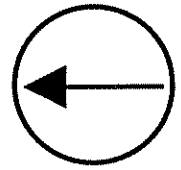


Date : 8/3 & 8/4/99AM 8/2 & 8/5/99PM

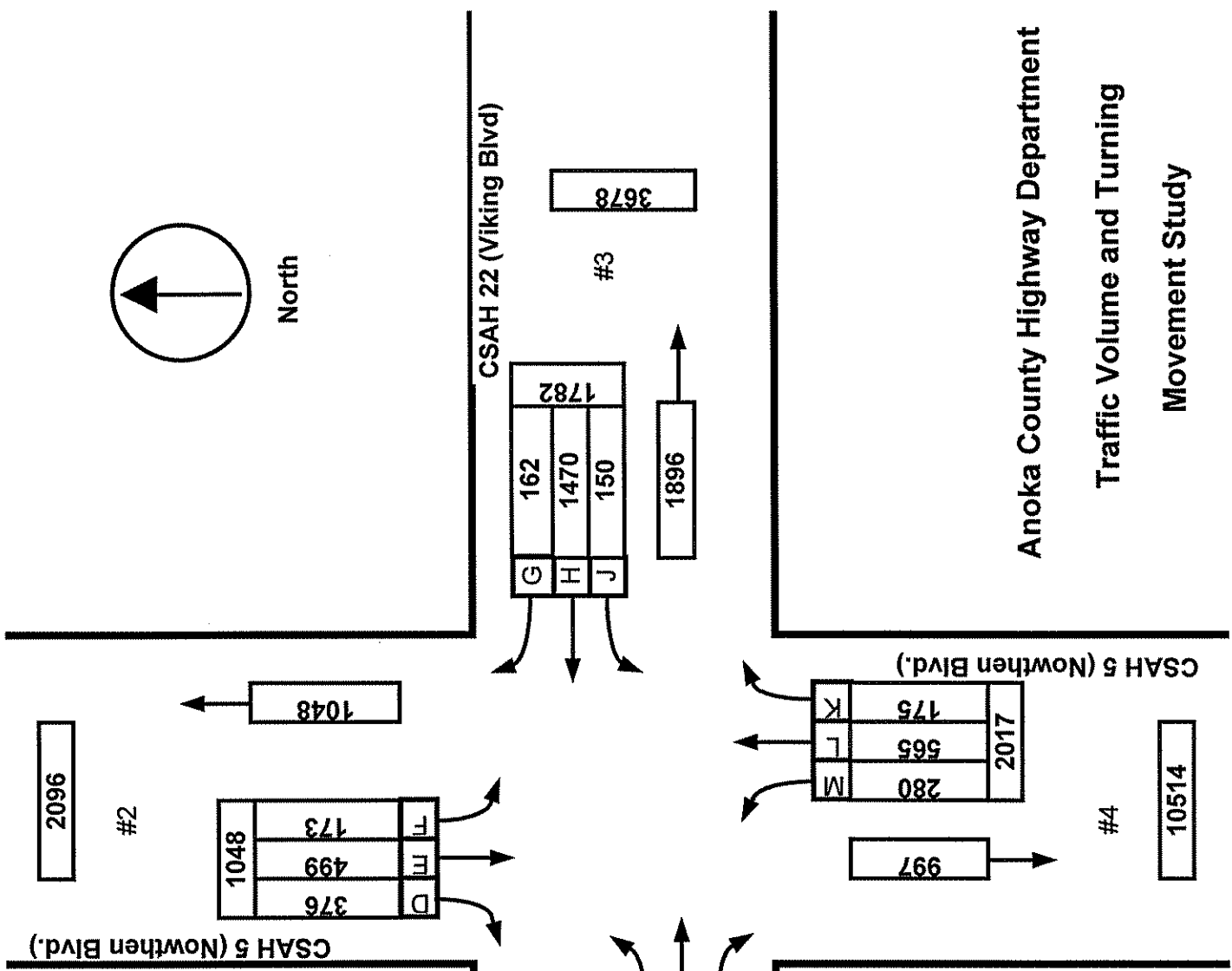
Count Number : TMC9922

Location : CSAH 22 (Viking Blvd.) @

CSAH 5 (Nowthen Blvd)



North



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

Anoka County Highway Department
Traffic Volume and Turning
Movement Study

CSAH 5 (Nowthen Blvd.)

