

Date : 07/27/23

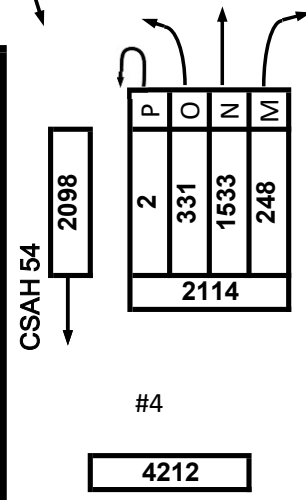
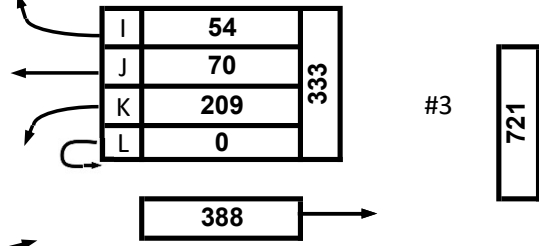
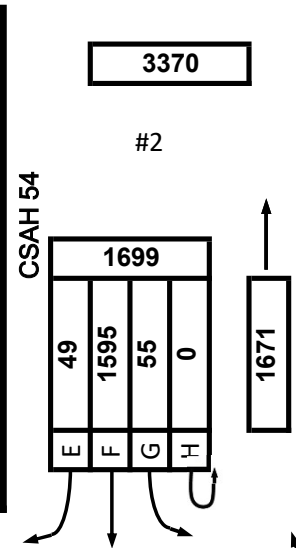
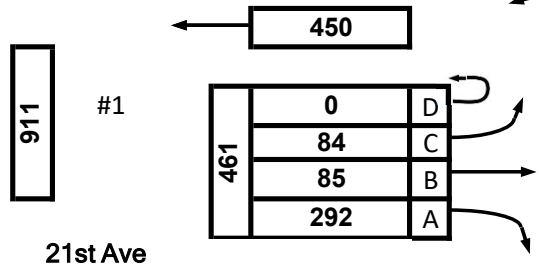
Count Number : TMC 2380

Location : CSAH 54  
@ 21st Ave N

Collection Period : 24 HR



21st Ave



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

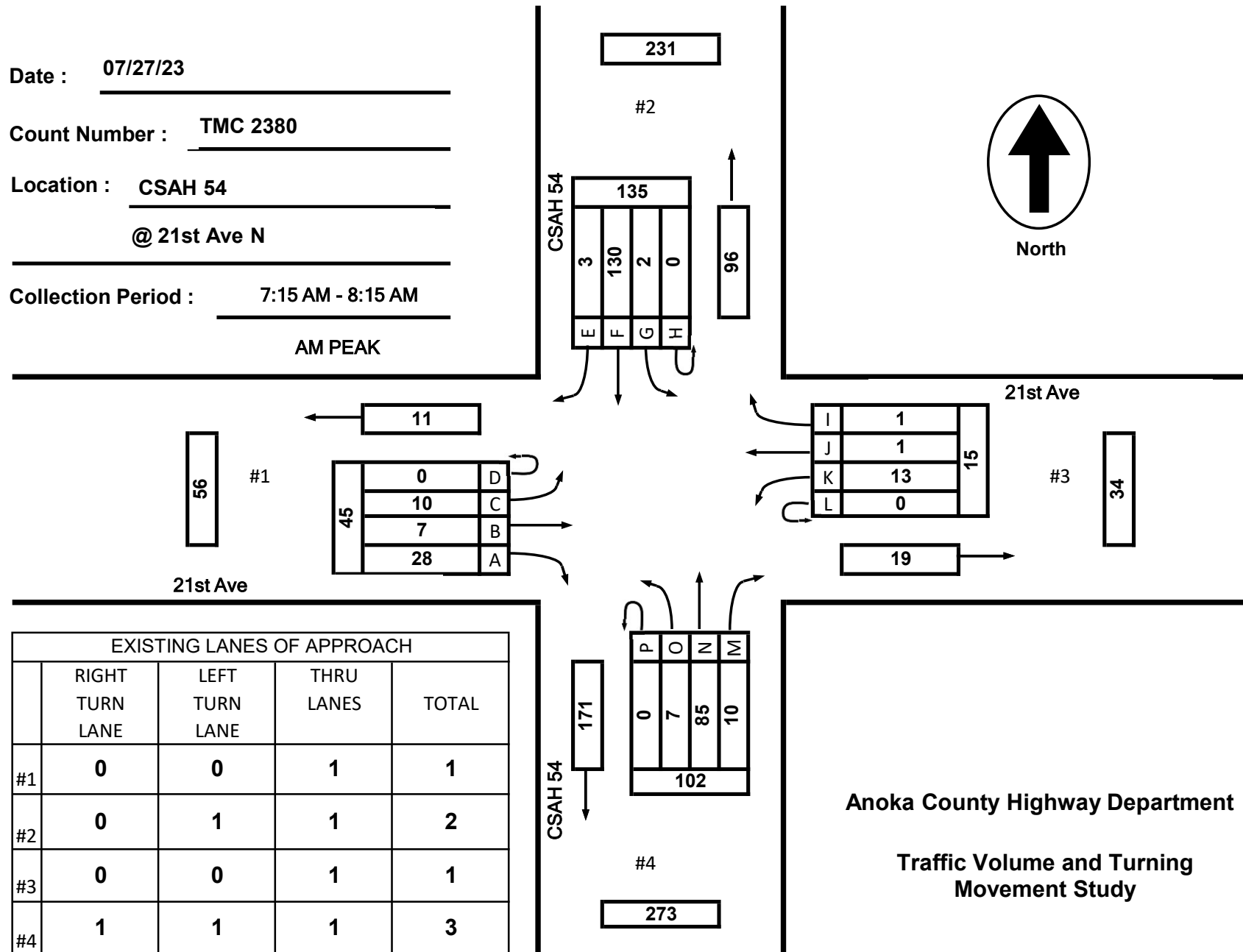
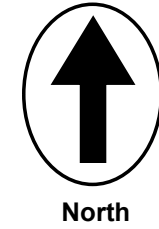
Date : 07/27/23

