

# Alliant Engineering, Inc.

733 Marquette Ave #700, Minneapolis, MN 55402

Engler Blvd & TH 212 W Ramp  
 Ref Pt: 149+00.818  
 data by: Alliant Inc  
 TURN MOVEMENT COUNT

File Name : 1736520\_Engler & TH 212 W Ramp  
 Site Code : 1736520  
 Start Date : 2/14/2019  
 Page No : 1

## Groups Printed- Cars - Trucks

Start Time	TH 212 W Ramp Southbound					Engler Blvd Westbound					TH 212 W Ramp Northbound					Engler Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	7	0	2	0	9	0	10	1	0	11	0	0	0	0	0	1	109	0	0	110	130
06:15 AM	20	0	1	1	22	0	18	4	0	22	0	0	0	0	0	1	141	0	0	142	186
06:30 AM	24	0	2	0	26	0	14	5	0	19	0	0	0	0	0	1	196	0	0	197	242
06:45 AM	44	0	0	0	44	0	27	9	0	36	0	0	0	0	0	6	234	0	0	240	320
Total	95	0	5	1	101	0	69	19	0	88	0	0	0	0	0	9	680	0	0	689	878
07:00 AM	33	0	6	0	39	0	27	6	0	33	0	0	0	0	0	6	271	0	0	277	349
07:15 AM	47	0	4	0	51	0	41	3	0	44	0	0	0	0	0	3	293	0	0	296	391
07:30 AM	39	0	2	0	41	0	40	13	0	53	0	0	0	0	0	2	285	0	0	287	381
07:45 AM	36	0	21	0	57	0	39	8	0	47	0	0	0	0	0	3	296	0	0	299	403
Total	155	0	33	0	188	0	147	30	0	177	0	0	0	0	0	14	1145	0	0	1159	1524
08:00 AM	40	0	16	0	56	0	50	14	0	64	0	0	0	0	0	4	297	0	0	301	421
08:15 AM	36	1	4	0	41	0	38	9	0	47	0	0	0	0	0	3	297	0	0	300	388
08:30 AM	29	0	5	0	34	0	34	7	0	41	0	0	0	0	0	3	184	0	0	187	262
08:45 AM	34	0	7	0	41	0	38	4	0	42	0	0	0	0	0	1	193	0	0	194	277
Total	139	1	32	0	172	0	160	34	0	194	0	0	0	0	0	11	971	0	0	982	1348
09:00 AM	31	0	2	0	33	0	34	3	0	37	0	0	0	0	0	1	153	0	0	154	224
09:15 AM	36	0	6	0	42	0	33	7	0	40	0	0	0	0	0	3	145	0	0	148	230
09:30 AM	36	0	3	0	39	0	42	11	0	53	0	0	0	0	0	1	139	0	0	140	232
09:45 AM	35	0	0	0	35	0	51	8	0	59	0	0	0	0	0	2	137	0	0	139	233
Total	138	0	11	0	149	0	160	29	0	189	0	0	0	0	0	7	574	0	0	581	919
