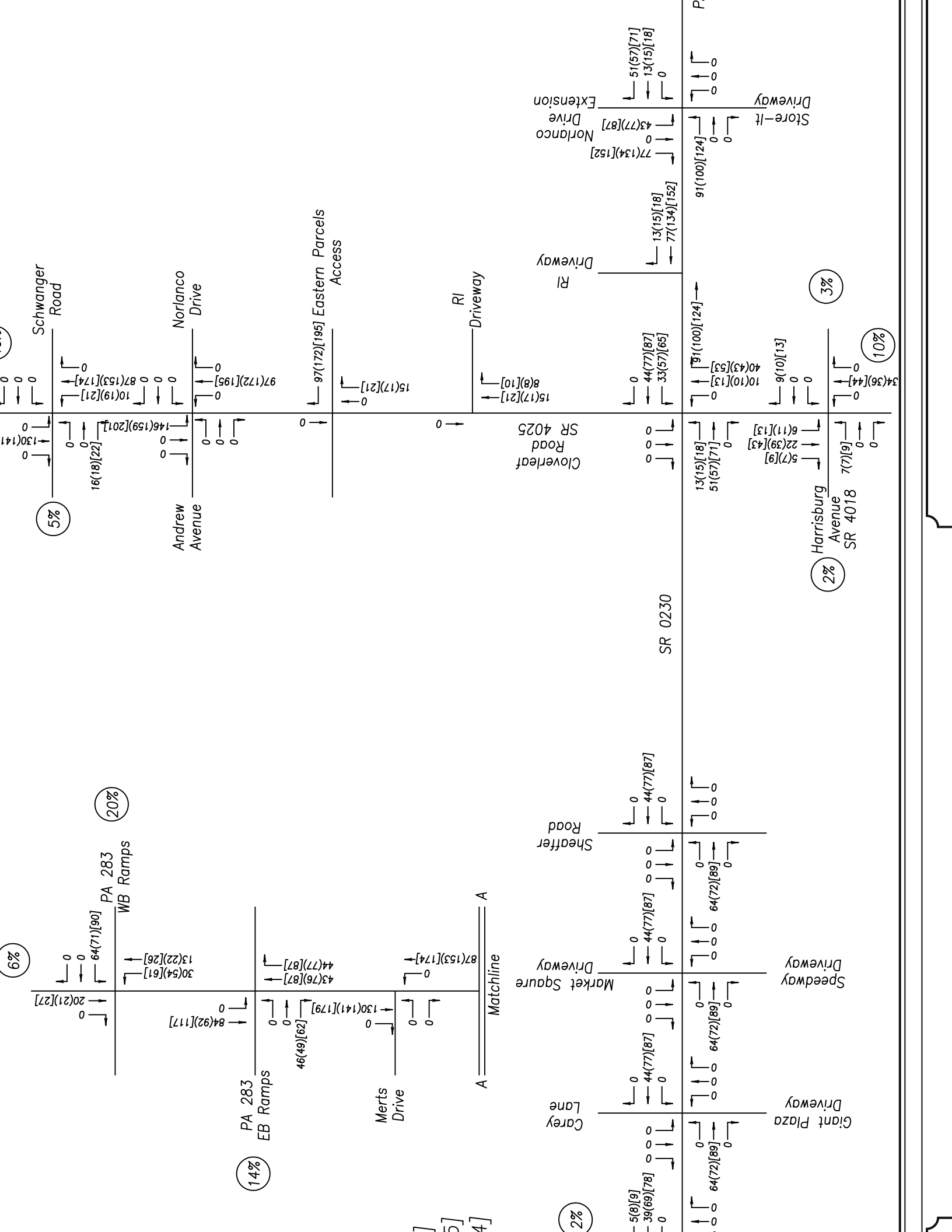
335 PROPOSED PARKING SPACES

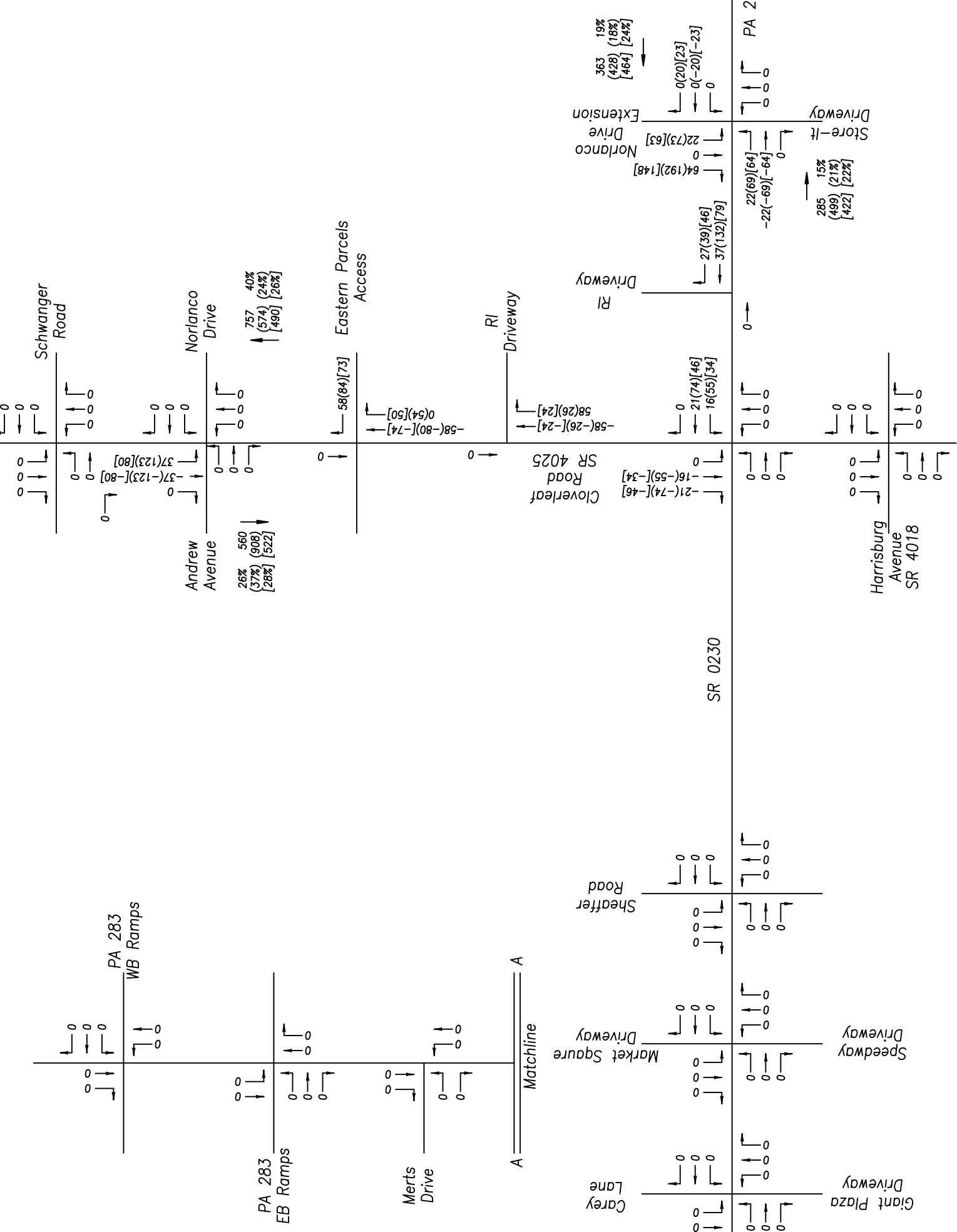
20 SPACES
20 SPACES
11 SPACES

18 PARK AND RIDE FACILITY SPACES

PROPOSED 6' LANDSCAPE STRIP
5' SIDEWALK

PROPOSED CROSSWALK





Transportation Impact Study

Raffensberger Tract

Mount Joy Township
Lancaster County, PA

December 9, 2020

Prepared for submission to:

Mount Joy Township



Prepared by:

RETTEWSM

We answer to you.

Raffensberger Tract

Transportation Impact Study

Mount Joy Township
Lancaster County, Pennsylvania

For Submission to:

Mount Joy Township

Prepared for:

Mr. Gerry Horst, President
Horst & Son, Inc.
120 North Pointe Blvd., #101
Lancaster, PA 17601

December 9, 2020

RETTEW Project No.: 019792000

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John M. Schick, EIT
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Under the Direction of: _____

Jeffrey Case, PE
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EXECUTIVE SUMMARY

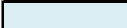
This report presents the results of the proposed development of the Raffensberger Tract into 88 single-family detached dwelling units in Mount Joy Township, Lancaster County Pennsylvania, on the surrounding roadway network and includes an assessment of the site access requirements. Based on the analyses of the traffic impact area, the following conclusions have been reached:

1. This report has been prepared in accordance with Section 119-32.C of the Mount Joy Township Subdivision and Land Development Ordinance (SALDO), as applicable.
2. The project scope and the extent of the study area were based on the contents of the TIS Scope Determination Request, dated October 2, 2020 and feedback received from Township staff and their engineers. The study area intersections included in this TIS are as follows:
 - S. Market Street (SR 0230) and Sheaffer Road;
 - Sheaffer Road and Schwanger Road;
 - Sheaffer Road and Campus Road;
 - Schwanger Road, Campus Road, and Merts Drive; and,
 - Sheaffer Road and the four (4) Proposed Site Accesses.
3. The project site is located along Sheaffer Road between S. Market Street and Schwanger Road in the western end of Mount Joy Township and is currently being utilized for agricultural activity. The proposed project will be phased and begin occupancy in 2022 with full occupancy and buildout by 2023. Phase 1 will contain 52 single-family detached dwelling units and be located on the eastern end of the site and Phase 2 will contain the remaining 36 single-family detached dwelling units and will be located to the western end of the site.
4. The points of access to the site will be obtained from four (4) new local road accesses located along Sheaffer Road.
5. Since the traffic counts were conducted after March 13, 2020, the guidance outlined in the April 23, 2020 PennDOT Strike-Off Letter 494-20-04 were followed. Therefore, the existing base 2020 traffic volumes were increased at all intersections studied by 7% in the AM peak hour and 22% in the PM peak hour.
6. Based on the trip generation analysis, the proposed development will generate approximately 67 trips during the weekday AM peak hour and 90 trips during the weekday PM peak hour.
7. Capacity analyses were conducted to determine the quality of operation (LOS) at the study area intersections for the existing 2020, 2023 and 2028 base (no-build), and 2023 and 2028 projected (build) conditions. The capacity analyses were conducted in accordance with the standards contained in PennDOT's Policies and Procedures for Transportation Impact Studies, as well as Section 119-32.C(5)(i) of the Mount Joy Township SALDO.

8. Levels of Service (LOS) for the study area intersections have been summarized in matrix form. **Table A** details the overall intersection LOS for each study area intersection for the analyzed conditions and time periods. **Table 11** in the report details the LOS for all approaches and movements at the study area intersections for the analyzed conditions and time periods.

Under the 2023 and 2028 projected (build) conditions, the study area intersections will operate in accordance with the standards contained in Section 119-32.C(5)(i) of the Mount Joy Township SALDO.

Table A - Overall Level of Service Summary						
Intersection	Time Period	Existing	2023 Build-Out Year		2028 Design Year	
			Base	Projected	Base	Projected
S. Market Street (SR 0230) and Sheaffer Road	AM Peak	A (8.7)	A (8.9)	A (9.6)	A (8.5)	A (9.1)
	PM Peak	B (15.3)	B (15.7)	B (17.9)	B (14.0)	B (15.6)
Sheaffer Road and Schwanger Road	AM Peak	A (1.2)	A (1.5)	A (1.8)	A (1.6)	A (1.7)
	PM Peak	A (2.5)	A (2.6)	A (3.2)	A (2.6)	A (3.3)
Campus Road and Sheaffer Road	AM Peak	A (8.5)	A (8.6)	A (8.7)	A (8.8)	A (8.8)
	PM Peak	B (11.2)	B (11.6)	B (11.6)	B (12.1)	B (12.2)
Schwanger Road, Campus Road, and Merts Drive	AM Peak	A (2.8)	A (4.4)	A (5.0)	A (4.4)	A (5.1)
	PM Peak	B (11.2)	B (11.6)	B (11.6)	B (12.1)	B (12.2)
Sheaffer Road and Proposed Road "A"	AM Peak	n/a	n/a	A (0.7)	n/a	A (0.7)
	PM Peak	n/a	n/a	A (0.4)	n/a	A (0.4)
Sheaffer Road and Proposed Road "B"	AM Peak	n/a	n/a	A (0.7)	n/a	A (0.7)
	PM Peak	n/a	n/a	A (0.4)	n/a	A (0.4)
Sheaffer Road and Proposed Road "C"	AM Peak	n/a	n/a	A (0.7)	n/a	A (0.5)
	PM Peak	n/a	n/a	A (0.4)	n/a	A (0.3)
Sheaffer Road and Proposed Road "D"	AM Peak	n/a	n/a	A (0.6)	n/a	A (0.5)
	PM Peak	n/a	n/a	A (0.3)	n/a	A (0.3)

 - With Improvements Implemented

9. The following roadway improvements are recommended at the study area intersections:

S. Market Street (SR 0230) and Sheaffer Road

- Improvements proposed, as included in the Mount Joy Township Capital Improvement Plan include the construction of an additional westbound SR 0230 through lane and traffic signal timing modifications. These improvements were assumed in place for the 2028 traffic analysis scenarios.
- No additional improvements are required for this intersection.

Sheaffer Road and Schwanger Road

- No improvements are required for this intersection.

Sheaffer Road and Campus Road

- No improvements are required for this intersection.

Schwanger Road, Campus Road, and Merts Drive

- No improvements are required for this intersection.

Sheaffer Road and the four (4) Proposed Site Accesses

- Provide a STOP sign on the northbound egress approaches.
- Provide and perpetually maintain required sight distances.
- All improvements will be constructed to accommodate non-motorized access/circulation and be ADA-compliant unless otherwise approved by the Township.

The measured local roadway sight distances, based on the current geometric and posted speed limit conditions, were determined to be adequate for all conditions. The sight distance field data sheets are provided in **Appendix G**.

TRIP GENERATION

Estimated trip generation for the proposed development were computed using the procedures derived from the manual *Trip Generation*, Tenth Edition + Supplements, 2020, an Institute of Transportation Engineers (ITE) Informational Report.

Single-family detached dwelling unit land use from *Trip Generation* were used to calculate the number of vehicular trips the development would generate during the following time periods: (1) Average weekday; (2) weekday AM peak hour; and, (3) weekday PM peak hour. **Table 7** below displays the equations and the directional distribution percentages for the entire development for each studied time period.

Table 7 - Trip Generation Rates					
Land Use	Time Period	Rate	Size	Entering	Exiting
Single-Family Detached Dwellings (ITE Code 210)	AM Peak Hour	$T = 0.71(D) + 4.80$	88	25%	75%
	PM Peak Hour	$\ln(T) = 0.96\ln(D) + 0.20$	88	63%	37%
	Weekday ADT	$\ln(T) = 0.92\ln(D) + 2.71$	88	50%	50%

T = number of site-generated vehicular trips D = independent variable (Dwelling Units)

Table 8 summarizes the trip generation for an average weekday, weekday AM, and weekday PM peak hours.

Table 8 – Trip Generation Program							
Land Use	AM Peak Hour			PM Peak Hour			ADT
	In	Out	Total	In	Out	Total	
88 Single-Family Detached Dwelling Units	17	50	67	57	33	90	924

Based on the trip generation analysis summarized in **Table 8**, the proposed development will generate approximately 67 trips during the weekday AM peak hour and 90 trips during the weekday PM peak hour. Details of the trip generation calculations are included in **Appendix H**.

TRIP DISTRIBUTION

The distribution and assignment of new trips generated by the development were based on an analysis of the following: (1) existing travel patterns and distribution of the traffic within the study area; (2) available routes to/from the site; and, (3) the proposed site access location.

The new trips for the proposed development were distributed to the local roadway network based on the general percentages shown in **Table 9** and as illustrated in **Figure 6**.

Table 9 – Trip Distribution Percentages		
Direction (To/From)	Assignment (To/From)	Distribution Percentage (To/From)
West	via S. Market Street	15%
East	via S. Market Street	20%
South	via Sheaffer Road	5%
East	via Schwanger Road	55%
West	via Campus Road	5%
Total		100%

The assignment of the “new” site-generated trips for the weekday AM and PM peak hours are shown in **Figure 7**.

PROJECTED (BUILD) CONDITION TRAFFIC VOLUMES

The site-generated trips for the proposed development were added to the 2023 and 2028 base (no-build) condition traffic volumes to develop 2023 and 2028 projected (build) condition traffic volumes. These volumes include the existing traffic, future “background” traffic volumes, and the site-generated traffic of the proposed redevelopment and are shown in **Figures 8 and 9**, respectively.

LEVEL OF SERVICE FOR AN INTERSECTION

Highway capacity analysis uses Level of Service (LOS) to qualitatively relate capacity to operational conditions. LOS ranges from "A" to "F", with "A" being the best operating condition and "F" being the worst. Generally, LOS C or better is desirable, but in areas with substantial traffic congestion or flows, LOS D is also considered acceptable.

LOS for unsignalized intersections is measured by average total delay in seconds per vehicle (sec/veh). **Table 10** provides a correlation between LOS and average total delay for unsignalized intersections. The volume to capacity ratio (v/c) relates the peak hour traffic volumes to the theoretical maximum traffic volumes that the intersection can process under ideal conditions.

LOS for signalized intersections are measured by average stopped delay per vehicle. The volume to capacity ratio (v/c) relates the peak hour traffic volumes to the theoretical maximum traffic volumes that the intersection can process under ideal conditions. **Table 10** also shows level of service criteria for signalized intersections.

C:_RettewVault\WP\019792000-Raffensberger\Sheets\TR\019792000-TR-TIS_FIGS.dwg

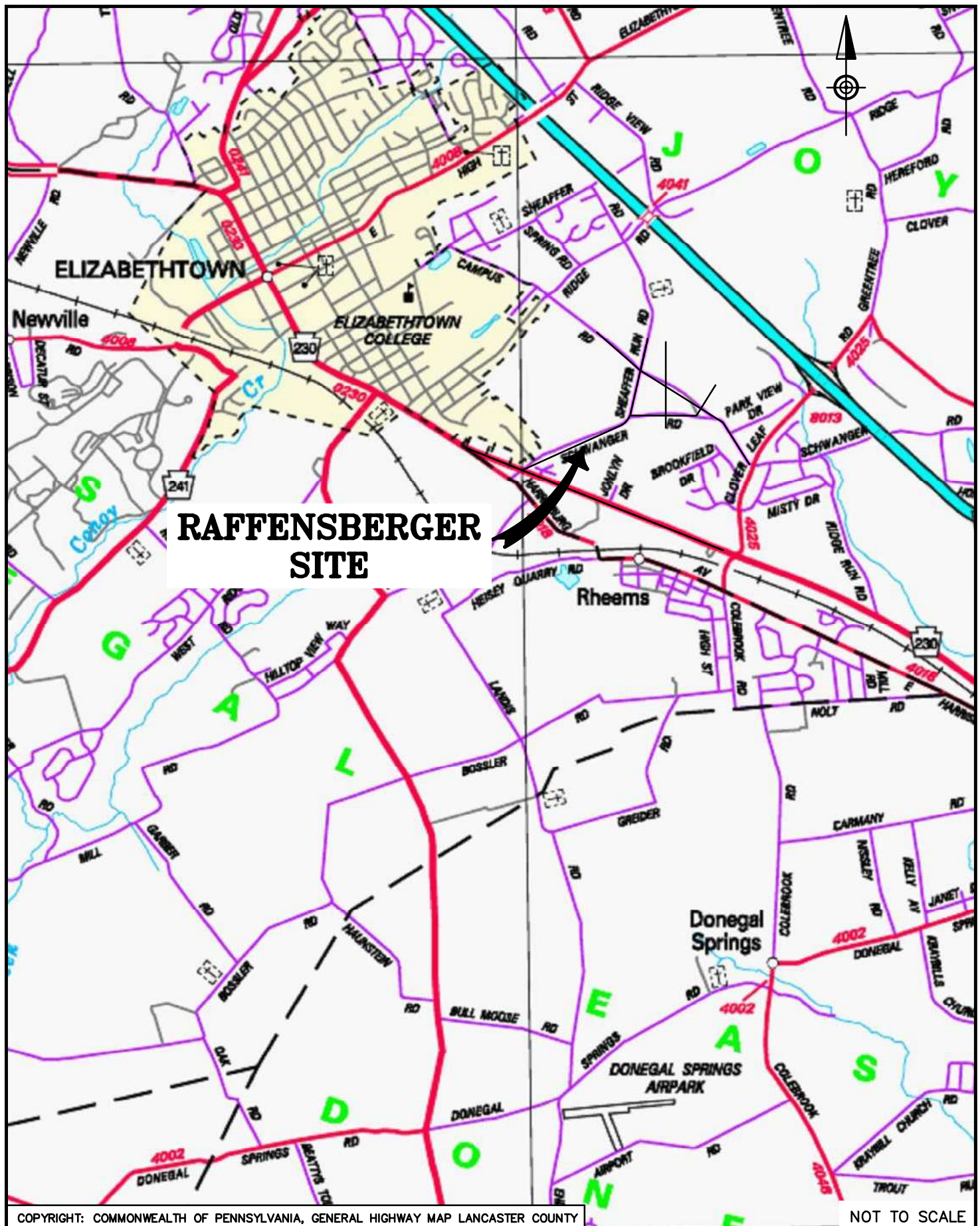


Figure 1
Site Location
RAFFENSBERGER

Mount Joy Township

Lancaster County, PA

RETTEWSM

3020 Columbia Ave., Lancaster, PA 17603
TEL (717) 394-3721 FAX (717) 394-1063

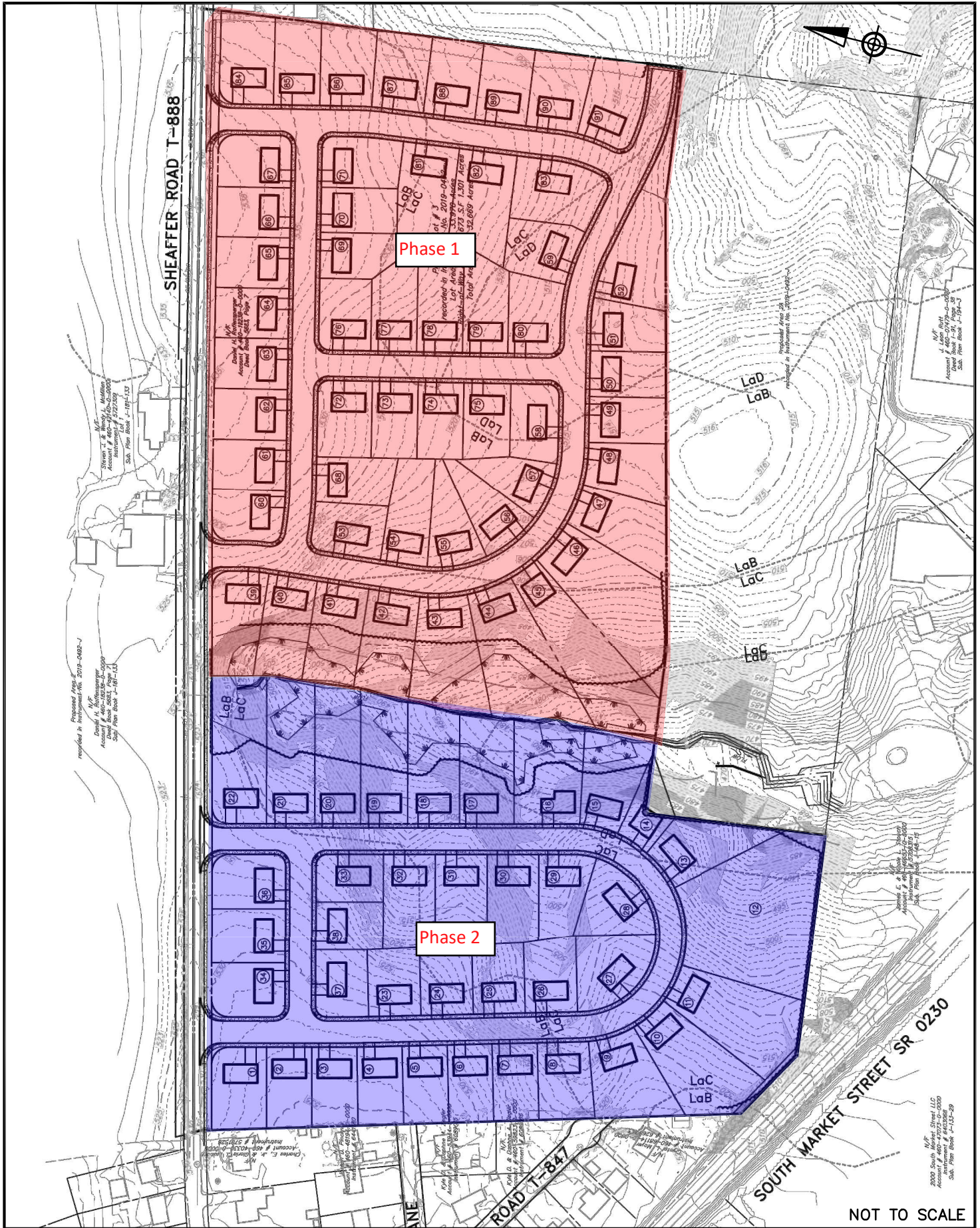


Figure 2
Site Layout
RAFFENSBERGER

Mount Joy Township

Lancaster County, PA

RAFFENSBERGER

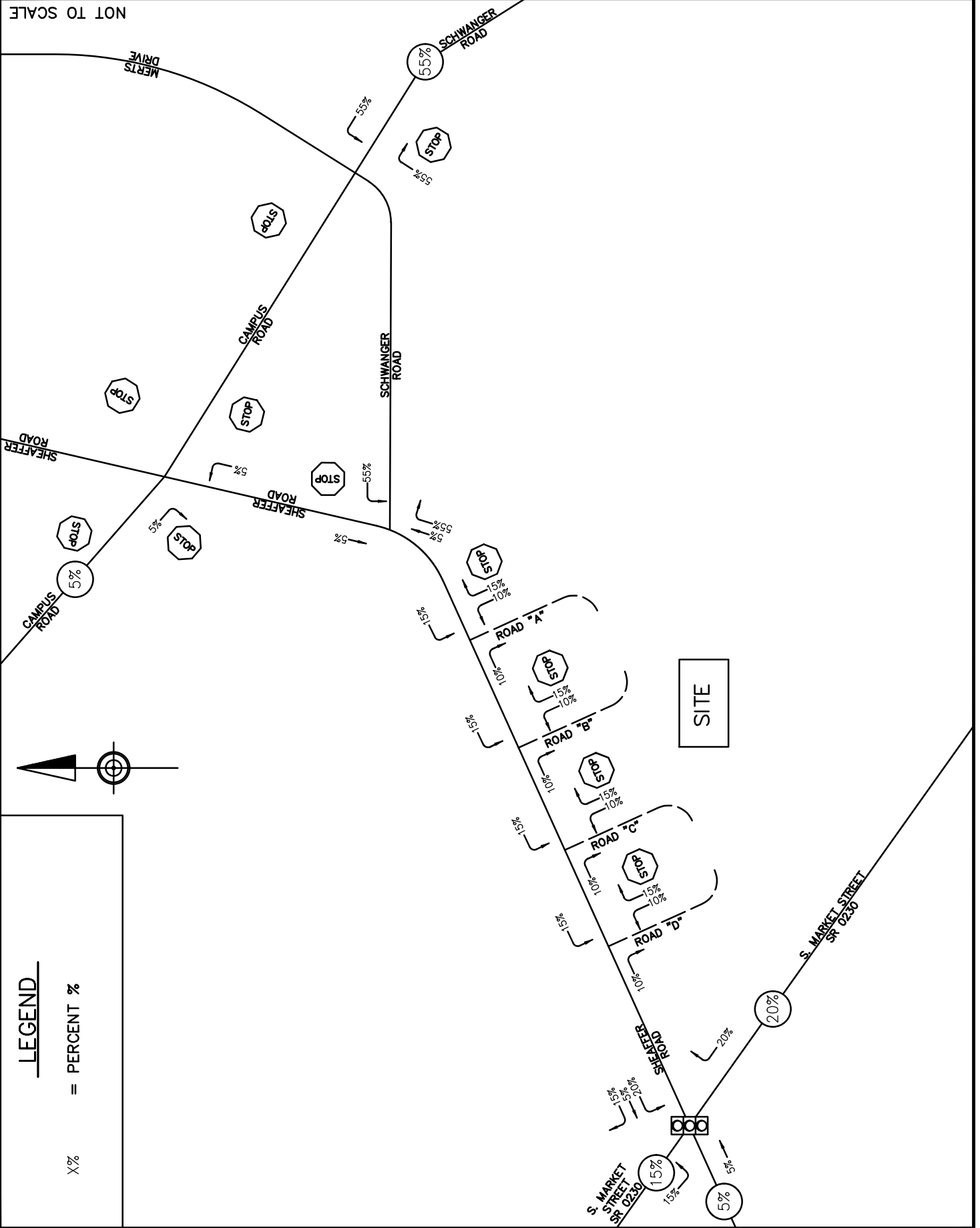
Directional Distribution of Site-Generated Traffic