Count Number : TMC 2380

Location : CSAH 54  
@ 21st Ave N

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

AM PEAK



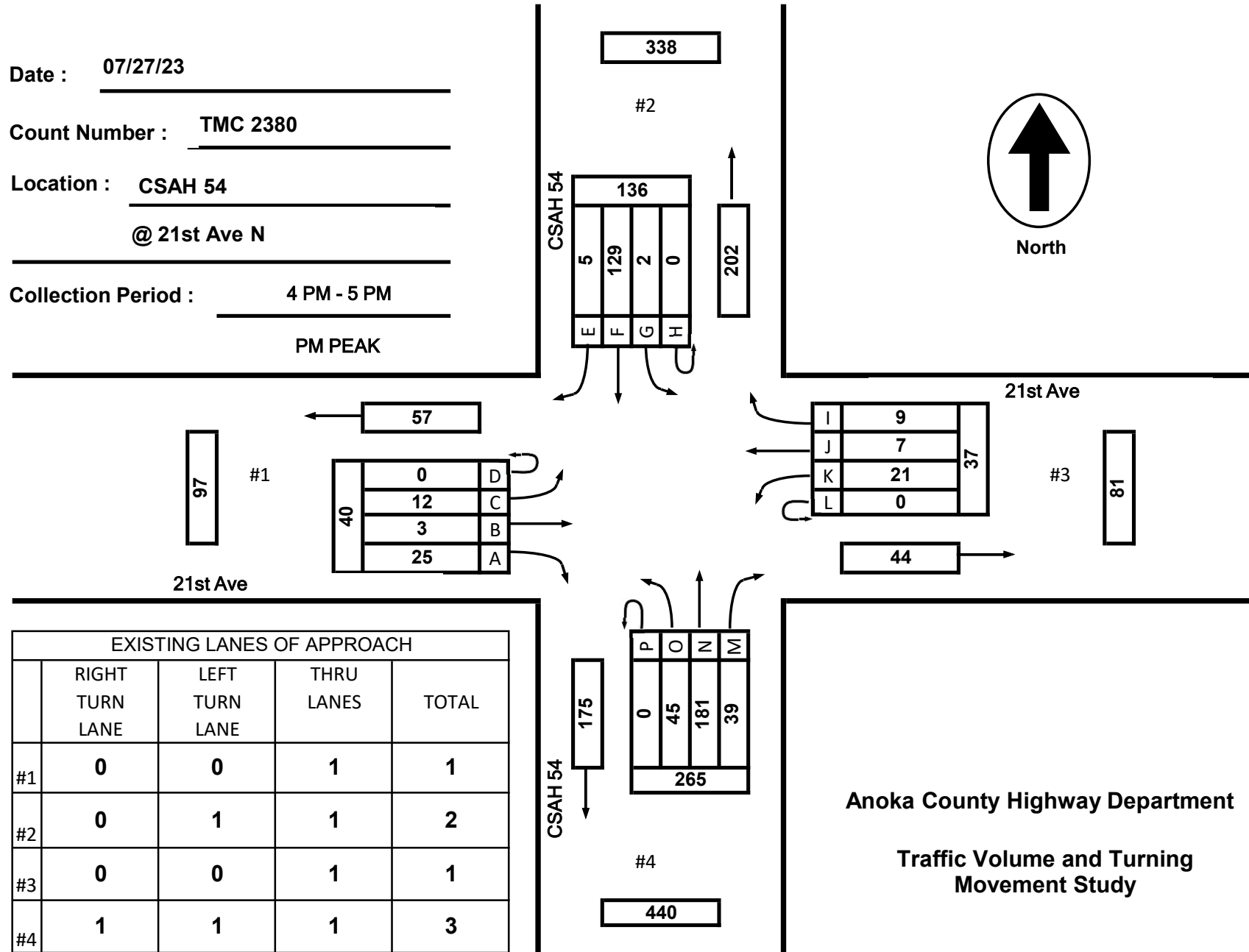
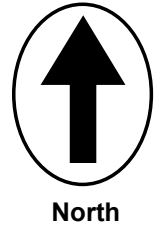
Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

