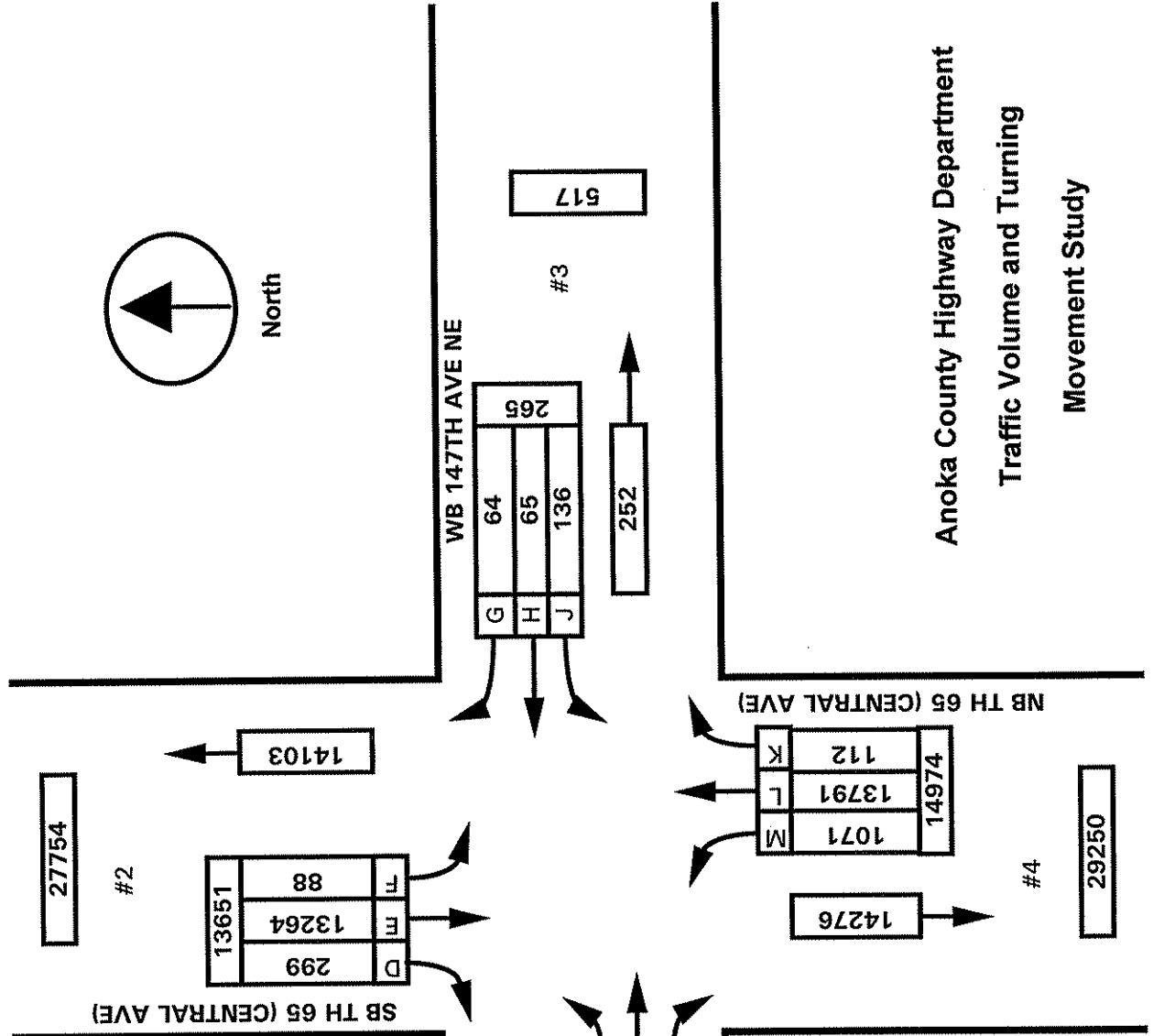
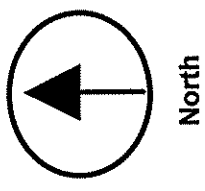


