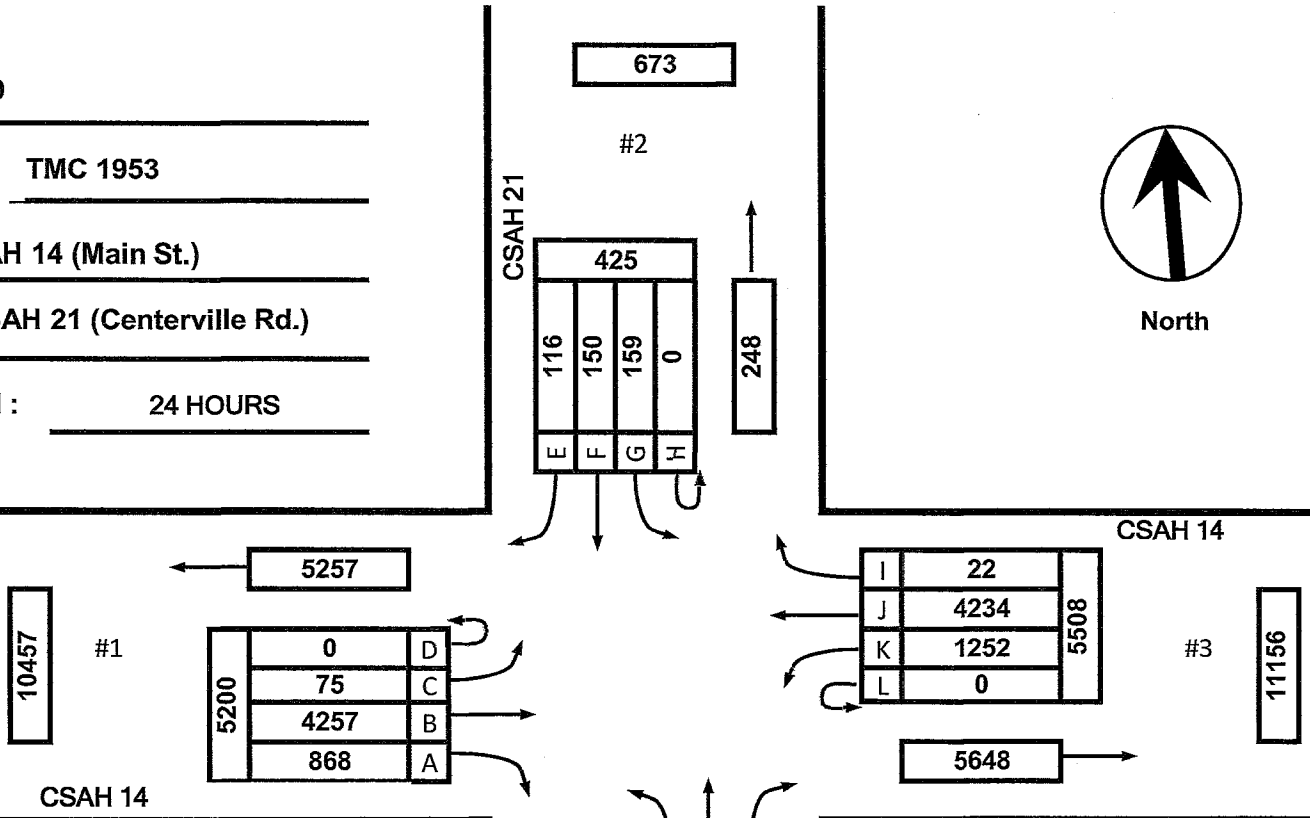
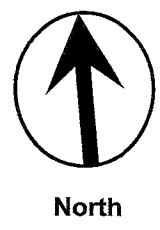


Date : 10/08/19

Count Number : TMC 1953

Location : CSAH 14 (Main St.)  
@ CSAH 21 (Centerville Rd.)

Collection Period : 24 HOURS



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

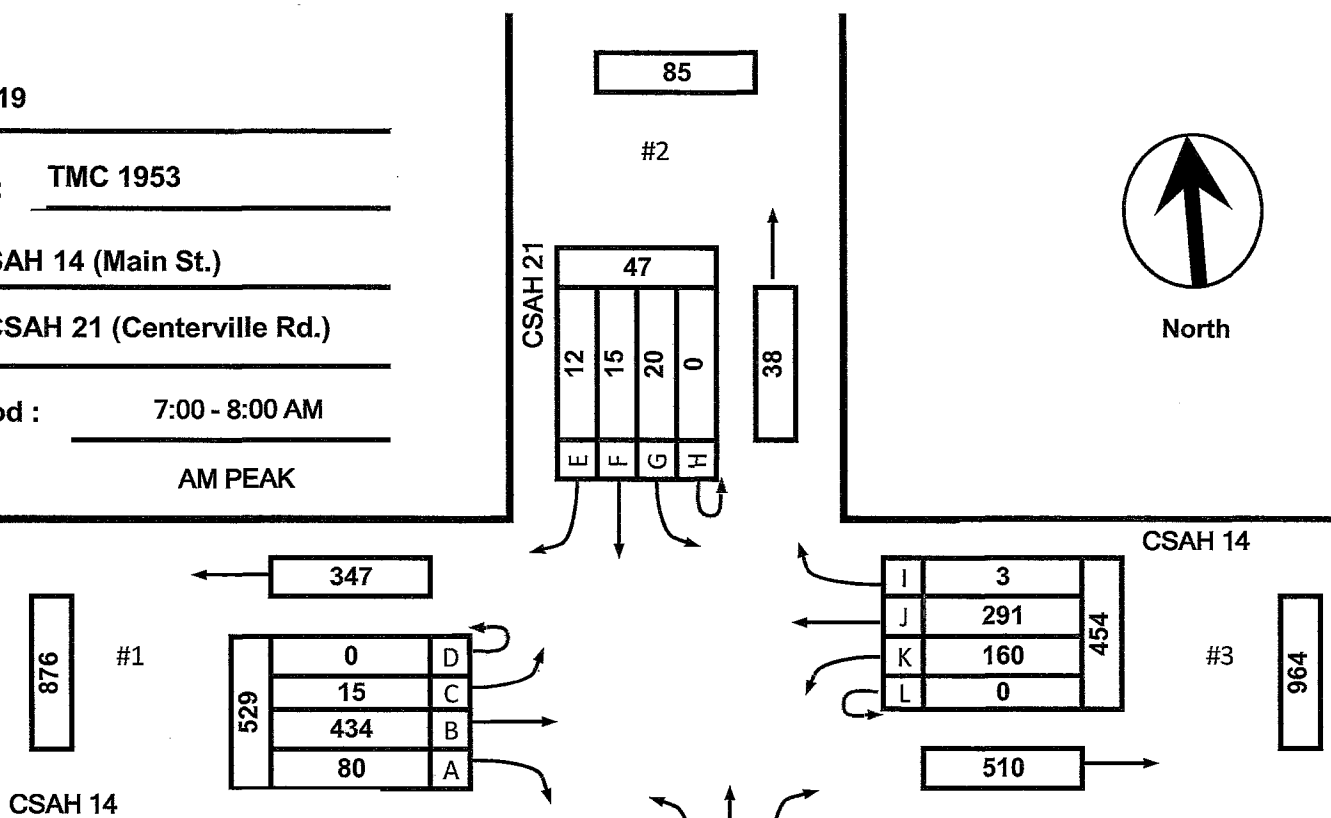
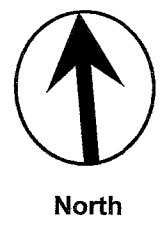
Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

Date : 10/08/19

Count Number : TMC 1953

Location : CSAH 14 (Main St.)  
@ CSAH 21 (Centerville Rd.)