Date : 07/27/23

Count Number : TMC 2380

Location : CSAH 54  
@ 21st Ave N

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



Anoka County Highway Department  
**Traffic Volume and Turning Movement Study**

### TMC 2380 - CSAH 54 @ 21st Ave N

0 0

**Thursday, July 27, 2023**

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
12:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	6
12:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	0	3	0	0	1	0	0	1	0	0	0	0	0	1	5
12:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4	
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	2	0	0	2	0	0	1	0	0	1	0	1	8	2	0	11	0	0	1	0	0	1	0	0	0	0	0	15	
1:00 AM	0	1	2	0	0	3	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	7	
1:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	1	3	
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	1	3	0	0	4	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	1	0	1	0	0	0	0	1	11	
2:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3	
2:15 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
2:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
2:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Hourly Total	0	0	4	0	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	7	
3:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	
3:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
3:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
3:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
Hourly Total	0	1	3	0	0	4	0	0	0	0	0	0	0	2	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	9	
4:00 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	
4:15 AM	0	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	9	
4:30 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	9	
4:45 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	1	3	0	0	4	0	0	2	4	0	6	0	0	0	0	0	15	
Hourly Total	0	0	19	0	0	19	0	1	0	0	0	1	0	1	3	0	0	4	0	0	3	9	0	12	0	0	0	0	0	36	
5:00 AM	0	1	8	0	0	9	0	3	0	0	0	3	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	17	
5:15 AM	0	0	17	0	0	17	0	1	0	0	0	1	0	0	9	0	0	9	0	0	0	4	0	4	0	0	0	0	0	31	
5:30 AM	0	2	11	0	0	13	0	1	0	0	0	1	0	0	7	0	0	7	0	0	3	6	0	9	0	0	0	0	0	30	
5:45 AM	0	0	21	0	0	21	0	2	0	0	0	2	0	2	9	0	0	11	0	0	4	5	0	9	0	0	0	0	0	43	
Hourly Total	0	3	57	0	0	60	0	7	0	0	0	7	0	2	30	0	0	32	0	0	7	15	0	22	0	0	0	0	0	121	
6:00 AM	0	0	23	0	0	23	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	3	1	3	0	0	0	0	0	32	
6:15 AM	0	2	33	0	0	35	0	2	0	2	0	4	0	1	15	1	0	17	0	0	2	9	0	11	0	0	0	0	0	67	
6:30 AM	0	1	26	0	0	27	0	3	1	0	0	4	0	0	15	0	0	15	0	0	1	3	0	4	0	0	0	0	0	50	
6:45 AM	0	2	33	0	0	35	0	1	0	0	0	1	0	2	17	1	0	20	0	2	3	5	0	10	0	0	0	0	0	66	
Hourly Total	0	5	115	0	0	120	0	6	1	2	0	9	0	3	53	2	0	58	0	2	6	20	1	28	0	0	0	0	0	215	
7:00 AM	0	0	29	0	0	29	0	1	0	0	0	1	0	4	21	0	0	25	0	1	1	3	0	5	0	0	0	0	0	60	
7:15 AM	0	2	33	2	0	37	0	4	0	1	0	5	0	2	19	1	0	22	0	0	3	7	0	10	0	0	0	0	0	74	
7:30 AM	0	0	34	0	0	34	0	5	0	0	0	5	0	0	23	2	0	25	0	4	0	11	0	15	0	0	0	0	0	79	
7:45 AM	0	0	27	1	0	28	0	3	1	0	0	4	0	3	24	4	0	31	0	5	3	6	0	14	0	0	0	0	0	77	
Hourly Total	0	2	123	3	0	128	0	13	1	1	0	15	0	9	87	7	0	103	0	10	7	27	0	44	0	0	0	0	0	290	

