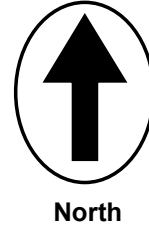


Date : 06/08/22

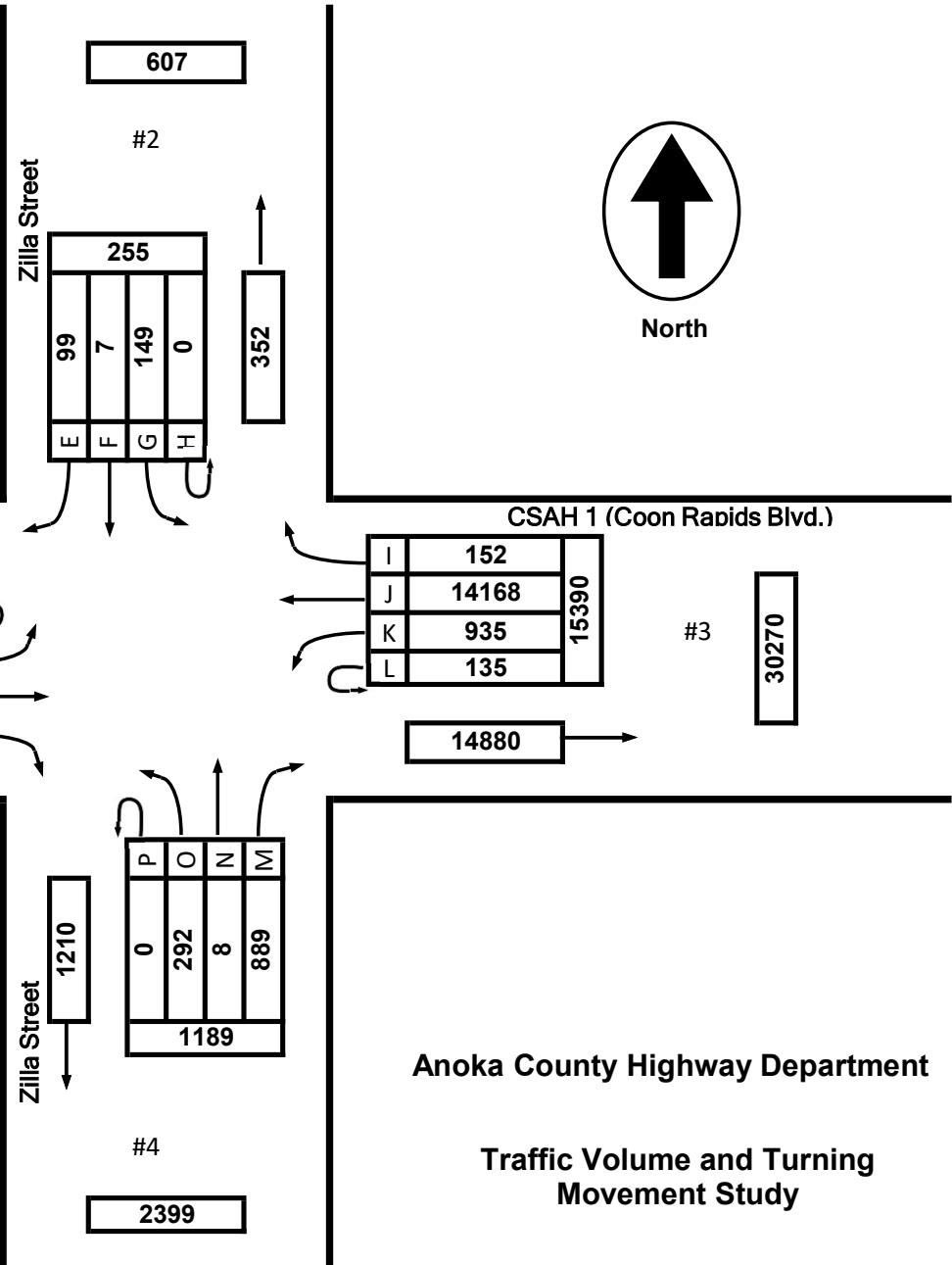
Count Number : TMC 2215

Location : CSAH 1 (Coon Rapids Blvd.)
@ Zilla Street

Collection Period : 24HR



North



CSAH 1 (Coon Rapids Blvd.)

CSAH 1 (Coon Rapids Blvd.)

Zilla Street

EXISTING LANES OF APPROACH

	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	1	3	4
#2	0	0	1	1
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department

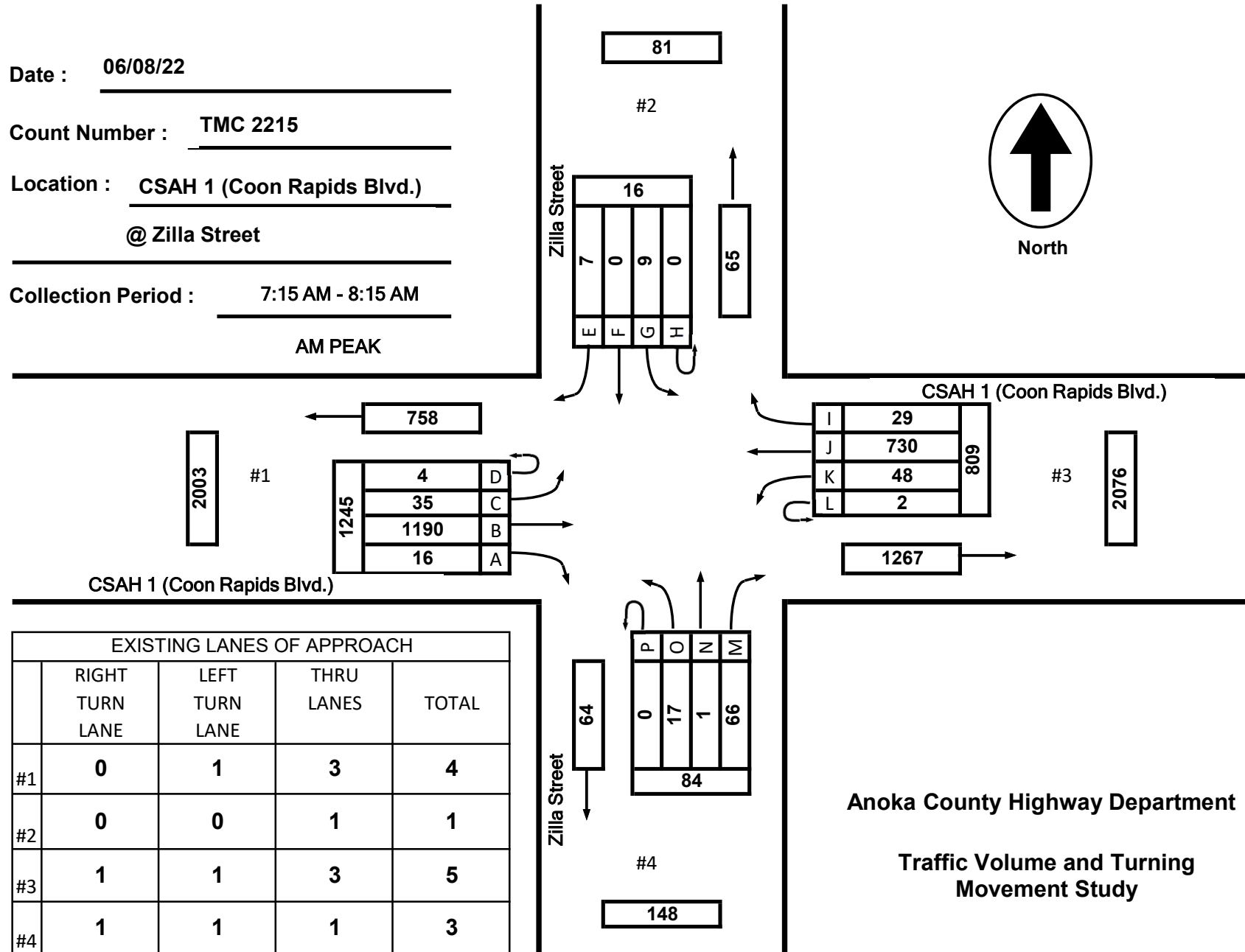
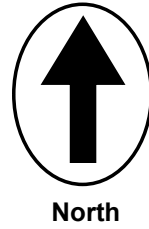
Traffic Volume and Turning Movement Study

