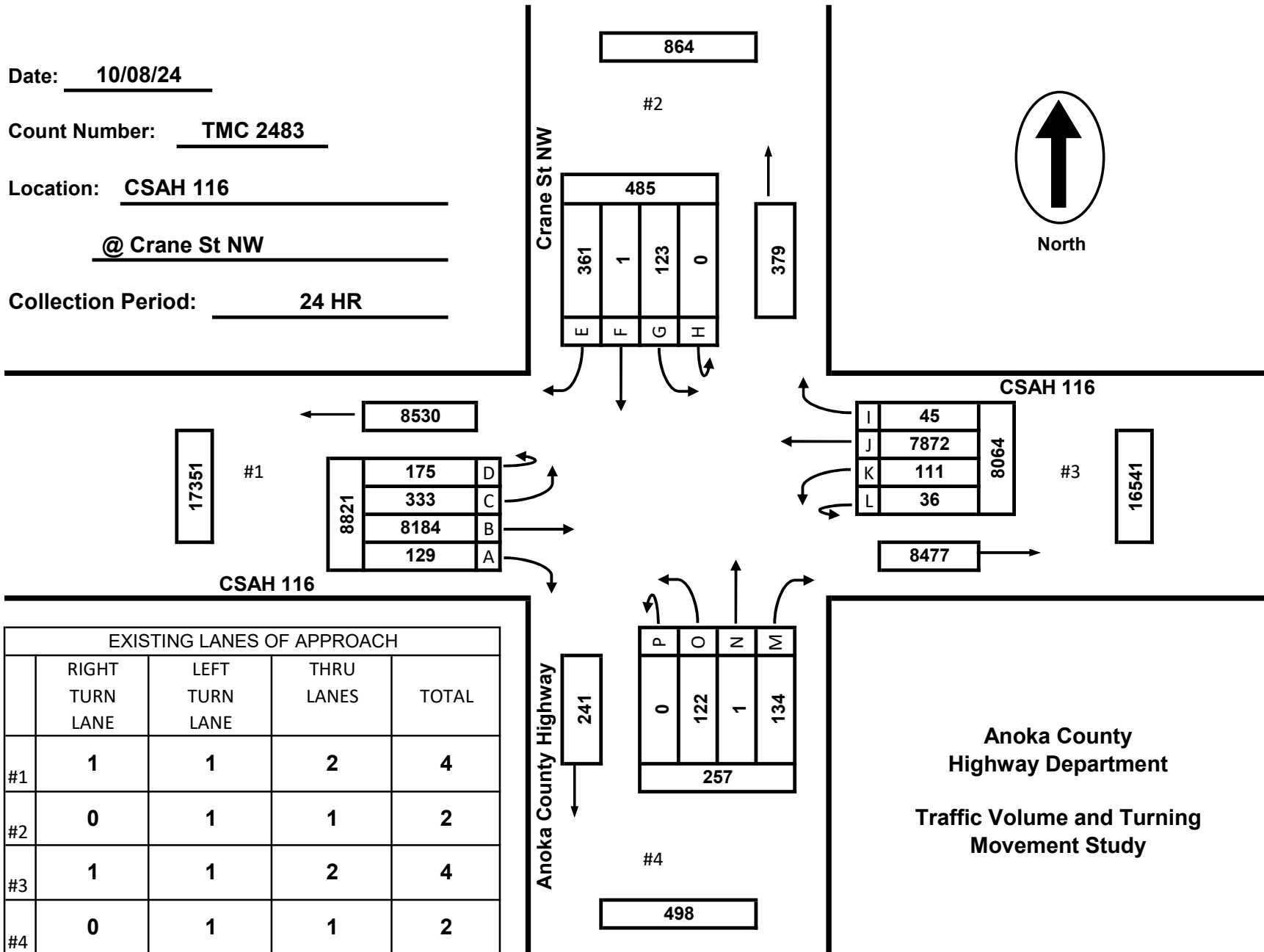
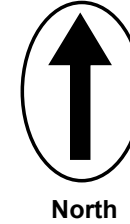


