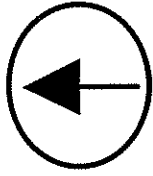


Date : 8/13/96 AM 8/15/96 PM

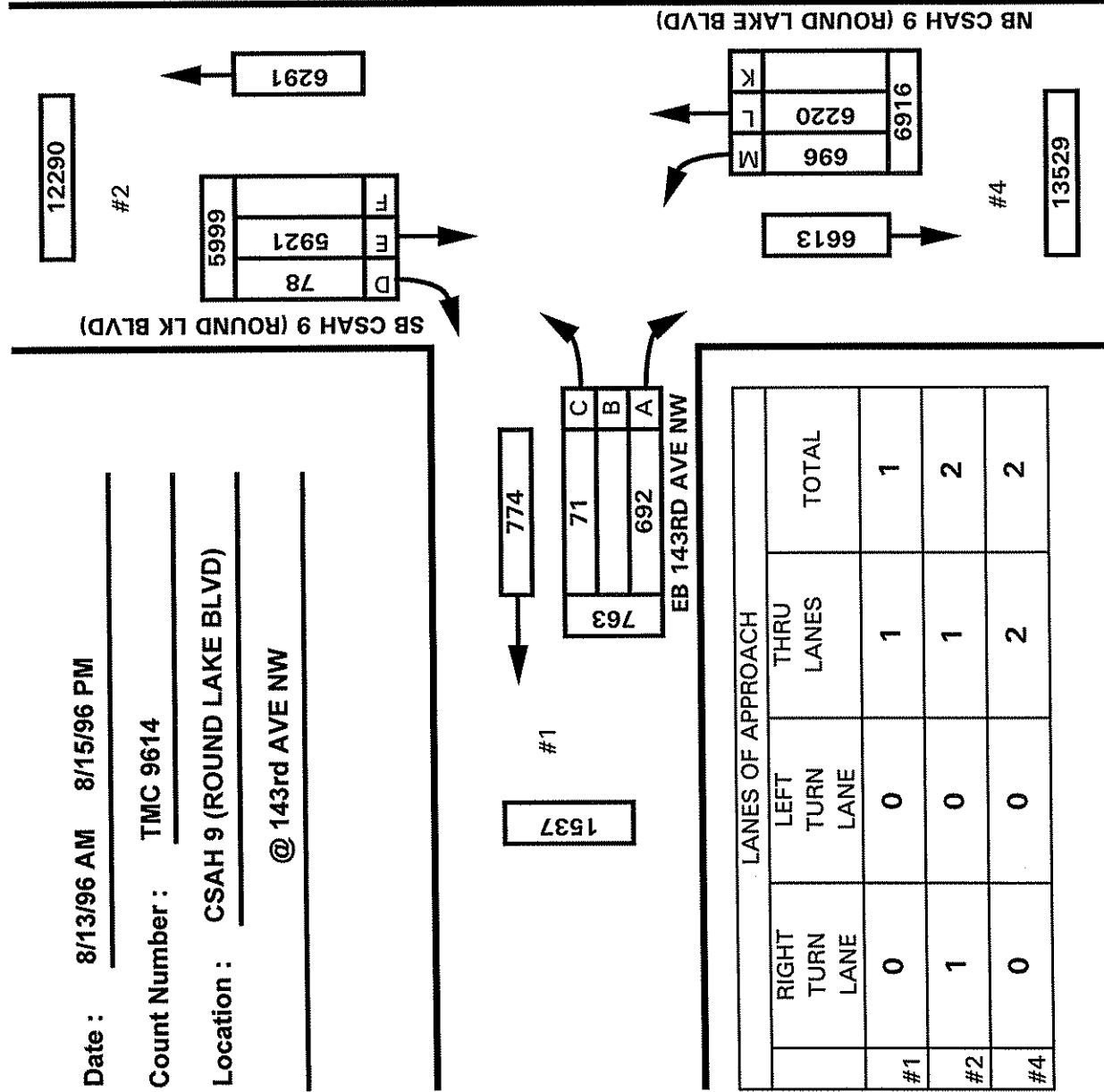
Count Number : TMC 9614

Location : CSAH 9 (ROUND LAKE BLVD)

@ 143rd AVE NW



North



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT

Weather : OVERCAST AM/SUNNY PM

TRAFFIC ENGINEERING SECTION

Study Name: TMC9614

Counted by: Ann and Gabe

TRAFFIC STUDY

Site Code : 96140202

Card # :

Start Date: 08/13/96

Other :

