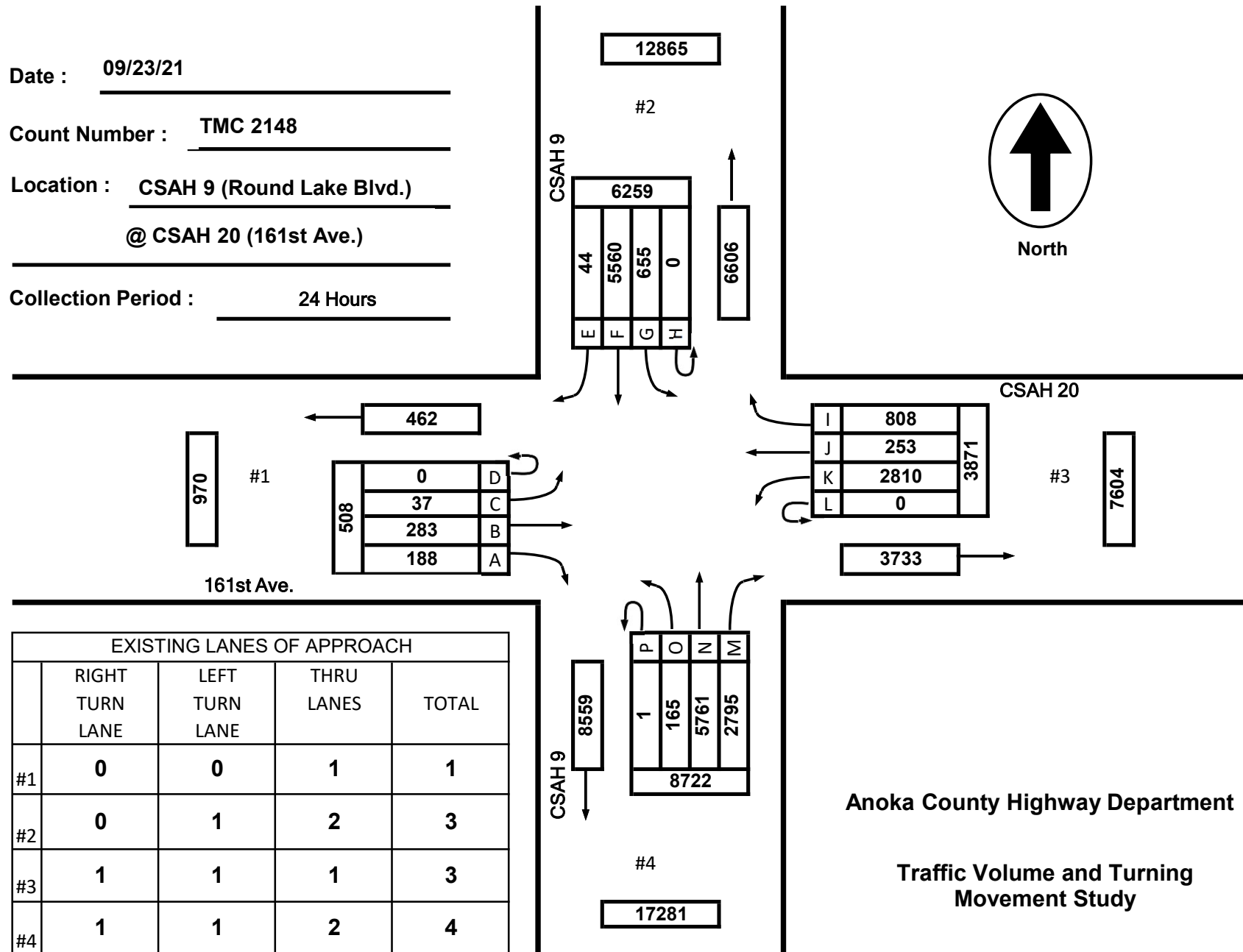


Date : 09/23/21

Count Number : TMC 2148

Location : CSAH 9 (Round Lake Blvd.)  
@ CSAH 20 (161st Ave.)

Collection Period : 24 Hours



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

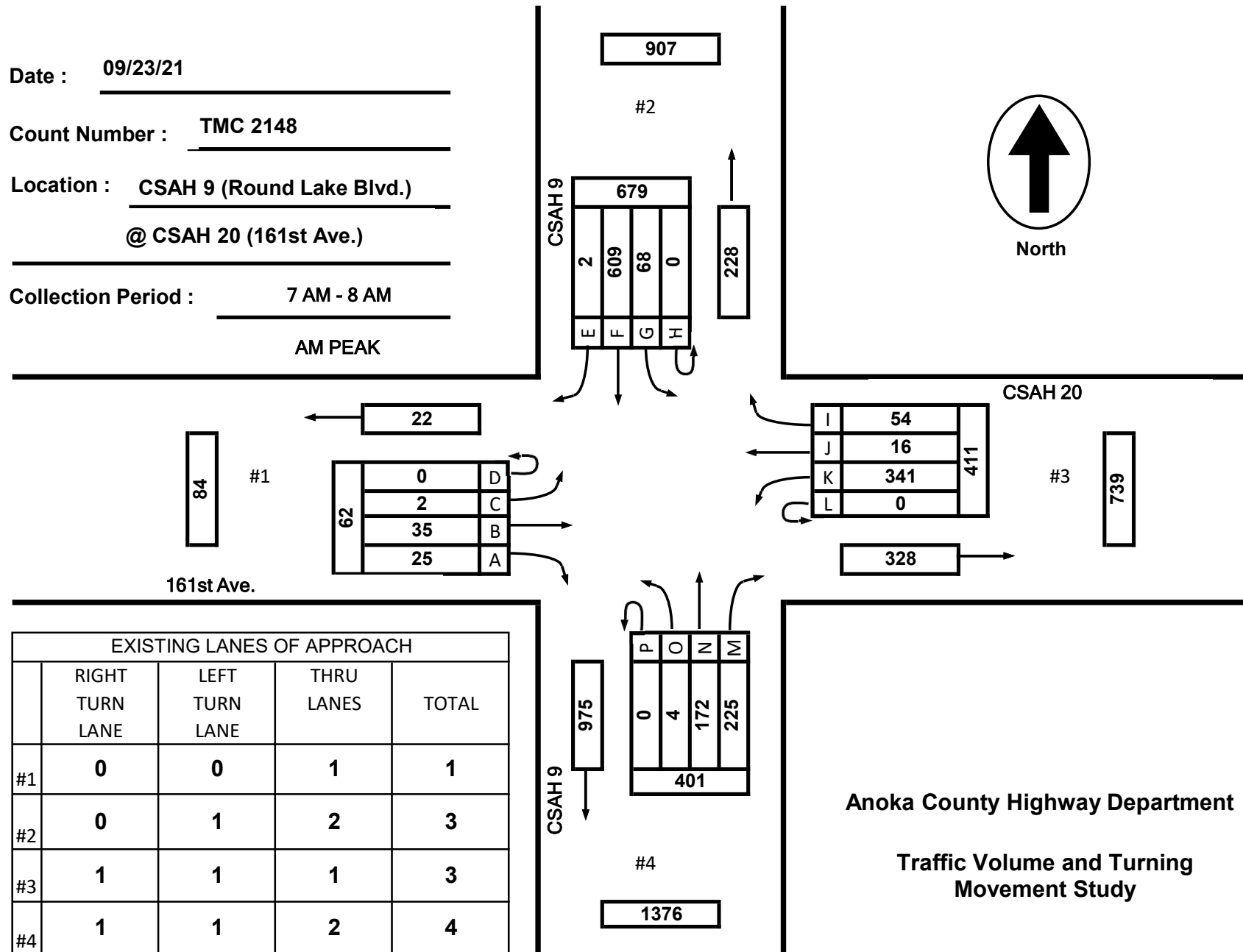
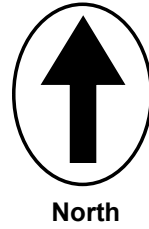
Anoka County Highway Department  
 Traffic Volume and Turning Movement Study

Date : 09/23/21

Count Number : TMC 2148

Location : CSAH 9 (Round Lake Blvd.)  
@ CSAH 20 (161st Ave.)

