



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-5 AT POST RD WEST RAMP

COUNTY: HENNEPIN

REF. POINT: 062.489

DATE: 9/30/1998

OPERATOR: DR

Speed	Approach Description	Lanes
35	Major App1: POST RD WB, E OF TH-5 SB RAMP	2
35	Major App3: POST RD EB, W OF TH-5 SB RAMP	1
0	Minor App2: N/A	0
55	Minor App4: TH-5 SB RAMP TO POST RD	2

0.70 FACTOR USED? NO

POPULATION < 10,000? NO

EXISTING SIGNAL ? NO

HOUR	600/900				0/0		200/100		MET SAME HOURS
	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	WARRANT MET	MINOR APP. 2	MINOR APP. 4	WARRANT MET APP. 2	WARRANT MET APP. 4	
0:00 - 1:00	126	27	153	/	0	80	/	/	/
1:00 - 2:00	46	8	54	/	0	37	/	/	/
2:00 - 3:00	41	16	57	/	0	31	/	/	/
3:00 - 4:00	29	25	54	/	0	65	/	/	/
4:00 - 5:00	41	66	107	/	0	86	/	/	/
5:00 - 6:00	82	227	309	/	0	179	/	/X	/
6:00 - 7:00	203	567	770	X/	0	394	/	X/X	X/
7:00 - 8:00	263	174	437	/	0	289	/	X/X	/
8:00 - 9:00	261	151	412	/	0	300	/	X/X	/
9:00 - 10:00	230	131	361	/	0	268	/	X/X	/
10:00 - 11:00	332	139	471	/	0	249	/	X/X	/
11:00 - 12:00	330	128	458	/	0	297	/	X/X	/
12:00 - 13:00	373	164	537	/	0	330	/	X/X	/
13:00 - 14:00	455	170	625	X/	0	300	/	X/X	X/
14:00 - 15:00	572	363	935	X/X	0	366	/	X/X	X/X
15:00 - 16:00	943	200	1143	X/X	0	302	/	X/X	X/X
16:00 - 17:00	562	148	710	X/	0	302	/	X/X	X/
17:00 - 18:00	454	116	570	/	0	273	/	X/X	/
18:00 - 19:00	333	133	466	/	0	235	/	X/X	/
19:00 - 20:00	363	117	480	/	0	183	/	/X	/
20:00 - 21:00	304	118	422	/	0	192	/	/X	/
21:00 - 22:00	309	142	451	/	0	208	/	X/X	/
22:00 - 23:00	321	202	523	/	0	192	/	/X	/
23:00 - 24:00	508	56	564	/	0	153	/	/X	/

	Met (Hr)	Required (Hr)	
Warrant 1	5	8	Not satisfied
Warrant 2	2	8	Not satisfied
Warrant 6	9	8	Satisfied, check accident record
Warrant 8	3	8	Not satisfied
Warrant 9	3	4	Not satisfied
Warrant 11	0	1	Not satisfied

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0.70 FACTOR USED? NO
 POPULATION < 10,000? NO
 EXISTING SIGNAL ? NO

Speed	Approach Description	Lanes
35	Major App1: POST RD WB, E OF TH-5 SB RAMP	2
35	Major App3: POST RD EB, W OF TH-5 SB RAMP	1
0	Minor App2: N/A	0
55	Minor App4: TH-5 SB RAMP TO POST RD	2