Figure 6

RETLEW

3020 Columbia Ave., Lancaster, PA 17603
TEL (717) 394-3721 FAX (717) 394-1063

NOT TO SCALE



Mount Joy Township

RAFFENSBERGER

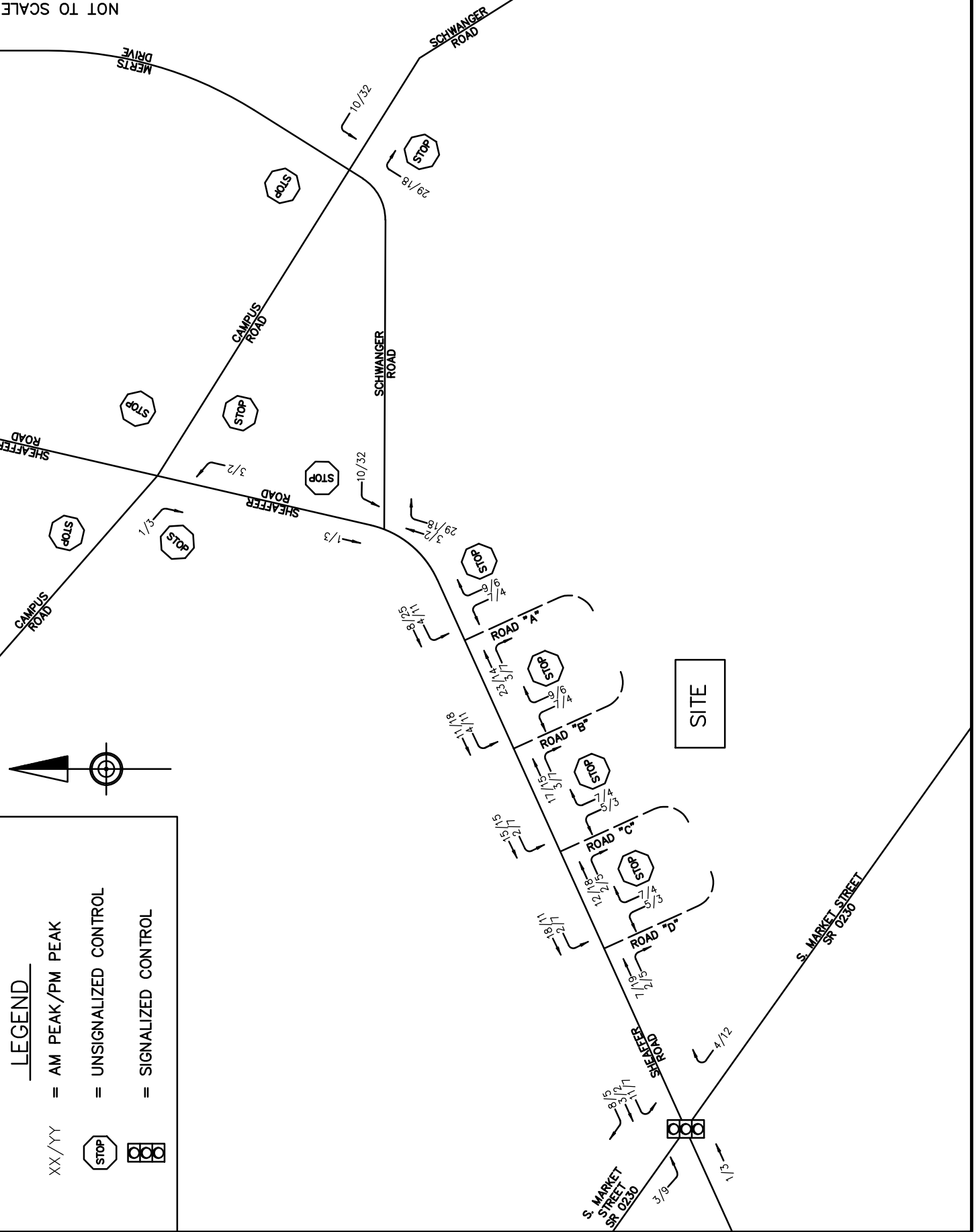
Site-Generated AM And PM Peak Hour Traffic Volumes

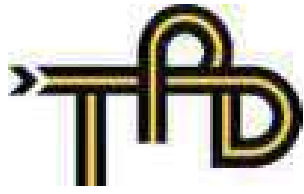
Figure 7

RETTEW
3020 Columbia Ave., Lancaster, PA 17603
TEL (717) 394-3721 FAX (717) 394-1063

Lancaster County, PA

NOT TO SCALE





Appendix D:

Trip Generation And Distribution





Trip Generation Calculations - Combined Total

Condition	Trips: All Vehicles			Trips: Trucks			Trips: Passenger Cars		
	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
Average Weekday	2422	1210	1212	383	192	191	2039	1018	1021
Weekday AM Peak Hour of Adjacent Street Traffic	199	143	56	43	24	19	156	119	37
Weekday PM Peak Hour of Adjacent Street Traffic	229	63	166	44	23	21	185	40	145
Average Saturday	661	331	330	106	53	53	555	278	277
Saturday Peak Hour of Generator	103	40	63	13	6	7	90	34	56
Average Sunday	563	280	283	90	45	45	473	235	238
Sunday Peak Hour of Generator	97	33	64	12	6	6	85	27	58

Mellott, Craig

From: Kinard, Eric W <ekinard@pa.gov>
Sent: Thursday, November 6, 2025 10:01 AM
To: Mellott, Craig
Cc: Dzurko, Michael J; Warden, William J; Thompson, Vickie M.; Whalen, Dan
Subject: Re: [External] Warehouse Trip Generation - Current ITE Manual

Good morning Craig,

Yes, we are agreeable to using the LUC 150 12th edition data with the SOL flowchart.

Thanks for your patience with this one. Give me a shout if you have any questions.

[cid:eca6cd14-4f35-40df-a249-04e3c199bf3b]

Eric Kinard | District Permits Manager

PA Department of Transportation | PennDOT Engineering District 8-0

Traffic Unit | Permits Section

2140 Herr Street | Harrisburg PA 17103-1699

Phone: 717-787-9237 | Cell: 717-773-8179 | ekinard@pa.gov<<mailto:ekinard@pa.gov>>

www.pa.gov/penndot<<http://www.pa.gov/penndot>>

CONNECT WITH PENNDOT

Mellott, Craig

From: Mellott, Craig
Sent: Wednesday, October 15, 2025 3:25 PM
To: Kinard, Eric W
Cc: Dzurko, Michael J; Warden, William J; Thompson, Vickie M.; Whalen, Dan
Subject: RE: [External] Warehouse Trip Generation - Current ITE Manual
Attachments: 12Edition ITE #150 filtered for less than 500ksf and NE.pdf; ITE 150 Data Unfiltered 12th Edition.pdf; ITE 154 Data Unfiltered 12th Edition.pdf

Eric – no problem. For purposes of this interim discussion, I focused on only the ITE#150 data (filtered for buildings <500 ksf and in the NE/Mid-Atlantic Region) along with ITE#154 from the 12th edition, since those are the two current methodologies referenced in 282 and the flow chart. Below is a table showing the difference – as you can see, ITE #154 stayed the same (looks like no new data added for #ITE 154 since the 11th edition).

ITE #150, filtered for <50 ksf and NE/Mid-Atlantic, did go down pretty substantially for total vehicles – this LUC did get new data since the 11th edition, some of which were the 15 sites PennDOT studied (that were incorporated into the statistics).

ITE's 12th edition web application gives an error when we tried to get filtered ITE#150 data for trucks during the AM/PM peaks; that's why we don't show anything below relative to the 12th edition for those scenarios. We've reached out to ITE to see if they can figure out why it's giving an error.

I've also attached PDF data from the 12th Edition for the following: (1) Filtered data for ITE #150 for <500 ksf and NE/Mid-Atlantic Region; (2) unfiltered ITE trip gen data for ITE #150; (3) unfiltered ITE trip gen data for ITE #154.

Let me know your thoughts – I can provide info on other ITE codes if you'd like (ITE#155 (High-Cube Fulfillment), #156 (High Cube Parcel Hub), #157 (High-Cube Cold Storage), but those are fairly specific users that would seem to be appropriate if the actual end user is known (although obviously happy to hear PennDOT's feedback in that regard).

Thanks!

TABLE A
ITE TRIP GENERATION DATA 11TH VS 12 EDITION TRIP GENERATION MANUAL

Land Use	ITE #	Time Period	Trip Type	Weighted Average Rate
High-Cube Transload and Short-Term Storage Warehouse	154	Weekday	All Vehicular	1.40 (1.40)
			Truck	0.22 (0.22)
		Weekday A.M. Peak Hour	All Vehicular	0.08 (0.08)
			Truck	0.02 (0.02)
		Weekday P.M. Peak Hour	All Vehicular	0.10 (0.10)
			Truck	0.01 (0.01)
Warehousing <500 KSF GFA	150 ¹	Weekday	All Vehicular	3.02 (2.52)
			Truck	0.60 (0.40)
		Weekday A.M. Peak Hour	All Vehicular	0.42 (0.24)
			Truck	0.05
		Weekday P.M. Peak Hour	All Vehicular	0.37 (0.27)
			Truck	0.06

T = number of site-generated vehicular trips X = independent variable (ksf, thousand square feet of gross leasable areas)

1 = ITE LUC 150 Filtered by Northeast & Mid-Atlantic Region/Size



Black Bold Font: 11th Edition Trip Generation Manual

Red Font (Rates identified in 12th Edition Trip Generation Manual)

Craig Mellott, P.E., PTOE, Vice President



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From: Kinard, Eric W <ekinard@pa.gov>

Sent: Wednesday, October 15, 2025 1:06 PM

To: Mellott, Craig <cmellott@tpdinc.com>

Cc: Dzurko, Michael J <MDZURKO@pa.gov>; Warden, William J <wilwarden@pa.gov>; Thompson, Vickie M. <victthompso@pa.gov>; Whalen, Dan <danwhalen@pa.gov>

Subject: RE: [External] Warehouse Trip Generation - Current ITE Manual

Craig,

Could you quantify and document the changes to all the various warehouse LUC in the 12th edition so we could evaluate?

It's embarrassing, but due to the budget impasse, we can't purchase the newest edition.



Eric Kinard | District Permits Manager

PA Department of Transportation | PennDOT Engineering District 8-0
Traffic Unit | Permits Section
2140 Herr Street | Harrisburg PA 17103-1699
Phone: 717-787-9237 | Cell: 717-773-8179
ekinard@pa.gov

www.pa.gov/pennDOT

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From: Mellott, Craig <cmellott@tpdinc.com>

Sent: Wednesday, October 15, 2025 11:42 AM

To: Kinard, Eric W <ekinard@pa.gov>; Warden, William J <wilwarden@pa.gov>; Thompson, Vickie M. <victhompso@pa.gov>; Whalen, Dan <danwhalen@pa.gov>

Cc: Dzurko, Michael J <MDZURKO@pa.gov>

Subject: [External] Warehouse Trip Generation - Current ITE Manual

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Eric/Bill/Vickie/Dan – thanks again for talking with me this morning on PennDOT District 8-0's methodologies for generating trips associated with speculative warehousing where end users are not yet known. I wanted to confirm that moving forward, since the 12th edition of ITE's *Trip Generation Manual* was recently issued, PennDOT 8-0 is comfortable using the attached flow chart (from the current Publication 282) to establish trip generation rates for speculative warehouse development, but rather than using the 11th edition of the *Trip Generation Manual*, **usage of the 12th edition ITE Trip Generation Manual data for the flow chart determination/trip generation calculations is acceptable.**

If you would, we'd appreciate you confirming this understanding until such time (if/when) Central Office decides to update the methodology in a future Publication 282 update. I've copied Mike Dzurko on this email as well to keep him in the loop.

Let me know your thoughts. Thank you!

Craig Mellott, P.E., PTOE, Vice President



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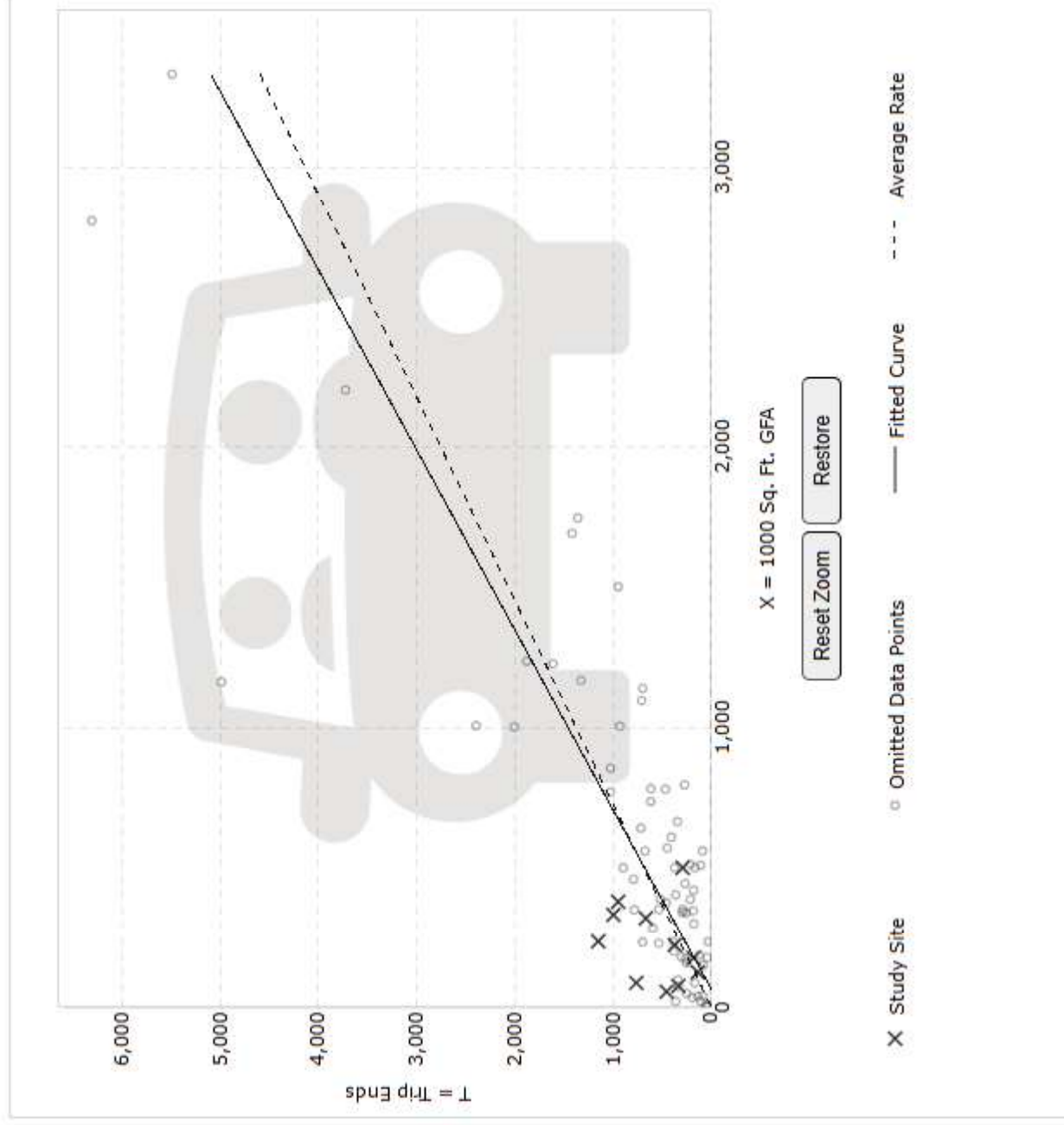
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Data Plot and Equation

Caution – Filtered Data Set



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

ORIGINAL DATA SET

Land Use:

Warehouse (150) [Click for Description](#)

Independent Variable:

1000 Sq. Ft. GFA

Time Period:

Weekday

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

81

Avg. 1000 Sq. Ft. GFA:

554

Average Rate:

FILTERED DATA SET

Filtered by:

Region: Northeast & Mid-Atlantic

Years: 1991-2023

IV Value: 3.89-500

Number of Studies:

11 out of 81

Avg. 1000 Sq. Ft. GFA:

228

Average Rate:

2.52

Range Of Rates:

0.59 - 8.75

Standard Deviation:

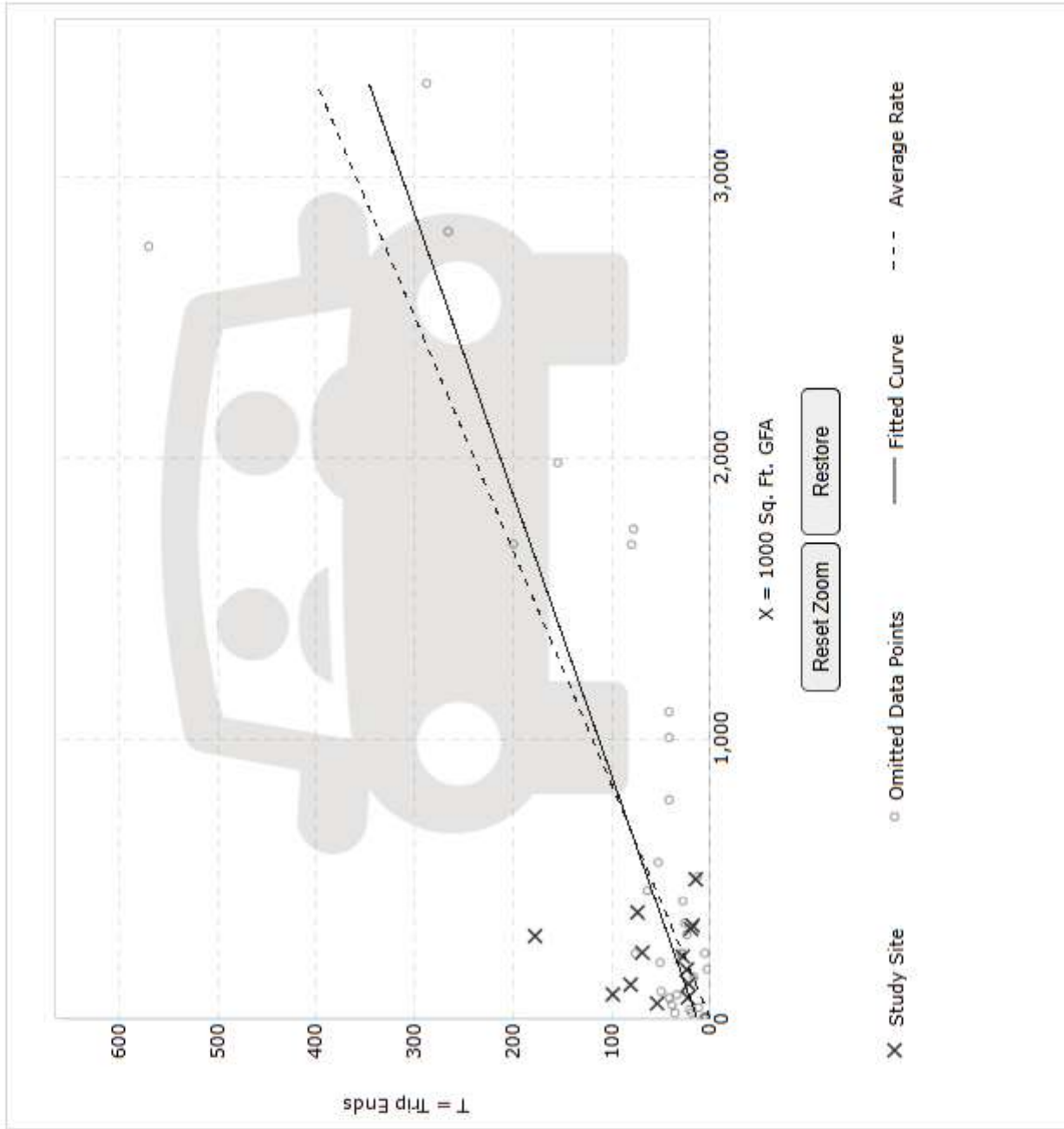
2.05

Directional Distribution:

50% entering, 50% exiting

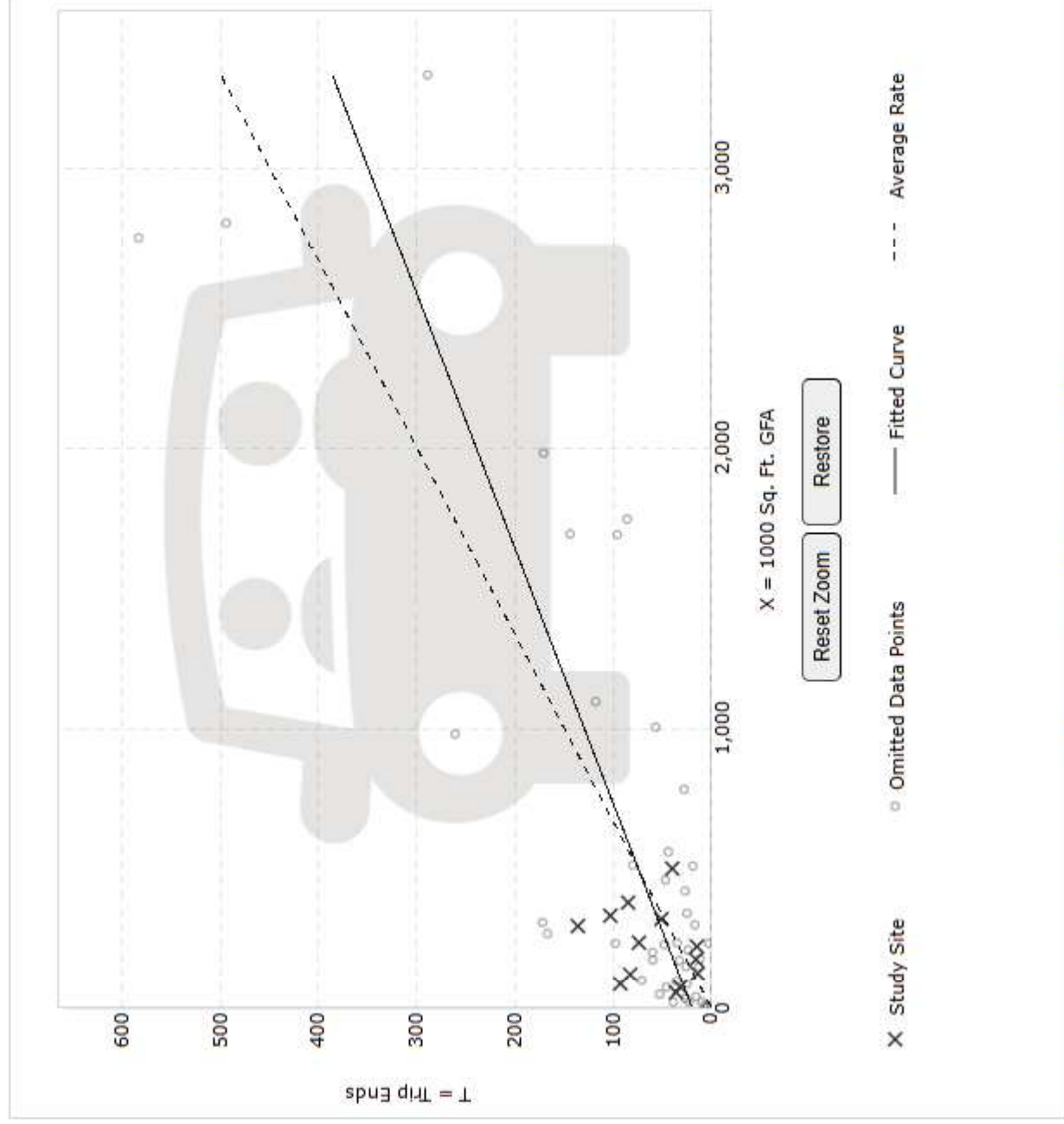
Data Plot and Equation

Caution – Filtered Data Set



Data Plot and Equation

Caution – Filtered Data Set



ORIGINAL DATA STATISTICS

Land Use:

Warehouse (150) [Click for Description and Plots](#)

Independent Variable:

1000 Sq. Ft. GFA

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

58

Avg. 1000 Sq. Ft. GFA:

FILTERED DATA STATISTICS

Filtered by:

Region: Northeast & Mid-Atlantic
Years: 1990-2023
IV Value: 3.89-500

Number of Studies:

13 out of 58

Avg. 1000 Sq. Ft. GFA:

225

Average Rate:

0.27

Range Of Rates:

0.07 - 1.06

Standard Deviation:

0.23

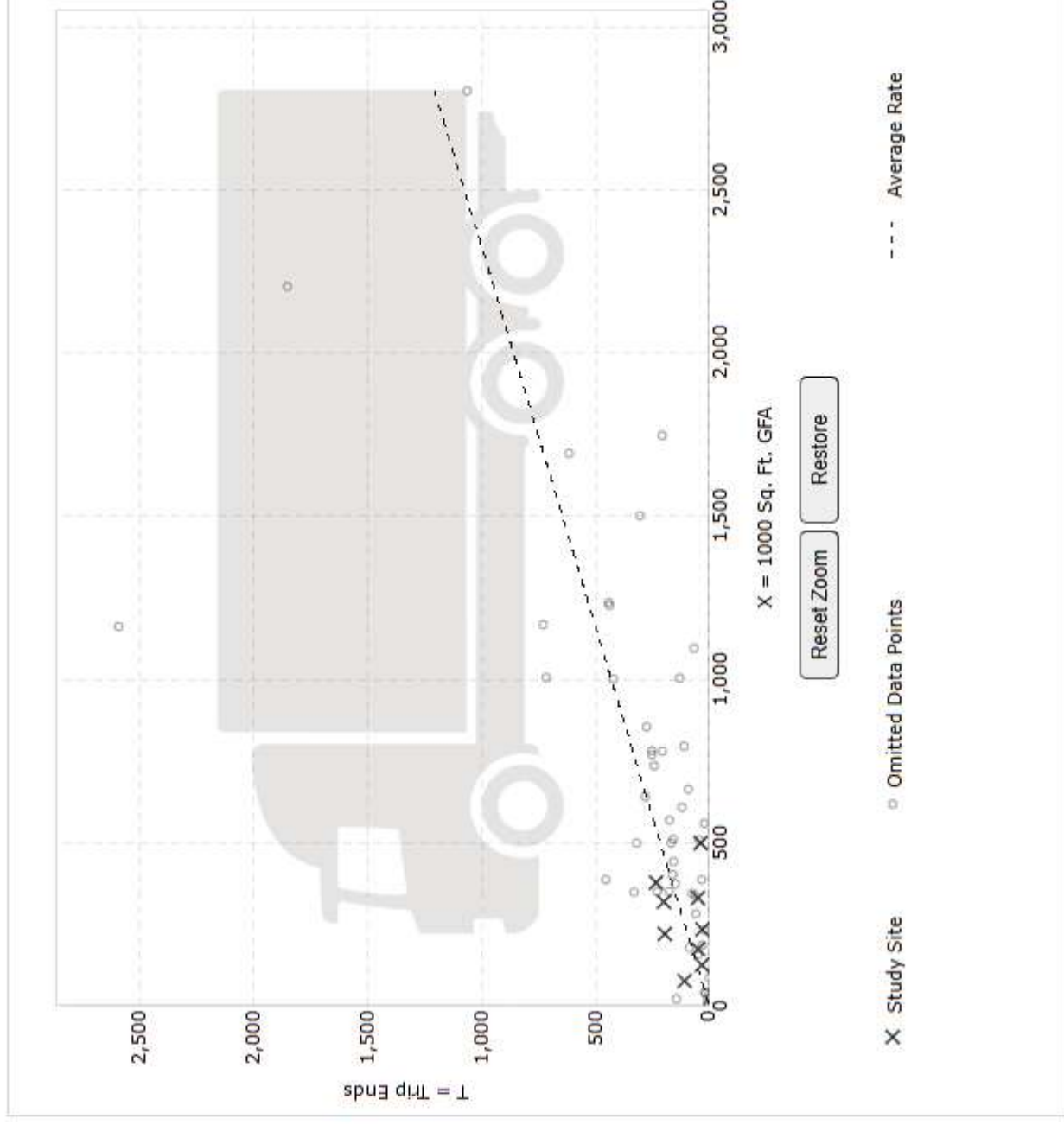
Directional Distribution:

27% entering, 73% exiting

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Data Plot and Equation

Caution – Filtered Data Set



ORIGINAL DATA STATISTICS

Land Use:

Warehouse (150) [Click for Description and Plots](#)

Plots

Independent Variable:

1000 Sq. Ft. GFA

Time Period:

Weekday

Setting/Location:

General Urban/Suburban

Trip Type:

Truck

Number of Studies:

61

Avg. 1000 Sq. Ft. GFA:

591

Average Rate:

FILTERED DATA STATISTICS

Filtered by:

Region: Northeast & Mid-Atlantic

Years: 2010-2023

IV Value: 3.89-500

Number of Studies:

9 out of 61

Avg. 1000 Sq. Ft. GFA:

263

Average Rate:

0.40

Range Of Rates:

0.08 - 1.43

Standard Deviation:

0.35

Directional Distribution:

50% entering, 50% exiting

Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Land Use: 150

Warehouse

Description

A warehouse is a large building primarily devoted to the storage of goods and materials but may also include office and maintenance areas. Stored goods can include raw materials, packing materials, parts, or other finished goods. A warehouse may provide long-term storage or serve as a distribution center for transferring goods between carriers (e.g., from long-haul carrier to a local delivery vehicle). A warehouse typically has loading docks to load and unload goods from trucks.

