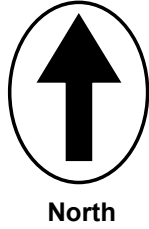
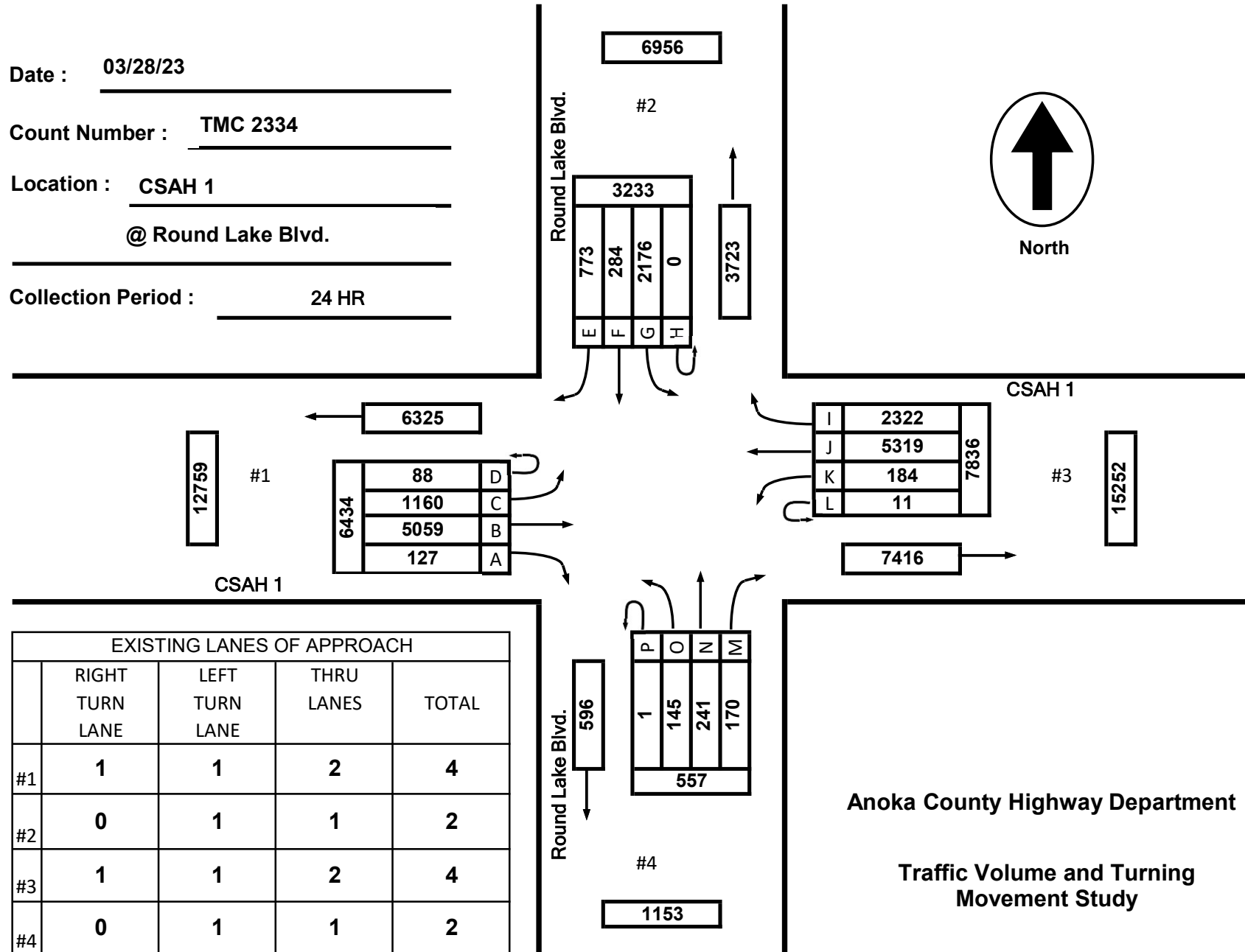


Date : 03/28/23

Count Number : TMC 2334

Location : CSAH 1
@ Round Lake Blvd.

