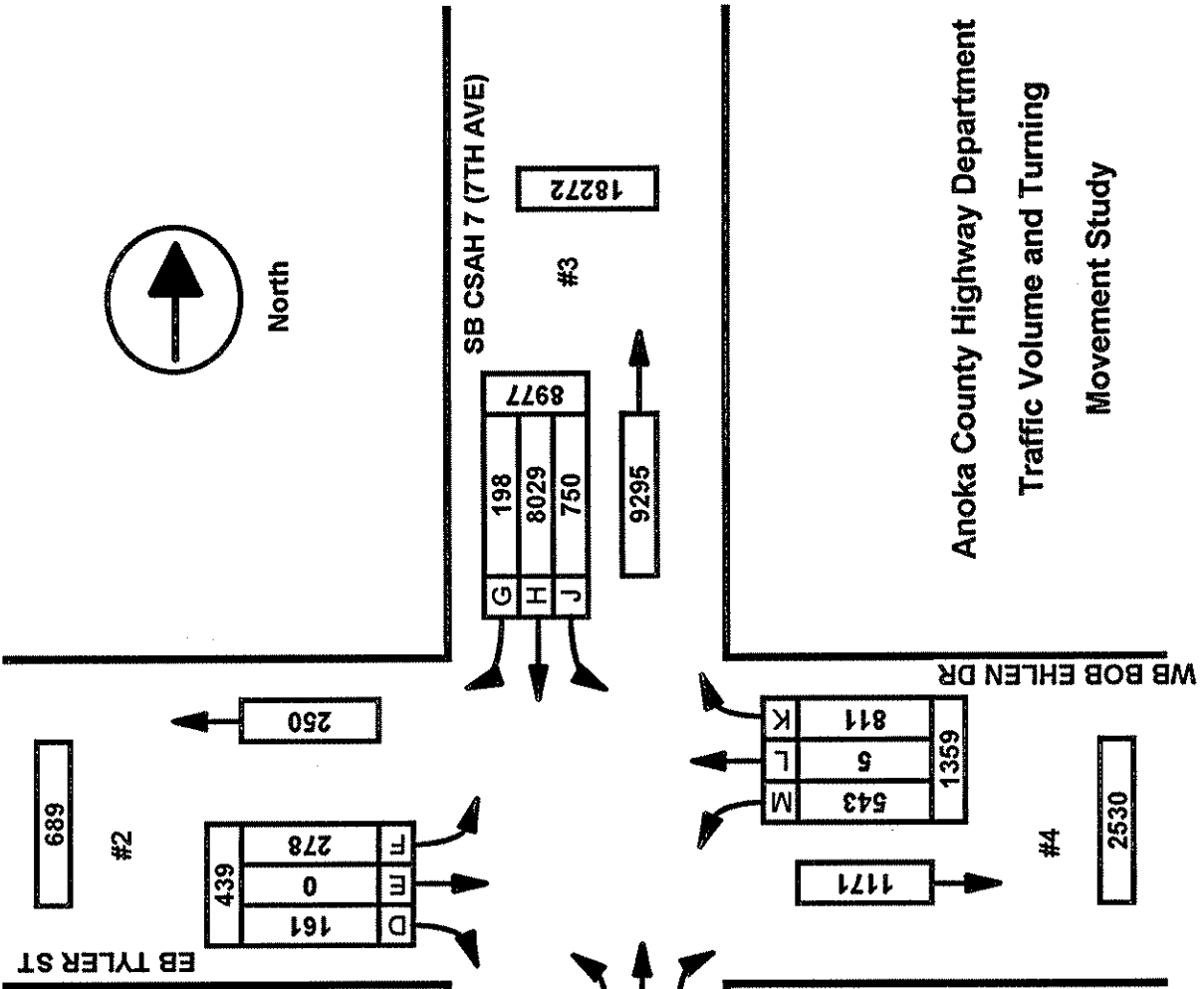


Date : 1/4/95AM 1/5/95PM
 Count Number : TMC9503
 Location : CSAH 7 (7TH AVE) @
BOB EHLEN DR/TYLER ST



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT
TRAFFIC ENGINEERING SECTION
TRAFFIC VOLUME AND
TURNING MOVEMENT STUDY

