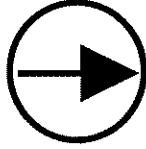


Date : 8/4/98AM 8/5/98PM

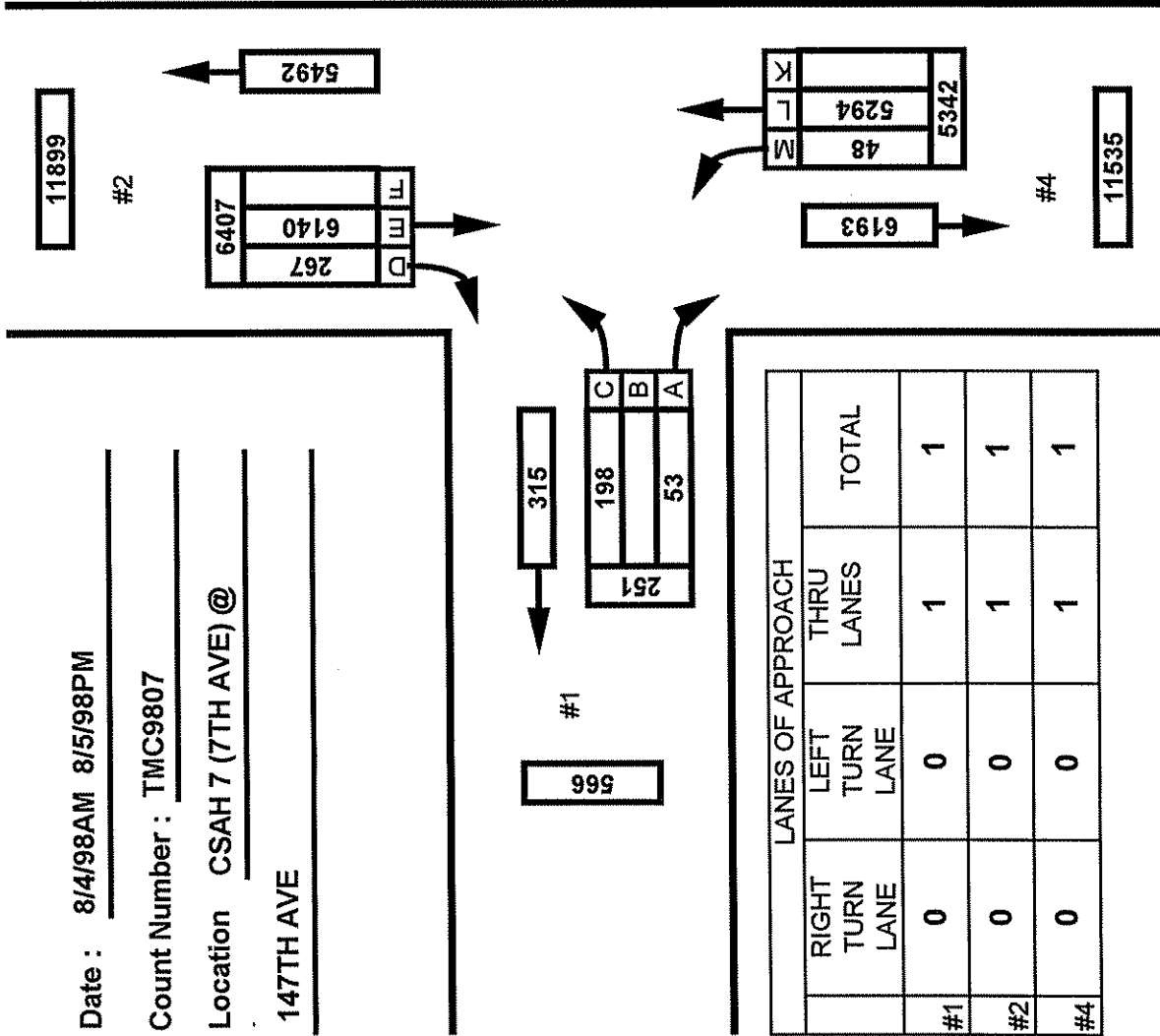
Count Number : TMC9807

Location CSAH 7 (7TH AVE) @

147TH AVE



North



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

Anoka County Highway Department

Traffic Volume and Turning

Movement Study

Weather :
 Counted by: Sarah and Vallie
 Board # :
 ther :

PETRA Software
 Copyright (C) 1990, 1995
 Jamar Technologies, Inc.
 Horsham, PA.

