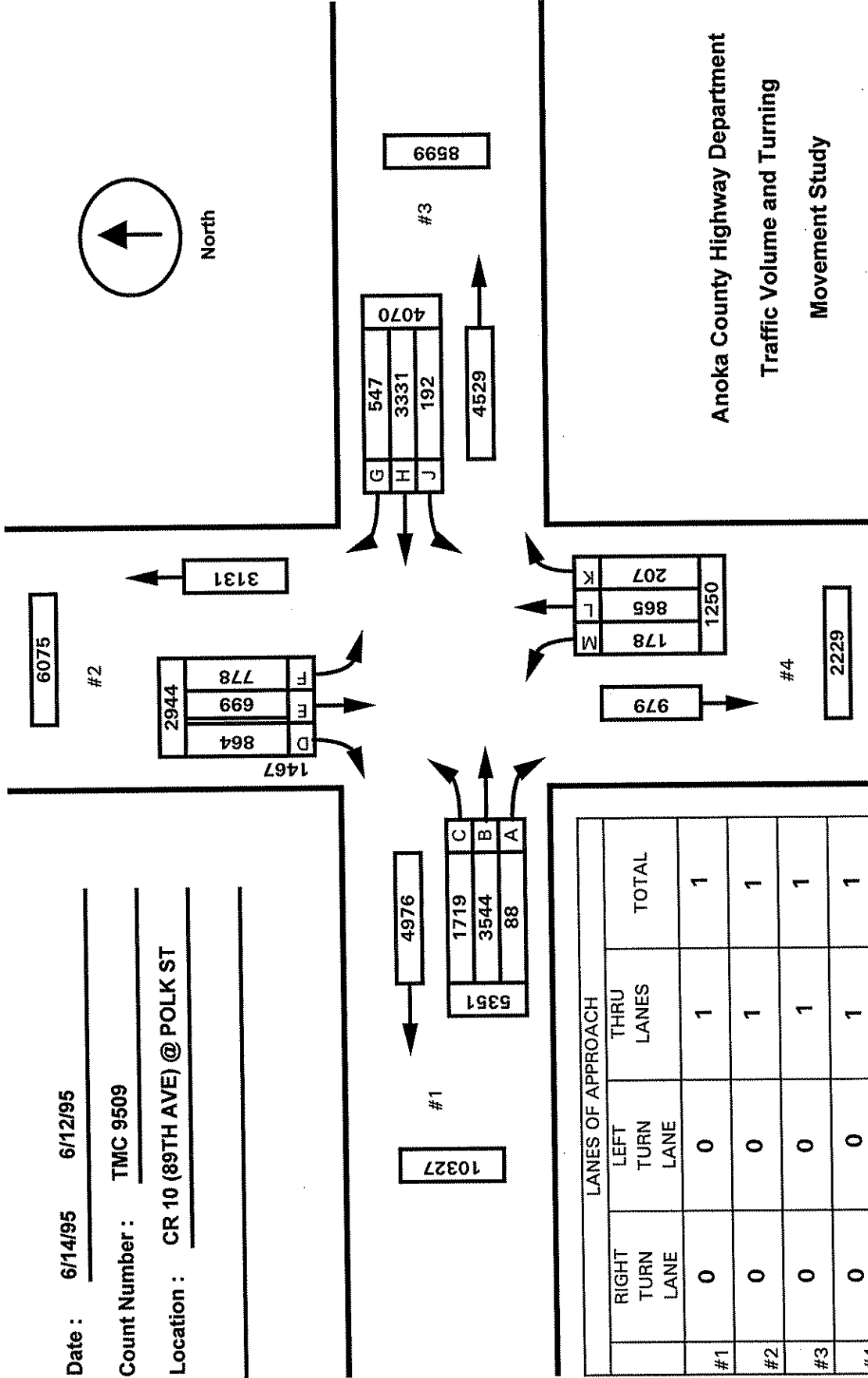
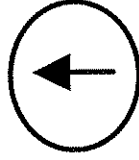


Date: 6/14/95 6/12/95

Count Number: TMC 9509

Location: CR 10 (89TH AVE) @ POLK ST



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT
 TRAFFIC ENGINE NG SECTION
 TRAFFIC VOLUME AND
 TURNING MOVEMENT STUDY

