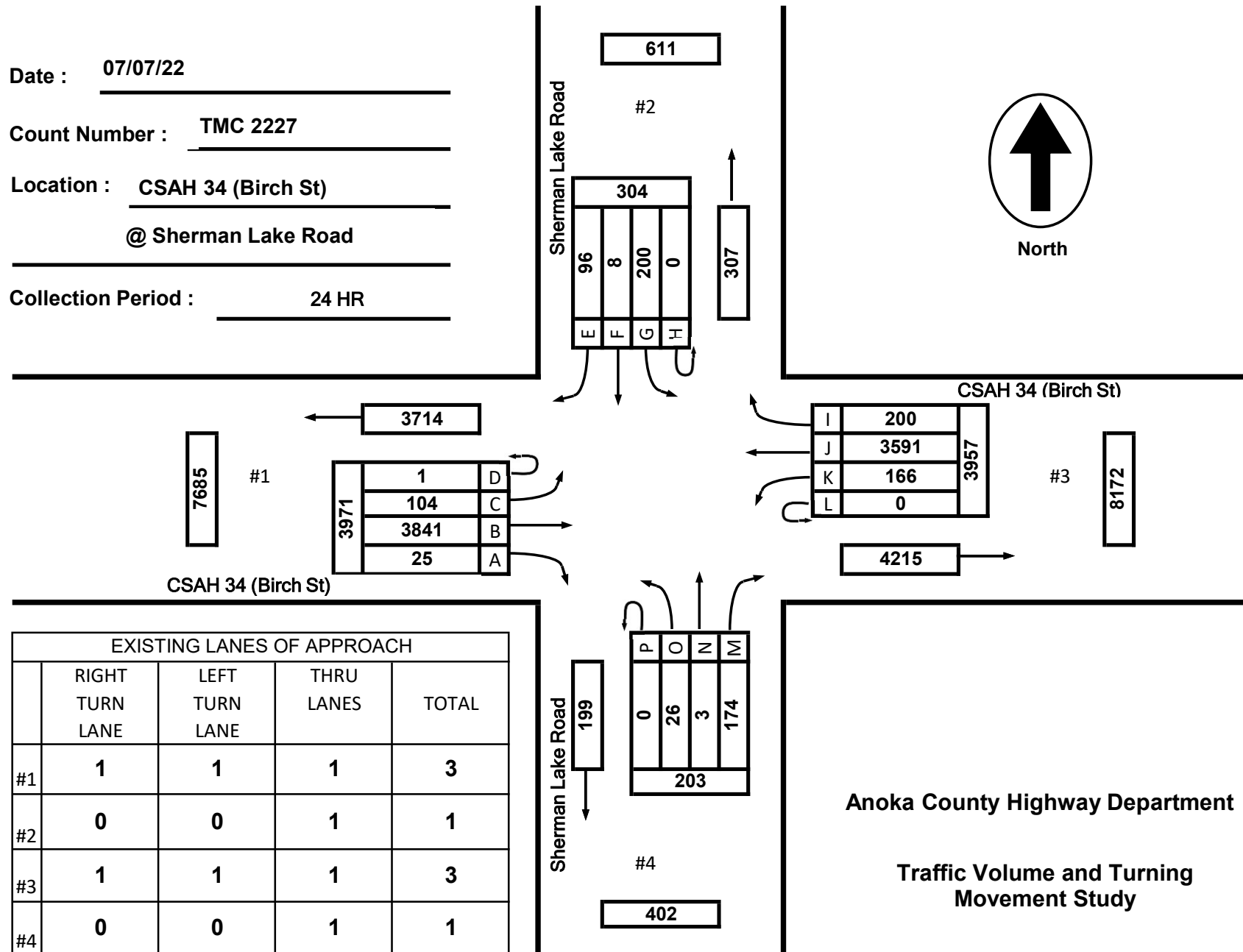


Date : 07/07/22

Count Number : TMC 2227

Location : CSAH 34 (Birch St)
@ Sherman Lake Road

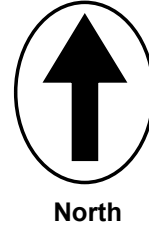
Collection Period : 24 HR



CSAH 34 (Birch St)

CSAH 34 (Birch St)

