

Date: 06/06/00

Count Number: TMC0007

Location: CSAH 7 @

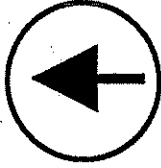
CSAH 20 (157th Ave.)

10783

#1

5482	389	TH
5093		TH
		D

5301



North

CSAH 20 (157th Ave.)

G	553	1742
H		
J	1189	

#2

3396

1654

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

CSAH 7

M	4748	6013
L	1265	
K		

#3

6282

12295

Anoka County Highway Department
Traffic Volume and Turning Movement Study

Anoka County Highway Department Traffic Engineering

Traffic Volume and Turning Movement Stud

Weather: Sunny
 Counter TDC-8
 Counted by: Ryan & Justin

File Name : TMC0007
 Site Code : 00070102
 Start Date : 06/06/2000
 Page No : 1

Groups Printed- 1 - 1 - Unshifted

Start Time	CSAH 7 Southbound					CSAH 20 (157th Ave.) Westbound					CSAH 7 Northbound					CSAH 20 (157th Ave.) Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	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				
06:00	5	160	0	0	165	19	0	2	0	21	0	5	9	1	14	0	0	0	0	0	1	200	201
06:15	7	207	0	2	214	36	0	0	0	36	0	18	7	0	25	0	0	0	0	0	2	275	277
06:30	7	244	0	1	251	44	0	3	0	47	0	27	8	3	35	0	0	0	0	0	4	333	337
06:45	6	198	0	0	204	27	0	1	2	28	0	34	15	3	49	0	0	0	0	0	5	281	286
Total	25	809	0	3	834	126	0	6	2	132	0	84	39	7	123	0	0	0	0	0	12	1089	1101
07:00	10	195	0	2	205	34	0	10	3	44	0	31	18	2	49	0	0	0	0	0	7	298	305
07:15	5	192	0	0	197	43	0	13	1	56	0	37	22	3	59	0	0	0	0	0	4	312	316
07:30	6	189	0	2	195	25	0	7	0	32	0	35	15	3	50	0	0	0	0	0	5	277	282
07:45	9	193	0	1	202	45	0	4	0	49	0	49	19	4	68	0	0	0	0	0	5	319	324
Total	30	769	0	5	799	147	0	34	4	181	0	152	74	12	226	0	0	0	0	0	21	1206	1227
08:00	3	165	0	10	168	54	0	6	1	60	0	37	20	3	57	0	0	0	0	0	14	285	299
08:15	8	146	0	2	154	43	0	4	0	47	0	34	16	0	50	0	0	0	0	0	2	251	253
08:30	7	155	0	2	162	15	0	6	5	21	0	39	7	2	46	0	0	0	0	0	9	229	238
08:45	9	102	0	1	111	12	0	3	0	15	0	33	7	1	40	0	0	0	0	0	2	166	168
Total	27	568	0	15	595	124	0	19	6	143	0	143	50	6	193	0	0	0	0	0	27	931	958
09:00	4	124	0	1	128	21	0	5	0	26	0	19	9	1	28	0	0	0	0	0	2	182	184
09:15	5	91	0	1	96	15	0	6	1	21	0	50	11	0	61	0	0	0	0	0	2	178	180
09:30	6	55	0	1	61	14	0	5	0	19	0	25	10	1	35	0	0	0	0	0	2	115	117
09:45	4	74	0	1	78	17	0	3	0	20	0	24	5	1	29	0	0	0	0	0	2	127	129
Total	19	344	0	4	363	67	0	19	1	86	0	118	35	3	153	0	0	0	0	0	8	602	610