# TMC 2380 - CSAH 54 @ 21st Ave N

0 0

Thursday, July 27, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
8:00 AM	0	0	36	0	0	36	0	1	0	0	0	1	0	2	19	3	0	24	0	1	1	4	0	6	0	1	1	4	0	6	67
8:15 AM	0	0	25	0	1	25	0	3	1	1	0	5	0	4	16	2	0	22	0	4	1	5	0	10	0	4	1	5	0	10	62
8:30 AM	0	2	29	0	1	31	0	2	0	2	0	4	0	4	12	1	0	17	0	0	1	6	0	7	0	0	1	6	0	7	59
8:45 AM	0	1	27	0	0	28	0	2	1	1	0	4	0	2	18	4	0	24	0	4	2	5	0	11	0	4	2	5	0	11	67
Hourly Total	0	3	117	0	2	120	0	8	2	4	0	14	0	12	65	10	0	87	0	9	5	20	0	34	0	9	5	20	0	34	255
9:00 AM	0	1	20	1	0	22	0	5	0	2	0	7	0	5	18	4	0	27	0	0	3	2	0	5	0	0	3	2	0	5	61
9:15 AM	0	1	25	0	0	26	0	2	1	0	0	3	0	1	18	4	0	23	0	0	1	5	0	6	0	0	1	5	0	6	58
9:30 AM	0	1	22	0	1	23	0	3	1	0	1	4	0	2	20	0	0	22	0	0	2	4	0	6	0	0	2	4	0	6	55
9:45 AM	0	1	25	0	1	26	0	2	1	3	0	6	0	2	17	2	0	21	0	3	0	3	0	6	0	3	0	3	0	6	59
Hourly Total	0	4	92	1	2	97	0	12	3	5	1	20	0	10	73	10	0	93	0	3	6	14	0	23	0	3	6	14	0	23	233
10:00 AM	0	0	31	0	0	31	0	4	0	0	0	4	1	2	25	3	0	31	0	1	1	6	0	8	0	1	1	6	0	8	74
10:15 AM	0	0	15	1	0	16	0	7	2	0	0	9	0	2	32	3	0	37	0	0	1	6	0	7	0	0	1	6	0	7	69
10:30 AM	0	1	25	0	0	26	0	4	3	0	0	7	0	3	20	6	0	29	0	4	3	1	0	8	0	4	3	1	0	8	70
10:45 AM	0	0	31	0	0	31	0	5	1	1	0	7	0	1	21	3	0	25	0	2	0	5	0	7	0	2	0	5	0	7	70
Hourly Total	0	1	102	1	0	104	0	20	6	1	0	27	1	8	98	15	0	122	0	7	5	18	0	30	0	7	5	18	0	30	283
11:00 AM	0	0	18	1	0	19	0	2	1	1	0	4	0	6	24	2	0	32	0	1	1	3	0	5	0	1	1	3	0	5	60
11:15 AM	0	2	25	1	0	28	0	3	1	1	0	5	0	3	19	5	0	27	0	1	1	8	0	10	0	1	1	8	0	10	70
11:30 AM	0	2	21	0	0	23	0	4	4	0	0	8	0	5	15	7	0	27	0	2	3	6	0	11	0	2	3	6	0	11	69
11:45 AM	0	1	16	0	0	17	0	8	1	1	0	10	0	6	20	4	0	30	0	0	3	4	0	7	0	0	3	4	0	7	64
Hourly Total	0	5	80	2	0	87	0	17	7	3	0	27	0	20	78	18	0	116	0	4	8	21	0	33	0	4	8	21	0	33	263
12:00 PM	0	3	25	1	0	29	0	3	1	1	0	5	1	4	21	4	0	30	0	3	1	4	0	8	0	3	1	4	0	8	72
12:15 PM	0	0	22	1	0	23	0	4	1	2	0	7	0	6	17	3	0	26	0	2	1	1	0	4	0	2	1	1	0	4	60
12:30 PM	0	0	28	0	0	28	0	7	1	1	0	9	0	3	29	3	0	35	0	2	0	1	0	3	0	2	0	1	0	3	75
12:45 PM	0	1	17	0	0	18	0	3	2	0	0	5	0	5	22	7	0	34	0	1	0	4	0	5	0	1	0	4	0	5	62
Hourly Total	0	4	92	2	0	98	0	17	5	4	0	26	1	18	89	17	0	125	0	8	2	10	0	20	0	8	2	10	0	20	269
1:00 PM	0	1	20	1	0	22	0	1	0	0	0	1	0	3	24	5	0	32	0	2	0	8	0	10	0	2	0	8	0	10	65
1:15 PM	0	2	22	0	0	24	0	3	2	1	0	6	0	5	26	3	0	34	0	0	2	2	0	4	0	0	2	2	0	4	68
1:30 PM	0	0	34	1	0	35	0	2	1	0	0	3	0	8	17	5	0	30	0	2	0	7	0	9	0	2	0	7	0	9	77
1:45 PM	0	0	27	0	1	27	0	4	0	2	0	6	0	6	31	3	0	40	0	2	3	0	0	5	0	2	3	0	0	5	78
Hourly Total	0	3	103	2	1	108	0	10	3	3	0	16	0	22	98	16	0	136	0	6	5	17	0	28	0	6	5	17	0	28	288
2:00 PM	0	1	22	1	0	24	0	1	2	1	0	4	0	2	26	4	0	32	0	0	2	5	0	7	0	0	2	5	0	7	67
2:15 PM	0	1	25	0	0	26	0	3	1	1	0	5	0	6	31	5	0	42	0	1	1	4	0	6	0	1	1	4	0	6	79
2:30 PM	0	0	27	1	0	28	0	3	1	0	0	4	0	8	25	4	0	37	0	1	2	3	0	6	0	1	2	3	0	6	75
2:45 PM	0	1	22	0	0	23	0	3	2	2	0	7	0	6	34	2	0	42	0	0	0	2	0	2	0	0	0	2	0	2	74
Hourly Total	0	3	96	2	0	101	0	10	6	4	0	20	0	22	116	15	0	153	0	2	5	14	0	21	0	2	5	14	0	21	295
3:00 PM	0	0	35	1	0	36	0	3	0	1	0	4	0	9	27	4	0	40	0	1	2	2	0	5	0	1	2	2	0	5	85
3:15 PM	0	1	35	1	0	37	0	2	2	1	0	5	0	11	40	1	0	52	0	1	1	5	0	7	0	1	1	5	0	7	101
3:30 PM	0	4	30	1	0	35	0	3	2	2	0	7	0	5	42	8	0	55	0	1	2	8	0	11	0	1	2	8	0	11	108
3:45 PM	0	0	26	2	0	28	0	3	1	3	0	7	0	7	39	4	0	50	0	1	2	6	0	9	0	1	2	6	0	9	94
Hourly Total	0	5	126	5	0	136	0	11	5	7	0	23	0	32	148	17	0	197	0	4	7	21	0	32	0	4	7	21	0	32	388