Date : 8/14/96 AM 8/12/96 PM  
 Count Number : TMC 9624  
 Location : TH 65 (CENTRAL AVE) @  
 CSAH 16 (ANDOVER BLVD)/147th AVE NE



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT

Weather : CLOUDY AM/SUNNY PM

TRAFFIC ENGINEERING SECTION

Study Name: TMC9624

Counted by: Ann and Gabe

TRAFFIC STUDY

Site Code : 96240202

Board # :

Start Date: 08/12/96

Other :

Page : 1

Vehicle group 1

Start Time	TH 65 (CENTRAL AVE) From North				CSAH 16 (ANDOVER BLVD) From East				TH 65 (CENTRAL AVE) From South				CSAH 16 (ANDOVER BLVD) From West				Intvl	Exclu	Inclu
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
08/12/96																			
06:00	2	455	0	16	1	2	5	1	0	30	2	5	22	2	1	3	547	25	522
06:15	1	488	4	18	0	0	2	0	0	56	2	2	16	0	0	0	589	20	569
06:30	3	419	3	11	0	0	2	0	0	84	6	3	19	0	1	0	551	14	537
06:45	6	400	0	25	1	1	2	1	2	123	11	10	30	2	0	2	616	38	578
Hour	12	1762	7	70	2	3	11	2	2	293	21	20	87	4	2	5	2303	97	2206
07:00	4	397	3	18	0	0	1	0	2	102	3	4	21	2	1	1	559	23	536
07:15	3	392	5	14	0	3	1	1	0	122	9	10	20	1	1	0	582	25	557
07:30	14	439	0	20	0	3	1	0	1	143	8	10	34	1	2	2	678	32	646
07:45	6	331	3	13	1	3	2	0	1	139	10	9	23	1	2	1	545	23	522
Hour	27	1559	11	65	1	9	5	1	4	506	30	33	98	5	6	4	2364	103	2261
08:00	2	284	2	14	2	0	4	0	3	114	7	11	23	0	4	3	473	28	445
08:15	7	261	1	17	0	0	2	0	2	114	8	17	11	0	1	1	442	35	407
08:30	5	232	0	17	3	0	3	0	3	129	7	10	14	2	1	1	427	28	399
08:45	5	231	2	14	0	1	2	0	2	109	13	12	11	0	2	1	405	27	378
Hour	19	1008	5	62	5	1	11	0	10	466	35	50	59	2	8	6	1747	118	1629
09:00	5	204	1	19	0	1	1	0	2	137	11	16	15	1	1	1	415	36	379
09:15	3	214	3	10	1	1	3	1	2	111	6	11	9	0	2	1	378	23	355
09:30	4	204	0	12	1	1	2	0	2	129	9	24	10	0	3	1	402	37	365
09:45	4	212	3	14	0	0	4	1	3	126	12	17	8	1	1	1	407	33	374
Hour	16	834	7	55	2	3	10	2	9	503	38	68	42	2	7	4	1602	129	1473
10:00	3	183	0	26	5	0	2	1	5	152	9	10	10	0	5	4	415	41	374
10:15	1	176	2	17	2	1	0	0	2	138	13	12	11	0	4	1	380	30	350
10:30	5	174	0	15	1	0	2	2	3	151	8	14	19	0	5	3	402	34	368
10:45	7	155	1	13	0	2	1	0	3	139	17	11	9	1	6	2	367	26	341
Hour	16	688	3	71	8	3	5	3	13	580	47	47	49	1	20	10	1564	131	1433
11:00	7	159	1	16	1	0	1	0	3	164	12	20	16	1	7	0	408	36	372
11:15	5	171	0	12	2	0	3	1	2	130	8	14	10	0	5	0	363	27	336
11:30	5	210	1	18	1	0	5	0	1	129	11	16	12	0	2	1	412	35	377
11:45	5	179	2	6	1	3	3	1	6	167	22	20	14	1	4	1	435	28	407
Hour	22	719	4	52	5	3	12	2	12	590	53	70	52	2	18	2	1618	126	1492
12:00	8	167	2	6	6	0	2	0	4	153	8	14	13	0	7	0	390	20	370
12:15	5	159	1	10	0	0	1	0	2	166	19	10	13	0	5	3	394	23	371
12:30	3	174	1	15	2	0	0	0	3	160	14	13	17	1	4	2	409	30	379
12:45	4	174	2	15	1	3	6	1	3	183	11	10	6	1	4	3	427	29	398
Hour	20	674	6	46	9	3	9	1	12	662	52	47	49	2	20	8	1620	102	1518