10:00	7	58	0	0	65	11	0	9	0	20	0	23	9	1	32	0	0	0	0	0	1	117	118
10:15	1	73	0	1	74	14	0	9	2	23	0	16	13	0	29	0	0	0	0	0	3	126	129
10:30	4	47	0	1	51	17	0	6	0	23	0	51	11	0	62	0	0	0	0	0	1	136	137
10:45	9	58	0	0	67	18	0	7	3	25	0	49	18	3	67	0	0	0	0	0	6	159	165
Total	21	236	0	2	257	60	0	31	5	91	0	139	51	4	190	0	0	0	0	0	11	538	549
11:00	4	60	0	3	64	17	0	6	1	23	0	39	12	4	51	0	0	0	0	0	8	138	146
11:15	3	65	0	2	68	11	0	4	0	15	0	50	16	0	66	0	0	0	0	0	2	149	151
11:30	4	48	0	0	52	25	0	3	1	28	0	45	16	3	61	0	0	0	0	0	4	141	145
11:45	4	52	0	1	56	14	0	15	1	29	0	56	25	4	81	0	0	0	0	0	6	166	172
Total	15	225	0	6	240	67	0	28	3	95	0	190	69	11	259	0	0	0	0	0	20	594	614
12:00	5	46	0	3	51	8	0	1	0	9	0	46	8	1	54	0	0	0	0	0	4	114	118
12:15	8	55	0	1	63	14	0	6	2	20	0	68	11	1	79	0	0	0	0	0	4	162	166
12:30	5	67	0	4	72	11	0	4	0	15	0	61	17	1	78	0	0	0	0	0	5	165	170
12:45	8	48	0	1	56	18	0	6	0	24	0	63	15	0	78	0	0	0	0	0	1	158	159
Total	26	216	0	9	242	51	0	17	2	68	0	238	51	3	289	0	0	0	0	0	14	599	613
13:00	7	64	0	0	71	12	0	9	1	21	0	59	14	1	73	0	0	0	0	0	2	165	167
13:15	6	40	0	0	46	8	0	11	0	19	0	45	21	1	66	0	0	0	0	0	1	131	132
13:30	9	53	0	1	62	17	0	5	3	22	0	62	8	1	70	0	0	0	0	0	5	154	159
13:45	3	59	0	0	62	19	0	7	0	26	0	57	9	0	66	0	0	0	0	0	0	154	154
Total	25	216	0	1	241	56	0	32	4	88	0	223	52	3	275	0	0	0	0	0	8	604	612
14:00	5	49	0	2	54	6	0	4	0	10	0	43	4	2	47	0	0	0	0	0	4	111	115
14:15	4	62	0	1	66	17	0	9	1	26	0	86	24	2	110	0	0	0	0	0	4	202	206
14:30	6	76	0	0	82	18	0	8	1	26	0	83	26	2	109	0	0	0	0	0	3	217	220
14:45	8	65	0	4	73	16	0	0	0	16	0	98	18	1	116	0	0	0	0	0	5	205	210
Total	23	252	0	7	275	57	0	21	2	78	0	310	72	7	382	0	0	0	0	0	16	735	751
15:00	4	39	0	1	43	17	0	10	7	27	0	103	24	1	127	0	0	0	0	0	9	197	206
15:15	2	51	0	0	53	15	0	10	0	25	0	111	35	1	146	0	0	0	0	0	1	224	225
15:30	4	57	0	4	61	21	0	5	1	26	0	141	31	0	172	0	0	0	0	0	5	259	264
15:45	2	54	0	0	56	15	0	19	3	34	0	178	57	8	235	0	0	0	0	0	11	325	336
Total	12	201	0	5	213	68	0	44	11	112	0	533	147	10	680	0	0	0	0	0	26	1005	1031
16:00	6	46	0	4	52	15	0	23	1	38	0	160	36	1	196	0	0	0	0	0	6	286	292
16:15	8	55	0	3	63	15	0	19	6	34	0	188	31	0	219	0	0	0	0	0	9	316	325
16:30	4	55	0	0	59	18	0	13	2	31	0	181	30	1	211	0	0	0	0	0	3	301	304
16:45	6	59	0	1	65	21	0	21	2	42	0	142	27	3	169	0	0	0	0	0	6	276	282
Total	24	215	0	8	239	69	0	76	11	145	0	671	124	5	795	0	0	0	0	0	24	1179	1203