Sherman Lake Road



North

Anoka County Highway Department

Traffic Volume and Turning
Movement Study

EXISTING LANES OF APPROACH

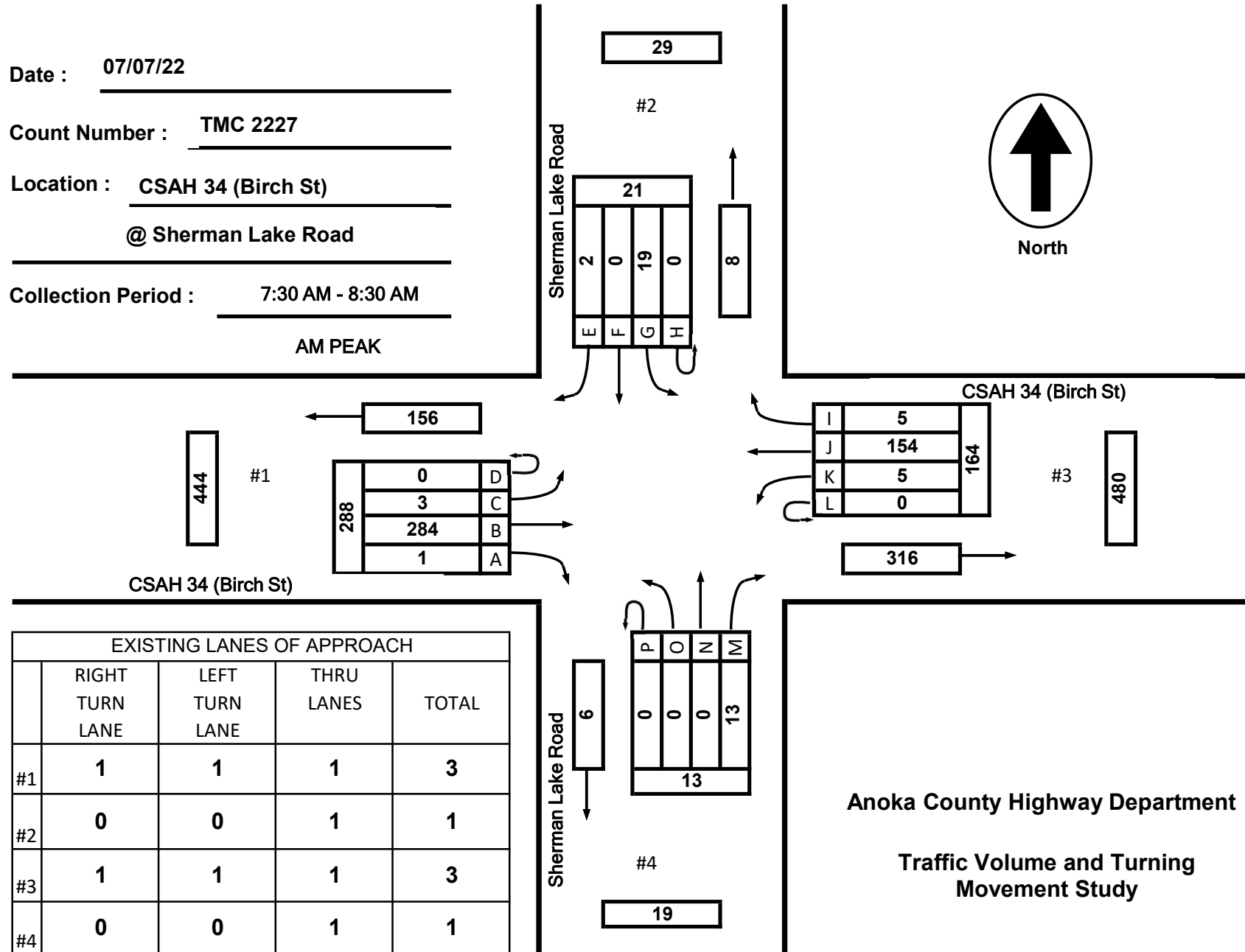
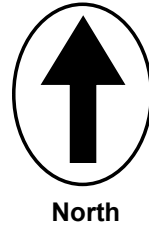
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	1	1	1	3
#2	0	0	1	1
#3	1	1	1	3
#4	0	0	1	1

Date : 07/07/22

Count Number : TMC 2227

Location : CSAH 34 (Birch St)
@ Sherman Lake Road

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	1	1	1	3
#4	0	0	1	1

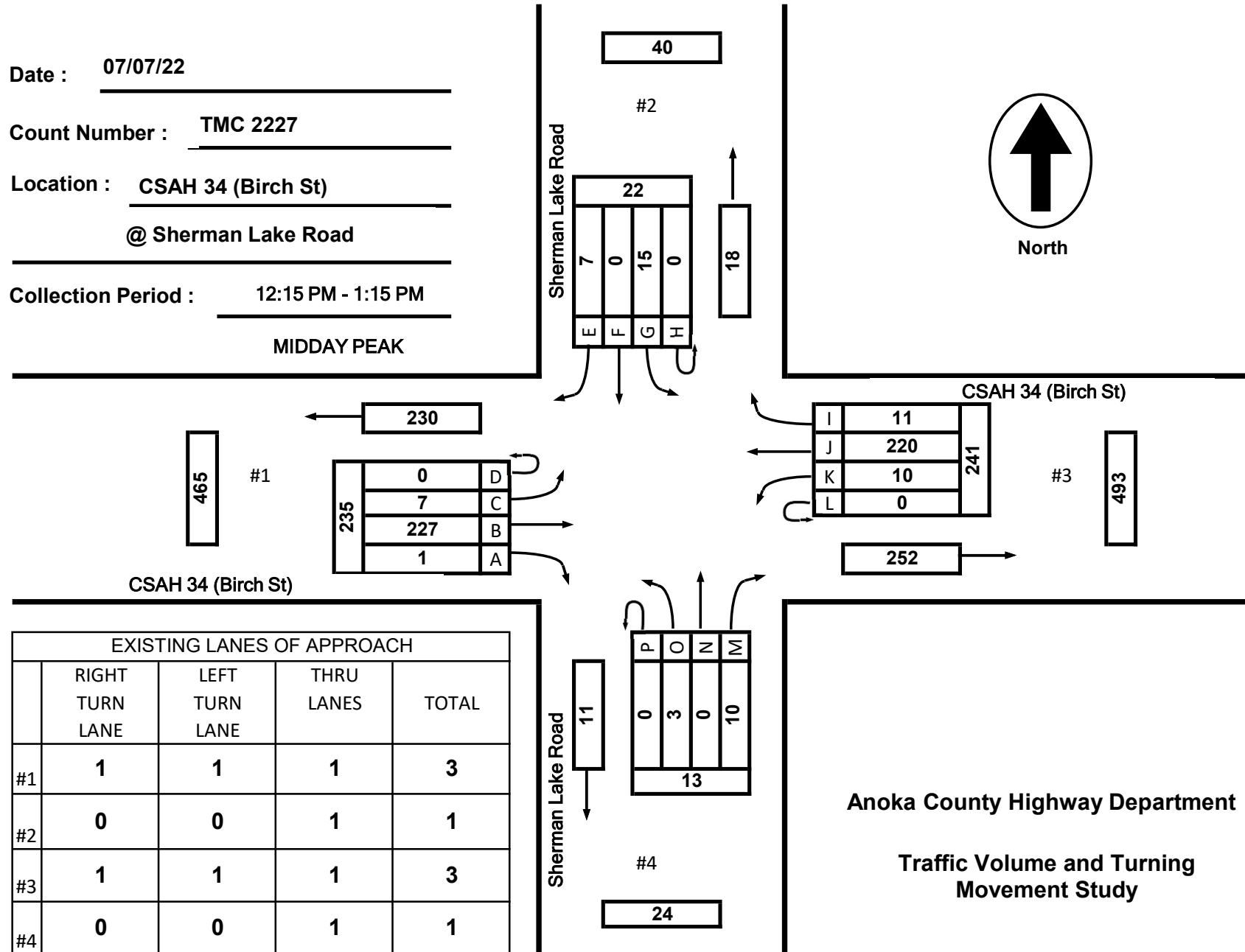
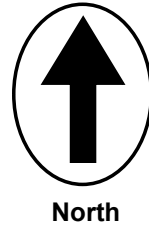
Anoka County Highway Department
 Traffic Volume and Turning Movement Study