Additional Data

An additional resource which provides more information about warehouse types and definitions is available from NAIOP Research Foundation: Commercial Real Estate Terms and Definitions report from April 2024. <https://www.naiop.org/globalassets/research-and-publications/report/terms-and-definitions-/naiop-2024-terms-and-definitions.pdf>

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in California, Connecticut, Florida, Minnesota, New Jersey, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050, 1214, 1221, 1257, 1286

Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 81

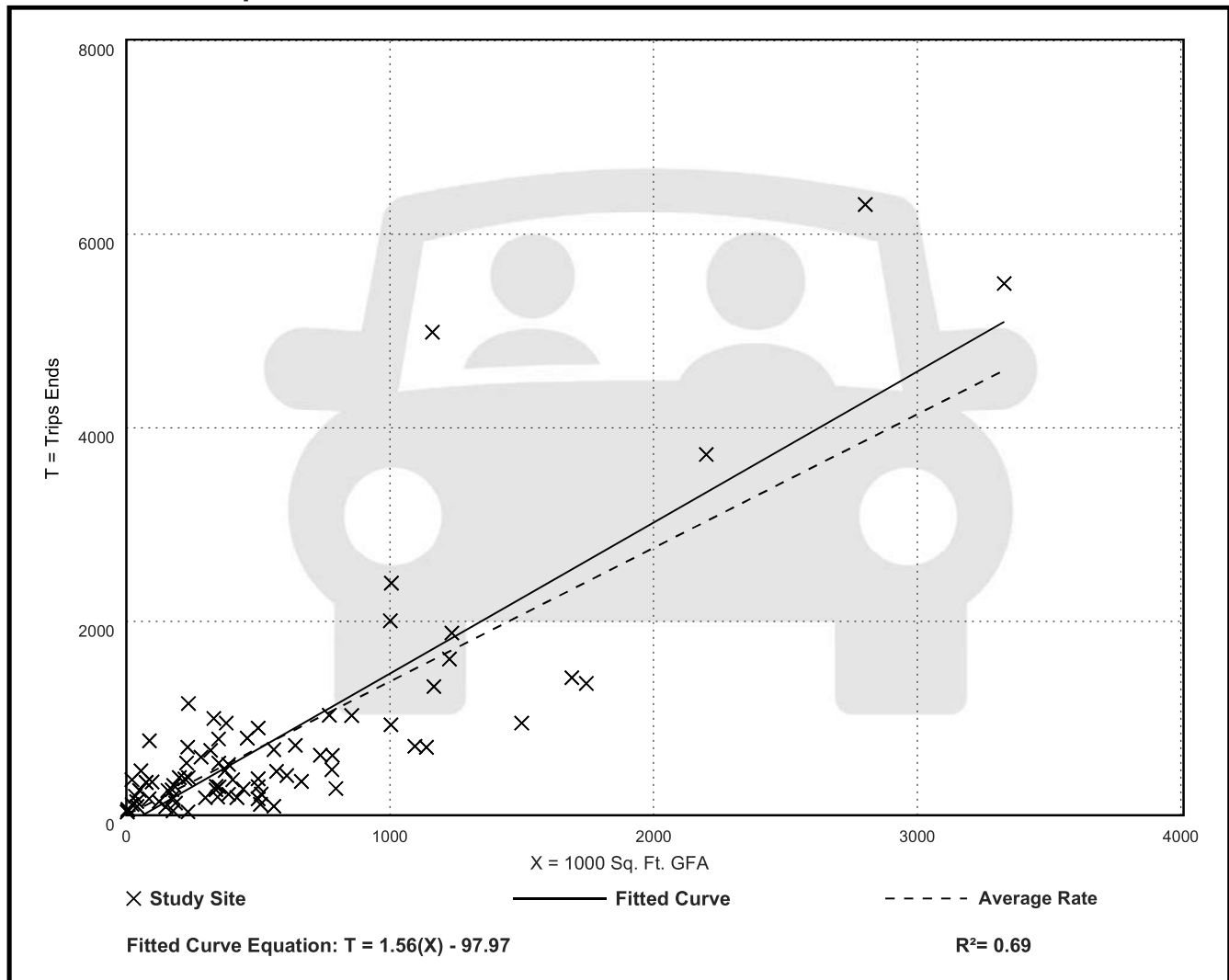
Avg. 1000 Sq. Ft. GFA: 554

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.38	0.15 - 16.93	1.05

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 47

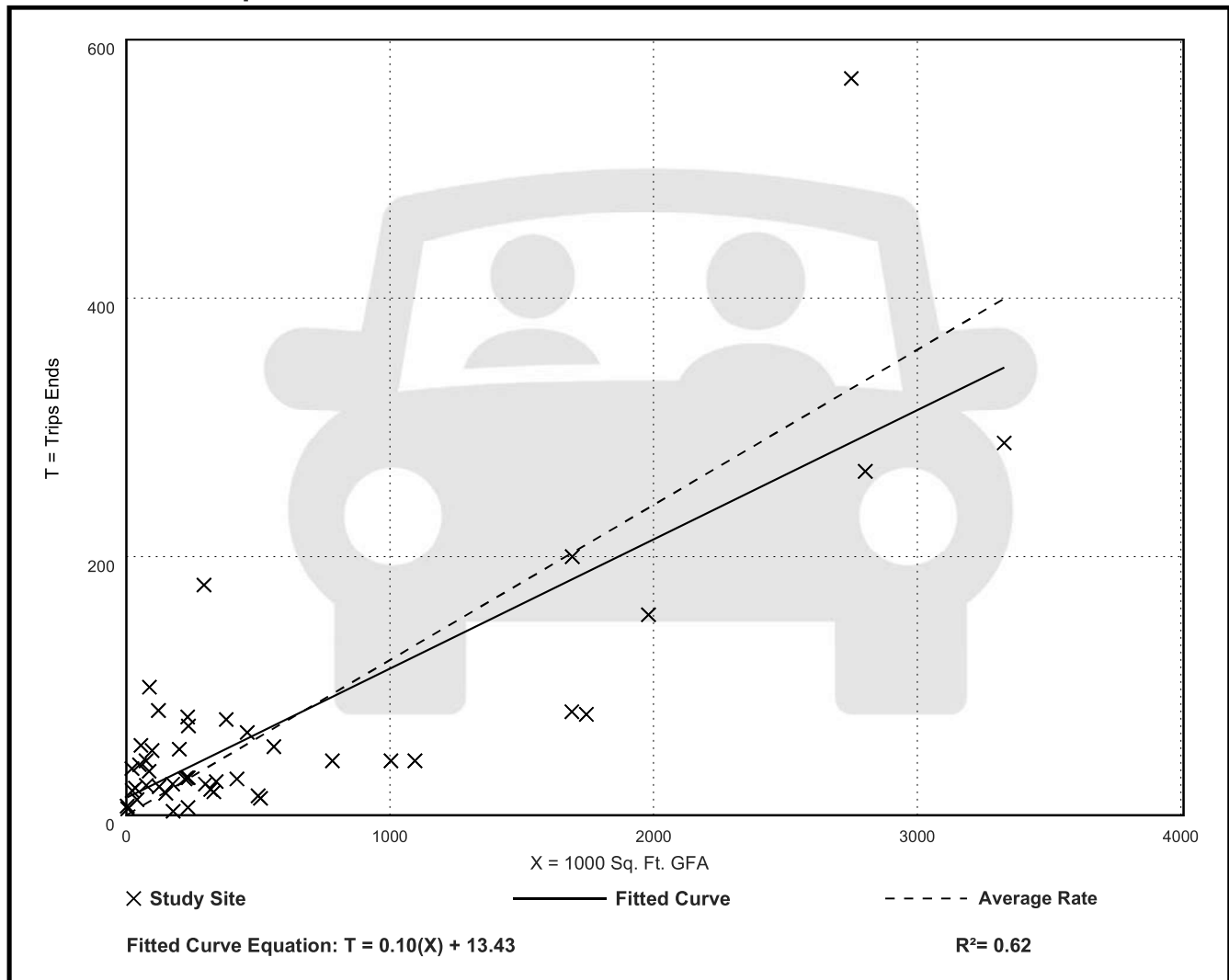
Avg. 1000 Sq. Ft. GFA: 559

Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.02 - 1.80	0.14

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 58

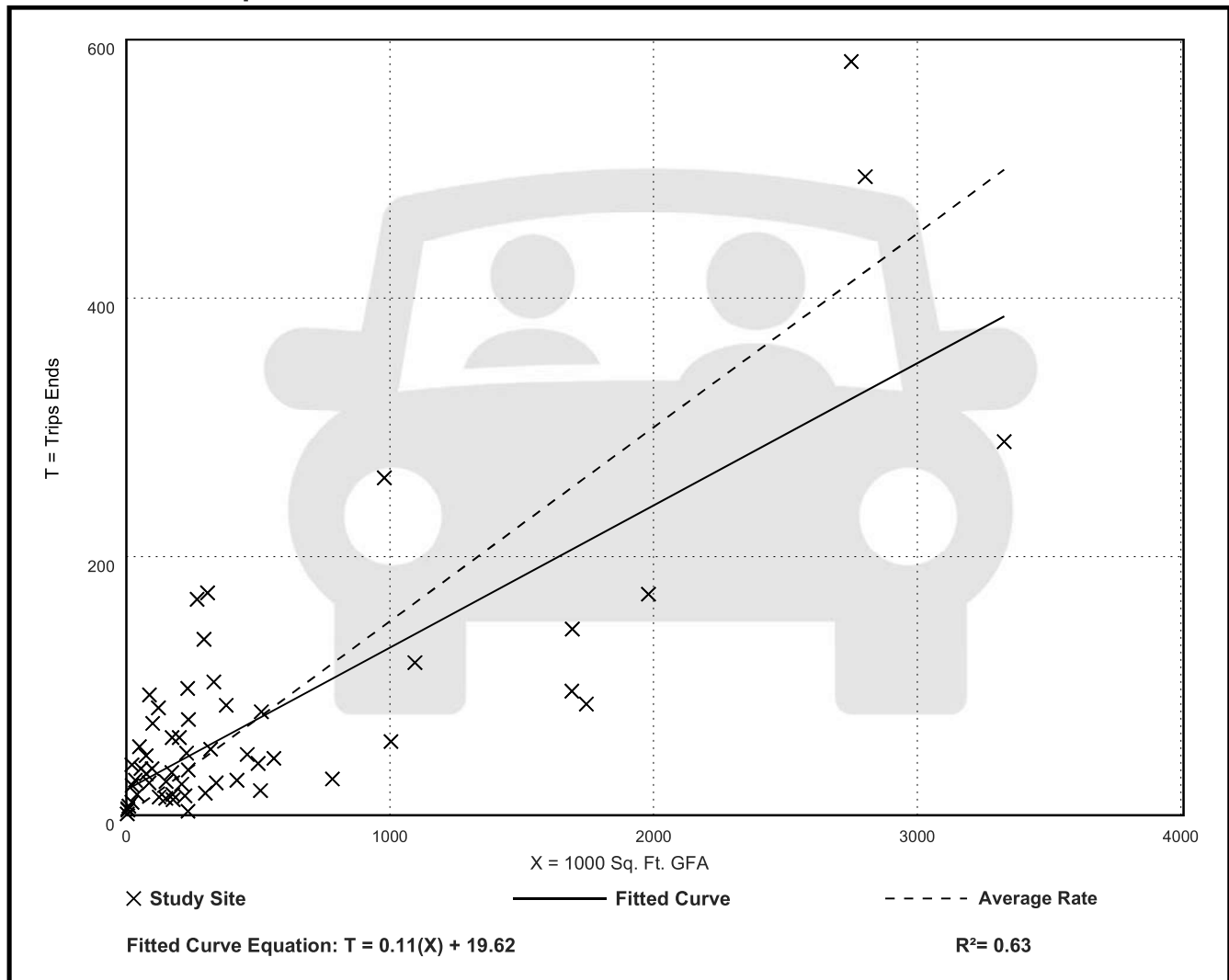
Avg. 1000 Sq. Ft. GFA: 503

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.80	0.15

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 62

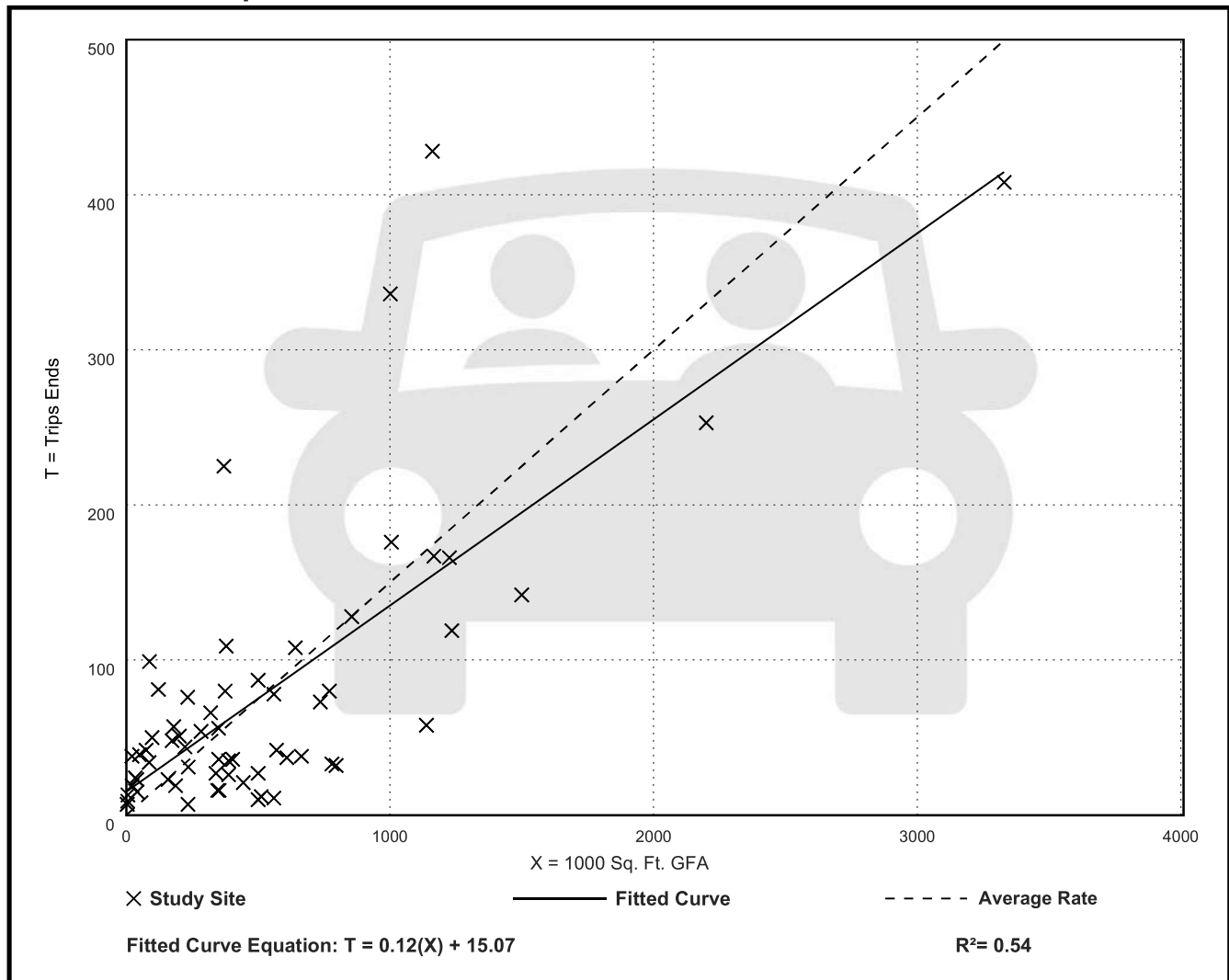
Avg. 1000 Sq. Ft. GFA: 518

Directional Distribution: 70% entering, 30% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.02 - 2.08	0.14

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 62

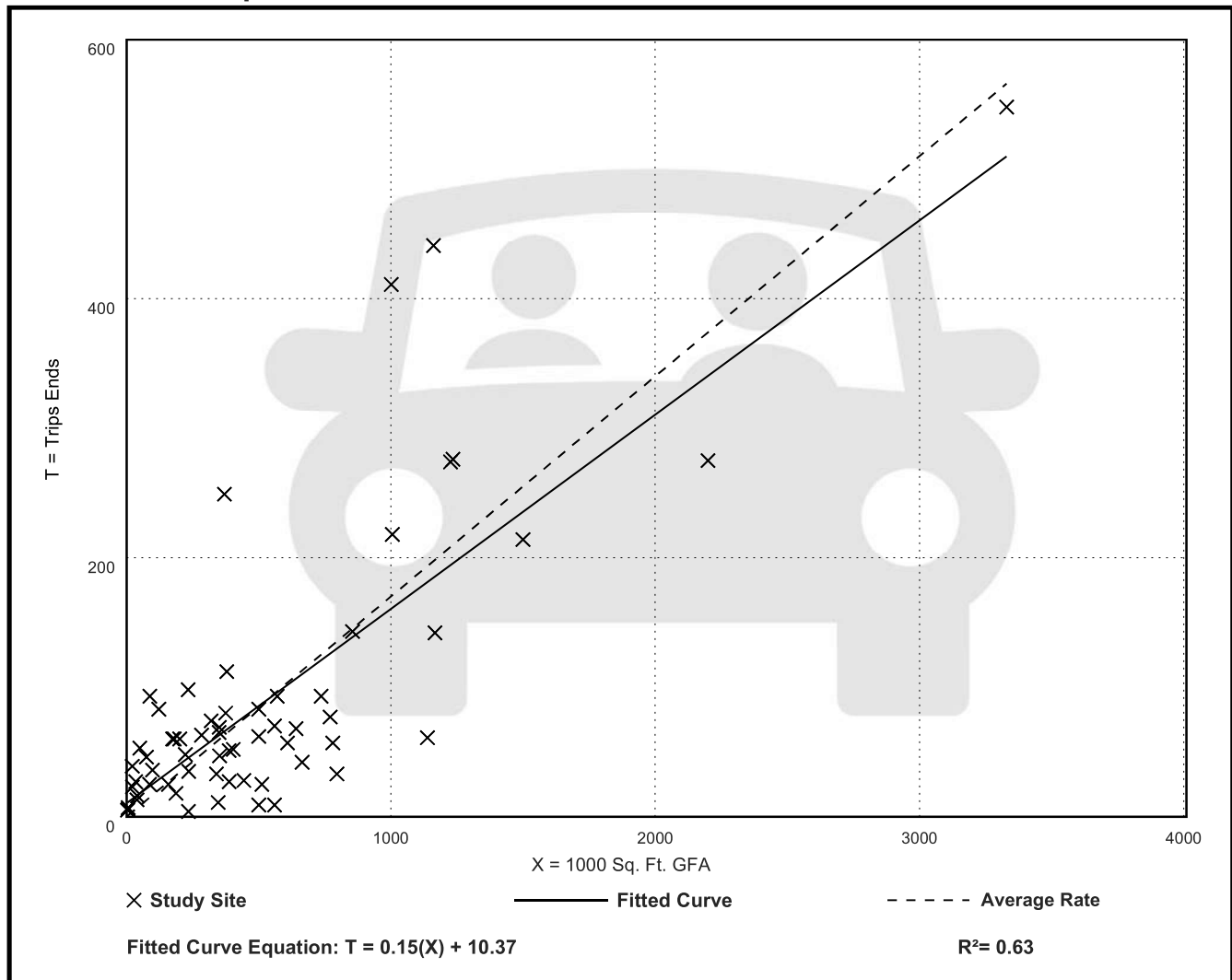
Avg. 1000 Sq. Ft. GFA: 518

Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.80	0.14

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 3

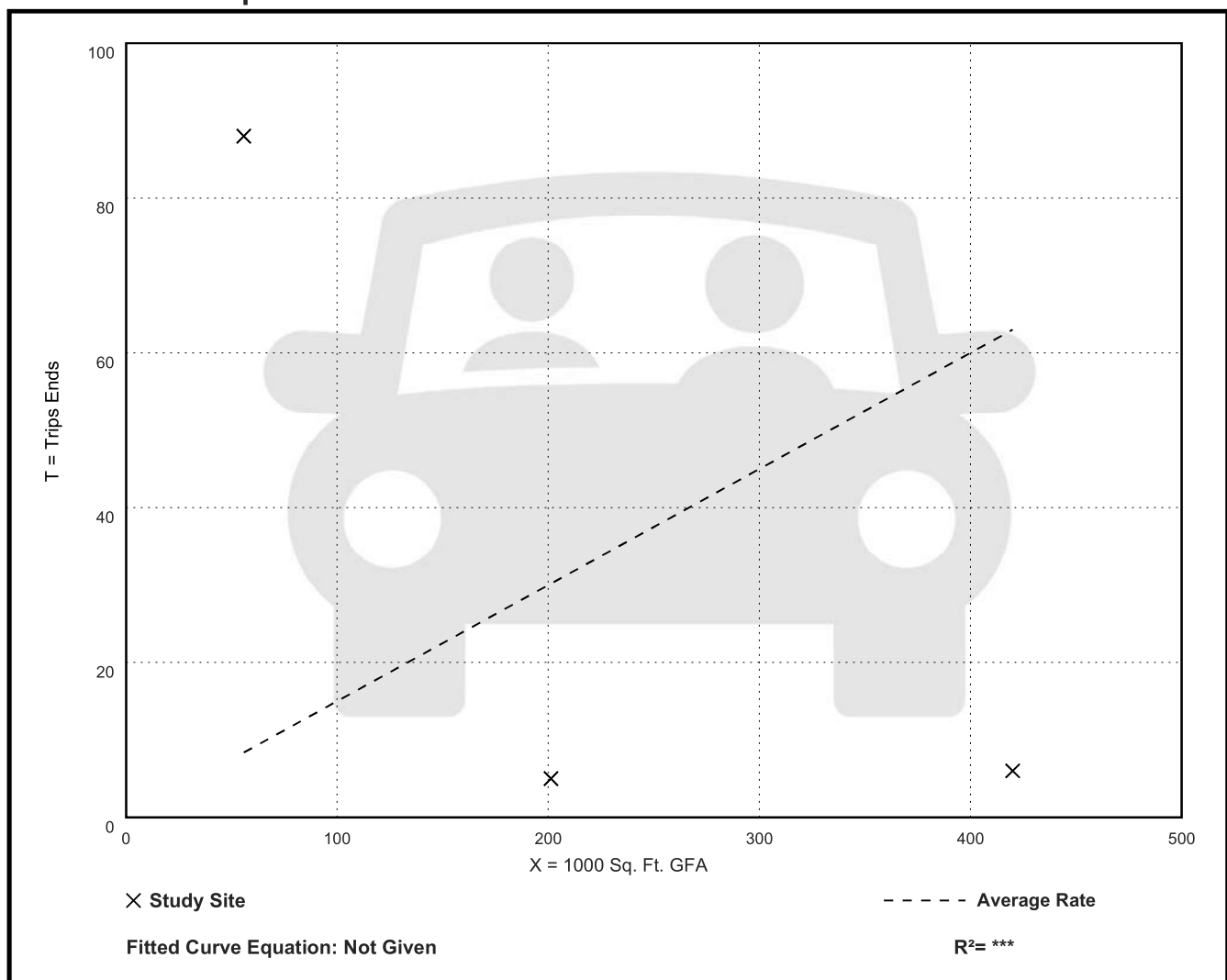
Avg. 1000 Sq. Ft. GFA: 226

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.58	0.53

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. 1000 Sq. Ft. GFA: 129

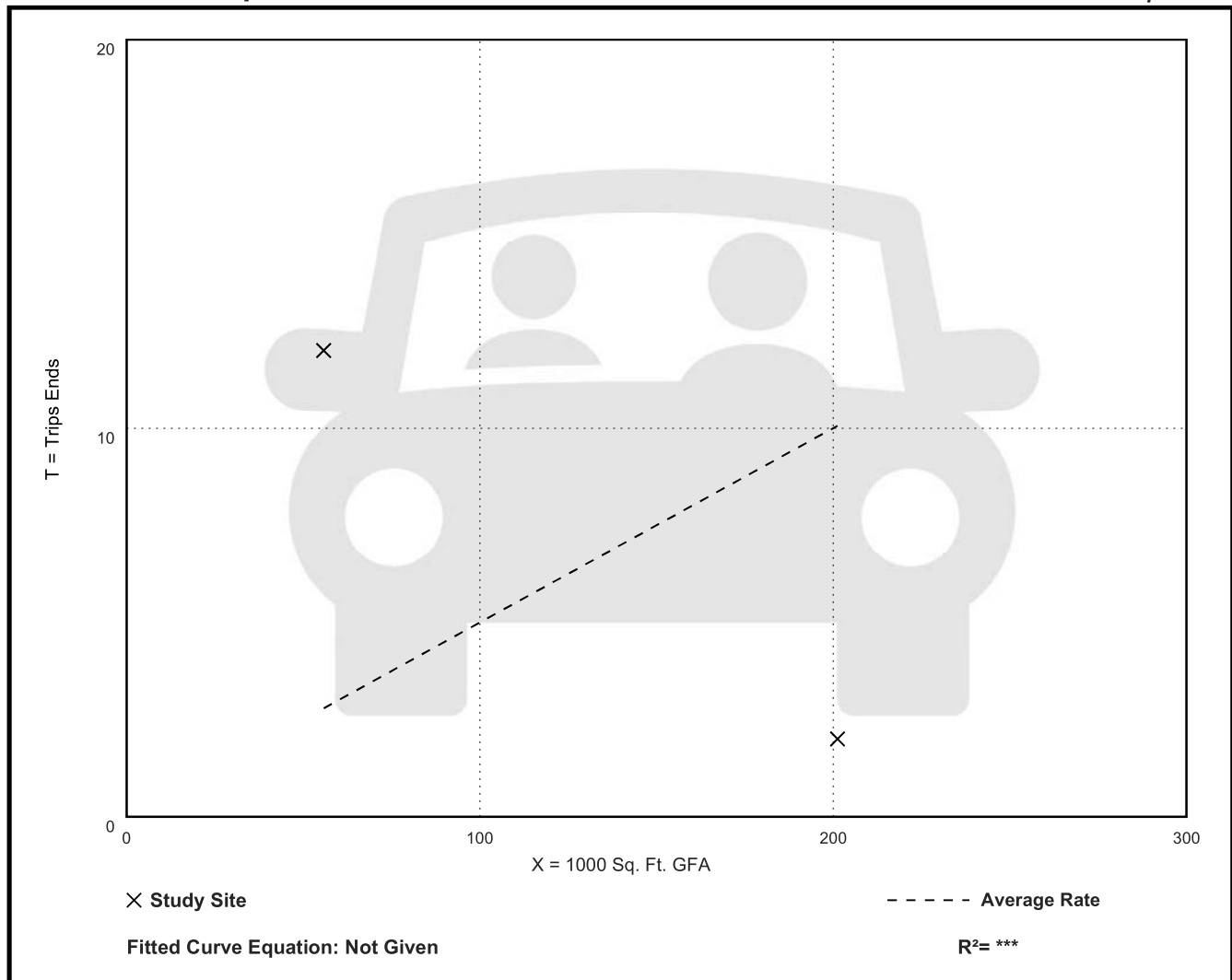
Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.05	0.01 - 0.22	***