M	280
L	565
K	175
TOTAL	2017

#4

CSAH 22 (Viking Blvd)

A	348
B	1548
C	321
TOTAL	2217

#1

CSAH 5 (Nowthen Blvd.)

D	376
E	499
F	173
TOTAL	1048

#2

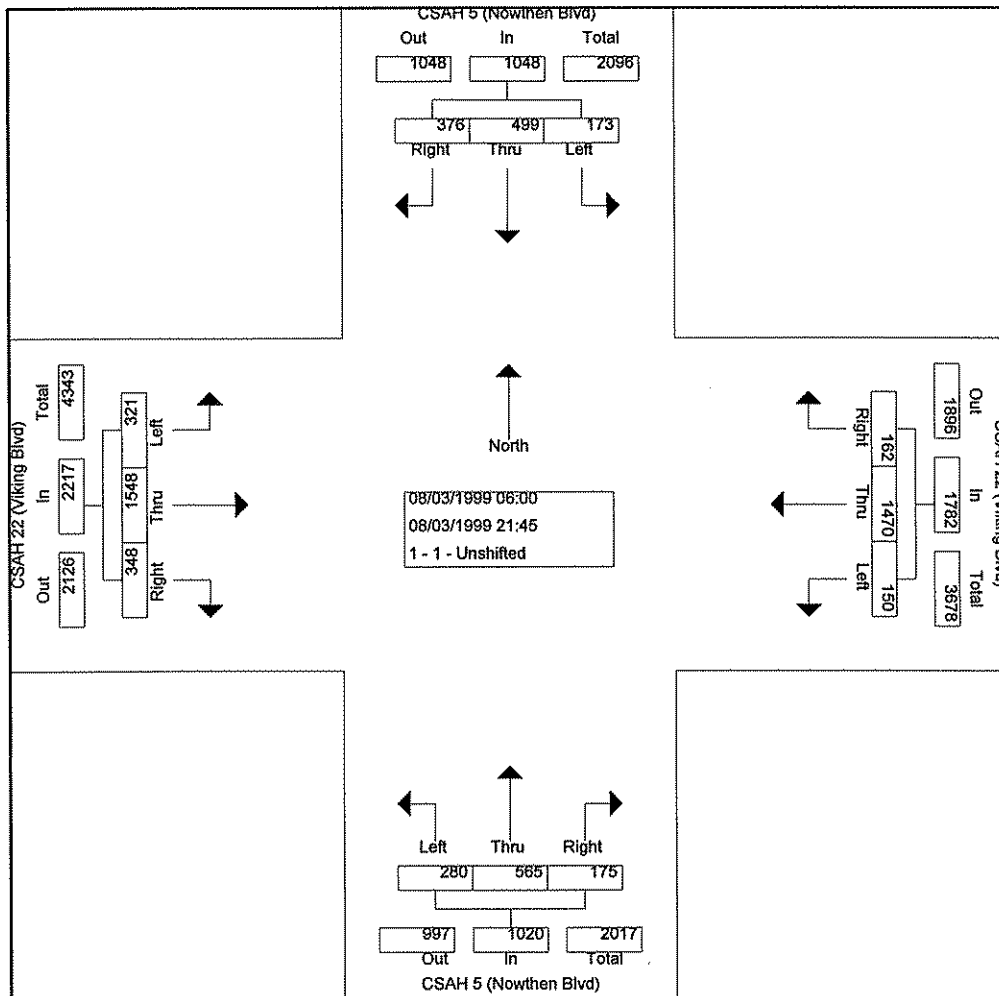
CSAH 22 (Viking Blvd)