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

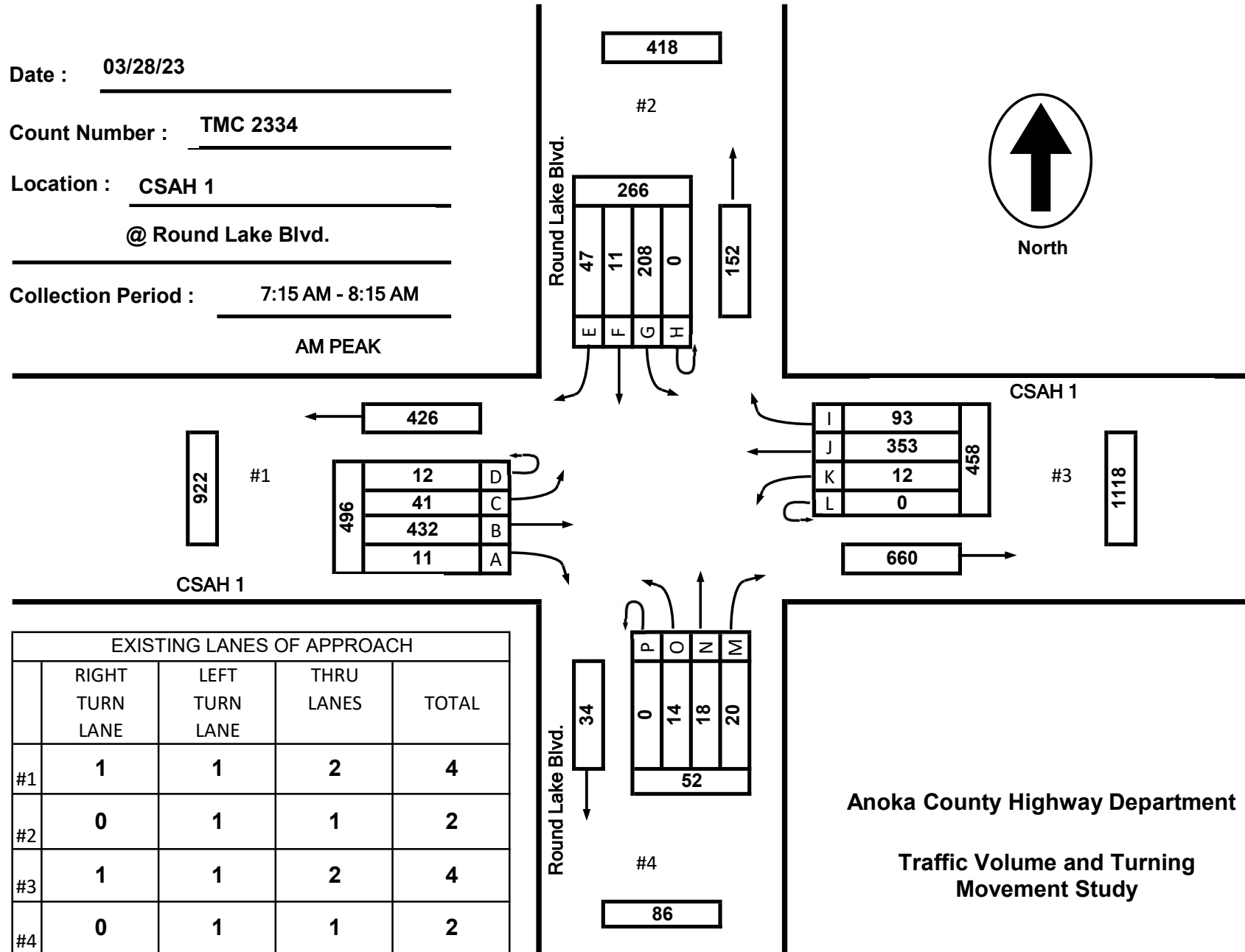
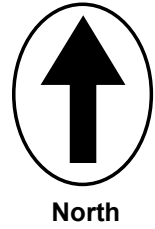
Traffic Volume and Turning Movement Study

Date : 03/28/23

Count Number : TMC 2334

Location : CSAH 1
@ Round Lake Blvd.

Collection Period : 7:15 AM - 8:15 AM
AM PEAK



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

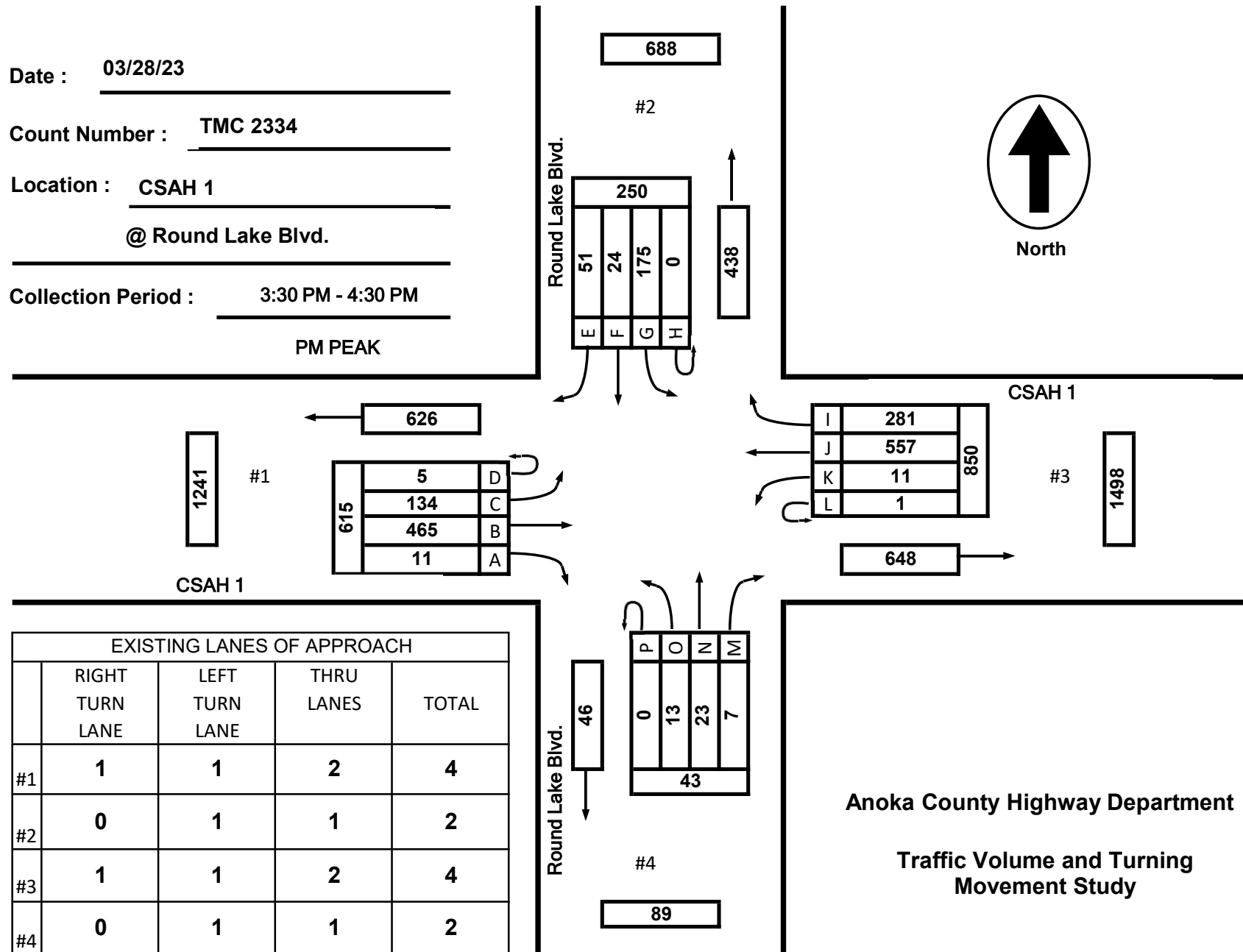
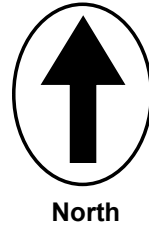
Traffic Volume and Turning Movement Study

