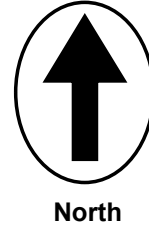


Date : 09/21/22

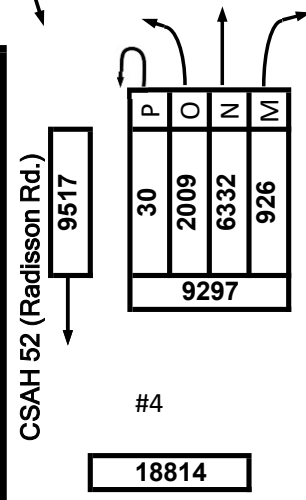
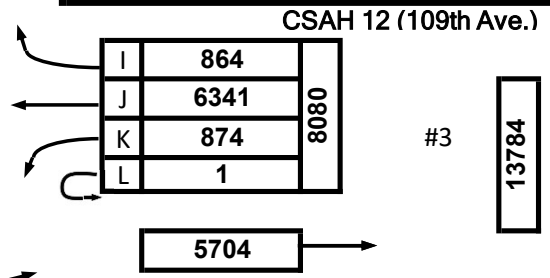
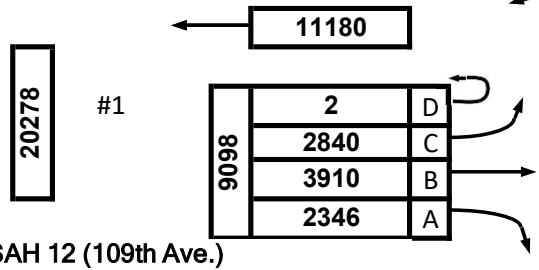
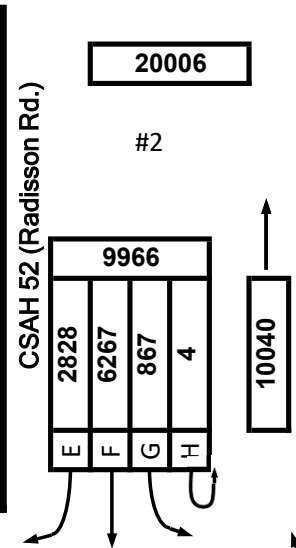
Count Number : TMC 2262

Location : CSAH 52 (Radisson Rd.)  
@ CSAH 12 (109th Ave.)

Collection Period : 24 HR



North



CSAH 12 (109th Ave.)

CSAH 12 (109th Ave.)

CSAH 52 (Radisson Rd.)

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

Anoka County Highway Department

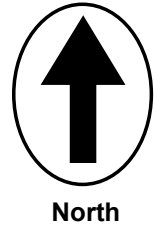
Traffic Volume and Turning Movement Study

Date : 09/21/22

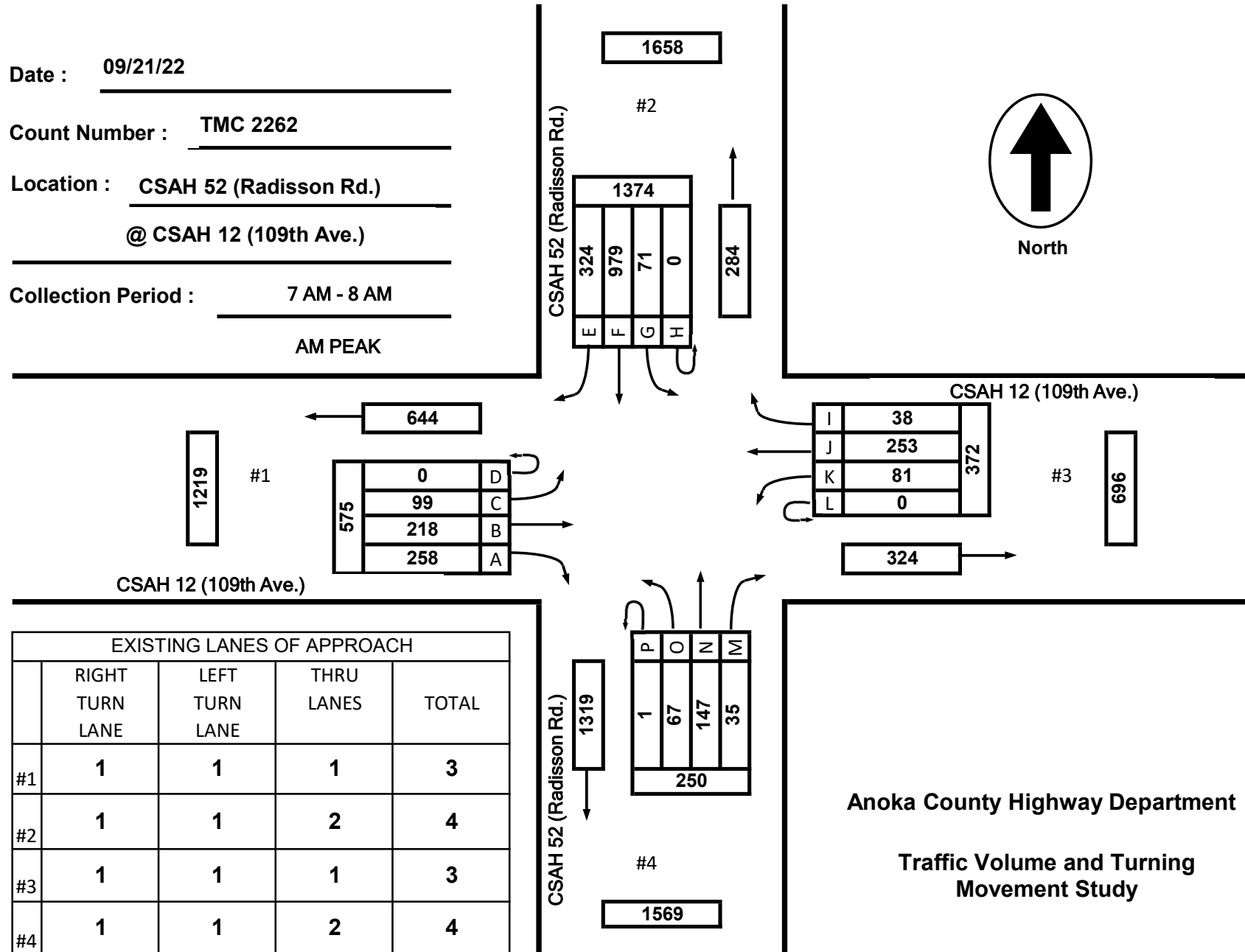
Count Number : TMC 2262

Location : CSAH 52 (Radisson Rd.)  
@ CSAH 12 (109th Ave.)

