

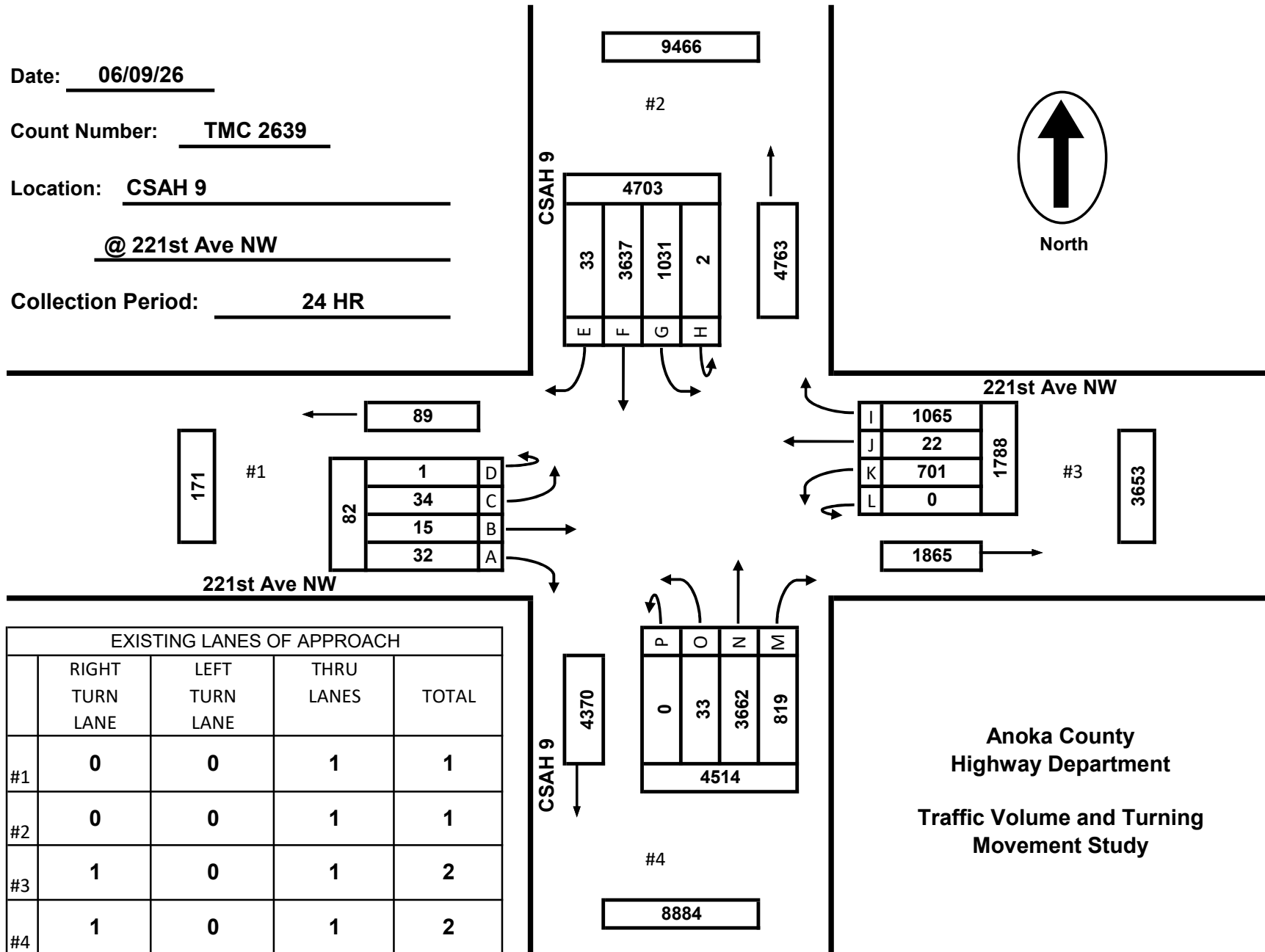
Date: 06/09/26

Count Number: TMC 2639

Location: CSAH 9

@ 221st Ave NW

Collection Period: 24 HR



Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 06/09/26

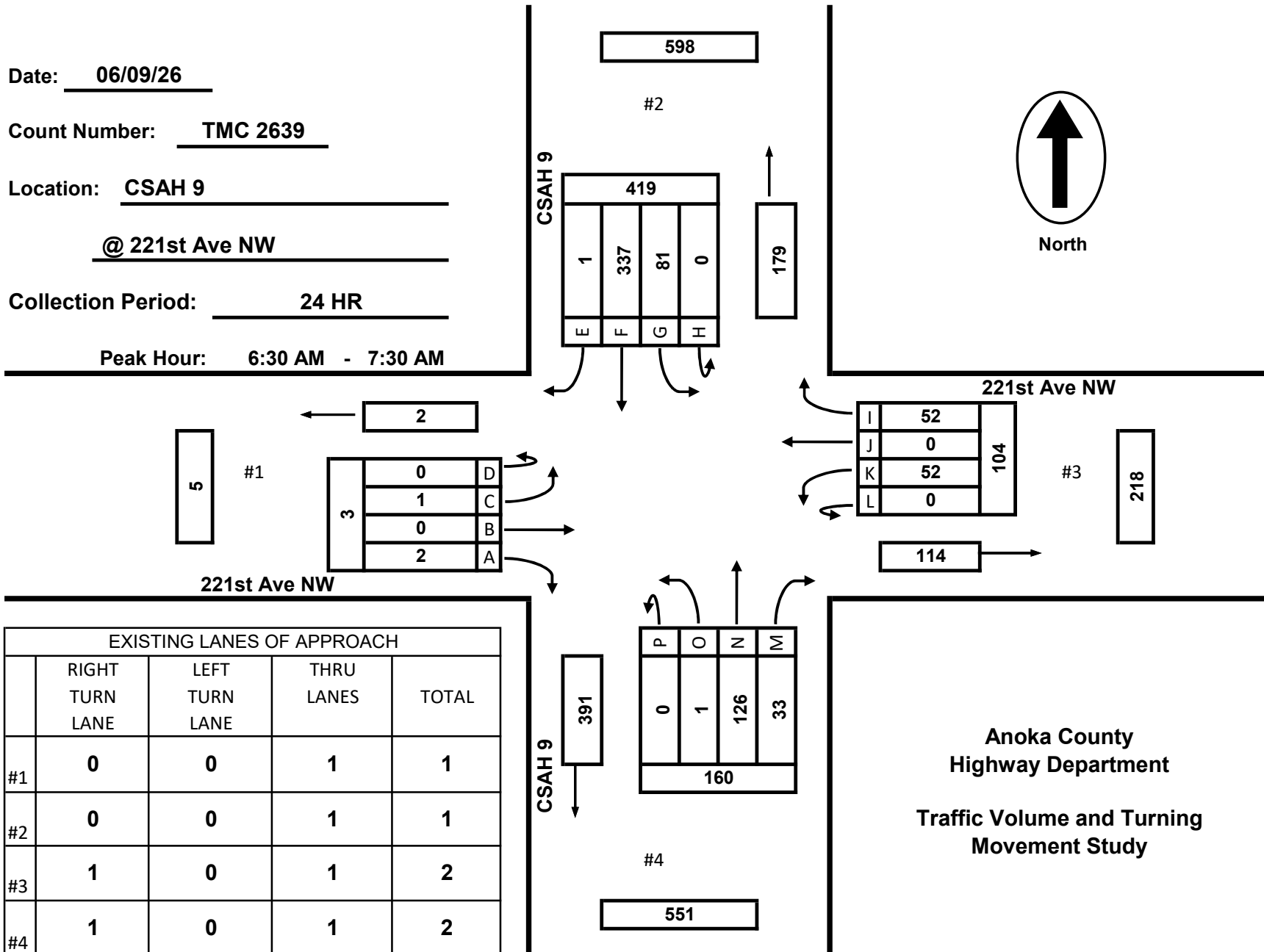
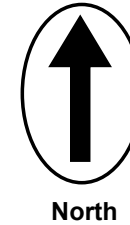
Count Number: TMC 2639