Data Plot and Equation

Caution – Small Sample Size



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 3

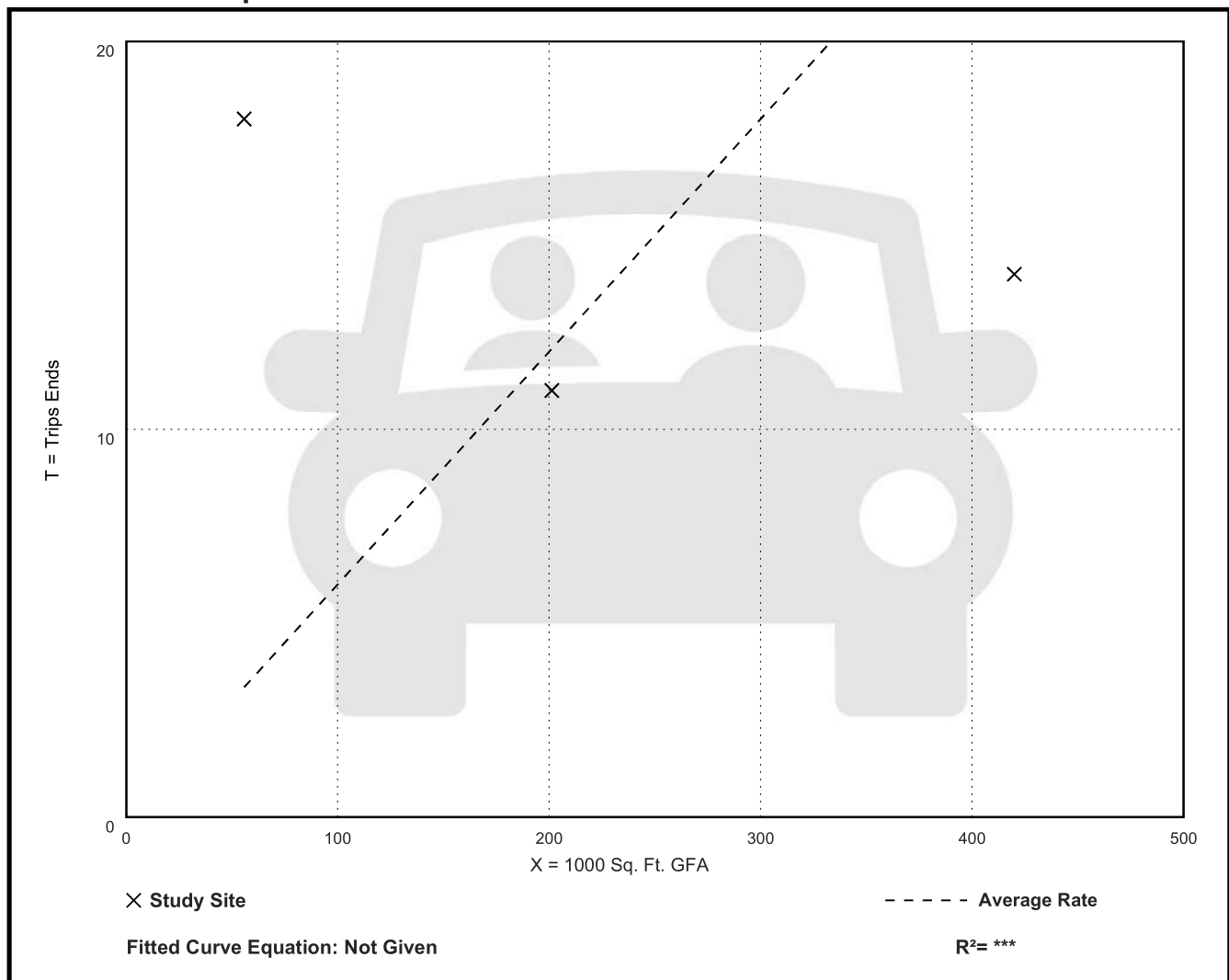
Avg. 1000 Sq. Ft. GFA: 226

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.06	0.03 - 0.32	0.10

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. 1000 Sq. Ft. GFA: 129

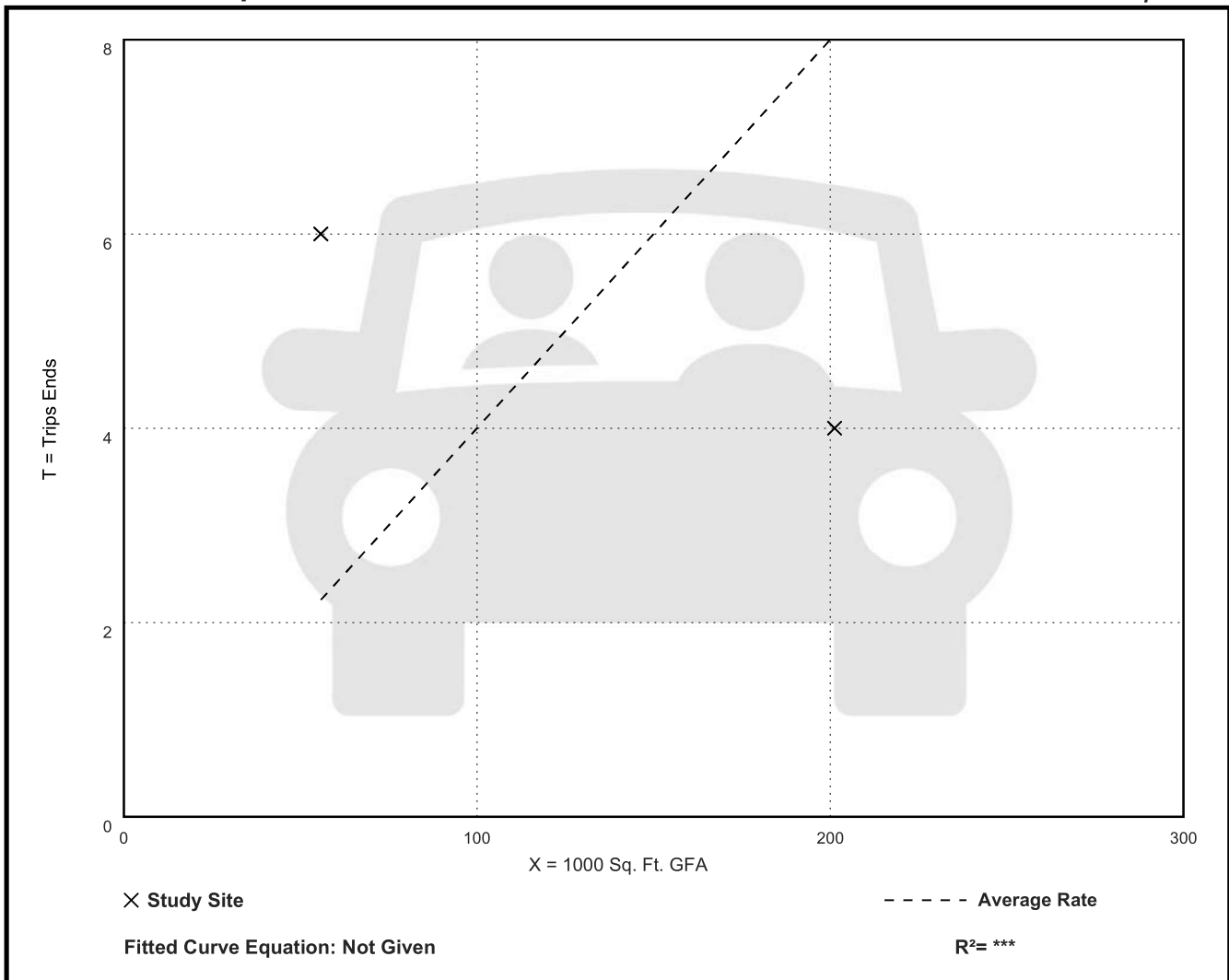
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.02 - 0.11	***

Data Plot and Equation

Caution – Small Sample Size



Warehouse (150)

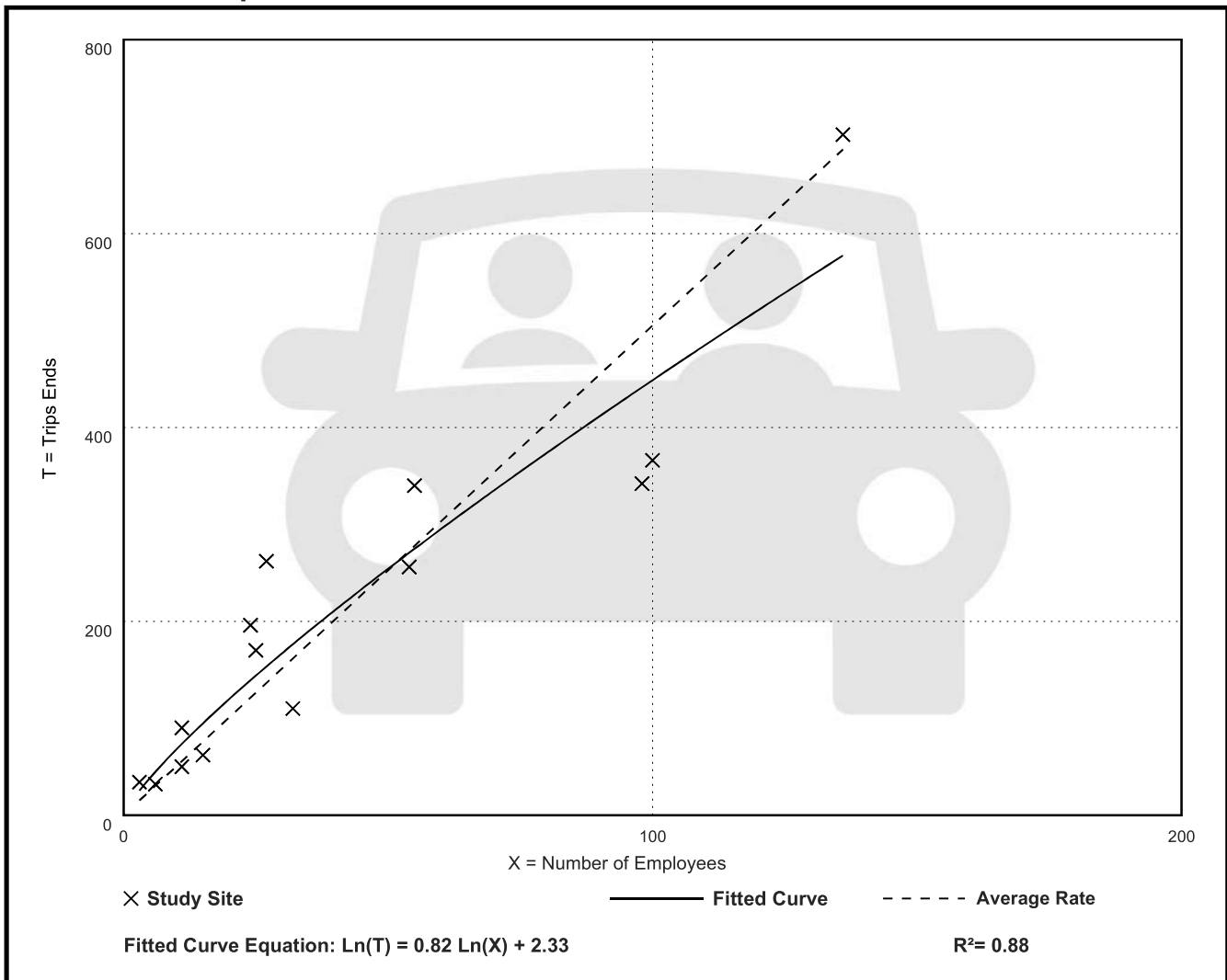
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 14
Avg. Num. of Employees: 43
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
5.05	3.44 - 11.33	1.77

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 13

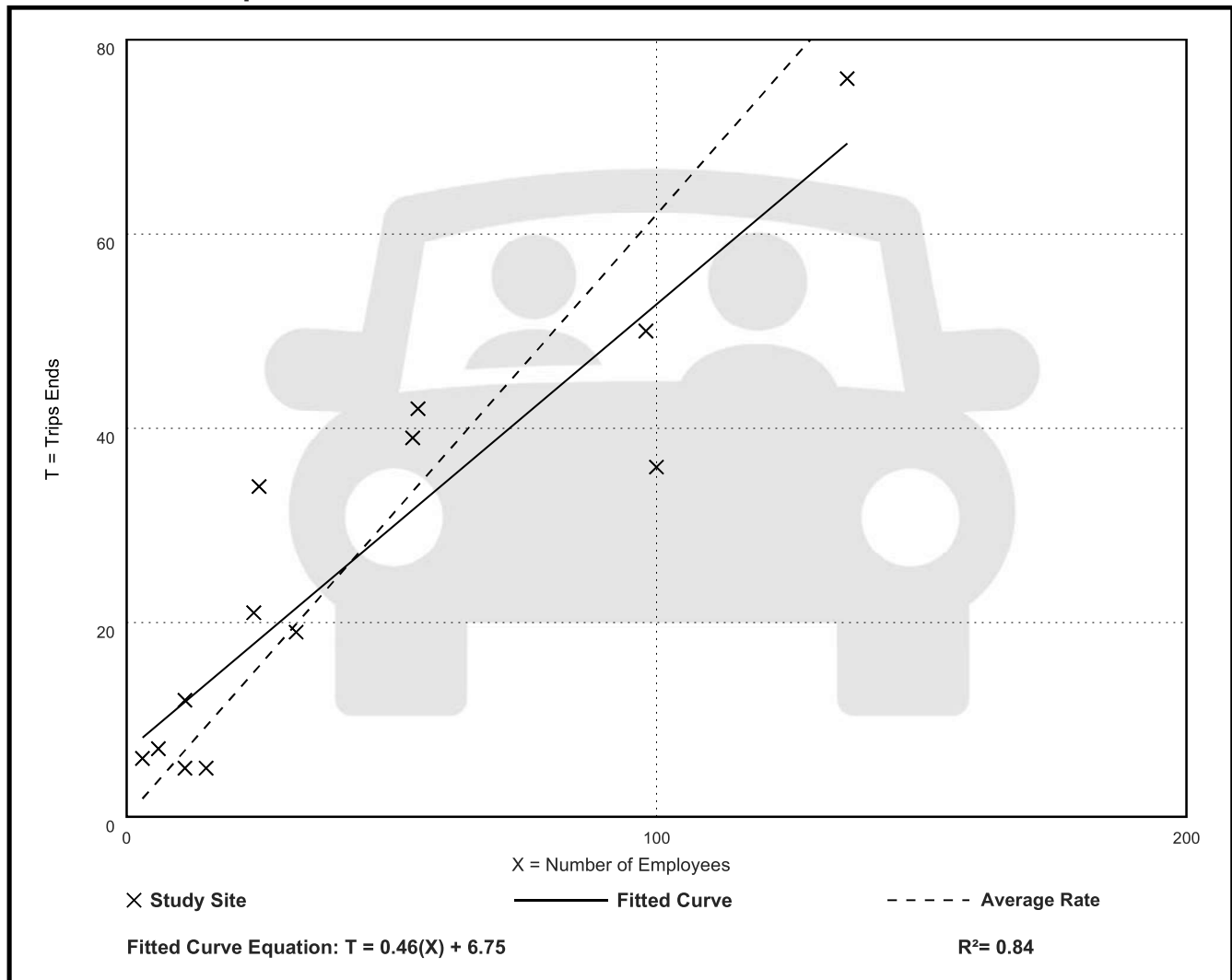
Avg. Num. of Employees: 44

Directional Distribution: 72% entering, 28% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.62	0.33 - 2.00	0.26

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 14

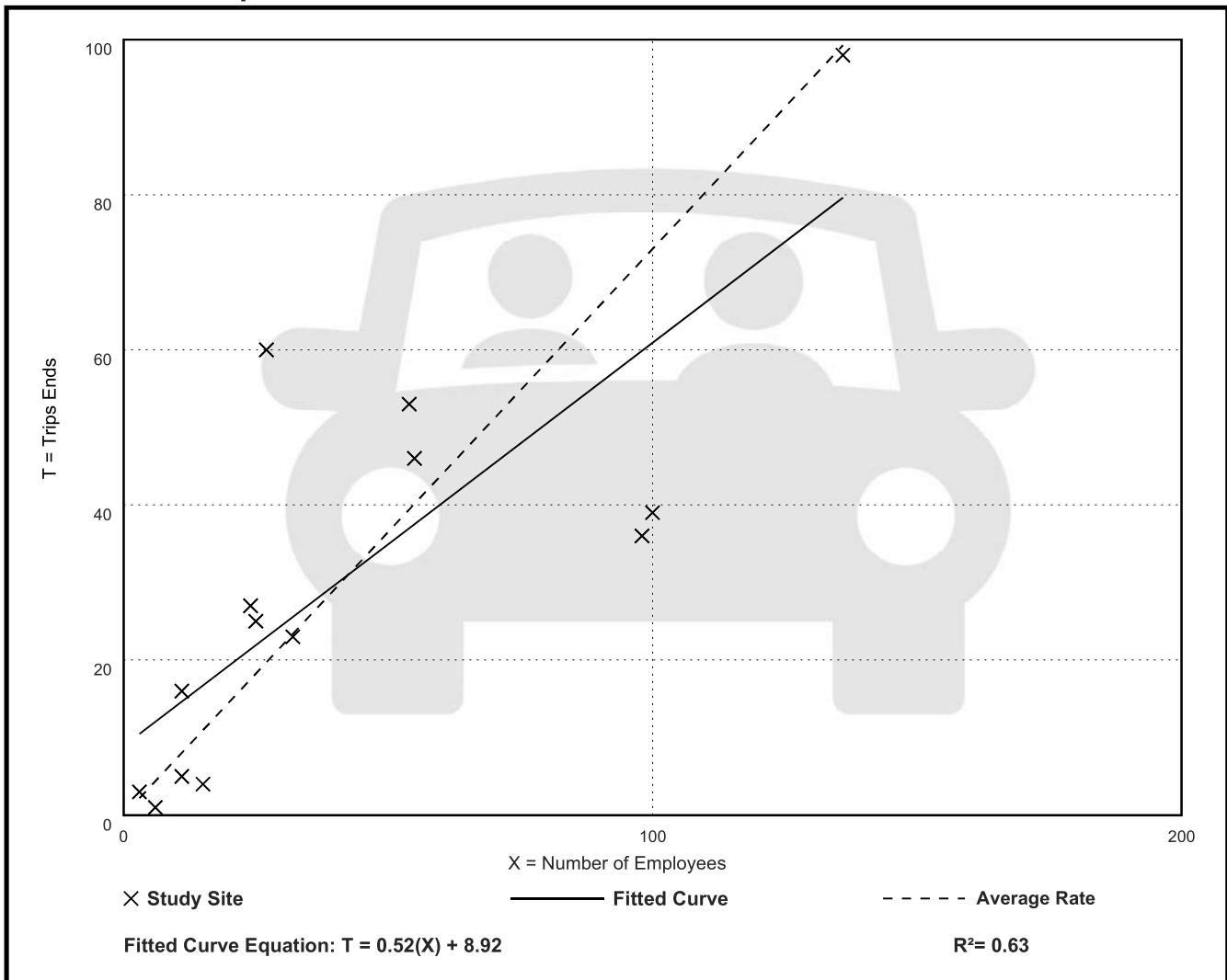
Avg. Num. of Employees: 43

Directional Distribution: 36% entering, 64% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.73	0.17 - 2.22	0.44

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 14

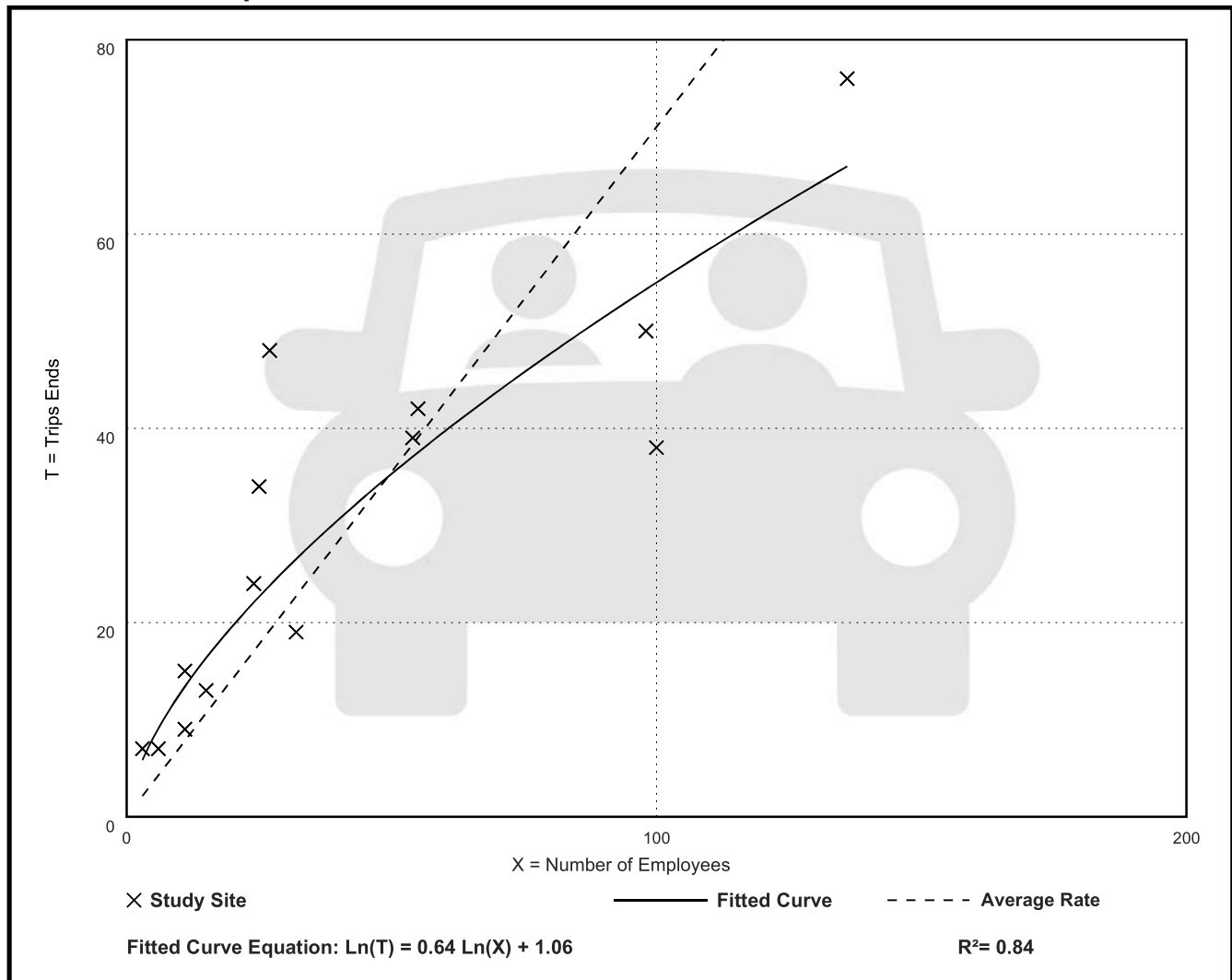
Avg. Num. of Employees: 43

Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.71	0.38 - 2.33	0.37

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 14

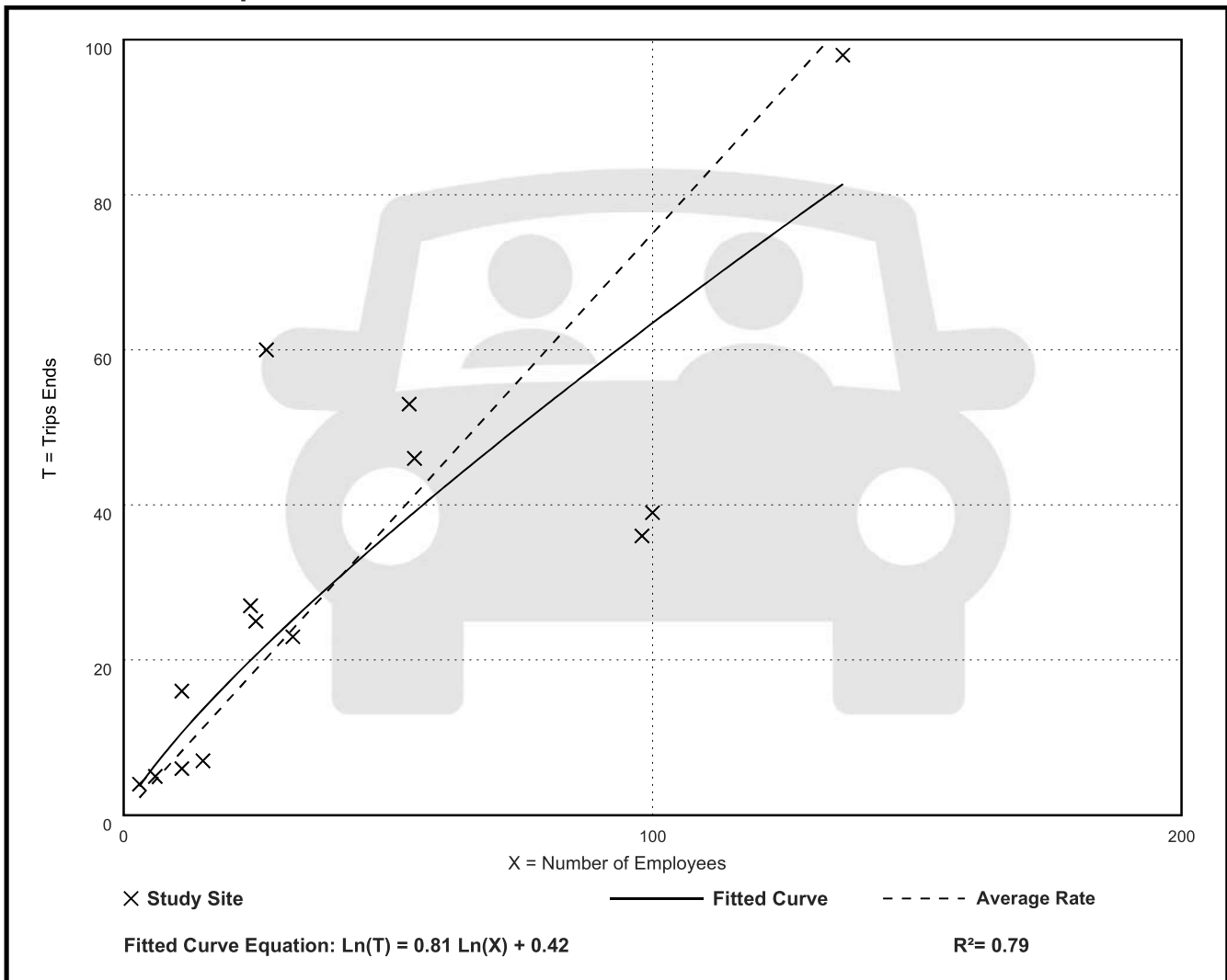
Avg. Num. of Employees: 43

Directional Distribution: 30% entering, 70% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.75	0.37 - 2.22	0.43

Data Plot and Equation



Land Use: 154

High-Cube Transload and Short-Term Storage Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. A high-cube warehouse can be free-standing or located in an industrial park.