10:00 AM	32	0	2	0	34	0	47	9	0	56	0	0	0	0	0	3	122	0	0	125	215
10:15 AM	40	0	1	0	41	0	41	3	0	44	0	0	0	0	0	1	121	0	0	122	207
10:30 AM	38	0	4	0	42	0	56	6	0	62	0	0	0	0	0	1	118	0	0	119	223
10:45 AM	44	1	3	0	48	0	49	5	0	54	0	0	0	0	0	1	86	0	0	87	189
Total	154	1	10	0	165	0	193	23	0	216	0	0	0	0	0	6	447	0	0	453	834
11:00 AM	39	0	3	0	42	0	30	9	0	39	0	0	0	0	0	3	78	0	0	81	162
11:15 AM	36	0	2	0	38	0	37	5	0	42	0	0	0	0	0	1	120	0	0	121	201
11:30 AM	56	0	2	0	58	0	33	8	0	41	0	0	0	0	0	2	128	0	0	130	229
11:45 AM	53	1	6	0	60	0	44	8	0	52	0	0	0	0	0	1	111	0	0	112	224
Total	184	1	13	0	198	0	144	30	0	174	0	0	0	0	0	7	437	0	0	444	816
12:00 PM	45	7	3	0	55	0	28	7	0	35	0	0	0	0	0	3	68	0	0	71	161
12:15 PM	53	0	4	0	57	0	35	5	0	40	0	0	0	0	0	1	105	0	0	106	203
12:30 PM	63	0	9	0	72	0	27	11	0	38	0	0	0	0	0	1	112	0	0	113	223
12:45 PM	72	0	5	0	77	0	31	5	0	36	0	0	0	0	0	2	93	0	0	95	208
Total	233	7	21	0	261	0	121	28	0	149	0	0	0	0	0	7	378	0	0	385	795
01:00 PM	44	0	6	0	50	0	30	2	0	32	0	0	0	0	0	1	98	0	0	99	181
01:15 PM	66	1	9	0	76	0	39	5	0	44	0	0	0	0	0	0	82	0	0	82	202
01:30 PM	65	1	9	0	75	0	33	3	0	36	0	0	0	0	0	0	61	0	0	61	172
01:45 PM	72	0	6	0	78	0	32	6	0	38	0	0	0	0	0	0	66	0	0	66	182
Total	247	2	30	0	279	0	134	16	0	150	0	0	0	0	0	1	307	0	0	308	737
02:00 PM	64	0	4	3	71	0	36	7	0	43	0	0	0	0	0	4	63	0	0	67	181
02:15 PM	84	2	5	0	91	0	46	5	0	51	0	0	0	0	0	1	76	0	0	77	219
02:30 PM	86	0	6	0	92	0	52	4	0	56	0	0	0	0	0	2	81	0	0	83	231
02:45 PM	65	0	6	0	71	0	36	4	0	40	0	0	0	0	0	0	84	0	0	84	195
Total	299	2	21	3	325	0	170	20	0	190	0	0	0	0	0	7	304	0	0	311	826
03:00 PM	122	0	18	0	140	0	61	11	0	72	0	0	0	0	0	7	76	0	0	83	295
03:15 PM	90	1	7	0	98	0	49	17	0	66	0	0	0	0	0	4	89	0	0	93	257
03:30 PM	111	2	5	0	118	0	68	11	0	79	0	0	0	0	0	3	111	0	0	114	311