Location: CSAH 9

@ 221st Ave NW

Collection Period: 24 HR

Peak Hour: 6:30 AM - 7:30 AM



Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 06/09/26

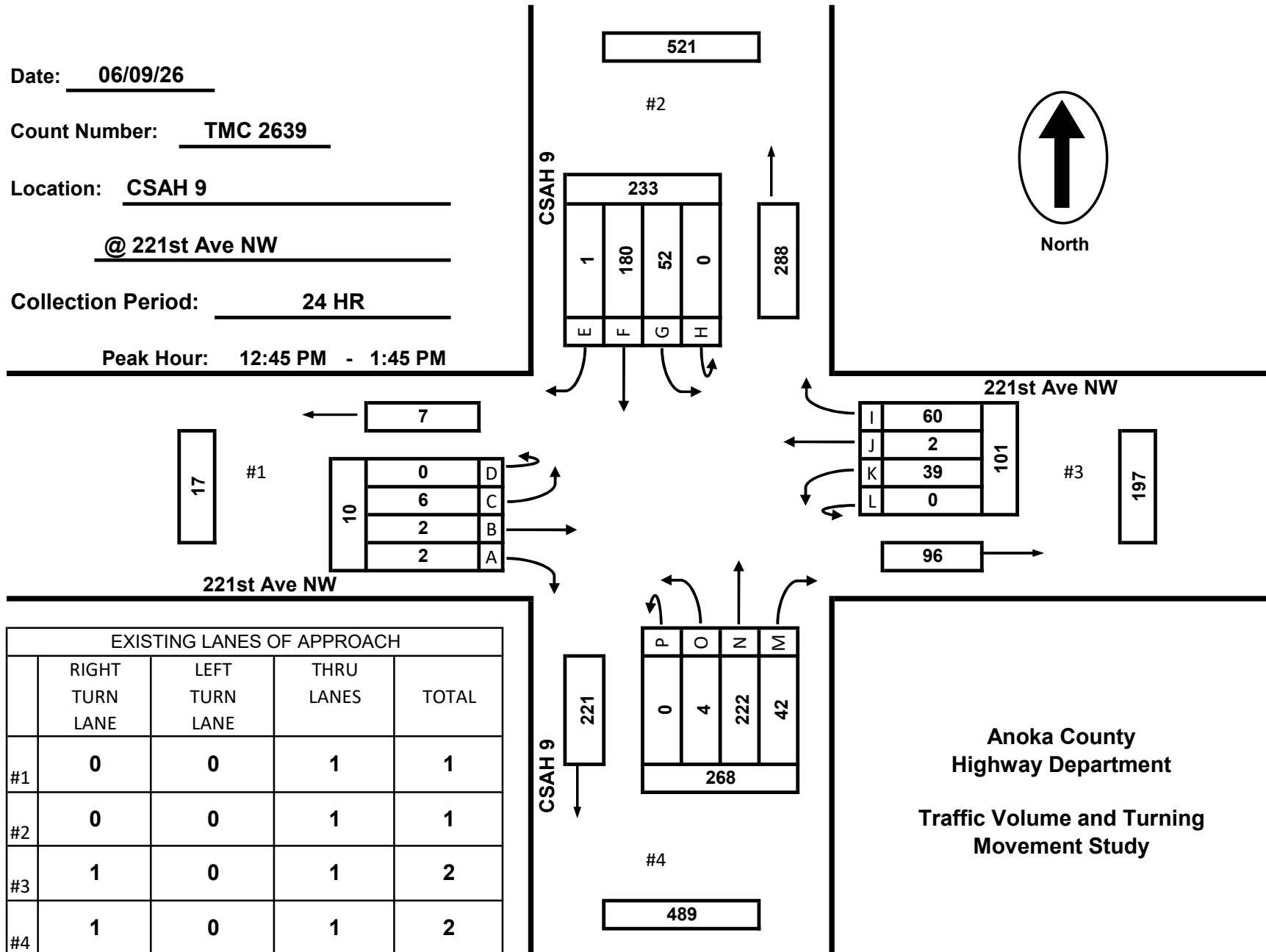
Count Number: TMC 2639

Location: CSAH 9

@ 221st Ave NW

Collection Period: 24 HR

Peak Hour: 12:45 PM - 1:45 PM



Date: 06/09/26

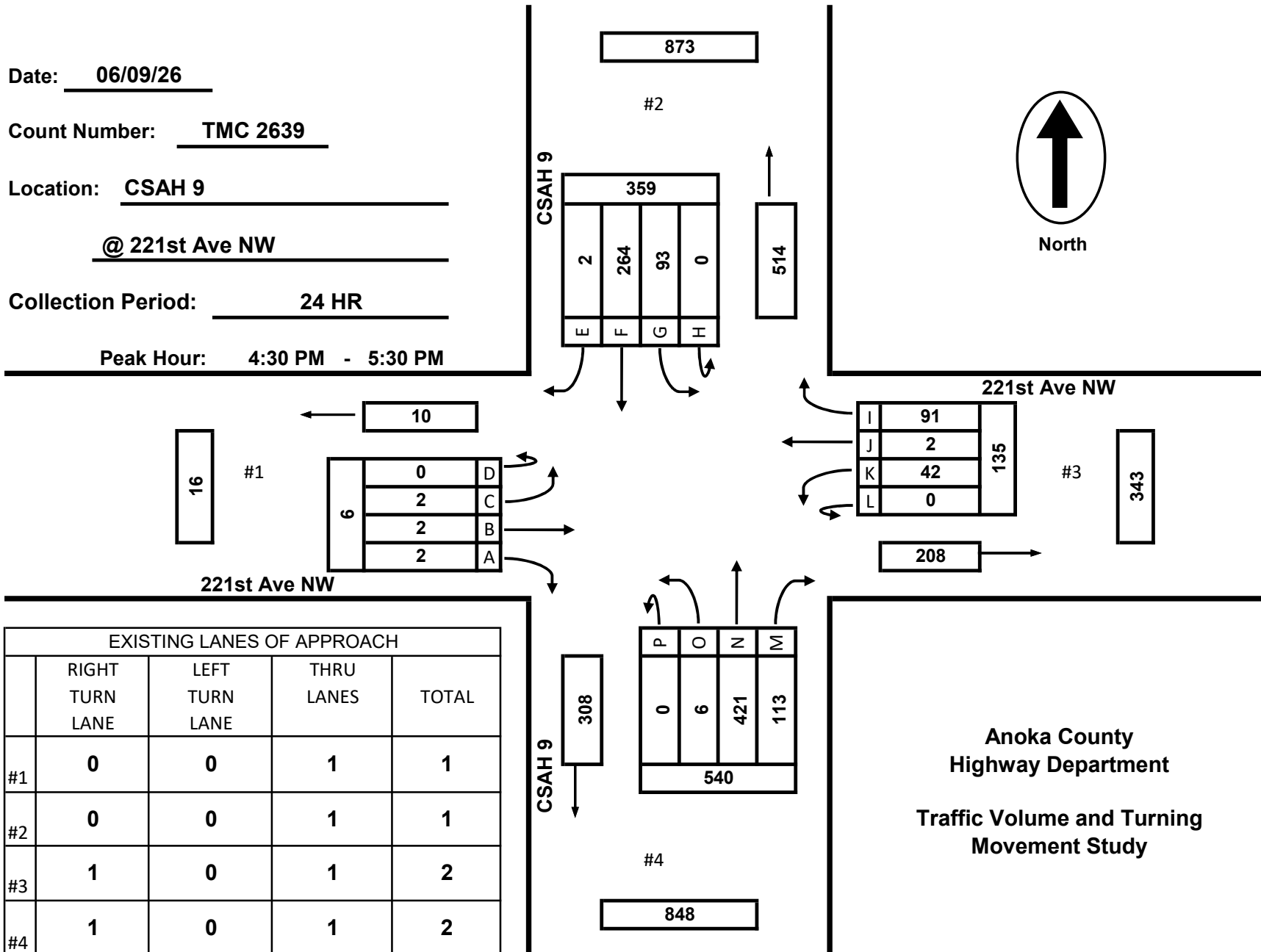
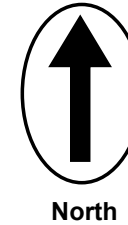
Count Number: TMC 2639

Location: CSAH 9

@ 221st Ave NW

Collection Period: 24 HR

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



Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

TMC 2639 - CSAH 9 @ 221st Ave NW
Oak Grove MN
Tuesday, June 9, 2026

Time	Southbound CSAH 9						Westbound 221st Ave NW						Northbound CSAH 9						Eastbound 221st Ave NW						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	3	0	0	3	0	1	0	0	0	1	0	0	10	1	0	11	0	0	0	0	0	0	15
12:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	5	0	0	5	0	1	0	0	0	1	9
12:30 AM	0	0	7	0	0	7	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	11
12:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	8
Hourly Total	0	0	14	0	0	14	0	1	0	0	0	1	0	0	26	1	0	27	0	1	0	0	0	1	43
1:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	0	0	1	0	0	1	6
1:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
1:30 AM	0	1	1	0	0	2	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	4
1:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	5	1	0	6	0	0	0	0	0	0	7
Hourly Total	0	1	4	0	0	5	0	1	1	0	0	2	0	0	12	1	0	13	0	0	1	0	0	1	21
2:00 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5
2:30 AM	0	1	2	0	0	3	0	2	0	0	0	2	0	0	4	0	0	4	0	0	0	0	0	0	9
2:45 AM	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
Hourly Total	0	1	5	0	0	6	0	2	0	0	0	2	0	0	13	0	0	13	0	0	0	0	0	0	21
