

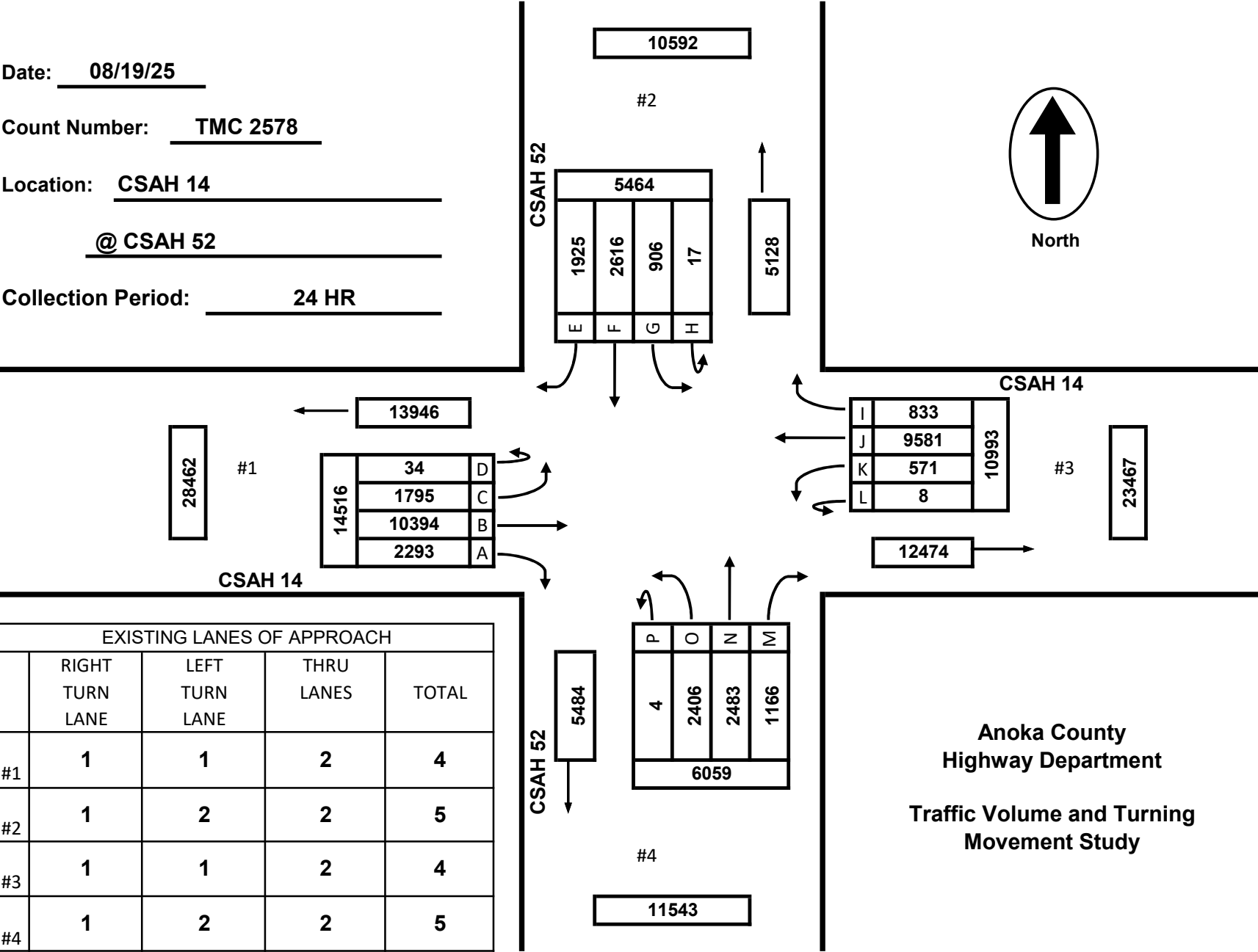
Date: 08/19/25

Count Number: TMC 2578

Location: CSAH 14

@ CSAH 52

Collection Period: 24 HR



Peak Hour: 7:15 AM - 8:15 AM

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

Date: 08/19/25

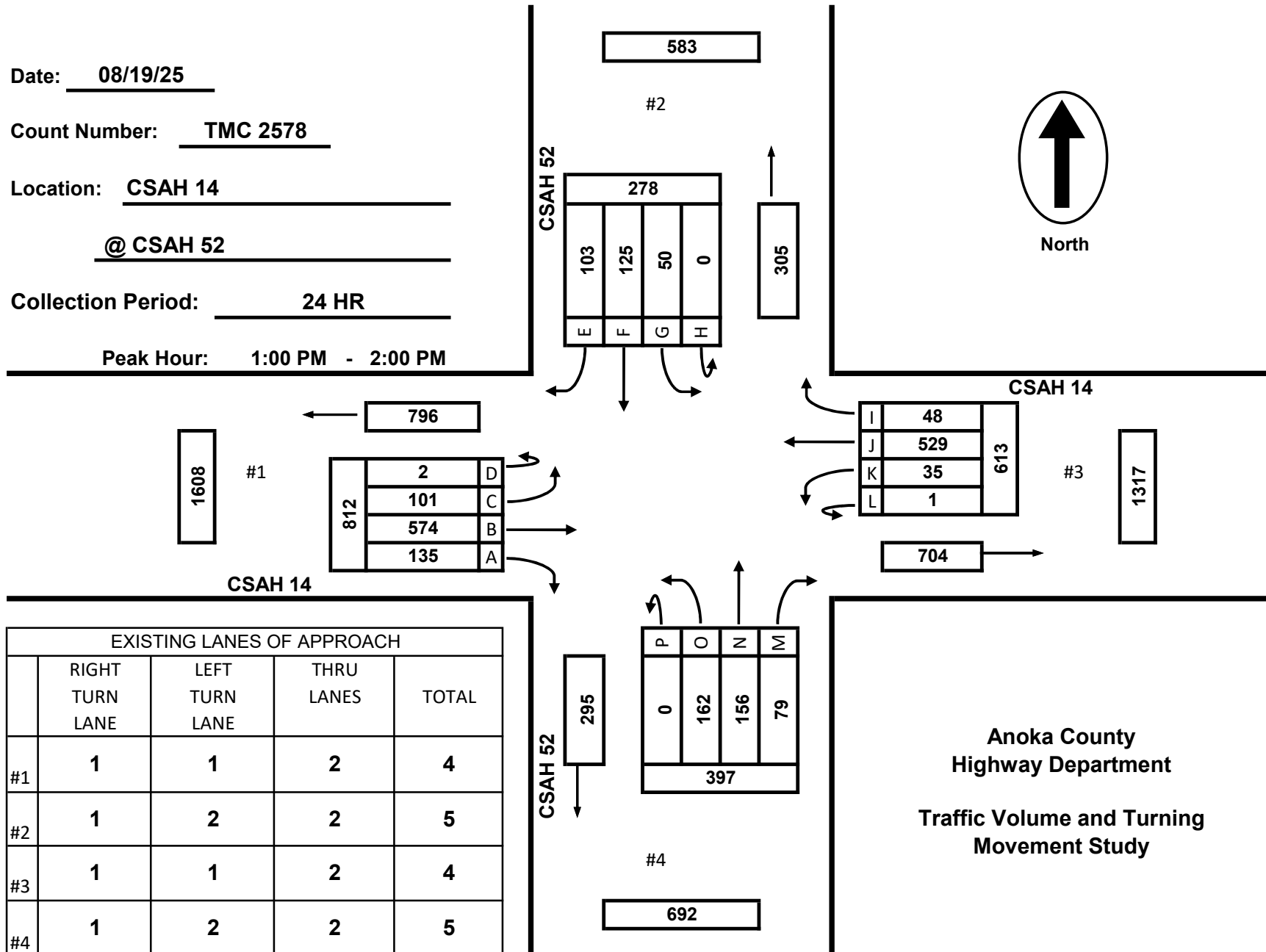
Count Number: TMC 2578

Location: CSAH 14

@ CSAH 52

Collection Period: 24 HR

Peak Hour: 1:00 PM - 2:00 PM



Peak Hour: 4:30 PM - 5:30 PM

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

TMC 2578 - CSAH 14 @ CSAH 52
Blaine MN
Tuesday, August 19, 2025

Time	Southbound CSAH 52						Westbound CSAH 14						Northbound CSAH 52						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	3	1	3	0	7	0	0	9	0	0	9	0	2	3	2	0	7	0	3	23	4	0	30	53
12:15 AM	0	0	1	1	0	2	0	0	9	1	0	10	0	0	4	0	0	4	0	1	14	0	0	15	31
12:30 AM	0	1	0	4	0	5	0	1	5	2	0	8	0	2	1	0	0	3	0	2	11	0	0	13	29
12:45 AM	0	0	1	0	0	1	0	0	5	0	0	5	0	0	2	2	0	4	0	0	8	1	0	9	19
Hourly Total	0	4	3	8	0	15	0	1	28	3	0	32	0	4	10	4	0	18	0	6	56	5	0	67	132
1:00 AM	0	0	0	1	0	1	0	0	4	0	0	4	0	1	1	1	0	3	0	1	4	0	0	5	13
1:15 AM	0	1	0	1	0	2	0	0	6	1	0	7	0	0	1	1	0	2	0	3	6	1	0	10	21
1:30 AM	0	0	0	1	0	1	0	0	2	0	0	2	0	1	0	1	0	2	0	1	7	1	0	9	14
1:45 AM	0	1	1	0	0	2	0	0	10	0	0	10	0	0	1	2	0	3	0	0	6	0	0	6	21
Hourly Total	0	2	1	3	0	6	0	0	22	1	0	23	0	2	3	5	0	10	0	5	23	2	0	30	69
2:00 AM	0	1	0	2	0	3	0	0	7	0	0	7	0	1	1	0	0	2	0	2	4	0	0	6	18
2:15 AM	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	4	0	0	5	8
2:30 AM	0	0	1	0	0	1	0	0	9	0	0	9	0	1	1	0	0	2	0	1	4	0	0	5	17
2:45 AM	0	0	1	1	0	2	0	0	3	0	0	3	0	2	0	0	0	2	0	1	10	1	0	12	19
Hourly Total	0	1	3	3	0	7	0	0	20	0	0	20	0	4	3	0	0	7	0	5	22	1	0	28	62
3:00 AM	0	0	2	2	0	4	0	0	5	0	0	5	0	0	0	0	0	0	0	1	4	2	0	7	16
3:15 AM	0	0	0	2	0	2	0	1	1	0	0	2	0	0	1	0	0	1	0	0	6	2	0	8	13