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



161st Ave.

CSAH 20

CSAH 9

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

Anoka County Highway Department  
 Traffic Volume and Turning Movement Study

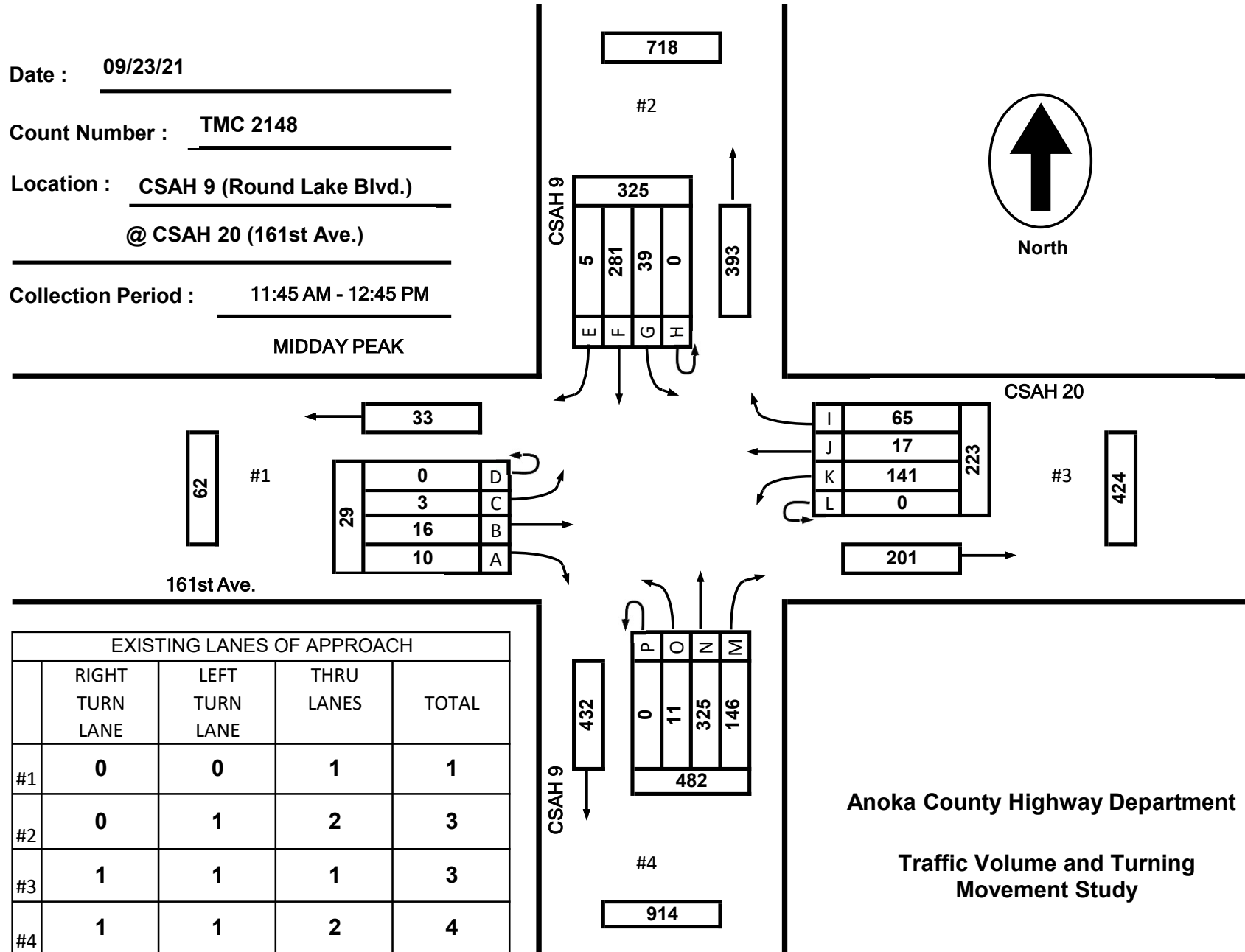
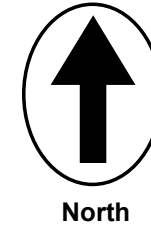
Date : 09/23/21

Count Number : TMC 2148

Location : CSAH 9 (Round Lake Blvd.)  
@ CSAH 20 (161st Ave.)

Collection Period : 11:45 AM - 12:45 PM

MIDDAY PEAK



EXISTING LANES OF APPROACH

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

Anoka County Highway Department

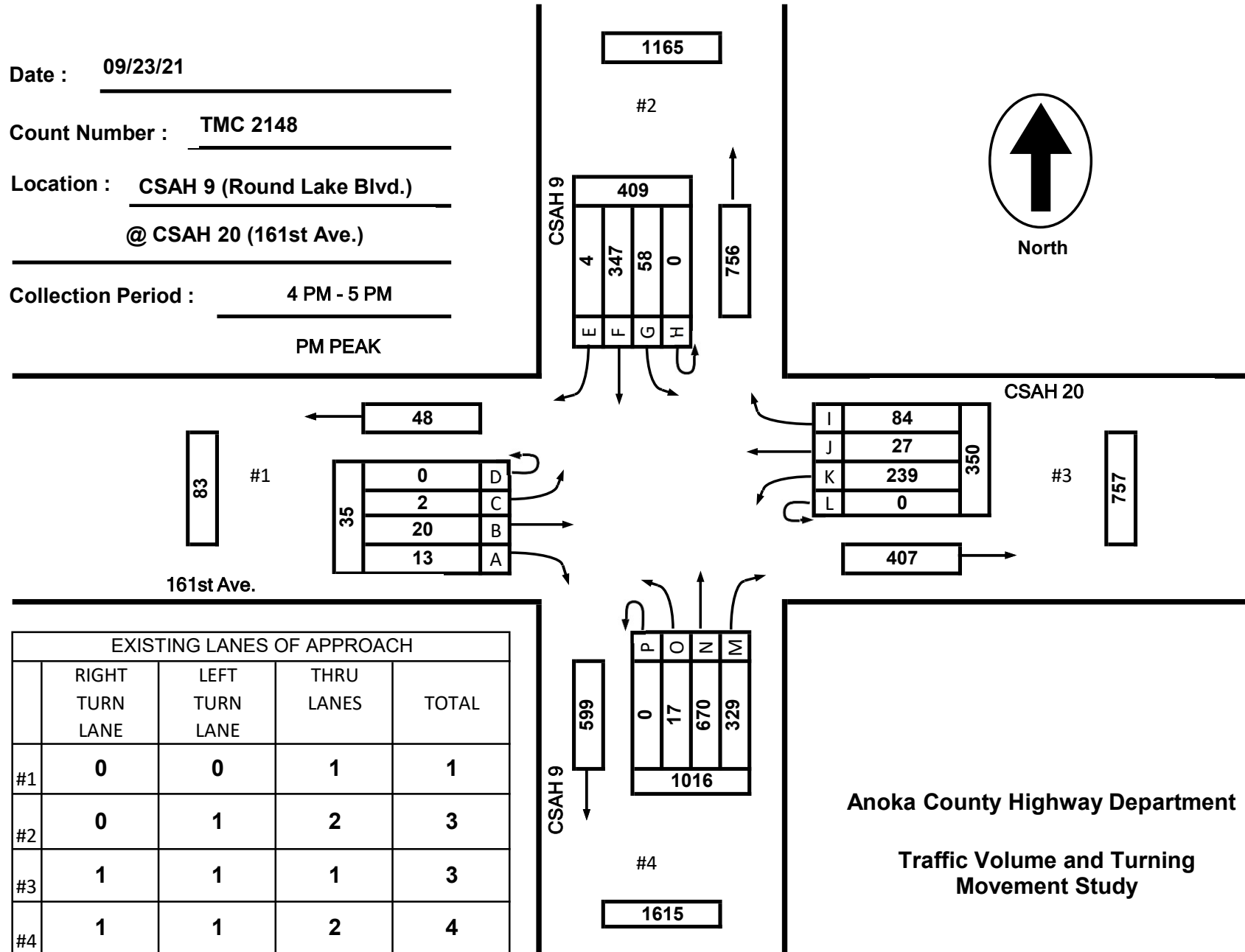
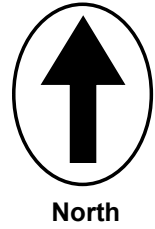
Traffic Volume and Turning Movement Study

Date : 09/23/21

Count Number : TMC 2148

Location : CSAH 9 (Round Lake Blvd.)  
@ CSAH 20 (161st Ave.)