Date : 07/07/22

Count Number : TMC 2227

Location : CSAH 34 (Birch St)
@ Sherman Lake Road

Collection Period : 12:15 PM - 1:15 PM
MIDDAY PEAK



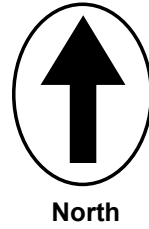
Anoka County Highway Department
Traffic Volume and Turning Movement Study

Date : 07/07/22

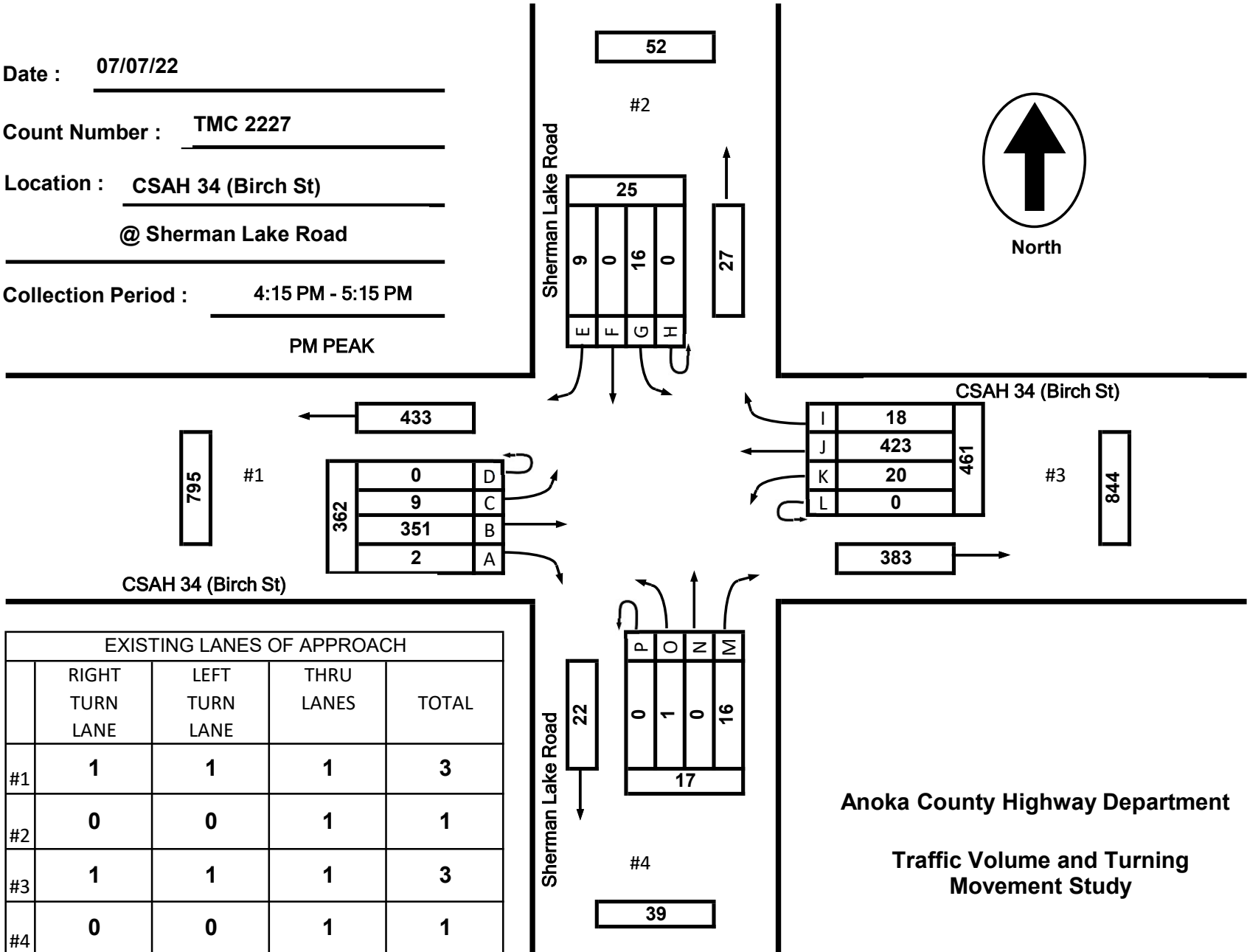
Count Number : TMC 2227

Location : CSAH 34 (Birch St)
@ Sherman Lake Road

Collection Period : 4:15 PM - 5:15 PM
PM PEAK



North



CSAH 34 (Birch St)

CSAH 34 (Birch St)

Sherman Lake Road

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

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 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 1

Weather: Warm & Cloudy
 CountCAM 2
 Study COnducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	Sherman Lake Road Southbound						CSAH 34 (Birch St) Westbound						Sherman Lake Road Northbound						CSAH 34 (Birch St) Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
00:00	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	1	0	1	0	1	3	0	0	4	0	12	12
00:15	0	1	0	0	0	1	0	1	1	1	0	3	0	0	0	0	0	0	0	0	2	0	0	2	0	6	6
00:30	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
00:45	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	4	4
Total	0	1	0	1	0	2	0	1	13	1	0	15	0	0	0	1	0	1	0	1	7	0	0	8	0	26	26
01:00	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
01:15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	3	3
01:30	0	0	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
01:45	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	0	0	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	0	3	0	0	3	0	10	10	
02:00	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	3	3
02:15	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
02:30	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
02:45	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	0	1	0	0	0	1	0	0	7	1	0	8	0	0	0	1	0	1	0	2	0	0	2	0	12	12	
03:00	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	3	3
03:15	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
03:30	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	3	0	0	3	0	5	5
03:45	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	0	5	5
Total	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	0	10	0	0	10	0	16	16	
04:00	0	1	0	0	0	1	0	0	4	0	0	4	0	0	0	0	0	0	0	1	0	0	1	0	6	6	
04:15	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	7	0	0	7	0	9	9	
04:30	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	1	0	1	0	0	8	1	0	9	0	13	13
04:45	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	2	0	2	0	0	15	0	0	15	0	22	22
Total	0	1	0	0	0	1	0	0	13	1	0	14	0	0	0	3	0	3	0	31	1	0	32	0	50	50	
05:00	0	0	1	0	0	1	0	0	5	0	0	5	0	0	0	2	0	2	0	0	15	0	0	15	0	23	23
05:15	0	2	0	0	0	2	0	0	12	0	0	12	0	0	0	1	0	1	0	0	21	0	0	21	0	36	36
05:30	0	0	0	1	0	1	0	0	17	0	0	17	0	1	0	4	0	5	0	0	26	0	0	26	0	49	49
05:45	0	1	0	1	0	2	0	1	9	0	0	10	0	1	0	0	0	1	0	0	39	0	0	39	0	52	52
Total	0	3	1	2	0	6	0	1	43	0	0	44	0	2	0	7	0	9	0	101	0	0	101	0	160	160	



