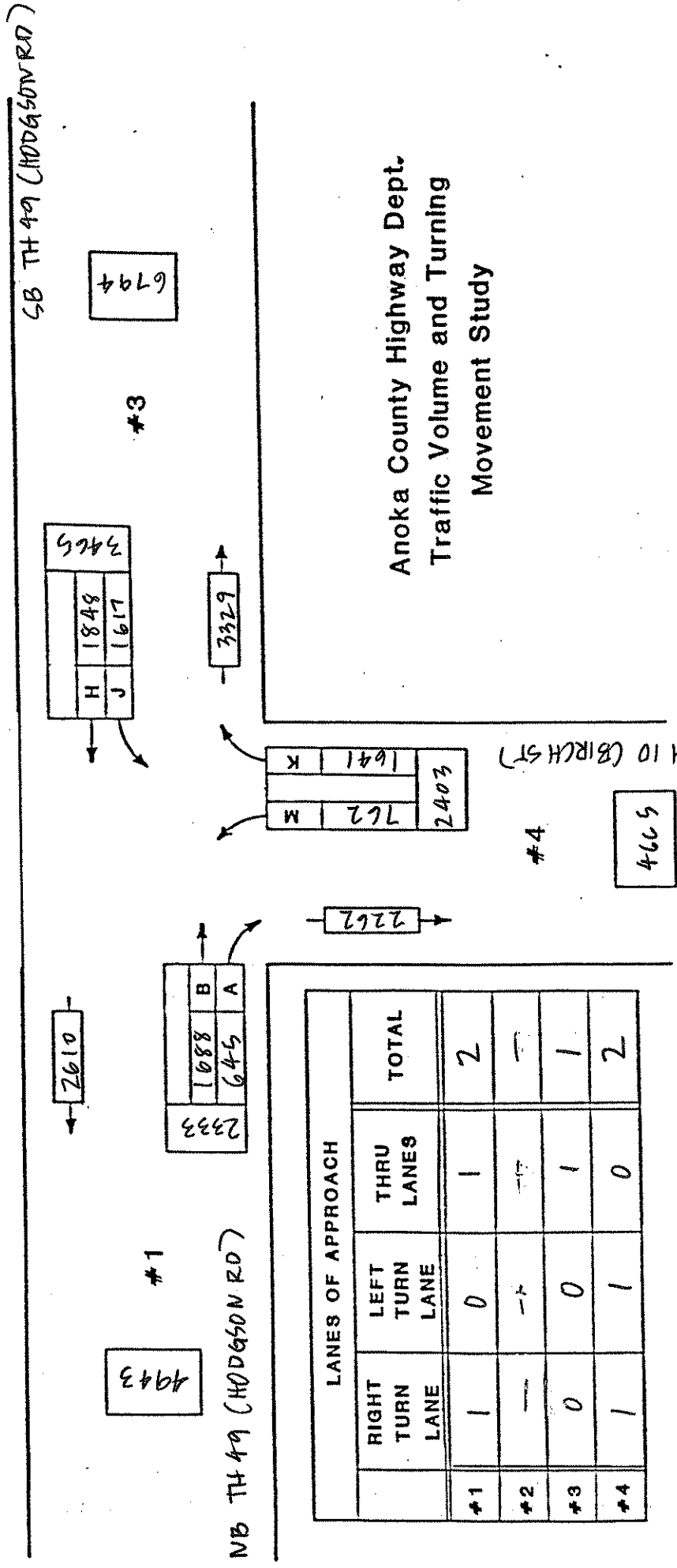


Date 1/21 1/26 & 1/27/93  
 C.S. \_\_\_\_\_  
 Location TH 49 (HODGSON RD)  
 @ CSAH 10 (BIRCH ST)



4943

#1

2610

2333	B	A
1088	645	

2262

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

3465	H	J
1848	1617	

#3

6794

3329

2403	M	K
762	1641	

#4

4665

Anoka County Highway Dept.  
 Traffic Volume and Turning  
 Movement Study

WB CSAH 10 (BIRCH ST)

