

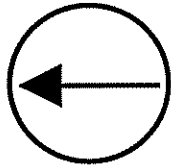
Date : 6/17/99AM 6/16/99PM

Count Number : TMC9911

Location : CSAH 35 (OLD CENTRAL) @

TH 10

SUNSET RD.



North

2803

#2

1082	717	D
76	289	E
		F
		T

1721

TH 10

44612

#3

609	23067	G
21914		H
544		J

21545

CSAH 35 (OLD CENTRAL)

122	518	M
61		L
335		K

911

#4

1429

22753

#1

45016

TH 10

22263	1051	C
20921	291	B
		A

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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

# Anoka County Highway Department Traffic Volume & Turning Movement Study

Weather:  
Counter TDC-8  
Counted by Mike and Ryan

File Name : TMC9911  
Site Code : 99110201  
Start Date : 06/17/1999  
Page : 1

Groups Printed: 1 - 1 - Unshifted

Start Time	Sunset Rd. Southbound					TH 10 Westbound					CSAH 35 (Old Central) Northbound					TH 10 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Factor	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds			
06:00 AM	4	4	5	0	13	6	108	3	7	115	0	0	2	0	2	5	383	6	13	394	20	524	544
06:15 AM	5	2	9	1	16	9	145	4	12	158	0	1	2	0	3	9	544	8	16	561	29	738	767
06:30 AM	2	3	19	0	24	10	202	6	11	218	1	0	2	0	3	10	542	6	24	558	35	803	838
06:45 AM	5	4	40	1	49	15	239	5	18	259	0	0	2	0	2	12	532	17	16	561	35	871	906
Total	16	13	73	2	102	40	692	18	48	750	1	1	8	0	10	36	2001	37	69	2074	119	2936	3055
07:00 AM	3	4	27	1	34	10	188	7	14	205	0	0	5	1	5	10	613	16	19	639	35	883	918
07:15 AM	3	1	26	0	30	10	274	9	12	293	0	5	7	0	12	3	438	4	12	445	24	780	804
07:30 AM	6	3	37	3	46	14	257	6	15	277	0	0	9	0	9	11	609	11	13	631	31	963	994
07:45 AM	3	5	46	1	54	17	313	14	12	344	0	0	8	1	9	8	575	11	14	594	28	1001	1029
Total	15	13	136	5	164	51	1032	36	53	1119	0	5	30	2	35	32	2235	42	58	2309	118	3627	3745
08:00 AM	7	2	18	0	27	11	279	14	14	304	0	0	3	0	3	11	459	11	22	481	36	815	851
08:15 AM	6	3	6	0	15	9	271	2	16	282	0	0	12	1	12	7	384	9	22	400	39	709	748
08:30 AM	9	1	4	1	14	16	279	10	25	305	1	0	10	1	11	8	325	6	18	339	45	669	714
08:45 AM	8	5	8	1	21	9	255	8	30	272	1	1	9	2	11	4	303	5	14	312	47	616	663
Total	30	11	36	2	77	45	1084	34	85	1163	2	1	34	4	37	30	1471	31	76	1532	167	2809	2976
09:00 AM	5	0	9	0	14	12	234	8	25	254	1	0	3	1	4	8	265	2	17	275	43	547	580
09:15 AM	3	4	8	1	15	8	207	3	20	218	1	0	5	0	6	13	239	5	24	257	45	496	541
09:30 AM	4	0	10	0	14	8	250	7	20	265	3	1	10	0	14	7	262	1	18	270	38	563	601
09:45 AM	5	4	9	1	18	4	257	14	13	275	2	0	2	0	4	10	256	4	22	270	36	567	603
Total	17	8	36	2	61	32	948	32	78	1012	7	1	20	1	28	38	1022	12	81	1072	162	2173	2335
10:00 AM	8	1	8	0	17	7	274	11	18	292	2	0	4	0	6	7	208	2	15	217	33	532	565
10:15 AM	3	2	9	0	14	10	253	9	21	272	1	1	7	0	9	10	235	2	13	247	34	542	576
10:30 AM	5	2	12	0	19	5	206	8	15	219	4	1	4	1	9	12	269	4	14	285	30	532	562