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 Site Code : 1736520  
 Start Date : 2/14/2019  
 Page No : 2

Groups Printed- Cars - Trucks

Start Time	TH 212 W Ramp Southbound					Engler Blvd Westbound					TH 212 W Ramp Northbound					Engler Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:45 PM	104	1	9	0	114	0	87	9	0	96	0	0	0	0	0	1	83	0	0	84	294
Total	427	4	39	0	470	0	265	48	0	313	0	0	0	0	0	15	359	0	0	374	1157
04:00 PM	90	1	7	0	98	0	99	14	0	113	0	0	0	0	0	0	95	0	0	95	306
04:15 PM	120	0	12	0	132	0	83	16	0	99	0	0	0	0	0	6	92	0	0	98	329
04:30 PM	171	0	10	0	181	0	76	12	0	88	0	0	0	0	0	5	106	0	0	111	380
04:45 PM	160	0	11	0	171	0	96	10	0	106	0	0	0	0	0	5	94	0	0	99	376
Total	541	1	40	0	582	0	354	52	0	406	0	0	0	0	0	16	387	0	0	403	1391
05:00 PM	213	0	13	0	226	0	112	17	0	129	0	0	0	0	0	5	106	0	0	111	466
05:15 PM	170	1	20	0	191	0	72	21	0	93	0	0	0	0	0	5	94	0	0	99	383
05:30 PM	172	1	11	0	184	0	86	17	0	103	0	0	0	0	0	3	92	0	0	95	382
05:45 PM	162	0	16	0	178	0	81	19	0	100	0	0	0	0	0	1	107	0	0	108	386
Total	717	2	60	0	779	0	351	74	0	425	0	0	0	0	0	14	399	0	0	413	1617
06:00 PM	155	0	18	0	173	0	82	19	0	101	0	0	0	0	0	3	105	0	0	108	382
06:15 PM	131	0	10	0	141	0	38	17	0	55	0	0	0	0	0	1	71	0	0	72	268
06:30 PM	129	0	13	0	142	0	43	7	0	50	0	0	0	0	0	0	72	0	0	72	264
06:45 PM	138	7	21	0	166	0	47	8	0	55	0	0	0	0	0	4	67	0	0	71	292
Total	553	7	62	0	622	0	210	51	0	261	0	0	0	0	0	8	315	0	0	323	1206
Grand Total	3882	28	377	4	4291	0	2478	454	0	2932	0	0	0	0	0	122	6703	0	0	6825	14048
Apprch %	90.5	0.7	8.8	0.1		0	84.5	15.5	0		0	0	0	0	0	1.8	98.2	0	0		
Total %	27.6	0.2	2.7	0	30.5	0	17.6	3.2	0	20.9	0	0	0	0	0	0.9	47.7	0	0	48.6	
Cars	3772	26	369	4	4171	0	2368	441	0	2809	0	0	0	0	0	118	6525	0	0	6643	13623
% Cars	97.2	92.9	97.9	100	97.2	0	95.6	97.1	0	95.8	0	0	0	0	0	96.7	97.3	0	0	97.3	97
Trucks	110	2	8	0	120	0	110	13	0	123	0	0	0	0	0	4	178	0	0	182	425
% Trucks	2.8	7.1	2.1	0	2.8	0	4.4	2.9	0	4.2	0	0	0	0	0	3.3	2.7	0	0	2.7	3

