



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-55 & WIRTH PARKWAY

COUNTY: HENNEPIN

REF. POINT: 187.664

DATE: 2/21/1995

OPERATOR:

Speed	Approach Description	Lanes
50	Major App1: TH-55 EB, W OF WIRTH PARKWAY	4
50	Major App3: TH-55 WB, E OF WIRTH PARKWAY	4
25	Minor App2: WIRTH PARKWAY SB, N OF TH-55	3
25	Minor App4: WIRTH PARKWAY SB, N OF TH-55	3

0.70 FACTOR USED? YES

POPULATION < 10,000? NO

EXISTING SIGNAL ? NO

HOUR	420/630				140/70		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	94	81	175	/	4	5	/	/	/
1:00 - 2:00	70	56	126	/	2	3	/	/	/
2:00 - 3:00	55	30	85	/	3	1	/	/	/
3:00 - 4:00	38	27	65	/	0	1	/	/	/
4:00 - 5:00	61	45	106	/	2	6	/	/	/
5:00 - 6:00	178	255	433	X/	2	19	/	/	/
6:00 - 7:00	87	462	549	X/	22	89	/	/X	/
7:00 - 8:00	2616	1005	3621	X/X	93	318	/X	X/X	X/X
8:00 - 9:00	1979	728	2707	X/X	107	176	/X	X/X	X/X
9:00 - 10:00	756	461	1217	X/X	48	79	/	/X	/X
10:00 - 11:00	765	452	1217	X/X	40	63	/	/	/
11:00 - 12:00	612	532	1144	X/X	67	76	/	/X	/X
12:00 - 13:00	619	613	1232	X/X	66	76	/	/X	/X
13:00 - 14:00	658	712	1370	X/X	63	74	/	/X	/X
14:00 - 15:00	696	850	1546	X/X	74	103	/X	/X	/X
15:00 - 16:00	999	984	1983	X/X	117	96	/X	/X	/X
16:00 - 17:00	1389	1453	2842	X/X	168	129	X/X	/X	X/X
17:00 - 18:00	1660	1912	3572	X/X	173	147	X/X	X/X	X/X
18:00 - 19:00	749	709	1458	X/X	77	70	/X	/X	/X
19:00 - 20:00	338	301	639	X/X	39	37	/	/	/
20:00 - 21:00	251	221	472	X/	22	26	/	/	/
21:00 - 22:00	224	208	432	X/	25	24	/	/	/
22:00 - 23:00	154	162	316	/	13	18	/	/	/
23:00 - 24:00	119	179	298	/	9	10	/	/	/

	Met (Hr)	Required (Hr)	
Warrant 1	4	8	Not satisfied
Warrant 2	11	8	Satisfied
Warrant 6	13	8	Satisfied, check accident record
Warrant 8	5	8	Not satisfied
Warrant 9	6	4	Satisfied
Warrant 11	6	1	Satisfied

LOCATION: TH-55 & WIRTH PARKWAY

COUNTY: HENNEPIN

REF. POINT: 187.664

DATE: 2/21/1995

OPERATOR:

Speed	Approach Description	Lanes
50	Major App1: TH-55 EB, W OF WIRTH PARKWAY	4
50	Major App3: TH-55 WB, E OF WIRTH PARKWAY	4
25	Minor App2: WIRTH PARKWAY SB, N OF TH-55	3
25	Minor App4: WIRTH PARKWAY SB, N OF TH-55	3

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

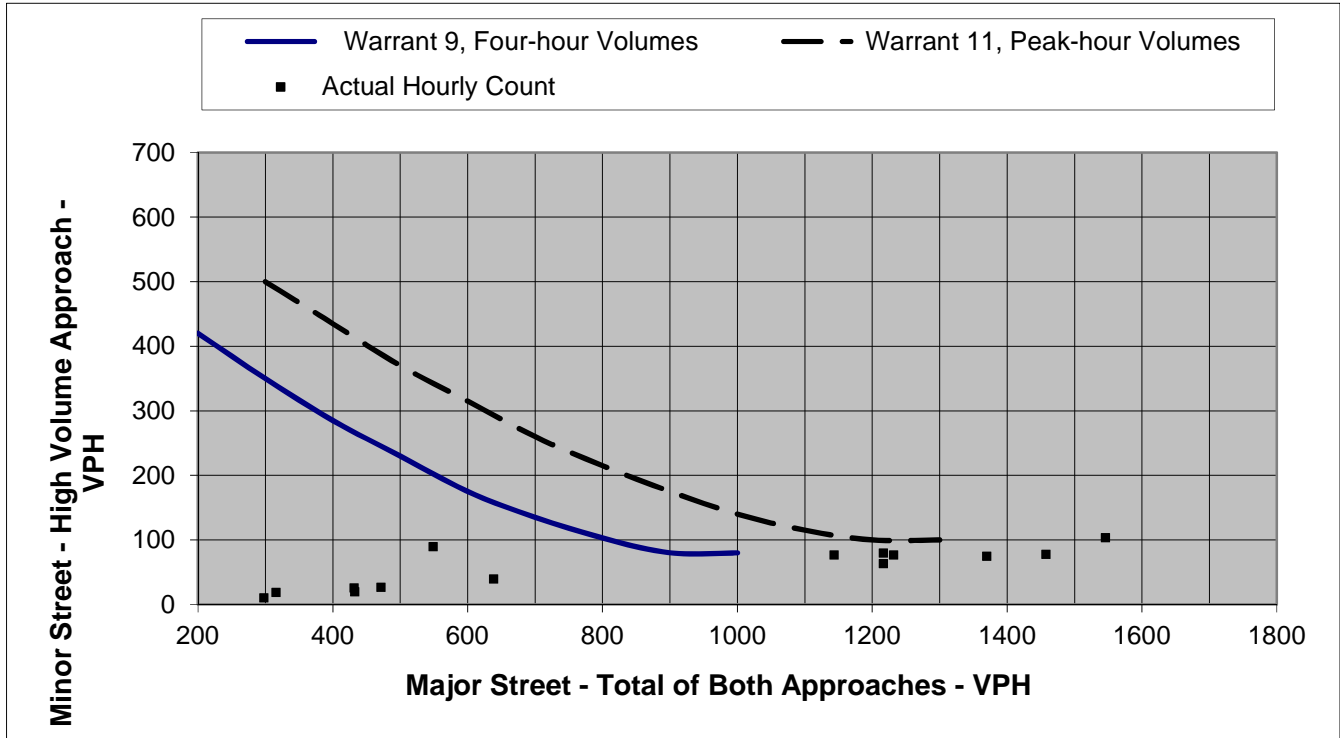


Figure 1. Four Hour and Peak Hour Warrant Analysis

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		175	5
300	350	500	126	3
400	285	435	85	3
500	230	370	65	1
600	175	315	106	6
700	135	260	433	19
800	103	215	549	89
900	80	175	3621	318
1000	80	140	2707	176
1100		115	1217	79
1200		100	1217	63
1300		100	1144	76
1400			1232	76
1500			1370	74
1600			1546	103
1700			1983	117
1800			2842	168
			3572	173
			1458	77
			639	39
			472	26
			432	25
			316	18
			298	10

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