10:45 AM	5	0	12	1	17	9	260	13	13	282	0	3	4	1	7	21	273	2	19	296	34	602	636
Total	21	5	41	1	67	31	993	41	67	1065	7	5	19	2	31	50	985	10	61	1045	131	2208	2339
11:00 AM	6	1	11	2	18	12	317	12	16	341	2	1	2	2	5	38	284	4	26	326	46	690	736
11:15 AM	6	0	10	1	16	6	311	12	23	329	2	1	7	1	10	34	302	1	30	337	55	692	747
11:30 AM	2	0	16	1	18	10	328	13	18	351	2	1	10	1	13	42	268	1	23	311	43	693	736
11:45 AM	5	0	11	2	16	17	319	6	11	342	1	0	11	2	12	36	266	7	25	309	40	679	719
Total	19	1	48	6	68	45	1275	43	68	1363	7	3	30	6	40	150	1120	13	104	1283	184	2754	2938
12:00 PM	5	0	13	1	18	13	289	15	23	317	4	3	9	0	16	61	263	3	27	327	51	678	729
12:15 PM	7	1	11	2	19	15	272	13	17	300	3	0	2	0	5	38	318	7	14	363	33	687	720
12:30 PM	9	3	17	1	29	2	312	6	15	320	0	1	5	0	6	50	322	4	21	376	37	731	768
12:45 PM	3	1	8	0	12	19	356	14	13	369	4	2	13	1	19	37	353	5	15	395	29	815	844
Total	24	5	49	4	78	49	1229	48	68	1326	11	6	28	1	46	186	1256	19	77	1461	150	2911	3061
01:00 PM	4	0	11	2	15	17	314	10	19	341	1	0	10	1	11	62	365	5	32	432	54	799	853
01:15 PM	2	0	13	0	15	11	366	11	32	388	1	0	6	0	7	52	302	6	13	360	45	770	815
01:30 PM	4	0	8	0	12	12	314	20	19	346	0	0	3	1	3	14	320	0	7	334	27	695	722
01:45 PM	8	2	16	3	26	18	721	23	28	762	1	0	1	1	2	14	349	7	16	370	48	1160	1208
Total	18	2	48	5	68	58	1715	64	98	1837	3	0	20	3	23	142	1336	18	68	1486	174	3424	3598
02:00 PM	10	0	15	0	25	15	783	22	41	820	1	1	6	0	8	16	321	3	16	340	57	1193	1250
02:15 PM	9	0	9	0	18	8	443	11	17	462	3	0	2	1	5	4	354	0	20	358	38	843	881
02:30 PM	8	2	5	1	15	8	300	9	11	317	2	0	0	0	2	11	315	1	12	327	24	661	685
02:45 PM	4	5	13	0	22	9	439	14	15	462	1	0	2	0	3	13	295	3	20	311	35	798	833
Total	31	7	42	1	80	40	1965	56	84	2061	7	1	10	1	18	44	1285	7	68	1336	154	3495	3649
03:00 PM	3	1	19	1	23	8	624	13	13	645	2	0	3	0	5	14	379	5	24	398	38	1071	1109
03:15 PM	6	0	11	0	17	10	567	15	14	592	1	0	0	0	1	10	317	14	13	341	27	951	978
03:30 PM	5	0	18	0	23	11	569	11	20	591	0	0	4	1	4	19	333	2	21	354	42	972	1014
03:45 PM	4	3	9	2	16	7	576	16	14	599	0	0	0	0	0	6	402	1	15	409	31	1024	1055
Total	18	4	57	3	79	36	2336	55	61	2427	3	0	7	1	10	49	1431	22	73	1502	138	4018	4156
04:00 PM	3	1	28	0	32	9	556	11	9	576	4	3	10	0	17	12	322	0	11	334	20	959	979
04:15 PM	8	0	15	0	23	10	597	23	10	630	13	0	7	0	20	14	362	0	10	376	20	1049	1069
04:30 PM	2	0	18	0	20	7	603	7	7	617	9	0	12	0	21	6	409	2	11	417	18	1075	1093
04:45 PM	5	0	8	0	13	8	525	6	9	539	4	3	21	0	28	12	350	8	11	370	20	950	970
Total	18	1	69	0	88	34	2281	47	35	2362	30	6	50	0	86	44	1443	10	43	1497	78	4033	4111
05:00 PM	2	1	10	0	13	14	619	10	14	643	1	4	14	1	19	11	369	3	5	383	20	1058	1078
05:15 PM	2	1	9	0	12	8	511	16	10	535	6	0	9	0	15	13	343	6	8	362	18	924	942
05:30 PM	8	0	6	1	14	1	447	5	7	453	6	6	5	0	17	27	365	0	8	392	16	876	892
05:45 PM	0	0	5	0	5	7	419	11	7	437	3	3	9	0	15	15	311	1	9	327			

