

APPENDIX B

B.3 SIGNAL WARRANT ANALYSIS RESULTS

Eastern Corridor Segments II & III (PID 86462) Traffic Signal Warrants
Summary of Results

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DATE: March 2, 2018

The purpose of this memorandum is to present the results of traffic signal warrant analyses which were conducted for the key intersections within the Eastern Corridor Traffic Study project area. The analysis was performed using PC Warrants software, with only Warrants 1, 2, and 3 considered for this study.

The traffic volumes for the analyses were based on 24-hour turning movement counts conducted at each study location. The right-turn volumes on the side roads were reduced in conformance with Section 402-5 of the Traffic Engineering Manual. The output reports attached to this memorandum reflect the traffic volumes after the right turn reduction factors were applied by the PC Warrants software. The supporting calculations which were used to check the accuracy of the software generated right-turn reductions are available upon request.

It should also be noted that several mainline corridors (classified as the major street for the signal warrant analysis) are signed at 40 MPH. Per Section 4C.02 of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD):

If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, ... the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Since speed data was not available for these analyses, and to be conservative, the 100% values were used in situations where the posted speed limit was 40 MPH.

However, per Section 402-3.2 of the Traffic Engineering Manual:

*For new ODOT signals, Warrants 1, 2 and 3 shall be based on the 100 percent values (**OMUTCD Chapter 4C**) and right-turn reduction factors except in the following circumstance: If there are five or more crashes that can be corrected with the addition of a signal, and the speed exceeds 40 miles per hour on the major street, Warrants 1, 2 and 3 may be based on the 70 percent values combined with engineering judgment and right-turn reduction factors.*

Signal warrants for local projects using State or Federal funding shall be included in the above criteria.

Therefore, warrants for new traffic signals were based on the 100% values, regardless of the observed speed on the major road. For this study, this criteria was applied in particular to the intersection of SR 32 & Eight Mile Rd.

SUMMARY OF WARRANT ANALYSIS

Intersection	Maintaing Agency	Major Street Speed Limit (MPH)	Criteria	Control	Warrant 1 – 8-Hour Volumes			Warrant 2 4-Hour Volumes	Warrant 3 – Peak-Hour Volumes	
					1A	1B	1C		3A	3B
SR 32 & Beechwood	Union Township	55	70%	Signal	Yes	Yes	Yes	Yes	Yes	Yes
SR 32 & Ltl Dry Run Rd	Village of Newtown	50	70%	Signal	No	Yes	No	Yes	Yes	Yes
SR 32 & Ivy Hills Place	Village of Newtown	50	70%	Signal	No	No	No	Yes	No	Yes
SR 32 & Rnd Bottom Rd	Village of Newtown	25	100%	Signal	Yes	Yes	Yes	Yes	Yes	Yes
SR 32 & Church/ Newtown Rd	Village of Newtown	25	100%	Signal	Yes	No	Yes	Yes	Yes	Yes
SR 32 & Clough Pike	ODOT D8	55	70%	Signal	Yes	Yes	Yes	Yes	Yes	Yes
Round Bottom Rd & Valley	Village of Newtown	35	100%	Signal	No	No	No	No	Yes	No
Church St & Valley Ave	Village of Newtown	35	100%	Signal	No	Yes	No	Yes	Yes	Yes
US 50 & Newtown Rd	ODOT D8	40	100%	Signal	Yes	Yes	Yes	Yes	Yes	Yes
US 50 & Walton Creek	ODOT D8	40	100%	Signal	No	Yes	Yes	Yes	Yes	Yes
US 50 & Spring Hill	Village of Mariemont	40	100%	Signal	No	Yes	Yes	Yes	Yes	Yes
US 50 & Prom. S.C.	Village of Mariemont	40	100%	Signal	No	No	No	No	No	No
US 50 & Pocahontas	Village of Mariemont	35	100%	Signal	No	Yes	Yes	Yes	Yes	Yes

Intersection	Maintaing Agency	Major Street Speed Limit (MPH)	Criteria	Control	Warrant 1 – 8-Hour Volumes			Warrant 2 4-Hour Volumes	Warrant 3 – Peak-Hour Volumes	
					1A	1B	1C		3A	3B
Mariemont Square NE	Village of Mariemont	35	100%	Signal	No	No	No	No	No	Yes
Mariemont Square NW	Village of Mariemont	25	100%	Signal	Yes	No	Yes	Yes	Yes	Yes
Mariemont Square SE	Village of Mariemont	35	100%	Stop	No	No	No	No	No	No
Mariemont Square SW	Village of Mariemont	25	100%	Signal	No	No	Yes	Yes	Yes	Yes
US 50 & Watterson Rd	Village of Fairfax	25	100%	Signal	No	Yes	No	Yes	Yes	Yes
US 50 & Meadowlark	Village of Fairfax	35	100%	Signal	No	Yes	No	Yes	Yes	Yes
Red Bank Rd & Wooster	Village of Fairfax	35	100%	Signal	No	No	No	No	Yes	Yes
SR 125 & Elstun Rd	Anderson Township	45	70%	Signal	No	Yes	No	Yes	Yes	Yes
Red Bank Rd & US 50 Rmp	Village of Fairfax	35	100%	Signal	No	Yes	No	Yes	Yes	Yes
Beechmont Cir & Wilmer	Cincinnati	40	100%	Signal	No	No	No	No	Yes	Yes
Eastern Ave & Linwood	Cincinnati	35	100%	Signal	No	No	No	No	No	No
US 50 & Plainville Rd	Cincinnati	25	100%	Stop	No	Yes	Yes	Yes	Yes	Yes
SR 32 & Eight Mile Rd	Union Township	50	100%	Stop	No	Yes	No	Yes	Yes	Yes
Beechmont Cir & Wooster	Cincinnati	35	100%	Stop	No	No	No	No	No	No

Summary of Results

The results of the warrant analysis are discussed below. The output reports from the PC Warrants software is attached to this memorandum. An overview of the results for each intersection is listed below:

- SR 32 & Beechwood – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 15 hours of the day.
- SR 32 & Little Dry Run Rd – clearly warranted: Warrant #1 was comfortably met, exceeding minimum requirements for 13 hours.
- SR 32 & Ivy Hills Place – warranted: The intersection meets Warrants #2 and #3. Note that the intersection was analyzed at 70% levels. However, just 300' west of this intersection, SR 32 is signed at 35 MPH. If 100% levels are assumed, this intersection would not meet requirements for Warrants #1, #2, or #3.
- SR 32 & Round Bottom Rd – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 15 hours each day.
- SR 32 & Church/ Newtown Rd – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 13 hours.
- SR 32 & Clough Pike – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 15 hours.
- Round Bottom Rd & Valley – marginally warranted: Only Warrant #3B (Peak Hour Delay) is met for this location. Note that three of four hours are met for Warrant #2, with one additional hour just a few vehicles shy of meeting this requirement.
- Church St & Valley Ave –warranted: The intersection meets Warrant #1 for 9 hours. Warrants #2 and #3 are also met.
- US 50 & Newtown Rd – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 16 hours, at 100% levels. (Note that the speed limit is 40 MPH on the Major Street.)
- US 50 & Walton Creek – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 14 hours, at 100% levels. (Note once again that the speed limit is 40 MPH on the Major Street.)
- US 50 & Spring Hill – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 14 hours, at 100% levels. (Note once again that the speed limit is 40 MPH on the Major Street.)
- US 50 & Promenade S.C. – **not warranted** (at 100% values): The requirements to meet Warrant #1 are not met for even a single hour of the day (0 hours met). Note that the speed limit is 40 MPH. The intersection would meet Warrants #2 and #3, if 70% values were applied.
- US 50 & Pocahontas Ave –warranted: The intersection meets Warrant #1 for 11 hours. Warrants #2 and #3 are also met.

- Mariemont Square NE (WB Wooster Pike at Miami Rd) – marginally warranted: Only Warrant 3B (Peak Hour Volume) is met for this location. Warrant #1 is met for only 2 hours of the day.
- Mariemont Square NW (WB Wooster Pike at Madisonville Rd) – clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 11 hours.
- Mariemont Square SE (EB Wooster Pike at Miami Rd) – **not warranted**: This intersection is currently not signalized. The requirements to meet Warrant #1 are not met for even a single hour of the day (0 hours met).
- Mariemont Square SW (EB Wooster Pike at Madisonville Rd) – warranted: The intersection meets Warrant #1C (combination warrants) for 8 hours. Warrants #2 and #3 are also met.
- US 50 & Watterson Rd - clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 13 hours of the day.
- US 50 & Meadowlark Ln - warranted: The intersection meets Warrant #1 for 8 hours. Warrants #2 and #3 are also met.
- Red Bank Rd & Wooster Rd –warranted: Only Warrant #3 (Peak Hour) is met for this location under a traditional analysis. However, it should be noted that the intersection is configured in a “Y” shape – and because of the prevailing traffic patterns, the minor approach (WB or NB) changes as the day progresses. As a result, the intersection would easily satisfy Warrant #1, if NB was considered as the minor street in the morning hours of the day, and WB was considered the minor street in the afternoon hours of the day.
- SR 125 & Elstun Rd. – warranted: The intersection meets Warrant #1 for 9 hours. Warrants #2 and #3 are also met.
- Red Bank Rd & US 50 Ramps - clearly warranted: The intersection comfortably meets Warrant #1, exceeding minimum requirements for 12 hours of the day.
- Beechmont Circle & Wilmer Ave - marginally warranted: Only Warrant #3 (Peak Hour) is met for this location. Warrant #1 is met for only 4 hours of the day.
- Eastern Ave & Linwood Ave – **not warranted**: The requirements to meet Warrant #1 are met for only 2 hours. It should be noted that this intersection would meet the Peak Hour Warrant (Warrant #3A) if the right-turn reduction factors were not applied.
- US 50 & Plainville Rd - warranted: This intersection is currently not signalized. The intersection meets Warrant #1, exceeding minimum requirements for 10 hours of the day.
- SR 32 & Eight Mile Rd - warranted: This intersection is currently not signalized. The intersection meets Warrant #1, exceeding minimum requirements for 9 hours of the day. Warrants for this intersection were analyzed using 100% levels, since it is a warrant analysis for a new traffic signal.
- Beechmont Circle & Wooster– **not warranted**: This intersection is currently not signalized. The requirements for Warrant #1 are met for just one hour each day.

Signalized Locations

Warrant analysis show that two intersections (US 50 & Promenade S.C. and Eastern Ave & Linwood) which are currently signalized do not meet traditional warrants for signalization. HCS analysis were completed to determine the operational impact of removing the traffic signals at these two locations, as summarized in the Table below.

Intersection Performance (Removing Traffic Signal)

Intersection	Signalized Operation (Sec/Veh)		Unsignalized Operation (Sec/Veh)	
	Side Street LT	Overall	Side Street LT	Overall
US 50 at Promenade	14.6	13.4	145.3	1.3
Eastern Ave at Linwood Ave	9.9	11.8	15.9	3.9

Eliminating the traffic signal at the intersection of US 50 at Promenade Shopping Center will significantly increase side street delay and would also significantly reduce overall average delay. Removal of the traffic signal at the intersection of Eastern Ave at Linwood Ave would result in a very minor change to side street and overall delay at this location.

Unsignalized Locations

Warrant analysis also show that two intersections (US 50 & Plainville Rd and SR 32 & Eight Mile Rd) which are currently unsignalized meet traditional warrants for signalization. HCS analysis were completed to determine the operational impact of installing a traffic signal at these locations, as summarized in the Table below.

Intersection Performance (Adding Traffic Signal)

Intersection	Unsignalized Operation (Sec/Veh)		Signalized Operation (Sec/Veh)	
	Side Street LT	Overall	Side Street LT	Overall
US 50 at Plainville	314.1	32.5	112.9	79.8
SR 32 & Eight Mile	189.5	13.5	32.2	33.9

Adding a traffic signal would significantly reduce side street delay at both locations. However, the overall delay would also increase with traffic signalization at both locations.

Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 2+

Total Approach Volume: 9,849

Westbound: SR 32

Number of Lanes :2+

Total Approach Volume: 9,993

Minor Street Approaches

Northbound: Beechwood Rd

Number of Lanes :2+

Total Approach Volume: 2,175

Southbound: Beechwood Rd

Number of Lanes :2+

Total Approach Volume: 3,705

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 14 hours, 8 are needed

Required 1B volumes reached for 17 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (53) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **420**

Veh/Hr Minor = **140**

Major Road SR 32						Minor Road Beechwood Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1033	+	754	=	1787	178	300	Yes
16:00 - 17:00	953	+	705	=	1658	171	321	Yes
07:00 - 08:00	554	+	873	=	1427	226	317	Yes
15:00 - 16:00	801	+	625	=	1426	130	265	Yes
14:00 - 15:00	713	+	601	=	1314	126	216	Yes
18:00 - 19:00	712	+	533	=	1245	133	246	Yes
08:00 - 09:00	524	+	690	=	1214	141	264	Yes
13:00 - 14:00	607	+	543	=	1150	123	212	Yes
12:00 - 13:00	546	+	572	=	1118	116	211	Yes
11:00 - 12:00	538	+	488	=	1026	106	211	Yes
09:00 - 10:00	479	+	529	=	1008	120	199	Yes
10:00 - 11:00	499	+	478	=	977	135	207	Yes
06:00 - 07:00	256	+	660	=	916	118	161	Yes
19:00 - 20:00	437	+	444	=	881	83	153	Yes
05:45 - 06:45	198	+	546	=	744	91	125	No
20:00 - 21:00	340	+	382	=	722	59	100	No
20:15 - 21:15	337	+	351	=	688	54	101	No
20:45 - 21:45	337	+	288	=	625	44	88	No
20:30 - 21:30	319	+	293	=	612	53	97	No
05:30 - 06:30	152	+	452	=	604	77	82	No
21:00 - 22:00	307	+	252	=	559	54	76	No
21:15 - 22:15	267	+	249	=	516	58	61	No
05:15 - 06:15	120	+	393	=	513	54	59	No
21:30 - 22:30	229	+	254	=	483	64	63	No
05:00 - 06:00	96		318		414	44	47	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **630**

Veh/Hr Minor = **70**

Major Road SR 32						Minor Road Beechwood Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
14:45 - 15:45	802	+	609	=	1411	122	256	Yes
17:45 - 18:45	815	+	586	=	1401	159	258	Yes
06:45 - 07:45	474	+	883	=	1357	219	283	Yes
13:45 - 14:45	689	+	599	=	1288	116	210	Yes
07:45 - 08:45	574	+	712	=	1286	163	288	Yes
12:45 - 13:45	567	+	545	=	1112	123	217	Yes
11:45 - 12:45	539	+	560	=	1099	124	217	Yes
08:45 - 09:45	491	+	569	=	1060	119	213	Yes
09:45 - 10:45	511	+	506	=	1017	127	211	Yes
10:45 - 11:45	505	+	470	=	975	115	192	Yes
18:45 - 19:45	475	+	470	=	945	85	177	Yes
05:45 - 06:45	198	+	546	=	744	91	125	Yes
19:45 - 20:45	338	+	385	=	723	74	106	Yes
20:45 - 21:45	337	+	288	=	625	44	88	No
05:30 - 06:30	152	+	452	=	604	77	82	No
21:00 - 22:00	307	+	252	=	559	54	76	No
21:15 - 22:15	267	+	249	=	516	58	61	No
05:15 - 06:15	120	+	393	=	513	54	59	No
21:30 - 22:30	229	+	254	=	483	64	63	No
05:00 - 06:00	96	+	318	=	414	44	47	No
21:45 - 22:45	180	+	216	=	396	64	55	No
22:00 - 23:00	154	+	196	=	350	54	58	No
04:45 - 05:45	71		277		348	36	35	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

14 hours meet 1A minimums.
17 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**

Veh/Hr Minor = **112 56**

Major Road SR 32						Minor Road Beechwood Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
14:45 - 15:45	802	+	609	=	1411	122	256	Yes
17:45 - 18:45	815	+	586	=	1401	159	258	Yes
06:45 - 07:45	474	+	883	=	1357	219	283	Yes
13:45 - 14:45	689	+	599	=	1288	116	210	Yes
07:45 - 08:45	574	+	712	=	1286	163	288	Yes
12:45 - 13:45	567	+	545	=	1112	123	217	Yes
11:45 - 12:45	539	+	560	=	1099	124	217	Yes
08:45 - 09:45	491	+	569	=	1060	119	213	Yes
09:45 - 10:45	511	+	506	=	1017	127	211	Yes
10:45 - 11:45	505		470		975	115	192	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	999	+	728	=	1727	174	312	Yes
17:15 - 18:15	978	+	712	=	1690	179	280	Yes
15:15 - 16:15	832	+	640	=	1472	142	280	Yes
07:15 - 08:15	590	+	807	=	1397	206	302	Yes
14:15 - 15:15	757	+	573	=	1330	126	240	Yes
13:15 - 14:15	617	+	588	=	1205	106	218	Yes
08:15 - 09:15	521	+	645	=	1166	121	242	Yes
18:15 - 19:15	617	+	512	=	1129	111	226	Yes
12:15 - 13:15	548	+	570	=	1118	135	212	Yes
06:15 - 07:15	320	+	789	=	1109	167	232	Yes
11:15 - 12:15	538	+	482	=	1020	117	221	Yes
09:15 - 10:15	481		523		1004	134	203	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

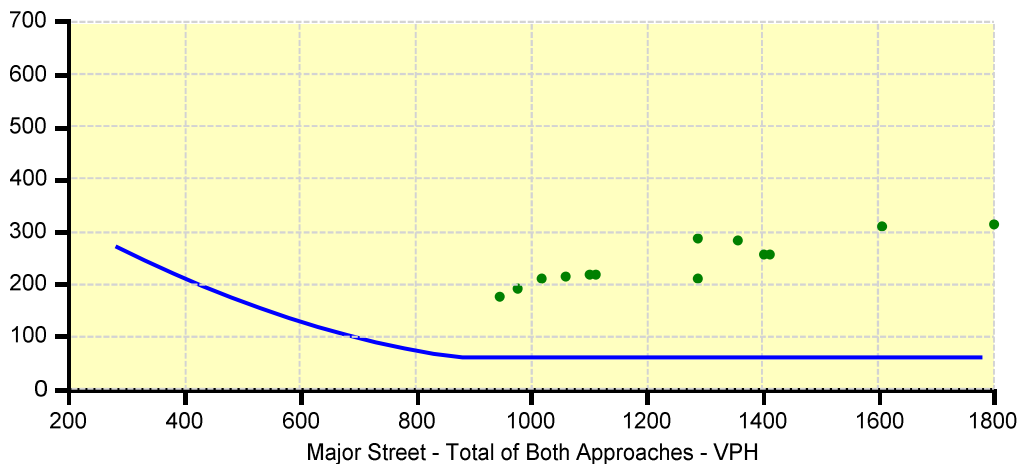
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road Beechwood Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
14:45 - 15:45	802	+	609	=	1411	122	256	Yes
17:45 - 18:45	815	+	586	=	1401	159	258	Yes
06:45 - 07:45	474	+	883	=	1357	219	283	Yes
13:45 - 14:45	689	+	599	=	1288	116	210	Yes
07:45 - 08:45	574	+	712	=	1286	163	288	Yes
12:45 - 13:45	567	+	545	=	1112	123	217	Yes
11:45 - 12:45	539	+	560	=	1099	124	217	Yes
08:45 - 09:45	491	+	569	=	1060	119	213	Yes
09:45 - 10:45	511	+	506	=	1017	127	211	Yes
							192	Yes



Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

59 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

		Major Road				Minor Road			
		SR 32				Beechwood Rd			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	2280	Yes	167	-	---	312	-	Yes	Yes
17:00 - 18:00	2265	Yes	178	-	---	300	-	Yes	Yes
16:30 - 17:30	2239	Yes	170	-	---	302	-	Yes	Yes
16:15 - 17:15	2213	Yes	174	-	---	312	-	Yes	Yes
16:00 - 17:00	2150	Yes	171	-	---	321	-	Yes	Yes
17:15 - 18:15	2149	Yes	179	-	---	280	-	Yes	Yes
15:45 - 16:45	2087	Yes	172	-	---	308	-	Yes	Yes
15:30 - 16:30	2000	Yes	160	-	---	292	-	Yes	Yes
17:30 - 18:30	1990	Yes	168	-	---	271	-	Yes	Yes
07:00 - 08:00	1970	Yes	226	-	---	317	-	Yes	Yes
07:15 - 08:15	1905	Yes	206	-	---	302	-	Yes	Yes
15:15 - 16:15	1894	Yes	142	-	---	280	-	Yes	Yes
07:30 - 08:30	1874	Yes	179	-	---	301	-	Yes	Yes
06:45 - 07:45	1859	Yes	219	-	---	283	-	Yes	Yes
15:00 - 16:00	1821	Yes	130	-	---	265	-	Yes	Yes
17:45 - 18:45	1818	Yes	159	-	---	258	-	Yes	Yes
14:45 - 15:45	1789	Yes	122	-	---	256	-	Yes	Yes
14:30 - 15:30	1767	Yes	120	-	---	263	-	Yes	Yes
07:45 - 08:45	1737	Yes	163	-	---	288	-	Yes	Yes
06:30 - 07:30	1701	Yes	199	-	---	273	-	Yes	Yes
14:15 - 15:15	1696	Yes	126	-	---	240	-	Yes	Yes
14:00 - 15:00	1656	Yes	126	-	---	216	-	Yes	Yes
18:00 - 19:00	1624	Yes	133	-	---	246	-	Yes	Yes
08:00 - 09:00	1619	Yes	141	-	---	264	-	Yes	Yes
13:45 - 14:45	1614	Yes	116	-	---	210	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

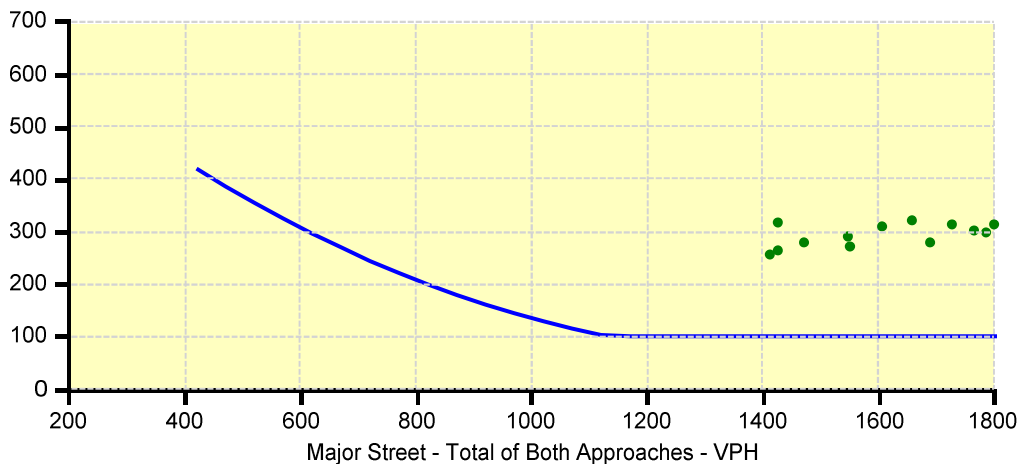
Summary

51 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road Beechwood Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
17:00 - 18:00	1033	+	754	=	1787	178	300	Yes
16:30 - 17:30	1020	+	747	=	1767	170	302	Yes
16:15 - 17:15	999	+	728	=	1727	174	312	Yes
17:15 - 18:15	978	+	712	=	1690	179	280	Yes
16:00 - 17:00	953	+	705	=	1658	171	321	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
17:30 - 18:30	915	+	636	=	1551	168	271	Yes
15:30 - 16:30	876	+	672	=	1548	160	292	Yes
15:15 - 16:15	832	+	640	=	1472	142	280	Yes
07:00 - 08:00	554	+	873	=	1427	226	317	Yes
							265	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 9,770

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 9,120

Minor Street Approaches

Northbound: Little Dry Run Rd

Number of Lanes :2+

Total Approach Volume: 1,527

Southbound: Not Used

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 5 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (6) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **140 105**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:30 - 08:30	527	+	1010	=	1537	171	0	Yes
06:30 - 07:30	312	+	1063	=	1375	161	0	Yes
16:45 - 17:45	1127	+	575	=	1702	112	0	No
17:00 - 18:00	1118	+	583	=	1701	132	0	No
16:30 - 17:30	1131	+	554	=	1685	108	0	No
17:15 - 18:15	1074	+	586	=	1660	134	0	No
16:15 - 17:15	1088	+	509	=	1597	110	0	No
16:00 - 17:00	1071	+	514	=	1585	105	0	No
17:30 - 18:30	1012	+	568	=	1580	139	0	No
15:45 - 16:45	1050	+	512	=	1562	105	0	No
15:30 - 16:30	982	+	507	=	1489	100	0	No
15:15 - 16:15	962	+	501	=	1463	89	0	No
15:00 - 16:00	900	+	521	=	1421	77	0	No
17:45 - 18:45	904	+	510	=	1414	125	0	No
14:45 - 15:45	844	+	529	=	1373	76	0	No
14:30 - 15:30	790	+	532	=	1322	78	0	No
14:15 - 15:15	743	+	519	=	1262	82	0	No
18:00 - 19:00	798	+	462	=	1260	100	0	No
06:15 - 07:15	254	+	975	=	1229	139	0	No
14:00 - 15:00	682	+	491	=	1173	83	0	No
18:15 - 19:15	720	+	412	=	1132	81	0	No
13:45 - 14:45	645	+	463	=	1108	85	0	No
08:30 - 09:30	425	+	648	=	1073	108	0	No
13:30 - 14:30	606	+	459	=	1065	72	0	No
13:15 - 14:15	582		473		1055	73	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **70 52**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:15 - 18:15	1074	+	586	=	1660	134	0	Yes
16:15 - 17:15	1088	+	509	=	1597	110	0	Yes
07:00 - 08:00	464	+	1117	=	1581	185	0	Yes
15:15 - 16:15	962	+	501	=	1463	89	0	Yes
08:00 - 09:00	473	+	836	=	1309	145	0	Yes
14:15 - 15:15	743	+	519	=	1262	82	0	Yes
18:15 - 19:15	720	+	412	=	1132	81	0	Yes
13:15 - 14:15	582	+	473	=	1055	73	0	Yes
06:00 - 07:00	194	+	802	=	996	91	0	Yes
12:15 - 13:15	526	+	454	=	980	87	0	Yes
11:15 - 12:15	494	+	458	=	952	76	0	Yes
09:00 - 10:00	396	+	533	=	929	88	0	Yes
10:00 - 11:00	419	+	478	=	897	76	0	Yes
11:00 - 12:00	471	+	468	=	939	69	0	No
05:45 - 06:45	141	+	660	=	801	64	0	No
19:15 - 20:15	452	+	253	=	705	63	0	No
19:30 - 20:30	424	+	244	=	668	59	0	No
05:30 - 06:30	106	+	552	=	658	56	0	No
19:45 - 20:45	379	+	240	=	619	57	0	No
20:15 - 21:15	349	+	229	=	578	41	0	No
20:00 - 21:00	351	+	224	=	575	40	0	No
20:30 - 21:30	352	+	204	=	556	34	0	No
05:15 - 06:15	93	+	435	=	528	40	0	No
20:45 - 21:45	320	+	175	=	495	29	0	No
21:00 - 22:00	299		177		476	24	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 5 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**
Veh/Hr Minor NB = **112 56**
Veh/Hr Minor SB = **84 42**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1127	+	575	=	1702	112	0	Yes
07:15 - 08:15	506	+	1072	=	1578	166	0	Yes
17:45 - 18:45	904	+	510	=	1414	125	0	Yes
06:15 - 07:15	254	+	975	=	1229	139	0	Yes
08:15 - 09:15	436	+	738	=	1174	123	0	Yes
16:30 - 17:30	1131	+	554	=	1685	108	0	No
16:15 - 17:15	1088	+	509	=	1597	110	0	No
16:00 - 17:00	1071	+	514	=	1585	105	0	No
15:45 - 16:45	1050	+	512	=	1562	105	0	No
15:30 - 16:30	982	+	507	=	1489	100	0	No
15:15 - 16:15	962	+	501	=	1463	89	0	No
15:00 - 16:00	900	+	521	=	1421	77	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	1131	+	554	=	1685	108	0	Yes
17:30 - 18:30	1012	+	568	=	1580	139	0	Yes
07:30 - 08:30	527	+	1010	=	1537	171	0	Yes
15:30 - 16:30	982	+	507	=	1489	100	0	Yes
06:30 - 07:30	312	+	1063	=	1375	161	0	Yes
14:30 - 15:30	790	+	532	=	1322	78	0	Yes
08:30 - 09:30	425	+	648	=	1073	108	0	Yes
13:30 - 14:30	606	+	459	=	1065	72	0	Yes
12:30 - 13:30	558	+	455	=	1013	95	0	Yes
18:30 - 19:30	621	+	347	=	968	69	0	Yes
11:30 - 12:30	499	+	438	=	937	75	0	Yes
10:30 - 11:30	450	+	483	=	933	68	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

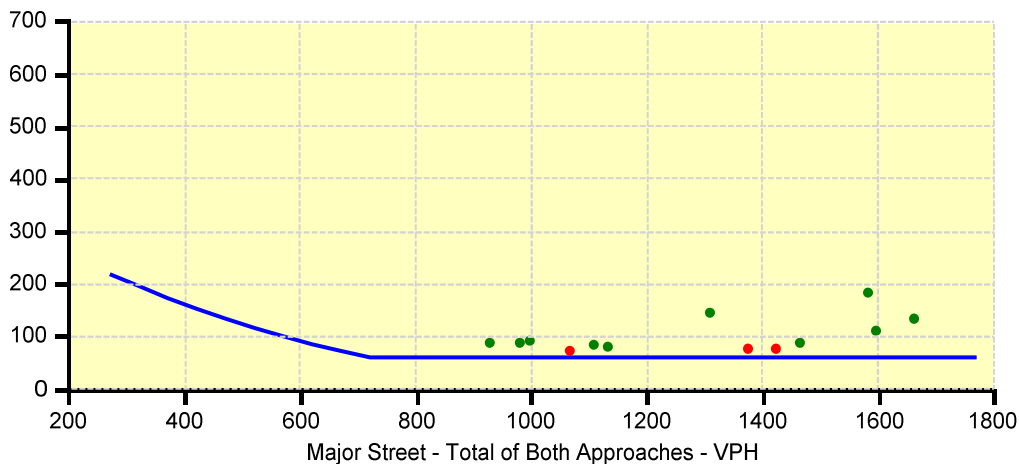
Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:15 - 18:15	1074	+	586	=	1660	134	0	Yes
16:15 - 17:15	1088	+	509	=	1597	110	0	Yes
07:00 - 08:00	464	+	1117	=	1581	185	0	Yes
15:15 - 16:15	962	+	501	=	1463	89	0	Yes
08:00 - 09:00	473	+	836	=	1309	145	0	Yes
18:15 - 19:15	720	+	412	=	1132	81	0	Yes
13:45 - 14:45	645	+	463	=	1108	85	0	Yes
06:00 - 07:00	194	+	802	=	996	91	0	Yes
12:15 - 13:15	526	+	454	=	980	87	0	Yes
09:00 - 10:00	396	+	533	=	929	88	0	Yes
15:00 - 16:00	900	+	521	=	1421	77	0	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

54 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
SR 32						Little Dry Run Rd			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
07:00 - 08:00	1766	Yes	185	-	Yes	0	-	---	Yes
07:15 - 08:15	1744	Yes	166	-	Yes	0	-	---	Yes
07:30 - 08:30	1708	Yes	171	-	Yes	0	-	---	Yes
06:45 - 07:45	1696	Yes	184	-	Yes	0	-	---	Yes
07:45 - 08:45	1587	Yes	150	-	Yes	0	-	---	Yes
06:30 - 07:30	1536	Yes	161	-	Yes	0	-	---	Yes
17:00 - 18:00	1833	Yes	132	-	No	0	-	---	No
16:45 - 17:45	1814	Yes	112	-	No	0	-	---	No
17:15 - 18:15	1794	Yes	134	-	No	0	-	---	No
16:30 - 17:30	1793	Yes	108	-	No	0	-	---	No
17:30 - 18:30	1719	Yes	139	-	No	0	-	---	No
16:15 - 17:15	1707	Yes	110	-	No	0	-	---	No
16:00 - 17:00	1690	Yes	105	-	No	0	-	---	No
15:45 - 16:45	1667	Yes	105	-	No	0	-	---	No
15:30 - 16:30	1589	Yes	100	-	No	0	-	---	No
15:15 - 16:15	1552	Yes	89	-	No	0	-	---	No
17:45 - 18:45	1539	Yes	125	-	No	0	-	---	No
15:00 - 16:00	1498	Yes	77	-	No	0	-	---	No
08:00 - 09:00	1454	Yes	145	-	No	0	-	---	No
14:45 - 15:45	1449	Yes	76	-	No	0	-	---	No
14:30 - 15:30	1400	Yes	78	-	No	0	-	---	No
06:15 - 07:15	1368	Yes	139	-	No	0	-	---	No
18:00 - 19:00	1360	Yes	100	-	No	0	-	---	No
14:15 - 15:15	1344	Yes	82	-	No	0	-	---	No
08:15 - 09:15	1297	Yes	123	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

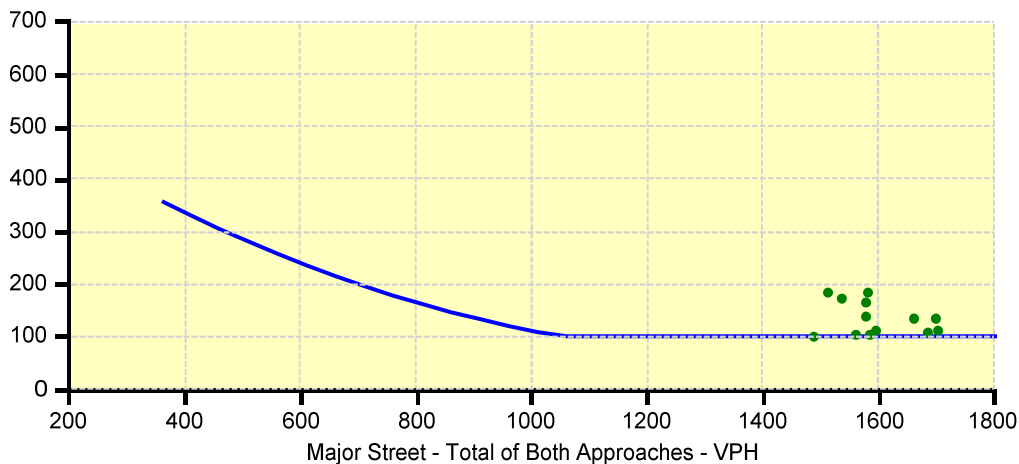
Summary

21 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Little Dry Run Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1127	+	575	=	1702	112	0	Yes
17:00 - 18:00	1118	+	583	=	1701	132	0	Yes
16:30 - 17:30	1131	+	554	=	1685	108	0	Yes
17:15 - 18:15	1074	+	586	=	1660	134	0	Yes
16:15 - 17:15	1088	+	509	=	1597	110	0	Yes
16:00 - 17:00	1071	+	514	=	1585	105	0	Yes
07:00 - 08:00	464	+	1117	=	1581	185	0	Yes
17:30 - 18:30	1012	+	568	=	1580	139	0	Yes
07:15 - 08:15	506	+	1072	=	1578	166	0	Yes
15:45 - 16:45	1050	+	512	=	1562	105	0	Yes
07:30 - 08:30	527	+	1010	=	1537	171	0	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 10,178

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 10,857

Minor Street Approaches

Northbound: Ivy Hills Place

Number of Lanes :1

Total Approach Volume: 665

Southbound: Not Used

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**

Required volumes reached for 5 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 7 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Satisfied**

Number of hours (4) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....**Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....**Satisfied**

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

Eastern Corridor Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105 140**

Major Road SR 32						Minor Road Ivy Hills Place		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:15 - 18:15	1018	+	837	=	1855	86	0	No
17:00 - 18:00	1037	+	799	=	1836	96	0	No
16:45 - 17:45	1025	+	787	=	1812	96	0	No
16:30 - 17:30	1054	+	737	=	1791	83	0	No
17:30 - 18:30	939	+	762	=	1701	76	0	No
16:15 - 17:15	1032	+	659	=	1691	71	0	No
16:00 - 17:00	1005	+	626	=	1631	57	0	No
17:45 - 18:45	883	+	693	=	1576	61	0	No
06:45 - 07:45	349	+	1226	=	1575	65	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
07:00 - 08:00	383	+	1145	=	1528	70	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
06:30 - 07:30	297	+	1212	=	1509	55	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
07:45 - 08:45	440	+	1033	=	1473	56	0	No
18:00 - 19:00	786	+	682	=	1468	47	0	No
14:45 - 15:45	860	+	589	=	1449	34	0	No
07:30 - 08:30	411	+	1026	=	1437	56	0	No
07:15 - 08:15	401	+	1035	=	1436	62	0	No
08:00 - 09:00	433	+	990	=	1423	60	0	No
08:30 - 09:30	498	+	894	=	1392	53	0	No
08:15 - 09:15	432	+	958	=	1390	50	0	No
06:15 - 07:15	255	+	1130	=	1385	45	0	No
14:30 - 15:30	808		572		1380	36	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 5 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52 70**

Major Road SR 32						Minor Road Ivy Hills Place		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1037	+	799	=	1836	96	0	Yes
16:00 - 17:00	1005	+	626	=	1631	57	0	Yes
06:30 - 07:30	297	+	1212	=	1509	55	0	Yes
07:30 - 08:30	411	+	1026	=	1437	56	0	Yes
08:30 - 09:30	498	+	894	=	1392	53	0	Yes
15:45 - 16:45	965	+	579	=	1544	41	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
18:00 - 19:00	786	+	682	=	1468	47	0	No
14:45 - 15:45	860	+	589	=	1449	34	0	No
06:15 - 07:15	255	+	1130	=	1385	45	0	No
14:30 - 15:30	808	+	572	=	1380	36	0	No
18:15 - 19:15	742	+	592	=	1334	39	0	No
14:15 - 15:15	740	+	529	=	1269	34	0	No
18:30 - 19:30	696	+	518	=	1214	34	0	No
14:00 - 15:00	680	+	530	=	1210	36	0	No
13:45 - 14:45	643	+	548	=	1191	32	0	No
13:30 - 14:30	601	+	538	=	1139	28	0	No
18:45 - 19:45	674	+	456	=	1130	35	0	No
06:00 - 07:00	198	+	930	=	1128	28	0	No
13:15 - 14:15	559	+	540	=	1099	27	0	No
13:00 - 14:00	545	+	543	=	1088	28	0	No
11:30 - 12:30	564	+	523	=	1087	38	0	No
12:00 - 13:00	538		540		1078	44	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 7 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**
Veh/Hr Minor NB = **84 42**
Veh/Hr Minor SB = **112 56**

Major Road SR 32						Minor Road Ivy Hills Place		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1025	+	787	=	1812	96	0	Yes
16:30 - 17:30	1054	+	737	=	1791	83	0	No
16:15 - 17:15	1032	+	659	=	1691	71	0	No
16:00 - 17:00	1005	+	626	=	1631	57	0	No
17:45 - 18:45	883	+	693	=	1576	61	0	No
06:45 - 07:45	349	+	1226	=	1575	65	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
07:00 - 08:00	383	+	1145	=	1528	70	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
06:30 - 07:30	297	+	1212	=	1509	55	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	1054	+	737	=	1791	83	0	Yes
17:30 - 18:30	939	+	762	=	1701	76	0	Yes
15:30 - 16:30	933	+	587	=	1520	43	0	Yes
07:15 - 08:15	401	+	1035	=	1436	62	0	Yes
08:15 - 09:15	432	+	958	=	1390	50	0	Yes
06:15 - 07:15	255	+	1130	=	1385	45	0	Yes
11:45 - 12:45	549	+	513	=	1062	46	0	Yes
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
14:45 - 15:45	860	+	589	=	1449	34	0	No
14:30 - 15:30	808	+	572	=	1380	36	0	No
14:15 - 15:15	740	+	529	=	1269	34	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

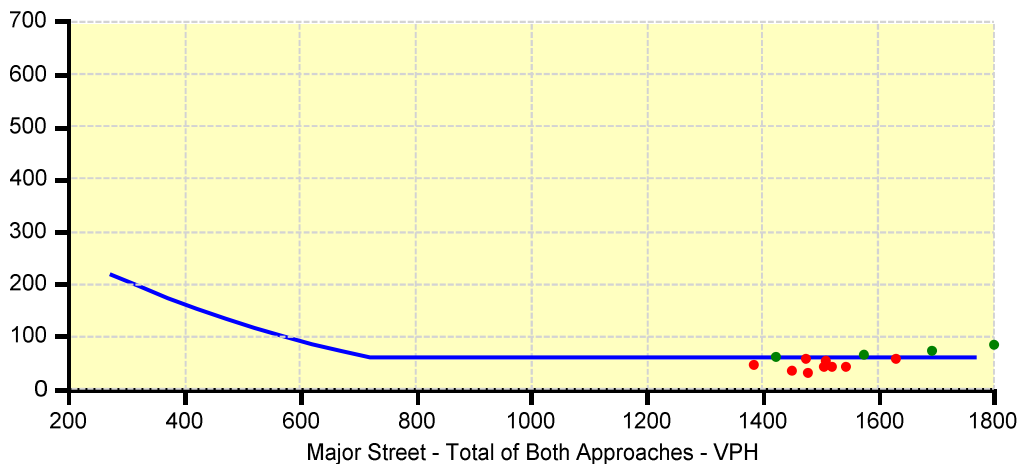
Summary

4 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Ivy Hills Place		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1018	+	837	=	1855	86	0	Yes
16:15 - 17:15	1032	+	659	=	1691	71	0	Yes
06:45 - 07:45	349	+	1226	=	1575	65	0	Yes
08:00 - 09:00	433	+	990	=	1423	60	0	Yes
16:00 - 17:00	1005	+	626	=	1631	57	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
06:30 - 07:30	297	+	1212	=	1509	55	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
07:45 - 08:45	440	+	1033	=	1473	56	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