Anoka County Highway Department
Traffic Engineering

Traffic Volume and Turning Movement Stud

Weather: Sunny
Counter TDC-8
Counted by: Ryan & Justin

File Name : TMC0007
Site Code : 00070102
Start Date : 06/06/2000
Page No : 2

Groups Printed- 1 - 1 - Unshifted

Start Time	CSAH 7 Southbound					CSAH 20 (157th Ave.) Westbound					CSAH 7 Northbound					CSAH 20 (157th Ave.) Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	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				
17:00	6	51	0	1	57	23	0	9	1	32	0	146	38	5	184	0	0	0	0	0	0	7	273
17:15	5	54	0	0	59	25	0	14	1	39	0	207	29	0	236	0	0	0	0	0	0	1	334
17:30	7	64	0	1	71	28	0	16	4	42	0	180	33	1	213	0	0	0	0	0	0	6	326
17:45	5	51	0	0	56	13	0	7	0	20	0	158	42	0	200	0	0	0	0	0	0	0	276
Total	23	220	0	2	243	87	0	46	6	133	0	691	142	6	833	0	0	0	0	0	0	14	1209
18:00	7	76	0	0	83	28	0	13	3	41	0	164	45	0	209	0	0	0	0	0	0	3	333
18:15	6	63	0	0	69	22	0	20	0	42	0	117	30	0	147	0	0	0	0	0	0	0	258
18:30	11	76	0	0	87	13	0	10	0	23	0	89	14	0	103	0	0	0	0	0	0	0	213
18:45	12	82	0	0	94	15	0	11	2	26	0	69	37	0	106	0	0	0	0	0	0	2	226
Total	35	297	0	0	333	78	0	54	5	132	0	439	126	0	565	0	0	0	0	0	0	5	1030
19:00	11	71	0	0	82	18	0	13	2	31	0	67	36	4	103	0	0	0	0	0	0	6	216
19:15	10	53	0	0	63	6	0	14	0	20	0	81	32	0	113	0	0	0	0	0	0	0	196
19:30	7	45	0	0	52	7	0	8	0	15	0	81	12	0	93	0	0	0	0	0	0	0	160
19:45	7	47	0	0	54	11	0	16	0	27	0	76	35	0	111	0	0	0	0	0	0	0	192
Total	35	216	0	0	251	42	0	51	2	93	0	305	115	4	420	0	0	0	0	0	0	6	764
20:00	7	37	0	0	44	10	0	7	0	17	0	73	9	1	82	0	0	0	0	0	0	1	143
20:15	5	45	0	0	50	6	0	6	0	12	0	90	10	0	100	0	0	0	0	0	0	0	162
20:30	7	32	0	0	39	7	0	10	0	17	0	52	17	0	69	0	0	0	0	0	0	0	125
20:45	5	54	0	0	59	14	0	13	0	27	0	47	13	0	60	0	0	0	0	0	0	0	146
Total	24	168	0	0	192	37	0	36	0	73	0	262	49	1	311	0	0	0	0	0	0	1	576
21:00	9	38	0	1	47	16	0	13	0	29	0	52	15	0	67	0	0	0	0	0	0	1	143
21:15	4	43	0	0	47	13	0	11	0	24	0	51	16	0	67	0	0	0	0	0	0	0	138
21:30	6	31	0	0	37	10	0	8	0	18	0	85	22	0	107	0	0	0	0	0	0	0	162
21:45	5	29	0	0	34	14	0	7	0	21	0	62	16	0	78	0	0	0	0	0	0	0	133
Total	24	141	0	1	165	53	0	39	0	92	0	250	69	0	319	0	0	0	0	0	0	1	576
Grand Total	389	509	0	68	5482	1189	0	553	64	1742	0	4748	1265	82	6013	0	0	0	0	0	214	13237	13451
Approch %	7.1	92.9	0.0			68.3	0.0	31.7			0.0	79.0	21.0			0.0	0.0	0.0					
Total %	2.9	38.5	0.0		41.4	9.0	0.0	4.2		13.2	0.0	35.9	9.6		45.4	0.0	0.0	0.0		0.0	1.6	98.4	

Major Street Approaches:

Northbound:

CSAH 7

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0007.war
 Count Type: IMC. Channel: 0. Count Date: 6/ 6/ 0
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 6013

Southbound:

CSAH 7

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0007.war
 Count Type: IMC. Channel: 0. Count Date: 6/ 6/ 0
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 5482

Minor Street Approaches:

Eastbound:

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0007.war
 Count Type: IMC. Channel: 0. Count Date: 6/ 6/ 0
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 0

Westbound:

CSAH 20 (157th Ave.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0007.war
 Count Type: IMC. Channel: 0. Count Date: 6/ 6/ 0
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 1742

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 W 17	105	52	84
1	0	0 W 18	105	52	84
2	0	0 W 19	105	52	84
3	0	0 W 20	105	52	84
4	0	0 W 21	105	52	84
5	0	0 W 22	105	52	84
-6	957	132 W 5	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
-7	1025	181 W 1	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
-8	788	143 W 3	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
9	516	86 W 13	MAIN 105	SIDE 52	--BOTH-- 84
10	447	91 W 11	MAIN 105	SIDE 52	SIDE 84
11	499	95 W 8	MAIN 105	SIDE 52	SIDE 84
12	531	68 W 16	MAIN 105	SIDE 52	MAIN 84
13	516	88 W 12	MAIN 105	SIDE 52	--BOTH-- 84
14	657	78 W 14	MAIN 105	--BOTH-- 52	MAIN 84
-15	893	112 W 7	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
-16	1034	145 W 2	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
-17	1076	133 W 4	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
-18	898	132 W 6	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
19	671	93 W 9	MAIN 105	--BOTH-- 52	--BOTH-- 84
20	503	73 W 15	MAIN 105	SIDE 52	84
21	484	92 W 10	MAIN 105	SIDE 52	SIDE 84
22	0	0 W 23	105	52	84
23	0	0 W 24	105	52	84

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 7 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

SATISFIED for 9 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.

Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. 8th-High Hour--Pedestrians: 4; Vehicles: 516. Criteria--Pedestrians: 105; Vehicles: 420.

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: 1209.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which connect areas of principal traffic generation.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which have surface street freeway or expressway ramp terminals.
- Approaches which appear as a major route in an official transportation plan.

Warrant 8 - Combination of Warrants

SATISFIED for 10 hours. Criteria--Main: 504; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

SATISFIED for 7 hours.

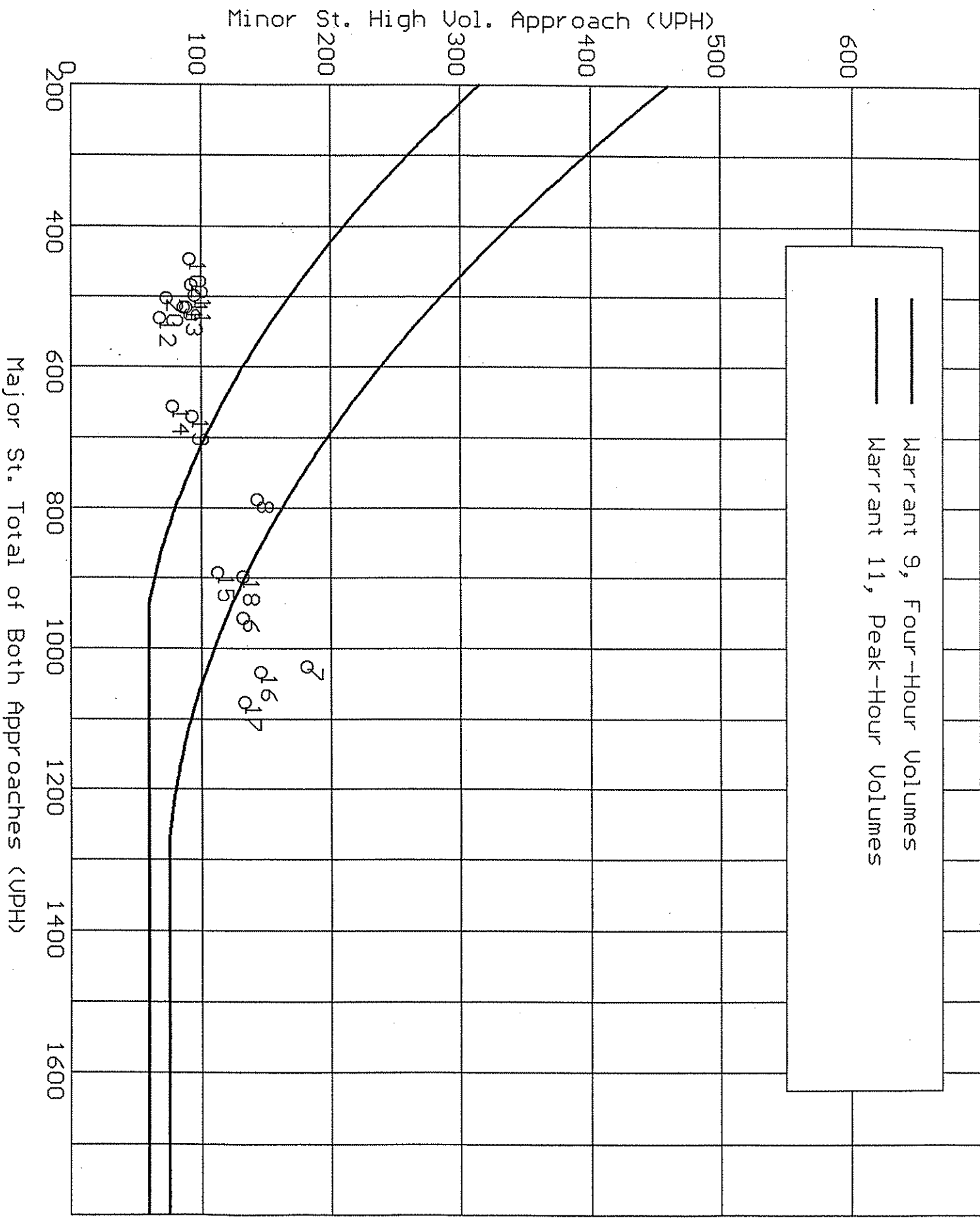
Warrant 10 - Peak Hour Delay

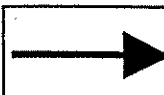
NOT APPLICABLE. Volume requirements satisfied, but side street peak hour delay not defined.

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

Warrant 11 - Peak Hour Volume

SATISFIED for 5 hours.

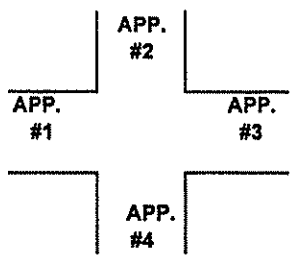




COUNT LOCATION: CSAH 7@
CSAH 20

DATE: 6/8/00

NORTH
APP. #1 = NB CSAH 7
APP. #2 =
APP. #3 = SB CSAH 7
APP. #4 = WB CSAH 20



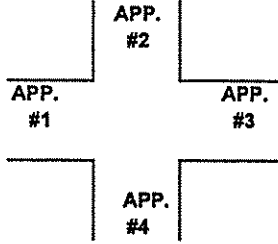
HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
 A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 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						1		
6:15-6:30						2		
6:30-6:45						1		3
6:45-7:00						4		1
HOURLY TOTAL						HOURLY TOTAL		12
7:00-7:15						4		4
7:15-7:30						3		1
7:30-7:45						2	1	3
7:45-8:00						2		3
HOURLY TOTAL						HOURLY TOTAL		23
8:00-8:15						3		12
8:15-8:30						1		1
8:30-8:45						3	1	5
8:45-9:00						1		1
HOURLY TOTAL						HOURLY TOTAL		28