Collection Period : 7 AM - 8 AM  
AM PEAK



North



EXISTING LANES OF APPROACH

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

Anoka County Highway Department

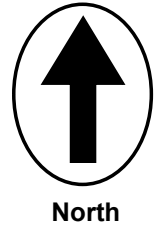
Traffic Volume and Turning Movement Study

Date : 09/21/22

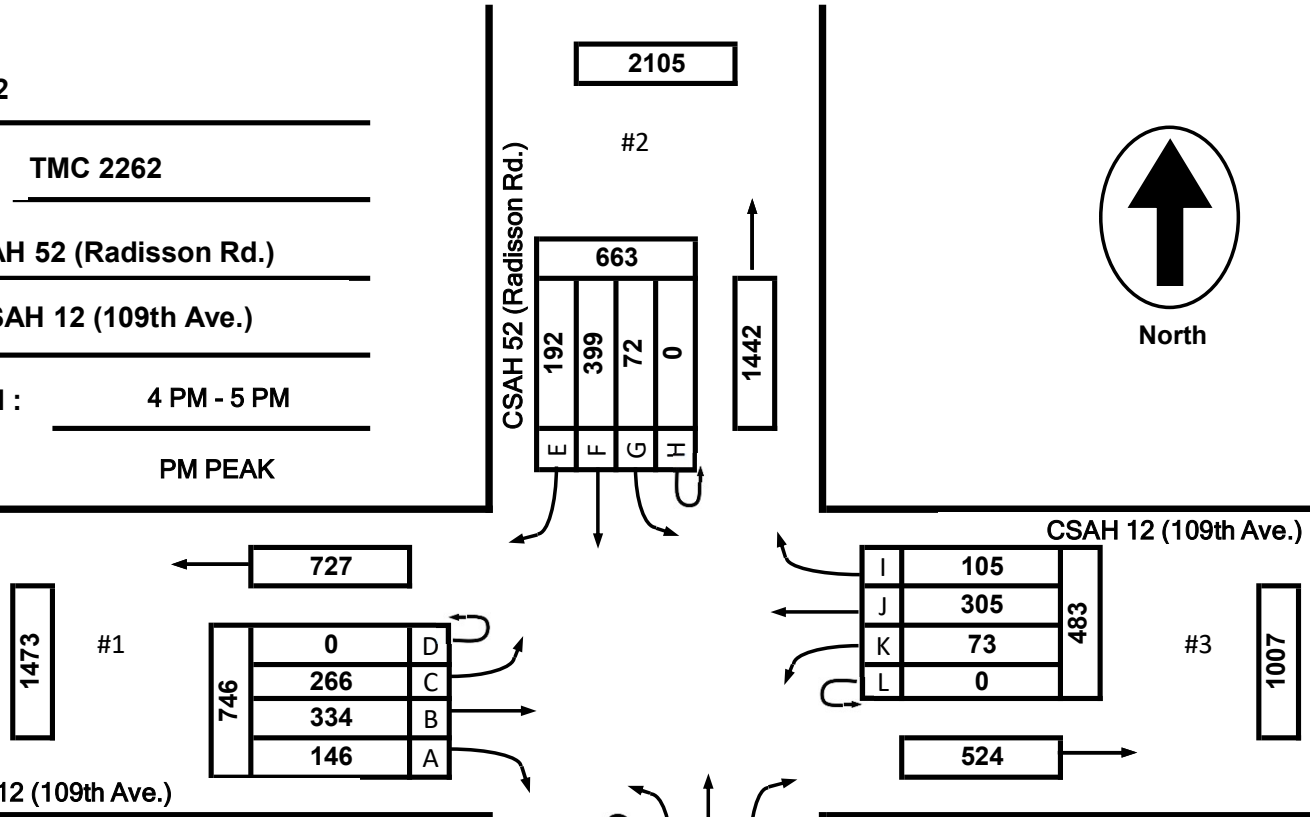
Count Number : TMC 2262

Location : CSAH 52 (Radisson Rd.)  
@ CSAH 12 (109th Ave.)

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



North



CSAH 12 (109th Ave.)

CSAH 12 (109th Ave.)

CSAH 52 (Radisson Rd.)