The HCWs in this land use include transload and short-term storage facilities. A transload facility has the primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. A transload facility typically has little storage duration, high throughput, and highly efficient operations. A short-term HCW is a distribution facility often with custom/special features built into the structure for the movement of large volumes of freight with only short-term storage of products.

Some limited assembly and repackaging may occur within the facility.

A high-cube warehouse may contain a mezzanine. In an HCW setting, a mezzanine is a freestanding, semi-permanent structure that is commonly supported by structural steel columns and that is lined with racks or shelves. The gross floor area (GFA) values for the study sites in the database for this land use do NOT include the floor area of the mezzanine. The GFA values represent only the permanent ground-floor square footage.

The amount of office/employee welfare space that is provided within an HCW can be highly variable but is typically an insignificant portion of the overall building square footage. Within the trip generation database, common values are between 3,000 and 5,000 square feet for a Cold Storage HCW and between 5,000 and 10,000 square feet for Transload, Fulfillment Center, and Parcel Hub HCW (all of which are less than one percent of total GFA for a site). Therefore, for the trip generation data plots, any office space that is part of the normal operation of the warehouse is included in the total GFA.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled “High-Cube Warehouse Vehicle Trip Generation Analysis,” published in October 2016. The results of this study are posted on the ITE website at <https://www.ite.org/pub/?id=a3e6679a-e3a8-bf38-7f29-2961becdd498>.

An additional resource which provides more information about warehouse types and definitions is available from NAIOP Research Foundation: Commercial Real Estate Terms and Definitions report from April 2024. <https://www.naiop.org/globalassets/research-and-publications/report/terms-and-definitions-/naiop-2024-terms-and-definitions.pdf>.

The number of dock doors at a HCW is a potential independent variable. Future data submissions should include that information.

The sites were surveyed in the 2000s and the 2010s in Alberta (CAN), California, Florida, Michigan, New Jersey, Texas, and Washington.

Source Numbers

605, 619, 642, 645, 649, 739, 750, 752, 903, 904, 941, 942, 943, 969

High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 91

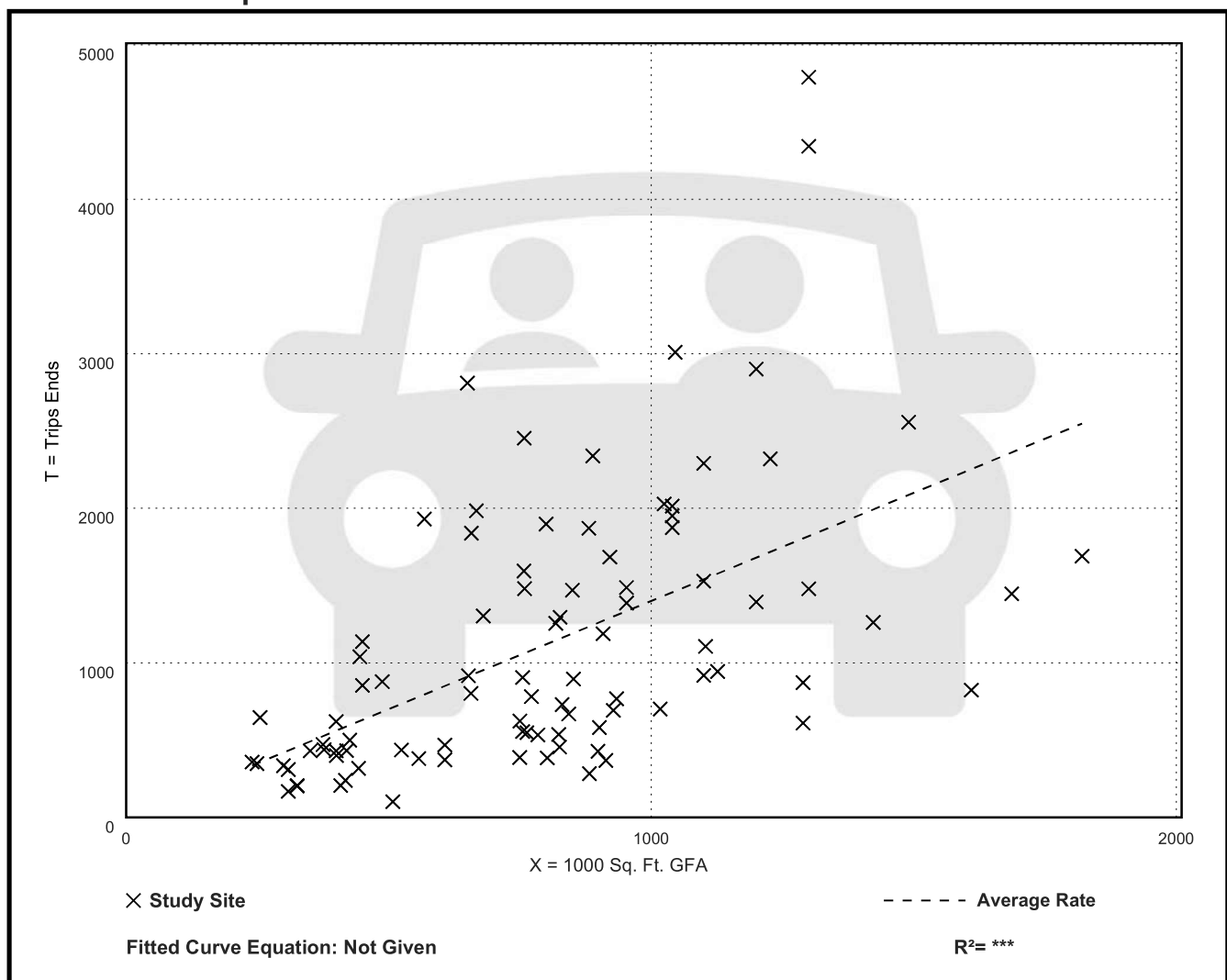
Avg. 1000 Sq. Ft. GFA: 798

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.40	0.20 - 4.32	0.86

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 102

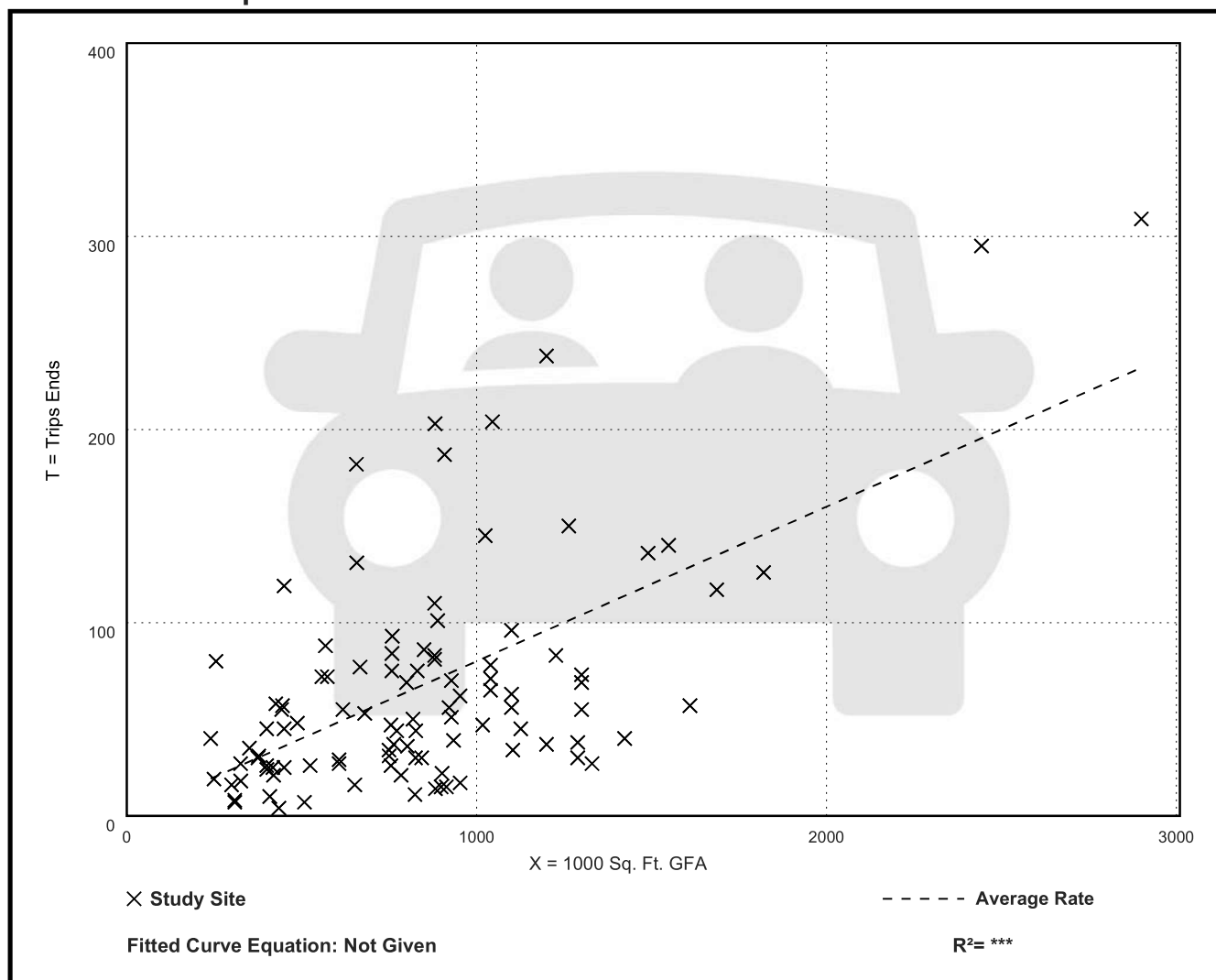
Avg. 1000 Sq. Ft. GFA: 846

Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.08	0.01 - 0.31	0.05

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 102

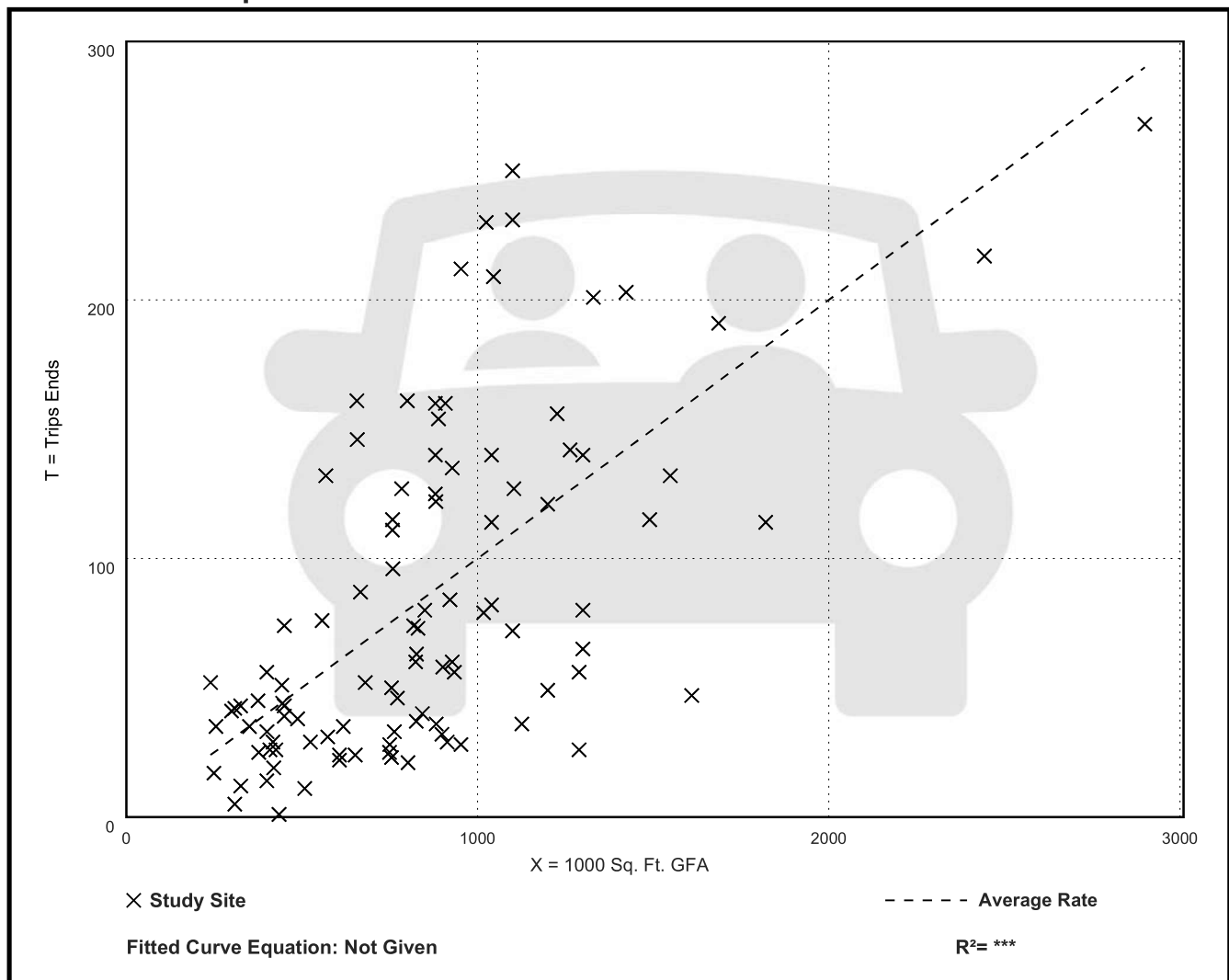
Avg. 1000 Sq. Ft. GFA: 846

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.10	0.00 - 0.25	0.06

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 31

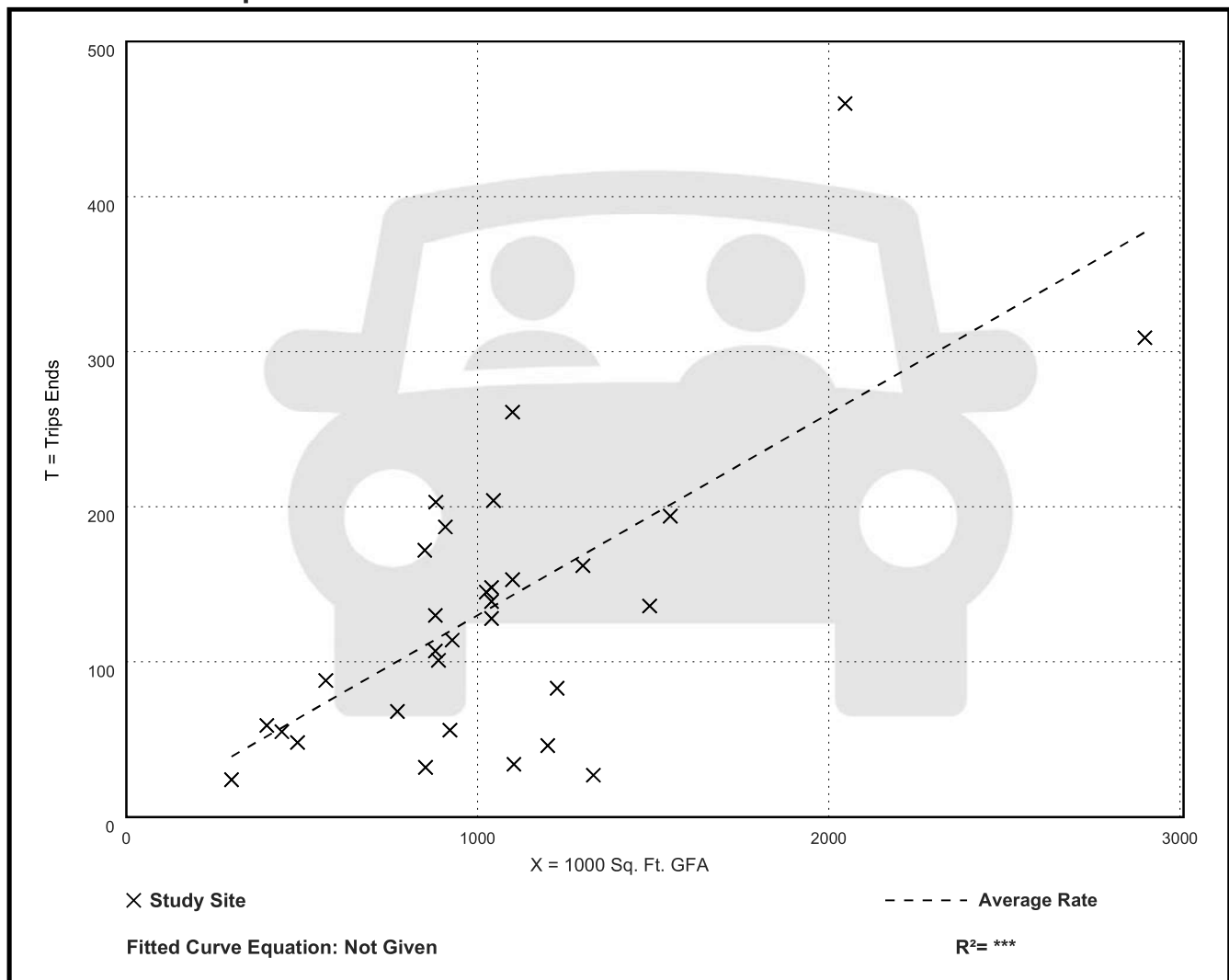
Avg. 1000 Sq. Ft. GFA: 1048

Directional Distribution: 78% entering, 22% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.13	0.02 - 0.24	0.06