3:00 AM	0	0	2	0	0	2	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	4
3:15 AM	0	0	7	0	0	7	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	10
3:30 AM	0	1	4	0	0	5	0	0	1	0	0	1	0	0	3	1	0	4	0	0	0	0	0	0	10
3:45 AM	0	1	10	0	0	11	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	15
Hourly Total	0	2	23	0	0	25	0	5	1	1	0	7	0	0	6	1	0	7	0	0	0	0	0	0	39
4:00 AM	0	3	14	0	0	17	0	4	0	1	0	5	0	0	3	0	0	3	0	0	0	0	0	0	25
4:15 AM	0	3	20	0	0	23	0	2	0	1	0	3	0	0	1	0	0	1	0	0	0	0	0	0	27
4:30 AM	0	4	23	0	0	27	0	3	0	1	0	4	0	0	4	1	0	5	0	0	0	0	0	0	36
4:45 AM	0	1	37	0	0	38	0	8	0	0	0	8	0	0	2	1	0	3	0	0	0	1	0	1	50
Hourly Total	0	11	94	0	0	105	0	17	0	3	0	20	0	0	10	2	0	12	0	0	0	1	0	1	138
5:00 AM	0	3	51	0	0	54	0	12	0	0	0	12	0	0	5	1	0	6	0	0	0	0	0	0	72
5:15 AM	0	7	60	0	0	67	0	24	0	1	0	25	0	0	3	6	0	9	0	0	1	0	0	1	102
5:30 AM	0	8	62	0	0	70	0	10	0	2	0	12	0	0	4	2	0	6	0	0	0	1	0	1	89
5:45 AM	0	8	74	0	0	82	0	11	0	3	0	14	0	1	13	3	0	17	0	0	0	2	0	2	115
Hourly Total	0	26	247	0	0	273	0	57	0	6	0	63	0	1	25	12	0	38	0	0	1	3	0	4	378
6:00 AM	0	16	98	2	0	116	0	16	0	14	0	30	0	0	11	2	0	13	0	0	0	2	0	2	161
6:15 AM	0	21	91	0	0	112	0	23	0	8	0	31	0	0	11	5	0	16	0	1	0	2	0	3	162
6:30 AM	0	27	94	1	0	122	0	12	0	9	0	21	0	0	22	8	0	30	0	0	0	1	0	1	174
6:45 AM	0	15	86	0	0	101	0	15	0	16	0	31	0	1	33	8	0	42	0	1	0	1	0	2	176
Hourly Total	0	79	369	3	0	451	0	66	0	47	0	113	0	1	77	23	0	101	0	2	0	6	0	8	673
7:00 AM	0	14	74	0	0	88	0	12	0	7	0	19	0	0	32	11	0	43	0	0	0	0	0	0	150
7:15 AM	0	25	83	0	0	108	0	13	0	20	0	33	0	0	39	6	0	45	0	0	0	0	0	0	186
7:30 AM	0	17	64	0	0	81	0	11	1	16	0	28	0	0	35	8	0	43	0	1	0	0	0	1	153
7:45 AM	0	20	68	0	0	88	0	10	0	16	0	26	0	0	42	7	0	49	0	0	1	0	0	1	164
Hourly Total	0	76	289	0	0	365	0	46	1	59	0	106	0	0	148	32	0	180	0	1	1	0	0	2	653