Collection Period : 7:00 - 8:00 AM  
**AM PEAK**



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

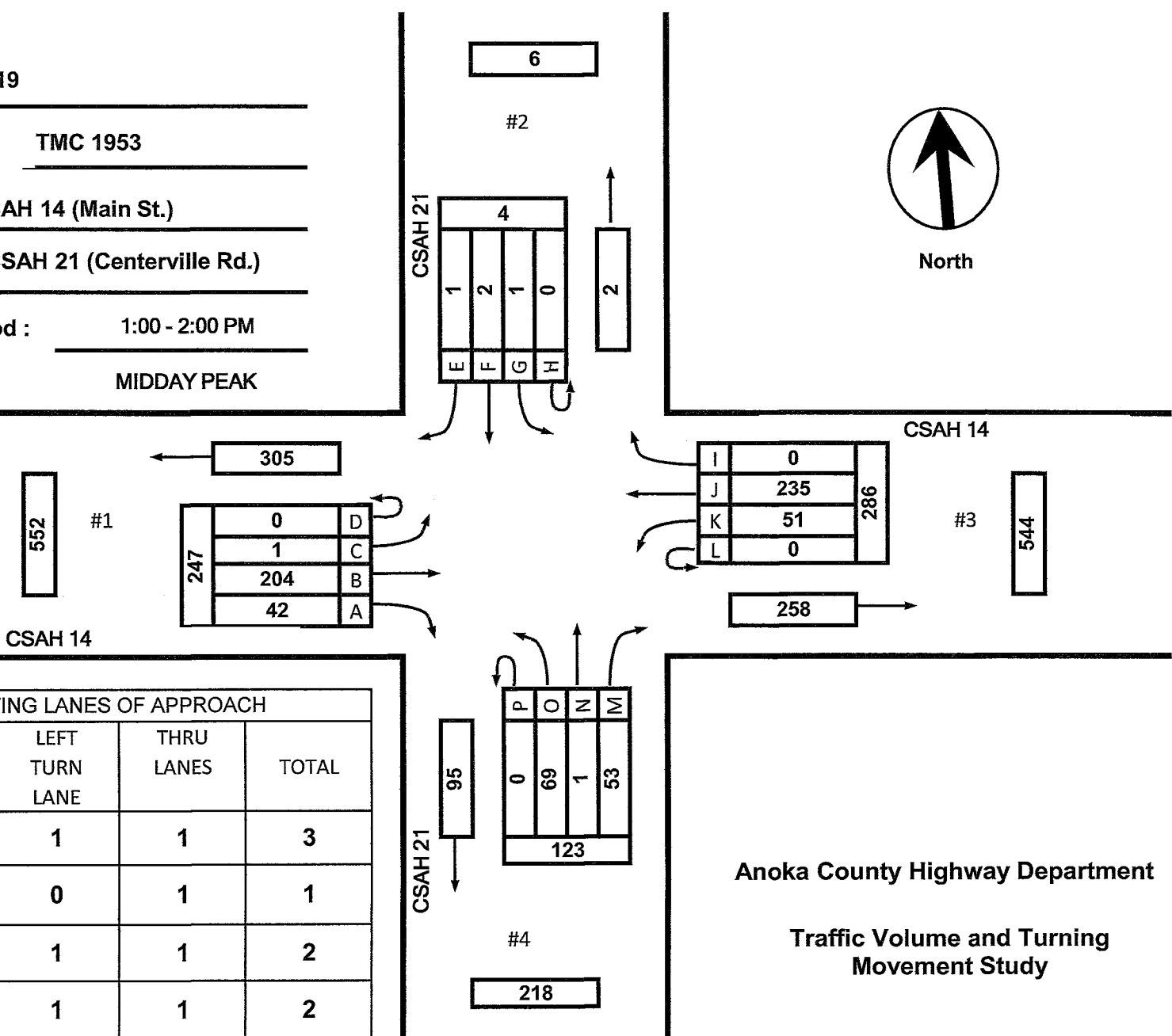
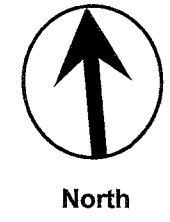
Anoka County Highway Department  
 Traffic Volume and Turning Movement Study

Date : 10/08/19

Count Number : TMC 1953

Location : CSAH 14 (Main St.)  
@ CSAH 21 (Centerville Rd.)

Collection Period : 1:00 - 2:00 PM  
**MIDDAY PEAK**



6

#2

4			
1	2	1	0
E	F	G	H

2

552

#1

0		D
1		C
204		B
42		A

305

CSAH 14

I	0
J	235
K	51
L	0

#3

544

258

CSAH 14

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

95

CSAH 21

P	O	N	M
0	69	1	53
123			

#4

218

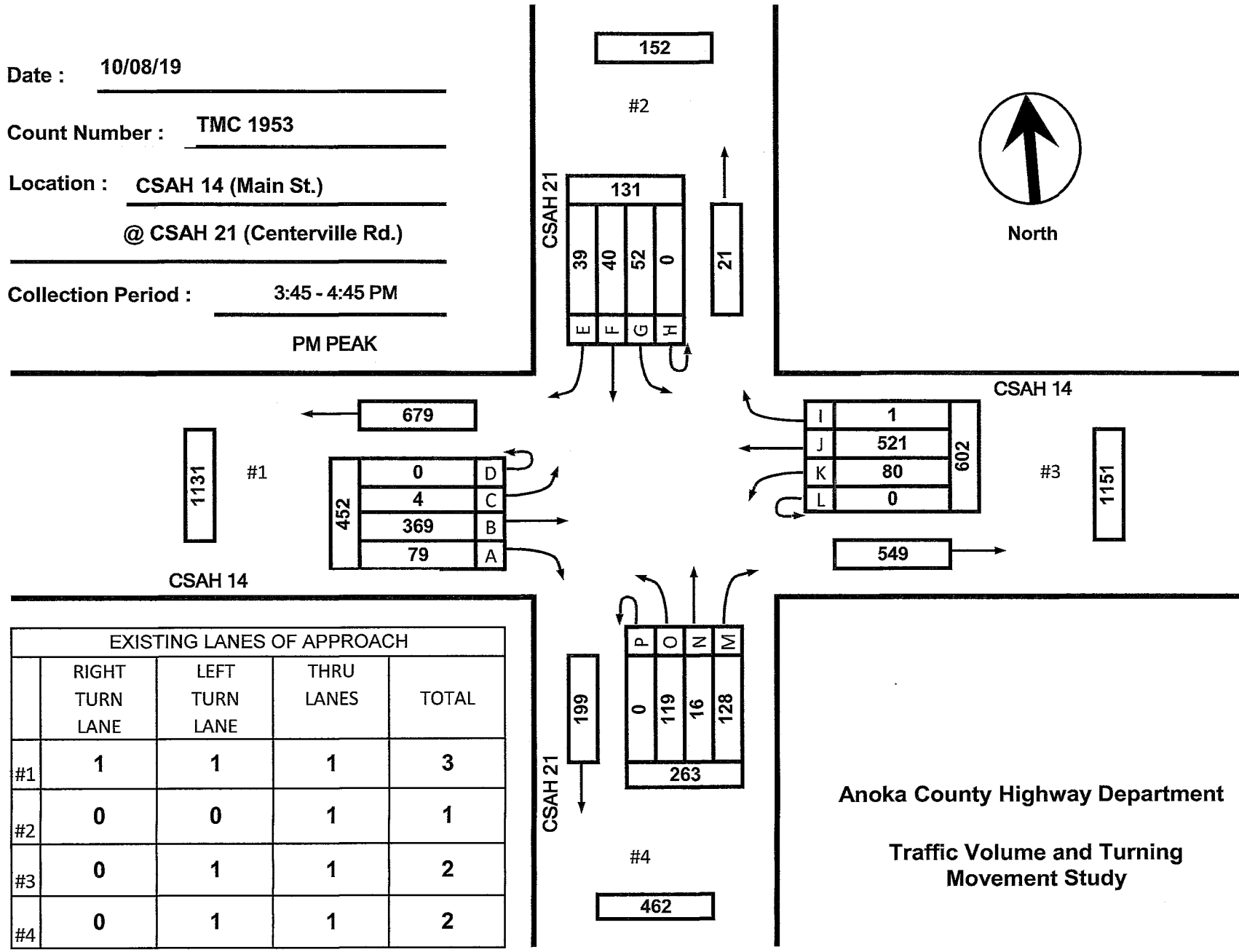
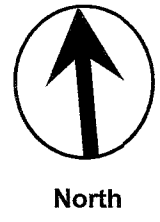
Anoka County Highway Department  
**Traffic Volume and Turning Movement Study**

