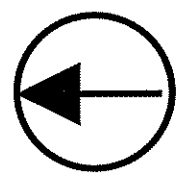


Date : 6/17/98AM 6/18/98PM

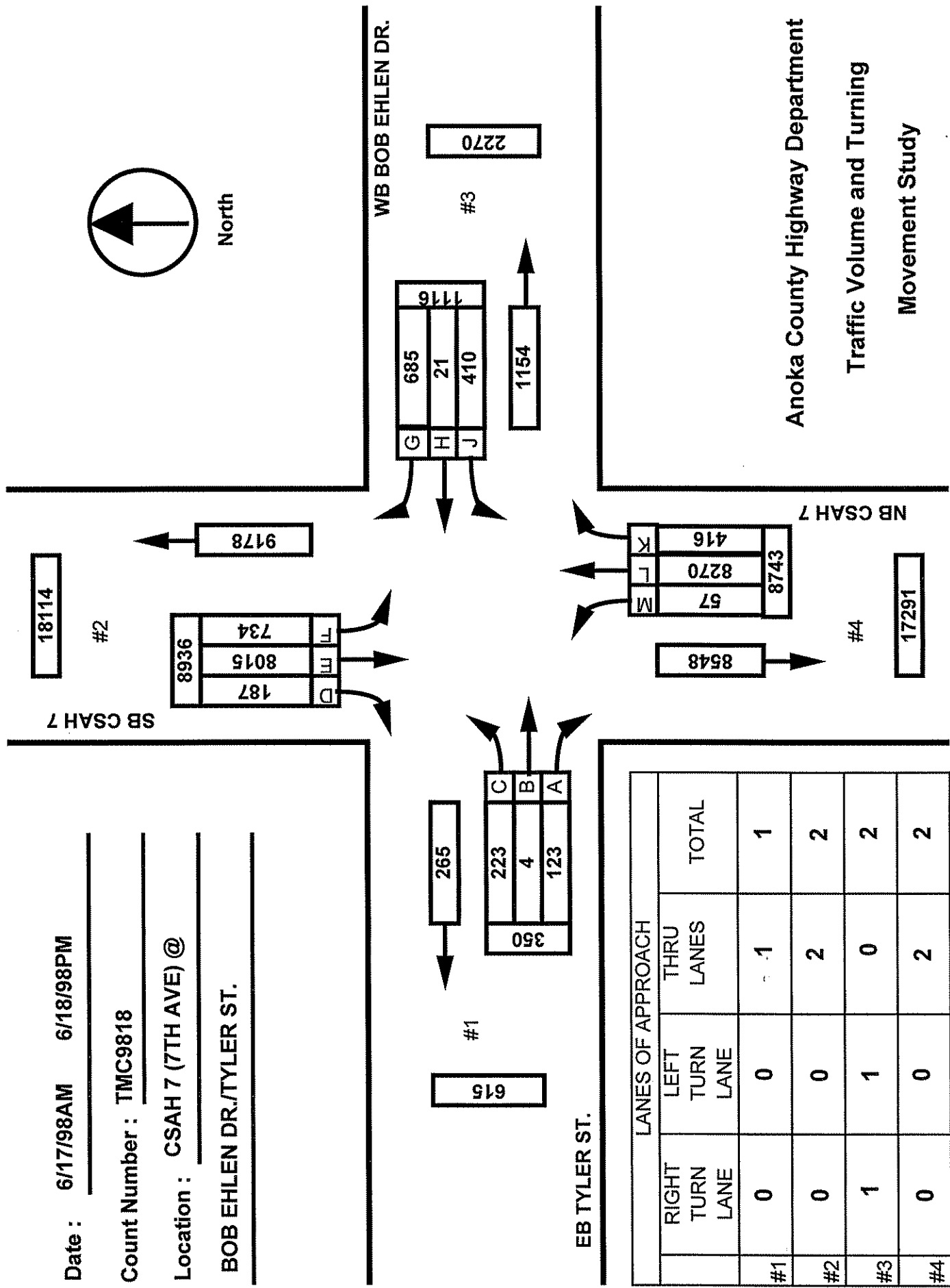
Count Number : TMC9818

Location : CSAH 7 (7TH AVE) @

BOB EHLEN DR./TYLER ST.



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Weather :
 Counted by: SARAH AND VALLIE
 Board # :
 cher :

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 Horsham, PA.