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather : CLOUDY AM/SUNNY PM

Counted by: Ann and Gabe

Board # :

Other :

Study Name: TMC9624

Site Code : 96240202

Start Date: 08/12/96

Page : 2

Vehicle group 1

Start Time	TH 65 (CENTRAL AVE) From North				CSAH 16 (ANDOVER BLVD) From East				TH 65 (CENTRAL AVE) From South				CSAH 16 (ANDOVER BLVD) From West				Intvl	Exclu	Inclu
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
13:00	5	200	1	11	2	2	2	1	2	175	14	16	18	1	3	1	454	29	425
13:15	5	174	0	12	0	0	4	0	1	176	13	8	9	1	4	0	407	20	387
13:30	5	183	1	11	2	0	4	1	1	188	9	12	12	1	5	1	436	25	411
13:45	5	174	3	10	0	1	1	0	1	217	9	11	10	0	4	4	450	25	425
Hour	20	731	5	44	4	3	11	2	5	756	45	47	49	3	16	6	1747	99	1648
14:00	2	240	5	14	0	0	1	0	0	167	17	13	7	2	3	0	471	27	444
14:15	5	238	2	10	4	0	6	0	2	208	17	17	11	0	5	0	525	27	498
14:30	4	209	1	11	2	0	2	0	2	226	11	21	16	0	5	5	515	37	478
14:45	2	202	0	15	0	0	0	0	0	258	18	7	9	2	1	0	514	22	492
Hour	13	889	8	50	6	0	9	0	4	859	63	58	43	4	14	5	2025	113	1912
15:00	8	163	0	13	0	0	3	0	1	279	24	21	13	3	6	1	535	35	500
15:15	5	190	1	10	1	0	1	0	4	254	23	13	9	0	2	2	515	25	490
15:30	10	214	6	18	2	2	1	0	6	348	18	20	16	0	4	2	667	40	627
15:45	4	188	1	13	1	2	2	1	2	380	23	14	14	1	5	1	652	29	623
Hour	27	755	8	54	4	4	7	1	13	1261	88	68	52	4	17	6	2369	129	2240
16:00	3	190	3	8	2	1	0	2	3	406	27	15	14	3	6	2	685	27	658
16:15	3	171	3	10	0	4	2	0	1	454	29	19	12	3	8	3	722	32	690
16:30	3	174	1	8	0	1	7	0	0	410	21	10	16	0	7	1	659	19	640
16:45	7	187	0	9	2	0	1	0	2	465	40	18	13	1	6	4	755	31	724
Hour	16	722	7	35	4	6	10	2	6	1735	117	62	55	7	27	10	2821	109	2712
17:00	2	172	1	6	0	2	3	0	3	499	36	15	13	0	5	1	758	22	736
17:15	3	176	0	3	0	1	5	0	1	463	28	15	8	1	1	0	705	18	687
17:30	4	179	0	6	0	4	1	0	2	474	32	13	11	4	7	1	738	20	718
17:45	6	174	2	6	1	1	0	0	0	478	50	12	14	0	11	0	755	18	737
Hour	15	701	3	21	1	8	9	0	6	1914	146	55	46	5	24	2	2956	78	2878
18:00	14	168	2	8	0	2	5	0	1	400	48	14	22	0	2	1	687	23	664
18:15	3	167	0	5	1	2	2	0	0	427	31	15	19	1	7	0	680	20	660
18:30	5	169	1	5	0	4	0	0	1	337	28	12	10	1	2	0	575	17	558
18:45	2	153	1	8	4	0	1	0	2	244	20	8	13	1	6	0	463	16	447
Hour	24	657	4	26	5	8	8	0	4	1408	127	49	64	3	17	1	2405	76	2329
19:00	10	132	1	1	2	2	0	0	1	263	27	11	22	0	12	1	485	13	472
19:15	8	146	0	6	1	2	2	1	3	245	29	9	18	0	4	2	476	18	458
19:30	6	130	3	3	2	0	3	0	0	195	22	4	9	1	1	0	379	7	372
19:45	4	126	2	1	0	0	4	0	1	213	23	7	11	1	5	0	398	8	390
Hour	28	534	6	11	5	4	9	1	5	916	101	31	60	2	22	3	1738	46	1692

