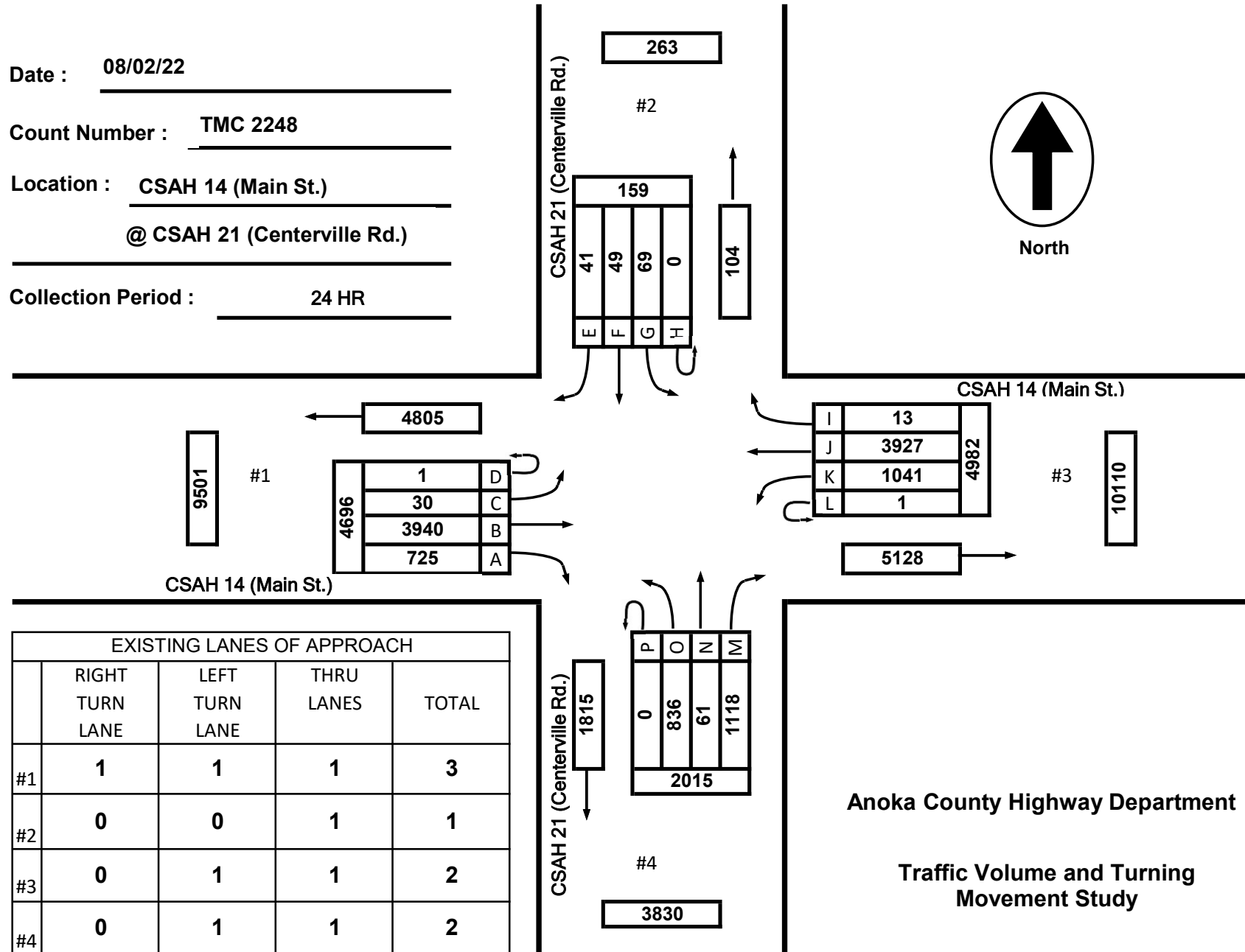
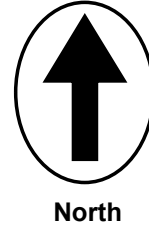


Date : 08/02/22

Count Number : TMC 2248

Location : CSAH 14 (Main St.)
@ CSAH 21 (Centerville Rd.)

Collection Period : 24 HR



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

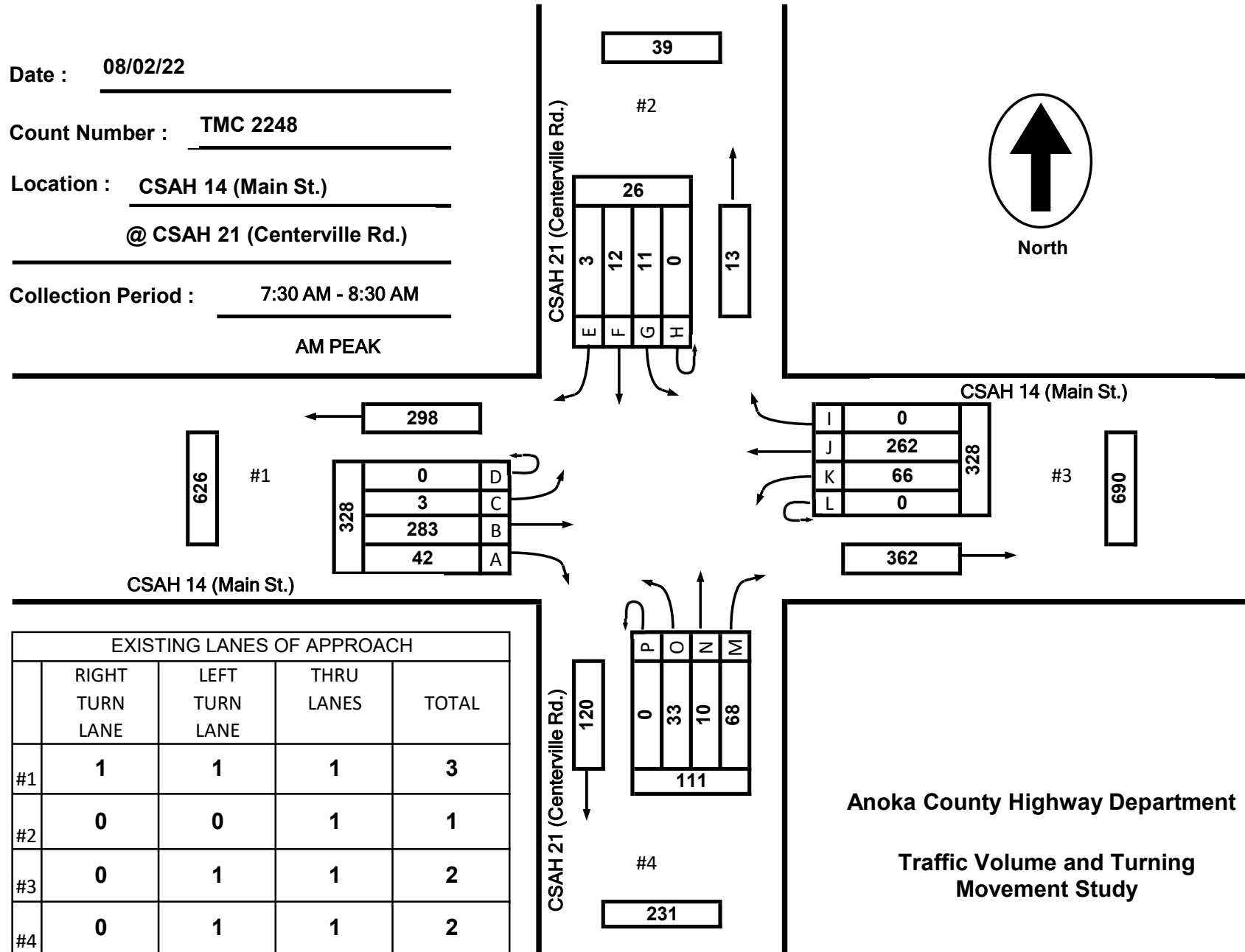
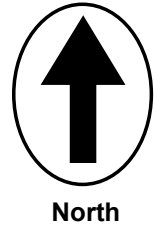
Anoka County Highway Department
 Traffic Volume and Turning Movement Study