Study Name: TMC9818
 Site Code : 98180202
 Start Date: 06/17/98
 Page : 1

Vehicle group 1

Start Time	CSAH 7 (7TH AVE) Southbound				BOB EHLEN DR. Westbound				CSAH 7 (7TH AVE) Northbound				EB TYLER ST. Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
06/17/98																			
06:00	16	86	0	1	1	0	0	0	0	38	11	1	4	0	0	0	158	2	156
06:15	56	145	0	3	0	0	2	0	0	43	24	3	0	0	0	0	276	6	270
06:30	75	170	1	1	12	16	7	1	0	70	19	1	1	1	2	0	377	3	374
06:45	64	187	1	3	1	0	2	0	0	70	21	13	0	0	2	0	364	16	348
Hour	211	588	2	8	14	16	11	1	0	221	75	18	5	1	4	0	1175	27	1148
07:00	17	98	5	4	13	0	62	1	0	99	18	4	6	0	0	0	327	9	318
07:15	35	131	2	5	4	0	10	0	0	90	12	10	3	0	0	0	302	15	287
07:30	40	172	0	4	4	0	5	0	0	83	21	3	2	0	0	0	334	7	327
07:45	58	216	2	8	2	0	4	0	0	110	25	7	2	0	0	0	434	15	419
Hour	150	617	9	21	23	0	81	1	0	382	76	24	13	0	0	0	1397	46	1351
08:00	24	161	0	5	1	0	0	0	0	86	14	7	1	0	2	0	301	12	289
08:15	16	140	4	7	2	0	3	1	0	93	10	7	6	0	1	0	290	15	275
08:30	16	112	1	4	2	0	2	1	1	98	6	7	4	0	3	0	257	12	245
08:45	6	137	1	8	0	0	7	0	0	97	9	6	6	0	4	0	281	14	267
Hour	62	550	6	24	5	0	12	2	1	374	39	27	17	0	10	0	1129	53	1076
09:00	7	127	0	13	1	0	4	1	0	96	3	2	3	0	1	1	259	17	242
09:15	3	100	3	7	2	0	4	0	0	110	3	2	4	0	2	0	240	9	231
09:30	2	120	3	4	1	0	2	0	0	98	3	8	2	0	7	0	250	12	238
09:45	3	145	4	6	1	0	6	1	1	108	4	3	0	0	3	0	285	10	275
Hour	15	492	10	30	5	0	16	2	1	412	13	15	9	0	13	1	1034	48	986
10:00	5	111	4	2	2	0	3	0	1	121	1	4	4	0	5	0	263	6	257
10:15	4	144	3	6	3	0	3	0	0	128	1	4	2	0	5	0	303	10	293
10:30	2	83	5	5	5	0	3	1	0	135	2	7	3	0	0	0	251	13	238
10:45	2	123	3	0	3	0	4	2	1	124	3	8	5	0	5	1	284	11	273
Hour	13	461	15	13	13	0	13	3	2	508	7	23	14	0	15	1	1101	40	1061
11:00	2	123	1	3	6	0	6	1	0	161	1	11	3	0	1	0	319	15	304
11:15	7	114	2	6	6	1	9	0	0	133	2	7	2	0	1	0	290	13	277
11:30	6	137	0	4	8	0	16	0	0	108	7	1	2	0	2	0	291	5	286
11:45	4	98	0	3	9	0	18	0	4	146	5	4	3	0	2	0	296	7	289
Hour	19	472	3	16	29	1	49	1	4	548	15	23	10	0	6	0	1196	40	1156
12:00	11	134	4	7	12	0	20	0	2	174	6	5	6	1	4	0	386	12	374
12:15	13	143	2	4	7	1	9	0	2	146	8	9	2	0	1	0	347	13	334
12:30	13	162	8	9	4	0	3	0	1	132	7	3	5	0	1	0	348	12	336
12:45	12	144	5	4	7	0	2	0	2	125	11	9	6	0	3	1	331	14	317
Hour	49	583	19	24	30	1	34	0	7	577	32	26	19	1	9	1	1412	51	1361

Weather :
 Counted by: SARAH AND VALLIE
 Board # :
 Character :

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 Horsham, PA.