Date : 10/08/19

Count Number : TMC 1953

Location : CSAH 14 (Main St.)  
@ CSAH 21 (Centerville Rd.)

Collection Period : 3:45 - 4:45 PM  
**PM PEAK**



#1

452	0	D
	4	C
	369	B
	79	A

#2

CSAH 21	39	E
	40	F
	52	G
	0	H
131		

#3

602	1	I
	521	J
	80	K
	0	L

#4

CSAH 21	0	P
	119	O
	16	N
	128	M
263		

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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 1

Groups Printed- Cars + - Trucks

Start Time	Centerville Rd. Southbound						CSAH 14 Westbound						CSAH 21 Northbound						CSAH 14 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
00:00	0	0	0	0	0	0	0	4	3	0	0	7	2	0	0	0	0	2	1	6	0	0	0	7	0	16	16
00:15	0	0	0	0	0	0	0	3	1	0	0	4	1	0	1	0	0	2	1	3	0	0	0	4	0	10	10
00:30	0	0	0	0	0	0	0	2	2	0	0	4	2	0	1	0	0	3	0	4	0	0	0	4	0	11	11
00:45	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	0	5	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>2</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>42</b>	<b>42</b>
01:00	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	0	4	4
01:15	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	1	0	3	3
01:30	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	2	0	0	0	2	0	5	5
01:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	1	0	0	0	2	0	4	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>16</b>
02:00	0	0	0	0	0	0	0	2	1	0	0	3	1	0	1	0	0	2	1	0	0	0	0	1	0	6	6
02:15	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
02:30	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	2	0	5	5
02:45	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>1</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>4</b>	<b>0</b>	<b>16</b>	<b>16</b>
03:00	0	0	0	0	0	0	0	1	1	0	0	2	2	0	1	0	0	3	0	4	0	0	0	4	0	9	9
03:15	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
03:30	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	2	0	4	0	0	0	4	0	7	7
03:45	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	3	0	0	0	4	0	5	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>23</b>	<b>23</b>
04:00	0	0	0	0	0	0	0	3	1	0	0	4	2	1	1	0	0	4	0	3	0	0	0	3	0	11	11
04:15	0	0	0	0	0	0	0	5	1	0	0	6	0	0	1	0	0	1	2	4	0	0	0	6	0	13	13
04:30	0	0	0	0	0	0	0	8	2	0	0	10	0	0	0	0	0	0	3	11	0	0	0	14	0	24	24
04:45	0	0	0	0	0	0	0	10	2	0	0	12	2	0	1	0	0	3	3	12	0	0	0	15	0	30	30
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>78</b>	<b>78</b>
05:00	0	0	0	0	0	0	0	8	2	0	0	10	3	0	5	0	0	8	4	12	0	0	0	16	0	34	34
05:15	0	0	1	0	0	1	0	13	3	0	0	16	4	1	3	0	1	8	3	17	0	0	0	20	1	45	46
05:30	0	0	0	0	0	0	0	19	10	0	0	29	3	0	5	0	0	8	9	32	0	0	0	41	0	78	78
05:45	0	0	0	0	0	0	0	19	11	0	0	30	7	1	5	0	0	13	18	48	1	0	1	67	1	110	111
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>59</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>17</b>	<b>2</b>	<b>18</b>	<b>0</b>	<b>1</b>	<b>37</b>	<b>34</b>	<b>109</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>144</b>	<b>2</b>	<b>267</b>	<b>269</b>