60 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **100**

Total Delay (Veh-Hrs) = **4**

Major Road			Minor Road						
SR 32			Ivy Hills Place						
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:15 - 18:15	1941	Yes	86	-	No	0	-	---	No
17:00 - 18:00	1932	Yes	96	-	No	0	-	---	No
16:45 - 17:45	1908	Yes	96	-	No	0	-	---	No
16:30 - 17:30	1874	Yes	83	-	No	0	-	---	No
17:30 - 18:30	1777	Yes	76	-	No	0	-	---	No
16:15 - 17:15	1762	Yes	71	-	No	0	-	---	No
16:00 - 17:00	1688	Yes	57	-	No	0	-	---	No
06:45 - 07:45	1640	Yes	65	-	No	0	-	---	No
17:45 - 18:45	1637	Yes	61	-	No	0	-	---	No
07:00 - 08:00	1598	Yes	70	-	No	0	-	---	No
15:45 - 16:45	1585	Yes	41	-	No	0	-	---	No
06:30 - 07:30	1564	Yes	55	-	No	0	-	---	No
15:30 - 16:30	1563	Yes	43	-	No	0	-	---	No
15:15 - 16:15	1545	Yes	41	-	No	0	-	---	No
07:45 - 08:45	1529	Yes	56	-	No	0	-	---	No
18:00 - 19:00	1515	Yes	47	-	No	0	-	---	No
15:00 - 16:00	1509	Yes	31	-	No	0	-	---	No
07:15 - 08:15	1498	Yes	62	-	No	0	-	---	No
07:30 - 08:30	1493	Yes	56	-	No	0	-	---	No
14:45 - 15:45	1483	Yes	34	-	No	0	-	---	No
08:00 - 09:00	1483	Yes	60	-	No	0	-	---	No
08:30 - 09:30	1445	Yes	53	-	No	0	-	---	No
08:15 - 09:15	1440	Yes	50	-	No	0	-	---	No
06:15 - 07:15	1430	Yes	45	-	No	0	-	---	No
14:30 - 15:30	1416	Yes	36	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

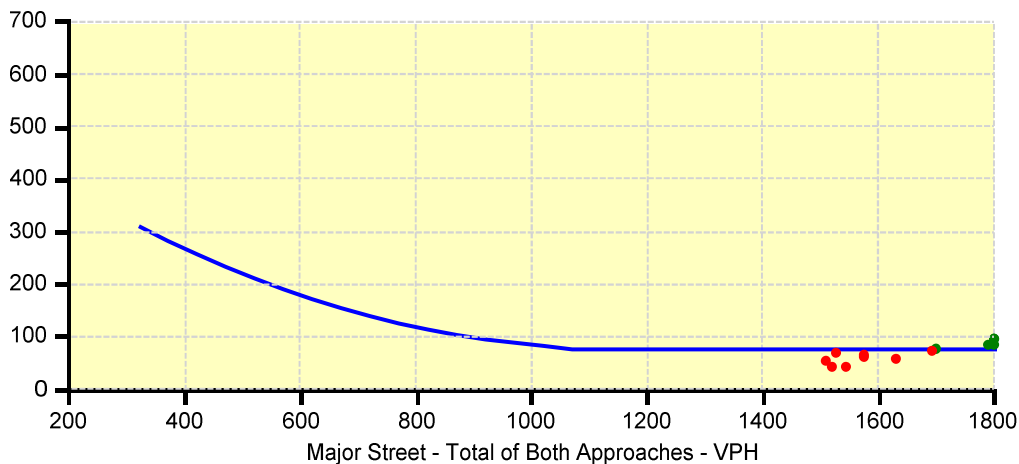
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Ivy Hills Place		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1018	+	837	=	1855	86	0	Yes
17:00 - 18:00	1037	+	799	=	1836	96	0	Yes
16:45 - 17:45	1025	+	787	=	1812	96	0	Yes
16:30 - 17:30	1054	+	737	=	1791	83	0	Yes
17:30 - 18:30	939	+	762	=	1701	76	0	Yes
16:15 - 17:15	1032	+	659	=	1691	71	0	No
16:00 - 17:00	1005	+	626	=	1631	57	0	No
17:45 - 18:45	883	+	693	=	1576	61	0	No
06:45 - 07:45	349	+	1226	=	1575	65	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
07:00 - 08:00	383	+	1145	=	1528	70	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 6,515

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 9,831

Minor Street Approaches

Northbound: RIVER HILLS DR

Number of Lanes :2+

Total Approach Volume: 1,157

Southbound: ROUND BOTTOM RD

Number of Lanes :2+

Total Approach Volume: 4,794

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 15 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (12) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (51) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road SR 32						Minor Road RIVER HILLS DR		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
06:45 - 07:45	292	+	1327	=	1619	75	162	Yes
07:45 - 08:45	373	+	1087	=	1460	60	242	Yes
16:45 - 17:45	703	+	609	=	1312	120	586	Yes
15:45 - 16:45	666	+	532	=	1198	108	567	Yes
17:45 - 18:45	612	+	552	=	1164	60	411	Yes
14:45 - 15:45	537	+	542	=	1079	78	382	Yes
13:45 - 14:45	440	+	492	=	932	79	313	Yes
08:45 - 09:45	282	+	635	=	917	72	172	Yes
12:45 - 13:45	349	+	492	=	841	86	290	Yes
10:45 - 11:45	323	+	511	=	834	80	231	Yes
11:45 - 12:45	352	+	464	=	816	107	251	Yes
09:45 - 10:45	290	+	512	=	802	56	156	Yes
18:45 - 19:45	325	+	330	=	655	38	316	Yes
06:30 - 07:30	243	+	1236	=	1479	71	145	No
06:15 - 07:15	204	+	1082	=	1286	57	108	No
06:00 - 07:00	159	+	888	=	1047	41	81	No
05:45 - 06:45	129	+	711	=	840	25	67	No
05:30 - 06:30	101	+	584	=	685	26	48	No
05:15 - 06:15	83	+	474	=	557	24	38	No
19:45 - 20:45	250	+	233	=	483	39	201	No
20:00 - 21:00	237	+	210	=	447	36	189	No
05:00 - 06:00	65	+	382	=	447	21	35	No
20:30 - 21:30	238	+	198	=	436	26	180	No
20:15 - 21:15	227	+	209	=	436	36	182	No
20:45 - 21:45	230		163		393	23	157	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road SR 32						Minor Road RIVER HILLS DR		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	356	+	1313	=	1669	72	199	Yes
08:00 - 09:00	328	+	992	=	1320	70	225	Yes
17:00 - 18:00	713	+	605	=	1318	114	566	Yes
16:00 - 17:00	694	+	546	=	1240	96	555	Yes
15:00 - 16:00	558	+	532	=	1090	94	458	Yes
06:00 - 07:00	159	+	888	=	1047	41	81	Yes
14:00 - 15:00	473	+	527	=	1000	74	296	Yes
18:00 - 19:00	501	+	498	=	999	60	395	Yes
11:00 - 12:00	339	+	501	=	840	88	238	Yes
13:00 - 14:00	361	+	478	=	839	82	312	Yes
12:00 - 13:00	356	+	480	=	836	103	250	Yes
10:00 - 11:00	306	+	511	=	817	58	173	Yes
09:00 - 10:00	264	+	552	=	816	61	162	Yes
19:00 - 20:00	311	+	301	=	612	36	278	Yes
05:45 - 06:45	129	+	711	=	840	25	67	No
05:30 - 06:30	101	+	584	=	685	26	48	No
05:15 - 06:15	83	+	474	=	557	24	38	No
20:00 - 21:00	237	+	210	=	447	36	189	No
05:00 - 06:00	65	+	382	=	447	21	35	No
20:30 - 21:30	238	+	198	=	436	26	180	No
20:15 - 21:15	227	+	209	=	436	36	182	No
20:45 - 21:45	230	+	163	=	393	23	157	No
21:00 - 22:00	218	+	157	=	375	20	142	No
21:15 - 22:15	192	+	150	=	342	16	122	No
04:45 - 05:45	48		285		333	18	29	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

15 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road SR 32						Minor Road RIVER HILLS DR			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
07:30 - 08:30	385	+	1180	=	1565	63	223	Yes	
06:30 - 07:30	243	+	1236	=	1479	71	145	Yes	
16:30 - 17:30	755	+	597	=	1352	111	559	Yes	
17:30 - 18:30	635	+	608	=	1243	80	500	Yes	
15:30 - 16:30	604	+	509	=	1113	105	527	Yes	
14:30 - 15:30	525	+	556	=	1081	75	369	Yes	
08:30 - 09:30	308	+	727	=	1035	65	185	Yes	
13:30 - 14:30	403	+	472	=	875	82	290	Yes	
12:30 - 13:30	356	+	513	=	869	83	290	Yes	
10:30 - 11:30	308	+	515	=	823	70	200	Yes	
11:30 - 12:30	360	+	456	=	816	106	254	Yes	
09:30 - 10:30	267		535		802	62	168	Yes	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
06:45 - 07:45	292	+	1327	=	1619	75	162	Yes	
07:45 - 08:45	373	+	1087	=	1460	60	242	Yes	
16:45 - 17:45	703	+	609	=	1312	120	586	Yes	
15:45 - 16:45	666	+	532	=	1198	108	567	Yes	
17:45 - 18:45	612	+	552	=	1164	60	411	Yes	
14:45 - 15:45	537	+	542	=	1079	78	382	Yes	
13:45 - 14:45	440	+	492	=	932	79	313	Yes	
08:45 - 09:45	282	+	635	=	917	72	172	Yes	
12:45 - 13:45	349	+	492	=	841	86	290	Yes	
05:45 - 06:45	129	+	711	=	840	25	67	Yes	
10:45 - 11:45	323	+	511	=	834	80	231	Yes	
11:45 - 12:45	352		464		816	107	251	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

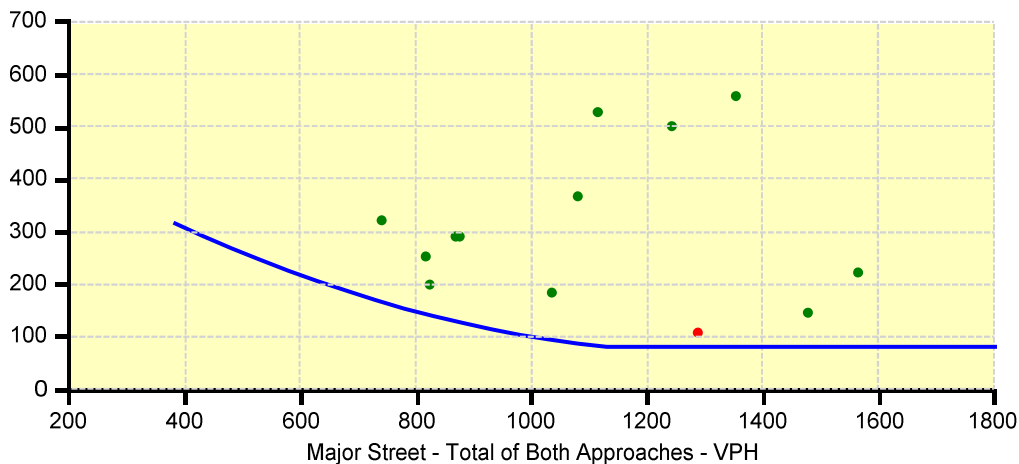
Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road RIVER HILLS DR		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:30 - 08:30	385	+	1180	=	1565	63	223	Yes
06:30 - 07:30	243	+	1236	=	1479	71	145	Yes
16:30 - 17:30	755	+	597	=	1352	111	559	Yes
17:30 - 18:30	635	+	608	=	1243	80	500	Yes
15:30 - 16:30	604	+	509	=	1113	105	527	Yes
14:30 - 15:30	525	+	556	=	1081	75	369	Yes
08:30 - 09:30	308	+	727	=	1035	65	185	Yes
13:30 - 14:30	403	+	472	=	875	82	290	Yes
12:30 - 13:30	356	+	513	=	869	83	290	Yes
10:30 - 11:30	308	+	515	=	823	70	200	Yes
11:30 - 12:30	360	+	456	=	816	106	254	Yes
							323	Yes



Eastern Corridor Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

55 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road SR 32						Minor Road RIVER HILLS DR			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:30 - 17:30	2022	Yes	111	-	---	559	-	Yes	Yes
16:45 - 17:45	2018	Yes	120	-	---	586	-	Yes	Yes
17:00 - 18:00	1998	Yes	114	-	---	566	-	Yes	Yes
16:15 - 17:15	1948	Yes	111	-	---	550	-	Yes	Yes
17:15 - 18:15	1946	Yes	93	-	---	555	-	Yes	Yes
07:00 - 08:00	1940	Yes	72	-	---	199	-	Yes	Yes
07:15 - 08:15	1902	Yes	64	-	---	224	-	Yes	Yes
16:00 - 17:00	1891	Yes	96	-	---	555	-	Yes	Yes
15:45 - 16:45	1873	Yes	108	-	---	567	-	Yes	Yes
06:45 - 07:45	1856	Yes	75	-	---	162	-	Yes	Yes
07:30 - 08:30	1851	Yes	63	-	---	223	-	Yes	Yes
17:30 - 18:30	1823	Yes	80	-	---	500	-	Yes	Yes
07:45 - 08:45	1762	Yes	60	-	---	242	-	Yes	Yes
15:30 - 16:30	1745	Yes	105	-	---	527	-	Yes	Yes
15:15 - 16:15	1702	Yes	104	-	---	491	-	Yes	Yes
15:00 - 16:00	1642	Yes	94	-	---	458	-	Yes	Yes
17:45 - 18:45	1635	Yes	60	-	---	411	-	Yes	Yes
08:00 - 09:00	1615	Yes	70	-	---	225	-	Yes	Yes
14:45 - 15:45	1539	Yes	78	-	---	382	-	Yes	Yes
14:30 - 15:30	1525	Yes	75	-	---	369	-	Yes	Yes
08:15 - 09:15	1470	Yes	72	-	---	200	-	Yes	Yes
14:15 - 15:15	1454	Yes	73	-	---	332	-	Yes	Yes
18:00 - 19:00	1454	Yes	60	-	---	395	-	Yes	Yes
14:00 - 15:00	1370	Yes	74	-	---	296	-	Yes	Yes
13:45 - 14:45	1324	Yes	79	-	---	313	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

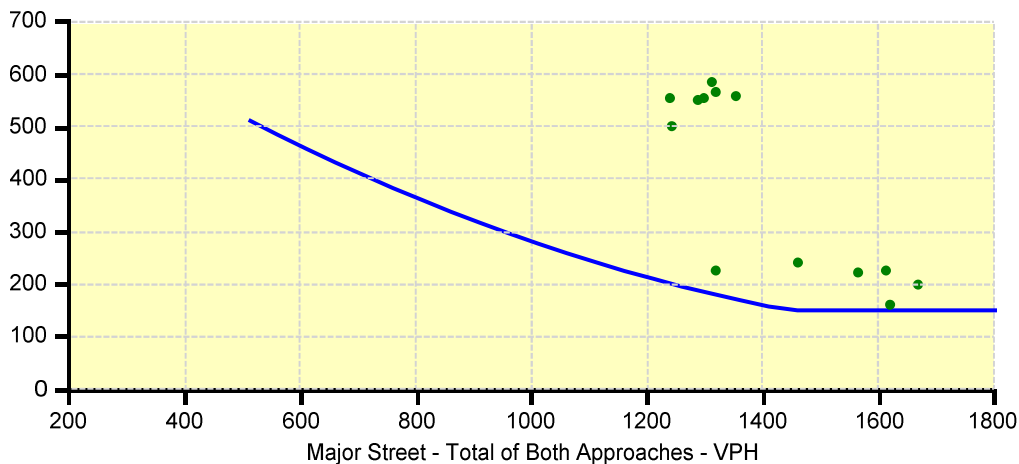
Summary

25 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road RIVER HILLS DR		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	356	+	1313	=	1669	72	199	Yes
06:45 - 07:45	292	+	1327	=	1619	75	162	Yes
07:15 - 08:15	384	+	1230	=	1614	64	224	Yes
07:30 - 08:30	385	+	1180	=	1565	63	223	Yes
07:45 - 08:45	373	+	1087	=	1460	60	242	Yes
16:30 - 17:30	755	+	597	=	1352	111	559	Yes
08:00 - 09:00	328	+	992	=	1320	70	225	Yes
17:00 - 18:00	713	+	605	=	1318	114	566	Yes
16:45 - 17:45	703	+	609	=	1312	120	586	Yes
17:15 - 18:15	678	+	620	=	1298	93	555	Yes
16:15 - 17:15	734	+	553	=	1287	111	550	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 5,427

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 6,254

Minor Street Approaches

Northbound: CHURCH ST

Number of Lanes :2+

Total Approach Volume: 3,569

Southbound: CHURCH ST

Number of Lanes :2+

Total Approach Volume: 4,439

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 7 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 14 hours, 8 are needed

Required 1B volumes reached for 11 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (53) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200**

Major Road SR 32						Minor Road CHURCH ST		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
15:15 - 16:15	514	+	378	=	892	250	383	Yes
08:15 - 09:15	238	+	554	=	792	282	225	Yes
06:15 - 07:15	169	+	623	=	792	221	121	Yes
14:15 - 15:15	383	+	362	=	745	261	337	Yes
13:15 - 14:15	334	+	350	=	684	186	284	Yes
18:15 - 19:15	353	+	286	=	639	220	292	Yes
12:15 - 13:15	282	+	357	=	639	172	270	Yes
11:15 - 12:15	292	+	326	=	618	218	233	Yes
09:15 - 10:15	227	+	319	=	546	229	229	Yes
10:15 - 11:15	231	+	302	=	533	214	201	Yes
06:00 - 07:00	136	+	482	=	618	168	79	No
05:45 - 06:45	107	+	381	=	488	109	63	No
19:15 - 20:15	247	+	184	=	431	102	206	No
19:30 - 20:30	227	+	180	=	407	79	193	No
19:45 - 20:45	204	+	179	=	383	78	195	No
05:30 - 06:30	77	+	295	=	372	76	43	No
20:00 - 21:00	186	+	164	=	350	86	189	No
20:15 - 21:15	166	+	170	=	336	93	177	No
20:30 - 21:30	167	+	141	=	308	101	191	No
20:45 - 21:45	151	+	122	=	273	92	175	No
05:15 - 06:15	59	+	213	=	272	47	38	No
21:00 - 22:00	149		105		254	80	164	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 7 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100**

Major Road SR 32						Minor Road CHURCH ST		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	677	+	430	=	1107	259	450	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
17:30 - 18:30	557	+	417	=	974	277	434	Yes
15:30 - 16:30	539	+	398	=	937	255	397	Yes
14:30 - 15:30	429	+	368	=	797	259	339	Yes
08:15 - 09:15	238	+	554	=	792	282	225	Yes
06:15 - 07:15	169	+	623	=	792	221	121	Yes
14:15 - 15:15	383	+	362	=	745	261	337	No
14:00 - 15:00	376	+	354	=	730	249	289	No
13:45 - 14:45	358	+	338	=	696	218	287	No
13:15 - 14:15	334	+	350	=	684	186	284	No
13:30 - 14:30	342	+	334	=	676	208	281	No
13:00 - 14:00	315	+	340	=	655	177	304	No
12:00 - 13:00	303	+	346	=	649	184	244	No
12:45 - 13:45	298	+	349	=	647	192	285	No
12:30 - 13:30	291	+	354	=	645	173	296	No
12:15 - 13:15	282	+	357	=	639	172	270	No
11:45 - 12:45	282	+	355	=	637	190	237	No
11:30 - 12:30	286	+	343	=	629	200	227	No
11:15 - 12:15	292	+	326	=	618	218	233	No
06:00 - 07:00	136	+	482	=	618	168	79	No
11:00 - 12:00	262	+	324	=	586	216	228	No
10:45 - 11:45	272	+	305	=	577	210	215	No
18:30 - 19:30	303	+	265	=	568	190	264	No
10:30 - 11:30	250		307		557	224	209	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

14 hours meet 1A minimums.
11 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**

Veh/Hr Minor = **160 80**

Major Road SR 32						Minor Road CHURCH ST		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:00 - 18:00	656	+	455	=	1111	279	465	Yes
07:00 - 08:00	293	+	739	=	1032	410	267	Yes
16:00 - 17:00	606	+	393	=	999	228	417	Yes
15:00 - 16:00	481	+	394	=	875	258	398	Yes
08:00 - 09:00	259	+	613	=	872	302	252	Yes
18:00 - 19:00	417	+	326	=	743	257	338	Yes
14:00 - 15:00	376	+	354	=	730	249	289	Yes
13:00 - 14:00	315	+	340	=	655	177	304	Yes
12:00 - 13:00	303	+	346	=	649	184	244	Yes
06:00 - 07:00	136	+	482	=	618	168	79	Yes
11:00 - 12:00	262	+	324	=	586	216	228	Yes
10:00 - 11:00	244		309		553	213	206	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:00 - 08:00	293	+	739	=	1032	410	267	Yes
15:15 - 16:15	514	+	378	=	892	250	383	Yes
08:00 - 09:00	259	+	613	=	872	302	252	Yes
14:15 - 15:15	383	+	362	=	745	261	337	Yes
13:15 - 14:15	334	+	350	=	684	186	284	Yes
18:15 - 19:15	353	+	286	=	639	220	292	Yes
12:15 - 13:15	282	+	357	=	639	172	270	Yes
11:15 - 12:15	292	+	326	=	618	218	233	Yes
06:00 - 07:00	136	+	482	=	618	168	79	Yes
11:00 - 12:00	262		324		586	216	228	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

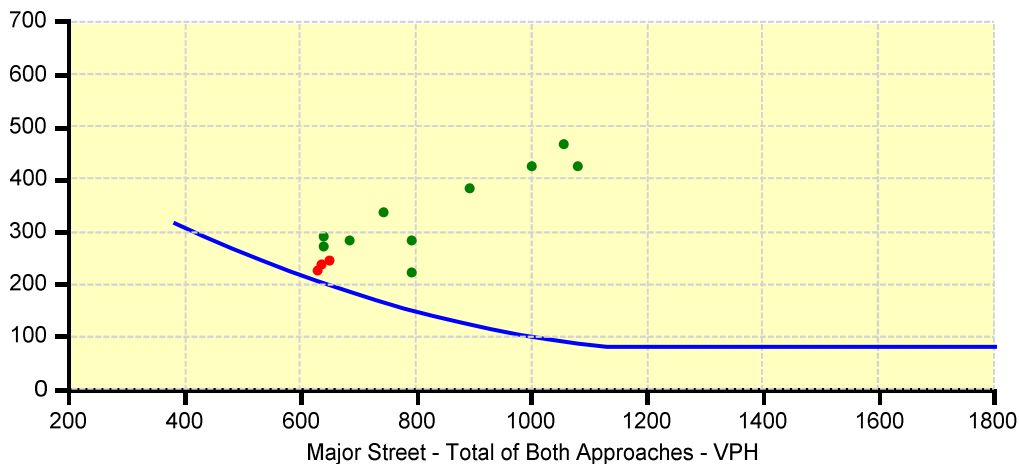
Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road CHURCH ST		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
15:15 - 16:15	514	+	378	=	892	250	383	Yes
08:15 - 09:15	238	+	554	=	792	282	225	Yes
06:15 - 07:15	169	+	623	=	792	221	121	Yes
14:15 - 15:15	383	+	362	=	745	261	337	Yes
13:15 - 14:15	334	+	350	=	684	186	284	Yes
18:15 - 19:15	353	+	286	=	639	220	292	Yes
12:15 - 13:15	282	+	357	=	639	172	270	Yes
12:00 - 13:00	303	+	346	=	649	184	244	No
							237	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

53 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

			Major Road SR 32			Minor Road CHURCH ST			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	1855	Yes	279	-	---	465	-	Yes	Yes
16:45 - 17:45	1844	Yes	261	-	---	479	-	Yes	Yes
16:30 - 17:30	1816	Yes	259	-	---	450	-	Yes	Yes
17:15 - 18:15	1794	Yes	270	-	---	467	-	Yes	Yes
16:15 - 17:15	1758	Yes	256	-	---	423	-	Yes	Yes
07:15 - 08:15	1724	Yes	423	-	Yes	300	-	---	Yes
07:00 - 08:00	1709	Yes	410	-	Yes	267	-	---	Yes
07:30 - 08:30	1700	Yes	379	-	Yes	305	-	---	Yes
17:30 - 18:30	1685	Yes	277	-	---	434	-	Yes	Yes
16:00 - 17:00	1644	Yes	228	-	---	417	-	Yes	Yes
15:45 - 16:45	1618	Yes	247	-	---	388	-	Yes	Yes
07:45 - 08:45	1607	Yes	352	-	Yes	290	-	---	Yes
15:30 - 16:30	1589	Yes	255	-	---	397	-	Yes	Yes
06:45 - 07:45	1538	Yes	368	-	Yes	200	-	---	Yes
15:00 - 16:00	1531	Yes	258	-	---	398	-	Yes	Yes
15:15 - 16:15	1525	Yes	250	-	---	383	-	Yes	Yes
17:45 - 18:45	1514	Yes	268	-	---	378	-	Yes	Yes
14:45 - 15:45	1478	Yes	259	-	---	387	-	Yes	Yes
08:00 - 09:00	1426	Yes	302	-	Yes	252	-	---	Yes
14:30 - 15:30	1395	Yes	259	-	---	339	-	Yes	Yes
06:30 - 07:30	1345	Yes	292	-	Yes	158	-	---	Yes
14:15 - 15:15	1343	Yes	261	-	---	337	-	Yes	Yes
18:00 - 19:00	1338	Yes	257	-	---	338	-	Yes	Yes
08:15 - 09:15	1299	Yes	282	-	Yes	225	-	---	Yes
14:00 - 15:00	1268	Yes	249	-	---	289	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

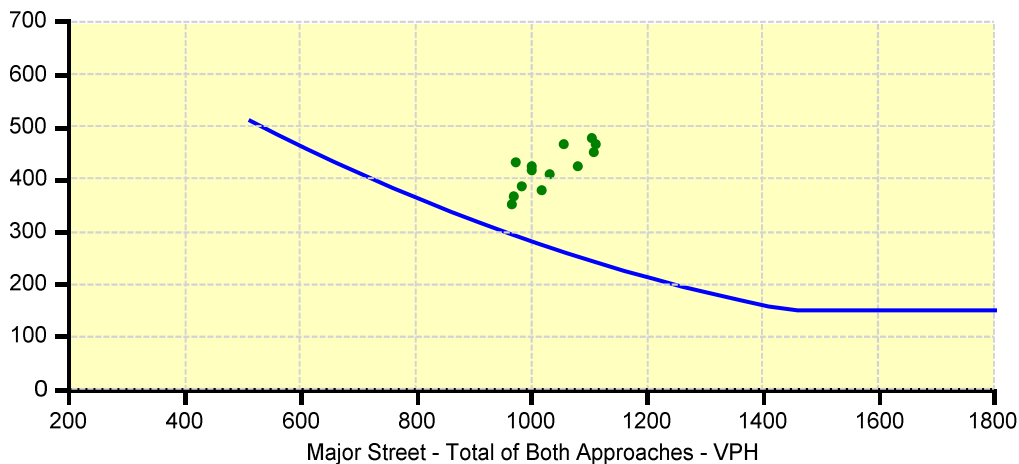
Summary

18 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road CHURCH ST		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	656	+	455	=	1111	279	465	Yes
16:30 - 17:30	677	+	430	=	1107	259	450	Yes
16:45 - 17:45	666	+	438	=	1104	261	479	Yes
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:00 - 08:00	293	+	739	=	1032	410	267	Yes
07:30 - 08:30	324	+	692	=	1016	379	305	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
16:00 - 17:00	606	+	393	=	999	228	417	Yes
15:45 - 16:45	584	+	399	=	983	247	388	Yes
17:30 - 18:30	557	+	417	=	974	277	434	Yes
							200	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: SR 32

Number of Lanes : 1

Total Approach Volume: 9,618

Southbound: SR 32

Number of Lanes : 1

Total Approach Volume: 4,547

Minor Street Approaches

Eastbound: NONE

Number of Lanes : 1

Total Approach Volume: 0

Westbound: CLOUGH PIKE

Number of Lanes : 1

Total Approach Volume: 4,937

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 15 hours, 8 are needed

Required 1B volumes reached for 16 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (49) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105 140**

Major Road SR 32						Minor Road NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	1316	+	338	=	1654	0	368	Yes
15:45 - 16:45	1059	+	240	=	1299	0	276	Yes
17:45 - 18:45	933	+	266	=	1199	0	300	Yes
14:45 - 15:45	811	+	263	=	1074	0	210	Yes
06:45 - 07:45	397	+	602	=	999	0	707	Yes
07:45 - 08:45	479	+	498	=	977	0	600	Yes
13:45 - 14:45	542	+	241	=	783	0	215	Yes
08:45 - 09:45	355	+	318	=	673	0	454	Yes
11:45 - 12:45	441	+	222	=	663	0	248	Yes
12:45 - 13:45	413	+	229	=	642	0	207	Yes
09:45 - 10:45	329	+	234	=	563	0	277	Yes
10:45 - 11:45	346	+	212	=	558	0	254	Yes
05:45 - 06:45	160	+	305	=	465	0	307	Yes
18:45 - 19:45	510	+	161	=	671	0	128	No
19:00 - 20:00	466	+	134	=	600	0	108	No
19:15 - 20:15	457	+	113	=	570	0	107	No
20:15 - 21:15	439	+	102	=	541	0	79	No
19:30 - 20:30	430	+	97	=	527	0	108	No
20:00 - 21:00	425	+	90	=	515	0	92	No
20:30 - 21:30	413	+	96	=	509	0	67	No
19:45 - 20:45	404	+	82	=	486	0	113	No
20:45 - 21:45	397	+	81	=	478	0	56	No
21:00 - 22:00	321	+	69	=	390	0	62	No
05:30 - 06:30	97	+	243	=	340	0	233	No
00:00 - 01:00	298		21		319	0	21	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52 70**

Major Road SR 32						Minor Road NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	1316	+	338	=	1654	0	368	Yes
15:45 - 16:45	1059	+	240	=	1299	0	276	Yes
17:45 - 18:45	933	+	266	=	1199	0	300	Yes
14:45 - 15:45	811	+	263	=	1074	0	210	Yes
06:45 - 07:45	397	+	602	=	999	0	707	Yes
07:45 - 08:45	479	+	498	=	977	0	600	Yes
13:45 - 14:45	542	+	241	=	783	0	215	Yes
08:45 - 09:45	355	+	318	=	673	0	454	Yes
18:45 - 19:45	510	+	161	=	671	0	128	Yes
11:45 - 12:45	441	+	222	=	663	0	248	Yes
12:45 - 13:45	413	+	229	=	642	0	207	Yes
09:45 - 10:45	329	+	234	=	563	0	277	Yes
10:45 - 11:45	346	+	212	=	558	0	254	Yes
19:45 - 20:45	404	+	82	=	486	0	113	Yes
05:45 - 06:45	160	+	305	=	465	0	307	Yes
20:45 - 21:45	397	+	81	=	478	0	56	No
21:00 - 22:00	321	+	69	=	390	0	62	No
05:30 - 06:30	97	+	243	=	340	0	233	No
00:00 - 01:00	298	+	21	=	319	0	21	No
21:15 - 22:15	252	+	53	=	305	0	60	No
05:15 - 06:15	86	+	178	=	264	0	157	No
21:30 - 22:30	200	+	47	=	247	0	53	No
00:15 - 01:15	211	+	16	=	227	0	15	No
21:45 - 22:45	171	+	52	=	223	0	52	No
22:00 - 23:00	151		43		194	0	44	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

15 hours meet 1A minimums.
16 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**
Veh/Hr Minor EB = **84 42**
Veh/Hr Minor WB = **112 56**

Major Road						Minor Road			
SR 32						NONE			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?	
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes	
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes	
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes	
07:30 - 08:30	542	+	530	=	1072	0	659	Yes	
14:30 - 15:30	712	+	272	=	984	0	225	Yes	
06:30 - 07:30	338	+	549	=	887	0	613	Yes	
18:30 - 19:30	571	+	182	=	753	0	154	Yes	
13:30 - 14:30	482	+	234	=	716	0	201	Yes	
08:30 - 09:30	352	+	357	=	709	0	505	Yes	
12:30 - 13:30	431	+	224	=	655	0	230	Yes	
11:30 - 12:30	418	+	229	=	647	0	229	Yes	
10:30 - 11:30	343		220		563	0	267	Yes	

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?	
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes	
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes	
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes	
07:30 - 08:30	542	+	530	=	1072	0	659	Yes	
14:30 - 15:30	712	+	272	=	984	0	225	Yes	
06:30 - 07:30	338	+	549	=	887	0	613	Yes	
18:30 - 19:30	571	+	182	=	753	0	154	Yes	
13:30 - 14:30	482	+	234	=	716	0	201	Yes	
08:30 - 09:30	352	+	357	=	709	0	505	Yes	
12:30 - 13:30	431	+	224	=	655	0	230	Yes	
11:30 - 12:30	418	+	229	=	647	0	229	Yes	
10:30 - 11:30	343		220		563	0	267	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

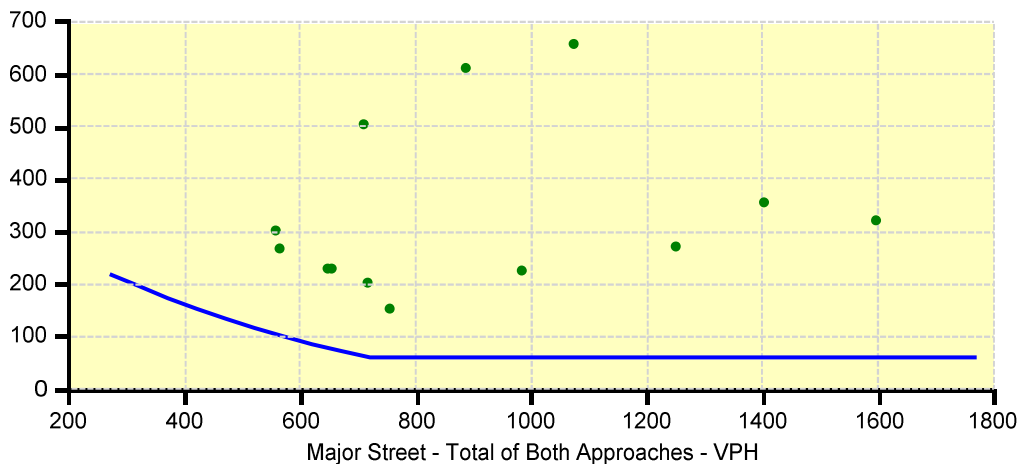
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
SR 32						NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes
07:30 - 08:30	542	+	530	=	1072	0	659	Yes
14:30 - 15:30	712	+	272	=	984	0	225	Yes
06:30 - 07:30	338	+	549	=	887	0	613	Yes
18:30 - 19:30	571	+	182	=	753	0	154	Yes
13:30 - 14:30	482	+	234	=	716	0	201	Yes
08:30 - 09:30	352	+	357	=	709	0	505	Yes
12:30 - 13:30	431	+	224	=	655	0	230	Yes
11:30 - 12:30	418	+	229	=	647	0	229	Yes
							267	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

49 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = 800

Veh/Hr Minor = 100

Total Delay (Veh-Hrs) = 4

Major Road						Minor Road				
SR 32						NONE				
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?	
17:00 - 18:00	2041	Yes	0	-	---	370	-	Yes	Yes	
16:45 - 17:45	2022	Yes	0	-	---	368	-	Yes	Yes	
17:15 - 18:15	1990	Yes	0	-	---	383	-	Yes	Yes	
16:30 - 17:30	1918	Yes	0	-	---	323	-	Yes	Yes	
07:15 - 08:15	1818	Yes	0	-	---	692	-	Yes	Yes	
16:15 - 17:15	1786	Yes	0	-	---	295	-	Yes	Yes	
07:00 - 08:00	1782	Yes	0	-	---	712	-	Yes	Yes	
17:30 - 18:30	1756	Yes	0	-	---	355	-	Yes	Yes	
07:30 - 08:30	1731	Yes	0	-	---	659	-	Yes	Yes	
06:45 - 07:45	1706	Yes	0	-	---	707	-	Yes	Yes	
16:00 - 17:00	1666	Yes	0	-	---	288	-	Yes	Yes	
07:45 - 08:45	1577	Yes	0	-	---	600	-	Yes	Yes	
15:45 - 16:45	1575	Yes	0	-	---	276	-	Yes	Yes	
15:30 - 16:30	1518	Yes	0	-	---	270	-	Yes	Yes	
06:30 - 07:30	1500	Yes	0	-	---	613	-	Yes	Yes	
17:45 - 18:45	1499	Yes	0	-	---	300	-	Yes	Yes	
08:00 - 09:00	1497	Yes	0	-	---	605	-	Yes	Yes	
15:15 - 16:15	1424	Yes	0	-	---	250	-	Yes	Yes	
15:00 - 16:00	1350	Yes	0	-	---	229	-	Yes	Yes	
08:15 - 09:15	1349	Yes	0	-	---	582	-	Yes	Yes	
14:45 - 15:45	1284	Yes	0	-	---	210	-	Yes	Yes	
18:00 - 19:00	1275	Yes	0	-	---	261	-	Yes	Yes	
06:15 - 07:15	1258	Yes	0	-	---	513	-	Yes	Yes	
08:30 - 09:30	1214	Yes	0	-	---	505	-	Yes	Yes	
14:30 - 15:30	1209	Yes	0	-	---	225	-	Yes	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

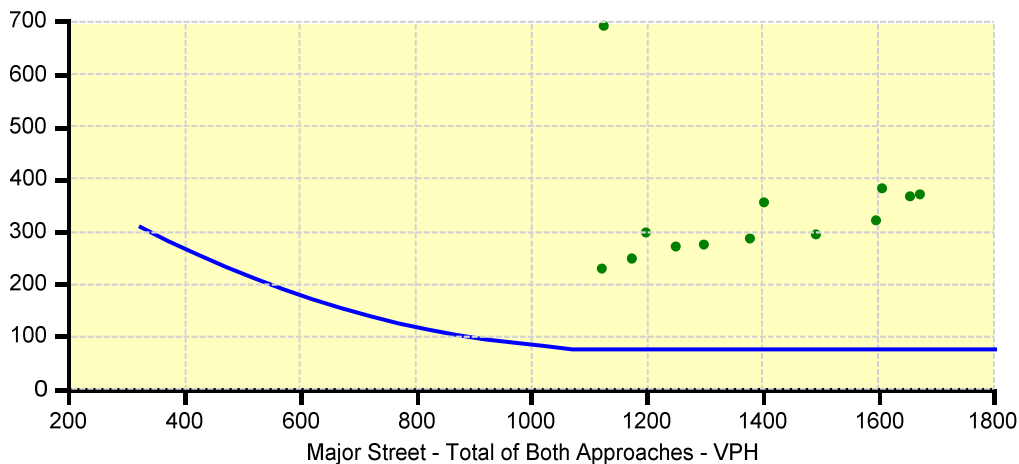
Summary

52 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
SR 32						NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
17:00 - 18:00	1322	+	349	=	1671	0	370	Yes
16:45 - 17:45	1316	+	338	=	1654	0	368	Yes
17:15 - 18:15	1273	+	334	=	1607	0	383	Yes
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes
16:15 - 17:15	1216	+	275	=	1491	0	295	Yes
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes
16:00 - 17:00	1122	+	256	=	1378	0	288	Yes
15:45 - 16:45	1059	+	240	=	1299	0	276	Yes
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes
17:45 - 18:45	933	+	266	=	1199	0	300	Yes
15:15 - 16:15	933	+	241	=	1174	0	250	Yes
							692	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: ROUND BOTTOM RD

Number of Lanes : 1

Total Approach Volume: 5,929

Southbound: ROUND BOTTOM RD

Number of Lanes : 1

Total Approach Volume: 2,931

Minor Street Approaches

Eastbound: VALLEY AVE

Number of Lanes : 2+

Total Approach Volume: 2,564

Westbound: NONE

Number of Lanes : 2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 7 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 6 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (10) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

	Major Road					Minor Road				
	ROUND BOTTOM RD					VALLEY AVE				
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB	Met?
17:15 - 18:15	443	+	232	=	675		296		0	Yes
16:15 - 17:15	420	+	245	=	665		329		0	Yes
14:15 - 15:15	368	+	219	=	587		202		0	Yes
15:15 - 16:15	348	+	181	=	529		264		0	Yes
07:00 - 08:00	719	+	386	=	1105		103		0	No
07:15 - 08:15	688	+	394	=	1082		125		0	No
07:30 - 08:30	654	+	382	=	1036		123		0	No
06:45 - 07:45	691	+	322	=	1013		84		0	No
07:45 - 08:45	626	+	287	=	913		127		0	No
06:30 - 07:30	645	+	233	=	878		78		0	No
08:00 - 09:00	542	+	241	=	783		115		0	No
06:15 - 07:15	547	+	179	=	726		60		0	No
08:15 - 09:15	495	+	196	=	691		103		0	No
06:00 - 07:00	461	+	110	=	571		56		0	No
08:30 - 09:30	416	+	152	=	568		100		0	No
08:45 - 09:45	396	+	161	=	557		100		0	No
14:00 - 15:00	320	+	190	=	510		163		0	No
11:15 - 12:15	301	+	205	=	506		125		0	No
09:30 - 10:30	358	+	127	=	485		93		0	No
09:00 - 10:00	350	+	135	=	485		93		0	No
13:30 - 14:30	293	+	189	=	482		148		0	No
11:30 - 12:30	276	+	201	=	477		122		0	No
10:45 - 11:45	332	+	144	=	476		121		0	No
12:00 - 13:00	282	+	194	=	476		132		0	No
11:00 - 12:00	315		158		473		128		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 7 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