Date : 06/08/22

Count Number : TMC 2215

Location : CSAH 1 (Coon Rapids Blvd.)
@ Zilla Street

Collection Period : 7:15 AM - 8:15 AM
AM PEAK



CSAH 1 (Coon Rapids Blvd.)

CSAH 1 (Coon Rapids Blvd.)

EXISTING LANES OF APPROACH

	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	1	3	4
#2	0	0	1	1
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department

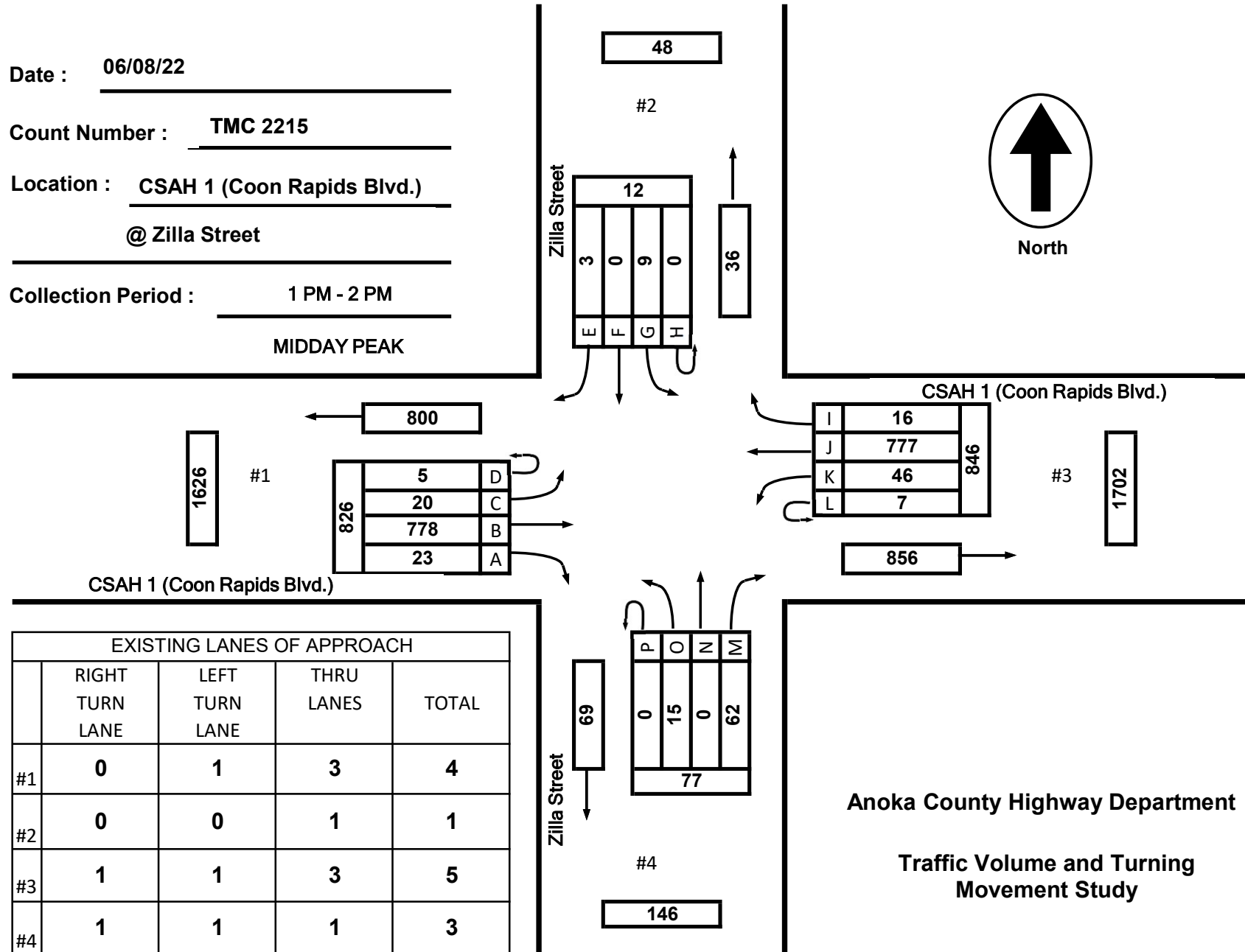
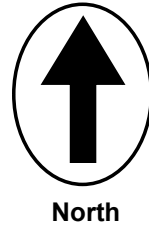
Traffic Volume and Turning Movement Study

Date : 06/08/22

Count Number : TMC 2215

Location : CSAH 1 (Coon Rapids Blvd.)
@ Zilla Street

Collection Period : 1 PM - 2 PM
MIDDAY PEAK



CSAH 1 (Coon Rapids Blvd.)

CSAH 1 (Coon Rapids Blvd.)