Date: 10/08/24

Count Number: TMC 2483

Location: CSAH 116
@ Crane St NW

Collection Period: 24 HR



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

Anoka County Highway Department
 Traffic Volume and Turning Movement Study

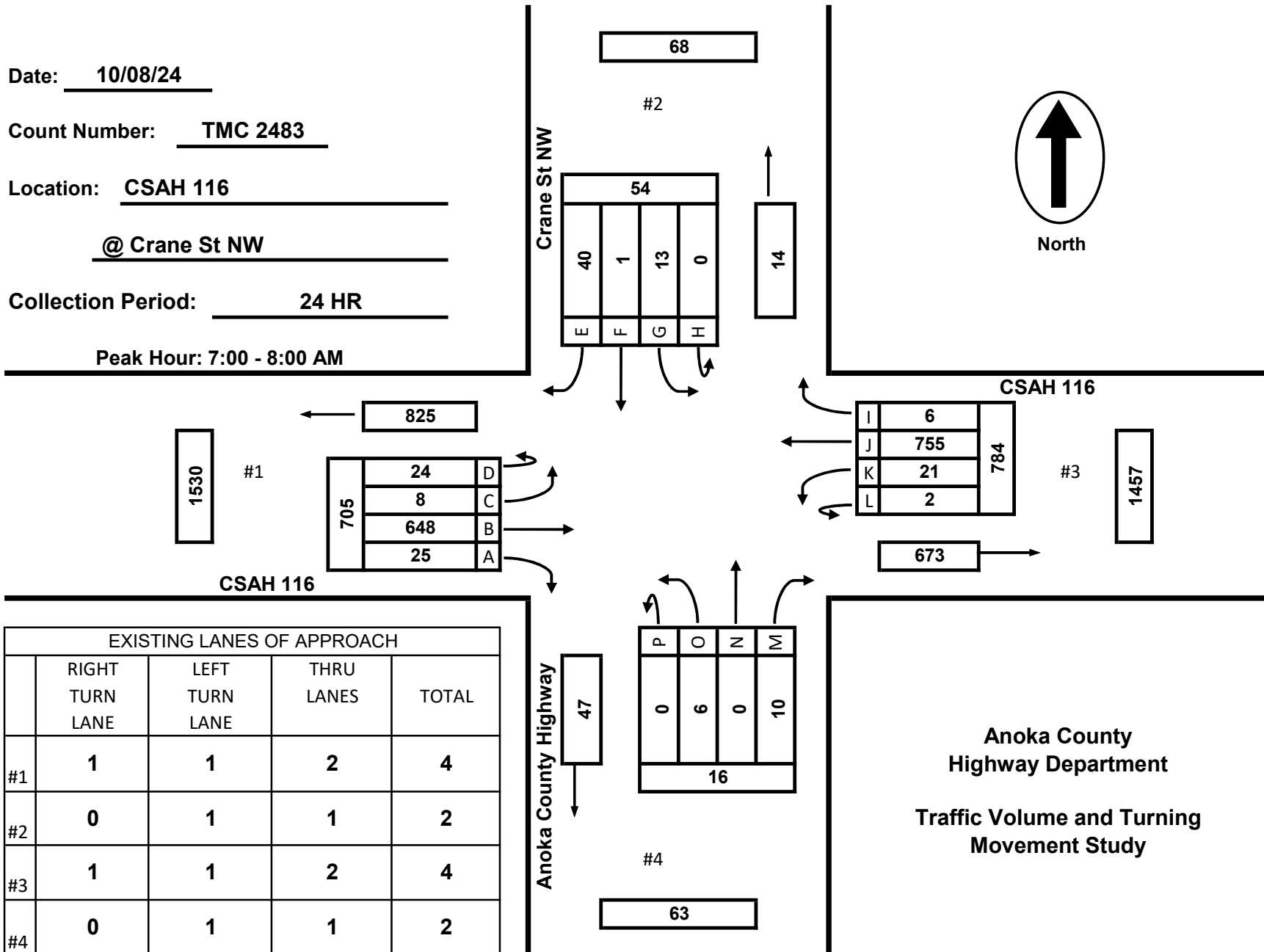
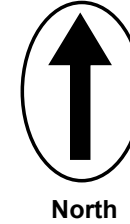
Date: 10/08/24