Site Code : 95030201
Start Date: 01/05/95
File I.D. : TMC95031
Page : 1

Counter : TDC EIGHT
Checked by RANDY BETTINGER

Vehicle group 1

Date	CSAH 7 (7TH AVE) Southbound				BOB EHLEN DR. Westbound				CSAH 7 (7TH AVE) Northbound				TYLER ST. Eastbound				Vehicle Total	Other Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left		
01/05/95	-----																	
06:00	0	2	55	12	0	0	0	1	1	2	22	0	0	0	0	1	95	1
06:15	2	1	96	25	0	2	0	1	7	14	48	0	0	1	0	2	190	9
06:30	2	2	139	42	0	4	0	9	10	16	81	0	0	0	0	2	295	12
06:45	2	1	191	54	0	5	0	7	7	17	104	0	0	0	0	4	383	9
Hr Total	6	6	481	133	0	11	0	18	25	49	255	0	0	1	0	9	963	31
07:00	3	1	122	21	0	26	0	26	10	9	127	0	0	2	0	5	339	13
07:15	6	0	139	36	0	40	0	27	2	17	98	0	0	3	0	1	361	8
07:30	7	0	208	53	0	16	0	5	5	15	90	0	0	1	0	1	389	12
07:45	14	5	217	61	0	6	0	2	4	28	88	0	0	3	0	2	412	18
Hr Total	30	6	686	171	0	88	0	60	21	69	403	0	0	9	0	9	1501	51
08:00	8	1	152	47	1	7	0	2	9	23	82	0	1	3	0	7	324	19
08:15	7	2	131	20	2	9	0	5	8	6	71	2	0	5	0	2	253	17
08:30	10	2	138	18	2	5	0	4	3	4	85	1	1	0	0	3	260	16
08:45	14	5	181	9	1	5	0	3	5	7	95	1	0	4	0	5	315	20
Hr Total	39	10	602	94	6	26	0	14	25	40	333	4	2	12	0	17	1152	72
09:00	14	5	138	6	0	2	0	1	7	4	122	1	0	2	0	5	286	21
09:15	27	3	141	5	0	3	0	3	4	6	106	3	0	2	0	4	276	31
09:30	5	4	112	9	0	8	0	5	4	2	100	0	0	4	0	3	247	9
09:45	3	2	111	10	0	5	0	2	3	4	101	0	1	2	0	1	238	7
Hr Total	49	14	502	30	0	18	0	11	18	16	429	4	1	10	0	13	1047	68
10:00	3	5	104	5	2	4	0	8	3	0	108	1	0	5	0	3	243	8
10:15	6	2	101	3	1	6	0	2	4	5	106	0	0	2	0	5	232	11
10:30	4	4	122	3	0	8	0	4	7	6	120	0	0	2	0	5	274	11
10:45	3	4	115	6	0	3	0	3	1	4	117	1	0	1	0	1	255	4
Hr Total	16	15	442	17	3	21	0	17	15	15	451	2	0	10	0	14	1004	34
11:00	6	2	114	4	0	4	0	3	1	4	115	2	0	6	0	3	257	7
11:15	10	0	108	0	0	6	0	4	4	1	102	0	0	1	0	5	227	14
11:30	6	2	126	6	1	17	0	9	12	2	130	1	0	6	0	4	303	19
11:45	2	1	160	5	0	13	1	9	9	5	145	2	0	3	0	7	351	11
Hr Total	24	5	508	15	1	40	1	25	26	12	492	5	0	16	0	19	1138	51
12:00	2	4	115	8	0	13	0	6	2	10	125	1	1	4	0	1	287	5
12:15	6	6	136	5	1	10	0	9	10	11	144	0	0	8	0	2	331	17
12:30	7	3	130	8	1	14	1	8	6	18	140	3	0	5	0	1	331	14
12:45	16	4	161	6	2	10	0	6	6	11	150	4	0	4	0	6	362	24
Hr Total	31	17	542	27	4	47	1	29	24	50	559	8	1	21	0	10	1311	60

