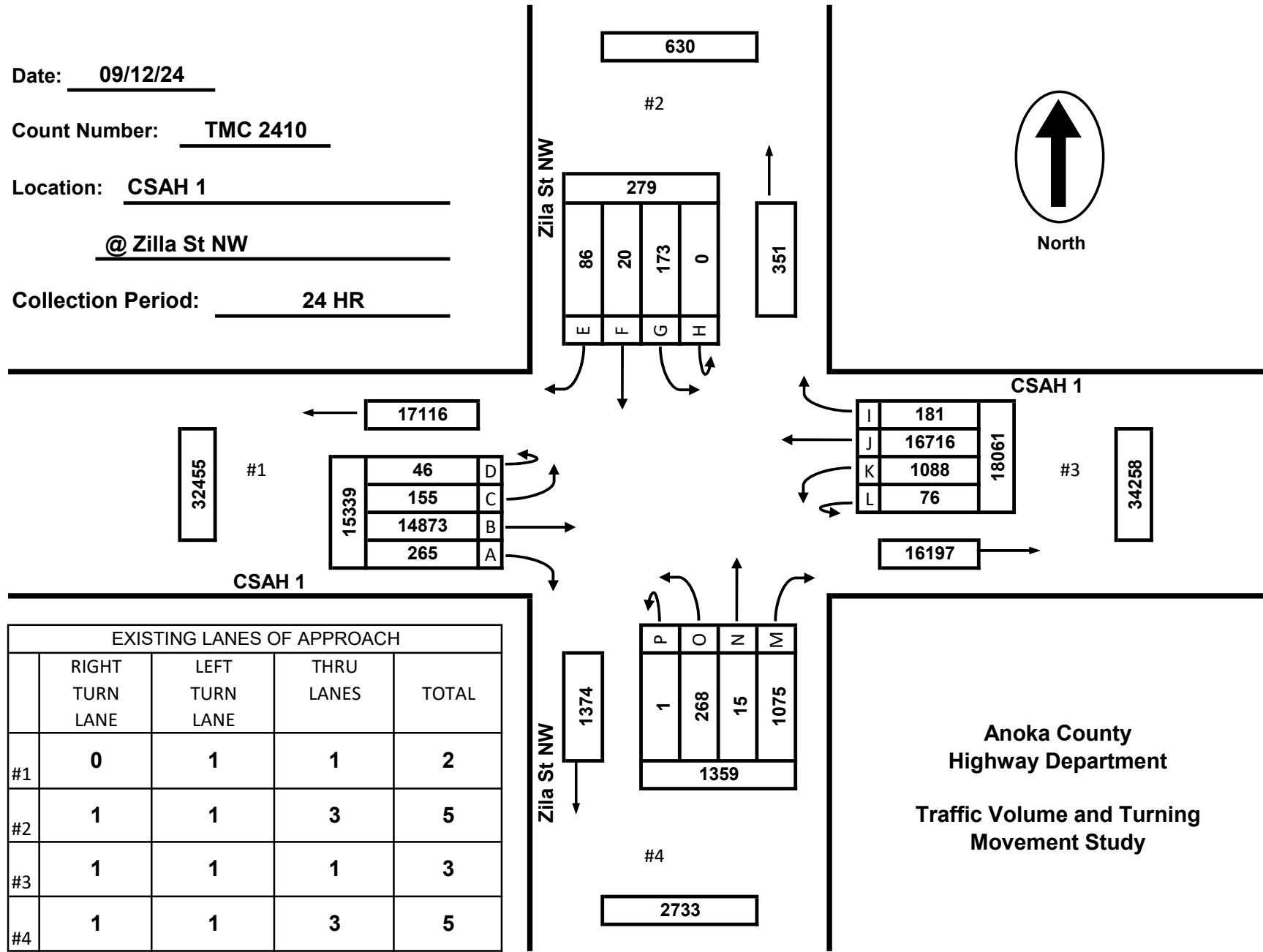
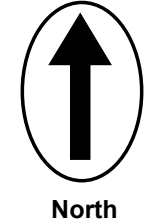


Date: 09/12/24

Count Number: TMC 2410

Location: CSAH 1  
@ Zilla St NW

Collection Period: 24 HR



630

#2

Zilla St NW

279			
86	20	173	0
E	F	G	H

351

CSAH 1

I	181	18061
J	16716	
K	1088	
L	76	

#3

34258

16197

CSAH 1

15339	46	D
	155	C
	14873	B
	265	A

#1

32455

17116

P	O	N	M
1	268	15	1075
1359			

#4

2733

Zilla St NW

1374

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

Anoka County  
 Highway Department  
 Traffic Volume and Turning  
 Movement Study