3:30 AM	0	1	2	0	0	3	0	0	6	1	0	7	0	0	1	0	0	1	0	0	5	2	0	7	18
3:45 AM	0	1	1	1	0	3	0	1	10	1	0	12	0	0	0	0	0	0	0	0	8	7	0	15	30
Hourly Total	0	2	5	5	0	12	0	2	22	2	0	26	0	0	2	0	0	2	0	1	23	13	0	37	77
4:00 AM	0	0	6	2	0	8	0	0	4	1	0	5	0	3	0	0	0	3	0	0	2	6	0	8	24
4:15 AM	0	0	8	6	0	14	0	1	14	0	0	15	0	2	1	0	0	3	0	1	4	7	0	12	44
4:30 AM	0	1	14	4	0	19	0	1	23	0	0	24	0	1	2	0	1	3	0	1	14	11	0	26	72
4:45 AM	0	1	22	7	0	30	0	2	25	1	0	28	0	10	0	0	0	10	0	0	15	16	0	31	99
Hourly Total	0	2	50	19	0	71	0	4	66	2	0	72	0	16	3	0	1	19	0	2	35	40	0	77	239
5:00 AM	0	0	27	18	0	45	0	4	26	0	0	30	0	5	1	3	0	9	0	1	25	12	0	38	122
5:15 AM	0	4	32	13	1	49	0	2	30	3	0	35	0	3	1	1	1	5	0	4	35	20	0	59	148
5:30 AM	0	2	35	20	0	57	0	2	42	1	0	45	0	14	8	2	0	24	0	2	47	26	0	75	201
5:45 AM	0	7	44	16	0	67	0	2	43	1	0	46	0	13	2	1	0	16	0	4	44	25	0	73	202
Hourly Total	0	13	138	67	1	218	0	10	141	5	0	156	0	35	12	7	1	54	0	11	151	83	0	245	673
6:00 AM	0	4	56	23	0	83	0	3	54	0	0	57	0	7	8	3	0	18	0	2	51	17	0	70	228
6:15 AM	0	7	64	23	0	94	0	4	70	1	0	75	0	5	5	5	0	15	0	2	80	24	0	106	290
6:30 AM	1	10	77	30	0	118	0	8	108	2	0	118	0	12	11	3	0	26	0	7	114	36	0	157	419
6:45 AM	0	17	85	50	0	152	0	5	122	4	0	131	0	25	7	3	1	35	1	12	121	50	0	184	502
Hourly Total	1	38	282	126	0	447	0	20	354	7	0	381	0	49	31	14	1	94	1	23	366	127	0	517	1439
7:00 AM	0	15	83	37	0	135	0	10	151	7	0	168	0	15	13	5	1	33	1	13	108	47	0	169	505
7:15 AM	0	17	82	44	0	143	0	7	163	8	0	178	0	18	12	10	0	40	0	14	108	34	0	156	517
7:30 AM	1	21	91	39	0	152	0	15	199	7	0	221	0	16	14	8	5	38	1	9	132	60	0	202	613
7:45 AM	0	25	82	50	0	157	1	17	211	17	0	246	0	23	13	5	5	41	0	14	132	55	0	201	645
Hourly Total	1	78	338	170	0	587	1	49	724	39	0	813	0	72	52	28	11	152	2	50	480	196	0	728	2280