DATE 1/21 1/26 & 1/27/83  
 ANOKA COUNTY HIGHWAY DEPARTMENT  
 C.S. TRAFFIC ENGINEERING SECTION  
 LOCATION TH 49 (HODGSON ROAD) @ CSAH 10 (BIRCH STREET)  
 H.V. of PECS H.V. TURNING VOLUME AND  
 TURNING MOVEMENT STUDY

VOLUME & MOVEMENT

LANES OF APPROACH	RIGHT		LEFT		THRU	TOTAL	DESCRIPTION	RT-TURN		THRU		LT-TURN		SUB		TOTAL
	TURN	L.	TURN	L.				LANES	#	THRU	LT	THRU	LT	TOTAL	OPPOSING	
1	0	0	0	0	1	2	NORTHBOUND TH 49 (HODGSON RD)	1	645	1688	0	2333	0	2333	2610	4943
2	0	0	0	0	0	0		2	0	0	0	0	0	0	0	0
3	0	0	0	0	1	1	SOUTHBOUND TH 49 (HODGSON RD)	3	0	1848	1617	3465	3329	3465	6794	6794
4	1	1	0	0	2	2	WESTBOUND CSAH 10 (BIRCH ST)	4	1641	0	762	2403	2262	4665	4665	

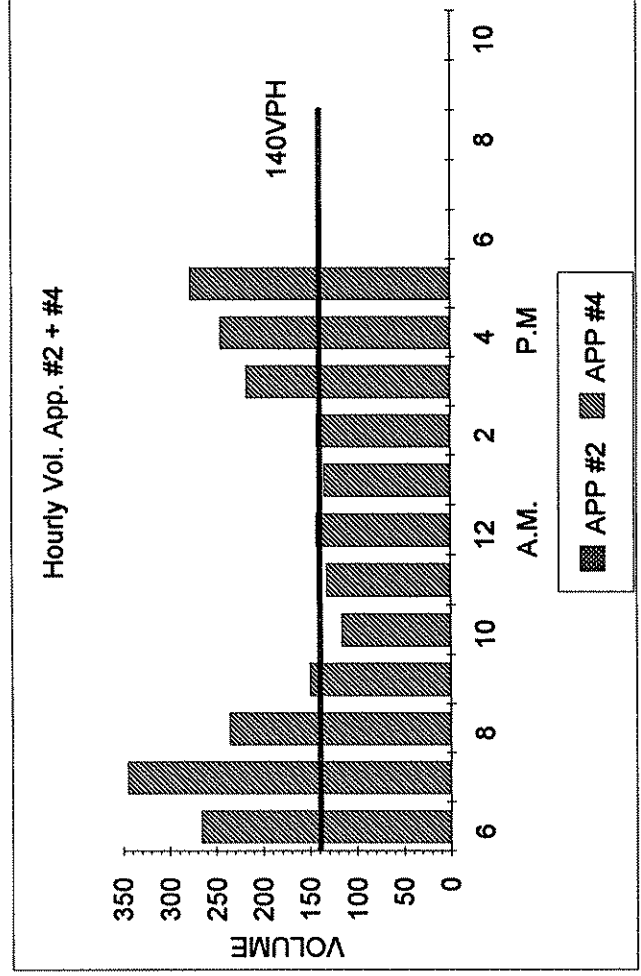
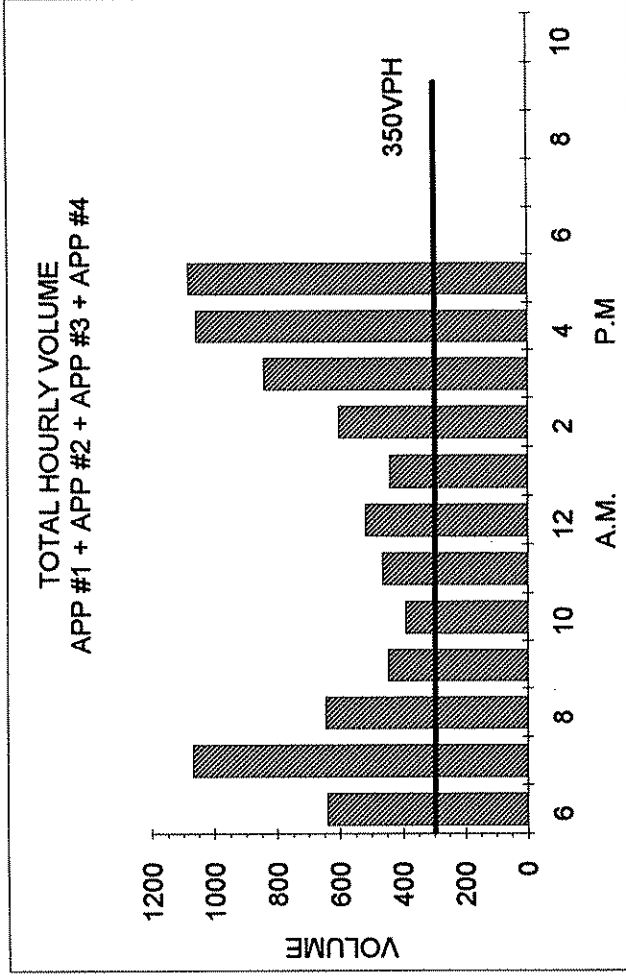
NORTHBOUND APPROACH # 1  
 SOUTHBOUND APPROACH # 3  
 WESTBOUND APPROACH # 4