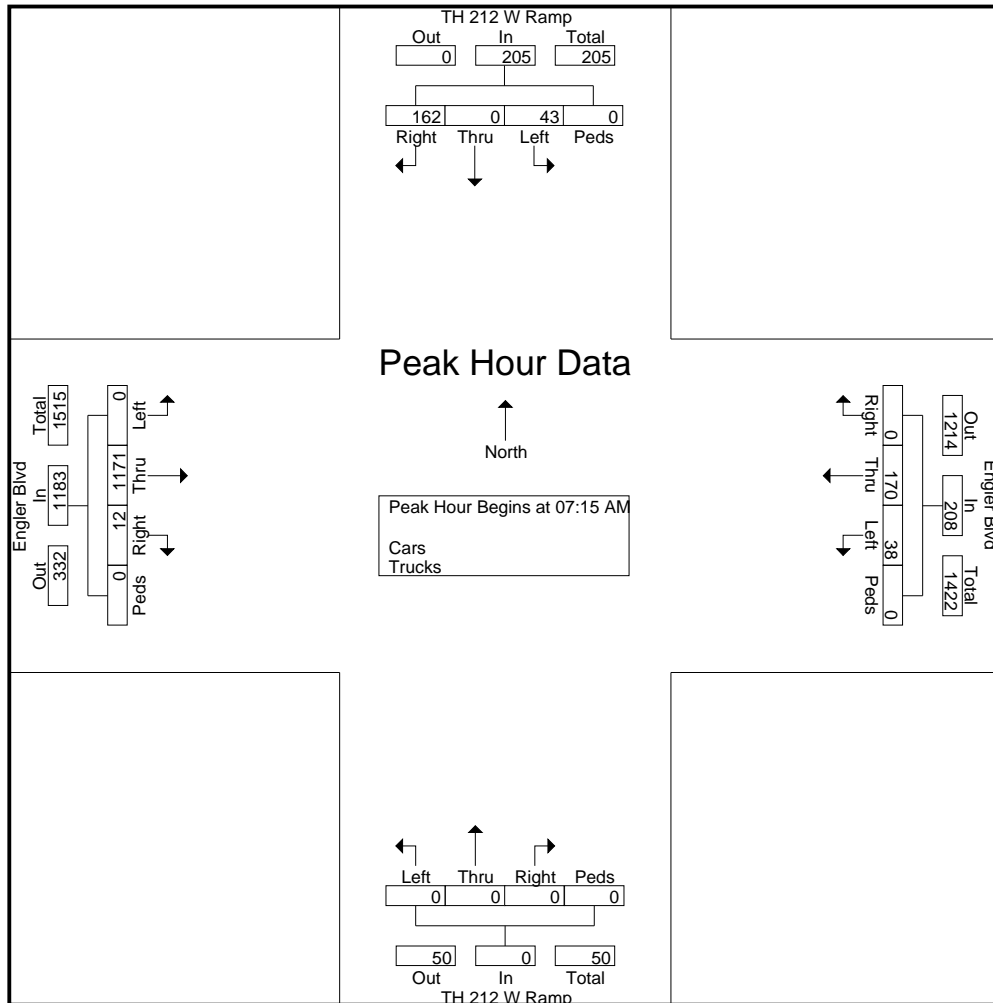
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	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	47	0	4	0	51	0	41	3	0	44	0	0	0	0	0	3	293	0	0	296	391
07:30 AM	39	0	2	0	41	0	40	13	0	53	0	0	0	0	0	2	285	0	0	287	381
07:45 AM	36	0	21	0	57	0	39	8	0	47	0	0	0	0	0	3	296	0	0	299	403
08:00 AM	40	0	16	0	56	0	50	14	0	64	0	0	0	0	0	4	297	0	0	301	421
Total Volume	162	0	43	0	205	0	170	38	0	208	0	0	0	0	0	12	1171	0	0	1183	1596
% App. Total	79	0	21	0		0	81.7	18.3	0		0	0	0	0		1	99	0	0		
PHF	.862	.000	.512	.000	.899	.000	.850	.679	.000	.813	.000	.000	.000	.000	.000	.750	.986	.000	.000	.983	.948