Date : 08/02/22

Count Number : TMC 2248

Location : CSAH 14 (Main St.)
@ CSAH 21 (Centerville Rd.)

Collection Period : 7:30 AM - 8:30 AM
AM PEAK



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

Anoka County Highway Department

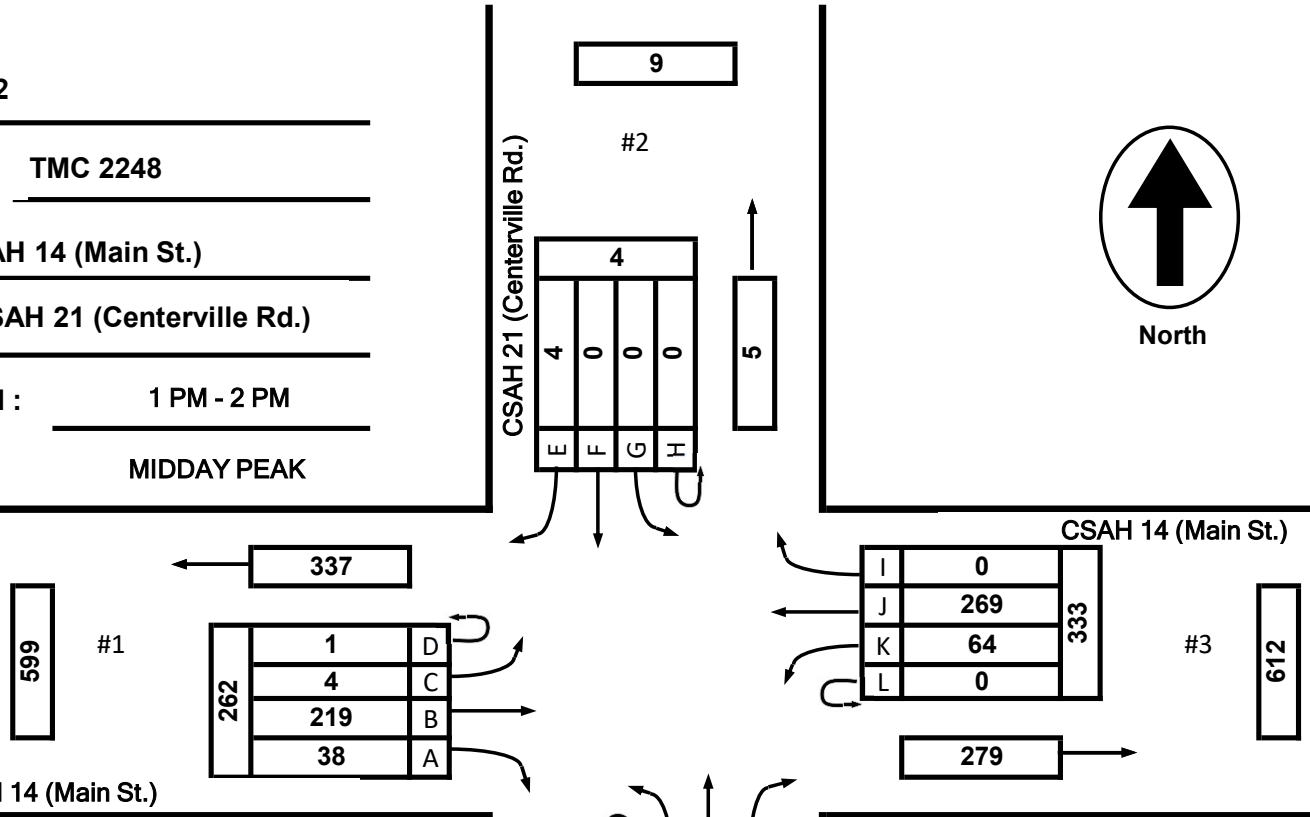
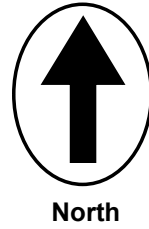
Traffic Volume and Turning Movement Study

Date : 08/02/22

Count Number : TMC 2248

Location : CSAH 14 (Main St.)
@ CSAH 21 (Centerville Rd.)