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

Anoka County Highway Department  
 Traffic Volume and Turning Movement Study

**TMC 2262  
Blaine Minnesota  
Wednesday, September 21, 2022**

Time	Southbound CSAH 52 (Radisson Rd.)						Westbound CSAH 12 (109th Ave.)						Northbound CSAH 52 (Radisson Rd.)						Eastbound CSAH 12 (109th Ave.)						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	16	6	0	22	0	0	4	3	0	7	0	5	14	0	0	19	0	3	4	3	0	10	58
12:15 AM	0	0	2	0	0	2	0	0	4	1	0	5	0	1	11	0	0	12	0	0	2	0	0	2	21
12:30 AM	0	0	2	0	0	2	0	0	2	0	0	2	0	0	5	2	0	7	0	0	6	1	0	7	18
12:45 AM	0	0	2	0	0	2	0	1	0	2	0	3	0	1	3	0	0	4	0	3	1	3	0	7	16
Hourly Total	0	0	22	6	0	28	0	1	10	6	0	17	0	7	33	2	0	42	0	6	13	7	0	26	113
1:00 AM	0	1	1	1	0	3	0	0	4	0	0	4	0	0	2	1	0	3	0	0	3	0	0	3	13
1:15 AM	0	0	1	0	0	1	0	0	3	0	0	3	0	3	2	0	0	5	0	1	2	1	0	4	13
1:30 AM	0	0	4	0	0	4	0	0	8	1	0	9	0	1	2	0	0	3	0	0	0	2	0	2	18
1:45 AM	0	1	1	0	0	2	0	0	2	0	0	2	0	1	3	0	0	4	0	1	1	3	0	5	13
Hourly Total	0	2	7	1	0	10	0	0	17	1	0	18	0	5	9	1	0	15	0	2	6	6	0	14	57
2:00 AM	0	0	1	0	0	1	0	0	3	0	0	3	0	1	3	0	0	4	0	2	2	1	0	5	13
2:15 AM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	1	1	4	0	6	10
2:30 AM	0	0	1	1	0	2	0	0	2	1	0	3	0	2	1	1	0	4	0	1	2	2	0	5	14
2:45 AM	0	1	2	2	0	5	0	1	2	0	0	3	0	1	0	0	0	1	0	1	2	2	0	5	14
Hourly Total	0	2	5	3	0	10	0	1	7	1	0	9	0	4	6	1	0	11	0	5	7	9	0	21	51
3:00 AM	0	0	4	0	0	4	0	0	2	0	0	2	0	2	0	1	0	3	0	3	1	1	0	5	14
3:15 AM	0	0	3	0	0	3	0	1	0	0	0	1	0	1	1	0	0	2	0	0	1	2	0	3	9
3:30 AM	0	0	6	3	0	9	0	2	4	0	0	6	0	0	4	0	0	4	0	0	2	8	0	10	29
3:45 AM	0	0	8	2	0	10	0	0	4	1	0	5	0	1	5	0	0	6	0	0	4	5	0	9	30
Hourly Total	0	0	21	5	0	26	0	3	10	1	0	14	0	4	10	1	0	15	0	3	8	16	0	27	82
4:00 AM	0	0	11	6	0	17	0	0	2	0	0	2	0	0	3	0	0	3	0	2	3	7	0	12	34
4:15 AM	0	0	22	10	0	32	0	2	1	0	0	3	0	2	4	2	0	8	0	2	10	13	0	25	68
4:30 AM	0	2	38	9	0	49	0	1	7	0	0	8	0	3	3	0	0	6	0	0	9	13	0	22	85
4:45 AM	0	2	29	10	0	41	0	1	4	0	0	5	0	2	6	0	0	8	0	3	12	10	0	25	79
Hourly Total	0	4	100	35	0	139	0	4	14	0	0	18	0	7	16	2	0	25	0	7	34	43	0	84	266
5:00 AM	0	2	38	10	0	50	0	2	7	1	0	10	0	2	6	1	0	9	0	2	4	10	0	16	85
5:15 AM	0	5	75	19	0	99	0	1	15	0	0	16	0	4	5	1	0	10	0	3	9	24	0	36	161
5:30 AM	1	3	80	17	0	101	0	6	10	5	0	21	0	4	13	7	0	24	0	9	24	19	0	52	198
5:45 AM	0	7	120	25	0	152	0	10	18	3	0	31	0	8	13	1	0	22	0	6	24	23	0	53	258
Hourly Total	1	17	313	71	0	402	0	19	50	9	0	78	0	18	37	10	0	65	0	20	61	76	0	157	702
6:00 AM	0	5	111	26	0	142	0	15	17	3	0	35	0	5	12	1	0	18	0	5	21	35	0	61	256
6:15 AM	0	10	135	28	0	173	0	14	14	5	0	33	0	3	14	2	0	19	0	7	41	25	0	73	298
6:30 AM	1	19	162	45	0	227	0	15	28	4	0	47	0	11	16	4	0	31	0	7	49	38	0	94	399
6:45 AM	0	16	212	41	2	269	0	25	41	7	0	73	0	5	16	4	0	25	0	15	54	54	0	123	490
Hourly Total	1	50	620	140	2	811	0	69	100	19	0	188	0	24	58	11	0	93	0	34	165	152	0	351	1443
7:00 AM	1	18	197	64	0	280	0	31	42	11	0	84	0	10	37	8	0	55	0	10	36	31	0	77	496
7:15 AM	0	19	257	74	0	350	0	23	52	11	0	86	0	13	34	3	0	50	0	15	52	68	0	135	621
7:30 AM	0	14	243	114	0	371	0	15	74	12	0	101	1	18	35	7	0	61	0	12	49	68	0	129	662
7:45 AM	0	23	280	78	0	381	0	27	77	7	0	111	0	19	36	11	0	66	0	43	66	79	0	188	746
Hourly Total	1	74	977	330	0	1382	0	96	245	41	0	382	1	60	142	29	0	232	0	80	203	246	0	529	2525

