



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-55 & VETERANS DRIVE

COUNTY: HENNEPIN

REF. POINT:

DATE: 4/25/2000

OPERATOR: JM

Speed	Approach Description	Lanes
35	Major App1: TH-55 NB, S OF VETERANS DRIVE	3
35	Major App3: TH-55 SB, N OF VETERANS DRIVE	3
15	Minor App2: VETERANS DRIVE EB, W OF TH-55	2
0	Minor App4: N/A	0

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

HOUR	480/720			160/80			0/0		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	173	104	277	/	99	0	/X	/	/
1:00 - 2:00	83	49	132	/	9	0	/	/	/
2:00 - 3:00	55	35	90	/	2	0	/	/	/
3:00 - 4:00	36	40	76	/	1	0	/	/	/
4:00 - 5:00	79	95	174	/	8	0	/	/	/
5:00 - 6:00	261	302	563	X/	21	0	/	/	/
6:00 - 7:00	917	695	1612	X/X	49	0	/	/	/
7:00 - 8:00	1720	1099	2819	X/X	99	0	/X	/	/X
8:00 - 9:00	1582	894	2476	X/X	180	0	X/X	/	X/X
9:00 - 10:00	1082	649	1731	X/X	188	0	X/X	/	X/X
10:00 - 11:00	993	602	1595	X/X	247	0	X/X	/	X/X
11:00 - 12:00	1109	672	1781	X/X	297	0	X/X	/	X/X
12:00 - 13:00	1192	775	1967	X/X	273	0	X/X	/	X/X
13:00 - 14:00	1188	782	1970	X/X	297	0	X/X	/	X/X
14:00 - 15:00	1312	797	2109	X/X	300	0	X/X	/	X/X
15:00 - 16:00	1565	1076	2641	X/X	459	0	X/X	/	X/X
16:00 - 17:00	1677	1277	2954	X/X	544	0	X/X	/	X/X
17:00 - 18:00	1716	1173	2889	X/X	255	0	X/X	/	X/X
18:00 - 19:00	1119	773	1892	X/X	140	0	/X	/	/X
19:00 - 20:00	854	513	1367	X/X	93	0	/X	/	/X
20:00 - 21:00	703	425	1128	X/X	95	0	/X	/	/X
21:00 - 22:00	629	365	994	X/X	50	0	/	/	/
22:00 - 23:00	409	253	662	X/	28	0	/	/	/
23:00 - 24:00	308	135	443	/	28	0	/	/	/

	Met (Hr)	Required (Hr)	
Warrant 1	10	8	Satisfied
Warrant 2	14	8	Satisfied
Warrant 6	14	8	Satisfied, check accident record
Warrant 8	11	8	Satisfied
Warrant 9	11	4	Satisfied
Warrant 11	10	1	Satisfied

LOCATION: TH-55 & VETERANS DRIVE

COUNTY: HENNEPIN

REF. POINT:

DATE: 4/25/2000

OPERATOR: JM

Speed	Approach Description	Lanes
35	Major App1: TH-55 NB, S OF VETERANS DRIVE	3
35	Major App3: TH-55 SB, N OF VETERANS DRIVE	3
15	Minor App2: VETERANS DRIVE EB, W OF TH-55	2
0	Minor App4: N/A	0