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



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

**Anoka County Highway Department**  
**Traffic Volume and Turning Movement Study**

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2148

Study Date : 01/19/2022

## Signal Warrants - Summary

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### Major Street Approaches

#### Northbound: CSAH 9

Number of Lanes : 2+

Total Approach Volume: 8,722

#### Southbound: CSAH 9

Number of Lanes :2+

Total Approach Volume: 6,259

### Minor Street Approaches

#### Eastbound: 161st Ave.

Number of Lanes :1

Total Approach Volume: 508

#### Westbound: CSAH 20

Number of Lanes :1

Total Approach Volume: 3,871

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### Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 16 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.....Satisfied**

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

Required 1B volumes reached for 15 hours, 8 are needed

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

Number of hours (15) volumes exceed minimum >= minimum required (4).

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

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

Number of one hour periods (54) 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 2148

Study Date : 01/19/2022

## Warrant 1A - Minimum Volumes

#### Description

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

#### Summary

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 = **1**

#### Volume Requirements

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

Time	Major Road CSAH 9				Total	Minor Road 161st Ave.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:15 - 17:15	1012	+	421	=	1433	37	337	Yes
15:15 - 16:15	963	+	327	=	1290	43	301	Yes
17:15 - 18:15	894	+	378	=	1272	28	296	Yes
14:15 - 15:15	765	+	327	=	1092	27	222	Yes
07:15 - 08:15	405	+	638	=	1043	54	378	Yes
18:15 - 19:15	663	+	257	=	920	28	250	Yes
06:15 - 07:15	249	+	616	=	865	51	305	Yes
13:15 - 14:15	495	+	329	=	824	32	243	Yes
12:15 - 13:15	470	+	313	=	783	27	172	Yes
11:15 - 12:15	417	+	324	=	741	26	187	Yes
19:15 - 20:15	534	+	199	=	733	20	138	Yes
08:15 - 09:15	234	+	430	=	664	40	219	Yes
09:15 - 10:15	290	+	357	=	647	23	205	Yes
10:15 - 11:15	313	+	324	=	637	26	173	Yes
05:15 - 06:15	86	+	434	=	520	17	135	Yes
20:15 - 21:15	340	+	134	=	474	9	122	Yes
05:00 - 06:00	68	+	383	=	451	15	101	No
04:45 - 05:45	44	+	343	=	387	15	78	No
21:15 - 22:15	232	+	106	=	338	5	55	No
04:30 - 05:30	36	+	274	=	310	11	63	No
21:30 - 22:30	188	+	102	=	290	4	49	No
21:45 - 22:45	196	+	78	=	274	3	47	No
22:00 - 23:00	179	+	61	=	240	4	37	No
22:15 - 23:15	162	+	54	=	216	2	30	No
04:15 - 05:15	22		191		213	7	57	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2148

Study Date : 01/19/2022

## Warrant 1B - Interruption of Continuous Traffic

#### Description

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

#### Summary

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 = **630**  
 Veh/Hr Minor = **53**

Time	Major Road				Minor Road		Met?	
	Major NB	+	Major SB	=	Total	Minor EB		Minor WB
16:15 - 17:15	1012	+	421	=	1433	37	337	Yes
15:15 - 16:15	963	+	327	=	1290	43	301	Yes
17:15 - 18:15	894	+	378	=	1272	28	296	Yes
14:15 - 15:15	765	+	327	=	1092	27	222	Yes
06:45 - 07:45	368	+	684	=	1052	63	381	Yes
18:15 - 19:15	663	+	257	=	920	28	250	Yes
13:15 - 14:15	495	+	329	=	824	32	243	Yes
07:45 - 08:45	301	+	493	=	794	39	280	Yes
12:15 - 13:15	470	+	313	=	783	27	172	Yes
11:15 - 12:15	417	+	324	=	741	26	187	Yes
19:15 - 20:15	534	+	199	=	733	20	138	Yes
05:45 - 06:45	151	+	523	=	674	25	222	Yes
08:45 - 09:45	257	+	409	=	666	40	231	Yes
10:15 - 11:15	313	+	324	=	637	26	173	Yes
10:00 - 11:00	289	+	305	=	594	20	167	No
09:45 - 10:45	286	+	308	=	594	23	165	No
05:30 - 06:30	109	+	483	=	592	19	172	No
05:15 - 06:15	86	+	434	=	520	17	135	No
20:15 - 21:15	340	+	134	=	474	9	122	No
05:00 - 06:00	68	+	383	=	451	15	101	No
20:30 - 21:30	300	+	119	=	419	7	110	No
20:45 - 21:45	280	+	128	=	408	7	96	No
04:45 - 05:45	44	+	343	=	387	15	78	No
21:00 - 22:00	254	+	126	=	380	3	78	No
21:15 - 22:15	232		106		338	5	55	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2148

Study Date : 01/19/2022

## Warrant 1C Combination of Warrants

#### Description

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

#### Summary

16 hours meet 1A minimums.  
15 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 9

#### Minor Road 161st Ave.

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	1016	+	409	=	1425	35	350	Yes
17:00 - 18:00	971	+	398	=	1369	34	319	Yes
15:00 - 16:00	921	+	308	=	1229	45	272	Yes
07:00 - 08:00	401	+	679	=	1080	62	411	Yes
14:00 - 15:00	689	+	337	=	1026	21	215	Yes
18:00 - 19:00	688	+	282	=	970	30	254	Yes
13:00 - 14:00	482	+	325	=	807	29	223	Yes
12:00 - 13:00	456	+	324	=	780	32	183	Yes
19:00 - 20:00	562	+	211	=	773	24	156	Yes
06:00 - 07:00	196	+	563	=	759	38	260	Yes
11:00 - 12:00	412	+	331	=	743	27	182	Yes
08:00 - 09:00	246	+	460	=	706	36	231	Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	1012	+	421	=	1433	37	337	Yes
15:15 - 16:15	963	+	327	=	1290	43	301	Yes
17:15 - 18:15	894	+	378	=	1272	28	296	Yes
14:15 - 15:15	765	+	327	=	1092	27	222	Yes
07:15 - 08:15	405	+	638	=	1043	54	378	Yes
18:15 - 19:15	663	+	257	=	920	28	250	Yes
06:15 - 07:15	249	+	616	=	865	51	305	Yes
13:15 - 14:15	495	+	329	=	824	32	243	Yes
12:15 - 13:15	470	+	313	=	783	27	172	Yes
11:15 - 12:15	417	+	324	=	741	26	187	Yes
19:15 - 20:15	534	+	199	=	733	20	138	Yes
08:15 - 09:15	234	+	430	=	664	40	219	Yes



# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2148

Study Date : 01/19/2022

## Warrant 2 - Four Hour Volumes

### Description

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

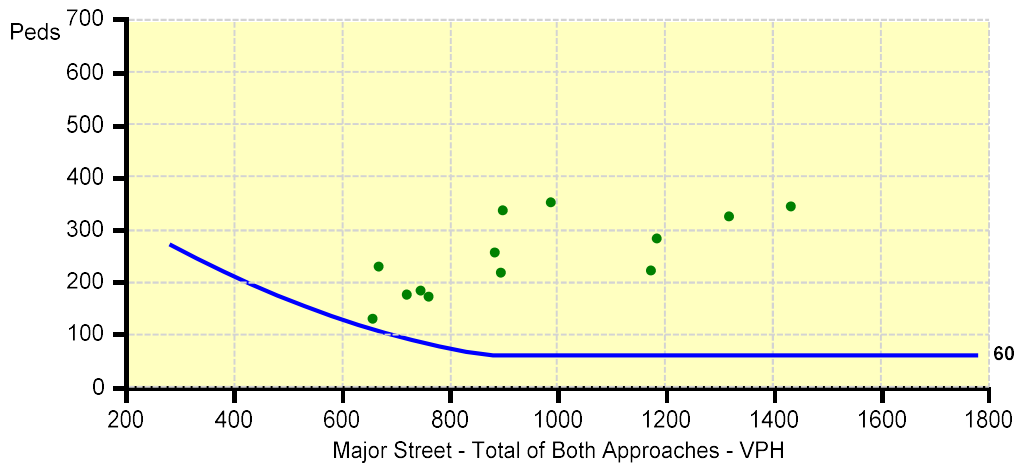
### Summary

15 one hour periods meet minimums.  
Warrant IS met.

