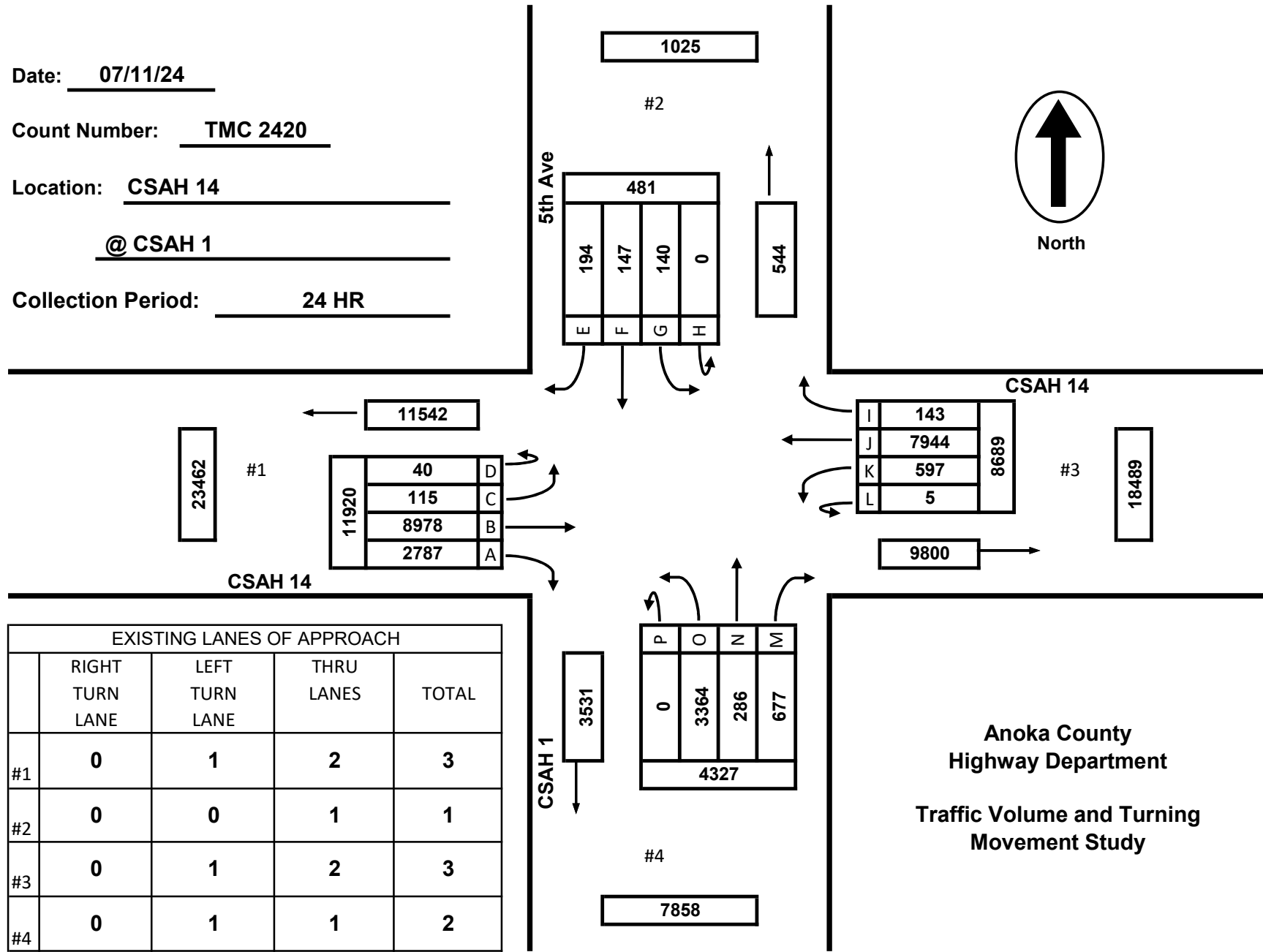
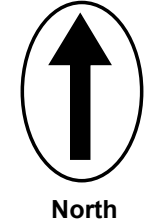


Date: 07/11/24

Count Number: TMC 2420

Location: CSAH 14  
@ CSAH 1

Collection Period: 24 HR



Anoka County  
 Highway Department  
 Traffic Volume and Turning  
 Movement Study