G	162
H	1470
J	150
TOTAL	1782

#3

Anoka County Highway Department Traffic Volume & Turning Movement Study

File Name : TMC9922
Site Code : 99220201
Start Date : 08/03/1999
Page No : 3



Anoka County Highway Department Traffic Volume & Turning Movement Study

Weather
Counter TDC-8
Counted by Mike

File Name : TMC9922
Site Code : 99220201
Start Date : 08/03/1999
Page No : 1

Groups Printed 1 - 1 - Unshifted

Start Time	CSAH 5 (Nowthen Blvd) Southbound					CSAH 22 (Viking Blvd) Westbound					CSAH 5 (Nowthen Blvd) Northbound					CSAH 22 (Viking Blvd) 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	1	14	8	1	23	2	30	4	1	36	2	6	1	0	9	5	14	9	4	28	6	96	102
06:15	7	18	5	2	30	2	25	0	0	27	2	3	0	0	5	2	12	2	1	16	3	78	81
06:30	1	12	10	3	23	4	45	0	3	49	3	1	2	0	6	1	19	6	4	26	10	104	114
06:45	0	25	6	2	31	4	47	3	3	54	3	5	1	0	9	2	19	11	4	32	9	126	135
Total	9	69	29	8	107	12	147	7	7	166	10	15	4	0	29	10	64	28	13	102	28	404	432
07:00	2	12	10	2	24	2	46	8	3	56	2	4	0	0	6	7	16	7	4	30	9	116	125
07:15	0	12	8	4	20	4	23	2	4	29	2	7	3	2	12	4	14	9	2	27	12	88	100
07:30	1	14	13	3	28	3	33	0	1	36	9	3	3	1	15	5	21	8	0	34	5	113	118
07:45	5	11	9	5	25	2	39	4	5	45	4	3	2	3	9	5	19	10	5	34	18	113	131
Total	8	49	40	14	97	11	141	14	13	166	17	17	8	6	42	21	70	34	11	125	44	430	474
08:00	2	15	2	3	19	4	30	1	4	35	3	4	3	2	10	3	24	9	3	36	12	100	112
08:15	3	11	6	3	20	3	25	3	3	31	2	4	3	4	9	5	13	6	5	24	15	84	99
08:30	0	9	8	3	17	1	18	4	8	23	1	3	1	0	5	3	24	4	4	31	15	76	91
08:45	3	2	3	2	8	1	34	3	5	38	6	1	1	0	8	5	15	2	3	22	10	76	86
Total	8	37	19	11	64	9	107	11	20	127	12	12	8	6	32	16	76	21	15	113	52	336	388
09:00	2	8	2	1	12	3	19	4	4	26	3	8	2	1	13	3	21	4	6	28	12	79	91
09:15	4	9	5	3	18	2	12	3	1	17	2	5	2	2	9	3	9	9	3	21	9	65	74
09:30	3	15	4	1	22	3	14	2	3	19	6	11	4	3	21	4	19	15	7	38	14	100	114
09:45	3	3	6	3	12	5	15	2	1	22	5	8	4	1	17	3	16	1	3	20	8	71	79
Total	12	35	17	8	64	13	60	11	9	84	16	32	12	7	60	13	65	29	19	107	43	315	358
10:00	2	2	8	5	12	3	23	4	6	30	6	3	1	1	10	2	18	3	7	23	19	75	94
10:15	5	5	1	4	11	0	11	5	2	16	2	4	4	1	10	6	23	0	8	29	15	66	81
10:30	0	4	5	0	9	1	14	3	6	18	0	4	1	0	5	5	16	4	8	25	14	57	71
10:45	7	7	5	6	19	1	24	3	7	28	4	4	2	2	10	3	15	3	1	21	16	78	94
Total	14	18	19	15	51	5	72	15	21	92	12	15	8	4	35	16	72	10	24	98	64	276	340
11:00	4	8	2	2	14	1	11	2	3	14	5	11	5	4	21	3	15	6	4	24	13	73	86
11:15	1	3	3	2	7	3	14	4	6	21	2	6	3	2	11	2	10	5	0	17	10	56	66
11:30	5	7	11	3	23	2	7	2	5	11	8	17	4	3	29	6	21	6	7	33	18	96	114
11:45	5	5	6	2	16	5	21	2	1	28	12	10	1	2	23	3	9	5	2	17	7	84	91
Total	15	23	22	9	60	11	53	10	15	74	27	44	13	11	84	14	55	22	13	91	48	309	357
12:00	4	10	12	4	26	1	21	5	8	27	5	6	1	0	12	2	15	9	3	26	15	91	106
12:15	8	5	8	7	21	1	20	2	4	23	1	7	3	1	11	8	16	6	3	30	15	85	100
12:30	6	7	5	4	18	1	12	1	4	14	4	9	0	1	13	4	19	3	3	26	12	71	83
12:45	4	5	10	4	19	0	21	0	6	21	3	11	0	1	14	9	27	6	6	42	17	96	113
Total	22	27	35	19	84	3	74	8	22	85	13	33	4	3	50	23	77	24	15	124	59	343	402
13:00	4	11	5	5	20	2	12	3	4	17	6	4	1	1	11	5	19	10	4	34	14	82	96
13:15	2	10	1	1	13	1	15	2	4	18	4	6	0	2	10	4	31	7	6	42	13	83	96
13:30	2	3	7	2	12	0	22	4	3	26	5	7	2	1	14	1	10	7	1	18	7	70	77
13:45	6	7	3	4	16	1	19	1	9	21	2	10	1	1	13	7	23	6	5	36	19	86	105
Total	14	31	16	12	61	4	68	10	20	82	17	27	4	5	48	17	83	30	16	130	53	321	374
14:00	1	4	3	1	8	2	21	6	12	29	0	6	1	0	7	5	17	3	6	25	19	69	88
14:15	1	8	3	0	12	3	17	3	8	23	1	6	2	1	9	7	20	6	6	33	15	77	92
14:30	5	3	6	4	14	4	22	4	5	30	4	9	3	3	16	10	21	3	6	34	18	94	112
14:45	3	5	6	1	14	2	17	3	8	22	4	6	4	0	14	8	24	0	3	32	12	82	94
Total	10	20	18	6	48	11	77	16	33	104	9	27	10	4	46	30	82	12	21	124	64	322	386
15:00	1	10	9	2	20	1	20	4	6	25	5	17	1	1	23	4	46	1	13	51	22	119	141
15:15	2	8	6	0	16	2	24	1	3	27	4	10	5	2	19	5	32	7	4	44	9	106	115
15:30	2	7	4	2	13	2	27	4	2	33	8	16	3	3	27	7	35	7	6	49	13	122	135
15:45	3	9	2	3	14	3	31	6	8	40	6	9	3	2	18	8	35	7	4	50	17	122	139
Total	8	34	21	7	63	8	102	15	19	125	23	52	12	8	87	24	148	22	27	194	61	469	530