ANOKA COUNTY HIGHWAY DEPARTMENT
 TRAFFIC ENGINEERING SECTION
 TRAFFIC VOLUME AND
 TURNING MOVEMENT STUDY

Site Code : 95030201
 Start Date: 01/05/95
 File I.D. : TMC95031
 Page : 2

Counter : TDC EIGHT
 Counted by RANDY BETTINGER

Vehicle group 1

Date	CSAH 7 (7TH AVE) Southbound				BOB EHLEN DR. Westbound				CSAH 7 (7TH AVE) Northbound				TYLER ST. Eastbound				Vehicle Total	Other Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left		
01/05/95	-----																	
13:00	9	1	124	14	2	6	0	4	4	4	138	0	0	2	0	4	297	15
13:15	5	4	98	5	1	5	0	3	7	2	138	1	0	3	0	5	264	13
13:30	6	2	124	10	0	8	0	2	4	9	134	0	0	3	0	6	298	10
13:45	8	7	144	6	0	8	0	2	6	1	162	1	0	3	0	5	339	14
Hr Total	28	14	490	35	3	27	0	11	21	16	572	2	0	11	0	20	1198	52
14:00	6	4	147	14	0	9	0	13	8	6	150	2	0	2	0	2	349	14
14:15	11	3	193	29	1	11	1	3	4	12	120	0	0	2	0	2	376	16
14:30	10	7	210	27	1	13	0	17	2	18	146	0	0	4	0	8	450	13
14:45	7	9	180	11	1	8	0	13	7	17	151	1	0	2	0	6	398	15
Hr Total	34	23	730	81	3	41	1	46	21	53	567	3	0	10	0	18	1573	58
15:00	6	9	138	10	0	83	0	86	13	4	239	1	1	3	0	4	577	20
15:15	7	5	169	4	0	37	0	23	6	6	210	1	0	5	0	16	476	13
15:30	9	4	151	4	0	30	0	24	8	7	207	0	0	3	0	5	435	17
15:45	4	8	171	7	0	22	0	6	6	4	239	0	1	6	0	11	474	11
Hr Total	26	26	629	25	0	172	0	139	33	21	895	2	2	17	0	36	1962	61
16:00	5	5	168	7	0	38	0	20	3	3	204	0	1	3	0	8	456	9
16:15	8	6	167	5	0	13	0	10	3	7	225	1	0	4	0	6	444	11
16:30	12	7	163	8	0	58	1	25	1	5	226	1	0	5	0	17	516	13
16:45	4	1	196	9	0	49	0	22	3	6	270	2	0	6	0	17	578	7
Hr Total	29	19	694	29	0	158	1	77	10	21	925	4	1	18	0	48	1994	40
17:00	5	5	155	12	0	41	0	16	5	4	231	0	0	7	0	14	485	10
17:15	5	5	113	6	0	27	0	6	6	4	243	1	0	5	0	9	419	11
17:30	0	1	120	5	1	19	1	12	3	4	200	2	0	2	0	10	376	4
17:45	7	3	141	9	0	11	0	7	0	3	175	2	0	4	0	7	362	7
Hr Total	17	14	529	32	1	98	1	41	14	15	849	5	0	18	0	40	1642	32
18:00	2	3	121	4	0	12	0	9	3	4	156	0	0	1	0	3	313	5
18:15	4	4	127	3	0	9	0	5	1	4	137	2	0	1	0	4	296	5
18:30	1	3	103	5	0	6	0	8	5	8	141	0	0	0	0	2	276	6
18:45	0	1	95	7	0	2	0	4	0	3	123	1	0	0	0	0	236	0
Hr Total	7	11	446	19	0	29	0	26	9	19	557	3	0	2	0	9	1121	16
19:00	0	0	93	1	0	10	0	6	0	2	72	1	0	0	0	4	189	0
19:15	2	4	99	7	0	5	0	1	1	7	97	0	0	1	0	1	222	3
19:30	0	2	75	3	0	1	0	0	0	1	120	0	0	0	0	2	204	0
19:45	1	2	50	5	0	1	0	2	2	0	76	0	0	0	0	1	137	3
Hr Total	3	8	317	16	0	17	0	9	3	10	365	1	0	1	0	8	752	6