Date: 07/11/24

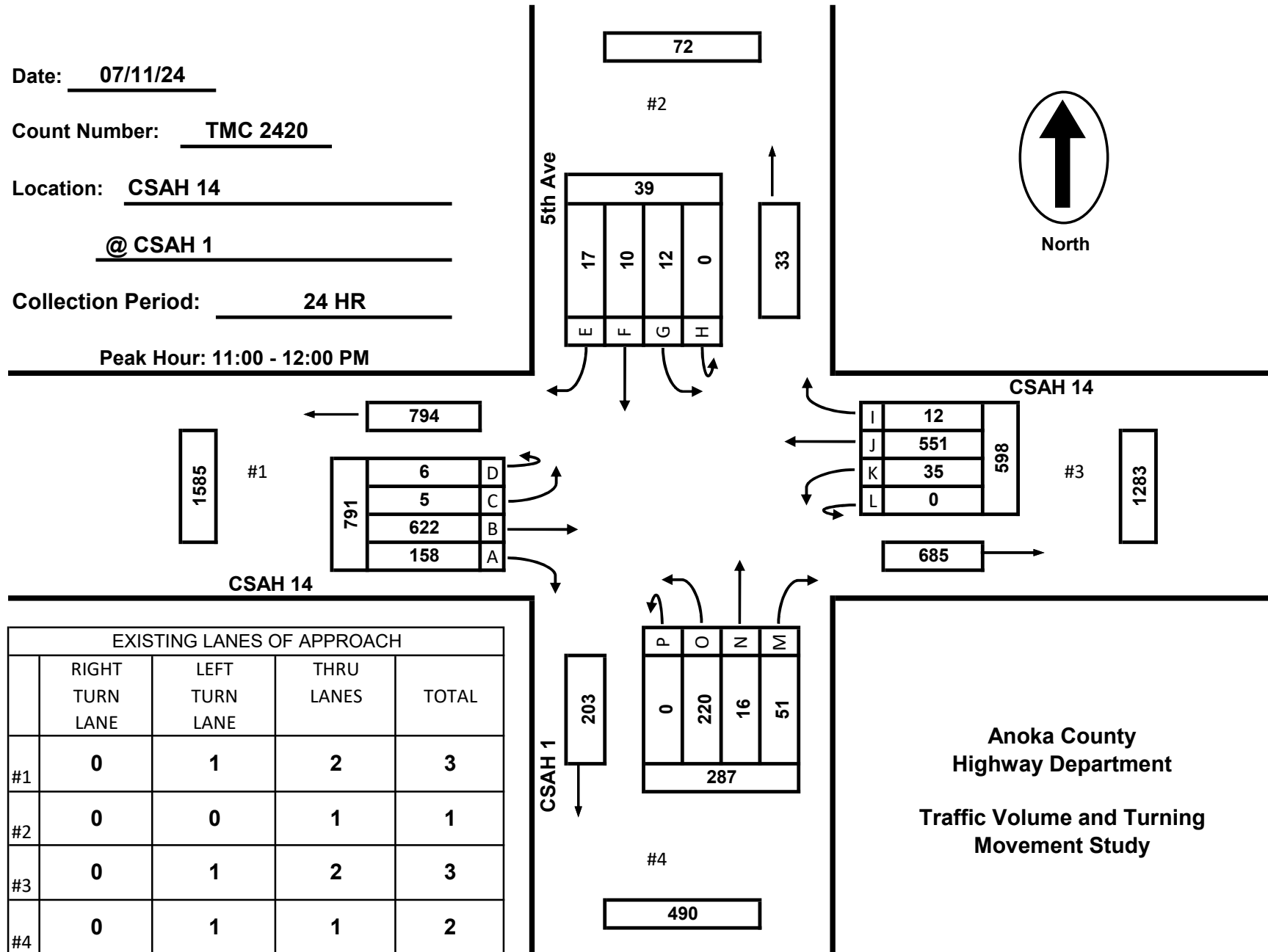
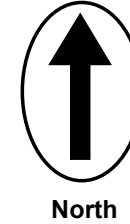
Count Number: TMC 2420