Anoka County Highway Department Traffic Volume & Turning Movement Study

File Name : TMC9922
Site Code : 99220201
Start Date : 08/03/1999
Page No : 2

Groups Printed1 - 1 - Unshifted

Start Time	CSAH 5 (Nowthen Blvd) Southbound					CSAH 22 (Viking Blvd) Westbound					CSAH 5 (Nowthen Blvd) Northbound					CSAH 22 (Viking Blvd) 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				
16:00	5	11	6	2	22	4	21	2	4	27	4	14	2	0	20	4	36	3	2	43	8	112	120
16:15	5	11	6	0	22	2	26	5	5	33	11	15	7	2	33	7	45	6	2	58	9	146	155
16:30	5	11	11	3	27	3	42	2	5	47	7	20	9	1	36	12	63	5	5	80	14	190	204
16:45	2	5	14	1	21	5	37	1	3	43	9	23	5	5	37	3	57	4	7	64	16	165	181
Total	17	38	37	6	92	14	126	10	17	150	31	72	23	8	126	26	201	18	16	245	47	613	660
17:00	2	5	2	0	9	0	34	3	3	37	6	12	4	1	22	10	52	6	6	68	10	136	146
17:15	5	8	5	1	18	2	27	3	4	32	7	19	4	1	30	10	53	4	6	67	12	147	159
17:30	2	6	5	1	13	8	34	3	4	45	7	18	4	2	29	5	43	3	0	51	7	138	145
17:45	1	10	7	0	18	2	19	4	1	25	6	19	6	0	31	6	35	11	0	52	1	126	127
Total	10	29	19	2	58	12	114	13	12	139	26	68	18	4	112	31	183	24	12	238	30	547	577
18:00	3	4	10	0	17	3	30	2	4	35	12	20	4	3	36	5	43	7	0	55	7	143	150
18:15	4	4	8	0	16	2	31	4	5	37	3	12	2	1	17	4	36	3	2	43	8	113	121
18:30	3	6	10	0	19	3	34	3	2	40	6	14	1	1	21	9	33	5	8	47	11	127	138
18:45	5	8	7	1	20	1	25	4	0	30	4	10	3	1	17	11	25	6	1	42	3	109	112
Total	15	22	35	1	72	9	120	13	11	142	25	56	10	6	91	29	137	21	11	187	29	492	521
19:00	1	5	9	1	15	4	22	0	1	26	4	11	3	0	18	7	27	3	2	37	4	96	100
19:15	2	7	2	0	11	1	26	1	1	28	4	6	4	0	14	3	24	6	1	33	2	86	88
19:30	1	4	4	0	9	2	23	0	2	25	3	13	4	1	20	5	14	4	1	23	4	77	81
19:45	0	8	6	0	14	2	12	4	1	18	5	3	3	0	11	6	17	7	2	30	3	73	76
Total	4	24	21	1	49	9	83	5	5	97	16	33	14	1	63	21	82	20	6	123	13	332	345
20:00	2	6	6	0	14	1	16	0	0	17	6	5	6	0	17	2	24	7	1	33	1	81	82
20:15	1	4	6	0	11	2	15	0	0	17	4	9	2	0	15	9	17	1	3	27	3	70	73
20:30	1	4	1	0	6	2	19	0	0	21	5	8	4	0	17	1	25	4	0	30	0	74	74
20:45	0	3	5	0	8	2	9	2	2	13	1	4	1	0	6	7	11	4	1	22	3	49	52
Total	4	17	18	0	39	7	59	2	2	68	16	26	13	0	55	19	77	16	5	112	7	274	281
21:00	1	9	0	0	10	2	11	0	1	13	2	11	3	0	16	3	21	5	0	29	1	68	69
21:15	0	5	4	0	9	1	17	1	0	19	3	8	6	0	17	3	20	6	1	29	1	74	75
21:30	0	9	3	0	12	6	15	1	0	22	4	7	3	1	14	5	19	3	0	27	1	75	76
21:45	2	3	3	0	8	3	24	0	0	27	1	10	2	0	13	0	16	3	0	19	0	67	67
Total	3	26	10	0	39	12	67	2	1	81	10	36	14	1	60	11	76	17	1	104	3	284	287