Count Number: TMC 2483

Location: CSAH 116
@ Crane St NW

Collection Period: 24 HR

Peak Hour: 7:00 - 8:00 AM



Anoka County
 Highway Department
 Traffic Volume and Turning
 Movement Study

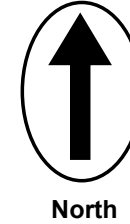
Date: 10/08/24

Count Number: TMC 2483

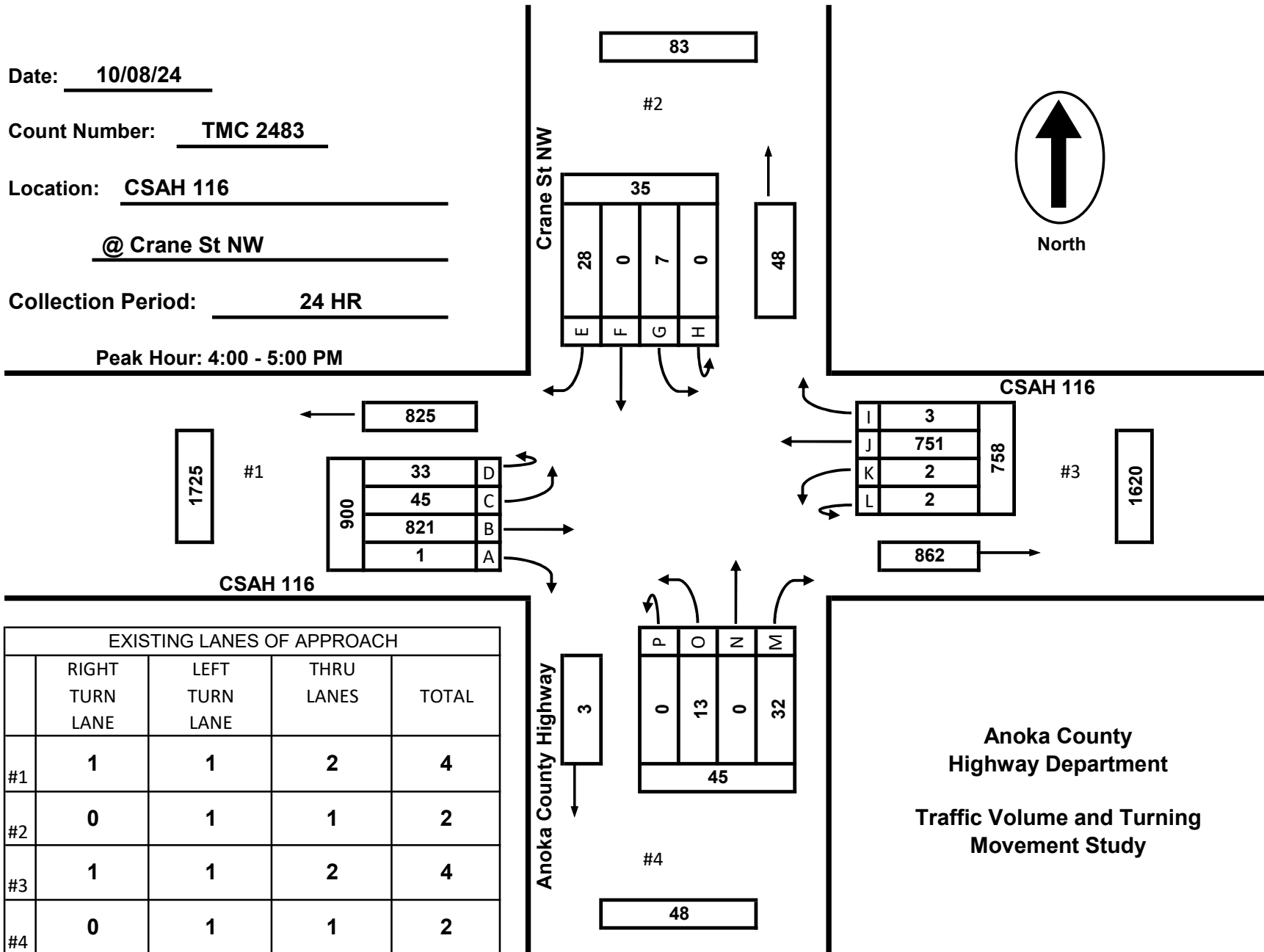
Location: CSAH 116
@ Crane St NW

Collection Period: 24 HR

Peak Hour: 4:00 - 5:00 PM



North



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

Anoka County Highway Department
 Traffic Volume and Turning Movement Study

**TMC 2483 - CSAH 116 @ Crane St NW
Andover MN
Tuesday, October 8, 2024**

Time	Southbound Crane St NW						Westbound CSAH 116						Northbound Anoka County Highway Dept						Eastbound CSAH 116						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	3	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6	10	
12:15 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	12	0	0	12	17	
12:30 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	6	0	0	6	11	
12:45 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	3	0	0	3	8	
Hourly Total	0	0	0	0	0	0	0	1	18	0	0	19	0	0	0	0	0	0	0	0	27	0	0	27	46	
1:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	4	
1:15 AM	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	0	3	5	
1:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	4	0	0	4	6	
1:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	5	
Hourly Total	0	0	0	1	0	1	0	0	5	0	0	5	0	0	0	1	0	0	0	0	13	0	0	13	20	
2:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	3	0	0	3	5	
2:15 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	0	2	5	
2:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	5	0	0	5	6	
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3	
Hourly Total	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	13	0	0	13	19	
3:00 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	2	0	0	2	7	
3:15 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	2	0	0	2	8	
3:30 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0	3	0	0	3	11	
3:45 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	2	0	0	2	8	
Hourly Total	0	0	0	0	0	0	0	0	25	0	0	25	0	0	0	0	0	0	0	0	9	0	0	9	34	
4:00 AM	0	0	0	1	0	1	0	0	12	0	0	12	0	0	0	0	0	0	0	0	7	0	0	7	20	
4:15 AM	0	0	0	1	0	1	0	0	13	0	0	13	0	0	0	0	0	0	0	0	10	0	0	10	24	
4:30 AM	0	1	0	1	0	2	0	1	25	0	0	26	0	0	0	0	0	0	0	0	11	0	0	11	39	
4:45 AM	0	1	0	4	0	5	1	2	27	0	0	30	0	0	0	1	0	0	1	0	10	1	0	11	47	
Hourly Total	0	2	0	7	0	9	1	3	77	0	0	81	0	0	0	1	0	0	0	0	38	1	0	39	130	
5:00 AM	0	0	0	2	0	2	0	1	22	0	0	23	0	0	0	0	0	0	0	0	11	1	0	12	37	
5:15 AM	0	1	0	3	0	4	0	0	34	1	0	35	0	0	0	0	0	0	0	0	19	4	0	23	62	
5:30 AM	0	0	0	6	0	6	0	0	44	0	0	44	0	0	0	0	0	0	0	0	1	39	1	0	41	91
5:45 AM	0	1	0	3	0	4	0	4	51	1	0	56	0	0	0	1	0	0	1	0	0	54	5	0	59	120
Hourly Total	0	2	0	14	0	16	0	5	151	2	0	158	0	0	0	1	0	0	0	0	1	123	11	0	135	310
6:00 AM	0	0	0	11	0	11	0	1	59	0	0	60	0	0	0	0	0	0	0	2	0	45	3	0	50	121
6:15 AM	0	0	0	8	0	8	0	6	80	0	0	86	0	0	0	0	0	0	0	3	1	72	7	0	83	177
6:30 AM	0	1	0	10	0	11	0	3	110	1	0	114	0	0	0	1	0	0	1	5	0	87	10	0	102	228
6:45 AM	0	7	0	10	0	17	2	7	146	0	0	155	0	0	0	1	0	0	1	0	2	103	15	0	120	293
Hourly Total	0	8	0	39	0	47	2	17	395	1	0	415	0	0	0	2	0	0	2	10	3	307	35	0	355	819
7:00 AM	0	3	0	13	0	16	0	7	150	2	0	159	0	1	0	2	0	0	3	3	3	111	9	0	126	304
7:15 AM	0	3	1	11	0	15	1	5	221	0	0	227	0	1	0	2	0	0	3	10	1	149	9	0	169	414
7:30 AM	0	3	0	9	0	12	1	3	204	2	0	210	0	3	0	2	0	0	5	6	2	205	4	0	217	444
7:45 AM	0	4	0	7	0	11	0	6	180	2	0	188	0	1	0	4	0	0	5	5	2	183	3	0	193	397
Hourly Total	0	13	1	40	0	54	2	21	755	6	0	784	0	6	0	10	0	0	16	24	8	648	25	0	705	1559