Date : 03/28/23

Count Number : TMC 2334

Location : CSAH 1
@ Round Lake Blvd.

Collection Period : 3:30 PM - 4:30 PM
PM PEAK



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 2334 - CSAH 1 @ Round Lake Blvd.

0 0

Tuesday, March 28, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						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	2	0	0	0	2	0	1	1	2	0	4	0	0	0	0	0	0	0	1	10	0	0	11	17
12:15 AM	0	2	0	0	1	2	0	1	2	2	0	5	0	0	0	0	0	0	0	2	3	0	0	5	12
12:30 AM	0	1	0	0	0	1	0	0	9	2	0	11	0	0	0	1	0	1	0	1	8	0	0	9	22
12:45 AM	0	1	0	0	0	1	0	0	7	0	0	7	0	0	0	0	0	0	0	3	2	1	0	6	14
Hourly Total	0	6	0	0	1	6	0	2	19	6	0	27	0	0	0	1	0	1	0	7	23	1	0	31	65
1:00 AM	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	1	6	0	0	7	10
1:15 AM	0	0	0	1	0	1	0	0	1	2	0	3	0	0	0	0	0	0	0	2	6	0	0	8	12
1:30 AM	0	1	0	1	0	2	0	0	1	0	0	1	0	0	0	1	0	1	0	0	11	1	0	12	16
1:45 AM	0	0	0	2	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	3	7	1	0	11	14
Hourly Total	0	2	0	4	0	6	0	1	4	2	0	7	0	0	0	1	0	1	0	6	30	2	0	38	52
2:00 AM	0	0	1	0	1	1	0	1	1	1	0	3	0	0	0	0	0	0	0	1	4	0	0	5	9
2:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	2	0	2	3	0	0	5	8
2:30 AM	0	0	0	1	1	1	0	0	2	1	0	3	0	0	0	0	0	0	0	0	4	0	0	4	8
2:45 AM	0	1	0	1	0	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	6
Hourly Total	0	2	1	2	2	5	0	1	5	2	0	8	0	1	1	0	0	2	0	3	13	0	0	16	31
3:00 AM	0	0	0	0	0	0	0	0	3	1	0	4	0	0	1	0	0	1	0	1	3	0	0	4	9
3:15 AM	0	2	0	0	0	2	0	0	3	1	0	4	0	0	0	0	0	0	0	0	4	0	0	4	10
3:30 AM	0	0	0	2	0	2	0	0	4	1	0	5	0	0	0	1	0	1	0	0	4	0	0	4	12
3:45 AM	0	1	0	0	0	1	0	0	3	0	0	3	0	1	0	0	0	1	0	1	5	0	0	6	11
Hourly Total	0	3	0	2	0	5	0	0	13	3	0	16	0	1	1	1	0	3	0	2	16	0	0	18	42
4:00 AM	0	2	0	0	0	2	0	0	4	0	0	4	0	0	0	0	0	0	0	1	5	0	0	6	12
4:15 AM	0	3	0	2	0	5	0	1	6	4	0	11	0	0	0	1	0	1	0	0	4	0	0	4	21
4:30 AM	0	4	0	2	0	6	0	0	20	2	0	22	0	1	0	0	0	1	0	0	14	0	0	14	43
4:45 AM	0	5	0	4	0	9	0	1	10	3	0	14	0	1	1	2	0	4	0	2	14	0	0	16	43
Hourly Total	0	14	0	8	0	22	0	2	40	9	0	51	0	2	1	3	0	6	0	3	37	0	0	40	119
5:00 AM	0	4	1	2	0	7	0	0	17	1	0	18	0	0	0	2	0	2	0	1	13	0	0	14	41
5:15 AM	0	12	0	2	0	14	0	0	18	1	0	19	0	2	1	0	0	3	2	1	24	0	0	27	63
5:30 AM	0	12	1	2	0	15	0	0	29	6	0	35	0	2	1	3	0	6	0	2	32	0	0	34	90
5:45 AM	0	11	1	3	0	15	0	0	31	6	0	37	0	1	0	2	0	3	0	2	29	0	0	31	86
Hourly Total	0	39	3	9	0	51	0	0	95	14	0	109	0	5	2	7	0	14	2	6	98	0	0	106	280
6:00 AM	0	10	2	1	0	13	1	1	31	7	1	40	0	0	2	1	0	3	0	0	28	0	0	28	84
6:15 AM	0	16	0	4	0	20	0	5	42	8	0	55	0	1	3	1	0	5	0	4	36	0	0	40	120
6:30 AM	0	21	0	12	0	33	0	3	70	12	1	85	0	2	1	1	0	4	0	6	50	0	0	56	178
6:45 AM	0	23	3	8	0	34	0	2	96	13	0	111	0	0	3	4	0	7	1	6	57	1	0	65	217
Hourly Total	0	70	5	25	0	100	1	11	239	40	2	291	0	3	9	7	0	19	1	16	171	1	0	189	599
7:00 AM	0	27	3	14	0	44	0	1	58	14	0	73	0	3	4	3	0	10	2	5	66	0	0	73	200
7:15 AM	0	41	1	10	0	52	0	1	78	21	1	100	0	4	5	8	0	17	2	4	105	2	0	113	282
7:30 AM	0	60	3	8	0	71	0	2	100	27	0	129	0	5	3	3	0	11	4	13	118	1	0	136	347
7:45 AM	0	66	5	12	0	83	0	5	90	22	0	117	0	1	4	6	0	11	3	15	122	5	0	145	356
Hourly Total	0	194	12	44	0	250	0	9	326	84	1	419	0	13	16	20	0	49	11	37	411	8	0	467	1185