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 2

Groups Printed- Cars + - Trucks

Start Time	Centerville Rd. Southbound						CSAH 14 Westbound						CSAH 21 Northbound						CSAH 14 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total			
06:00	0	1	0	0	0	1	1	29	11	0	0	41	5	0	3	0	1	8	8	72	0	0	0	80	1	130	131
06:15	0	1	2	0	0	3	0	35	20	0	0	55	8	1	5	0	0	14	13	77	1	0	0	91	0	163	163
06:30	2	1	0	0	0	3	0	49	25	0	0	74	10	3	4	0	0	17	28	84	1	0	0	113	0	207	207
06:45	3	1	5	0	0	9	0	55	23	0	0	78	21	4	9	0	1	34	15	108	1	0	0	124	1	245	246
<b>Total</b>	<b>5</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>168</b>	<b>79</b>	<b>0</b>	<b>0</b>	<b>248</b>	<b>44</b>	<b>8</b>	<b>21</b>	<b>0</b>	<b>2</b>	<b>73</b>	<b>64</b>	<b>341</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>408</b>	<b>2</b>	<b>745</b>	<b>747</b>
07:00	5	4	4	0	0	13	0	59	33	0	0	92	8	7	7	0	0	22	16	102	4	0	0	122	0	249	249
07:15	1	1	4	0	0	6	0	64	47	0	0	111	16	3	6	0	0	25	17	112	2	0	0	131	0	273	273
07:30	4	4	5	0	0	13	2	86	47	0	0	135	16	5	15	0	0	36	23	100	3	0	0	126	0	310	310
07:45	2	6	7	0	0	15	1	82	33	0	0	116	16	5	16	0	0	37	24	120	6	0	0	150	0	318	318
<b>Total</b>	<b>12</b>	<b>15</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>3</b>	<b>291</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>454</b>	<b>56</b>	<b>20</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>80</b>	<b>434</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>529</b>	<b>0</b>	<b>1150</b>	<b>1150</b>
08:00	0	1	3	0	0	4	0	52	23	0	0	75	20	7	13	0	0	40	12	98	1	0	0	111	0	230	230
08:15	2	1	1	0	0	4	0	42	19	0	0	61	12	1	9	0	0	22	7	98	1	0	1	106	1	193	194
08:30	0	0	1	0	0	1	0	42	17	0	0	59	20	1	6	0	0	27	13	84	2	0	0	99	0	186	186
08:45	0	2	3	0	1	5	1	56	21	0	0	78	17	3	12	0	0	32	20	55	8	0	1	83	2	198	200
<b>Total</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>14</b>	<b>1</b>	<b>192</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>273</b>	<b>69</b>	<b>12</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>121</b>	<b>52</b>	<b>335</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>399</b>	<b>3</b>	<b>807</b>	<b>810</b>
09:00	10	19	11	0	0	40	4	51	26	0	0	81	17	11	12	0	0	40	6	60	10	0	0	76	0	237	237
09:15	4	5	3	0	0	12	0	51	15	0	0	66	26	4	15	0	0	45	14	58	2	0	0	74	0	197	197
09:30	2	5	1	0	0	8	1	45	17	0	0	63	10	0	8	0	0	18	8	67	0	0	0	75	0	164	164
09:45	1	2	2	0	0	5	0	54	10	0	0	64	12	0	7	0	0	19	8	69	0	0	0	77	0	165	165
<b>Total</b>	<b>17</b>	<b>31</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>5</b>	<b>201</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>274</b>	<b>65</b>	<b>15</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>122</b>	<b>36</b>	<b>254</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>302</b>	<b>0</b>	<b>763</b>	<b>763</b>
10:00	0	0	0	0	0	0	0	44	4	0	0	48	9	0	14	0	0	23	7	43	0	0	0	50	0	121	121
10:15	0	1	0	0	0	1	0	44	11	0	0	55	9	0	8	0	0	17	12	62	1	0	0	75	0	148	148
10:30	1	2	0	0	0	3	0	47	14	0	0	61	11	1	9	0	0	21	7	48	0	0	0	55	0	140	140
10:45	2	0	0	0	0	2	1	44	8	0	0	53	9	1	5	0	0	15	14	52	0	0	0	66	0	136	136
<b>Total</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>179</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>38</b>	<b>2</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>76</b>	<b>40</b>	<b>205</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>246</b>	<b>0</b>	<b>545</b>	<b>545</b>
11:00	0	0	0	0	0	0	0	67	14	0	0	81	16	0	9	0	1	25	10	39	0	0	0	49	1	155	156
11:15	0	2	1	0	0	3	0	44	16	0	0	60	22	0	15	0	0	37	11	45	0	0	0	56	0	156	156
11:30	1	0	0	0	1	1	0	55	16	0	0	71	17	1	9	0	1	27	14	47	0	0	0	61	2	160	162
11:45	0	0	2	0	0	2	0	61	18	0	0	79	19	0	12	0	0	31	9	43	1	0	0	53	0	165	165
<b>Total</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>227</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>291</b>	<b>74</b>	<b>1</b>	<b>45</b>	<b>0</b>	<b>2</b>	<b>120</b>	<b>44</b>	<b>174</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>219</b>	<b>3</b>	<b>636</b>	<b>639</b>
12:00	0	0	1	0	0	1	0	48	13	0	0	61	18	0	8	0	0	26	11	47	1	0	0	59	0	147	147
12:15	0	0	0	0	0	0	0	39	17	0	0	56	17	1	18	0	0	36	16	49	0	0	0	65	0	157	157
12:30	1	0	0	0	0	1	1	66	14	0	0	81	10	0	6	0	3	16	10	54	0	0	0	64	3	162	165



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 3

Groups Printed- Cars + - Trucks

Start Time	Centerville Rd. Southbound						CSAH 14 Westbound						CSAH 21 Northbound						CSAH 14 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
12:45	0	1	0	0	0	1	0	68	16	0	0	84	19	1	10	0	0	30	9	45	0	0	0	54	0	169	169
Total	1	1	1	0	0	3	1	221	60	0	0	282	64	2	42	0	3	108	46	195	1	0	0	242	3	635	638
13:00	0	1	0	0	0	1	0	67	9	0	0	76	10	0	15	0	1	25	10	52	0	0	0	62	1	164	165
13:15	0	0	0	0	0	0	0	58	8	0	0	66	8	0	16	0	0	24	14	55	0	0	0	69	0	159	159
13:30	1	1	1	0	0	3	0	49	14	0	0	63	12	0	16	0	0	28	3	51	1	0	0	55	0	149	149
13:45	0	0	0	0	0	0	0	61	20	0	0	81	23	1	22	0	0	46	15	46	0	0	0	61	0	188	188
Total	1	2	1	0	0	4	0	235	51	0	0	286	53	1	69	0	1	123	42	204	1	0	0	247	1	660	661
14:00	0	2	0	0	0	2	0	71	14	0	0	85	16	0	17	0	0	33	12	48	0	0	0	60	0	180	180
14:15	0	0	0	0	0	0	0	63	14	0	0	77	15	1	18	0	0	34	12	58	0	0	0	70	0	181	181
14:30	0	2	0	0	0	2	0	79	17	0	0	96	11	2	21	0	1	34	7	55	0	0	0	62	1	194	195
14:45	0	1	0	0	0	1	0	76	11	0	0	87	27	1	19	0	0	47	14	57	1	0	0	72	0	207	207
Total	0	5	0	0	0	5	0	289	56	0	0	345	69	4	75	0	1	148	45	218	1	0	0	264	1	762	763
15:00	2	0	1	0	0	3	0	114	18	0	0	132	31	4	30	0	0	65	11	77	1	0	0	89	0	289	289
15:15	0	1	2	0	0	3	0	104	25	0	0	129	29	5	26	0	2	60	20	84	3	0	0	107	2	299	301
15:30	1	2	3	0	0	6	4	133	20	0	1	157	26	20	27	0	0	73	14	78	1	0	1	93	2	329	331
15:45	19	24	29	0	0	72	1	118	25	0	0	144	30	5	32	0	0	67	21	97	1	0	2	119	2	402	404
Total	22	27	35	0	0	84	5	469	88	0	1	562	116	34	115	0	2	265	66	336	6	0	3	408	6	1319	1325
16:00	7	6	14	0	0	27	0	135	17	0	0	152	33	2	31	0	1	66	17	81	1	0	1	99	2	344	346
16:15	9	4	4	0	0	17	0	141	18	0	0	159	34	7	22	0	2	63	19	102	0	0	1	121	3	360	363
16:30	4	6	5	0	0	15	0	127	20	0	0	147	31	2	34	0	2	67	22	89	2	0	0	113	2	342	344
16:45	0	5	7	0	0	12	0	128	28	0	0	156	31	3	16	0	0	50	15	112	1	0	0	128	0	346	346
Total	20	21	30	0	0	71	0	531	83	0	0	614	129	14	103	0	5	246	73	384	4	0	2	461	7	1392	1399
17:00	2	4	7	0	0	13	0	118	26	0	1	144	39	4	28	0	1	71	22	82	1	0	0	105	2	333	335
17:15	7	9	4	0	0	20	0	112	29	0	1	141	48	10	28	0	1	86	27	107	5	0	3	139	5	386	391
17:30	1	3	12	0	2	16	1	102	25	0	1	128	30	7	23	0	2	60	14	77	3	0	2	94	7	298	305
17:45	2	3	2	0	1	7	1	90	39	0	0	130	42	1	25	0	5	68	21	73	1	0	1	95	7	300	307
Total	12	19	25	0	3	56	2	422	119	0	3	543	159	22	104	0	9	285	84	339	10	0	6	433	21	1317	1338
18:00	1	2	0	0	0	3	0	88	20	0	0	108	33	3	22	0	0	58	19	62	1	0	0	82	0	251	251
18:15	3	3	4	0	0	10	1	69	31	0	0	101	26	0	8	0	5	34	18	58	2	0	0	78	5	223	228
18:30	4	3	1	0	3	8	0	56	31	0	0	87	28	1	9	0	6	38	15	64	0	0	3	79	12	212	224
18:45	0	0	0	0	0	0	1	63	15	0	0	79	25	2	6	0	0	33	13	68	1	0	0	82	0	194	194
Total	8	8	5	0	3	21	2	276	97	0	0	375	112	6	45	0	11	163	65	252	4	0	3	321	17	880	897