### Site Data Required

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

Time	Major Road CSAH 9				Total	Minor Road 161st Ave.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:30 - 17:30	1031	+	400	=	1431	35	343	Yes
15:30 - 16:30	963	+	355	=	1318	44	326	Yes
17:30 - 18:30	836	+	349	=	1185	32	284	Yes
14:30 - 15:30	829	+	343	=	1172	30	222	Yes
06:30 - 07:30	315	+	673	=	988	59	352	Yes
07:30 - 08:30	358	+	540	=	898	48	336	Yes
18:30 - 19:30	634	+	260	=	894	22	219	Yes
13:30 - 14:30	574	+	308	=	882	30	256	Yes
12:30 - 13:30	432	+	330	=	762	30	171	Yes
11:30 - 12:30	435	+	312	=	747	26	184	Yes
10:30 - 11:30	369	+	349	=	718	21	176	Yes
							230	Yes



# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2148

Study Date : 01/19/2022

## Warrant 3B - Peak Hour Volumes

#### Description

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

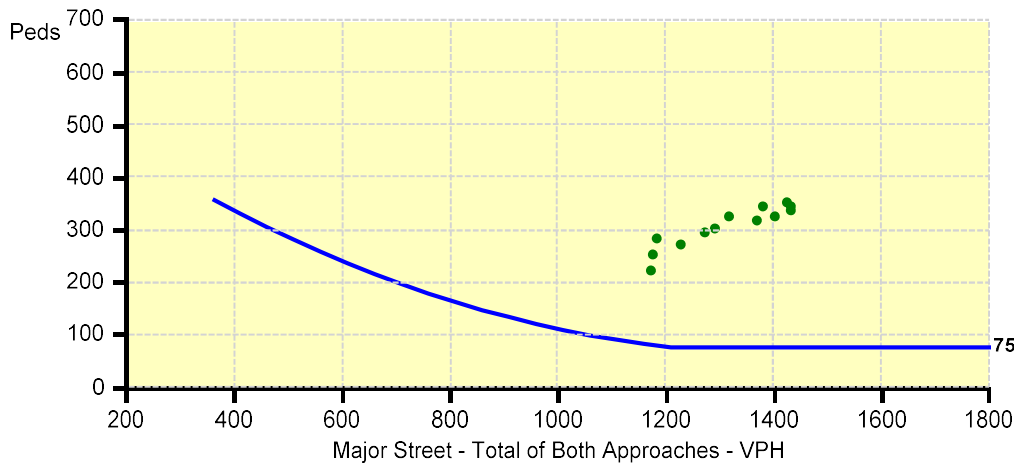
#### Summary

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 9				Total	Minor Road 161st Ave.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:15 - 17:15	1012	+	421	=	1433	37	337	Yes
16:30 - 17:30	1031	+	400	=	1431	35	343	Yes
16:00 - 17:00	1016	+	409	=	1425	35	350	Yes
15:45 - 16:45	1018	+	384	=	1402	39	325	Yes
16:45 - 17:45	996	+	383	=	1379	35	346	Yes
17:00 - 18:00	971	+	398	=	1369	34	319	Yes
15:30 - 16:30	963	+	355	=	1318	44	326	Yes
15:15 - 16:15	963	+	327	=	1290	43	301	Yes
17:15 - 18:15	894	+	378	=	1272	28	296	Yes
15:00 - 16:00	921	+	308	=	1229	45	272	Yes
17:30 - 18:30	836	+	349	=	1185	32	284	Yes
							253	Yes





# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 1

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 20 Westbound						CSAH 9 Northbound						161st Ave. Eastbound						Exclu. Total	Inclu. Total	Int. Total	
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total				
00:00	0	0	3	1	0	4	0	3	0	1	0	4	0	0	15	6	0	21	0	0	0	0	0	0	0	0	29	29
00:15	0	0	3	0	0	3	0	1	0	1	0	2	0	0	10	4	0	14	0	0	0	0	0	0	0	0	19	19
00:30	0	0	1	0	0	1	0	1	0	0	0	1	0	0	5	2	0	7	0	0	0	0	0	0	0	0	9	9
00:45	0	0	2	0	0	2	0	1	0	0	0	1	0	0	6	2	0	8	0	0	0	0	0	0	0	0	11	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>14</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>68</b>
01:00	0	0	7	0	0	7	0	0	0	0	0	0	0	0	7	4	0	11	0	0	0	0	0	0	0	0	18	18
01:15	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	6	6
01:30	0	0	2	0	0	2	0	1	0	0	0	1	0	0	3	2	0	5	0	0	0	0	0	0	0	0	8	8
01:45	0	0	2	0	0	2	0	2	0	0	0	2	0	0	2	2	0	4	0	1	0	1	0	2	0	0	10	10
<b>Total</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>8</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>42</b>	<b>42</b>	
02:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	6	6
02:15	0	0	3	0	0	3	0	0	0	0	0	0	0	0	5	2	0	7	0	0	0	0	0	0	0	0	10	10
02:30	0	0	2	0	0	2	0	1	0	0	0	1	0	0	3	2	0	5	0	0	0	0	0	0	0	0	8	8
02:45	0	0	4	0	0	4	0	3	0	0	0	3	0	0	3	0	0	3	0	0	0	0	0	0	0	0	10	10
<b>Total</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>6</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>34</b>	
03:00	0	0	8	0	0	8	0	2	0	0	0	2	0	0	3	0	0	3	0	0	0	1	0	1	0	0	14	14
03:15	0	0	5	0	0	5	0	5	0	1	0	6	0	0	2	0	0	2	0	0	0	0	0	0	0	0	13	13
03:30	0	1	11	0	0	12	0	3	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	0	0	16	16
03:45	0	0	10	0	0	10	0	5	0	0	0	5	0	0	4	2	0	6	0	0	0	0	0	0	0	0	21	21
<b>Total</b>	<b>0</b>	<b>1</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>64</b>	<b>64</b>	
04:00	0	0	16	0	0	16	0	3	0	0	0	3	0	0	2	2	0	4	0	1	1	0	0	2	0	0	25	25
04:15	0	1	18	0	0	19	0	14	0	0	0	14	0	0	3	1	0	4	0	0	0	0	0	0	0	0	37	37
04:30	0	2	36	0	0	38	0	17	0	0	0	17	0	0	6	2	0	8	0	0	0	2	0	2	0	0	65	65
04:45	0	2	68	0	0	70	0	9	0	1	0	10	0	0	6	0	0	6	0	0	0	1	0	1	0	0	87	87
<b>Total</b>	<b>0</b>	<b>5</b>	<b>138</b>	<b>0</b>	<b>0</b>	<b>143</b>	<b>0</b>	<b>43</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>214</b>	<b>214</b>	
05:00	0	2	62	0	0	64	0	12	2	2	0	16	0	0	1	3	0	4	0	1	1	2	0	4	0	0	88	88
05:15	0	2	100	0	0	102	0	18	1	1	0	20	0	0	10	8	0	18	0	0	2	2	0	4	0	0	144	144
05:30	0	2	105	0	0	107	0	31	0	1	0	32	0	0	8	8	0	16	0	0	3	3	0	6	0	0	161	161
05:45	0	3	107	0	0	110	0	32	0	1	0	33	0	0	16	14	0	30	0	0	1	0	0	1	0	0	174	174
<b>Total</b>	<b>0</b>	<b>9</b>	<b>374</b>	<b>0</b>	<b>0</b>	<b>383</b>	<b>0</b>	<b>93</b>	<b>3</b>	<b>5</b>	<b>0</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>33</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>567</b>	<b>567</b>	