Grand Total	173	499	376	119	1048	150	1470	162	227	1782	280	565	175	74	1020	321	1548	348	225	2217	645	6067	6712
Apprch %	16.5	47.6	35.9			8.4	82.5	9.1			27.5	55.4	17.2			14.5	69.8	15.7					
Total %	2.9	8.2	6.2		17.3	2.5	24.2	2.7		29.4	4.6	9.3	2.9		16.8	5.3	25.5	5.7		36.5	9.6	90.4	

Major Street Approaches:

Eastbound:

CSAH 22 (Viking Blvd)
 Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9922.war
 Count Type: IMC. Channel: 0. Count Date: 8/ 3/99
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 2217

Westbound:

CSAH 22 (Viking Blvd)
 Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9922.war
 Count Type: IMC. Channel: 0. Count Date: 8/ 3/99
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 1782

Minor Street Approaches:

Northbound:

CSAH 5 (Nowthen Blvd)
 Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9922.war
 Count Type: IMC. Channel: 0. Count Date: 8/ 3/99
 Number of Lanes: 1
 Approach Speed: 40
 Total Approach Traffic: 1020

Southbound:

CSAH 5 (Nowthen Blvd)
 Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9922.war
 Count Type: IMC. Channel: 0. Count Date: 8/ 3/99
 Number of Lanes: 2
 Approach Speed: 40
 Total Approach Traffic: 1048

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

Hour	Main (Total)	Side			Warrant 1		Warrant 2		Warrant 3	
		Vol.	Dir.	Rank	Meets?	Criteria	Meets?	Criteria	Meets?	Criteria
0	0	0	S	17		140		70		112
1	0	0	S	18		140		70		112
2	0	0	S	19		140		70		112
3	0	0	S	20		140		70		112
4	0	0	S	21		140		70		112
5	0	0	S	22		140		70		112
6	268	107	S	3		140	SIDE	70		112
7	291	97	S	4		140	SIDE	70		112
8	240	64	S	9		140		70		112
9	191	64	S	10		140		70		112
10	190	51	S	15		140		70		112
11	165	84	N	7		105	SIDE	52	SIDE	84
12	209	84	S	8		140	SIDE	70		112
13	212	61	S	12		140		70		112
14	228	48	S	16		140		70		112
15	319	87	N	6		105	SIDE	52	SIDE	84
16	395	126	N	1	--BOTH--	105	SIDE	52	SIDE	84
17	377	112	N	2	--BOTH--	105	SIDE	52	SIDE	84
18	329	91	N	5		105	SIDE	52	SIDE	84
19	220	63	N	11		105	SIDE	52		84
20	180	55	N	14		105	SIDE	52		84
21	185	60	N	13		105	SIDE	52		84
22	0	0	S	23		140		70		112
23	0	0	S	24		140		70		112

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 2 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. Peak hour total entering volume 613 does not meet criteria of 1000

- 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.