TMC 2639 - CSAH 9 @ 221st Ave NW
Oak Grove MN
Tuesday, June 9, 2026

Time	Southbound CSAH 9						Westbound 221st Ave NW						Northbound CSAH 9						Eastbound 221st Ave NW						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	13	66	0	0	79	0	9	0	7	0	16	0	0	35	10	0	45	0	0	0	1	0	1	141
8:15 AM	0	13	49	0	0	62	0	6	0	15	0	21	0	0	27	14	0	41	0	0	0	0	0	0	124
8:30 AM	0	12	60	0	0	72	0	9	0	18	0	27	0	0	41	10	0	51	0	0	0	0	0	0	150
8:45 AM	0	18	59	0	0	77	0	10	0	20	0	30	0	1	39	4	0	44	0	0	1	0	0	1	152
Hourly Total	0	56	234	0	0	290	0	34	0	60	0	94	0	1	142	38	0	181	0	0	1	1	0	2	567
9:00 AM	0	20	53	0	0	73	0	3	0	10	0	13	0	0	32	6	0	38	0	0	0	0	0	0	124
9:15 AM	0	16	54	0	0	70	0	12	0	16	0	28	0	0	31	9	0	40	0	1	0	1	0	2	140
9:30 AM	0	19	52	0	0	71	0	14	1	12	0	27	0	0	32	9	0	41	0	1	0	0	0	1	140
9:45 AM	0	14	49	0	0	63	0	11	1	10	0	22	0	0	29	14	0	43	0	0	0	1	0	1	129
Hourly Total	0	69	208	0	0	277	0	40	2	48	0	90	0	0	124	38	0	162	0	2	0	2	0	4	533
10:00 AM	0	9	39	0	0	48	0	7	0	10	0	17	0	0	32	8	0	40	0	0	0	0	0	0	105
10:15 AM	0	12	44	0	0	56	0	8	0	24	0	32	0	0	40	4	0	44	0	0	0	0	0	0	132
10:30 AM	0	15	58	0	0	73	0	10	0	10	0	20	0	0	47	6	0	53	0	0	0	0	0	0	146
10:45 AM	0	12	44	0	0	56	0	12	1	19	0	32	0	0	52	6	0	58	0	0	0	1	0	1	147
Hourly Total	0	48	185	0	0	233	0	37	1	63	0	101	0	0	171	24	0	195	0	0	0	1	0	1	530
11:00 AM	0	10	61	1	0	72	0	12	0	7	0	19	0	0	40	8	0	48	0	0	0	1	0	1	140
11:15 AM	0	18	54	1	0	73	0	10	1	13	0	24	0	0	35	8	0	43	0	0	0	1	0	1	141
11:30 AM	0	17	51	1	0	69	0	7	0	13	0	20	0	0	52	13	0	65	0	0	0	0	0	0	154
11:45 AM	0	15	61	0	0	76	0	7	0	14	0	21	0	0	41	6	0	47	0	0	0	1	0	1	145
Hourly Total	0	60	227	3	0	290	0	36	1	47	0	84	0	0	168	35	0	203	0	0	0	3	0	3	580
12:00 PM	0	9	49	0	0	58	0	11	0	14	0	25	0	1	53	9	0	63	0	1	0	1	0	2	148
12:15 PM	0	15	42	0	0	57	0	12	0	10	0	22	0	0	55	9	0	64	0	0	0	0	0	0	143
12:30 PM	0	17	53	0	0	70	0	8	0	16	0	24	0	0	42	16	0	58	0	1	0	0	0	1	153
12:45 PM	0	15	47	0	0	62	0	13	0	14	0	27	0	2	61	4	0	67	0	2	1	0	0	3	159
Hourly Total	0	56	191	0	0	247	0	44	0	54	0	98	0	3	211	38	0	252	0	4	1	1	0	6	603
1:00 PM	0	18	51	0	0	69	0	9	1	12	0	22	0	0	34	9	0	43	0	1	1	1	0	3	137
1:15 PM	0	7	44	0	0	51	0	8	0	20	0	28	0	0	52	12	0	64	0	1	0	0	0	1	144
1:30 PM	0	12	38	1	0	51	0	9	1	14	0	24	0	2	75	17	0	94	0	2	0	1	0	3	172
1:45 PM	0	13	26	0	0	39	0	17	0	23	0	40	0	0	61	17	0	78	0	0	0	1	0	1	158
Hourly Total	0	50	159	1	0	210	0	43	2	69	0	114	0	2	222	55	0	279	0	4	1	3	0	8	611
2:00 PM	0	6	45	1	0	52	0	8	0	22	0	30	0	1	50	21	0	72	0	1	0	0	0	1	155
2:15 PM	0	19	48	1	0	68	0	17	0	18	0	35	0	0	67	11	0	78	0	0	0	1	0	1	182
2:30 PM	0	9	51	1	0	61	0	10	0	14	0	24	0	0	59	19	0	78	0	0	0	0	0	0	163
2:45 PM	0	15	47	0	0	62	0	7	0	23	0	30	0	0	78	13	0	91	0	1	0	0	0	1	184
Hourly Total	0	49	191	3	0	243	0	42	0	77	0	119	0	1	254	64	0	319	0	2	0	1	0	3	684
3:00 PM	0	19	53	0	0	72	0	11	0	11	0	22	0	2	91	19	0	112	0	0	0	0	0	0	206
3:15 PM	0	14	44	0	0	58	0	8	0	27	0	35	0	1	80	19	0	100	0	0	0	0	0	0	193
3:30 PM	0	12	46	0	2	58	0	8	3	22	0	33	0	2	100	11	0	113	0	0	0	0	2	0	204
3:45 PM	0	15	55	1	0	71	0	16	0	20	0	36	0	4	113	22	0	139	0	1	0	3	0	4	250
Hourly Total	0	60	198	1	2	259	0	43	3	80	0	126	0	9	384	71	0	464	0	1	0	3	2	4	853