**TMC 2483 - CSAH 116 @ Crane St NW
Andover MN
Tuesday, October 8, 2024**

Time	Southbound Crane St NW						Westbound CSAH 116						Northbound Anoka County Highway Dept						Eastbound CSAH 116						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	2	0	7	0	9	0	4	131	1	0	136	0	2	0	1	0	3	2	2	110	4	0	118	266
8:15 AM	0	3	0	2	0	5	1	1	123	1	0	126	0	0	0	0	0	0	6	0	103	2	0	111	242
8:30 AM	0	3	0	7	0	10	1	3	109	0	0	113	0	2	0	0	0	2	4	1	100	1	0	106	231
8:45 AM	0	2	0	8	0	10	0	2	129	0	0	131	0	0	0	3	0	3	1	7	88	2	0	98	242
Hourly Total	0	10	0	24	0	34	2	10	492	2	0	506	0	4	0	4	0	8	13	10	401	9	0	433	981
9:00 AM	0	0	0	8	0	8	0	0	112	0	0	112	0	2	0	3	0	5	3	1	93	2	0	99	224
9:15 AM	0	5	0	1	0	6	2	0	99	2	0	103	0	1	0	1	0	2	3	3	94	2	0	102	213
9:30 AM	0	1	0	5	0	6	2	0	102	0	0	104	0	2	0	1	0	3	5	3	88	0	0	96	209
9:45 AM	0	1	0	3	0	4	0	2	110	0	0	112	0	0	0	2	0	2	1	1	107	0	0	109	227
Hourly Total	0	7	0	17	0	24	4	2	423	2	0	431	0	5	0	7	0	12	12	8	382	4	0	406	873
10:00 AM	0	2	0	8	0	10	1	0	77	0	0	78	0	1	0	3	0	4	0	3	84	1	0	88	180
10:15 AM	0	1	0	5	0	6	1	0	86	0	0	87	0	5	0	0	0	5	3	3	91	2	0	99	197
10:30 AM	0	4	0	6	0	10	1	0	92	0	0	93	0	3	0	3	0	6	1	3	94	1	0	99	208
10:45 AM	0	4	0	2	0	6	0	0	76	0	0	76	0	1	0	0	0	1	3	7	103	0	0	113	196
Hourly Total	0	11	0	21	0	32	3	0	331	0	0	334	0	10	0	6	0	16	7	16	372	4	0	399	781
11:00 AM	0	2	0	5	0	7	1	0	71	1	0	73	0	0	0	2	2	2	3	5	74	0	0	82	164
11:15 AM	0	1	0	6	1	7	0	3	92	1	0	96	0	4	0	7	0	11	0	2	101	2	0	105	219
11:30 AM	0	1	0	7	0	8	0	3	101	0	0	104	0	1	0	4	0	5	1	5	83	6	0	95	212
11:45 AM	0	0	0	4	0	4	0	0	99	0	0	99	0	3	1	4	0	8	2	2	93	5	0	102	213
Hourly Total	0	4	0	22	1	26	1	6	363	2	0	372	0	8	1	17	2	26	6	14	351	13	0	384	808
12:00 PM	0	0	0	7	3	7	0	1	95	0	1	96	0	5	0	3	1	8	1	5	97	2	0	105	216
12:15 PM	0	2	0	6	2	8	1	3	97	1	0	102	0	0	0	1	1	1	0	8	93	0	0	101	212
12:30 PM	0	0	0	5	0	5	3	1	106	0	0	110	0	0	0	1	1	1	0	4	110	3	0	117	233
12:45 PM	0	3	0	3	1	6	0	1	95	0	0	96	0	0	0	1	0	1	3	11	86	2	0	102	205
Hourly Total	0	5	0	21	6	26	4	6	393	1	1	404	0	5	0	6	3	11	4	28	386	7	0	425	866
1:00 PM	0	1	0	0	0	1	0	4	84	0	0	88	0	0	0	1	1	1	1	5	100	0	0	106	196
1:15 PM	0	0	0	5	2	5	0	1	87	1	0	89	0	0	0	2	2	2	2	3	106	0	0	111	207
1:30 PM	0	1	0	10	1	11	1	1	79	0	0	81	0	0	0	5	0	5	3	2	105	1	0	111	208
1:45 PM	0	2	0	2	1	4	0	6	114	0	0	120	0	1	0	1	1	2	0	9	98	1	0	108	234
Hourly Total	0	4	0	17	4	21	1	12	364	1	0	378	0	1	0	9	4	10	6	19	409	2	0	436	845
2:00 PM	0	2	0	9	0	11	0	5	141	0	0	146	0	6	0	1	0	7	0	3	136	2	0	141	305
2:15 PM	0	2	0	5	0	7	0	2	131	0	0	133	0	2	0	1	1	3	3	5	158	2	0	168	311
2:30 PM	0	3	0	6	0	9	0	1	134	3	0	138	0	2	0	4	1	6	2	10	165	3	0	180	333
2:45 PM	0	1	0	9	0	10	0	3	127	1	0	131	0	3	0	1	2	4	1	6	174	4	0	185	330
Hourly Total	0	8	0	29	0	37	0	11	533	4	0	546	0	13	0	7	4	20	6	24	633	11	0	674	1279
3:00 PM	0	4	0	2	2	6	0	3	158	0	0	161	0	11	0	3	0	14	1	6	170	0	0	177	358
3:15 PM	0	3	0	4	1	7	0	0	202	1	0	203	0	11	0	4	2	15	4	9	162	1	0	176	401
3:30 PM	0	4	0	8	0	12	0	0	163	1	0	164	0	18	0	9	0	27	3	17	202	1	0	223	426
3:45 PM	0	3	0	6	2	9	1	0	174	1	1	176	0	4	0	4	1	8	3	6	201	1	0	211	404
Hourly Total	0	14	0	20	5	34	1	3	697	3	1	704	0	44	0	20	3	64	11	38	735	3	0	787	1589