Date: 09/12/24

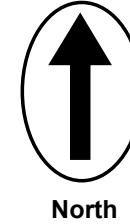
Count Number: TMC 2410

Location: CSAH 1

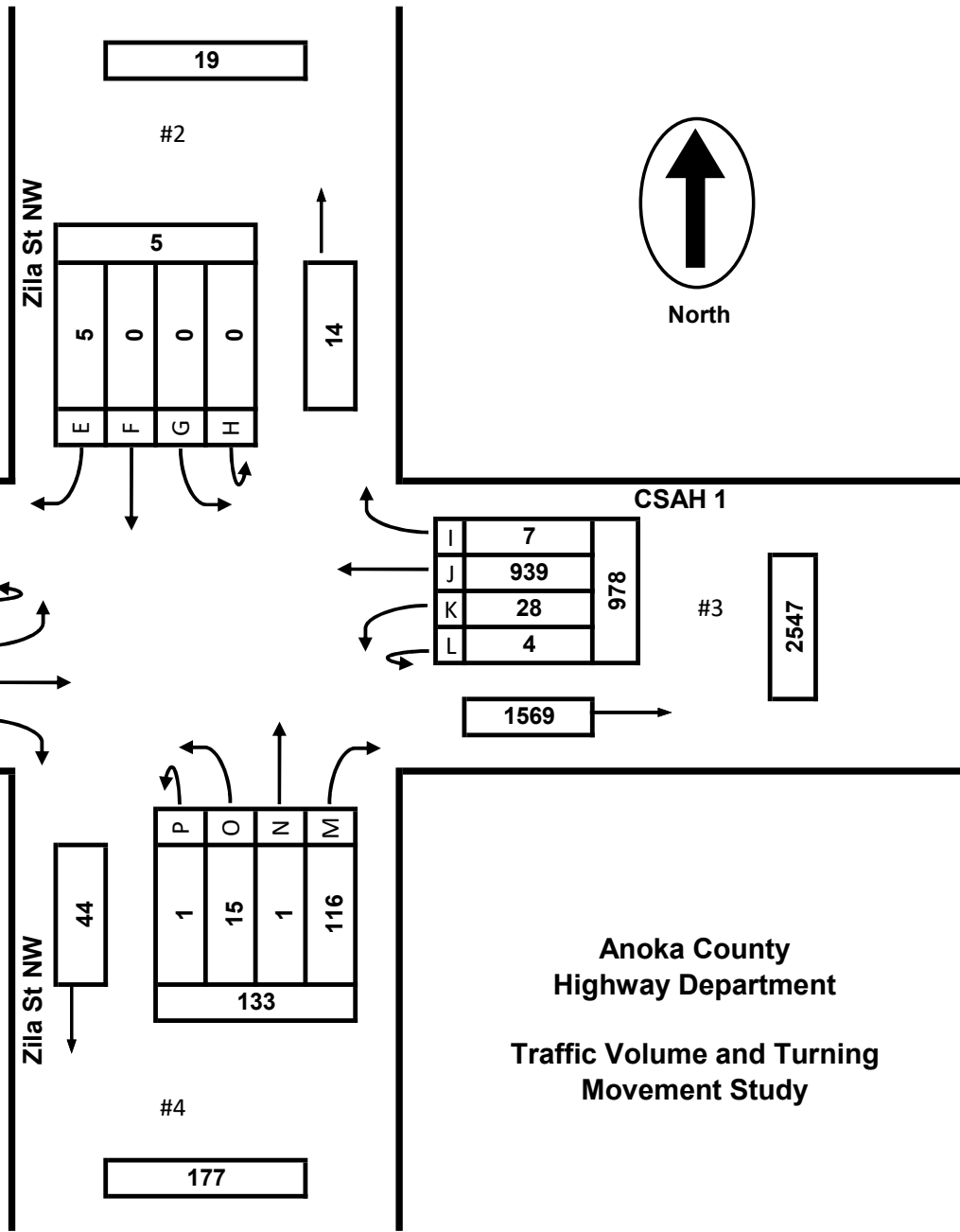
@ Zilla St NW

Collection Period: 24 HR

Peak Hour: 7:00 - 8:00 AM



North



CSAH 1

CSAH 1

EXISTING LANES OF APPROACH

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

Anoka County  
Highway Department  
Traffic Volume and Turning  
Movement Study

Date: 09/12/24

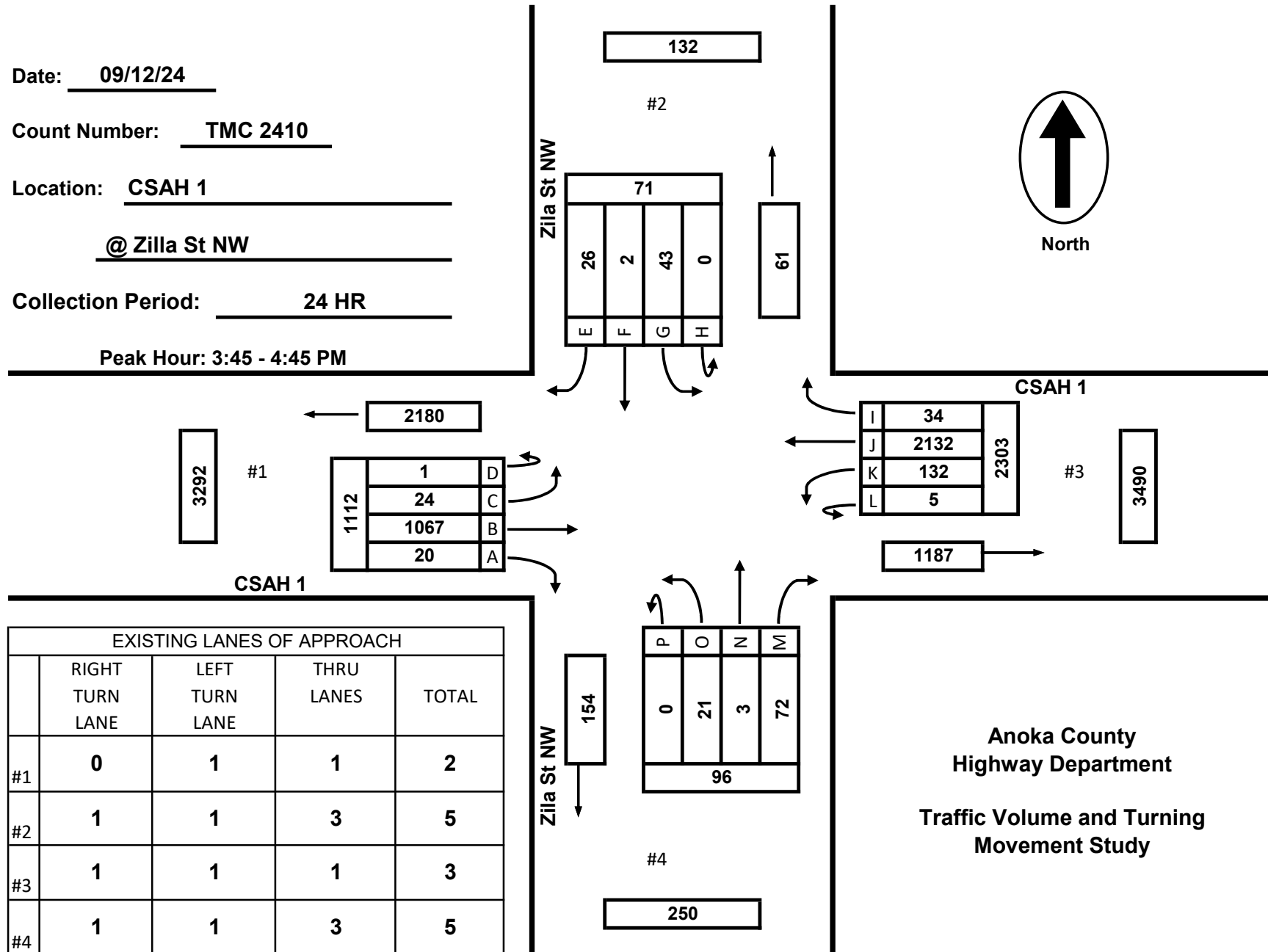
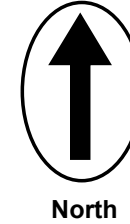
Count Number: TMC 2410