Site Code 5090101
 Start Date: 06/12/95
 File I.D. : TMC9509
 Page : 1

Counter : TDC EIGHT
 Counted by ANN/LAURIE
 CLEAR

Vehicle group 1

Date 06/12/95	POLK ST NE Southbound				CR 10 (89TH AVE) Westbound				POLK ST NE Northbound				CR 10 (89TH AVE) Eastbound				Vehicle Total	
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Vehicle Total	Other Total
06:00	1	11	6	14	0	0	6	0	0	2	2	1	0	0	31	1	74	1
06:15	0	13	6	28	0	1	13	0	0	2	4	0	1	0	26	4	97	1
06:30	1	20	9	43	0	1	13	1	0	2	1	1	1	0	44	2	137	2
06:45	0	15	18	45	0	0	18	0	0	4	0	4	3	0	51	7	162	3
Hr Total	2	59	39	130	0	2	50	1	0	10	7	6	5	0	152	14	470	7
07:00	2	25	12	51	0	2	12	4	1	3	5	1	4	0	46	6	167	7
07:15	2	22	21	62	3	5	13	2	2	2	7	1	2	0	72	2	209	9
07:30	0	27	14	40	1	5	19	0	1	5	6	1	3	0	61	16	194	5
07:45	0	28	19	42	1	3	26	3	0	5	3	0	1	0	76	16	221	2
Hr Total	4	102	66	195	5	15	70	9	4	15	21	3	10	0	255	40	791	23
08:00	1	20	9	26	2	6	35	1	0	2	2	0	2	1	54	12	168	5
08:15	1	16	4	11	2	4	43	2	0	3	2	0	6	0	56	10	151	9
08:30	1	15	11	10	0	4	45	3	0	3	0	1	3	0	44	10	146	4
08:45	0	18	8	7	4	3	42	1	0	5	5	0	0	0	55	10	154	4
Hr Total	3	69	32	54	8	17	165	7	0	13	9	1	11	1	209	42	619	22
09:00	0	19	12	12	3	5	33	2	0	0	5	1	4	2	38	12	141	7
09:15	0	12	8	9	2	3	38	2	0	3	2	1	3	1	38	12	129	5
09:30	1	20	10	10	1	5	49	1	0	0	10	0	8	1	44	14	164	10
09:45	1	23	10	10	2	2	52	2	0	4	2	2	1	2	38	15	162	4
Hr Total	2	74	40	41	8	15	172	7	0	7	19	4	16	6	158	53	596	26
10:00	0	24	12	10	1	2	68	3	0	3	5	0	1	1	42	14	184	2
10:15	0	18	8	12	1	8	64	1	0	5	7	1	1	1	57	18	200	2
10:30	0	23	11	9	0	10	59	3	0	2	3	1	1	3	48	23	195	1
10:45	0	21	5	13	1	3	78	2	1	2	6	1	0	1	46	15	193	2
Hr Total	0	86	36	44	3	23	269	9	1	12	21	3	3	6	193	70	772	7
11:00	0	20	7	7	3	5	57	1	0	4	1	2	6	2	62	22	190	9
11:15	0	24	7	8	3	5	59	3	0	7	9	0	4	2	68	18	210	7
11:30	0	24	17	8	4	5	76	2	0	0	7	1	3	2	61	20	223	7
11:45	0	23	5	12	1	5	76	1	0	7	9	1	3	0	58	32	229	4
Hr Total	0	91	36	35	11	20	268	7	0	18	26	4	16	6	249	92	852	27
12:00	0	25	12	3	2	9	58	5	0	3	9	2	4	0	74	36	236	6
12:15	0	20	9	4	0	7	53	3	0	5	9	3	2	2	77	34	226	2
12:30	0	23	18	9	1	3	48	6	0	4	2	0	2	4	80	23	220	3
12:45	0	36	13	14	0	8	56	3	0	3	15	4	1	2	66	27	247	1
Hr Total	0	104	52	30	3	27	215	17	0	15	35	9	9	8	297	120	929	12