**TMC 2483 - CSAH 116 @ Crane St NW
Andover MN
Tuesday, October 8, 2024**

Time	Southbound Crane St NW						Westbound CSAH 116						Northbound Anoka County Highway Dept						Eastbound CSAH 116						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	2	0	3	0	5	0	0	163	0	0	163	0	9	0	8	1	17	6	14	184	0	0	204	389
4:15 PM	0	0	0	7	0	7	0	1	171	0	0	172	0	1	0	9	2	10	11	13	234	1	0	259	448
4:30 PM	0	2	0	13	0	15	1	0	215	1	0	217	0	2	0	9	1	11	11	12	197	0	0	220	463
4:45 PM	0	3	0	5	2	8	1	1	202	2	0	206	0	1	0	6	0	7	5	6	206	0	0	217	438
Hourly Total	0	7	0	28	2	35	2	2	751	3	0	758	0	13	0	32	4	45	33	45	821	1	0	900	1738
5:00 PM	0	3	0	7	2	10	0	1	158	0	0	159	0	0	0	4	0	4	10	10	181	0	0	201	374
5:15 PM	0	1	0	5	0	6	0	1	203	0	0	204	0	4	0	1	0	5	14	13	191	0	0	218	433
5:30 PM	0	4	0	11	1	15	1	0	171	2	0	174	0	1	0	1	0	2	5	9	163	0	0	177	368
5:45 PM	0	5	0	7	2	12	2	2	145	2	0	151	0	0	0	1	0	1	5	11	192	0	0	208	372
Hourly Total	0	13	0	30	5	43	3	4	677	4	0	688	0	5	0	7	0	12	34	43	727	0	0	804	1547
6:00 PM	0	1	0	1	0	2	2	0	137	0	0	139	0	4	0	3	0	7	3	5	147	0	0	155	303
6:15 PM	0	2	0	4	0	6	1	0	154	1	0	156	0	0	0	0	0	0	1	4	159	0	0	164	326
6:30 PM	0	3	0	2	0	5	2	1	150	5	0	158	0	0	0	0	0	0	0	9	174	0	0	183	346
6:45 PM	0	3	0	7	0	10	3	0	123	0	0	126	0	2	0	0	0	2	2	4	131	0	0	137	275
Hourly Total	0	9	0	14	0	23	8	1	564	6	0	579	0	6	0	3	0	9	6	22	611	0	0	639	1250
7:00 PM	0	0	0	3	0	3	0	1	92	1	0	94	0	0	0	0	0	0	0	7	145	0	0	152	249
7:15 PM	0	2	0	1	1	3	0	1	91	0	0	92	0	1	0	0	0	1	0	4	111	0	0	115	211
7:30 PM	0	1	0	3	0	4	0	1	78	1	0	80	0	1	0	1	0	2	0	5	108	0	0	113	199
7:45 PM	0	0	0	1	0	1	0	0	68	2	0	70	0	0	0	0	0	0	0	2	115	0	0	117	188
Hourly Total	0	3	0	8	1	11	0	3	329	4	0	336	0	2	0	1	0	3	0	18	479	0	0	497	847
8:00 PM	0	1	0	2	0	3	0	0	73	1	0	74	0	0	0	0	0	0	1	3	86	0	0	90	167
8:15 PM	0	1	0	0	0	1	0	0	52	0	0	52	0	0	0	0	0	0	1	6	101	0	0	108	161
8:30 PM	0	0	0	2	0	2	0	1	66	0	0	67	0	0	0	0	0	0	0	4	95	0	0	99	168
8:45 PM	0	0	0	0	0	0	1	0	44	1	0	46	0	0	0	0	0	0	0	2	68	3	0	73	119
Hourly Total	0	2	0	4	0	6	1	1	235	2	0	239	0	0	0	0	0	0	2	15	350	3	0	370	615
9:00 PM	0	1	0	2	0	3	0	0	49	0	0	49	0	0	0	0	1	0	1	1	78	0	0	80	132
9:15 PM	0	0	0	1	1	1	0	0	40	1	0	41	0	0	0	0	0	0	0	3	57	0	0	60	102
9:30 PM	0	0	0	1	0	1	0	0	41	0	0	41	0	0	0	0	0	0	0	1	58	0	0	59	101
9:45 PM	0	0	0	0	0	0	0	0	30	1	0	31	0	0	0	0	0	0	0	5	26	0	0	31	62
Hourly Total	0	1	0	4	1	5	0	0	160	2	0	162	0	0	0	0	1	0	1	10	219	0	0	230	397
10:00 PM	0	0	0	0	0	0	0	0	48	0	0	48	0	0	0	0	0	0	0	4	23	0	0	27	75
10:15 PM	0	0	0	0	0	0	0	0	26	0	0	26	0	0	0	0	0	0	0	2	27	0	0	29	55
10:30 PM	0	0	0	1	0	1	0	1	14	0	0	15	0	0	0	0	0	0	0	2	20	0	0	22	38
10:45 PM	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	0	1	15	0	0	16	29
Hourly Total	0	0	0	1	0	1	0	2	100	0	0	102	0	0	0	0	0	0	0	9	85	0	0	94	197
11:00 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	14	0	0	14	19
11:15 PM	0	0	0	0	0	0	1	1	7	0	0	9	0	0	0	0	0	0	0	1	13	0	0	14	23
11:30 PM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	1	11	0	0	12	19
11:45 PM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	7	0	0	7	16
Hourly Total	0	0	0	0	0	0	1	1	28	0	0	30	0	0	0	0	0	0	0	2	45	0	0	47	77
DAILY TOTAL	0	123	1	361	25	485	36	111	7872	45	2	8064	0	122	1	134	21	257	175	333	8184	129	0	8821	17627
Cars	0	119	1	352	11	472	36	108	7655	45	1	7844	0	117	1	129	8	247	175	320	7908	129	0	8532	17095
Heavy Vehicles	0	4	0	9	14	13	0	3	217	0	1	220	0	5	0	5	13	10	0	13	276	0	0	289	532
Heavy Vehicle %	0.00%	3.25%	0.00%	2.49%	56.00%	2.68%	0.00%	2.70%	2.76%	0.00%	50.00%	2.73%	0.00%	4.10%	0.00%	3.73%	61.90%	3.89%	0.00%	3.90%	3.37%	0.00%	0.00%	3.28%	3.02%

TMC 2483 - CSAH 116 @ Crane St NW

Andover MN

Tuesday, October 8, 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	3	0	13	0	16	0	7	150	2	0	159	0	1	0	2	0	3	3	3	111	9	0	126	304
7:15 AM	0	3	1	11	0	15	1	5	221	0	0	227	0	1	0	2	0	3	10	1	149	9	0	169	414
7:30 AM	0	3	0	9	0	12	1	3	204	2	0	210	0	3	0	2	0	5	6	2	205	4	0	217	444
7:45 AM	0	4	0	7	0	11	0	6	180	2	0	188	0	1	0	4	0	5	5	2	183	3	0	193	397
Peak Hour Total	0	13	1	40	0	54	2	21	755	6	0	784	0	6	0	10	0	16	24	8	648	25	0	705	1559
PHF	0.000	0.813	0.250	0.769	0.000	0.844	0.500	0.750	0.854	0.750	0.000	0.863	0.000	0.500	0.000	0.625	0.000	0.800	0.600	0.667	0.790	0.694	0.000	0.812	0.878