ANOKA COUNTY HIGHWAY DEPARTMENT
 TRAFFIC ENGINEERING SECTION
 TRAFFIC VOLUME AND
 TURNING MOVEMENT STUDY

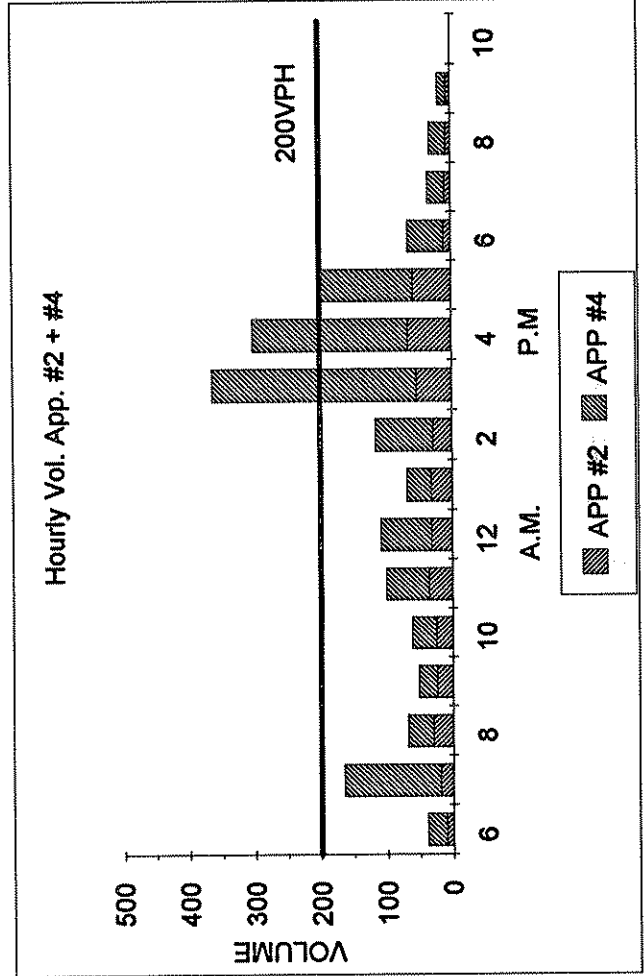
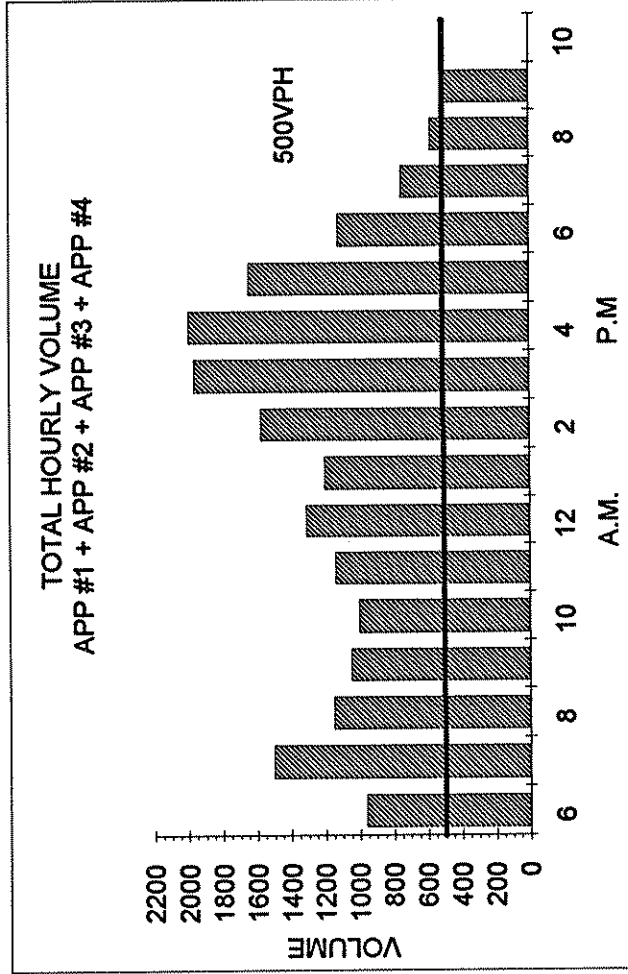
Site Code : 95030201
 Start Date: 01/05/95
 File I.D. : TMC95031
 Page : 3

Counter : TDC EIGHT
 Checked by RANDY BETTINGER

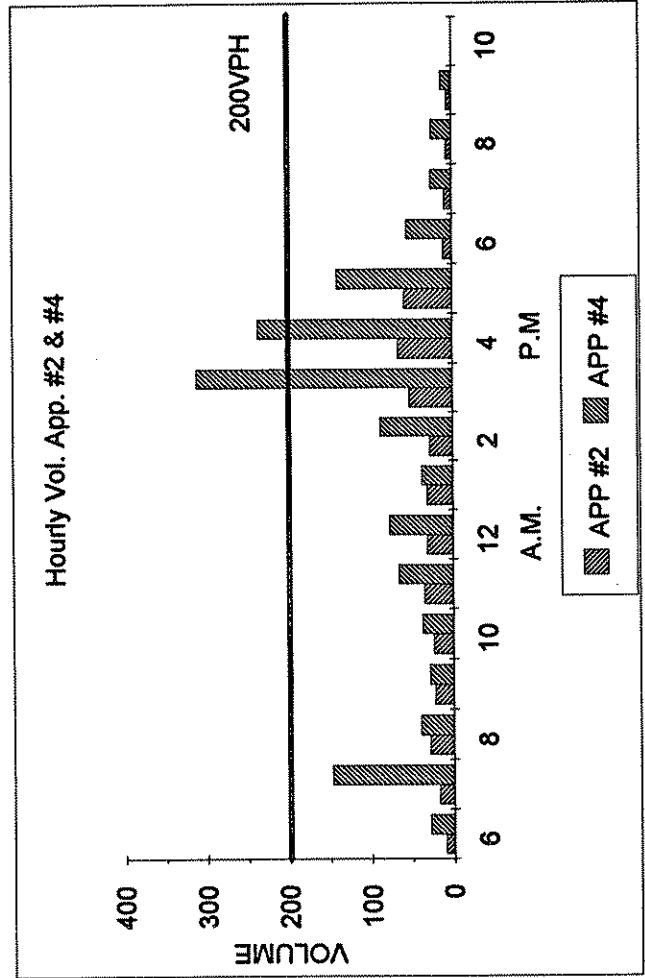
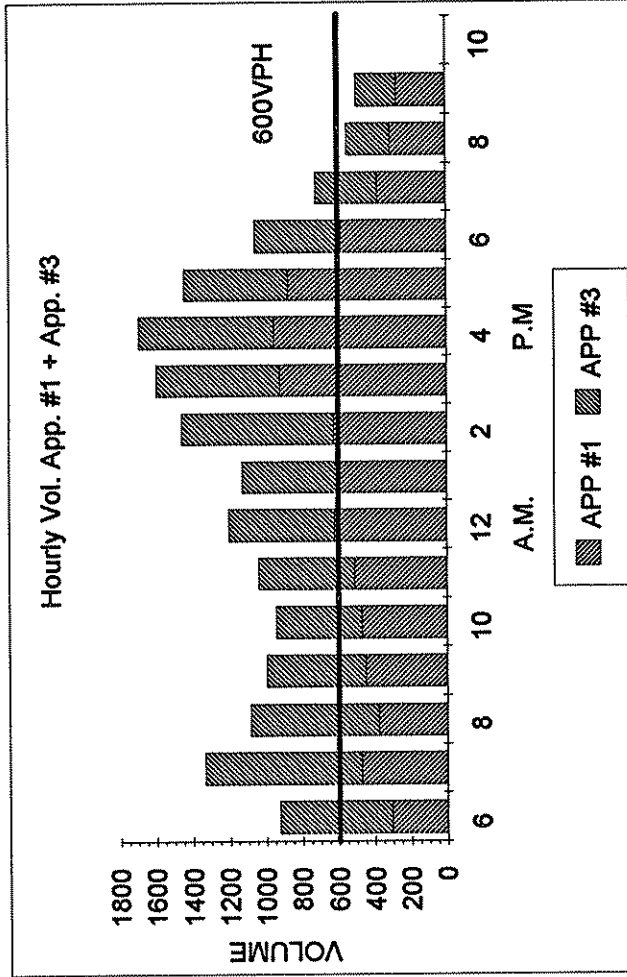
Vehicle group 1