Collection Period : 1 PM - 2 PM
MIDDAY PEAK



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

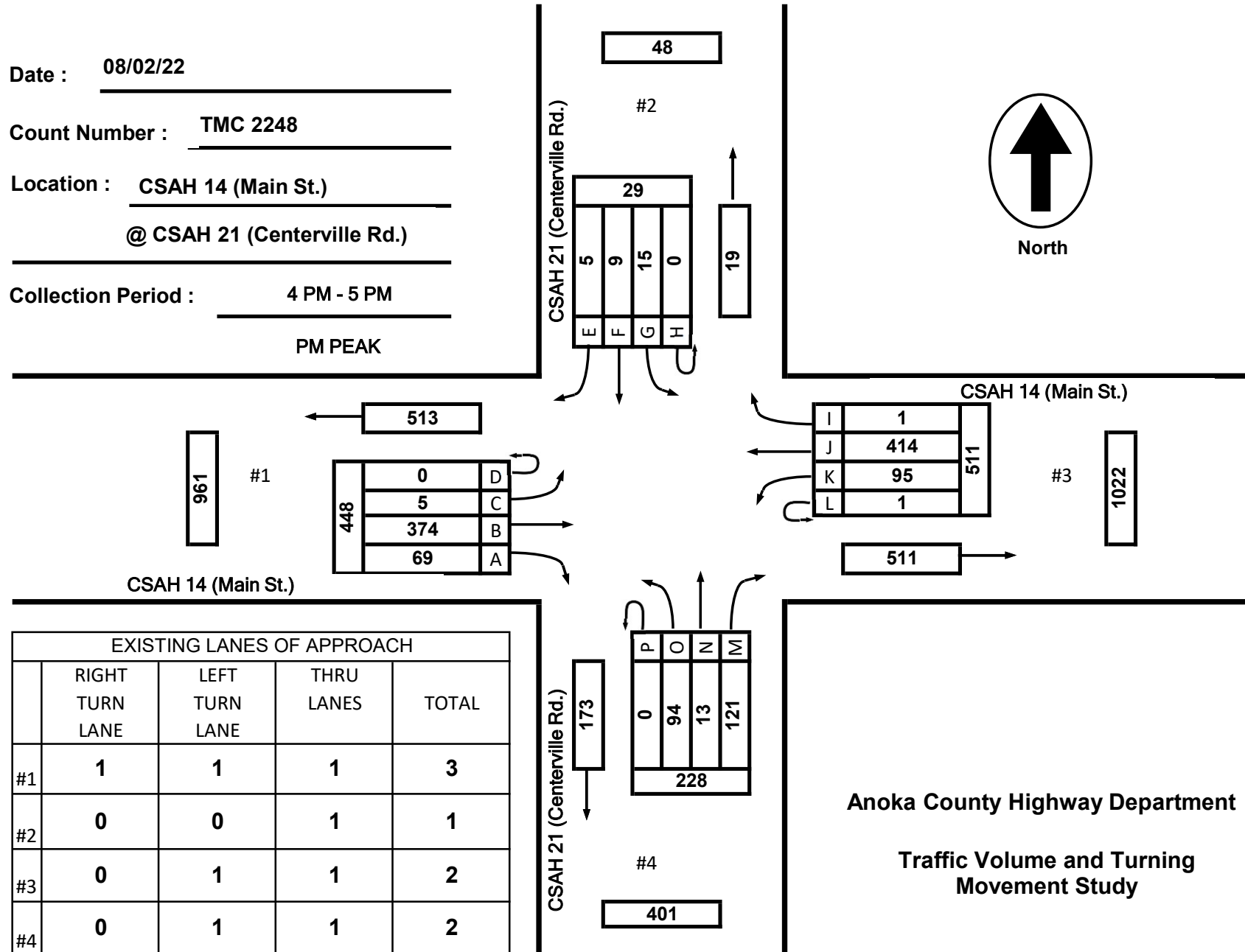
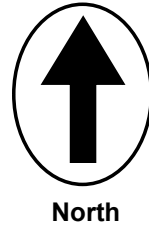
Anoka County Highway Department
Traffic Volume and Turning Movement Study

Date : 08/02/22

Count Number : TMC 2248

Location : CSAH 14 (Main St.)
@ CSAH 21 (Centerville Rd.)

Collection Period : 4 PM - 5 PM
PM PEAK



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

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 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 1

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Cars + - Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound						CSAH 14 (Main St.) Westbound						CSAH 21 (Centerville Rd.) Northbound						CSAH 14 (Main St.) 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	0	0	0	2	0	0	0	2	1	0	1	0	0	2	0	2	0	0	0	2	0	6	6
00:15	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	1	2	0	0	0	3	0	9	9
00:30	0	0	0	0	0	0	0	2	2	0	0	4	0	0	1	0	0	1	2	2	0	0	0	4	0	9	9
00:45	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	10	0	0	0	10	0	12	12
Total	0	0	0	0	0	0	0	10	3	0	0	13	1	0	3	0	0	4	3	16	0	0	0	19	0	36	36
01:00	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
01:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2	0	0	0	2	0	4	4
01:30	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	8	0	0	0	8	0	14	14
01:45	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	3	3
Total	0	0	0	0	0	0	0	11	0	0	0	11	2	0	1	0	0	3	0	10	0	0	0	10	0	24	24
02:00	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	6	0	0	0	0	6	0	7	7
02:15	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	2	0	0	0	2	0	5	5
02:30	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	4	0	0	0	0	4	0	6	6
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	4	4
Total	0	0	0	0	0	0	0	5	0	0	0	5	0	0	1	0	0	1	0	16	0	0	0	16	0	22	22
03:00	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	3	3
03:15	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	10	0	11	11
03:30	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	3	3
03:45	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	6	0	0	0	0	6	0	8	8
Total	0	0	0	0	0	0	0	5	1	0	0	6	0	0	1	0	0	1	8	10	0	0	0	18	0	25	25
04:00	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	8	0	0	0	0	8	0	11	11
04:15	0	0	0	0	0	0	0	6	1	0	0	7	1	0	0	0	0	1	16	0	0	0	0	17	0	25	25
04:30	0	0	0	0	0	0	0	4	2	0	0	6	4	0	0	0	0	4	10	18	0	0	0	28	0	38	38
04:45	0	0	0	0	0	0	0	12	0	0	0	12	2	0	1	0	0	3	6	15	0	0	0	21	0	36	36
Total	0	0	0	0	0	0	0	24	3	0	0	27	7	0	2	0	0	9	17	57	0	0	0	74	0	110	110
05:00	0	0	0	0	0	0	0	15	5	0	0	20	1	0	2	0	0	3	4	31	0	0	0	35	0	58	58
05:15	0	2	0	0	0	2	0	20	1	0	0	21	2	0	2	0	0	4	14	40	0	0	0	54	0	81	81
05:30	0	0	0	0	0	0	0	40	3	0	0	43	0	0	0	0	0	0	18	52	0	0	0	70	0	113	113
05:45	0	0	0	0	0	0	0	33	2	0	0	35	3	0	4	0	0	7	18	60	0	0	0	78	0	120	120
Total	0	2	0	0	0	2	0	108	11	0	0	119	6	0	8	0	0	14	54	183	0	0	0	237	0	372	372