Location: CSAH 1

@ Zilla St NW

Collection Period: 24 HR

Peak Hour: 3:45 - 4:45 PM



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

Anoka County  
Highway Department  
Traffic Volume and Turning  
Movement Study

**TMC 2410 - CSAH 1 @ Zilla St NW  
Coon Rapids MN  
Thursday, September 12, 2024**

Time	Southbound Zila St NW						Westbound CSAH 1						Northbound Zila St NW						Eastbound CSAH 1						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	6	33	0	0	39	0	1	0	2	0	3	0	0	30	0	0	30	72
12:15 AM	0	0	0	0	0	0	0	1	36	0	0	37	0	1	0	0	0	1	0	0	9	0	0	9	47
12:30 AM	0	0	0	0	0	0	1	0	25	0	0	26	0	0	0	0	0	0	0	0	16	0	0	16	42
12:45 AM	0	0	0	0	0	0	0	1	18	0	0	19	0	0	0	1	0	1	1	0	11	0	0	12	32
Hourly Total	0	0	0	0	0	0	1	8	112	0	0	121	0	2	0	3	0	5	1	0	66	0	0	67	193
1:00 AM	0	0	0	0	0	0	0	2	16	0	0	18	0	0	0	2	0	2	0	0	16	0	0	16	36
1:15 AM	0	0	0	0	0	0	0	1	25	0	0	26	0	0	0	0	0	0	1	1	15	0	0	17	43
1:30 AM	0	0	0	1	0	1	0	0	13	0	0	13	0	0	0	0	0	0	0	0	8	0	0	8	22
1:45 AM	0	0	0	0	0	0	0	1	21	0	0	22	0	0	0	0	0	0	0	0	12	0	0	12	34
Hourly Total	0	0	0	1	0	1	0	4	75	0	0	79	0	0	0	2	0	2	1	1	51	0	0	53	135
2:00 AM	0	0	0	0	0	0	0	1	14	0	0	15	0	0	0	0	0	0	0	0	10	1	0	11	26
2:15 AM	0	0	0	0	0	0	0	2	20	0	0	22	0	0	0	1	0	1	0	0	9	0	0	9	32
2:30 AM	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	1	0	1	0	0	8	0	0	8	21
2:45 AM	0	0	0	0	0	0	0	3	8	0	0	11	0	0	0	0	0	0	0	0	9	0	0	9	20
Hourly Total	0	0	0	0	0	0	0	6	54	0	0	60	0	0	0	2	0	2	0	0	36	1	0	37	99
3:00 AM	0	0	0	0	0	0	0	1	9	0	0	10	0	0	0	1	0	1	0	0	15	0	0	15	26
3:15 AM	0	0	0	0	0	0	0	3	9	0	0	12	0	0	0	0	0	0	0	0	21	0	0	21	33
3:30 AM	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0	1	0	1	0	0	32	0	0	32	50
3:45 AM	0	0	0	0	0	0	0	1	7	0	0	8	0	0	0	3	0	3	0	0	25	0	0	25	36
Hourly Total	0	0	0	0	0	0	0	5	42	0	0	47	0	0	0	5	0	5	0	0	93	0	0	93	145
4:00 AM	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	2	0	2	0	0	45	0	0	45	59
4:15 AM	0	0	0	0	0	0	1	0	18	0	0	19	0	0	0	1	0	1	0	0	51	0	0	51	71
4:30 AM	0	0	0	0	0	0	0	0	22	0	0	22	0	0	0	7	0	7	0	0	100	1	0	101	130
4:45 AM	0	0	0	0	0	0	0	1	18	0	0	19	0	0	0	4	0	4	0	0	82	0	0	82	105
Hourly Total	0	0	0	0	0	0	1	1	70	0	0	72	0	0	0	14	0	14	0	0	278	1	0	279	365
5:00 AM	0	0	0	0	0	0	0	2	20	0	0	22	0	0	0	2	0	2	0	1	95	0	0	96	120
5:15 AM	0	0	0	0	0	0	0	2	27	0	0	29	0	1	0	3	0	4	0	0	125	0	1	125	158
5:30 AM	0	1	0	0	0	1	1	4	31	0	0	36	0	1	0	12	0	13	0	4	190	2	0	196	246
5:45 AM	0	0	0	0	0	0	0	4	43	1	0	48	0	2	0	14	0	16	1	1	197	5	0	204	268
Hourly Total	0	1	0	0	0	1	1	12	121	1	0	135	0	4	0	31	0	35	1	6	607	7	1	621	792
6:00 AM	0	0	0	0	0	0	0	4	70	1	0	75	0	0	1	16	0	17	0	0	192	2	0	194	286
6:15 AM	0	0	2	0	0	2	0	8	86	0	0	94	0	1	0	17	0	18	0	0	230	8	0	238	352
6:30 AM	0	1	1	1	0	3	0	2	100	1	0	103	0	2	0	20	0	22	1	0	312	2	0	315	443
6:45 AM	0	0	0	0	0	0	0	9	151	0	0	160	0	4	0	28	1	32	0	0	297	0	0	297	489
Hourly Total	0	1	3	1	0	5	0	23	407	2	0	432	0	7	1	81	1	89	1	0	1031	12	0	1044	1570
7:00 AM	0	0	0	0	0	0	3	5	181	0	0	189	0	2	0	28	0	30	1	0	334	4	0	339	558
7:15 AM	0	0	0	1	0	1	0	6	212	0	0	218	1	6	0	26	0	33	1	1	385	3	1	390	642
7:30 AM	0	0	0	1	0	1	1	8	261	2	0	272	0	4	0	36	0	40	0	1	397	2	1	400	713
7:45 AM	0	0	0	3	0	3	0	9	285	5	0	299	0	3	1	26	0	30	0	4	333	6	0	343	675
Hourly Total	0	0	0	5	0	5	4	28	939	7	0	978	1	15	1	116	0	133	2	6	1449	15	2	1472	2588