Location: CSAH 14

@ CSAH 1

Collection Period: 24 HR

Peak Hour: 11:00 - 12:00 PM



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

Anoka County  
Highway Department  
Traffic Volume and Turning  
Movement Study

Date: 07/11/24

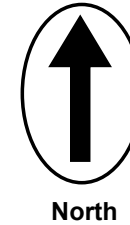
Count Number: TMC 2420

Location: CSAH 14

@ CSAH 1

Collection Period: 24 HR

Peak Hour: 4:15 - 5:15 PM



North

101

#2

5th Ave

51			
14	19	18	0
E	F	G	H

50

CSAH 14

I	10	585
J	537	
K	38	
L	0	

#3

1350

765

1676

#1

826

850	2	D
	6	C
	692	B
	150	A

CSAH 14

P	O	N	M
0	273	34	55
362			

#4

207

569

CSAH 1

Anoka County  
Highway Department

Traffic Volume and Turning  
Movement Study

EXISTING LANES OF APPROACH

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

**TMC 2420 - CSAH 14 @ CSAH 1  
Anoka MN  
Thursday, July 11, 2024**

Time	Southbound CSAH 7						Westbound CSAH 14						Northbound 7th Ave						Eastbound CSAH 14						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	1	12	0	0	13	0	3	0	0	1	3	0	0	9	0	0	9	25
12:15 AM	0	0	0	0	0	0	0	0	11	0	0	11	0	6	0	0	0	6	0	0	10	5	0	15	32
12:30 AM	0	1	0	0	0	1	0	0	9	0	0	9	0	3	1	1	1	5	0	0	15	8	0	23	38
12:45 AM	0	0	0	0	0	0	0	1	7	0	0	8	0	6	0	0	0	6	0	0	7	3	0	10	24
Hourly Total	0	1	0	0	0	1	0	2	39	0	0	41	0	18	1	1	2	20	0	0	41	16	0	57	119
1:00 AM	0	0	0	3	0	3	0	0	12	0	0	12	0	5	0	0	0	5	0	0	18	1	0	19	39
1:15 AM	0	0	1	0	0	1	0	0	1	0	0	1	0	4	0	0	0	4	1	1	10	1	0	13	19
1:30 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	2	0	0	0	2	0	0	12	2	0	14	22
1:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	0	0	3	0	0	10	3	0	13	19
Hourly Total	0	0	1	3	0	4	0	0	22	0	0	22	0	14	0	0	0	14	1	1	50	7	0	59	99
2:00 AM	0	0	0	2	0	2	0	0	7	0	0	7	0	2	2	0	0	4	0	0	6	0	0	6	19
2:15 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	4	0	0	0	4	0	0	9	5	0	14	25
2:30 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	2	0	0	0	2	0	0	6	4	0	10	17
2:45 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	2	1	0	0	3	0	0	10	1	0	11	16
Hourly Total	0	0	0	2	0	2	0	0	20	1	0	21	0	10	3	0	0	13	0	0	31	10	0	41	77
3:00 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	7	2	0	9	16
3:15 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	4	0	0	0	4	0	0	3	4	0	7	14
3:30 AM	0	0	0	0	0	0	0	0	13	0	0	13	0	4	0	0	0	4	1	0	3	2	0	6	23
3:45 AM	0	1	0	0	0	1	0	0	11	0	0	11	0	4	0	1	0	5	0	0	6	3	0	9	26
Hourly Total	0	1	0	0	0	1	0	0	34	0	0	34	0	12	0	1	0	13	1	0	19	11	0	31	79
4:00 AM	0	0	1	2	0	3	0	0	12	0	0	12	0	4	0	1	0	5	0	0	10	5	0	15	35
4:15 AM	0	0	0	0	0	0	0	1	15	0	0	16	0	4	0	0	0	4	0	0	6	6	0	12	32
4:30 AM	0	0	0	2	0	2	0	0	23	0	0	23	0	12	0	1	0	13	0	0	10	1	0	11	49
4:45 AM	0	0	0	0	0	0	0	0	15	1	0	16	0	10	1	2	0	13	0	0	15	9	0	24	53
Hourly Total	0	0	1	4	0	5	0	1	65	1	0	67	0	30	1	4	0	35	0	0	41	21	0	62	169
5:00 AM	0	0	1	1	0	2	0	0	22	0	0	22	0	18	0	2	0	20	0	0	18	5	0	23	67
5:15 AM	0	0	0	1	0	1	0	0	60	0	0	60	0	17	0	0	2	17	0	0	19	7	0	26	104
5:30 AM	0	0	0	4	0	4	0	0	53	0	0	53	0	25	1	1	1	27	1	0	19	21	0	41	125
5:45 AM	0	0	0	0	0	0	0	2	41	0	0	43	0	15	1	2	0	18	0	0	34	26	0	60	121
Hourly Total	0	0	1	6	0	7	0	2	176	0	0	178	0	75	2	5	3	82	1	0	90	59	0	150	417
6:00 AM	0	0	0	2	0	2	0	5	73	1	1	79	0	19	1	1	0	21	0	0	38	21	1	59	161
6:15 AM	0	0	0	4	0	4	0	2	95	0	1	97	0	31	2	11	0	44	0	0	61	38	0	99	244
6:30 AM	0	1	2	2	0	5	0	8	115	0	0	123	0	38	2	4	1	44	0	0	59	60	0	119	291
6:45 AM	0	0	2	2	1	4	0	3	101	3	0	107	0	34	1	7	0	42	0	0	77	70	0	147	300
Hourly Total	0	1	4	10	1	15	0	18	384	4	2	406	0	122	6	23	1	151	0	0	235	189	1	424	996
7:00 AM	0	1	4	2	0	7	0	3	110	4	0	117	0	42	4	2	0	48	0	1	65	48	0	114	286
7:15 AM	0	0	1	0	0	1	0	7	97	4	0	108	0	48	3	2	3	53	0	1	81	47	0	129	291
7:30 AM	0	1	3	2	0	6	0	11	107	2	0	120	0	64	11	1	1	76	0	4	90	54	0	148	350
7:45 AM	0	2	4	4	0	10	0	25	139	7	0	171	0	50	11	6	2	67	0	4	107	57	0	168	416
Hourly Total	0	4	12	8	0	24	0	46	453	17	0	516	0	204	29	11	6	244	0	10	343	206	0	559	1343