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 2

Weather: Warm & Cloudy
 CountCAM 2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	Sherman Lake Road Southbound						CSAH 34 (Birch St) Westbound						Sherman Lake Road Northbound						CSAH 34 (Birch St) Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
06:00	0	5	0	0	0	5	0	0	16	0	0	16	0	0	0	1	0	1	0	0	37	0	0	37	0	59	59
06:15	0	4	0	0	1	4	0	2	21	0	1	23	0	0	0	2	0	2	0	1	41	0	0	42	2	71	73
06:30	0	1	0	1	0	2	0	0	21	0	0	21	0	0	0	6	0	6	0	0	61	0	1	61	1	90	91
06:45	0	1	1	2	0	4	0	2	29	2	0	33	0	1	0	4	0	5	0	0	56	0	0	56	0	98	98
Total	0	11	1	3	1	15	0	4	87	2	1	93	0	1	0	13	0	14	0	1	195	0	1	196	3	318	321
07:00	0	5	0	2	0	7	0	1	15	1	0	17	0	0	0	1	0	1	0	0	71	0	0	71	0	96	96
07:15	0	2	0	1	0	3	0	0	31	1	0	32	0	0	0	1	0	1	0	0	64	1	1	65	1	101	102
07:30	0	1	0	0	0	1	0	0	30	0	0	30	0	0	0	2	0	2	0	0	82	1	0	83	0	116	116
07:45	0	8	0	0	0	8	0	0	53	1	0	54	0	0	0	1	0	1	0	2	72	0	0	74	0	137	137
Total	0	16	0	3	0	19	0	1	129	3	0	133	0	0	0	5	0	5	0	2	289	2	1	293	1	450	451
08:00	0	5	0	0	1	5	0	1	34	2	0	37	0	0	0	5	0	5	0	0	76	0	0	76	1	123	124
08:15	0	5	0	2	0	7	0	4	37	2	0	43	0	0	0	5	1	5	0	1	54	0	0	55	1	110	111
08:30	0	7	0	2	0	9	0	1	41	4	0	46	0	0	0	3	0	3	0	0	53	0	1	53	1	111	112
08:45	0	3	0	5	1	8	0	3	29	1	0	33	0	0	0	2	0	2	0	1	68	0	1	69	2	112	114
Total	0	20	0	9	2	29	0	9	141	9	0	159	0	0	0	15	1	15	0	2	251	0	2	253	5	456	461
09:00	0	4	0	0	0	4	0	0	29	2	1	31	0	0	0	1	0	1	0	2	66	0	1	68	2	104	106
09:15	0	5	0	2	0	7	0	1	41	0	0	42	0	0	0	4	0	4	0	1	59	0	0	60	0	113	113
09:30	0	1	1	2	0	4	0	1	33	2	0	36	0	1	0	3	0	4	0	0	48	0	0	48	0	92	92
09:45	0	4	0	2	0	6	0	1	38	5	0	44	0	0	0	6	0	6	0	1	45	0	1	46	1	102	103
Total	0	14	1	6	0	21	0	3	141	9	1	153	0	1	0	14	0	15	0	4	218	0	2	222	3	411	414
10:00	0	2	0	1	0	3	0	3	39	2	0	44	0	0	0	4	0	4	0	3	42	0	0	45	0	96	96
10:15	0	0	0	0	0	0	0	0	50	0	0	50	0	0	0	5	0	5	0	1	64	0	1	65	1	120	121
10:30	0	4	1	0	0	5	0	2	43	2	0	47	0	0	0	2	0	2	0	3	54	0	1	57	1	111	112
10:45	0	5	0	2	0	7	0	1	56	3	0	60	0	0	0	2	0	2	0	2	45	1	0	48	0	117	117
Total	0	11	1	3	0	15	0	6	188	7	0	201	0	0	0	13	0	13	0	9	205	1	2	215	2	444	446
11:00	0	5	1	0	0	6	0	2	46	0	0	48	0	0	0	2	0	2	0	2	54	0	1	56	1	112	113
11:15	0	0	0	1	0	1	0	2	48	3	0	53	0	0	0	0	0	0	0	0	49	0	0	49	0	103	103
11:30	0	4	0	0	0	4	0	3	44	4	0	51	0	1	0	1	0	2	0	4	52	0	0	56	0	113	113
11:45	0	2	1	2	0	5	0	4	43	5	0	52	0	0	0	4	0	4	0	3	47	0	0	50	0	111	111
Total	0	11	2	3	0	16	0	11	181	12	0	204	0	1	0	7	0	8	0	9	202	0	1	211	1	439	440
12:00	0	3	0	1	0	4	0	2	42	1	0	45	0	0	0	3	0	3	0	4	41	0	0	45	0	97	97