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

Site Cod 95090101
 Start Date: 06/12/95
 File I.D. : TMC9509}
 Page : 3

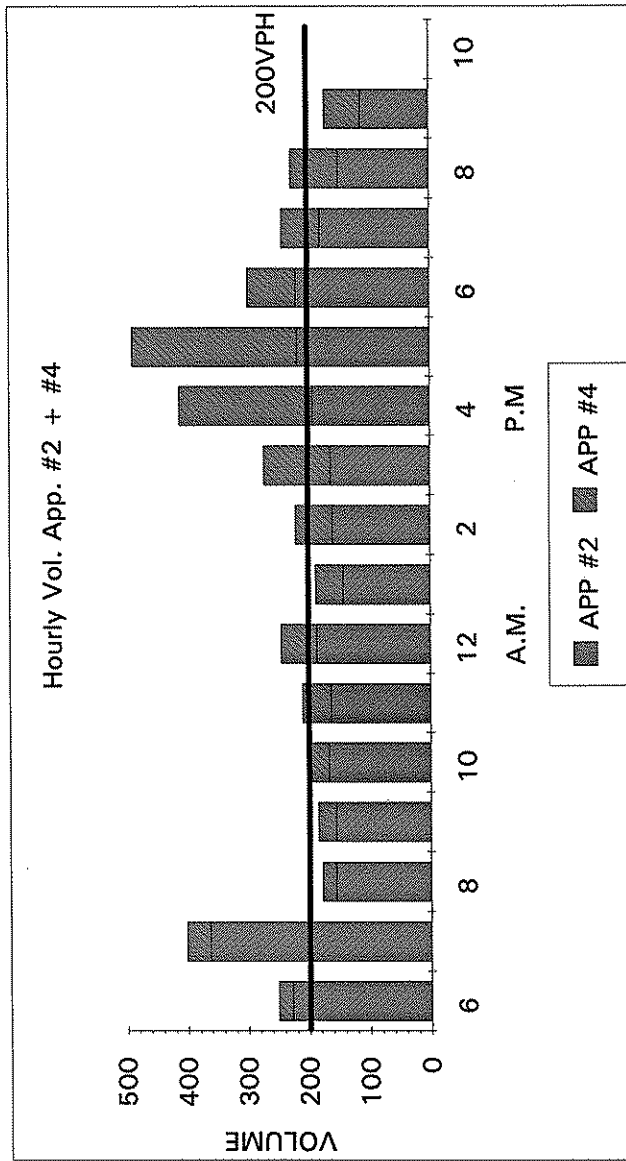
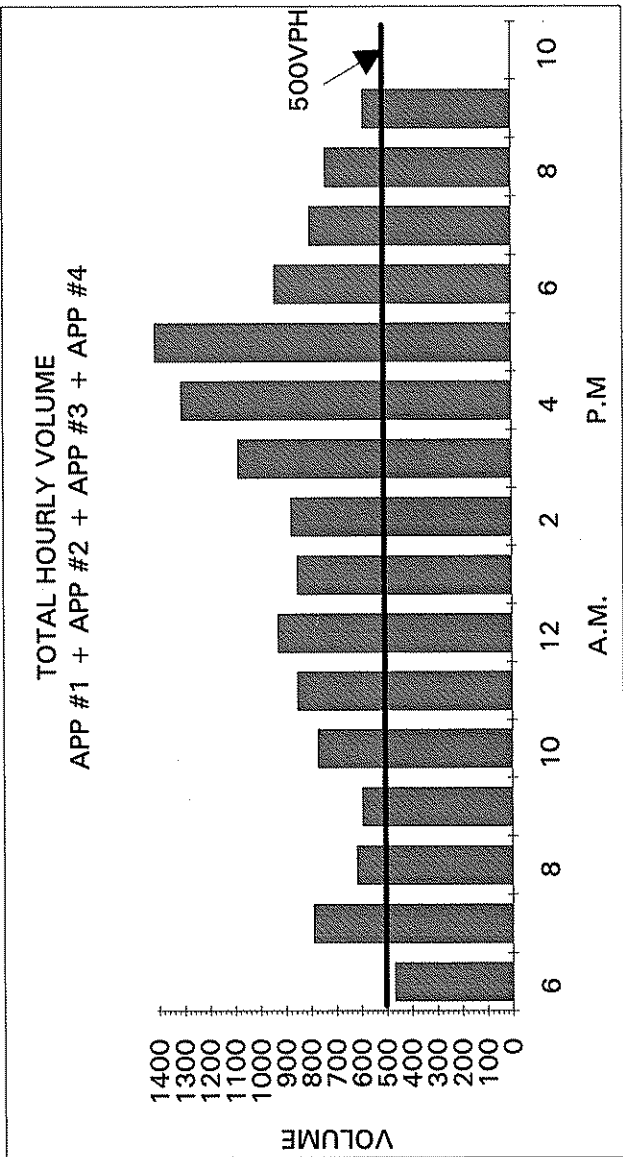
Counter : TDC EIGHT
 Counted by ANN/LAURIE
 CLEAR