Page : 1

Vehicle group 1

Start Time	CSAH 9 (ROUND LK BLVD) From North			CSAH 9 (ROUND LK BLVD) From South			143RD AVE NW From West			Intrvl. Total	Exclude Total	Include Total
	Right	Thru	HEAVY	Thru	Left	HEAVY	Right	Left	HEAVY			
08/13/96												
06:00	0	157	6	17	1	0	19	0	0	200	6	194
06:15	0	169	6	19	2	0	27	0	0	223	6	217
06:30	1	183	9	40	1	1	21	1	0	257	10	247
06:45	1	162	4	31	6	3	28	4	1	240	8	232
Hour	2	671	25	107	10	4	95	5	1	920	30	890
07:00	0	135	3	41	7	5	22	3	0	216	8	208
07:15	2	164	8	45	4	1	16	1	0	241	9	232
07:30	0	146	6	31	3	0	23	0	0	209	6	203
07:45	2	139	5	34	2	3	14	2	0	201	8	193
Hour	4	584	22	151	16	9	75	6	0	867	31	836
08:00	2	101	3	44	8	1	10	0	0	169	4	165
08:15	0	113	4	25	2	3	7	0	0	154	7	147
08:30	0	81	2	40	3	0	6	1	1	134	3	131
08:45	1	75	6	40	1	3	12	0	0	138	9	129
Hour	3	370	15	149	14	7	35	1	1	595	23	572
09:00	1	81	5	37	1	0	8	0	0	133	5	128
09:15	0	93	4	44	8	4	3	0	0	156	8	148
09:30	0	87	3	41	2	2	9	0	0	144	5	139
09:45	0	83	2	41	5	3	8	1	0	143	5	138
Hour	1	344	14	163	16	9	28	1	0	576	23	553
10:00	0	74	3	47	5	2	18	1	0	150	5	145
10:15	1	79	3	45	10	5	9	1	0	153	8	145
10:30	1	79	7	52	3	4	7	0	0	153	11	142
10:45	0	77	1	45	2	1	10	1	1	138	3	135
Hour	2	309	14	189	20	12	44	3	1	594	27	567
11:00	0	66	5	53	6	2	5	0	0	137	7	130
11:15	2	75	4	79	9	5	6	2	0	182	9	173
11:30	2	90	3	68	4	1	9	0	0	177	4	173
11:45	3	61	3	78	9	6	5	1	1	167	10	157
Hour	7	292	15	278	28	14	25	3	1	663	30	633
12:00	2	69	2	80	10	5	16	1	3	188	10	178
12:15	1	73	6	75	7	5	4	0	0	171	11	160
12:30	1	79	3	90	10	8	10	2	1	204	12	192
12:45	1	91	3	80	6	6	7	1	1	196	10	186
Hour	5	312	14	325	33	24	37	4	5	759	43	716

ANOKA COUNTY HIGHWAY DEPARTMENT

Weather : OVERCAST AM/SUNNY PM

TRAFFIC ENGINEERING SECTION

Study Name: TMC9614

Counted by: Ann and Gabe

TRAFFIC STUDY

Site Code : 96140202

Card # :

Start Date: 08/13/96

Other :

Page : 2

Vehicle group 1

Start Time	CSAH 9 (ROUND LK BLVD) From North			CSAH 9 (ROUND LK BLVD) From South			143RD AVE NW From West			Intrvl.	Exclude	Include
	Right	Thru	HEAVY	Thru	Left	HEAVY	Right	Left	HEAVY			
13:00	0	84	5	72	11	2	6	2	1	183	8	175
13:15	2	84	8	64	4	1	10	1	1	175	10	165
13:30	0	92	5	79	10	4	8	1	1	200	10	190
13:45	0	71	1	98	7	4	8	1	0	190	5	185
Hour	2	331	19	313	32	11	32	5	3	748	33	715
14:00	1	95	4	96	9	5	8	1	1	220	10	210
14:15	0	113	6	110	10	2	14	2	2	259	10	249
14:30	2	87	1	102	8	4	6	2	1	213	6	207
14:45	0	82	1	118	9	4	7	1	1	223	6	217
Hour	3	377	12	426	36	15	35	6	5	915	32	883
15:00	4	72	2	146	19	8	7	3	0	261	10	251
15:15	3	78	7	143	12	5	10	1	0	259	12	247
15:30	0	87	2	139	15	3	4	1	0	251	5	246
15:45	0	78	2	172	15	1	10	2	3	283	6	277
Hour	7	315	13	600	61	17	31	7	3	1054	33	1021
16:00	1	87	2	183	24	6	13	0	1	317	9	308
16:15	2	88	3	193	19	5	10	2	0	322	8	314
16:30	0	97	4	185	20	4	14	2	0	326	8	318
16:45	3	96	2	195	24	0	14	1	0	335	2	333
Hour	6	368	11	756	87	15	51	5	1	1300	27	1273
17:00	5	87	0	175	28	4	11	2	1	313	5	308
17:15	4	93	2	207	31	1	10	1	0	349	3	346
17:30	1	114	0	181	19	3	22	0	0	340	3	337
17:45	0	114	4	185	19	1	11	1	0	335	5	330
Hour	10	408	6	748	97	9	54	4	1	1337	16	1321
18:00	1	86	1	189	28	1	9	2	0	317	2	315
18:15	0	87	1	170	18	4	13	0	0	293	5	288
18:30	1	88	0	158	19	1	16	2	0	285	1	284
18:45	0	96	3	152	8	1	16	6	0	282	4	278
Hour	2	357	5	669	73	7	54	10	0	1177	12	1165
19:00	3	73	2	146	14	2	17	1	1	259	5	254
19:15	1	98	1	113	17	1	7	0	0	238	2	236
19:30	2	89	1	98	14	1	13	1	0	219	2	217
19:45	2	75	0	104	13	2	7	3	0	206	2	204
Hour	8	335	4	461	58	6	44	5	1	922	11	911