TMC 2380 - CSAH 54 @ 21st Ave N

0 0

Thursday, July 27, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	0	1	39	1	0	41	0	4	2	4	0	10	0	7	43	11	0	61	0	3	2	6	0	11	123
4:15 PM	0	0	30	1	0	31	0	6	3	1	0	10	0	13	37	6	1	56	0	2	0	5	0	7	104
4:30 PM	0	1	32	2	0	35	0	5	0	2	0	7	0	13	53	9	0	75	0	4	0	5	0	9	126
4:45 PM	0	0	28	1	0	29	0	6	2	2	0	10	0	12	48	13	0	73	0	3	1	9	0	13	125
Hourly Total	0	2	129	5	0	136	0	21	7	9	0	37	0	45	181	39	1	265	0	12	3	25	0	40	478
5:00 PM	0	2	33	0	0	35	0	8	1	1	0	10	0	9	27	12	0	48	0	2	0	6	0	8	101
5:15 PM	0	0	16	0	0	16	0	1	3	2	0	6	0	9	42	5	0	56	0	1	2	0	0	3	81
5:30 PM	0	0	16	0	0	16	0	5	1	2	0	8	0	12	42	8	0	62	0	1	1	6	0	8	94
5:45 PM	0	0	18	1	0	19	0	0	4	0	0	4	0	7	34	3	0	44	0	3	1	5	0	9	76
Hourly Total	0	2	83	1	0	86	0	14	9	5	0	28	0	37	145	28	0	210	0	7	4	17	0	28	352
6:00 PM	0	2	17	2	0	21	0	5	1	2	0	8	0	12	28	4	0	44	0	1	0	2	0	3	76
6:15 PM	0	1	25	4	1	30	0	3	0	0	0	3	0	6	22	5	1	33	0	4	1	3	0	8	74
6:30 PM	0	1	19	1	0	21	0	4	0	1	0	5	0	10	23	5	0	38	0	2	1	0	0	3	67
6:45 PM	0	1	21	0	0	22	0	3	0	0	0	3	0	3	19	5	0	27	0	1	3	7	1	11	63
Hourly Total	0	5	82	7	1	94	0	15	1	3	0	19	0	31	92	19	1	142	0	8	5	12	1	25	280
7:00 PM	0	1	19	1	0	21	0	3	2	0	0	5	0	3	17	3	0	23	0	0	2	1	0	3	52
7:15 PM	0	1	23	1	1	25	0	2	1	0	0	3	0	4	19	1	0	24	0	0	0	0	1	0	52
7:30 PM	0	3	28	1	0	32	0	3	0	2	0	5	0	5	17	4	0	26	0	0	1	5	0	6	69
7:45 PM	0	0	8	3	0	11	0	3	1	0	0	4	0	3	12	0	0	15	0	0	1	5	0	6	36
Hourly Total	0	5	78	6	1	89	0	11	4	2	0	17	0	15	65	8	0	88	0	0	4	11	1	15	209
8:00 PM	0	1	6	2	0	9	0	2	0	0	0	2	0	1	13	4	0	18	0	0	0	1	0	1	30
8:15 PM	0	0	11	0	0	11	0	4	2	1	0	7	0	3	7	2	0	12	0	1	0	1	0	2	32
8:30 PM	0	0	12	2	0	14	0	2	1	0	0	3	0	2	12	1	0	15	0	1	1	2	0	4	36
8:45 PM	0	0	10	1	0	11	0	1	1	0	0	2	0	2	6	3	0	11	0	0	0	5	0	5	29
Hourly Total	0	1	39	5	0	45	0	9	4	1	0	14	0	8	38	10	0	56	0	2	1	9	0	12	127
9:00 PM	0	0	8	2	0	10	0	2	1	0	0	3	0	5	8	1	0	14	0	0	0	2	0	2	29
9:15 PM	0	0	10	0	0	10	0	0	0	0	0	0	0	3	5	1	0	9	0	0	0	0	0	0	19
9:30 PM	0	0	7	2	0	9	0	1	2	0	0	3	0	1	1	2	0	4	0	0	1	2	0	3	19
9:45 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	2	9	1	0	12	0	0	0	0	0	0	16
Hourly Total	0	0	29	4	0	33	0	3	3	0	0	6	0	11	23	5	0	39	0	0	1	4	0	5	83
10:00 PM	0	0	2	2	0	4	0	0	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	0	12
10:15 PM	0	0	6	0	0	6	0	0	2	0	0	2	0	4	9	4	0	17	0	0	0	0	0	0	25
10:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	3	3	0	0	6	0	0	0	1	0	1	9
10:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	1	1	0	4	0	0	0	0	0	0	5
Hourly Total	0	0	11	2	0	13	0	0	2	0	0	2	0	10	20	5	0	35	0	0	0	1	0	1	51
11:00 PM	0	0	7	1	0	8	0	1	0	0	0	1	0	3	3	1	0	7	0	0	0	1	0	1	17
11:15 PM	0	0	1	0	0	1	0	1	0	0	0	1	0	1	6	3	0	10	0	0	0	1	0	1	13
11:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	6	4	0	0	10	0	0	0	1	0	1	12
11:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	1	0	1	7
Hourly Total	0	0	10	1	0	11	0	3	0	0	0	3	0	11	16	4	0	31	0	0	0	4	0	4	49
<b>DAILY TOTAL</b>	<b>0</b>	<b>55</b>	<b>1595</b>	<b>49</b>	<b>7</b>	<b>1699</b>	<b>0</b>	<b>209</b>	<b>70</b>	<b>54</b>	<b>1</b>	<b>333</b>	<b>2</b>	<b>331</b>	<b>1533</b>	<b>248</b>	<b>2</b>	<b>2114</b>	<b>0</b>	<b>84</b>	<b>85</b>	<b>292</b>	<b>3</b>	<b>461</b>	<b>4607</b>
<b>Cars</b>	0	54	1465	48	2	1567	0	202	68	50	0	320	2	327	1406	240	1	1975	0	83	85	290	3	458	4320
<b>Heavy Vehicles</b>	0	1	130	1	5	132	0	7	2	4	1	13	0	4	127	8	1	139	0	1	0	2	0	3	287
<b>Heavy Vehicle %</b>	0.00%	1.82%	8.15%	2.04%	71.43%	7.77%	0.00%	3.35%	2.86%	7.41%	100.00%	3.90%	0.00%	1.21%	8.28%	3.23%	50.00%	6.58%	0.00%	1.19%	0.00%	0.68%	0.00%	0.65%	6.23%