**TMC 2410 - CSAH 1 @ Zilla St NW  
Coon Rapids MN  
Thursday, September 12, 2024**

Time	Southbound Zilla St NW						Westbound CSAH 1						Northbound Zilla St NW						Eastbound CSAH 1						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	0	0	0	0	0	7	193	2	0	202	0	4	0	15	0	19	2	5	314	3	1	324	545
8:15 AM	0	3	0	0	0	3	1	6	174	2	0	183	0	5	0	28	0	33	1	1	276	4	1	282	501
8:30 AM	0	7	0	1	0	8	1	11	156	11	0	179	0	3	0	17	0	20	1	4	233	5	0	243	450
8:45 AM	0	13	2	1	0	16	1	11	180	18	0	210	0	2	1	22	0	25	1	4	232	2	0	239	490
Hourly Total	0	23	2	2	0	27	3	35	703	33	0	774	0	14	1	82	0	97	5	14	1055	14	2	1088	1986
9:00 AM	0	11	1	4	0	16	4	10	190	9	0	213	0	3	1	21	0	25	2	9	225	6	0	242	496
9:15 AM	0	4	0	1	0	5	0	8	234	2	0	244	0	1	0	18	0	19	0	1	218	2	0	221	489
9:30 AM	0	2	0	0	0	2	0	13	188	1	0	202	0	5	0	14	0	19	3	1	199	1	0	204	427
9:45 AM	0	1	1	0	0	2	2	8	232	3	0	245	0	2	0	16	0	18	2	0	172	6	0	180	445
Hourly Total	0	18	2	5	0	25	6	39	844	15	0	904	0	11	1	69	0	81	7	11	814	15	0	847	1857
10:00 AM	0	3	0	0	0	3	1	13	183	0	0	197	0	1	0	8	0	9	1	0	190	4	0	195	404
10:15 AM	0	0	0	1	0	1	0	7	157	1	0	165	0	2	0	15	0	17	0	0	194	2	0	196	379
10:30 AM	0	0	0	0	0	0	0	6	195	1	0	202	0	3	0	20	0	23	2	3	199	5	1	209	434
10:45 AM	0	2	0	0	0	2	2	12	202	2	2	218	0	7	0	14	0	21	2	2	206	1	0	211	452
Hourly Total	0	5	0	1	0	6	3	38	737	4	2	782	0	13	0	57	0	70	5	5	789	12	1	811	1669
11:00 AM	0	1	1	2	0	4	2	13	163	2	0	180	0	4	0	15	0	19	1	3	191	2	0	197	400
11:15 AM	0	3	0	0	0	3	0	6	194	3	0	203	0	1	0	11	0	12	1	0	179	3	0	183	401
11:30 AM	0	3	0	0	0	3	4	13	201	4	0	222	0	5	0	11	0	16	1	1	209	2	0	213	454
11:45 AM	0	0	0	2	0	2	1	5	216	0	0	222	0	2	0	15	0	17	1	1	202	3	2	207	448
Hourly Total	0	7	1	4	0	12	7	37	774	9	0	827	0	12	0	52	0	64	4	5	781	10	2	800	1703
12:00 PM	0	0	0	3	0	3	1	19	206	5	0	231	0	9	0	8	0	17	0	3	177	5	0	185	436
12:15 PM	0	1	0	0	0	1	3	14	200	1	0	218	0	3	0	16	0	19	1	2	187	5	0	195	433
12:30 PM	0	3	0	2	0	5	1	10	202	4	0	217	0	0	0	13	0	13	0	2	219	3	0	224	459
12:45 PM	0	2	0	2	1	4	3	17	205	0	2	225	0	3	1	16	0	20	0	2	180	4	0	186	435
Hourly Total	0	6	0	7	1	13	8	60	813	10	2	891	0	15	1	53	0	69	1	9	763	17	0	790	1763
1:00 PM	0	1	1	1	0	3	1	13	192	2	0	208	0	2	0	8	0	10	0	1	190	4	0	195	416
1:15 PM	0	1	0	0	1	1	1	19	237	5	0	262	0	7	0	5	0	12	0	3	190	4	0	197	472
1:30 PM	0	7	0	2	0	9	2	9	250	6	0	267	0	8	1	19	0	28	0	3	204	2	0	209	513
1:45 PM	0	2	0	1	0	3	0	19	260	3	0	282	0	9	0	18	1	27	2	5	215	3	1	225	537
Hourly Total	0	11	1	4	1	16	4	60	939	16	0	1019	0	26	1	50	1	77	2	12	799	13	1	826	1938
2:00 PM	0	0	0	1	1	1	2	9	261	0	1	272	0	7	0	19	0	26	1	1	240	7	0	249	548
2:15 PM	0	1	0	0	0	1	2	20	302	3	0	327	0	4	0	14	0	18	0	0	230	6	0	236	582
2:30 PM	0	3	1	1	0	5	1	24	332	1	0	358	0	6	0	27	0	33	1	4	243	3	0	251	647
2:45 PM	0	4	0	3	0	7	2	16	340	2	1	360	0	8	0	14	1	22	1	4	213	6	0	224	613
Hourly Total	0	8	1	5	1	14	7	69	1235	6	2	1317	0	25	0	74	1	99	3	9	926	22	0	960	2390
3:00 PM	0	2	1	1	0	4	2	25	347	3	3	377	0	1	0	15	2	16	1	1	219	6	1	227	624
3:15 PM	0	3	1	3	0	7	1	25	373	1	2	400	0	4	0	21	0	25	0	0	241	3	0	244	676
3:30 PM	0	4	0	1	0	5	0	28	443	7	0	478	0	6	0	15	0	21	0	3	307	12	0	322	826
3:45 PM	0	1	0	3	0	4	1	36	476	18	1	531	0	3	1	15	1	19	0	12	258	5	0	275	829
Hourly Total	0	10	2	8	0	20	4	114	1639	29	6	1786	0	14	1	66	3	81	1	16	1025	26	1	1068	2955