	Major Road					Minor Road				
	ROUND BOTTOM RD					VALLEY AVE				
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB	Met?
07:00 - 08:00	719	+	386	=	1105		103		0	Yes
08:00 - 09:00	542	+	241	=	783		115		0	Yes
17:00 - 18:00	446	+	267	=	713		316		0	Yes
16:00 - 17:00	417	+	221	=	638		334		0	Yes
15:00 - 16:00	362	+	202	=	564		254		0	Yes
14:00 - 15:00	320	+	190	=	510		163		0	Yes
11:15 - 12:15	301	+	205	=	506		125		0	Yes
06:45 - 07:45	691	+	322	=	1013		84		0	No
06:30 - 07:30	645	+	233	=	878		78		0	No
06:15 - 07:15	547	+	179	=	726		60		0	No
06:00 - 07:00	461	+	110	=	571		56		0	No
09:30 - 10:30	358	+	127	=	485		93		0	No
09:00 - 10:00	350	+	135	=	485		93		0	No
13:30 - 14:30	293	+	189	=	482		148		0	No
10:45 - 11:45	332	+	144	=	476		121		0	No
11:00 - 12:00	315	+	158	=	473		128		0	No
12:15 - 13:15	300	+	172	=	472		150		0	No
05:45 - 06:45	379	+	88	=	467		50		0	No
09:15 - 10:15	349	+	116	=	465		89		0	No
12:45 - 13:45	286	+	177	=	463		160		0	No
13:00 - 14:00	283	+	178	=	461		158		0	No
18:00 - 19:00	310	+	148	=	458		180		0	No
10:30 - 11:30	321	+	136	=	457		113		0	No
12:30 - 13:30	288	+	168	=	456		160		0	No
13:45 - 14:45	279		176		455		159		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 6 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor EB = **160 80**
Veh/Hr Minor WB = **120 60**

Major Road ROUND BOTTOM RD						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
17:00 - 18:00	446	+	267	=	713	316	0	Yes
16:00 - 17:00	417	+	221	=	638	334	0	Yes
15:00 - 16:00	362	+	202	=	564	254	0	Yes
14:00 - 15:00	320	+	190	=	510	163	0	Yes
18:00 - 19:00	310	+	148	=	458	180	0	Yes
12:30 - 13:30	288	+	168	=	456	160	0	Yes
07:00 - 08:00	719	+	386	=	1105	103	0	No
07:15 - 08:15	688	+	394	=	1082	125	0	No
07:30 - 08:30	654	+	382	=	1036	123	0	No
06:45 - 07:45	691	+	322	=	1013	84	0	No
07:45 - 08:45	626	+	287	=	913	127	0	No
06:30 - 07:30	645	+	233	=	878	78	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
06:45 - 07:45	691	+	322	=	1013	84	0	Yes
07:45 - 08:45	626	+	287	=	913	127	0	Yes
16:45 - 17:45	454	+	256	=	710	325	0	Yes
15:45 - 16:45	390	+	218	=	608	344	0	Yes
14:45 - 15:45	376	+	208	=	584	210	0	Yes
08:45 - 09:45	396	+	161	=	557	100	0	Yes
17:45 - 18:45	352	+	186	=	538	203	0	Yes
10:45 - 11:45	332	+	144	=	476	121	0	Yes
11:45 - 12:45	273	+	200	=	473	126	0	Yes
12:45 - 13:45	286	+	177	=	463	160	0	Yes
13:45 - 14:45	279	+	176	=	455	159	0	Yes
09:45 - 10:45	306	+	116	=	422	89	0	Yes

Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

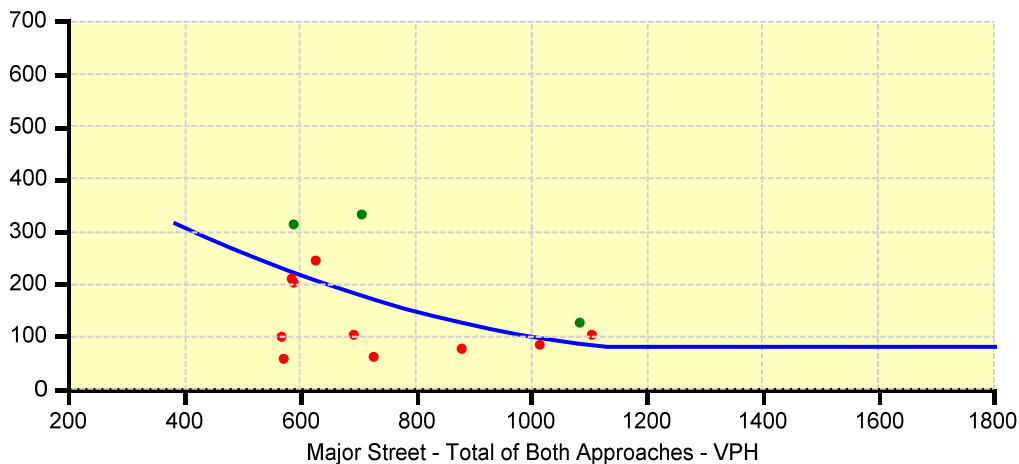
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road ROUND BOTTOM RD						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
07:15 - 08:15	688	+	394	=	1082	125	0	Yes
16:30 - 17:30	455	+	249	=	704	333	0	Yes
15:30 - 16:30	375	+	213	=	588	314	0	Yes
07:00 - 08:00	719	+	386	=	1105	103	0	No
06:45 - 07:45	691	+	322	=	1013	84	0	No
06:30 - 07:30	645	+	233	=	878	78	0	No
06:15 - 07:15	547	+	179	=	726	60	0	No
08:15 - 09:15	495	+	196	=	691	103	0	No
17:30 - 18:30	412	+	213	=	625	244	0	No
14:15 - 15:15	368	+	219	=	587	202	0	No
14:45 - 15:45	376	+	208	=	584	210	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

17 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
ROUND BOTTOM RD						VALLEY AVE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:30 - 17:30	1037	Yes	333	-	Yes	0	-	---	Yes
16:45 - 17:45	1035	Yes	325	-	Yes	0	-	---	Yes
17:00 - 18:00	1029	Yes	316	-	Yes	0	-	---	Yes
16:15 - 17:15	994	Yes	329	-	Yes	0	-	---	Yes
16:00 - 17:00	972	Yes	334	-	Yes	0	-	---	Yes
17:15 - 18:15	971	Yes	296	-	Yes	0	-	---	Yes
15:45 - 16:45	952	Yes	344	-	Yes	0	-	---	Yes
15:30 - 16:30	902	Yes	314	-	Yes	0	-	---	Yes
17:30 - 18:30	869	Yes	244	-	Yes	0	-	---	Yes
15:00 - 16:00	818	Yes	254	-	Yes	0	-	---	Yes
07:00 - 08:00	1208	Yes	103	-	No	0	-	---	No
07:15 - 08:15	1207	Yes	125	-	No	0	-	---	No
07:30 - 08:30	1159	Yes	123	-	No	0	-	---	No
06:45 - 07:45	1097	Yes	84	-	No	0	-	---	No
07:45 - 08:45	1040	Yes	127	-	No	0	-	---	No
06:30 - 07:30	956	Yes	78	-	No	0	-	---	No
08:00 - 09:00	898	Yes	115	-	No	0	-	---	No
14:45 - 15:45	794	No	210	-	Yes	0	-	---	No
08:15 - 09:15	794	No	103	-	No	0	-	---	No
15:15 - 16:15	793	No	264	-	Yes	0	-	---	No
14:15 - 15:15	789	No	202	-	Yes	0	-	---	No
06:15 - 07:15	786	No	60	-	No	0	-	---	No
14:30 - 15:30	752	No	204	-	Yes	0	-	---	No
17:45 - 18:45	741	No	203	-	Yes	0	-	---	No
14:00 - 15:00	673	No	163	-	Yes	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

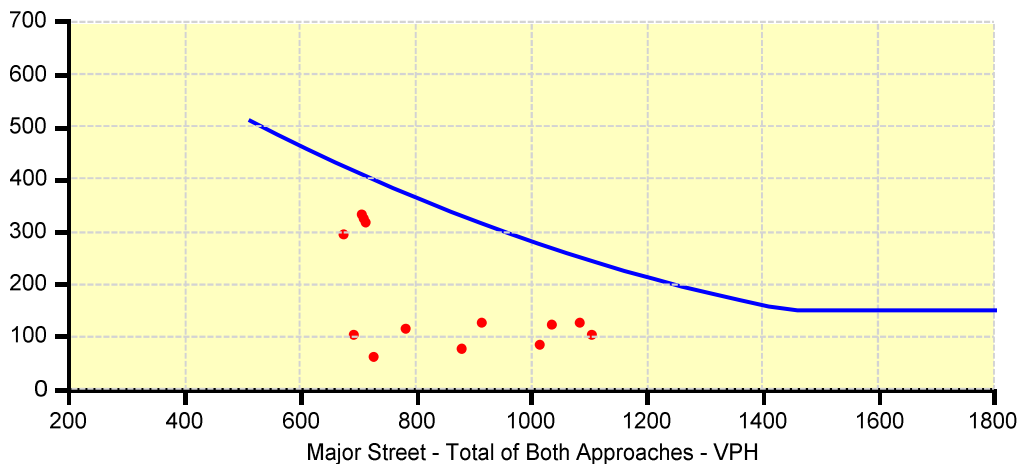
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road ROUND BOTTOM RD						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
07:00 - 08:00	719	+	386	=	1105	103	0	No
07:15 - 08:15	688	+	394	=	1082	125	0	No
07:30 - 08:30	654	+	382	=	1036	123	0	No
06:45 - 07:45	691	+	322	=	1013	84	0	No
07:45 - 08:45	626	+	287	=	913	127	0	No
06:30 - 07:30	645	+	233	=	878	78	0	No
08:00 - 09:00	542	+	241	=	783	115	0	No
06:15 - 07:15	547	+	179	=	726	60	0	No
17:00 - 18:00	446	+	267	=	713	316	0	No
16:45 - 17:45	454	+	256	=	710	325	0	No
16:30 - 17:30	455	+	249	=	704	333	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: CHURCH ST

Number of Lanes : 1

Total Approach Volume: 8,923

Southbound: CHURCH ST

Number of Lanes : 1

Total Approach Volume: 4,383

Minor Street Approaches

Eastbound: VALLEY AVE

Number of Lanes : 2+

Total Approach Volume: 2,500

Westbound: GOLF CENTER DRIVEWAY

Number of Lanes : 2+

Total Approach Volume: 60

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 5 hours, 8 are needed

Required 1B volumes reached for 13 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (17) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200**

Major Road CHURCH ST						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
07:30 - 08:30	517	+	456	=	973	373	1	Yes
06:30 - 07:30	307	+	279	=	586	314	1	Yes
16:45 - 17:45	1038	+	375	=	1413	195	6	No
17:00 - 18:00	1022	+	373	=	1395	187	5	No
16:30 - 17:30	976	+	400	=	1376	194	8	No
16:15 - 17:15	961	+	386	=	1347	180	9	No
15:45 - 16:45	964	+	376	=	1340	152	8	No
17:15 - 18:15	997	+	336	=	1333	170	4	No
16:00 - 17:00	972	+	360	=	1332	158	9	No
15:30 - 16:30	947	+	352	=	1299	141	7	No
15:15 - 16:15	876	+	343	=	1219	138	7	No
17:30 - 18:30	877	+	314	=	1191	166	3	No
15:00 - 16:00	797	+	360	=	1157	143	9	No
17:45 - 18:45	758	+	308	=	1066	142	1	No
14:45 - 15:45	683	+	354	=	1037	144	9	No
14:30 - 15:30	659	+	352	=	1011	140	8	No
18:00 - 19:00	682	+	287	=	969	128	0	No
14:15 - 15:15	610	+	331	=	941	137	7	No
18:15 - 19:15	601	+	276	=	877	111	0	No
14:00 - 15:00	572	+	290	=	862	125	5	No
13:45 - 14:45	586	+	262	=	848	114	6	No
12:30 - 13:30	603	+	223	=	826	104	9	No
13:00 - 14:00	573	+	239	=	812	115	6	No
18:30 - 19:30	562	+	246	=	808	84	0	No
12:45 - 13:45	570		232		802	107	5	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100**

Major Road CHURCH ST						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	961	+	386	=	1347	180	9	Yes
17:15 - 18:15	997	+	336	=	1333	170	4	Yes
15:15 - 16:15	876	+	343	=	1219	138	7	Yes
14:15 - 15:15	610	+	331	=	941	137	7	Yes
18:15 - 19:15	601	+	276	=	877	111	0	Yes
07:00 - 08:00	455	+	411	=	866	448	2	Yes
08:00 - 09:00	454	+	382	=	836	229	0	Yes
12:15 - 13:15	570	+	220	=	790	104	5	Yes
13:15 - 14:15	542	+	241	=	783	110	7	Yes
12:00 - 13:00	509	+	226	=	735	104	6	No
06:45 - 07:45	365	+	349	=	714	387	2	No
10:45 - 11:45	421	+	291	=	712	122	10	No
11:45 - 12:45	472	+	233	=	705	106	7	No
11:00 - 12:00	427	+	276	=	703	115	8	No
11:30 - 12:30	441	+	250	=	691	114	3	No
11:15 - 12:15	417	+	270	=	687	117	8	No
10:30 - 11:30	387	+	284	=	671	119	12	No
09:15 - 10:15	373	+	287	=	660	127	2	No
10:15 - 11:15	390	+	267	=	657	118	8	No
09:00 - 10:00	360	+	295	=	655	131	1	No
09:30 - 10:30	379	+	250	=	629	121	3	No
10:00 - 11:00	375	+	253	=	628	119	8	No
09:45 - 10:45	357	+	246	=	603	119	4	No
06:30 - 07:30	307	+	279	=	586	314	1	No
19:15 - 20:15	425		139		564	63	1	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 5 hours meet 1A minimums.
13 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**

Veh/Hr Minor = **160 80**

Major Road CHURCH ST						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	961	+	386	=	1347	180	9	Yes
17:15 - 18:15	997	+	336	=	1333	170	4	Yes
07:15 - 08:15	509	+	465	=	974	424	1	Yes
08:15 - 09:15	403	+	311	=	714	195	0	Yes
06:15 - 07:15	244	+	214	=	458	237	1	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	No
16:00 - 17:00	972	+	360	=	1332	158	9	No
15:30 - 16:30	947	+	352	=	1299	141	7	No
15:15 - 16:15	876	+	343	=	1219	138	7	No
15:00 - 16:00	797	+	360	=	1157	143	9	No
14:45 - 15:45	683	+	354	=	1037	144	9	No
14:30 - 15:30	659	+	352	=	1011	140	8	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:45 - 17:45	1038	+	375	=	1413	195	6	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	Yes
17:45 - 18:45	758	+	308	=	1066	142	1	Yes
14:45 - 15:45	683	+	354	=	1037	144	9	Yes
07:45 - 08:45	513	+	440	=	953	301	0	Yes
13:45 - 14:45	586	+	262	=	848	114	6	Yes
12:45 - 13:45	570	+	232	=	802	107	5	Yes
18:45 - 19:45	531	+	209	=	740	82	1	Yes
06:45 - 07:45	365	+	349	=	714	387	2	Yes
10:45 - 11:45	421	+	291	=	712	122	10	Yes
11:45 - 12:45	472	+	233	=	705	106	7	Yes
08:45 - 09:45	369	+	284	=	653	146	1	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

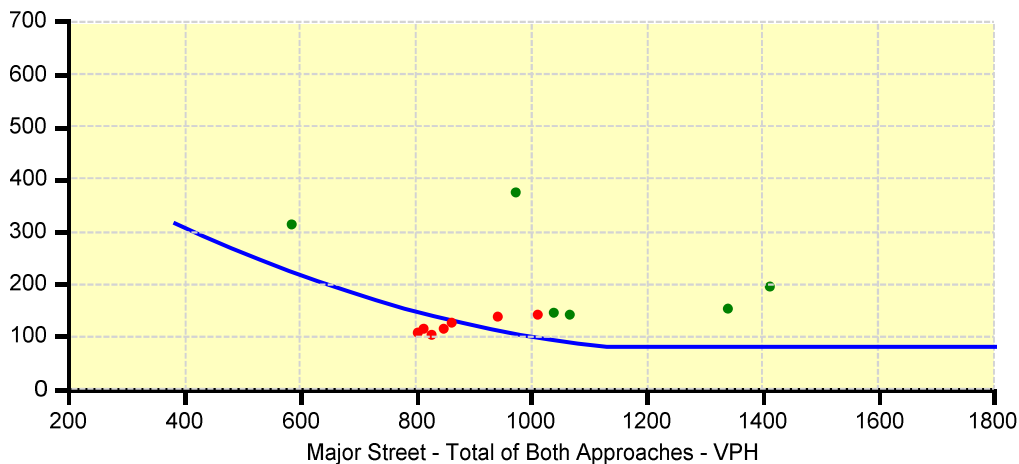
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Major Road CHURCH ST						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	1038	+	375	=	1413	195	6	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	Yes
17:45 - 18:45	758	+	308	=	1066	142	1	Yes
14:45 - 15:45	683	+	354	=	1037	144	9	Yes
07:30 - 08:30	517	+	456	=	973	373	1	Yes
06:30 - 07:30	307	+	279	=	586	314	1	Yes
14:30 - 15:30	659	+	352	=	1011	140	8	No
14:15 - 15:15	610	+	331	=	941	137	7	No
14:00 - 15:00	572	+	290	=	862	125	5	No
13:45 - 14:45	586	+	262	=	848	114	6	No
12:30 - 13:30	603	+	223	=	826	104	9	No
							6	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

44 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road CHURCH ST						Minor Road VALLEY AVE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:45 - 17:45	1614	Yes	195	-	Yes	6	-	---	Yes
17:00 - 18:00	1587	Yes	187	-	Yes	5	-	---	Yes
16:30 - 17:30	1578	Yes	194	-	Yes	8	-	---	Yes
16:15 - 17:15	1536	Yes	180	-	Yes	9	-	---	Yes
17:15 - 18:15	1507	Yes	170	-	Yes	4	-	---	Yes
15:45 - 16:45	1500	Yes	152	-	Yes	8	-	---	Yes
16:00 - 17:00	1499	Yes	158	-	Yes	9	-	---	Yes
07:15 - 08:15	1399	Yes	424	-	Yes	1	-	---	Yes
17:30 - 18:30	1360	Yes	166	-	Yes	3	-	---	Yes
07:30 - 08:30	1347	Yes	373	-	Yes	1	-	---	Yes
07:00 - 08:00	1316	Yes	448	-	Yes	2	-	---	Yes
07:45 - 08:45	1254	Yes	301	-	Yes	0	-	---	Yes
06:45 - 07:45	1103	Yes	387	-	Yes	2	-	---	Yes
08:00 - 09:00	1065	Yes	229	-	Yes	0	-	---	Yes
08:15 - 09:15	909	Yes	195	-	Yes	0	-	---	Yes
06:30 - 07:30	901	Yes	314	-	Yes	1	-	---	Yes
08:30 - 09:30	861	Yes	167	-	Yes	0	-	---	Yes
15:30 - 16:30	1447	Yes	141	-	No	7	-	---	No
15:15 - 16:15	1364	Yes	138	-	No	7	-	---	No
15:00 - 16:00	1309	Yes	143	-	No	9	-	---	No
17:45 - 18:45	1209	Yes	142	-	No	1	-	---	No
14:45 - 15:45	1190	Yes	144	-	No	9	-	---	No
14:30 - 15:30	1159	Yes	140	-	No	8	-	---	No
18:00 - 19:00	1097	Yes	128	-	No	0	-	---	No
14:15 - 15:15	1085	Yes	137	-	No	7	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

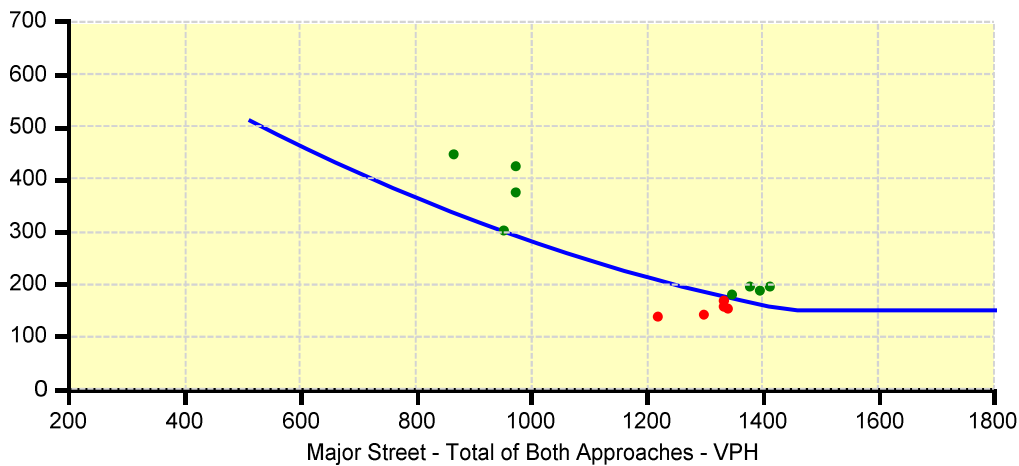
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **2 or more**

Major Road CHURCH ST						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	1038	+	375	=	1413	195	6	Yes
17:00 - 18:00	1022	+	373	=	1395	187	5	Yes
16:30 - 17:30	976	+	400	=	1376	194	8	Yes
16:15 - 17:15	961	+	386	=	1347	180	9	Yes
07:15 - 08:15	509	+	465	=	974	424	1	Yes
07:30 - 08:30	517	+	456	=	973	373	1	Yes
07:45 - 08:45	513	+	440	=	953	301	0	Yes
07:00 - 08:00	455	+	411	=	866	448	2	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	No
17:15 - 18:15	997	+	336	=	1333	170	4	No
16:00 - 17:00	972	+	360	=	1332	158	9	No
							7	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: WOOSTER PIKE

Number of Lanes : 1

Total Approach Volume: 11,783

Westbound: WOOSTER PIKE

Number of Lanes : 1

Total Approach Volume: 5,222

Minor Street Approaches

Northbound: NEWTOWN RD

Number of Lanes : 2+

Total Approach Volume: 7,901

Southbound: NONE

Number of Lanes : 1

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 16 hours, 8 are needed

Required 1B volumes reached for 16 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (58) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1427	+	364	=	1791	570	0	Yes
16:00 - 17:00	1273	+	339	=	1612	489	0	Yes
15:00 - 16:00	1067	+	336	=	1403	449	0	Yes
18:00 - 19:00	948	+	278	=	1226	422	0	Yes
14:00 - 15:00	811	+	306	=	1117	438	0	Yes
07:00 - 08:00	513	+	568	=	1081	946	0	Yes
12:00 - 13:00	700	+	323	=	1023	504	0	Yes
13:00 - 14:00	706	+	279	=	985	421	0	Yes
08:00 - 09:00	519	+	443	=	962	683	0	Yes
11:00 - 12:00	587	+	326	=	913	453	0	Yes
09:00 - 10:00	486	+	313	=	799	525	0	Yes
10:00 - 11:00	507	+	255	=	762	387	0	Yes
19:00 - 20:00	538	+	202	=	740	278	0	Yes
06:00 - 07:00	228	+	322	=	550	478	0	Yes
20:00 - 21:00	478	+	138	=	616	193	0	No
20:15 - 21:15	426	+	122	=	548	186	0	No
20:30 - 21:30	383	+	124	=	507	187	0	No
20:45 - 21:45	355	+	119	=	474	192	0	No
21:00 - 22:00	339	+	112	=	451	167	0	No
05:45 - 06:45	193	+	249	=	442	393	0	No
21:15 - 22:15	305	+	107	=	412	152	0	No
21:30 - 22:30	273	+	92	=	365	130	0	No
05:30 - 06:30	151	+	180	=	331	336	0	No
21:45 - 22:45	241	+	87	=	328	112	0	No
22:00 - 23:00	216		82		298	97	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1427	+	364	=	1791	570	0	Yes
16:00 - 17:00	1273	+	339	=	1612	489	0	Yes
15:00 - 16:00	1067	+	336	=	1403	449	0	Yes
18:00 - 19:00	948	+	278	=	1226	422	0	Yes
14:00 - 15:00	811	+	306	=	1117	438	0	Yes
07:00 - 08:00	513	+	568	=	1081	946	0	Yes
12:00 - 13:00	700	+	323	=	1023	504	0	Yes
13:00 - 14:00	706	+	279	=	985	421	0	Yes
08:00 - 09:00	519	+	443	=	962	683	0	Yes
11:00 - 12:00	587	+	326	=	913	453	0	Yes
09:00 - 10:00	486	+	313	=	799	525	0	Yes
10:00 - 11:00	507	+	255	=	762	387	0	Yes
19:00 - 20:00	538	+	202	=	740	278	0	Yes
20:00 - 21:00	478	+	138	=	616	193	0	Yes
06:00 - 07:00	228	+	322	=	550	478	0	Yes
21:00 - 22:00	339	+	112	=	451	167	0	No
05:45 - 06:45	193	+	249	=	442	393	0	No
21:15 - 22:15	305	+	107	=	412	152	0	No
21:30 - 22:30	273	+	92	=	365	130	0	No
05:30 - 06:30	151	+	180	=	331	336	0	No
21:45 - 22:45	241	+	87	=	328	112	0	No
22:00 - 23:00	216	+	82	=	298	97	0	No
22:15 - 23:15	213	+	78	=	291	86	0	No
22:30 - 23:30	216	+	70	=	286	65	0	No
05:15 - 06:15	124		147		271	284	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

16 hours meet 1A minimums.
16 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes
14:45 - 15:45	993	+	340	=	1333	481	0	Yes
13:45 - 14:45	779	+	280	=	1059	413	0	Yes
12:45 - 13:45	738	+	292	=	1030	436	0	Yes
11:45 - 12:45	669	+	327	=	996	499	0	Yes
06:45 - 07:45	443	+	552	=	995	871	0	Yes
07:45 - 08:45	531	+	464	=	995	751	0	Yes
10:45 - 11:45	538	+	308	=	846	433	0	Yes
18:45 - 19:45	612	+	219	=	831	310	0	Yes
08:45 - 09:45	480		345		825	561	0	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes
14:45 - 15:45	993	+	340	=	1333	481	0	Yes
13:45 - 14:45	779	+	280	=	1059	413	0	Yes
12:45 - 13:45	738	+	292	=	1030	436	0	Yes
11:45 - 12:45	669	+	327	=	996	499	0	Yes
06:45 - 07:45	443	+	552	=	995	871	0	Yes
07:45 - 08:45	531	+	464	=	995	751	0	Yes
10:45 - 11:45	538	+	308	=	846	433	0	Yes
18:45 - 19:45	612	+	219	=	831	310	0	Yes
08:45 - 09:45	480		345		825	561	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

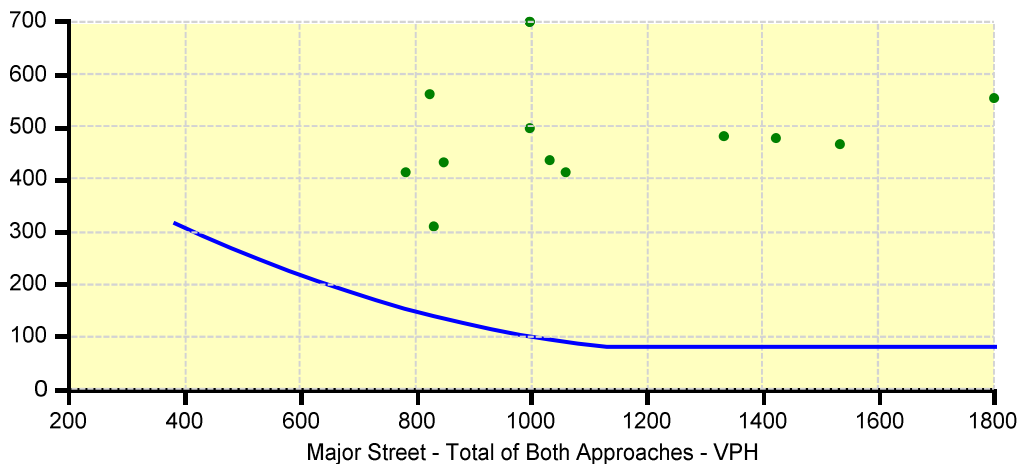
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes
14:45 - 15:45	993	+	340	=	1333	481	0	Yes
13:45 - 14:45	779	+	280	=	1059	413	0	Yes
12:45 - 13:45	738	+	292	=	1030	436	0	Yes
11:45 - 12:45	669	+	327	=	996	499	0	Yes
07:45 - 08:45	531	+	464	=	995	751	0	Yes
06:45 - 07:45	443	+	552	=	995	871	0	Yes
10:45 - 11:45	538	+	308	=	846	433	0	Yes
18:45 - 19:45	612	+	219	=	831	310	0	Yes



Eastern Corridor Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

58 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	2361	Yes	570	-	Yes	0	-	---	Yes
16:45 - 17:45	2355	Yes	555	-	Yes	0	-	---	Yes
16:30 - 17:30	2293	Yes	548	-	Yes	0	-	---	Yes
17:15 - 18:15	2226	Yes	549	-	Yes	0	-	---	Yes
16:15 - 17:15	2209	Yes	506	-	Yes	0	-	---	Yes
17:30 - 18:30	2111	Yes	521	-	Yes	0	-	---	Yes
16:00 - 17:00	2101	Yes	489	-	Yes	0	-	---	Yes
07:00 - 08:00	2027	Yes	946	-	Yes	0	-	---	Yes
07:15 - 08:15	2001	Yes	902	-	Yes	0	-	---	Yes
15:45 - 16:45	1999	Yes	467	-	Yes	0	-	---	Yes
15:30 - 16:30	1958	Yes	443	-	Yes	0	-	---	Yes
17:45 - 18:45	1900	Yes	479	-	Yes	0	-	---	Yes
07:30 - 08:30	1884	Yes	857	-	Yes	0	-	---	Yes
15:15 - 16:15	1881	Yes	442	-	Yes	0	-	---	Yes
06:45 - 07:45	1866	Yes	871	-	Yes	0	-	---	Yes
15:00 - 16:00	1852	Yes	449	-	Yes	0	-	---	Yes
14:45 - 15:45	1814	Yes	481	-	Yes	0	-	---	Yes
07:45 - 08:45	1746	Yes	751	-	Yes	0	-	---	Yes
14:30 - 15:30	1714	Yes	482	-	Yes	0	-	---	Yes
14:15 - 15:15	1651	Yes	461	-	Yes	0	-	---	Yes
18:00 - 19:00	1648	Yes	422	-	Yes	0	-	---	Yes
08:00 - 09:00	1645	Yes	683	-	Yes	0	-	---	Yes
06:30 - 07:30	1604	Yes	736	-	Yes	0	-	---	Yes
12:15 - 13:15	1575	Yes	491	-	Yes	0	-	---	Yes
14:00 - 15:00	1555	Yes	438	-	Yes	0	-	---	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

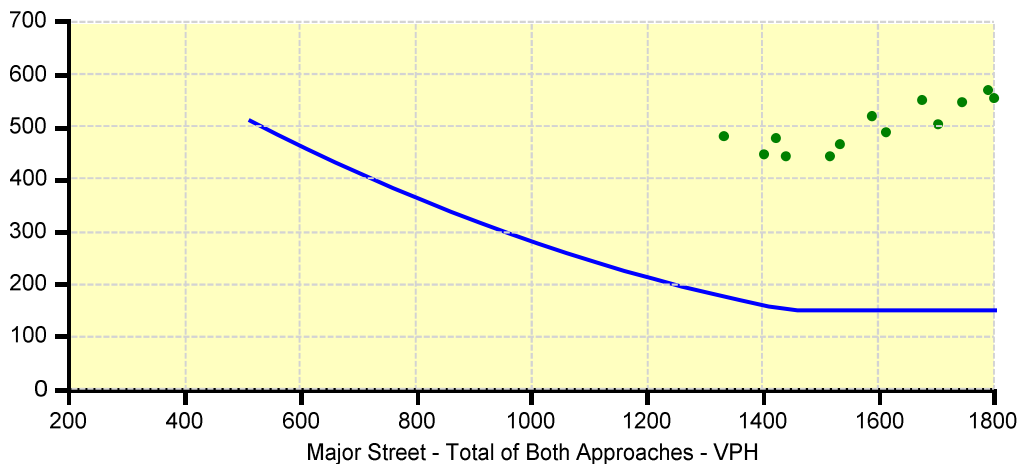
Summary

49 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
17:00 - 18:00	1427	+	364	=	1791	570	0	Yes
16:30 - 17:30	1393	+	352	=	1745	548	0	Yes
16:15 - 17:15	1346	+	357	=	1703	506	0	Yes
17:15 - 18:15	1328	+	349	=	1677	549	0	Yes
16:00 - 17:00	1273	+	339	=	1612	489	0	Yes
17:30 - 18:30	1250	+	340	=	1590	521	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
15:30 - 16:30	1170	+	345	=	1515	443	0	Yes
15:15 - 16:15	1099	+	340	=	1439	442	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 10,101

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,247

Minor Street Approaches

Northbound: WALTON CREEK RD

Number of Lanes :1

Total Approach Volume: 1,464

Southbound: WALTON CREEK RD

Number of Lanes :2+

Total Approach Volume: 3,261

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 7 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 9 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (11) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (39) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 7 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150 200**

Major Road US 50						Minor Road WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1093	+	821	=	1914	124	410	Yes
16:00 - 17:00	1053	+	768	=	1821	154	368	Yes
15:00 - 16:00	839	+	745	=	1584	144	333	Yes
18:00 - 19:00	777	+	597	=	1374	125	268	Yes
12:00 - 13:00	626	+	735	=	1361	118	214	Yes
14:00 - 15:00	680	+	654	=	1334	117	242	Yes
13:00 - 14:00	598	+	643	=	1241	119	206	Yes
07:15 - 08:15	517	+	1520	=	2037	30	143	No
07:00 - 08:00	490	+	1542	=	2032	21	139	No
07:30 - 08:30	536	+	1387	=	1923	30	150	No
06:45 - 07:45	416	+	1445	=	1861	19	128	No
07:45 - 08:45	514	+	1237	=	1751	36	144	No
08:00 - 09:00	491	+	1138	=	1629	42	153	No
06:30 - 07:30	341	+	1207	=	1548	18	100	No
08:15 - 09:15	471	+	1064	=	1535	36	160	No
08:30 - 09:30	472	+	1001	=	1473	42	152	No
11:30 - 12:30	595	+	757	=	1352	112	187	No
08:45 - 09:45	471	+	877	=	1348	45	155	No
11:45 - 12:45	589	+	736	=	1325	117	190	No
11:15 - 12:15	579	+	745	=	1324	109	176	No
09:00 - 10:00	477	+	800	=	1277	47	144	No
11:00 - 12:00	552	+	709	=	1261	112	178	No
09:15 - 10:15	500	+	736	=	1236	56	131	No
06:15 - 07:15	280	+	953	=	1233	11	67	No
10:45 - 11:45	528		682		1210	94	165	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **75 100**

Major Road US 50						Minor Road WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:30 - 08:30	536	+	1387	=	1923	30	150	Yes
16:30 - 17:30	1095	+	809	=	1904	140	404	Yes
17:30 - 18:30	977	+	727	=	1704	139	353	Yes
15:30 - 16:30	953	+	746	=	1699	150	363	Yes
06:30 - 07:30	341	+	1207	=	1548	18	100	Yes
14:30 - 15:30	743	+	760	=	1503	131	272	Yes
08:30 - 09:30	472	+	1001	=	1473	42	152	Yes
12:30 - 13:30	645	+	709	=	1354	124	208	Yes
11:30 - 12:30	595	+	757	=	1352	112	187	Yes
13:30 - 14:30	617	+	583	=	1200	112	235	Yes
09:30 - 10:30	501	+	665	=	1166	61	122	Yes
10:30 - 11:30	492	+	630	=	1122	93	153	Yes
18:30 - 19:30	596	+	483	=	1079	103	179	Yes
19:30 - 20:30	409	+	348	=	757	85	130	Yes
06:15 - 07:15	280	+	953	=	1233	11	67	No
06:00 - 07:00	227	+	768	=	995	7	55	No
05:45 - 06:45	192	+	607	=	799	6	40	No
05:30 - 06:30	142	+	479	=	621	5	29	No
20:45 - 21:45	282	+	279	=	561	49	100	No
20:30 - 21:30	285	+	274	=	559	58	108	No
21:00 - 22:00	274	+	255	=	529	38	84	No
05:15 - 06:15	107	+	391	=	498	7	25	No
21:15 - 22:15	269	+	226	=	495	33	72	No
21:30 - 22:30	252	+	212	=	464	34	56	No
21:45 - 22:45	211		184		395	29	42	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

9 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **120** **60**
Veh/Hr Minor SB = **160** **80**

Major Road						Minor Road			
US 50						WALTON CREEK RD			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
16:45 - 17:45	1143	+	810	=	1953	140	418	Yes	
15:45 - 16:45	999	+	766	=	1765	140	355	Yes	
14:45 - 15:45	780	+	758	=	1538	144	308	Yes	
08:15 - 09:15	471	+	1064	=	1535	36	160	Yes	
17:45 - 18:45	841	+	665	=	1506	131	313	Yes	
12:45 - 13:45	643	+	690	=	1333	124	221	Yes	
11:45 - 12:45	589	+	736	=	1325	117	190	Yes	
13:45 - 14:45	644	+	605	=	1249	112	230	Yes	
10:45 - 11:45	528	+	682	=	1210	94	165	Yes	
07:15 - 08:15	517	+	1520	=	2037	30	143	No	
07:00 - 08:00	490	+	1542	=	2032	21	139	No	
07:30 - 08:30	536	+	1387	=	1923	30	150	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
07:30 - 08:30	536	+	1387	=	1923	30	150	Yes	
16:30 - 17:30	1095	+	809	=	1904	140	404	Yes	
17:30 - 18:30	977	+	727	=	1704	139	353	Yes	
15:30 - 16:30	953	+	746	=	1699	150	363	Yes	
06:30 - 07:30	341	+	1207	=	1548	18	100	Yes	
14:30 - 15:30	743	+	760	=	1503	131	272	Yes	
08:30 - 09:30	472	+	1001	=	1473	42	152	Yes	
12:30 - 13:30	645	+	709	=	1354	124	208	Yes	
11:30 - 12:30	595	+	757	=	1352	112	187	Yes	
13:30 - 14:30	617	+	583	=	1200	112	235	Yes	
09:30 - 10:30	501	+	665	=	1166	61	122	Yes	
10:30 - 11:30	492	+	630	=	1122	93	153	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

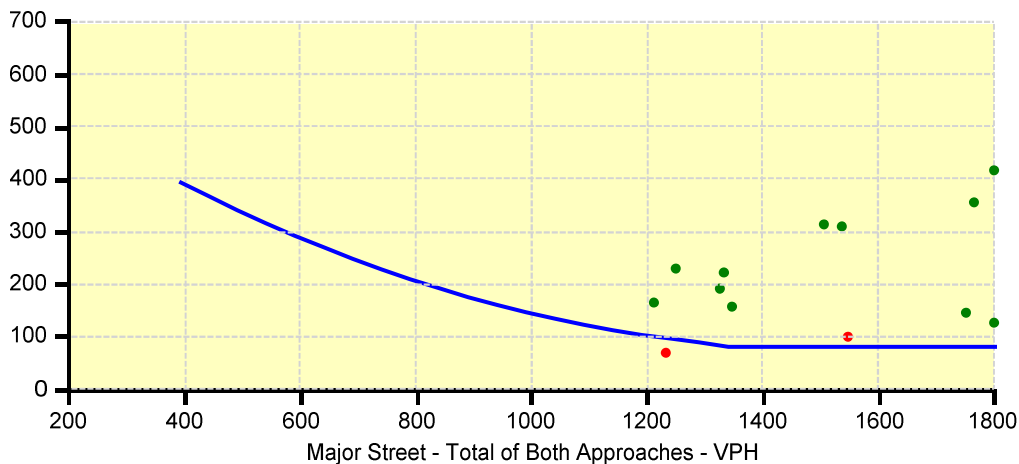
Summary

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
US 50						WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1143	+	810	=	1953	140	418	Yes
06:45 - 07:45	416	+	1445	=	1861	19	128	Yes
15:45 - 16:45	999	+	766	=	1765	140	355	Yes
07:45 - 08:45	514	+	1237	=	1751	36	144	Yes
14:45 - 15:45	780	+	758	=	1538	144	308	Yes
17:45 - 18:45	841	+	665	=	1506	131	313	Yes
08:45 - 09:45	471	+	877	=	1348	45	155	Yes
12:45 - 13:45	643	+	690	=	1333	124	221	Yes
11:45 - 12:45	589	+	736	=	1325	117	190	Yes
13:45 - 14:45	644	+	605	=	1249	112	230	Yes
10:45 - 11:45	528	+	682	=	1210	94	165	Yes
							100	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

58 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
US 50						WALTON CREEK RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	2511	Yes	140	-	---	418	-	Yes	Yes
17:00 - 18:00	2448	Yes	124	-	---	410	-	Yes	Yes
16:30 - 17:30	2448	Yes	140	-	---	404	-	Yes	Yes
16:15 - 17:15	2416	Yes	151	-	---	377	-	Yes	Yes
16:00 - 17:00	2343	Yes	154	-	---	368	-	Yes	Yes
17:15 - 18:15	2332	Yes	127	-	---	387	-	Yes	Yes
15:45 - 16:45	2260	Yes	140	-	---	355	-	Yes	Yes
15:30 - 16:30	2212	Yes	150	-	---	363	-	Yes	Yes
17:30 - 18:30	2196	Yes	139	-	---	353	-	Yes	Yes
07:30 - 08:30	2103	Yes	30	-	---	150	-	Yes	Yes
15:15 - 16:15	2098	Yes	145	-	---	348	-	Yes	Yes
15:00 - 16:00	2061	Yes	144	-	---	333	-	Yes	Yes
14:45 - 15:45	1990	Yes	144	-	---	308	-	Yes	Yes
17:45 - 18:45	1950	Yes	131	-	---	313	-	Yes	Yes
14:30 - 15:30	1906	Yes	131	-	---	272	-	Yes	Yes
08:00 - 09:00	1824	Yes	42	-	---	153	-	Yes	Yes
14:15 - 15:15	1818	Yes	125	-	---	266	-	Yes	Yes
18:00 - 19:00	1767	Yes	125	-	---	268	-	Yes	Yes
08:15 - 09:15	1731	Yes	36	-	---	160	-	Yes	Yes
12:15 - 13:15	1730	Yes	124	-	---	211	-	Yes	Yes
12:00 - 13:00	1693	Yes	118	-	---	214	-	Yes	Yes
14:00 - 15:00	1693	Yes	117	-	---	242	-	Yes	Yes
12:30 - 13:30	1686	Yes	124	-	---	208	-	Yes	Yes
12:45 - 13:45	1678	Yes	124	-	---	221	-	Yes	Yes
08:30 - 09:30	1667	Yes	42	-	---	152	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