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 3

Weather: Warm & Cloudy
 CountCAM 2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	Sherman Lake Road Southbound						CSAH 34 (Birch St) Westbound						Sherman Lake Road Northbound						CSAH 34 (Birch St) Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
12:15	0	4	0	4	0	8	0	2	60	3	0	65	0	1	0	4	0	5	0	2	55	0	0	57	0	135	135
12:30	0	2	0	2	0	4	0	3	54	5	0	62	0	0	0	3	0	3	0	3	75	0	1	78	1	147	148
12:45	0	4	0	1	0	5	0	2	56	1	0	59	0	0	0	2	0	2	0	2	48	0	0	50	0	116	116
Total	0	13	0	8	0	21	0	9	212	10	0	231	0	1	0	12	0	13	0	11	219	0	1	230	1	495	496
13:00	0	5	0	0	0	5	0	3	50	2	1	55	0	2	0	1	0	3	0	0	49	1	0	50	1	113	114
13:15	0	4	0	5	0	9	0	1	59	4	0	64	0	2	0	1	0	3	0	2	51	2	0	55	0	131	131
13:30	0	4	0	1	0	5	0	2	59	6	1	67	0	0	0	0	0	0	0	0	45	0	0	45	1	117	118
13:45	0	3	0	2	0	5	0	4	50	4	0	58	0	1	0	3	0	4	0	1	53	0	0	54	0	121	121
Total	0	16	0	8	0	24	0	10	218	16	2	244	0	5	0	5	0	10	0	3	198	3	0	204	2	482	484
14:00	0	4	0	0	0	4	0	4	49	3	0	56	0	0	0	4	0	4	1	1	50	1	0	53	0	117	117
14:15	0	3	0	0	0	3	0	2	48	5	0	55	0	0	1	1	0	2	0	0	51	2	0	53	0	113	113
14:30	0	2	0	4	0	6	0	2	63	2	0	67	0	0	0	2	0	2	0	1	61	1	0	63	0	138	138
14:45	0	3	0	0	0	3	0	0	49	3	0	52	0	1	0	4	0	5	0	2	58	1	0	61	0	121	121
Total	0	12	0	4	0	16	0	8	209	13	0	230	0	1	1	11	0	13	1	4	220	5	0	230	0	489	489
15:00	0	1	0	1	0	2	0	2	61	3	0	66	0	0	0	3	0	3	0	1	60	0	1	61	1	132	133
15:15	0	1	0	1	0	2	0	4	67	4	3	75	0	0	0	2	0	2	0	2	65	1	0	68	3	147	150
15:30	0	3	0	1	0	4	0	2	67	6	0	75	0	0	1	6	0	7	0	0	80	1	0	81	0	167	167
15:45	0	0	0	1	0	1	0	4	81	3	0	88	0	0	0	4	0	4	0	1	56	0	2	57	2	150	152
Total	0	5	0	4	0	9	0	12	276	16	3	304	0	0	1	15	0	16	0	4	261	2	3	267	6	596	602
16:00	0	1	0	1	0	2	0	7	94	11	0	112	0	1	0	2	0	3	0	1	63	0	0	64	0	181	181
16:15	0	3	0	1	0	4	0	6	105	3	0	114	0	0	0	5	0	5	0	4	99	0	0	103	0	226	226
16:30	0	2	0	4	0	6	0	4	120	6	0	130	0	1	0	5	0	6	0	2	89	0	0	91	0	233	233
16:45	0	5	0	3	0	8	0	4	84	4	0	92	0	0	0	2	0	2	0	1	77	1	0	79	0	181	181
Total	0	11	0	9	0	20	0	21	403	24	0	448	0	2	0	14	0	16	0	8	328	1	0	337	0	821	821
17:00	0	6	0	1	0	7	0	6	114	5	0	125	0	0	0	4	0	4	0	2	86	1	0	89	0	225	225
17:15	0	6	0	2	0	8	0	6	87	4	0	97	0	1	0	4	0	5	0	3	91	0	1	94	1	204	205
17:30	0	3	0	2	0	5	0	1	82	0	0	83	0	1	0	4	0	5	0	3	77	0	0	80	0	173	173
17:45	0	2	0	2	1	4	0	3	72	2	0	77	0	1	0	2	0	3	0	3	90	0	0	93	1	177	178
Total	0	17	0	7	1	24	0	16	355	11	0	382	0	3	0	14	0	17	0	11	344	1	1	356	2	779	781
18:00	0	6	0	2	0	8	0	5	71	2	0	78	0	0	0	1	0	1	0	4	74	1	1	79	1	166	167
18:15	0	4	0	2	0	6	0	3	63	3	1	69	0	2	0	3	0	5	0	2	74	0	0	76	1	156	157