TMC 2578 - CSAH 14 @ CSAH 52
Blaine MN
Tuesday, August 19, 2025

Time	Southbound CSAH 52						Westbound CSAH 14						Northbound CSAH 52						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	19	70	26	0	115	0	5	155	10	0	170	0	22	14	7	0	43	0	27	144	44	0	215	543
8:15 AM	0	19	56	37	0	112	0	8	145	13	0	166	0	12	23	6	0	41	0	17	139	33	0	189	508
8:30 AM	2	17	54	35	0	108	0	10	153	9	0	172	0	25	10	9	1	44	0	16	125	43	0	184	508
8:45 AM	0	8	43	31	0	82	0	6	132	8	0	146	1	22	17	12	2	52	0	8	153	23	0	184	464
Hourly Total	2	63	223	129	0	417	0	29	585	40	0	654	1	81	64	34	3	180	0	68	561	143	0	772	2023
9:00 AM	0	13	31	20	0	64	0	8	112	8	0	128	0	23	20	10	1	53	0	16	125	21	1	162	407
9:15 AM	0	9	50	32	0	91	1	7	103	5	0	116	0	24	23	10	0	57	0	13	92	29	0	134	398
9:30 AM	0	13	32	29	0	74	0	12	148	11	0	171	0	29	19	11	4	59	0	25	111	17	0	153	457
9:45 AM	0	8	44	38	0	90	0	10	142	9	0	161	0	35	16	11	2	62	1	24	103	25	0	153	466
Hourly Total	0	43	157	119	0	319	1	37	505	33	0	576	0	111	78	42	7	231	1	78	431	92	1	602	1728
10:00 AM	1	6	40	36	0	83	0	5	116	13	0	134	0	26	17	8	3	51	0	28	132	22	0	182	450
10:15 AM	0	9	31	38	0	78	0	9	130	13	0	152	0	22	24	12	0	58	0	19	109	25	3	153	441
10:30 AM	1	11	28	26	0	66	0	10	118	7	0	135	0	28	18	15	0	61	0	22	125	33	0	180	442
10:45 AM	0	11	38	38	0	87	0	9	146	14	0	169	0	34	29	7	0	70	0	17	105	20	0	142	468
Hourly Total	2	37	137	138	0	314	0	33	510	47	0	590	0	110	88	42	3	240	0	86	471	100	3	657	1801
11:00 AM	0	12	32	44	0	88	0	9	111	15	1	135	0	30	19	16	0	65	1	17	108	32	0	158	446
11:15 AM	0	11	34	28	0	73	0	12	129	13	0	154	0	45	19	18	0	82	0	27	144	28	0	199	508
11:30 AM	0	9	34	33	0	76	0	8	139	13	0	160	0	34	22	7	0	63	1	21	143	25	0	190	489
11:45 AM	2	7	34	29	0	72	0	11	127	16	0	154	0	41	28	15	0	84	0	27	120	27	0	174	484
Hourly Total	2	39	134	134	0	309	0	40	506	57	1	603	0	150	88	56	0	294	2	92	515	112	0	721	1927
12:00 PM	0	6	34	36	0	76	0	7	139	11	0	157	0	31	27	20	0	78	0	32	137	35	0	204	515
12:15 PM	0	10	32	36	1	78	0	17	143	12	0	172	0	38	43	20	0	101	2	24	171	27	0	224	575
12:30 PM	0	16	24	27	0	67	0	10	121	7	0	138	0	30	30	15	0	75	0	27	157	25	1	209	489
12:45 PM	0	10	31	32	0	73	0	12	111	12	0	135	0	29	23	18	0	70	0	28	142	37	0	207	485
Hourly Total	0	42	121	131	1	294	0	46	514	42	0	602	0	128	123	73	0	324	2	111	607	124	1	844	2064
1:00 PM	0	13	35	18	0	66	0	4	114	16	0	134	0	43	32	18	0	93	0	24	139	29	2	192	485
1:15 PM	0	8	31	22	0	61	0	11	138	12	0	161	0	31	34	17	0	82	1	25	155	43	5	224	528
1:30 PM	0	15	33	29	0	77	0	6	145	14	0	165	0	35	48	28	1	111	1	25	141	34	0	201	554
1:45 PM	0	14	26	34	0	74	1	14	132	6	0	153	0	53	42	16	0	111	0	27	139	29	0	195	533
Hourly Total	0	50	125	103	0	278	1	35	529	48	0	613	0	162	156	79	1	397	2	101	574	135	7	812	2100
2:00 PM	0	12	36	19	0	67	0	7	114	9	0	130	0	41	38	19	0	98	0	43	166	37	0	246	541
2:15 PM	0	11	33	18	0	62	1	11	145	14	0	171	0	52	52	19	1	123	0	23	192	51	1	266	622
2:30 PM	0	9	28	31	0	68	0	4	149	10	0	163	0	50	56	23	0	129	1	37	153	36	0	227	587
2:45 PM	1	16	29	35	0	81	1	8	171	10	0	190	0	47	66	21	1	134	0	29	185	40	1	254	659
Hourly Total	1	48	126	103	0	278	2	30	579	43	0	654	0	190	212	82	2	484	1	132	696	164	2	993	2409
3:00 PM	0	20	41	25	0	86	0	12	134	10	0	156	0	72	69	28	0	169	1	37	190	32	0	260	671
3:15 PM	0	9	38	28	0	75	0	14	192	15	0	221	0	65	72	23	2	160	1	36	225	43	1	305	761
3:30 PM	0	18	32	29	0	79	1	7	156	20	0	184	0	71	83	20	0	174	2	37	160	38	0	237	674
3:45 PM	0	13	28	27	0	68	1	10	209	26	0	246	0	54	64	34	0	152	1	35	207	45	0	288	754
Hourly Total	0	60	139	109	0	308	2	43	691	71	0	807	0	262	288	105	2	655	5	145	782	158	1	1090	2860