**TMC 2410 - CSAH 1 @ Zilla St NW  
Coon Rapids MN  
Thursday, September 12, 2024**

Time	Southbound Zilla St NW						Westbound CSAH 1						Northbound Zilla St NW						Eastbound CSAH 1						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	25	1	12	0	38	1	30	505	10	1	546	0	3	0	19	1	22	0	5	288	7	1	300	906
4:15 PM	0	10	0	4	0	14	1	34	602	4	1	641	0	5	1	15	1	21	0	2	235	4	0	241	917
4:30 PM	0	7	1	7	0	15	2	32	549	2	2	585	0	10	1	23	1	34	1	5	286	4	0	296	930
4:45 PM	0	5	0	3	0	8	0	38	537	6	0	581	0	4	0	15	0	19	1	3	205	6	1	215	823
Hourly Total	0	47	2	26	0	75	4	134	2193	22	4	2353	0	22	2	72	3	96	2	15	1014	21	2	1052	3576
5:00 PM	0	4	0	3	0	7	0	22	545	2	2	569	0	15	0	21	2	36	1	2	250	6	0	259	871
5:15 PM	0	3	1	2	0	6	1	26	455	1	0	483	0	7	0	19	0	26	0	1	202	6	0	209	724
5:30 PM	0	3	0	1	0	4	1	34	423	4	0	462	0	6	0	11	0	17	1	5	204	2	0	212	685
5:45 PM	0	1	0	2	0	3	3	29	390	5	3	427	0	6	0	16	0	22	1	4	178	7	1	190	642
Hourly Total	0	11	1	8	0	20	5	111	1813	12	5	1941	0	34	0	67	2	101	3	12	834	21	1	870	2932
6:00 PM	0	1	0	0	0	1	4	20	313	0	0	337	0	3	0	12	0	15	0	3	204	4	0	211	564
6:15 PM	0	4	0	0	0	4	2	13	288	0	0	303	0	1	1	18	0	20	0	1	187	3	0	191	518
6:30 PM	0	1	1	0	0	2	1	19	249	1	0	270	0	4	0	17	0	21	1	1	145	3	0	150	443
6:45 PM	0	0	1	0	0	1	1	14	210	0	0	225	0	4	0	11	1	15	0	1	142	3	1	146	387
Hourly Total	0	6	2	0	0	8	8	66	1060	1	0	1135	0	12	1	58	1	71	1	6	678	13	1	698	1912
7:00 PM	0	1	0	2	0	3	3	13	183	1	0	200	0	5	2	8	0	15	0	0	165	4	1	169	387
7:15 PM	0	3	0	0	0	3	0	24	162	3	0	189	0	5	0	16	0	21	1	4	150	10	2	165	378
7:30 PM	0	4	0	0	0	4	4	17	154	4	0	179	0	3	1	12	0	16	0	9	123	2	0	134	333
7:45 PM	0	4	1	1	0	6	0	20	148	2	0	170	0	1	0	4	0	5	0	0	146	0	2	146	327
Hourly Total	0	12	1	3	0	16	7	74	647	10	0	738	0	14	3	40	0	57	1	13	584	16	5	614	1425
8:00 PM	0	0	1	0	0	1	0	13	166	0	0	179	0	2	0	8	0	10	0	2	136	2	0	140	330
8:15 PM	0	0	0	0	0	0	0	13	148	0	0	161	0	2	1	5	0	8	1	0	145	2	0	148	317
8:30 PM	0	0	0	0	0	0	0	11	136	0	0	147	0	6	0	7	0	13	0	1	134	6	0	141	301
8:45 PM	0	0	0	0	0	0	0	9	127	1	0	137	0	2	0	10	0	12	0	8	99	4	0	111	260
Hourly Total	0	0	1	0	0	1	0	46	577	1	0	624	0	12	1	30	0	43	1	11	514	14	0	540	1208
9:00 PM	0	2	1	1	0	4	0	13	128	1	0	142	0	0	1	7	0	8	1	3	94	3	2	101	255
9:15 PM	0	2	0	2	0	4	0	12	92	0	0	104	0	1	0	4	0	5	1	1	86	3	0	91	204
9:30 PM	0	2	0	0	0	2	0	19	95	0	0	114	0	1	0	6	0	7	0	0	78	3	0	81	204
9:45 PM	0	0	0	1	0	1	0	7	82	1	0	90	0	1	0	7	0	8	0	0	69	0	0	69	168
Hourly Total	0	6	1	4	0	11	0	51	397	2	0	450	0	3	1	24	0	28	2	4	327	9	2	342	831
10:00 PM	0	0	0	0	0	0	1	8	80	1	0	90	0	1	0	3	0	4	0	0	66	1	0	67	161
10:15 PM	0	1	0	1	0	2	1	18	102	0	0	121	0	0	0	6	0	6	1	0	69	1	0	71	200
10:30 PM	0	0	0	0	0	0	1	12	74	0	0	87	0	0	0	3	0	3	0	0	51	0	0	51	141
10:45 PM	0	0	0	0	1	0	0	6	77	0	0	83	0	7	0	10	0	17	1	0	45	0	0	46	146
Hourly Total	0	1	0	1	1	2	3	44	333	1	0	381	0	8	0	22	0	30	2	0	231	2	0	235	648
11:00 PM	0	0	0	0	0	0	0	8	65	0	0	73	0	3	0	2	0	5	0	0	47	2	0	49	127
11:15 PM	0	0	0	0	0	0	0	5	60	0	0	65	0	2	0	1	0	3	0	0	30	1	0	31	99
11:30 PM	0	0	0	1	0	1	0	4	32	0	0	36	0	0	0	0	0	0	0	0	28	1	0	29	66
11:45 PM	0	0	0	0	0	0	0	6	35	0	0	41	0	0	0	2	0	2	0	0	23	0	0	23	66
Hourly Total	0	0	0	1	0	1	0	23	192	0	0	215	0	5	0	5	0	10	0	0	128	4	0	132	358
<b>DAILY TOTAL</b>	<b>0</b>	<b>173</b>	<b>20</b>	<b>86</b>	<b>4</b>	<b>279</b>	<b>76</b>	<b>1088</b>	<b>16716</b>	<b>181</b>	<b>21</b>	<b>18061</b>	<b>1</b>	<b>268</b>	<b>15</b>	<b>1075</b>	<b>12</b>	<b>1359</b>	<b>46</b>	<b>155</b>	<b>14873</b>	<b>265</b>	<b>21</b>	<b>15339</b>	<b>35038</b>
<b>Cars</b>	0	162	20	83	3	265	75	1077	16415	174	4	17741	1	256	15	1056	4	1328	45	146	14596	257	16	15044	34378
<b>Heavy Vehicles</b>	0	11	0	3	1	14	1	11	301	7	17	320	0	12	0	19	8	31	1	9	277	8	5	295	660
<b>Heavy Vehicle %</b>	0.00%	6.36%	0.00%	3.49%	25.00%	5.02%	1.32%	1.01%	1.80%	3.87%	80.95%	1.77%	0.00%	4.48%	0.00%	1.77%	66.67%	2.28%	2.17%	5.81%	1.86%	3.02%	23.81%	1.92%	1.88%