Study Name: TMC9818
 Site Code : 98180202
 Start Date: 06/17/98
 Page : 2

Vehicle group 1

Start Time	CSAH 7 (7TH AVE) Southbound				BOB EHLEN DR. Westbound				CSAH 7 (7TH AVE) Northbound				EB TYLER ST. Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
13:00	7	156	3	9	3	1	13	0	0	134	8	6	2	0	3	1	346	16	330
13:15	6	133	0	4	1	0	7	0	1	149	7	10	6	0	3	0	327	14	313
13:30	14	138	5	3	3	0	8	0	2	126	4	9	3	0	2	0	317	12	305
13:45	3	145	4	6	7	0	4	1	1	125	10	3	0	0	3	0	312	10	302
Hour	30	572	12	22	14	1	32	1	4	534	29	28	11	0	11	1	1302	52	1250
14:00	3	152	6	6	5	0	14	0	1	148	6	9	9	0	4	0	363	15	348
14:15	23	181	1	2	6	0	4	0	0	136	5	3	3	1	2	0	367	5	362
14:30	35	156	3	3	17	0	7	1	1	149	12	6	2	0	4	0	396	10	386
14:45	14	153	4	3	9	0	19	0	2	160	6	5	7	0	2	0	384	8	376
Hour	75	642	14	14	37	0	44	1	4	593	29	23	21	1	12	0	1510	38	1472
15:00	3	134	2	1	80	0	89	2	4	244	4	2	6	0	3	0	574	5	569
15:15	3	124	4	3	10	0	32	0	0	160	8	2	4	0	4	0	354	5	349
15:30	4	117	4	2	11	0	21	0	5	196	2	1	3	0	4	0	370	3	367
15:45	4	142	3	6	6	0	14	0	0	182	5	5	7	0	1	0	375	11	364
Hour	14	517	13	12	107	0	156	2	9	782	19	10	20	0	12	0	1673	24	1649
16:00	7	148	8	6	12	0	29	0	4	217	2	4	6	0	5	0	448	10	438
16:15	1	141	3	2	22	0	17	0	0	188	1	4	4	0	2	0	385	6	379
16:30	4	141	7	1	20	0	52	0	1	233	4	5	13	0	4	0	485	6	479
16:45	4	146	5	4	14	0	28	1	0	248	7	3	12	0	3	0	475	8	467
Hour	16	576	23	13	68	0	126	1	5	886	14	16	35	0	14	0	1793	30	1763
17:00	5	138	3	0	17	0	34	0	1	265	4	2	8	0	4	0	481	2	479
17:15	3	143	4	2	6	0	12	0	1	206	5	4	6	1	2	1	396	7	389
17:30	9	133	5	1	7	0	15	1	1	197	4	4	7	0	1	0	385	6	379
17:45	4	131	5	4	4	1	13	0	2	195	5	1	7	0	2	0	374	5	369
Hour	21	545	17	7	34	1	74	1	5	863	18	11	28	1	9	1	1636	20	1616
18:00	6	130	1	1	3	0	8	0	1	162	6	2	2	0	0	0	322	3	319
18:15	5	120	1	0	4	0	7	0	0	133	3	2	1	0	1	0	277	2	275
18:30	4	107	8	0	2	0	3	0	0	142	4	3	2	0	0	0	275	3	272
18:45	2	123	3	2	2	0	3	0	1	141	4	2	1	0	0	0	284	4	280
Hour	17	480	13	3	11	0	21	0	2	578	17	9	6	0	1	0	1158	12	1146
19:00	5	98	5	1	4	0	2	0	1	130	3	3	1	0	1	0	254	4	250
19:15	5	108	3	1	2	0	0	0	2	112	0	0	1	0	0	0	234	1	233
19:30	3	93	3	2	2	0	4	0	0	103	4	0	2	0	1	0	217	2	215
19:45	5	78	1	0	5	0	1	0	0	97	5	1	1	0	2	0	196	1	195
Hour	18	377	12	4	13	0	7	0	3	442	12	4	5	0	4	0	901	8	893

Weather :
 Counted by: SARAH AND VALLIE
 Board # :
 Character :

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Study Name: TMC9818
 Site Code : 98180202
 Start Date: 06/17/98
 Page : 3