**TMC 2420 - CSAH 14 @ CSAH 1  
Anoka MN  
Thursday, July 11, 2024**

Time	Southbound CSAH 7						Westbound CSAH 14						Northbound 7th Ave						Eastbound CSAH 14						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	1	3	4	0	8	0	14	108	2	0	124	0	41	4	13	2	58	0	1	95	51	0	147	337
8:15 AM	0	4	6	2	0	12	0	6	110	1	0	117	0	36	2	6	0	44	0	0	71	44	0	115	288
8:30 AM	0	4	6	5	0	15	0	14	83	2	1	99	0	44	3	7	0	54	0	1	94	39	0	134	302
8:45 AM	0	2	1	6	0	9	0	26	103	3	1	132	0	44	5	15	0	64	3	2	95	46	0	146	351
Hourly Total	0	11	16	17	0	44	0	60	404	8	2	472	0	165	14	41	2	220	3	4	355	180	0	542	1278
9:00 AM	0	4	2	1	0	7	1	8	119	0	0	128	0	40	4	12	0	56	1	2	107	41	1	151	342
9:15 AM	0	2	3	2	2	7	0	7	95	4	1	106	0	46	1	4	0	51	0	0	124	36	0	160	324
9:30 AM	0	1	4	2	0	7	0	8	138	2	0	148	0	47	0	10	0	57	0	1	111	45	0	157	369
9:45 AM	0	3	2	0	0	5	0	13	96	2	0	111	0	58	2	11	1	71	1	2	123	43	0	169	356
Hourly Total	0	10	11	5	2	26	1	36	448	8	1	493	0	191	7	37	1	235	2	5	465	165	1	637	1391
10:00 AM	0	1	0	1	1	2	1	9	101	2	0	113	0	45	5	10	1	60	0	1	104	42	0	147	322
10:15 AM	0	2	1	0	0	3	0	13	108	2	0	123	0	54	1	15	1	70	1	3	119	44	0	167	363
10:30 AM	0	1	3	5	2	9	0	7	151	3	1	161	0	37	1	4	1	42	3	1	143	42	0	189	401
10:45 AM	0	5	2	1	0	8	0	9	134	1	0	144	0	57	3	7	0	67	1	2	123	41	0	167	386
Hourly Total	0	9	6	7	3	22	1	38	494	8	1	541	0	193	10	36	3	239	5	7	489	169	0	670	1472
11:00 AM	0	4	1	7	0	12	0	11	137	3	0	151	0	55	5	18	0	78	2	1	149	48	0	200	441
11:15 AM	0	5	1	4	1	10	0	5	129	2	0	136	0	57	5	11	0	73	3	1	142	35	0	181	400
11:30 AM	0	1	6	3	0	10	0	7	142	1	0	150	0	56	1	12	2	69	0	1	151	37	1	189	418
11:45 AM	0	2	2	3	2	7	0	12	143	6	0	161	0	52	5	10	1	67	1	2	180	38	2	221	456
Hourly Total	0	12	10	17	3	39	0	35	551	12	0	598	0	220	16	51	3	287	6	5	622	158	3	791	1715
12:00 PM	0	4	2	1	0	7	0	5	123	3	0	131	0	63	3	14	0	80	1	1	180	36	0	218	436
12:15 PM	0	2	3	5	1	10	0	9	161	3	0	173	0	45	7	9	0	61	0	1	162	39	0	202	446
12:30 PM	0	6	4	1	0	11	0	10	141	5	2	156	0	56	7	15	0	78	1	3	174	53	1	231	476
12:45 PM	0	4	2	4	0	10	0	13	149	0	0	162	0	52	6	12	0	70	0	3	164	41	0	208	450
Hourly Total	0	16	11	11	1	38	0	37	574	11	2	622	0	216	23	50	0	289	2	8	680	169	1	859	1808
1:00 PM	0	2	3	5	0	10	0	6	141	1	0	148	0	41	4	26	2	71	1	0	187	44	0	232	461
1:15 PM	0	2	1	2	2	5	0	9	119	2	0	130	0	46	3	11	0	60	0	1	139	27	2	167	362
1:30 PM	0	2	2	1	1	5	0	8	151	2	0	161	0	54	4	10	0	68	0	1	171	42	0	214	448
1:45 PM	0	4	5	12	1	21	0	12	123	2	0	137	0	63	7	6	0	76	0	3	158	42	0	203	437
Hourly Total	0	10	11	20	4	41	0	35	534	7	0	576	0	204	18	53	2	275	1	5	655	155	2	816	1708
2:00 PM	0	0	2	0	1	2	0	7	115	1	1	123	0	69	6	14	0	89	0	1	151	33	0	185	399
2:15 PM	0	2	1	0	0	3	0	7	145	5	0	157	0	63	2	7	0	72	2	4	190	39	0	235	467
2:30 PM	0	1	5	2	1	8	0	7	135	2	0	144	0	60	5	14	1	79	0	2	177	54	1	233	464
2:45 PM	0	1	2	0	1	3	1	14	114	3	0	132	0	57	9	17	0	83	0	2	154	43	0	199	417
Hourly Total	0	4	10	2	3	16	1	35	509	11	1	556	0	249	22	52	1	323	2	9	672	169	1	852	1747
3:00 PM	0	4	1	7	1	12	0	7	135	1	1	143	0	58	4	18	0	80	1	3	170	58	0	232	467
3:15 PM	0	2	6	5	0	13	0	11	129	2	0	142	0	59	6	15	1	80	0	2	157	39	0	198	433
3:30 PM	0	1	3	7	3	11	0	9	135	1	1	145	0	72	10	6	0	88	1	3	179	51	0	234	478
3:45 PM	0	2	1	2	0	5	0	13	136	1	0	150	0	78	4	9	0	91	2	0	161	34	0	197	443
Hourly Total	0	9	11	21	4	41	0	40	535	5	2	580	0	267	24	48	1	339	4	8	667	182	0	861	1821