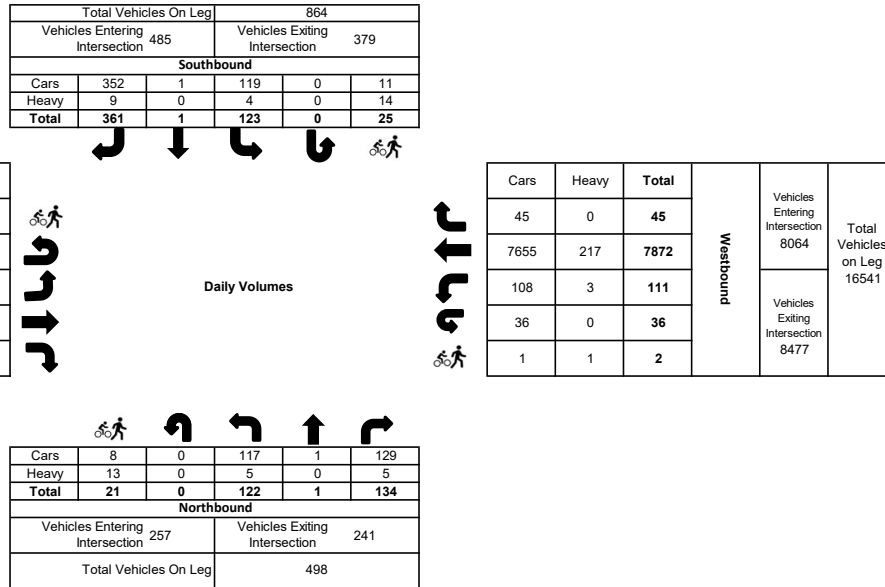
PM Peak Hour

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	2	0	3	0	5	0	0	163	0	0	163	0	9	0	8	1	17	6	14	184	0	0	204	389
4:15 PM	0	0	0	7	0	7	0	1	171	0	0	172	0	1	0	9	2	10	11	13	234	1	0	259	448
4:30 PM	0	2	0	13	0	15	1	0	215	1	0	217	0	2	0	9	1	11	11	12	197	0	0	220	463
4:45 PM	0	3	0	5	2	8	1	1	202	2	0	206	0	1	0	6	0	7	5	6	206	0	0	217	438
Peak Hour Total	0	7	0	28	2	35	2	2	751	3	0	758	0	13	0	32	4	45	33	45	821	1	0	900	1738
PHF	0.000	0.583	0.000	0.538	0.250	0.583	0.500	0.500	0.873	0.375	0.000	0.873	0.000	0.361	0.000	0.889	0.500	0.662	0.750	0.804	0.877	0.250	0.000	0.869	0.938

Total Vehicles On Leg				864			
Vehicles Entering Intersection				485			
Vehicles Exiting Intersection				379			
Southbound							
Cars	352	1	119	0	11		
Heavy	9	0	4	0	14		
Total	361	1	123	0	25		

Total Vehicles on Leg 17351	Vehicles Entering Intersection 8821	Eastbound	Cars	Heavy	Total	Vehicles Entering Intersection 8064	Total Vehicles on Leg 16541
			0	0	0		
			175	0	175		
			320	13	333		
			7908	276	8184		
Vehicles Exiting Intersection 8530			Cars	Heavy	Total	Vehicles Exiting Intersection 8477	
			45	0	45		
			7655	217	7872		
			108	3	111		
			36	0	36		
			1	1	2		

Cars	8	0	117	1	129
Heavy	13	0	5	0	5
Total	21	0	122	1	134
Northbound					
Vehicles Entering Intersection			257		
Vehicles Exiting Intersection			241		
Total Vehicles On Leg			498		



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2483

Study Date : 10/10/2024

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 116

Number of Lanes : 2+

Total Approach Volume: 8,821

Westbound: CSAH 116

Number of Lanes :2+

Total Approach Volume: 8,064

Minor Street Approaches

Northbound: Anoka County Highway

Number of Lanes :2+

Total Approach Volume: 257

Southbound: Crane St NW

Number of Lanes :2+

Total Approach Volume: 485

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 2 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 2483

Study Date : 10/10/2024

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	
16:00 - 17:00	900	+	758	=	1658	45	35	No
16:15 - 17:15	897	+	754	=	1651	32	40	No
16:30 - 17:30	856	+	786	=	1642	27	39	No
15:45 - 16:45	894	+	728	=	1622	46	36	No
15:30 - 16:30	897	+	675	=	1572	62	33	No
16:45 - 17:45	813	+	743	=	1556	18	39	No
15:15 - 16:15	814	+	706	=	1520	67	33	No
17:00 - 18:00	804	+	688	=	1492	12	43	No
15:00 - 16:00	787	+	704	=	1491	64	34	No
07:00 - 08:00	705	+	784	=	1489	16	54	No
07:15 - 08:15	697	+	761	=	1458	16	47	No
17:15 - 18:15	758	+	668	=	1426	15	35	No
14:45 - 15:45	761	+	659	=	1420	60	35	No
06:45 - 07:45	632	+	751	=	1383	12	60	No
14:30 - 15:30	718	+	633	=	1351	39	32	No
17:30 - 18:30	704	+	620	=	1324	10	35	No
17:45 - 18:45	710	+	604	=	1314	8	25	No
07:30 - 08:30	639	+	660	=	1299	13	37	No
14:15 - 15:15	710	+	563	=	1273	27	32	No
14:00 - 15:00	674	+	548	=	1222	20	37	No
18:00 - 19:00	639	+	579	=	1218	9	23	No
06:30 - 07:30	517	+	655	=	1172	8	59	No
18:15 - 19:15	636	+	534	=	1170	2	24	No
13:45 - 14:45	597	+	537	=	1134	18	31	No
07:45 - 08:45	528		563		1091	10	35	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2483