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

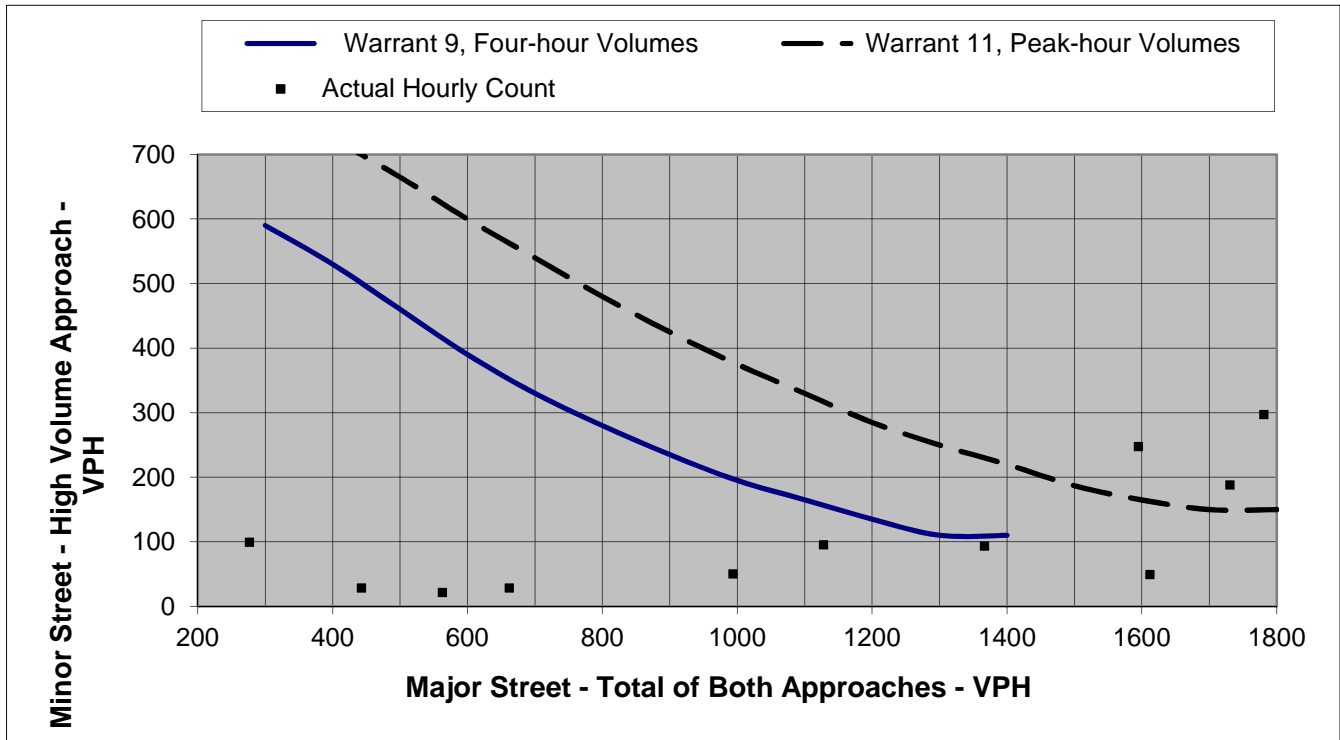


Figure 1. Four Hour and Peak Hour Warrant Analysis

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			277	99
300	590		132	9
400	530	725	90	2
500	460	665	76	1
600	390	600	174	8
700	330	540	563	21
800	280	480	1612	49
900	235	425	2819	99
1000	195	375	2476	180
1100	165	330	1731	188
1200	135	285	1595	247
1300	110	250	1781	297
1400	110	220	1967	273
1500		187	1970	297
1600		165	2109	300
1700		150	2641	459
1800		150	2954	544
			2889	255
			1892	140
			1367	93
			1128	95
			994	50
			662	28
			443	28

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

LOCATION: TH-55 & VETERANS DRIVE

COUNTY: HENNEPIN

REF. POINT:

DATE: 4/25/2000

OPERATOR: JM

Speed	Approach Description	Lanes
35	Major App1: TH-55 NB, S OF VETERANS DRIVE	3
35	Major App3: TH-55 SB, N OF VETERANS DRIVE	3
15	Minor App2: VETERANS DRIVE EB, W OF TH-55	2
0	Minor App4: N/A	0

0.70 FACTOR USED? No

HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	500	200	WARRANT MET
					TOTAL Σ (APP.1 to APP. 4)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	173	104	99	0	376	99	/
1:00 - 2:00	83	49	9	0	141	9	/
2:00 - 3:00	55	35	2	0	92	2	/
3:00 - 4:00	36	40	1	0	77	1	/
4:00 - 5:00	79	95	8	0	182	8	/
5:00 - 6:00	261	302	21	0	584	21	X/
6:00 - 7:00	917	695	49	0	1661	49	X/
7:00 - 8:00	1720	1099	99	0	2918	99	X/
8:00 - 9:00	1582	894	180	0	2656	180	X/
9:00 - 10:00	1082	649	188	0	1919	188	X/
10:00 - 11:00	993	602	247	0	1842	247	X/X
11:00 - 12:00	1109	672	297	0	2078	297	X/X
12:00 - 13:00	1192	775	273	0	2240	273	X/X
13:00 - 14:00	1188	782	297	0	2267	297	X/X
14:00 - 15:00	1312	797	300	0	2409	300	X/X
15:00 - 16:00	1565	1076	459	0	3100	459	X/X
16:00 - 17:00	1677	1277	544	0	3498	544	X/X
17:00 - 18:00	1716	1173	255	0	3144	255	X/X
18:00 - 19:00	1119	773	140	0	2032	140	X/
19:00 - 20:00	854	513	93	0	1460	93	X/
20:00 - 21:00	703	425	95	0	1223	95	X/
21:00 - 22:00	629	365	50	0	1044	50	X/
22:00 - 23:00	409	253	28	0	690	28	X/
23:00 - 24:00	308	135	28	0	471	28	/

Met (Hr) Required (Hr)

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

REMARKS: _____