TIME INTERVALS  
 H.V. TO TO TO 15 MIN HOURLY H.V. TO TO TO 15 MIN HOURLY H.V. TO TO TO 15 MIN HOURLY

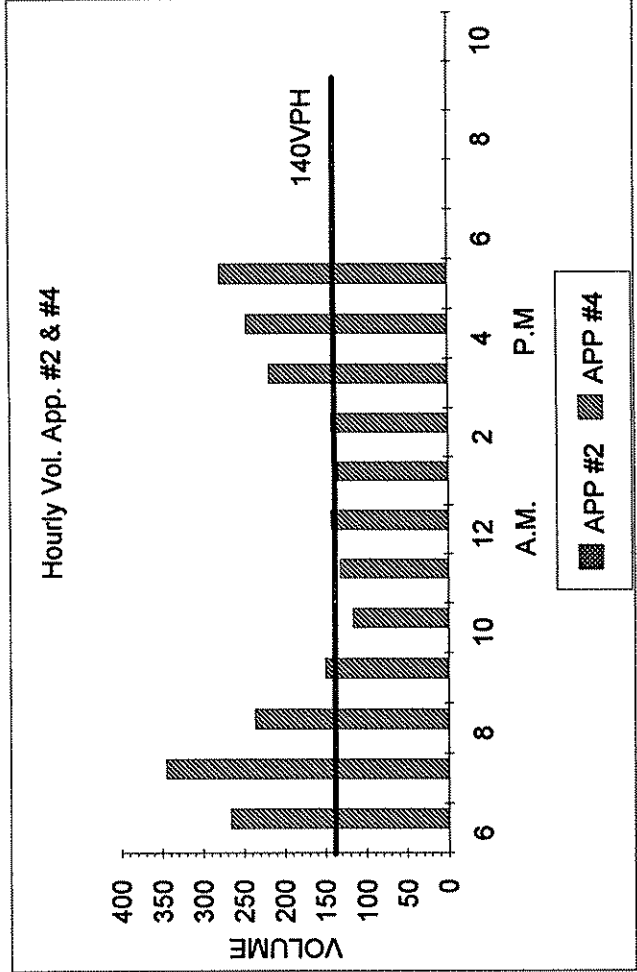
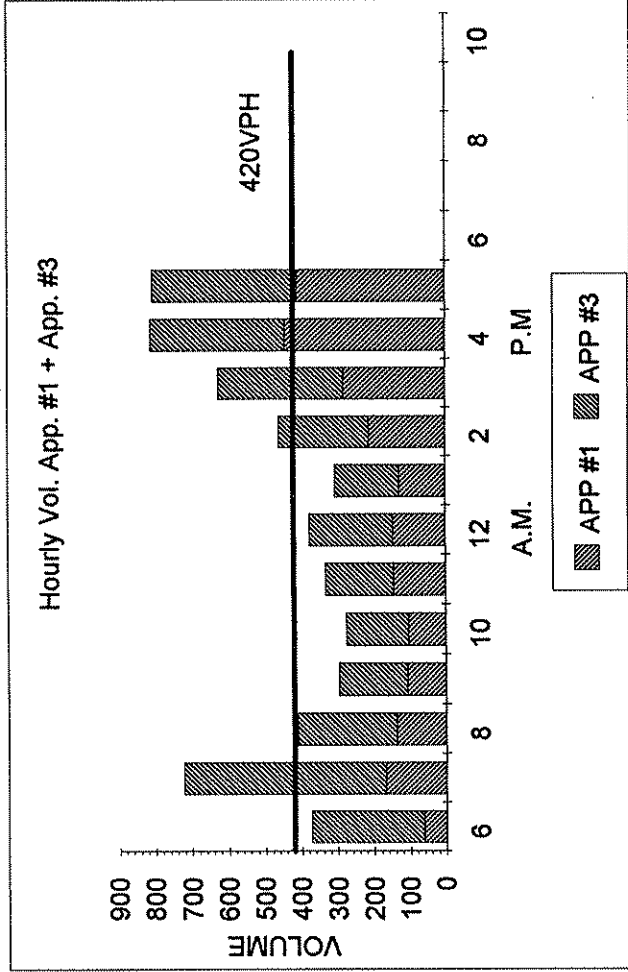
TIME INTERVALS	NORTHBOUND APPROACH # 1			SOUTHBOUND APPROACH # 3			WESTBOUND APPROACH # 4												
	LT	TH	RT	LT	TH	RT	LT	TH	RT										
6:00 - 6:15	0	0	7	2	0	10	41	0	51	0	0	0	0	2	14	0	24	38	
6:15 - 6:30	1	0	10	1	0	12	52	0	64	8:00 to	0	0	0	0	30	0	38	68	
6:30 - 6:45	0	0	15	4	0	19	7:00	0	101	7:00	0	0	0	0	32	0	49	81	
6:45 - 7:00	3	0	22	1	23	3	22	74	96	312	0	0	0	1	35	0	44	79	
7:00 - 7:15	2	0	27	5	32	6	39	93	132	0	0	0	0	2	37	0	47	84	
7:15 - 7:30	6	0	35	9	44	7:00 to	8	51	96	147	7:00 to	0	0	0	39	0	58	97	
7:30 - 7:45	19	0	44	10	54	8:00	4	50	117	167	8:00	0	0	0	50	0	38	86	
7:45 - 8:00	11	0	32	4	36	166	4	46	66	112	558	0	0	11	21	0	57	78	
8:00 - 8:15	5	0	27	6	33	20	27	46	73	0	0	0	0	3	26	0	52	78	
8:15 - 8:30	6	0	18	10	28	8:00 to	3	24	29	53	8:00 to	0	0	0	13	0	30	43	
8:30 - 8:45	15	0	24	21	45	9:00	9	31	41	72	9:00	0	0	0	21	0	34	55	
8:45 - 9:00	5	0	16	14	30	138	10	33	43	76	274	0	0	0	11	21	39	60	
9:00 - 9:15	2	0	21	7	28	4	21	30	51	0	0	0	0	6	21	0	36	57	
9:15 - 9:30	4	0	24	8	32	9:00 to	8	26	26	52	9:00 to	0	0	0	11	13	25	38	