EXISTING LANES OF APPROACH

	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	1	3	4
#2	0	0	1	1
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department

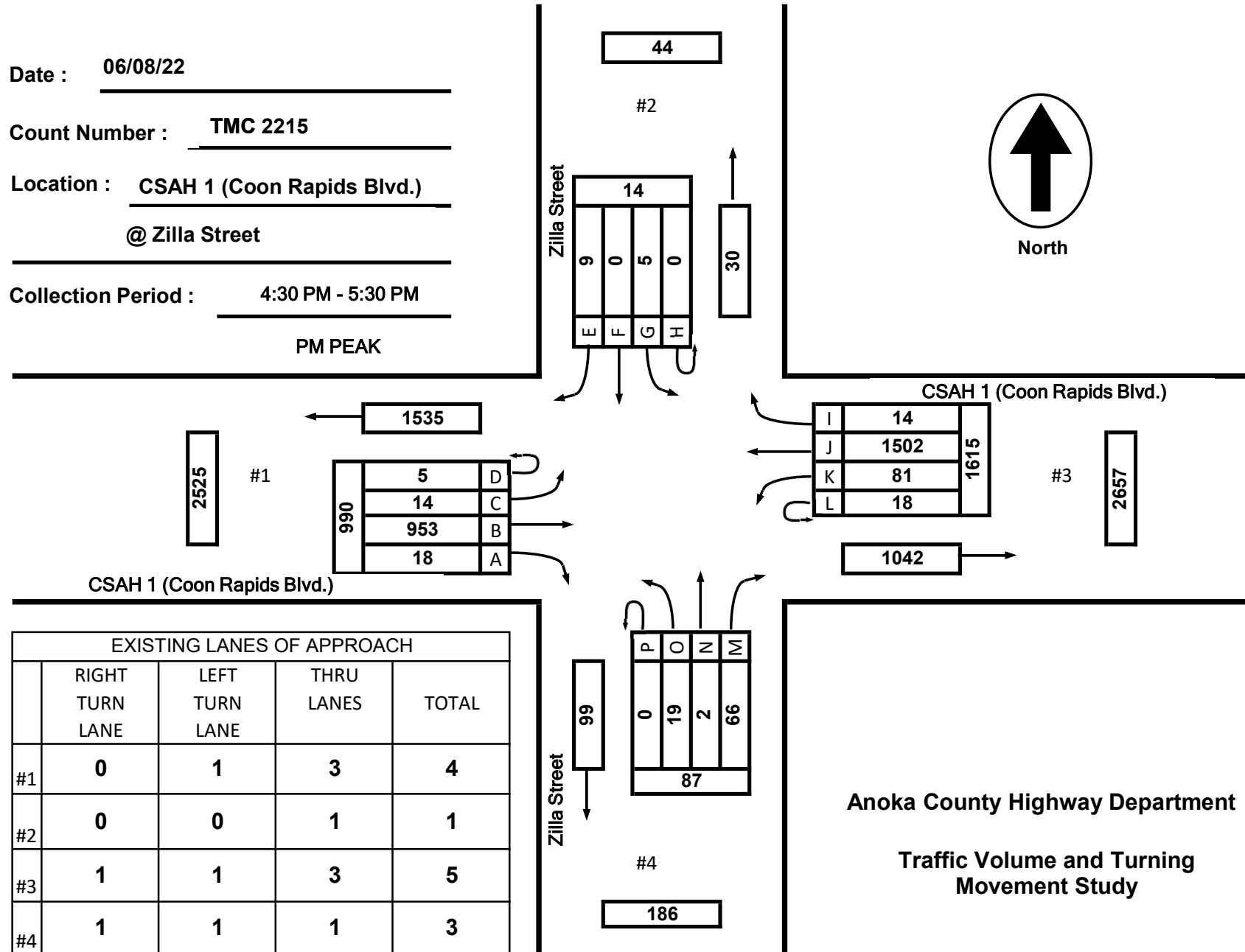
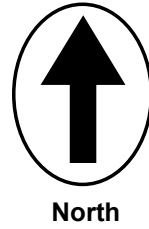
Traffic Volume and Turning Movement Study

Date : 06/08/22

Count Number : TMC 2215

Location : CSAH 1 (Coon Rapids Blvd.)
@ Zilla Street

Collection Period : 4:30 PM - 5:30 PM
PM PEAK



CSAH 1 (Coon Rapids Blvd.)

CSAH 1 (Coon Rapids Blvd.)

Zilla Street

EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	1	3	4
#2	0	0	1	1
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department

Traffic Volume and Turning Movement Study



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 1

Weather: Warm & Sunny
 CountCAM 2
 Study Conducted By: Adam

Groups Printed- Cars + - Trucks

Start Time	Zilla Street Southbound						CSAH 1 Westbound						Zilla Street Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
00:00	0	0	0	0	1	0	0	34	6	0	0	40	1	0	0	0	0	1	2	16	0	0	0	18	1	59	60
00:15	0	0	0	0	0	0	0	36	3	1	0	40	1	0	0	0	0	1	0	10	0	0	0	10	0	51	51
00:30	0	0	0	0	0	0	0	30	1	1	0	32	2	0	1	0	0	3	0	23	0	0	0	23	0	58	58
00:45	0	0	0	0	1	0	0	22	1	0	0	23	0	0	1	0	0	1	0	11	0	0	0	11	1	35	36
Total	0	0	0	0	2	0	0	122	11	2	0	135	4	0	2	0	0	6	2	60	0	0	0	62	2	203	205
01:00	0	0	0	0	0	0	2	14	0	0	0	16	0	0	0	0	0	0	1	15	0	0	0	16	0	32	32
01:15	1	0	0	0	0	1	0	23	2	0	0	25	0	0	0	0	0	0	0	8	1	0	0	9	0	35	35
01:30	1	0	0	0	0	1	0	14	1	0	0	15	0	0	0	0	0	0	0	11	0	0	0	11	0	27	27
01:45	0	0	0	0	1	0	0	9	0	0	0	9	0	0	0	0	0	0	0	11	0	0	0	11	1	20	21
Total	2	0	0	0	1	2	2	60	3	0	0	65	0	0	0	0	0	0	1	45	1	0	0	47	1	114	115
02:00	0	0	0	0	0	0	0	22	1	0	0	23	0	0	0	0	0	0	1	11	0	0	0	12	0	35	35
02:15	0	0	0	0	0	0	0	18	2	0	0	20	0	0	0	0	0	0	0	11	0	0	0	11	0	31	31
02:30	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	6	0	1	0	7	0	18	18
02:45	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	0	13	0	0	0	13	0	27	27
Total	0	0	0	0	0	0	0	65	3	0	0	68	0	0	0	0	0	0	1	41	0	1	0	43	0	111	111
03:00	0	0	0	0	0	0	0	8	2	0	0	10	1	0	0	0	0	1	0	8	0	0	0	8	0	19	19
03:15	0	0	0	0	0	0	0	10	0	0	0	10	1	0	0	0	0	1	0	13	0	0	0	13	0	24	24
03:30	0	0	0	0	0	0	0	12	0	1	0	13	0	0	0	0	0	0	0	29	0	0	0	29	0	42	42
03:45	0	0	0	0	0	0	0	11	2	0	0	13	0	0	1	0	0	1	1	23	0	0	0	24	0	38	38
Total	0	0	0	0	0	0	0	41	4	1	0	46	2	0	1	0	0	3	1	73	0	0	0	74	0	123	123
04:00	0	0	0	0	0	0	0	9	0	0	0	9	1	0	0	0	0	1	0	23	0	0	0	23	0	33	33
04:15	0	0	0	0	0	0	0	13	0	0	0	13	1	0	0	0	0	1	1	57	0	0	0	58	0	72	72
04:30	0	0	0	0	0	0	0	9	1	0	0	10	5	0	1	0	0	6	0	76	0	0	0	76	0	92	92
04:45	0	0	0	0	0	0	0	14	0	0	0	14	4	0	0	0	0	4	1	73	0	0	0	74	0	92	92
Total	0	0	0	0	0	0	0	45	1	0	0	46	11	0	1	0	0	12	2	229	0	0	0	231	0	289	289
05:00	0	0	0	0	1	0	0	15	1	0	0	16	3	0	1	0	0	4	1	93	0	0	1	94	2	114	116
05:15	0	0	0	0	0	0	0	23	1	0	0	24	11	0	0	0	0	11	3	108	0	0	0	111	0	146	146
05:30	0	0	0	0	1	0	1	28	1	1	0	31	13	0	1	0	0	14	1	185	0	0	1	186	2	231	233
05:45	0	0	0	0	1	0	0	34	4	0	0	38	3	0	1	0	0	4	2	204	0	0	0	206	1	248	249
Total	0	0	0	0	3	0	1	100	7	1	0	109	30	0	3	0	0	33	7	590	0	0	2	597	5	739	744