Vehicle group 1

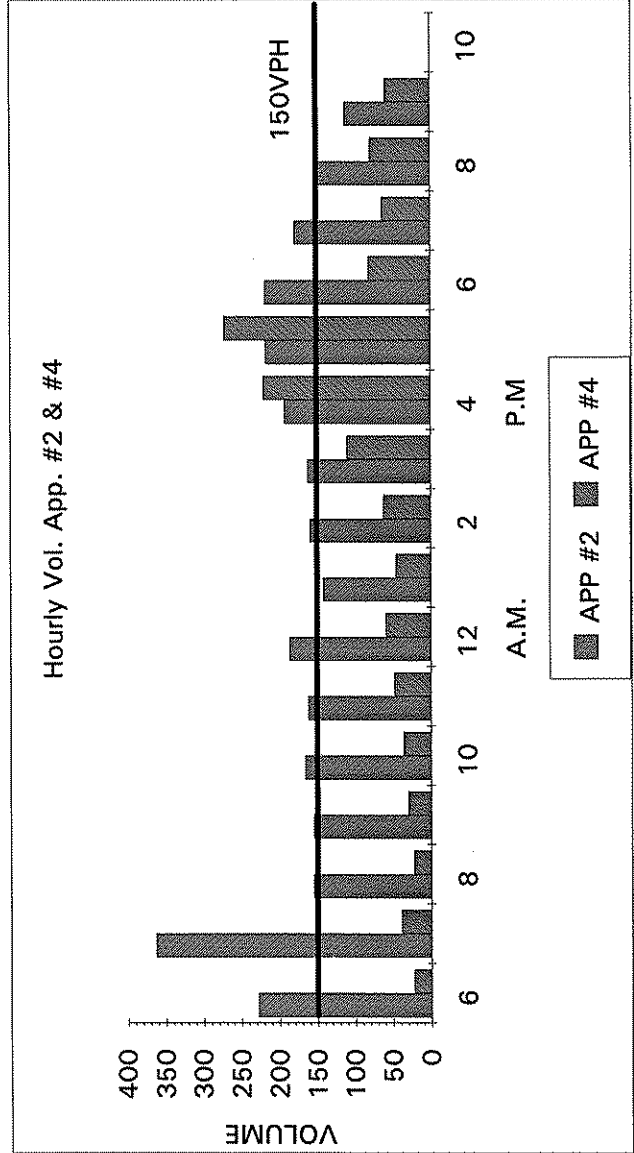
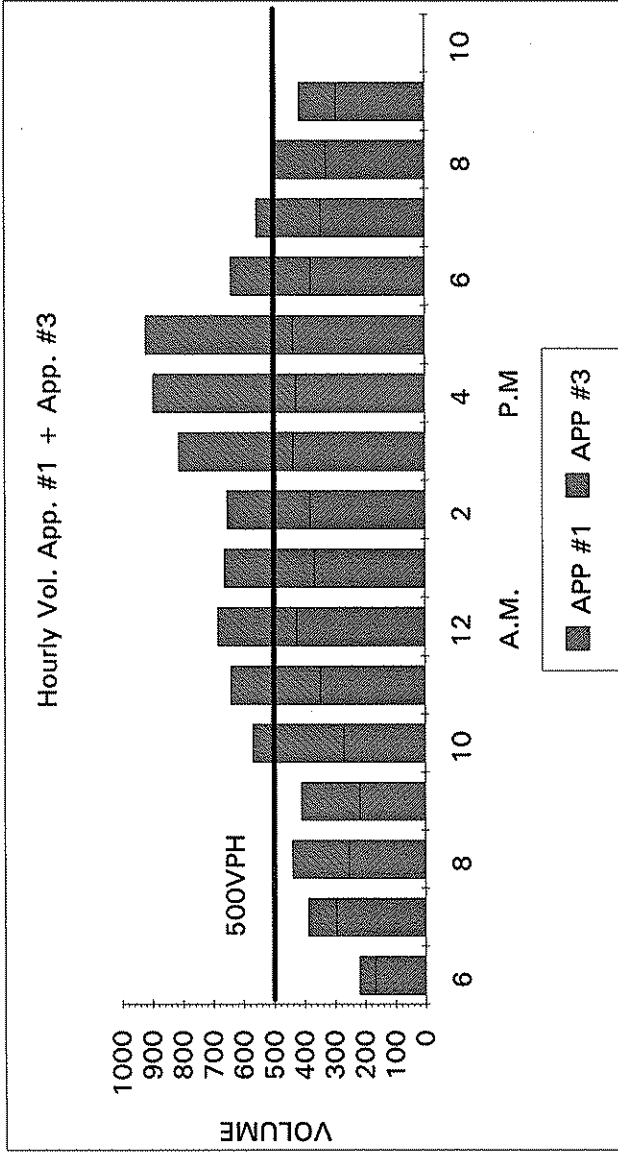
Date	POLK ST NE Southbound			CR 10 (89TH AVE) Westbound			POLK ST NE Northbound			CR 10 (89TH AVE) Eastbound			Vehicle						
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Total	Other	Total
20:00	0	23	6	6	0	5	37	0	0	3	21	1	1	1	52	25	180	1	1
20:15	0	24	13	9	0	9	34	4	0	2	9	0	1	4	51	36	195	1	1
20:30	0	26	9	4	0	14	33	3	0	5	18	2	1	2	44	33	193	1	1
20:45	0	13	11	4	0	8	34	2	0	2	14	2	0	2	50	26	168	0	0
Hr Total	0	86	39	23	0	36	138	9	0	12	62	5	3	9	197	120	736	3	3
21:00	1	20	8	5	0	3	29	1	0	4	14	1	0	2	67	29	183	1	1
21:15	0	14	5	8	0	2	19	5	0	1	7	1	0	0	58	27	147	0	0
21:30	0	16	9	3	0	6	23	4	0	2	13	1	0	0	37	30	144	0	0
21:45	0	10	10	4	0	9	21	1	0	2	10	3	0	2	24	16	112	0	0
Hr Total	1	60	32	20	0	20	92	11	0	9	44	6	0	4	186	102	586	1	1

