



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-55 & ROLLING HILLS RD

COUNTY: HENNEPIN

REF. POINT: 172.213

DATE: 4/16/1998

OPERATOR: DR

Speed	Approach Description	Lanes
55	Major App1: TH-55 EB, W OF ROLLING HILLS RD	2
55	Major App3: TH-55 WB, E OF ROLLING HILLS RD	2
0	Minor App2: N/A	0
30	Minor App4: ROLLING HILLS RD SB, N OF TH-55	1

0.70 FACTOR USED? YES

POPULATION < 10,000? YES

EXISTING SIGNAL ? NO

HOUR	420/630				0/0		105/52		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	24	66	90	/	0	1	/	/	/
1:00 - 2:00	21	52	73	/	0	1	/	/	/
2:00 - 3:00	27	26	53	/	0	1	/	/	/
3:00 - 4:00	48	26	74	/	0	1	/	/	/
4:00 - 5:00	192	24	216	/	0	1	/	/	/
5:00 - 6:00	730	64	794	X/X	0	15	/	/	/
6:00 - 7:00	1420	158	1578	X/X	0	34	/	/	/
7:00 - 8:00	1344	294	1638	X/X	0	56	/	/X	/X
8:00 - 9:00	715	268	983	X/X	0	25	/	/	/
9:00 - 10:00	432	269	701	X/X	0	13	/	/	/
10:00 - 11:00	375	305	680	X/X	0	8	/	/	/
11:00 - 12:00	371	299	670	X/X	0	14	/	/	/
12:00 - 13:00	390	364	754	X/X	0	17	/	/	/
13:00 - 14:00	373	358	731	X/X	0	11	/	/	/
14:00 - 15:00	378	537	915	X/X	0	10	/	/	/
15:00 - 16:00	367	1025	1392	X/X	0	15	/	/	/
16:00 - 17:00	383	1309	1692	X/X	0	18	/	/	/
17:00 - 18:00	347	1265	1612	X/X	0	23	/	/	/
18:00 - 19:00	309	698	1007	X/X	0	24	/	/	/
19:00 - 20:00	207	380	587	X/	0	18	/	/	/
20:00 - 21:00	181	311	492	X/	0	9	/	/	/
21:00 - 22:00	159	311	470	X/	0	9	/	/	/
22:00 - 23:00	118	179	297	/	0	6	/	/	/
23:00 - 24:00	38	166	204	/	0	1	/	/	/

	Met (Hr)	Required (Hr)	
Warrant 1	0	8	Not satisfied
Warrant 2	1	8	Not satisfied
Warrant 6	1	8	Not satisfied
Warrant 8	0	8	Not satisfied
Warrant 9	0	4	Not satisfied
Warrant 11	0	1	Not satisfied

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

Speed	Approach Description	Lanes
55	Major App1: TH-55 EB, W OF ROLLING HILLS RD	2
55	Major App3: TH-55 WB, E OF ROLLING HILLS RD	2
0	Minor App2: N/A	0
30	Minor App4: ROLLING HILLS RD SB, N OF TH-55	1