9:30 - 9:45	4	0	20	7	27	10:00	8	27	26	53	10:00	0	0	0	9	0	17	26	
9:45 - 10:00	2	0	14	5	19	106	2	19	16	35	191	0	0	0	2	11	18	29	
10:00 - 10:15	0	0	23	8	31	4	21	20	41	0	0	0	0	1	5	0	24	29	
10:15 - 10:30	3	0	10	11	21	10:00 to	4	19	28	47	10:00 to	0	0	0	4	6	21	27	
10:30 - 10:45	2	0	16	9	25	11:00	6	17	31	48	11:00	0	0	0	15	0	21	36	
10:45 - 11:00	3	0	18	7	25	102	3	20	17	37	173	0	0	0	3	7	17	24	
11:00 - 11:15	1	0	25	10	35	1	18	16	34	0	0	0	0	3	9	0	16	25	
11:15 - 11:30	6	0	25	16	41	11:00 to	7	27	22	49	11:00 to	0	0	0	2	7	31	38	
11:30 - 11:45	5	0	18	11	29	12:00	8	19	28	47	12:00	0	0	0	11	0	27	38	
11:45 - 12:00	3	0	27	12	39	144	6	34	25	59	189	0	0	0	4	9	22	31	
12:00 - 12:15	2	0	31	8	39	5	19	32	51	0	0	0	0	8	11	0	42	53	
12:15 - 12:30	2	0	27	12	39	12:00 to	3	26	26	52	12:00 to	0	0	0	4	10	0	21	31
12:30 - 12:45	1	0	27	9	36	1:00	8	33	37	70	1:00	0	0	0	10	0	17	27	
12:45 - 1:00	1	0	24	7	31	145	10	29	29	58	231	0	0	0	3	8	24	32	
1:00 - 1:15	4	0	25	10	35	8	27	18	45	0	0	0	0	5	14	0	21	35	
1:15 - 1:30	1	0	20	15	35	1:00 to	1	16	19	35	1:00 to	0	0	0	6	8	0	23	31
1:30 - 1:45	5	0	18	6	24	2:00	6	16	24	40	2:00	0	0	0	5	0	38	43	
1:45 - 2:00	4	0	27	7	34	128	4	32	26	58	178	0	0	0	3	6	19	25	
2:00 - 2:15	3	0	26	10	36	2	20	34	54	0	0	0	0	1	9	0	25	34	