TMC 2578 - CSAH 14 @ CSAH 52

Blaine MN

Tuesday, August 19, 2025

Time	Southbound CSAH 52						Westbound CSAH 14						Northbound CSAH 52						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	25	27	30	0	82	0	10	204	21	0	235	0	70	89	29	4	188	0	41	202	33	0	276	781
4:15 PM	3	23	39	29	0	94	1	13	211	22	0	247	0	88	92	28	0	208	1	45	209	39	0	294	843
4:30 PM	2	27	41	39	0	109	0	8	227	23	0	258	0	80	93	32	2	205	0	45	212	40	0	297	869
4:45 PM	0	11	45	23	0	79	0	9	231	20	0	260	0	53	96	37	0	186	0	37	267	47	0	351	876
Hourly Total	5	86	152	121	0	364	1	40	873	86	0	1000	0	291	370	126	6	787	1	168	890	159	0	1218	3369
5:00 PM	0	22	53	38	0	113	0	16	252	26	0	294	0	87	104	40	1	231	0	48	241	45	0	334	972
5:15 PM	0	21	51	30	0	102	0	18	244	22	0	284	0	68	82	31	1	181	0	49	256	46	1	351	918
5:30 PM	1	26	36	30	0	93	0	18	201	23	0	242	0	72	77	25	1	174	1	39	247	40	1	327	836
5:45 PM	0	21	42	33	0	96	0	6	204	21	0	231	0	45	68	29	1	142	1	32	246	33	0	312	781
Hourly Total	1	90	182	131	0	404	0	58	901	92	0	1051	0	272	331	125	4	728	2	168	990	164	2	1324	3507
6:00 PM	0	22	31	38	0	91	0	5	158	20	0	183	0	50	60	24	0	134	1	38	198	33	0	270	678
6:15 PM	0	25	27	32	0	84	0	8	166	20	0	194	1	50	60	22	0	133	0	44	220	32	0	296	707
6:30 PM	0	9	19	32	0	60	0	12	147	18	0	177	0	35	26	26	0	87	1	28	152	43	3	224	548
6:45 PM	0	10	23	29	0	62	0	5	138	9	0	152	0	33	28	25	0	86	1	30	182	36	0	249	549
Hourly Total	0	66	100	131	0	297	0	30	609	67	0	706	1	168	174	97	0	440	3	140	752	144	3	1039	2482
7:00 PM	0	23	24	20	0	67	0	7	130	10	0	147	0	23	49	28	0	100	1	48	187	32	1	268	582
7:15 PM	0	15	28	2	0	45	0	5	109	15	0	129	0	22	45	15	0	82	0	27	168	23	0	218	474
7:30 PM	0	14	21	1	0	36	0	5	139	7	0	151	0	21	25	21	0	67	0	29	184	20	0	233	487
7:45 PM	0	16	17	13	0	46	0	11	110	12	0	133	0	18	38	26	0	82	1	33	156	25	0	215	476
Hourly Total	0	68	90	36	0	194	0	28	488	44	0	560	0	84	157	90	0	331	2	137	695	100	1	934	2019
8:00 PM	0	6	19	16	0	41	0	6	118	11	0	135	1	23	35	17	0	76	1	37	149	31	0	218	470
8:15 PM	1	15	13	15	0	44	0	2	131	23	0	156	1	29	28	15	0	73	1	30	136	21	0	188	461
8:30 PM	0	12	19	16	0	47	0	3	98	8	0	109	0	28	28	18	0	74	0	32	137	26	0	195	425
8:45 PM	0	5	7	11	0	23	0	7	87	17	0	111	0	28	13	24	0	65	3	26	128	26	0	183	382
Hourly Total	1	38	58	58	0	155	0	18	434	59	0	511	2	108	104	74	0	288	5	125	550	104	0	784	1738
9:00 PM	0	7	8	10	0	25	0	3	86	7	0	96	0	20	28	17	0	65	1	22	112	25	0	160	346
9:15 PM	0	5	10	10	0	25	0	2	62	7	0	71	0	13	17	16	0	46	0	11	94	19	0	124	266
9:30 PM	0	4	10	15	0	29	0	4	61	4	0	69	0	17	20	7	0	44	1	11	88	15	0	115	257
9:45 PM	0	5	7	17	0	29	0	1	55	4	0	60	0	13	12	9	0	34	0	12	71	17	0	100	223
Hourly Total	0	21	35	52	0	108	0	10	264	22	0	296	0	63	77	49	0	189	2	56	365	76	0	499	1092
10:00 PM	0	4	3	8	0	15	0	0	32	6	0	38	0	8	16	9	0	33	1	31	91	18	0	141	227
10:15 PM	0	2	4	7	0	13	0	3	26	8	0	37	0	7	10	8	0	25	0	12	57	13	0	82	157
10:30 PM	0	2	5	3	0	10	0	0	33	1	0	34	0	7	11	6	0	24	1	10	50	0	0	61	129
10:45 PM	0	3	1	0	0	4	0	2	32	4	0	38	0	5	3	2	0	10	0	10	47	7	0	64	116
Hourly Total	0	11	13	18	0	42	0	5	123	19	0	147	0	27	40	25	0	92	2	63	245	38	0	348	629
11:00 PM	1	1	1	4	0	7	0	2	29	2	0	33	0	6	6	2	0	14	0	7	42	3	0	52	106
11:15 PM	0	2	2	4	0	8	0	1	18	0	0	19	0	6	4	0	0	10	1	4	34	6	0	45	82
11:30 PM	0	1	1	2	0	4	0	0	25	2	0	27	0	2	4	4	0	10	0	6	26	2	0	34	75
11:45 PM	0	0	0	1	0	1	0	0	21	0	0	21	0	3	3	3	0	9	0	5	12	2	0	19	50
Hourly Total	1	4	4	11	0	20	0	3	93	4	0	100	0	17	17	9	0	43	1	22	114	13	0	150	313
DAILY TOTAL	17	906	2616	1925	2	5464	8	571	9581	833	1	10993	4	2406	2483	1166	42	6059	34	1795	10394	2293	21	14516	37032
Cars	17	897	2578	1918	1	5410	8	562	9443	824	0	10837	4	2272	2436	1153	22	5865	34	1785	10235	2166	8	14220	36332
Heavy Vehicles	0	9	38	7	1	54	0	9	138	9	1	156	0	134	47	13	20	194	0	10	159	127	13	296	700
Heavy Vehicle %	0.00%	0.99%	1.45%	0.36%	50.00%	0.99%	0.00%	1.58%	1.44%	1.08%	100.00%	1.42%	0.00%	5.57%	1.89%	1.11%	47.62%	3.20%	0.00%	0.56%	1.53%	5.54%	61.90%	2.04%	1.89%

TMC 2578 - CSAH 14 @ CSAH 52

Blaine MN

Tuesday, August 19, 2025

AM Peak Hour (00:00 to 10:00)

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	17	82	44	0	143	0	7	163	8	0	178	0	18	12	10	0	40	0	14	108	34	0	156	517
7:30 AM	1	21	91	39	0	152	0	15	199	7	0	221	0	16	14	8	5	38	1	9	132	60	0	202	613
7:45 AM	0	25	82	50	0	157	1	17	211	17	0	246	0	23	13	5	5	41	0	14	132	55	0	201	645
8:00 AM	0	19	70	26	0	115	0	5	155	10	0	170	0	22	14	7	0	43	0	27	144	44	0	215	543
Peak Hour Total	1	82	325	159	0	567	1	44	728	42	0	815	0	79	53	30	10	162	1	64	516	193	0	774	2318
Peak Hour Heavy Vehicles	0	0	4	0	0	4	0	0	14	0	0	14	0	2	1	0	0	3	0	1	13	11	0	25	46
Peak Hour Heavy Vehicles %	0.00%	0.00%	1.23%	0.00%	0.00%	0.71%	0.00%	0.00%	1.92%	0.00%	0.00%	1.72%	0.00%	2.53%	1.89%	0.00%	0.00%	1.85%	0.00%	1.56%	2.52%	5.70%	0.00%	3.23%	1.98%
PHF	0.250	0.820	0.893	0.795	0.000	0.903	0.250	0.647	0.863	0.618	0.000	0.828	0.000	0.859	0.946	0.750	0.500	0.942	0.250	0.593	0.896	0.804	0.000	0.900	0.898

