



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-55 & RHODE ISLAND AVE

COUNTY: HENNEPIN

REF. POINT: 185.227

DATE: 3/16/1995

OPERATOR: DR

Speed	Approach Description	Lanes
50	Major App1: TH-55 WB, W OF RHODE ISLAND AVE	3
50	Major App3: TH-55 EB, W OF RHODE ISLAND AVE	3
0	Minor App2: N/A	0
30	Minor App4: RHODE ISLAND AVE SB, N OF TH-55	2

0.70 FACTOR USED? YES

POPULATION < 10,000? NO

EXISTING SIGNAL ? NO

HOUR	420/630				0/0		140/70		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	80	79	159	/	0	5	/	/	/
1:00 - 2:00	66	63	129	/	0	4	/	/	/
2:00 - 3:00	37	37	74	/	0	2	/	/	/
3:00 - 4:00	47	40	87	/	0	2	/	/	/
4:00 - 5:00	59	66	125	/	0	2	/	/	/
5:00 - 6:00	288	254	542	X/	0	12	/	/	/
6:00 - 7:00	1012	660	1672	X/X	0	72	/	/X	/X
7:00 - 8:00	2231	1176	3407	X/X	0	214	/	X/X	X/X
8:00 - 9:00	1786	1005	2791	X/X	0	143	/	X/X	X/X
9:00 - 10:00	935	733	1668	X/X	0	101	/	/X	/X
10:00 - 11:00	746	741	1487	X/X	0	101	/	/X	/X
11:00 - 12:00	876	989	1865	X/X	0	136	/	/X	/X
12:00 - 13:00	1007	930	1937	X/X	0	148	/	X/X	X/X
13:00 - 14:00	837	1000	1837	X/X	0	102	/	/X	/X
14:00 - 15:00	983	1077	2060	X/X	0	110	/	/X	/X
15:00 - 16:00	1249	1262	2511	X/X	0	158	/	X/X	X/X
16:00 - 17:00	1566	1694	3260	X/X	0	214	/	X/X	X/X
17:00 - 18:00	1626	1983	3609	X/X	0	162	/	X/X	X/X
18:00 - 19:00	932	1037	1969	X/X	0	113	/	/X	/X
19:00 - 20:00	492	520	1012	X/X	0	81	/	/X	/X
20:00 - 21:00	384	423	807	X/X	0	55	/	/	/
21:00 - 22:00	341	390	731	X/X	0	38	/	/	/
22:00 - 23:00	219	253	472	X/	0	23	/	/	/
23:00 - 24:00	147	130	277	/	0	21	/	/	/

	Met (Hr)	Required (Hr)	
Warrant 1	6	8	Not satisfied
Warrant 2	14	8	Satisfied
Warrant 6	14	8	Satisfied, check accident record
Warrant 8	8	8	Satisfied
Warrant 9	13	4	Satisfied
Warrant 11	12	1	Satisfied

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

Speed	Approach Description	Lanes
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0	Minor App2: N/A	0
30	Minor App4: RHODE ISLAND AVE SB, N OF TH-55	2