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather : CLOUDY AM/SUNNY PM

Counted by: Ann and Gabe

Board # :

cher :

Study Name: TMC9624

Site Code : 96240202

Start Date: 08/12/96

Page : 3

Vehicle group 1

Start Time	TH 65 (CENTRAL AVE) From North				CSAH 16 (ANDOVER BLVD) From East				TH 65 (CENTRAL AVE) From South				CSAH 16 (ANDOVER BLVD) From West				Intvl	Exclu	Inclu
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
20:00	5	140	2	5	1	2	4	0	2	163	23	7	11	1	2	0	368	12	356
20:15	4	130	0	3	0	0	3	0	1	165	23	9	11	1	6	0	356	12	344
20:30	3	130	0	3	0	2	0	0	1	168	10	3	9	1	5	0	335	6	329
20:45	4	133	1	1	1	1	0	0	0	158	18	1	15	0	1	0	334	2	332
Hour	16	533	3	12	2	5	7	0	4	654	74	20	46	3	14	0	1393	32	1361
21:00	3	160	0	1	0	0	2	0	1	177	10	4	8	1	2	0	369	5	364
21:15	1	123	0	4	1	0	0	0	1	193	12	1	11	0	10	0	357	5	352
21:30	1	118	1	2	0	1	1	0	0	178	4	3	4	2	3	1	319	6	313
21:45	3	97	0	2	0	1	0	0	1	140	8	2	2	0	1	0	257	4	253
Hour	8	498	1	9	1	2	3	0	3	688	34	10	25	3	16	1	1302	20	1282
Total	299	13264	88	683	64	65	136	17	112	13791	1071	735	876	52	248	73	31574	1508	30066
% Apr.	2.0	92.5	0.6	4.7	22.6	23.0	48.2	6.0	0.7	87.7	6.8	4.6	70.1	4.1	19.8	5.8	-	-	-
% Int.	0.9	42.0	0.2	2.1	0.2	0.2	0.4	-	0.3	43.6	3.3	2.3	2.7	0.1	0.7	0.2	-	-	-

Major Street Approaches:

Northbound:

TH 65 (CENTRAL AVE)

Data File: C:\PETRA2\DATAFILE\TMC9624.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/12/96  
 Number of Lanes: 2  
 Approach Speed: 55  
 Total Approach Traffic: 14974

Southbound:

TH 65 (CENTRAL AVE)

Data File: C:\PETRA2\DATAFILE\TMC9624.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/12/96  
 Number of Lanes: 2  
 Approach Speed: 55  
 Total Approach Traffic: 13651

Minor Street Approaches:

Eastbound:

CSAH 16 (ANDOVER BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9624.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/12/96  
 Number of Lanes: 1  
 Approach Speed: 50  
 Total Approach Traffic: 1176

Westbound:

CSAH 16 (ANDOVER BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9624.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/12/96  
 Number of Lanes: 2  
 Approach Speed: 30  
 Total Approach Traffic: 265