**TMC 2420 - CSAH 14 @ CSAH 1  
Anoka MN  
Thursday, July 11, 2024**

Time	Southbound CSAH 7						Westbound CSAH 14						Northbound 7th Ave						Eastbound CSAH 14						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	3	2	4	0	9	0	7	120	2	1	129	0	68	9	15	1	92	0	4	157	37	6	198	428
4:15 PM	0	6	4	3	0	13	0	6	134	6	0	146	0	76	6	7	0	89	0	2	172	42	0	216	464
4:30 PM	0	4	7	5	0	16	0	19	131	3	1	153	0	67	8	11	2	86	1	2	193	35	0	231	486
4:45 PM	0	6	5	3	1	14	0	7	139	1	0	147	0	67	9	16	1	92	0	1	161	34	0	196	449
Hourly Total	0	19	18	15	1	52	0	39	524	12	2	575	0	278	32	49	4	359	1	9	683	148	6	841	1827
5:00 PM	0	2	3	3	3	8	0	6	133	0	2	139	0	63	11	21	2	95	1	1	166	39	0	207	449
5:15 PM	0	6	1	5	7	12	0	8	140	3	0	151	0	66	10	14	0	90	1	3	156	43	2	203	456
5:30 PM	0	1	2	2	1	5	0	8	131	2	0	141	0	63	7	9	1	79	0	0	167	60	1	227	452
5:45 PM	0	3	3	2	0	8	0	11	150	3	0	164	0	49	4	12	0	65	0	3	173	48	0	224	461
Hourly Total	0	12	9	12	11	33	0	33	554	8	2	595	0	241	32	56	3	329	2	7	662	190	3	867	1818
6:00 PM	0	0	0	2	0	2	0	18	138	2	1	158	0	45	3	12	4	60	0	2	167	41	0	210	430
6:15 PM	0	1	3	2	5	6	0	20	109	3	0	132	0	52	3	15	0	70	0	0	175	38	3	213	421
6:30 PM	0	0	0	0	2	0	0	7	113	2	0	122	0	38	2	5	4	45	0	1	152	48	1	203	368
6:45 PM	0	0	0	2	0	2	0	14	115	2	1	131	0	41	0	3	3	44	0	4	113	34	0	151	328
Hourly Total	0	1	3	6	7	10	0	59	475	9	2	543	0	176	8	35	11	219	0	7	607	161	4	775	1547
7:00 PM	0	3	0	4	0	7	1	21	105	2	0	129	0	29	3	4	0	36	0	9	131	25	0	165	337
7:15 PM	0	0	0	2	2	2	1	15	105	0	0	121	0	37	5	9	2	51	0	3	125	41	5	169	343
7:30 PM	0	3	3	1	2	7	0	5	91	3	0	99	0	43	3	4	2	50	0	0	126	32	0	158	314
7:45 PM	0	6	1	3	4	10	0	8	85	1	0	94	0	30	2	7	2	39	0	1	104	28	0	133	276
Hourly Total	0	12	4	10	8	26	2	49	386	6	0	443	0	139	13	24	6	176	0	13	486	126	5	625	1270
8:00 PM	0	0	1	7	1	8	0	4	83	3	0	90	0	33	3	6	1	42	1	1	117	36	0	155	295
8:15 PM	0	0	2	2	2	4	0	6	80	1	1	87	0	38	2	7	0	47	0	1	99	21	0	121	259
8:30 PM	0	0	2	0	0	2	0	2	73	1	0	76	0	29	3	5	0	37	0	2	115	18	0	135	250
8:45 PM	0	1	0	0	0	1	0	2	69	2	1	73	0	35	3	5	1	43	0	1	101	23	0	125	242
Hourly Total	0	1	5	9	3	15	0	14	305	7	2	326	0	135	11	23	2	169	1	5	432	98	0	536	1046
9:00 PM	0	0	0	2	0	2	0	0	81	1	1	82	0	23	4	5	1	32	1	5	94	23	0	123	239
9:15 PM	0	0	0	0	0	0	0	1	57	1	0	59	0	21	1	4	1	26	0	1	77	24	0	102	187
9:30 PM	0	0	0	1	0	1	0	5	59	1	0	65	0	24	0	3	0	27	0	0	69	26	0	95	188
9:45 PM	0	0	0	0	0	0	0	3	45	1	0	49	0	16	1	3	0	20	0	1	52	21	0	74	143
Hourly Total	0	0	0	3	0	3	0	9	242	4	1	255	0	84	6	15	2	105	1	7	292	94	0	394	757
10:00 PM	0	1	1	0	1	2	0	1	38	1	1	40	0	17	2	22	0	41	2	1	55	16	0	74	157
10:15 PM	0	2	1	1	0	4	0	4	34	2	0	40	0	18	1	10	0	29	2	0	61	20	0	83	156
10:30 PM	0	0	0	2	0	2	0	1	32	1	0	34	0	14	0	15	1	29	2	1	75	23	1	101	166
10:45 PM	0	1	0	1	0	2	0	1	16	0	0	19	0	16	1	9	0	26	0	0	48	19	0	67	114
Hourly Total	0	4	2	4	1	10	0	7	122	4	1	133	0	65	4	56	1	125	6	2	239	78	1	325	593
11:00 PM	0	2	0	2	0	4	0	1	34	0	0	35	0	15	1	1	0	17	1	0	50	8	0	59	115
11:15 PM	0	0	0	0	0	0	0	0	24	0	0	24	0	12	1	1	0	14	0	1	25	11	0	37	75
11:30 PM	0	0	0	0	0	0	0	0	28	0	0	28	0	22	2	3	0	27	0	1	24	5	0	30	85
11:45 PM	0	1	1	0	0	2	0	1	8	0	0	9	0	7	0	1	0	8	0	1	23	2	0	26	45
Hourly Total	0	3	1	2	0	6	0	2	94	0	0	96	0	56	4	6	0	66	1	3	122	26	0	152	320
<b>DAILY TOTAL</b>	<b>0</b>	<b>140</b>	<b>147</b>	<b>194</b>	<b>52</b>	<b>481</b>	<b>5</b>	<b>597</b>	<b>7944</b>	<b>143</b>	<b>21</b>	<b>8689</b>	<b>0</b>	<b>3364</b>	<b>286</b>	<b>677</b>	<b>54</b>	<b>4327</b>	<b>40</b>	<b>115</b>	<b>8978</b>	<b>2787</b>	<b>28</b>	<b>11920</b>	<b>25417</b>
<b>Cars</b>	0	139	146	194	39	479	5	582	7822	140	9	8549	0	3312	281	672	41	4265	40	115	8850	2735	21	11740	25033
<b>Heavy Vehicles</b>	0	1	1	0	13	2	0	15	122	3	12	140	0	52	5	5	13	62	0	0	128	52	7	180	384
<b>Heavy Vehicle %</b>	0.00%	0.71%	0.68%	0.00%	25.00%	0.42%	0.00%	2.51%	1.54%	2.10%	57.14%	1.61%	0.00%	1.55%	1.75%	0.74%	24.07%	1.43%	0.00%	0.00%	1.43%	1.87%	25.00%	1.51%	1.51%