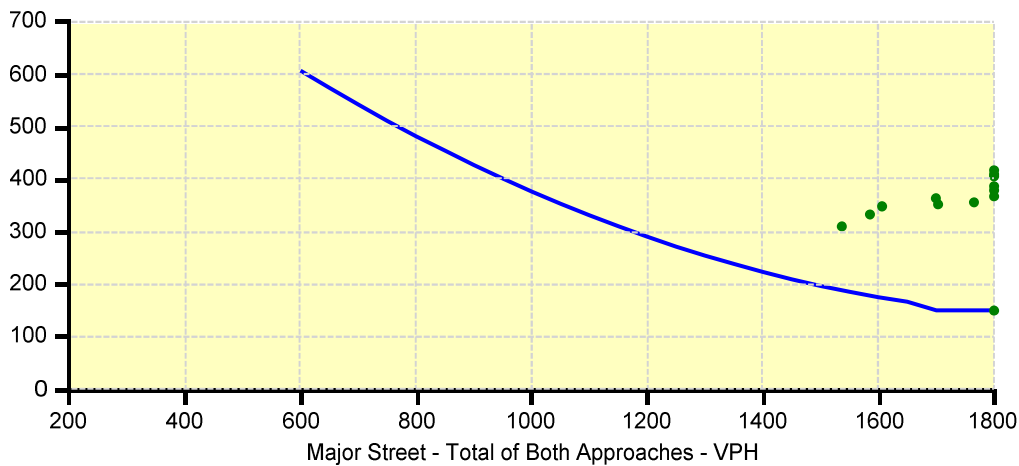
Summary

17 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1143	+	810	=	1953	140	418	Yes
07:30 - 08:30	536	+	1387	=	1923	30	150	Yes
17:00 - 18:00	1093	+	821	=	1914	124	410	Yes
16:30 - 17:30	1095	+	809	=	1904	140	404	Yes
16:15 - 17:15	1091	+	797	=	1888	151	377	Yes
16:00 - 17:00	1053	+	768	=	1821	154	368	Yes
17:15 - 18:15	1051	+	767	=	1818	127	387	Yes
15:45 - 16:45	999	+	766	=	1765	140	355	Yes
17:30 - 18:30	977	+	727	=	1704	139	353	Yes
15:30 - 16:30	953	+	746	=	1699	150	363	Yes
15:15 - 16:15	870	+	735	=	1605	145	348	Yes
							333	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 12,615

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 10,876

Minor Street Approaches

Northbound: MIAMI RUN

Number of Lanes :2+

Total Approach Volume: 2,457

Southbound: SPRING HILL

Number of Lanes :1

Total Approach Volume: 81

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 9 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (12) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (38) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road MIAMI RUN		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
11:45 - 12:45	829	+	585	=	1414	212	3	Yes
17:00 - 18:00	1334	+	724	=	2058	187	5	No
16:45 - 17:45	1343	+	700	=	2043	187	4	No
17:15 - 18:15	1308	+	713	=	2021	178	4	No
16:30 - 17:30	1312	+	705	=	2017	180	6	No
16:15 - 17:15	1329	+	664	=	1993	175	7	No
17:30 - 18:30	1303	+	688	=	1991	196	3	No
16:00 - 17:00	1284	+	664	=	1948	164	8	No
15:45 - 16:45	1278	+	613	=	1891	171	9	No
15:30 - 16:30	1281	+	588	=	1869	169	5	No
17:45 - 18:45	1174	+	663	=	1837	173	2	No
15:15 - 16:15	1237	+	589	=	1826	173	5	No
07:15 - 08:15	600	+	1208	=	1808	162	4	No
07:30 - 08:30	664	+	1137	=	1801	166	5	No
15:00 - 16:00	1176	+	603	=	1779	177	4	No
07:00 - 08:00	532	+	1211	=	1743	150	2	No
14:45 - 15:45	1102	+	629	=	1731	179	5	No
18:00 - 19:00	1106	+	601	=	1707	184	3	No
07:45 - 08:45	674	+	991	=	1665	161	7	No
14:30 - 15:30	998	+	634	=	1632	166	5	No
18:15 - 19:15	1020	+	591	=	1611	183	4	No
06:45 - 07:45	414	+	1188	=	1602	137	2	No
14:15 - 15:15	906	+	651	=	1557	162	6	No
14:00 - 15:00	865	+	660	=	1525	166	4	No
08:00 - 09:00	610		908		1518	161	7	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road MIAMI RUN		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	1312	+	705	=	2017	180	6	Yes
17:30 - 18:30	1303	+	688	=	1991	196	3	Yes
15:30 - 16:30	1281	+	588	=	1869	169	5	Yes
07:30 - 08:30	664	+	1137	=	1801	166	5	Yes
14:30 - 15:30	998	+	634	=	1632	166	5	Yes
18:30 - 19:30	934	+	566	=	1500	159	5	Yes
11:30 - 12:30	818	+	617	=	1435	195	2	Yes
06:30 - 07:30	316	+	1043	=	1359	123	2	Yes
13:30 - 14:30	763	+	590	=	1353	173	12	Yes
12:30 - 13:30	777	+	560	=	1337	185	8	Yes
08:30 - 09:30	536	+	711	=	1247	134	4	Yes
10:30 - 11:30	562	+	523	=	1085	117	8	Yes
09:30 - 10:30	497	+	577	=	1074	126	6	Yes
19:30 - 20:30	640	+	421	=	1061	142	0	Yes
06:15 - 07:15	272	+	853	=	1125	91	1	No
06:00 - 07:00	217	+	724	=	941	69	1	No
20:30 - 21:30	427	+	382	=	809	90	1	No
20:45 - 21:45	372	+	344	=	716	94	2	No
05:45 - 06:45	162	+	548	=	710	57	0	No
21:00 - 22:00	338	+	316	=	654	85	3	No
21:15 - 22:15	314	+	300	=	614	78	2	No
05:30 - 06:30	132	+	431	=	563	39	0	No
21:30 - 22:30	254	+	249	=	503	61	2	No
21:45 - 22:45	216	+	233	=	449	38	1	No
05:15 - 06:15	95		340		435	23	1	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

9 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road US 50						Minor Road MIAMI RUN		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:15 - 18:15	1308	+	713	=	2021	178	4	Yes
16:15 - 17:15	1329	+	664	=	1993	175	7	Yes
15:15 - 16:15	1237	+	589	=	1826	173	5	Yes
07:15 - 08:15	600	+	1208	=	1808	162	4	Yes
18:15 - 19:15	1020	+	591	=	1611	183	4	Yes
14:15 - 15:15	906	+	651	=	1557	162	6	Yes
12:15 - 13:15	812	+	590	=	1402	184	5	Yes
13:15 - 14:15	772	+	568	=	1340	189	12	Yes
11:15 - 12:15	729	+	593	=	1322	179	5	Yes
07:00 - 08:00	532	+	1211	=	1743	150	2	No
06:45 - 07:45	414	+	1188	=	1602	137	2	No
08:15 - 09:15	586	+	816	=	1402	151	6	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:15 - 18:15	1308	+	713	=	2021	178	4	Yes
16:15 - 17:15	1329	+	664	=	1993	175	7	Yes
15:15 - 16:15	1237	+	589	=	1826	173	5	Yes
07:15 - 08:15	600	+	1208	=	1808	162	4	Yes
18:15 - 19:15	1020	+	591	=	1611	183	4	Yes
14:15 - 15:15	906	+	651	=	1557	162	6	Yes
12:15 - 13:15	812	+	590	=	1402	184	5	Yes
08:15 - 09:15	586	+	816	=	1402	151	6	Yes
13:15 - 14:15	772	+	568	=	1340	189	12	Yes
11:15 - 12:15	729	+	593	=	1322	179	5	Yes
19:15 - 20:15	720	+	443	=	1163	146	1	Yes
06:15 - 07:15	272	+	853	=	1125	91	1	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

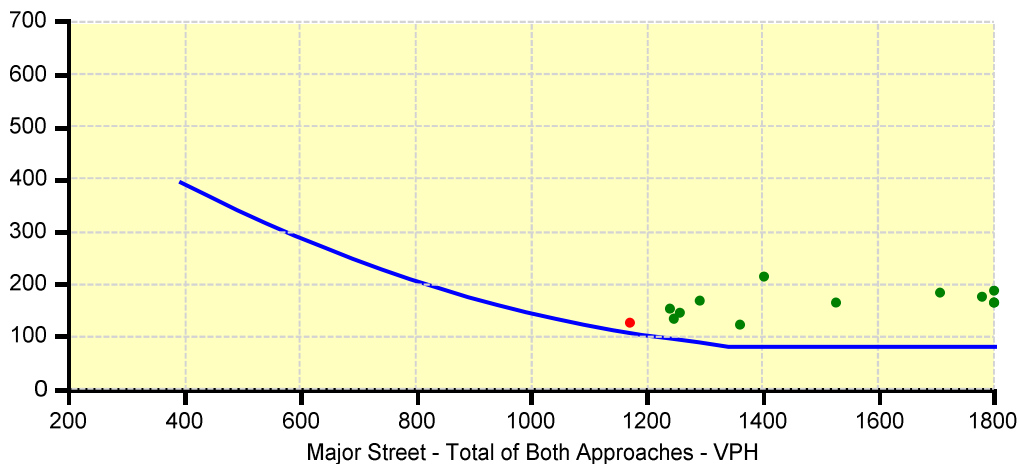
Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RUN		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1334	+	724	=	2058	187	5	Yes
16:00 - 17:00	1284	+	664	=	1948	164	8	Yes
07:30 - 08:30	664	+	1137	=	1801	166	5	Yes
15:00 - 16:00	1176	+	603	=	1779	177	4	Yes
18:00 - 19:00	1106	+	601	=	1707	184	3	Yes
14:00 - 15:00	865	+	660	=	1525	166	4	Yes
12:00 - 13:00	813	+	588	=	1401	213	4	Yes
06:30 - 07:30	316	+	1043	=	1359	123	2	Yes
13:00 - 14:00	754	+	537	=	1291	170	15	Yes
11:00 - 12:00	683	+	574	=	1257	145	5	Yes
08:30 - 09:30	536	+	711	=	1247	134	4	Yes
							3	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

60 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
US 50						MIAMI RUN			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	2250	Yes	187	-	Yes	5	-	---	Yes
16:45 - 17:45	2234	Yes	187	-	Yes	4	-	---	Yes
17:15 - 18:15	2203	Yes	178	-	Yes	4	-	---	Yes
16:30 - 17:30	2203	Yes	180	-	Yes	6	-	---	Yes
17:30 - 18:30	2190	Yes	196	-	Yes	3	-	---	Yes
16:15 - 17:15	2175	Yes	175	-	Yes	7	-	---	Yes
16:00 - 17:00	2120	Yes	164	-	Yes	8	-	---	Yes
15:45 - 16:45	2071	Yes	171	-	Yes	9	-	---	Yes
15:30 - 16:30	2043	Yes	169	-	Yes	5	-	---	Yes
17:45 - 18:45	2012	Yes	173	-	Yes	2	-	---	Yes
15:15 - 16:15	2004	Yes	173	-	Yes	5	-	---	Yes
07:15 - 08:15	1974	Yes	162	-	Yes	4	-	---	Yes
07:30 - 08:30	1972	Yes	166	-	Yes	5	-	---	Yes
15:00 - 16:00	1960	Yes	177	-	Yes	4	-	---	Yes
14:45 - 15:45	1915	Yes	179	-	Yes	5	-	---	Yes
07:00 - 08:00	1895	Yes	150	-	Yes	2	-	---	Yes
18:00 - 19:00	1894	Yes	184	-	Yes	3	-	---	Yes
07:45 - 08:45	1833	Yes	161	-	Yes	7	-	---	Yes
14:30 - 15:30	1803	Yes	166	-	Yes	5	-	---	Yes
18:15 - 19:15	1798	Yes	183	-	Yes	4	-	---	Yes
14:15 - 15:15	1725	Yes	162	-	Yes	6	-	---	Yes
14:00 - 15:00	1695	Yes	166	-	Yes	4	-	---	Yes
08:00 - 09:00	1686	Yes	161	-	Yes	7	-	---	Yes
18:30 - 19:30	1664	Yes	159	-	Yes	5	-	---	Yes
11:30 - 12:30	1632	Yes	195	-	Yes	2	-	---	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

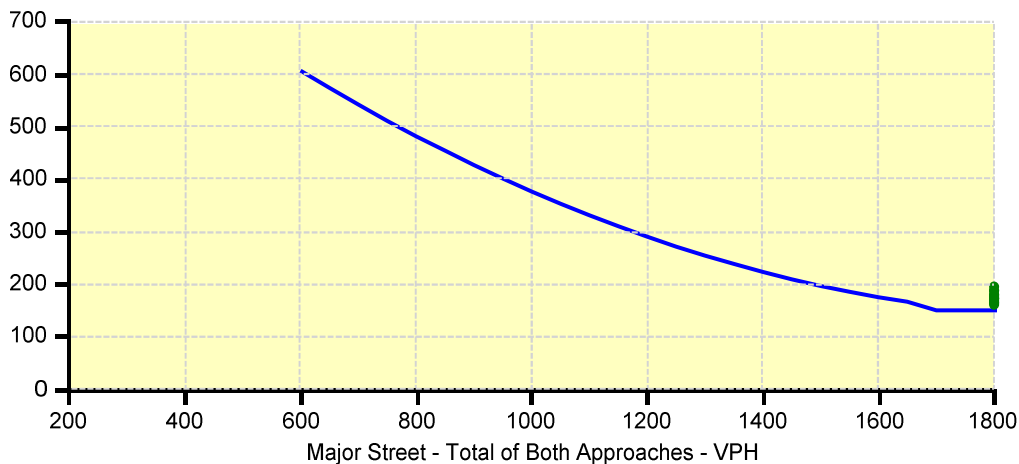
Summary

19 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RUN		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1334	+	724	=	2058	187	5	Yes
16:45 - 17:45	1343	+	700	=	2043	187	4	Yes
17:15 - 18:15	1308	+	713	=	2021	178	4	Yes
16:30 - 17:30	1312	+	705	=	2017	180	6	Yes
16:15 - 17:15	1329	+	664	=	1993	175	7	Yes
17:30 - 18:30	1303	+	688	=	1991	196	3	Yes
16:00 - 17:00	1284	+	664	=	1948	164	8	Yes
15:45 - 16:45	1278	+	613	=	1891	171	9	Yes
15:30 - 16:30	1281	+	588	=	1869	169	5	Yes
17:45 - 18:45	1174	+	663	=	1837	173	2	Yes
15:15 - 16:15	1237	+	589	=	1826	173	5	Yes
							4	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 12,885

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,263

Minor Street Approaches

Northbound: Mariemont Shopping Center

Number of Lanes :2+

Total Approach Volume: 530

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

	Major Road					Minor Road					
	US 50					Mariemont Shopping Center					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:45 - 17:45	1465	+	886	=	2351		38		0		No
17:00 - 18:00	1437	+	883	=	2320		37		0		No
16:30 - 17:30	1448	+	856	=	2304		32		0		No
17:15 - 18:15	1376	+	885	=	2261		38		0		No
16:15 - 17:15	1394	+	821	=	2215		31		0		No
17:30 - 18:30	1291	+	818	=	2109		44		0		No
16:00 - 17:00	1312	+	780	=	2092		32		0		No
15:45 - 16:45	1294	+	767	=	2061		35		0		No
15:30 - 16:30	1312	+	718	=	2030		44		0		No
15:00 - 16:00	1237	+	716	=	1953		40		0		No
17:45 - 18:45	1166	+	767	=	1933		45		0		No
15:15 - 16:15	1225	+	703	=	1928		44		0		No
07:15 - 08:15	599	+	1326	=	1925		5		0		No
07:00 - 08:00	549	+	1355	=	1904		4		0		No
07:30 - 08:30	658	+	1233	=	1891		5		0		No
18:00 - 19:00	1077	+	778	=	1855		58		0		No
14:45 - 15:45	1149	+	696	=	1845		37		0		No
07:45 - 08:45	648	+	1105	=	1753		9		0		No
14:30 - 15:30	1017	+	731	=	1748		30		0		No
06:45 - 07:45	461	+	1287	=	1748		3		0		No
18:15 - 19:15	978	+	752	=	1730		63		0		No
14:15 - 15:15	962	+	679	=	1641		33		0		No
08:00 - 09:00	596	+	1001	=	1597		13		0		No
18:30 - 19:30	868	+	720	=	1588		59		0		No
12:15 - 13:15	794		713		1507		53		0		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road					Minor Road					
	US 50					Mariemont Shopping Center					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:45 - 17:45	1465	+	886	=	2351		38		0		No
17:00 - 18:00	1437	+	883	=	2320		37		0		No
16:30 - 17:30	1448	+	856	=	2304		32		0		No
17:15 - 18:15	1376	+	885	=	2261		38		0		No
16:15 - 17:15	1394	+	821	=	2215		31		0		No
17:30 - 18:30	1291	+	818	=	2109		44		0		No
16:00 - 17:00	1312	+	780	=	2092		32		0		No
15:45 - 16:45	1294	+	767	=	2061		35		0		No
15:30 - 16:30	1312	+	718	=	2030		44		0		No
15:00 - 16:00	1237	+	716	=	1953		40		0		No
17:45 - 18:45	1166	+	767	=	1933		45		0		No
15:15 - 16:15	1225	+	703	=	1928		44		0		No
07:15 - 08:15	599	+	1326	=	1925		5		0		No
07:00 - 08:00	549	+	1355	=	1904		4		0		No
07:30 - 08:30	658	+	1233	=	1891		5		0		No
18:00 - 19:00	1077	+	778	=	1855		58		0		No
14:45 - 15:45	1149	+	696	=	1845		37		0		No
07:45 - 08:45	648	+	1105	=	1753		9		0		No
14:30 - 15:30	1017	+	731	=	1748		30		0		No
06:45 - 07:45	461	+	1287	=	1748		3		0		No
18:15 - 19:15	978	+	752	=	1730		63		0		No
14:15 - 15:15	962	+	679	=	1641		33		0		No
08:00 - 09:00	596	+	1001	=	1597		13		0		No
18:30 - 19:30	868	+	720	=	1588		59		0		No
12:15 - 13:15	794		713		1507		53		0		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480 720**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road US 50						Minor Road Mariemont Shopping Center			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
16:45 - 17:45	1465	+	886	=	2351	38	0	No	
17:00 - 18:00	1437	+	883	=	2320	37	0	No	
16:30 - 17:30	1448	+	856	=	2304	32	0	No	
17:15 - 18:15	1376	+	885	=	2261	38	0	No	
16:15 - 17:15	1394	+	821	=	2215	31	0	No	
17:30 - 18:30	1291	+	818	=	2109	44	0	No	
16:00 - 17:00	1312	+	780	=	2092	32	0	No	
15:45 - 16:45	1294	+	767	=	2061	35	0	No	
15:30 - 16:30	1312	+	718	=	2030	44	0	No	
15:00 - 16:00	1237	+	716	=	1953	40	0	No	
17:45 - 18:45	1166	+	767	=	1933	45	0	No	
15:15 - 16:15	1225		703		1928	44	0	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
16:45 - 17:45	1465	+	886	=	2351	38	0	No	
17:00 - 18:00	1437	+	883	=	2320	37	0	No	
16:30 - 17:30	1448	+	856	=	2304	32	0	No	
17:15 - 18:15	1376	+	885	=	2261	38	0	No	
16:15 - 17:15	1394	+	821	=	2215	31	0	No	
17:30 - 18:30	1291	+	818	=	2109	44	0	No	
16:00 - 17:00	1312	+	780	=	2092	32	0	No	
15:45 - 16:45	1294	+	767	=	2061	35	0	No	
15:30 - 16:30	1312	+	718	=	2030	44	0	No	
15:00 - 16:00	1237	+	716	=	1953	40	0	No	
17:45 - 18:45	1166	+	767	=	1933	45	0	No	
15:15 - 16:15	1225		703		1928	44	0	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

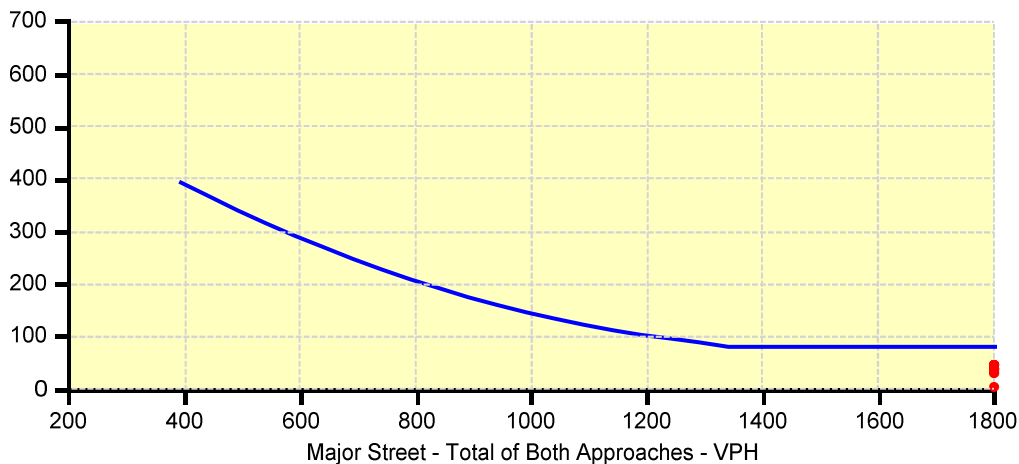
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Time	Major Road US 50				Total	Minor Road Mariemont Shopping Center		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	1465	+	886	=	2351	38	0	No
17:00 - 18:00	1437	+	883	=	2320	37	0	No
16:30 - 17:30	1448	+	856	=	2304	32	0	No
17:15 - 18:15	1376	+	885	=	2261	38	0	No
16:15 - 17:15	1394	+	821	=	2215	31	0	No
17:30 - 18:30	1291	+	818	=	2109	44	0	No
16:00 - 17:00	1312	+	780	=	2092	32	0	No
15:45 - 16:45	1294	+	767	=	2061	35	0	No
15:30 - 16:30	1312	+	718	=	2030	44	0	No
15:00 - 16:00	1237	+	716	=	1953	40	0	No
17:45 - 18:45	1166	+	767	=	1933	45	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

61 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

		Major Road				Minor Road			
		US 50				Mariemont Shopping Center			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	2389	Yes	38	-	No	0	-	---	No
17:00 - 18:00	2357	Yes	37	-	No	0	-	---	No
16:30 - 17:30	2336	Yes	32	-	No	0	-	---	No
17:15 - 18:15	2299	Yes	38	-	No	0	-	---	No
16:15 - 17:15	2246	Yes	31	-	No	0	-	---	No
17:30 - 18:30	2153	Yes	44	-	No	0	-	---	No
16:00 - 17:00	2124	Yes	32	-	No	0	-	---	No
15:45 - 16:45	2096	Yes	35	-	No	0	-	---	No
15:30 - 16:30	2074	Yes	44	-	No	0	-	---	No
15:00 - 16:00	1993	Yes	40	-	No	0	-	---	No
17:45 - 18:45	1978	Yes	45	-	No	0	-	---	No
15:15 - 16:15	1972	Yes	44	-	No	0	-	---	No
07:15 - 08:15	1930	Yes	5	-	No	0	-	---	No
18:00 - 19:00	1913	Yes	58	-	No	0	-	---	No
07:00 - 08:00	1908	Yes	4	-	No	0	-	---	No
07:30 - 08:30	1896	Yes	5	-	No	0	-	---	No
14:45 - 15:45	1882	Yes	37	-	No	0	-	---	No
18:15 - 19:15	1793	Yes	63	-	No	0	-	---	No
14:30 - 15:30	1778	Yes	30	-	No	0	-	---	No
07:45 - 08:45	1762	Yes	9	-	No	0	-	---	No
06:45 - 07:45	1751	Yes	3	-	No	0	-	---	No
14:15 - 15:15	1674	Yes	33	-	No	0	-	---	No
18:30 - 19:30	1647	Yes	59	-	No	0	-	---	No
08:00 - 09:00	1610	Yes	13	-	No	0	-	---	No
12:15 - 13:15	1560	Yes	53	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

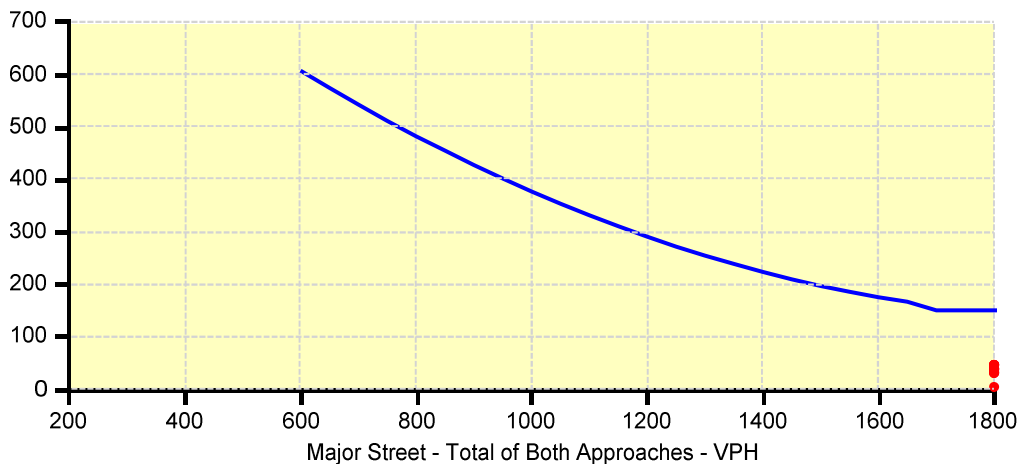
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Time	Major Road US 50				Total	Minor Road Mariemont Shopping Center		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	1465	+	886	=	2351	38	0	No
17:00 - 18:00	1437	+	883	=	2320	37	0	No
16:30 - 17:30	1448	+	856	=	2304	32	0	No
17:15 - 18:15	1376	+	885	=	2261	38	0	No
16:15 - 17:15	1394	+	821	=	2215	31	0	No
17:30 - 18:30	1291	+	818	=	2109	44	0	No
16:00 - 17:00	1312	+	780	=	2092	32	0	No
15:45 - 16:45	1294	+	767	=	2061	35	0	No
15:30 - 16:30	1312	+	718	=	2030	44	0	No
15:00 - 16:00	1237	+	716	=	1953	40	0	No
17:45 - 18:45	1166	+	767	=	1933	45	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 11,444

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,396

Minor Street Approaches

Northbound: Pocahontas Ave

Number of Lanes :1

Total Approach Volume: 94

Southbound: Pocahontas Ave

Number of Lanes :1

Total Approach Volume: 1,796

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (9) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (33) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150 200**

Major Road US 50						Minor Road Pocahontas Ave		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
14:30 - 15:30	835	+	735	=	1570	6	203	Yes
16:45 - 17:45	1327	+	897	=	2224	10	181	No
17:00 - 18:00	1326	+	882	=	2208	6	181	No
17:15 - 18:15	1285	+	881	=	2166	7	167	No
16:30 - 17:30	1265	+	879	=	2144	10	179	No
16:15 - 17:15	1193	+	839	=	2032	9	177	No
17:30 - 18:30	1212	+	811	=	2023	5	155	No
16:00 - 17:00	1106	+	797	=	1903	8	146	No
07:15 - 08:15	580	+	1323	=	1903	12	105	No
07:00 - 08:00	540	+	1353	=	1893	10	107	No
17:45 - 18:45	1102	+	759	=	1861	7	142	No
15:30 - 16:30	1138	+	709	=	1847	4	136	No
07:30 - 08:30	601	+	1244	=	1845	15	98	No
15:45 - 16:45	1087	+	755	=	1842	5	142	No
18:00 - 19:00	1016	+	781	=	1797	9	165	No
06:45 - 07:45	479	+	1281	=	1760	9	96	No
18:15 - 19:15	913	+	758	=	1671	9	158	No
07:45 - 08:45	543	+	1121	=	1664	12	64	No
18:30 - 19:30	836	+	734	=	1570	9	142	No
08:00 - 09:00	521	+	1029	=	1550	13	61	No
06:30 - 07:30	358	+	1141	=	1499	5	49	No
18:45 - 19:45	747	+	724	=	1471	8	130	No
14:15 - 15:15	775	+	692	=	1467	7	190	No
08:15 - 09:15	482	+	936	=	1418	14	66	No
12:15 - 13:15	673		695		1368	2	107	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **75 100**

Major Road US 50						Minor Road Pocahontas Ave		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1326	+	882	=	2208	6	181	Yes
16:00 - 17:00	1106	+	797	=	1903	8	146	Yes
07:00 - 08:00	540	+	1353	=	1893	10	107	Yes
15:00 - 16:00	1060	+	741	=	1801	3	187	Yes
18:00 - 19:00	1016	+	781	=	1797	9	165	Yes
14:00 - 15:00	710	+	630	=	1340	6	127	Yes
11:45 - 12:45	609	+	659	=	1268	4	110	Yes
10:45 - 11:45	511	+	639	=	1150	5	120	Yes
20:15 - 21:15	511	+	500	=	1011	6	116	Yes
06:45 - 07:45	479	+	1281	=	1760	9	96	No
08:00 - 09:00	521	+	1029	=	1550	13	61	No
06:30 - 07:30	358	+	1141	=	1499	5	49	No
08:15 - 09:15	482	+	936	=	1418	14	66	No
12:45 - 13:45	667	+	661	=	1328	5	77	No
19:00 - 20:00	695	+	632	=	1327	6	84	No
13:45 - 14:45	701	+	623	=	1324	4	95	No
13:30 - 14:30	659	+	609	=	1268	3	89	No
13:00 - 14:00	630	+	636	=	1266	3	81	No
08:30 - 09:30	440	+	818	=	1258	8	64	No
19:15 - 20:15	674	+	568	=	1242	4	66	No
13:15 - 14:15	640	+	601	=	1241	4	80	No
19:30 - 20:30	648	+	577	=	1225	7	77	No
08:45 - 09:45	442	+	771	=	1213	8	64	No
06:15 - 07:15	270	+	943	=	1213	3	34	No
19:45 - 20:45	635		532		1167	5	83	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480 720**
Veh/Hr Minor NB = **120 60**
Veh/Hr Minor SB = **160 80**

Major Road US 50						Minor Road Pocahontas Ave		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:15 - 18:15	1285	+	881	=	2166	7	167	Yes
16:15 - 17:15	1193	+	839	=	2032	9	177	Yes
14:15 - 15:15	775	+	692	=	1467	7	190	Yes
20:45 - 21:45	389	+	380	=	769	4	175	Yes
07:15 - 08:15	580	+	1323	=	1903	12	105	No
16:00 - 17:00	1106	+	797	=	1903	8	146	No
07:00 - 08:00	540	+	1353	=	1893	10	107	No
15:30 - 16:30	1138	+	709	=	1847	4	136	No
07:30 - 08:30	601	+	1244	=	1845	15	98	No
15:45 - 16:45	1087	+	755	=	1842	5	142	No
15:15 - 16:15	1089	+	708	=	1797	2	126	No
06:45 - 07:45	479	+	1281	=	1760	9	96	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:00 - 18:00	1326	+	882	=	2208	6	181	Yes
16:00 - 17:00	1106	+	797	=	1903	8	146	Yes
15:00 - 16:00	1060	+	741	=	1801	3	187	Yes
18:00 - 19:00	1016	+	781	=	1797	9	165	Yes
06:45 - 07:45	479	+	1281	=	1760	9	96	Yes
14:00 - 15:00	710	+	630	=	1340	6	127	Yes
19:00 - 20:00	695	+	632	=	1327	6	84	Yes
13:00 - 14:00	630	+	636	=	1266	3	81	Yes
11:30 - 12:30	595	+	654	=	1249	5	133	Yes
10:30 - 11:30	520	+	592	=	1112	5	97	Yes
20:00 - 21:00	583	+	514	=	1097	7	96	Yes
21:00 - 22:00	347	+	345	=	692	2	153	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

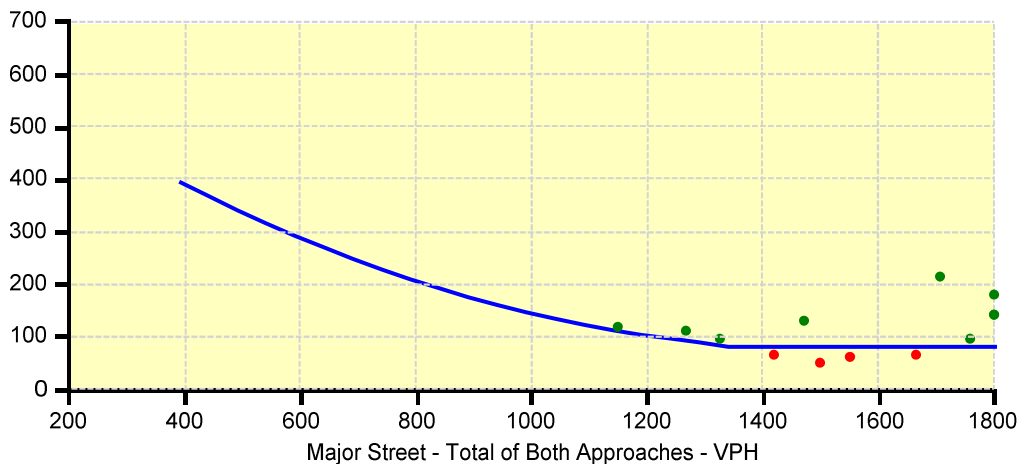
Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road Pochahontas Ave		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1327	+	897	=	2224	10	181	Yes
17:45 - 18:45	1102	+	759	=	1861	7	142	Yes
15:45 - 16:45	1087	+	755	=	1842	5	142	Yes
06:45 - 07:45	479	+	1281	=	1760	9	96	Yes
14:45 - 15:45	968	+	737	=	1705	3	213	Yes
18:45 - 19:45	747	+	724	=	1471	8	130	Yes
13:45 - 14:45	701	+	623	=	1324	4	95	Yes
11:45 - 12:45	609	+	659	=	1268	4	110	Yes
10:45 - 11:45	511	+	639	=	1150	5	120	Yes
07:45 - 08:45	543	+	1121	=	1664	12	64	No
08:00 - 09:00	521	+	1029	=	1550	13	61	No
							49	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

61 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = 800

Veh/Hr Minor = 100

Total Delay (Veh-Hrs) = 4

Major Road US 50						Minor Road Pochahontas Ave			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	2415	Yes	10	-	---	181	-	Yes	Yes
17:00 - 18:00	2395	Yes	6	-	---	181	-	Yes	Yes
17:15 - 18:15	2340	Yes	7	-	---	167	-	Yes	Yes
16:30 - 17:30	2333	Yes	10	-	---	179	-	Yes	Yes
16:15 - 17:15	2218	Yes	9	-	---	177	-	Yes	Yes
17:30 - 18:30	2183	Yes	5	-	---	155	-	Yes	Yes
16:00 - 17:00	2057	Yes	8	-	---	146	-	Yes	Yes
07:15 - 08:15	2020	Yes	12	-	---	105	-	Yes	Yes
17:45 - 18:45	2010	Yes	7	-	---	142	-	Yes	Yes
07:00 - 08:00	2010	Yes	10	-	---	107	-	Yes	Yes
15:00 - 16:00	1991	Yes	3	-	---	187	-	Yes	Yes
15:45 - 16:45	1989	Yes	5	-	---	142	-	Yes	Yes
15:30 - 16:30	1987	Yes	4	-	---	136	-	Yes	Yes
18:00 - 19:00	1971	Yes	9	-	---	165	-	Yes	Yes
15:15 - 16:15	1925	Yes	2	-	---	126	-	Yes	Yes
14:45 - 15:45	1921	Yes	3	-	---	213	-	Yes	Yes
18:15 - 19:15	1838	Yes	9	-	---	158	-	Yes	Yes
14:30 - 15:30	1779	Yes	6	-	---	203	-	Yes	Yes
18:30 - 19:30	1721	Yes	9	-	---	142	-	Yes	Yes
14:15 - 15:15	1664	Yes	7	-	---	190	-	Yes	Yes
18:45 - 19:45	1609	Yes	8	-	---	130	-	Yes	Yes
12:15 - 13:15	1477	Yes	2	-	---	107	-	Yes	Yes
14:00 - 15:00	1473	Yes	6	-	---	127	-	Yes	Yes
12:00 - 13:00	1443	Yes	6	-	---	103	-	Yes	Yes
11:30 - 12:30	1387	Yes	5	-	---	133	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

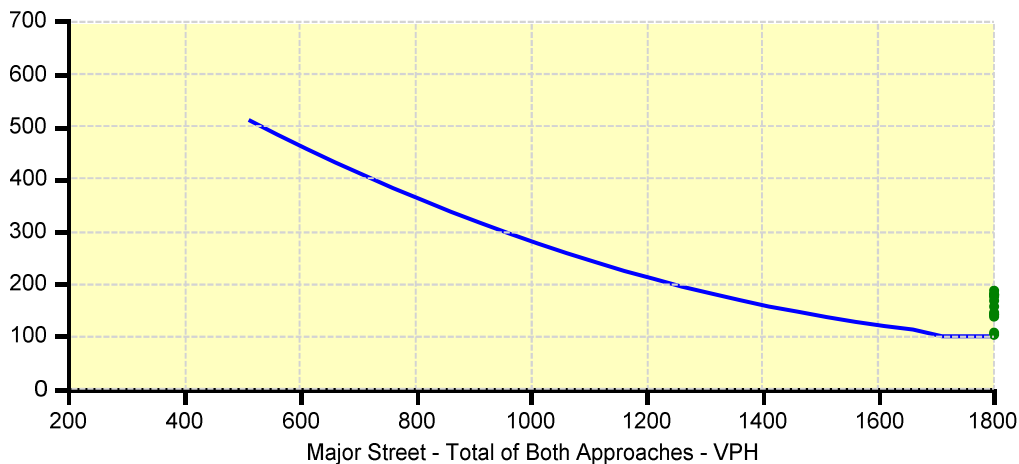
Summary

20 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road Pochahontas Ave		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1327	+	897	=	2224	10	181	Yes
17:00 - 18:00	1326	+	882	=	2208	6	181	Yes
17:15 - 18:15	1285	+	881	=	2166	7	167	Yes
16:30 - 17:30	1265	+	879	=	2144	10	179	Yes
16:15 - 17:15	1193	+	839	=	2032	9	177	Yes
17:30 - 18:30	1212	+	811	=	2023	5	155	Yes
16:00 - 17:00	1106	+	797	=	1903	8	146	Yes
07:15 - 08:15	580	+	1323	=	1903	12	105	Yes
07:00 - 08:00	540	+	1353	=	1893	10	107	Yes
17:45 - 18:45	1102	+	759	=	1861	7	142	Yes
15:30 - 16:30	1138	+	709	=	1847	4	136	Yes
							142	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 0

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 10,794

Minor Street Approaches

Northbound: MIAMI RD

Number of Lanes :2+

Total Approach Volume: 1,631

Southbound: MIAMI RD

Number of Lanes :1

Total Approach Volume: 563

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (6) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road MIAMI RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
17:15 - 18:15	0	+	766	=	766	167	36	No
17:00 - 18:00	0	+	756	=	756	168	39	No
16:45 - 17:45	0	+	752	=	752	165	46	No
08:45 - 09:45	0	+	749	=	749	71	47	No
06:00 - 07:00	0	+	745	=	745	38	10	No
16:30 - 17:30	0	+	710	=	710	148	50	No
17:30 - 18:30	0	+	706	=	706	169	38	No
17:45 - 18:45	0	+	687	=	687	158	38	No
09:00 - 10:00	0	+	675	=	675	77	41	No
16:00 - 17:00	0	+	662	=	662	149	48	No
16:15 - 17:15	0	+	644	=	644	152	47	No
09:15 - 10:15	0	+	638	=	638	72	37	No
14:15 - 15:15	0	+	635	=	635	110	39	No
12:30 - 13:30	0	+	631	=	631	92	35	No
14:00 - 15:00	0		626		626	105	38	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road MIAMI RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
06:45 - 07:45	0	+	1127	=	1127	102	44	Yes
07:45 - 08:45	0	+	1072	=	1072	143	54	Yes
06:30 - 07:30	0	+	1070	=	1070	83	32	No
06:15 - 07:15	0	+	911	=	911	64	20	No
17:15 - 18:15	0	+	766	=	766	167	36	No
17:00 - 18:00	0	+	756	=	756	168	39	No
16:45 - 17:45	0	+	752	=	752	165	46	No
08:45 - 09:45	0	+	749	=	749	71	47	No
06:00 - 07:00	0	+	745	=	745	38	10	No
16:30 - 17:30	0	+	710	=	710	148	50	No
17:30 - 18:30	0	+	706	=	706	169	38	No
17:45 - 18:45	0	+	687	=	687	158	38	No
09:00 - 10:00	0	+	675	=	675	77	41	No
16:00 - 17:00	0	+	662	=	662	149	48	No
16:15 - 17:15	0	+	644	=	644	152	47	No
09:15 - 10:15	0	+	638	=	638	72	37	No
14:15 - 15:15	0	+	635	=	635	110	39	No
12:30 - 13:30	0	+	631	=	631	92	35	No
14:00 - 15:00	0	+	626	=	626	105	38	No
14:30 - 15:30	0	+	625	=	625	126	38	No
15:45 - 16:45	0	+	624	=	624	126	45	No
12:15 - 13:15	0	+	622	=	622	107	33	No
14:45 - 15:45	0	+	619	=	619	125	37	No
15:30 - 16:30	0	+	617	=	617	121	41	No
12:00 - 13:00	0		616		616	109	33	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road US 50						Minor Road MIAMI RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	0	+	752	=	752	165	46	Yes
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
08:45 - 09:45	0	+	749	=	749	71	47	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
07:30 - 08:30	0	+	1116	=	1116	140	59	Yes
06:30 - 07:30	0	+	1070	=	1070	83	32	Yes
08:30 - 09:30	0	+	825	=	825	91	46	Yes
16:45 - 17:45	0	+	752	=	752	165	46	Yes
06:15 - 07:15	0	+	911	=	911	64	20	No
06:00 - 07:00	0	+	745	=	745	38	10	No
16:30 - 17:30	0	+	710	=	710	148	50	No
17:45 - 18:45	0	+	687	=	687	158	38	No
16:00 - 17:00	0	+	662	=	662	149	48	No
16:15 - 17:15	0	+	644	=	644	152	47	No
14:15 - 15:15	0	+	635	=	635	110	39	No
12:30 - 13:30	0	+	631	=	631	92	35	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