Mid Peak Hour (10:00 - 14:00)

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	
1:00 PM	0	13	35	18	0	66	0	4	114	16	0	134	0	43	32	18	0	93	0	24	139	29	2	192	485
1:15 PM	0	8	31	22	0	61	0	11	138	12	0	161	0	31	34	17	0	82	1	25	155	43	5	224	528
1:30 PM	0	15	33	29	0	77	0	6	145	14	0	165	0	35	48	28	1	111	1	25	141	34	0	201	554
1:45 PM	0	14	26	34	0	74	1	14	132	6	0	153	0	53	42	16	0	111	0	27	139	29	0	195	533
Peak Hour Total	0	50	125	103	0	278	1	35	529	48	0	613	0	162	156	79	1	397	2	101	574	135	7	812	2100
Peak Hour Heavy Vehicles	0	2	2	1	0	5	0	0	13	1	0	14	0	20	5	2	0	27	0	3	5	14	6	22	68
Peak Hour Heavy Vehicles %	0.00%	4.00%	1.60%	0.97%	0.00%	1.80%	0.00%	0.00%	2.46%	2.08%	0.00%	2.28%	0.00%	12.35%	3.21%	2.53%	0.00%	6.80%	0.00%	2.97%	0.87%	10.37%	85.71%	2.71%	3.24%
PHF	0.000	0.833	0.893	0.757	0.000	0.903	0.250	0.625	0.912	0.750	0.000	0.929	0.000	0.764	0.813	0.705	0.250	0.894	0.500	0.935	0.926	0.785	0.350	0.906	0.948

PM Peak Hour (14:00 - 24:00)

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	
4:30 PM	2	27	41	39	0	109	0	8	227	23	0	258	0	80	93	32	2	205	0	45	212	40	0	297	869
4:45 PM	0	11	45	23	0	79	0	9	231	20	0	260	0	53	96	37	0	186	0	37	267	47	0	351	876
5:00 PM	0	22	53	38	0	113	0	16	252	26	0	294	0	87	104	40	1	231	0	48	241	45	0	334	972
5:15 PM	0	21	51	30	0	102	0	18	244	22	0	284	0	68	82	31	1	181	0	49	256	46	1	351	918
Peak Hour Total	2	81	190	130	0	403	0	51	954	91	0	1096	0	288	375	140	4	803	0	179	976	178	1	1333	3635
Peak Hour Heavy Vehicles	0	0	0	0	0	0	0	0	7	0	0	7	0	11	1	1	0	13	0	0	10	10	1	20	40
Peak Hour Heavy Vehicles %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.73%	0.00%	0.00%	0.64%	0.00%	3.82%	0.27%	0.71%	0.00%	1.62%	0.00%	0.00%	1.02%	5.62%	100.00%	1.50%	1.10%
PHF	0.250	0.750	0.896	0.833	0.000	0.892	0.000	0.708	0.946	0.875	0.000	0.932	0.000	0.828	0.901	0.875	0.500	0.869	0.000	0.913	0.914	0.947	0.250	0.949	0.935

Total Vehicles On Leg			10592		
Vehicles Entering Intersection 5464			Vehicles Exiting Intersection 5128		
Southbound					
Cars	1918	2578	897	17	1
Heavy	7	38	9	0	1
Total	1925	2616	906	17	2



Total Vehicles on Leg 28462	Vehicles Entering Intersection 14516	Eastbound	Cars	Heavy	Total
			8	13	21
			34	0	34
	Vehicles Exiting Intersection 13946		1785	10	1795
			10235	159	10394
			2166	127	2293



Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 10993	Total Vehicles on Leg 23467
824	9	833			
9443	138	9581			
562	9	571			
8	0	8			
0	1	1		Vehicles Exiting Intersection 12474	



Cars	22	4	2272	2436	1153
Heavy	20	0	134	47	13
Total	42	4	2406	2483	1166
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
6059			5484		
Total Vehicles On Leg			11543		

TMC 2578 - CSAH 14 @ CSAH 52
Blaine MN
Tuesday, August 19, 2025

Time	Southbound Heavy CSAH 52						Westbound Heavy CSAH 14						Northbound Heavy CSAH 52						Eastbound Heavy 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	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
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	1	0	0	2	0	0	2	4
5:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	3
5:15 AM	0	0	0	0	1	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	2
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	1	0	0	0	4	0	0	4	0	0	1	0	0	1	0	0	4	0	0	4	9
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	0	1	0	0	1	0	0	1	4
6:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	4	2	0	6	8
6:45 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	1	0	0	0	6	1	0	7	12
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	8	0	0	8	0	2	1	0	1	3	0	0	11	3	0	14	25
7:00 AM	0	0	1	0	0	1	0	0	6	0	0	6	0	0	0	0	1	0	0	1	7	4	0	12	19
7:15 AM	0	0	2	0	0	2	0	0	5	0	0	5	0	2	1	0	0	3	0	0	2	1	0	3	13
7:30 AM	0	0	1	0	0	1	0	0	6	0	0	6	0	0	0	0	0	0	0	0	4	3	0	7	14
7:45 AM	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	3	0	6	8
Hourly 'Heavy Vehicles'	0	0	5	0	0	5	0	0	18	0	0	18	0	2	1	0	1	3	0	1	16	11	0	28	54