TMC 2334 - CSAH 1 @ Round Lake Blvd.

0 0

Tuesday, March 28, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	
8:00 AM	0	41	2	17	0	60	0	4	85	23	1	112	0	4	6	3	0	13	3	9	87	3	0	102	287
8:15 AM	0	36	6	10	1	52	0	2	68	24	0	94	0	3	4	1	0	8	1	7	76	1	0	85	239
8:30 AM	0	33	4	19	0	56	0	6	81	13	0	100	0	2	3	4	0	9	3	8	75	3	0	89	254
8:45 AM	0	48	6	13	0	67	0	8	74	20	0	102	0	3	3	4	0	10	2	15	62	2	0	81	260
Hourly Total	0	158	18	59	1	235	0	20	308	80	1	408	0	12	16	12	0	40	9	39	300	9	0	357	1040
9:00 AM	0	61	1	12	0	74	0	1	56	34	0	91	0	4	8	2	0	14	3	8	85	1	0	97	276
9:15 AM	0	51	6	16	0	73	0	2	60	34	0	96	0	4	7	2	0	13	1	18	69	1	0	89	271
9:30 AM	0	45	4	18	0	67	1	5	80	34	0	120	0	3	3	5	0	11	1	17	78	2	0	98	296
9:45 AM	0	44	5	18	0	67	1	2	71	34	0	108	0	2	5	2	0	9	2	22	76	3	0	103	287
Hourly Total	0	201	16	64	0	281	2	10	267	136	0	415	0	13	23	11	0	47	7	65	308	7	0	387	1130
10:00 AM	0	21	5	17	0	43	0	2	69	30	0	101	0	4	2	2	0	8	1	22	55	1	0	79	231
10:15 AM	0	35	3	19	0	57	0	1	62	18	0	81	0	3	5	2	0	10	0	16	74	1	0	91	239
10:30 AM	0	49	2	16	0	67	1	6	76	24	0	107	0	0	1	2	0	3	2	16	82	0	0	100	277
10:45 AM	0	50	8	13	0	71	0	1	100	44	0	145	0	4	6	1	0	11	3	18	84	4	1	109	336
Hourly Total	0	155	18	65	0	238	1	10	307	116	0	434	0	11	14	7	0	32	6	72	295	6	1	379	1083
11:00 AM	0	40	4	16	0	60	0	4	56	45	0	105	0	1	4	3	0	8	3	19	73	2	0	97	270
11:15 AM	0	35	5	9	1	49	1	1	72	46	0	120	0	8	3	4	0	15	1	21	77	1	1	100	284
11:30 AM	0	24	3	21	0	48	0	3	62	36	0	101	0	1	8	4	0	13	3	24	70	4	0	101	263
11:45 AM	0	40	4	19	0	63	0	2	87	46	0	135	0	3	6	6	0	15	4	17	89	3	0	113	326
Hourly Total	0	139	16	65	1	220	1	10	277	173	0	461	0	13	21	17	0	51	11	81	309	10	1	411	1143
12:00 PM	0	39	2	14	0	55	0	2	72	52	0	126	0	1	4	1	1	6	0	20	87	3	1	110	297
12:15 PM	0	54	1	16	2	71	0	4	94	64	0	162	0	5	6	3	0	14	2	20	81	1	1	104	351
12:30 PM	0	39	8	22	0	69	1	6	83	40	0	130	0	2	3	3	0	8	2	18	72	5	0	97	304
12:45 PM	0	33	2	21	0	56	0	4	105	47	0	156	0	0	5	1	1	6	5	20	72	0	0	97	315
Hourly Total	0	165	13	73	2	251	1	16	354	203	0	574	0	8	18	8	2	34	9	78	312	9	2	408	1267
1:00 PM	0	31	4	15	0	50	2	3	77	26	0	108	0	1	3	2	0	6	1	16	73	2	0	92	256
1:15 PM	0	32	4	18	0	54	1	2	84	37	0	124	0	0	6	1	0	7	3	17	63	1	0	84	269
1:30 PM	0	43	4	14	1	61	0	1	90	44	1	135	0	1	7	7	0	15	0	24	100	1	0	125	336
1:45 PM	0	42	2	20	1	64	0	3	111	69	0	183	0	5	2	2	0	9	3	28	82	4	0	117	373
Hourly Total	0	148	14	67	2	229	3	9	362	176	1	550	0	7	18	12	0	37	7	85	318	8	0	418	1234
2:00 PM	0	45	5	17	0	67	1	5	91	52	0	149	0	5	2	1	0	8	4	24	83	2	0	113	337
2:15 PM	0	34	4	19	0	57	0	4	125	56	0	185	0	1	2	2	0	5	1	24	83	3	0	111	358
2:30 PM	0	24	5	12	0	41	0	4	124	40	0	168	0	4	2	4	0	10	1	30	92	3	0	126	345
2:45 PM	0	32	5	18	0	55	0	4	126	39	0	169	0	3	8	3	0	14	1	24	84	4	0	113	351
Hourly Total	0	135	19	66	0	220	1	17	466	187	0	671	0	13	14	10	0	37	7	102	342	12	0	463	1391
3:00 PM	0	31	5	16	0	52	0	4	106	59	0	169	0	3	6	2	0	11	2	35	125	5	0	167	399
3:15 PM	0	34	5	12	0	51	0	5	120	56	0	181	0	2	2	2	0	6	2	40	124	3	0	169	407
3:30 PM	0	57	7	14	0	78	0	2	127	65	0	194	0	6	6	3	0	15	1	38	143	4	0	186	473
3:45 PM	0	25	6	15	0	46	0	4	113	71	0	188	0	2	7	0	0	9	2	32	113	2	0	149	392
Hourly Total	0	147	23	57	0	227	0	15	466	251	0	732	0	13	21	7	0	41	7	145	505	14	0	671	1671