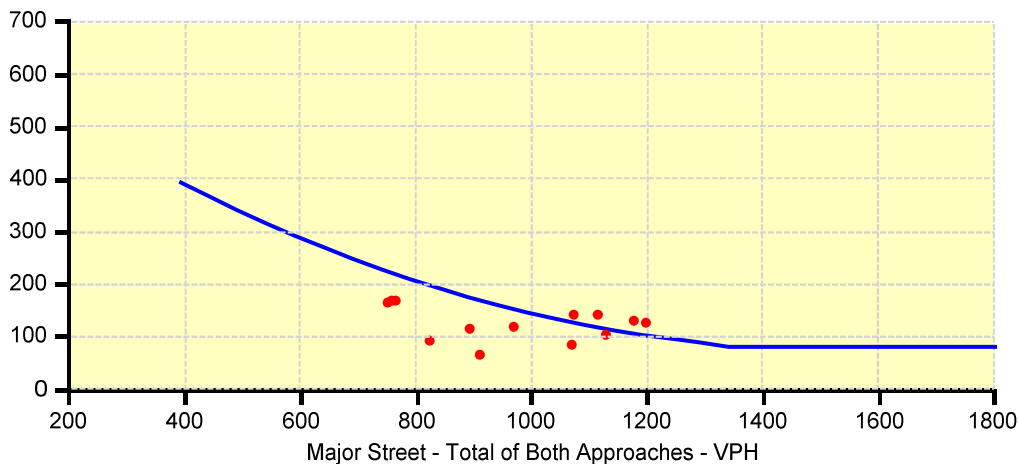
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
17:15 - 18:15	0	+	766	=	766	167	36	No
							39	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

19 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
US 50						MIAMI RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:15 - 18:15	969	Yes	167	-	Yes	36	-	---	Yes
16:45 - 17:45	963	Yes	165	-	Yes	46	-	---	Yes
17:00 - 18:00	963	Yes	168	-	Yes	39	-	---	Yes
17:30 - 18:30	913	Yes	169	-	Yes	38	-	---	Yes
17:45 - 18:45	883	Yes	158	-	Yes	38	-	---	Yes
16:15 - 17:15	843	Yes	152	-	Yes	47	-	---	Yes
07:00 - 08:00	1380	Yes	127	-	No	54	-	---	No
07:15 - 08:15	1365	Yes	131	-	No	56	-	---	No
07:30 - 08:30	1315	Yes	140	-	No	59	-	---	No
06:45 - 07:45	1273	Yes	102	-	No	44	-	---	No
07:45 - 08:45	1269	Yes	143	-	No	54	-	---	No
06:30 - 07:30	1185	Yes	83	-	No	32	-	---	No
08:00 - 09:00	1146	Yes	120	-	No	56	-	---	No
08:15 - 09:15	1060	Yes	114	-	No	54	-	---	No
06:15 - 07:15	995	Yes	64	-	No	20	-	---	No
08:30 - 09:30	962	Yes	91	-	No	46	-	---	No
16:30 - 17:30	908	Yes	148	-	No	50	-	---	No
08:45 - 09:45	867	Yes	71	-	No	47	-	---	No
16:00 - 17:00	859	Yes	149	-	No	48	-	---	No
15:45 - 16:45	795	No	126	-	No	45	-	---	No
06:00 - 07:00	793	No	38	-	No	10	-	---	No
09:00 - 10:00	793	No	77	-	No	41	-	---	No
14:30 - 15:30	789	No	126	-	No	38	-	---	No
14:15 - 15:15	784	No	110	-	No	39	-	---	No
18:00 - 19:00	784	No	129	-	No	42	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

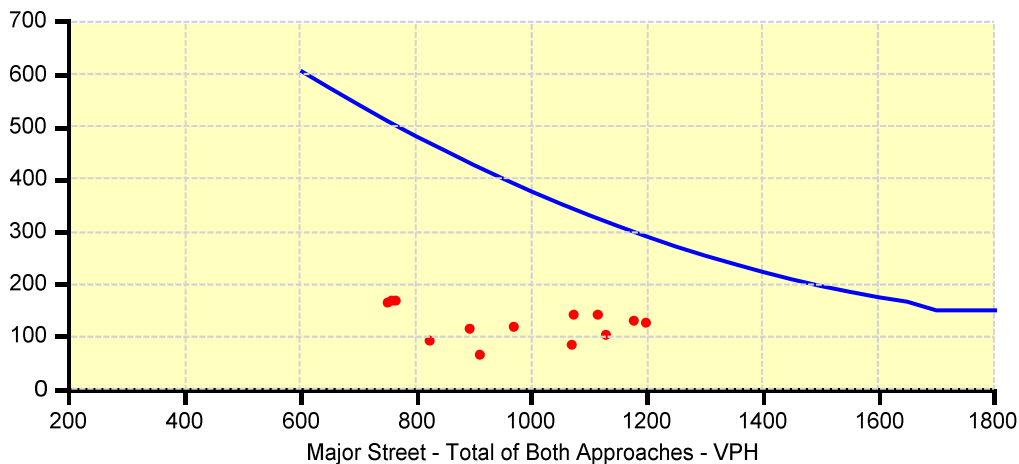
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
17:15 - 18:15	0	+	766	=	766	167	36	No
							39	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: NONE

Number of Lanes : 2+

Total Approach Volume: 3

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,516

Minor Street Approaches

Northbound: NONE

Number of Lanes :2+

Total Approach Volume: 0

Southbound: MADISONVILLE RD

Number of Lanes :2+

Total Approach Volume: 3,962

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 11 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 13 hours, 8 are needed

Required 1B volumes reached for 10 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (44) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road NONE						Minor Road NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:00 - 08:00	0	+	1350	=	1350	0	182	Yes
08:00 - 09:00	0	+	1116	=	1116	0	265	Yes
16:45 - 17:45	0	+	901	=	901	0	490	Yes
17:45 - 18:45	0	+	788	=	788	0	349	Yes
09:00 - 10:00	0	+	782	=	782	0	165	Yes
15:45 - 16:45	0	+	770	=	770	0	430	Yes
14:45 - 15:45	0	+	757	=	757	0	356	Yes
12:45 - 13:45	0	+	716	=	716	0	188	Yes
13:45 - 14:45	0	+	709	=	709	0	254	Yes
11:45 - 12:45	0	+	679	=	679	0	212	Yes
10:45 - 11:45	0	+	653	=	653	0	218	Yes
06:45 - 07:45	0	+	1273	=	1273	0	139	No
06:30 - 07:30	0	+	1167	=	1167	0	113	No
06:15 - 07:15	0	+	967	=	967	0	100	No
06:00 - 07:00	0	+	773	=	773	0	79	No
05:45 - 06:45	0	+	593	=	593	0	72	No
18:45 - 19:45	0	+	588	=	588	0	229	No
10:30 - 11:30	0	+	585	=	585	0	190	No
10:15 - 11:15	0	+	567	=	567	0	175	No
10:00 - 11:00	0	+	560	=	560	0	168	No
19:00 - 20:00	0	+	528	=	528	0	190	No
19:15 - 20:15	0	+	456	=	456	0	165	No
05:30 - 06:30	0	+	432	=	432	0	51	No
20:30 - 21:30	0	+	396	=	396	0	116	No
19:30 - 20:30	0		394		394	0	146	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road					Minor Road					
	NONE					NONE					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
07:15 - 08:15	0	+	1328	=	1328		0		227		Yes
08:15 - 09:15	0	+	1045	=	1045		0		231		Yes
06:15 - 07:15	0	+	967	=	967		0		100		Yes
16:45 - 17:45	0	+	901	=	901		0		490		Yes
16:30 - 17:30	0	+	859	=	859		0		467		No
16:00 - 17:00	0	+	816	=	816		0		447		No
16:15 - 17:15	0	+	795	=	795		0		464		No
17:45 - 18:45	0	+	788	=	788		0		349		No
06:00 - 07:00	0	+	773	=	773		0		79		No
15:45 - 16:45	0	+	770	=	770		0		430		No
14:30 - 15:30	0	+	764	=	764		0		305		No
14:15 - 15:15	0	+	759	=	759		0		280		No
14:45 - 15:45	0	+	757	=	757		0		356		No
15:30 - 16:30	0	+	754	=	754		0		463		No
15:00 - 16:00	0	+	751	=	751		0		396		No
14:00 - 15:00	0	+	745	=	745		0		264		No
15:15 - 16:15	0	+	742	=	742		0		424		No
18:00 - 19:00	0	+	738	=	738		0		310		No
09:15 - 10:15	0	+	734	=	734		0		170		No
12:00 - 13:00	0	+	720	=	720		0		214		No
12:15 - 13:15	0	+	720	=	720		0		219		No
12:45 - 13:45	0	+	716	=	716		0		188		No
12:30 - 13:30	0	+	710	=	710		0		212		No
13:45 - 14:45	0	+	709	=	709		0		254		No
11:30 - 12:30	0		708		708		0		220		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

13 hours meet 1A minimums.
10 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road						Minor Road			
NONE						NONE			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
06:45 - 07:45	0	+	1273	=	1273	0	139	Yes	
07:45 - 08:45	0	+	1198	=	1198	0	291	Yes	
16:45 - 17:45	0	+	901	=	901	0	490	Yes	
08:45 - 09:45	0	+	864	=	864	0	166	Yes	
17:45 - 18:45	0	+	788	=	788	0	349	Yes	
15:45 - 16:45	0	+	770	=	770	0	430	Yes	
14:45 - 15:45	0	+	757	=	757	0	356	Yes	
12:45 - 13:45	0	+	716	=	716	0	188	Yes	
13:45 - 14:45	0	+	709	=	709	0	254	Yes	
11:45 - 12:45	0	+	679	=	679	0	212	Yes	
10:45 - 11:45	0	+	653	=	653	0	218	Yes	
09:45 - 10:45	0		604		604	0	164	Yes	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
07:00 - 08:00	0	+	1350	=	1350	0	182	Yes	
08:00 - 09:00	0	+	1116	=	1116	0	265	Yes	
17:00 - 18:00	0	+	877	=	877	0	476	Yes	
16:00 - 17:00	0	+	816	=	816	0	447	Yes	
09:00 - 10:00	0	+	782	=	782	0	165	Yes	
06:00 - 07:00	0	+	773	=	773	0	79	Yes	
15:00 - 16:00	0	+	751	=	751	0	396	Yes	
14:00 - 15:00	0	+	745	=	745	0	264	Yes	
18:00 - 19:00	0	+	738	=	738	0	310	Yes	
12:00 - 13:00	0	+	720	=	720	0	214	Yes	
13:45 - 14:45	0	+	709	=	709	0	254	No	
11:30 - 12:30	0		708		708	0	220	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

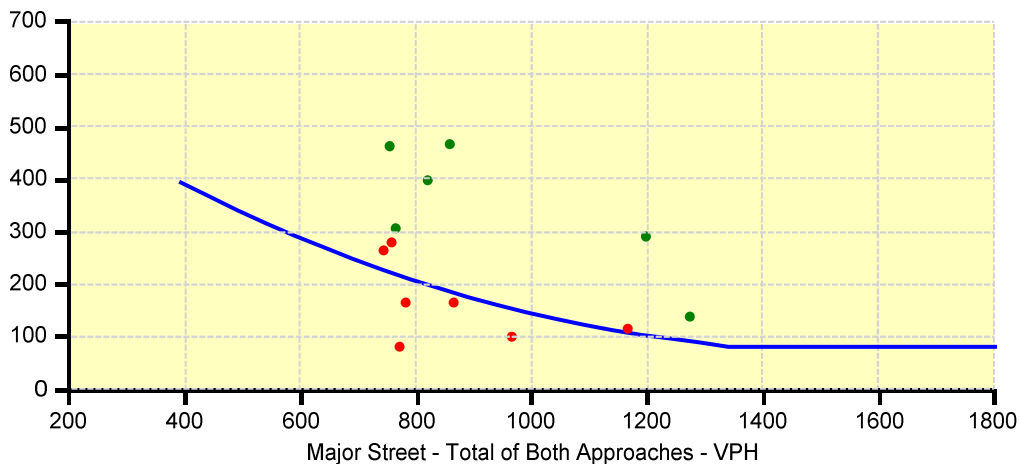
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
NONE						NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
06:45 - 07:45	0	+	1273	=	1273	0	139	Yes
07:45 - 08:45	0	+	1198	=	1198	0	291	Yes
16:30 - 17:30	0	+	859	=	859	0	467	Yes
17:30 - 18:30	0	+	821	=	821	0	396	Yes
14:30 - 15:30	0	+	764	=	764	0	305	Yes
15:30 - 16:30	0	+	754	=	754	0	463	Yes
06:30 - 07:30	0	+	1167	=	1167	0	113	No
06:15 - 07:15	0	+	967	=	967	0	100	No
08:45 - 09:45	0	+	864	=	864	0	166	No
09:00 - 10:00	0	+	782	=	782	0	165	No
06:00 - 07:00	0	+	773	=	773	0	79	No
							280	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

48 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road				
NONE						NONE				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
07:30 - 08:30	1558	Yes	0	-	---	288	-	Yes	Yes	
07:15 - 08:15	1555	Yes	0	-	---	227	-	Yes	Yes	
07:00 - 08:00	1532	Yes	0	-	---	182	-	Yes	Yes	
07:45 - 08:45	1489	Yes	0	-	---	291	-	Yes	Yes	
16:45 - 17:45	1391	Yes	0	-	---	490	-	Yes	Yes	
08:00 - 09:00	1381	Yes	0	-	---	265	-	Yes	Yes	
17:00 - 18:00	1353	Yes	0	-	---	476	-	Yes	Yes	
17:15 - 18:15	1328	Yes	0	-	---	441	-	Yes	Yes	
16:30 - 17:30	1326	Yes	0	-	---	467	-	Yes	Yes	
08:15 - 09:15	1276	Yes	0	-	---	231	-	Yes	Yes	
16:00 - 17:00	1263	Yes	0	-	---	447	-	Yes	Yes	
16:15 - 17:15	1259	Yes	0	-	---	464	-	Yes	Yes	
17:30 - 18:30	1217	Yes	0	-	---	396	-	Yes	Yes	
15:30 - 16:30	1217	Yes	0	-	---	463	-	Yes	Yes	
15:45 - 16:45	1200	Yes	0	-	---	430	-	Yes	Yes	
15:15 - 16:15	1166	Yes	0	-	---	424	-	Yes	Yes	
15:00 - 16:00	1147	Yes	0	-	---	396	-	Yes	Yes	
17:45 - 18:45	1137	Yes	0	-	---	349	-	Yes	Yes	
08:30 - 09:30	1126	Yes	0	-	---	174	-	Yes	Yes	
14:45 - 15:45	1113	Yes	0	-	---	356	-	Yes	Yes	
14:30 - 15:30	1069	Yes	0	-	---	305	-	Yes	Yes	
18:00 - 19:00	1048	Yes	0	-	---	310	-	Yes	Yes	
14:15 - 15:15	1039	Yes	0	-	---	280	-	Yes	Yes	
08:45 - 09:45	1030	Yes	0	-	---	166	-	Yes	Yes	
14:00 - 15:00	1009	Yes	0	-	---	264	-	Yes	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

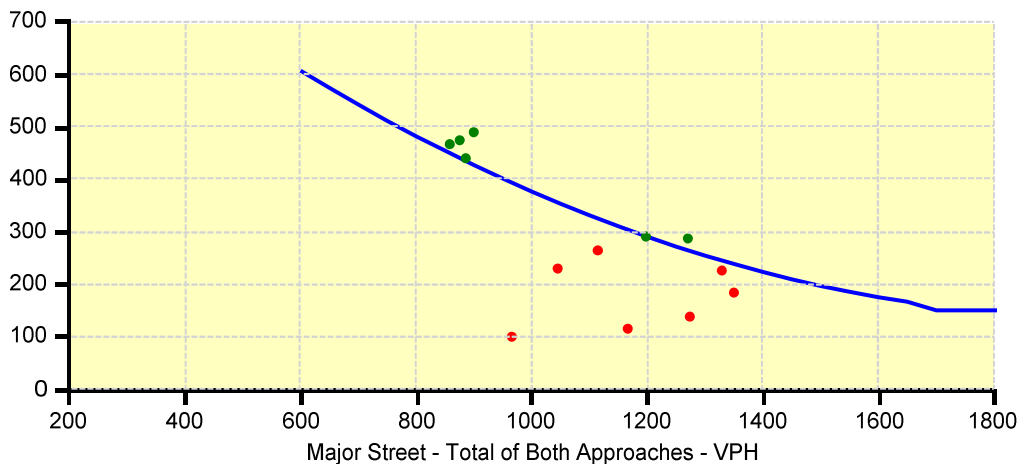
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road NONE						Minor Road NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:30 - 08:30	0	+	1270	=	1270	0	288	Yes
07:45 - 08:45	0	+	1198	=	1198	0	291	Yes
16:45 - 17:45	0	+	901	=	901	0	490	Yes
17:15 - 18:15	0	+	887	=	887	0	441	Yes
17:00 - 18:00	0	+	877	=	877	0	476	Yes
16:30 - 17:30	0	+	859	=	859	0	467	Yes
07:00 - 08:00	0	+	1350	=	1350	0	182	No
07:15 - 08:15	0	+	1328	=	1328	0	227	No
06:45 - 07:45	0	+	1273	=	1273	0	139	No
06:30 - 07:30	0	+	1167	=	1167	0	113	No
08:00 - 09:00	0	+	1116	=	1116	0	265	No
							231	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 11,955

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 3

Minor Street Approaches

Northbound: CRYSTAL SPRINGS RD

Number of Lanes :2+

Total Approach Volume: 471

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No
15:00 - 16:00	1092	+	0	=	1092	35	0	No
18:00 - 19:00	1017	+	0	=	1017	35	0	No
14:45 - 15:45	1005	+	0	=	1005	38	0	No
18:15 - 19:15	927	+	0	=	927	31	0	No
14:30 - 15:30	873	+	0	=	873	35	0	No
18:30 - 19:30	779	+	0	=	779	28	0	No
14:15 - 15:15	775	+	0	=	775	31	0	No
12:15 - 13:15	744	+	0	=	744	26	0	No
11:30 - 12:30	743	+	0	=	743	30	0	No
12:00 - 13:00	736	+	0	=	736	26	0	No
11:45 - 12:45	735	+	0	=	735	22	0	No
12:30 - 13:30	717	+	0	=	717	26	0	No
14:00 - 15:00	717	+	0	=	717	29	0	No
11:15 - 12:15	703		0		703	32	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No
15:00 - 16:00	1092	+	0	=	1092	35	0	No
18:00 - 19:00	1017	+	0	=	1017	35	0	No
14:45 - 15:45	1005	+	0	=	1005	38	0	No
18:15 - 19:15	927	+	0	=	927	31	0	No
14:30 - 15:30	873	+	0	=	873	35	0	No
18:30 - 19:30	779	+	0	=	779	28	0	No
14:15 - 15:15	775	+	0	=	775	31	0	No
12:15 - 13:15	744	+	0	=	744	26	0	No
11:30 - 12:30	743	+	0	=	743	30	0	No
12:00 - 13:00	736	+	0	=	736	26	0	No
11:45 - 12:45	735	+	0	=	735	22	0	No
12:30 - 13:30	717	+	0	=	717	26	0	No
14:00 - 15:00	717	+	0	=	717	29	0	No
11:15 - 12:15	703		0		703	32	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480 720**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road						Minor Road			
US 50						CRYSTAL SPRINGS RD			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
16:45 - 17:45	1407	+	0	=	1407	47	0	No	
17:00 - 18:00	1406	+	0	=	1406	49	0	No	
16:30 - 17:30	1396	+	0	=	1396	45	0	No	
16:15 - 17:15	1363	+	0	=	1363	39	0	No	
17:15 - 18:15	1333	+	0	=	1333	48	0	No	
16:00 - 17:00	1314	+	0	=	1314	34	0	No	
17:30 - 18:30	1277	+	0	=	1277	39	0	No	
15:45 - 16:45	1246	+	0	=	1246	34	0	No	
15:30 - 16:30	1226	+	0	=	1226	33	0	No	
17:45 - 18:45	1177	+	0	=	1177	38	0	No	
15:15 - 16:15	1155	+	0	=	1155	32	0	No	
15:00 - 16:00	1092		0		1092	35	0	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
16:45 - 17:45	1407	+	0	=	1407	47	0	No	
17:00 - 18:00	1406	+	0	=	1406	49	0	No	
16:30 - 17:30	1396	+	0	=	1396	45	0	No	
16:15 - 17:15	1363	+	0	=	1363	39	0	No	
17:15 - 18:15	1333	+	0	=	1333	48	0	No	
16:00 - 17:00	1314	+	0	=	1314	34	0	No	
17:30 - 18:30	1277	+	0	=	1277	39	0	No	
15:45 - 16:45	1246	+	0	=	1246	34	0	No	
15:30 - 16:30	1226	+	0	=	1226	33	0	No	
17:45 - 18:45	1177	+	0	=	1177	38	0	No	
15:15 - 16:15	1155	+	0	=	1155	32	0	No	
15:00 - 16:00	1092		0		1092	35	0	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

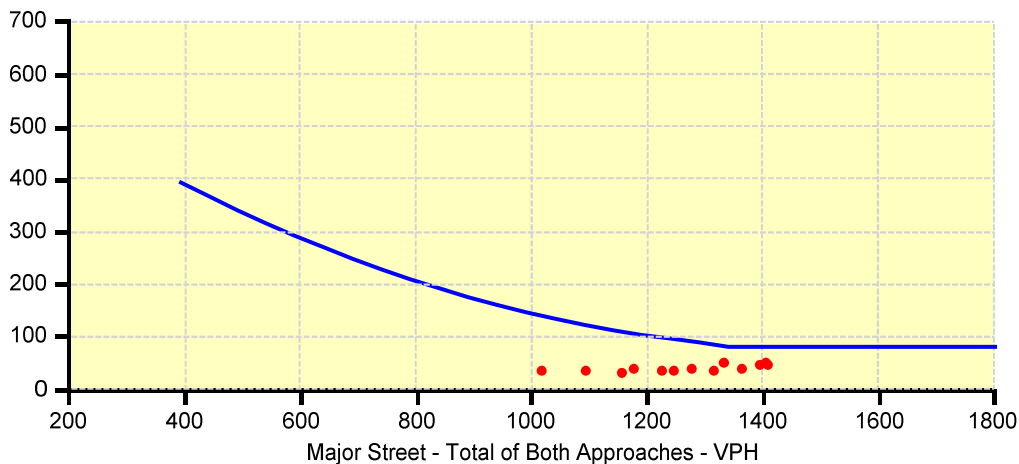
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

18 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road			Minor Road						
US 50			CRYSTAL SPRINGS RD						
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	1455	Yes	49	-	No	0	-	---	No
16:45 - 17:45	1454	Yes	47	-	No	0	-	---	No
16:30 - 17:30	1441	Yes	45	-	No	0	-	---	No
16:15 - 17:15	1402	Yes	39	-	No	0	-	---	No
17:15 - 18:15	1381	Yes	48	-	No	0	-	---	No
16:00 - 17:00	1348	Yes	34	-	No	0	-	---	No
17:30 - 18:30	1316	Yes	39	-	No	0	-	---	No
15:45 - 16:45	1280	Yes	34	-	No	0	-	---	No
15:30 - 16:30	1259	Yes	33	-	No	0	-	---	No
17:45 - 18:45	1215	Yes	38	-	No	0	-	---	No
15:15 - 16:15	1187	Yes	32	-	No	0	-	---	No
15:00 - 16:00	1127	Yes	35	-	No	0	-	---	No
18:00 - 19:00	1052	Yes	35	-	No	0	-	---	No
14:45 - 15:45	1043	Yes	38	-	No	0	-	---	No
18:15 - 19:15	958	Yes	31	-	No	0	-	---	No
14:30 - 15:30	908	Yes	35	-	No	0	-	---	No
18:30 - 19:30	807	Yes	28	-	No	0	-	---	No
14:15 - 15:15	806	Yes	31	-	No	0	-	---	No
11:30 - 12:30	773	No	30	-	No	0	-	---	No
12:15 - 13:15	770	No	26	-	No	0	-	---	No
12:00 - 13:00	762	No	26	-	No	0	-	---	No
11:45 - 12:45	757	No	22	-	No	0	-	---	No
14:00 - 15:00	746	No	29	-	No	0	-	---	No
12:30 - 13:30	743	No	26	-	No	0	-	---	No
11:15 - 12:15	735	No	32	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

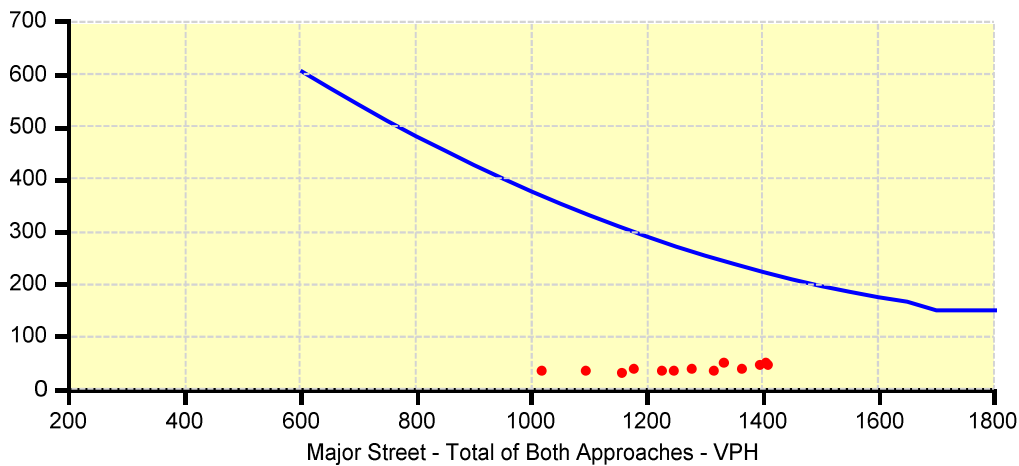
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 8,162

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 0

Minor Street Approaches

Northbound: None

Number of Lanes :2+

Total Approach Volume: 129

Southbound: MADISONVILLE RD

Number of Lanes :2+

Total Approach Volume: 4,002

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 8 hours, 8 are needed

Required 1B volumes reached for 8 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (4) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (18) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

	Major Road				Minor Road						
	US 50				None						
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:45 - 17:45	931	+	0	=	931		18		505		Yes
17:45 - 18:45	833	+	0	=	833		9		355		Yes
15:45 - 16:45	822	+	0	=	822		13		436		Yes
14:45 - 15:45	670	+	0	=	670		13		343		Yes
14:30 - 15:30	586	+	0	=	586		10		293		No
11:45 - 12:45	551	+	0	=	551		7		211		No
12:00 - 13:00	537	+	0	=	537		6		219		No
11:30 - 12:30	532	+	0	=	532		7		220		No
12:15 - 13:15	526	+	0	=	526		8		234		No
14:15 - 15:15	516	+	0	=	516		7		281		No
12:30 - 13:30	511	+	0	=	511		9		222		No
13:00 - 14:00	496	+	0	=	496		8		206		No
12:45 - 13:45	496	+	0	=	496		10		208		No
13:15 - 14:15	490	+	0	=	490		6		207		No
11:15 - 12:15	489	+	0	=	489		9		216		No
14:00 - 15:00	469	+	0	=	469		9		268		No
18:45 - 19:45	468	+	0	=	468		6		231		No
13:30 - 14:30	463	+	0	=	463		6		227		No
13:45 - 14:45	452	+	0	=	452		5		256		No
11:00 - 12:00	445	+	0	=	445		9		220		No
07:30 - 08:30	411	+	0	=	411		9		283		No
19:00 - 20:00	405	+	0	=	405		7		191		No
07:15 - 08:15	399	+	0	=	399		9		227		No
10:45 - 11:45	389	+	0	=	389		7		214		No
07:00 - 08:00	388		0		388		10		177		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road				Minor Road						
	US 50				None						
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:45 - 17:45	931	+	0	=	931		18		505		Yes
17:45 - 18:45	833	+	0	=	833		9		355		Yes
15:45 - 16:45	822	+	0	=	822		13		436		Yes
14:45 - 15:45	670	+	0	=	670		13		343		Yes
14:30 - 15:30	586	+	0	=	586		10		293		No
11:45 - 12:45	551	+	0	=	551		7		211		No
12:00 - 13:00	537	+	0	=	537		6		219		No
11:30 - 12:30	532	+	0	=	532		7		220		No
12:15 - 13:15	526	+	0	=	526		8		234		No
14:15 - 15:15	516	+	0	=	516		7		281		No
12:30 - 13:30	511	+	0	=	511		9		222		No
13:00 - 14:00	496	+	0	=	496		8		206		No
12:45 - 13:45	496	+	0	=	496		10		208		No
13:15 - 14:15	490	+	0	=	490		6		207		No
11:15 - 12:15	489	+	0	=	489		9		216		No
14:00 - 15:00	469	+	0	=	469		9		268		No
18:45 - 19:45	468	+	0	=	468		6		231		No
13:30 - 14:30	463	+	0	=	463		6		227		No
13:45 - 14:45	452	+	0	=	452		5		256		No
11:00 - 12:00	445	+	0	=	445		9		220		No
07:30 - 08:30	411	+	0	=	411		9		283		No
19:00 - 20:00	405	+	0	=	405		7		191		No
07:15 - 08:15	399	+	0	=	399		9		227		No
10:45 - 11:45	389	+	0	=	389		7		214		No
07:00 - 08:00	388		0		388		10		177		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

8 hours meet 1A minimums.
8 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road						Minor Road			
US 50						None			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
17:15 - 18:15	919	+	0	=	919	10	449	Yes	
16:15 - 17:15	893	+	0	=	893	20	463	Yes	
15:15 - 16:15	749	+	0	=	749	15	432	Yes	
18:15 - 19:15	668	+	0	=	668	8	282	Yes	
12:15 - 13:15	526	+	0	=	526	8	234	Yes	
14:15 - 15:15	516	+	0	=	516	7	281	Yes	
13:15 - 14:15	490	+	0	=	490	6	207	Yes	
11:15 - 12:15	489	+	0	=	489	9	216	Yes	
11:00 - 12:00	445	+	0	=	445	9	220	No	
07:30 - 08:30	411	+	0	=	411	9	283	No	
07:15 - 08:15	399	+	0	=	399	9	227	No	
10:45 - 11:45	389	+	0	=	389	7	214	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
17:15 - 18:15	919	+	0	=	919	10	449	Yes	
16:15 - 17:15	893	+	0	=	893	20	463	Yes	
15:15 - 16:15	749	+	0	=	749	15	432	Yes	
18:15 - 19:15	668	+	0	=	668	8	282	Yes	
12:15 - 13:15	526	+	0	=	526	8	234	Yes	
14:15 - 15:15	516	+	0	=	516	7	281	Yes	
13:15 - 14:15	490	+	0	=	490	6	207	Yes	
11:15 - 12:15	489	+	0	=	489	9	216	Yes	
11:00 - 12:00	445	+	0	=	445	9	220	No	
07:30 - 08:30	411	+	0	=	411	9	283	No	
07:15 - 08:15	399	+	0	=	399	9	227	No	
10:45 - 11:45	389	+	0	=	389	7	214	No	

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

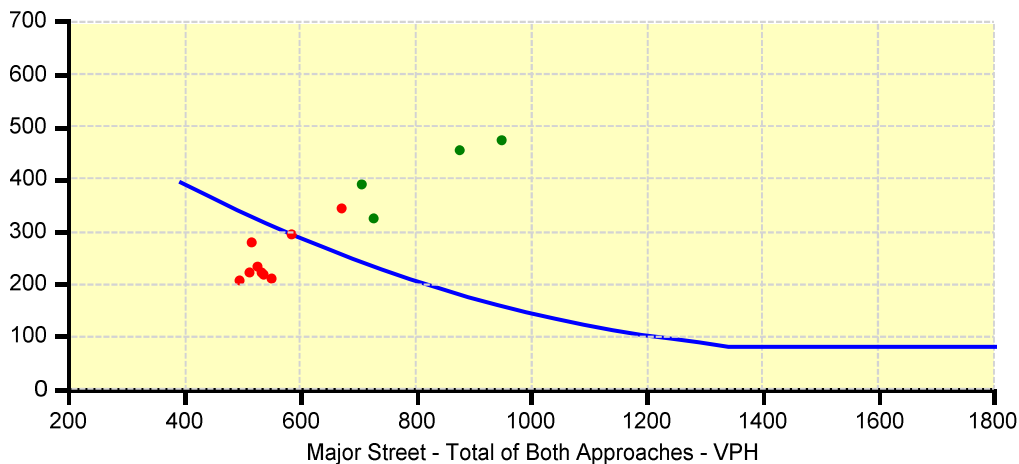
Summary

4 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	948	+	0	=	948	16	476	Yes
16:00 - 17:00	875	+	0	=	875	15	456	Yes
18:00 - 19:00	726	+	0	=	726	8	324	Yes
15:00 - 16:00	706	+	0	=	706	12	390	Yes
14:45 - 15:45	670	+	0	=	670	13	343	No
14:30 - 15:30	586	+	0	=	586	10	293	No
11:45 - 12:45	551	+	0	=	551	7	211	No
12:00 - 13:00	537	+	0	=	537	6	219	No
11:30 - 12:30	532	+	0	=	532	7	220	No
12:15 - 13:15	526	+	0	=	526	8	234	No
14:15 - 15:15	516	+	0	=	516	7	281	No
							222	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

18 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

			Major Road			Minor Road				
			US 50			None				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
16:45 - 17:45	1454	Yes	18	-	---	505	-	Yes	Yes	
17:00 - 18:00	1440	Yes	16	-	---	476	-	Yes	Yes	
16:30 - 17:30	1437	Yes	18	-	---	477	-	Yes	Yes	
17:15 - 18:15	1378	Yes	10	-	---	449	-	Yes	Yes	
16:15 - 17:15	1376	Yes	20	-	---	463	-	Yes	Yes	
16:00 - 17:00	1346	Yes	15	-	---	456	-	Yes	Yes	
17:30 - 18:30	1310	Yes	10	-	---	398	-	Yes	Yes	
15:45 - 16:45	1271	Yes	13	-	---	436	-	Yes	Yes	
15:30 - 16:30	1259	Yes	14	-	---	474	-	Yes	Yes	
17:45 - 18:45	1197	Yes	9	-	---	355	-	Yes	Yes	
15:15 - 16:15	1196	Yes	15	-	---	432	-	Yes	Yes	
15:00 - 16:00	1108	Yes	12	-	---	390	-	Yes	Yes	
18:00 - 19:00	1058	Yes	8	-	---	324	-	Yes	Yes	
14:45 - 15:45	1026	Yes	13	-	---	343	-	Yes	Yes	
18:15 - 19:15	958	Yes	8	-	---	282	-	Yes	Yes	
14:30 - 15:30	889	Yes	10	-	---	293	-	Yes	Yes	
18:30 - 19:30	811	Yes	7	-	---	259	-	Yes	Yes	
14:15 - 15:15	804	Yes	7	-	---	281	-	Yes	Yes	
11:45 - 12:45	769	No	7	-	---	211	-	Yes	No	
12:15 - 13:15	768	No	8	-	---	234	-	Yes	No	
12:00 - 13:00	762	No	6	-	---	219	-	Yes	No	
11:30 - 12:30	759	No	7	-	---	220	-	Yes	No	
14:00 - 15:00	746	No	9	-	---	268	-	Yes	No	
12:30 - 13:30	742	No	9	-	---	222	-	Yes	No	
11:15 - 12:15	714	No	9	-	---	216	-	Yes	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

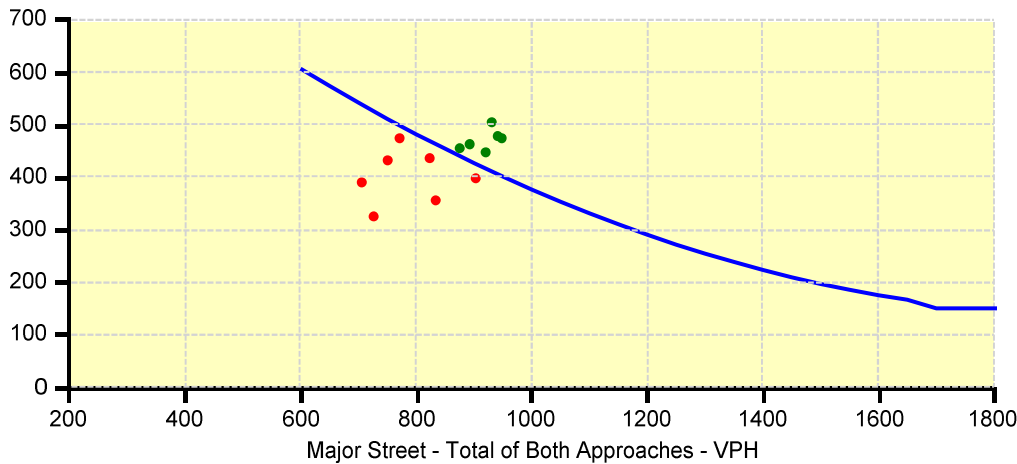
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
US 50						None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	948	+	0	=	948	16	476	Yes
16:30 - 17:30	942	+	0	=	942	18	477	Yes
16:45 - 17:45	931	+	0	=	931	18	505	Yes
17:15 - 18:15	919	+	0	=	919	10	449	Yes
16:15 - 17:15	893	+	0	=	893	20	463	Yes
16:00 - 17:00	875	+	0	=	875	15	456	Yes
17:30 - 18:30	902	+	0	=	902	10	398	No
17:45 - 18:45	833	+	0	=	833	9	355	No
15:45 - 16:45	822	+	0	=	822	13	436	No
15:30 - 16:30	771	+	0	=	771	14	474	No
15:15 - 16:15	749	+	0	=	749	15	432	No
							324	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 1

Total Approach Volume: 8,998

Westbound: US 50

Number of Lanes :1

Total Approach Volume: 9,737

Minor Street Approaches

Northbound: Driveway

Number of Lanes :1

Total Approach Volume: 38

Southbound: WATTERSON RD

Number of Lanes :2+

Total Approach Volume: 2,629

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 3 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 7 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (30) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150 200**

Major Road US 50						Minor Road Driveway		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	989	+	655	=	1644	5	318	Yes
16:00 - 17:00	849	+	569	=	1418	5	292	Yes
15:00 - 16:00	709	+	620	=	1329	3	224	Yes
07:30 - 08:30	571	+	1002	=	1573	1	177	No
07:45 - 08:45	570	+	957	=	1527	3	168	No
07:15 - 08:15	542	+	978	=	1520	2	179	No
07:00 - 08:00	476	+	983	=	1459	3	175	No
08:00 - 09:00	551	+	900	=	1451	3	145	No
18:00 - 19:00	787	+	571	=	1358	2	195	No
06:45 - 07:45	407	+	944	=	1351	2	147	No
14:45 - 15:45	698	+	609	=	1307	3	192	No
08:15 - 09:15	463	+	839	=	1302	5	139	No
14:30 - 15:30	673	+	586	=	1259	3	190	No
14:15 - 15:15	669	+	574	=	1243	2	172	No
06:30 - 07:30	336	+	877	=	1213	2	113	No
18:15 - 19:15	678	+	519	=	1197	1	179	No
11:30 - 12:30	610	+	574	=	1184	3	169	No
08:30 - 09:30	419	+	754	=	1173	5	125	No
11:45 - 12:45	587	+	583	=	1170	3	172	No
14:00 - 15:00	625	+	537	=	1162	2	161	No
11:15 - 12:15	572	+	587	=	1159	4	150	No
12:45 - 13:45	536	+	608	=	1144	2	130	No
13:00 - 14:00	552	+	589	=	1141	2	143	No
13:45 - 14:45	583	+	546	=	1129	1	166	No
12:00 - 13:00	547		582		1129	2	168	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75 100**

Major Road US 50						Minor Road Driveway		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:30 - 18:30	967	+	666	=	1633	3	252	Yes
07:30 - 08:30	571	+	1002	=	1573	1	177	Yes
16:30 - 17:30	918	+	610	=	1528	4	316	Yes
15:30 - 16:30	785	+	588	=	1373	6	265	Yes
14:30 - 15:30	673	+	586	=	1259	3	190	Yes
06:30 - 07:30	336	+	877	=	1213	2	113	Yes
11:30 - 12:30	610	+	574	=	1184	3	169	Yes
08:30 - 09:30	419	+	754	=	1173	5	125	Yes
13:30 - 14:30	578	+	546	=	1124	2	147	Yes
12:30 - 13:30	512	+	612	=	1124	1	144	Yes
18:30 - 19:30	562	+	459	=	1021	0	160	Yes
09:30 - 10:30	443	+	513	=	956	2	107	Yes
10:30 - 11:30	395	+	520	=	915	5	111	Yes
06:15 - 07:15	271	+	795	=	1066	1	85	No
06:00 - 07:00	195	+	637	=	832	0	71	No
19:30 - 20:30	353	+	312	=	665	0	97	No
05:45 - 06:45	144	+	489	=	633	0	49	No
20:00 - 21:00	308	+	284	=	592	0	92	No
19:45 - 20:45	311	+	267	=	578	0	84	No
20:15 - 21:15	282	+	254	=	536	0	84	No
20:30 - 21:30	281	+	241	=	522	0	76	No
20:45 - 21:45	246	+	229	=	475	0	62	No
05:30 - 06:30	116	+	340	=	456	0	41	No
21:15 - 22:15	222	+	228	=	450	0	61	No
21:00 - 22:00	232		217		449	0	58	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 7 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **120 60**
Veh/Hr Minor SB = **160 80**