# Anoka County Highway Department Traffic Volume & Turning Movement Study

File Name : TMC9911  
Site Code : 99110201  
Start Date : 06/17/1999  
Page : 2

Groups Printed: 1 - 1 - Unshifted

Start Time	Sunset Rd. Southbound					TH 10 Westbound					CSAH 35 (Old Central) Northbound					TH 10 Eastbound					Exclu. Total	Inclu. Total	Int. Total			
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total						
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0							
08:00 PM	3	1	2	0	6	5	268	9	5	282	3	1	1	0	5	9	270	1	10	280	15	573	588			
08:15 PM	1	0	4	0	5	2	249	7	1	258	0	4	7	0	11	17	218	3	6	238	7	512	519			
08:30 PM	5	0	4	0	9	3	320	8	2	331	1	0	1	0	2	11	225	1	5	237	7	579	586			
08:45 PM	1	0	3	0	4	4	331	9	3	344	2	2	5	0	9	11	269	3	6	283	9	640	649			
Total	10	1	13	0	24	14	1168	33	11	1215	6	7	14	0	27	48	982	8	27	1038	38	2304	2342			
09:00 PM	3	0	3	0	6	2	308	5	5	315	1	0	1	0	2	8	238	8	3	254	8	577	585			
09:15 PM	2	1	1	0	4	6	282	5	2	293	0	0	0	0	0	11	269	5	6	285	8	582	590			
09:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	11	234	4	4	249	4	250	254			
09:45 PM	0	0	0	0	0	0	14	0	0	14	0	0	2	0	2	8	113	3	1	124	1	140	141			
Total	5	1	4	0	10	8	604	10	7	622	1	1	3	0	5	38	854	20	14	912	21	1549	1570			
Grand Total	289	76	717	33	1082	544	2191	609	846	23067	122	61	335	22	518	1051	2092	291	896	22263	1797	46930	48727			
Apprch %	26.7	7.0	66.3			2.4	95.0	2.6			23.6	11.8	64.7			4.7	94.0	1.3								
Total %	0.6	0.2	1.5		2.3	1.2	46.7	1.3		49.2	0.3	0.1	0.7		1.1	2.2	44.6	0.6		47.4	3.7	96.3				

or Street Approaches:

astbound:

TH 10

Data File: C:\APPS\Data Files\TMC9911.war  
 Count Type: IMC. Channel: 0. Count Date: 6/17/99  
 Number of Lanes: 2  
 Approach Speed: 50  
 Total Approach Traffic: 22263

Westbound:

TH 10

Data File: C:\APPS\Data Files\TMC9911.war  
 Count Type: IMC. Channel: 0. Count Date: 6/17/99  
 Number of Lanes: 2  
 Approach Speed: 50  
 Total Approach Traffic: 23067

Minor Street Approaches:

Northbound:

CSAH 35 (Old Central)

Data File: C:\APPS\Data Files\TMC9911.war  
 Count Type: IMC. Channel: 0. Count Date: 6/17/99  
 Number of Lanes: 1  
 Approach Speed: 40  
 Total Approach Traffic: 518

Southbound:

Sunset Rd.

Data File: C:\APPS\Data Files\TMC9911.war  
 Count Type: IMC. Channel: 0. Count Date: 6/17/99  
 Number of Lanes: 1  
 Approach Speed: 0  
 Total Approach Traffic: 1082