TMC 2639 - CSAH 9 @ 221st Ave NW

Oak Grove MN

Tuesday, June 9, 2026

Time	Southbound CSAH 9						Westbound 221st Ave NW						Northbound CSAH 9						Eastbound 221st Ave NW						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	19	66	1	0	86	0	8	1	22	0	31	0	1	109	24	0	134	0	2	2	0	0	4	255
4:15 PM	0	24	47	2	0	73	0	11	0	23	0	34	0	0	89	22	0	111	0	4	0	1	0	5	223
4:30 PM	0	22	67	1	0	90	0	12	0	16	0	28	0	2	107	26	0	135	0	0	0	1	0	1	254
4:45 PM	0	25	71	1	0	97	0	10	1	24	0	35	0	3	110	37	0	150	0	2	1	0	0	3	285
Hourly Total	0	90	251	5	0	346	0	41	2	85	0	128	0	6	415	109	0	530	0	8	3	2	0	13	1017
5:00 PM	0	27	71	0	0	98	0	16	0	27	0	43	0	0	95	29	0	124	0	0	1	0	0	1	266
5:15 PM	0	19	55	0	0	74	0	4	1	24	0	29	0	1	109	21	0	131	0	0	0	1	0	1	235
5:30 PM	0	29	54	2	0	85	0	9	0	33	0	42	0	0	89	23	0	112	0	1	0	0	0	1	240
5:45 PM	0	23	42	1	0	66	0	12	1	24	0	37	0	0	111	21	0	132	0	2	0	0	0	2	237
Hourly Total	0	98	222	3	0	323	0	41	2	108	0	151	0	1	404	94	0	499	0	3	1	1	0	5	978
6:00 PM	0	22	55	0	0	77	0	6	0	31	0	37	0	0	66	15	0	81	0	2	1	1	0	4	199
6:15 PM	0	17	34	2	0	53	0	9	0	14	0	23	0	0	81	22	0	103	0	1	0	0	0	1	180
6:30 PM	0	8	32	0	0	40	0	10	0	20	0	30	0	1	61	19	0	81	0	0	0	0	0	0	151
6:45 PM	0	8	38	0	0	46	0	8	0	15	0	23	0	1	52	9	0	62	1	0	0	1	0	2	133
Hourly Total	0	55	159	2	0	216	0	33	0	80	0	113	0	2	260	65	0	327	1	3	1	2	0	7	663
7:00 PM	0	8	32	1	0	41	0	8	0	15	0	23	0	1	60	17	0	78	0	0	0	0	0	0	142
7:15 PM	0	9	28	0	0	37	0	6	0	5	0	11	0	2	61	16	0	79	0	0	0	0	0	0	127
7:30 PM	0	20	34	1	0	55	0	6	0	18	0	24	0	1	43	7	0	51	0	0	0	0	0	0	130
7:45 PM	0	15	33	1	0	49	0	8	2	26	0	36	0	0	37	8	0	45	0	1	1	0	0	2	132
Hourly Total	0	52	127	3	0	182	0	28	2	64	0	94	0	4	201	48	0	253	0	1	1	0	0	2	531
8:00 PM	0	15	20	1	0	36	0	5	0	14	0	19	0	0	41	10	0	51	0	0	1	1	0	2	108
8:15 PM	0	12	19	2	0	33	0	7	1	15	0	23	0	1	51	6	0	58	0	1	1	0	0	2	116
8:30 PM	0	6	33	1	0	40	0	4	0	10	0	14	0	0	46	8	0	54	0	0	0	0	0	0	108
8:45 PM	0	13	29	0	0	42	0	6	0	20	0	26	0	1	49	5	0	55	0	1	0	0	0	1	124
Hourly Total	0	46	101	4	0	151	0	22	1	59	0	82	0	2	187	29	0	218	0	2	2	1	0	5	456
9:00 PM	0	10	28	0	0	38	0	6	0	9	0	15	0	0	36	8	0	44	0	0	0	1	0	1	98
9:15 PM	0	10	22	2	0	34	0	4	0	7	0	11	0	0	29	5	0	34	0	0	0	0	0	0	79
9:30 PM	0	3	13	0	0	16	0	1	1	10	0	12	0	0	22	5	0	27	0	0	0	0	0	0	55
9:45 PM	0	5	13	1	0	19	0	2	1	4	0	7	0	0	20	6	0	26	0	0	0	0	0	0	52
Hourly Total	0	28	76	3	0	107	0	13	2	30	0	45	0	0	107	24	0	131	0	0	0	1	0	1	284
10:00 PM	0	4	9	1	0	14	0	2	1	4	0	7	0	0	18	1	0	19	0	0	1	0	0	1	41
10:15 PM	2	3	12	0	0	17	0	2	0	3	0	5	0	0	21	4	0	25	0	0	0	0	0	0	47
10:30 PM	0	1	9	0	0	10	0	0	0	6	0	6	0	0	22	2	0	24	0	0	0	0	0	0	40
10:45 PM	0	3	6	0	0	9	0	1	0	4	0	5	0	0	5	1	0	6	0	0	0	0	0	0	20
Hourly Total	2	11	36	1	0	50	0	5	1	17	0	23	0	0	66	8	0	74	0	0	1	0	0	1	148
11:00 PM	0	4	15	0	0	19	0	2	0	5	0	7	0	0	10	2	0	12	0	0	0	0	0	0	38
11:15 PM	0	2	6	0	0	8	0	0	0	1	0	1	0	0	11	2	0	13	0	0	0	0	0	0	22
11:30 PM	0	1	4	1	0	6	0	0	0	1	0	1	0	0	3	2	0	5	0	0	0	0	0	0	12
11:45 PM	0	0	2	0	0	2	0	2	0	1	0	3	0	0	5	1	0	6	0	0	0	0	0	0	11
Hourly Total	0	7	27	1	0	35	0	4	0	8	0	12	0	0	29	7	0	36	0	0	0	0	0	0	83
DAILY TOTAL	2	1031	3637	33	2	4703	0	701	22	1065	0	1788	0	33	3662	819	0	4514	1	34	15	32	2	82	11087
Cars	2	1016	3590	31	1	4639	0	692	22	1051	0	1765	0	33	3622	795	0	4450	1	34	15	30	1	80	10934
Heavy Vehicles	0	15	47	2	1	64	0	9	0	14	0	23	0	0	40	24	0	64	0	0	0	2	1	2	153
Heavy Vehicle %	0.00%	1.45%	1.29%	6.06%	50.00%	1.36%	0.00%	1.28%	0.00%	1.31%	0.00%	1.29%	0.00%	0.00%	1.09%	2.93%	0.00%	1.42%	0.00%	0.00%	0.00%	6.25%	50.00%	2.44%	1.38%

TMC 2639 - CSAH 9 @ 221st Ave NW
Oak Grove MN
Tuesday, June 9, 2026
AM Peak Hour (00:00 to 10:00)