Major Road US 50						Minor Road Driveway		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:45 - 18:45	873	+	632	=	1505	2	214	Yes
16:45 - 17:45	904	+	587	=	1491	5	307	Yes
15:45 - 16:45	878	+	610	=	1488	6	319	Yes
07:00 - 08:00	476	+	983	=	1459	3	175	Yes
14:45 - 15:45	698	+	609	=	1307	3	192	Yes
11:30 - 12:30	610	+	574	=	1184	3	169	Yes
13:45 - 14:45	583	+	546	=	1129	1	166	Yes
08:00 - 09:00	551	+	900	=	1451	3	145	No
06:45 - 07:45	407	+	944	=	1351	2	147	No
08:15 - 09:15	463	+	839	=	1302	5	139	No
06:30 - 07:30	336	+	877	=	1213	2	113	No
08:30 - 09:30	419	+	754	=	1173	5	125	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:15 - 18:15	1004	+	663	=	1667	5	278	Yes
07:15 - 08:15	542	+	978	=	1520	2	179	Yes
16:15 - 17:15	864	+	590	=	1454	6	305	Yes
15:15 - 16:15	741	+	598	=	1339	2	251	Yes
08:15 - 09:15	463	+	839	=	1302	5	139	Yes
14:15 - 15:15	669	+	574	=	1243	2	172	Yes
18:15 - 19:15	678	+	519	=	1197	1	179	Yes
11:15 - 12:15	572	+	587	=	1159	4	150	Yes
12:15 - 13:15	545	+	584	=	1129	3	158	Yes
13:15 - 14:15	535	+	557	=	1092	2	151	Yes
06:15 - 07:15	271	+	795	=	1066	1	85	Yes
09:15 - 10:15	432	+	554	=	986	2	105	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

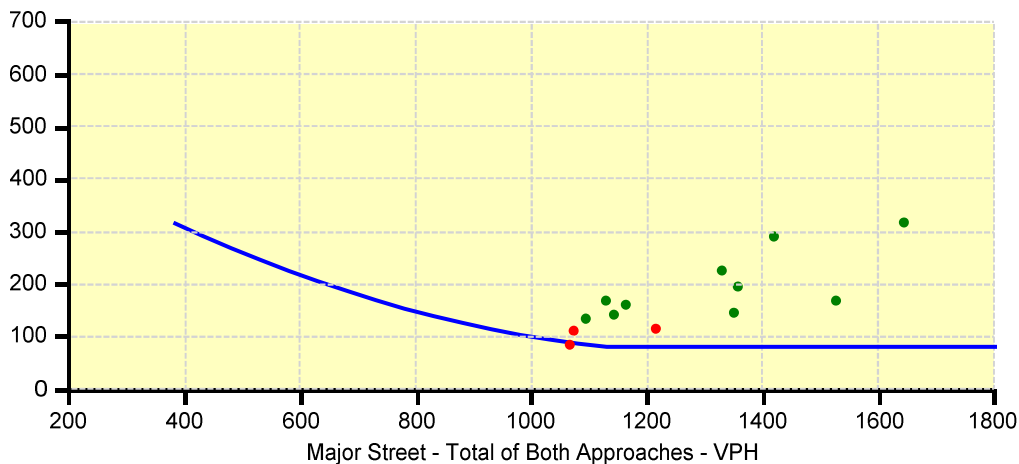
Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road Driveway		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	989	+	655	=	1644	5	318	Yes
07:45 - 08:45	570	+	957	=	1527	3	168	Yes
16:00 - 17:00	849	+	569	=	1418	5	292	Yes
18:00 - 19:00	787	+	571	=	1358	2	195	Yes
06:45 - 07:45	407	+	944	=	1351	2	147	Yes
15:00 - 16:00	709	+	620	=	1329	3	224	Yes
14:00 - 15:00	625	+	537	=	1162	2	161	Yes
13:00 - 14:00	552	+	589	=	1141	2	143	Yes
12:00 - 13:00	547	+	582	=	1129	2	168	Yes
11:00 - 12:00	518	+	576	=	1094	4	135	Yes
06:30 - 07:30	336	+	877	=	1213	2	113	No
							111	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

54 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

		Major Road				Minor Road			
		US 50				Driveway			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	1967	Yes	5	-	---	318	-	Yes	Yes
17:15 - 18:15	1950	Yes	5	-	---	278	-	Yes	Yes
17:30 - 18:30	1888	Yes	3	-	---	252	-	Yes	Yes
16:30 - 17:30	1848	Yes	4	-	---	316	-	Yes	Yes
15:45 - 16:45	1813	Yes	6	-	---	319	-	Yes	Yes
16:45 - 17:45	1803	Yes	5	-	---	307	-	Yes	Yes
16:15 - 17:15	1765	Yes	6	-	---	305	-	Yes	Yes
07:30 - 08:30	1751	Yes	1	-	---	177	-	Yes	Yes
17:45 - 18:45	1721	Yes	2	-	---	214	-	Yes	Yes
16:00 - 17:00	1715	Yes	5	-	---	292	-	Yes	Yes
07:15 - 08:15	1701	Yes	2	-	---	179	-	Yes	Yes
07:45 - 08:45	1698	Yes	3	-	---	168	-	Yes	Yes
15:30 - 16:30	1644	Yes	6	-	---	265	-	Yes	Yes
07:00 - 08:00	1637	Yes	3	-	---	175	-	Yes	Yes
15:15 - 16:15	1592	Yes	2	-	---	251	-	Yes	Yes
15:00 - 16:00	1556	Yes	3	-	---	224	-	Yes	Yes
18:00 - 19:00	1555	Yes	2	-	---	195	-	Yes	Yes
14:45 - 15:45	1502	Yes	3	-	---	192	-	Yes	Yes
14:30 - 15:30	1452	Yes	3	-	---	190	-	Yes	Yes
14:15 - 15:15	1417	Yes	2	-	---	172	-	Yes	Yes
18:15 - 19:15	1377	Yes	1	-	---	179	-	Yes	Yes
11:30 - 12:30	1356	Yes	3	-	---	169	-	Yes	Yes
11:45 - 12:45	1345	Yes	3	-	---	172	-	Yes	Yes
14:00 - 15:00	1325	Yes	2	-	---	161	-	Yes	Yes
11:15 - 12:15	1313	Yes	4	-	---	150	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

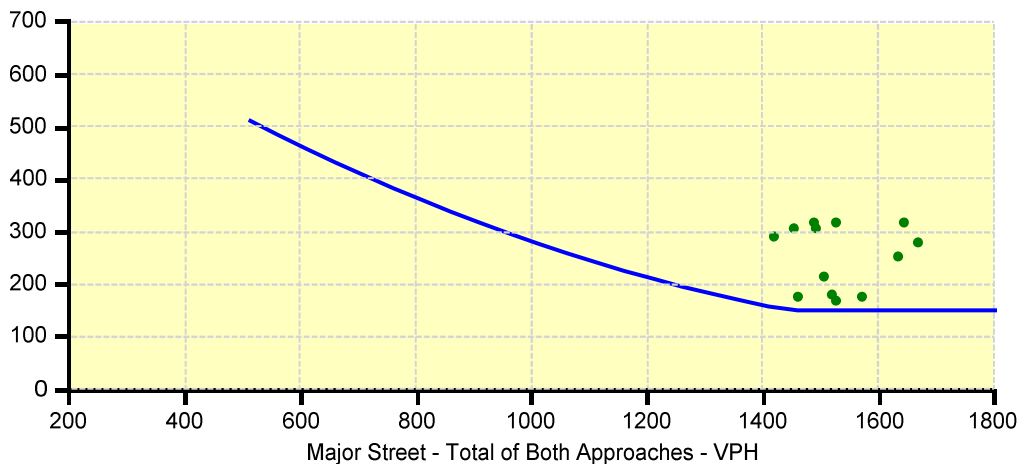
Summary

18 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road Driveway		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1004	+	663	=	1667	5	278	Yes
17:00 - 18:00	989	+	655	=	1644	5	318	Yes
17:30 - 18:30	967	+	666	=	1633	3	252	Yes
07:30 - 08:30	571	+	1002	=	1573	1	177	Yes
16:30 - 17:30	918	+	610	=	1528	4	316	Yes
07:45 - 08:45	570	+	957	=	1527	3	168	Yes
07:15 - 08:15	542	+	978	=	1520	2	179	Yes
17:45 - 18:45	873	+	632	=	1505	2	214	Yes
16:45 - 17:45	904	+	587	=	1491	5	307	Yes
15:45 - 16:45	878	+	610	=	1488	6	319	Yes
07:00 - 08:00	476	+	983	=	1459	3	175	Yes
							305	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 1

Total Approach Volume: 7,168

Westbound: US 50

Number of Lanes :1

Total Approach Volume: 8,278

Minor Street Approaches

Northbound: WOOSTER PIKE

Number of Lanes :2+

Total Approach Volume: 1,681

Southbound: MEADOWLARK LANE

Number of Lanes :1

Total Approach Volume: 922

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 8 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (11) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road WOOSTER PIKE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	798	+	565	=	1363	226	59	Yes
07:30 - 08:30	471	+	893	=	1364	83	135	No
07:45 - 08:45	469	+	850	=	1319	70	116	No
07:15 - 08:15	451	+	863	=	1314	97	136	No
16:15 - 17:15	730	+	533	=	1263	181	56	No
16:00 - 17:00	724	+	531	=	1255	154	52	No
17:30 - 18:30	751	+	498	=	1249	195	59	No
08:00 - 09:00	447	+	796	=	1243	66	97	No
17:45 - 18:45	732	+	502	=	1234	170	65	No
07:00 - 08:00	385	+	833	=	1218	115	118	No
15:45 - 16:45	695	+	519	=	1214	147	47	No
15:30 - 16:30	682	+	521	=	1203	150	44	No
06:45 - 07:45	332	+	793	=	1125	112	93	No
15:15 - 16:15	616	+	502	=	1118	148	48	No
18:00 - 19:00	649	+	463	=	1112	126	68	No
08:15 - 09:15	375	+	733	=	1108	58	74	No
15:00 - 16:00	558	+	502	=	1060	159	54	No
06:30 - 07:30	285	+	737	=	1022	89	64	No
14:45 - 15:45	507	+	493	=	1000	163	51	No
08:30 - 09:30	338	+	640	=	978	62	68	No
14:30 - 15:30	493	+	472	=	965	145	56	No
18:15 - 19:15	536	+	416	=	952	99	63	No
14:15 - 15:15	464	+	463	=	927	133	46	No
11:15 - 12:15	454	+	458	=	912	109	57	No
11:30 - 12:30	466		444		910	116	56	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road WOOSTER PIKE		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:45 - 08:45	469	+	850	=	1319	70	116	Yes
17:00 - 18:00	775	+	526	=	1301	267	60	Yes
16:00 - 17:00	724	+	531	=	1255	154	52	Yes
06:45 - 07:45	332	+	793	=	1125	112	93	Yes
18:00 - 19:00	649	+	463	=	1112	126	68	Yes
15:00 - 16:00	558	+	502	=	1060	159	54	Yes
11:15 - 12:15	454	+	458	=	912	109	57	Yes
14:00 - 15:00	445	+	447	=	892	100	35	Yes
06:30 - 07:30	285	+	737	=	1022	89	64	No
12:15 - 13:15	398	+	500	=	898	93	76	No
12:30 - 13:30	375	+	520	=	895	86	83	No
08:45 - 09:45	321	+	572	=	893	74	65	No
11:00 - 12:00	425	+	463	=	888	92	50	No
12:45 - 13:45	366	+	521	=	887	85	78	No
06:15 - 07:15	236	+	647	=	883	70	48	No
13:00 - 14:00	375	+	506	=	881	85	81	No
13:45 - 14:45	414	+	448	=	862	88	53	No
10:45 - 11:45	384	+	465	=	849	93	50	No
13:15 - 14:15	364	+	474	=	838	86	65	No
13:30 - 14:30	371	+	451	=	822	89	53	No
09:00 - 10:00	312	+	504	=	816	88	55	No
09:15 - 10:15	343	+	469	=	812	88	52	No
09:30 - 10:30	349	+	440	=	789	89	46	No
10:30 - 11:30	307	+	436	=	743	75	45	No
09:45 - 10:45	321		421		742	76	44	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road US 50						Minor Road WOOSTER PIKE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:15 - 18:15	825	+	541	=	1366	234	58	Yes
07:15 - 08:15	451	+	863	=	1314	97	136	Yes
16:15 - 17:15	730	+	533	=	1263	181	56	Yes
14:45 - 15:45	507	+	493	=	1000	163	51	Yes
16:00 - 17:00	724	+	531	=	1255	154	52	No
07:00 - 08:00	385	+	833	=	1218	115	118	No
15:45 - 16:45	695	+	519	=	1214	147	47	No
06:45 - 07:45	332	+	793	=	1125	112	93	No
08:15 - 09:15	375	+	733	=	1108	58	74	No
06:30 - 07:30	285	+	737	=	1022	89	64	No
08:30 - 09:30	338	+	640	=	978	62	68	No
14:30 - 15:30	493	+	472	=	965	145	56	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
07:30 - 08:30	471	+	893	=	1364	83	135	Yes
16:45 - 17:45	781	+	528	=	1309	244	63	Yes
17:45 - 18:45	732	+	502	=	1234	170	65	Yes
15:45 - 16:45	695	+	519	=	1214	147	47	Yes
06:30 - 07:30	285	+	737	=	1022	89	64	Yes
14:45 - 15:45	507	+	493	=	1000	163	51	Yes
08:30 - 09:30	338	+	640	=	978	62	68	Yes
12:45 - 13:45	366	+	521	=	887	85	78	Yes
11:45 - 12:45	434	+	447	=	881	109	60	Yes
13:45 - 14:45	414	+	448	=	862	88	53	Yes
10:45 - 11:45	384	+	465	=	849	93	50	Yes
09:30 - 10:30	349	+	440	=	789	89	46	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

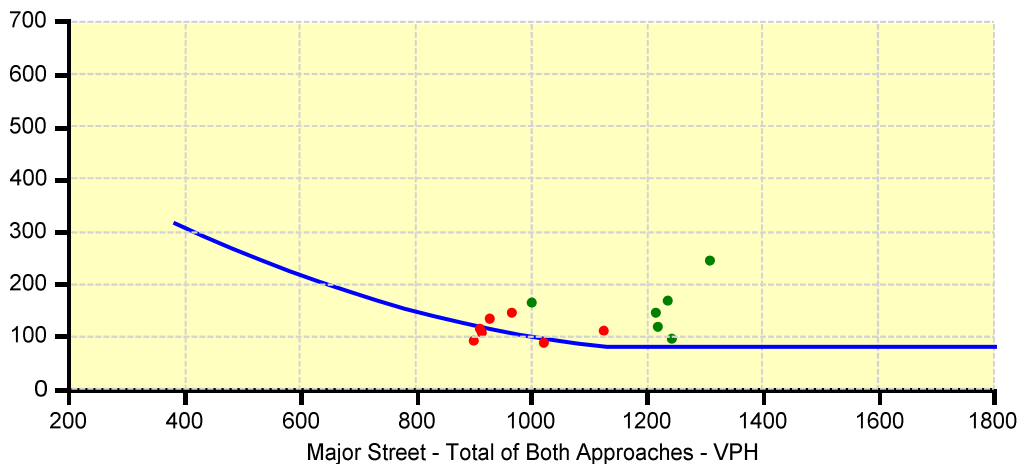
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road WOOSTER PIKE		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	781	+	528	=	1309	244	63	Yes
08:00 - 09:00	447	+	796	=	1243	66	97	Yes
17:45 - 18:45	732	+	502	=	1234	170	65	Yes
07:00 - 08:00	385	+	833	=	1218	115	118	Yes
15:45 - 16:45	695	+	519	=	1214	147	47	Yes
14:45 - 15:45	507	+	493	=	1000	163	51	Yes
06:45 - 07:45	332	+	793	=	1125	112	93	No
06:30 - 07:30	285	+	737	=	1022	89	64	No
14:30 - 15:30	493	+	472	=	965	145	56	No
14:15 - 15:15	464	+	463	=	927	133	46	No
11:15 - 12:15	454	+	458	=	912	109	57	No
							56	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

52 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road			Minor Road						
US 50			WOOSTER PIKE						
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:15 - 18:15	1658	Yes	234	-	Yes	58	-	---	Yes
16:30 - 17:30	1648	Yes	226	-	Yes	59	-	---	Yes
17:00 - 18:00	1628	Yes	267	-	Yes	60	-	---	Yes
16:45 - 17:45	1616	Yes	244	-	Yes	63	-	---	Yes
17:30 - 18:30	1503	Yes	195	-	Yes	59	-	---	Yes
16:15 - 17:15	1500	Yes	181	-	Yes	56	-	---	Yes
17:45 - 18:45	1469	Yes	170	-	Yes	65	-	---	Yes
16:00 - 17:00	1461	Yes	154	-	Yes	52	-	---	Yes
15:30 - 16:30	1397	Yes	150	-	Yes	44	-	---	Yes
15:00 - 16:00	1273	Yes	159	-	Yes	54	-	---	Yes
14:45 - 15:45	1214	Yes	163	-	Yes	51	-	---	Yes
07:30 - 08:30	1582	Yes	83	-	---	135	-	No	No
07:15 - 08:15	1547	Yes	97	-	---	136	-	No	No
07:45 - 08:45	1505	Yes	70	-	---	116	-	No	No
07:00 - 08:00	1451	Yes	115	-	---	118	-	No	No
15:45 - 16:45	1408	Yes	147	-	No	47	-	---	No
08:00 - 09:00	1406	Yes	66	-	---	97	-	No	No
06:45 - 07:45	1330	Yes	112	-	No	93	-	---	No
15:15 - 16:15	1314	Yes	148	-	No	48	-	---	No
18:00 - 19:00	1306	Yes	126	-	No	68	-	---	No
08:15 - 09:15	1240	Yes	58	-	---	74	-	No	No
06:30 - 07:30	1175	Yes	89	-	No	64	-	---	No
14:30 - 15:30	1166	Yes	145	-	No	56	-	---	No
18:15 - 19:15	1114	Yes	99	-	No	63	-	---	No
08:30 - 09:30	1108	Yes	62	-	---	68	-	No	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

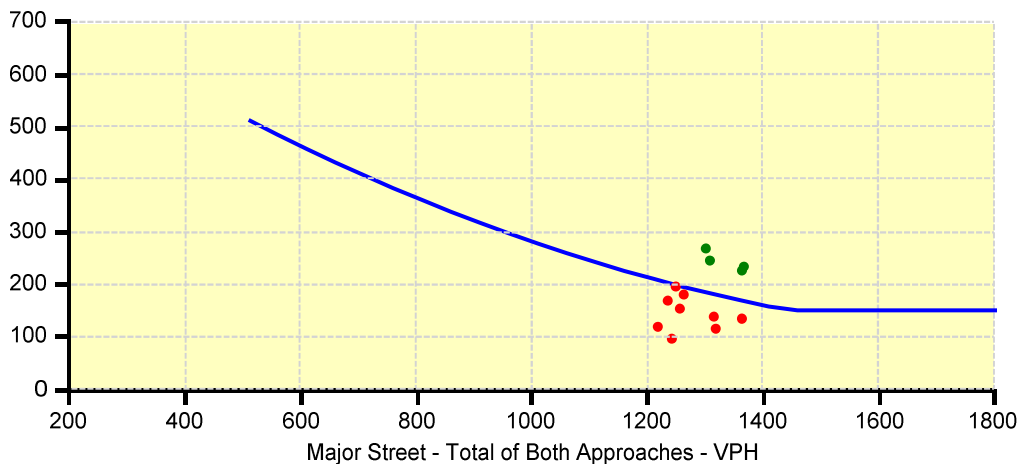
Summary

4 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road WOOSTER PIKE		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	825	+	541	=	1366	234	58	Yes
16:30 - 17:30	798	+	565	=	1363	226	59	Yes
16:45 - 17:45	781	+	528	=	1309	244	63	Yes
17:00 - 18:00	775	+	526	=	1301	267	60	Yes
07:30 - 08:30	471	+	893	=	1364	83	135	No
07:45 - 08:45	469	+	850	=	1319	70	116	No
07:15 - 08:15	451	+	863	=	1314	97	136	No
16:15 - 17:15	730	+	533	=	1263	181	56	No
16:00 - 17:00	724	+	531	=	1255	154	52	No
17:30 - 18:30	751	+	498	=	1249	195	59	No
08:00 - 09:00	447	+	796	=	1243	66	97	No
							65	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: RED BANK RD

Number of Lanes : 2+

Total Approach Volume: 6,308

Westbound: WOOSTER PK

Number of Lanes :2+

Total Approach Volume: 1,930

Minor Street Approaches

Northbound: WOOSTER RD

Number of Lanes :2+

Total Approach Volume: 6,397

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 7 hours, 8 are needed

Required 1B volumes reached for 7 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (41) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

	Major Road				Minor Road					
	RED BANK RD				WOOSTER RD					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB	Met?
16:30 - 17:30	771	+	179	=	950		464		0	Yes
15:30 - 16:30	604	+	175	=	779		383		0	Yes
17:30 - 18:30	589	+	123	=	712		379		0	Yes
14:30 - 15:30	442	+	173	=	615		367		0	Yes
14:15 - 15:15	435	+	156	=	591		365		0	No
14:00 - 15:00	429	+	125	=	554		359		0	No
13:45 - 14:45	422	+	118	=	540		371		0	No
12:30 - 13:30	375	+	158	=	533		345		0	No
13:15 - 14:15	377	+	137	=	514		348		0	No
13:00 - 14:00	371	+	143	=	514		339		0	No
12:45 - 13:45	364	+	150	=	514		340		0	No
11:45 - 12:45	354	+	158	=	512		343		0	No
12:00 - 13:00	359	+	152	=	511		352		0	No
13:30 - 14:30	385	+	120	=	505		347		0	No
12:15 - 13:15	355	+	145	=	500		343		0	No
11:30 - 12:30	348	+	149	=	497		338		0	No
11:15 - 12:15	338	+	149	=	487		329		0	No
07:45 - 08:45	345	+	119	=	464		670		0	No
07:30 - 08:30	348	+	113	=	461		746		0	No
11:00 - 12:00	322	+	135	=	457		328		0	No
07:15 - 08:15	330	+	116	=	446		799		0	No
08:15 - 09:15	323	+	114	=	437		558		0	No
08:00 - 09:00	314	+	121	=	435		623		0	No
07:00 - 08:00	314	+	110	=	424		814		0	No
08:30 - 09:30	301		116		417		510		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road				Minor Road					
	RED BANK RD				WOOSTER RD					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB	Met?
16:30 - 17:30	771	+	179	=	950		464		0	Yes
15:30 - 16:30	604	+	175	=	779		383		0	Yes
17:30 - 18:30	589	+	123	=	712		379		0	Yes
14:30 - 15:30	442	+	173	=	615		367		0	Yes
14:15 - 15:15	435	+	156	=	591		365		0	No
14:00 - 15:00	429	+	125	=	554		359		0	No
13:45 - 14:45	422	+	118	=	540		371		0	No
12:30 - 13:30	375	+	158	=	533		345		0	No
13:15 - 14:15	377	+	137	=	514		348		0	No
13:00 - 14:00	371	+	143	=	514		339		0	No
12:45 - 13:45	364	+	150	=	514		340		0	No
11:45 - 12:45	354	+	158	=	512		343		0	No
12:00 - 13:00	359	+	152	=	511		352		0	No
13:30 - 14:30	385	+	120	=	505		347		0	No
12:15 - 13:15	355	+	145	=	500		343		0	No
11:30 - 12:30	348	+	149	=	497		338		0	No
11:15 - 12:15	338	+	149	=	487		329		0	No
07:45 - 08:45	345	+	119	=	464		670		0	No
07:30 - 08:30	348	+	113	=	461		746		0	No
11:00 - 12:00	322	+	135	=	457		328		0	No
07:15 - 08:15	330	+	116	=	446		799		0	No
08:15 - 09:15	323	+	114	=	437		558		0	No
08:00 - 09:00	314	+	121	=	435		623		0	No
07:00 - 08:00	314	+	110	=	424		814		0	No
08:30 - 09:30	301		116		417		510		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 7 hours meet 1A minimums.
Only 7 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road RED BANK RD

Minor Road WOOSTER RD

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:15 - 17:15	763	+	168	=	931	448	0	Yes
17:15 - 18:15	661	+	144	=	805	405	0	Yes
15:15 - 16:15	519	+	184	=	703	385	0	Yes
14:15 - 15:15	435	+	156	=	591	365	0	Yes
13:15 - 14:15	377	+	137	=	514	348	0	Yes
12:15 - 13:15	355	+	145	=	500	343	0	Yes
11:15 - 12:15	338	+	149	=	487	329	0	Yes
07:45 - 08:45	345	+	119	=	464	670	0	No
07:30 - 08:30	348	+	113	=	461	746	0	No
11:00 - 12:00	322	+	135	=	457	328	0	No
07:15 - 08:15	330	+	116	=	446	799	0	No
08:15 - 09:15	323	+	114	=	437	558	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	763	+	168	=	931	448	0	Yes
17:15 - 18:15	661	+	144	=	805	405	0	Yes
15:15 - 16:15	519	+	184	=	703	385	0	Yes
14:15 - 15:15	435	+	156	=	591	365	0	Yes
13:15 - 14:15	377	+	137	=	514	348	0	Yes
12:15 - 13:15	355	+	145	=	500	343	0	Yes
11:15 - 12:15	338	+	149	=	487	329	0	Yes
07:45 - 08:45	345	+	119	=	464	670	0	No
07:30 - 08:30	348	+	113	=	461	746	0	No
11:00 - 12:00	322	+	135	=	457	328	0	No
07:15 - 08:15	330	+	116	=	446	799	0	No
08:15 - 09:15	323	+	114	=	437	558	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

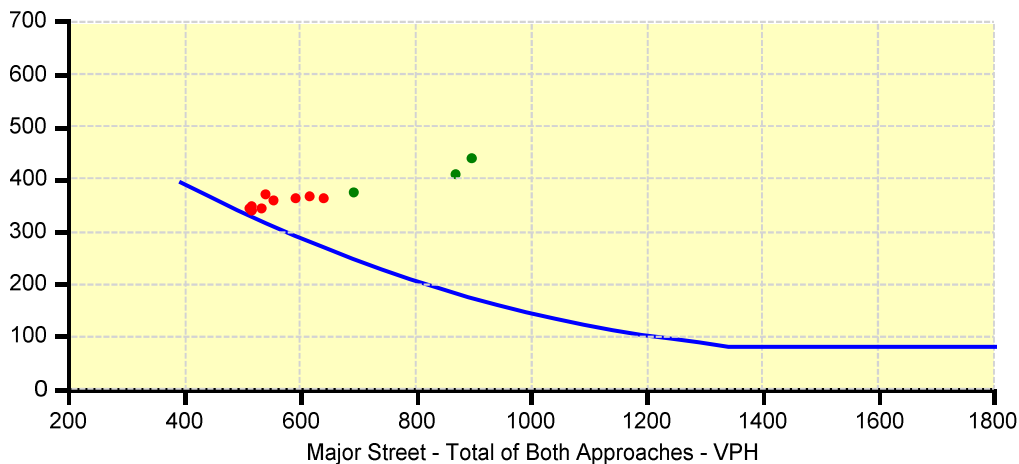
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road WOOSTER RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	743	+	153	=	896	440	0	Yes
16:00 - 17:00	698	+	169	=	867	411	0	Yes
15:00 - 16:00	492	+	199	=	691	373	0	Yes
14:45 - 15:45	450	+	191	=	641	362	0	No
14:30 - 15:30	442	+	173	=	615	367	0	No
14:15 - 15:15	435	+	156	=	591	365	0	No
14:00 - 15:00	429	+	125	=	554	359	0	No
13:45 - 14:45	422	+	118	=	540	371	0	No
12:30 - 13:30	375	+	158	=	533	345	0	No
13:15 - 14:15	377	+	137	=	514	348	0	No
13:00 - 14:00	371	+	143	=	514	339	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

41 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
RED BANK RD						WOOSTER RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:30 - 17:30	1414	Yes	464	-	Yes	0	-	---	Yes
16:45 - 17:45	1384	Yes	446	-	Yes	0	-	---	Yes
16:15 - 17:15	1379	Yes	448	-	Yes	0	-	---	Yes
17:00 - 18:00	1336	Yes	440	-	Yes	0	-	---	Yes
16:00 - 17:00	1278	Yes	411	-	Yes	0	-	---	Yes
07:15 - 08:15	1245	Yes	799	-	Yes	0	-	---	Yes
07:00 - 08:00	1238	Yes	814	-	Yes	0	-	---	Yes
15:45 - 16:45	1228	Yes	408	-	Yes	0	-	---	Yes
17:15 - 18:15	1210	Yes	405	-	Yes	0	-	---	Yes
07:30 - 08:30	1207	Yes	746	-	Yes	0	-	---	Yes
06:45 - 07:45	1192	Yes	789	-	Yes	0	-	---	Yes
15:30 - 16:30	1162	Yes	383	-	Yes	0	-	---	Yes
07:45 - 08:45	1134	Yes	670	-	Yes	0	-	---	Yes
06:30 - 07:30	1105	Yes	702	-	Yes	0	-	---	Yes
17:30 - 18:30	1091	Yes	379	-	Yes	0	-	---	Yes
15:15 - 16:15	1088	Yes	385	-	Yes	0	-	---	Yes
15:00 - 16:00	1064	Yes	373	-	Yes	0	-	---	Yes
08:00 - 09:00	1058	Yes	623	-	Yes	0	-	---	Yes
14:45 - 15:45	1003	Yes	362	-	Yes	0	-	---	Yes
08:15 - 09:15	995	Yes	558	-	Yes	0	-	---	Yes
06:15 - 07:15	991	Yes	601	-	Yes	0	-	---	Yes
14:30 - 15:30	982	Yes	367	-	Yes	0	-	---	Yes
14:15 - 15:15	956	Yes	365	-	Yes	0	-	---	Yes
17:45 - 18:45	953	Yes	344	-	Yes	0	-	---	Yes
08:30 - 09:30	927	Yes	510	-	Yes	0	-	---	Yes

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

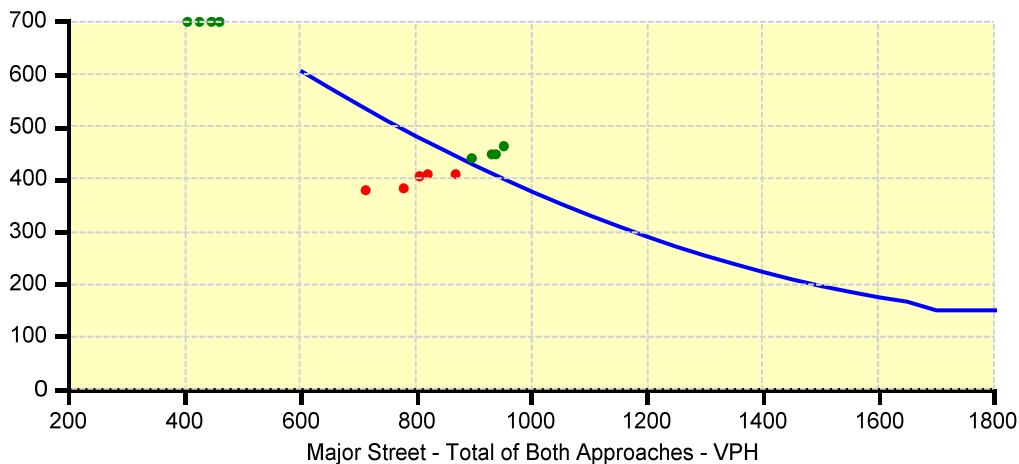
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road WOOSTER RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	771	+	179	=	950	464	0	Yes
16:45 - 17:45	785	+	153	=	938	446	0	Yes
16:15 - 17:15	763	+	168	=	931	448	0	Yes
17:00 - 18:00	743	+	153	=	896	440	0	Yes
07:30 - 08:30	348	+	113	=	461	746	0	Yes
07:15 - 08:15	330	+	116	=	446	799	0	Yes
07:00 - 08:00	314	+	110	=	424	814	0	Yes
06:45 - 07:45	305	+	98	=	403	789	0	Yes
16:00 - 17:00	698	+	169	=	867	411	0	No
15:45 - 16:45	645	+	175	=	820	408	0	No
17:15 - 18:15	661	+	144	=	805	405	0	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 125

Number of Lanes : 2+

Total Approach Volume: 11,863

Westbound: SR 125

Number of Lanes :2+

Total Approach Volume: 13,284

Minor Street Approaches

Northbound: ELSTUN RD

Number of Lanes :2+

Total Approach Volume: 1,358

Southbound: REINKE SHOPPING CENTER

Number of Lanes :2+

Total Approach Volume: 754

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 3 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (7) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (4) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **420**

Veh/Hr Minor = **140 105**

Major Road SR 125						Minor Road ELSTUN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
06:45 - 07:45	355	+	2104	=	2459	163	29	Yes
07:45 - 08:45	491	+	1573	=	2064	140	45	Yes
17:00 - 18:00	1660	+	810	=	2470	125	109	No
16:45 - 17:45	1661	+	785	=	2446	117	110	No
17:15 - 18:15	1613	+	792	=	2405	127	111	No
16:30 - 17:30	1592	+	764	=	2356	109	95	No
16:15 - 17:15	1475	+	744	=	2219	104	99	No
17:30 - 18:30	1433	+	761	=	2194	119	117	No
06:30 - 07:30	315	+	1872	=	2187	130	21	No
16:00 - 17:00	1396	+	735	=	2131	111	101	No
15:45 - 16:45	1362	+	764	=	2126	110	81	No
15:30 - 16:30	1274	+	753	=	2027	105	75	No
17:45 - 18:45	1234	+	726	=	1960	105	92	No
15:15 - 16:15	1180	+	750	=	1930	101	62	No
15:00 - 16:00	1080	+	725	=	1805	87	52	No
18:00 - 19:00	1100	+	693	=	1793	101	82	No
06:15 - 07:15	274	+	1485	=	1759	107	14	No
14:45 - 15:45	952	+	682	=	1634	78	54	No
18:15 - 19:15	943	+	621	=	1564	94	77	No
14:30 - 15:30	854	+	703	=	1557	72	54	No
08:45 - 09:45	444	+	1011	=	1455	75	30	No
14:15 - 15:15	750	+	702	=	1452	61	58	No
14:00 - 15:00	700	+	690	=	1390	58	56	No
13:45 - 14:45	672	+	689	=	1361	58	54	No
18:30 - 19:30	793		546		1339	85	62	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **630**

Veh/Hr Minor = **70 52**

Major Road SR 125						Minor Road ELSTUN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	406	+	2176	=	2582	179	37	Yes
16:30 - 17:30	1592	+	764	=	2356	109	95	Yes
17:30 - 18:30	1433	+	761	=	2194	119	117	Yes
15:30 - 16:30	1274	+	753	=	2027	105	75	Yes
08:00 - 09:00	498	+	1346	=	1844	111	40	Yes
14:30 - 15:30	854	+	703	=	1557	72	54	Yes
18:30 - 19:30	793	+	546	=	1339	85	62	Yes
06:00 - 07:00	208	+	1126	=	1334	74	10	Yes
09:00 - 10:00	407	+	905	=	1312	75	25	Yes
14:15 - 15:15	750	+	702	=	1452	61	58	No
14:00 - 15:00	700	+	690	=	1390	58	56	No
13:45 - 14:45	672	+	689	=	1361	58	54	No
11:30 - 12:30	526	+	653	=	1179	57	25	No
13:30 - 14:30	570	+	606	=	1176	61	41	No
12:15 - 13:15	532	+	642	=	1174	52	35	No
11:45 - 12:45	517	+	657	=	1174	56	26	No
12:00 - 13:00	503	+	639	=	1142	58	28	No
11:15 - 12:15	501	+	636	=	1137	51	22	No
11:00 - 12:00	484	+	606	=	1090	44	23	No
12:30 - 13:30	500	+	579	=	1079	49	33	No
13:15 - 14:15	510	+	543	=	1053	59	28	No
13:00 - 14:00	494	+	551	=	1045	54	27	No
05:45 - 06:45	170	+	807	=	977	56	4	No
12:45 - 13:45	435	+	535	=	970	52	31	No
10:45 - 11:45	404		557		961	39	17	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 3 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**
Veh/Hr Minor NB = **112 56**
Veh/Hr Minor SB = **84 42**

Major Road SR 125						Minor Road ELSTUN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1661	+	785	=	2446	117	110	Yes
07:30 - 08:30	456	+	1815	=	2271	166	42	Yes
06:30 - 07:30	315	+	1872	=	2187	130	21	Yes
16:30 - 17:30	1592	+	764	=	2356	109	95	No
16:15 - 17:15	1475	+	744	=	2219	104	99	No
16:00 - 17:00	1396	+	735	=	2131	111	101	No
15:45 - 16:45	1362	+	764	=	2126	110	81	No
15:30 - 16:30	1274	+	753	=	2027	105	75	No
17:45 - 18:45	1234	+	726	=	1960	105	92	No
15:15 - 16:15	1180	+	750	=	1930	101	62	No
15:00 - 16:00	1080	+	725	=	1805	87	52	No
18:00 - 19:00	1100		693		1793	101	82	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
06:45 - 07:45	355	+	2104	=	2459	163	29	Yes
17:15 - 18:15	1613	+	792	=	2405	127	111	Yes
16:15 - 17:15	1475	+	744	=	2219	104	99	Yes
07:45 - 08:45	491	+	1573	=	2064	140	45	Yes
15:15 - 16:15	1180	+	750	=	1930	101	62	Yes
18:15 - 19:15	943	+	621	=	1564	94	77	Yes
08:45 - 09:45	444	+	1011	=	1455	75	30	Yes
14:15 - 15:15	750	+	702	=	1452	61	58	Yes
11:30 - 12:30	526	+	653	=	1179	57	25	Yes
13:15 - 14:15	510	+	543	=	1053	59	28	Yes
05:45 - 06:45	170	+	807	=	977	56	4	Yes
19:15 - 20:15	584		326		910	48	53	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

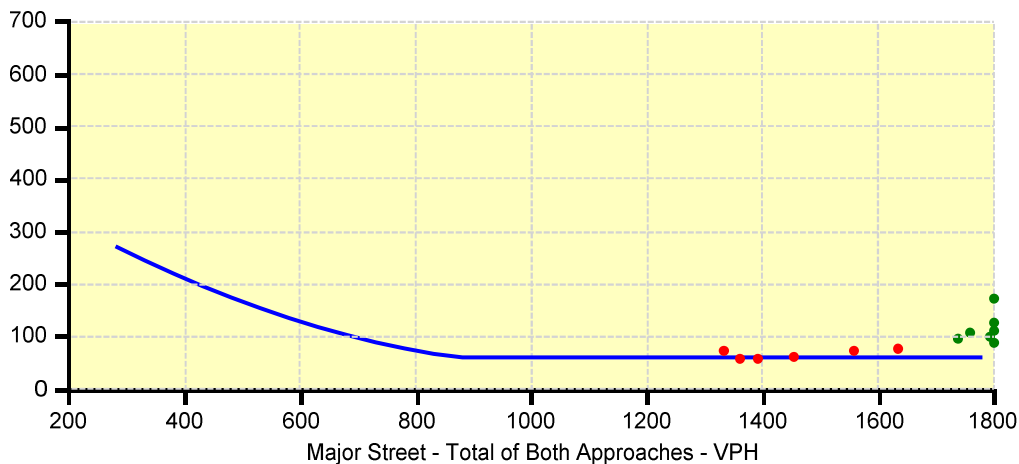
Summary

7 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road SR 125						Minor Road ELSTUN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:15 - 08:15	439	+	2036	=	2475	172	40	Yes
17:00 - 18:00	1660	+	810	=	2470	125	109	Yes
16:00 - 17:00	1396	+	735	=	2131	111	101	Yes
15:00 - 16:00	1080	+	725	=	1805	87	52	Yes
18:00 - 19:00	1100	+	693	=	1793	101	82	Yes
06:15 - 07:15	274	+	1485	=	1759	107	14	Yes
08:15 - 09:15	479	+	1257	=	1736	94	37	Yes
14:45 - 15:45	952	+	682	=	1634	78	54	No
14:30 - 15:30	854	+	703	=	1557	72	54	No
14:15 - 15:15	750	+	702	=	1452	61	58	No
14:00 - 15:00	700	+	690	=	1390	58	56	No
							54	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

62 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
SR 125						ELSTUN RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
07:00 - 08:00	2798	Yes	179	-	Yes	37	-	---	Yes
07:15 - 08:15	2687	Yes	172	-	Yes	40	-	---	Yes
06:45 - 07:45	2651	Yes	163	-	Yes	29	-	---	Yes
07:30 - 08:30	2479	Yes	166	-	Yes	42	-	---	Yes
17:00 - 18:00	2704	Yes	125	-	No	109	-	---	No
16:45 - 17:45	2673	Yes	117	-	No	110	-	---	No
17:15 - 18:15	2643	Yes	127	-	No	111	-	---	No
16:30 - 17:30	2560	Yes	109	-	No	95	-	---	No
17:30 - 18:30	2430	Yes	119	-	No	117	-	---	No
16:15 - 17:15	2422	Yes	104	-	No	99	-	---	No
16:00 - 17:00	2343	Yes	111	-	No	101	-	---	No
06:30 - 07:30	2338	Yes	130	-	No	21	-	---	No
15:45 - 16:45	2317	Yes	110	-	No	81	-	---	No
07:45 - 08:45	2249	Yes	140	-	No	45	-	---	No
15:30 - 16:30	2207	Yes	105	-	No	75	-	---	No
17:45 - 18:45	2157	Yes	105	-	No	92	-	---	No
15:15 - 16:15	2093	Yes	101	-	No	62	-	---	No
08:00 - 09:00	1995	Yes	111	-	No	40	-	---	No
18:00 - 19:00	1976	Yes	101	-	No	82	-	---	No
15:00 - 16:00	1944	Yes	87	-	No	52	-	---	No
06:15 - 07:15	1880	Yes	107	-	No	14	-	---	No
08:15 - 09:15	1867	Yes	94	-	No	37	-	---	No
14:45 - 15:45	1766	Yes	78	-	No	54	-	---	No
18:15 - 19:15	1735	Yes	94	-	No	77	-	---	No
08:30 - 09:30	1710	Yes	88	-	No	35	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