**TMC 2262**  
**Blaine Minnesota**  
**Wednesday, September 21, 2022**

Time	Southbound CSAH 52 (Radisson Rd.)						Westbound CSAH 12 (109th Ave.)						Northbound CSAH 52 (Radisson Rd.)						Eastbound CSAH 12 (109th Ave.)						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	15	199	58	0	272	0	16	50	8	0	74	0	17	42	14	0	73	0	29	51	43	0	123	542
8:15 AM	0	16	158	51	0	225	0	17	48	10	0	75	1	16	32	8	0	57	0	29	56	40	0	125	482
8:30 AM	0	13	158	47	0	218	0	20	46	7	0	73	0	29	43	12	0	84	0	21	47	33	0	101	476
8:45 AM	0	16	103	51	0	170	0	13	41	10	0	64	0	15	56	8	0	79	1	39	44	45	0	129	442
Hourly Total	0	60	618	207	0	885	0	66	185	35	0	286	1	77	173	42	0	293	1	118	198	161	0	478	1942
9:00 AM	0	6	116	48	0	170	0	14	61	6	0	81	1	19	43	11	0	74	0	30	38	35	0	103	428
9:15 AM	0	13	114	61	0	188	0	13	56	9	1	78	0	22	46	10	2	78	0	27	50	41	0	118	462
9:30 AM	0	14	99	39	0	152	0	20	51	11	0	82	2	29	44	6	0	81	0	32	51	35	1	118	433
9:45 AM	0	10	79	45	0	134	0	13	55	8	1	76	1	21	34	12	0	68	0	19	62	29	0	110	388
Hourly Total	0	43	408	193	0	644	0	60	223	34	2	317	4	91	167	39	2	301	0	108	201	140	1	449	1711
10:00 AM	0	9	73	43	0	125	0	18	52	9	0	79	0	30	52	13	0	95	0	30	53	26	0	109	408
10:15 AM	0	7	64	45	0	116	0	14	56	12	0	82	0	29	44	5	0	78	0	27	49	34	1	110	386
10:30 AM	0	10	64	39	0	113	0	13	51	7	0	71	1	18	55	12	0	86	0	25	53	28	1	106	376
10:45 AM	0	11	92	40	0	143	0	9	51	14	0	74	1	19	43	9	0	72	0	20	43	34	0	97	386
Hourly Total	0	37	293	167	0	497	0	54	210	42	0	306	2	96	194	39	0	331	0	102	198	122	2	422	1556
11:00 AM	0	5	72	50	0	127	0	14	66	14	0	94	1	29	40	9	0	79	0	28	66	32	1	126	426
11:15 AM	0	18	68	49	0	135	0	9	59	16	0	84	2	38	48	14	0	102	0	33	58	34	0	125	446
11:30 AM	0	17	66	32	0	115	0	10	42	8	0	60	0	35	57	12	0	104	0	38	60	36	1	134	413
11:45 AM	0	11	48	46	0	105	0	15	62	11	0	88	0	32	61	11	0	104	0	37	64	31	1	132	429
Hourly Total	0	51	254	177	0	482	0	48	229	49	0	326	3	134	206	46	0	389	0	136	248	133	3	517	1714
12:00 PM	0	15	84	40	0	139	0	17	60	20	0	97	1	13	68	15	0	97	0	39	72	26	0	137	470
12:15 PM	0	16	62	44	0	122	0	7	57	12	0	76	1	29	56	11	0	97	0	41	63	36	0	140	435
12:30 PM	0	17	74	48	0	139	0	10	53	14	0	77	1	34	64	17	0	116	0	45	39	36	0	120	452
12:45 PM	0	17	71	34	0	122	0	16	49	14	0	79	0	20	86	8	0	114	0	61	79	28	1	168	483
Hourly Total	0	65	291	166	0	522	0	50	219	60	0	329	3	96	274	51	0	424	0	186	253	126	1	565	1840
1:00 PM	0	6	69	28	0	103	0	12	63	13	0	88	0	17	62	14	0	93	0	55	71	38	0	164	448
1:15 PM	0	9	59	44	0	112	0	13	60	10	0	83	0	18	75	17	0	110	0	37	52	34	0	123	428
1:30 PM	0	17	43	38	0	98	0	11	58	13	0	82	1	37	72	15	0	125	0	40	51	35	0	126	431
1:45 PM	0	12	65	32	0	109	0	17	43	14	0	74	1	26	87	11	0	125	0	35	64	34	0	133	441
Hourly Total	0	44	236	142	0	422	0	53	224	50	0	327	2	98	296	57	0	453	0	167	238	141	0	546	1748
2:00 PM	0	19	55	39	0	113	0	12	54	12	0	78	0	41	90	14	0	145	0	36	61	46	0	143	479
2:15 PM	0	12	59	42	0	113	0	8	56	18	0	82	0	41	100	12	0	153	0	48	66	35	0	149	497
2:30 PM	0	14	68	41	0	123	0	15	62	16	0	93	0	41	113	17	0	171	0	44	58	51	0	153	540
2:45 PM	0	24	64	41	0	129	0	8	51	19	0	78	0	50	108	15	0	173	0	49	56	32	0	137	517
Hourly Total	0	69	246	163	0	478	0	43	223	65	0	331	0	173	411	58	0	642	0	177	241	164	0	582	2033
3:00 PM	0	11	59	26	0	96	0	12	69	17	0	98	2	50	155	19	0	226	0	60	83	28	0	171	591
3:15 PM	0	9	85	32	0	126	0	18	68	23	0	109	1	46	173	20	0	240	0	59	58	33	0	150	625
3:30 PM	0	19	89	43	0	151	0	10	88	20	0	118	1	56	221	24	0	302	0	64	90	44	0	198	769
3:45 PM	0	16	71	43	0	130	0	22	78	19	0	119	0	63	222	25	0	310	0	78	84	49	0	211	770
Hourly Total	0	55	304	144	0	503	0	62	303	79	0	444	4	215	771	88	0	1078	0	261	315	154	0	730	2755