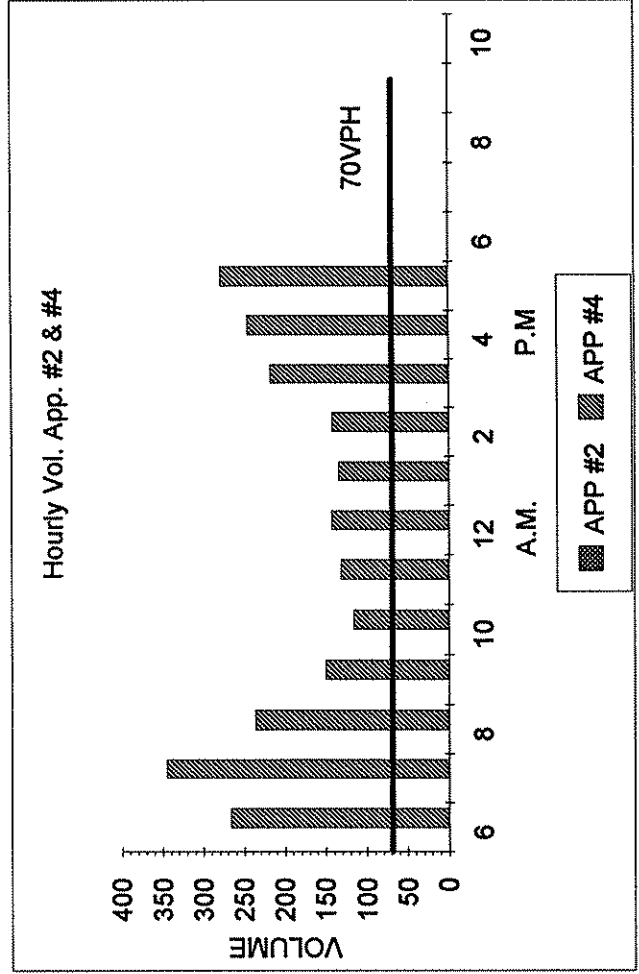
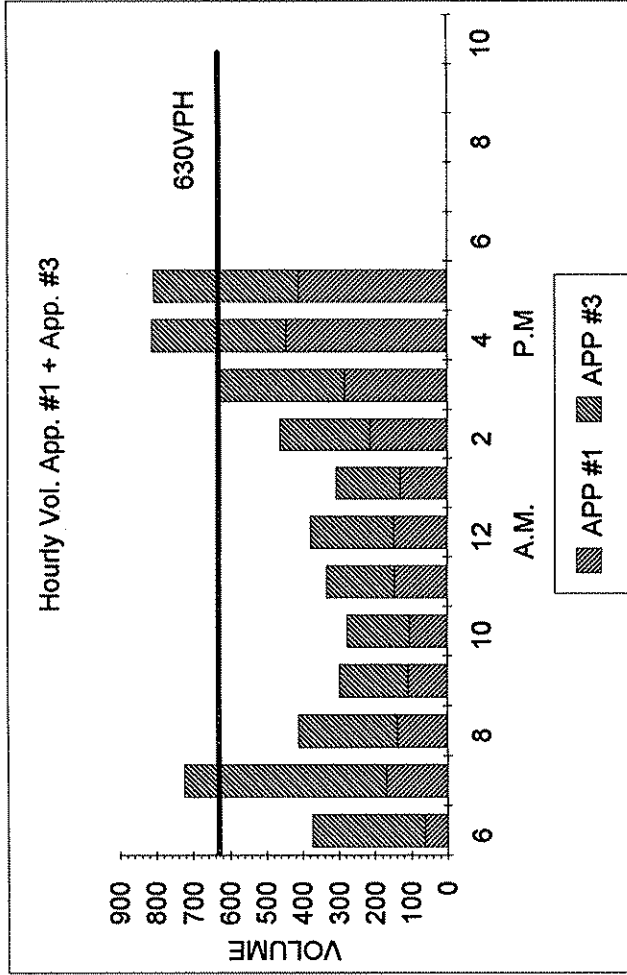
TMC9301 STOP WARRANT STUDY