	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
Time	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	
6:30 AM	0	27	94	1	0	122	0	12	0	9	0	21	0	0	22	8	0	30	0	0	0	1	0	1	174
6:45 AM	0	15	86	0	0	101	0	15	0	16	0	31	0	1	33	8	0	42	0	1	0	1	0	2	176
7:00 AM	0	14	74	0	0	88	0	12	0	7	0	19	0	0	32	11	0	43	0	0	0	0	0	0	150
7:15 AM	0	25	83	0	0	108	0	13	0	20	0	33	0	0	39	6	0	45	0	0	0	0	0	0	186
Peak Hour Total	0	81	337	1	0	419	0	52	0	52	0	104	0	1	126	33	0	160	0	1	0	2	0	3	686
Peak Hour Heavy Vehicles	0	1	4	0	0	5	0	2	0	1	0	3	0	0	6	1	0	7	0	0	0	0	0	0	15
Peak Hour Heavy Vehicles %	0.00%	1.23%	1.19%	0.00%	0.00%	1.19%	0.00%	3.85%	0.00%	1.92%	0.00%	2.88%	0.00%	0.00%	4.76%	3.03%	0.00%	4.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.19%
PHF	0.000	0.750	0.896	0.250	0.000	0.859	0.000	0.867	0.000	0.650	0.000	0.788	0.000	0.250	0.808	0.750	0.000	0.889	0.000	0.250	0.000	0.500	0.000	0.375	0.922

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

	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
Time	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	
12:45 PM	0	15	47	0	0	62	0	13	0	14	0	27	0	2	61	4	0	67	0	2	1	0	0	3	159
1:00 PM	0	18	51	0	0	69	0	9	1	12	0	22	0	0	34	9	0	43	0	1	1	1	0	3	137
1:15 PM	0	7	44	0	0	51	0	8	0	20	0	28	0	0	52	12	0	64	0	1	0	0	0	1	144
1:30 PM	0	12	38	1	0	51	0	9	1	14	0	24	0	2	75	17	0	94	0	2	0	1	0	3	172
Peak Hour Total	0	52	180	1	0	233	0	39	2	60	0	101	0	4	222	42	0	268	0	6	2	2	0	10	612
Peak Hour Heavy Vehicles	0	1	3	0	0	4	0	3	0	1	0	4	0	0	0	3	0	3	0	0	0	0	0	0	11
Peak Hour Heavy Vehicles %	0.00%	1.92%	1.67%	0.00%	0.00%	1.72%	0.00%	7.69%	0.00%	1.67%	0.00%	3.96%	0.00%	0.00%	0.00%	7.14%	0.00%	1.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.80%
PHF	0.000	0.722	0.882	0.250	0.000	0.844	0.000	0.750	0.500	0.750	0.000	0.902	0.000	0.500	0.740	0.618	0.000	0.713	0.000	0.750	0.500	0.500	0.000	0.833	0.890

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

	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
Time	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	0	22	67	1	0	90	0	12	0	16	0	28	0	2	107	26	0	135	0	0	0	1	0	1	254
4:45 PM	0	25	71	1	0	97	0	10	1	24	0	35	0	3	110	37	0	150	0	2	1	0	0	3	285
5:00 PM	0	27	71	0	0	98	0	16	0	27	0	43	0	0	95	29	0	124	0	0	1	0	0	1	266
5:15 PM	0	19	55	0	0	74	0	4	1	24	0	29	0	1	109	21	0	131	0	0	0	1	0	1	235
Peak Hour Total	0	93	264	2	0	359	0	42	2	91	0	135	0	6	421	113	0	540	0	2	2	2	0	6	1040
Peak Hour Heavy Vehicles	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3	0	6	0	0	0	0	0	0	7
Peak Hour Heavy Vehicles %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.10%	0.00%	0.74%	0.00%	0.00%	0.71%	2.65%	0.00%	1.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.67%
PHF	0.000	0.861	0.930	0.500	0.000	0.916	0.000	0.656	0.500	0.843	0.000	0.785	0.000	0.500	0.957	0.764	0.000	0.900	0.000	0.250	0.500	0.500	0.000	0.500	0.912

Total Vehicles On Leg			9466		
Vehicles Entering Intersection 4703			Vehicles Exiting Intersection 4763		
Southbound					
Cars	31	3590	1016	2	1
Heavy	2	47	15	0	1
Total	33	3637	1031	2	2

Total Vehicles on Leg 171	Vehicles Entering Intersection 82	Eastbound	Cars	Heavy	Total
			1	1	2
			1	0	1
	Vehicles Exiting Intersection 89		34	0	34
			15	0	15
			30	2	32

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 1788	Total Vehicles on Leg 3653
1051	14	1065			
22	0	22			
692	9	701		Vehicles Exiting Intersection 1865	
0	0	0			
0	0	0			

Cars	0	0	33	3622	795
Heavy	0	0	0	40	24
Total	0	0	33	3662	819
Northbound					
Vehicles Entering Intersection			4514	Vehicles Exiting Intersection	
Total Vehicles On Leg				4370	
				8884	

TMC 2639 - CSAH 9 @ 221st Ave NW
Oak Grove MN
Tuesday, June 9, 2026

Time	Southbound Heavy CSAH 9						Westbound Heavy 221st Ave NW						Northbound Heavy CSAH 9						Eastbound Heavy 221st Ave NW						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	0	0	0	0	0
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	0	0	0	0	0
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	0	0	0	0
1:30 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
1:45 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
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	0	0	0	0	0
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	0	0	0	0	0
4:00 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
4:15 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
4:30 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
4:45 AM	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
Hourly 'Heavy Vehicles'	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
5:00 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
5:15 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
5:30 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
5:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 AM	0	0	2	2	0	4	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6
6:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
6:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
6:45 AM	0	0	4	0	0	4	0	1	0	1	0	2	0	0	3	0	0	3	0	0	0	0	0	0	9
Hourly 'Heavy Vehicles'	0	1	7	2	0	10	0	1	0	1	0	2	0	0	5	1	0	6	0	0	0	2	0	2	20
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	2
7:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3
7:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly 'Heavy Vehicles'	0	0	4	0	0	4	0	1	0	0	0	1	0	0	5	0	0	5	0	0	0	0	0	0	10