**TMC 2262**  
**Blaine Minnesota**  
**Wednesday, September 21, 2022**

Time	Southbound CSAH 52 (Radisson Rd.)						Westbound CSAH 12 (109th Ave.)						Northbound CSAH 52 (Radisson Rd.)						Eastbound CSAH 12 (109th Ave.)						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	16	94	45	0	155	0	14	69	24	0	107	0	61	293	34	0	388	0	57	70	46	0	173	823
4:15 PM	0	16	84	54	0	154	0	12	92	23	0	127	1	47	262	25	0	335	0	89	93	23	0	205	821
4:30 PM	0	16	108	44	0	168	0	29	69	30	0	128	2	62	272	37	0	373	0	57	87	37	0	181	850
4:45 PM	0	24	113	49	0	186	0	18	75	28	0	121	0	60	244	22	0	326	0	63	84	40	0	187	820
Hourly Total	0	72	399	192	0	663	0	73	305	105	0	483	3	230	1071	118	0	1422	0	266	334	146	0	746	3314
5:00 PM	0	19	96	54	0	169	0	16	93	23	0	132	0	58	254	20	0	332	0	52	92	36	0	180	813
5:15 PM	0	8	103	55	0	166	0	23	89	22	0	134	1	69	218	26	0	314	1	84	86	29	0	200	814
5:30 PM	0	15	67	57	0	139	0	14	76	18	0	108	0	56	213	27	0	296	0	77	64	25	0	166	709
5:45 PM	0	21	102	45	0	168	0	15	84	20	0	119	0	50	167	23	0	240	0	74	80	35	0	189	716
Hourly Total	0	63	368	211	0	642	0	68	342	83	0	493	1	233	852	96	0	1182	1	287	322	125	0	735	3052
6:00 PM	0	11	108	65	0	184	0	11	56	20	0	87	0	45	193	25	0	263	0	59	70	34	0	163	697
6:15 PM	0	23	90	63	0	176	0	20	72	13	0	105	0	43	164	24	0	231	0	29	98	38	0	165	677
6:30 PM	0	16	70	50	0	136	0	13	52	14	0	79	0	34	145	18	0	197	0	58	61	39	0	158	570
6:45 PM	1	9	49	47	0	106	1	9	55	10	0	75	0	27	82	18	0	127	0	53	62	23	0	138	446
Hourly Total	1	59	317	225	0	602	1	53	235	57	0	346	0	149	584	85	0	818	0	199	291	134	0	624	2390
7:00 PM	0	12	40	35	0	87	0	6	49	15	0	70	0	26	84	17	0	127	0	81	53	27	0	161	445
7:15 PM	0	12	85	27	0	124	0	8	42	15	0	65	4	35	120	17	0	176	0	71	63	25	0	159	524
7:30 PM	0	13	46	44	0	103	0	3	40	10	0	53	0	26	121	20	0	167	0	63	54	25	0	142	465
7:45 PM	0	12	52	18	0	82	0	7	48	10	0	65	0	19	87	7	0	113	0	59	46	24	0	129	389
Hourly Total	0	49	223	124	0	396	0	24	179	50	0	253	4	106	412	61	0	583	0	274	216	101	0	591	1823
8:00 PM	0	8	35	17	0	60	0	5	48	13	0	66	0	30	67	10	0	107	0	59	59	24	0	142	375
8:15 PM	0	5	22	18	0	45	0	7	42	6	0	55	0	26	70	11	0	107	0	50	36	15	0	101	308
8:30 PM	0	9	30	19	0	58	0	3	26	3	0	32	0	12	86	14	0	112	0	54	37	13	0	104	306
8:45 PM	0	10	28	10	0	48	0	0	20	9	0	29	0	15	55	9	0	79	0	48	45	11	0	104	260
Hourly Total	0	32	115	64	0	211	0	15	136	31	0	182	0	83	278	44	0	405	0	211	177	63	0	451	1249
9:00 PM	0	5	28	15	0	48	0	3	21	7	0	31	0	13	64	8	0	85	0	36	28	10	0	74	238
9:15 PM	0	2	29	12	0	43	0	2	34	10	0	46	0	18	71	8	0	97	0	44	31	8	0	83	269
9:30 PM	0	3	22	11	0	36	0	3	15	5	0	23	0	14	46	4	0	64	0	35	19	15	0	69	192
9:45 PM	0	0	10	4	0	14	0	0	17	7	0	24	0	8	28	6	0	42	0	20	18	10	0	48	128
Hourly Total	0	10	89	42	0	141	0	8	87	29	0	124	0	53	209	26	0	288	0	135	96	43	0	274	827
10:00 PM	0	1	17	4	0	22	0	2	7	7	0	16	0	6	22	2	0	30	0	18	20	8	0	46	114
10:15 PM	0	2	4	1	0	7	0	1	12	2	0	15	0	5	24	1	0	30	0	8	12	3	0	23	75
10:30 PM	0	1	4	5	0	10	0	1	17	0	0	18	0	6	24	4	0	34	0	3	9	7	0	19	81
10:45 PM	0	4	4	3	0	11	0	0	8	3	0	11	0	7	14	4	0	25	0	5	19	6	0	30	77
Hourly Total	0	8	29	13	0	50	0	4	44	12	0	60	0	24	84	11	0	119	0	34	60	24	0	118	347
11:00 PM	0	1	5	2	0	8	0	0	14	1	0	15	0	8	13	2	0	23	0	12	7	6	0	25	71
11:15 PM	0	0	0	0	0	0	0	0	7	0	0	7	2	5	6	3	0	16	0	5	8	3	0	16	39
11:30 PM	0	0	4	3	0	7	0	0	13	3	0	16	0	7	12	1	0	20	0	2	4	4	0	10	53
11:45 PM	0	0	3	2	0	5	0	0	10	1	0	11	0	2	8	2	0	12	0	3	6	1	0	10	38
Hourly Total	0	1	12	7	0	20	0	0	44	5	0	49	2	22	39	8	0	71	0	22	25	14	0	61	201
<b>DAILY TOTAL</b>	<b>4</b>	<b>867</b>	<b>6267</b>	<b>2828</b>	<b>2</b>	<b>9966</b>	<b>1</b>	<b>874</b>	<b>3641</b>	<b>864</b>	<b>2</b>	<b>5380</b>	<b>30</b>	<b>2009</b>	<b>6332</b>	<b>926</b>	<b>2</b>	<b>9297</b>	<b>2</b>	<b>2840</b>	<b>3910</b>	<b>2346</b>	<b>7</b>	<b>9098</b>	<b>33741</b>
<b>Cars</b>	4	860	6111	2791	2	9766	1	844	3573	853	2	5271	30	1938	6211	882	2	9061	2	2793	3834	2235	5	8864	32962
<b>Heavy Vehicles</b>	0	7	156	37	0	200	0	30	68	11	0	109	0	71	121	44	0	236	0	47	76	111	2	234	779
<b>Heavy Vehicle %</b>	0.00%	0.81%	2.49%	1.31%	0.00%	2.01%	0.00%	3.43%	1.87%	1.27%	0.00%	2.03%	0.00%	3.53%	1.91%	4.75%	0.00%	2.54%	0.00%	1.65%	1.94%	4.73%	28.57%	2.57%	2.31%