**TMC 2410 - CSAH 1 @ Zilla St NW**  
**Coon Rapids MN**  
**Thursday, September 12, 2024**

**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	
7:00 AM	0	0	0	0	0	0	3	5	181	0	0	189	0	2	0	28	0	30	1	0	334	4	0	339	558
7:15 AM	0	0	0	1	0	1	0	6	212	0	0	218	1	6	0	26	0	33	1	1	385	3	1	390	642
7:30 AM	0	0	0	1	0	1	1	8	261	2	0	272	0	4	0	36	0	40	0	1	397	2	1	400	713
7:45 AM	0	0	0	3	0	3	0	9	285	5	0	299	0	3	1	26	0	30	0	4	333	6	0	343	675
Peak Hour Total	0	0	0	5	0	5	4	28	939	7	0	978	1	15	1	116	0	133	2	6	1449	15	2	1472	2588
PHF	0.000	0.000	0.000	0.417	0.000	0.417	0.333	0.778	0.824	0.350	0.000	0.818	0.250	0.625	0.250	0.806	0.000	0.831	0.500	0.375	0.912	0.625	0.500	0.920	0.907

**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	
3:45 PM	0	1	0	3	0	4	1	36	476	18	1	531	0	3	1	15	1	19	0	12	258	5	0	275	829
4:00 PM	0	25	1	12	0	38	1	30	505	10	1	546	0	3	0	19	1	22	0	5	288	7	1	300	906
4:15 PM	0	10	0	4	0	14	1	34	602	4	1	641	0	5	1	15	1	21	0	2	235	4	0	241	917
4:30 PM	0	7	1	7	0	15	2	32	549	2	2	585	0	10	1	23	1	34	1	5	286	4	0	296	930
Peak Hour Total	0	43	2	26	0	71	5	132	2132	34	5	2303	0	21	3	72	4	96	1	24	1067	20	1	1112	3582
PHF	0.000	0.430	0.500	0.542	0.000	0.467	0.625	0.917	0.885	0.472	0.625	0.898	0.000	0.525	0.750	0.783	1.000	0.706	0.250	0.500	0.926	0.714	0.250	0.927	0.963

Total Vehicles On Leg				630			
Vehicles Entering Intersection				279			
Vehicles Exiting Intersection				351			
<b>Southbound</b>							
Cars	83	20	162	0	3		
Heavy	3	0	11	0	1		
<b>Total</b>	<b>86</b>	<b>20</b>	<b>173</b>	<b>0</b>	<b>4</b>		

Total Vehicles on Leg 32455	Vehicles Entering Intersection 15339	Eastbound	Cars	16	5	21
			Heavy	45	1	46
			<b>Total</b>	146	9	155
			Vehicles Exiting Intersection	14596	277	14873
			<b>Total</b>	257	8	265

Cars	174	7	181
Heavy	16415	301	16716
<b>Total</b>	1077	11	1088
Vehicles Entering Intersection	75	1	76
Vehicles Exiting Intersection	4	17	21

Daily Volumes

Cars	4	1	256	15	1056
Heavy	8	0	12	0	19
<b>Total</b>	<b>12</b>	<b>1</b>	<b>268</b>	<b>15</b>	<b>1075</b>
<b>Northbound</b>					
Vehicles Entering Intersection			1359		
Vehicles Exiting Intersection			1374		
Total Vehicles On Leg			2733		





# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2410

Study Date : 09/19/2024

## Signal Warrants - Summary

### Major Street Approaches

**Eastbound: CSAH 1**

Number of Lanes : 2+

Total Approach Volume: 15,339

**Westbound: CSAH 1**

Number of Lanes :2+

Total Approach Volume: 18,061

### Minor Street Approaches

**Northbound: Zila St NW**

Number of Lanes :2+

Total Approach Volume: 284

**Southbound: Zila St NW**

Number of Lanes :2+

Total Approach Volume: 279

### 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 1 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 1 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 2410

Study Date : 09/19/2024

## Warrant 1A - Minimum Volumes

#### Description

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

#### Summary

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

#### Site Data Required

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

#### Volume Requirements

Rural Factor of 70 % applied  
 Veh/Hr Major = **420**  
 Veh/Hr Minor = **140**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:45 - 16:45	1112	+	2303	=	3415	24	71	No
16:00 - 17:00	1052	+	2353	=	3405	24	75	No
16:15 - 17:15	1011	+	2376	=	3387	36	44	No
15:30 - 16:30	1138	+	2196	=	3334	19	61	No
16:30 - 17:30	979	+	2218	=	3197	37	36	No
15:15 - 16:15	1141	+	1955	=	3096	17	54	No
16:45 - 17:45	895	+	2095	=	2990	32	25	No
15:00 - 16:00	1068	+	1786	=	2854	15	20	No
17:00 - 18:00	870	+	1941	=	2811	34	20	No
14:45 - 15:45	1017	+	1615	=	2632	19	23	No
17:15 - 18:15	822	+	1709	=	2531	22	14	No
07:00 - 08:00	1472	+	978	=	2450	17	5	No
07:15 - 08:15	1457	+	991	=	2448	19	5	No
14:30 - 15:30	946	+	1495	=	2441	19	23	No
14:15 - 15:15	938	+	1422	=	2360	19	17	No
17:30 - 18:30	804	+	1529	=	2333	17	12	No
07:30 - 08:30	1349	+	956	=	2305	17	7	No
14:00 - 15:00	960	+	1317	=	2277	25	14	No
06:45 - 07:45	1426	+	839	=	2265	17	2	No
13:45 - 14:45	961	+	1239	=	2200	26	10	No
17:45 - 18:45	742	+	1337	=	2079	15	10	No
13:30 - 14:30	919	+	1148	=	2067	29	14	No
07:45 - 08:45	1192	+	863	=	2055	16	14	No
06:30 - 07:30	1341	+	670	=	2011	15	4	No
13:15 - 14:15	880		1083		1963	32	14	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2410