TOTAL 17 1467 699 778 80 547 3331 192 8 207 865 178 110 88 3544 1719 13615 215

TMC9509 STOP WARRANT STUDY



TMC9509 SIGNAL WARRANT 1 STUDY



TMC9509 SIGNAL WARRANT 2 STUDY

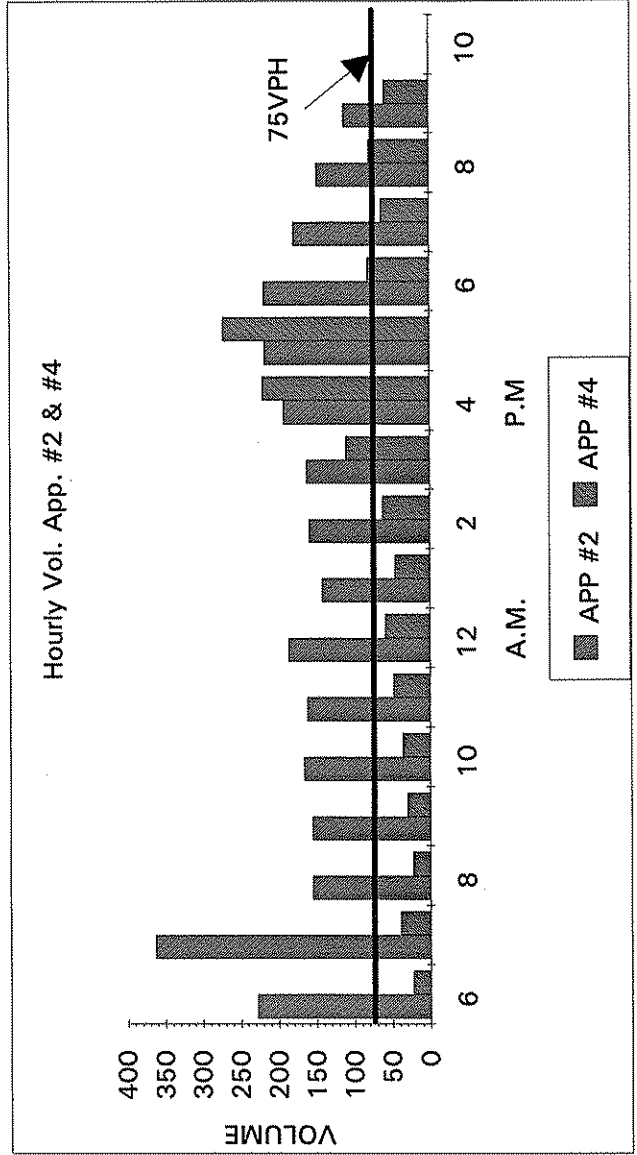
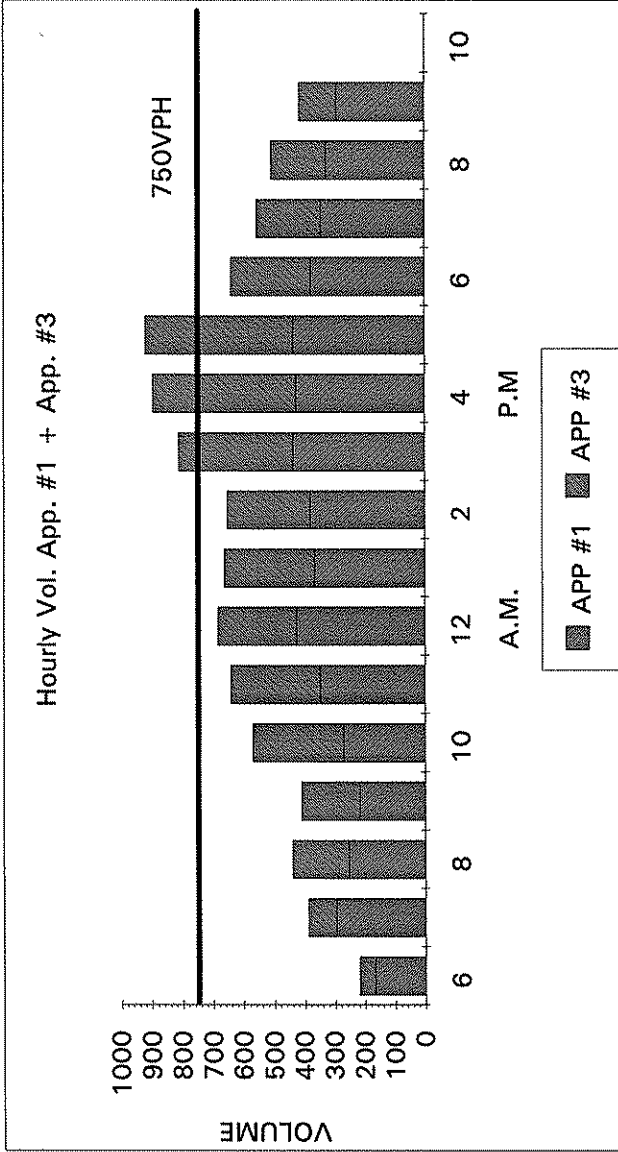
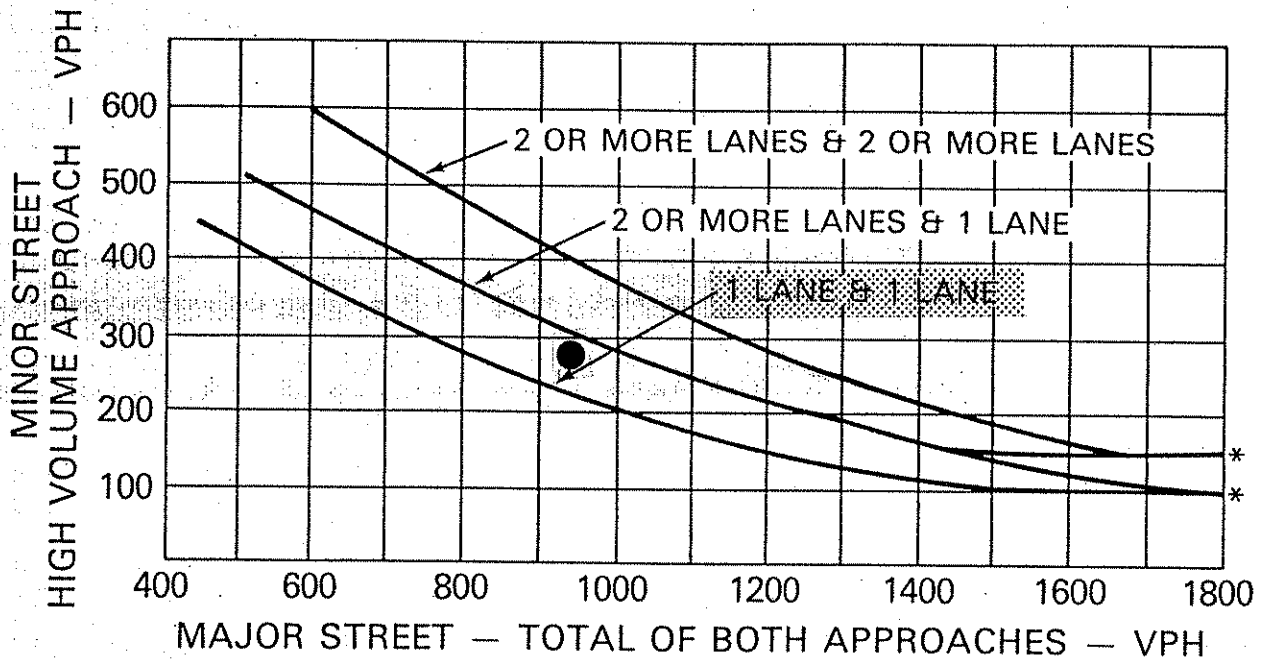