TMC 2334 - CSAH 1 @ Round Lake Blvd.

0 0

Tuesday, March 28, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						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	54	6	7	0	67	0	4	167	67	0	238	0	3	7	2	0	12	2	41	107	3	0	153	470
4:15 PM	0	39	5	15	0	59	1	1	150	78	0	230	0	2	3	2	0	7	0	23	102	2	0	127	423
4:30 PM	0	28	9	10	0	47	0	2	135	57	1	194	0	3	8	6	0	17	1	37	119	5	0	162	420
4:45 PM	0	27	8	8	0	43	0	5	135	55	0	195	0	0	3	3	0	6	2	37	106	3	0	148	392
Hourly Total	0	148	28	40	0	216	1	12	587	257	1	857	0	8	21	13	0	42	5	138	434	13	0	590	1705
5:00 PM	0	40	7	8	0	55	0	2	112	65	0	179	0	2	3	3	0	8	0	33	122	2	0	157	399
5:15 PM	0	36	5	7	0	48	0	3	113	67	0	183	0	0	4	0	0	4	0	23	86	3	0	112	347
5:30 PM	0	33	9	7	0	49	0	0	96	38	0	134	0	3	8	0	0	11	0	22	97	3	0	122	316
5:45 PM	0	36	9	9	0	54	0	1	74	40	0	115	0	1	7	3	0	11	1	23	56	2	0	82	262
Hourly Total	0	145	30	31	0	206	0	6	395	210	0	611	0	6	22	6	0	34	1	101	361	10	0	473	1324
6:00 PM	0	23	8	8	0	39	0	4	82	32	0	118	0	1	2	3	0	6	1	18	71	1	0	91	254
6:15 PM	0	24	2	1	0	27	0	3	75	22	0	100	0	2	2	4	0	8	0	14	49	0	0	63	198
6:30 PM	0	31	9	5	0	45	0	6	58	27	0	91	0	1	3	2	0	6	0	8	52	2	0	62	204
6:45 PM	0	18	5	5	0	28	0	2	52	27	0	81	0	0	4	0	0	4	1	11	46	0	1	58	171
Hourly Total	0	96	24	19	0	139	0	15	267	108	0	390	0	4	11	9	0	24	2	51	218	3	1	274	827
7:00 PM	0	26	0	4	0	30	0	3	44	22	0	69	0	1	3	3	0	7	0	14	43	1	0	58	164
7:15 PM	0	20	8	5	0	33	0	3	37	15	0	55	1	4	0	2	0	7	0	10	40	1	0	51	146
7:30 PM	0	19	5	4	0	28	0	2	38	18	0	58	0	1	1	3	1	5	0	13	46	2	0	61	152
7:45 PM	0	22	5	6	0	33	0	3	48	23	0	74	0	1	1	2	1	4	0	9	44	1	0	54	165
Hourly Total	0	87	18	19	0	124	0	11	167	78	0	256	1	7	5	10	2	23	0	46	173	5	0	224	627
8:00 PM	0	16	2	2	0	20	0	0	38	32	0	70	0	0	2	3	0	5	2	10	35	0	0	47	142
8:15 PM	0	12	7	4	0	23	0	1	35	23	0	59	0	1	3	1	0	5	0	11	39	0	0	50	137
8:30 PM	0	6	5	7	0	18	0	0	38	24	0	62	0	0	0	0	0	0	0	10	35	1	0	46	126
8:45 PM	0	10	1	6	0	17	0	0	30	10	0	40	0	0	0	0	1	0	0	7	28	3	0	38	95
Hourly Total	0	44	15	19	0	78	0	1	141	89	0	231	0	1	5	4	1	10	2	38	137	4	0	181	500
9:00 PM	0	16	1	6	0	23	0	3	18	9	0	30	0	1	0	1	1	2	0	3	32	1	0	36	91
9:15 PM	0	11	2	7	0	20	0	0	18	15	0	33	0	2	0	0	0	2	0	5	27	1	0	33	88
9:30 PM	0	14	2	5	0	21	0	0	16	10	0	26	0	0	0	0	0	0	0	4	17	1	0	22	69
9:45 PM	0	4	2	2	0	8	0	1	31	5	0	37	0	1	0	0	0	1	1	2	13	1	0	17	63
Hourly Total	0	45	7	20	0	72	0	4	83	39	0	126	0	4	0	1	1	5	1	14	89	4	0	108	311
10:00 PM	0	12	2	3	0	17	0	0	15	17	0	32	0	0	0	1	0	1	0	4	21	1	0	26	76
10:15 PM	0	5	0	2	0	7	0	0	22	4	0	26	0	0	0	1	0	1	0	3	22	0	0	25	59
10:30 PM	0	4	0	3	0	7	0	2	32	4	0	38	0	0	0	1	0	1	0	2	14	0	0	16	62
10:45 PM	0	2	0	0	0	2	0	0	21	7	0	28	0	0	1	0	0	1	0	1	18	0	0	19	50
Hourly Total	0	23	2	8	0	33	0	2	90	32	0	124	0	0	1	3	0	4	0	10	75	1	0	86	247
11:00 PM	0	2	0	0	0	2	0	0	13	6	0	19	0	0	0	0	0	0	0	5	29	0	0	34	55
11:15 PM	0	2	2	4	0	8	0	0	12	8	0	20	0	0	0	0	0	0	0	1	20	0	0	21	49
11:30 PM	0	5	0	2	0	7	0	0	4	10	0	14	0	0	1	0	0	1	0	6	25	0	0	31	53
11:45 PM	0	1	0	1	0	2	0	0	12	3	0	15	0	0	0	0	0	0	0	3	10	0	0	13	30
Hourly Total	0	10	2	7	0	19	0	0	41	27	0	68	0	0	1	0	0	1	0	15	84	0	0	99	187
DAILY TOTAL	0	2176	284	773	9	3233	11	184	5319	2322	6	7836	1	145	241	170	6	557	88	1160	5059	127	5	6434	18060
Cars	0	2141	281	759	9	3181	11	177	5190	2287	6	7665	1	144	230	165	6	540	87	1146	4911	123	5	6267	17653
Heavy Vehicles	0	35	3	14	0	52	0	7	129	35	0	171	0	1	11	5	0	17	1	14	148	4	0	167	407
Heavy Vehicle %	0.00%	1.61%	1.06%	1.81%	0.00%	1.61%	0.00%	3.80%	2.43%	1.51%	0.00%	2.18%	0.00%	0.69%	4.56%	2.94%	0.00%	3.05%	1.14%	1.21%	2.93%	3.15%	0.00%	2.60%	2.25%