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 4

Groups Printed- Cars + - Trucks

Start Time	Centerville Rd. Southbound						CSAH 14 Westbound						CSAH 21 Northbound						CSAH 14 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
19:00	8	3	2	0	0	13	0	38	20	0	0	58	24	3	8	0	1	35	11	58	3	0	0	72	1	178	179
19:15	0	0	0	0	0	0	0	40	14	0	0	54	16	0	20	0	3	36	11	43	0	0	0	54	3	144	147
19:30	0	0	1	0	0	1	0	44	11	0	0	55	10	2	6	0	0	18	7	34	0	0	0	41	0	115	115
19:45	0	0	1	0	0	1	0	38	10	0	0	48	12	1	9	0	0	22	3	29	0	0	0	32	0	103	103
<b>Total</b>	<b>8</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>160</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>215</b>	<b>62</b>	<b>6</b>	<b>43</b>	<b>0</b>	<b>4</b>	<b>111</b>	<b>32</b>	<b>164</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>199</b>	<b>4</b>	<b>540</b>	<b>544</b>
20:00	2	3	0	0	0	5	0	35	21	0	0	56	14	1	9	0	0	24	6	31	0	0	0	37	0	122	122
20:15	1	0	0	0	0	1	1	32	12	0	0	45	9	0	6	0	0	15	8	34	0	0	0	42	0	103	103
20:30	0	0	0	0	0	0	0	29	14	0	0	43	4	0	3	0	0	7	6	24	0	0	0	30	0	80	80
20:45	1	1	1	0	0	3	0	31	7	0	0	38	13	0	9	0	0	22	3	26	0	0	0	29	0	92	92
<b>Total</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>127</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>182</b>	<b>40</b>	<b>1</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>23</b>	<b>115</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>0</b>	<b>397</b>	<b>397</b>
21:00	0	1	1	0	0	2	0	34	15	0	1	49	7	0	6	0	1	13	2	23	0	0	0	25	2	89	91
21:15	0	0	0	0	0	0	0	16	7	0	1	23	12	0	6	0	0	18	3	23	0	0	0	26	1	67	68
21:30	0	0	0	0	0	0	0	20	12	0	0	32	10	0	5	0	0	15	7	22	0	0	0	29	0	76	76
21:45	0	0	0	0	0	0	0	9	7	0	0	16	4	0	5	0	0	9	6	12	0	0	0	18	0	43	43
<b>Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>79</b>	<b>41</b>	<b>0</b>	<b>2</b>	<b>120</b>	<b>33</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>55</b>	<b>18</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>98</b>	<b>3</b>	<b>275</b>	<b>278</b>
22:00	0	0	0	0	0	0	0	7	3	0	0	10	2	0	2	0	0	4	1	7	0	0	0	8	0	22	22
22:15	0	0	0	0	0	0	0	11	4	0	0	15	3	0	1	0	0	4	3	6	0	0	0	9	0	28	28
22:30	0	0	0	0	0	0	0	10	3	0	0	13	5	0	0	0	0	5	3	15	0	0	0	18	0	36	36
22:45	0	0	0	0	0	0	0	5	2	0	0	7	2	0	1	0	0	3	1	15	0	0	0	16	0	26	26
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>12</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>8</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>51</b>	<b>0</b>	<b>112</b>	<b>112</b>
23:00	0	0	0	0	0	0	0	5	2	0	0	7	0	0	1	0	0	1	1	3	0	0	0	4	0	12	12
23:15	0	0	0	0	0	0	0	7	1	0	0	8	1	0	2	0	0	3	1	5	0	0	0	6	0	17	17
23:30	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	3	0	2	0	0	0	2	0	8	8
23:45	0	0	0	0	0	0	0	3	2	0	0	5	0	0	1	0	0	1	1	2	0	0	0	3	0	9	9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>46</b>	<b>46</b>
<b>Grand Total</b>	<b>116</b>	<b>150</b>	<b>159</b>	<b>0</b>	<b>8</b>	<b>425</b>	<b>22</b>	<b>4234</b>	<b>1252</b>	<b>0</b>	<b>6</b>	<b>5508</b>	<b>1232</b>	<b>151</b>	<b>907</b>	<b>0</b>	<b>42</b>	<b>2290</b>	<b>868</b>	<b>4257</b>	<b>75</b>	<b>0</b>	<b>17</b>	<b>5200</b>	<b>73</b>	<b>13423</b>	<b>13496</b>
<b>Apprch %</b>	<b>27.3</b>	<b>35.3</b>	<b>37.4</b>	<b>0</b>			<b>0.4</b>	<b>76.9</b>	<b>22.7</b>	<b>0</b>			<b>53.8</b>	<b>6.6</b>	<b>39.6</b>	<b>0</b>			<b>16.7</b>	<b>81.9</b>	<b>1.4</b>	<b>0</b>					
<b>Total %</b>	<b>0.9</b>	<b>1.1</b>	<b>1.2</b>	<b>0</b>		<b>3.2</b>	<b>0.2</b>	<b>31.5</b>	<b>9.3</b>	<b>0</b>		<b>41</b>	<b>9.2</b>	<b>1.1</b>	<b>6.8</b>	<b>0</b>		<b>17.1</b>	<b>6.5</b>	<b>31.7</b>	<b>0.6</b>	<b>0</b>		<b>38.7</b>	<b>0.5</b>	<b>99.5</b>	
<b>Cars +</b>	<b>115</b>	<b>132</b>	<b>155</b>	<b>0</b>		<b>410</b>	<b>14</b>	<b>3904</b>	<b>1191</b>	<b>0</b>		<b>5115</b>	<b>1188</b>	<b>137</b>	<b>855</b>	<b>0</b>		<b>2222</b>	<b>826</b>	<b>3994</b>	<b>74</b>	<b>0</b>		<b>4911</b>	<b>0</b>	<b>0</b>	<b>12658</b>
<b>% Cars +</b>	<b>99.1</b>	<b>88</b>	<b>97.5</b>	<b>0</b>	<b>100</b>	<b>94.7</b>	<b>63.6</b>	<b>92.2</b>	<b>95.1</b>	<b>0</b>	<b>100</b>	<b>92.8</b>	<b>96.4</b>	<b>90.7</b>	<b>94.3</b>	<b>0</b>	<b>100</b>	<b>95.3</b>	<b>95.2</b>	<b>93.8</b>	<b>98.7</b>	<b>0</b>	<b>100</b>	<b>94.1</b>	<b>0</b>	<b>0</b>	<b>93.8</b>
<b>Trucks</b>	<b>1</b>	<b>18</b>	<b>4</b>	<b>0</b>		<b>23</b>	<b>8</b>	<b>330</b>	<b>61</b>	<b>0</b>		<b>399</b>	<b>44</b>	<b>14</b>	<b>52</b>	<b>0</b>		<b>110</b>	<b>42</b>	<b>263</b>	<b>1</b>	<b>0</b>		<b>306</b>	<b>0</b>	<b>0</b>	<b>838</b>
<b>% Trucks</b>	<b>0.9</b>	<b>12</b>	<b>2.5</b>	<b>0</b>	<b>0</b>	<b>5.3</b>	<b>36.4</b>	<b>7.8</b>	<b>4.9</b>	<b>0</b>	<b>0</b>	<b>7.2</b>	<b>3.6</b>	<b>9.3</b>	<b>5.7</b>	<b>0</b>	<b>0</b>	<b>4.7</b>	<b>4.8</b>	<b>6.2</b>	<b>1.3</b>	<b>0</b>	<b>0</b>	<b>5.9</b>	<b>0</b>	<b>0</b>	<b>6.2</b>





# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 5

Start Time	Centerville Rd. Southbound					CSAH 14 Westbound					CSAH 21 Northbound					CSAH 14 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	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	5	4	4	0	13	0	59	33	0	92	8	7	7	0	22	16	102	4	0	122	249
07:15	1	1	4	0	6	0	64	47	0	111	16	3	6	0	25	17	112	2	0	131	273
07:30	4	4	5	0	13	2	86	47	0	135	16	5	15	0	36	23	100	3	0	126	310
07:45	2	6	7	0	15	1	82	33	0	116	16	5	16	0	37	24	120	6	0	150	318
Total Volume	12	15	20	0	47	3	291	160	0	454	56	20	44	0	120	80	434	15	0	529	1150
% App. Total	25.5	31.9	42.6	0		0.7	64.1	35.2	0		46.7	16.7	36.7	0		15.1	82	2.8	0		
PHF	.600	.625	.714	.000	.783	.375	.846	.851	.000	.841	.875	.714	.688	.000	.811	.833	.904	.625	.000	.882	.904

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	1	0	0	1	0	67	9	0	76	10	0	15	0	25	10	52	0	0	62	164
13:15	0	0	0	0	0	0	58	8	0	66	8	0	16	0	24	14	55	0	0	69	159
13:30	1	1	1	0	3	0	49	14	0	63	12	0	16	0	28	3	51	1	0	55	149
13:45	0	0	0	0	0	0	61	20	0	81	23	1	22	0	46	15	46	0	0	61	188
Total Volume	1	2	1	0	4	0	235	51	0	286	53	1	69	0	123	42	204	1	0	247	660
% App. Total	25	50	25	0		0	82.2	17.8	0		43.1	0.8	56.1	0		17	82.6	0.4	0		
PHF	.250	.500	.250	.000	.333	.000	.877	.638	.000	.883	.576	.250	.784	.000	.668	.700	.927	.250	.000	.895	.878

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:45																					
15:45	19	24	29	0	72	1	118	25	0	144	30	5	32	0	67	21	97	1	0	119	402
16:00	7	6	14	0	27	0	135	17	0	152	33	2	31	0	66	17	81	1	0	99	344
16:15	9	4	4	0	17	0	141	18	0	159	34	7	22	0	63	19	102	0	0	121	360
16:30	4	6	5	0	15	0	127	20	0	147	31	2	34	0	67	22	89	2	0	113	342
Total Volume	39	40	52	0	131	1	521	80	0	602	128	16	119	0	263	79	369	4	0	452	1448
% App. Total	29.8	30.5	39.7	0		0.2	86.5	13.3	0		48.7	6.1	45.2	0		17.5	81.6	0.9	0		
PHF	.513	.417	.448	.000	.455	.250	.924	.800	.000	.947	.941	.571	.875	.000	.981	.898	.904	.500	.000	.934	.900



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 1

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

Groups Printed- Trucks

Start Time	Centerville Rd. Southbound					CSAH 14 Westbound					CSAH 21 Northbound					CSAH 14 Eastbound					Int. Total	
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total		
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
04:45	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
05:15	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	5
Total	0	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	2	0	0	0	3	8
06:00	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3	0	0	0	3	6
06:15	0	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	2	0	0	0	2	7
06:30	0	0	0	0	0	0	0	4	4	0	8	1	0	0	0	1	9	0	0	0	9	18
06:45	0	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	7	0	0	0	7	14
Total	0	0	0	0	0	0	0	16	5	0	21	1	0	2	0	3	21	0	0	0	21	45
07:00	0	0	0	0	0	0	0	5	1	0	6	0	1	0	0	1	10	0	0	0	12	19
07:15	0	0	0	0	0	0	0	3	3	0	6	5	0	0	0	5	8	0	0	0	8	19
07:30	0	1	0	0	1	0	0	13	4	0	17	1	0	2	0	3	8	0	0	0	9	30
07:45	0	0	0	0	0	0	0	7	2	0	9	1	0	0	0	1	2	0	0	0	3	13
Total	0	1	0	0	1	0	0	28	10	0	38	7	1	2	0	10	28	0	0	0	32	81
08:00	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	9	0	0	0	9	11
08:15	0	0	0	0	0	0	0	4	2	0	6	2	0	2	0	4	8	0	0	0	8	18
08:30	0	0	0	0	0	0	0	6	2	0	8	1	0	3	0	4	3	0	0	0	5	17
08:45	0	0	0	0	0	0	1	6	1	0	8	3	0	1	0	4	4	0	0	0	6	18
Total	0	0	0	0	0	0	1	18	5	0	24	6	0	6	0	12	24	0	0	0	28	64
09:00	0	11	0	0	11	4	5	0	0	9	0	5	2	0	7	2	8	1	0	11	38	38