Study Date : 09/19/2024

## 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 1 one hour periods meet minimums.  
Warrant is NOT met.

#### Site Data Required

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

#### Volume Requirements

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

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:45 - 16:45	1112	+	2303	=	3415	24	71	Yes
15:30 - 16:30	1138	+	2196	=	3334	19	61	No
15:15 - 16:15	1141	+	1955	=	3096	17	54	No
16:45 - 17:45	895	+	2095	=	2990	32	25	No
15:00 - 16:00	1068	+	1786	=	2854	15	20	No
17:00 - 18:00	870	+	1941	=	2811	34	20	No
14:45 - 15:45	1017	+	1615	=	2632	19	23	No
17:15 - 18:15	822	+	1709	=	2531	22	14	No
07:00 - 08:00	1472	+	978	=	2450	17	5	No
07:15 - 08:15	1457	+	991	=	2448	19	5	No
14:30 - 15:30	946	+	1495	=	2441	19	23	No
14:15 - 15:15	938	+	1422	=	2360	19	17	No
17:30 - 18:30	804	+	1529	=	2333	17	12	No
07:30 - 08:30	1349	+	956	=	2305	17	7	No
14:00 - 15:00	960	+	1317	=	2277	25	14	No
06:45 - 07:45	1426	+	839	=	2265	17	2	No
13:45 - 14:45	961	+	1239	=	2200	26	10	No
17:45 - 18:45	742	+	1337	=	2079	15	10	No
13:30 - 14:30	919	+	1148	=	2067	29	14	No
07:45 - 08:45	1192	+	863	=	2055	16	14	No
06:30 - 07:30	1341	+	670	=	2011	15	4	No
13:15 - 14:15	880	+	1083	=	1963	32	14	No
08:00 - 09:00	1088	+	774	=	1862	15	27	No
13:00 - 14:00	826	+	1019	=	1845	27	16	No
18:00 - 19:00	698		1135		1833	13	8	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2410

Study Date : 09/19/2024

## 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 1 hours meet 1B minimums.  
Warrant is NOT met.

#### Site Data Required

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

#### Volume Requirements

Rural Factor of 70% applied  
Warrant 1A 1B  
Veh/Hr Major = **336 504**  
  
Veh/Hr Minor = **112 56**

#### Major Road CSAH 1

#### Minor Road Zila St NW

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
15:45 - 16:45	1112	+	2303	=	3415	24	71	No
16:00 - 17:00	1052	+	2353	=	3405	24	75	No
16:15 - 17:15	1011	+	2376	=	3387	36	44	No
15:30 - 16:30	1138	+	2196	=	3334	19	61	No
16:30 - 17:30	979	+	2218	=	3197	37	36	No
15:15 - 16:15	1141	+	1955	=	3096	17	54	No
16:45 - 17:45	895	+	2095	=	2990	32	25	No
15:00 - 16:00	1068	+	1786	=	2854	15	20	No
17:00 - 18:00	870	+	1941	=	2811	34	20	No
14:45 - 15:45	1017	+	1615	=	2632	19	23	No
17:15 - 18:15	822	+	1709	=	2531	22	14	No
07:00 - 08:00	1472	+	978	=	2450	17	5	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
15:30 - 16:30	1138	+	2196	=	3334	19	61	Yes
16:30 - 17:30	979	+	2218	=	3197	37	36	No
15:15 - 16:15	1141	+	1955	=	3096	17	54	No
16:45 - 17:45	895	+	2095	=	2990	32	25	No
15:00 - 16:00	1068	+	1786	=	2854	15	20	No
17:00 - 18:00	870	+	1941	=	2811	34	20	No
14:45 - 15:45	1017	+	1615	=	2632	19	23	No
17:15 - 18:15	822	+	1709	=	2531	22	14	No
07:00 - 08:00	1472	+	978	=	2450	17	5	No
07:15 - 08:15	1457	+	991	=	2448	19	5	No
14:30 - 15:30	946	+	1495	=	2441	19	23	No
14:15 - 15:15	938	+	1422	=	2360	19	17	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2410

Study Date : 09/19/2024

## 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.

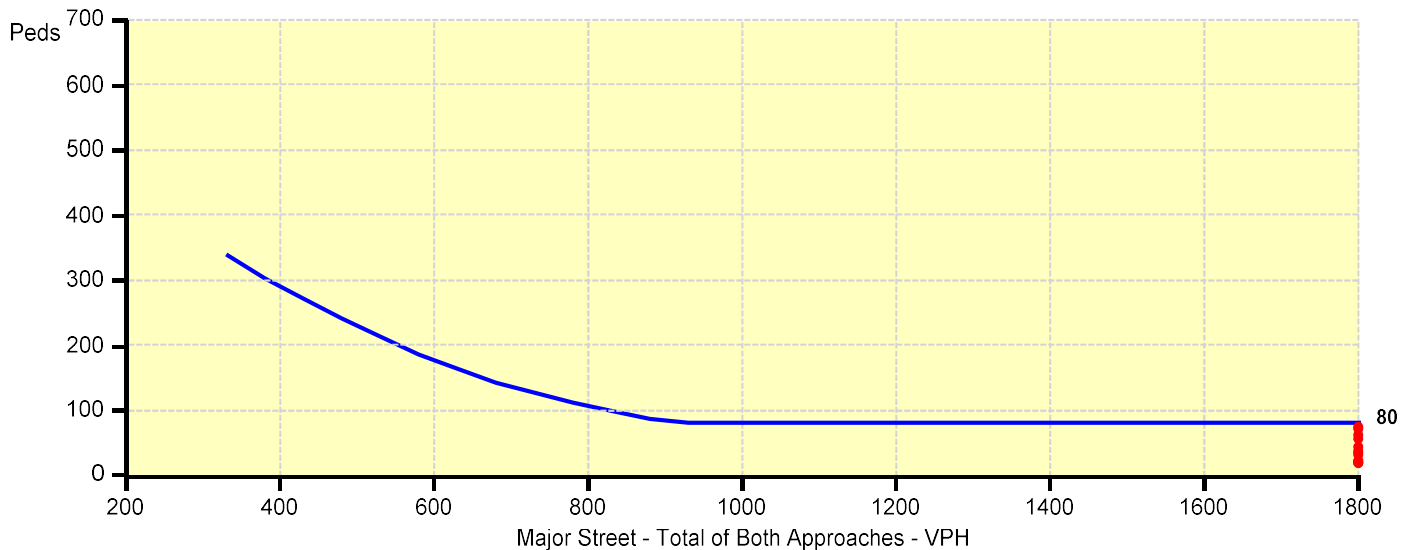
#### Summary

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

#### Site Data Required

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

Time	Major Road CSAH 1				Total	Minor Road Zila St NW		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:45 - 16:45	1112	+	2303	=	3415	24	71	No
16:00 - 17:00	1052	+	2353	=	3405	24	75	No
16:15 - 17:15	1011	+	2376	=	3387	36	44	No
15:30 - 16:30	1138	+	2196	=	3334	19	61	No
16:30 - 17:30	979	+	2218	=	3197	37	36	No
15:15 - 16:15	1141	+	1955	=	3096	17	54	No
16:45 - 17:45	895	+	2095	=	2990	32	25	No
15:00 - 16:00	1068	+	1786	=	2854	15	20	No
17:00 - 18:00	870	+	1941	=	2811	34	20	No
14:45 - 15:45	1017	+	1615	=	2632	19	23	No
17:15 - 18:15	822	+	1709	=	2531	22	14	No
07:00 - 08:00	1472		978		2450	17	5	No