Study Name: TMC9807
 Site Code : 98070202
 Start Date: 08/04/98
 Page : 1

Vehicle group 1

Start Time	CSAH 7 (7TH AVE.) Southbound			147TH AVE. Westbound			CSAH 7 (7TH AVE.) Northbound			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
08/04/98												
06:00	0	179	1	2	1	0	24	1	0	208	1	207
06:15	0	199	0	9	0	0	32	2	3	245	3	242
06:30	1	185	6	7	0	0	46	1	5	251	11	240
06:45	0	193	4	11	0	0	38	2	6	254	10	244
Hour	1	756	11	29	1	0	140	6	14	958	25	933
07:00	0	218	3	3	0	0	29	0	1	254	4	250
07:15	2	176	1	6	2	0	42	6	5	240	6	234
07:30	0	134	4	2	0	0	32	2	0	174	4	170
07:45	0	144	2	5	0	1	36	0	1	189	4	185
Hour	2	672	10	16	2	1	139	8	7	857	18	839
08:00	1	106	4	4	0	0	44	1	0	160	4	156
08:15	1	109	3	3	0	0	41	1	4	162	7	155
08:30	2	59	1	6	1	0	46	3	7	125	8	117
08:45	0	73	1	2	2	0	51	1	3	133	4	129
Hour	4	347	9	15	3	0	182	6	14	580	23	557
09:00	0	69	2	1	1	0	38	0	2	113	4	109
09:15	14	39	2	1	0	0	47	1	3	107	5	102
09:30	1	62	3	1	2	0	47	5	5	126	8	118
09:45	2	63	2	2	1	0	48	2	3	123	5	118
Hour	17	233	9	5	4	0	180	8	13	469	22	447
10:00	2	50	2	1	2	0	43	1	0	101	2	99
10:15	0	51	4	3	0	0	53	2	5	118	9	109
10:30	0	71	6	1	2	1	57	3	2	143	9	134
10:45	0	58	1	0	2	1	54	3	7	126	9	117
Hour	2	230	13	5	6	2	207	9	14	488	29	459
11:00	0	69	5	3	0	0	52	2	1	132	6	126
11:15	1	77	6	4	0	0	46	5	1	140	7	133
11:30	0	40	5	1	0	0	62	4	4	116	9	107
11:45	0	55	1	2	0	0	53	3	3	117	4	113
Hour	1	241	17	10	0	0	213	14	9	505	26	479
12:00	0	67	3	2	1	0	58	2	3	136	6	130
12:15	0	77	4	2	0	0	75	3	4	165	8	157
12:30	1	76	4	3	1	0	56	2	1	144	5	139
12:45	0	71	4	3	0	0	73	0	7	158	11	147
Hour	1	291	15	10	2	0	262	7	15	603	30	573

Weather :
 Counted by: Sarah and Vallie
 Board # :
 Other :

PETRA Software
 Copyright (C) 1990, 1995
 Jamar Technologies, Inc.
 Horsham, PA.