Date	CSAH 7 (7TH AVE) Southbound				BOB EHLEN DR. Westbound				CSAH 7 (7TH AVE) Northbound				TYLER ST. Eastbound				Vehicle Total	Other Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left		
01/05/95																		
20:00	1	1	72	4	0	3	0	3	0	1	74	0	0	1	0	1	160	1
20:15	0	0	48	3	0	4	0	4	0	3	81	0	0	0	0	4	147	0
20:30	0	1	52	3	0	4	0	1	1	2	66	0	0	1	0	0	130	1
20:45	0	0	56	2	0	2	0	4	0	1	74	2	0	0	0	0	141	0
Hr Total	1	2	228	12	0	13	0	12	1	7	295	2	0	2	0	5	578	2
21:00	0	2	43	3	0	3	0	4	0	3	72	0	0	1	0	1	132	0
21:15	0	3	53	2	0	1	0	2	0	0	54	1	0	1	0	0	117	0
21:30	0	2	39	1	0	1	0	2	0	2	60	1	0	1	0	1	110	0
21:45	1	1	68	8	0	0	0	0	0	3	73	0	0	0	0	1	154	1
Hr Total	1	8	203	14	0	5	0	8	0	8	259	2	0	3	0	3	513	1
TOTAL	341	198	8029	750	21	811	5	543	266	421	8206	47	7	161	0	278	19449	635