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 2

Groups Printed- Cars + - Trucks

Start Time	Zilla Street Southbound						CSAH 1 Westbound						Zilla Street Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
06:00	0	0	1	0	0	1	2	46	1	0	0	49	9	0	1	0	0	10	3	203	0	0	0	206	0	266	266
06:15	0	0	0	0	0	0	0	69	9	0	1	78	4	0	3	0	0	7	8	229	0	1	0	238	1	323	324
06:30	0	0	0	0	0	0	0	104	12	0	0	116	14	0	0	0	0	14	0	296	0	0	0	296	0	426	426
06:45	0	0	0	0	0	0	1	142	7	0	0	150	25	0	2	0	0	27	4	294	0	0	0	298	0	475	475
Total	0	0	1	0	0	1	3	361	29	0	1	393	52	0	6	0	0	58	15	1022	0	1	0	1038	1	1490	1491
07:00	0	0	0	0	0	0	4	142	6	1	2	153	20	0	5	0	0	25	4	291	2	0	0	297	2	475	477
07:15	0	0	0	0	0	0	9	179	5	0	0	193	19	0	5	0	1	24	5	337	9	0	0	351	1	568	569
07:30	1	0	0	0	0	1	8	193	15	0	0	216	19	0	4	0	0	23	3	347	6	1	0	357	0	597	597
07:45	5	0	7	0	0	12	8	185	15	2	1	210	12	0	4	0	0	16	5	252	13	2	0	272	1	510	511
Total	6	0	7	0	0	13	29	699	41	3	3	772	70	0	18	0	1	88	17	1227	30	3	0	1277	4	2150	2154
08:00	1	0	2	0	0	3	4	173	13	0	0	190	16	1	4	0	0	21	3	254	7	1	0	265	0	479	479
08:15	2	1	4	0	0	7	4	155	5	0	0	164	16	0	1	0	0	17	6	218	5	0	0	229	0	417	417
08:30	1	0	3	0	0	4	3	155	9	1	0	168	24	0	4	0	0	28	4	228	4	0	0	236	0	436	436
08:45	1	0	2	0	0	3	4	190	13	0	0	207	12	0	4	0	0	16	3	227	11	2	0	243	0	469	469
Total	5	1	11	0	0	17	15	673	40	1	0	729	68	1	13	0	0	82	16	927	27	3	0	973	0	1801	1801
09:00	2	0	3	0	1	5	1	147	12	0	0	160	14	0	3	0	0	17	8	206	2	1	1	217	2	399	401
09:15	1	0	0	0	0	1	1	155	9	7	0	172	10	0	5	0	0	15	0	181	2	1	0	184	0	372	372
09:30	0	0	0	0	1	0	2	172	14	2	0	190	10	0	4	0	0	14	0	175	0	0	0	175	1	379	380
09:45	1	0	1	0	0	2	3	139	12	0	0	154	9	1	6	0	0	16	0	180	3	0	0	183	0	355	355
Total	4	0	4	0	2	8	7	613	47	9	0	676	43	1	18	0	0	62	8	742	7	2	1	759	3	1505	1508
10:00	1	0	2	0	1	3	2	160	9	0	1	171	6	0	4	0	1	10	4	136	2	1	1	143	4	327	331
10:15	0	0	2	0	0	2	2	161	4	0	1	167	6	0	3	0	0	9	1	156	1	1	1	159	2	337	339
10:30	2	0	1	0	1	3	1	129	9	5	1	144	9	0	3	0	0	12	1	164	2	2	0	169	2	328	330
10:45	1	0	2	0	0	3	0	142	8	0	0	150	17	0	4	0	0	21	5	164	4	1	0	174	0	348	348
Total	4	0	7	0	2	11	5	592	30	5	3	632	38	0	14	0	1	52	11	620	9	5	2	645	8	1340	1348
11:00	1	0	2	0	0	3	1	149	10	0	0	160	12	0	7	0	0	19	1	153	1	2	0	157	0	339	339
11:15	1	0	1	0	0	2	1	149	11	1	0	162	11	0	2	0	0	13	4	166	2	1	1	173	1	350	351
11:30	2	0	3	0	0	5	0	147	14	2	0	163	10	0	3	0	0	13	4	194	3	6	0	207	0	388	388
11:45	1	0	0	0	0	1	1	154	13	2	0	170	16	0	4	0	0	20	2	152	2	1	0	157	0	348	348
Total	5	0	6	0	0	11	3	599	48	5	0	655	49	0	16	0	0	65	11	665	8	10	1	694	1	1425	1426
12:00	1	0	0	0	0	1	1	193	13	0	1	207	9	0	7	0	0	16	2	172	0	0	0	174	1	398	399
12:15	1	0	0	0	1	1	0	168	16	3	0	187	17	0	2	0	0	19	4	184	2	0	0	190	1	397	398
12:30	1	1	0	0	0	2	1	184	17	0	0	202	19	0	4	0	0	23	5	170	3	0	0	178	0	405	405
12:45	1	0	4	0	0	5	3	168	14	2	1	187	14	0	5	0	0	19	3	150	5	0	0	158	1	369	370
Total	4	1	4	0	1	9	5	713	60	5	2	783	59	0	18	0	0	77	14	676	10	0	0	700	3	1569	1572