**TMC 2262**  
**Blaine Minnesota**  
**Wednesday, September 21, 2022**  
**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	19	257	74	0	350	0	23	52	11	0	86	0	13	34	3	0	50	0	15	52	68	0	135	0	12	49	68	0	129	621
7:30 AM	0	14	243	114	0	371	0	15	74	12	0	101	1	18	35	7	0	61	0	12	49	68	0	129	0	12	49	68	0	129	662
7:45 AM	0	23	280	78	0	381	0	27	77	7	0	111	0	19	36	11	0	66	0	43	66	79	0	188	0	43	66	79	0	188	746
8:00 AM	0	15	199	58	0	272	0	16	50	8	0	74	0	17	42	14	0	73	0	29	51	43	0	123	0	29	51	43	0	123	542
Peak Hour Total	0	71	979	324	0	1374	0	81	253	38	0	372	1	67	147	35	0	250	0	99	218	258	0	575	0	99	218	258	0	575	2571
PHF	0.000	0.772	0.874	0.711	0.000	0.902	0.000	0.750	0.821	0.792	0.000	0.838	0.250	0.882	0.875	0.625	0.000	0.856	0.000	0.576	0.826	0.816	0.000	0.765	0.000	0.576	0.826	0.816	0.000	0.765	0.862

**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	16	94	45	0	155	0	14	69	24	0	107	0	61	293	34	0	388	0	57	70	46	0	173	0	57	70	46	0	173	823
4:15 PM	0	16	84	54	0	154	0	12	92	23	0	127	1	47	262	25	0	335	0	89	93	23	0	205	0	89	93	23	0	205	821
4:30 PM	0	16	108	44	0	168	0	29	69	30	0	128	2	62	272	37	0	373	0	57	87	37	0	181	0	57	87	37	0	181	850
4:45 PM	0	24	113	49	0	186	0	18	75	28	0	121	0	60	244	22	0	326	0	63	84	40	0	187	0	63	84	40	0	187	820
Peak Hour Total	0	72	399	192	0	663	0	73	305	105	0	483	3	230	1071	118	0	1422	0	266	334	146	0	746	0	266	334	146	0	746	3314
PHF	0.000	0.750	0.883	0.889	0.000	0.891	0.000	0.629	0.829	0.875	0.000	0.943	0.375	0.927	0.914	0.797	0.000	0.916	0.000	0.747	0.898	0.793	0.000	0.910	0.000	0.747	0.898	0.793	0.000	0.910	0.975

Total Vehicles On Leg		20006	
Vehicles Entering Intersection		9966	
Vehicles Exiting Intersection		10040	
<b>Southbound</b>			
Cars	2791	6111	860
Heavy	37	156	7
<b>Total</b>	<b>2828</b>	<b>6267</b>	<b>867</b>

Total Vehicles on Leg 17578	Vehicles Entering Intersection 9098	Eastbound	Cars	5	2	7
			Heavy	2	0	2
	<b>Total</b>		<b>2793</b>	<b>47</b>	<b>2840</b>	
	Vehicles Exiting Intersection 8480		Cars	3834	76	3910
			<b>Total</b>	<b>2235</b>	<b>111</b>	<b>2346</b>

Cars	853	11	864
Heavy	3573	68	3641
<b>Total</b>	<b>844</b>	<b>30</b>	<b>874</b>
Total Vehicles on Leg 11084	Westbound	Vehicles Entering Intersection	5380
		Vehicles Exiting Intersection	5704

Daily Volumes

Cars	2	30	1938	6211	882
Heavy	0	0	71	121	44
<b>Total</b>	<b>2</b>	<b>30</b>	<b>2009</b>	<b>6332</b>	<b>926</b>
<b>Northbound</b>					
Vehicles Entering Intersection			9297		
Vehicles Exiting Intersection			9517		
Total Vehicles On Leg			18814		

# Heavy Vehicles

Date	Time	Southbound					Westbound					Northbound					Eastbound					
		U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	
09/21/2022	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
	4:15	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	
	4:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	4:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	
	5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
	6:00	0	0	7	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	
	6:15	0	0	4	0	0	0	1	1	0	0	0	0	5	0	0	0	0	2	1	0	
	6:30	0	0	1	0	0	0	0	0	0	0	0	3	1	0	0	0	0	1	1	0	
	6:45	0	0	10	0	0	0	0	0	0	0	0	1	3	0	0	0	0	3	1	2	0
	7:00	0	2	3	4	0	0	1	1	1	0	0	1	6	0	0	0	0	3	1	0	0
	7:15	0	0	3	3	0	0	1	6	0	0	0	1	3	1	0	0	0	1	2	1	0
	7:30	0	0	5	2	0	0	0	1	0	0	0	1	5	2	0	0	0	1	1	2	0
	7:45	0	0	4	2	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0
	8:00	0	2	4	2	0	0	0	1	0	0	0	2	4	1	0	0	0	3	1	2	0
	8:15	0	0	5	0	0	0	0	1	1	0	0	2	1	0	0	0	0	1	3	1	0
	8:30	0	0	5	1	0	0	1	1	0	0	0	0	0	2	0	0	0	1	3	1	0
	8:45	0	0	1	2	0	0	0	1	2	0	0	1	3	3	0	0	0	4	2	1	0
	9:00	0	0	1	1	0	0	0	1	0	0	0	2	3	1	0	0	0	2	1	4	0
	9:15	0	0	11	1	0	0	0	1	0	0	0	0	0	1	0	0	0	2	5	3	0
	9:30	0	0	5	0	0	0	1	1	0	0	0	4	2	0	0	0	0	1	2	5	0
	9:45	0	0	0	0	0	0	1	6	0	0	0	2	1	2	0	0	0	0	3	2	0
	10:00	0	0	1	2	0	0	1	2	0	0	0	2	3	1	0	0	0	0	0	0	0
	10:15	0	1	2	0	0	0	0	1	1	0	0	1	4	0	0	0	0	1	2	1	1
	10:30	0	0	0	0	0	0	0	1	0	0	0	1	3	1	0	0	0	0	0	5	0
	10:45	0	0	2	0	0	0	1	2	0	0	0	3	2	1	0	0	0	0	2	1	0
	11:00	0	0	0	0	0	0	3	2	0	0	0	2	1	1	0	0	0	0	3	1	1
	11:15	0	0	2	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	5	0
	11:30	0	0	0	1	0	0	0	1	0	0	0	3	1	1	0	0	0	2	4	7	0
	11:45	0	0	2	1	0	0	1	0	0	0	0	2	3	0	0	0	0	1	2	3	0





# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2262

Study Date : 11/18/2022

## Signal Warrants - Summary

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### Major Street Approaches

**Northbound: CSAH 52**

Number of Lanes : 2+

Total Approach Volume: 9,297

**Southbound: CSAH 52**

Number of Lanes :2+

Total Approach Volume: 9,966

### Minor Street Approaches

**Eastbound: CSAH 12**

Number of Lanes :1

Total Approach Volume: 9,098

**Westbound: CSAH 12**

Number of Lanes :1

Total Approach Volume: 5,380

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### Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 17 hours, 8 are needed

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

Required volumes reached for 15 hours, 8 are needed

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

Required 1A volumes reached for 17 hours, 8 are needed

Required 1B volumes reached for 16 hours, 8 are needed

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

Number of hours (17) volumes exceed minimum >= minimum required (4).

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

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

Number of one hour periods (64) 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 2262

Study Date : 11/18/2022

## Warrant 1A - Minimum Volumes

#### Description

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

#### Summary

17 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

Rural Settings Apply = **True**  
Number of Major Lanes = **2 or more**  
Number of Minor Lanes = **1**

#### Volume Requirements

Rural Factor of 70 % applied  
Veh/Hr Major = **420**  
  
Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	<b>CSAH 52</b>					<b>CSAH 12</b>		
16:00 - 17:00	1422	+	663	=	2085	746	483	Yes
17:00 - 18:00	1182	+	642	=	1824	735	493	Yes
07:00 - 08:00	232	+	1382	=	1614	529	382	Yes
15:00 - 16:00	1078	+	503	=	1581	730	444	Yes
18:00 - 19:00	818	+	602	=	1420	624	346	Yes
08:00 - 09:00	293	+	885	=	1178	478	286	Yes
14:00 - 15:00	642	+	478	=	1120	582	331	Yes
19:00 - 20:00	583	+	396	=	979	591	253	Yes
12:00 - 13:00	424	+	522	=	946	565	329	Yes
09:00 - 10:00	301	+	644	=	945	449	317	Yes
06:00 - 07:00	93	+	811	=	904	351	188	Yes
13:00 - 14:00	453	+	422	=	875	546	327	Yes
11:00 - 12:00	389	+	482	=	871	517	326	Yes
10:00 - 11:00	331	+	497	=	828	422	306	Yes
20:00 - 21:00	405	+	211	=	616	451	182	Yes
05:00 - 06:00	65	+	402	=	467	157	78	Yes
21:00 - 22:00	288	+	141	=	429	274	124	Yes
04:45 - 05:45	51	+	291	=	342	129	52	No
04:30 - 05:30	33	+	239	=	272	99	39	No
04:15 - 05:15	31	+	172	=	203	88	26	No
22:00 - 23:00	119	+	50	=	169	118	60	No
04:00 - 05:00	25	+	139	=	164	84	18	No
22:15 - 23:15	112	+	36	=	148	97	59	No
03:45 - 04:45	23	+	108	=	131	68	18	No
22:30 - 23:30	98		29		127	90	51	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2262

Study Date : 11/18/2022

## Warrant 1B - Interruption of Continuous Traffic

#### Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

#### Summary

15 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

Rural Settings Apply = **True**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

#### Volume Requirements

Rural Factor of 70 % applied  
 Veh/Hr Major = **630**  
 Veh/Hr Minor = **53**

Time	Major Road				Minor Road			Met?
	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:30 - 17:30	1345	+	689	=	2034	748	515	Yes
15:30 - 16:30	1335	+	590	=	1925	787	471	Yes
17:30 - 18:30	1030	+	667	=	1697	683	419	Yes
07:30 - 08:30	257	+	1249	=	1506	565	361	Yes
06:30 - 07:30	161	+	1126	=	1287	429	290	Yes
14:30 - 15:30	810	+	474	=	1284	611	378	Yes
18:30 - 19:30	627	+	453	=	1080	616	289	Yes
08:30 - 09:30	315	+	746	=	1061	451	296	Yes
13:30 - 14:30	548	+	433	=	981	551	316	Yes
12:30 - 13:30	433	+	476	=	909	575	327	Yes
11:30 - 12:30	402	+	481	=	883	543	321	Yes
10:30 - 11:30	339	+	518	=	857	454	323	Yes
09:30 - 10:30	322	+	527	=	849	447	319	Yes
19:30 - 20:30	494	+	290	=	784	514	239	Yes
05:30 - 06:30	83	+	568	=	651	239	120	Yes
20:30 - 21:30	373	+	197	=	570	365	138	No
05:15 - 06:15	74	+	494	=	568	202	103	No
20:45 - 21:45	325	+	175	=	500	330	129	No
05:00 - 06:00	65	+	402	=	467	157	78	No
21:00 - 22:00	288	+	141	=	429	274	124	No
21:15 - 22:15	233	+	115	=	348	246	109	No
04:45 - 05:45	51	+	291	=	342	129	52	No
04:30 - 05:30	33	+	239	=	272	99	39	No
21:30 - 22:30	166	+	79	=	245	186	78	No
04:15 - 05:15	31		172		203	88	26	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2262

Study Date : 11/18/2022

## Warrant 1C Combination of Warrants

#### Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

#### Summary

17 hours meet 1A minimums.  
16 hours meet 1B minimums.  
Warrant IS met.