Study Date : 10/10/2024

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 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 = **630**
 Veh/Hr Minor = **70**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	900	+	758	=	1658	45	35	No
16:15 - 17:15	897	+	754	=	1651	32	40	No
16:30 - 17:30	856	+	786	=	1642	27	39	No
15:45 - 16:45	894	+	728	=	1622	46	36	No
15:30 - 16:30	897	+	675	=	1572	62	33	No
16:45 - 17:45	813	+	743	=	1556	18	39	No
15:15 - 16:15	814	+	706	=	1520	67	33	No
17:00 - 18:00	804	+	688	=	1492	12	43	No
15:00 - 16:00	787	+	704	=	1491	64	34	No
07:00 - 08:00	705	+	784	=	1489	16	54	No
07:15 - 08:15	697	+	761	=	1458	16	47	No
17:15 - 18:15	758	+	668	=	1426	15	35	No
14:45 - 15:45	761	+	659	=	1420	60	35	No
06:45 - 07:45	632	+	751	=	1383	12	60	No
14:30 - 15:30	718	+	633	=	1351	39	32	No
17:30 - 18:30	704	+	620	=	1324	10	35	No
17:45 - 18:45	710	+	604	=	1314	8	25	No
07:30 - 08:30	639	+	660	=	1299	13	37	No
14:15 - 15:15	710	+	563	=	1273	27	32	No
14:00 - 15:00	674	+	548	=	1222	20	37	No
18:00 - 19:00	639	+	579	=	1218	9	23	No
06:30 - 07:30	517	+	655	=	1172	8	59	No
18:15 - 19:15	636	+	534	=	1170	2	24	No
13:45 - 14:45	597	+	537	=	1134	18	31	No
07:45 - 08:45	528		563		1091	10	35	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2483

Study Date : 10/10/2024

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 2 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 116

Minor Road Anoka County Highway

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	900	+	758	=	1658	45	35	No
16:15 - 17:15	897	+	754	=	1651	32	40	No
16:30 - 17:30	856	+	786	=	1642	27	39	No
15:45 - 16:45	894	+	728	=	1622	46	36	No
15:30 - 16:30	897	+	675	=	1572	62	33	No
16:45 - 17:45	813	+	743	=	1556	18	39	No
15:15 - 16:15	814	+	706	=	1520	67	33	No
17:00 - 18:00	804	+	688	=	1492	12	43	No
15:00 - 16:00	787	+	704	=	1491	64	34	No
07:00 - 08:00	705	+	784	=	1489	16	54	No
07:15 - 08:15	697	+	761	=	1458	16	47	No
17:15 - 18:15	758	+	668	=	1426	15	35	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
14:45 - 15:45	761	+	659	=	1420	60	35	Yes
06:30 - 07:30	517	+	655	=	1172	8	59	Yes
16:00 - 17:00	900	+	758	=	1658	45	35	No
16:15 - 17:15	897	+	754	=	1651	32	40	No
16:30 - 17:30	856	+	786	=	1642	27	39	No
15:45 - 16:45	894	+	728	=	1622	46	36	No
16:45 - 17:45	813	+	743	=	1556	18	39	No
17:00 - 18:00	804	+	688	=	1492	12	43	No
17:15 - 18:15	758	+	668	=	1426	15	35	No
14:30 - 15:30	718	+	633	=	1351	39	32	No
17:30 - 18:30	704	+	620	=	1324	10	35	No
17:45 - 18:45	710	+	604	=	1314	8	25	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2483

Study Date : 10/10/2024

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.

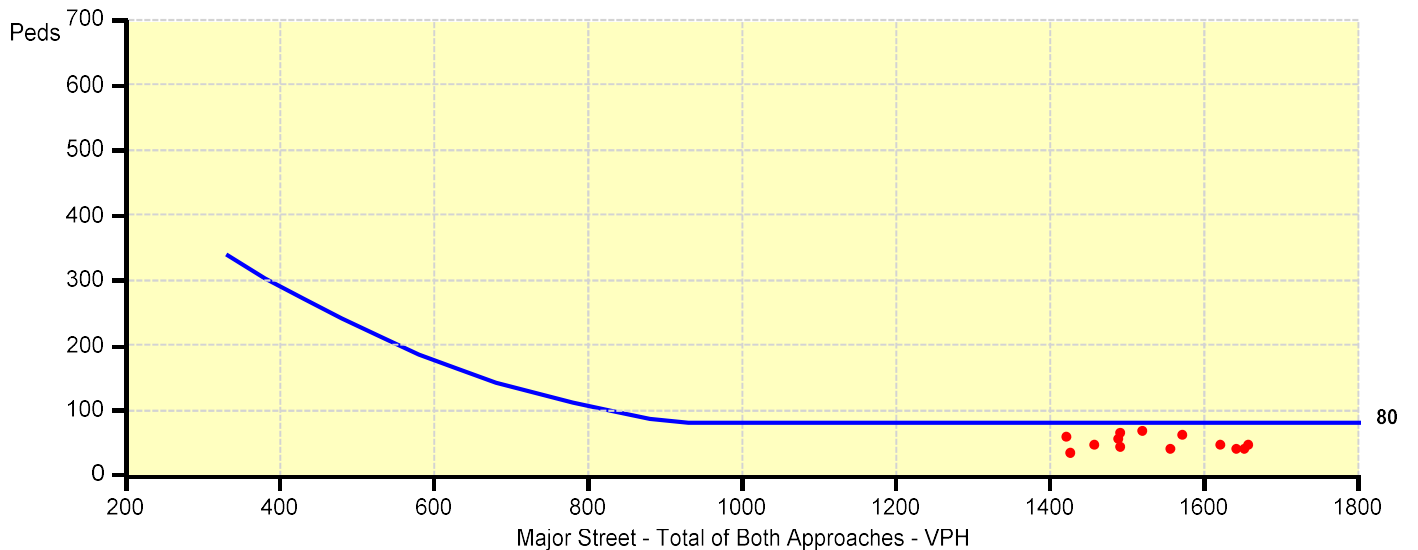
Summary

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 116					Minor Road Anoka County Highway		Met?
	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:00 - 17:00	900	+	758	=	1658	45	35	No
16:15 - 17:15	897	+	754	=	1651	32	40	No
16:30 - 17:30	856	+	786	=	1642	27	39	No
15:45 - 16:45	894	+	728	=	1622	46	36	No
15:30 - 16:30	897	+	675	=	1572	62	33	No
16:45 - 17:45	813	+	743	=	1556	18	39	No
15:15 - 16:15	814	+	706	=	1520	67	33	No
17:00 - 18:00	804	+	688	=	1492	12	43	No
15:00 - 16:00	787	+	704	=	1491	64	34	No
07:00 - 08:00	705	+	784	=	1489	16	54	No
07:15 - 08:15	697	+	761	=	1458	16	47	No
17:15 - 18:15	758	+	668	=	1426	15	35	No



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2483

Study Date : 10/10/2024

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.