FIGURE 4-5. PEAK HOUR VOLUME WARRANT



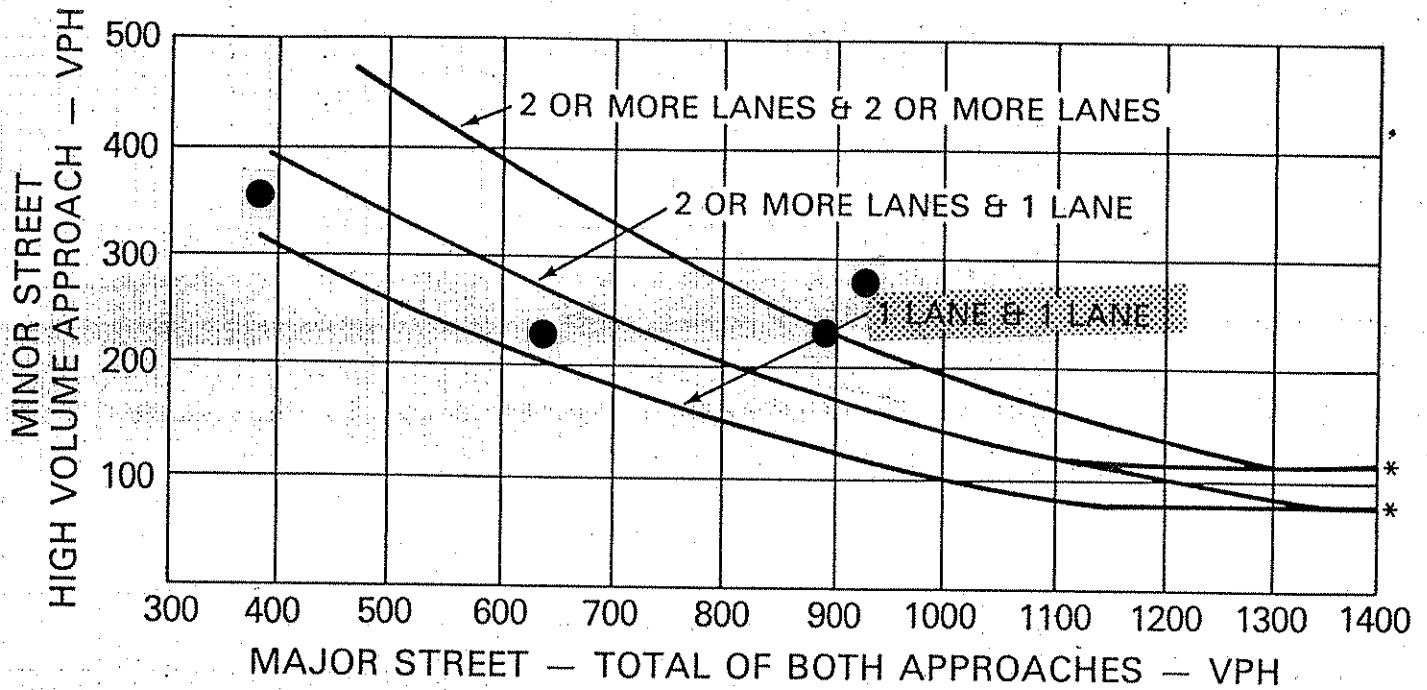
*NOTE: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

● = 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	219	228
7-8 am	389	363
8-9 am	441	155
9-10 am	411	155
10-11 am	570	166
11-12 pm	642	162
12-1 pm	684	186
1-2 pm	663	142
2-3 pm	654	159
3-4 pm	812	162
4-5 pm	896	220
● 5-6 pm	920	272
6-7 pm	640	218
7-8 pm	556	179
8-9 pm	509	148
9-10 pm	415	112