9:00-9:15						1		
9:15-9:30							1	1
9:30-9:45						2		1
9:45-10:00						2		
HOURLY TOTAL						HOURLY TOTAL		8
10:00-10:15						1		
10:15-10:30						3		
10:30-10:45						3		
10:45-11:00						6		
HOURLY TOTAL						HOURLY TOTAL		13
11:00-11:15						7	1	
11:15-11:30						2		
11:30-11:45						4		
11:45-12:00						5	1	
HOURLY TOTAL						HOURLY TOTAL		20
12:00-12:15						4		
12:15-12:30						2		
12:30-12:45						4		1
12:45-1:00						1		
HOURLY TOTAL						HOURLY TOTAL		12
1:00-1:15						1		
1:15-1:30						2		
1:30-1:45						5		
1:45-2:00								
HOURLY TOTAL						HOURLY TOTAL		8



COUNT LOCATION: CSAH 7@ DATE: 6/6/00
CSAH 20

APP. #1 = NB CSAH 7
 APP. #2 =
 APP. #3 = SB CSAH 7
 APP. #4 = WB CSAH 20



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						4		
2:15-2:30						3		1
2:30-2:45						1		2
2:45-3:00						4		1
HOURLY TOTAL						HOURLY TOTAL		16
3:00-3:15						5		4
3:15-3:30						2		2
3:30-3:45						4		1
3:45-4:00						7	1	3
HOURLY TOTAL						HOURLY TOTAL		29
4:00-4:15						3		3
4:15-4:30						7	1	1
4:30-4:45						2	1	
4:45-5:00						3	1	2
HOURLY TOTAL						HOURLY TOTAL		24
5:00-5:15						6		
5:15-5:30						1		
5:30-5:45						6		
5:45-6:00								1
HOURLY TOTAL						HOURLY TOTAL		14
6:00-6:15						3		
6:15-6:30								
6:30-6:45								
6:45-7:00						2		
HOURLY TOTAL						HOURLY TOTAL		5
7:00-7:15						6		
7:15-7:30								
7:30-7:45								
7:45-8:00								
HOURLY TOTAL						HOURLY TOTAL		6
8:00-8:15						1		
8:15-8:30								
8:30-8:45								
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		1
9:00-9:15						1		
9:15-9:30								
9:30-9:45								
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		1

Handwritten: Total = 219