TMC 2334 - CSAH 1 @ Round Lake Blvd.

0 0

Tuesday, March 28, 2023

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	41	1	10	0	52	0	1	78	21	1	100	0	4	5	8	0	17	2	4	105	2	0	113	282
7:30 AM	0	60	3	8	0	71	0	2	100	27	0	129	0	5	3	3	0	11	4	13	118	1	0	136	347
7:45 AM	0	66	5	12	0	83	0	5	90	22	0	117	0	1	4	6	0	11	3	15	122	5	0	145	356
8:00 AM	0	41	2	17	0	60	0	4	85	23	1	112	0	4	6	3	0	13	3	9	87	3	0	102	287
Peak Hour Total	0	208	11	47	0	266	0	12	353	93	2	458	0	14	18	20	0	52	12	41	432	11	0	496	1272
PHF	0.000	0.788	0.550	0.691	0.000	0.801	0.000	0.600	0.883	0.861	0.500	0.888	0.000	0.700	0.750	0.625	0.000	0.765	0.750	0.683	0.885	0.550	0.000	0.855	0.893

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
3:30 PM	0	57	7	14	0	78	0	2	127	65	0	194	0	6	6	3	0	15	1	38	143	4	0	186	473
3:45 PM	0	25	6	15	0	46	0	4	113	71	0	188	0	2	7	0	0	9	2	32	113	2	0	149	392
4:00 PM	0	54	6	7	0	67	0	4	167	67	0	238	0	3	7	2	0	12	2	41	107	3	0	153	470
4:15 PM	0	39	5	15	0	59	1	1	150	78	0	230	0	2	3	2	0	7	0	23	102	2	0	127	423
Peak Hour Total	0	175	24	51	0	250	1	11	557	281	0	850	0	13	23	7	0	43	5	134	465	11	0	615	1758
PHF	0.000	0.768	0.857	0.850	0.000	0.801	0.250	0.688	0.834	0.901	0.000	0.893	0.000	0.542	0.821	0.583	0.000	0.717	0.625	0.817	0.813	0.688	0.000	0.827	0.929

Total Vehicles On Leg		6956	
Vehicles Entering Intersection	3233	Vehicles Exiting Intersection	3723
Southbound			
Cars	759	281	2141
Heavy	14	3	35
Total	773	284	2176



Total Vehicles on Leg 12759	Vehicles Entering Intersection 6434	Eastbound	Cars	Heavy	Total	
			5	0	5	
	87		1	88		
	1146		14	1160		
	Vehicles Exiting Intersection 6325		4911	148	5059	
		123	4	127		

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 7836	Total Vehicles on Leg 15252
2287	35	2322			
5190	129	5319			
177	7	184			
Vehicles Exiting Intersection 7416	11	0			
	6	0	6		



Cars	6	1	144	230	165
Heavy	0	0	1	11	5
Total	6	1	145	241	170
Northbound					
Vehicles Entering Intersection	557		Vehicles Exiting Intersection	596	
Total Vehicles On Leg	1153				