**TMC 2420 - CSAH 14 @ CSAH 1**  
**Anoka MN**  
**Thursday, July 11, 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	
11:00 AM	0	4	1	7	0	12	0	11	137	3	0	151	0	55	5	18	0	78	2	1	149	48	0	200	441
11:15 AM	0	5	1	4	1	10	0	5	129	2	0	136	0	57	5	11	0	73	3	1	142	35	0	181	400
11:30 AM	0	1	6	3	0	10	0	7	142	1	0	150	0	56	1	12	2	69	0	1	151	37	1	189	418
11:45 AM	0	2	2	3	2	7	0	12	143	6	0	161	0	52	5	10	1	67	1	2	180	38	2	221	456
Peak Hour Total	0	12	10	17	3	39	0	35	551	12	0	598	0	220	16	51	3	287	6	5	622	158	3	791	1715
PHF	0.000	0.600	0.417	0.607	0.375	0.813	0.000	0.729	0.963	0.500	0.000	0.929	0.000	0.965	0.800	0.708	0.375	0.920	0.500	0.625	0.864	0.823	0.375	0.895	0.940

**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	
4:15 PM	0	6	4	3	0	13	0	6	134	6	0	146	0	76	6	7	0	89	0	2	172	42	0	216	464
4:30 PM	0	4	7	5	0	16	0	19	131	3	1	153	0	67	8	11	2	86	1	2	193	35	0	231	486
4:45 PM	0	6	5	3	1	14	0	7	139	1	0	147	0	67	9	16	1	92	0	1	161	34	0	196	449
5:00 PM	0	2	3	3	3	8	0	6	133	0	2	139	0	63	11	21	2	95	1	1	166	39	0	207	449
Peak Hour Total	0	18	19	14	4	51	0	38	537	10	3	585	0	273	34	55	5	362	2	6	692	150	0	850	1848
PHF	0.000	0.750	0.679	0.700	0.333	0.797	0.000	0.500	0.966	0.417	0.375	0.956	0.000	0.898	0.773	0.655	0.625	0.953	0.500	0.750	0.896	0.893	0.000	0.920	0.951

Total Vehicles On Leg		1025	
Vehicles Entering Intersection	481	Vehicles Exiting Intersection	544
<b>Southbound</b>			
Cars	194	146	139
Heavy	0	1	0
<b>Total</b>	<b>194</b>	<b>147</b>	<b>140</b>

Total Vehicles on Leg 23462	Vehicles Entering Intersection 11920	Eastbound	Cars	Heavy	Total
			21	7	28
			40	0	40
			115	0	115
			8850	128	8978
2735	52	2787			

Total Vehicles on Leg 18489	Vehicles Entering Intersection 8689	Westbound	Cars	Heavy	Total
			140	3	143
			7822	122	7944
			582	15	597
			5	0	5
9	12	21			

Daily Volumes

Cars	41	0	3312	281	672
Heavy	13	0	52	5	5
<b>Total</b>	<b>54</b>	<b>0</b>	<b>3364</b>	<b>286</b>	<b>677</b>
<b>Northbound</b>					
Vehicles Entering Intersection	4327		Vehicles Exiting Intersection	3531	
Total Vehicles On Leg	7858				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z			
1	Heavy Vehicles																												
2			Southbound						Westbound						Northbound						Eastbound								
3	Date	Time	U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk			
4	07/11/2024	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5		0:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6		0:30	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		
7		0:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	
8		1:00	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	
9		1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
10		1:30	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	
11		1:45	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	
12		2:00	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	
13		2:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14		2:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15		2:45	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	
16		3:00	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	
17		3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
18		3:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19		3:45	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	
20		4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
21		4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
22		4:30	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	
23		4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
24		5:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
25		5:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26		5:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	
27		5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	
28		6:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	
29		6:15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	4	0	0	0	
30		6:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0	
31		6:45	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	
32		7:00	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	
33		7:15	0	0	0	0	0	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0	
34		7:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3	1	0	0	
35		7:45	0	0	1	0	0	0	0	5	10	0	0	0	0	0	3	0	0	0	0	0	0	0	8	1	0	0	
36		8:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
37		8:15	0	0	0	0	0	0	0	1	5	0	0	0	0	0	1	0	0	0	0	0	0	0	3	2	0	0	
38		8:30	0	0	0	0	0	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	
39		8:45	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
40		9:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	1	0	0	0	0	0	0	4	1	0	0	
41		9:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	
42		9:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0	0	
43		9:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	
44		10:00	0	0	0	0	0	0	0	1	4	0	0	0	0	0	3	1	0	0	0	0	0	0	5	2	0	0	
45		10:15	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	3	1	0	0	
46		10:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	
47		10:45	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	
48		11:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	
49		11:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	0	4	1	0	0	
50		11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	
51		11:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	1	0	0	0	0	4	0	0	0	
52		12:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
53		12:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	
54		12:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	
55		12:45	0	0	0	0	0	0	0	5	3	0	0	0	0	0	2	0	0	0	0	0	0	0	3	1	0	0	
56		13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	0	0	0	5	1	0	0	
57		13:15	0	0	0	0	0	2	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4	1	1	1	
58		13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	1	0	0	
59		13:45	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
60		14:00	0	0	0	0	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
61		14:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	
62		14:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	
63		14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	
64		15:00	0	0	0	0	0	1	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
65		15:15	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	
66		15:30	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
67		15:45	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	
68		16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
69		16:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	
70		16:30	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	
71		16:45	0	0	0	0	0	1	0	0																			



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2420

Study Date : 07/16/2024

## Signal Warrants - Summary

### Major Street Approaches

**Eastbound: CSAH 14**

Number of Lanes : 2+

Total Approach Volume: 11,920

**Westbound: CSAH 14**

Number of Lanes : 2+

Total Approach Volume: 8,689

### Minor Street Approaches

**Northbound: CSAH 1**

Number of Lanes : 2+

Total Approach Volume: 4,327

**Southbound: 5th Ave**

Number of Lanes : 1

Total Approach Volume: 481

### Warrant Summary (Urban Values Apply)

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

**Warrant 1A - Minimum Vehicular Volume.....Satisfied**

Required volumes reached for 12 hours, 8 are needed

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

Required volumes reached for 14 hours, 8 are needed

**Warrant 1C - Combination of Warrants.....Satisfied**

Required 1A volumes reached for 14 hours, 8 are needed

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

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

Number of hours (14) volumes exceed minimum >= minimum required (4).