Study Name: TMC9807
 Site Code : 98070202
 Start Date: 08/04/98
 Page : 2

Vehicle group 1

Start Time	CSAH 7 (7TH AVE.) Southbound			147TH AVE. Westbound			CSAH 7 (7TH AVE.) Northbound			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
13:00	0	78	4	3	0	0	61	0	4	150	8	142
13:15	0	78	10	1	2	0	70	1	5	167	15	152
13:30	0	69	10	3	1	0	60	2	5	150	15	135
13:45	0	81	1	1	0	0	86	5	6	180	7	173
Hour	0	306	25	8	3	0	277	8	20	647	45	602
14:00	0	77	2	3	0	1	68	8	4	163	7	156
14:15	1	51	2	1	0	0	54	0	2	111	4	107
14:30	0	77	4	0	3	0	112	6	3	205	7	198
14:45	0	81	7	1	2	0	93	3	5	192	12	180
Hour	1	286	15	5	5	1	327	17	14	671	30	641
15:00	2	56	4	2	1	1	120	3	5	194	10	184
15:15	1	66	1	4	0	0	193	5	5	275	6	269
15:30	1	77	3	3	1	0	155	10	6	256	9	247
15:45	0	75	2	1	0	0	179	6	5	268	7	261
Hour	4	274	10	10	2	1	647	24	21	993	32	961
16:00	1	76	6	2	0	0	202	6	6	299	12	287
16:15	0	86	3	5	0	1	235	8	2	340	6	334
16:30	0	90	1	2	0	0	181	4	2	280	3	277
16:45	0	105	7	1	1	0	242	3	3	362	10	352
Hour	1	357	17	10	1	1	860	21	13	1281	31	1250
17:00	2	66	0	1	2	0	225	14	3	313	3	310
17:15	1	101	4	3	1	0	220	5	0	335	4	331
17:30	1	83	5	5	1	0	211	9	3	318	8	310
17:45	1	99	1	0	5	0	202	16	3	327	4	323
Hour	5	349	10	9	9	0	858	44	9	1293	19	1274
18:00	1	80	1	6	1	0	170	6	1	266	2	264
18:15	0	80	1	4	2	0	172	9	3	271	4	267
18:30	1	86	2	6	1	0	140	6	2	244	4	240
18:45	0	99	2	4	0	0	132	7	1	245	3	242
Hour	2	345	6	20	4	0	614	28	7	1026	13	1013
19:00	2	79	2	5	2	0	139	7	1	237	3	234
19:15	2	67	0	10	3	0	126	6	0	214	0	214
19:30	0	75	0	3	0	0	108	6	2	194	2	192
19:45	1	60	0	2	1	0	117	2	3	186	3	183
Hour	5	281	2	20	6	0	490	21	6	831	8	823

Weather :
 Counted by: Sarah and Vallie
 Board # :
 Ther :

PETRA Software
 Copyright (C) 1990, 1995
 Jamar Technologies, Inc.
 Horsham, PA.

Study Name: TMC9807
 Site Code : 98070202
 Start Date: 08/04/98
 Page : 3

Vehicle group 1

Start Time	CSAH 7 (7TH AVE.) Southbound			147TH AVE. Westbound			CSAH 7 (7TH AVE.) Northbound			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
20:00	1	47	1	4	1	0	89	5	1	149	2	147
20:15	1	47	0	1	0	0	79	7	0	135	0	135
20:30	0	40	1	2	1	0	104	3	4	155	5	150
20:45	0	30	0	4	0	0	99	6	2	141	2	139
Hour	2	164	2	11	2	0	371	21	7	580	9	571
21:00	0	38	0	4	1	0	97	7	2	149	2	147
21:15	0	50	1	2	0	0	108	7	0	168	1	167
21:30	0	46	0	8	1	0	87	7	1	150	1	149
21:45	0	28	0	1	1	0	81	4	1	116	1	115
Hour	0	162	1	15	3	0	373	25	4	583	5	578
Total	48	5294	172	198	53	6	6140	267	187	12365	365	12000
% Apr.	0.8	96.0	3.1	77.0	20.6	2.3	93.1	4.0	2.8	-	-	-
% Int.	0.3	42.8	1.3	1.6	0.4	-	49.6	2.1	1.5	-	-	-

Major Street Approaches:

Northbound:

CSAH 7 (7TH AVE.)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9807.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 4/98
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 6407

Southbound:

CSAH 7 (7TH AVE.)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9807.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 4/98
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 5342

Minor Street Approaches:

Eastbound:

147TH AVE.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9807.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 4/98
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 0

Westbound:

147TH AVE.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9807.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 4/98
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 251