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 2

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Cars + - Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound						CSAH 14 (Main St.) Westbound						CSAH 21 (Centerville Rd.) Northbound						CSAH 14 (Main St.) 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	0	0	0	0	0	28	5	0	0	33	9	0	3	0	0	12	9	33	0	0	0	42	0	87	87
06:15	0	0	0	0	0	0	0	33	13	0	0	46	4	0	9	0	0	13	5	33	0	0	0	38	0	97	97
06:30	0	0	0	0	0	0	0	51	9	0	1	60	2	0	5	0	1	7	12	60	0	0	0	72	2	139	141
06:45	0	0	0	0	0	0	1	54	8	0	0	63	6	0	12	0	0	18	11	67	0	0	0	78	0	159	159
Total	0	0	0	0	0	0	1	166	35	0	1	202	21	0	29	0	1	50	37	193	0	0	0	230	2	482	484
07:00	0	0	0	0	0	0	2	49	11	0	1	62	8	0	7	0	0	15	9	46	0	0	0	55	1	132	133
07:15	1	0	1	0	0	2	0	59	17	0	1	76	9	2	9	0	0	20	15	68	2	0	1	85	2	183	185
07:30	1	2	2	0	0	5	0	72	16	0	0	88	17	4	7	0	0	28	11	68	0	0	0	79	0	200	200
07:45	0	5	5	0	0	10	0	57	19	0	2	76	19	1	12	0	0	32	8	84	2	0	0	94	2	212	214
Total	2	7	8	0	0	17	2	237	63	0	4	302	53	7	35	0	0	95	43	266	4	0	1	313	5	727	732
08:00	1	1	2	0	0	4	0	55	10	0	0	65	12	3	5	0	0	20	13	61	1	0	0	75	0	164	164
08:15	1	4	2	0	1	7	0	78	21	0	0	99	20	2	9	0	0	31	10	70	0	0	1	80	2	217	219
08:30	1	0	0	0	0	1	0	71	13	0	0	84	14	0	20	0	0	34	8	48	0	0	2	56	2	175	177
08:45	0	2	2	0	0	4	0	68	17	0	0	85	6	5	23	0	0	34	2	48	4	0	0	54	0	177	177
Total	3	7	6	0	1	16	0	272	61	0	0	333	52	10	57	0	0	119	33	227	5	0	3	265	4	733	737
09:00	2	1	2	0	1	5	1	65	15	0	0	81	4	1	7	0	0	12	20	58	0	0	0	78	1	176	177
09:15	1	3	1	0	0	5	0	36	15	0	0	51	10	2	6	0	0	18	14	61	0	0	0	75	0	149	149
09:30	2	1	1	0	0	4	0	48	16	0	0	64	12	0	8	0	0	20	9	56	0	0	0	65	0	153	153
09:45	0	0	1	0	1	1	0	52	12	0	4	64	18	1	10	0	0	29	5	73	0	0	2	78	7	172	179
Total	5	5	5	0	2	15	1	201	58	0	4	260	44	4	31	0	0	79	48	248	0	0	2	296	8	650	658
10:00	1	0	0	0	0	1	0	47	13	0	0	60	17	0	6	0	0	23	6	54	0	0	0	60	0	144	144
10:15	0	0	0	0	0	0	0	56	12	0	1	68	11	0	11	0	0	22	6	76	0	0	0	82	1	172	173
10:30	0	0	0	0	0	0	0	50	18	0	0	68	13	0	12	0	0	25	8	59	0	0	0	67	0	160	160
10:45	0	1	2	0	0	3	0	55	16	0	0	71	16	0	6	0	0	22	10	52	0	0	0	62	0	158	158
Total	1	1	2	0	0	4	0	208	59	0	1	267	57	0	35	0	0	92	30	241	0	0	0	271	1	634	635
11:00	1	1	1	0	0	3	1	40	17	0	0	58	12	0	10	0	0	22	9	44	0	0	0	53	0	136	136
11:15	1	0	0	0	0	1	0	54	20	0	0	74	16	1	14	0	0	31	7	48	1	0	0	56	0	162	162
11:30	0	1	0	0	0	1	0	64	17	0	1	81	17	0	9	0	0	26	13	50	1	0	0	64	1	172	173
11:45	0	0	1	0	0	1	1	48	13	0	0	62	22	2	6	0	0	30	15	66	1	0	0	82	0	175	175
Total	2	2	2	0	0	6	2	206	67	0	1	275	67	3	39	0	0	109	44	208	3	0	0	255	1	645	646
12:00	2	2	2	0	0	6	0	63	17	0	0	80	17	1	6	0	0	24	5	58	1	0	0	64	0	174	174
12:15	1	1	1	0	0	3	1	71	14	0	0	86	13	2	7	0	0	22	5	54	0	0	0	59	0	170	170
12:30	2	0	0	0	0	2	0	71	15	0	0	86	23	2	14	0	0	39	5	56	1	0	0	62	0	189	189



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 3

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Cars + - Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound						CSAH 14 (Main St.) Westbound						CSAH 21 (Centerville Rd.) Northbound						CSAH 14 (Main St.) 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			
12:45	1	0	1	0	0	2	0	51	14	0	2	65	26	5	7	0	0	38	11	50	1	0	0	62	2	167	169
Total	6	3	4	0	0	13	1	256	60	0	2	317	79	10	34	0	0	123	26	218	3	0	0	247	2	700	702
13:00	1	0	0	0	0	1	0	78	8	0	0	86	11	1	19	0	0	31	7	60	0	1	0	68	0	186	186
13:15	0	0	0	0	0	0	0	59	22	0	0	81	13	0	14	0	0	27	10	50	0	0	0	60	0	168	168
13:30	0	0	0	0	0	0	0	75	16	0	0	91	21	0	13	0	0	34	7	42	1	0	0	50	0	175	175
13:45	3	0	0	0	0	3	0	57	18	0	0	75	15	0	17	0	0	32	14	67	3	0	0	84	0	194	194
Total	4	0	0	0	0	4	0	269	64	0	0	333	60	1	63	0	0	124	38	219	4	1	0	262	0	723	723
14:00	0	0	0	0	0	0	0	54	20	0	0	74	20	0	15	0	0	35	10	53	0	0	0	63	0	172	172
14:15	0	1	1	0	1	2	0	54	21	0	0	75	22	1	17	0	0	40	12	55	0	0	0	67	1	184	185
14:30	0	0	0	0	0	0	0	71	18	0	0	89	13	0	13	0	0	26	7	68	0	0	0	75	0	190	190
14:45	1	0	1	0	0	2	0	60	18	0	0	78	22	1	27	0	0	50	8	69	0	0	0	77	0	207	207
Total	1	1	2	0	1	4	0	239	77	0	0	316	77	2	72	0	0	151	37	245	0	0	0	282	1	753	754
15:00	1	2	1	0	0	4	0	77	10	0	0	87	21	0	20	0	0	41	15	53	0	0	0	68	0	200	200
15:15	1	1	3	0	0	5	0	98	13	0	0	111	30	0	23	0	0	53	12	64	0	0	0	76	0	245	245
15:30	1	0	3	0	0	4	0	83	15	0	0	98	22	1	30	0	0	53	10	75	1	0	0	86	0	241	241
15:45	0	3	0	0	0	3	0	90	20	0	0	110	33	3	23	0	0	59	15	94	1	0	0	110	0	282	282
Total	3	6	7	0	0	16	0	348	58	0	0	406	106	4	96	0	0	206	52	286	2	0	0	340	0	968	968
16:00	1	1	2	0	0	4	0	126	26	0	2	152	31	1	18	0	0	50	23	83	1	0	0	107	2	313	315
16:15	0	2	4	0	0	6	0	99	22	1	0	122	30	3	21	0	0	54	18	103	1	0	0	122	0	304	304
16:30	4	4	7	0	0	15	1	101	22	0	0	124	29	5	30	0	0	64	16	94	1	0	0	111	0	314	314
16:45	0	2	2	0	0	4	0	88	25	0	0	113	31	4	25	0	0	60	12	94	2	0	0	108	0	285	285
Total	5	9	15	0	0	29	1	414	95	1	2	511	121	13	94	0	0	228	69	374	5	0	0	448	2	1216	1218
17:00	2	1	6	0	0	9	0	77	24	0	0	101	22	2	18	0	0	42	12	74	0	0	1	86	1	238	239
17:15	0	0	0	0	0	0	0	100	22	0	1	122	36	1	20	0	0	57	15	91	0	0	0	106	1	285	286
17:30	0	2	0	0	0	2	0	86	24	0	2	110	35	0	19	0	0	54	16	79	0	0	0	95	2	261	263
17:45	1	0	1	0	1	2	0	62	21	0	15	83	32	2	9	0	1	43	5	67	0	0	0	72	17	200	217
Total	3	3	7	0	1	13	0	325	91	0	18	416	125	5	66	0	1	196	48	311	0	0	1	359	21	984	1005
18:00	0	0	0	0	0	0	0	51	22	0	2	73	20	1	13	0	0	34	11	34	0	0	0	45	2	152	154
18:15	0	0	0	0	0	0	1	62	37	0	1	100	23	0	18	0	5	41	15	55	1	0	0	71	6	212	218
18:30	1	0	0	0	0	1	1	50	15	0	5	66	20	0	11	0	0	31	10	42	2	0	0	54	5	152	157
18:45	0	0	0	0	0	0	1	47	16	0	4	64	9	0	4	0	0	13	5	36	0	0	0	41	4	118	122
Total	1	0	0	0	0	1	3	210	90	0	12	303	72	1	46	0	5	119	41	167	3	0	0	211	17	634	651