**Warrant 3 - Peak Hour.....Satisfied**

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

Number of one hour periods (58) 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: TMC 2420

Study Date : 07/16/2024

## 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

12 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

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

#### Volume Requirements

Veh/Hr Major = **600**  
 Veh/Hr Minor = **200 150**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
11:45 - 12:45	872	+	621	=	1493	286	35	Yes
14:45 - 15:45	863	+	562	=	1425	331	39	Yes
17:45 - 18:45	848	+	576	=	1424	240	16	Yes
12:45 - 13:45	821	+	601	=	1422	269	30	Yes
15:45 - 16:45	842	+	578	=	1420	358	43	Yes
13:45 - 14:45	856	+	561	=	1417	316	34	Yes
16:45 - 17:45	833	+	578	=	1411	356	39	Yes
10:45 - 11:45	737	+	581	=	1318	287	40	Yes
09:45 - 10:45	672	+	508	=	1180	243	19	Yes
08:45 - 09:45	614	+	514	=	1128	228	30	Yes
07:45 - 08:45	564	+	511	=	1075	223	45	Yes
06:45 - 07:45	538	+	452	=	990	219	18	Yes
18:45 - 19:45	643	+	480	=	1123	181	18	No
19:00 - 20:00	625	+	443	=	1068	176	26	No
19:15 - 20:15	615	+	404	=	1019	182	27	No
06:30 - 07:30	509	+	455	=	964	187	17	No
19:30 - 20:30	567	+	370	=	937	178	29	No
06:15 - 07:15	479	+	444	=	923	178	20	No
19:45 - 20:45	544	+	347	=	891	165	24	No
20:00 - 21:00	536	+	326	=	862	169	15	No
06:00 - 07:00	424	+	406	=	830	151	15	No
20:15 - 21:15	504	+	318	=	822	159	9	No
20:30 - 21:30	485	+	290	=	775	138	5	No
20:45 - 21:45	445	+	279	=	724	128	4	No
05:45 - 06:45	337		342		679	127	11	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2420

Study Date : 07/16/2024

## 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

14 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

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

#### Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
12:15 - 13:15	873	+	639	=	1512	280	41	Yes
17:15 - 18:15	864	+	614	=	1478	294	27	Yes
14:15 - 15:15	899	+	576	=	1475	314	26	Yes
16:15 - 17:15	850	+	585	=	1435	362	51	Yes
15:15 - 16:15	827	+	566	=	1393	351	38	Yes
11:15 - 12:15	809	+	578	=	1387	289	34	Yes
13:15 - 14:15	769	+	551	=	1320	293	33	Yes
10:15 - 11:15	723	+	579	=	1302	257	32	Yes
18:15 - 19:15	730	+	514	=	1244	195	15	Yes
07:15 - 08:15	592	+	523	=	1115	254	25	Yes
09:15 - 10:15	633	+	478	=	1111	239	21	Yes
08:15 - 09:15	546	+	476	=	1022	218	43	Yes
19:15 - 20:15	615	+	404	=	1019	182	27	Yes
06:15 - 07:15	479	+	444	=	923	178	20	Yes
06:00 - 07:00	424	+	406	=	830	151	15	No
20:15 - 21:15	504	+	318	=	822	159	9	No
20:30 - 21:30	485	+	290	=	775	138	5	No
20:45 - 21:45	445	+	279	=	724	128	4	No
05:45 - 06:45	337	+	342	=	679	127	11	No
21:00 - 22:00	394	+	255	=	649	105	3	No
21:15 - 22:15	345	+	213	=	558	114	3	No
05:30 - 06:30	259	+	272	=	531	110	10	No
21:30 - 22:30	326	+	194	=	520	117	7	No
21:45 - 22:45	332	+	163	=	495	119	8	No
22:00 - 23:00	325		133		458	125	10	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2420

Study Date : 07/16/2024

## 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

14 hours meet 1A minimums.  
15 hours meet 1B minimums.  
Warrant IS met.

#### Site Data Required

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

#### Volume Requirements

Warrant                    1A    1B  
Veh/Hr Major =        **480** **720**  
Veh/Hr Minor NB =   **160** **80**  
Veh/Hr Minor SB =   **120** **60**