Vehicle group 1

Start Time	CSAH 7 (7TH AVE) Southbound				BOB EHLEN DR. Westbound				CSAH 7 (7TH AVE) Northbound				EB TYLER ST. Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
20:00	1	93	2	3	0	0	1	0	2	92	3	1	0	0	1	0	199	4	195
20:15	6	76	4	1	1	0	3	0	2	65	4	0	1	0	1	0	164	1	163
20:30	3	68	2	0	1	1	1	0	0	71	2	1	2	0	1	0	153	1	152
20:45	4	61	4	1	0	0	0	0	0	49	1	0	4	0	0	0	124	1	123
Hour	14	298	12	5	2	1	5	0	4	277	10	2	7	0	3	0	640	7	633
21:00	2	59	4	0	1	0	1	0	0	91	1	1	1	0	0	0	161	1	160
21:15	4	70	1	1	0	0	1	0	3	86	2	0	0	0	0	0	168	1	167
21:30	2	44	1	1	1	0	1	0	1	66	5	1	2	0	0	0	125	2	123
21:45	2	72	1	0	3	0	1	0	2	50	3	0	0	0	0	0	134	0	134
Hour	10	245	7	2	5	0	4	0	6	293	11	2	3	0	0	0	588	4	584
Total	734	8015	187	218	410	21	685	16	57	8270	416	261	223	4	123	5	19645	500	19145
% Apr.	8.0	87.5	2.0	2.3	36.2	1.8	60.5	1.4	0.6	91.8	4.6	2.8	62.8	1.1	34.6	1.4	-	-	-
% Int.	3.7	40.7	0.9	1.1	2.0	0.1	3.4	-	0.2	42.0	2.1	1.3	1.1	-	0.6	-	-	-	-

Major Street Approaches:

Northbound:

CSAH 7 (7TH AVE)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9818.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/98
 Number of Lanes: 2
 Approach Speed: 35
 Total Approach Traffic: 8743

Southbound:

CSAH 7 (7TH AVE)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9818.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/98
 Number of Lanes: 2
 Approach Speed: 35
 Total Approach Traffic: 8936

Minor Street Approaches:

Eastbound:

EB TYLER ST.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9818.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/98
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 350

Westbound:

BOB EHLEN DR.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9818.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/98
 Number of Lanes: 2
 Approach Speed: 0
 Total Approach Traffic: 1116

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		200		100		160
1	0	0	W	18		200		100		160
2	0	0	W	19		200		100		160
3	0	0	W	20		200		100		160
4	0	0	W	21		200		100		160
5	0	0	W	22		200		100		160
6	1097	41	W	9	MAIN	200	MAIN	100	MAIN	160
7	1234	104	W	4	MAIN	200	--BOTH--	100	MAIN	160
8	1032	27	E	12	MAIN	150	MAIN	75	MAIN	120
9	943	22	E	13	MAIN	150	MAIN	75	MAIN	120
10	1006	29	E	11	MAIN	150	MAIN	75	MAIN	120
11	1061	79	W	6	MAIN	200	MAIN	100	MAIN	160
12	1267	65	W	7	MAIN	200	MAIN	100	MAIN	160
13	1181	47	W	8	MAIN	200	MAIN	100	MAIN	160
14	1357	81	W	5	MAIN	200	MAIN	100	MAIN	160
15	1354	263	W	1	--BOTH--	200	--BOTH--	100	--BOTH--	160
16	1520	194	W	2	MAIN	200	--BOTH--	100	--BOTH--	160
17	1469	109	W	3	MAIN	200	--BOTH--	100	MAIN	160
18	1107	32	W	10	MAIN	200	MAIN	100	MAIN	160
19	864	20	W	14	MAIN	200		100	MAIN	160
20	615	10	E	15	MAIN	150		75		120
21	572	9	W	16		200		100		160
22	0	0	W	23		200		100		160
23	0	0	W	24		200		100		160

Warrant Summary:

Urban values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 1 hours. Criteria--Main St.: 600; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 4 hours. Criteria--Main St.: 900; 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: 1763.

- 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 2 hours. Criteria--Main: 720; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 2 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.: 150.