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 3

Groups Printed- Cars + - Trucks

Start Time	Zilla Street Southbound						CSAH 1 Westbound						Zilla Street Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
13:00	0	0	3	0	0	3	3	187	8	4	1	202	13	0	5	0	0	18	7	173	1	2	0	183	1	406	407
13:15	2	0	0	0	1	2	3	179	6	2	1	190	14	0	1	0	0	15	4	200	4	0	0	208	2	415	417
13:30	1	0	5	0	0	6	3	205	12	1	1	221	15	0	5	0	0	20	3	212	1	2	2	218	3	465	468
13:45	0	0	1	0	1	1	7	206	20	0	1	233	20	0	4	0	0	24	9	193	14	1	1	217	3	475	478
Total	3	0	9	0	2	12	16	777	46	7	4	846	62	0	15	0	0	77	23	778	20	5	3	826	9	1761	1770
14:00	16	1	20	0	0	37	9	207	14	2	0	232	16	1	12	0	0	29	9	201	5	0	0	215	0	513	513
14:15	2	0	1	0	3	3	1	243	12	3	1	259	9	0	7	0	0	16	12	175	1	2	1	190	5	468	473
14:30	0	0	1	0	0	1	1	265	11	3	0	280	22	0	4	0	0	26	2	239	2	2	1	245	1	552	553
14:45	1	0	4	0	2	5	1	298	13	3	0	315	9	1	9	0	0	19	1	177	3	2	2	183	4	522	526
Total	19	1	26	0	5	46	12	1013	50	11	1	1086	56	2	32	0	0	90	24	792	11	6	4	833	10	2055	2065
15:00	1	0	8	0	0	9	3	273	18	5	1	299	11	0	7	0	0	18	5	210	3	1	0	219	1	545	546
15:15	0	0	1	0	0	1	3	304	19	1	1	327	19	0	4	0	0	23	11	242	3	3	0	259	1	610	611
15:30	2	0	3	0	1	5	2	297	14	3	2	316	10	0	10	0	0	20	4	254	2	1	1	261	4	602	606
15:45	2	1	3	0	1	6	4	370	20	13	0	407	6	0	7	0	1	13	5	243	3	1	0	252	2	678	680
Total	5	1	15	0	2	21	12	1244	71	22	4	1349	46	0	28	0	1	74	25	949	11	6	1	991	8	2435	2443
16:00	3	0	0	0	1	3	1	362	21	4	1	388	15	0	4	0	0	19	2	214	1	0	1	217	3	627	630
16:15	1	0	3	0	1	4	3	393	20	5	0	421	13	0	6	0	0	19	6	219	2	1	0	228	1	672	673
16:30	1	0	2	0	0	3	6	348	19	3	0	376	23	0	7	0	0	30	7	258	1	1	1	267	1	676	677
16:45	3	0	0	0	0	3	4	397	19	10	0	430	19	0	4	0	0	23	5	207	4	3	1	219	1	675	676
Total	8	0	5	0	2	13	14	1500	79	22	1	1615	70	0	21	0	0	91	20	898	8	5	3	931	6	2650	2656
17:00	1	0	2	0	1	3	2	376	21	1	0	400	8	0	3	0	0	11	1	246	4	1	0	252	1	666	667
17:15	4	0	1	0	0	5	2	381	22	4	2	409	16	2	5	0	0	23	5	242	5	0	0	252	2	689	691
17:30	4	0	1	0	0	5	0	357	21	3	0	381	23	0	5	0	0	28	6	214	5	0	0	225	0	639	639
17:45	6	1	6	0	0	13	2	331	24	1	0	358	12	0	2	0	1	14	2	191	5	3	0	201	1	586	587
Total	15	1	10	0	1	26	6	1445	88	9	2	1548	59	2	15	0	1	76	14	893	19	4	0	930	4	2580	2584
18:00	1	0	4	0	1	5	1	291	23	4	1	319	9	0	5	0	0	14	4	185	9	0	1	198	3	536	539
18:15	2	0	1	0	0	3	2	252	13	3	1	270	5	0	1	0	1	6	2	195	1	1	2	199	4	478	482
18:30	0	0	2	0	0	2	3	255	11	1	4	270	8	0	4	0	0	12	3	172	2	0	0	177	4	461	465
18:45	0	0	4	0	1	4	1	246	11	1	3	259	15	0	3	0	0	18	1	123	4	2	1	130	5	411	416
Total	3	0	11	0	2	14	7	1044	58	9	9	1118	37	0	13	0	1	50	10	675	16	3	4	704	16	1886	1902
19:00	3	0	7	0	0	10	2	198	22	1	1	223	15	0	6	0	0	21	1	147	3	0	0	151	1	405	406
19:15	0	0	4	0	0	4	1	201	18	0	2	220	7	0	7	0	1	14	3	166	2	1	0	172	3	410	413
19:30	2	0	3	0	1	5	2	177	13	0	0	192	7	0	3	0	0	10	5	148	2	0	0	155	1	362	363
19:45	0	1	5	0	2	6	1	155	11	2	2	169	13	1	2	0	6	16	2	113	3	0	2	118	12	309	321
Total	5	1	19	0	3	25	6	731	64	3	5	804	42	1	18	0	7	61	11	574	10	1	2	596	17	1486	1503



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 4

Groups Printed- Cars + - Trucks

Start Time	Zilla Street Southbound						CSAH 1 Westbound						Zilla Street Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
20:00	4	0	2	0	2	6	1	149	13	5	1	168	6	0	4	0	0	10	6	111	1	1	0	119	3	303	306
20:15	3	0	6	0	0	9	1	153	11	1	0	166	10	0	4	0	0	14	4	128	0	0	2	132	2	321	323
20:30	0	0	0	0	0	0	0	156	14	1	3	171	10	0	5	0	1	15	2	113	1	1	0	117	4	303	307
20:45	0	0	0	0	2	0	0	130	14	1	0	145	10	1	4	0	1	15	1	128	0	0	2	129	5	289	294
Total	7	0	8	0	4	15	2	588	52	8	4	650	36	1	17	0	2	54	13	480	2	2	4	497	14	1216	1230
21:00	0	1	0	0	0	1	0	124	13	3	0	140	9	0	2	0	0	11	7	86	0	0	1	93	1	245	246
21:15	1	0	4	0	1	5	5	133	9	4	1	151	5	0	3	0	0	8	0	113	2	0	0	115	2	279	281
21:30	1	0	2	0	0	3	0	108	11	1	0	120	6	0	3	0	1	9	2	88	0	0	0	90	1	222	223
21:45	0	0	0	0	0	0	0	126	10	0	0	136	7	0	1	0	0	8	3	85	0	0	0	88	0	232	232
Total	2	1	6	0	1	9	5	491	43	8	1	547	27	0	9	0	1	36	12	372	2	0	1	386	4	978	982
22:00	1	0	0	0	0	1	1	98	5	2	0	106	1	0	5	0	0	6	2	56	0	1	0	59	0	172	172
22:15	1	0	0	0	0	1	1	114	13	0	0	128	3	0	0	0	0	3	3	81	1	0	0	85	0	217	217
22:30	0	0	0	0	0	0	0	100	15	0	0	115	3	0	1	0	0	4	1	54	0	0	1	55	1	174	175
22:45	0	0	0	0	0	0	0	100	8	1	0	109	9	0	4	0	0	13	2	42	0	1	0	45	0	167	167
Total	2	0	0	0	0	2	2	412	41	3	0	458	16	0	10	0	0	26	8	233	1	2	1	244	1	730	731
23:00	0	0	0	0	0	0	0	65	9	1	0	75	3	0	1	0	0	4	1	46	0	1	0	48	0	127	127
23:15	0	0	0	0	0	0	0	75	4	0	0	79	4	0	2	0	0	6	0	39	0	0	0	39	0	124	124
23:30	0	0	0	0	0	0	0	50	4	0	0	54	4	0	0	0	0	4	0	25	0	0	0	25	0	83	83
23:45	0	0	0	0	0	0	0	50	2	0	0	52	1	0	1	0	0	2	1	36	0	0	0	37	0	91	91
Total	0	0	0	0	0	0	0	240	19	1	0	260	12	0	4	0	0	16	2	146	0	1	0	149	0	425	425
Grand Total	99	7	149	0	33	255	152	14168	935	135	40	15390	889	8	292	0	15	1189	268	13707	192	60	29	14227	117	31061	31178
Apprch %	38.8	2.7	58.4	0			1	92.1	6.1	0.9			74.8	0.7	24.6	0			1.9	96.3	1.3	0.4			0.4	99.6	
Total %	0.3	0	0.5	0		0.8	0.5	45.6	3	0.4		49.5	2.9	0	0.9	0		3.8	0.9	44.1	0.6	0.2		45.8			
Cars +	94	7	141	0		275	141	13961	914	126		15182	874	8	284	0		1181	262	13510	180	60		14041	0	0	30679
% Cars +	94.9	100	94.6	0	100	95.5	92.8	98.5	97.8	93.3	100	98.4	98.3	100	97.3	0	100	98.1	97.8	98.6	93.8	100	100	98.5	0	0	98.4
Trucks	5	0	8	0		13	11	207	21	9		248	15	0	8	0		23	6	197	12	0		215	0	0	499
% Trucks	5.1	0	5.4	0	0	4.5	7.2	1.5	2.2	6.7	0	1.6	1.7	0	2.7	0	0	1.9	2.2	1.4	6.2	0	0	1.5	0	0	1.6