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	219	228
● 7-8 am	389	363
8-9 am	441	155
9-10 am	411	155
10-11 am	570	166
11-12 pm	642	162
12-1 pm	684	186
1-2 pm	663	142
2-3 pm	654	159
3-4 pm	812	162
● 4-5 pm	896	220
● 5-6 pm	920	272
● 6-7 pm	640	218
7-8 pm	556	179
8-9 pm	509	148
9-10 pm	415	112

TMC 9509 CR 10 (89TH AVE) @ POLK STREET NW



NORTH

COUNT LOCATION: CR 10 (89TH AVE) @ POLK ST NE

DATE: 6/14/95

APP. #1= EB CR 10
(89TH AVE) @ POLK ST

APP. #2= SB POLK ST

APP. #3= WB CR 10
(89TH AVE) @ POLK ST

APP. #4= NB POLK ST

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
6:00-6:15AM								1
6:15-6:30								1
6:30-6:45								2
6:45-7:00						1		2
HOURLY TOTAL						HOURLY TOTAL		7
7:00-7:15						5		2
7:15-7:30		3	1		4	6		3
7:30-7:45						5		
7:45-8:00						1		1
HOURLY TOTAL					4	HOURLY TOTAL		23
8:00-8:15	1	1			2	3		2
8:15-8:30		1			1	3		6
8:30-8:45						2		2
8:45-9:00				1	1	3		1
HOURLY TOTAL					4	HOURLY TOTAL		22
9:00-9:15						4		4
9:15-9:30						4		1
9:30-9:45						4		6
9:45-10:00						3		1
HOURLY TOTAL						HOURLY TOTAL		27
10:00-10:15				1	1	2		
10:15-10:30						1		1
10:30-10:45				5	5	1		
10:45-11:00						1		1
HOURLY TOTAL					6	HOURLY TOTAL		7
11:00-11:15		4			4	5		2
11:15-11:30						8		1
11:30-11:45						5		2
11:45-12:00						3		1
HOURLY TOTAL					4	HOURLY TOTAL		27
12:00-12:15						4		3
12:15-12:30						3		
12:30-12:45						3		
12:45-1:00								
HOURLY TOTAL						HOURLY TOTAL		13
1:00-1:15						1		1
1:15-1:30		3			3	2		1
1:30-1:45						3		
1:45-2:00						1		2
HOURLY TOTAL					3	HOURLY TOTAL		11

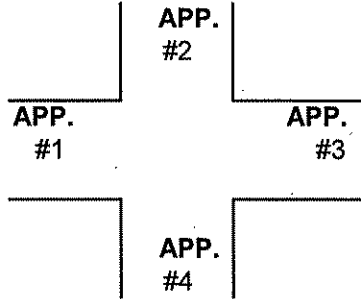


NORTH

COUNT LOCATION: CR 10 (89TH AVE) @ POLK ST

DATE: 6/12/95

APP. #1=EB CR 10 (89TH AVE)
APP. #2=SB POLK ST
APP. #3=WB CR 10 (89TH AVE)
APP. #4=NB POLK ST



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						7		
2:15-2:30						1		2
2:30-2:45								
2:45-3:00						1		
HOURLY TOTAL						HOURLY TOTAL		11
3:00-3:15				1	1	4		2
3:15-3:30				1	1	6		1
3:30-3:45						5		1
3:45-4:00		2			2	1		1
HOURLY TOTAL					4	HOURLY TOTAL		21
4:00-4:15						2		1
4:15-4:30								2
4:30-4:45						5		1
4:45-5:00						4		2
HOURLY TOTAL						HOURLY TOTAL		17
5:00-5:15		1			1	5		
5:15-5:30						3		
5:30-5:45						1		4
5:45-6:00						1		
HOURLY TOTAL					1	HOURLY TOTAL		14
6:00-6:15								1
6:15-6:30						2		
6:30-6:45						1		2
6:45-7:00						1		
HOURLY TOTAL						HOURLY TOTAL		7
7:00-7:15						1		1
7:15-7:30								
7:30-7:45								
7:45-8:00								
HOURLY TOTAL						HOURLY TOTAL		2
8:00-8:15						1		
8:15-8:30						1		
8:30-8:45						1		
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		3
9:00-9:15						1		
9:15-9:30								
9:30-9:45		1			1			
9:45-10:00								
HOURLY TOTAL					1	HOURLY TOTAL		1