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.	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	903	30 W 1	MAIN 105	MAIN 52	MAIN 84
7	821	18 W 4	MAIN 105	MAIN 52	MAIN 84
8	539	18 W 5	MAIN 105	MAIN 52	MAIN 84
9	438	9 W 16	MAIN 105	52	MAIN 84
10	448	11 W 11	MAIN 105	52	MAIN 84
11	469	10 W 14	MAIN 105	52	MAIN 84
12	561	12 W 9	MAIN 105	MAIN 52	MAIN 84
13	591	11 W 12	MAIN 105	MAIN 52	MAIN 84
14	631	10 W 15	MAIN 105	MAIN 52	MAIN 84
15	949	12 W 10	MAIN 105	MAIN 52	MAIN 84
16	1239	11 W 13	MAIN 105	MAIN 52	MAIN 84
17	1256	18 W 6	MAIN 105	MAIN 52	MAIN 84
18	989	24 W 3	MAIN 105	MAIN 52	MAIN 84
19	797	26 W 2	MAIN 105	MAIN 52	MAIN 84
20	858	13 W 8	MAIN 105	MAIN 52	MAIN 84
21	560	18 W 7	MAIN 105	MAIN 52	MAIN 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 0 hours. Criteria--Main St.: 350; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 525; 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: 1274.

- 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 0 hours. Criteria--Main: 420; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 0 hours.

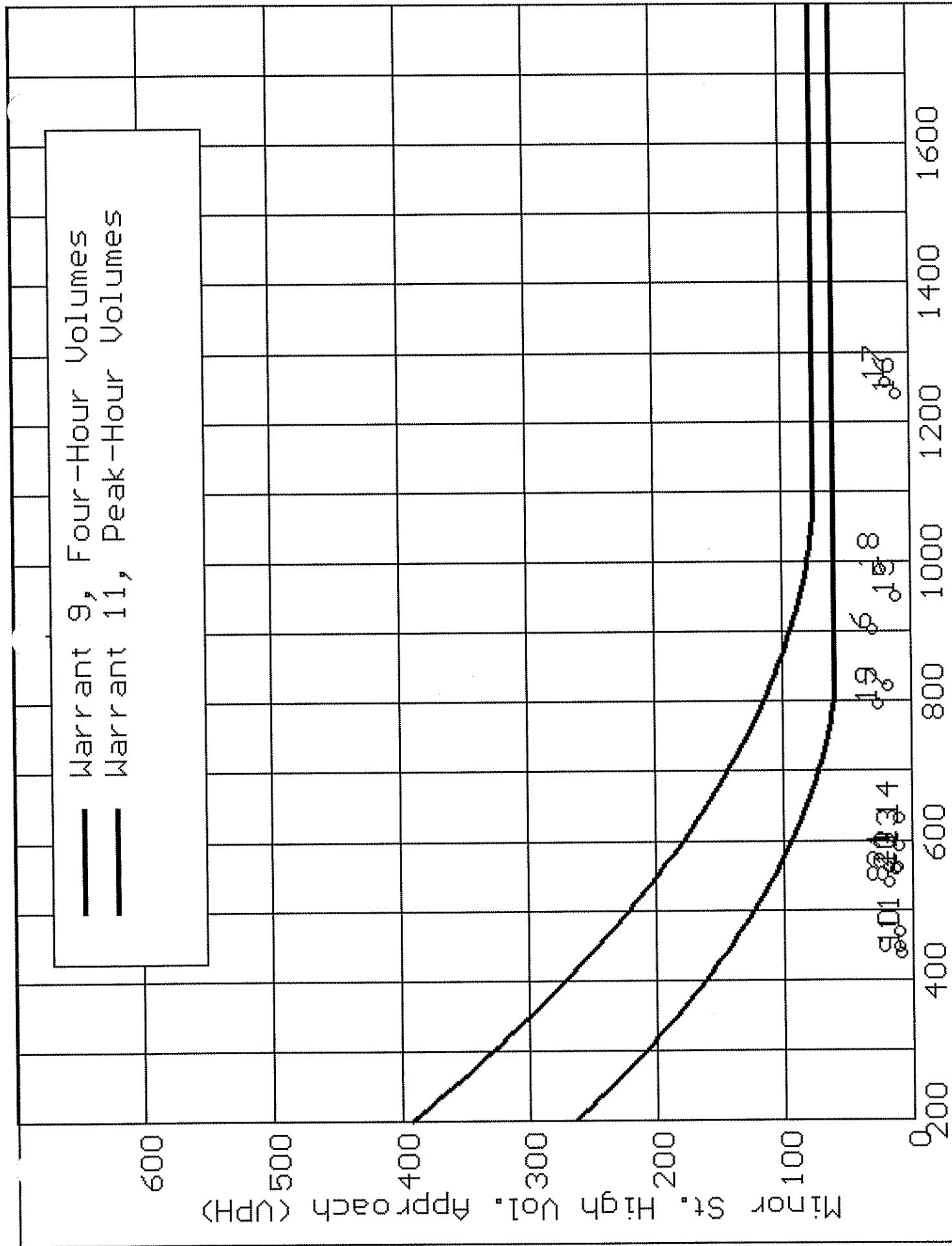
Warrant 10 - Peak Hour Delay

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.