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 5

Start Time	Zilla Street Southbound					CSAH 1 Westbound					Zilla Street Northbound					CSAH 1 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
Peak Hour Analysis From 00:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	9	179	5	0	193	19	0	5	0	24	5	337	9	0	351	568
07:30	1	0	0	0	1	8	193	15	0	216	19	0	4	0	23	3	347	6	1	357	597
07:45	5	0	7	0	12	8	185	15	2	210	12	0	4	0	16	5	252	13	2	272	510
08:00	1	0	2	0	3	4	173	13	0	190	16	1	4	0	21	3	254	7	1	265	479
Total Volume	7	0	9	0	16	29	730	48	2	809	66	1	17	0	84	16	1190	35	4	1245	2154
% App. Total	43.8	0	56.2	0		3.6	90.2	5.9	0.2		78.6	1.2	20.2	0		1.3	95.6	2.8	0.3		
PHF	.350	.000	.321	.000	.333	.806	.946	.800	.250	.936	.868	.250	.850	.000	.875	.800	.857	.673	.500	.872	.902

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:00																					
13:00	0	0	3	0	3	3	187	8	4	202	13	0	5	0	18	7	173	1	2	183	406
13:15	2	0	0	0	2	3	179	6	2	190	14	0	1	0	15	4	200	4	0	208	415
13:30	1	0	5	0	6	3	205	12	1	221	15	0	5	0	20	3	212	1	2	218	465
13:45	0	0	1	0	1	7	206	20	0	233	20	0	4	0	24	9	193	14	1	217	475
Total Volume	3	0	9	0	12	16	777	46	7	846	62	0	15	0	77	23	778	20	5	826	1761
% App. Total	25	0	75	0		1.9	91.8	5.4	0.8		80.5	0	19.5	0		2.8	94.2	2.4	0.6		
PHF	.375	.000	.450	.000	.500	.571	.943	.575	.438	.908	.775	.000	.750	.000	.802	.639	.917	.357	.625	.947	.927

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	1	0	2	0	3	6	348	19	3	376	23	0	7	0	30	7	258	1	1	267	676
16:45	3	0	0	0	3	4	397	19	10	430	19	0	4	0	23	5	207	4	3	219	675
17:00	1	0	2	0	3	2	376	21	1	400	8	0	3	0	11	1	246	4	1	252	666
17:15	4	0	1	0	5	2	381	22	4	409	16	2	5	0	23	5	242	5	0	252	689
Total Volume	9	0	5	0	14	14	1502	81	18	1615	66	2	19	0	87	18	953	14	5	990	2706
% App. Total	64.3	0	35.7	0		0.9	93	5	1.1		75.9	2.3	21.8	0		1.8	96.3	1.4	0.5		
PHF	.563	.000	.625	.000	.700	.583	.946	.920	.450	.939	.717	.250	.679	.000	.725	.643	.923	.700	.417	.927	.982



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 1

Weather: Warm & Sunny
 CountCAM 2
 Study Conducted By: Adam

Groups Printed- Trucks

Start Time	Zilla Street Southbound					CSAH 1 Westbound					Zilla Street Northbound					CSAH 1 Eastbound					Int. Total	
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total		
00:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	
05:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	
05:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	0	3	5
06:00	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	0	1	0	0	0	1	6
06:15	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	2	0	0	0	2	8
06:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	0	0	7	9
06:45	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	6	0	0	0	7	9
Total	0	0	1	0	1	1	12	1	0	14	0	0	0	0	0	1	16	0	0	0	17	32
07:00	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	0	3	0	0	0	3	12
07:15	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	0	4	9
07:30	0	0	0	0	0	1	6	1	0	8	0	0	0	0	0	0	5	1	0	0	6	14
07:45	0	0	1	0	1	1	1	2	0	4	0	0	0	0	0	1	0	3	0	0	4	9
Total	0	0	1	0	1	2	19	4	0	25	1	0	0	0	1	1	12	4	0	0	17	44
08:00	0	0	0	0	0	0	10	0	0	10	1	0	1	0	2	0	4	0	0	0	4	16
08:15	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	4
08:30	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	1	8	0	0	0	9	16
08:45	0	0	0	0	0	0	1	1	0	2	2	0	1	0	3	0	5	1	0	0	6	11
Total	0	0	1	0	1	0	18	2	0	20	4	0	2	0	6	2	17	1	0	0	20	47
09:00	0	0	1	0	1	1	0	1	0	2	0	0	0	0	0	0	5	0	0	0	5	8