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 4

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Cars + - Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound						CSAH 14 (Main St.) Westbound						CSAH 21 (Centerville Rd.) Northbound						CSAH 14 (Main St.) 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			
19:00	0	0	0	0	0	0	0	31	13	0	4	44	9	0	13	0	3	22	7	47	0	0	0	54	7	120	127
19:15	0	0	1	0	0	1	0	50	17	0	0	67	18	0	15	0	0	33	10	41	0	0	0	51	0	152	152
19:30	0	0	0	0	0	0	0	34	20	0	0	54	16	0	5	0	0	21	6	37	0	0	0	43	0	118	118
19:45	0	0	2	0	0	2	0	34	9	0	1	43	17	0	10	0	0	27	3	35	0	0	0	38	1	110	111
Total	0	0	3	0	0	3	0	149	59	0	5	208	60	0	43	0	3	103	26	160	0	0	0	186	8	500	508
20:00	0	0	0	0	0	0	0	34	4	0	0	38	19	0	11	0	0	30	7	39	0	0	0	46	0	114	114
20:15	0	0	0	0	0	0	0	28	9	0	1	37	8	0	6	0	0	14	11	32	0	0	0	43	1	94	95
20:30	0	0	2	0	0	2	0	23	16	0	1	39	10	0	8	0	0	18	9	37	0	0	0	46	1	105	106
20:45	1	0	0	0	0	1	1	28	9	0	3	38	17	0	9	0	0	26	8	22	0	0	0	30	3	95	98
Total	1	0	2	0	0	3	1	113	38	0	5	152	54	0	34	0	0	88	35	130	0	0	0	165	5	408	413
21:00	1	1	1	0	0	3	0	27	10	0	4	37	14	0	10	0	1	24	1	19	0	0	0	20	5	84	89
21:15	0	0	3	0	0	3	1	21	4	0	4	26	9	1	10	0	0	20	4	21	1	0	0	26	4	75	79
21:30	0	1	0	0	0	1	0	20	8	0	0	28	11	0	6	0	0	17	4	23	0	0	0	27	0	73	73
21:45	0	1	0	0	0	1	0	13	3	0	2	16	3	0	4	0	0	7	8	24	0	0	0	32	2	56	58
Total	1	3	4	0	0	8	1	81	25	0	10	107	37	1	30	0	1	68	17	87	1	0	0	105	11	288	299
22:00	2	0	2	0	0	4	0	14	4	0	4	18	5	0	0	0	0	5	4	15	0	0	0	19	4	46	50
22:15	0	0	0	0	0	0	0	13	5	0	4	18	4	0	1	0	0	5	1	17	0	0	0	18	4	41	45
22:30	0	0	0	0	0	0	0	13	3	0	0	16	1	0	1	0	0	2	3	9	0	0	0	12	0	30	30
22:45	1	0	0	0	0	1	0	6	2	0	0	8	1	0	4	0	0	5	7	14	0	0	0	21	0	35	35
Total	3	0	2	0	0	5	0	46	14	0	8	60	11	0	6	0	0	17	15	55	0	0	0	70	8	152	160
23:00	0	0	0	0	0	0	0	8	3	0	0	11	1	0	4	0	0	5	1	6	0	0	0	7	0	23	23
23:15	0	0	0	0	0	0	0	5	3	0	0	8	4	0	3	0	0	7	1	3	0	0	0	4	0	19	19
23:30	0	0	0	0	0	0	0	9	3	0	0	12	1	0	1	0	0	2	2	1	0	0	0	3	0	17	17
23:45	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2	0	0	2	0	3	0	0	0	3	0	7	7
Total	0	0	0	0	0	0	0	24	9	0	0	33	6	0	10	0	0	16	4	13	0	0	0	17	0	66	66
Grand Total	41	49	69	0	5	159	13	3927	1041	1	73	4982	1118	61	836	0	11	2015	725	3940	30	1	7	4696	96	11852	11948
Apprch %	25.8	30.8	43.4	0			0.3	78.8	20.9	0			55.5	3	41.5	0			15.4	83.9	0.6	0					
Total %	0.3	0.4	0.6	0		1.3	0.1	33.1	8.8	0		42	9.4	0.5	7.1	0		17	6.1	33.2	0.3	0		39.6	0.8	99.2	
Cars +	35	45	68	0		153	12	3666	1014	1		4766	1085	59	808	0		1963	708	3650	24	1		4390	0	0	11272
% Cars +	85.4	91.8	98.6	0	100	93.3	92.3	93.4	97.4	100	100	94.3	97	96.7	96.7	0	100	96.9	97.7	92.6	80	100	100	93.3	0	0	94.3
Trucks	6	4	1	0		11	1	261	27	0		289	33	2	28	0		63	17	290	6	0		313	0	0	676
% Trucks	14.6	8.2	1.4	0	0	6.7	7.7	6.6	2.6	0	0	5.7	3	3.3	3.3	0	0	3.1	2.3	7.4	20	0	0	6.7	0	0	5.7