TMC9503 STOP WARRANT STUDY



TMC9503 SIGNAL WARRANT 1 STUDY



TMC9503 SIGNAL WARRANT 2 STUDY

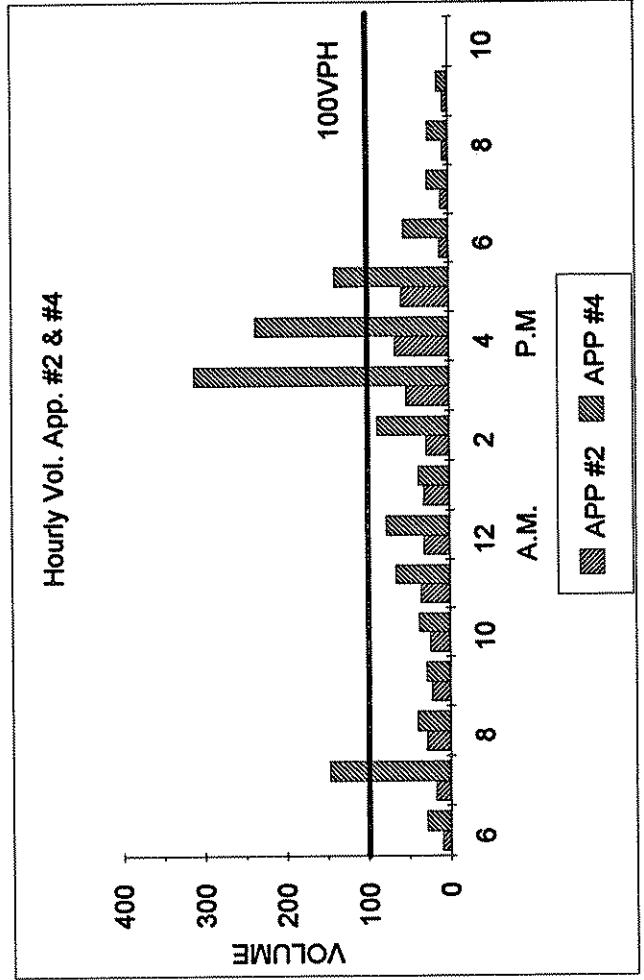
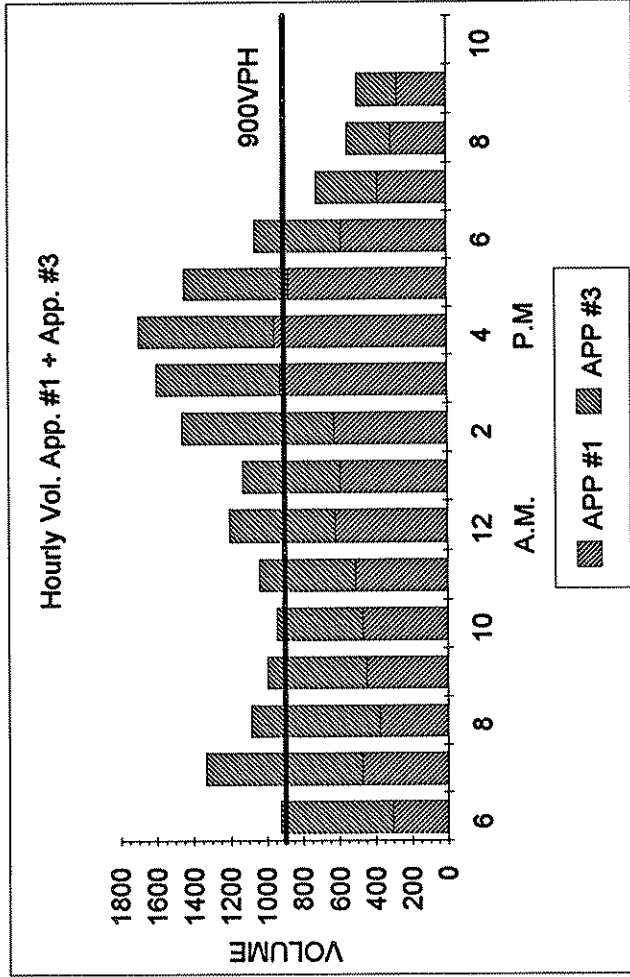
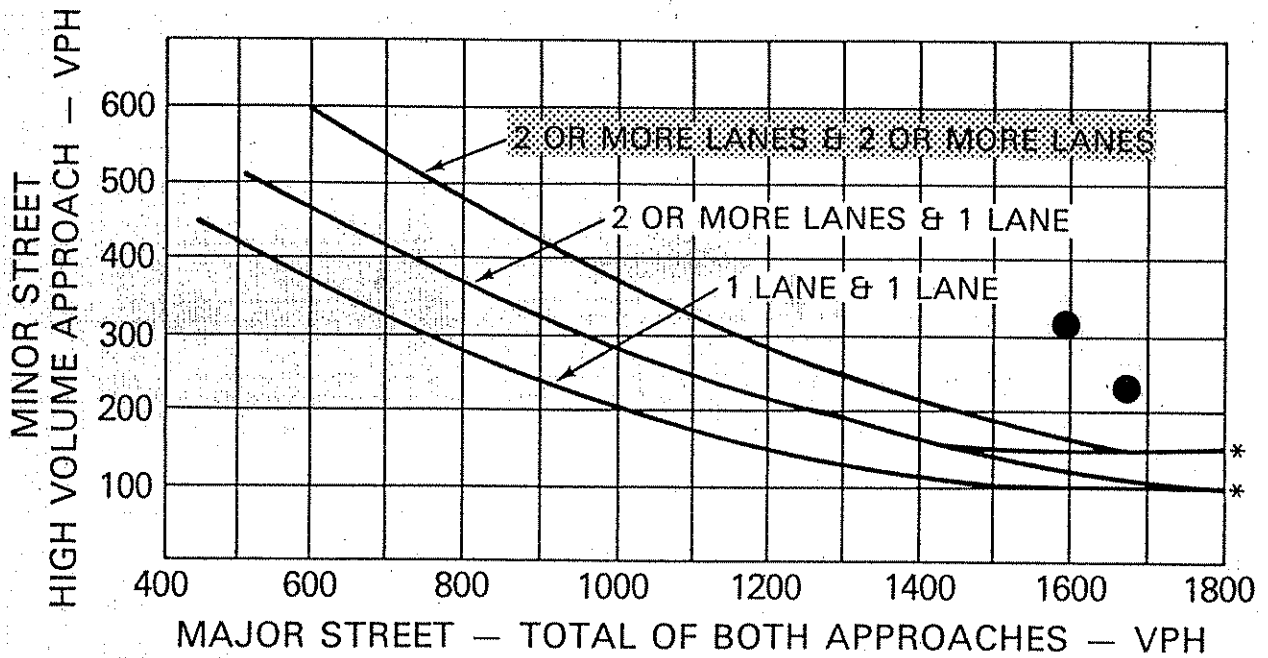


FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*NOTE: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

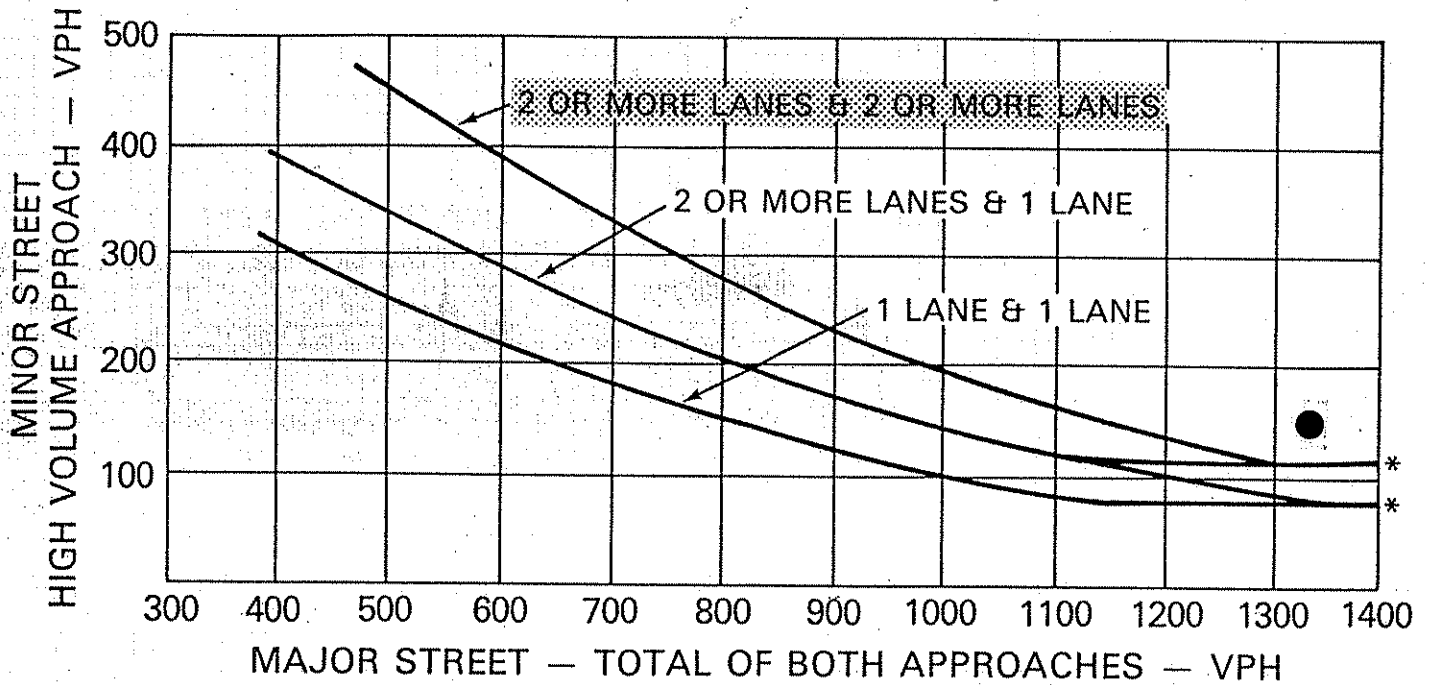
● = VOLUMES WHICH EXCEED THE THRESHOLD AND ARE REPRESENTED ON THE GRAPH.

★ = VOLUMES WHICH EXCEED THE THRESHOLD BUT CANNOT BE REPRESENTED ON THE GRAPH.

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	924	29
7-8 am	1335	148
8-9 am	1083	40
9-10 am	995	29
10-11 am	942	38
11-12 pm	1037	66
12-1 pm	1203	77
1-2 pm	1129	38
2-3 pm	1457	88
3-4 pm	1598	311
4-5 pm	1692	236
5-6 pm	1444	140
6-7 pm	1055	55
7-8 pm	717	26
8-9 pm	546	25
9-10 pm	494	13

TMC9503 CSAH 7 (7TH AVE) @ BOB EHLEN DR/TYLER ST

FIGURE 4-7. FOUR HOUR VOLUME WARRANT



*NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

● = VOLUMES WHICH EXCEED THE THRESHOLD AND ARE REPRESENTED ON THE GRAPH.