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 2

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 20 Westbound						CSAH 9 Northbound						161st Ave. Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
06:00	0	4	111	0	0	115	0	43	0	7	0	50	0	0	11	11	0	22	0	0	5	1	0	6	0	193	193
06:15	0	6	145	0	0	151	0	51	2	4	0	57	0	1	24	16	0	41	0	0	3	3	0	6	0	255	255
06:30	0	13	134	0	0	147	0	76	0	6	0	82	0	0	31	27	0	58	0	2	5	5	0	12	0	299	299
06:45	0	19	131	0	0	150	0	64	1	6	0	71	0	0	39	36	0	75	0	0	9	5	0	14	0	310	310
Total	0	42	521	0	0	563	0	234	3	23	0	260	0	1	105	90	0	196	0	2	22	14	0	38	0	1057	1057
07:00	0	21	147	0	0	168	0	77	5	13	0	95	0	1	38	36	0	75	0	0	9	10	0	19	0	357	357
07:15	0	16	191	1	0	208	0	83	3	18	0	104	0	0	45	62	0	107	0	0	6	8	0	14	0	433	433
07:30	0	16	142	0	1	158	0	93	6	12	0	111	0	0	47	64	1	111	0	2	11	3	1	16	3	396	399
07:45	0	15	129	1	1	145	0	88	2	11	0	101	0	3	42	63	0	108	0	0	9	4	0	13	1	367	368
Total	0	68	609	2	2	679	0	341	16	54	0	411	0	4	172	225	1	401	0	2	35	25	1	62	4	1553	1557
08:00	0	16	110	1	0	127	0	50	6	6	0	62	0	1	41	37	0	79	0	0	7	4	0	11	0	279	279
08:15	0	8	101	1	0	110	0	51	5	6	0	62	0	2	23	35	0	60	0	1	5	2	0	8	0	240	240
08:30	0	12	99	0	0	111	0	45	0	10	0	55	0	0	28	26	0	54	0	0	4	3	0	7	0	227	227
08:45	0	12	100	0	0	112	0	34	4	14	0	52	0	0	29	24	0	53	0	1	8	1	0	10	0	227	227
Total	0	48	410	2	0	460	0	180	15	36	0	231	0	3	121	122	0	246	0	2	24	10	0	36	0	973	973
09:00	0	12	84	1	1	97	0	35	2	13	0	50	0	0	37	30	0	67	0	0	10	5	0	15	1	229	230
09:15	0	17	92	0	0	109	0	60	4	9	0	73	0	1	34	28	0	63	0	1	2	3	0	6	0	251	251
09:30	0	8	83	0	0	91	0	47	1	8	0	56	0	2	47	25	0	74	0	2	4	3	0	9	0	230	230
09:45	0	8	77	1	0	86	0	33	2	7	0	42	0	4	57	16	0	77	0	3	0	2	0	5	0	210	210
Total	0	45	336	2	1	383	0	175	9	37	0	221	0	7	175	99	0	281	0	6	16	13	0	35	1	920	921
10:00	0	2	68	1	0	71	0	27	1	6	0	34	0	3	36	37	0	76	0	0	3	0	0	3	0	184	184
10:15	0	4	58	1	0	63	0	34	3	5	0	42	0	1	42	18	0	61	0	0	8	2	0	10	0	176	176
10:30	0	11	77	0	1	88	0	34	3	10	0	47	0	3	42	27	0	72	0	0	1	4	0	5	1	212	213
10:45	0	10	73	0	0	83	0	31	1	12	0	44	0	2	50	28	0	80	0	0	0	2	0	2	0	209	209
Total	0	27	276	2	1	305	0	126	8	33	0	167	0	9	170	110	0	289	0	0	12	8	0	20	1	781	782
11:00	0	9	81	0	0	90	0	33	2	5	0	40	0	0	79	21	0	100	0	0	6	3	0	9	0	239	239
11:15	0	12	75	1	0	88	0	31	3	11	0	45	0	5	76	36	0	117	0	0	3	2	0	5	0	255	255
11:30	0	7	70	1	0	78	0	34	1	13	0	48	0	2	60	38	0	100	0	0	3	5	0	8	0	234	234
11:45	0	6	69	0	0	75	0	38	1	10	0	49	0	2	63	30	0	95	0	0	3	2	0	5	0	224	224
Total	0	34	295	2	0	331	0	136	7	39	0	182	0	9	278	125	0	412	0	0	15	12	0	27	0	952	952
12:00	0	8	75	0	1	83	0	27	4	14	0	45	0	2	79	24	0	105	0	0	5	3	0	8	1	241	242