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 33

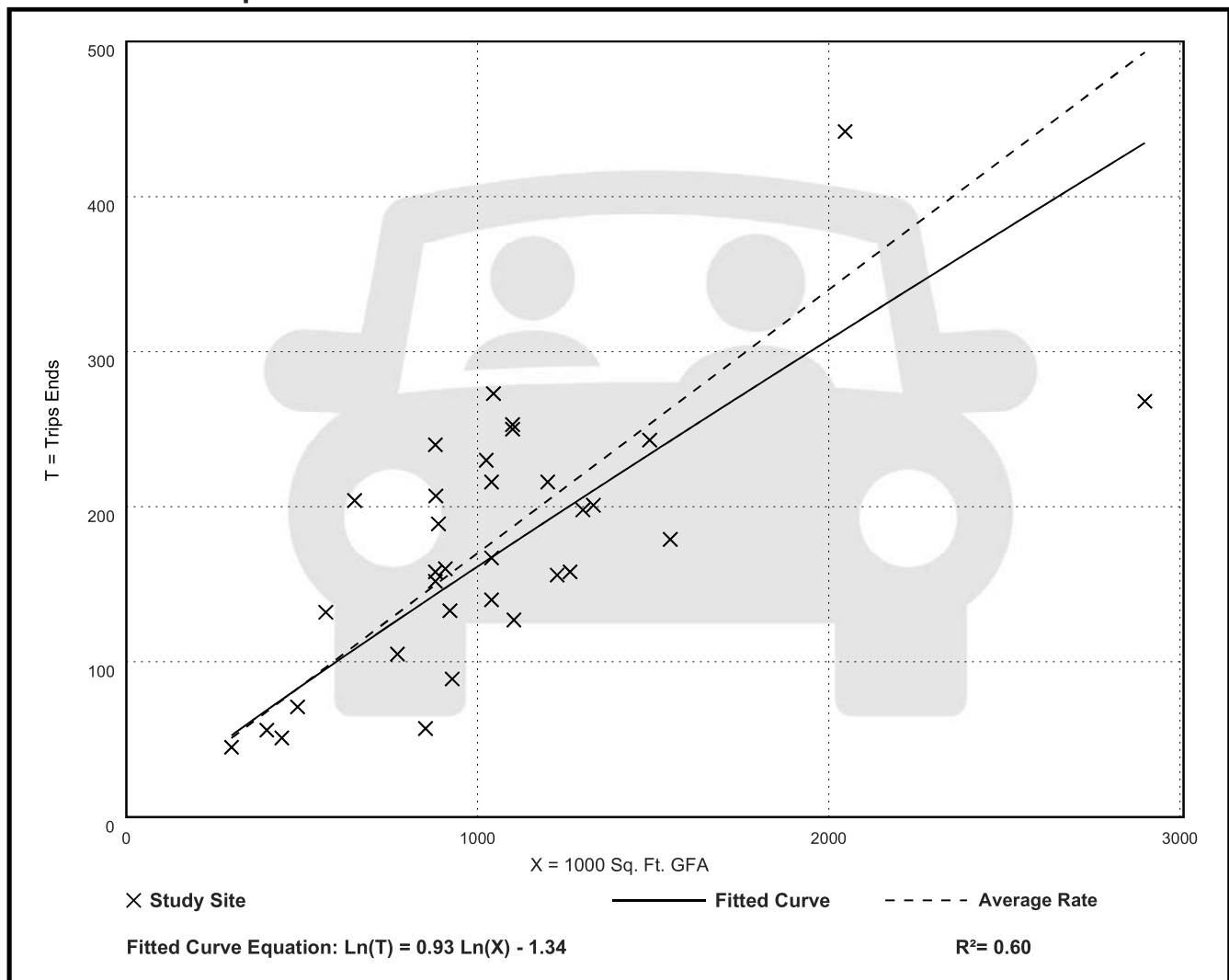
Avg. 1000 Sq. Ft. GFA: 1044

Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.07 - 0.31	0.06

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 10

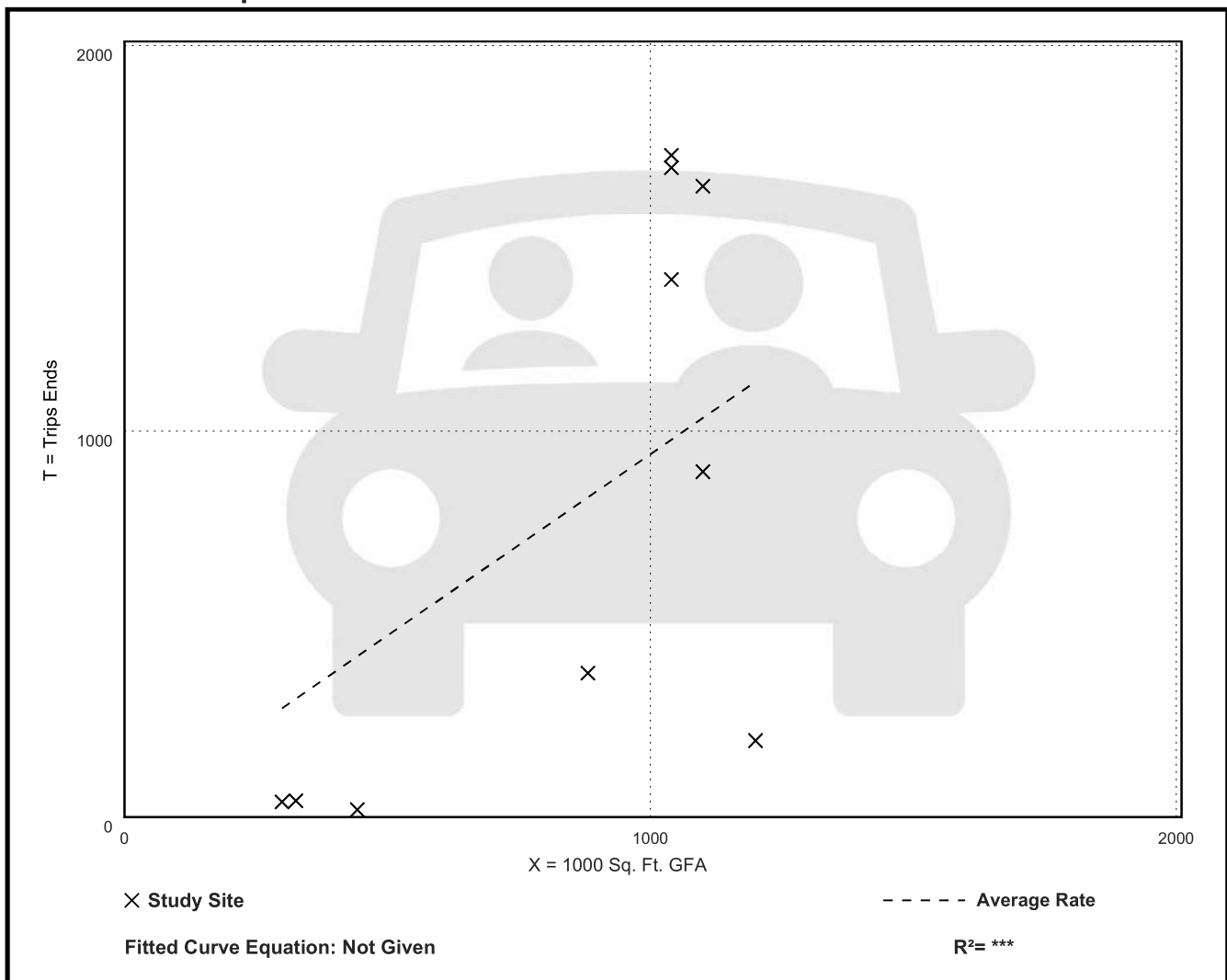
Avg. 1000 Sq. Ft. GFA: 847

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.94	0.04 - 1.65	0.65

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

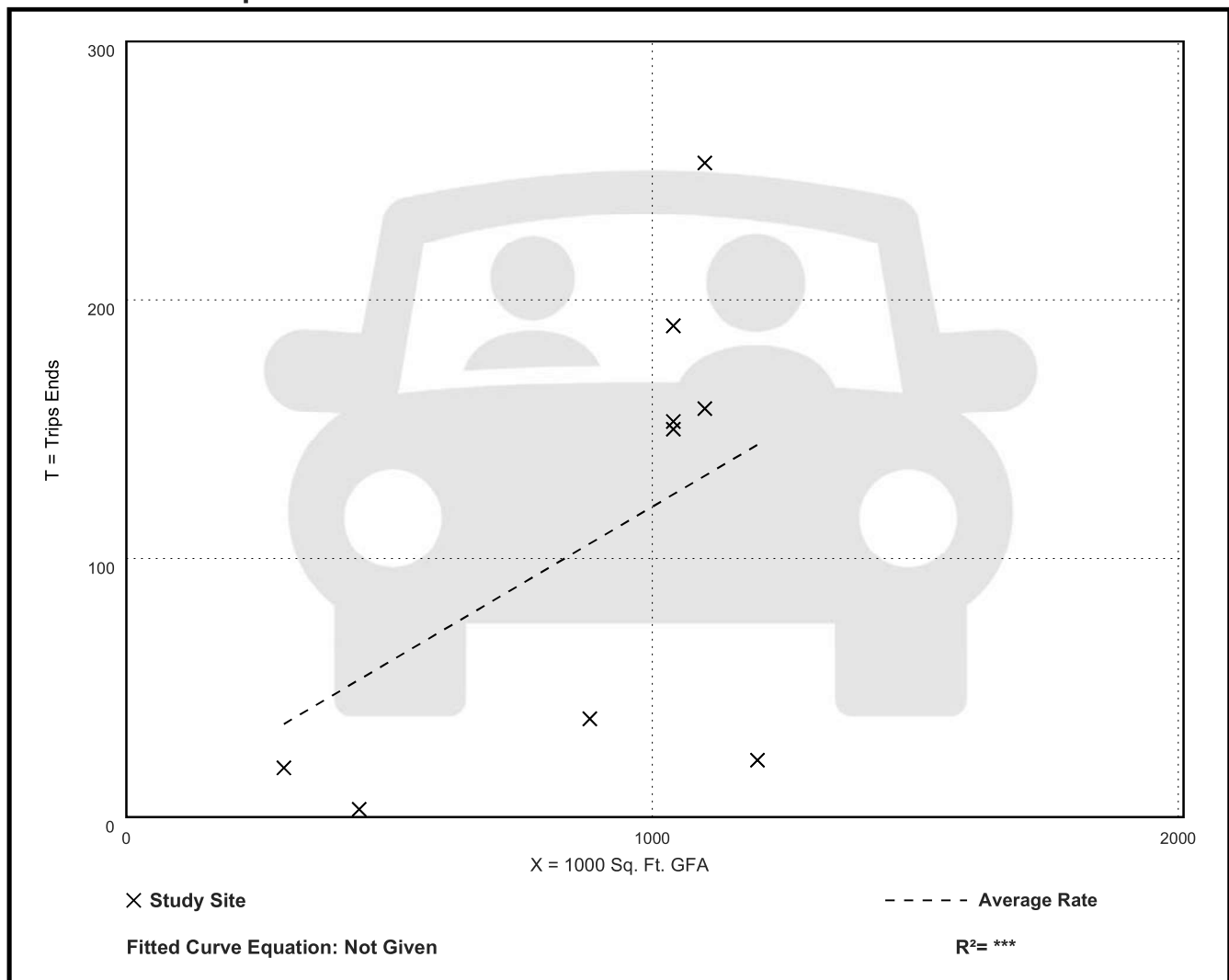
Avg. 1000 Sq. Ft. GFA: 905

Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.01 - 0.23	0.08

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 10

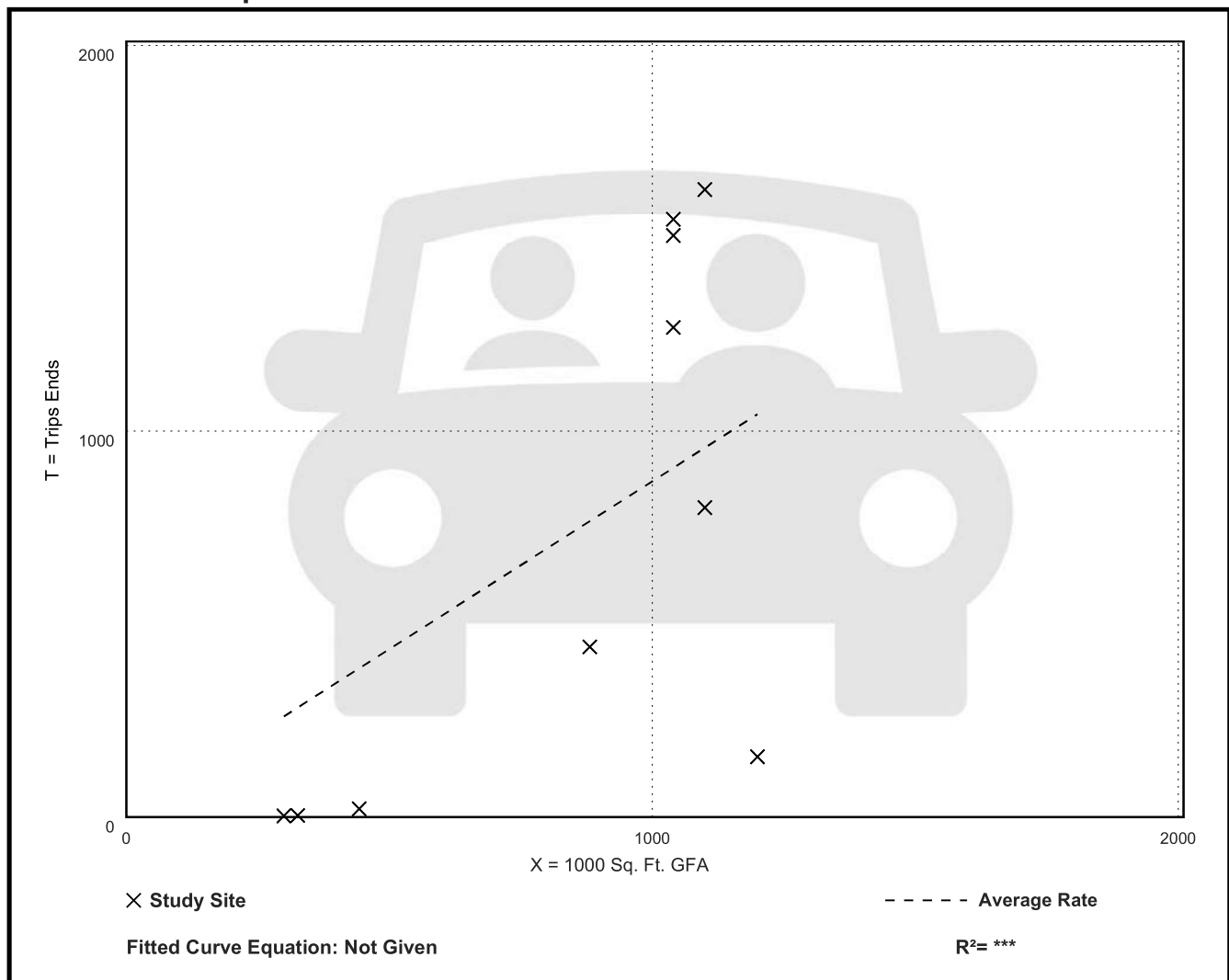
Avg. 1000 Sq. Ft. GFA: 847

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.87	0.01 - 1.49	0.61

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

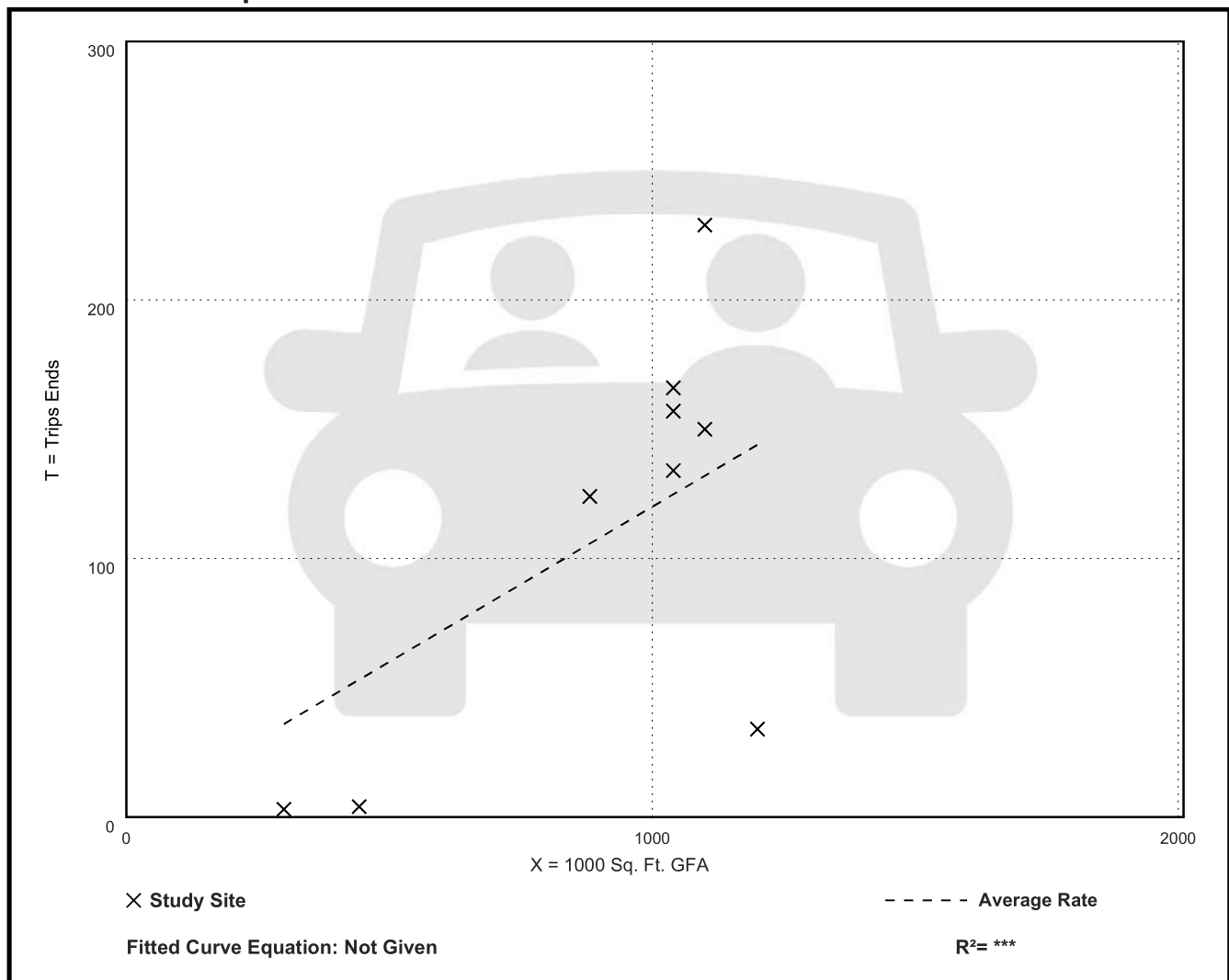
Avg. 1000 Sq. Ft. GFA: 905

Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.01 - 0.21	0.07

Data Plot and Equation



Zerphey, Dylan

From: Lisa Fontana Tierney <lfontana@ite.org>
Sent: Wednesday, October 22, 2025 12:43 PM
To: Zerphey, Dylan
Cc: Luana Broshears; Kyla Elzinga
Subject: RE: ITE 150 filtering issues.

Hi Dylan,

Thank you for reaching out to ITE with this inquiry. We have examined this question internally and are not able to determine what is causing this apparent glitch in the ITE TripGen web app. We have forwarded this inquiry to our development team and will get back to you as soon as we get resolution. I apologize for the delay.

Thanks again for reaching out and we will be back in touch as soon as possible.

Regards,
Lisa

Lisa M. Fontana Tierney, P.E.
Traffic Engineering Senior Director
ITE—A Community of Transportation Professionals
Phone: 202-785-0060 ext. 116
lfontana@ite.org
www.ite.org

The Call for Abstracts Portal for the Joint ITE International and Great Lakes District Annual Meeting and Exhibition is Open for Submissions through December 2. Access the portal [here](#).



From: Zerphey, Dylan <dzerphey@tpdinc.com>
Sent: Monday, October 20, 2025 11:31 AM
To: Lisa Fontana Tierney <lfontana@ite.org>
Cc: Trip Generation <tripgen@ite.org>; Luana Broshears <lbroshears@ite.org>; Kyla Elzinga <kelzinga@ite.org>
Subject: [EXTERNAL] FW: ITE 150 filtering issues.

Hello Lisa and ITE Team,

Just looking for some additional information just wanted to follow up and see if there was any discussion on the previous request. Let me know if you have any questions or need any additional information.

Thanks
Dylan

Dylan Zerphey, E.I.T., *Transportation Planning Specialist*



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From: Zerphey, Dylan <dzerphey@tpdinc.com>

Sent: Wednesday, October 15, 2025 1:36 PM

To: tripgen@ite.org

Subject: ITE 150 filtering issues.

Hello,

I am running into some issues filtering data in the ITE 12th edition. The goal is to filter data as follows

Query:

- **Land Use:** 150 (Warehouse)
- **Land Use Subcategory:** All Sites
- **Setting/Location:** General Urban/Suburban
- **Independent Variable (IV):** 1,000 Sq. Ft. GFA
- **Time Period:** AM Adj and PM Adj (Both Do Not Work)
- **Trip Type:** Truck
- **Region:** Northeast & Mid-Atlantic
- **Range of Years:** All (1990-2023 original data)
- **Range of IV Values (1000 Sq. Ft. GFA):** From 0.00 (3.89 form original data) to 500 ksf

While I do see the section that says some regions are not shown due to lack of data, I know this not to be the case because in the 11th edition there is the exact some data that matches that is from 2016 and it shows up on both 11th and 12th plotting sheets. See the orange circles in the screenshots in the 11th and 12th edition. Let me know if there is some other way I can get the updated 12th edition data for the filters shown above for the AM adj and PM adj.

Thanks,
Dylan

Dylan Zerphey, E.I.T., *Transportation Planning Specialist*



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Weighted Trip Distributions

[illegible]

Cloverleaf.

	To/From East		To/From West		To/From North	To/From South
	via Route 283	Mt Pleasant Rd	via Route 283	via Campus Rd	via Cloverleaf Rd	via Cloverleaf Rd
Total Weighted to 100%	32%	5%	19%	6%	8%	30%

Total All Jobs

	Count	2022 Share
Total All Jobs	3,240	100.0%

Job Counts by ZIP Codes (ZCTA) Where Workers Live - All Jobs 2022

	Count	Share
17022	600	18.5%
17552	276	8.5%
17545	147	4.5%
17603	122	3.8%
17547	85	2.6%
17543	81	2.5%
17601	76	2.3%
17602	69	2.1%
17042	63	1.9%
17502	61	1.9%
17512	58	1.8%
17057	56	1.7%
17078	44	1.4%
17033	43	1.3%
17046	43	1.3%
17406	40	1.2%
17036	37	1.1%
17111	31	1.0%
17402	30	0.9%
17554	30	0.9%
17404	29	0.9%
17003	28	0.9%
17538	25	0.8%
17112	23	0.7%
17403	23	0.7%
All Other Locations	1,120	34.6%

Analysis Type
Destination Type
Selection area as
Year(s)
Job Type
Selection Area
Selected Census Blocks
Analysis Generation Date
Code Revision
LODES Data Vintage

Destination
ZIP Codes (ZCTA)
Work
2022
All Jobs
Mount Joy township (Lancaster, PA) from County Subdivisions
244
10/14/2025 10:44 - OnTheMap 6.25.2
bd5bc0a714230c9cb909d905c8753cb532970e8
20241022_1605

Source: U.S. Census Bureau, OnTheMap

Notes:

1. Race, Ethnicity, Educational Attainment
2. Educational Attainment is only product
3. Firm Age and Firm Size statistics are

Destination Analysis

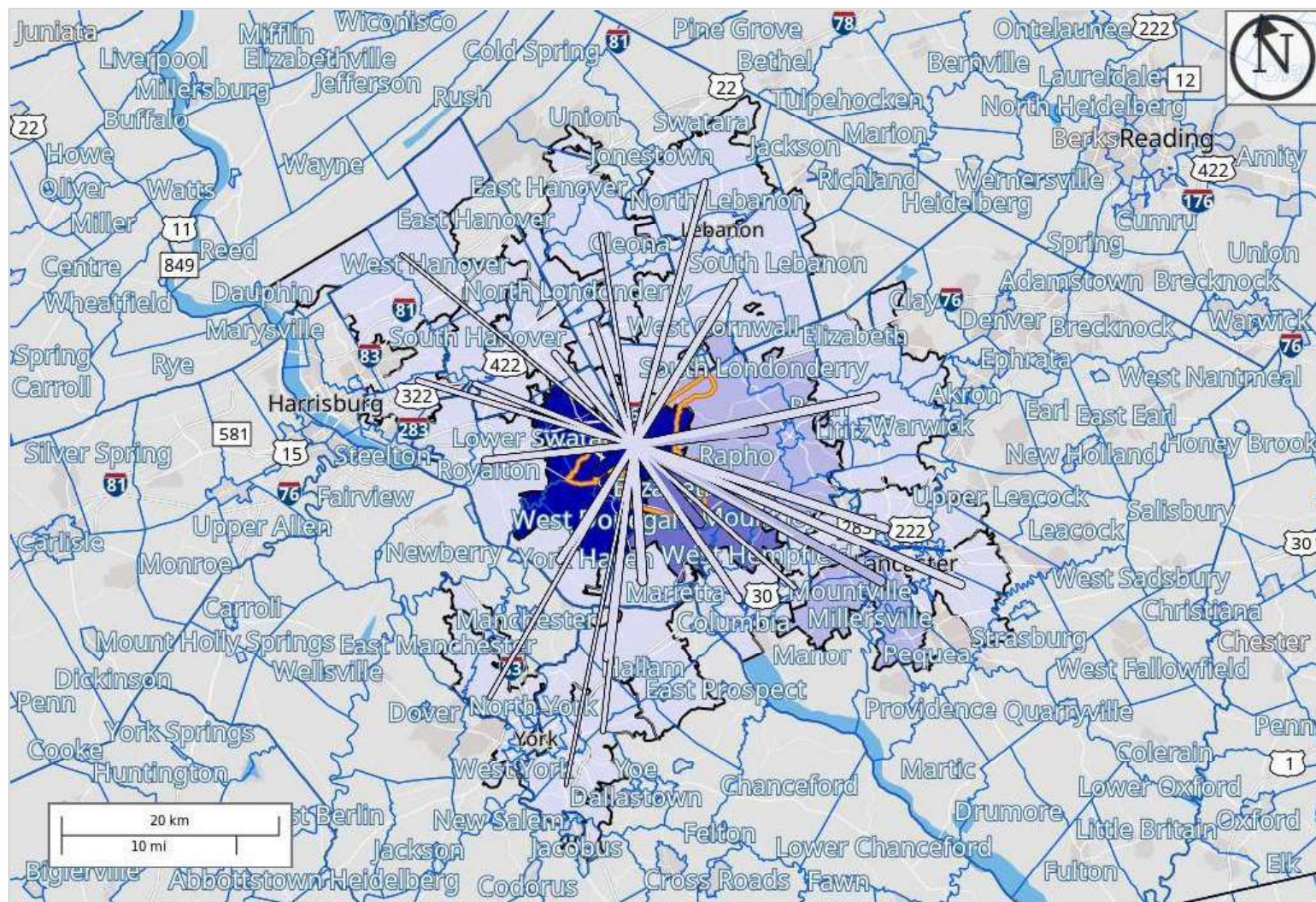
Workers: Employed in Mount Joy township (Lancaster, PA)

Showing: Residential locations grouped by ZIP Codes (ZCTA)

Created by the U.S. Census Bureau's OnTheMap <https://onthemap.ces.census.gov> on 10/14/2025

Counts of All Jobs from Work Selection Area to Home ZIP Codes (ZCTA) in 2022

All Workers



Map Legend

Job Count

- 518 - 600
- 436 - 517
- 353 - 435
- 271 - 352
- 188 - 270
- 106 - 187
- 23 - 105

Selection Areas

- ▭ Work Area

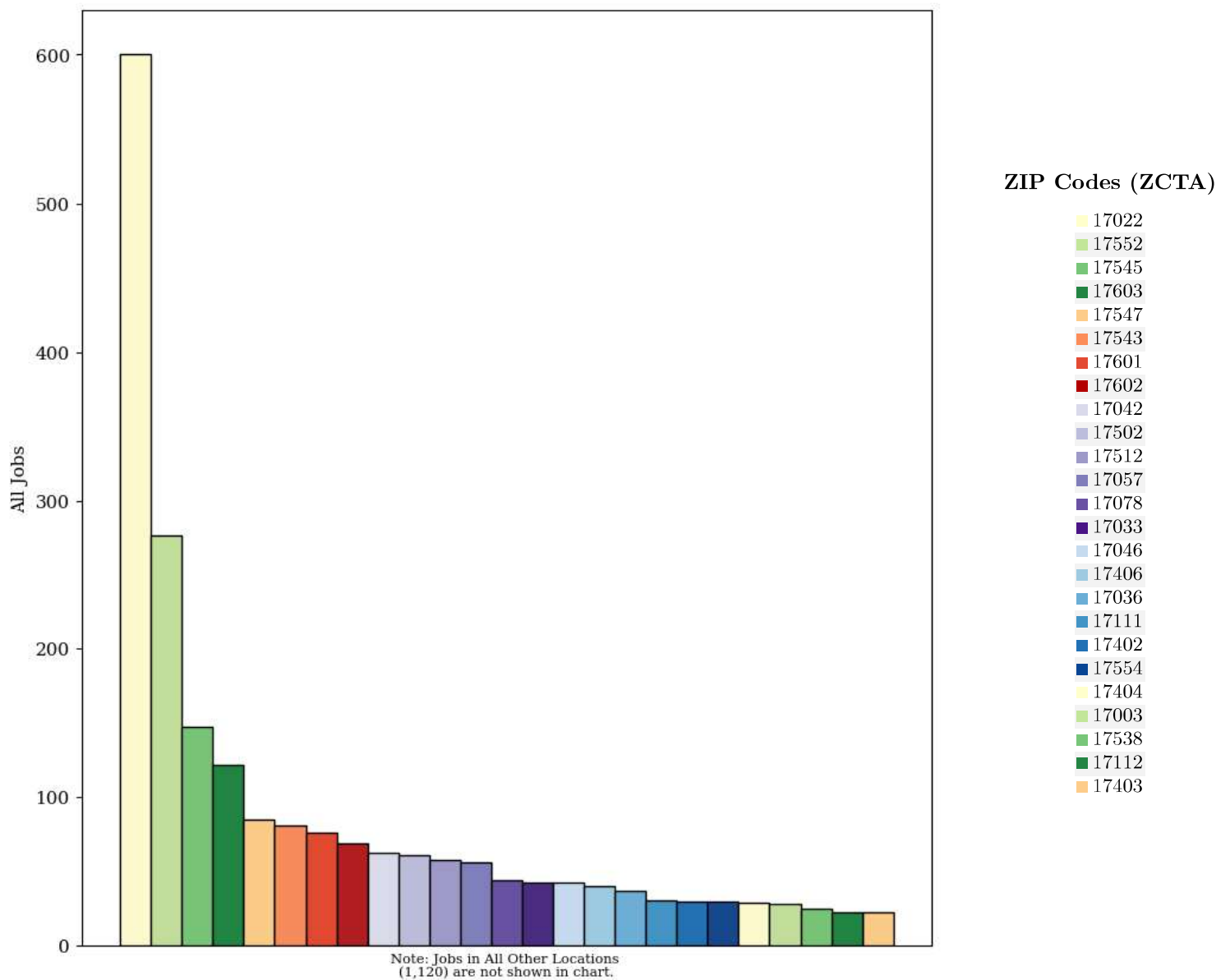
Job Count

- ▭ 518 - 600
- ▭ 436 - 517
- ▭ 353 - 435
- ▭ 271 - 352
- ▭ 188 - 270
- ▭ 106 - 187
- ▭ 23 - 105



All Jobs from Work Selection Area to Home ZIP Codes (ZCTA) in 2022

All Workers



All Jobs from Work Selection Area to Home ZIP Codes (ZCTA) in 2022

All Workers

ZIP Codes (ZCTA) as Home Destination Area	2022	
	Count	Share
All ZIP Codes (ZCTA)	3,240	100.0%
17022	600	18.5%
17552	276	8.5%
17545	147	4.5%
17603	122	3.8%
17547	85	2.6%
17543	81	2.5%
17601	76	2.3%
17602	69	2.1%
17042	63	1.9%
17502	61	1.9%

ZIP Codes (ZCTA) as Home Destination Area	2022	
	Count	Share
17512	58	1.8%
17057	56	1.7%
17078	44	1.4%
17033	43	1.3%
17046	43	1.3%
17406	40	1.2%
17036	37	1.1%
17111	31	1.0%
17402	30	0.9%
17554	30	0.9%
17404	29	0.9%
17003	28	0.9%
17538	25	0.8%
17112	23	0.7%
17403	23	0.7%
All Other Locations	1,120	34.6%

Additional Information

Analysis Settings

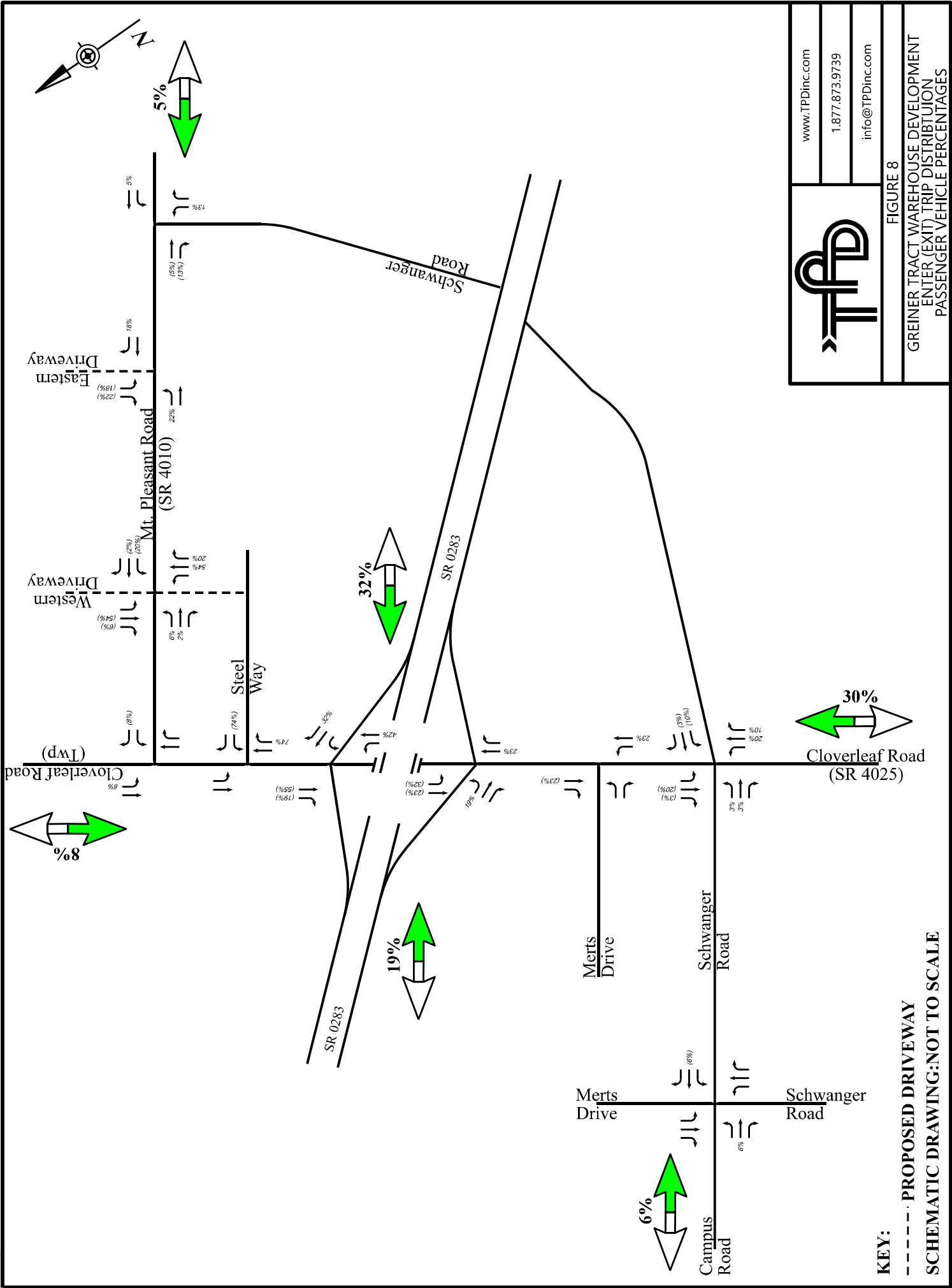
Analysis Type	Destination
Destination Type	ZIP Codes (ZCTA)
Selection area as	Work
Year(s)	2022
Job Type	All Jobs
Selection Area	Mount Joy township (Lancaster, PA) from County Subdivisions
Selected Census Blocks	244
Analysis Generation Date	10/14/2025 10:44 - OnTheMap 6.25.2
Code Revision	bd5bc0a714230c9c2b909d905c8753cb532970e8
LODES Data Vintage	20241022_1605