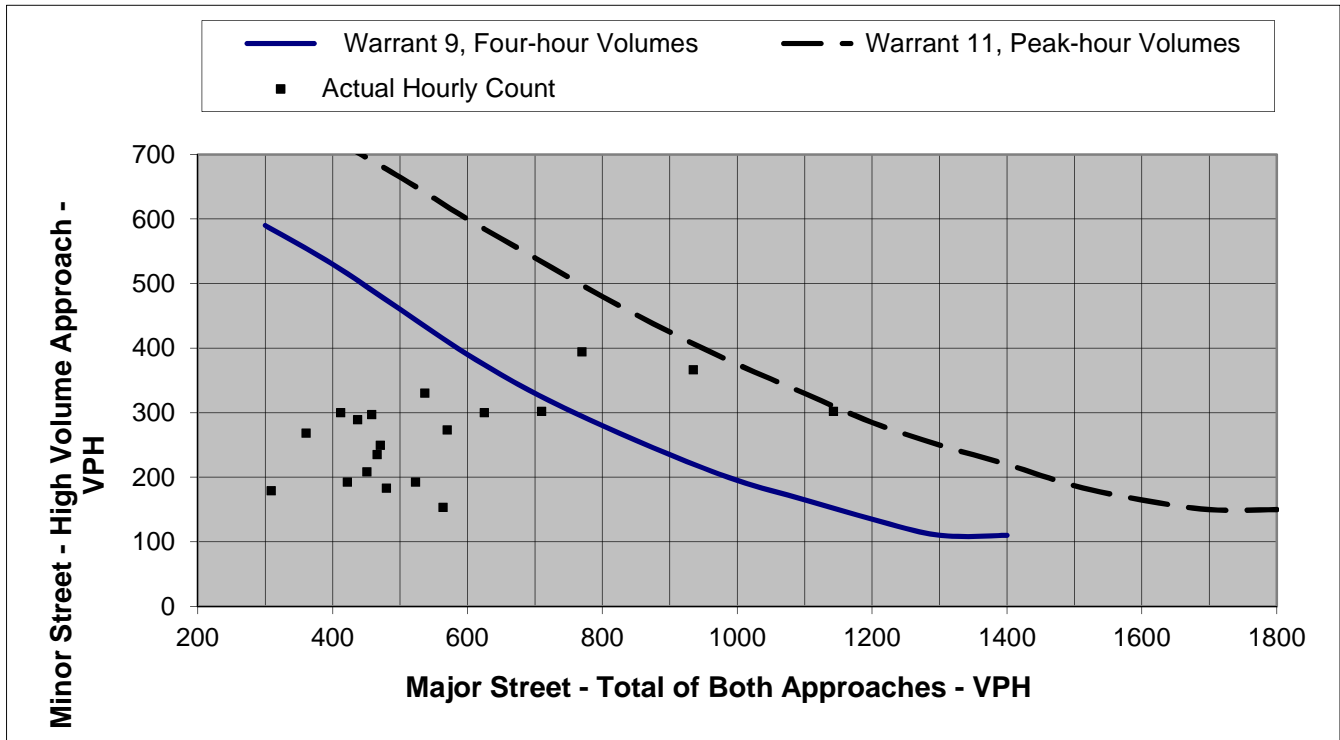


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Major	Warrant Criteria		Actual Hourly Count	
	Warrant 9, F	Warrant 11, P	Major	Actual Hourly Count
200			153	80
300	590		54	37
400	530	725	57	31
500	460	665	54	65
600	390	600	107	86
700	330	540	309	179
800	280	480	770	394
900	235	425	437	289
1000	195	375	412	300
1100	165	330	361	268
1200	135	285	471	249
1300	110	250	458	297
1400	110	220	537	330
1500		187	625	300
1600		165	935	366
1700		150	1143	302
1800		150	710	302
			570	273
			466	235
			480	183
			422	192
			451	208
			523	192
			564	153

Four Hour Warrant

Major App	Minor App		
	1 & 1	2 & 1	2 & 2
300	360	440	590
400	310	390	530
500	260	340	460
600	215	290	390
700	180	245	330
800	150	205	280
900	125	170	235
1000	100	145	195
1100	85	120	165
1200	80	100	135
1300	80	83	110
1400	80	80	110

Peak Hour

Major App	1 & 1
400	475
500	425
600	370
700	330
800	280
900	240
1000	204
1100	175
1200	150
1300	130
1400	115
1500	100
1600	100
1700	100
1800	100

Four Hour Warrant Factored

Major App	Minor App		
	1 & 1	2 & 1	2 & 2
200	250	320	420
300	210	265	350
400	170	215	285
500	130	170	230
600	93	130	175
700	70	100	135
800	60	80	103
900	60	65	80
1000	60	60	80

Peak Hour

Major App	1 & 1
300	320
400	270
500	225
600	180
700	145
800	115
900	90
1000	75
1100	75
1200	75
1300	75

Warrant

Minor App

2 & 1	2 & 2
570	725
520	665
465	600
420	540
370	480
330	425
285	375
250	330
220	285
190	250
160	220
140	187
115	165
100	150
100	150

Warrant Factored

Minor App

2 & 1	2 & 2
380	500
335	435
285	370
240	315
200	260
160	215
135	175
110	140
95	115
75	100
75	100



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

ALL WAY STOP WARRANT

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OPERATOR: DR

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35	Major App3: POST RD EB, W OF TH-5 SB RAMP	1
0	Minor App2: N/A	0
55	Minor App4: TH-5 SB RAMP TO POST RD	2

0.70 FACTOR USED? Yes

HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	350	140	WARRANT MET
					TOTAL Σ (APP.1 to APP. 4)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	126	27	0	80	233	80	/
1:00 - 2:00	46	8	0	37	91	37	/
2:00 - 3:00	41	16	0	31	88	31	/
3:00 - 4:00	29	25	0	65	119	65	/
4:00 - 5:00	41	66	0	86	193	86	/
5:00 - 6:00	82	227	0	179	488	179	X/X
6:00 - 7:00	203	567	0	394	1164	394	X/X
7:00 - 8:00	263	174	0	289	726	289	X/X
8:00 - 9:00	261	151	0	300	712	300	X/X
9:00 - 10:00	230	131	0	268	629	268	X/X
10:00 - 11:00	332	139	0	249	720	249	X/X
11:00 - 12:00	330	128	0	297	755	297	X/X
12:00 - 13:00	373	164	0	330	867	330	X/X
13:00 - 14:00	455	170	0	300	925	300	X/X
14:00 - 15:00	572	363	0	366	1301	366	X/X
15:00 - 16:00	943	200	0	302	1445	302	X/X
16:00 - 17:00	562	148	0	302	1012	302	X/X
17:00 - 18:00	454	116	0	273	843	273	X/X
18:00 - 19:00	333	133	0	235	701	235	X/X
19:00 - 20:00	363	117	0	183	663	183	X/X
20:00 - 21:00	304	118	0	192	614	192	X/X
21:00 - 22:00	309	142	0	208	659	208	X/X
22:00 - 23:00	321	202	0	192	715	192	X/X
23:00 - 24:00	508	56	0	153	717	153	X/X

Met (Hr) Required (Hr)

Allway Stop Warrant: **19** 8 **Satisfied**

REMARKS: _____