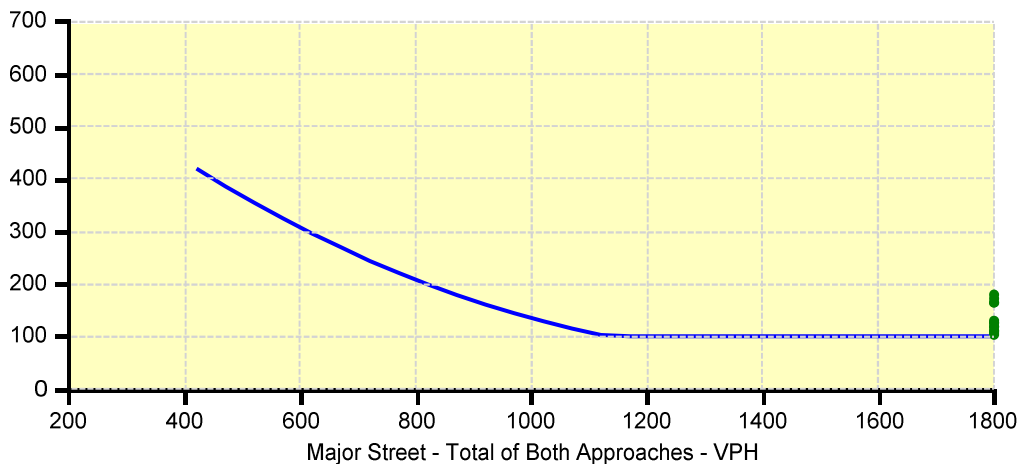
Summary

20 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road SR 125						Minor Road ELSTUN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	406	+	2176	=	2582	179	37	Yes
07:15 - 08:15	439	+	2036	=	2475	172	40	Yes
17:00 - 18:00	1660	+	810	=	2470	125	109	Yes
06:45 - 07:45	355	+	2104	=	2459	163	29	Yes
16:45 - 17:45	1661	+	785	=	2446	117	110	Yes
17:15 - 18:15	1613	+	792	=	2405	127	111	Yes
16:30 - 17:30	1592	+	764	=	2356	109	95	Yes
07:30 - 08:30	456	+	1815	=	2271	166	42	Yes
16:15 - 17:15	1475	+	744	=	2219	104	99	Yes
17:30 - 18:30	1433	+	761	=	2194	119	117	Yes
06:30 - 07:30	315	+	1872	=	2187	130	21	Yes
							101	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Signal Warrants - Summary

Major Street Approaches

Northbound: RED BANK RD

Number of Lanes : 1

Total Approach Volume: 6,430

Southbound: RED BANK RD

Number of Lanes : 1

Total Approach Volume: 10,617

Minor Street Approaches

Eastbound: None

Number of Lanes : 2+

Total Approach Volume: 0

Westbound: US 50 RAMPS

Number of Lanes : 2+

Total Approach Volume: 1,786

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 12 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 14 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (5) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (8) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road						Minor Road		
RED BANK RD						None		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
07:30 - 08:30	718	+	554	=	1272	0	287	Yes
06:30 - 07:30	589	+	464	=	1053	0	202	Yes
16:30 - 17:30	533	+	1332	=	1865	0	136	No
16:45 - 17:45	495	+	1278	=	1773	0	145	No
16:15 - 17:15	494	+	1275	=	1769	0	117	No
17:00 - 18:00	477	+	1232	=	1709	0	139	No
16:00 - 17:00	482	+	1207	=	1689	0	112	No
15:45 - 16:45	476	+	1089	=	1565	0	99	No
17:15 - 18:15	410	+	1128	=	1538	0	133	No
15:30 - 16:30	450	+	1019	=	1469	0	96	No
15:15 - 16:15	460	+	951	=	1411	0	99	No
17:30 - 18:30	341	+	994	=	1335	0	115	No
15:00 - 16:00	429	+	868	=	1297	0	100	No
17:45 - 18:45	307	+	927	=	1234	0	98	No
14:45 - 15:45	406	+	827	=	1233	0	97	No
14:30 - 15:30	373	+	765	=	1138	0	96	No
18:00 - 19:00	275	+	822	=	1097	0	90	No
08:30 - 09:30	529	+	532	=	1061	0	149	No
14:15 - 15:15	359	+	683	=	1042	0	96	No
08:45 - 09:45	493	+	512	=	1005	0	117	No
13:15 - 14:15	385	+	615	=	1000	0	89	No
14:00 - 15:00	358	+	637	=	995	0	90	No
13:45 - 14:45	365	+	629	=	994	0	93	No
12:30 - 13:30	341	+	649	=	990	0	83	No
12:45 - 13:45	338		652		990	0	83	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road RED BANK RD						Minor Road None		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	495	+	1278	=	1773	0	145	Yes
15:45 - 16:45	476	+	1089	=	1565	0	99	Yes
07:00 - 08:00	742	+	531	=	1273	0	326	Yes
17:45 - 18:45	307	+	927	=	1234	0	98	Yes
14:45 - 15:45	406	+	827	=	1233	0	97	Yes
08:00 - 09:00	636	+	547	=	1183	0	209	Yes
13:45 - 14:45	365	+	629	=	994	0	93	Yes
12:45 - 13:45	338	+	652	=	990	0	83	Yes
11:45 - 12:45	371	+	579	=	950	0	89	Yes
10:45 - 11:45	399	+	514	=	913	0	78	Yes
09:00 - 10:00	435	+	477	=	912	0	88	Yes
06:00 - 07:00	364	+	395	=	759	0	89	Yes
10:30 - 11:30	377	+	489	=	866	0	73	No
10:15 - 11:15	360	+	464	=	824	0	73	No
10:00 - 11:00	343	+	439	=	782	0	74	No
18:45 - 19:45	201	+	533	=	734	0	60	No
05:45 - 06:45	311	+	327	=	638	0	62	No
19:00 - 20:00	170	+	449	=	619	0	50	No
19:15 - 20:15	150	+	408	=	558	0	49	No
20:00 - 21:00	146	+	381	=	527	0	34	No
19:30 - 20:30	135	+	389	=	524	0	45	No
19:45 - 20:45	131	+	393	=	524	0	42	No
05:30 - 06:30	250	+	250	=	500	0	51	No
20:15 - 21:15	138	+	360	=	498	0	32	No
20:30 - 21:30	143		344		487	0	27	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
14 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor EB = **160 80**
Veh/Hr Minor WB = **120 60**

Major Road						Minor Road			
RED BANK RD						None			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?	
16:30 - 17:30	533	+	1332	=	1865	0	136	Yes	
07:15 - 08:15	746	+	547	=	1293	0	316	Yes	
08:15 - 09:15	587	+	543	=	1130	0	179	Yes	
06:15 - 07:15	476	+	432	=	908	0	137	Yes	
16:15 - 17:15	494	+	1275	=	1769	0	117	No	
16:00 - 17:00	482	+	1207	=	1689	0	112	No	
15:45 - 16:45	476	+	1089	=	1565	0	99	No	
15:30 - 16:30	450	+	1019	=	1469	0	96	No	
15:15 - 16:15	460	+	951	=	1411	0	99	No	
17:30 - 18:30	341	+	994	=	1335	0	115	No	
15:00 - 16:00	429	+	868	=	1297	0	100	No	
17:45 - 18:45	307	+	927	=	1234	0	98	No	

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?	
16:45 - 17:45	495	+	1278	=	1773	0	145	Yes	
15:45 - 16:45	476	+	1089	=	1565	0	99	Yes	
17:45 - 18:45	307	+	927	=	1234	0	98	Yes	
14:45 - 15:45	406	+	827	=	1233	0	97	Yes	
07:45 - 08:45	684	+	545	=	1229	0	249	Yes	
06:45 - 07:45	666	+	505	=	1171	0	268	Yes	
08:45 - 09:45	493	+	512	=	1005	0	117	Yes	
13:45 - 14:45	365	+	629	=	994	0	93	Yes	
12:45 - 13:45	338	+	652	=	990	0	83	Yes	
11:45 - 12:45	371	+	579	=	950	0	89	Yes	
10:45 - 11:45	399	+	514	=	913	0	78	Yes	
09:45 - 10:45	310	+	434	=	744	0	76	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

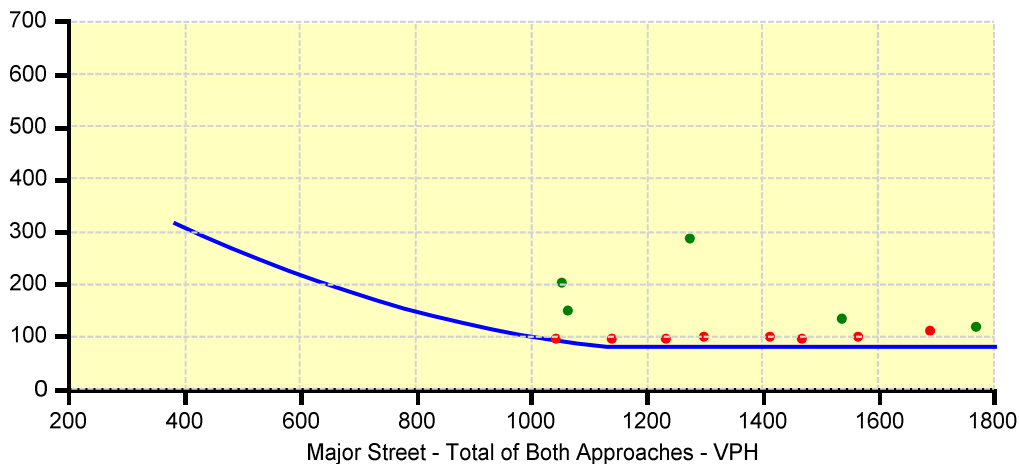
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road None		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:15 - 17:15	494	+	1275	=	1769	0	117	Yes
17:15 - 18:15	410	+	1128	=	1538	0	133	Yes
07:30 - 08:30	718	+	554	=	1272	0	287	Yes
08:30 - 09:30	529	+	532	=	1061	0	149	Yes
06:30 - 07:30	589	+	464	=	1053	0	202	Yes
16:00 - 17:00	482	+	1207	=	1689	0	112	No
15:45 - 16:45	476	+	1089	=	1565	0	99	No
15:30 - 16:30	450	+	1019	=	1469	0	96	No
15:15 - 16:15	460	+	951	=	1411	0	99	No
15:00 - 16:00	429	+	868	=	1297	0	100	No
14:45 - 15:45	406	+	827	=	1233	0	97	No
							96	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

51 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
RED BANK RD						None			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
07:15 - 08:15	1609	Yes	0	-	---	316	-	Yes	Yes
07:00 - 08:00	1599	Yes	0	-	---	326	-	Yes	Yes
07:30 - 08:30	1559	Yes	0	-	---	287	-	Yes	Yes
07:45 - 08:45	1478	Yes	0	-	---	249	-	Yes	Yes
06:45 - 07:45	1439	Yes	0	-	---	268	-	Yes	Yes
08:00 - 09:00	1392	Yes	0	-	---	209	-	Yes	Yes
08:15 - 09:15	1309	Yes	0	-	---	179	-	Yes	Yes
06:30 - 07:30	1255	Yes	0	-	---	202	-	Yes	Yes
16:30 - 17:30	2001	Yes	0	-	---	136	-	No	No
16:45 - 17:45	1918	Yes	0	-	---	145	-	No	No
16:15 - 17:15	1886	Yes	0	-	---	117	-	No	No
17:00 - 18:00	1848	Yes	0	-	---	139	-	No	No
16:00 - 17:00	1801	Yes	0	-	---	112	-	No	No
17:15 - 18:15	1671	Yes	0	-	---	133	-	No	No
15:45 - 16:45	1664	Yes	0	-	---	99	-	No	No
15:30 - 16:30	1565	Yes	0	-	---	96	-	No	No
15:15 - 16:15	1510	Yes	0	-	---	99	-	No	No
17:30 - 18:30	1450	Yes	0	-	---	115	-	No	No
15:00 - 16:00	1397	Yes	0	-	---	100	-	No	No
17:45 - 18:45	1332	Yes	0	-	---	98	-	No	No
14:45 - 15:45	1330	Yes	0	-	---	97	-	No	No
14:30 - 15:30	1234	Yes	0	-	---	96	-	No	No
08:30 - 09:30	1210	Yes	0	-	---	149	-	No	No
18:00 - 19:00	1187	Yes	0	-	---	90	-	No	No
14:15 - 15:15	1138	Yes	0	-	---	96	-	No	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

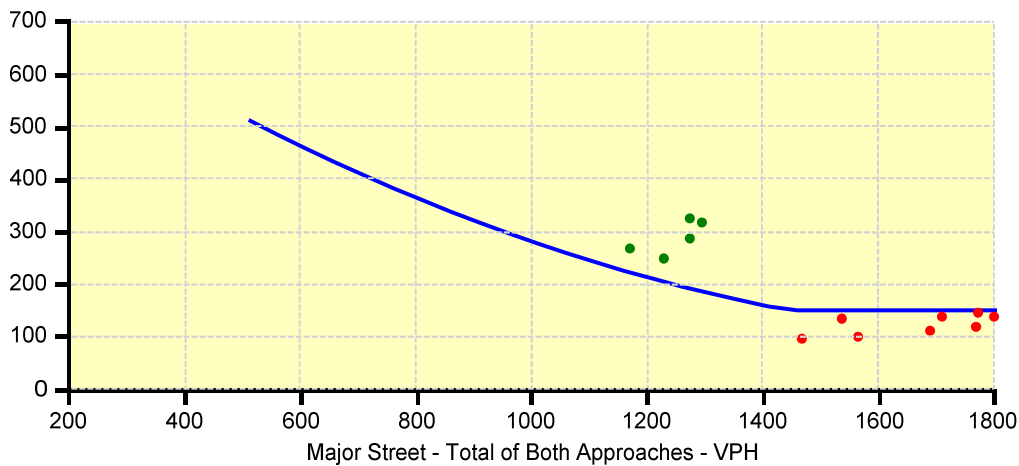
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road None		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
07:15 - 08:15	746	+	547	=	1293	0	316	Yes
07:00 - 08:00	742	+	531	=	1273	0	326	Yes
07:30 - 08:30	718	+	554	=	1272	0	287	Yes
07:45 - 08:45	684	+	545	=	1229	0	249	Yes
06:45 - 07:45	666	+	505	=	1171	0	268	Yes
16:30 - 17:30	533	+	1332	=	1865	0	136	No
16:45 - 17:45	495	+	1278	=	1773	0	145	No
16:15 - 17:15	494	+	1275	=	1769	0	117	No
17:00 - 18:00	477	+	1232	=	1709	0	139	No
16:00 - 17:00	482	+	1207	=	1689	0	112	No
15:45 - 16:45	476	+	1089	=	1565	0	99	No
							133	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: WILMER AVE

Number of Lanes : 2+

Total Approach Volume: 5,706

Southbound: WILMER AVE

Number of Lanes :2+

Total Approach Volume: 1,133

Minor Street Approaches

Eastbound: BEECHMONT CIRCLE

Number of Lanes :2+

Total Approach Volume: 5,524

Westbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (16) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

		Major Road				Minor Road			
		WILMER AVE				BEECHMONT CIRCLE			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?	
17:15 - 18:15	545	+	125	=	670	662	0	Yes	
16:15 - 17:15	498	+	128	=	626	711	0	Yes	
16:00 - 17:00	466	+	128	=	594	659	0	No	
15:45 - 16:45	438	+	114	=	552	624	0	No	
07:15 - 08:15	464	+	74	=	538	214	0	No	
15:30 - 16:30	420	+	105	=	525	588	0	No	
07:30 - 08:30	441	+	77	=	518	199	0	No	
07:00 - 08:00	458	+	51	=	509	202	0	No	
15:15 - 16:15	419	+	90	=	509	526	0	No	
15:00 - 16:00	413	+	78	=	491	487	0	No	
07:45 - 08:45	399	+	80	=	479	213	0	No	
06:45 - 07:45	429	+	49	=	478	193	0	No	
11:45 - 12:45	416	+	61	=	477	260	0	No	
11:30 - 12:30	401	+	73	=	474	257	0	No	
11:15 - 12:15	392	+	70	=	462	249	0	No	
12:00 - 13:00	388	+	71	=	459	261	0	No	
12:15 - 13:15	379	+	74	=	453	260	0	No	
14:45 - 15:45	375	+	66	=	441	450	0	No	
08:00 - 09:00	357	+	83	=	440	218	0	No	
12:30 - 13:30	354	+	83	=	437	259	0	No	
11:00 - 12:00	373	+	62	=	435	224	0	No	
12:45 - 13:45	341	+	91	=	432	283	0	No	
14:30 - 15:30	354	+	66	=	420	401	0	No	
06:30 - 07:30	366	+	47	=	413	184	0	No	
14:15 - 15:15	340		66		406	369	0	No	

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

		Major Road				Minor Road				
		WILMER AVE				BEECHMONT CIRCLE				
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB	Met?
17:15 - 18:15	545	+	125	=	670		662		0	Yes
16:15 - 17:15	498	+	128	=	626		711		0	Yes
16:00 - 17:00	466	+	128	=	594		659		0	No
15:45 - 16:45	438	+	114	=	552		624		0	No
07:15 - 08:15	464	+	74	=	538		214		0	No
15:30 - 16:30	420	+	105	=	525		588		0	No
07:30 - 08:30	441	+	77	=	518		199		0	No
07:00 - 08:00	458	+	51	=	509		202		0	No
15:15 - 16:15	419	+	90	=	509		526		0	No
15:00 - 16:00	413	+	78	=	491		487		0	No
07:45 - 08:45	399	+	80	=	479		213		0	No
06:45 - 07:45	429	+	49	=	478		193		0	No
11:45 - 12:45	416	+	61	=	477		260		0	No
11:30 - 12:30	401	+	73	=	474		257		0	No
11:15 - 12:15	392	+	70	=	462		249		0	No
12:00 - 13:00	388	+	71	=	459		261		0	No
12:15 - 13:15	379	+	74	=	453		260		0	No
14:45 - 15:45	375	+	66	=	441		450		0	No
08:00 - 09:00	357	+	83	=	440		218		0	No
12:30 - 13:30	354	+	83	=	437		259		0	No
11:00 - 12:00	373	+	62	=	435		224		0	No
12:45 - 13:45	341	+	91	=	432		283		0	No
14:30 - 15:30	354	+	66	=	420		401		0	No
06:30 - 07:30	366	+	47	=	413		184		0	No
14:15 - 15:15	340		66		406		369		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor EB = **160** **80**
Veh/Hr Minor WB = **120** **60**

Major Road						Minor Road			
WILMER AVE						BEECHMONT CIRCLE			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?	
17:00 - 18:00	566	+	121	=	687	722	0	Yes	
16:00 - 17:00	466	+	128	=	594	659	0	Yes	
07:00 - 08:00	458	+	51	=	509	202	0	Yes	
15:00 - 16:00	413	+	78	=	491	487	0	Yes	
06:45 - 07:45	429	+	49	=	478	193	0	No	
11:45 - 12:45	416	+	61	=	477	260	0	No	
11:30 - 12:30	401	+	73	=	474	257	0	No	
11:15 - 12:15	392	+	70	=	462	249	0	No	
12:00 - 13:00	388	+	71	=	459	261	0	No	
12:15 - 13:15	379	+	74	=	453	260	0	No	
18:00 - 19:00	359	+	90	=	449	454	0	No	
14:45 - 15:45	375		66		441	450	0	No	

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
07:00 - 08:00	458	+	51	=	509	202	0	Yes
15:00 - 16:00	413	+	78	=	491	487	0	Yes
06:45 - 07:45	429	+	49	=	478	193	0	No
11:45 - 12:45	416	+	61	=	477	260	0	No
11:30 - 12:30	401	+	73	=	474	257	0	No
11:15 - 12:15	392	+	70	=	462	249	0	No
12:00 - 13:00	388	+	71	=	459	261	0	No
12:15 - 13:15	379	+	74	=	453	260	0	No
18:00 - 19:00	359	+	90	=	449	454	0	No
14:45 - 15:45	375		66		441	450	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

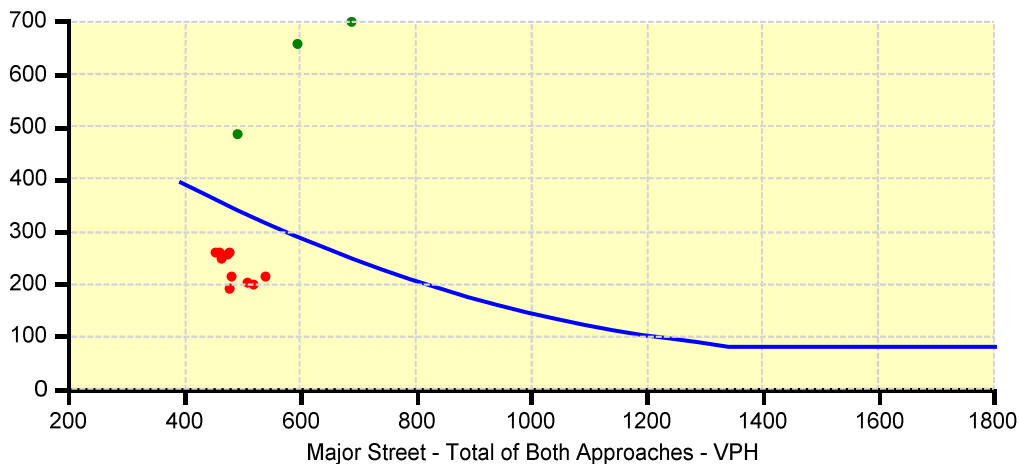
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
15:00 - 16:00	413	+	78	=	491	487	0	Yes
07:15 - 08:15	464	+	74	=	538	214	0	No
07:30 - 08:30	441	+	77	=	518	199	0	No
07:00 - 08:00	458	+	51	=	509	202	0	No
07:45 - 08:45	399	+	80	=	479	213	0	No
06:45 - 07:45	429	+	49	=	478	193	0	No
11:45 - 12:45	416	+	61	=	477	260	0	No
11:30 - 12:30	401	+	73	=	474	257	0	No
11:15 - 12:15	392	+	70	=	462	249	0	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

16 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:45 - 17:45	1432	Yes	742	-	Yes	0	-	---	Yes
17:00 - 18:00	1409	Yes	722	-	Yes	0	-	---	Yes
16:30 - 17:30	1401	Yes	723	-	Yes	0	-	---	Yes
16:15 - 17:15	1337	Yes	711	-	Yes	0	-	---	Yes
17:15 - 18:15	1332	Yes	662	-	Yes	0	-	---	Yes
16:00 - 17:00	1253	Yes	659	-	Yes	0	-	---	Yes
17:30 - 18:30	1217	Yes	602	-	Yes	0	-	---	Yes
15:45 - 16:45	1176	Yes	624	-	Yes	0	-	---	Yes
15:30 - 16:30	1113	Yes	588	-	Yes	0	-	---	Yes
17:45 - 18:45	1057	Yes	519	-	Yes	0	-	---	Yes
15:15 - 16:15	1035	Yes	526	-	Yes	0	-	---	Yes
15:00 - 16:00	978	Yes	487	-	Yes	0	-	---	Yes
18:00 - 19:00	903	Yes	454	-	Yes	0	-	---	Yes
14:45 - 15:45	891	Yes	450	-	Yes	0	-	---	Yes
14:30 - 15:30	821	Yes	401	-	Yes	0	-	---	Yes
18:15 - 19:15	816	Yes	418	-	Yes	0	-	---	Yes
14:15 - 15:15	775	No	369	-	Yes	0	-	---	No
07:15 - 08:15	752	No	214	-	Yes	0	-	---	No
18:30 - 19:30	740	No	363	-	Yes	0	-	---	No
11:45 - 12:45	737	No	260	-	Yes	0	-	---	No
14:00 - 15:00	733	No	351	-	Yes	0	-	---	No
11:30 - 12:30	731	No	257	-	Yes	0	-	---	No
12:00 - 13:00	720	No	261	-	Yes	0	-	---	No
18:45 - 19:45	718	No	344	-	Yes	0	-	---	No
07:30 - 08:30	717	No	199	-	Yes	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

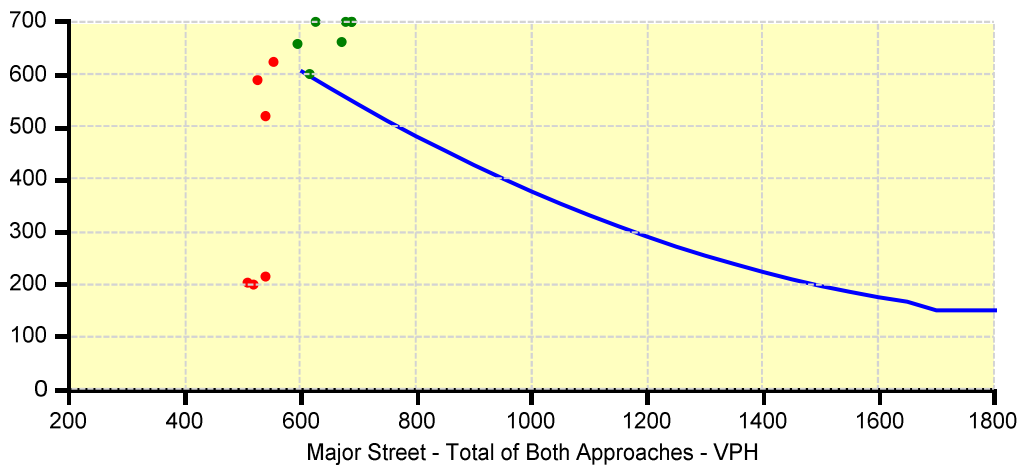
Summary

7 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	565	+	125	=	690	742	0	Yes
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:30 - 17:30	557	+	121	=	678	723	0	Yes
17:15 - 18:15	545	+	125	=	670	662	0	Yes
16:15 - 17:15	498	+	128	=	626	711	0	Yes
17:30 - 18:30	493	+	122	=	615	602	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
15:45 - 16:45	438	+	114	=	552	624	0	No
07:15 - 08:15	464	+	74	=	538	214	0	No
17:45 - 18:45	434	+	104	=	538	519	0	No
15:30 - 16:30	420	+	105	=	525	588	0	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: EASTERN AVE

Number of Lanes : 1

Total Approach Volume: 1,325

Southbound: EASTERN AVE

Number of Lanes : 1

Total Approach Volume: 3,756

Minor Street Approaches

Eastbound: LINWOOD AVE

Number of Lanes : 2+

Total Approach Volume: 2,451

Westbound: None

Number of Lanes : 2+

Total Approach Volume: 8

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	162	+	454	=	616	165	1	No
17:00 - 18:00	132	+	445	=	577	159	1	No
16:30 - 17:30	143	+	422	=	565	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
16:15 - 17:15	128	+	395	=	523	146	1	No
16:00 - 17:00	119	+	402	=	521	164	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
15:00 - 16:00	89	+	352	=	441	143	0	No
18:00 - 19:00	78	+	327	=	405	110	2	No
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No
18:15 - 19:15	72	+	278	=	350	100	1	No
07:30 - 08:30	140	+	203	=	343	365	0	No
07:00 - 08:00	143	+	189	=	332	449	0	No
14:30 - 15:30	68	+	253	=	321	145	0	No
06:45 - 07:45	139	+	175	=	314	390	0	No
07:45 - 08:45	126	+	187	=	313	332	0	No
08:00 - 09:00	112	+	198	=	310	264	0	No
18:30 - 19:30	66	+	233	=	299	77	2	No
14:15 - 15:15	69	+	228	=	297	122	0	No
14:00 - 15:00	76		212		288	115	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
17:00 - 18:00	132	+	445	=	577	159	1	Yes
16:00 - 17:00	119	+	402	=	521	164	1	Yes
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
15:00 - 16:00	89	+	352	=	441	143	0	No
18:00 - 19:00	78	+	327	=	405	110	2	No
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No
18:15 - 19:15	72	+	278	=	350	100	1	No
07:30 - 08:30	140	+	203	=	343	365	0	No
07:00 - 08:00	143	+	189	=	332	449	0	No
14:30 - 15:30	68	+	253	=	321	145	0	No
06:45 - 07:45	139	+	175	=	314	390	0	No
07:45 - 08:45	126	+	187	=	313	332	0	No
08:00 - 09:00	112	+	198	=	310	264	0	No
18:30 - 19:30	66	+	233	=	299	77	2	No
14:15 - 15:15	69	+	228	=	297	122	0	No
14:00 - 15:00	76	+	212	=	288	115	0	No
08:15 - 09:15	91	+	196	=	287	205	0	No
06:30 - 07:30	123	+	158	=	281	342	0	No
12:30 - 13:30	69	+	210	=	279	126	0	No
12:45 - 13:45	61	+	213	=	274	118	0	No
12:15 - 13:15	65	+	208	=	273	123	0	No
13:30 - 14:30	67		195		262	87	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor EB = **160 80**
Veh/Hr Minor WB = **120 60**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	119	+	402	=	521	164	1	Yes
17:00 - 18:00	132	+	445	=	577	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
15:00 - 16:00	89	+	352	=	441	143	0	No
18:00 - 19:00	78	+	327	=	405	110	2	No
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
17:00 - 18:00	132	+	445	=	577	159	1	Yes
16:00 - 17:00	119	+	402	=	521	164	1	Yes
15:00 - 16:00	89	+	352	=	441	143	0	Yes
18:00 - 19:00	78	+	327	=	405	110	2	Yes
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No
07:30 - 08:30	140	+	203	=	343	365	0	No
07:00 - 08:00	143	+	189	=	332	449	0	No
14:30 - 15:30	68	+	253	=	321	145	0	No
06:45 - 07:45	139	+	175	=	314	390	0	No
07:45 - 08:45	126	+	187	=	313	332	0	No
08:00 - 09:00	112	+	198	=	310	264	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

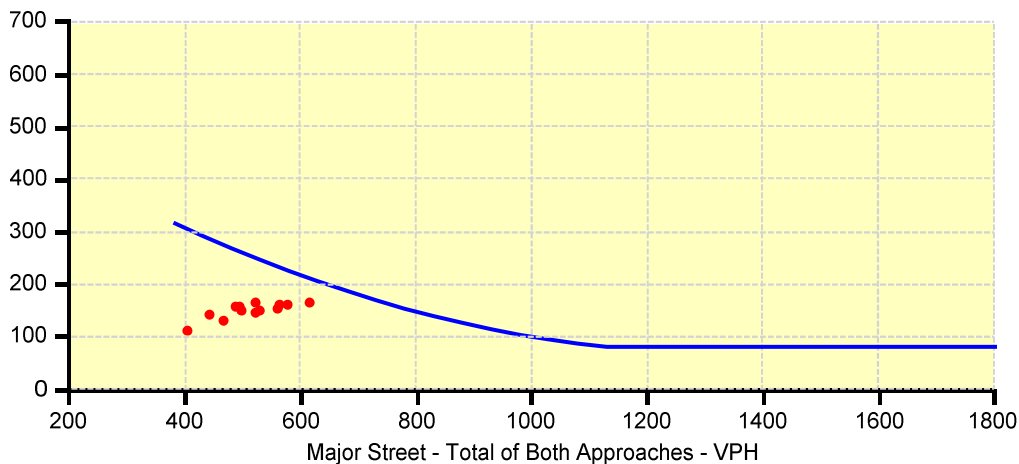
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	162	+	454	=	616	165	1	No
17:00 - 18:00	132	+	445	=	577	159	1	No
16:30 - 17:30	143	+	422	=	565	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
16:15 - 17:15	128	+	395	=	523	146	1	No
16:00 - 17:00	119	+	402	=	521	164	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
							0	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road EASTERN AVE						Minor Road LINWOOD AVE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
07:15 - 08:15	793	No	441	-	Yes	0	-	---	No
16:45 - 17:45	782	No	165	-	Yes	1	-	---	No
07:00 - 08:00	781	No	449	-	Yes	0	-	---	No
17:00 - 18:00	737	No	159	-	Yes	1	-	---	No
16:30 - 17:30	725	No	159	-	Yes	1	-	---	No
17:15 - 18:15	713	No	153	-	Yes	1	-	---	No
07:30 - 08:30	708	No	365	-	Yes	0	-	---	No
06:45 - 07:45	704	No	390	-	Yes	0	-	---	No
16:00 - 17:00	686	No	164	-	Yes	1	-	---	No
17:30 - 18:30	678	No	149	-	No	1	-	---	No
16:15 - 17:15	670	No	146	-	No	1	-	---	No
15:15 - 16:15	652	No	156	-	Yes	1	-	---	No
15:30 - 16:30	649	No	150	-	Yes	1	-	---	No
15:45 - 16:45	645	No	158	-	Yes	1	-	---	No
07:45 - 08:45	645	No	332	-	Yes	0	-	---	No
06:30 - 07:30	623	No	342	-	Yes	0	-	---	No
17:45 - 18:45	596	No	129	-	No	2	-	---	No
15:00 - 16:00	584	No	143	-	No	0	-	---	No
08:00 - 09:00	574	No	264	-	Yes	0	-	---	No
14:45 - 15:45	533	No	149	-	No	0	-	---	No
18:00 - 19:00	517	No	110	-	No	2	-	---	No
08:15 - 09:15	492	No	205	-	Yes	0	-	---	No
06:15 - 07:15	473	No	246	-	Yes	0	-	---	No
14:30 - 15:30	466	No	145	-	No	0	-	---	No
18:15 - 19:15	451	No	100	-	No	1	-	---	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

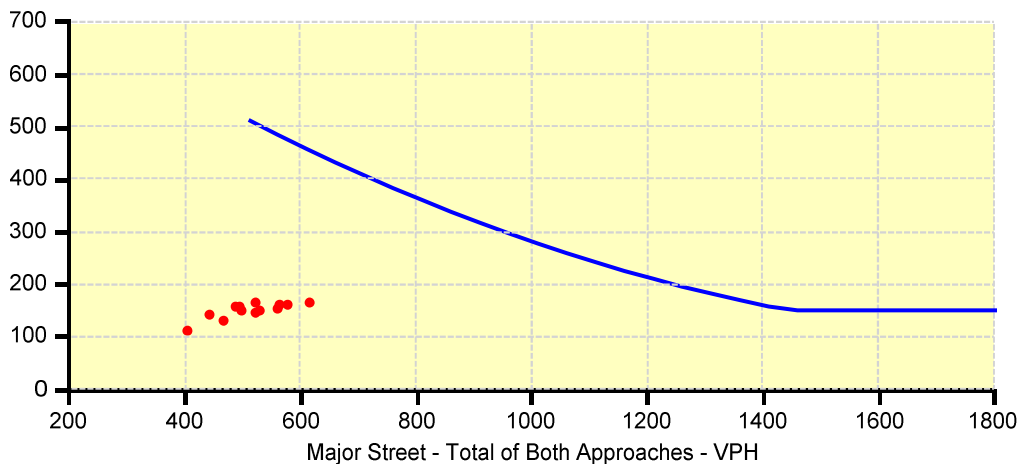
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	162	+	454	=	616	165	1	No
17:00 - 18:00	132	+	445	=	577	159	1	No
16:30 - 17:30	143	+	422	=	565	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
16:15 - 17:15	128	+	395	=	523	146	1	No
16:00 - 17:00	119	+	402	=	521	164	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 1

Total Approach Volume: 9,489

Westbound: US 50

Number of Lanes :1

Total Approach Volume: 8,144

Minor Street Approaches

Northbound: None

Number of Lanes :2+

Total Approach Volume: 0

Southbound: PLAINVILLE RD

Number of Lanes :1

Total Approach Volume: 1,407

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 10 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 13 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (8) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (20) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1114	+	570	=	1684	0	111	No
17:00 - 18:00	1106	+	547	=	1653	0	111	No
16:30 - 17:30	1097	+	548	=	1645	0	100	No
17:15 - 18:15	1080	+	517	=	1597	0	114	No
16:15 - 17:15	1055	+	510	=	1565	0	93	No
16:00 - 17:00	1031	+	508	=	1539	0	83	No
17:30 - 18:30	1032	+	493	=	1525	0	112	No
17:45 - 18:45	965	+	482	=	1447	0	113	No
15:45 - 16:45	984	+	462	=	1446	0	72	No
07:15 - 08:15	575	+	839	=	1414	0	90	No
07:30 - 08:30	599	+	787	=	1386	0	100	No
07:00 - 08:00	517	+	861	=	1378	0	83	No
07:45 - 08:45	540	+	779	=	1319	0	113	No
15:30 - 16:30	880	+	432	=	1312	0	68	No
18:00 - 19:00	856	+	456	=	1312	0	114	No
06:45 - 07:45	456	+	837	=	1293	0	70	No
15:15 - 16:15	830	+	461	=	1291	0	74	No
15:00 - 16:00	806	+	451	=	1257	0	85	No
08:00 - 09:00	509	+	746	=	1255	0	116	No
14:30 - 15:30	729	+	509	=	1238	0	100	No
14:45 - 15:45	746	+	466	=	1212	0	98	No
18:15 - 19:15	756	+	440	=	1196	0	94	No
08:15 - 09:15	452	+	744	=	1196	0	117	No
06:30 - 07:30	352	+	789	=	1141	0	61	No
14:15 - 15:15	641		492		1133	0	98	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1106	+	547	=	1653	0	111	Yes
16:00 - 17:00	1031	+	508	=	1539	0	83	Yes
07:00 - 08:00	517	+	861	=	1378	0	83	Yes
18:00 - 19:00	856	+	456	=	1312	0	114	Yes
08:00 - 09:00	509	+	746	=	1255	0	116	Yes
14:45 - 15:45	746	+	466	=	1212	0	98	Yes
11:45 - 12:45	596	+	475	=	1071	0	120	Yes
12:45 - 13:45	571	+	477	=	1048	0	91	Yes
13:45 - 14:45	497	+	477	=	974	0	77	Yes
10:45 - 11:45	472	+	456	=	928	0	89	Yes
15:45 - 16:45	984	+	462	=	1446	0	72	No
06:45 - 07:45	456	+	837	=	1293	0	70	No
06:30 - 07:30	352	+	789	=	1141	0	61	No
09:00 - 10:00	409	+	545	=	954	0	72	No
06:15 - 07:15	287	+	656	=	943	0	45	No
09:30 - 10:30	427	+	439	=	866	0	58	No
09:15 - 10:15	394	+	467	=	861	0	65	No
10:15 - 11:15	437	+	404	=	841	0	52	No
10:30 - 11:30	419	+	417	=	836	0	60	No
09:45 - 10:45	408	+	400	=	808	0	55	No
10:00 - 11:00	404	+	384	=	788	0	55	No
19:00 - 20:00	440	+	323	=	763	0	50	No
06:00 - 07:00	217	+	525	=	742	0	36	No
19:15 - 20:15	378	+	292	=	670	0	52	No
19:30 - 20:30	386		260		646	0	57	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
13 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road

US 50

Minor Road

None

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
11:15 - 12:15	544	+	473	=	1017	0	121	Yes
16:45 - 17:45	1114	+	570	=	1684	0	111	No
17:00 - 18:00	1106	+	547	=	1653	0	111	No
16:30 - 17:30	1097	+	548	=	1645	0	100	No
17:15 - 18:15	1080	+	517	=	1597	0	114	No
16:15 - 17:15	1055	+	510	=	1565	0	93	No
16:00 - 17:00	1031	+	508	=	1539	0	83	No
17:30 - 18:30	1032	+	493	=	1525	0	112	No
17:45 - 18:45	965	+	482	=	1447	0	113	No
15:45 - 16:45	984	+	462	=	1446	0	72	No
07:15 - 08:15	575	+	839	=	1414	0	90	No
07:30 - 08:30	599	+	787	=	1386	0	100	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	1097	+	548	=	1645	0	100	Yes
17:30 - 18:30	1032	+	493	=	1525	0	112	Yes
07:30 - 08:30	599	+	787	=	1386	0	100	Yes
15:30 - 16:30	880	+	432	=	1312	0	68	Yes
14:30 - 15:30	729	+	509	=	1238	0	100	Yes
06:30 - 07:30	352	+	789	=	1141	0	61	Yes
08:30 - 09:30	407	+	690	=	1097	0	105	Yes
11:30 - 12:30	599	+	486	=	1085	0	129	Yes
12:30 - 13:30	562	+	488	=	1050	0	111	Yes
18:30 - 19:30	615	+	400	=	1015	0	79	Yes
13:30 - 14:30	515	+	457	=	972	0	73	Yes
10:30 - 11:30	419	+	417	=	836	0	60	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

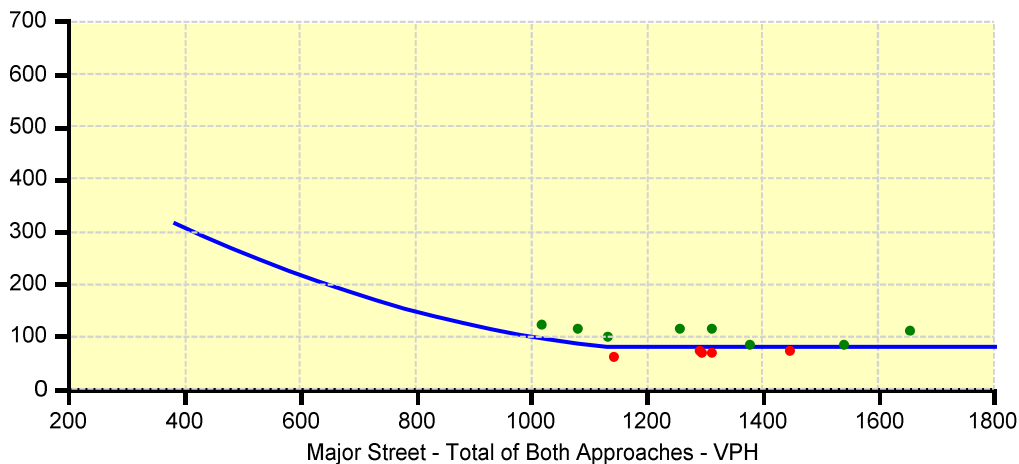
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1106	+	547	=	1653	0	111	Yes
16:00 - 17:00	1031	+	508	=	1539	0	83	Yes
07:00 - 08:00	517	+	861	=	1378	0	83	Yes
18:00 - 19:00	856	+	456	=	1312	0	114	Yes
08:00 - 09:00	509	+	746	=	1255	0	116	Yes
14:15 - 15:15	641	+	492	=	1133	0	98	Yes
12:15 - 13:15	591	+	490	=	1081	0	114	Yes
11:15 - 12:15	544	+	473	=	1017	0	121	Yes
15:45 - 16:45	984	+	462	=	1446	0	72	No
15:30 - 16:30	880	+	432	=	1312	0	68	No
06:45 - 07:45	456	+	837	=	1293	0	70	No
							74	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