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 4

Weather: Warm & Cloudy
 CountCAM 2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	Sherman Lake Road Southbound						CSAH 34 (Birch St) Westbound						Sherman Lake Road Northbound						CSAH 34 (Birch St) Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
18:30	0	4	0	1	0	5	0	3	57	3	0	63	0	0	0	1	0	1	0	0	62	0	0	62	0	131	131
18:45	0	3	0	0	0	3	0	3	57	5	3	65	0	2	0	3	0	5	0	3	68	0	0	71	3	144	147
Total	0	17	0	5	0	22	0	14	248	13	4	275	0	4	0	8	0	12	0	9	278	1	1	288	5	597	602
19:00	0	1	0	1	0	2	0	4	40	3	0	47	0	1	0	1	0	2	0	0	48	2	0	50	0	101	101
19:15	0	0	0	0	0	0	0	3	50	6	0	59	0	0	0	0	0	0	0	2	48	1	0	51	0	110	110
19:30	0	2	1	1	0	4	0	1	67	4	0	72	0	0	0	1	0	1	0	2	48	1	0	51	0	128	128
19:45	0	1	0	1	0	2	0	1	58	2	0	61	0	1	0	4	0	5	0	2	34	0	0	36	0	104	104
Total	0	4	1	3	0	8	0	9	215	15	0	239	0	2	0	6	0	8	0	6	178	4	0	188	0	443	443
20:00	0	5	0	0	0	5	0	5	63	2	0	70	0	0	1	0	0	1	0	2	32	0	3	34	3	110	113
20:15	0	0	0	1	0	1	0	3	63	5	0	71	0	0	0	2	0	2	0	2	34	2	0	38	0	112	112
20:30	0	1	0	1	0	2	0	3	54	7	0	64	0	0	0	0	0	0	0	1	38	0	0	39	0	105	105
20:45	0	1	0	2	0	3	0	4	53	3	1	60	0	0	0	3	0	3	0	2	23	1	0	26	1	92	93
Total	0	7	0	4	0	11	0	15	233	17	1	265	0	0	1	5	0	6	0	7	127	3	3	137	4	419	423
21:00	0	2	0	2	0	4	0	3	50	8	0	61	0	0	0	1	0	1	0	2	32	0	0	34	0	100	100
21:15	0	2	0	3	0	5	0	2	52	1	0	55	0	0	0	0	0	0	0	4	26	0	0	30	0	90	90
21:30	0	1	0	2	0	3	0	2	38	2	0	42	0	0	0	3	0	3	0	3	24	1	0	28	0	76	76
21:45	0	0	0	2	0	2	0	3	27	3	0	33	0	0	0	1	0	1	0	2	22	0	0	24	0	60	60
Total	0	5	0	9	0	14	0	10	167	14	0	191	0	0	0	5	0	5	0	11	104	1	0	116	0	326	326
22:00	0	0	0	1	0	1	0	1	25	1	0	27	0	0	0	0	0	0	0	0	18	0	0	18	0	46	46
22:15	0	2	0	2	0	4	0	2	18	1	0	21	0	0	0	0	0	0	0	1	11	0	0	12	0	37	37
22:30	0	0	0	0	0	0	0	0	10	1	0	11	0	0	0	0	0	0	0	0	9	0	0	9	0	20	20
22:45	0	0	0	0	0	0	0	0	13	1	0	14	0	1	0	0	0	1	0	0	10	0	0	10	0	25	25
Total	0	2	0	3	0	5	0	3	66	4	0	73	0	1	0	0	0	1	0	1	48	0	0	49	0	128	128
23:00	0	2	1	0	0	3	0	0	5	1	0	6	0	0	0	0	0	0	0	0	5	0	0	5	0	14	14
23:15	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	0	0	3	0	0	3	0	20	20
23:30	0	0	0	0	1	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	7	0	0	7	1	13	14
23:45	0	0	0	2	0	2	0	1	7	1	0	9	0	2	0	0	0	2	0	1	7	0	0	8	0	21	21
Total	0	2	1	2	1	5	0	1	35	2	0	38	0	2	0	0	0	2	0	1	22	0	0	23	1	68	69
Grand Total	0	200	8	96	5	304	0	166	3591	200	12	3957	0	26	3	174	1	203	1	104	3841	25	18	3971	36	8435	8471
Apprch %	0	65.8	2.6	31.6			0	4.2	90.8	5.1			0	12.8	1.5	85.7			0	2.6	96.7	0.6			0.4	99.6	
Total %	0	2.4	0.1	1.1		3.6	0	2	42.6	2.4		46.9	0	0.3	0	2.1		2.4	0	1.2	45.5	0.3		47.1			
Cars +	0	197	8	96		306	0	165	3546	200		3923	0	26	2	172		201	1	103	3786	25		3933	0	0	8363
% Cars +	0	98.5	100	100	100		0	99.4	98.7	100	100	98.8	0	100	66.7	98.9	100	98.5	100	99	98.6	100	100	98.6	0	0	98.7
Trucks	0	3	0	0		3	0	1	45	0		46	0	0	1	2		3	0	1	55	0		56	0	0	108
% Trucks	0	1.5	0	0	0	1	0	0.6	1.3	0	0	1.2	0	0	33.3	1.1	0	1.5	0	1	1.4	0	0	1.4	0	0	1.3

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Start Time	Sherman Lake Road Southbound					CSAH 34 (Birch St) Westbound					Sherman Lake Road Northbound					CSAH 34 (Birch St) Eastbound					Int. Total
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	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	0	1	0	0	1	0	0	30	0	30	0	0	0	2	2	0	0	82	1	83	116
07:45	0	8	0	0	8	0	0	53	1	54	0	0	0	1	1	0	2	72	0	74	137
08:00	0	5	0	0	5	0	1	34	2	37	0	0	0	5	5	0	0	76	0	76	123
08:15	0	5	0	2	7	0	4	37	2	43	0	0	0	5	5	0	1	54	0	55	110
Total Volume	0	19	0	2	21	0	5	154	5	164	0	0	0	13	13	0	3	284	1	288	486
% App. Total	0	90.5	0	9.5		0	3	93.9	3		0	0	0	100		0	1	98.6	0.3		
PHF	.000	.594	.000	.250	.656	.000	.313	.726	.625	.759	.000	.000	.000	.650	.650	.000	.375	.866	.250	.867	.887

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15																					
12:15	0	4	0	4	8	0	2	60	3	65	0	1	0	4	5	0	2	55	0	57	135
12:30	0	2	0	2	4	0	3	54	5	62	0	0	0	3	3	0	3	75	0	78	147
12:45	0	4	0	1	5	0	2	56	1	59	0	0	0	2	2	0	2	48	0	50	116
13:00	0	5	0	0	5	0	3	50	2	55	0	2	0	1	3	0	0	49	1	50	113
Total Volume	0	15	0	7	22	0	10	220	11	241	0	3	0	10	13	0	7	227	1	235	511
% App. Total	0	68.2	0	31.8		0	4.1	91.3	4.6		0	23.1	0	76.9		0	3	96.6	0.4		
PHF	.000	.750	.000	.438	.688	.000	.833	.917	.550	.927	.000	.375	.000	.625	.650	.000	.583	.757	.250	.753	.869

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	0	3	0	1	4	0	6	105	3	114	0	0	0	5	5	0	4	99	0	103	226
16:30	0	2	0	4	6	0	4	120	6	130	0	1	0	5	6	0	2	89	0	91	233
16:45	0	5	0	3	8	0	4	84	4	92	0	0	0	2	2	0	1	77	1	79	181
17:00	0	6	0	1	7	0	6	114	5	125	0	0	0	4	4	0	2	86	1	89	225
Total Volume	0	16	0	9	25	0	20	423	18	461	0	1	0	16	17	0	9	351	2	362	865
% App. Total	0	64	0	36		0	4.3	91.8	3.9		0	5.9	0	94.1		0	2.5	97	0.6		
PHF	.000	.667	.000	.563	.781	.000	.833	.881	.750	.887	.000	.250	.000	.800	.708	.000	.563	.886	.500	.879	.928