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 2

Groups Printed- Trucks

Start Time	Zilla Street Southbound					CSAH 1 Westbound					Zilla Street Northbound					CSAH 1 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
09:15	0	0	0	0	0	0	11	0	1	12	0	0	0	0	0	0	1	0	0	1	13
09:30	0	0	0	0	0	1	7	0	0	8	0	0	1	0	1	0	5	0	0	5	14
09:45	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	5
Total	0	0	1	0	1	2	21	2	1	26	0	0	1	0	1	0	12	0	0	12	40
10:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	1	0	6	7
10:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
10:30	0	0	0	0	0	0	1	1	2	4	0	0	0	0	0	0	7	0	0	7	11
10:45	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
Total	0	0	0	0	0	0	8	1	2	11	0	0	0	0	0	0	17	1	0	18	29
11:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
11:15	1	0	0	0	1	0	4	1	0	5	2	0	0	0	2	1	1	0	0	2	10
11:30	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	5	0	0	5	10
11:45	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8
Total	1	0	0	0	1	0	17	2	0	19	2	0	0	0	2	1	9	0	0	10	32
12:00	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	2	7
12:15	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	4	0	0	4	11
12:30	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	6	0	0	6	10
12:45	1	0	1	0	2	1	4	1	0	6	1	0	0	0	1	1	1	0	0	2	11
Total	1	0	1	0	2	2	16	3	0	21	2	0	0	0	2	1	13	0	0	14	39
13:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
13:15	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
13:30	0	0	0	0	0	0	3	0	0	3	1	0	1	0	2	0	4	0	0	4	9
13:45	0	0	0	0	0	1	2	1	0	4	1	0	0	0	1	0	5	3	0	8	13
Total	0	0	0	0	0	1	10	1	0	12	2	0	1	0	3	0	16	3	0	19	34
14:00	0	0	1	0	1	0	1	0	0	1	1	0	1	0	2	0	4	1	0	5	9
14:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
14:30	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	4	0	0	4	6
14:45	0	0	0	0	0	0	4	0	1	5	0	0	1	0	1	0	0	0	0	0	6
Total	0	0	1	0	1	0	9	0	2	11	1	0	2	0	3	0	11	1	0	12	27
15:00	1	0	0	0	1	1	8	0	0	9	0	0	0	0	0	0	2	1	0	3	13
15:15	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	4	1	0	5	10
15:30	1	0	1	0	2	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	15
15:45	0	0	0	0	0	0	3	1	1	5	0	0	0	0	0	0	7	0	0	7	12
Total	2	0	1	0	3	1	19	3	1	24	0	0	0	0	0	0	21	2	0	23	50
16:00	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	0	5	0	0	5	13
16:15	0	0	0	0	0	2	1	2	0	5	1	0	0	0	1	0	6	0	0	6	12
16:30	1	0	1	0	2	0	6	0	0	6	0	0	1	0	1	0	6	0	0	6	15
16:45	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	1	0	0	1	9
Total	1	0	1	0	2	2	22	2	0	26	2	0	1	0	3	0	18	0	0	18	49
17:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
17:15	0	0	0	0	0	0	6	0	1	7	0	0	0	0	0	0	1	0	0	1	8
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
17:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	10	0	1	11	0	0	0	0	0	0	8	0	0	8	19
18:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2215
 Site Code :
 Start Date : 06/08/2022
 Page No : 3

Groups Printed- Trucks

Start Time	Zilla Street Southbound					CSAH 1 Westbound					Zilla Street Northbound					CSAH 1 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
19:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
19:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	1	0	0	1	10
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
20:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
20:30	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	1	0	0	1	4
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	5	0	0	5	10
21:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
21:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
22:45	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	0	0	0	0	2	0	1	3	0	0	0	0	0	0	4	0	0	4	7
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	5	0	8	0	13	11	207	21	9	248	15	0	8	0	23	6	197	12	0	215	499
Apprch %	38.5	0	61.5	0		4.4	83.5	8.5	3.6		65.2	0	34.8	0		2.8	91.6	5.6	0		
Total %	1	0	1.6	0	2.6	2.2	41.5	4.2	1.8	49.7	3	0	1.6	0	4.6	1.2	39.5	2.4	0	43.1	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/11/2022

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 1

Number of Lanes : 2+

Total Approach Volume: 14,227

Westbound: CSAH 1

Number of Lanes :2+

Total Approach Volume: 15,390

Minor Street Approaches

Northbound: Zilla Street

Number of Lanes :1

Total Approach Volume: 1,189

Southbound: Zilla Street

Number of Lanes :1

Total Approach Volume: 255

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (12) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/11/2022

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **420**

Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	990	+	1615	=	2605	87	14	No
16:15 - 17:15	966	+	1627	=	2593	83	13	No
16:45 - 17:45	948	+	1620	=	2568	85	16	No
15:45 - 16:45	964	+	1592	=	2556	81	16	No
16:00 - 17:00	931	+	1615	=	2546	91	13	No
15:30 - 16:30	958	+	1532	=	2490	71	18	No
17:00 - 18:00	930	+	1548	=	2478	76	26	No
15:15 - 16:15	989	+	1438	=	2427	75	15	No
17:15 - 18:15	876	+	1467	=	2343	79	28	No
15:00 - 16:00	991	+	1349	=	2340	74	21	No
14:45 - 15:45	922	+	1257	=	2179	80	20	No
17:30 - 18:30	823	+	1328	=	2151	62	26	No
14:30 - 15:30	906	+	1221	=	2127	86	16	No
07:15 - 08:15	1245	+	809	=	2054	84	16	No
07:00 - 08:00	1277	+	772	=	2049	88	13	No
06:45 - 07:45	1303	+	712	=	2015	99	1	No
17:45 - 18:45	775	+	1217	=	1992	46	23	No
14:15 - 15:15	837	+	1153	=	1990	79	18	No
14:00 - 15:00	833	+	1086	=	1919	90	46	No
07:30 - 08:30	1123	+	780	=	1903	77	23	No
13:45 - 14:45	867	+	1004	=	1871	95	42	No
06:30 - 07:30	1242	+	612	=	1854	90	0	No
18:00 - 19:00	704	+	1118	=	1822	50	14	No
13:30 - 14:30	840	+	945	=	1785	89	47	No
07:45 - 08:45	1002		732		1734	82	26	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/11/2022

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **2 or more**
 Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **630**
 Veh/Hr Minor = **53**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	966	+	1627	=	2593	83	13	Yes
15:15 - 16:15	989	+	1438	=	2427	75	15	Yes
17:15 - 18:15	876	+	1467	=	2343	79	28	Yes
07:00 - 08:00	1277	+	772	=	2049	88	13	Yes
14:15 - 15:15	837	+	1153	=	1990	79	18	Yes
13:15 - 14:15	858	+	876	=	1734	88	46	Yes
08:00 - 09:00	973	+	729	=	1702	82	17	Yes
18:15 - 19:15	657	+	1022	=	1679	57	19	Yes
12:15 - 13:15	709	+	778	=	1487	79	11	Yes
09:00 - 10:00	759	+	676	=	1435	62	8	Yes
06:00 - 07:00	1038	+	393	=	1431	58	1	Yes
11:15 - 12:15	711	+	702	=	1413	62	9	Yes
10:15 - 11:15	659	+	621	=	1280	61	11	Yes
19:45 - 20:45	486	+	674	=	1160	55	21	Yes
19:15 - 20:15	564	+	749	=	1313	50	21	No
10:00 - 11:00	645	+	632	=	1277	52	11	No
05:45 - 06:45	946	+	281	=	1227	35	1	No
19:30 - 20:30	524	+	695	=	1219	50	26	No
05:30 - 06:30	836	+	196	=	1032	35	1	No
20:45 - 21:45	427	+	556	=	983	43	9	No
21:00 - 22:00	386	+	547	=	933	36	9	No
21:15 - 22:15	352	+	513	=	865	31	9	No
05:15 - 06:15	709	+	142	=	851	39	1	No
21:30 - 22:30	322	+	490	=	812	26	5	No
21:45 - 22:45	287		485		772	21	2	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/11/2022