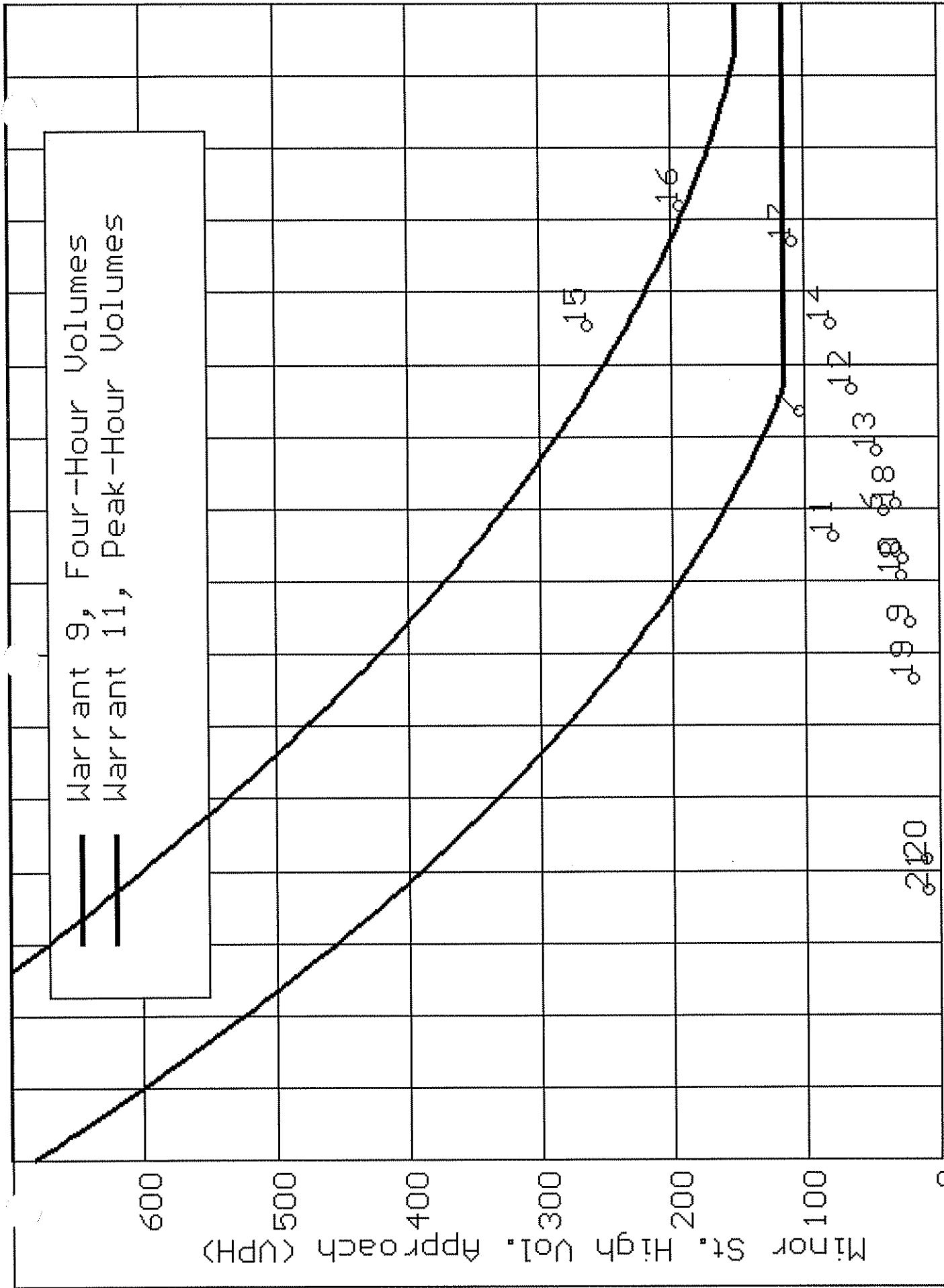
Warrant 11 - Peak Hour Volume

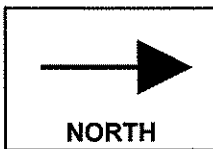
SATISFIED for 2 hours.

Minor St. High Vol. Approach (VPH)

Major St. Total of Both Approaches (VPH)

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





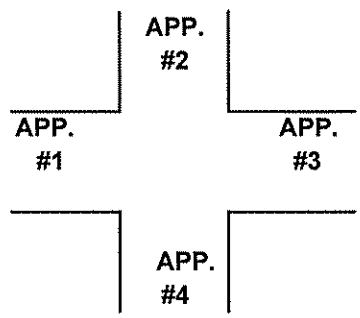
COUNT LOCATION:

CSAH 7 (7TH AVE) @
BOB EHLEN DR/ TYLER ST

DATE:

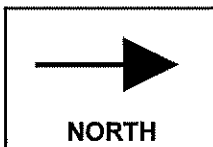
6/17/98

APP. #1=NB CSAH 7
(7TH AVE)
APP. #2 =EB
TYLER ST
APP. #3=SB CSAH 7
(7TH AVE)
APP. #4=WB
BOB EHLEN DR



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			1	1	1	
6:15-6:30						4	1	1
6:30-6:45		1	2		3	2		1
6:45-7:00				1	1	5	1	10
HOURLY TOTAL					5	HOURLY TOTAL		27
7:00-7:15				1	1	13	1	3
7:15-7:30				1	1	4		2
7:30-7:45						4		3
7:45-8:00	1				1	13	1	1
HOURLY TOTAL					3	HOURLY TOTAL		45
8:00-8:15						9	1	2
8:15-8:30			1	1	2	9		6
8:30-8:45				1	1	9		3
8:45-9:00						13		1
HOURLY TOTAL					3	HOURLY TOTAL		53
9:00-9:15				2	2	9	1	7
9:15-9:30				1	1	7	1	1
9:30-9:45				2	2	11		
9:45-10:00						8	3	
HOURLY TOTAL					5	HOURLY TOTAL		48
10:00-10:15				2	2	5		1
10:15-10:30	2		1	3	6	8	1	1
10:30-10:45				2	2	8	1	4
10:45-11:00				3	3	6	3	4
HOURLY TOTAL					13	HOURLY TOTAL		42
11:00-11:15						7	3	4
11:15-11:30			2	1	3	10		3
11:30-11:45		1		1	2	3		2
11:45-12:00				1	1	5		2
HOURLY TOTAL					6	HOURLY TOTAL		39
12:00-12:15				6	6	5	1	6
12:15-12:30		1	1	2	4	6	2	4
12:30-12:45	1			1	2	6	1	5
12:45-1:00				6	6	9	2	3
HOURLY TOTAL					18	HOURLY TOTAL		50
1:00-1:15				3	3	12	3	2
1:15-1:30				2	2	8	2	4
1:30-1:45	6			2	8	10		2
1:45-2:00		2	2	2	6	5	3	
HOURLY TOTAL					19	HOURLY TOTAL		51



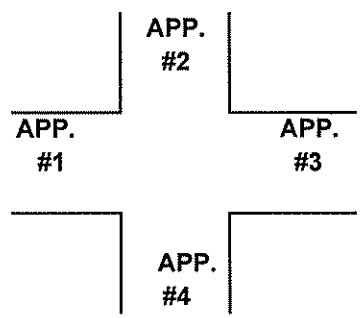
COUNT LOCATION:

CSAH 7 (7TH AVE) @
BOB EHLEN DR/ TYLER ST

DATE:

6/18/98

APP. #1=NB CSAH 7
(7TH AVE)
APP. #2 =EB
TYLER ST
APP. #3=SB CSAH 7
(7TH AVE)
APP. #4=WB
BOB EHLEN DR



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		1	1	1	3	8	4	
2:15-2:30			1	1	2	2	1	1
2:30-2:45				2	2	7	1	1
2:45-3:00		2	1	1	4	4	2	3
HOURLY TOTAL					11	HOURLY TOTAL		34
3:00-3:15		2		8	10	1	2	2
3:15-3:30			1	1	2	4	1	
3:30-3:45				1	1	2		1
3:45-4:00						4	4	1
HOURLY TOTAL					13	HOURLY TOTAL		22
4:00-4:15		5			5	6	2	1
4:15-4:30			2		2	5	2	2
4:30-4:45				3	3			1
4:45-5:00				3	3	5		2
HOURLY TOTAL					13	HOURLY TOTAL		26
5:00-5:15						1		1
5:15-5:30				2	2	3	4	
5:30-5:45						3	1	1
5:45-6:00						4	1	
HOURLY TOTAL					2	HOURLY TOTAL		19
6:00-6:15			2	5	7	2		
6:15-6:30				1	1	3	1	
6:30-6:45						1	2	
6:45-7:00						3	1	
HOURLY TOTAL					8	HOURLY TOTAL		13
7:00-7:15						3		1
7:15-7:30						1		
7:30-7:45				1	1	2		
7:45-8:00						1		
HOURLY TOTAL					1	HOURLY TOTAL		8
8:00-8:15			1	3	4	4		
8:15-8:30			4	2	6			1
8:30-8:45		3			3	1		
8:45-9:00							1	
HOURLY TOTAL					13	HOURLY TOTAL		7
9:00-9:15			2	2	4		1	
9:15-9:30			2		2	1		
9:30-9:45				1	1			1
9:45-10:00							1	
HOURLY TOTAL					7	HOURLY TOTAL		4