#### Major Road CSAH 14

#### Minor Road CSAH 1

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
12:15 - 13:15	873	+	639	=	1512	280	41	Yes
17:15 - 18:15	864	+	614	=	1478	294	27	Yes
14:15 - 15:15	899	+	576	=	1475	314	26	Yes
16:15 - 17:15	850	+	585	=	1435	362	51	Yes
15:15 - 16:15	827	+	566	=	1393	351	38	Yes
11:15 - 12:15	809	+	578	=	1387	289	34	Yes
13:15 - 14:15	769	+	551	=	1320	293	33	Yes
10:15 - 11:15	723	+	579	=	1302	257	32	Yes
18:15 - 19:15	730	+	514	=	1244	195	15	Yes
07:15 - 08:15	592	+	523	=	1115	254	25	Yes
09:15 - 10:15	633	+	478	=	1111	239	21	Yes
08:15 - 09:15	546		476		1022	218	43	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
12:00 - 13:00	859	+	622	=	1481	289	38	Yes
17:00 - 18:00	861	+	595	=	1456	329	33	Yes
15:00 - 16:00	861	+	580	=	1441	339	41	Yes
16:00 - 17:00	841	+	575	=	1416	359	52	Yes
14:00 - 15:00	852	+	556	=	1408	323	16	Yes
13:00 - 14:00	816	+	576	=	1392	275	41	Yes
11:00 - 12:00	791	+	598	=	1389	287	39	Yes
18:00 - 19:00	775	+	543	=	1318	219	10	Yes
10:00 - 11:00	670	+	541	=	1211	239	22	Yes
09:00 - 10:00	637	+	493	=	1130	235	26	Yes
07:00 - 08:00	559	+	516	=	1075	244	24	Yes
19:00 - 20:00	625		443		1068	176	26	Yes

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2420

Study Date : 07/16/2024

## 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.

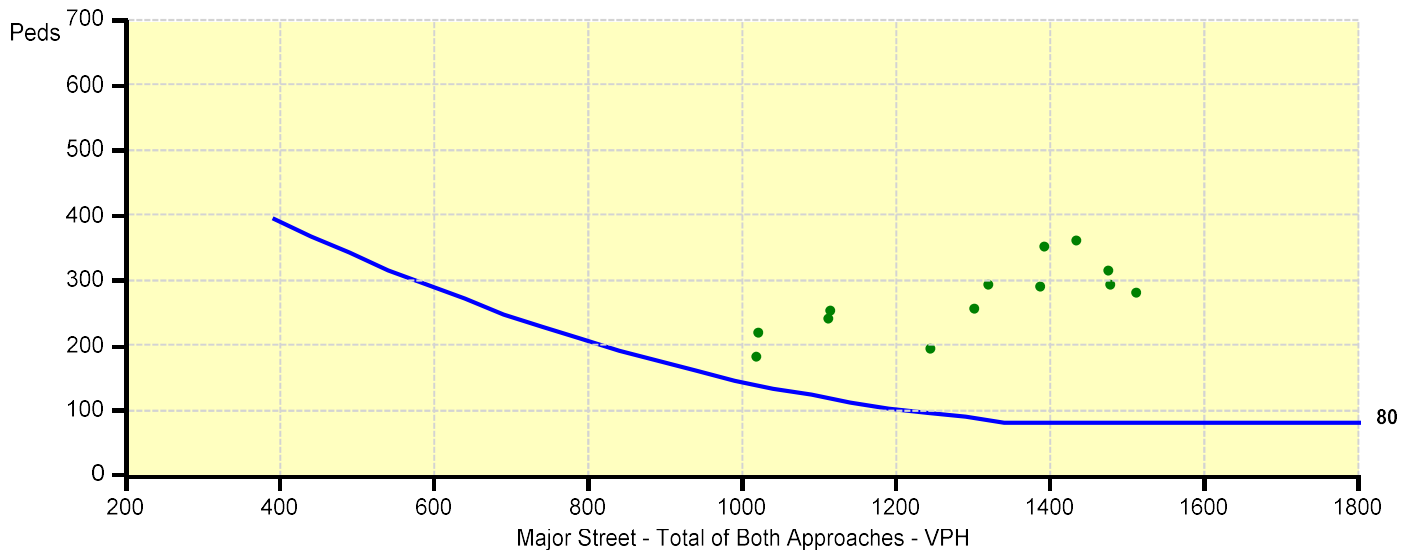
#### Summary

14 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

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

Time	Major Road CSAH 14					Minor Road CSAH 1		Met?
	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
12:15 - 13:15	873	+	639	=	1512	280	41	Yes
17:15 - 18:15	864	+	614	=	1478	294	27	Yes
14:15 - 15:15	899	+	576	=	1475	314	26	Yes
16:15 - 17:15	850	+	585	=	1435	362	51	Yes
15:15 - 16:15	827	+	566	=	1393	351	38	Yes
11:15 - 12:15	809	+	578	=	1387	289	34	Yes
13:15 - 14:15	769	+	551	=	1320	293	33	Yes
10:15 - 11:15	723	+	579	=	1302	257	32	Yes
18:15 - 19:15	730	+	514	=	1244	195	15	Yes
07:15 - 08:15	592	+	523	=	1115	254	25	Yes
09:15 - 10:15	633	+	478	=	1111	239	21	Yes
08:15 - 09:15	546		476		1022	218	43	Yes



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2420

Study Date : 07/16/2024

## 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

38 one hour periods meet minimums.  
Warrant IS met.

### Site Data Required

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

Time	Major Road CSAH 14				Total	Minor Road CSAH 1		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
12:15 - 13:15	873	+	639	=	1512	280	41	Yes
11:45 - 12:45	872	+	621	=	1493	286	35	Yes
12:00 - 13:00	859	+	622	=	1481	289	38	Yes
17:15 - 18:15	864	+	614	=	1478	294	27	Yes
14:15 - 15:15	899	+	576	=	1475	314	26	Yes
17:30 - 18:30	874	+	595	=	1469	274	21	Yes
17:00 - 18:00	861	+	595	=	1456	329	33	Yes
11:30 - 12:30	830	+	615	=	1445	277	34	Yes
15:00 - 16:00	861	+	580	=	1441	339	41	Yes
16:15 - 17:15	850	+	585	=	1435	362	51	Yes
12:30 - 13:30	838	+	596	=	1434	279	36	Yes
16:30 - 17:30	837	+	590	=	1427	363	50	Yes