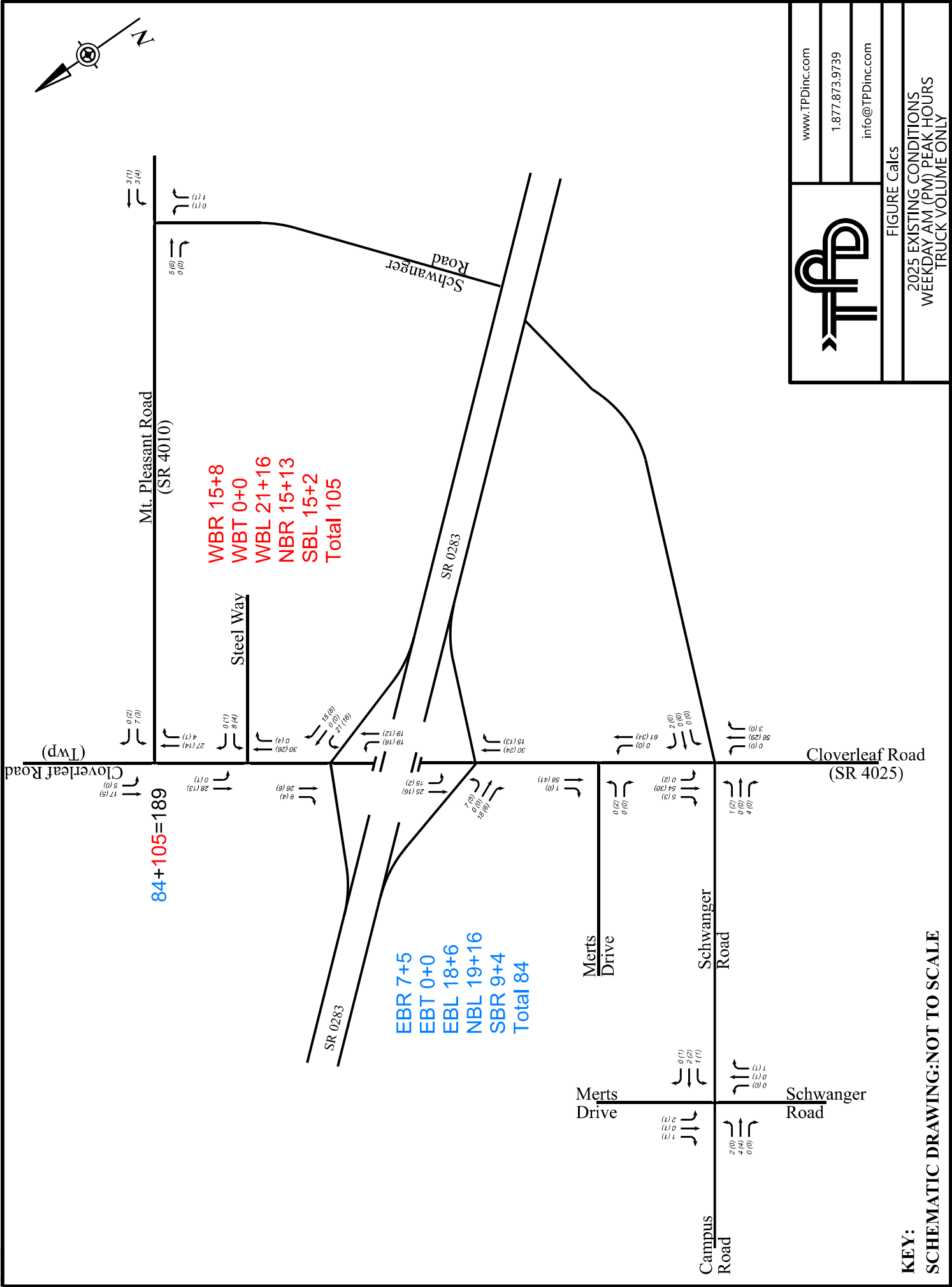
Data Sources

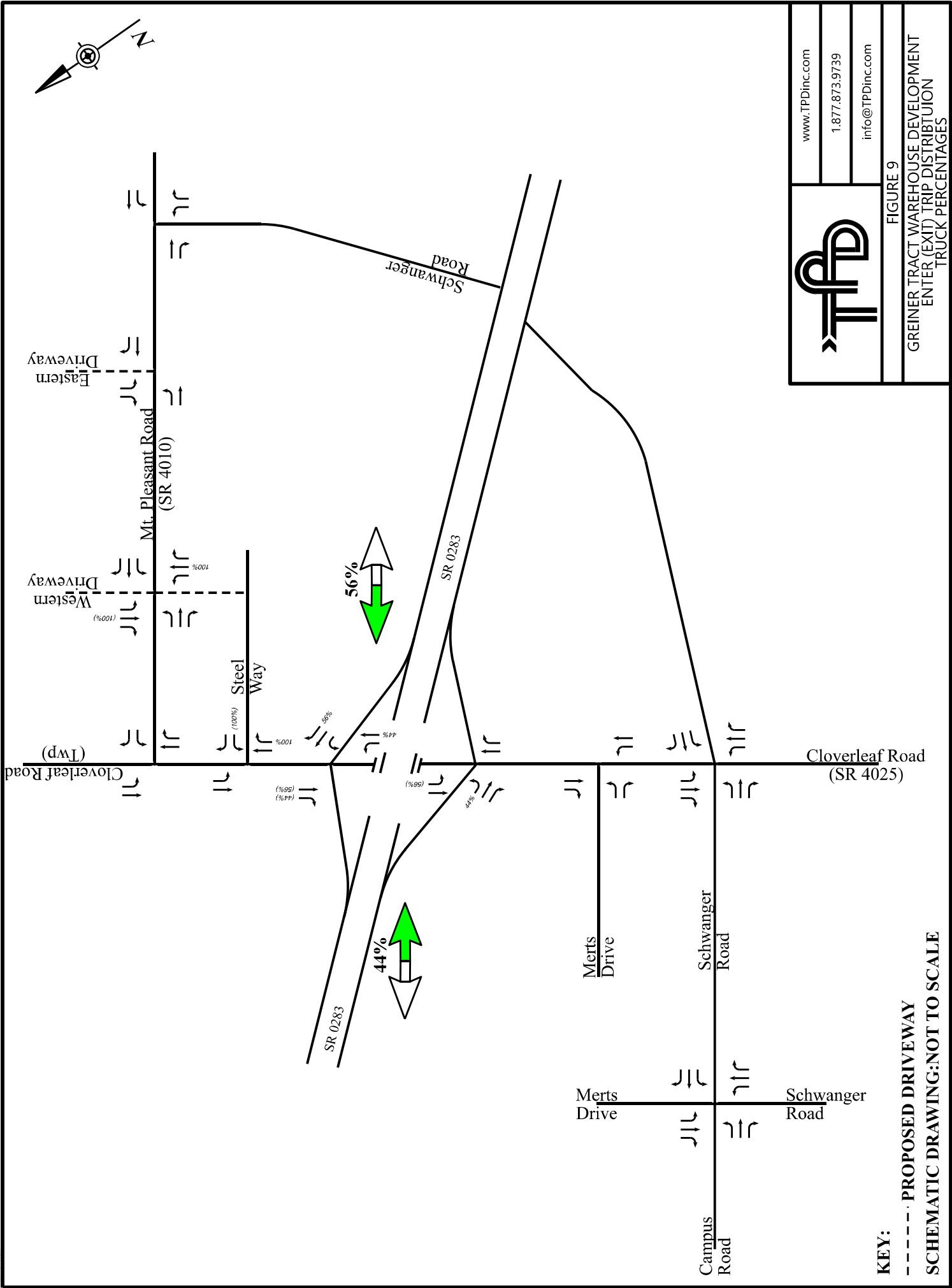
Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2022).

Notes

1. Race, Ethnicity, Educational Attainment, and Sex statistics are beta release results and are not available before 2009.
2. Educational Attainment is only produced for workers aged 30 and over.
3. Firm Age and Firm Size statistics are beta release results for All Private jobs and are not available before 2011.







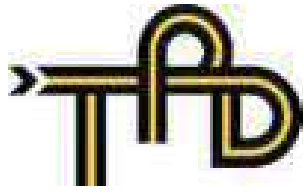
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FIGURE 9

GREINER TRACT WAREHOUSE DEVELOPMENT
 ENTER (EXIT) TRIP DISTRIBUTION
 TRUCK PERCENTAGES



Appendix E:

Volume Development Sheets



TPD# ETHD.00004
8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Mt. Pleasant Road (SR 4010)

1

Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts				42		6		140	15	21	216		440
Heavy Vehicles				7				27	4	5	17		60
Balancing													0
2025 Existing Volumes (Balanced)	0	0	0	42	0	6	0	140	15	21	216	0	440
Base Growth (0.46% compounded for 5 yrs)	0	0	0	1	0	0	0	3	0	0	5	0	9
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	43	0	6	0	143	15	21	221	0	449
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								2			6		8
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential								2			1		3
Westmount Residential								2			1		3
1376 Campus Road Development								14			5		19
1925 Sheaffer Road Development								7			2		9
Mount Joy Town Center								13			20		33
Raffensperger Tract								4			2		6
Total Background Development Trips	0	0	0	0	0	0	0	44	0	0	37	0	81
2030 Base (No-Build) Volumes	0	0	0	43	0	6	0	187	15	21	258	0	530
SITE TRIPS													
New Passenger Vehicle Trips				16		3			52	10			81
New Truck Trips													0
Total Site Trip Distribution	0	0	0	16	0	3	0	0	52	10	0	0	81
2030 Projected (Build) Volumes	0	0	0	59	0	9	0	187	67	31	258	0	611
Base Growth (0.46% compounded for 10 yrs)	0	0	0	2	0	0	0	7	1	1	10	0	21
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	44	0	6	0	147	16	22	226	0	461
2035 Base (No-Build) Volumes	0	0	0	44	0	6	0	191	16	22	263	0	542
2035 Projected (Build) Volumes	0	0	0	60	0	9	0	191	68	32	263	0	623
Existing Condition HV%	0%	0%	0%	17%	0%	0%	0%	19%	27%	24%	8%	0%	0.92
Base Condition HV%	0%	0%	0%	17%	0%	0%	0%	19%	27%	24%	8%	0%	
Projected HV %	0%	0%	0%	17%	0%	0%	0%	19%	27%	24%	8%	0%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts				15		15		273	49	19	165		536
Heavy Vehicles				3		2		14	1		5		25
Balancing													0
2025 Existing Volumes (Balanced)	0	0	0	15	0	15	0	273	49	19	165	0	536
Base Growth (0.46% compounded for 5 yrs)	0	0	0	0	0	0	0	6	1	0	4	0	11
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	15	0	15	0	279	50	19	169	0	547
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								6			2		8
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential								1			2		3
Westmount Residential								2			3		5
1376 Campus Road Development								9			16		25
1925 Sheaffer Road Development								5			7		12
Mount Joy Town Center								22			21		43
Raffensperger Tract								3			5		8
Total Background Development Trips	0	0	0	0	0	0	0	48	0	0	56	0	104
2030 Base (No-Build) Volumes	0	0	0	15	0	15	0	327	50	19	225	0	651
SITE TRIPS													
New Passenger Vehicle Trips				64		11			18	3			96
New Truck Trips													0
Total Site Trip Distribution	0	0	0	64	0	11	0	0	18	3	0	0	96
2030 Projected (Build) Volumes	0	0	0	79	0	26	0	327	68	22	225	0	747
Base Growth (0.46% compounded for 10 yrs)	0	0	0	1	0	1	0	13	2	1	8	0	26
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	16	0	16	0	286	51	20	173	0	562
2035 Base (No-Build) Volumes	0	0	0	16	0	16	0	334	51	20	229	0	666
2035 Projected (Build) Volumes	0	0	0	80	0	27	0	334	69	23	229	0	762
Existing Condition HV%	0%	0%	0%	20%	0%	13%	0%	5%	2%	0%	3%	0%	0.94
Base Condition HV%	0%	0%	0%	20%	0%	13%	0%	5%	2%	0%	3%	0%	
Projected HV %	0%	0%	0%	20%	0%	13%	0%	5%	2%	0%	3%	0%	

TPD# ETHD.00004
8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Steel Way

2

Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts				20		1		140	75	16	266		518
Heavy Vehicles				8				30			28		66
Balancing													0
2025 Existing Volumes (Balanced)	0	0	0	20	0	1	0	140	75	16	266	0	518
Base Growth (0.46% compounded for 5 yrs)	0	0	0	0	0	0	0	3	2	0	6	0	11
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	20	0	1	0	143	77	16	272	0	529
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								2			6		8
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential								2			1		3
Westmount Residential								2			1		3
1376 Campus Road Development								14			5		19
1925 Sheaffer Road Development								7			2		9
Mount Joy Town Center								13			20		33
Raffensperger Tract								4			2		6
Total Background Development Trips	0	0	0	0	0	0	0	44	0	0	37	0	81
2030 Base (No-Build) Volumes	0	0	0	20	0	1	0	187	77	16	309	0	610
SITE TRIPS													
New Passenger Vehicle Trips				11				52	36		16		115
New Truck Trips				19					24				43
Total Site Trip Distribution	0	0	0	30	0	0	0	52	60	0	16	0	158
2030 Projected (Build) Volumes	0	0	0	50	0	1	0	239	137	16	325	0	768
Base Growth (0.46% compounded for 10 yrs)	0	0	0	1	0	0	0	7	4	1	12	0	25
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	21	0	1	0	147	79	17	278	0	543
2035 Base (No-Build) Volumes	0	0	0	21	0	1	0	191	79	17	315	0	624
2035 Projected (Build) Volumes	0	0	0	51	0	1	0	243	139	17	331	0	782
Existing Condition HV%	0%	0%	0%	40%	0%	0%	0%	21%	0%	0%	11%	0%	0.93
Base Condition HV%	0%	0%	0%	40%	0%	0%	0%	21%	0%	0%	11%	0%	
Projected HV %	0%	0%	0%	54%	0%	0%	0%	21%	18%	0%	11%	0%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts				138		58		240	13	4	176		629
Heavy Vehicles				4		1		26	4	1	13		49
Balancing													0
2025 Existing Volumes (Balanced)	0	0	0	138	0	58	0	240	13	4	176	0	629
Base Growth (0.46% compounded for 5 yrs)	0	0	0	3	0	1	0	6	0	0	4	0	14
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	141	0	59	0	246	13	4	180	0	643
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								6			2		8
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential								1			2		3
Westmount Residential								2			3		5
1376 Campus Road Development								9			16		25
1925 Sheaffer Road Development								5			7		12
Mount Joy Town Center								22			21		43
Raffensperger Tract								3			5		8
Total Background Development Trips	0	0	0	0	0	0	0	48	0	0	56	0	104
2030 Base (No-Build) Volumes	0	0	0	141	0	59	0	294	13	4	236	0	747
SITE TRIPS													
New Passenger Vehicle Trips				44				18	12		64		138
New Truck Trips				21					23				44
Total Site Trip Distribution	0	0	0	65	0	0	0	18	35	0	64	0	182
2030 Projected (Build) Volumes	0	0	0	206	0	59	0	312	48	4	300	0	929
Base Growth (0.46% compounded for 10 yrs)	0	0	0	6	0	3	0	11	1	0	8	0	29
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	144	0	61	0	251	14	4	184	0	658
2035 Base (No-Build) Volumes	0	0	0	144	0	61	0	299	14	4	240	0	762
2035 Projected (Build) Volumes	0	0	0	209	0	61	0	317	49	4	304	0	944
Existing Condition HV%	0%	0%	0%	3%	0%	2%	0%	11%	31%	25%	7%	0%	0.75
Base Condition HV%	0%	0%	0%	3%	0%	2%	0%	11%	31%	25%	7%	0%	
Projected HV %	0%	0%	0%	12%	0%	2%	0%	11%	56%	25%	7%	0%	

TPD# ETHD.00004
8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Route 283 West Ramps

3

Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts				320		103	529	111			191	74	1328
Heavy Vehicles				21		15	19	19			26	9	109
Balancing				6			19	20			6		51
2025 Existing Volumes (Balanced)	0	0	0	326	0	103	548	131	0	0	197	74	1379
Base Growth (0.46% compounded for 5 yrs)	0	0	0	8	0	2	13	3	0	0	5	2	33
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	334	0	105	561	134	0	0	202	76	1412
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips				8			3	2			6		19
156 W. Harrisburg Ave Warehouse - Truck Trips				2			2						4
Pennmark Full Build-Out													0
Westbrooke Residential				3			8	2			1		14
Westmount Residential				6			10	2			1		19
1376 Campus Road Development				11			33	14			5		63
1925 Sheaffer Road Development				6			16	7			2		31
Mount Joy Town Center				64			30	13			20		127
Raffensperger Tract				3			10	4			2		19
Total Background Development Trips	0	0	0	103	0	0	112	44	0	0	37	0	296
2030 Base (No-Build) Volumes	0	0	0	437	0	105	673	178	0	0	239	76	1708
SITE TRIPS													
New Passenger Vehicle Trips						38		50			20	7	115
New Truck Trips						13		11			11	8	43
Total Site Trip Distribution	0	0	0	0	0	51	0	61	0	0	31	15	158
2030 Projected (Build) Volumes	0	0	0	437	0	156	673	239	0	0	270	91	1866
Base Growth (0.46% compounded for 10 yrs)	0	0	0	15	0	5	26	6	0	0	9	3	64
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	341	0	108	574	137	0	0	206	77	1443
2035 Base (No-Build) Volumes	0	0	0	444	0	108	686	181	0	0	243	77	1739
2035 Projected (Build) Volumes	0	0	0	444	0	159	686	242	0	0	274	92	1897
Existing Condition HV%	0%	0%	0%	7%	0%	15%	4%	17%	0%	0%	14%	12%	0.93
Base Condition HV%	0%	0%	0%	7%	0%	15%	4%	17%	0%	0%	14%	12%	
Projected HV %	0%	0%	0%	7%	0%	18%	4%	17%	0%	0%	14%	19%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts													
Heavy Vehicles				16		8	16	12			6	4	62
Balancing				3			8	10			4		25
2025 Existing Volumes (Balanced)	0	0	0	569	0	143	283	180	0	0	189	49	1413
Base Growth (0.46% compounded for 5 yrs)	0	0	0	13	0	3	7	4	0	0	4	1	32
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	582	0	146	290	184	0	0	193	50	1445
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips				3			13	6			2		24
156 W. Harrisburg Ave Warehouse - Truck Trips				4			2						6
Pennmark Full Build-Out													0
Westbrooke Residential				12			6	1			2		21
Westmount Residential				13			6	2			3		24
1376 Campus Road Development				35			22	9			16		82
1925 Sheaffer Road Development				16			10	5			7		38
Mount Joy Town Center				71			54	22			21		168
Raffensperger Tract				11			6	3			5		25
Total Background Development Trips	0	0	0	165	0	0	119	48	0	0	56	0	388
2030 Base (No-Build) Volumes	0	0	0	747	0	146	409	232	0	0	249	50	1833
SITE TRIPS													
New Passenger Vehicle Trips						13		17			80	28	138
New Truck Trips						13		10			12	9	44
Total Site Trip Distribution	0	0	0	0	0	26	0	27	0	0	92	37	182
2030 Projected (Build) Volumes	0	0	0	747	0	172	409	259	0	0	341	87	2015
Base Growth (0.46% compounded for 10 yrs)	0	0	0	27	0	7	13	8	0	0	9	2	66
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	596	0	150	296	188	0	0	198	51	1479
2035 Base (No-Build) Volumes	0	0	0	761	0	150	415	236	0	0	254	51	1867
2035 Projected (Build) Volumes	0	0	0	761	0	176	415	263	0	0	346	88	2049
Existing Condition HV%	0%	0%	0%	3%	0%	6%	6%	7%	0%	0%	3%	8%	0.96
Base Condition HV%	0%	0%	0%	3%	0%	6%	6%	7%	0%	0%	3%	8%	
Projected HV %	0%	0%	0%	3%	0%	12%	6%	8%	0%	0%	5%	15%	

TPD# ETHD.00004
8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Route 283 East Ramps

4

Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	32		245					647	558	127	396		2005
Heavy Vehicles	7		18					30	15	15	25		110
Balancing			29										29
2025 Existing Volumes (Balanced)	32	0	274	0	0	0	0	647	558	127	396	0	2034
Base Growth (0.46% compounded for 5 yrs)	1	0	6	0	0	0	0	15	13	3	9	0	47
2030 Base (No-Build) Volumes - Growth Rate Only	33	0	280	0	0	0	0	662	571	130	405	0	2081
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips			14					5	2		14		35
156 W. Harrisburg Ave Warehouse - Truck Trips			2					2	2		2		8
Pennmark Full Build-Out													0
Westbrooke Residential			3					10	12		4		29
Westmount Residential			4					12	14		7		37
1376 Campus Road Development			8					39	33		16		96
1925 Sheaffer Road Development			4					19	16		8		47
Mount Joy Town Center			46					43	44		84		217
Raffensperger Tract			3					12	10		5		30
Total Background Development Trips	0	0	84	0	0	0	0	142	133	0	140	0	499
2030 Base (No-Build) Volumes	33	0	364	0	0	0	0	804	704	130	545	0	2580
SITE TRIPS													
New Passenger Vehicle Trips	23							27		12	8		70
New Truck Trips	11									11			22
Total Site Trip Distribution	34	0	0	0	0	0	0	27	0	23	8	0	92
2030 Projected (Build) Volumes	67	0	364	0	0	0	0	831	704	153	553	0	2672
Base Growth (0.46% compounded for 10 yrs)	2	0	13	0	0	0	0	30	26	6	19	0	96
2035 Base (No-Build) Volumes - Growth Rate Only	34	0	287	0	0	0	0	677	584	133	415	0	2130
2035 Base (No-Build) Volumes	34	0	371	0	0	0	0	819	717	133	555	0	2629
2035 Projected (Build) Volumes	68	0	371	0	0	0	0	846	717	156	563	0	2721
Existing Condition HV%	22%	0%	7%	0%	0%	0%	0%	5%	3%	12%	6%	0%	0.89
Base Condition HV%	22%	0%	7%	0%	0%	0%	0%	5%	3%	12%	6%	0%	
Projected HV %	27%	0%	7%	0%	0%	0%	0%	5%	3%	17%	6%	0%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	70		495					393	413	84	674		2129
Heavy Vehicles	5		6					24	13	2	16		66
Balancing			11										11
2025 Existing Volumes (Balanced)	70	0	506	0	0	0	0	393	413	84	674	0	2140
Base Growth (0.46% compounded for 5 yrs)	2	0	12	0	0	0	0	9	10	2	16	0	51
2030 Base (No-Build) Volumes - Growth Rate Only	72	0	518	0	0	0	0	402	423	86	690	0	2191
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips			4					19	7		5		35
156 W. Harrisburg Ave Warehouse - Truck Trips			2					2	4		4		12
Pennmark Full Build-Out													0
Westbrooke Residential			8					7	5		14		34
Westmount Residential			9					8	10		16		43
1376 Campus Road Development			28					26	22		51		127
1925 Sheaffer Road Development			13					13	10		23		59
Mount Joy Town Center			49					76	77		92		294
Raffensperger Tract			8					8	6		16		38
Total Background Development Trips	0	0	121	0	0	0	0	159	141	0	221	0	642
2030 Base (No-Build) Volumes	72	0	639	0	0	0	0	561	564	86	911	0	2833
SITE TRIPS													
New Passenger Vehicle Trips	8							9		47	33		97
New Truck Trips	10									12			22
Total Site Trip Distribution	18	0	0	0	0	0	0	9	0	59	33	0	119
2030 Projected (Build) Volumes	90	0	639	0	0	0	0	570	564	145	944	0	2952
Base Growth (0.46% compounded for 10 yrs)	3	0	24	0	0	0	0	18	19	4	32	0	100
2035 Base (No-Build) Volumes - Growth Rate Only	73	0	530	0	0	0	0	411	432	88	706	0	2240
2035 Base (No-Build) Volumes	73	0	651	0	0	0	0	570	573	88	927	0	2882
2035 Projected (Build) Volumes	91	0	651	0	0	0	0	579	573	147	960	0	3001
Existing Condition HV%	7%	0%	1%	0%	0%	0%	0%	6%	3%	2%	2%	0%	0.98
Base Condition HV%	7%	0%	1%	0%	0%	0%	0%	6%	3%	2%	2%	0%	
Projected HV %	17%	0%	1%	0%	0%	0%	0%	6%	3%	10%	2%	0%	

TPD# ETHD.00004
8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Merts Drive

5

Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	4		9				8	1189			653	17	1880
Heavy Vehicles			1					61			58	1	121
Balancing								12					12
2025 Existing Volumes (Balanced)	4	0	9	0	0	0	8	1201	0	0	653	17	1892
Base Growth (0.46% compounded for 5 yrs)	0	0	0	0	0	0	0	28	0	0	15	0	43
2030 Base (No-Build) Volumes - Growth Rate Only	4	0	9	0	0	0	8	1229	0	0	668	17	1935
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								7			28		35
156 W. Harrisburg Ave Warehouse - Truck Trips								4			4		8
Pennmark Full Build-Out													0
Westbrooke Residential								22			7		29
Westmount Residential								26			11		37
1376 Campus Road Development								72			24		96
1925 Sheaffer Road Development								35			12		47
Mount Joy Town Center								87			130		217
Raffensperger Tract								22			8		30
Total Background Development Trips	0	0	0	0	0	0	0	275	0	0	224	0	499
2030 Base (No-Build) Volumes	4	0	9	0	0	0	8	1504	0	0	892	17	2434
SITE TRIPS													
New Passenger Vehicle Trips								27			8		35
New Truck Trips													0
Total Site Trip Distribution	0	0	0	0	0	0	0	27	0	0	8	0	35
2030 Projected (Build) Volumes	4	0	9	0	0	0	8	1531	0	0	900	17	2469
Base Growth (0.46% compounded for 10 yrs)	0	0	0	0	0	0	0	56	0	0	31	1	88
2035 Base (No-Build) Volumes - Growth Rate Only	4	0	9	0	0	0	8	1257	0	0	684	18	1980
2035 Base (No-Build) Volumes	4	0	9	0	0	0	8	1532	0	0	908	18	2479
2035 Projected (Build) Volumes	4	0	9	0	0	0	8	1559	0	0	916	18	2514
Existing Condition HV%	0%	0%	11%	0%	0%	0%	0%	5%	0%	0%	9%	6%	0.93
Base Condition HV%	0%	0%	11%	0%	0%	0%	0%	5%	0%	0%	9%	6%	
Projected HV %	0%	0%	11%	0%	0%	0%	0%	5%	0%	0%	9%	6%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	15		12				4	770			1179	1	1981
Heavy Vehicles	2							34			41		77
Balancing								21					21
2025 Existing Volumes (Balanced)	15	0	12	0	0	0	4	791	0	0	1179	1	2002
Base Growth (0.46% compounded for 5 yrs)	0	0	0	0	0	0	0	18	0	0	27	0	45
2030 Base (No-Build) Volumes - Growth Rate Only	15	0	12	0	0	0	4	809	0	0	1206	1	2047
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								26			9		35
156 W. Harrisburg Ave Warehouse - Truck Trips								6			6		12
Pennmark Full Build-Out													0
Westbrooke Residential								12			22		34
Westmount Residential								18			25		43
1376 Campus Road Development								48			79		127
1925 Sheaffer Road Development								23			36		59
Mount Joy Town Center								153			141		294
Raffensperger Tract								14			24		38
Total Background Development Trips	0	0	0	0	0	0	0	300	0	0	342	0	642
2030 Base (No-Build) Volumes	15	0	12	0	0	0	4	1109	0	0	1548	1	2689
SITE TRIPS													
New Passenger Vehicle Trips								9			33		42
New Truck Trips													0
Total Site Trip Distribution	0	0	0	0	0	0	0	9	0	0	33	0	42
2030 Projected (Build) Volumes	15	0	12	0	0	0	4	1118	0	0	1581	1	2731
Base Growth (0.46% compounded for 10 yrs)	1	0	1	0	0	0	0	37	0	0	55	0	94
2035 Base (No-Build) Volumes - Growth Rate Only	16	0	13	0	0	0	4	828	0	0	1234	1	2096
2035 Base (No-Build) Volumes	16	0	13	0	0	0	4	1128	0	0	1576	1	2738
2035 Projected (Build) Volumes	16	0	13	0	0	0	4	1137	0	0	1609	1	2780
Existing Condition HV%	13%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%	0.95
Base Condition HV%	13%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%	
Projected HV %	13%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%	