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 5

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Start Time	CSAH 21 (Centerville Rd.) Southbound					CSAH 14 (Main St.) Westbound					CSAH 21 (Centerville Rd.) Northbound					CSAH 14 (Main St.) 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 07:30																					
07:30	1	2	2	0	5	0	72	16	0	88	17	4	7	0	28	11	68	0	0	79	200
07:45	0	5	5	0	10	0	57	19	0	76	19	1	12	0	32	8	84	2	0	94	212
08:00	1	1	2	0	4	0	55	10	0	65	12	3	5	0	20	13	61	1	0	75	164
08:15	1	4	2	0	7	0	78	21	0	99	20	2	9	0	31	10	70	0	0	80	217
Total Volume	3	12	11	0	26	0	262	66	0	328	68	10	33	0	111	42	283	3	0	328	793
% App. Total	11.5	46.2	42.3	0		0	79.9	20.1	0		61.3	9	29.7	0		12.8	86.3	0.9	0		
PHF	.750	.600	.550	.000	.650	.000	.840	.786	.000	.828	.850	.625	.688	.000	.867	.808	.842	.375	.000	.872	.914

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:00																					
13:00	1	0	0	0	1	0	78	8	0	86	11	1	19	0	31	7	60	0	1	68	186
13:15	0	0	0	0	0	0	59	22	0	81	13	0	14	0	27	10	50	0	0	60	168
13:30	0	0	0	0	0	0	75	16	0	91	21	0	13	0	34	7	42	1	0	50	175
13:45	3	0	0	0	3	0	57	18	0	75	15	0	17	0	32	14	67	3	0	84	194
Total Volume	4	0	0	0	4	0	269	64	0	333	60	1	63	0	124	38	219	4	1	262	723
% App. Total	100	0	0	0		0	80.8	19.2	0		48.4	0.8	50.8	0		14.5	83.6	1.5	0.4		
PHF	.333	.000	.000	.000	.333	.000	.862	.727	.000	.915	.714	.250	.829	.000	.912	.679	.817	.333	.250	.780	.932

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	1	1	2	0	4	0	126	26	0	152	31	1	18	0	50	23	83	1	0	107	313
16:15	0	2	4	0	6	0	99	22	1	122	30	3	21	0	54	18	103	1	0	122	304
16:30	4	4	7	0	15	1	101	22	0	124	29	5	30	0	64	16	94	1	0	111	314
16:45	0	2	2	0	4	0	88	25	0	113	31	4	25	0	60	12	94	2	0	108	285
Total Volume	5	9	15	0	29	1	414	95	1	511	121	13	94	0	228	69	374	5	0	448	1216
% App. Total	17.2	31	51.7	0		0.2	81	18.6	0.2		53.1	5.7	41.2	0		15.4	83.5	1.1	0		
PHF	.313	.563	.536	.000	.483	.250	.821	.913	.250	.840	.976	.650	.783	.000	.891	.750	.908	.625	.000	.918	.968



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 1

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound					CSAH 14 (Main St.) Westbound					CSAH 21 (Centerville Rd.) Northbound					CSAH 14 (Main St.) 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	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	0	0	0	0	0	0
00:45	0	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	0
01:00	0	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	0	0	0	0	0	0
01:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:45	0	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	0	0	0	0	0	1
02:00	0	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	0
02:30	0	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	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	0
03:00	0	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	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	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	0
04:00	0	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	1	0	0	1	0	0	0	0	0	0	2	0	0	0	2	3
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5	6
05:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	2	4
05:15	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	0	6	12
05:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	0	5	7
05:45	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	0	0	0	7	10
Total	0	0	0	0	0	0	12	0	0	12	0	0	1	0	1	0	20	0	0	0	20	33
06:00	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	0	2	4
06:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	0	3	6
06:30	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	4	0	0	0	4	13
06:45	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	2	7	0	0	0	9	14
Total	0	0	0	0	0	0	17	0	0	17	1	0	1	0	2	2	16	0	0	0	18	37
07:00	0	0	0	0	0	0	5	2	0	7	0	0	0	0	0	0	10	0	0	0	10	17
07:15	1	0	0	0	1	0	5	0	0	5	0	0	1	0	1	0	11	0	0	0	11	18
07:30	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	1	8	0	0	0	9	19
07:45	0	1	0	0	1	0	6	0	0	6	2	0	1	0	3	1	11	0	0	0	12	22
Total	1	1	0	0	2	0	25	2	0	27	3	0	2	0	5	2	40	0	0	0	42	76
08:00	0	0	0	0	0	0	5	0	0	5	1	0	1	0	2	1	6	0	0	0	7	14
08:15	0	0	0	0	0	0	3	1	0	4	1	1	1	0	3	1	7	0	0	0	8	15
08:30	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	0	9	0	0	0	9	17
08:45	0	0	0	0	0	0	8	1	0	9	1	0	1	0	2	0	6	1	0	0	7	18
Total	0	0	0	0	0	0	23	2	0	25	4	1	3	0	8	2	28	1	0	0	31	64
09:00	0	0	1	0	1	0	12	1	0	13	0	0	0	0	0	1	9	0	0	0	10	24