## TMC 2380 - CSAH 54 @ 21st Ave N

0 0

**Thursday, July 27, 2023**

**AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:15 AM	0	2	33	2	0	37	0	4	0	1	0	5	0	2	19	1	0	22	0	0	3	7	0	10	74
7:30 AM	0	0	34	0	0	34	0	5	0	0	0	5	0	0	23	2	0	25	0	4	0	11	0	15	79
7:45 AM	0	0	27	1	0	28	0	3	1	0	0	4	0	3	24	4	0	31	0	5	3	6	0	14	77
8:00 AM	0	0	36	0	0	36	0	1	0	0	0	1	0	2	19	3	0	24	0	1	1	4	0	6	67
<b>Peak Hour Total PHF</b>	<b>0</b>	<b>2</b>	<b>130</b>	<b>3</b>	<b>0</b>	<b>135</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>7</b>	<b>85</b>	<b>10</b>	<b>0</b>	<b>102</b>	<b>0</b>	<b>10</b>	<b>7</b>	<b>28</b>	<b>0</b>	<b>45</b>	<b>297</b>
	0.000	0.250	0.903	0.375	0.000	0.912	0.000	0.650	0.250	0.250	0.000	0.750	0.000	0.583	0.885	0.625	0.000	0.823	0.000	0.500	0.583	0.636	0.000	0.750	<b>0.940</b>

**PM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	0	1	39	1	0	41	0	4	2	4	0	10	0	7	43	11	0	61	0	3	2	6	0	11	123
4:15 PM	0	0	30	1	0	31	0	6	3	1	0	10	0	13	37	6	1	56	0	2	0	5	0	7	104
4:30 PM	0	1	32	2	0	35	0	5	0	2	0	7	0	13	53	9	0	75	0	4	0	5	0	9	126
4:45 PM	0	0	28	1	0	29	0	6	2	2	0	10	0	12	48	13	0	73	0	3	1	9	0	13	125
<b>Peak Hour Total PHF</b>	<b>0</b>	<b>2</b>	<b>129</b>	<b>5</b>	<b>0</b>	<b>136</b>	<b>0</b>	<b>21</b>	<b>7</b>	<b>9</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>45</b>	<b>181</b>	<b>39</b>	<b>1</b>	<b>265</b>	<b>0</b>	<b>12</b>	<b>3</b>	<b>25</b>	<b>0</b>	<b>40</b>	<b>478</b>
	0.000	0.500	0.827	0.625	0.000	0.829	0.000	0.875	0.583	0.563	0.000	0.925	0.000	0.865	0.854	0.750	0.250	0.883	0.000	0.750	0.375	0.694	0.000	0.769	<b>0.948</b>

Total Vehicles On Leg				3370	
Vehicles Entering Intersection		1699	Vehicles Exiting Intersection		1671
<b>Southbound</b>					
Cars	48	1465	54	0	2
Heavy	1	130	1	0	5
<b>Total</b>	<b>49</b>	<b>1595</b>	<b>55</b>	<b>0</b>	<b>7</b>



Total Vehicles on Leg 911	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	461		3	0	3
			0	0	0
	Vehicles Exiting Intersection		83	1	84
	450		85	0	85
		290	2	292	



Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 721
50	4	54		333	
68	2	70			
202	7	209		Vehicles Exiting Intersection	
0	0	0		388	
0	1	1			



Cars	1	2	327	1406	240
Heavy	1	0	4	127	8
<b>Total</b>	<b>2</b>	<b>2</b>	<b>331</b>	<b>1533</b>	<b>248</b>
<b>Northbound</b>					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
2114			2098		
Total Vehicles On Leg		4212			









# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2380

Study Date : 07/31/2023

## Signal Warrants - Summary

### Major Street Approaches

**Northbound: CSAH 54**

Number of Lanes : 1

Total Approach Volume: 2,114

**Southbound: CSAH 54**

Number of Lanes : 1

Total Approach Volume: 1,699

### Minor Street Approaches

**Eastbound: 21st Ave**

Number of Lanes : 1

Total Approach Volume: 461

**Westbound: 21st Ave**

Number of Lanes : 1

Total Approach Volume: 333

### 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 2380

Study Date : 07/31/2023

## 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 NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	265	+	136	=	401	40	37	No
16:15 - 17:15	252	+	130	=	382	37	37	No
15:45 - 16:45	242	+	135	=	377	36	34	No
16:30 - 17:30	252	+	115	=	367	33	33	No
15:15 - 16:15	218	+	141	=	359	38	29	No
15:30 - 16:30	222	+	135	=	357	38	34	No
16:45 - 17:45	239	+	96	=	335	32	34	No
15:00 - 16:00	197	+	136	=	333	32	23	No
14:45 - 15:45	189	+	131	=	320	25	23	No
17:00 - 18:00	210	+	86	=	296	28	28	No
14:30 - 15:30	171	+	124	=	295	20	20	No
17:15 - 18:15	206	+	72	=	278	23	26	No
14:15 - 15:15	161	+	113	=	274	19	20	No
17:30 - 18:30	183	+	86	=	269	28	23	No
13:45 - 14:45	151	+	105	=	256	24	19	No
13:30 - 14:30	144	+	112	=	256	27	18	No
14:00 - 15:00	153	+	101	=	254	21	20	No
17:45 - 18:45	159	+	91	=	250	23	20	No
13:15 - 14:15	136	+	110	=	246	25	19	No
13:00 - 14:00	136	+	108	=	244	28	16	No
07:15 - 08:15	102	+	135	=	237	45	15	No
18:00 - 19:00	142	+	94	=	236	25	19	No
07:00 - 08:00	103	+	128	=	231	44	15	No
12:45 - 13:45	130	+	99	=	229	28	15	No
12:30 - 13:30	135		92		227	22	21	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2380

Study Date : 07/31/2023

## 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				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	265	+	136	=	401	40	37	No
16:15 - 17:15	252	+	130	=	382	37	37	No
15:45 - 16:45	242	+	135	=	377	36	34	No
16:30 - 17:30	252	+	115	=	367	33	33	No
15:15 - 16:15	218	+	141	=	359	38	29	No
15:30 - 16:30	222	+	135	=	357	38	34	No
16:45 - 17:45	239	+	96	=	335	32	34	No
15:00 - 16:00	197	+	136	=	333	32	23	No
14:45 - 15:45	189	+	131	=	320	25	23	No
17:00 - 18:00	210	+	86	=	296	28	28	No
14:30 - 15:30	171	+	124	=	295	20	20	No
17:15 - 18:15	206	+	72	=	278	23	26	No
14:15 - 15:15	161	+	113	=	274	19	20	No
17:30 - 18:30	183	+	86	=	269	28	23	No
13:45 - 14:45	151	+	105	=	256	24	19	No
13:30 - 14:30	144	+	112	=	256	27	18	No
14:00 - 15:00	153	+	101	=	254	21	20	No
17:45 - 18:45	159	+	91	=	250	23	20	No
13:15 - 14:15	136	+	110	=	246	25	19	No
13:00 - 14:00	136	+	108	=	244	28	16	No
07:15 - 08:15	102	+	135	=	237	45	15	No
18:00 - 19:00	142	+	94	=	236	25	19	No
07:00 - 08:00	103	+	128	=	231	44	15	No
12:45 - 13:45	130	+	99	=	229	28	15	No
12:30 - 13:30	135		92		227	22	21	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2380