ANOKA COUNTY HIGHWAY DEPARTMENT

Weather : OVERCAST AM/SUNNY PM

TRAFFIC ENGINEERING SECTION

Study Name: TMC9614

Counted by: Ann and Gabe

TRAFFIC STUDY

Site Code : 96140202

Board # :

Start Date: 08/13/96

Other :

Page : 3

Vehicle group 1

Start Time	CSAH 9 (ROUND LK BLVD) From North			CSAH 9 (ROUND LK BLVD) From South			143RD AVE NW From West			Intrvl. Total	Exclude Total	Include Total
	Right	Thru	HEAVY	Thru	Left	HEAVY	Right	Left	HEAVY			
20:00	1	79	0	129	15	1	9	1	0	235	1	234
20:15	7	82	1	125	21	0	9	0	0	245	1	244
20:30	3	74	0	120	17	0	4	2	0	220	0	220
20:45	1	85	0	112	13	1	10	3	0	225	1	224
Hour	12	320	1	486	66	2	32	6	0	925	3	922
21:00	1	80	1	112	16	0	4	0	0	214	1	213
21:15	1	48	0	99	13	1	5	0	0	167	1	166
21:30	2	45	0	98	10	1	6	0	0	162	1	161
21:45	0	55	0	90	10	0	5	0	0	160	0	160
Hour	4	228	1	399	49	2	20	0	0	703	3	700
Total	78	5921	191	6220	696	163	692	71	23	14055	377	13678
% Apr.	1.2	95.6	3.0	87.8	9.8	2.3	88.0	9.0	2.9	-	-	-
% Int.	0.5	42.1	1.3	44.2	4.9	1.1	4.9	0.5	0.1	-	-	-

or Street Approaches:

Northbound:

CSAH 9 (ROUND LK BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9614.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/13/96  
 Number of Lanes: 2  
 Approach Speed: 45  
 Total Approach Traffic: 6916

Southbound:

CSAH 9 (ROUND LK BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9614.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/13/96  
 Number of Lanes: 2  
 Approach Speed: 45  
 Total Approach Traffic: 5999

Minor Street Approaches:

Eastbound:

143RD AVE NW

Data File: C:\PETRA2\DATAFILE\TMC9614.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/13/96  
 Number of Lanes: 1  
 Approach Speed: 30  
 Total Approach Traffic: 763

Westbound:

Data File: C:\PETRA2\DATAFILE\TMC9614.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/13/96  
 Number of Lanes: 1  
 Approach Speed: 0  
 Total Approach Traffic: 0

Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main	Side		Warrant 1		Warrant 2		Warrant 8		
Begin	(Total)	Vol.	Dir.	Rank	Meets?	Criteria	Meets?	Criteria	Meets?	Criteria
0	0	0	E	17		105		52		84
1	0	0	E	18		105		52		84
2	0	0	E	19		105		52		84
3	0	0	E	20		105		52		84
4	0	0	E	21		105		52		84
5	0	0	E	22		105		52		84
6	790	100	E	1	MAIN	105	--BOTH--	52	--BOTH--	84
7	755	81	E	2	MAIN	105	--BOTH--	52	MAIN	84
8	536	36	E	13	MAIN	105		52	MAIN	84
9	524	29	E	14	MAIN	105		52	MAIN	84
10	520	47	E	7	MAIN	105		52	MAIN	84
11	605	28	E	15	MAIN	105		52	MAIN	84
12	675	41	E	8	MAIN	105	MAIN	52	MAIN	84
13	678	37	E	12	MAIN	105	MAIN	52	MAIN	84
14	842	41	E	9	MAIN	105	MAIN	52	MAIN	84
15	983	38	E	10	MAIN	105	MAIN	52	MAIN	84
16	1217	56	E	5	MAIN	105	--BOTH--	52	MAIN	84
17	1263	58	E	4	MAIN	105	--BOTH--	52	MAIN	84
18	1101	64	E	3	MAIN	105	--BOTH--	52	MAIN	84
19	862	49	E	6	MAIN	105	MAIN	52	MAIN	84
20	884	38	E	11	MAIN	105	MAIN	52	MAIN	84
21	680	20	E	16	MAIN	105	MAIN	52	MAIN	84
22	0	0	E	23		105		52		84
23	0	0	E	24		105		52		84

## Warrant Summary:

Rural values apply.

## Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

## Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 5 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.

## Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. Ped volumes too low. Criteria--190 Peds in peak hour, 100 peds in 4th high hour.

## Warrant 4 - School Crossing

NOT APPLICABLE. Gap data has not been defined.

## Warrant 5 - Progressive Movement

NOT SATISFIED. Adjacent signals closer than 1000 feet and/or not part of coordinated system.

## Warrant 6 - Accident Experience

NOT SATISFIED. 0 correctable accidents is fewer than required 5.

Correctable Accidents: 0; Right Angle Accidents: 0; Left Turn Accidents: 0; Other Accidents: 0.

## Warrant 7 - Systems Warrant

NOT SATISFIED. At least one street has no major approaches. Peak hour total entering volume: 1321.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which appear as a major route in an official transportation plan.

## Warrant 8 - Combination of Warrants

NOT SATISFIED. Required values reached for 1 hours. Criteria--Main: 504; Side: See Volume Summary.

## Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 2 hours.

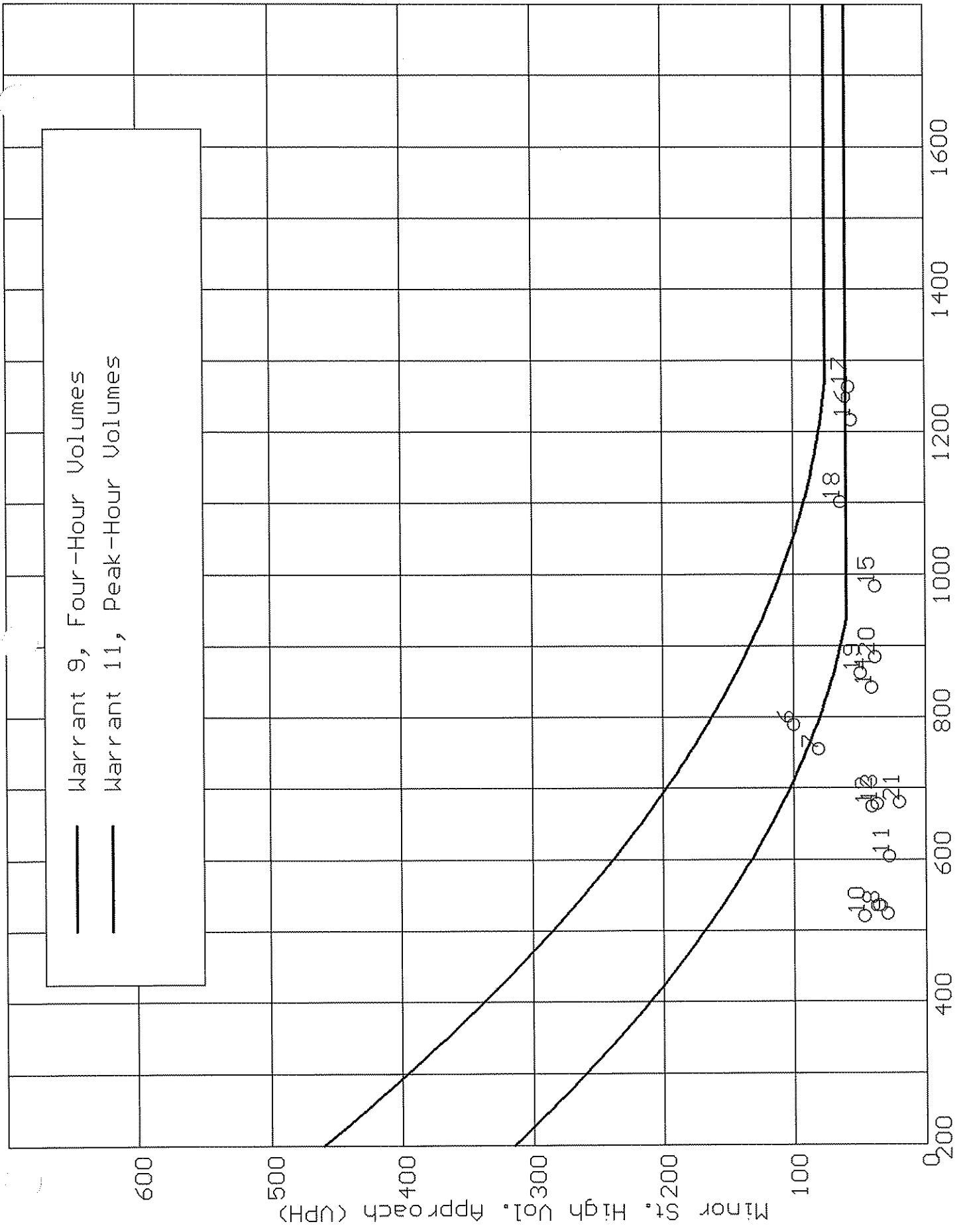
## Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1700 hours) volume not adequate.


Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

## Warrant 11 - Peak Hour Volume

NOT SATISFIED.



Major St. Total of Both Approaches (UPH)

  
**NORTH**  
 APP. #1=EB 143rd AVE NW  
 APP. #2 =SB CSAH 9  
 APP. #3=  
 APP. #4=NB CSAH 9

**COUNT LOCATION:** CSAH 9 (ROUND LAKE BLVD) @  
143rd AVE NW

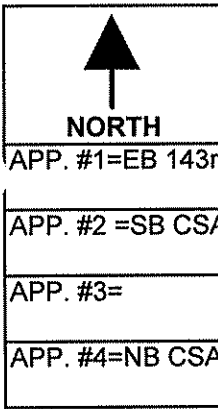
**DATE:** 8/13/96

APP. #2  
45 MPH  
 APP. #1  
30 MPH  
 APP. #4  
45 MPH

- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
  - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
  - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						6		
6:15-6:30						6		
6:30-6:45						9		1
6:45-7:00						8		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>30</b>
7:00-7:15						8		
7:15-7:30						8		1
7:30-7:45						6		
7:45-8:00						6		2
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>31</b>
8:00-8:15						4		
8:15-8:30						7		
8:30-8:45						3		
8:45-9:00						9		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>23</b>
9:00-9:15						5		
9:15-9:30						7		1
9:30-9:45						5		
9:45-10:00						4	1	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>23</b>
10:00-10:15						5		
10:15-10:30						8		
10:30-10:45						11		
10:45-11:00						3		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>27</b>
11:00-11:15						7		
11:15-11:30						8		1
11:30-11:45						4		
11:45-12:00						10		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>30</b>
12:00-12:15						10		
12:15-12:30						11		
12:30-12:45						12		
12:45-1:00						10		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>43</b>
1:00-1:15						8		
1:15-1:30						10		
1:30-1:45						10		
1:45-2:00						5		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>33</b>





**COUNT LOCATION:** CSAH 9 (ROUND LAKE BLVD) @  
143rd AVE NW

**DATE:** 8/15/96

APP. #2  
45 MPH

APP. #1  
30 MPH

APP. #4

- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
  - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
  - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
2:00-2:15PM						10		
2:15-2:30						6	1	3
2:30-2:45						6		
2:45-3:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>32</b>
3:00-3:15						10		
3:15-3:30						12		
3:30-3:45						5		
3:45-4:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>33</b>
4:00-4:15						9		
4:15-4:30						8		
4:30-4:45						7	1	
4:45-5:00						2		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>27</b>
5:00-5:15		1			1	3	1	1
5:15-5:30						3		
5:30-5:45						3		
5:45-6:00						4	1	
<b>HOURLY TOTAL</b>					<b>1</b>	<b>HOURLY TOTAL</b>		<b>16</b>
6:00-6:15						2		
6:15-6:30						5		
6:30-6:45						1		
6:45-7:00						4		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>12</b>
7:00-7:15						5		
7:15-7:30						2		
7:30-7:45						2		
7:45-8:00						2		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>11</b>
8:00-8:15						1		
8:15-8:30						1		
8:30-8:45								
8:45-9:00						1		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>3</b>
9:00-9:15						1		
9:15-9:30						1		
9:30-9:45						1		
9:45-10:00								
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>3</b>