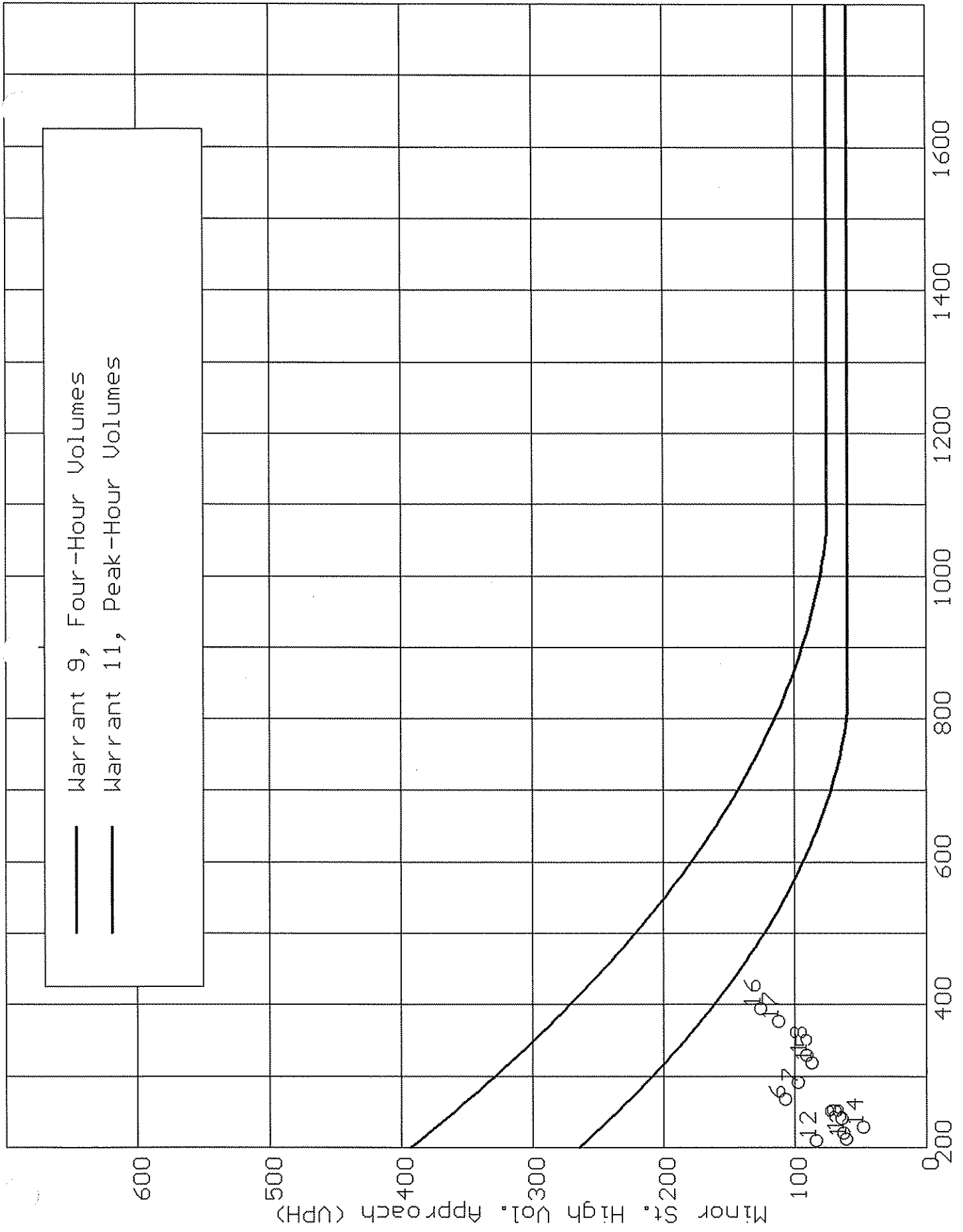
Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1600 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 (VPH)

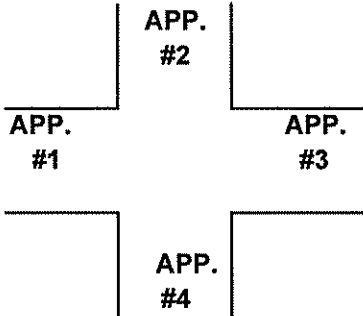


NORTH

COUNT LOCATION: CSAH 22 (Viking Blvd.) @
CSAH 5 (Nowthen Blvd.)