#### Site Data Required

Rural Settings Apply = **True**  
Number of Major Lanes = **2 or more**  
Number of Minor Lanes = **1**

#### Volume Requirements

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

Veh/Hr Minor = **84 42**

#### Major Road

**CSAH 52**

#### Minor Road

**CSAH 12**

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
15:45 - 16:45	1406	+	607	=	2013	770	481	Yes
16:45 - 17:45	1268	+	660	=	1928	733	495	Yes
17:45 - 18:45	931	+	664	=	1595	675	390	Yes
06:45 - 07:45	191	+	1270	=	1461	464	344	Yes
14:45 - 15:45	941	+	502	=	1443	656	403	Yes
07:45 - 08:45	280	+	1096	=	1376	537	333	Yes
13:45 - 14:45	594	+	458	=	1052	578	327	Yes
18:45 - 19:45	597	+	420	=	1017	600	263	Yes
08:45 - 09:45	312	+	680	=	992	468	305	Yes
11:45 - 12:45	414	+	505	=	919	529	338	Yes
12:45 - 13:45	442	+	435	=	877	581	332	Yes
10:45 - 11:45	357	+	520	=	877	482	312	Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	1366	+	677	=	2043	753	508	Yes
15:15 - 16:15	1240	+	562	=	1802	732	453	Yes
17:15 - 18:15	1113	+	657	=	1770	718	448	Yes
07:15 - 08:15	250	+	1374	=	1624	575	372	Yes
18:15 - 19:15	682	+	505	=	1187	622	329	Yes
14:15 - 15:15	723	+	461	=	1184	610	351	Yes
06:15 - 07:15	130	+	949	=	1079	367	237	Yes
08:15 - 09:15	294	+	783	=	1077	458	293	Yes
13:15 - 14:15	505	+	432	=	937	525	317	Yes
19:15 - 20:15	563	+	369	=	932	572	249	Yes
09:15 - 10:15	322	+	599	=	921	455	315	Yes
12:15 - 13:15	420	+	486	=	906	592	320	Yes

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2262

Study Date : 11/18/2022

## Warrant 2 - Four Hour Volumes

#### Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

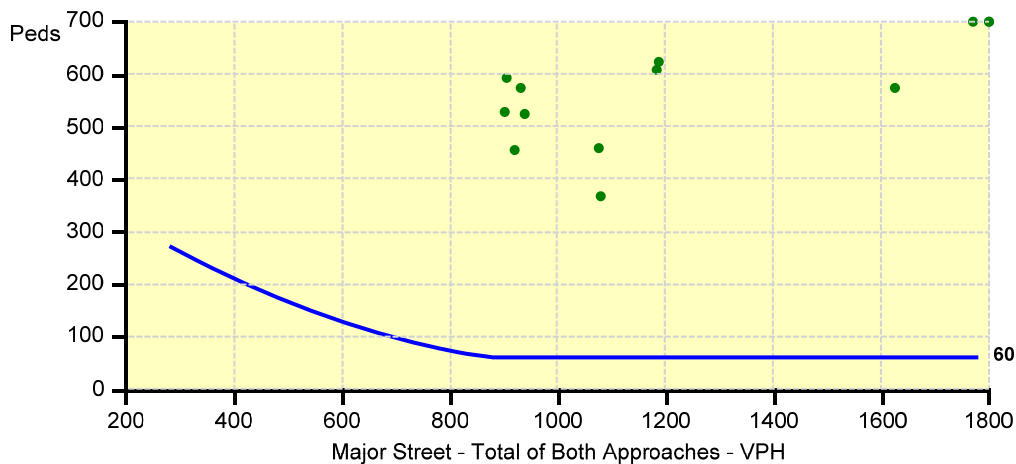
#### Summary

17 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

Rural Settings Apply = **True**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

Time	Major Road CSAH 52				Total	Minor Road CSAH 12		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:15 - 17:15	1366	+	677	=	2043	753	508	Yes
15:15 - 16:15	1240	+	562	=	1802	732	453	Yes
17:15 - 18:15	1113	+	657	=	1770	718	448	Yes
07:15 - 08:15	250	+	1374	=	1624	575	372	Yes
18:15 - 19:15	682	+	505	=	1187	622	329	Yes
14:15 - 15:15	723	+	461	=	1184	610	351	Yes
06:15 - 07:15	130	+	949	=	1079	367	237	Yes
08:15 - 09:15	294	+	783	=	1077	458	293	Yes
13:15 - 14:15	505	+	432	=	937	525	317	Yes
19:15 - 20:15	563	+	369	=	932	572	249	Yes
09:15 - 10:15	322	+	599	=	921	455	315	Yes
							320	Yes



# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2262

Study Date : 11/18/2022

## Warrant 3B - Peak Hour Volumes

### Description

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

### Summary

62 one hour periods meet minimums.  
Warrant IS met.

### Site Data Required

Rural Settings Apply = **True**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

Time	Major Road CSAH 52				Total	Minor Road CSAH 12		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	1422	+	663	=	2085	746	483	Yes
16:15 - 17:15	1366	+	677	=	2043	753	508	Yes
16:30 - 17:30	1345	+	689	=	2034	748	515	Yes
15:45 - 16:45	1406	+	607	=	2013	770	481	Yes
16:45 - 17:45	1268	+	660	=	1928	733	495	Yes
15:30 - 16:30	1335	+	590	=	1925	787	471	Yes
17:00 - 18:00	1182	+	642	=	1824	735	493	Yes
15:15 - 16:15	1240	+	562	=	1802	732	453	Yes
17:15 - 18:15	1113	+	657	=	1770	718	448	Yes
17:30 - 18:30	1030	+	667	=	1697	683	419	Yes
07:15 - 08:15	250	+	1374	=	1624	575	372	Yes
							382	Yes