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2410

Study Date : 09/19/2024

## 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.

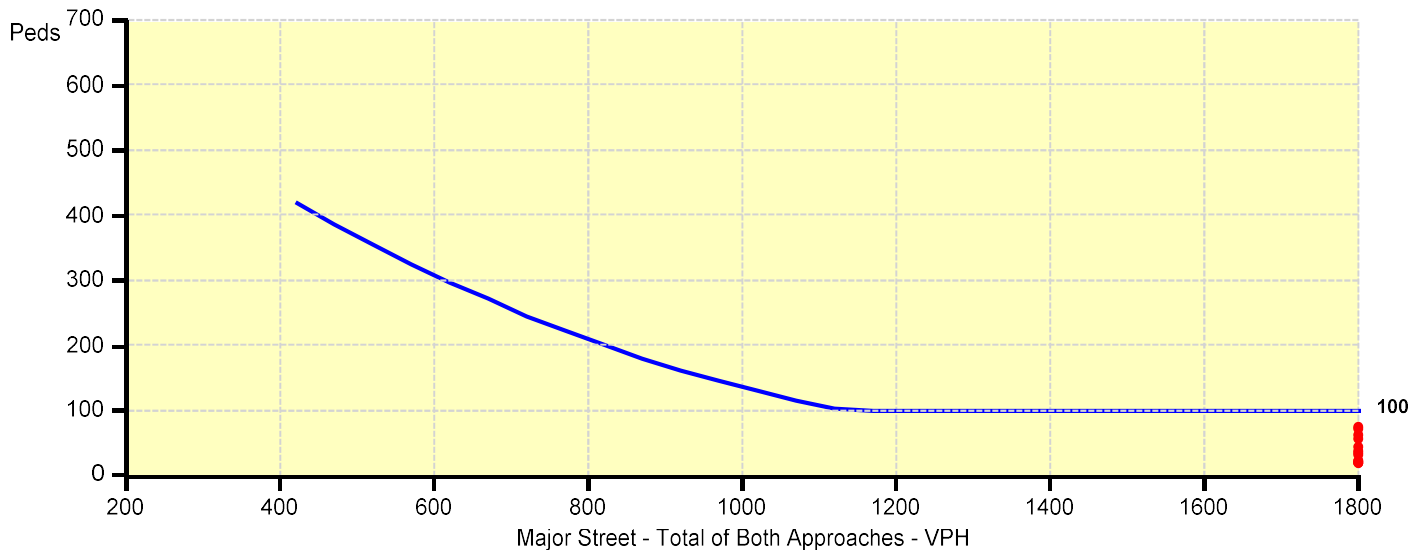
### Summary

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

### Site Data Required

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

Time	Major Road CSAH 1				Total	Minor Road Zila St NW		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:45 - 16:45	1112	+	2303	=	3415	24	71	No
16:00 - 17:00	1052	+	2353	=	3405	24	75	No
16:15 - 17:15	1011	+	2376	=	3387	36	44	No
15:30 - 16:30	1138	+	2196	=	3334	19	61	No
16:30 - 17:30	979	+	2218	=	3197	37	36	No
15:15 - 16:15	1141	+	1955	=	3096	17	54	No
16:45 - 17:45	895	+	2095	=	2990	32	25	No
15:00 - 16:00	1068	+	1786	=	2854	15	20	No
17:00 - 18:00	870	+	1941	=	2811	34	20	No
14:45 - 15:45	1017	+	1615	=	2632	19	23	No
17:15 - 18:15	822	+	1709	=	2531	22	14	No
07:00 - 08:00	1472		978		2450	17	5	No



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2410

Study Date : 09/19/2024

## Multiway Stop Warrants - Summary

### Major Street Approaches

**Eastbound: CSAH 1**  
 Number of Lanes : 2+  
 Total Approach Volume: 15,339

**Westbound: CSAH 1**  
 Number of Lanes :2+  
 Total Approach Volume: 18,061

### Minor Street Approaches

**Northbound: Zila St NW**  
 Number of Lanes :2+  
 Total Approach Volume: 284

**Southbound: Zila St NW**  
 Number of Lanes :2+  
 Total Approach Volume: 279

### Warrant Summary (Rural Values Apply)

<b>Criteria A - Interim Measure</b> .....	<b>Not Evaluated</b>
If traffic signals are justified, stop signs can be installed as an interim measure.	
<b>Criteria B - Crash Experience</b> .....	<b>Not Satisfied</b>
Number of crashes (-1) is less than minimum required (5).	
<b>Criteria C - Minimum Volumes and Delays</b> .....	<b>Not Satisfied</b>
Average of 8 highest hours is less than volume criteria.	
<b>Criteria D - 80% of Volumes, Delays, and Crashes</b> .....	<b>Not Satisfied</b>
Number of crashes (-1) is less than minimum required (4). Average of 8 highest hours is less than volume criteria.	

### Criteria C Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
15:45 - 16:45	3415	2422.4	104	50.0	210	140	No
16:45 - 17:45	2990		65				
14:45 - 15:45	2632		44				
07:00 - 08:00	2450		32				
13:45 - 14:45	2200		37				
17:45 - 18:45	2079		36				
08:00 - 09:00	1862		45				
09:00 - 10:00	1751		37				
12:45 - 13:45	1749		42				
11:45 - 12:45	1699		25				
10:45 - 11:45	1627		29				
06:00 - 07:00	1476		20				

### Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
15:45 - 16:45	3415	2422.4	104	50.0	240	160	No
16:45 - 17:45	2990		65				
14:45 - 15:45	2632		44				
07:00 - 08:00	2450		32				
13:45 - 14:45	2200		37				
17:45 - 18:45	2079		36				
08:00 - 09:00	1862		45				
09:00 - 10:00	1751		37				
12:45 - 13:45	1749		42				
11:45 - 12:45	1699		25				
10:45 - 11:45	1627		29				
06:00 - 07:00	1476		20				