TMC 2578 - CSAH 14 @ CSAH 52

Blaine MN

Tuesday, August 19, 2025

Time	Southbound Heavy CSAH 52						Westbound Heavy CSAH 14						Northbound Heavy CSAH 52						Eastbound Heavy CSAH 14						VEHICLE 'Heavy Vehicles'
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	4	4	0	9	11
8:15 AM	0	0	0	2	0	2	0	1	1	1	0	3	0	0	1	0	0	1	0	0	8	2	0	10	16
8:30 AM	0	1	1	0	0	2	0	0	3	0	0	3	0	3	0	1	1	4	0	0	9	4	0	13	22
8:45 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	1	1	0	1	2	0	0	3	2	0	5	9
Hourly 'Heavy Vehicles'	0	1	1	2	0	4	0	1	8	1	0	10	0	4	2	1	2	7	0	1	24	12	0	37	58
9:00 AM	0	0	0	0	0	0	0	1	4	1	0	6	0	0	3	0	1	3	0	1	6	2	1	9	18
9:15 AM	0	0	0	1	0	1	0	0	1	0	0	1	0	3	3	0	0	6	0	0	1	2	0	3	11
9:30 AM	0	0	2	0	0	2	0	0	9	0	0	9	0	1	0	0	1	1	0	0	1	1	0	2	14
9:45 AM	0	1	1	0	0	2	0	0	3	0	0	3	0	2	0	1	2	3	0	0	5	3	0	8	16
Hourly 'Heavy Vehicles'	0	1	3	1	0	5	0	1	17	1	0	19	0	6	6	1	4	13	0	1	13	8	1	22	59
10:00 AM	0	1	1	0	0	2	0	0	1	0	0	1	0	0	1	0	3	1	0	0	5	0	0	5	9
10:15 AM	0	0	3	0	0	3	0	0	1	1	0	2	0	1	0	2	0	3	0	0	3	2	3	5	13
10:30 AM	0	0	2	0	0	2	0	0	4	0	0	4	0	0	1	0	0	1	0	0	6	2	0	8	15
10:45 AM	0	0	1	0	0	1	0	0	1	0	0	1	0	3	0	0	0	3	0	0	1	1	0	2	7
Hourly 'Heavy Vehicles'	0	1	7	0	0	8	0	0	7	1	0	8	0	4	2	2	3	8	0	0	15	5	3	20	44
11:00 AM	0	0	1	0	0	1	0	1	1	3	1	5	0	7	1	1	0	9	0	0	2	2	0	4	19
11:15 AM	0	0	0	0	0	0	0	1	3	0	0	4	0	3	2	0	0	5	0	0	4	2	0	6	15
11:30 AM	0	1	1	0	0	2	0	0	5	1	0	6	0	2	3	0	0	5	0	0	1	0	0	1	14
11:45 AM	0	0	2	0	0	2	0	0	2	0	0	2	0	3	1	0	0	4	0	1	3	2	0	6	14
Hourly 'Heavy Vehicles'	0	1	4	0	0	5	0	2	11	4	1	17	0	15	7	1	0	23	0	1	10	6	0	17	62
12:00 PM	0	1	3	0	0	4	0	0	2	0	0	2	0	2	1	0	0	3	0	0	4	3	0	7	16
12:15 PM	0	0	0	0	0	0	0	1	3	0	0	4	0	2	0	0	0	2	0	0	6	1	0	7	13
12:30 PM	0	0	1	0	0	1	0	0	1	0	0	1	0	7	2	0	0	9	0	0	4	3	0	7	18
12:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	1	0	4	0	0	1	2	0	3	9
Hourly 'Heavy Vehicles'	0	1	4	0	0	5	0	1	8	0	0	9	0	14	3	1	0	18	0	0	15	9	0	24	56
1:00 PM	0	0	1	0	0	1	0	0	3	1	0	4	0	6	1	0	0	7	0	0	1	5	1	6	18
1:15 PM	0	1	1	1	0	3	0	0	4	0	0	4	0	3	0	1	0	4	0	0	0	5	5	5	16
1:30 PM	0	1	0	0	0	1	0	0	5	0	0	5	0	6	2	1	0	9	0	2	3	2	0	7	22
1:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	5	2	0	0	7	0	1	1	2	0	4	12
Hourly 'Heavy Vehicles'	0	2	2	1	0	5	0	0	13	1	0	14	0	20	5	2	0	27	0	3	5	14	6	22	68
2:00 PM	0	0	2	0	0	2	0	0	4	0	0	4	0	5	1	0	0	6	0	0	3	2	0	5	17
2:15 PM	0	1	1	0	0	2	0	1	1	0	0	2	0	2	0	0	1	2	0	1	4	6	1	11	17
2:30 PM	0	0	3	0	0	3	0	0	1	0	0	1	0	2	0	2	0	4	0	0	3	3	0	6	14
2:45 PM	0	0	1	0	0	1	0	0	2	0	0	2	0	4	4	0	1	8	0	0	5	4	0	9	20
Hourly 'Heavy Vehicles'	0	1	7	0	0	8	0	1	8	0	0	9	0	13	5	2	2	20	0	1	15	15	1	31	68
3:00 PM	0	0	1	0	0	1	0	3	3	0	0	6	0	4	3	0	0	7	0	0	2	5	0	7	21
3:15 PM	0	0	0	0	0	0	0	0	3	0	0	1	0	4	0	0	2	4	0	0	1	5	0	6	11
3:30 PM	0	0	1	1	0	2	0	0	3	1	0	4	0	4	2	1	0	7	0	1	1	6	0	8	21
3:45 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	3	1	0	0	4	0	0	1	1	0	2	11
Hourly 'Heavy Vehicles'	0	0	2	1	0	3	0	3	12	1	0	16	0	15	6	1	2	22	0	1	5	17	0	23	64

TMC 2578 - CSAH 14 @ CSAH 52

Blaine MN

Tuesday, August 19, 2025

Time	Southbound Heavy CSAH 52						Westbound Heavy CSAH 14						Northbound Heavy CSAH 52						Eastbound Heavy CSAH 14						VEHICLE 'Heavy Vehicles'
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	
4:00 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	1	4	4	0	0	2	2	0	4	11
4:15 PM	0	0	2	0	0	2	0	0	3	0	0	3	0	2	2	0	0	4	0	0	2	5	0	7	16
4:30 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	0	2	0	0	3	4	0	7	13
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	0	3	0	0	3	2	0	5	9
Hourly 'Heavy Vehicles'	0	0	2	0	0	2	0	0	11	0	0	11	0	10	2	1	4	13	0	0	10	13	0	23	49
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	1	0	4	0	0	2	1	0	3	8
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	3	1	0	0	4	0	0	2	3	1	5	10
5:30 PM	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	0	1	0	0	1	3	1	4	7
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	2	0	3	6
Hourly 'Heavy Vehicles'	0	1	1	0	0	2	0	0	3	0	0	3	0	9	1	1	0	11	0	0	6	9	2	15	31
6:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	0	6	0	0	3	1	0	4	12
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	1	0	1	6
6:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	2	0	3	5
6:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	0	4	0	0	0	0	0	0	5
Hourly 'Heavy Vehicles'	0	0	0	1	0	1	0	0	3	0	0	3	0	13	3	0	0	16	0	0	4	4	0	8	28
7:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	0	3	0	0	0	0	0	0	4
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	1	0	0	1	0	5	1	0	0	6	0	0	0	0	0	0	7
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
8:15 PM	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
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	0	1	0	1	0	0	0	1	4
9:00 PM	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
9:15 PM	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
9:30 PM	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
10:15 PM	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
10:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
11:00 PM	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
11:15 PM	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
11:30 PM	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
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
DAILY 'Heavy Vehicles'	0	9	38	7	1	54	0	9	138	9	1	156	0	134	47	13	20	194	0	10	159	127	13	296	700

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2578

Study Date : 09/02/2025

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 14

Number of Lanes : 2+

Total Approach Volume: 14,516

Westbound: CSAH 14

Number of Lanes :2+

Total Approach Volume: 10,993

Minor Street Approaches

Northbound: CSAH 52

Number of Lanes :2+

Total Approach Volume: 4,893

Southbound: CSAH 52

Number of Lanes :2+

Total Approach Volume: 3,539

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 16 hours, 8 are needed

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

Required volumes reached for 16 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 17 hours, 8 are needed

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

Number of hours (16) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (62) 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 2578