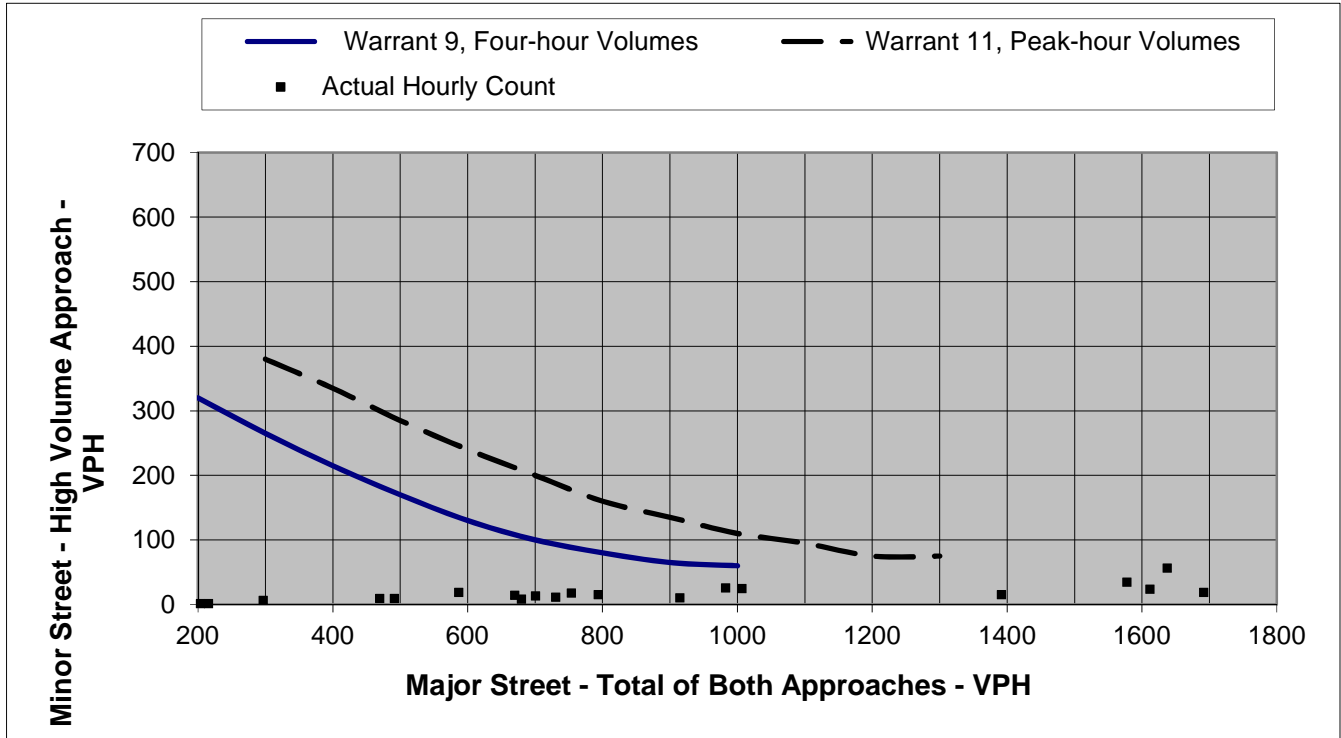


Figure 1. Four Hour and Peak Hour Warrant Analysis

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	320		90	1
300	265	380	73	1
400	215	335	53	1
500	170	285	74	1
600	130	240	216	1
700	100	200	794	15
800	80	160	1578	34
900	65	135	1638	56
1000	60	110	983	25
1100		95	701	13
1200		75	680	8
1300		75	670	14
1400			754	17
1500			731	11
1600			915	10
1700			1392	15
1800			1692	18
			1612	23
			1007	24
			587	18
			492	9
			470	9
			297	6
			204	1

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 & ROLLING HILLS RD

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DATE: 4/16/1998

OPERATOR: DR

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55	Major App3: TH-55 WB, E OF ROLLING HILLS RD	2
0	Minor App2: N/A	0
30	Minor App4: ROLLING HILLS RD SB, N OF TH-55	1

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	24	66	0	1	91	1	/
1:00 - 2:00	21	52	0	1	74	1	/
2:00 - 3:00	27	26	0	1	54	1	/
3:00 - 4:00	48	26	0	1	75	1	/
4:00 - 5:00	192	24	0	1	217	1	/
5:00 - 6:00	730	64	0	15	809	15	X/
6:00 - 7:00	1420	158	0	34	1612	34	X/
7:00 - 8:00	1344	294	0	56	1694	56	X/
8:00 - 9:00	715	268	0	25	1008	25	X/
9:00 - 10:00	432	269	0	13	714	13	X/
10:00 - 11:00	375	305	0	8	688	8	X/
11:00 - 12:00	371	299	0	14	684	14	X/
12:00 - 13:00	390	364	0	17	771	17	X/
13:00 - 14:00	373	358	0	11	742	11	X/
14:00 - 15:00	378	537	0	10	925	10	X/
15:00 - 16:00	367	1025	0	15	1407	15	X/
16:00 - 17:00	383	1309	0	18	1710	18	X/
17:00 - 18:00	347	1265	0	23	1635	23	X/
18:00 - 19:00	309	698	0	24	1031	24	X/
19:00 - 20:00	207	380	0	18	605	18	X/
20:00 - 21:00	181	311	0	9	501	9	X/
21:00 - 22:00	159	311	0	9	479	9	X/
22:00 - 23:00	118	179	0	6	303	6	/
23:00 - 24:00	38	166	0	1	205	1	/

Allway Stop Warrant: Met (Hr) 0 Required (Hr) 8 Not satisfied

REMARKS: _____