TMC9301 SIGNAL WARRANT 1 STUDY

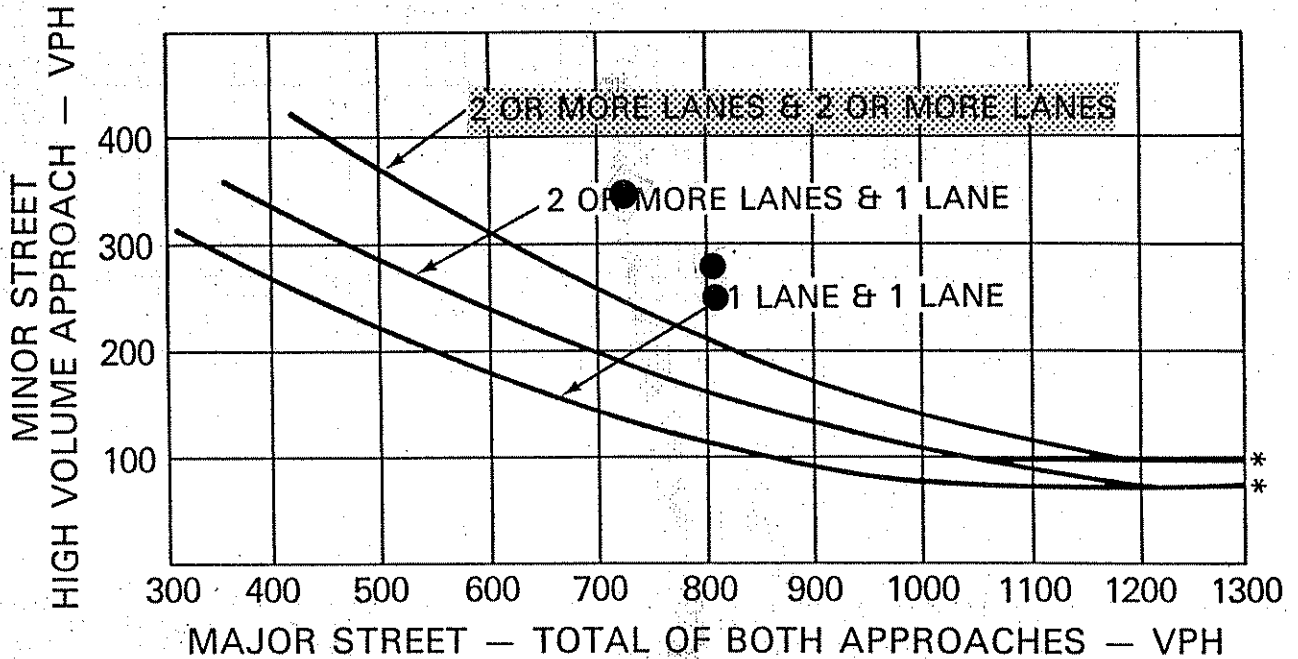


TMC9301 SIGNAL WARRANT 2 STUDY



# FIGURE 4-6. PEAK HOUR VOLUME WARRANT

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 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.