★ = VOLUMES WHICH EXCEED THE THRESHOLD BUT CANNOT BE REPRESENTED ON THE GRAPH.

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	924	29
● 7-8 am	1335	148
8-9 am	1083	40
9-10 am	995	29
10-11 am	942	38
11-12 pm	1037	66
12-1 pm	1203	77
1-2 pm	1129	38
2-3 pm	1457	88
★ 3-4 pm	1598	311
★ 4-5 pm	1692	236
★ 5-6 pm	1444	140
6-7 pm	1055	55
7-8 pm	717	26
8-9 pm	546	25
9-10 pm	494	13

TMC9503 CSAH 7 (7TH AVE) @ BOB EHLEN DR/TYLER ST

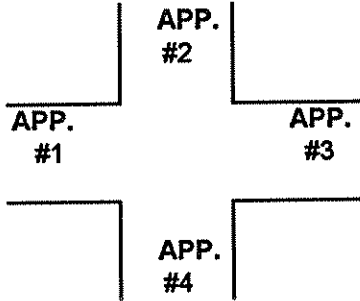


NORTH

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

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

DATE: 1/4/95



- 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						1		8
6:30-6:45						1		11
6:45-7:00			3		3	2		7
HOURLY TOTAL					3	HOURLY TOTAL		31
7:00-7:15			1		1	2		11
7:15-7:30						3		5
7:30-7:45		3	3	1	7	3		9
7:45-8:00						2		16
HOURLY TOTAL					8	HOURLY TOTAL		51
8:00-8:15						8		11
8:15-8:30						10		7
8:30-8:45			2		2	8		8
8:45-9:00						11		9
HOURLY TOTAL					2	HOURLY TOTAL		72
9:00-9:15						10		11
9:15-9:30						11		22
9:30-9:45		1			1	3		6
9:45-10:00						4		1
HOURLY TOTAL					1	HOURLY TOTAL		68
10:00-10:15						6		2
10:15-10:30						10		1
10:30-10:45						8		2
10:45-11:00			1		1	3		1
HOURLY TOTAL					1	HOURLY TOTAL		33
11:00-11:15			2		2	6		2
11:15-11:30		1			1	7		6
11:30-11:45						4		12
11:45-12:00						6		5
HOURLY TOTAL					3	HOURLY TOTAL		48
12:00-12:15		2			2	2		3
12:15-12:30		2	2		4	12		3
12:30-12:45						12		3
12:45-1:00						8		16
HOURLY TOTAL					6	HOURLY TOTAL		59
1:00-1:15						9		4
1:15-1:30						8		7
1:30-1:45						6		3
1:45-2:00						10		4
HOURLY TOTAL						HOURLY TOTAL		51

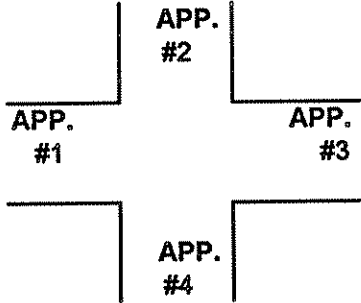


NORTH

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

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

DATE: 1/5/95



- 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	6		8
2:15-2:30		1			1	7		9
2:30-2:45		2	3	2	7	4		9
2:45-3:00		1	2		3	5		10
HOURLY TOTAL					12	HOURLY TOTAL		58
3:00-3:15						9		14
3:15-3:30						4		6
3:30-3:45		1			1	5		12
3:45-4:00			4	1	5	1		10
HOURLY TOTAL					6	HOURLY TOTAL		61
4:00-4:15		3	3		6	5		5
4:15-4:30						2		8
4:30-4:45								11
4:45-5:00						3		6
HOURLY TOTAL					6	HOURLY TOTAL		40
5:00-5:15			2		2	4		6
5:15-5:30						2		9
5:30-5:45						1		3
5:45-6:00						3		4
HOURLY TOTAL					2	HOURLY TOTAL		32
6:00-6:15						1		4
6:15-6:30		1			1	3		2
6:30-6:45						4		2
6:45-7:00								
HOURLY TOTAL					1	HOURLY TOTAL		16
7:00-7:15		1	1		2			
7:15-7:30						2		1
7:30-7:45								
7:45-8:00						3		
HOURLY TOTAL					2	HOURLY TOTAL		6
8:00-8:15								1
8:15-8:30								
8:30-8:45			1		1	1		
8:45-9:00		1			1			
HOURLY TOTAL					2	HOURLY TOTAL		2
9:00-9:15								
9:15-9:30		1			1			
9:30-9:45		1			1			
9:45-10:00								1
HOURLY TOTAL					2	HOURLY TOTAL		1