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 1

Weather: Warm & Cloudy
 CountCAM 2
 Study Conducted By: Kevin

Groups Printed- Trucks

Start Time	Sherman Lake Road Southbound					CSAH 34 (Birch St) Westbound					Sherman Lake Road Northbound					CSAH 34 (Birch St) Eastbound					Int. Total	
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	1	0	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	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
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	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	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	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	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
06:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	3
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2
07:15	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	2	4
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
Total	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	5	0	5	5	8
08:00	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	3
08:15	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	2	4
08:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	1	2
08:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	7	0	7	0	0	0	0	0	0	0	3	0	3	3	10



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 2

Weather: Warm & Cloudy
 CountCAM 2
 Study Conducted By: Kevin

Groups Printed- Trucks

Start Time	Sherman Lake Road Southbound					CSAH 34 (Birch St) Westbound					Sherman Lake Road Northbound					CSAH 34 (Birch St) Eastbound					Int. Total
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
09:15	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4	0	4	6
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	8	0	8	10
10:00	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	5
10:15	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	3
10:30	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
Total	0	1	0	0	1	0	0	5	0	5	0	0	0	1	1	0	0	7	0	7	14
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	1	0	1	6
11:30	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	3	0	3	6
11:45	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	0	1	9	0	10	0	0	0	0	0	0	0	5	0	5	15
12:00	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	3
12:15	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4	0	4	5
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
12:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	0	0	3	0	3	0	0	0	1	1	0	0	9	0	9	13
13:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
13:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	2
13:45	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	3
Total	0	1	0	0	1	0	0	3	0	3	0	0	0	0	0	0	0	4	0	4	8
14:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	3
14:45	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3	0	3	5
Total	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	4	0	4	9
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	3
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	0	2	3
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	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	1	0	1	0	0	0	0	0	0	0	2	0	2	3
17:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
17:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2227-t
 Site Code :
 Start Date : 07/07/2022
 Page No : 3

Weather: Warm & Cloudy
 CountCAM 2
 Study CONducted By: Kevin

Groups Printed- Trucks

Start Time	Sherman Lake Road Southbound					CSAH 34 (Birch St) Westbound					Sherman Lake Road Northbound					CSAH 34 (Birch St) Eastbound					Int. Total	
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total		
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
19:15	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	0	3
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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	2	0	2	0	0	0	0	0	0	0	2	0	2	0	4
20:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
20:15	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	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	0
21:45	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
22:00	0	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	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	0
22:45	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
23:00	0	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	0
23:30	0	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	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	3	0	0	3	0	1	45	0	46	0	0	1	2	3	0	1	55	0	56	0	108
Apprch %	0	100	0	0		0	2.2	97.8	0		0	0	33.3	66.7		0	1.8	98.2	0			
Total %	0	2.8	0	0	2.8	0	0.9	41.7	0	42.6	0	0	0.9	1.9	2.8	0	0.9	50.9	0	51.9		

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2227

Study Date : 08/08/2022

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 34 (Birch St)

Number of Lanes : 1

Total Approach Volume: 3,971

Westbound: CSAH 34 (Birch St)

Number of Lanes : 1

Total Approach Volume: 3,957

Minor Street Approaches

Northbound: Sherman Lake Road

Number of Lanes : 1

Total Approach Volume: 203

Southbound: Sherman Lake Road

Number of Lanes : 1

Total Approach Volume: 304

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 0 hours, 8 are needed

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

Required volumes reached for 0 hours, 8 are needed

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

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

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

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not 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.....**Not Satisfied**

Volumes do not exceed minimums for any 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: TMC 2227

Study Date : 08/08/2022

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 = **1**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	362	+	461	=	823	17	25	No
16:30 - 17:30	353	+	444	=	797	17	29	No
16:00 - 17:00	337	+	448	=	785	16	20	No
15:45 - 16:45	315	+	444	=	759	18	13	No
16:45 - 17:45	342	+	397	=	739	16	28	No
17:00 - 18:00	356	+	382	=	738	17	24	No
15:30 - 16:30	305	+	389	=	694	19	11	No
17:15 - 18:15	346	+	335	=	681	14	25	No
17:30 - 18:30	328	+	307	=	635	14	23	No
15:15 - 16:15	270	+	350	=	620	16	9	No
17:45 - 18:45	310	+	287	=	597	10	23	No
15:00 - 16:00	267	+	304	=	571	16	9	No
18:00 - 19:00	288	+	275	=	563	12	22	No
14:45 - 15:45	271	+	268	=	539	17	11	No
14:30 - 15:30	253	+	260	=	513	12	13	No
18:15 - 19:15	259	+	244	=	503	13	16	No
14:15 - 15:15	238	+	240	=	478	12	14	No
12:15 - 13:15	235	+	241	=	476	13	22	No
12:30 - 13:30	233	+	240	=	473	11	23	No
18:30 - 19:30	234	+	234	=	468	8	10	No
18:45 - 19:45	223	+	243	=	466	8	9	No
12:00 - 13:00	230	+	231	=	461	13	21	No
14:00 - 15:00	230	+	230	=	460	13	16	No
13:45 - 14:45	223	+	236	=	459	12	18	No
11:45 - 12:45	230		224		454	15	21	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2227