Heavy Vehicles

Date	Time	Southbound						Westbound						Northbound						Eastbound					
		U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk
03/28/2023	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0:45	0	0	0	0	0	0	0	0	1	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	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	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	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	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	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	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	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	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	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	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	0	0	0	0
	3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	5:15	0	0	0	1	0	0	0	0	1	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	0	0	0	1	0	0	0
	5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	6:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0
	6:30	0	0	0	1	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	6:45	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	1	0
	7:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	7:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	4	0	0
	7:30	0	4	0	1	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	1	7	0	0
	7:45	0	1	0	0	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0
	8:00	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	8:15	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
	8:30	0	2	0	0	0	0	0	1	2	2	0	0	0	0	0	1	0	0	0	0	2	3	0	0
	8:45	0	4	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0	0	2	2	0	0
	9:00	0	1	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	9:15	0	1	0	0	0	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0
	9:30	0	0	0	0	0	0	0	0	7	4	0	0	0	0	0	1	0	0	0	0	0	2	0	0
	9:45	0	3	0	1	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	1	2	0	0
	10:00	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0
	10:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	10:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
	10:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0
	11:00	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	11:15	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	4	1	0
	11:30	0	0	0	1	0	0	0	0	1	3	0	0	0	0	0	1	0	0	0	0	0	1	0	0
	11:45	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2334

Study Date : 04/24/2023

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 1

Number of Lanes : 2+

Total Approach Volume: 6,434

Westbound: CSAH 1

Number of Lanes :2+

Total Approach Volume: 7,836

Minor Street Approaches

Northbound: Round Lake Blvd

Number of Lanes :1

Total Approach Volume: 557

Southbound: Round Lake Blvd

Number of Lanes :1

Total Approach Volume: 3,233

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 14 hours, 8 are needed

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

Required volumes reached for 12 hours, 8 are needed

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

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

Required 1B volumes reached for 13 hours, 8 are needed

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

Number of hours (12) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (47) 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 2334

Study Date : 04/24/2023

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

14 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 EB	+	Major WB	=		Minor NB	Minor SB	
15:15 - 16:15	657	+	801	=	1458	42	242	Yes
16:15 - 17:15	594	+	798	=	1392	38	204	Yes
14:15 - 15:15	517	+	691	=	1208	40	205	Yes
13:15 - 14:15	439	+	591	=	1030	39	246	Yes
17:15 - 18:15	407	+	550	=	957	32	190	Yes
07:15 - 08:15	496	+	458	=	954	52	266	Yes
12:15 - 13:15	390	+	556	=	946	34	246	Yes
11:15 - 12:15	424	+	482	=	906	49	215	Yes
10:15 - 11:15	397	+	438	=	835	32	255	Yes
09:15 - 10:15	369	+	425	=	794	41	250	Yes
08:15 - 09:15	352	+	387	=	739	41	249	Yes
18:15 - 19:15	241	+	341	=	582	25	130	Yes
06:15 - 07:15	234	+	324	=	558	26	131	Yes
19:15 - 20:15	213	+	257	=	470	21	114	Yes
06:00 - 07:00	189	+	291	=	480	19	100	No
05:45 - 06:45	155	+	217	=	372	15	81	No
20:15 - 21:15	170	+	191	=	361	7	81	No
20:30 - 21:30	153	+	165	=	318	4	78	No
05:30 - 06:30	133	+	167	=	300	17	63	No
20:45 - 21:45	129	+	129	=	258	4	81	No
05:15 - 06:15	120	+	131	=	251	15	57	No
21:00 - 22:00	108	+	126	=	234	5	72	No
21:15 - 22:15	98	+	128	=	226	4	66	No
21:45 - 22:45	84	+	133	=	217	4	39	No
05:00 - 06:00	106		109		215	14	51	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2334

Study Date : 04/24/2023

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

12 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				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:30 - 16:30	615	+	850	=	1465	43	250	Yes
16:30 - 17:30	579	+	751	=	1330	35	193	Yes
14:30 - 15:30	575	+	687	=	1262	41	199	Yes
13:30 - 14:30	466	+	652	=	1118	37	249	Yes
11:30 - 12:30	428	+	524	=	952	48	237	Yes
07:30 - 08:30	468	+	452	=	920	43	266	Yes
12:30 - 13:30	370	+	518	=	888	27	229	Yes
10:30 - 11:30	406	+	477	=	883	37	247	Yes
17:30 - 18:30	358	+	467	=	825	36	169	Yes
09:30 - 10:30	371	+	410	=	781	38	234	Yes
08:30 - 09:30	356	+	389	=	745	46	270	Yes
06:30 - 07:30	307	+	369	=	676	38	163	Yes
06:15 - 07:15	234	+	324	=	558	26	131	No
18:30 - 19:30	229	+	296	=	525	24	136	No
18:45 - 19:45	228	+	263	=	491	23	119	No
19:00 - 20:00	224	+	256	=	480	23	124	No
06:00 - 07:00	189	+	291	=	480	19	100	No
19:30 - 20:30	212	+	261	=	473	19	104	No
19:15 - 20:15	213	+	257	=	470	21	114	No
19:45 - 20:45	197	+	265	=	462	14	94	No
20:00 - 21:00	181	+	231	=	412	10	78	No
05:45 - 06:45	155	+	217	=	372	15	81	No
20:15 - 21:15	170	+	191	=	361	7	81	No
20:30 - 21:30	153	+	165	=	318	4	78	No
05:30 - 06:30	133		167		300	17	63	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2334

Study Date : 04/24/2023

Warrant 1C Combination of Warrants

Description

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

Summary

14 hours meet 1A minimums.
13 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 1