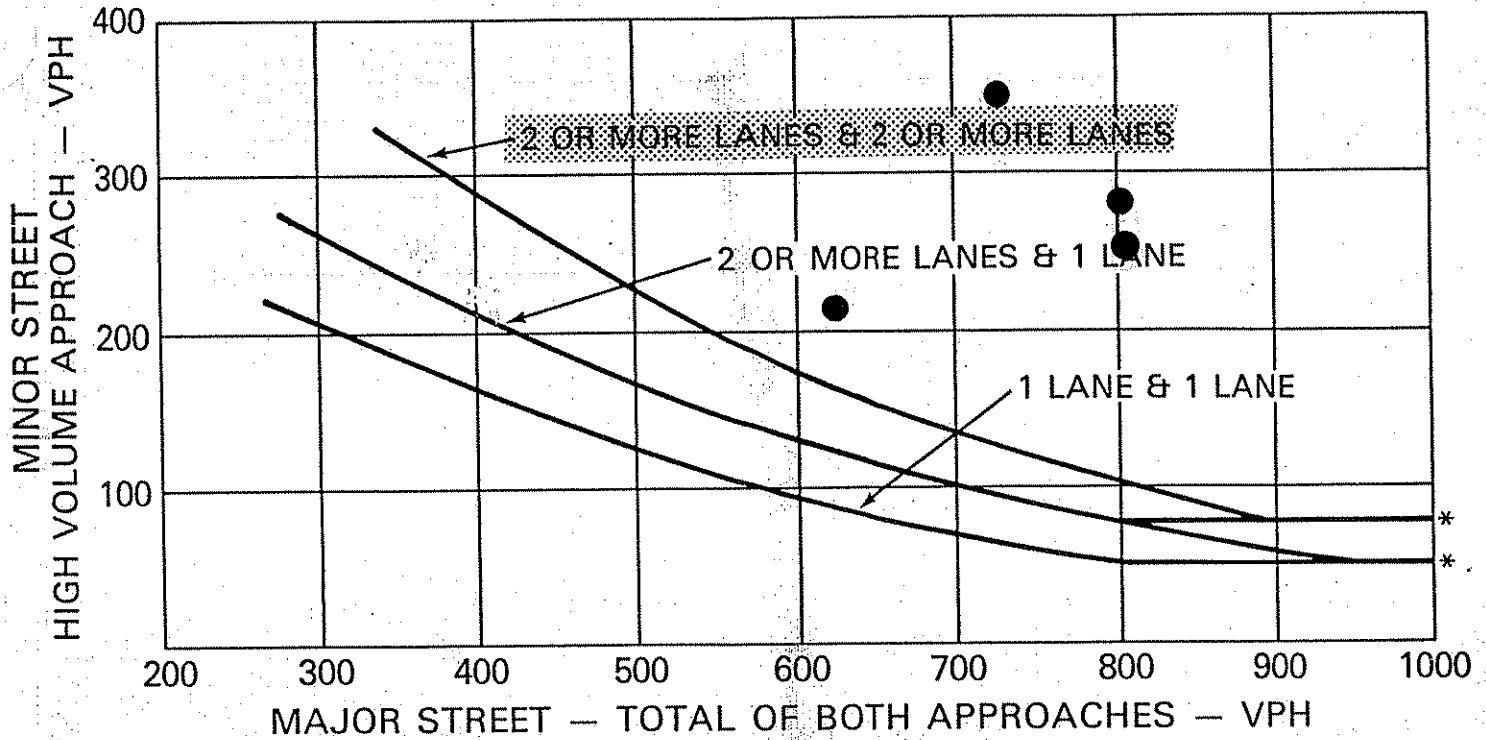
★ = VOLUMES WHICH EXCEED THE THRESHOLD BUT CANNOT BE REPRESENTED ON THE GRAPH.