Study Date : 08/08/2022

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

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52**

Time	Major Road				Minor Road		Met?	
	Major EB	+	Major WB	=	Total	Minor NB		Minor SB
16:15 - 17:15	362	+	461	=	823	17	25	No
16:30 - 17:30	353	+	444	=	797	17	29	No
16:00 - 17:00	337	+	448	=	785	16	20	No
15:45 - 16:45	315	+	444	=	759	18	13	No
16:45 - 17:45	342	+	397	=	739	16	28	No
17:00 - 18:00	356	+	382	=	738	17	24	No
15:30 - 16:30	305	+	389	=	694	19	11	No
17:15 - 18:15	346	+	335	=	681	14	25	No
17:30 - 18:30	328	+	307	=	635	14	23	No
15:15 - 16:15	270	+	350	=	620	16	9	No
17:45 - 18:45	310	+	287	=	597	10	23	No
15:00 - 16:00	267	+	304	=	571	16	9	No
18:00 - 19:00	288	+	275	=	563	12	22	No
14:45 - 15:45	271	+	268	=	539	17	11	No
14:30 - 15:30	253	+	260	=	513	12	13	No
18:15 - 19:15	259	+	244	=	503	13	16	No
14:15 - 15:15	238	+	240	=	478	12	14	No
12:15 - 13:15	235	+	241	=	476	13	22	No
12:30 - 13:30	233	+	240	=	473	11	23	No
18:30 - 19:30	234	+	234	=	468	8	10	No
18:45 - 19:45	223	+	243	=	466	8	9	No
12:00 - 13:00	230	+	231	=	461	13	21	No
14:00 - 15:00	230	+	230	=	460	13	16	No
13:45 - 14:45	223	+	236	=	459	12	18	No
11:45 - 12:45	230		224		454	15	21	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2227

Study Date : 08/08/2022

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 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**

Veh/Hr Minor = **84 42**

Major Road CSAH 34 (Birch St)

Minor Road Sherman Lake Road

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:15 - 17:15	362	+	461	=	823	17	25	No
16:30 - 17:30	353	+	444	=	797	17	29	No
16:00 - 17:00	337	+	448	=	785	16	20	No
15:45 - 16:45	315	+	444	=	759	18	13	No
16:45 - 17:45	342	+	397	=	739	16	28	No
17:00 - 18:00	356	+	382	=	738	17	24	No
15:30 - 16:30	305	+	389	=	694	19	11	No
17:15 - 18:15	346	+	335	=	681	14	25	No
17:30 - 18:30	328	+	307	=	635	14	23	No
15:15 - 16:15	270	+	350	=	620	16	9	No
17:45 - 18:45	310	+	287	=	597	10	23	No
15:00 - 16:00	267	+	304	=	571	16	9	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	362	+	461	=	823	17	25	No
16:30 - 17:30	353	+	444	=	797	17	29	No
16:00 - 17:00	337	+	448	=	785	16	20	No
15:45 - 16:45	315	+	444	=	759	18	13	No
16:45 - 17:45	342	+	397	=	739	16	28	No
17:00 - 18:00	356	+	382	=	738	17	24	No
15:30 - 16:30	305	+	389	=	694	19	11	No
17:15 - 18:15	346	+	335	=	681	14	25	No
17:30 - 18:30	328	+	307	=	635	14	23	No
15:15 - 16:15	270	+	350	=	620	16	9	No
17:45 - 18:45	310	+	287	=	597	10	23	No
15:00 - 16:00	267	+	304	=	571	16	9	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2227

Study Date : 08/08/2022

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.

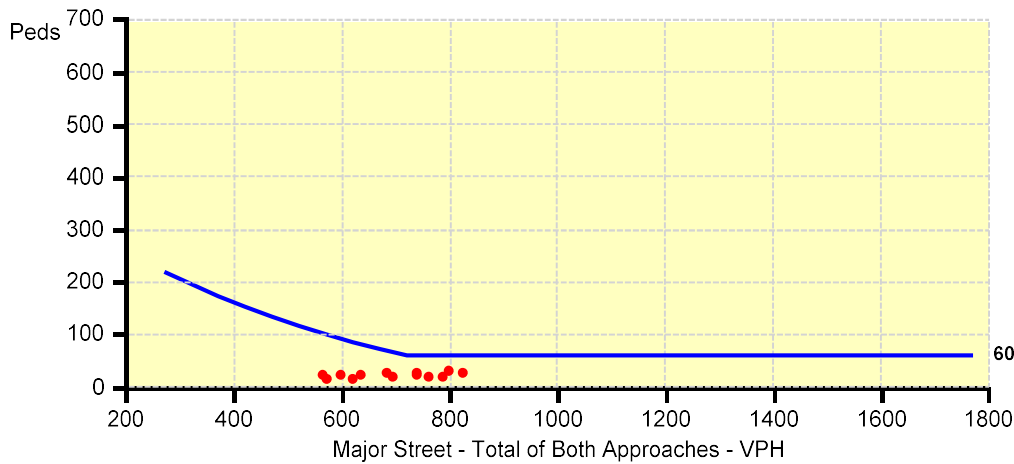
Summary

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

Site Data Required

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

Time	Major Road CSAH 34 (Birch St)				Total	Minor Road Sherman Lake Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	362	+	461	=	823	17	25	No
16:30 - 17:30	353	+	444	=	797	17	29	No
16:00 - 17:00	337	+	448	=	785	16	20	No
15:45 - 16:45	315	+	444	=	759	18	13	No
16:45 - 17:45	342	+	397	=	739	16	28	No
17:00 - 18:00	356	+	382	=	738	17	24	No
15:30 - 16:30	305	+	389	=	694	19	11	No
17:15 - 18:15	346	+	335	=	681	14	25	No
17:30 - 18:30	328	+	307	=	635	14	23	No
15:15 - 16:15	270	+	350	=	620	16	9	No
17:45 - 18:45	310	+	287	=	597	10	23	No
							9	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2227

Study Date : 08/08/2022

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

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

Site Data Required

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

Time	Major Road CSAH 34 (Birch St)				Total	Minor Road Sherman Lake Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	362	+	461	=	823	17	25	No
16:30 - 17:30	353	+	444	=	797	17	29	No
16:00 - 17:00	337	+	448	=	785	16	20	No
15:45 - 16:45	315	+	444	=	759	18	13	No
16:45 - 17:45	342	+	397	=	739	16	28	No
17:00 - 18:00	356	+	382	=	738	17	24	No
15:30 - 16:30	305	+	389	=	694	19	11	No
17:15 - 18:15	346	+	335	=	681	14	25	No
17:30 - 18:30	328	+	307	=	635	14	23	No
15:15 - 16:15	270	+	350	=	620	16	9	No
17:45 - 18:45	310	+	287	=	597	10	23	No
							9	No