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	140	70	112
1	0	0 W 18	140	70	112
2	0	0 W 19	140	70	112
3	0	0 W 20	140	70	112
4	0	0 W 21	140	70	112
5	0	0 W 22	140	70	112
6	2097	93 E 2	MAIN 105	--BOTH-- 52	--BOTH-- 84
7	2137	109 E 1	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
8	1543	69 E 11	MAIN 105	--BOTH-- 52	MAIN 84
9	1407	51 E 15	MAIN 105	MAIN 52	MAIN 84
10	1347	70 E 10	MAIN 105	--BOTH-- 52	MAIN 84
11	1400	72 E 8	MAIN 105	--BOTH-- 52	MAIN 84
12	1426	71 E 9	MAIN 105	--BOTH-- 52	MAIN 84
13	1562	68 E 12	MAIN 105	--BOTH-- 52	MAIN 84
14	1836	61 E 14	MAIN 105	--BOTH-- 52	MAIN 84
15	2152	73 E 7	MAIN 105	--BOTH-- 52	MAIN 84
16	2603	89 E 3	MAIN 105	--BOTH-- 52	--BOTH-- 84
17	2785	75 E 6	MAIN 105	--BOTH-- 52	MAIN 84
18	2224	84 E 4	MAIN 105	--BOTH-- 52	--BOTH-- 84
19	1590	84 E 5	MAIN 105	--BOTH-- 52	--BOTH-- 84
20	1284	63 E 13	MAIN 105	--BOTH-- 52	MAIN 84
21	1232	44 E 16	MAIN 105	MAIN 52	MAIN 84
22	0	0 W 23	140	70	112
23	0	0 W 24	140	70	112

## 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 14 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: 2878.

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

## Warrant 9 - Four Hour Volumes

SATISFIED for 5 hours.