TMC 2639 - CSAH 9 @ 221st Ave NW
Oak Grove MN
Tuesday, June 9, 2026

Time	Southbound Heavy CSAH 9						Westbound Heavy 221st Ave NW						Northbound Heavy CSAH 9						Eastbound Heavy 221st Ave NW						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'	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2
8:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	3
8:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
8:45 AM	0	1	3	0	0	4	0	0	0	1	0	1	0	0	2	0	0	2	0	0	0	0	0	0	7
Hourly 'Heavy Vehicles'	0	3	5	0	0	8	0	0	0	1	0	1	0	0	4	2	0	6	0	0	0	0	0	0	15
9:00 AM	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
9:15 AM	0	0	2	0	0	2	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	4
9:30 AM	0	1	3	0	0	4	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	8
9:45 AM	0	1	2	0	0	3	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	7
Hourly 'Heavy Vehicles'	0	2	7	0	0	9	0	1	0	1	0	2	0	0	5	4	0	9	0	0	0	0	0	0	20
10:00 AM	0	1	2	0	0	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
10:15 AM	0	1	2	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
10:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	1	0	3	0	0	0	0	0	0	4
Hourly 'Heavy Vehicles'	0	3	4	0	0	7	0	0	0	2	0	2	0	0	5	1	0	6	0	0	0	0	0	0	15
11:00 AM	0	0	2	0	0	2	0	0	0	1	0	1	0	0	1	1	0	2	0	0	0	0	0	0	5
11:15 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
11:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	4
11:45 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
Hourly 'Heavy Vehicles'	0	3	5	0	0	8	0	0	0	1	0	1	0	0	4	3	0	7	0	0	0	0	0	0	16
12:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	2
12:15 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	3
12:45 PM	0	0	3	0	0	3	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	5
Hourly 'Heavy Vehicles'	0	0	5	0	0	5	0	2	0	2	0	4	0	0	1	2	0	3	0	0	0	0	0	0	12
1:00 PM	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
1:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	3
Hourly 'Heavy Vehicles'	0	1	1	0	0	2	0	2	0	1	0	3	0	0	0	4	0	4	0	0	0	0	0	0	9
2:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2
2:45 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	1	0	0	1	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	5
3:00 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
3:15 PM	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly 'Heavy Vehicles'	0	1	3	0	1	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	5

TMC 2639 - CSAH 9 @ 221st Ave NW
Oak Grove, MN
Tuesday, June 9, 2026

Time	Southbound Heavy CSAH 9						Westbound Heavy 221st Ave NW						Northbound Heavy CSAH 9						Eastbound Heavy 221st Ave NW						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	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	1	0	4	0	0	0	0	0	0	5
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	0	1	0	1	0	0	3	5	0	8	0	0	0	0	0	0	10
5:00 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
5:15 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
5:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:00 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
6:15 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
6:30 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
6:45 PM	0	0	0	0	0	0	0	0	0	1	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	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	4
7:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 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
7:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	1	0	0	0	1	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 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
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	0	0	0	0	0	0	0	0	0	0	0
8:45 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
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	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	3
10:00 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
10:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30 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
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	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	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	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
DAILY 'Heavy Vehicles'	0	15	47	2	1	64	0	9	0	14	0	23	0	0	40	24	0	64	0	0	0	2	1	2	153

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2639

Study Date : 06/26/2026

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 4,514

Southbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 4,703

Minor Street Approaches

Eastbound: 221st Ave NW

Number of Lanes : 1

Total Approach Volume: 82

Westbound: 221st Ave NW

Number of Lanes : 1

Total Approach Volume: 723

Warrant Summary (Rural Values Apply)

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

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

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

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 5 hours, 8 are needed

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

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2639

Study Date : 06/26/2026

Warrant 1A - Minimum Volumes

Description

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

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **210**

Veh/Hr Minor = **63**

Major Road						Minor Road		
CSAH 9						221st Ave NW		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
06:00 - 07:00	101	+	451	=	552	8	66	Yes
16:30 - 17:30	540	+	359	=	899	6	44	No
16:15 - 17:15	520	+	358	=	878	10	50	No
16:00 - 17:00	530	+	346	=	876	13	43	No
16:45 - 17:45	517	+	354	=	871	6	41	No
15:45 - 16:45	519	+	320	=	839	14	48	No
17:00 - 18:00	499	+	323	=	822	5	43	No
15:30 - 16:30	497	+	288	=	785	13	47	No
15:15 - 16:15	486	+	273	=	759	8	44	No
17:15 - 18:15	456	+	302	=	758	8	33	No
15:00 - 16:00	464	+	259	=	723	4	46	No
17:30 - 18:30	428	+	281	=	709	8	37	No
14:45 - 15:45	416	+	250	=	666	1	37	No
14:30 - 15:30	381	+	253	=	634	1	36	No
17:45 - 18:45	397	+	236	=	633	7	38	No
14:15 - 15:15	359	+	263	=	622	2	45	No
14:00 - 15:00	319	+	243	=	562	3	42	No
07:00 - 08:00	180	+	365	=	545	2	47	No
18:00 - 19:00	327	+	216	=	543	7	33	No
07:15 - 08:15	182	+	356	=	538	3	44	No
13:30 - 14:30	322	+	210	=	532	6	52	No
13:45 - 14:45	306	+	220	=	526	3	52	No
05:45 - 06:45	76	+	432	=	508	8	62	No
18:15 - 19:15	324	+	180	=	504	3	35	No
13:15 - 14:15	308		193		501	6	43	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2639

Study Date : 06/26/2026

Warrant 1B - Interruption of Continuous Traffic

Description

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

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **315**

Veh/Hr Minor = **31**

Major Road						Minor Road			
CSAH 9						221st Ave NW			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?	
16:30 - 17:30	540	+	359	=	899	6	44	Yes	
15:30 - 16:30	497	+	288	=	785	13	47	Yes	
17:30 - 18:30	428	+	281	=	709	8	37	Yes	
14:30 - 15:30	381	+	253	=	634	1	36	Yes	
06:15 - 07:15	131	+	423	=	554	6	62	Yes	
07:15 - 08:15	182	+	356	=	538	3	44	Yes	
13:30 - 14:30	322	+	210	=	532	6	52	Yes	
11:30 - 12:30	239	+	260	=	499	3	37	Yes	
12:30 - 13:30	232	+	252	=	484	8	39	Yes	
10:30 - 11:30	202	+	274	=	476	3	46	Yes	
08:30 - 09:30	173	+	292	=	465	3	34	Yes	
18:30 - 19:30	300	+	164	=	464	2	32	Yes	
09:30 - 10:30	168	+	238	=	406	2	42	Yes	
05:15 - 06:15	45	+	335	=	380	6	61	Yes	
08:15 - 09:15	174	+	284	=	458	1	28	No	
19:30 - 20:30	205	+	173	=	378	6	29	No	
20:00 - 21:00	218	+	151	=	369	5	23	No	
19:45 - 20:45	208	+	158	=	366	6	27	No	
20:15 - 21:15	211	+	153	=	364	4	24	No	
20:30 - 21:30	187	+	154	=	341	2	20	No	
05:00 - 06:00	38	+	273	=	311	4	57	No	
20:45 - 21:45	160	+	130	=	290	2	18	No	
04:45 - 05:45	24	+	229	=	253	3	54	No	
21:00 - 22:00	131	+	107	=	238	1	15	No	
04:30 - 05:30	23		186		209	2	47	No	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2639