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8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Schwanger Road

6

Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	291	26	55	7	14	69	24	844	7	16	511	144	2008
Heavy Vehicles	1		4			2		56	3		54	5	125
Balancing													0
2025 Existing Volumes (Balanced)	291	26	55	7	14	69	24	844	7	16	511	144	2008
Base Growth (0.46% compounded for 5 yrs)	7	1	1	0	0	2	1	20	0	0	12	3	47
2030 Base (No-Build) Volumes - Growth Rate Only	298	27	56	7	14	71	25	864	7	16	523	147	2055
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips			1					7			28		36
156 W. Harrisburg Ave Warehouse - Truck Trips								4			4		8
Pennmark Full Build-Out													0
Westbrooke Residential								22			7		29
Westmount Residential								26			11		37
1376 Campus Road Development	72	10	13		3		5					24	127
1925 Sheaffer Road Development	35	5	6		2		2					12	62
Mount Joy Town Center			16				10	87			130		243
Raffensperger Tract	22	3	4		1		1					8	39
Total Background Development Trips	129	18	40	0	6	0	18	146	0	0	180	44	581
2030 Base (No-Build) Volumes	427	45	96	7	20	71	43	1010	7	16	703	191	2636
SITE TRIPS													
New Passenger Vehicle Trips	3	3		4	1			24	12		7	1	55
New Truck Trips													0
Total Site Trip Distribution	3	3	0	4	1	0	0	24	12	0	7	1	55
2030 Projected (Build) Volumes	430	48	96	11	21	71	43	1034	19	16	710	192	2691
Base Growth (0.46% compounded for 10 yrs)	14	1	3	0	1	3	1	40	0	1	24	7	95
2035 Base (No-Build) Volumes - Growth Rate Only	305	27	58	7	15	72	25	884	7	17	535	151	2103
2035 Base (No-Build) Volumes	434	45	98	7	21	72	43	1030	7	17	715	195	2684
2035 Projected (Build) Volumes	437	48	98	11	22	72	43	1054	19	17	722	196	2739
Existing Condition HV%	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%	0.94
Base Condition HV%	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%	
Projected HV %	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	178	38	47	12	39	25	44	579	12	59	813	284	2130
Heavy Vehicles	2							29		2	30	3	66
Balancing													0
2025 Existing Volumes (Balanced)	178	38	47	12	39	25	44	579	12	59	813	284	2130
Base Growth (0.46% compounded for 5 yrs)	4	1	1	0	1	1	1	13	0	1	19	7	49
2030 Base (No-Build) Volumes - Growth Rate Only	182	39	48	12	40	26	45	592	12	60	832	291	2179
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips							1	26			9		36
156 W. Harrisburg Ave Warehouse - Truck Trips								6			6		12
Pennmark Full Build-Out													0
Westbrooke Residential								12			22		34
Westmount Residential								18			25		43
1376 Campus Road Development	48	6	9		10		15					79	167
1925 Sheaffer Road Development	23	3	4		5		7					36	78
Mount Joy Town Center			18				19	153			141		331
Raffensperger Tract	14	2	2		3		5					24	50
Background Trips To Compare Growth	85	11	33	0	18	0	46	153	0	0	141	139	626
Total Background Development Trips	85	11	33	0	18	0	47	215	0	0	203	139	751
2030 Base (No-Build) Volumes	267	50	81	12	58	26	92	807	12	60	1035	430	2930
SITE TRIPS													
New Passenger Vehicle Trips	1	1		15	4			8	4		29	4	66
New Truck Trips													0
Total Site Trip Distribution	1	1	0	15	4	0	0	8	4	0	29	4	66
2030 Projected (Build) Volumes	268	51	81	27	62	26	92	815	16	60	1064	434	2996
Base Growth (0.46% compounded for 10 yrs)	8	2	2	1	2	1	2	27	1	3	38	13	100
2035 Base (No-Build) Volumes - Growth Rate Only	186	40	49	13	41	26	46	606	13	62	851	297	2230
2035 Base (No-Build) Volumes	271	51	82	13	59	26	93	821	13	62	1054	436	2981
2035 Projected (Build) Volumes	272	52	82	28	63	26	93	829	17	62	1083	440	3047
Existing Condition HV%	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%	0.95
Base Condition HV%	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%	
Projected HV %	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%	

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8/7/2026

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Schwanger Road/Campus Road & Merts Drive/Schwanger Road

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Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	12	216	1	19	161	4	0	4	34	38	4	23	516
Heavy Vehicles	2	4		1	2				1	2		1	13
Balancing													0
2025 Existing Volumes (Balanced)	12	216	1	19	161	4	0	4	34	38	4	23	516
Base Growth (0.46% compounded for 5 yrs)	0	5	0	0	4	0	0	0	1	1	0	1	12
2030 Base (No-Build) Volumes - Growth Rate Only	12	221	1	19	165	4	0	4	35	39	4	24	528
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips		1											1
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development		95			32								127
1925 Sheaffer Road Development		46			16								62
Mount Joy Town Center		16			10								26
Raffensperger Tract				10					29				39
Total Background Development Trips	0	158	0	10	58	0	0	0	29	0	0	0	255
2030 Base (No-Build) Volumes	12	379	1	29	223	4	0	4	64	39	4	24	783
SITE TRIPS													
New Passenger Vehicle Trips		6			2								8
New Truck Trips													0
Total Site Trip Distribution	0	6	0	0	2	0	0	0	0	0	0	0	8
2030 Projected (Build) Volumes	12	385	1	29	225	4	0	4	64	39	4	24	791
Base Growth (0.46% compounded for 10 yrs)	1	10	0	1	8	0	0	0	2	2	0	1	25
2035 Base (No-Build) Volumes - Growth Rate Only	13	226	1	20	169	4	0	4	36	40	4	24	541
2035 Base (No-Build) Volumes	13	384	1	30	227	4	0	4	65	40	4	24	796
2035 Projected (Build) Volumes	13	390	1	30	229	4	0	4	65	40	4	24	804
Existing Condition HV%	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%	0.88
Base Condition HV%	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%	
Projected HV %	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts	23	258	4	79	210	41	1	8	33	17	8	16	698
Heavy Vehicles		4		1	2	1		1	1	1	1	1	13
Balancing													0
2025 Existing Volumes (Balanced)	23	258	4	79	210	41	1	8	33	17	8	16	698
Base Growth (0.46% compounded for 5 yrs)	1	6	0	2	5	1	0	0	1	0	0	0	16
2030 Base (No-Build) Volumes - Growth Rate Only	24	264	4	81	215	42	1	8	34	17	8	16	714
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development		63			104								167
1925 Sheaffer Road Development		30			48								78
Mount Joy Town Center		18			19								37
Raffensperger Tract				32					18				50
Total Background Development Trips	0	111	0	32	171	0	0	0	18	0	0	0	332
2030 Base (No-Build) Volumes	24	375	4	113	386	42	1	8	52	17	8	16	1046
SITE TRIPS													
New Passenger Vehicle Trips		2			8								10
New Truck Trips													0
Total Site Trip Distribution	0	2	0	0	8	0	0	0	0	0	0	0	10
2030 Projected (Build) Volumes	24	377	4	113	394	42	1	8	52	17	8	16	1056
Base Growth (0.46% compounded for 10 yrs)	1	12	0	4	10	2	0	0	2	1	0	1	33
2035 Base (No-Build) Volumes - Growth Rate Only	24	270	4	83	220	43	1	8	35	18	8	17	731
2035 Base (No-Build) Volumes	24	381	4	115	391	43	1	8	53	18	8	17	1063
2035 Projected (Build) Volumes	24	383	4	115	399	43	1	8	53	18	8	17	1073
Existing Condition HV%	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%	0.90
Base Condition HV%	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%	
Projected HV %	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%	

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Traffic Volumes Worksheet

Intersection:

Synchro Node:

Mt. Pleasant Road (SR 4010) & Schwanger Road

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Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts		31	4	16	43		2		20				116
Heavy Vehicles		5		3	3				1				12
Balancing													0
2025 Existing Volumes (Balanced)	0	31	4	16	43	0	2	0	20	0	0	0	116
Base Growth (0.46% compounded for 5 yrs)	0	1	0	0	1	0	0	0	0	0	0	0	2
2030 Base (No-Build) Volumes - Growth Rate Only	0	32	4	16	44	0	2	0	20	0	0	0	118
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development				3					10				13
1925 Sheaffer Road Development				2					5				7
Mount Joy Town Center													0
Raffensperger Tract				1					3				4
Total Background Development Trips	0	0	0	6	0	0	0	0	18	0	0	0	24
2030 Base (No-Build) Volumes	0	32	4	22	44	0	2	0	38	0	0	0	142
SITE TRIPS													
New Passenger Vehicle Trips		2	5		6		15						28
New Truck Trips													0
Total Site Trip Distribution	0	2	5	0	6	0	15	0	0	0	0	0	28
2030 Projected (Build) Volumes	0	34	9	22	50	0	17	0	38	0	0	0	170
Base Growth (0.46% compounded for 10 yrs)	0	1	0	1	2	0	0	0	1	0	0	0	5
2035 Base (No-Build) Volumes - Growth Rate Only	0	32	4	17	45	0	2	0	21	0	0	0	121
2035 Base (No-Build) Volumes	0	32	4	23	45	0	2	0	39	0	0	0	145
2035 Projected (Build) Volumes	0	34	9	23	51	0	17	0	39	0	0	0	173
Existing Condition HV%	0%	16%	0%	19%	7%	0%	0%	0%	5%	0%	0%	0%	0.74
Base Condition HV%	0%	16%	0%	19%	7%	0%	0%	0%	5%	0%	0%	0%	
Projected HV %	0%	16%	0%	19%	7%	0%	0%	0%	5%	0%	0%	0%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts		69	6	26	30		4		23				158
Heavy Vehicles		6		4	1		1		1				13
Balancing													0
2025 Existing Volumes (Balanced)	0	69	6	26	30	0	4	0	23	0	0	0	158
Base Growth (0.46% compounded for 5 yrs)	0	2	0	1	1	0	0	0	1	0	0	0	5
2030 Base (No-Build) Volumes - Growth Rate Only	0	71	6	27	31	0	4	0	24	0	0	0	163
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development				10					6				16
1925 Sheaffer Road Development				5					3				8
Mount Joy Town Center													0
Raffensperger Tract				3					2				5
Total Background Development Trips	0	0	0	18	0	0	0	0	11	0	0	0	29
2030 Base (No-Build) Volumes	0	71	6	45	31	0	4	0	35	0	0	0	192
SITE TRIPS													
New Passenger Vehicle Trips		7	19		2		5						33
New Truck Trips													0
Total Site Trip Distribution	0	7	19	0	2	0	5	0	0	0	0	0	33
2030 Projected (Build) Volumes	0	78	25	45	33	0	9	0	35	0	0	0	225
Base Growth (0.46% compounded for 10 yrs)	0	3	0	1	1	0	0	0	1	0	0	0	6
2035 Base (No-Build) Volumes - Growth Rate Only	0	72	6	27	31	0	4	0	24	0	0	0	164
2035 Base (No-Build) Volumes	0	72	6	45	31	0	4	0	35	0	0	0	193
2035 Projected (Build) Volumes	0	79	25	45	33	0	9	0	35	0	0	0	226
Existing Condition HV%	0%	9%	0%	15%	3%	0%	25%	0%	4%	0%	0%	0%	0.88
Base Condition HV%	0%	9%	0%	15%	3%	0%	25%	0%	4%	0%	0%	0%	
Projected HV %	0%	9%	0%	15%	3%	0%	25%	0%	4%	0%	0%	0%	

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8/7/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Mt. Pleasant Road (SR 4010) & Proposed Eastern Driveway

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Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts		36			48								84
Heavy Vehicles		9			7								16
Balancing													0
2025 Existing Volumes (Balanced)	0	36	0	0	48	0	0	0	0	0	0	0	84
Base Growth (0.46% compounded for 5 yrs)	0	1	0	0	1	0	0	0	0	0	0	0	2
2030 Base (No-Build) Volumes - Growth Rate Only	0	37	0	0	49	0	0	0	0	0	0	0	86
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development													0
1925 Sheaffer Road Development													0
Mount Joy Town Center													0
Raffensperger Tract													0
Total Background Development Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Base (No-Build) Volumes	0	37	0	0	49	0	0	0	0	0	0	0	86
SITE TRIPS													
New Passenger Vehicle Trips	26					21				7		8	62
New Truck Trips													0
Total Site Trip Distribution	26	0	0	0	0	21	0	0	0	7	0	8	62
2030 Projected (Build) Volumes	26	37	0	0	49	21	0	0	0	7	0	8	148
Base Growth (0.46% compounded for 10 yrs)	0	2	0	0	2	0	0	0	0	0	0	0	4
2035 Base (No-Build) Volumes - Growth Rate Only	0	38	0	0	50	0	0	0	0	0	0	0	88
2035 Base (No-Build) Volumes	0	38	0	0	50	0	0	0	0	0	0	0	88
2035 Projected (Build) Volumes	26	38	0	0	50	21	0	0	0	7	0	8	150
Existing Condition HV%	0%	25%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0.90
Base Condition HV%	0%	25%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	
Projected HV %	2%	25%	0%	0%	15%	2%	0%	0%	0%	2%	0%	2%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts		75			34								109
Heavy Vehicles		6			5								11
Balancing													0
2025 Existing Volumes (Balanced)	0	75	0	0	34	0	0	0	0	0	0	0	109
Base Growth (0.46% compounded for 5 yrs)	0	2	0	0	1	0	0	0	0	0	0	0	3
2030 Base (No-Build) Volumes - Growth Rate Only	0	77	0	0	35	0	0	0	0	0	0	0	112
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development													0
1925 Sheaffer Road Development													0
Mount Joy Town Center													0
Raffensperger Tract													0
Total Background Development Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Base (No-Build) Volumes	0	77	0	0	35	0	0	0	0	0	0	0	112
SITE TRIPS													
New Passenger Vehicle Trips	9					7				26		32	74
New Truck Trips													0
Total Site Trip Distribution	9	0	0	0	0	7	0	0	0	26	0	32	74
2030 Projected (Build) Volumes	9	77	0	0	35	7	0	0	0	26	0	32	186
Base Growth (0.46% compounded for 10 yrs)	0	4	0	0	2	0	0	0	0	0	0	0	6
2035 Base (No-Build) Volumes - Growth Rate Only	0	79	0	0	36	0	0	0	0	0	0	0	115
2035 Base (No-Build) Volumes	0	79	0	0	36	0	0	0	0	0	0	0	115
2035 Projected (Build) Volumes	9	79	0	0	36	7	0	0	0	26	0	32	189
Existing Condition HV%	0%	8%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0.90
Base Condition HV%	0%	8%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	
Projected HV %	2%	8%	0%	0%	15%	2%	0%	0%	0%	2%	0%	2%	

TPD# ETHD.00004

8/7/2026

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Mt. Pleasant Road (SR 4010) & Proposed Western Driveway/Proposed Archers Lane

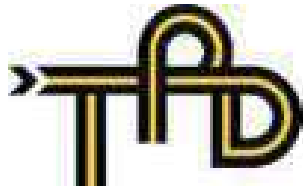
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Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts		36			48								84
Heavy Vehicles		9			7								16
Balancing													0
2025 Existing Volumes (Balanced)	0	36	0	0	48	0	0	0	0	0	0	0	84
Base Growth (0.46% compounded for 5 yrs)	0	1	0	0	1	0	0	0	0	0	0	0	2
2030 Base (No-Build) Volumes - Growth Rate Only	0	37	0	0	49	0	0	0	0	0	0	0	86
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development													0
1925 Sheaffer Road Development													0
Mount Joy Town Center													0
Raffensperger Tract													0
Total Background Development Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Base (No-Build) Volumes	0	37	0	0	49	0	0	0	0	0	0	0	86
SITE TRIPS													
New Passenger Vehicle Trips	48	14		4	4			24	12		7	15	128
New Truck Trips								24			19		43
Total Site Trip Distribution	48	14	0	4	4	0	0	48	12	0	26	15	171
2030 Projected (Build) Volumes	48	51	0	4	53	0	0	48	12	0	26	15	257
Base Growth (0.46% compounded for 10 yrs)	0	2	0	0	2	0	0	0	0	0	0	0	4
2035 Base (No-Build) Volumes - Growth Rate Only	0	38	0	0	50	0	0	0	0	0	0	0	88
2035 Base (No-Build) Volumes	0	38	0	0	50	0	0	0	0	0	0	0	88
2035 Projected (Build) Volumes	48	52	0	4	54	0	0	48	12	0	26	15	259
Existing Condition HV%	0%	25%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0.90
Base Condition HV%	0%	25%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	
Projected HV %	2%	25%	0%	2%	15%	0%	0%	50%	2%	0%	73%	2%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts		75			34								109
Heavy Vehicles		6			5								11
Balancing													0
2025 Existing Volumes (Balanced)	0	75	0	0	34	0	0	0	0	0	0	0	109
Base Growth (0.46% compounded for 5 yrs)	0	2	0	0	1	0	0	0	0	0	0	0	3
2030 Base (No-Build) Volumes - Growth Rate Only	0	77	0	0	35	0	0	0	0	0	0	0	112
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips													0
156 W. Harrisburg Ave Warehouse - Truck Trips													0
Pennmark Full Build-Out													0
Westbrooke Residential													0
Westmount Residential													0
1376 Campus Road Development													0
1925 Sheaffer Road Development													0
Mount Joy Town Center													0
Raffensperger Tract													0
Total Background Development Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Base (No-Build) Volumes	0	77	0	0	35	0	0	0	0	0	0	0	112
SITE TRIPS													
New Passenger Vehicle Trips	16	5		15	17			8	4		29	58	152
New Truck Trips								23			21		44
Total Site Trip Distribution	16	5	0	15	17	0	0	31	4	0	50	58	196
2030 Projected (Build) Volumes	16	82	0	15	52	0	0	31	4	0	50	58	308
Base Growth (0.46% compounded for 10 yrs)	0	4	0	0	2	0	0	0	0	0	0	0	6
2035 Base (No-Build) Volumes - Growth Rate Only	0	79	0	0	36	0	0	0	0	0	0	0	115
2035 Base (No-Build) Volumes	0	79	0	0	36	0	0	0	0	0	0	0	115
2035 Projected (Build) Volumes	16	84	0	15	53	0	0	31	4	0	50	58	311
Existing Condition HV%	0%	8%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0.90
Base Condition HV%	0%	8%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	
Projected HV %	2%	8%	0%	2%	15%	0%	0%	74%	2%	0%	42%	2%	



CIP Volume Development



TPD# ETHD.00004
8/21/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Steel Way

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Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts			320	12	4		529	156	56	7	177	69	1330
Heavy Vehicles			21	4	1		19	32	1		20	8	106
Balancing													0
2025 Existing Volumes (Balanced)	0	0	320	12	4	0	529	156	56	7	177	69	1330
Base Growth (0.46% compounded for 5 yrs)	0	0	7	0	0	0	12	4	1	0	4	2	30
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	327	12	4	0	541	160	57	7	181	71	1360
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips			8				3	2			6		19
156 W. Harrisburg Ave Warehouse - Truck Trips			2				2						4
Pennmark Full Build-Out													0
Westbrooke Residential			3				8	2			1		14
Westmount Residential			6				10	2			1		19
1376 Campus Road Development			11				33	14			5		63
1925 Sheaffer Road Development			6				16	7			2		31
Mount Joy Town Center			64				30	13			20		127
Raffensperger Tract			3				10	4			2		19
Total Background Development Trips	0	0	103	0	0	0	112	44	0	0	37	0	296
2030 Base (No-Build) Volumes	0	0	430	12	4	0	653	204	57	7	218	71	1656
SITE TRIPS													
New Passenger Vehicle Trips				8	3			53	36		12	4	116
New Truck Trips				11	8				24				43
Total Site Trip Distribution	0	0	0	19	11	0	0	53	60	0	12	4	159
2030 Projected (Build) Volumes	0	0	430	31	15	0	653	257	117	7	230	75	1815
Base Growth (0.46% compounded for 10 yrs)	0	0	15	1	0	0	25	7	3	0	8	3	62
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	335	13	4	0	554	163	59	7	185	72	1392
2035 Base (No-Build) Volumes	0	0	438	13	4	0	666	207	59	7	222	72	1688
2035 Projected (Build) Volumes	0	0	438	32	15	0	666	260	119	7	234	76	1847
Existing Condition HV%	0%	0%	7%	33%	25%	0%	4%	21%	2%	0%	11%	12%	0.91
Base Condition HV%	0%	0%	7%	33%	25%	0%	4%	21%	2%	0%	11%	12%	
Projected HV %	0%	0%	7%	48%	60%	0%	4%	21%	21%	0%	11%	12%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts			566	54	14	22	275	292	21	2	127	34	1407
Heavy Vehicles			16	3			16	19	2		8	1	65
Balancing													0
2025 Existing Volumes (Balanced)	0	0	566	54	14	22	275	292	21	2	127	34	1407
Base Growth (0.46% compounded for 5 yrs)	0	0	13	1	0	1	6	7	0	0	3	1	32
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	579	55	14	23	281	299	21	2	130	35	1439
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips			3				13	6			2		24
156 W. Harrisburg Ave Warehouse - Truck Trips			4				2						6
Pennmark Full Build-Out													0
Westbrooke Residential			12				6	1			2		21
Westmount Residential			13				6	2			3		24
1376 Campus Road Development			35				22	9			16		82
1925 Sheaffer Road Development			16				10	5			7		38
Mount Joy Town Center			71				54	22			21		168
Raffensperger Tract			11				6	3			5		25
Total Background Development Trips	0	0	165	0	0	0	119	48	0	0	56	0	388
2030 Base (No-Build) Volumes	0	0	744	55	14	23	400	347	21	2	186	35	1827
SITE TRIPS													
New Passenger Vehicle Trips				33	11			18	12		47	16	137
New Truck Trips				12	9				23				44
Total Site Trip Distribution	0	0	0	45	20	0	0	18	35	0	47	16	181
2030 Projected (Build) Volumes	0	0	744	100	34	23	400	365	56	2	233	51	2008
Base Growth (0.46% compounded for 10 yrs)	0	0	27	3	1	1	13	14	1	0	6	2	68
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	593	57	15	23	288	306	22	2	133	36	1475
2035 Base (No-Build) Volumes	0	0	758	57	15	23	407	354	22	2	189	36	1863
2035 Projected (Build) Volumes	0	0	758	102	35	23	407	372	57	2	236	52	2044
Existing Condition HV%	0%	0%	3%	6%	0%	0%	6%	7%	10%	0%	6%	3%	0.98
Base Condition HV%	0%	0%	3%	6%	0%	0%	6%	7%	10%	0%	6%	3%	
Projected HV %	0%	0%	3%	15%	26%	0%	6%	7%	45%	0%	6%	3%	

TPD# ETHD.00004
8/21/2026
Traffic Volumes Worksheet
Intersection:
Synchro Node:

Cloverleaf Road (SR 4025) & Route 283 West Ramps

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Time Period: Weekday A.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts						103		640			511		1254
Heavy Vehicles						15		38			47		100
Balancing													0
2025 Existing Volumes (Balanced)	0	0	0	0	0	103	0	640	0	0	511	0	1254
Base Growth (0.46% compounded for 5 yrs)	0	0	0	0	0	2	0	15	0	0	12	0	29
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	0	0	105	0	655	0	0	523	0	1283
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								5			14		19
156 W. Harrisburg Ave Warehouse - Truck Trips								2			2		4
Pennmark Full Build-Out													0
Westbrooke Residential								10			4		14
Westmount Residential								12			7		19
1376 Campus Road Development								47			16		63
1925 Sheaffer Road Development								23			8		31
Mount Joy Town Center								43			84		127
Raffensperger Tract								14			5		19
Total Background Development Trips	0	0	0	0	0	0	0	156	0	0	140	0	296
2030 Base (No-Build) Volumes	0	0	0	0	0	105	0	811	0	0	663	0	1579
SITE TRIPS													
New Passenger Vehicle Trips						38		51			20		109
New Truck Trips						13		11			11		35
Total Site Trip Distribution	0	0	0	0	0	51	0	62	0	0	31	0	144
2030 Projected (Build) Volumes	0	0	0	0	0	156	0	873	0	0	694	0	1723
Base Growth (0.46% compounded for 10 yrs)	0	0	0	0	0	5	0	30	0	0	24	0	59
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	0	0	108	0	670	0	0	535	0	1313
2035 Base (No-Build) Volumes	0	0	0	0	0	108	0	826	0	0	675	0	1609
2035 Projected (Build) Volumes	0	0	0	0	0	159	0	888	0	0	706	0	1753
Existing Condition HV%	0%	0%	0%	0%	0%	15%	0%	6%	0%	0%	9%	0%	0.92
Base Condition HV%	0%	0%	0%	0%	0%	15%	0%	6%	0%	0%	9%	0%	
Projected HV %	0%	0%	0%	0%	0%	18%	0%	6%	0%	0%	9%	0%	

Time Period: Weekday P.M. Peak Hour ADJ

	Eastbound			Westbound			Northbound			Southbound			Intersection
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Volume
2025 Existing Counts						143		445			751		1339
Heavy Vehicles						8		28			22		58
Balancing													0
2025 Existing Volumes (Balanced)	0	0	0	0	0	143	0	445	0	0	751	0	1339
Base Growth (0.46% compounded for 5 yrs)	0	0	0	0	0	3	0	10	0	0	17	0	30
2030 Base (No-Build) Volumes - Growth Rate Only	0	0	0	0	0	146	0	455	0	0	768	0	1369
BACKGROUND DEVELOPMENTS													
156 W. Harrisburg Ave Warehouse - Car Trips								19			5		24
156 W. Harrisburg Ave Warehouse - Truck Trips								2			4		6
Pennmark Full Build-Out											0		0
Westbrooke Residential								7			14		21
Westmount Residential								8			16		24
1376 Campus Road Development								31			51		82
1925 Sheaffer Road Development								15			23		38
Mount Joy Town Center								76			92		168
Raffensperger Tract								9			16		25
Total Background Development Trips	0	0	0	0	0	0	0	167	0	0	221	0	388
2030 Base (No-Build) Volumes	0	0	0	0	0	146	0	622	0	0	989	0	1757
SITE TRIPS													
New Passenger Vehicle Trips						13		17			80		110
New Truck Trips						13		10			12		35
Total Site Trip Distribution	0	0	0	0	0	26	0	27	0	0	92	0	145
2030 Projected (Build) Volumes	0	0	0	0	0	172	0	649	0	0	1081	0	1902
Base Growth (0.46% compounded for 10 yrs)	0	0	0	0	0	7	0	21	0	0	35	0	63
2035 Base (No-Build) Volumes - Growth Rate Only	0	0	0	0	0	150	0	466	0	0	786	0	1402
2035 Base (No-Build) Volumes	0	0	0	0	0	150	0	633	0	0	1007	0	1790
2035 Projected (Build) Volumes	0	0	0	0	0	176	0	660	0	0	1099	0	1935
Existing Condition HV%	0%	0%	0%	0%	0%	6%	0%	6%	0%	0%	3%	0%	0.95
Base Condition HV%	0%	0%	0%	0%	0%	6%	0%	6%	0%	0%	3%	0%	
Projected HV %	0%	0%	0%	0%	0%	12%	0%	6%	0%	0%	4%	0%	