— Warrant 9, Four-Hour Volumes
 — Warrant 11, Peak-Hour Volumes

Major St. Total of Both Approaches (VPH)



COUNT LOCATION:

CSAH 7 (7TH AVE)

DATE:

8/4/98

@ 147TH AVE

APP. #1= WB
(147TH AVE)
APP. #2 = NB CSAH 7
(7TH AVE)
APP. #3= EB
(YARD)
APP. #4= SB CSAH 7
(7TH AVE)

APP.
#1

APP.
#2

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								1
6:15-6:30						3		
6:30-6:45						11		
6:45-7:00						9		1
HOURLY TOTAL						HOURLY TOTAL		25
7:00-7:15						4		
7:15-7:30						6		
7:30-7:45						4		
7:45-8:00						4		
HOURLY TOTAL						HOURLY TOTAL		18
8:00-8:15						4		
8:15-8:30						7		
8:30-8:45						8		
8:45-9:00						4		
HOURLY TOTAL						HOURLY TOTAL		23
9:00-9:15						4		
9:15-9:30						5		
9:30-9:45						8		
9:45-10:00			1			5		
HOURLY TOTAL						HOURLY TOTAL		22
10:00-10:15						2		
10:15-10:30						9		
10:30-10:45						9		
10:45-11:00						9		
HOURLY TOTAL						HOURLY TOTAL		29
11:00-11:15						6		
11:15-11:30						7		
11:30-11:45						8		1
11:45-12:00						4		
HOURLY TOTAL						HOURLY TOTAL		26
12:00-12:15	2					6		
12:15-12:30						9		
12:30-12:45						4		
12:45-1:00						11		
HOURLY TOTAL						HOURLY TOTAL		30
1:00-1:15						8		
1:15-1:30						14		
1:30-1:45						15		
1:45-2:00						7		
HOURLY TOTAL						HOURLY TOTAL		44



COUNT LOCATION:

CSAH 7 (7TH AVE)

DATE:

8/5/98

@ 147TH AVE

APP. #1= WB
(147TH AVE)
APP. #2 = NB CSAH 7
(7TH AVE)
APP. #3= EB
(YARD)
APP. #4= SB CSAH 7
(7TH AVE)

APP.
#1

APP.
#2

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						9		
2:15-2:30						2		
2:30-2:45	1				1	9		
2:45-3:00						9		
HOURLY TOTAL					1	HOURLY TOTAL		29
3:00-3:15						8	1	1
3:15-3:30						6		
3:30-3:45						9		
3:45-4:00						7		
HOURLY TOTAL						HOURLY TOTAL		32
4:00-4:15						10		
4:15-4:30	1					5	1	1
4:30-4:45						3		
4:45-5:00						9	1	
HOURLY TOTAL						HOURLY TOTAL		30
5:00-5:15						3		
5:15-5:30		1			1	4		
5:30-5:45						8		
5:45-6:00	1	2			3	4		
HOURLY TOTAL					4	HOURLY TOTAL		19
6:00-6:15						2		
6:15-6:30	1				1	4		
6:30-6:45	1				1	4		
6:45-7:00						2	1	
HOURLY TOTAL					2	HOURLY TOTAL		13
7:00-7:15						3		
7:15-7:30								
7:30-7:45						2		
7:45-8:00						3		
HOURLY TOTAL						HOURLY TOTAL		8
8:00-8:15						2		
8:15-8:30								
8:30-8:45	1				1	5		
8:45-9:00						2		
HOURLY TOTAL					1	HOURLY TOTAL		9
9:00-9:15						2		
9:15-9:30						1		
9:30-9:45						1		
9:45-10:00						1		
HOURLY TOTAL						HOURLY TOTAL		5