Minor Road Round Lake Blvd

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	590	+	857	=	1447	42	216	Yes
15:00 - 16:00	671	+	732	=	1403	41	227	Yes
14:00 - 15:00	463	+	671	=	1134	37	220	Yes
17:00 - 18:00	473	+	611	=	1084	34	206	Yes
12:00 - 13:00	408	+	574	=	982	34	251	Yes
13:00 - 14:00	418	+	550	=	968	37	229	Yes
07:00 - 08:00	467	+	419	=	886	49	250	Yes
11:00 - 12:00	411	+	461	=	872	51	220	Yes
10:00 - 11:00	379	+	434	=	813	32	238	Yes
09:00 - 10:00	387	+	415	=	802	47	281	Yes
08:00 - 09:00	357	+	408	=	765	40	235	Yes
18:00 - 19:00	274		390		664	24	139	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
15:15 - 16:15	657	+	801	=	1458	42	242	Yes
16:15 - 17:15	594	+	798	=	1392	38	204	Yes
14:15 - 15:15	517	+	691	=	1208	40	205	Yes
13:15 - 14:15	439	+	591	=	1030	39	246	Yes
17:15 - 18:15	407	+	550	=	957	32	190	Yes
07:15 - 08:15	496	+	458	=	954	52	266	Yes
12:15 - 13:15	390	+	556	=	946	34	246	Yes
11:15 - 12:15	424	+	482	=	906	49	215	Yes
10:15 - 11:15	397	+	438	=	835	32	255	Yes
09:15 - 10:15	369	+	425	=	794	41	250	Yes
08:15 - 09:15	352	+	387	=	739	41	249	Yes
18:15 - 19:15	241		341		582	25	130	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2334

Study Date : 04/24/2023

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.

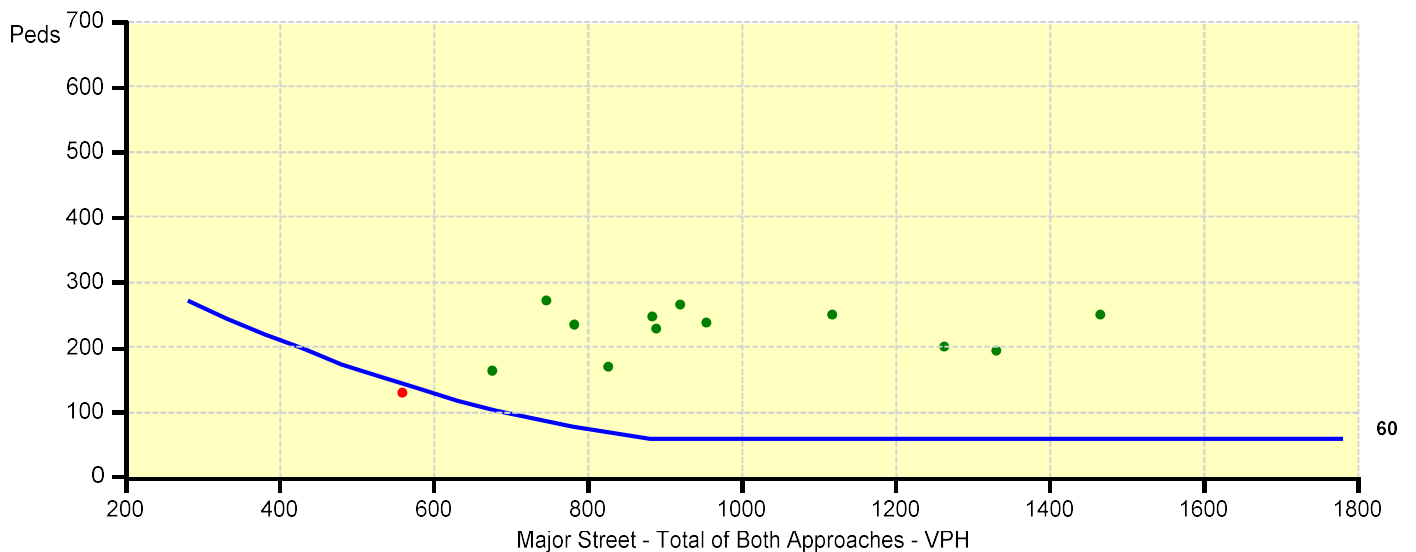
Summary

12 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 1				Total	Minor Road Round Lake Blvd		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:30 - 16:30	615	+	850	=	1465	43	250	Yes
16:30 - 17:30	579	+	751	=	1330	35	193	Yes
14:30 - 15:30	575	+	687	=	1262	41	199	Yes
13:30 - 14:30	466	+	652	=	1118	37	249	Yes
11:30 - 12:30	428	+	524	=	952	48	237	Yes
07:30 - 08:30	468	+	452	=	920	43	266	Yes
12:30 - 13:30	370	+	518	=	888	27	229	Yes
10:30 - 11:30	406	+	477	=	883	37	247	Yes
17:30 - 18:30	358	+	467	=	825	36	169	Yes
09:30 - 10:30	371	+	410	=	781	38	234	Yes
08:30 - 09:30	356	+	389	=	745	46	270	Yes
06:30 - 07:30	307		369		676	38	163	Yes



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2334

Study Date : 04/24/2023

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

44 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 1				Total	Minor Road Round Lake Blvd		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:30 - 16:30	615	+	850	=	1465	43	250	Yes
15:15 - 16:15	657	+	801	=	1458	42	242	Yes
16:00 - 17:00	590	+	857	=	1447	42	216	Yes
15:45 - 16:45	591	+	850	=	1441	45	219	Yes
15:00 - 16:00	671	+	732	=	1403	41	227	Yes
16:15 - 17:15	594	+	798	=	1392	38	204	Yes
14:45 - 15:45	635	+	713	=	1348	46	236	Yes
16:30 - 17:30	579	+	751	=	1330	35	193	Yes
14:30 - 15:30	575	+	687	=	1262	41	199	Yes
16:45 - 17:45	539	+	691	=	1230	29	195	Yes
14:15 - 15:15	517	+	691	=	1208	40	205	Yes
13:45 - 14:45	467		685		1152	32	229	Yes