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 S 17	105	52	84
1	0	0 S 18	105	52	84
2	0	0 S 19	105	52	84
3	0	0 S 20	105	52	84
4	0	0 S 21	105	52	84
5	0	0 S 22	105	52	84
6	2824	102 S 2	MAIN 105	--BOTH-- 52	--BOTH-- 84
7	3428	164 S 1	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
8	2695	77 S 7	MAIN 105	--BOTH-- 52	MAIN 84
9	2084	61 S 12	MAIN 105	--BOTH-- 52	MAIN 84
10	2110	67 S 10	MAIN 105	--BOTH-- 52	MAIN 84
11	2646	68 S 8	MAIN 105	--BOTH-- 52	MAIN 84
12	2787	78 S 6	MAIN 105	--BOTH-- 52	MAIN 84
13	3333	68 S 9	MAIN 105	--BOTH-- 52	MAIN 84
14	3397	80 S 4	MAIN 105	--BOTH-- 52	MAIN 84
15	3929	79 S 5	MAIN 105	--BOTH-- 52	MAIN 84
16	3859	88 S 3	MAIN 105	--BOTH-- 52	--BOTH-- 84
17	3532	66 N 11	MAIN 105	--BOTH-- 52	MAIN 84
18	2745	43 S 13	MAIN 105	MAIN 52	MAIN 84
19	2174	29 S 14	MAIN 105	MAIN 52	MAIN 84
20	2253	27 N 15	MAIN 105	MAIN 52	MAIN 84
21	1534	10 S 16	MAIN 105	MAIN 52	MAIN 84
22	0	0 S 23	105	52	84
23	0	0 S 24	105	52	84

## Warrant Summary:

Rural values apply.

## Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 1 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

## Warrant 2 - Interruption of Continuous Traffic

SATISFIED for 12 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: 4033.

- 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 3 hours. Criteria--Main: 504; Side: See Volume Summary.

## Warrant 9 - Four Hour Volumes

SATISFIED for 12 hours.

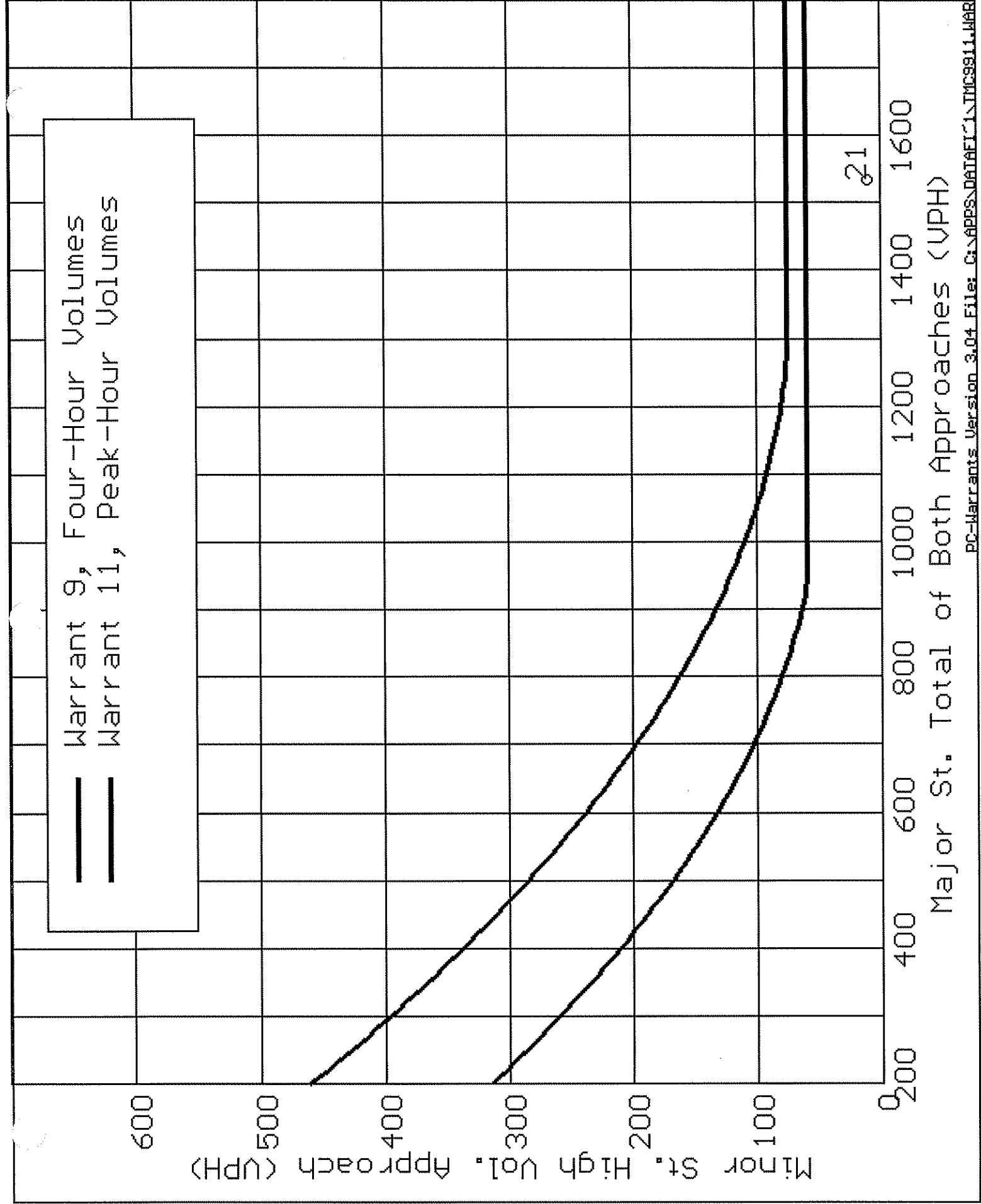
## Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1600 hours) volume not adequate.