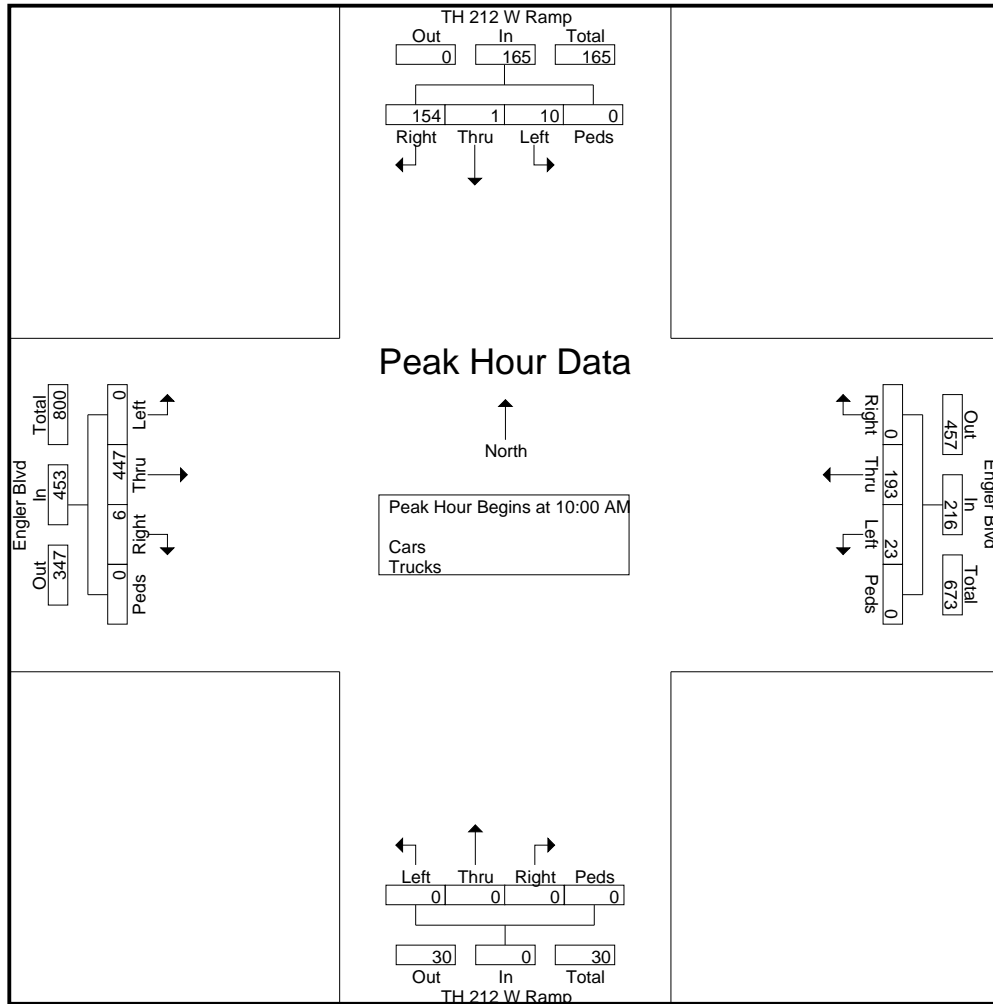
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 Page No : 4

Start Time	TH 212 W Ramp Southbound					Engler Blvd Westbound					TH 212 W Ramp Northbound					Engler Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:00 AM																					
10:00 AM	32	0	2	0	34	0	47	9	0	56	0	0	0	0	0	3	122	0	0	125	215
10:15 AM	40	0	1	0	41	0	41	3	0	44	0	0	0	0	0	1	121	0	0	122	207
10:30 AM	38	0	4	0	42	0	56	6	0	62	0	0	0	0	0	1	118	0	0	119	223
10:45 AM	44	1	3	0	48	0	49	5	0	54	0	0	0	0	0	1	86	0	0	87	189
Total Volume	154	1	10	0	165	0	193	23	0	216	0	0	0	0	0	6	447	0	0	453	834
% App. Total	93.3	0.6	6.1	0		0	89.4	10.6	0		0	0	0	0		1.3	98.7	0	0		
PHF	.875	.250	.625	.000	.859	.000	.862	.639	.000	.871	.000	.000	.000	.000	.000	.500	.916	.000	.000	.906	.935



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Start Time	TH 212 W Ramp Southbound					Engler Blvd Westbound					TH 212 W Ramp Northbound					Engler Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	213	0	13	0	226	0	112	17	0	129	0	0	0	0	0	5	106	0	0	111	466
05:15 PM	170	1	20	0	191	0	72	21	0	93	0	0	0	0	0	5	94	0	0	99	383
05:30 PM	172	1	11	0	184	0	86	17	0	103	0	0	0	0	0	3	92	0	0	95	382
05:45 PM	162	0	16	0	178	0	81	19	0	100	0	0	0	0	0	1	107	0	0	108	386
Total Volume	717	2	60	0	779	0	351	74	0	425	0	0	0	0	0	14	399	0	0	413	1617
% App. Total	92	0.3	7.7	0		0	82.6	17.4	0		0	0	0	0		3.4	96.6	0	0		
PHF	.842	.500	.750	.000	.862	.000	.783	.881	.000	.824	.000	.000	.000	.000	.000	.700	.932	.000	.000	.930	.867