Study Date : 07/31/2023

## 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 54

#### Minor Road 21st Ave

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	265	+	136	=	401	40	37	No
16:15 - 17:15	252	+	130	=	382	37	37	No
15:45 - 16:45	242	+	135	=	377	36	34	No
16:30 - 17:30	252	+	115	=	367	33	33	No
15:15 - 16:15	218	+	141	=	359	38	29	No
15:30 - 16:30	222	+	135	=	357	38	34	No
16:45 - 17:45	239	+	96	=	335	32	34	No
15:00 - 16:00	197	+	136	=	333	32	23	No
14:45 - 15:45	189	+	131	=	320	25	23	No
17:00 - 18:00	210	+	86	=	296	28	28	No
14:30 - 15:30	171	+	124	=	295	20	20	No
17:15 - 18:15	206		72		278	23	26	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:00 - 17:00	265	+	136	=	401	40	37	No
16:15 - 17:15	252	+	130	=	382	37	37	No
15:45 - 16:45	242	+	135	=	377	36	34	No
16:30 - 17:30	252	+	115	=	367	33	33	No
15:15 - 16:15	218	+	141	=	359	38	29	No
15:30 - 16:30	222	+	135	=	357	38	34	No
16:45 - 17:45	239	+	96	=	335	32	34	No
15:00 - 16:00	197	+	136	=	333	32	23	No
14:45 - 15:45	189	+	131	=	320	25	23	No
17:00 - 18:00	210	+	86	=	296	28	28	No
14:30 - 15:30	171	+	124	=	295	20	20	No
17:15 - 18:15	206		72		278	23	26	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2380

Study Date : 07/31/2023

## 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.

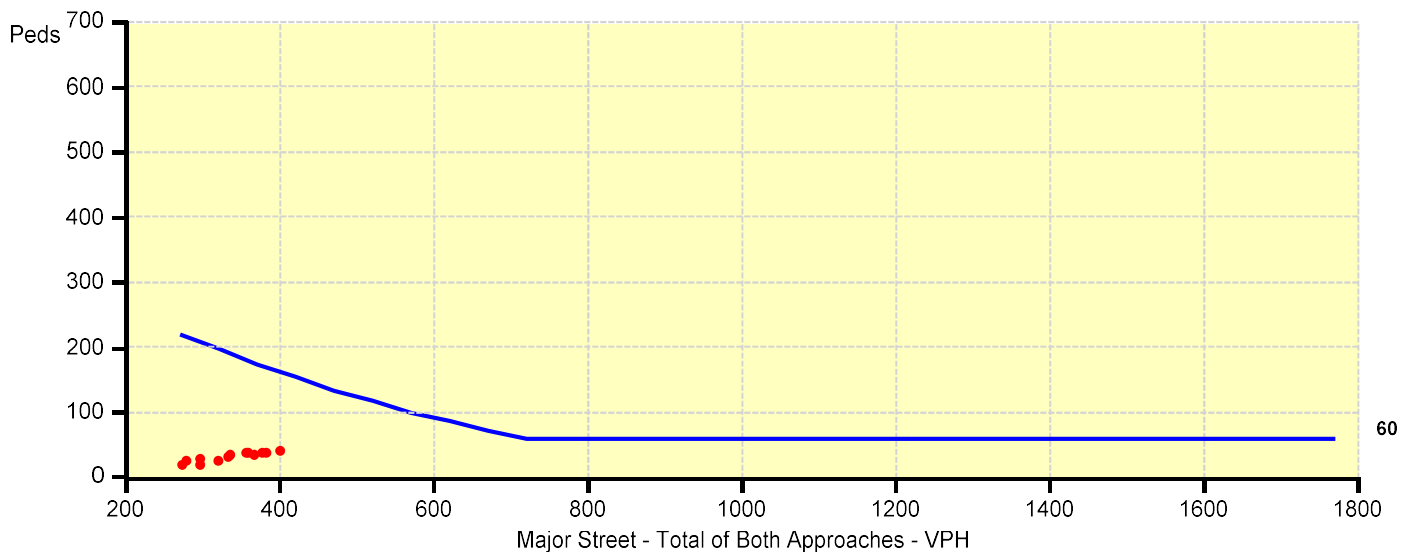
#### Summary

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 54				Total	Minor Road 21st Ave		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	265	+	136	=	401	40	37	No
16:15 - 17:15	252	+	130	=	382	37	37	No
15:45 - 16:45	242	+	135	=	377	36	34	No
16:30 - 17:30	252	+	115	=	367	33	33	No
15:15 - 16:15	218	+	141	=	359	38	29	No
15:30 - 16:30	222	+	135	=	357	38	34	No
16:45 - 17:45	239	+	96	=	335	32	34	No
15:00 - 16:00	197	+	136	=	333	32	23	No
14:45 - 15:45	189	+	131	=	320	25	23	No
17:00 - 18:00	210	+	86	=	296	28	28	No
14:30 - 15:30	171	+	124	=	295	20	20	No
17:15 - 18:15	206	+	72	=	278	23	26	No



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2380

Study Date : 07/31/2023

## 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 54				Total	Minor Road 21st Ave		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	265	+	136	=	401	40	37	No
16:15 - 17:15	252	+	130	=	382	37	37	No
15:45 - 16:45	242	+	135	=	377	36	34	No
16:30 - 17:30	252	+	115	=	367	33	33	No
15:15 - 16:15	218	+	141	=	359	38	29	No
15:30 - 16:30	222	+	135	=	357	38	34	No
16:45 - 17:45	239	+	96	=	335	32	34	No
15:00 - 16:00	197	+	136	=	333	32	23	No
14:45 - 15:45	189	+	131	=	320	25	23	No
17:00 - 18:00	210	+	86	=	296	28	28	No
14:30 - 15:30	171	+	124	=	295	20	20	No
17:15 - 18:15	206	+	72	=	278	23	26	No