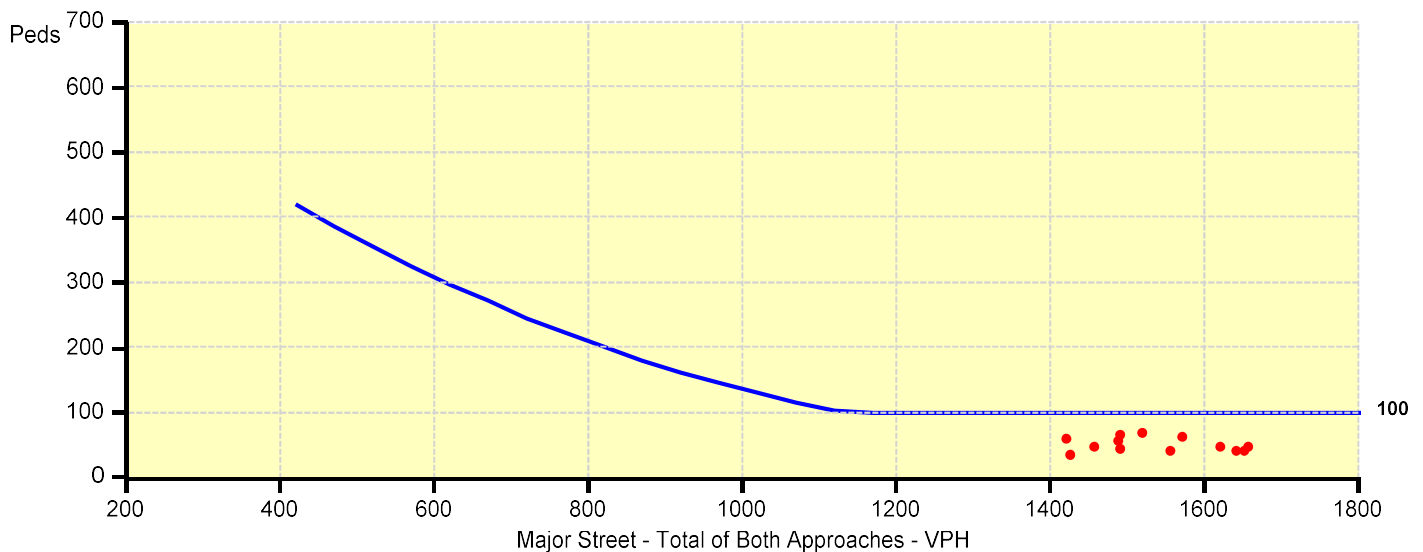
Summary

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 116					Minor Road Anoka County Highway		Met?
	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:00 - 17:00	900	+	758	=	1658	45	35	No
16:15 - 17:15	897	+	754	=	1651	32	40	No
16:30 - 17:30	856	+	786	=	1642	27	39	No
15:45 - 16:45	894	+	728	=	1622	46	36	No
15:30 - 16:30	897	+	675	=	1572	62	33	No
16:45 - 17:45	813	+	743	=	1556	18	39	No
15:15 - 16:15	814	+	706	=	1520	67	33	No
17:00 - 18:00	804	+	688	=	1492	12	43	No
15:00 - 16:00	787	+	704	=	1491	64	34	No
07:00 - 08:00	705	+	784	=	1489	16	54	No
07:15 - 08:15	697	+	761	=	1458	16	47	No
17:15 - 18:15	758	+	668	=	1426	15	35	No



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2483

Study Date : 10/10/2024

Multiway Stop Warrants - Summary

Major Street Approaches

Eastbound: CSAH 116
 Number of Lanes : 2+
 Total Approach Volume: 8,821

Westbound: CSAH 116
 Number of Lanes :2+
 Total Approach Volume: 8,064

Minor Street Approaches

Northbound: Anoka County Highway
 Number of Lanes :2+
 Total Approach Volume: 257

Southbound: Crane St NW
 Number of Lanes :2+
 Total Approach Volume: 485

Warrant Summary (Rural Values Apply)

Criteria A - Interim Measure	Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.	
Criteria B - Crash Experience	Not Satisfied
Number of crashes (-1) is less than minimum required (5).	
Criteria C - Minimum Volumes and Delays	Not Satisfied
Average of 8 highest hours is less than volume criteria.	
Criteria D - 80% of Volumes, Delays, and Crashes	Not Satisfied
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?
16:00 - 17:00	1658	1292.6	85	62.4	210	140	No
15:00 - 16:00	1491		101				
07:00 - 08:00	1489		70				
17:00 - 18:00	1492		55				
14:00 - 15:00	1222		66				
18:00 - 19:00	1218		32				
08:00 - 09:00	939		42				
11:45 - 12:45	832		48				
09:00 - 10:00	837		36				
19:00 - 20:00	833		14				
13:00 - 14:00	814		38				
06:00 - 07:00	770		49				

Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:00 - 17:00	1658	1292.6	85	62.4	240	160	No
15:00 - 16:00	1491		101				
07:00 - 08:00	1489		70				
17:00 - 18:00	1492		55				
14:00 - 15:00	1222		66				
18:00 - 19:00	1218		32				
08:00 - 09:00	939		42				
11:45 - 12:45	832		48				
09:00 - 10:00	837		36				
19:00 - 20:00	833		14				
13:00 - 14:00	814		38				
06:00 - 07:00	770		49				