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 2

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

Groups Printed- Trucks

Start Time	Centerville Rd. Southbound					CSAH 14 Westbound					CSAH 21 Northbound					CSAH 14 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
09:15	0	0	0	0	0	0	9	2	0	11	2	0	1	0	3	1	2	0	0	3	17
09:30	0	0	0	0	0	0	6	2	0	8	0	0	0	0	0	0	9	0	0	9	17
09:45	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	13	0	0	13	18
<b>Total</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>4</b>	<b>24</b>	<b>5</b>	<b>0</b>	<b>33</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>3</b>	<b>32</b>	<b>1</b>	<b>0</b>	<b>36</b>	<b>90</b>
10:00	0	0	0	0	0	0	10	0	0	10	1	0	3	0	4	1	7	0	0	8	22
10:15	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	2	10	0	0	12	19
10:30	0	0	0	0	0	0	6	1	0	7	1	0	0	0	1	0	7	0	0	7	15
10:45	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	0	9	0	0	9	16
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>2</b>	<b>0</b>	<b>29</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>72</b>
11:00	0	0	0	0	0	0	8	1	0	9	0	0	1	0	1	0	2	0	0	2	12
11:15	0	0	0	0	0	0	5	0	0	5	1	0	3	0	4	1	5	0	0	6	15
11:30	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	2	3	0	0	5	17
11:45	0	0	0	0	0	0	12	1	0	13	2	0	2	0	4	0	4	0	0	4	21
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>3</b>	<b>0</b>	<b>39</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>9</b>	<b>3</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>65</b>
12:00	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	1	1	0	0	2	9
12:15	0	0	0	0	0	0	6	1	0	7	1	0	1	0	2	1	2	0	0	3	12
12:30	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	2	6	0	0	8	13
12:45	0	0	0	0	0	0	6	1	0	7	2	0	0	0	2	1	8	0	0	9	18
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>4</b>	<b>0</b>	<b>24</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>5</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>52</b>
13:00	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	1	5	0	0	6	16
13:15	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	0	7	0	0	7	16
13:30	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	4	0	0	4	7
13:45	0	0	0	0	0	0	7	2	0	9	3	0	2	0	5	0	6	0	0	6	20
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>4</b>	<b>0</b>	<b>28</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>59</b>
14:00	0	0	0	0	0	0	8	1	0	9	1	0	0	0	1	1	4	0	0	5	15
14:15	0	0	0	0	0	0	6	1	0	7	1	0	3	0	4	1	5	0	0	6	17
14:30	0	0	0	0	0	0	10	1	0	11	0	0	3	0	3	1	4	0	0	5	19
14:45	0	0	0	0	0	0	5	0	0	5	1	0	1	0	2	1	7	0	0	8	15
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>3</b>	<b>0</b>	<b>32</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>10</b>	<b>4</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>66</b>
15:00	0	0	0	0	0	0	14	2	0	16	2	0	0	0	2	1	4	0	0	5	23
15:15	0	0	0	0	0	0	11	2	0	13	0	0	4	0	4	1	4	0	0	5	22
15:30	0	0	0	0	0	3	8	2	0	13	0	8	0	0	8	2	3	0	0	5	26
15:45	1	6	4	0	11	0	8	1	0	9	0	0	2	0	2	1	7	0	0	8	30
<b>Total</b>	<b>1</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>11</b>	<b>3</b>	<b>41</b>	<b>7</b>	<b>0</b>	<b>51</b>	<b>2</b>	<b>8</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>5</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>101</b>
16:00	0	0	0	0	0	0	8	4	0	12	4	0	2	0	6	3	6	0	0	9	27
16:15	0	0	0	0	0	0	11	2	0	13	0	0	1	0	1	0	3	0	0	3	17
16:30	0	0	0	0	0	0	10	1	0	11	0	0	3	0	3	2	1	0	0	3	17
16:45	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	4	0	0	5	7
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>7</b>	<b>0</b>	<b>38</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>10</b>	<b>6</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>68</b>
17:00	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	6	0	0	6	11
17:15	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	2	0	0	2	5
17:30	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	5
17:45	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	2	1	0	0	3	9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>30</b>
18:00	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
18:15	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	5
18:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	3
18:45	0	0	0	0	0	0	1	1	0	2	3	0	0	0	3	0	1	0	0	1	6
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>18</b>



# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Warm & Sunny  
 CountCAM 200  
 Study Conducted By: Andrea

File Name : TMC 1953  
 Site Code :  
 Start Date : 10/08/2019  
 Page No : 3

Groups Printed- Trucks

Start Time	Centerville Rd. Southbound					CSAH 14 Westbound					CSAH 21 Northbound					CSAH 14 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
19:00	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	3
19:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
19:30	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	6	0	0	6	1	0	0	0	1	0	1	0	0	1	8
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	0	2	4
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
<b>Total</b>	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	5	0	0	5	7
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	1	18	4	0	23	8	330	61	0	399	44	14	52	0	110	42	263	1	0	306	838
<b>Apprch %</b>	4.3	78.3	17.4	0		2	82.7	15.3	0		40	12.7	47.3	0		13.7	85.9	0.3	0		
<b>Total %</b>	0.1	2.1	0.5	0	2.7	1	39.4	7.3	0	47.6	5.3	1.7	6.2	0	13.1	5	31.4	0.1	0	36.5	

**ANOKA COUNTY HIGHWAY  
PC-WARRANTS  
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name: **TMC 1953**  
 Study Date: **02/03/2020**  
 Page No: **1**

## Signal Warrants - Summary

### Major Street Approaches

**Eastbound: CSAH 14**  
 Number of Lanes : 1  
  
 Total Approach Volume: 5,200

**Westbound: CSAH 14**  
 Number of Lanes : 1  
  
 Total Approach Volume: 5,508

### Minor Street Approaches

**Northbound: CSAH 21**  
 Number of Lanes : 1  
  
 Total Approach Volume: 2,290

**Southbound: Centerville Rd.**  
 Number of Lanes : 1  
  
 Total Approach Volume: 425

### Warrant Summary (Urban Values Apply)

- Warrant 1 - Eight Hour Vehicular Volumes.....**Satisfied**
  - Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**  
 Required volumes reached for 4 hours, 8 are needed
  - Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**  
 Required volumes reached for 6 hours, 8 are needed
  - Warrant 1C - Combination of Warrants.....**Satisfied**  
 Required 1A volumes reached for 10 hours, 8 are needed  
 Required 1B volumes reached for 8 hours, 8 are needed
  
- Warrant 2 - Four Hour Volumes.....**Satisfied**  
 Number of hours (5) volumes exceed minimum >= minimum required (4).
  
- Warrant 3 - Peak Hour.....**Satisfied**
  - Warrant 3A - Peak Hour Delay.....**Not Satisfied**  
 Approach volumes on minor street don't exceed minimums for any hour. Delay data not evaluated.
  - Warrant 3B - Peak Hour Volumes.....**Satisfied**  
 Volumes exceed minimums for at least one hour.
  
- 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 1953**  
Study Date: **02/03/2020**  
Page No: **2**

## 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 4 hours meet minimums.  
Warrant is NOT met.

### Site Data Required

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

### Volume Requirements

Veh/Hr Major = **500**  
Veh/Hr Minor = **150**

Time	Major Road CSAH 14				=	Total	Minor Road CSAH 21		Met?
	Major EB	+	Major WB				Minor NB	Minor SB	
16:15 - 17:15	467	+	606	=	1073	251	57	Yes	
15:15 - 16:15	418	+	582	=	1000	266	108	Yes	
17:15 - 18:15	410	+	507	=	917	272	46	Yes	
14:15 - 15:15	293	+	392	=	685	180	6	Yes	
07:00 - 08:00	529	+	454	=	983	120	47	No	
07:15 - 08:15	518	+	437	=	955	138	38	No	
06:45 - 07:45	503	+	416	=	919	117	41	No	
07:30 - 08:30	493	+	387	=	880	135	36	No	
06:30 - 07:30	490	+	355	=	845	98	31	No	
07:45 - 08:45	466	+	311	=	777	126	24	No	
06:15 - 07:15	450	+	299	=	749	87	28	No	
08:00 - 09:00	399	+	273	=	672	121	14	No	
06:00 - 07:00	408	+	248	=	656	73	16	No	
08:15 - 09:15	364	+	279	=	643	121	50	No	
18:15 - 19:15	311	+	325	=	636	140	31	No	
08:30 - 09:30	332	+	284	=	616	144	58	No	
14:00 - 15:00	264	+	345	=	609	148	5	No	
08:45 - 09:45	308	+	288	=	596	135	65	No	
13:45 - 14:45	253	+	339	=	592	147	4	No	
09:00 - 10:00	302	+	274	=	576	122	65	No	
18:30 - 19:30	287	+	278	=	565	142	21	No	
12:30 - 13:30	249	+	307	=	556	95	3	No	
13:30 - 14:30	246	+	306	=	552	141	5	No	
05:45 - 06:45	351	+	200	=	551	52	7	No	
12:15 - 13:15	245	+	297	=	542	107	3	No	



# ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: **TMC 1953**  
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## 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

Only 6 hours meet minimums.  
Warrant is NOT met.