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 2

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound					CSAH 14 (Main St.) Westbound					CSAH 21 (Centerville Rd.) Northbound					CSAH 14 (Main St.) 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	5	0	0	5	0	0	1	0	1	3	9	0	0	12	18
09:30	1	0	0	0	1	0	7	0	0	7	1	0	0	0	1	0	11	0	0	11	20
09:45	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	1	7	0	0	8	16
Total	1	0	1	0	2	0	31	2	0	33	1	0	1	0	2	5	36	0	0	41	78
10:00	0	0	0	0	0	0	6	0	0	6	0	0	2	0	2	0	3	0	0	3	11
10:15	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	1	10	0	0	11	15
10:30	0	0	0	0	0	0	4	2	0	6	2	0	1	0	3	1	6	0	0	7	16
10:45	0	0	0	0	0	0	6	2	0	8	2	0	0	0	2	0	3	0	0	3	13
Total	0	0	0	0	0	0	19	5	0	24	4	0	3	0	7	2	22	0	0	24	55
11:00	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	1	0	0	1	6
11:15	0	0	0	0	0	0	3	3	0	6	1	0	1	0	2	1	5	1	0	7	15
11:30	0	1	0	0	1	0	6	0	0	6	0	0	0	0	0	0	0	1	0	1	8
11:45	0	0	0	0	0	1	3	0	0	4	2	1	1	0	4	0	9	0	0	9	17
Total	0	1	0	0	1	1	16	3	0	20	4	1	2	0	7	1	15	2	0	18	46
12:00	1	0	0	0	1	0	4	0	0	4	2	0	0	0	2	0	3	1	0	4	11
12:15	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	6	0	0	6	12
12:30	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	9
12:45	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Total	2	0	0	0	2	0	21	1	0	22	2	0	0	0	2	0	12	1	0	13	39
13:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
13:15	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	4	0	0	4	8
13:30	0	0	0	0	0	0	6	0	0	6	1	0	2	0	3	0	3	0	0	3	12
13:45	2	0	0	0	2	0	4	2	0	6	0	0	0	0	0	0	7	2	0	9	17
Total	2	0	0	0	2	0	14	2	0	16	1	0	3	0	4	0	21	2	0	23	45
14:00	0	0	0	0	0	0	1	0	0	1	2	0	2	0	4	0	5	0	0	5	10
14:15	0	1	0	0	1	0	6	3	0	9	3	0	1	0	4	0	7	0	0	7	21
14:30	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	1	8	0	0	9	17
14:45	0	0	0	0	0	0	4	1	0	5	0	0	2	0	2	0	6	0	0	6	13
Total	0	1	0	0	1	0	18	5	0	23	5	0	5	0	10	1	26	0	0	27	61
15:00	0	0	0	0	0	0	2	1	0	3	2	0	2	0	4	0	4	0	0	4	11
15:15	0	0	0	0	0	0	8	0	0	8	1	0	1	0	2	0	2	0	0	2	12
15:30	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	10
15:45	0	1	0	0	1	0	5	1	0	6	1	0	0	0	1	0	4	0	0	4	12
Total	0	1	0	0	1	0	21	2	0	23	4	0	3	0	7	0	14	0	0	14	45
16:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
16:15	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	1	0	0	1	9
16:30	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8
16:45	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8
Total	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	9	0	0	9	29
17:00	0	0	0	0	0	0	4	0	0	4	0	0	3	0	3	0	3	0	0	3	10
17:15	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	1	6	0	0	7	11
17:30	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	5
17:45	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
Total	0	0	0	0	0	0	10	0	0	10	2	0	3	0	5	1	15	0	0	16	31
18:00	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
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	2	0	0	2	1	0	1	0	2	1	0	0	0	1	5
18:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	3
Total	0	0	0	0	0	0	3	2	0	5	1	0	1	0	2	1	3	0	0	4	11



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2248
 Site Code :
 Start Date : 08/02/2022
 Page No : 3

Weather: Hot & Sunny
 CountCam 3
 Study Conducted by: Sam

Groups Printed- Trucks

Start Time	CSAH 21 (Centerville Rd.) Southbound					CSAH 14 (Main St.) Westbound					CSAH 21 (Centerville Rd.) Northbound					CSAH 14 (Main St.) 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	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
19:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
19:30	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
19:45	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	4	0	0	4	9
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
21:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	5
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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	1	0	0	1	1
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	6	4	1	0	11	1	261	27	0	289	33	2	28	0	63	17	290	6	0	313	676
Apprch %	54.5	36.4	9.1	0		0.3	90.3	9.3	0		52.4	3.2	44.4	0		5.4	92.7	1.9	0		
Total %	0.9	0.6	0.1	0	1.6	0.1	38.6	4	0	42.8	4.9	0.3	4.1	0	9.3	2.5	42.9	0.9	0	46.3	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 08/02/2022

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 14 (Main St.)

Number of Lanes : 1

Total Approach Volume: 4,696

Westbound: CSAH 14 (Main St.)

Number of Lanes : 1

Total Approach Volume: 4,982

Minor Street Approaches

Northbound: CSAH 21 (Centerville Rd.)

Number of Lanes : 1

Total Approach Volume: 2,015

Southbound: CSAH 21 (Centerville Rd.)

Number of Lanes : 1

Total Approach Volume: 159

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

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

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

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

Required 1A volumes reached for 6 hours, 8 are needed

Required 1B volumes reached for 6 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (13) volumes exceed minimum >= required (1). 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 : 08/02/2022

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 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
	CSAH 14 (Main St.)					CSAH 21 (Centerville Rd.)		
16:00 - 17:00	448	+	511	=	959	228	29	Yes
17:00 - 18:00	359	+	416	=	775	196	13	Yes
15:00 - 16:00	340	+	406	=	746	206	16	Yes
14:00 - 15:00	282	+	316	=	598	151	4	Yes
07:30 - 08:30	328	+	328	=	656	111	26	No
07:15 - 08:15	333	+	305	=	638	100	21	No
07:45 - 08:45	305	+	324	=	629	117	22	No
08:15 - 09:15	268	+	349	=	617	111	17	No
07:00 - 08:00	313	+	302	=	615	95	17	No
13:45 - 14:45	289	+	313	=	602	133	5	No
08:00 - 09:00	265	+	333	=	598	119	16	No
13:00 - 14:00	262	+	333	=	595	124	4	No
06:45 - 07:45	297	+	289	=	586	81	7	No
11:45 - 12:45	267	+	314	=	581	115	12	No
13:30 - 14:30	264	+	315	=	579	141	5	No
11:30 - 12:30	269	+	309	=	578	102	11	No
13:15 - 14:15	257	+	321	=	578	128	3	No
12:15 - 13:15	251	+	323	=	574	130	8	No
12:30 - 13:30	252	+	318	=	570	135	5	No
08:30 - 09:30	263	+	301	=	564	98	15	No
12:00 - 13:00	247	+	317	=	564	123	13	No
11:15 - 12:15	266	+	297	=	563	111	9	No
12:45 - 13:45	240	+	323	=	563	130	3	No
09:00 - 10:00	296	+	260	=	556	79	15	No
08:45 - 09:45	272		281		553	84	18	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 08/02/2022

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

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	427	+	460	=	887	220	34	Yes
15:15 - 16:15	379	+	471	=	850	215	16	Yes
15:00 - 16:00	340	+	406	=	746	206	16	No
17:15 - 18:15	318	+	388	=	706	188	4	No
14:45 - 15:45	307	+	374	=	681	197	15	No
14:30 - 15:30	296	+	365	=	661	170	11	No
07:30 - 08:30	328	+	328	=	656	111	26	No
17:30 - 18:30	283	+	366	=	649	172	4	No
07:15 - 08:15	333	+	305	=	638	100	21	No
07:45 - 08:45	305	+	324	=	629	117	22	No
08:15 - 09:15	268	+	349	=	617	111	17	No
14:15 - 15:15	287	+	329	=	616	157	8	No
07:00 - 08:00	313	+	302	=	615	95	17	No
13:45 - 14:45	289	+	313	=	602	133	5	No
14:00 - 15:00	282	+	316	=	598	151	4	No
08:00 - 09:00	265	+	333	=	598	119	16	No
13:00 - 14:00	262	+	333	=	595	124	4	No
06:45 - 07:45	297	+	289	=	586	81	7	No
11:45 - 12:45	267	+	314	=	581	115	12	No
13:30 - 14:30	264	+	315	=	579	141	5	No
11:30 - 12:30	269	+	309	=	578	102	11	No
13:15 - 14:15	257	+	321	=	578	128	3	No
12:15 - 13:15	251	+	323	=	574	130	8	No
12:30 - 13:30	252	+	318	=	570	135	5	No
08:30 - 09:30	263		301		564	98	15	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 08/02/2022

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 6 hours meet 1A minimums.
Only 6 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400** **600**

Veh/Hr Minor = **120** **60**

Major Road CSAH 14 (Main St.)