Study Date : 09/02/2025

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

16 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 = **2 or more**

Volume Requirements

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

Veh/Hr Minor = **140**

Major Road						Minor Road		
CSAH 14						CSAH 52		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:15 - 17:15	1276	+	1059	=	2335	693	266	Yes
17:15 - 18:15	1260	+	940	=	2200	522	251	Yes
15:15 - 16:15	1106	+	886	=	1992	568	190	Yes
18:15 - 19:15	1037	+	670	=	1707	305	160	Yes
14:15 - 15:15	1007	+	680	=	1687	464	188	Yes
07:15 - 08:15	774	+	815	=	1589	132	408	Yes
13:15 - 14:15	866	+	609	=	1475	322	175	Yes
19:15 - 20:15	884	+	548	=	1432	228	136	Yes
12:15 - 13:15	832	+	579	=	1411	268	171	Yes
11:15 - 12:15	767	+	625	=	1392	247	171	Yes
08:15 - 09:15	719	+	612	=	1331	153	243	Yes
10:15 - 11:15	633	+	591	=	1224	204	173	Yes
09:15 - 10:15	622	+	582	=	1204	189	203	Yes
20:15 - 21:15	726	+	472	=	1198	203	87	Yes
06:15 - 07:15	616	+	492	=	1108	93	359	Yes
05:15 - 06:15	277	+	183	=	460	56	184	Yes
21:15 - 22:15	480	+	238	=	718	116	48	No
21:30 - 22:30	438	+	204	=	642	103	39	No
21:45 - 22:45	384	+	169	=	553	84	32	No
22:00 - 23:00	348	+	147	=	495	67	24	No
22:15 - 23:15	259	+	142	=	401	55	20	No
05:00 - 06:00	245	+	156	=	401	47	151	No
22:30 - 23:30	222	+	124	=	346	48	18	No
04:45 - 05:45	203	+	138	=	341	42	123	No
22:45 - 23:45	195		117		312	36	13	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2578

Study Date : 09/02/2025

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

16 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 = **2 or more**

Volume Requirements

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

Veh/Hr Minor = **70**

Major Road						Minor Road		
CSAH 14						CSAH 52		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1363	+	1080	=	2443	639	266	Yes
15:45 - 16:45	1155	+	986	=	2141	630	228	Yes
17:45 - 18:45	1102	+	785	=	1887	395	196	Yes
14:45 - 15:45	1056	+	751	=	1807	545	204	Yes
13:45 - 14:45	934	+	617	=	1551	384	169	Yes
18:45 - 19:45	968	+	579	=	1547	246	158	Yes
07:45 - 08:45	789	+	754	=	1543	142	344	Yes
11:45 - 12:45	811	+	621	=	1432	268	165	Yes
12:45 - 13:45	824	+	595	=	1419	275	176	Yes
06:45 - 07:45	711	+	698	=	1409	120	412	Yes
19:45 - 20:45	816	+	533	=	1349	229	118	Yes
10:45 - 11:45	689	+	618	=	1307	232	181	Yes
09:45 - 10:45	668	+	582	=	1250	186	179	Yes
08:45 - 09:45	633	+	561	=	1194	178	199	Yes
20:45 - 21:45	582	+	347	=	929	156	56	Yes
05:45 - 06:45	406	+	296	=	702	63	270	Yes
21:45 - 22:45	384	+	169	=	553	84	32	No
05:30 - 06:30	324	+	223	=	547	62	219	No
22:00 - 23:00	348	+	147	=	495	67	24	No
05:15 - 06:15	277	+	183	=	460	56	184	No
22:15 - 23:15	259	+	142	=	401	55	20	No
05:00 - 06:00	245	+	156	=	401	47	151	No
22:30 - 23:30	222	+	124	=	346	48	18	No
04:45 - 05:45	203	+	138	=	341	42	123	No
22:45 - 23:45	195		117		312	36	13	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2578

Study Date : 09/02/2025

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.
17 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 = **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 14						Minor Road CSAH 52				
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?		
16:45 - 17:45	1363	+	1080	=	2443	639	266	Yes		
15:45 - 16:45	1155	+	986	=	2141	630	228	Yes		
17:45 - 18:45	1102	+	785	=	1887	395	196	Yes		
14:45 - 15:45	1056	+	751	=	1807	545	204	Yes		
13:45 - 14:45	934	+	617	=	1551	384	169	Yes		
18:45 - 19:45	968	+	579	=	1547	246	158	Yes		
07:45 - 08:45	789	+	754	=	1543	142	344	Yes		
11:45 - 12:45	811	+	621	=	1432	268	165	Yes		
12:45 - 13:45	824	+	595	=	1419	275	176	Yes		
06:45 - 07:45	711	+	698	=	1409	120	412	Yes		
19:45 - 20:45	816	+	533	=	1349	229	118	Yes		
10:45 - 11:45	689		618		1307	232	181	Yes		

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?		
16:30 - 17:30	1333	+	1096	=	2429	663	273	Yes		
17:30 - 18:30	1205	+	850	=	2055	483	231	Yes		
15:30 - 16:30	1095	+	912	=	2007	611	208	Yes		
14:30 - 15:30	1046	+	730	=	1776	497	191	Yes		
07:30 - 08:30	807	+	803	=	1610	137	384	Yes		
18:30 - 19:30	959	+	605	=	1564	261	151	Yes		
13:30 - 14:30	908	+	619	=	1527	361	180	Yes		
11:30 - 12:30	792	+	643	=	1435	264	168	Yes		
19:30 - 20:30	854	+	575	=	1429	219	122	Yes		
12:30 - 13:30	832	+	568	=	1400	252	168	Yes		
10:30 - 11:30	679	+	593	=	1272	222	178	Yes		
06:30 - 07:30	666		595		1261	113	387	Yes		

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2578

Study Date : 09/02/2025

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.