### Site Data Required

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

### Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

Time	Major Road CSAH 14				Total	Minor Road CSAH 21		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	485	+	588	=	1073	274	60	Yes
15:30 - 16:30	432	+	612	=	1044	269	122	Yes
07:30 - 08:30	493	+	387	=	880	135	36	Yes
06:30 - 07:30	490	+	355	=	845	98	31	Yes
17:30 - 18:30	349	+	467	=	816	220	36	Yes
14:30 - 15:30	330	+	444	=	774	206	9	Yes
06:15 - 07:15	450	+	299	=	749	87	28	No
14:15 - 15:15	293	+	392	=	685	180	6	No
06:00 - 07:00	408	+	248	=	656	73	16	No
08:30 - 09:30	332	+	284	=	616	144	58	No
14:00 - 15:00	264	+	345	=	609	148	5	No
08:45 - 09:45	308	+	288	=	596	135	65	No
13:45 - 14:45	253	+	339	=	592	147	4	No
09:00 - 10:00	302	+	274	=	576	122	65	No
18:30 - 19:30	287	+	278	=	565	142	21	No
12:30 - 13:30	249	+	307	=	556	95	3	No
13:30 - 14:30	246	+	306	=	552	141	5	No
05:45 - 06:45	351	+	200	=	551	52	7	No
12:15 - 13:15	245	+	297	=	542	107	3	No
13:15 - 14:15	245	+	295	=	540	131	5	No
13:00 - 14:00	247	+	286	=	533	123	4	No
12:45 - 13:45	240	+	289	=	529	107	5	No
12:00 - 13:00	242	+	282	=	524	108	3	No
11:45 - 12:45	241	+	277	=	518	109	4	No
09:15 - 10:15	276		241		517	105	25	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: **TMC 1953**

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## 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

10 hours meet 1A minimums.  
8 hours meet 1B minimums.  
Warrant IS met.

### Site Data Required

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

### Volume Requirements

Warrant 1A 1B  
Veh/Hr Major = **400 600**  
  
Veh/Hr Minor = **120 60**

#### Major Road CSAH 14

#### Minor Road CSAH 21

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	461	+	614	=	1075	246	71	Yes
07:00 - 08:00	529	+	454	=	983	120	47	Yes
17:00 - 18:00	433	+	543	=	976	285	56	Yes
15:00 - 16:00	408	+	562	=	970	265	84	Yes
18:00 - 19:00	321	+	375	=	696	163	21	Yes
08:00 - 09:00	399	+	273	=	672	121	14	Yes
14:00 - 15:00	264	+	345	=	609	148	5	Yes
09:00 - 10:00	302	+	274	=	576	122	65	Yes
13:00 - 14:00	247	+	286	=	533	123	4	Yes
11:00 - 12:00	219	+	291	=	510	120	6	Yes
06:45 - 07:45	503	+	416	=	919	117	41	No
06:30 - 07:30	490		355		845	98	31	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:00 - 17:00	461	+	614	=	1075	246	71	Yes
07:00 - 08:00	529	+	454	=	983	120	47	Yes
17:00 - 18:00	433	+	543	=	976	285	56	Yes
15:00 - 16:00	408	+	562	=	970	265	84	Yes
18:00 - 19:00	321	+	375	=	696	163	21	Yes
08:00 - 09:00	399	+	273	=	672	121	14	Yes
06:00 - 07:00	408	+	248	=	656	73	16	Yes
14:00 - 15:00	264	+	345	=	609	148	5	Yes
13:45 - 14:45	253	+	339	=	592	147	4	No
09:00 - 10:00	302	+	274	=	576	122	65	No
12:30 - 13:30	249	+	307	=	556	95	3	No
13:30 - 14:30	246		306		552	141	5	No



# ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

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## 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.

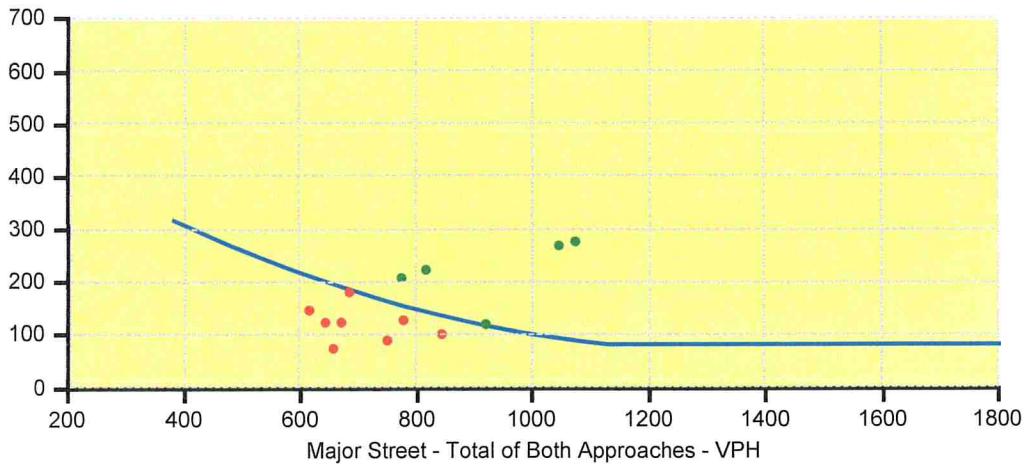
### Summary

5 hours meet minimums.  
 Warrant IS met.

### Site Data Required

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

Time	Major Road CSAH 14				=	Total	Minor Road CSAH 21		Met?
	Major EB	+	Major WB	Minor NB			Minor SB		
16:30 - 17:30	485	+	588	=	1073	274	60	Yes	
15:30 - 16:30	432	+	612	=	1044	269	122	Yes	
06:45 - 07:45	503	+	416	=	919	117	41	Yes	
17:30 - 18:30	349	+	467	=	816	220	36	Yes	
14:30 - 15:30	330	+	444	=	774	206	9	Yes	
06:30 - 07:30	490	+	355	=	845	98	31	No	
07:45 - 08:45	466	+	311	=	777	126	24	No	
06:15 - 07:15	450	+	299	=	749	87	28	No	
14:15 - 15:15	293	+	392	=	685	180	6	No	
08:00 - 09:00	399	+	273	=	672	121	14	No	
06:00 - 07:00	408	+	248	=	656	73	16	No	
							50	No	



# ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

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## 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

10 hours meet minimums.  
 Warrant IS met.

### Site Data Required

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

Time	Major Road CSAH 14				=	Total	Minor Road CSAH 21		Met?
	Major EB	+	Major WB				Minor NB	Minor SB	
16:00 - 17:00	461	+	614	=	1075	246	71	Yes	
16:30 - 17:30	485	+	588	=	1073	274	60	Yes	
16:15 - 17:15	467	+	606	=	1073	251	57	Yes	
15:45 - 16:45	452	+	602	=	1054	263	131	Yes	
15:30 - 16:30	432	+	612	=	1044	269	122	Yes	
16:45 - 17:45	466	+	569	=	1035	267	61	Yes	
15:15 - 16:15	418	+	582	=	1000	266	108	Yes	
17:00 - 18:00	433	+	543	=	976	285	56	Yes	
15:00 - 16:00	408	+	562	=	970	265	84	Yes	
17:15 - 18:15	410	+	507	=	917	272	46	Yes	
07:00 - 08:00	529	+	454	=	983	120	47	No	
							38	No	