Minor Road CSAH 21 (Centerville Rd.)

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	448	+	511	=	959	228	29	Yes
17:00 - 18:00	359	+	416	=	775	196	13	Yes
15:00 - 16:00	340	+	406	=	746	206	16	Yes
14:00 - 15:00	282	+	316	=	598	151	4	Yes
13:00 - 14:00	262	+	333	=	595	124	4	Yes
12:00 - 13:00	247	+	317	=	564	123	13	Yes
07:30 - 08:30	328	+	328	=	656	111	26	No
07:15 - 08:15	333	+	305	=	638	100	21	No
07:45 - 08:45	305	+	324	=	629	117	22	No
08:15 - 09:15	268	+	349	=	617	111	17	No
07:00 - 08:00	313	+	302	=	615	95	17	No
08:00 - 09:00	265	+	333	=	598	119	16	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
15:45 - 16:45	450	+	508	=	958	227	28	Yes
16:45 - 17:45	395	+	446	=	841	213	15	Yes
14:45 - 15:45	307	+	374	=	681	197	15	Yes
08:15 - 09:15	268	+	349	=	617	111	17	Yes
07:00 - 08:00	313	+	302	=	615	95	17	Yes
13:45 - 14:45	289	+	313	=	602	133	5	Yes
08:00 - 09:00	265	+	333	=	598	119	16	No
13:00 - 14:00	262	+	333	=	595	124	4	No
06:45 - 07:45	297	+	289	=	586	81	7	No
11:45 - 12:45	267	+	314	=	581	115	12	No
13:30 - 14:30	264	+	315	=	579	141	5	No
13:15 - 14:15	257	+	321	=	578	128	3	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 08/02/2022

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.

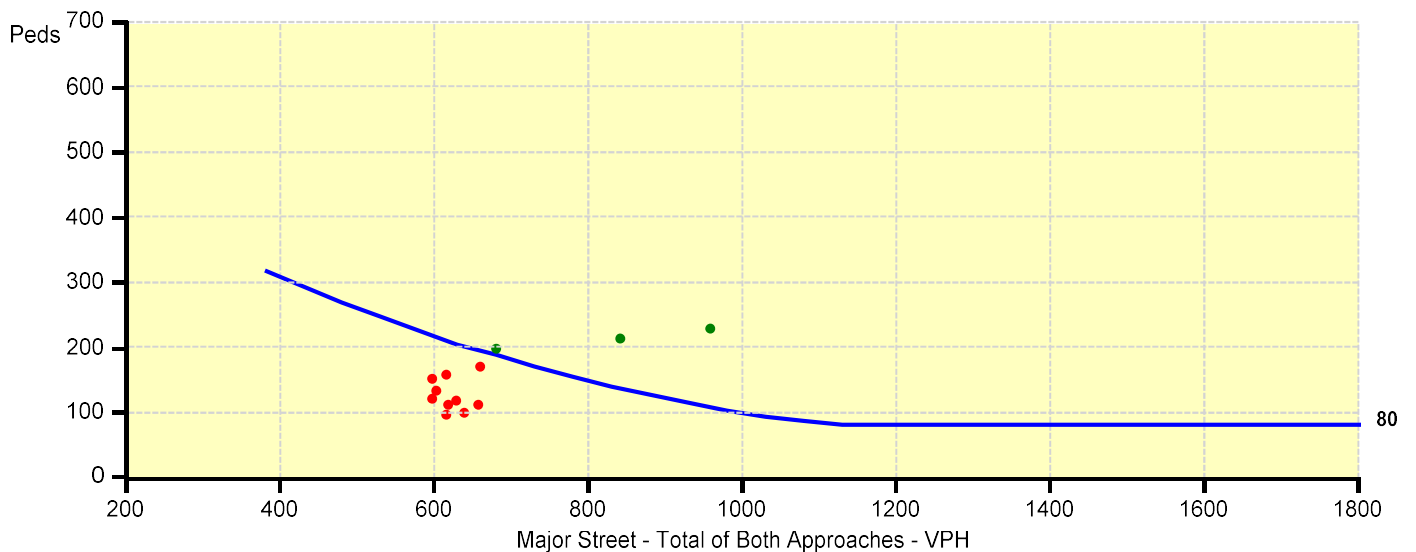
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 14 (Main St.)				Total	Minor Road CSAH 21 (Centerville Rd.)		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:45 - 16:45	450	+	508	=	958	227	28	Yes
16:45 - 17:45	395	+	446	=	841	213	15	Yes
14:45 - 15:45	307	+	374	=	681	197	15	Yes
14:30 - 15:30	296	+	365	=	661	170	11	No
07:30 - 08:30	328	+	328	=	656	111	26	No
07:15 - 08:15	333	+	305	=	638	100	21	No
07:45 - 08:45	305	+	324	=	629	117	22	No
08:15 - 09:15	268	+	349	=	617	111	17	No
14:15 - 15:15	287	+	329	=	616	157	8	No
07:00 - 08:00	313	+	302	=	615	95	17	No
13:45 - 14:45	289	+	313	=	602	133	5	No
14:00 - 15:00	282	+	316	=	598	151	4	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 08/02/2022

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

2 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 14 (Main St.)				Total	Minor Road CSAH 21 (Centerville Rd.)		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	448	+	511	=	959	228	29	Yes
15:45 - 16:45	450	+	508	=	958	227	28	Yes
15:30 - 16:30	425	+	482	=	907	216	17	No
16:15 - 17:15	427	+	460	=	887	220	34	No
16:30 - 17:30	411	+	460	=	871	223	28	No
15:15 - 16:15	379	+	471	=	850	215	16	No
16:45 - 17:45	395	+	446	=	841	213	15	No
17:00 - 18:00	359	+	416	=	775	196	13	No
15:00 - 16:00	340	+	406	=	746	206	16	No
17:15 - 18:15	318	+	388	=	706	188	4	No
14:45 - 15:45	307	+	374	=	681	197	15	No
14:30 - 15:30	296	+	365	=	661	170	11	No