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

## Warrant 11 - Peak Hour Volume

SATISFIED for 7 hours.



Major St. Total of Both Approaches (UPH)

21



COUNT LOCATION:

CSAH 35 (Old Central) @

DATE:

6/17/99

TH 10

APP. #1= EB TH 10

APP. #2= SB Sunset Rd.

APP. #3=WB TH 10

APP. #4= NB CSAH 35 (Old Central)

APP. #2

APP. #1

APP. #3

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
6:00-6:15AM						17	1	1
6:15-6:30						26		2
6:30-6:45						34		1
6:45-7:00						36		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>119</b>
7:00-7:15						30	3	3
7:15-7:30						28		1
7:30-7:45						26		
7:45-8:00						27		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>118</b>
8:00-8:15						34	1	
8:15-8:30						36	1	
8:30-8:45						45	2	3
8:45-9:00						39	2	1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>164</b>
9:00-9:15						44		1
9:15-9:30						41	1	1
9:30-9:45						39		
9:45-10:00						32	1	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>160</b>
10:00-10:15						31	1	
10:15-10:30						34		
10:30-10:45						28	1	1
10:45-11:00						30	1	1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>128</b>
11:00-11:15						45	1	3
11:15-11:30						47	1	1
11:30-11:45						40		
11:45-12:00						33	2	1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>174</b>
12:00-12:15						50		1
12:15-12:30						30	1	2
12:30-12:45						32	1	1
12:45-1:00						25	2	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>145</b>
1:00-1:15						49		1
1:15-1:30						40	4	2
1:30-1:45						22		
1:45-2:00						32	1	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>151</b>



COUNT LOCATION:

CSAH 35 (Old Central) @

DATE:

6/16/99

TH 10

APP. #1= EB TH 10

APP. #2 = SB Sunset Rd.

APP. #3= WB TH 10

APP. #4= NB CSAH 35  
(Old Central)

APP.  
#2

APP.  
#1

APP.  
#3

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						33		
2:15-2:30						37		5
2:30-2:45						25	1	1
2:45-3:00						37		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>139</b>
3:00-3:15						32	1	1
3:15-3:30						28	1	1
3:30-3:45						25	2	2
3:45-4:00						31		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>125</b>
4:00-4:15						25	1	1
4:15-4:30						21		1
4:30-4:45						18		1
4:45-5:00						25	1	1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>95</b>
5:00-5:15						14		1
5:15-5:30						15		2
5:30-5:45						17	1	
5:45-6:00						16		2
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>68</b>
6:00-6:15						14		
6:15-6:30						15		
6:30-6:45						12	1	1
6:45-7:00						12		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>55</b>
7:00-7:15						11	1	
7:15-7:30						13		
7:30-7:45						7		1
7:45-8:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>39</b>
8:00-8:15						14		
8:15-8:30						7		
8:30-8:45						8	1	1
8:45-9:00						7		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>38</b>
9:00-9:15						6		
9:15-9:30						5		
9:30-9:45						5	1	
9:45-10:00						9		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>26</b>