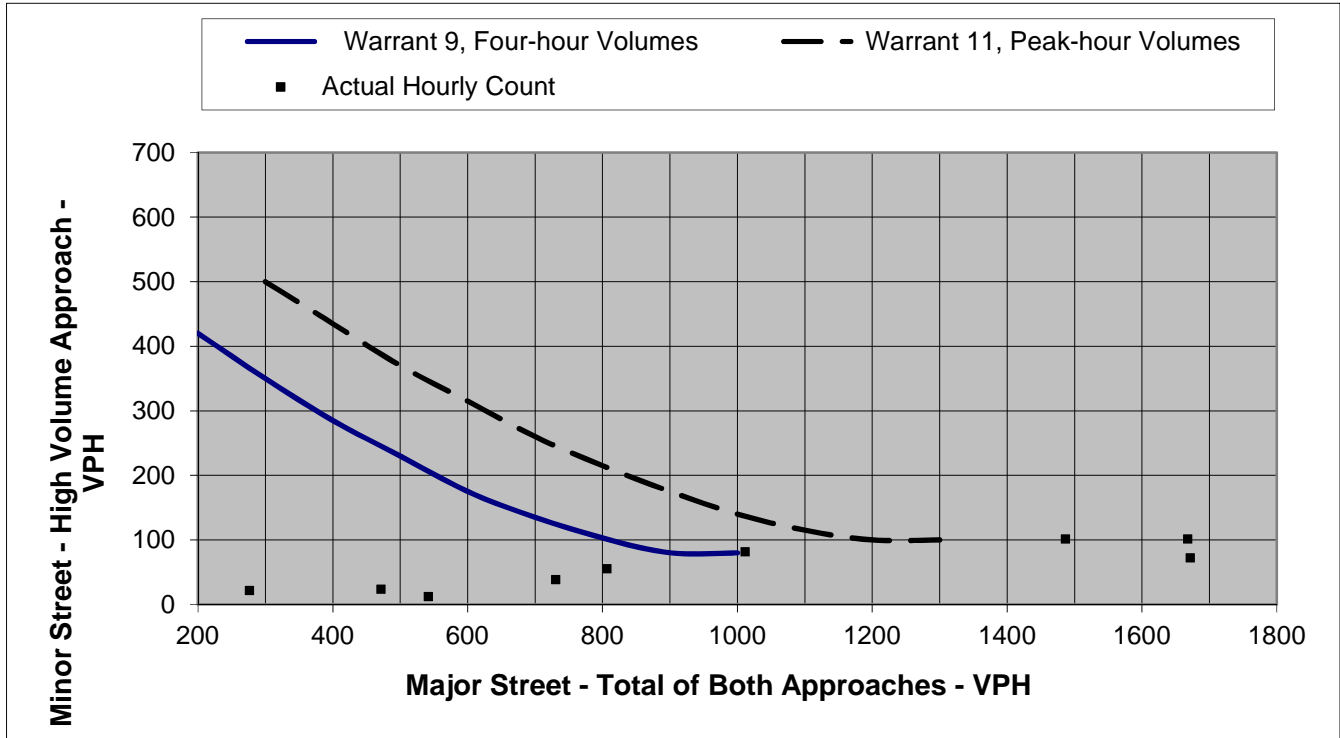


Figure 1. Four Hour and Peak Hour Warrant Analysis

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	420		159	5
300	350	500	129	4
400	285	435	74	2
500	230	370	87	2
600	175	315	125	2
700	135	260	542	12
800	103	215	1672	72
900	80	175	3407	214
1000	80	140	2791	143
1100		115	1668	101
1200		100	1487	101
1300		100	1865	136
1400			1937	148
1500			1837	102
1600			2060	110
1700			2511	158
1800			3260	214
			3609	162
			1969	113
			1012	81
			807	55
			731	38
			472	23
			277	21

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 & RHODE ISLAND AVE

COUNTY: HENNEPIN

REF. POINT: 185.227

DATE: 3/16/1995

OPERATOR: DR

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50	Major App1: TH-55 WB, W OF RHODE ISLAND AVE	3
50	Major App3: TH-55 EB, W OF RHODE ISLAND AVE	3
0	Minor App2: N/A	0
30	Minor App4: RHODE ISLAND AVE SB, N OF TH-55	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	80	79	0	5	164	5	/
1:00 - 2:00	66	63	0	4	133	4	/
2:00 - 3:00	37	37	0	2	76	2	/
3:00 - 4:00	47	40	0	2	89	2	/
4:00 - 5:00	59	66	0	2	127	2	/
5:00 - 6:00	288	254	0	12	554	12	X/
6:00 - 7:00	1012	660	0	72	1744	72	X/
7:00 - 8:00	2231	1176	0	214	3621	214	X/X
8:00 - 9:00	1786	1005	0	143	2934	143	X/X
9:00 - 10:00	935	733	0	101	1769	101	X/
10:00 - 11:00	746	741	0	101	1588	101	X/
11:00 - 12:00	876	989	0	136	2001	136	X/
12:00 - 13:00	1007	930	0	148	2085	148	X/X
13:00 - 14:00	837	1000	0	102	1939	102	X/
14:00 - 15:00	983	1077	0	110	2170	110	X/
15:00 - 16:00	1249	1262	0	158	2669	158	X/X
16:00 - 17:00	1566	1694	0	214	3474	214	X/X
17:00 - 18:00	1626	1983	0	162	3771	162	X/X
18:00 - 19:00	932	1037	0	113	2082	113	X/
19:00 - 20:00	492	520	0	81	1093	81	X/
20:00 - 21:00	384	423	0	55	862	55	X/
21:00 - 22:00	341	390	0	38	769	38	X/
22:00 - 23:00	219	253	0	23	495	23	X/
23:00 - 24:00	147	130	0	21	298	21	/

Allway Stop Warrant: Met (Hr) 6 Required (Hr) 8 Not satisfied

REMARKS: _____