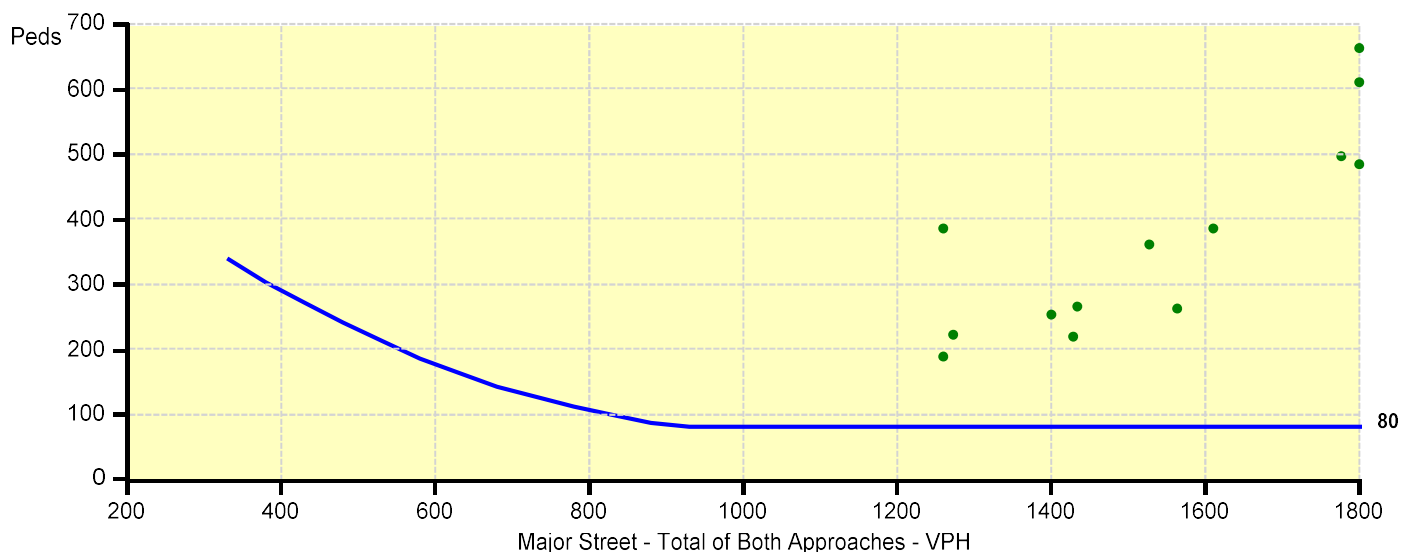
Summary

16 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 = **2 or more**

Major Road CSAH 14						Minor Road CSAH 52		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	1333	+	1096	=	2429	663	273	Yes
17:30 - 18:30	1205	+	850	=	2055	483	231	Yes
15:30 - 16:30	1095	+	912	=	2007	611	208	Yes
14:30 - 15:30	1046	+	730	=	1776	497	191	Yes
07:30 - 08:30	807	+	803	=	1610	137	384	Yes
18:30 - 19:30	959	+	605	=	1564	261	151	Yes
13:30 - 14:30	908	+	619	=	1527	361	180	Yes
11:30 - 12:30	792	+	643	=	1435	264	168	Yes
19:30 - 20:30	854	+	575	=	1429	219	122	Yes
12:30 - 13:30	832	+	568	=	1400	252	168	Yes
10:30 - 11:30	679	+	593	=	1272	222	178	Yes
06:30 - 07:30	666		595		1261	113	387	Yes



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2578

Study Date : 09/02/2025

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.

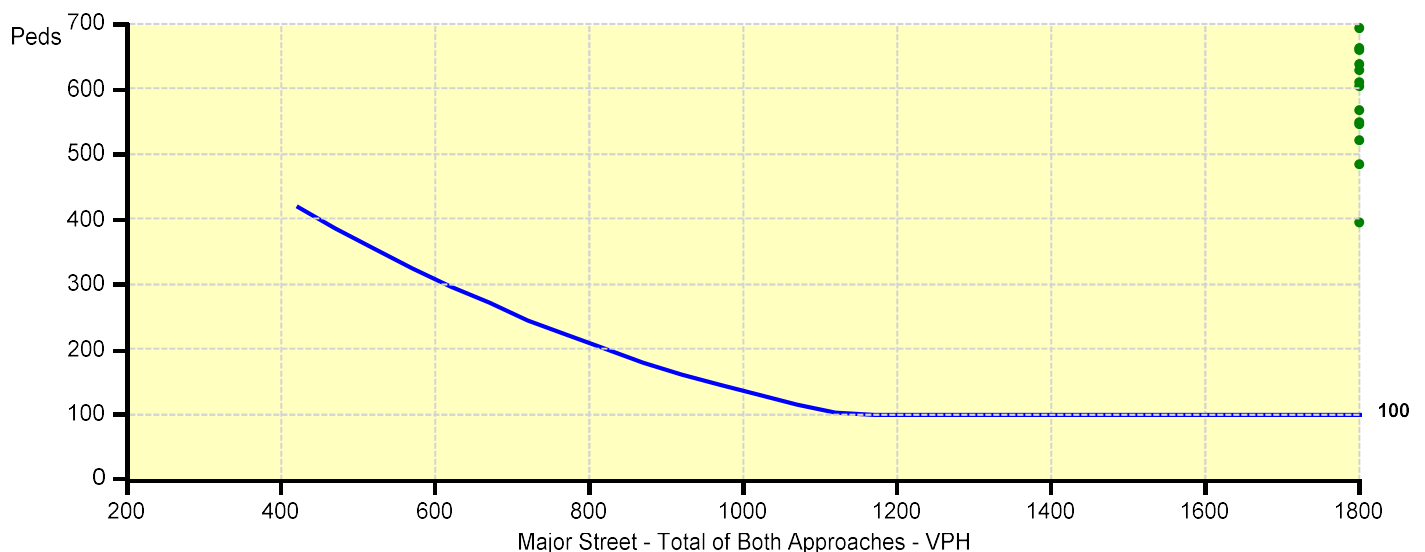
Summary

60 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 = **2 or more**

Major Road CSAH 14						Minor Road CSAH 52		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1363	+	1080	=	2443	639	266	Yes
16:30 - 17:30	1333	+	1096	=	2429	663	273	Yes
17:00 - 18:00	1324	+	1051	=	2375	603	273	Yes
16:15 - 17:15	1276	+	1059	=	2335	693	266	Yes
16:00 - 17:00	1218	+	1000	=	2218	661	243	Yes
17:15 - 18:15	1260	+	940	=	2200	522	251	Yes
15:45 - 16:45	1155	+	986	=	2141	630	228	Yes
17:30 - 18:30	1205	+	850	=	2055	483	231	Yes
15:30 - 16:30	1095	+	912	=	2007	611	208	Yes
15:15 - 16:15	1106	+	886	=	1992	568	190	Yes
15:00 - 16:00	1090	+	807	=	1897	550	199	Yes
17:45 - 18:45	1102		785		1887	395	196	Yes



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2578

Study Date : 09/02/2025

Multiway Stop Warrants - Summary

Major Street Approaches

Eastbound: CSAH 14

Number of Lanes : 2+

Total Approach Volume: 14,516

Westbound: CSAH 14

Number of Lanes :2+

Total Approach Volume: 10,993

Minor Street Approaches

Northbound: CSAH 52

Number of Lanes :2+

Total Approach Volume: 4,893

Southbound: CSAH 52

Number of Lanes :2+

Total Approach Volume: 3,539

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..... **Satisfied**
Average of 8 highest hours meets or exceeds 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 meets or exceeds volume criteria.

Criteria C Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:30 - 17:30	2429	1800.4	950	641.6	210	140	Yes
15:30 - 16:30	2007		826				
17:30 - 18:30	2055		727				
14:30 - 15:30	1776		694				
07:30 - 08:30	1610		538				
13:30 - 14:30	1527		544				
18:30 - 19:30	1564		418				
11:30 - 12:30	1435		436				
12:30 - 13:30	1400		427				
19:30 - 20:30	1429		341				
06:30 - 07:30	1261		525				
10:30 - 11:30	1272		400				

Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:30 - 17:30	2429	1800.4	950	641.6	240	160	Yes
15:30 - 16:30	2007		826				
17:30 - 18:30	2055		727				
14:30 - 15:30	1776		694				
07:30 - 08:30	1610		538				
13:30 - 14:30	1527		544				
18:30 - 19:30	1564		418				
11:30 - 12:30	1435		436				
12:30 - 13:30	1400		427				
19:30 - 20:30	1429		341				
06:30 - 07:30	1261		525				
10:30 - 11:30	1272		400				