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**

Veh/Hr Minor = **84 42**

Major Road CSAH 1

Minor Road Zilla Street

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	931	+	1615	=	2546	91	13	Yes
14:30 - 15:30	906	+	1221	=	2127	86	16	Yes
06:30 - 07:30	1242	+	612	=	1854	90	0	Yes
13:15 - 14:15	858	+	876	=	1734	88	46	Yes
15:45 - 16:45	964	+	1592	=	2556	81	16	No
15:30 - 16:30	958	+	1532	=	2490	71	18	No
17:00 - 18:00	930	+	1548	=	2478	76	26	No
17:15 - 18:15	876	+	1467	=	2343	79	28	No
17:30 - 18:30	823	+	1328	=	2151	62	26	No
17:45 - 18:45	775	+	1217	=	1992	46	23	No
14:15 - 15:15	837	+	1153	=	1990	79	18	No
07:30 - 08:30	1123	+	780	=	1903	77	23	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:00 - 17:00	931	+	1615	=	2546	91	13	Yes
17:00 - 18:00	930	+	1548	=	2478	76	26	Yes
15:00 - 16:00	991	+	1349	=	2340	74	21	Yes
07:00 - 08:00	1277	+	772	=	2049	88	13	Yes
14:00 - 15:00	833	+	1086	=	1919	90	46	Yes
18:00 - 19:00	704	+	1118	=	1822	50	14	Yes
08:00 - 09:00	973	+	729	=	1702	82	17	Yes
13:00 - 14:00	826	+	846	=	1672	77	12	Yes
12:00 - 13:00	700	+	783	=	1483	77	9	Yes
09:00 - 10:00	759	+	676	=	1435	62	8	Yes
06:00 - 07:00	1038	+	393	=	1431	58	1	Yes
19:00 - 20:00	596	+	804	=	1400	61	25	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/11/2022

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

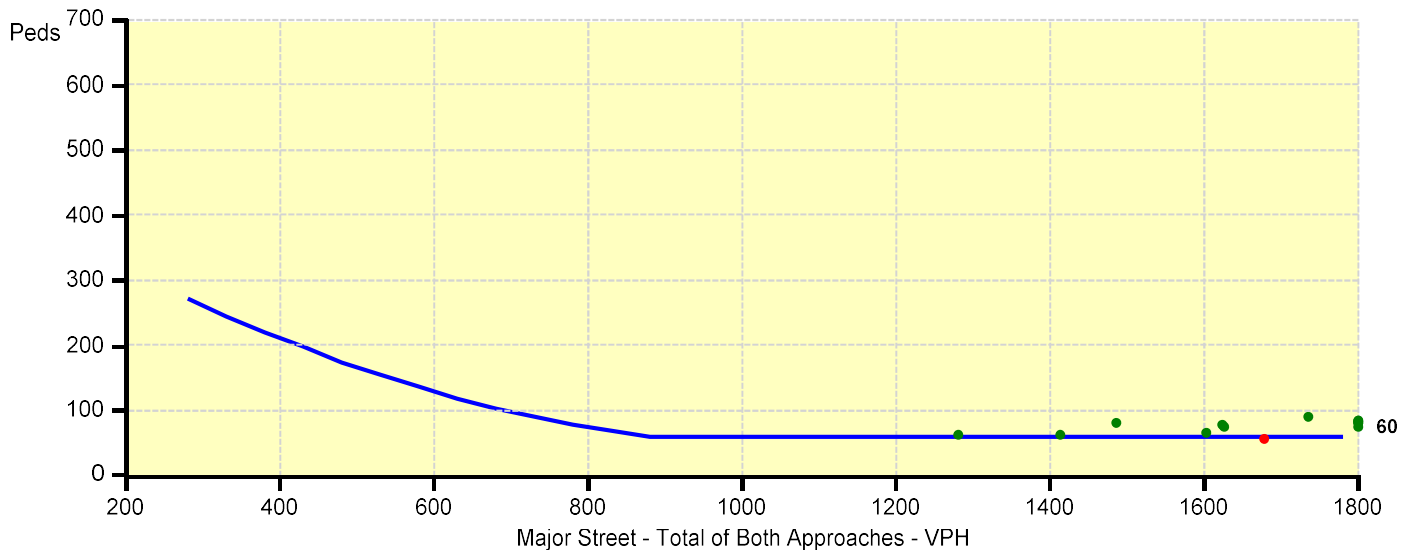
Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **2 or more**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 1				Total	Minor Road Zilla Street		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	966	+	1627	=	2593	83	13	Yes
15:15 - 16:15	989	+	1438	=	2427	75	15	Yes
17:15 - 18:15	876	+	1467	=	2343	79	28	Yes
07:15 - 08:15	1245	+	809	=	2054	84	16	Yes
14:15 - 15:15	837	+	1153	=	1990	79	18	Yes
13:15 - 14:15	858	+	876	=	1734	88	46	Yes
06:15 - 07:15	1129	+	497	=	1626	73	0	Yes
08:15 - 09:15	925	+	699	=	1624	78	19	Yes
18:30 - 19:30	630	+	972	=	1602	65	20	Yes
12:15 - 13:15	709	+	778	=	1487	79	11	Yes
11:15 - 12:15	711	+	702	=	1413	62	9	Yes
10:15 - 11:15	659		621		1280	61	11	Yes



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/11/2022

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

Summary

29 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **2 or more**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 1				Total	Minor Road Zilla Street		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	990	+	1615	=	2605	87	14	Yes
16:15 - 17:15	966	+	1627	=	2593	83	13	Yes
16:45 - 17:45	948	+	1620	=	2568	85	16	Yes
15:45 - 16:45	964	+	1592	=	2556	81	16	Yes
16:00 - 17:00	931	+	1615	=	2546	91	13	Yes
17:00 - 18:00	930	+	1548	=	2478	76	26	Yes
15:15 - 16:15	989	+	1438	=	2427	75	15	Yes
17:15 - 18:15	876	+	1467	=	2343	79	28	Yes
14:45 - 15:45	922	+	1257	=	2179	80	20	Yes
14:30 - 15:30	906	+	1221	=	2127	86	16	Yes
07:15 - 08:15	1245	+	809	=	2054	84	16	Yes
07:00 - 08:00	1277	+	772	=	2049	88	13	Yes