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 3

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 20 Westbound						CSAH 9 Northbound						161st Ave. Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
12:15	0	7	67	2	0	76	0	29	7	6	0	42	0	6	91	38	0	135	0	1	3	1	0	5	0	258	258
12:30	0	11	76	1	0	88	0	37	3	8	0	48	0	3	73	29	0	105	0	1	7	2	0	10	0	251	251
12:45	0	2	74	1	0	77	0	38	2	8	0	48	0	3	80	28	0	111	0	0	6	3	0	9	0	245	245
<b>Total</b>	<b>0</b>	<b>28</b>	<b>292</b>	<b>4</b>	<b>1</b>	<b>324</b>	<b>0</b>	<b>131</b>	<b>16</b>	<b>36</b>	<b>0</b>	<b>183</b>	<b>0</b>	<b>14</b>	<b>323</b>	<b>119</b>	<b>0</b>	<b>456</b>	<b>0</b>	<b>2</b>	<b>21</b>	<b>9</b>	<b>0</b>	<b>32</b>	<b>1</b>	<b>995</b>	<b>996</b>
13:00	0	9	61	2	0	72	0	24	2	8	0	34	0	2	82	35	0	119	0	0	1	2	0	3	0	228	228
13:15	0	13	80	0	0	93	0	31	3	7	0	41	0	1	70	26	0	97	0	2	3	3	0	8	0	239	239
13:30	0	6	61	1	0	68	0	45	2	21	0	68	0	2	74	50	0	126	0	0	8	5	0	13	0	275	275
13:45	0	11	79	2	0	92	0	41	10	29	0	80	0	6	99	35	0	140	0	1	4	0	0	5	0	317	317
<b>Total</b>	<b>0</b>	<b>39</b>	<b>281</b>	<b>5</b>	<b>0</b>	<b>325</b>	<b>0</b>	<b>141</b>	<b>17</b>	<b>65</b>	<b>0</b>	<b>223</b>	<b>0</b>	<b>11</b>	<b>325</b>	<b>146</b>	<b>0</b>	<b>482</b>	<b>0</b>	<b>3</b>	<b>16</b>	<b>10</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>1059</b>	<b>1059</b>
14:00	0	10	65	1	0	76	0	29	6	19	0	54	0	2	85	45	0	132	0	1	3	2	0	6	0	268	268
14:15	0	12	60	0	0	72	0	42	2	10	0	54	0	3	124	49	0	176	0	0	3	3	1	6	1	308	309
14:30	0	11	83	1	0	95	0	39	3	14	0	56	0	1	137	61	0	199	0	0	0	2	0	2	0	352	352
14:45	0	13	80	1	0	94	0	34	3	14	0	51	0	3	132	47	0	182	0	0	6	1	0	7	0	334	334
<b>Total</b>	<b>0</b>	<b>46</b>	<b>288</b>	<b>3</b>	<b>0</b>	<b>337</b>	<b>0</b>	<b>144</b>	<b>14</b>	<b>57</b>	<b>0</b>	<b>215</b>	<b>0</b>	<b>9</b>	<b>478</b>	<b>202</b>	<b>0</b>	<b>689</b>	<b>0</b>	<b>1</b>	<b>12</b>	<b>8</b>	<b>1</b>	<b>21</b>	<b>1</b>	<b>1262</b>	<b>1263</b>
15:00	0	8	58	0	1	66	0	34	8	19	0	61	0	2	143	63	0	208	0	1	6	5	0	12	1	347	348
15:15	0	10	77	1	1	88	0	34	6	14	0	54	0	4	167	69	0	240	0	1	5	3	0	9	1	391	392
15:30	0	15	71	0	0	86	0	56	10	21	0	87	0	6	143	63	0	212	0	0	4	7	0	11	0	396	396
15:45	0	14	53	1	0	68	0	49	4	17	0	70	0	7	161	93	0	261	0	1	10	2	0	13	0	412	412
<b>Total</b>	<b>0</b>	<b>47</b>	<b>259</b>	<b>2</b>	<b>2</b>	<b>308</b>	<b>0</b>	<b>173</b>	<b>28</b>	<b>71</b>	<b>0</b>	<b>272</b>	<b>0</b>	<b>19</b>	<b>614</b>	<b>288</b>	<b>0</b>	<b>921</b>	<b>0</b>	<b>3</b>	<b>25</b>	<b>17</b>	<b>0</b>	<b>45</b>	<b>2</b>	<b>1546</b>	<b>1548</b>
16:00	0	11	72	2	0	85	0	58	9	23	0	90	0	4	168	78	0	250	0	0	7	3	0	10	0	435	435
16:15	0	19	96	1	0	116	0	56	5	18	0	79	0	4	163	73	0	240	0	1	6	3	0	10	0	445	445
16:30	0	18	97	0	0	115	0	64	4	18	0	86	0	4	175	88	0	267	0	1	2	3	0	6	0	474	474
16:45	0	10	82	1	1	93	0	61	9	25	0	95	0	5	164	90	0	259	0	0	5	4	0	9	1	456	457
<b>Total</b>	<b>0</b>	<b>58</b>	<b>347</b>	<b>4</b>	<b>1</b>	<b>409</b>	<b>0</b>	<b>239</b>	<b>27</b>	<b>84</b>	<b>0</b>	<b>350</b>	<b>0</b>	<b>17</b>	<b>670</b>	<b>329</b>	<b>0</b>	<b>1016</b>	<b>0</b>	<b>2</b>	<b>20</b>	<b>13</b>	<b>0</b>	<b>35</b>	<b>1</b>	<b>1810</b>	<b>1811</b>
17:00	0	13	82	2	0	97	0	55	7	15	0	77	0	5	165	76	0	246	0	0	5	7	0	12	0	432	432
17:15	0	11	83	1	0	95	0	46	10	29	0	85	0	5	191	63	0	259	0	0	6	2	0	8	0	447	447
17:30	0	20	77	1	0	98	0	64	8	17	0	89	0	6	141	85	0	232	0	2	1	3	0	6	0	425	425
17:45	0	14	92	2	0	108	0	49	6	13	0	68	0	4	165	65	0	234	0	1	2	5	0	8	0	418	418
<b>Total</b>	<b>0</b>	<b>58</b>	<b>334</b>	<b>6</b>	<b>0</b>	<b>398</b>	<b>0</b>	<b>214</b>	<b>31</b>	<b>74</b>	<b>0</b>	<b>319</b>	<b>0</b>	<b>20</b>	<b>662</b>	<b>289</b>	<b>0</b>	<b>971</b>	<b>0</b>	<b>3</b>	<b>14</b>	<b>17</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>1722</b>	<b>1722</b>
18:00	0	14	63	0	0	77	0	35	3	16	0	54	0	7	129	33	0	169	0	0	4	2	0	6	0	306	306
18:15	0	5	61	0	0	66	0	51	7	15	0	73	0	4	145	52	0	201	0	0	9	3	0	12	0	352	352



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 4

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 20 Westbound						CSAH 9 Northbound						161st Ave. Eastbound						Exclu. Total	Inclu. Total	Int. Total	
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total				
18:30	0	12	69	0	0	81	0	46	3	15	0	64	0	1	103	49	0	153	0	0	2	3	0	5	0	303	303	
18:45	0	6	52	0	0	58	0	36	4	23	0	63	0	2	120	43	0	165	0	0	3	4	0	7	0	293	293	
<b>Total</b>	<b>0</b>	<b>37</b>	<b>245</b>	<b>0</b>	<b>0</b>	<b>282</b>	<b>0</b>	<b>168</b>	<b>17</b>	<b>69</b>	<b>0</b>	<b>254</b>	<b>0</b>	<b>14</b>	<b>497</b>	<b>177</b>	<b>0</b>	<b>688</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>12</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>1254</b>	<b>1254</b>	
19:00	0	7	43	2	0	52	0	24	4	22	0	50	0	4	99	41	0	144	0	0	3	1	0	4	0	250	250	
19:15	0	7	61	1	0	69	0	25	8	9	0	42	0	3	108	61	0	172	0	0	6	0	0	6	0	289	289	
19:30	0	3	50	1	0	54	0	27	2	5	0	34	0	0	85	33	0	118	0	4	3	3	0	10	0	216	216	
19:45	0	5	28	3	0	36	0	15	2	13	0	30	0	1	98	29	0	128	0	1	2	1	0	4	0	198	198	
<b>Total</b>	<b>0</b>	<b>22</b>	<b>182</b>	<b>7</b>	<b>0</b>	<b>211</b>	<b>0</b>	<b>91</b>	<b>16</b>	<b>49</b>	<b>0</b>	<b>156</b>	<b>0</b>	<b>8</b>	<b>390</b>	<b>164</b>	<b>0</b>	<b>562</b>	<b>0</b>	<b>5</b>	<b>14</b>	<b>5</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>953</b>	<b>953</b>	
20:00	0	3	37	0	0	40	0	13	5	14	0	32	1	2	84	29	0	116	0	0	0	0	0	0	0	0	188	188
20:15	0	7	34	1	0	42	0	16	3	14	0	33	0	3	82	36	0	121	0	1	2	1	0	4	0	200	200	
20:30	0	5	25	1	0	31	0	13	3	8	0	24	0	0	49	17	0	66	0	0	1	0	0	1	0	122	122	
20:45	0	3	25	0	0	28	0	22	3	6	0	31	0	2	56	20	0	78	0	1	3	0	0	4	0	141	141	
<b>Total</b>	<b>0</b>	<b>18</b>	<b>121</b>	<b>2</b>	<b>0</b>	<b>141</b>	<b>0</b>	<b>64</b>	<b>14</b>	<b>42</b>	<b>0</b>	<b>120</b>	<b>1</b>	<b>7</b>	<b>271</b>	<b>102</b>	<b>0</b>	<b>381</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>651</b>	<b>651</b>	
21:00	0	1	32	0	0	33	0	24	4	6	0	34	0	0	52	23	0	75	0	0	0	0	0	0	0	0	142	142
21:15	0	2	25	0	0	27	0	12	2	7	0	21	0	3	58	20	0	81	0	0	2	0	0	2	0	131	131	
21:30	0	4	36	0	0	40	0	8	1	1	0	10	0	1	30	15	0	46	0	0	1	0	0	1	0	97	97	
21:45	0	3	23	0	0	26	0	9	1	3	0	13	0	1	38	13	0	52	0	0	0	0	0	0	0	91	91	
<b>Total</b>	<b>0</b>	<b>10</b>	<b>116</b>	<b>0</b>	<b>0</b>	<b>126</b>	<b>0</b>	<b>53</b>	<b>8</b>	<b>17</b>	<b>0</b>	<b>78</b>	<b>0</b>	<b>5</b>	<b>178</b>	<b>71</b>	<b>0</b>	<b>254</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>461</b>	<b>461</b>	
22:00	0	1	12	0	0	13	0	6	1	4	0	11	0	2	39	12	0	53	0	1	1	0	0	2	0	79	79	
22:15	0	4	19	0	0	23	0	11	2	2	0	15	0	1	26	10	0	37	0	0	1	0	0	1	0	76	76	
22:30	0	3	13	0	0	16	0	7	1	0	0	8	0	0	39	15	0	54	0	0	0	0	0	0	0	78	78	
22:45	0	2	7	0	0	9	0	2	0	1	0	3	0	1	27	7	0	35	0	0	0	1	0	1	0	48	48	
<b>Total</b>	<b>0</b>	<b>10</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>0</b>	<b>26</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>4</b>	<b>131</b>	<b>44</b>	<b>0</b>	<b>179</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>281</b>	<b>281</b>	
23:00	0	0	6	0	0	6	0	3	0	1	0	4	0	1	28	7	0	36	0	0	0	0	0	0	0	46	46	
23:15	0	2	5	0	0	7	0	2	0	5	0	7	0	1	20	7	0	28	0	0	0	0	0	0	0	42	42	
23:30	0	1	6	0	0	7	0	4	0	0	0	4	0	2	14	6	0	22	0	0	0	1	0	1	0	34	34	
23:45	0	0	1	0	0	1	0	1	0	0	0	1	0	0	12	5	0	17	0	0	0	0	0	0	0	19	19	
<b>Total</b>	<b>0</b>	<b>3</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>4</b>	<b>74</b>	<b>25</b>	<b>0</b>	<b>103</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>141</b>	<b>141</b>	
<b>Grand Total</b>	<b>0</b>	<b>655</b>	<b>5560</b>	<b>44</b>	<b>8</b>	<b>6259</b>	<b>0</b>	<b>2810</b>	<b>253</b>	<b>808</b>	<b>0</b>	<b>3871</b>	<b>1</b>	<b>165</b>	<b>5761</b>	<b>2795</b>	<b>1</b>	<b>8722</b>	<b>0</b>	<b>37</b>	<b>283</b>	<b>188</b>	<b>2</b>	<b>508</b>	<b>11</b>	<b>19360</b>	<b>19371</b>	
Apprch %	0	10.5	88.8	0.7			0	72.6	6.5	20.9			0	1.9	66.1	32			0	7.3	55.7	37						
Total %	0	3.4	28.7	0.2		32.3	0	14.5	1.3	4.2		20	0	0.9	29.8	14.4		45.1	0	0.2	1.5	1		2.6	0.1	99.9		
Cars +	0	611	5390	41		6050	0	2723	244	755		3722	1	162	5576	2691		8431	0	35	270	185		492	0	0	18695	
% Cars +	0	93.3	96.9	93.2	100	96.5	0	96.9	96.4	93.4	0	96.2	100	98.2	96.8	96.3	100	96.7	0	94.6	95.4	98.4	100	96.5	0	0	96.5	
Trucks	0	44	170	3		217	0	87	9	53		149	0	3	185	104		292	0	2	13	3		18	0	0	676	
% Trucks	0	6.7	3.1	6.8	0	3.5	0	3.1	3.6	6.6	0	3.8	0	1.8	3.2	3.7	0	3.3	0	5.4	4.6	1.6	0	3.5	0	0	3.5	

# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Start Time	CSAH 9 Southbound					CSAH 20 Westbound					CSAH 9 Northbound					161st Ave. Eastbound					Int. Total
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	
Peak Hour Analysis From 00:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	0	21	147	0	168	0	77	5	13	95	0	1	38	36	75	0	0	9	10	19	357
07:15	0	16	191	1	208	0	83	3	18	104	0	0	45	62	107	0	0	6	8	14	433
07:30	0	16	142	0	158	0	93	6	12	111	0	0	47	64	111	0	2	11	3	16	396
07:45	0	15	129	1	145	0	88	2	11	101	0	3	42	63	108	0	0	9	4	13	367
Total Volume	0	68	609	2	679	0	341	16	54	411	0	4	172	225	401	0	2	35	25	62	1553
% App. Total	0	10	89.7	0.3		0	83	3.9	13.1		0	1	42.9	56.1		0	3.2	56.5	40.3		
PHF	.000	.810	.797	.500	.816	.000	.917	.667	.750	.926	.000	.333	.915	.879	.903	.000	.250	.795	.625	.816	.897

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:00																					
13:00	0	9	61	2	72	0	24	2	8	34	0	2	82	35	119	0	0	1	2	3	228
13:15	0	13	80	0	93	0	31	3	7	41	0	1	70	26	97	0	2	3	3	8	239
13:30	0	6	61	1	68	0	45	2	21	68	0	2	74	50	126	0	0	8	5	13	275
13:45	0	11	79	2	92	0	41	10	29	80	0	6	99	35	140	0	1	4	0	5	317
Total Volume	0	39	281	5	325	0	141	17	65	223	0	11	325	146	482	0	3	16	10	29	1059
% App. Total	0	12	86.5	1.5		0	63.2	7.6	29.1		0	2.3	67.4	30.3		0	10.3	55.2	34.5		
PHF	.000	.750	.878	.625	.874	.000	.783	.425	.560	.697	.000	.458	.821	.730	.861	.000	.375	.500	.500	.558	.835

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	11	72	2	85	0	58	9	23	90	0	4	168	78	250	0	0	7	3	10	435
16:15	0	19	96	1	116	0	56	5	18	79	0	4	163	73	240	0	1	6	3	10	445
16:30	0	18	97	0	115	0	64	4	18	86	0	4	175	88	267	0	1	2	3	6	474
16:45	0	10	82	1	93	0	61	9	25	95	0	5	164	90	259	0	0	5	4	9	456
Total Volume	0	58	347	4	409	0	239	27	84	350	0	17	670	329	1016	0	2	20	13	35	1810
% App. Total	0	14.2	84.8	1		0	68.3	7.7	24		0	1.7	65.9	32.4		0	5.7	57.1	37.1		
PHF	.000	.763	.894	.500	.881	.000	.934	.750	.840	.921	.000	.850	.957	.914	.951	.000	.500	.714	.813	.875	.955



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 1

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

Groups Printed- Trucks

Start Time	CSAH 9 Southbound					CSAH 20 Westbound					CSAH 9 Northbound					161st Ave. Eastbound					Int. Total	
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total		
00:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
01:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
02:45	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	1	0	1	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
04:30	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
04:45	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	1	4	0	5	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	7
05:00	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	4	0	4	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	6
05:45	0	0	3	0	3	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	6
Total	0	0	10	0	10	0	2	0	0	2	0	0	2	2	4	0	0	0	0	0	0	16
06:00	0	1	5	0	6	0	1	0	1	2	0	0	0	2	2	0	0	0	0	0	0	10
06:15	0	0	12	0	12	0	5	1	1	7	0	1	0	0	1	0	0	0	0	0	0	20
06:30	0	0	11	0	11	0	1	0	3	4	0	0	2	2	4	0	1	0	0	1	0	20
06:45	0	3	5	0	8	0	2	0	1	3	0	0	3	2	5	0	0	0	0	0	0	16
Total	0	4	33	0	37	0	9	1	6	16	0	1	5	6	12	0	1	0	0	1	0	66
07:00	0	2	2	0	4	0	1	1	0	2	0	0	2	1	3	0	0	0	0	0	0	9
07:15	0	0	5	0	5	0	2	0	0	2	0	0	4	0	4	0	0	0	0	0	0	11
07:30	0	0	1	0	1	0	4	1	1	6	0	0	3	9	12	0	0	0	0	0	0	19
07:45	0	2	5	0	7	0	2	0	1	3	0	1	6	0	7	0	0	0	0	0	0	17
Total	0	4	13	0	17	0	9	2	2	13	0	1	15	10	26	0	0	0	0	0	0	56
08:00	0	3	2	0	5	0	2	0	0	2	0	0	1	2	3	0	0	1	0	1	1	11
08:15	0	0	4	0	4	0	0	1	1	2	0	0	0	1	1	0	0	1	1	1	2	9
08:30	0	0	1	0	1	0	3	0	2	5	0	0	2	1	3	0	0	0	1	1	1	10
08:45	0	1	8	0	9	0	2	0	3	5	0	0	1	1	2	0	0	0	0	0	0	16
Total	0	4	15	0	19	0	7	1	6	14	0	0	4	5	9	0	0	2	2	4	0	46





# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 2

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

Groups Printed- Trucks

Start Time	CSAH 9 Southbound					CSAH 20 Westbound					CSAH 9 Northbound					161st Ave. Eastbound					Int. Total	
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total		
09:00	0	0	0	0	0	0	1	0	0	1	0	0	2	2	4	0	0	0	0	0	0	5
09:15	0	1	4	0	5	0	2	0	1	3	0	0	3	1	4	0	0	0	0	0	0	12
09:30	0	0	1	0	1	0	6	0	0	6	0	0	2	3	5	0	0	1	0	0	1	13
09:45	0	0	4	0	4	0	4	0	0	4	0	0	1	2	3	0	0	0	0	0	0	11
<b>Total</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>41</b>	
10:00	0	0	0	0	0	0	2	1	0	3	0	0	1	5	6	0	0	0	0	0	0	9
10:15	0	0	2	1	3	0	2	0	0	2	0	0	1	2	3	0	0	2	0	0	2	10
10:30	0	4	1	0	5	0	3	0	0	3	0	0	3	1	4	0	0	0	0	0	0	12
10:45	0	1	3	0	4	0	3	0	2	5	0	0	4	1	5	0	0	0	0	0	0	14
<b>Total</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>12</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>9</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>45</b>	
11:00	0	2	3	0	5	0	1	0	1	2	0	0	4	2	6	0	0	0	0	0	0	13
11:15	0	1	2	0	3	0	0	0	1	1	0	0	3	1	4	0	0	0	0	0	0	8
11:30	0	0	4	0	4	0	2	0	2	4	0	1	2	2	5	0	0	0	0	0	0	13
11:45	0	0	3	0	3	0	1	0	1	2	0	0	4	0	4	0	0	1	0	0	1	10
<b>Total</b>	<b>0</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>5</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>44</b>	
12:00	0	1	3	0	4	0	1	0	1	2	0	0	5	0	5	0	0	0	0	0	0	11
12:15	0	0	3	0	3	0	1	1	2	4	0	0	6	4	10	0	0	0	0	0	0	17
12:30	0	1	3	0	4	0	3	0	1	4	0	0	5	1	6	0	0	1	0	0	1	15
12:45	0	0	2	0	2	0	0	0	2	2	0	0	4	1	5	0	0	0	0	0	0	9
<b>Total</b>	<b>0</b>	<b>2</b>	<b>11</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>6</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>6</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>52</b>	
13:00	0	2	2	1	5	0	1	1	0	2	0	0	1	0	1	0	0	0	0	0	0	8
13:15	0	1	5	0	6	0	1	0	0	1	0	0	6	0	6	0	1	0	0	0	1	14
13:30	0	0	4	0	4	0	1	0	1	2	0	0	0	3	3	0	0	0	0	0	0	9
13:45	0	0	8	0	8	0	0	0	3	3	0	0	4	2	6	0	0	0	0	0	0	17
<b>Total</b>	<b>0</b>	<b>3</b>	<b>19</b>	<b>1</b>	<b>23</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>48</b>	
14:00	0	2	1	0	3	0	0	0	2	2	0	0	0	2	2	0	0	1	0	0	1	8
14:15	0	0	0	0	0	0	2	0	0	2	0	0	4	2	6	0	0	0	0	0	0	8
14:30	0	1	5	1	7	0	2	0	1	3	0	0	4	1	5	0	0	0	0	0	0	15
14:45	0	2	2	0	4	0	3	0	0	3	0	0	2	3	5	0	0	1	0	0	1	13
<b>Total</b>	<b>0</b>	<b>5</b>	<b>8</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>3</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>8</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>44</b>	
15:00	0	1	1	0	2	0	1	0	0	1	0	0	2	4	6	0	0	0	0	0	0	9
15:15	0	1	2	0	3	0	2	0	0	2	0	0	7	1	8	0	0	0	0	0	0	13
15:30	0	1	1	0	2	0	1	1	2	4	0	0	7	2	9	0	0	0	0	0	0	15
15:45	0	2	0	0	2	0	0	1	0	1	0	0	3	3	6	0	0	0	0	0	0	9
<b>Total</b>	<b>0</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>10</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	
16:00	0	0	3	0	3	0	2	0	1	3	0	0	5	2	7	0	0	2	0	0	2	15
16:15	0	1	1	0	2	0	1	0	1	2	0	0	4	1	5	0	0	0	0	0	0	9
16:30	0	0	3	0	3	0	1	0	1	2	0	0	7	4	11	0	0	1	0	0	1	17
16:45	0	2	2	0	4	0	0	0	0	0	0	0	3	1	4	0	0	0	1	0	1	9
<b>Total</b>	<b>0</b>	<b>3</b>	<b>9</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>8</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>50</b>	
17:00	0	0	1	0	1	0	2	0	0	2	0	0	7	1	8	0	0	1	0	0	1	12
17:15	0	0	0	0	0	0	1	0	2	3	0	0	3	2	5	0	0	0	0	0	0	8
17:30	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	0	0	5
17:45	0	0	2	0	2	0	1	0	2	3	0	0	5	1	6	0	0	0	0	0	0	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>7</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>36</b>	
18:00	0	1	2	0	3	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	6
18:15	0	0	1	0	1	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	8



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 2148  
 Site Code :  
 Start Date : 09/23/2021  
 Page No : 3

Weather: Sunny and Cool  
 CountCAM 2  
 Study Conducted By: Andrea

Groups Printed- Trucks

Start Time	CSAH 9 Southbound					CSAH 20 Westbound					CSAH 9 Northbound					161st Ave. Eastbound					Int. Total
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	
18:30	0	0	0	0	0	0	0	0	2	2	0	0	1	2	3	0	0	0	0	0	5
18:45	0	0	1	0	1	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	4
<b>Total</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>5</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>
19:00	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
19:15	0	0	1	0	1	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	7
19:30	0	0	2	0	2	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	6
19:45	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>
20:00	0	0	0	0	0	0	0	0	2	2	0	0	3	0	3	0	0	0	0	0	5
20:15	0	1	0	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3
20:30	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3
20:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>
21:00	0	0	1	0	1	0	2	0	1	3	0	0	1	1	2	0	0	0	0	0	6
21:15	0	0	1	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3
21:30	0	0	1	0	1	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	3
21:45	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
22:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>44</b>	<b>170</b>	<b>3</b>	<b>217</b>	<b>0</b>	<b>87</b>	<b>9</b>	<b>53</b>	<b>149</b>	<b>0</b>	<b>3</b>	<b>185</b>	<b>104</b>	<b>292</b>	<b>0</b>	<b>2</b>	<b>13</b>	<b>3</b>	<b>18</b>	<b>676</b>
<b>Apprch %</b>	<b>0</b>	<b>20.3</b>	<b>78.3</b>	<b>1.4</b>		<b>0</b>	<b>58.4</b>	<b>6</b>	<b>35.6</b>		<b>0</b>	<b>1</b>	<b>63.4</b>	<b>35.6</b>		<b>0</b>	<b>11.1</b>	<b>72.2</b>	<b>16.7</b>		
<b>Total %</b>	<b>0</b>	<b>6.5</b>	<b>25.1</b>	<b>0.4</b>	<b>32.1</b>	<b>0</b>	<b>12.9</b>	<b>1.3</b>	<b>7.8</b>	<b>22</b>	<b>0</b>	<b>0.4</b>	<b>27.4</b>	<b>15.4</b>	<b>43.2</b>	<b>0</b>	<b>0.3</b>	<b>1.9</b>	<b>0.4</b>	<b>2.7</b>	