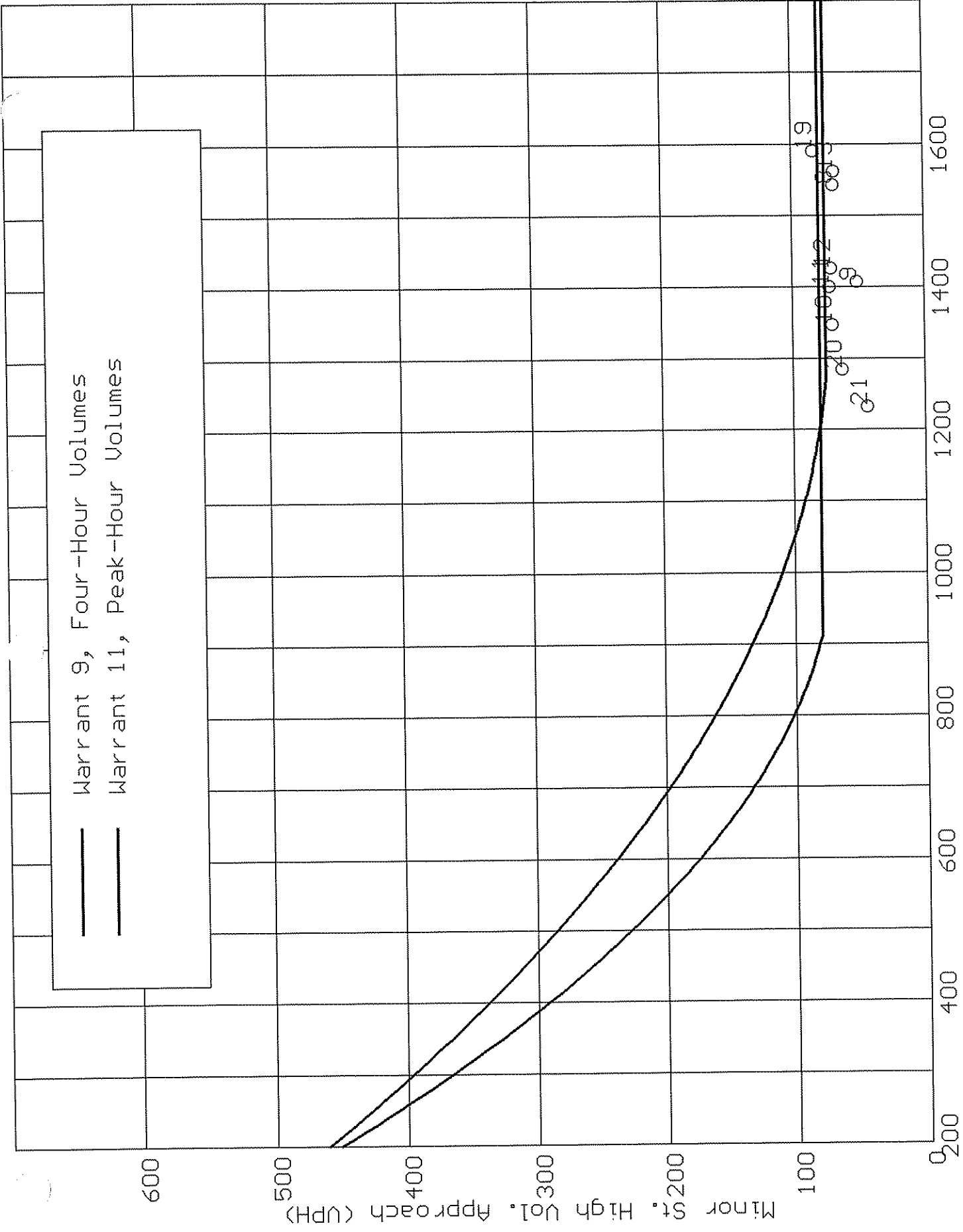
## Warrant 10 - Peak Hour Delay

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

SATISFIED for 6 hours.



Major St. Total of Both Approaches (UPH)

  
**NORTH**

APP. #1= SB TH 65

APP. #2 =WB 147th AVE NE

APP. #3=NB TH 65

APP. #4=EB CSAH 16

**COUNT LOCATION:** TH 65 (CENTRAL AVE) @  
CSAH 16 (ANDOVER BLVD)/147th AVE NE

**DATE:** 8/14/96

APP. #2  
30 MPH

APP. #1  
55 MPH

50 MPH  
APP. #4

APP. #3  
55 MPH

- 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						25		
6:15-6:30						20		
6:30-6:45						13	1	
6:45-7:00						34	1	3
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>97</b>
7:00-7:15						23		
7:15-7:30						24		1
7:30-7:45						32		
7:45-8:00						23		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>103</b>
8:00-8:15						28		
8:15-8:30						34	1	
8:30-8:45						26	1	1
8:45-9:00						26		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>118</b>
9:00-9:15						35	1	
9:15-9:30						21	2	
9:30-9:45						35	1	
9:45-10:00						32		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>128</b>
10:00-10:15						38	3	
10:15-10:30						29	1	
10:30-10:45						34		
10:45-11:00						24	2	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>131</b>
11:00-11:15						36		
11:15-11:30						27		
11:30-11:45						34	1	
11:45-12:00						27	1	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>126</b>
12:00-12:15						19		1
12:15-12:30						22		1
12:30-12:45						30		
12:45-1:00						29		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>102</b>
1:00-1:15						29		
1:15-1:30						18	1	1
1:30-1:45						25		
1:45-2:00						25		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>99</b>





**NORTH**

APP. #1= SB TH 65

APP. #2 =WB 147th AVE NE

APP. #3=NB TH 65

APP. #4=EB CSAH 16

**COUNT LOCATION:**

TH 65 (CENTRAL AVE) @  
CSAH 16 (ANDOVER BLVD)/147th AVE NE

**DATE:**

8/12/96

APP. #2  
30 MPH

APP. #1  
55 MPH

50 MPH  
APP. #4

APP. #3  
55 MPH

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						26	1	
2:15-2:30						27		
2:30-2:45						37		
2:45-3:00						20	2	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>113</b>
3:00-3:15						34	1	
3:15-3:30						24		1
3:30-3:45						37	2	1
3:45-4:00						28	1	
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>129</b>
4:00-4:15						25	1	1
4:15-4:30						32		
4:30-4:45						18	1	
4:45-5:00						30		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>109</b>
5:00-5:15						20	1	1
5:15-5:30						18		
5:30-5:45						19	1	
5:45-6:00						18		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>78</b>
6:00-6:15						22		1
6:15-6:30						18	1	1
6:30-6:45						16		1
6:45-7:00						16		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>76</b>
7:00-7:15						13		
7:15-7:30						15	3	
7:30-7:45						6	1	
7:45-8:00						8		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>46</b>
8:00-8:15						11	1	
8:15-8:30						12		
8:30-8:45						6		
8:45-9:00						2		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>32</b>
9:00-9:15						5		
9:15-9:30						5		
9:30-9:45						6		
9:45-10:00						4		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>20</b>