Study Date : 06/26/2026

Warrant 1C Combination of Warrants

Description

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

Summary

Only 5 hours meet 1A minimums.
16 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **168 252**
Veh/Hr Minor = **50 25**

Major Road						Minor Road				
CSAH 9						221st Ave NW				
Time	Major NB	+	Major SB	=	Total	Minor EB		Minor WB		Met1A?
16:15 - 17:15	520	+	358	=	878	10		50		Yes
06:45 - 07:45	173	+	378	=	551	3		52		Yes
13:30 - 14:30	322	+	210	=	532	6		52		Yes
05:45 - 06:45	76	+	432	=	508	8		62		Yes
04:45 - 05:45	24	+	229	=	253	3		54		Yes
16:00 - 17:00	530	+	346	=	876	13		43		No
15:45 - 16:45	519	+	320	=	839	14		48		No
15:30 - 16:30	497	+	288	=	785	13		47		No
15:15 - 16:15	486	+	273	=	759	8		44		No
17:15 - 18:15	456	+	302	=	758	8		33		No
15:00 - 16:00	464	+	259	=	723	4		46		No
17:30 - 18:30	428		281		709	8		37		No

Time	Major NB	+	Major SB	=	Total	Minor EB		Minor WB		Met1B?
16:45 - 17:45	517	+	354	=	871	6		41		Yes
15:45 - 16:45	519	+	320	=	839	14		48		Yes
14:45 - 15:45	416	+	250	=	666	1		37		Yes
17:45 - 18:45	397	+	236	=	633	7		38		Yes
06:45 - 07:45	173	+	378	=	551	3		52		Yes
13:45 - 14:45	306	+	220	=	526	3		52		Yes
05:45 - 06:45	76	+	432	=	508	8		62		Yes
12:45 - 13:45	268	+	233	=	501	10		41		Yes
11:45 - 12:45	232	+	261	=	493	4		38		Yes
07:45 - 08:45	186	+	301	=	487	2		34		Yes
10:45 - 11:45	214	+	270	=	484	3		43		Yes
08:45 - 09:45	163		291		454	4		40		Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2639

Study Date : 06/26/2026

Warrant 2 - Four Hour Volumes

Description

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

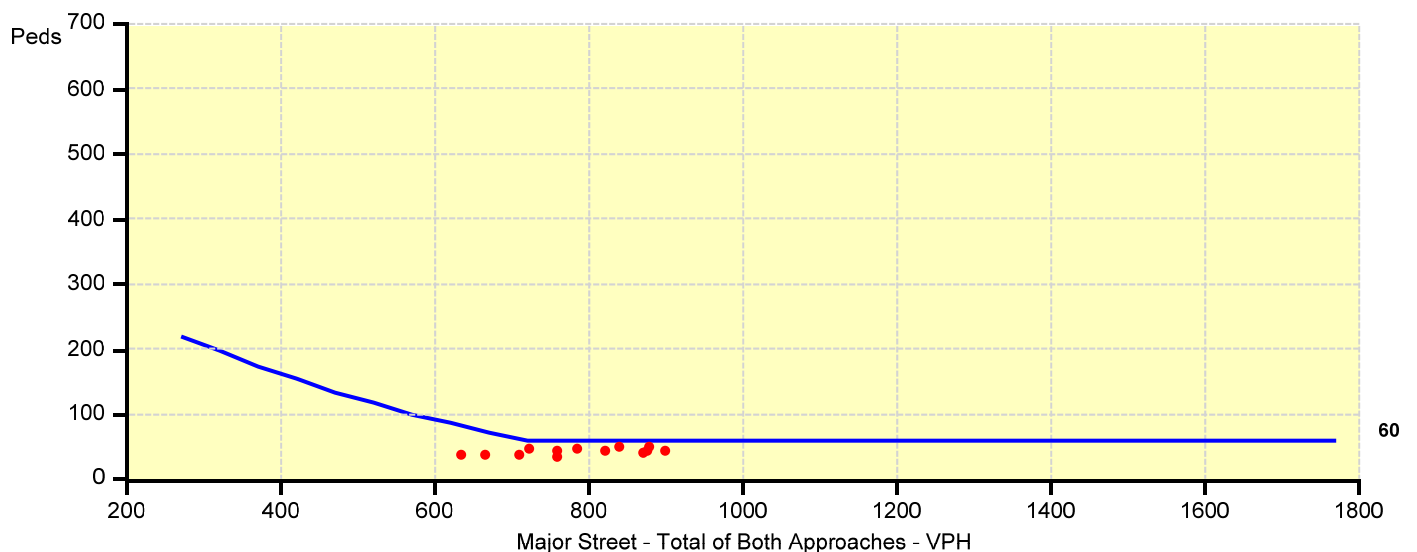
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Major Road CSAH 9						Minor Road 221st Ave NW			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?	
16:30 - 17:30	540	+	359	=	899	6	44	No	
16:15 - 17:15	520	+	358	=	878	10	50	No	
16:00 - 17:00	530	+	346	=	876	13	43	No	
16:45 - 17:45	517	+	354	=	871	6	41	No	
15:45 - 16:45	519	+	320	=	839	14	48	No	
17:00 - 18:00	499	+	323	=	822	5	43	No	
15:30 - 16:30	497	+	288	=	785	13	47	No	
15:15 - 16:15	486	+	273	=	759	8	44	No	
17:15 - 18:15	456	+	302	=	758	8	33	No	
15:00 - 16:00	464	+	259	=	723	4	46	No	
17:30 - 18:30	428	+	281	=	709	8	37	No	
14:45 - 15:45	416		250		666	1	37	No	



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2639

Study Date : 06/26/2026

Warrant 3B - Peak Hour Volumes

Description

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

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Major Road CSAH 9						Minor Road 221st Ave NW			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?	
16:30 - 17:30	540	+	359	=	899	6	44	No	
16:15 - 17:15	520	+	358	=	878	10	50	No	
16:00 - 17:00	530	+	346	=	876	13	43	No	
16:45 - 17:45	517	+	354	=	871	6	41	No	
15:45 - 16:45	519	+	320	=	839	14	48	No	
17:00 - 18:00	499	+	323	=	822	5	43	No	
15:30 - 16:30	497	+	288	=	785	13	47	No	
15:15 - 16:15	486	+	273	=	759	8	44	No	
17:15 - 18:15	456	+	302	=	758	8	33	No	
15:00 - 16:00	464	+	259	=	723	4	46	No	
17:30 - 18:30	428	+	281	=	709	8	37	No	
14:45 - 15:45	416		250		666	1	37	No	