DATE:

- APP. #1= NB CSAH 5
(Nowthen Blvd.)
- APP. #2 = EB CSAH 22
(Viking Blvd.)
- APP. #3= SB CSAH 5
(Nowthen Blvd.)
- APP. #4= WB CSAH 22
(Viking Blvd.)



- HEAVY VEHICLE- ANY VEHICLE HAVI
FOUR TIRES TOUCHING THE PAVE
- A. TRUCKS- A HEAVY VEHICLE INVOL
IN THE TRANSPORT OF GOODS O
OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED
MOTORIST AND INVOLVED IN THE
RECREATIONAL EQUIPMENT OR F
 - C. BUSES- A HEAVY VEHICLE INVOL
TRANSPORTATION OF GROUPS O

TIME	PEDESTRIANS					HEAVY VEHICLE	
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV
6:00-6:15AM						6	
6:15-6:30						3	
6:30-6:45						10	
6:45-7:00						9	
HOURLY TOTAL						HOURLY TOTAL	
7:00-7:15						9	
7:15-7:30						11	
7:30-7:45						5	
7:45-8:00						18	
HOURLY TOTAL						HOURLY TOTAL	
8:00-8:15						11	1
8:15-8:30						15	
8:30-8:45						14	
8:45-9:00						10	
HOURLY TOTAL						HOURLY TOTAL	
9:00-9:15						9	
9:15-9:30						9	
9:30-9:45						14	
9:45-10:00						7	1
HOURLY TOTAL						HOURLY TOTAL	
10:00-10:15						18	1
10:15-10:30			1		1	12	1
10:30-10:45						14	
10:45-11:00						16	
HOURLY TOTAL					1	HOURLY TOTAL	
11:00-11:15						13	1
11:15-11:30						10	1
11:30-11:45						17	1
11:45-12:00						8	
HOURLY TOTAL						HOURLY TOTAL	
12:00-12:15						15	
12:15-12:30						15	
12:30-12:45						12	
12:45-1:00						17	
HOURLY TOTAL						HOURLY TOTAL	
1:00-1:15						14	
1:15-1:30						12	1
1:30-1:45						6	

COUNT LOCATION: CSAH 22 (Viking Blvd.) @
CSAH 5 (Nowthen Blvd.)

DATE: 8/4/99

NORTH
 APP. #1= NB CSAH 5
 (Nowthen Blvd.)
 APP. #2 = EB CSAH 22
 (Viking Blvd.)
 APP. #3= SB CSAH 5
 (Nowthen Blvd.)
 APP. #4= WB CSAH 22
 (Viking Blvd.)

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						19		
2:15-2:30						14		
2:30-2:45						17		1
2:45-3:00						16		
HOURLY TOTAL						HOURLY TOTAL		67
3:00-3:15						22		
3:15-3:30						9		
3:30-3:45						13		
3:45-4:00						17	1	
HOURLY TOTAL						HOURLY TOTAL		62
4:00-4:15						8		
4:15-4:30						9		
4:30-4:45						14		
4:45-5:00						16		
HOURLY TOTAL						HOURLY TOTAL		47
5:00-5:15						9		
5:15-5:30						12		
5:30-5:45						7		
5:45-6:00						8		
HOURLY TOTAL						HOURLY TOTAL		36
6:00-6:15						7		
6:15-6:30						8		
6:30-6:45						10	1	
6:45-7:00						3		
HOURLY TOTAL						HOURLY TOTAL		29
7:00-7:15						4	1	
7:15-7:30						2		
7:30-7:45						4		
7:45-8:00						3		
HOURLY TOTAL						HOURLY TOTAL		14
8:00-8:15						1		
8:15-8:30						3		
8:30-8:45								
8:45-9:00						3		
HOURLY TOTAL						HOURLY TOTAL		7
9:00-9:15						1		
9:15-9:30						1		
9:30-9:45						1		
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		3