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	374	266
7-8 am	724	345
8-9 am	410	236
9-10 am	297	150
10-11 am	275	116
11-12 pm	333	132
12-1 pm	376	143
1-2 pm	306	134
2-3 pm	461	142
3-4 pm	626	217
4-5 pm	811	245
5-6 pm	805	277
6-7 pm	0	0
7-8 pm	0	0
8-9 pm	0	0
9-10 pm	0	0

CSAH 10 (BIRCH ST) @ TH 49 (HODGSON RD)

# FIGURE 4-8. FOUR HOUR VOLUME WARRANT

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 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	374	266
● 7-8 am	724	345
8-9 am	410	236
9-10 am	297	150
10-11 am	275	116
11-12 pm	333	132
12-1 pm	376	143
1-2 pm	306	134
2-3 pm	461	142
● 3-4 pm	626	217
● 4-5 pm	811	245
● 5-6 pm	805	277
6-7 pm	0	0
7-8 pm	0	0
8-9 pm	0	0
9-10 pm	0	0

CSAH 10 (BIRCH STREET) @ TH 49 (HODGSON ROAD)



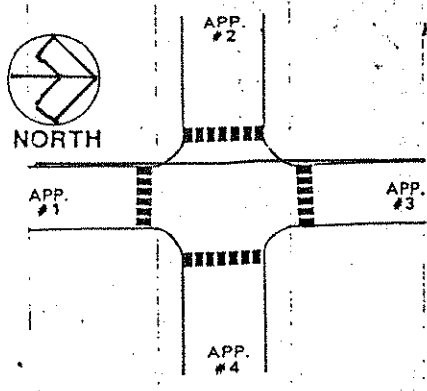
TH 49 (HODGSON RD) @

1/26/93

COUNT LOCATION: CSAH 10 (BIRCH ST)

DATE: 1/27/93

APP. #1 = NB TH 49  
(HODGSON RD)  
APP. #2 = \_\_\_\_\_  
APP. #3 = SB TH 49  
(HODGSON RD)  
APP. #4 = WB CSAH 10  
(BIRCH ST)



HEAVY VEHICLE - ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT -  
A. TRUCKS - A HEAVY VEHICLE INVOLVED IN THE TRANSPORT OF GOODS OR IN THE PERFORMANCE OF A SERVICE.  
B. RV - A HEAVY VEHICLE OPERATED BY A 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. TOTAL	TRUCK	RV	BUS
6:00 - 6:15 AM						2		1
6:15 - 6:30								7
6:30 - 6:45						4		5
6:45 - 7:00						2		
HOURLY TOTAL						HOURLY TOTAL		
7:00 - 7:15						2		8
7:15 - 7:30						3		11
7:30 - 7:45						6		18
7:45 - 8:00						6		20
HOURLY TOTAL						HOURLY TOTAL		
8:00 - 8:15						12		16
8:15 - 8:30						4		5
8:30 - 8:45						9		17
8:45 - 9:00						10		16
HOURLY TOTAL						HOURLY TOTAL		
9:00 - 9:15						5		7
9:15 - 9:30						7		15
9:30 - 9:45						11		4
9:45 - 10:00						5		1
HOURLY TOTAL						HOURLY TOTAL		
10:00 - 10:15						5		1
10:15 - 10:30						10		
10:30 - 10:45						11		
10:45 - 11:00						9		
HOURLY TOTAL						HOURLY TOTAL		
11:00 - 11:15						5		
11:15 - 11:30						10		
11:30 - 11:45						11		
11:45 - 12:00 PM						10		
HOURLY TOTAL						HOURLY TOTAL		
12:00 - 12:15 PM						11		
12:15 - 12:30						4		
12:30 - 12:45						11		
12:45 - 1:00						12		
HOURLY TOTAL						HOURLY TOTAL		
1:00 - 1:15						14		
1:15 - 1:30						8		
1:30 - 1:45						15		
1:45 - 2:00						8		