52 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = 800

Veh/Hr Minor = 100

Total Delay (Veh-Hrs) = 4

Major Road						Minor Road			
US 50						None			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	1795	Yes	0	-	---	111	-	Yes	Yes
17:00 - 18:00	1764	Yes	0	-	---	111	-	Yes	Yes
16:30 - 17:30	1745	Yes	0	-	---	100	-	Yes	Yes
17:15 - 18:15	1711	Yes	0	-	---	114	-	Yes	Yes
17:30 - 18:30	1637	Yes	0	-	---	112	-	Yes	Yes
17:45 - 18:45	1560	Yes	0	-	---	113	-	Yes	Yes
07:30 - 08:30	1486	Yes	0	-	---	100	-	Yes	Yes
07:45 - 08:45	1432	Yes	0	-	---	113	-	Yes	Yes
18:00 - 19:00	1426	Yes	0	-	---	114	-	Yes	Yes
08:00 - 09:00	1371	Yes	0	-	---	116	-	Yes	Yes
14:30 - 15:30	1338	Yes	0	-	---	100	-	Yes	Yes
08:15 - 09:15	1313	Yes	0	-	---	117	-	Yes	Yes
11:30 - 12:30	1214	Yes	0	-	---	129	-	Yes	Yes
12:00 - 13:00	1214	Yes	0	-	---	130	-	Yes	Yes
08:30 - 09:30	1202	Yes	0	-	---	105	-	Yes	Yes
12:15 - 13:15	1195	Yes	0	-	---	114	-	Yes	Yes
11:45 - 12:45	1191	Yes	0	-	---	120	-	Yes	Yes
12:30 - 13:30	1161	Yes	0	-	---	111	-	Yes	Yes
11:15 - 12:15	1138	Yes	0	-	---	121	-	Yes	Yes
11:00 - 12:00	1079	Yes	0	-	---	101	-	Yes	Yes
16:15 - 17:15	1658	Yes	0	-	---	93	-	No	No
16:00 - 17:00	1622	Yes	0	-	---	83	-	No	No
15:45 - 16:45	1518	Yes	0	-	---	72	-	No	No
07:15 - 08:15	1504	Yes	0	-	---	90	-	No	No
07:00 - 08:00	1461	Yes	0	-	---	83	-	No	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

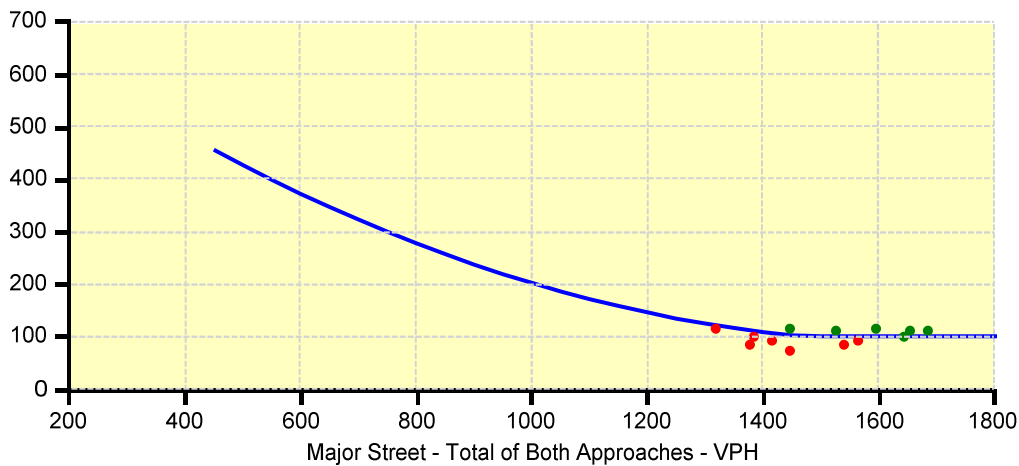
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1114	+	570	=	1684	0	111	Yes
17:00 - 18:00	1106	+	547	=	1653	0	111	Yes
16:30 - 17:30	1097	+	548	=	1645	0	100	Yes
17:15 - 18:15	1080	+	517	=	1597	0	114	Yes
17:30 - 18:30	1032	+	493	=	1525	0	112	Yes
17:45 - 18:45	965	+	482	=	1447	0	113	Yes
16:15 - 17:15	1055	+	510	=	1565	0	93	No
16:00 - 17:00	1031	+	508	=	1539	0	83	No
15:45 - 16:45	984	+	462	=	1446	0	72	No
07:15 - 08:15	575	+	839	=	1414	0	90	No
07:30 - 08:30	599	+	787	=	1386	0	100	No
							83	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 8,461

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 10,545

Minor Street Approaches

Northbound: 8 MILE RD

Number of Lanes :2+

Total Approach Volume: 1,654

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (5) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

	Major Road				Minor Road						
	SR 32				8 MILE RD						
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:15 - 17:15	1022	+	787	=	1809		142		0		No
16:30 - 17:30	965	+	831	=	1796		158		0		No
16:45 - 17:45	958	+	814	=	1772		155		0		No
17:00 - 18:00	933	+	810	=	1743		154		0		No
16:00 - 17:00	956	+	723	=	1679		126		0		No
17:15 - 18:15	884	+	774	=	1658		138		0		No
15:45 - 16:45	916	+	729	=	1645		133		0		No
07:00 - 08:00	425	+	1160	=	1585		165		0		No
17:30 - 18:30	866	+	713	=	1579		135		0		No
15:30 - 16:30	893	+	681	=	1574		134		0		No
06:45 - 07:45	340	+	1194	=	1534		155		0		No
15:15 - 16:15	839	+	648	=	1487		141		0		No
17:45 - 18:45	802	+	672	=	1474		128		0		No
07:15 - 08:15	434	+	1016	=	1450		147		0		No
06:30 - 07:30	288	+	1158	=	1446		144		0		No
15:00 - 16:00	803	+	621	=	1424		133		0		No
14:45 - 15:45	768	+	622	=	1390		117		0		No
07:30 - 08:30	436	+	922	=	1358		134		0		No
14:30 - 15:30	694	+	630	=	1324		120		0		No
18:00 - 19:00	695	+	624	=	1319		120		0		No
06:15 - 07:15	244	+	1074	=	1318		118		0		No
14:15 - 15:15	625	+	640	=	1265		110		0		No
07:45 - 08:45	422	+	814	=	1236		119		0		No
14:00 - 15:00	564	+	635	=	1199		103		0		No
18:15 - 19:15	596		558		1154		100		0		No

Eastern Corridor Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road SR 32						Minor Road 8 MILE RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	933	+	810	=	1743	154	0	Yes
16:00 - 17:00	956	+	723	=	1679	126	0	Yes
07:15 - 08:15	434	+	1016	=	1450	147	0	Yes
15:00 - 16:00	803	+	621	=	1424	133	0	Yes
18:00 - 19:00	695	+	624	=	1319	120	0	Yes
06:15 - 07:15	244	+	1074	=	1318	118	0	Yes
14:00 - 15:00	564	+	635	=	1199	103	0	Yes
08:15 - 09:15	380	+	655	=	1035	104	0	Yes
11:00 - 12:00	426	+	554	=	980	104	0	Yes
13:45 - 14:45	502	+	585	=	1087	94	0	No
13:30 - 14:30	494	+	567	=	1061	81	0	No
06:00 - 07:00	191	+	861	=	1052	83	0	No
13:15 - 14:15	487	+	539	=	1026	82	0	No
13:00 - 14:00	473	+	539	=	1012	92	0	No
12:45 - 13:45	470	+	500	=	970	99	0	No
10:45 - 11:45	402	+	557	=	959	98	0	No
10:15 - 11:15	373	+	554	=	927	78	0	No
12:00 - 13:00	444	+	482	=	926	83	0	No
12:30 - 13:30	442	+	473	=	915	97	0	No
10:30 - 11:30	372	+	543	=	915	92	0	No
12:15 - 13:15	414	+	487	=	901	87	0	No
09:45 - 10:45	378	+	521	=	899	81	0	No
09:30 - 10:30	362	+	530	=	892	86	0	No
10:00 - 11:00	366	+	513	=	879	73	0	No
09:15 - 10:15	344		528		872	98	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road						Minor Road		
SR 32						8 MILE RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
07:00 - 08:00	425	+	1160	=	1585	165	0	Yes
16:15 - 17:15	1022	+	787	=	1809	142	0	No
16:30 - 17:30	965	+	831	=	1796	158	0	No
16:45 - 17:45	958	+	814	=	1772	155	0	No
17:00 - 18:00	933	+	810	=	1743	154	0	No
16:00 - 17:00	956	+	723	=	1679	126	0	No
17:15 - 18:15	884	+	774	=	1658	138	0	No
15:45 - 16:45	916	+	729	=	1645	133	0	No
17:30 - 18:30	866	+	713	=	1579	135	0	No
15:30 - 16:30	893	+	681	=	1574	134	0	No
06:45 - 07:45	340	+	1194	=	1534	155	0	No
15:15 - 16:15	839	+	648	=	1487	141	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	965	+	831	=	1796	158	0	Yes
07:00 - 08:00	425	+	1160	=	1585	165	0	Yes
17:30 - 18:30	866	+	713	=	1579	135	0	Yes
15:30 - 16:30	893	+	681	=	1574	134	0	Yes
14:30 - 15:30	694	+	630	=	1324	120	0	Yes
08:00 - 09:00	386	+	704	=	1090	108	0	Yes
13:30 - 14:30	494	+	567	=	1061	81	0	Yes
06:00 - 07:00	191	+	861	=	1052	83	0	Yes
11:30 - 12:30	451	+	551	=	1002	92	0	Yes
09:00 - 10:00	331	+	587	=	918	106	0	Yes
12:30 - 13:30	442	+	473	=	915	97	0	Yes
10:30 - 11:30	372	+	543	=	915	92	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

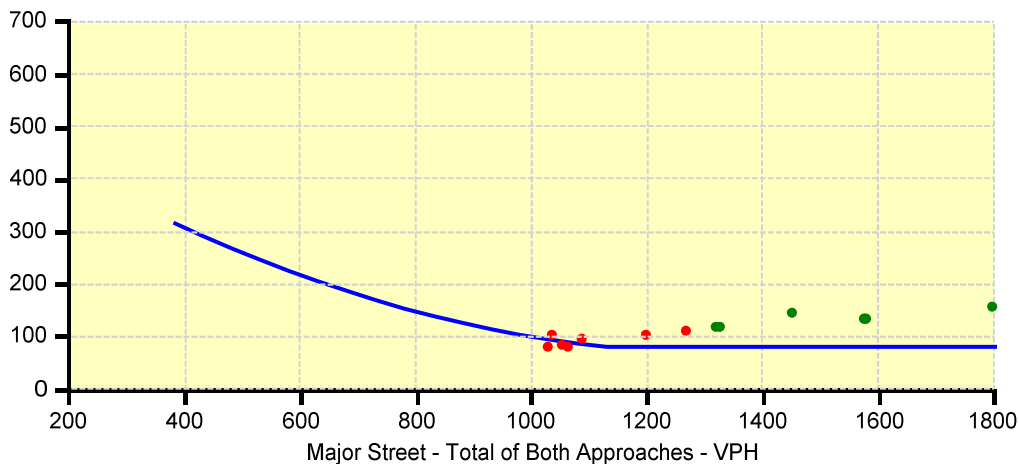
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road 8 MILE RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	965	+	831	=	1796	158	0	Yes
17:30 - 18:30	866	+	713	=	1579	135	0	Yes
15:30 - 16:30	893	+	681	=	1574	134	0	Yes
07:15 - 08:15	434	+	1016	=	1450	147	0	Yes
14:30 - 15:30	694	+	630	=	1324	120	0	Yes
06:15 - 07:15	244	+	1074	=	1318	118	0	Yes
14:15 - 15:15	625	+	640	=	1265	110	0	No
14:00 - 15:00	564	+	635	=	1199	103	0	No
13:45 - 14:45	502	+	585	=	1087	94	0	No
13:30 - 14:30	494	+	567	=	1061	81	0	No
06:00 - 07:00	191	+	861	=	1052	83	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

55 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road SR 32						Minor Road 8 MILE RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:30 - 17:30	1954	Yes	158	-	Yes	0	-	---	Yes
16:45 - 17:45	1927	Yes	155	-	Yes	0	-	---	Yes
17:00 - 18:00	1897	Yes	154	-	Yes	0	-	---	Yes
07:00 - 08:00	1750	Yes	165	-	Yes	0	-	---	Yes
06:45 - 07:45	1689	Yes	155	-	Yes	0	-	---	Yes
16:15 - 17:15	1951	Yes	142	-	No	0	-	---	No
16:00 - 17:00	1805	Yes	126	-	No	0	-	---	No
17:15 - 18:15	1796	Yes	138	-	No	0	-	---	No
15:45 - 16:45	1778	Yes	133	-	No	0	-	---	No
17:30 - 18:30	1714	Yes	135	-	No	0	-	---	No
15:30 - 16:30	1708	Yes	134	-	No	0	-	---	No
15:15 - 16:15	1628	Yes	141	-	No	0	-	---	No
17:45 - 18:45	1602	Yes	128	-	No	0	-	---	No
07:15 - 08:15	1597	Yes	147	-	No	0	-	---	No
06:30 - 07:30	1590	Yes	144	-	No	0	-	---	No
15:00 - 16:00	1557	Yes	133	-	No	0	-	---	No
14:45 - 15:45	1507	Yes	117	-	No	0	-	---	No
07:30 - 08:30	1492	Yes	134	-	No	0	-	---	No
14:30 - 15:30	1444	Yes	120	-	No	0	-	---	No
18:00 - 19:00	1439	Yes	120	-	No	0	-	---	No
06:15 - 07:15	1436	Yes	118	-	No	0	-	---	No
14:15 - 15:15	1375	Yes	110	-	No	0	-	---	No
07:45 - 08:45	1355	Yes	119	-	No	0	-	---	No
14:00 - 15:00	1302	Yes	103	-	No	0	-	---	No
18:15 - 19:15	1254	Yes	100	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

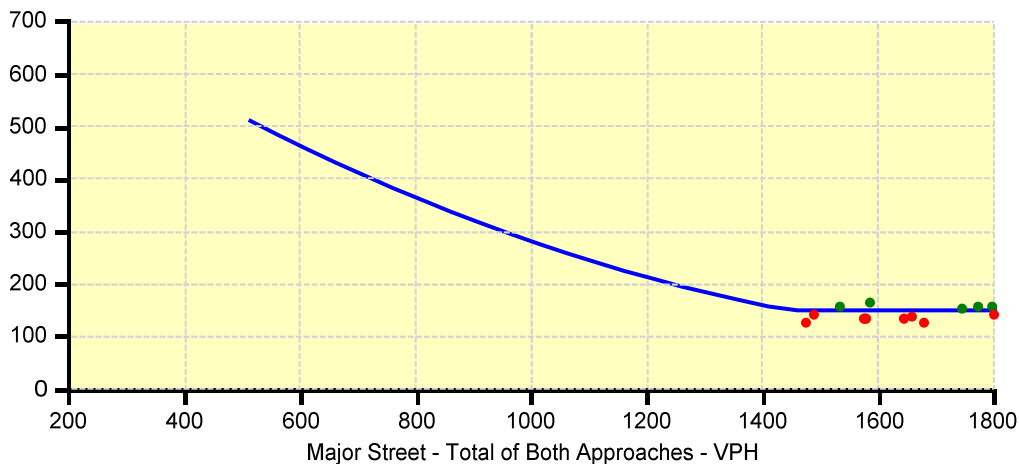
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road 8 MILE RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	965	+	831	=	1796	158	0	Yes
16:45 - 17:45	958	+	814	=	1772	155	0	Yes
17:00 - 18:00	933	+	810	=	1743	154	0	Yes
07:00 - 08:00	425	+	1160	=	1585	165	0	Yes
06:45 - 07:45	340	+	1194	=	1534	155	0	Yes
16:15 - 17:15	1022	+	787	=	1809	142	0	No
16:00 - 17:00	956	+	723	=	1679	126	0	No
17:15 - 18:15	884	+	774	=	1658	138	0	No
15:45 - 16:45	916	+	729	=	1645	133	0	No
17:30 - 18:30	866	+	713	=	1579	135	0	No
15:30 - 16:30	893	+	681	=	1574	134	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: BEECHMONT CIRCLE

Number of Lanes : 1

Total Approach Volume: 5,193

Westbound: BEECHMONT CIRCLE

Number of Lanes : 1

Total Approach Volume: 1,497

Minor Street Approaches

Northbound: None

Number of Lanes : 2+

Total Approach Volume: 0

Southbound: WOOSTER RD

Number of Lanes : 1

Total Approach Volume: 996

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road BEECHMONT CIRCLE						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
17:15 - 18:15	449	+	78	=	527	0	96	No
08:00 - 09:00	381	+	143	=	524	0	48	No
17:00 - 18:00	426	+	83	=	509	0	111	No
16:15 - 17:15	380	+	105	=	485	0	117	No
08:15 - 09:15	360	+	125	=	485	0	40	No
18:00 - 19:00	400	+	81	=	481	0	89	No
06:15 - 07:15	375	+	99	=	474	0	26	No
16:30 - 17:30	374	+	98	=	472	0	127	No
16:00 - 17:00	364	+	105	=	469	0	81	No
16:45 - 17:45	374	+	89	=	463	0	111	No
18:15 - 19:15	371	+	83	=	454	0	95	No
08:30 - 09:30	333	+	110	=	443	0	43	No
15:45 - 16:45	339	+	95	=	434	0	76	No
13:00 - 14:00	304	+	115	=	419	0	42	No
12:30 - 13:30	282	+	135	=	417	0	50	No
12:45 - 13:45	290	+	122	=	412	0	52	No
06:00 - 07:00	315		95		410	0	18	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road BEECHMONT CIRCLE						Minor Road None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	426	+	83	=	509	0	111	Yes
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
06:30 - 07:30	419	+	119	=	538	0	29	No
08:00 - 09:00	381	+	143	=	524	0	48	No
16:15 - 17:15	380	+	105	=	485	0	117	No
08:15 - 09:15	360	+	125	=	485	0	40	No
18:00 - 19:00	400	+	81	=	481	0	89	No
06:15 - 07:15	375	+	99	=	474	0	26	No
16:30 - 17:30	374	+	98	=	472	0	127	No
16:00 - 17:00	364	+	105	=	469	0	81	No
16:45 - 17:45	374	+	89	=	463	0	111	No
18:15 - 19:15	371	+	83	=	454	0	95	No
08:30 - 09:30	333	+	110	=	443	0	43	No
15:45 - 16:45	339	+	95	=	434	0	76	No
13:00 - 14:00	304	+	115	=	419	0	42	No
12:30 - 13:30	282	+	135	=	417	0	50	No
12:45 - 13:45	290	+	122	=	412	0	52	No
06:00 - 07:00	315	+	95	=	410	0	18	No
15:30 - 16:30	324	+	83	=	407	0	72	No
18:30 - 19:30	320	+	80	=	400	0	91	No
13:15 - 14:15	299		95		394	0	54	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road BEECHMONT CIRCLE

Minor Road None

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:30 - 17:30	374	+	98	=	472	0	127	Yes
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
08:00 - 09:00	381	+	143	=	524	0	48	No
08:15 - 09:15	360	+	125	=	485	0	40	No
16:15 - 17:15	380		105		485	0	117	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:30 - 18:30	468	+	85	=	553	0	95	Yes
16:30 - 17:30	374	+	98	=	472	0	127	Yes
15:30 - 16:30	324	+	83	=	407	0	72	Yes
18:30 - 19:30	320	+	80	=	400	0	91	Yes
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
06:30 - 07:30	419	+	119	=	538	0	29	No
08:00 - 09:00	381	+	143	=	524	0	48	No
08:15 - 09:15	360		125		485	0	40	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

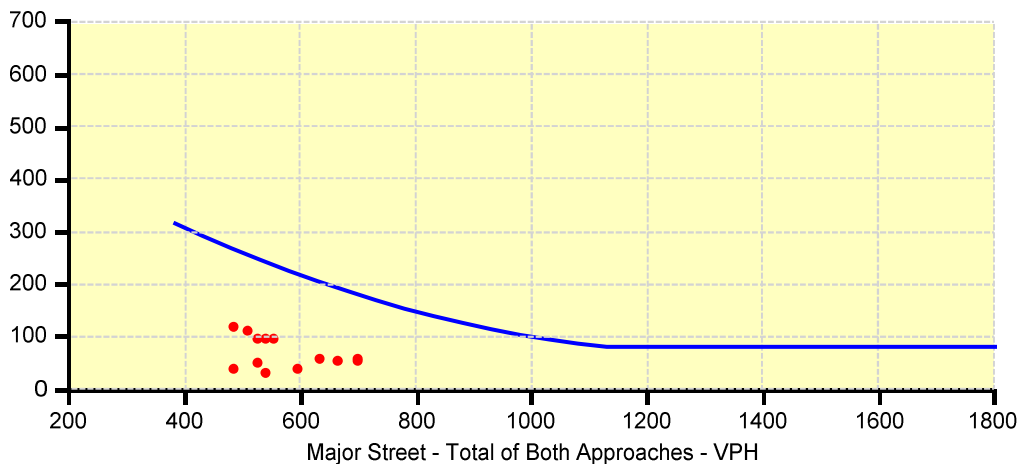
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road BEECHMONT CIRCLE						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
17:15 - 18:15	449	+	78	=	527	0	96	No
08:00 - 09:00	381	+	143	=	524	0	48	No
17:00 - 18:00	426	+	83	=	509	0	111	No
							117	No



Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **100**

Total Delay (Veh-Hrs) = **4**

Major Road						Minor Road			
BEECHMONT CIRCLE						None			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
07:15 - 08:15	753	No	0	-	---	56	-	No	No
07:00 - 08:00	749	No	0	-	---	52	-	No	No
07:30 - 08:30	720	No	0	-	---	55	-	No	No
07:45 - 08:45	691	No	0	-	---	58	-	No	No
17:30 - 18:30	648	No	0	-	---	95	-	No	No
17:45 - 18:45	638	No	0	-	---	97	-	No	No
06:45 - 07:45	633	No	0	-	---	38	-	No	No
17:15 - 18:15	623	No	0	-	---	96	-	No	No
17:00 - 18:00	620	No	0	-	---	111	-	Yes	No
16:15 - 17:15	602	No	0	-	---	117	-	Yes	No
16:30 - 17:30	599	No	0	-	---	127	-	Yes	No
16:45 - 17:45	574	No	0	-	---	111	-	Yes	No
08:00 - 09:00	572	No	0	-	---	48	-	No	No
18:00 - 19:00	570	No	0	-	---	89	-	No	No
06:30 - 07:30	567	No	0	-	---	29	-	No	No
16:00 - 17:00	550	No	0	-	---	81	-	No	No
18:15 - 19:15	549	No	0	-	---	95	-	No	No
08:15 - 09:15	525	No	0	-	---	40	-	No	No
15:45 - 16:45	510	No	0	-	---	76	-	No	No
06:15 - 07:15	500	No	0	-	---	26	-	No	No
18:30 - 19:30	491	No	0	-	---	91	-	No	No
18:45 - 19:45	489	No	0	-	---	106	-	Yes	No
19:00 - 20:00	486	No	0	-	---	123	-	Yes	No
08:30 - 09:30	486	No	0	-	---	43	-	No	No
15:30 - 16:30	479	No	0	-	---	72	-	No	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

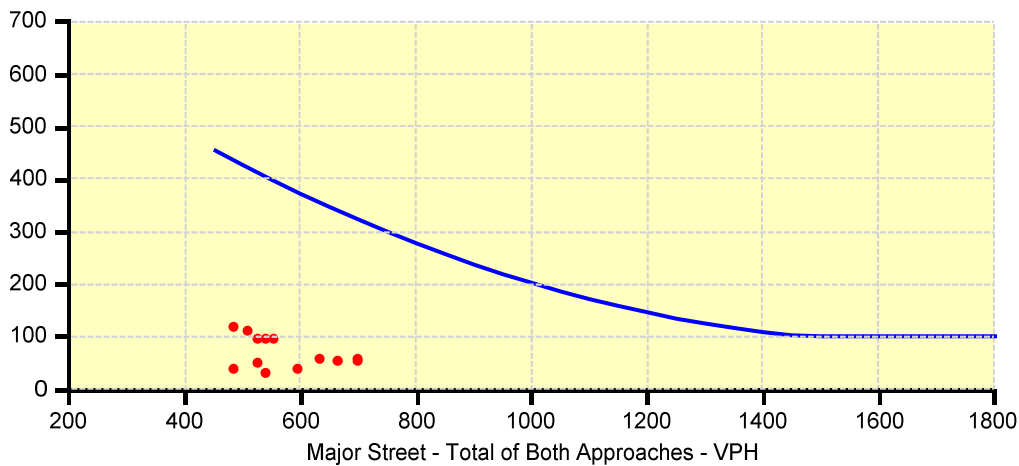
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road BEECHMONT CIRCLE						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
17:15 - 18:15	449	+	78	=	527	0	96	No
08:00 - 09:00	381	+	143	=	524	0	48	No
17:00 - 18:00	426	+	83	=	509	0	111	No
							117	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 2+

Total Approach Volume: 9,849

Westbound: SR 32

Number of Lanes :2+

Total Approach Volume: 9,993

Minor Street Approaches

Northbound: Beechwood Rd

Number of Lanes :2+

Total Approach Volume: 2,175

Southbound: Beechwood Rd

Number of Lanes :2+

Total Approach Volume: 3,705

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 14 hours, 8 are needed

Required 1B volumes reached for 17 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (53) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **420**

Veh/Hr Minor = **140**

Major Road SR 32						Minor Road Beechwood Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1033	+	754	=	1787	178	300	Yes
16:00 - 17:00	953	+	705	=	1658	171	321	Yes
07:00 - 08:00	554	+	873	=	1427	226	317	Yes
15:00 - 16:00	801	+	625	=	1426	130	265	Yes
14:00 - 15:00	713	+	601	=	1314	126	216	Yes
18:00 - 19:00	712	+	533	=	1245	133	246	Yes
08:00 - 09:00	524	+	690	=	1214	141	264	Yes
13:00 - 14:00	607	+	543	=	1150	123	212	Yes
12:00 - 13:00	546	+	572	=	1118	116	211	Yes
11:00 - 12:00	538	+	488	=	1026	106	211	Yes
09:00 - 10:00	479	+	529	=	1008	120	199	Yes
10:00 - 11:00	499	+	478	=	977	135	207	Yes
06:00 - 07:00	256	+	660	=	916	118	161	Yes
19:00 - 20:00	437	+	444	=	881	83	153	Yes
05:45 - 06:45	198	+	546	=	744	91	125	No
20:00 - 21:00	340	+	382	=	722	59	100	No
20:15 - 21:15	337	+	351	=	688	54	101	No
20:45 - 21:45	337	+	288	=	625	44	88	No
20:30 - 21:30	319	+	293	=	612	53	97	No
05:30 - 06:30	152	+	452	=	604	77	82	No
21:00 - 22:00	307	+	252	=	559	54	76	No
21:15 - 22:15	267	+	249	=	516	58	61	No
05:15 - 06:15	120	+	393	=	513	54	59	No
21:30 - 22:30	229	+	254	=	483	64	63	No
05:00 - 06:00	96		318		414	44	47	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **630**

Veh/Hr Minor = **70**

Major Road SR 32						Minor Road Beechwood Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
14:45 - 15:45	802	+	609	=	1411	122	256	Yes
17:45 - 18:45	815	+	586	=	1401	159	258	Yes
06:45 - 07:45	474	+	883	=	1357	219	283	Yes
13:45 - 14:45	689	+	599	=	1288	116	210	Yes
07:45 - 08:45	574	+	712	=	1286	163	288	Yes
12:45 - 13:45	567	+	545	=	1112	123	217	Yes
11:45 - 12:45	539	+	560	=	1099	124	217	Yes
08:45 - 09:45	491	+	569	=	1060	119	213	Yes
09:45 - 10:45	511	+	506	=	1017	127	211	Yes
10:45 - 11:45	505	+	470	=	975	115	192	Yes
18:45 - 19:45	475	+	470	=	945	85	177	Yes
05:45 - 06:45	198	+	546	=	744	91	125	Yes
19:45 - 20:45	338	+	385	=	723	74	106	Yes
20:45 - 21:45	337	+	288	=	625	44	88	No
05:30 - 06:30	152	+	452	=	604	77	82	No
21:00 - 22:00	307	+	252	=	559	54	76	No
21:15 - 22:15	267	+	249	=	516	58	61	No
05:15 - 06:15	120	+	393	=	513	54	59	No
21:30 - 22:30	229	+	254	=	483	64	63	No
05:00 - 06:00	96	+	318	=	414	44	47	No
21:45 - 22:45	180	+	216	=	396	64	55	No
22:00 - 23:00	154	+	196	=	350	54	58	No
04:45 - 05:45	71		277		348	36	35	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

14 hours meet 1A minimums.
17 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**

Veh/Hr Minor = **112 56**

Major Road SR 32						Minor Road Beechwood Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
14:45 - 15:45	802	+	609	=	1411	122	256	Yes
17:45 - 18:45	815	+	586	=	1401	159	258	Yes
06:45 - 07:45	474	+	883	=	1357	219	283	Yes
13:45 - 14:45	689	+	599	=	1288	116	210	Yes
07:45 - 08:45	574	+	712	=	1286	163	288	Yes
12:45 - 13:45	567	+	545	=	1112	123	217	Yes
11:45 - 12:45	539	+	560	=	1099	124	217	Yes
08:45 - 09:45	491	+	569	=	1060	119	213	Yes
09:45 - 10:45	511	+	506	=	1017	127	211	Yes
10:45 - 11:45	505		470		975	115	192	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	999	+	728	=	1727	174	312	Yes
17:15 - 18:15	978	+	712	=	1690	179	280	Yes
15:15 - 16:15	832	+	640	=	1472	142	280	Yes
07:15 - 08:15	590	+	807	=	1397	206	302	Yes
14:15 - 15:15	757	+	573	=	1330	126	240	Yes
13:15 - 14:15	617	+	588	=	1205	106	218	Yes
08:15 - 09:15	521	+	645	=	1166	121	242	Yes
18:15 - 19:15	617	+	512	=	1129	111	226	Yes
12:15 - 13:15	548	+	570	=	1118	135	212	Yes
06:15 - 07:15	320	+	789	=	1109	167	232	Yes
11:15 - 12:15	538	+	482	=	1020	117	221	Yes
09:15 - 10:15	481		523		1004	134	203	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

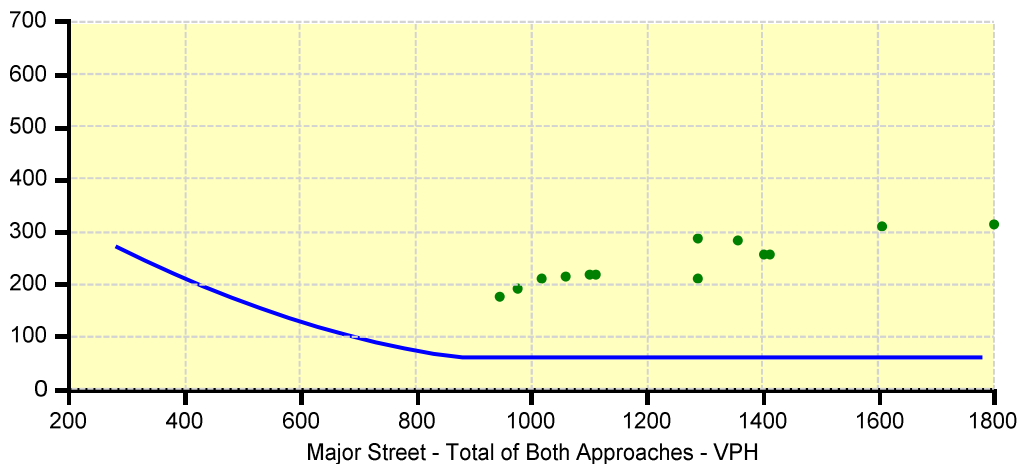
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road Beechwood Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
14:45 - 15:45	802	+	609	=	1411	122	256	Yes
17:45 - 18:45	815	+	586	=	1401	159	258	Yes
06:45 - 07:45	474	+	883	=	1357	219	283	Yes
13:45 - 14:45	689	+	599	=	1288	116	210	Yes
07:45 - 08:45	574	+	712	=	1286	163	288	Yes
12:45 - 13:45	567	+	545	=	1112	123	217	Yes
11:45 - 12:45	539	+	560	=	1099	124	217	Yes
08:45 - 09:45	491	+	569	=	1060	119	213	Yes
09:45 - 10:45	511	+	506	=	1017	127	211	Yes
							192	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

59 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

		Major Road				Minor Road			
		SR 32				Beechwood Rd			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	2280	Yes	167	-	---	312	-	Yes	Yes
17:00 - 18:00	2265	Yes	178	-	---	300	-	Yes	Yes
16:30 - 17:30	2239	Yes	170	-	---	302	-	Yes	Yes
16:15 - 17:15	2213	Yes	174	-	---	312	-	Yes	Yes
16:00 - 17:00	2150	Yes	171	-	---	321	-	Yes	Yes
17:15 - 18:15	2149	Yes	179	-	---	280	-	Yes	Yes
15:45 - 16:45	2087	Yes	172	-	---	308	-	Yes	Yes
15:30 - 16:30	2000	Yes	160	-	---	292	-	Yes	Yes
17:30 - 18:30	1990	Yes	168	-	---	271	-	Yes	Yes
07:00 - 08:00	1970	Yes	226	-	---	317	-	Yes	Yes
07:15 - 08:15	1905	Yes	206	-	---	302	-	Yes	Yes
15:15 - 16:15	1894	Yes	142	-	---	280	-	Yes	Yes
07:30 - 08:30	1874	Yes	179	-	---	301	-	Yes	Yes
06:45 - 07:45	1859	Yes	219	-	---	283	-	Yes	Yes
15:00 - 16:00	1821	Yes	130	-	---	265	-	Yes	Yes
17:45 - 18:45	1818	Yes	159	-	---	258	-	Yes	Yes
14:45 - 15:45	1789	Yes	122	-	---	256	-	Yes	Yes
14:30 - 15:30	1767	Yes	120	-	---	263	-	Yes	Yes
07:45 - 08:45	1737	Yes	163	-	---	288	-	Yes	Yes
06:30 - 07:30	1701	Yes	199	-	---	273	-	Yes	Yes
14:15 - 15:15	1696	Yes	126	-	---	240	-	Yes	Yes
14:00 - 15:00	1656	Yes	126	-	---	216	-	Yes	Yes
18:00 - 19:00	1624	Yes	133	-	---	246	-	Yes	Yes
08:00 - 09:00	1619	Yes	141	-	---	264	-	Yes	Yes
13:45 - 14:45	1614	Yes	116	-	---	210	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1a-02-BEECHWOOD RD AT SR 32

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

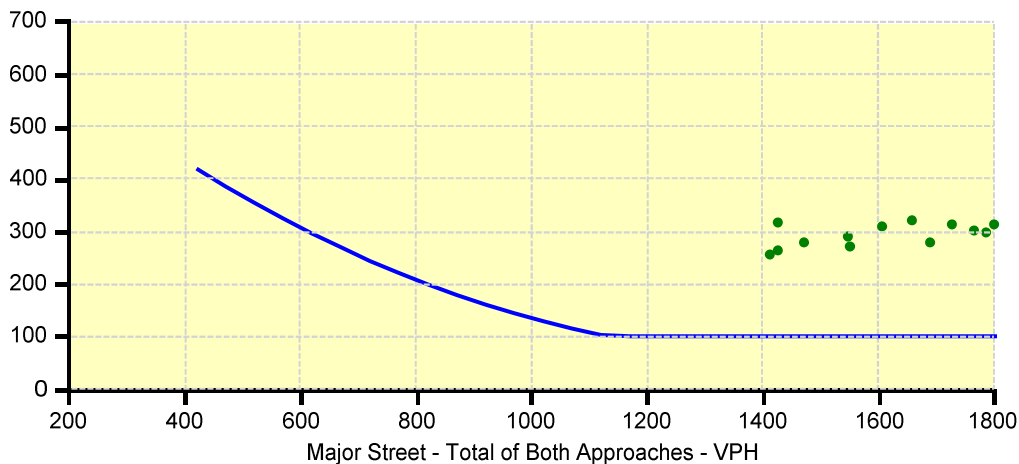
Summary

51 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road Beechwood Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1052	+	749	=	1801	167	312	Yes
17:00 - 18:00	1033	+	754	=	1787	178	300	Yes
16:30 - 17:30	1020	+	747	=	1767	170	302	Yes
16:15 - 17:15	999	+	728	=	1727	174	312	Yes
17:15 - 18:15	978	+	712	=	1690	179	280	Yes
16:00 - 17:00	953	+	705	=	1658	171	321	Yes
15:45 - 16:45	913	+	694	=	1607	172	308	Yes
17:30 - 18:30	915	+	636	=	1551	168	271	Yes
15:30 - 16:30	876	+	672	=	1548	160	292	Yes
15:15 - 16:15	832	+	640	=	1472	142	280	Yes
07:00 - 08:00	554	+	873	=	1427	226	317	Yes
							265	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 9,770

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 9,120

Minor Street Approaches

Northbound: Little Dry Run Rd

Number of Lanes :2+

Total Approach Volume: 1,527

Southbound: Not Used

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 5 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (6) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **140 105**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:30 - 08:30	527	+	1010	=	1537	171	0	Yes
06:30 - 07:30	312	+	1063	=	1375	161	0	Yes
16:45 - 17:45	1127	+	575	=	1702	112	0	No
17:00 - 18:00	1118	+	583	=	1701	132	0	No
16:30 - 17:30	1131	+	554	=	1685	108	0	No
17:15 - 18:15	1074	+	586	=	1660	134	0	No
16:15 - 17:15	1088	+	509	=	1597	110	0	No
16:00 - 17:00	1071	+	514	=	1585	105	0	No
17:30 - 18:30	1012	+	568	=	1580	139	0	No
15:45 - 16:45	1050	+	512	=	1562	105	0	No
15:30 - 16:30	982	+	507	=	1489	100	0	No
15:15 - 16:15	962	+	501	=	1463	89	0	No
15:00 - 16:00	900	+	521	=	1421	77	0	No
17:45 - 18:45	904	+	510	=	1414	125	0	No
14:45 - 15:45	844	+	529	=	1373	76	0	No
14:30 - 15:30	790	+	532	=	1322	78	0	No
14:15 - 15:15	743	+	519	=	1262	82	0	No
18:00 - 19:00	798	+	462	=	1260	100	0	No
06:15 - 07:15	254	+	975	=	1229	139	0	No
14:00 - 15:00	682	+	491	=	1173	83	0	No
18:15 - 19:15	720	+	412	=	1132	81	0	No
13:45 - 14:45	645	+	463	=	1108	85	0	No
08:30 - 09:30	425	+	648	=	1073	108	0	No
13:30 - 14:30	606	+	459	=	1065	72	0	No
13:15 - 14:15	582		473		1055	73	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **70 52**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:15 - 18:15	1074	+	586	=	1660	134	0	Yes
16:15 - 17:15	1088	+	509	=	1597	110	0	Yes
07:00 - 08:00	464	+	1117	=	1581	185	0	Yes
15:15 - 16:15	962	+	501	=	1463	89	0	Yes
08:00 - 09:00	473	+	836	=	1309	145	0	Yes
14:15 - 15:15	743	+	519	=	1262	82	0	Yes
18:15 - 19:15	720	+	412	=	1132	81	0	Yes
13:15 - 14:15	582	+	473	=	1055	73	0	Yes
06:00 - 07:00	194	+	802	=	996	91	0	Yes
12:15 - 13:15	526	+	454	=	980	87	0	Yes
11:15 - 12:15	494	+	458	=	952	76	0	Yes
09:00 - 10:00	396	+	533	=	929	88	0	Yes
10:00 - 11:00	419	+	478	=	897	76	0	Yes
11:00 - 12:00	471	+	468	=	939	69	0	No
05:45 - 06:45	141	+	660	=	801	64	0	No
19:15 - 20:15	452	+	253	=	705	63	0	No
19:30 - 20:30	424	+	244	=	668	59	0	No
05:30 - 06:30	106	+	552	=	658	56	0	No
19:45 - 20:45	379	+	240	=	619	57	0	No
20:15 - 21:15	349	+	229	=	578	41	0	No
20:00 - 21:00	351	+	224	=	575	40	0	No
20:30 - 21:30	352	+	204	=	556	34	0	No
05:15 - 06:15	93	+	435	=	528	40	0	No
20:45 - 21:45	320	+	175	=	495	29	0	No
21:00 - 22:00	299		177		476	24	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 5 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**
Veh/Hr Minor NB = **112 56**
Veh/Hr Minor SB = **84 42**

Major Road SR 32						Minor Road Little Dry Run Rd		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1127	+	575	=	1702	112	0	Yes
07:15 - 08:15	506	+	1072	=	1578	166	0	Yes
17:45 - 18:45	904	+	510	=	1414	125	0	Yes
06:15 - 07:15	254	+	975	=	1229	139	0	Yes
08:15 - 09:15	436	+	738	=	1174	123	0	Yes
16:30 - 17:30	1131	+	554	=	1685	108	0	No
16:15 - 17:15	1088	+	509	=	1597	110	0	No
16:00 - 17:00	1071	+	514	=	1585	105	0	No
15:45 - 16:45	1050	+	512	=	1562	105	0	No
15:30 - 16:30	982	+	507	=	1489	100	0	No
15:15 - 16:15	962	+	501	=	1463	89	0	No
15:00 - 16:00	900	+	521	=	1421	77	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	1131	+	554	=	1685	108	0	Yes
17:30 - 18:30	1012	+	568	=	1580	139	0	Yes
07:30 - 08:30	527	+	1010	=	1537	171	0	Yes
15:30 - 16:30	982	+	507	=	1489	100	0	Yes
06:30 - 07:30	312	+	1063	=	1375	161	0	Yes
14:30 - 15:30	790	+	532	=	1322	78	0	Yes
08:30 - 09:30	425	+	648	=	1073	108	0	Yes
13:30 - 14:30	606	+	459	=	1065	72	0	Yes
12:30 - 13:30	558	+	455	=	1013	95	0	Yes
18:30 - 19:30	621	+	347	=	968	69	0	Yes
11:30 - 12:30	499	+	438	=	937	75	0	Yes
10:30 - 11:30	450	+	483	=	933	68	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

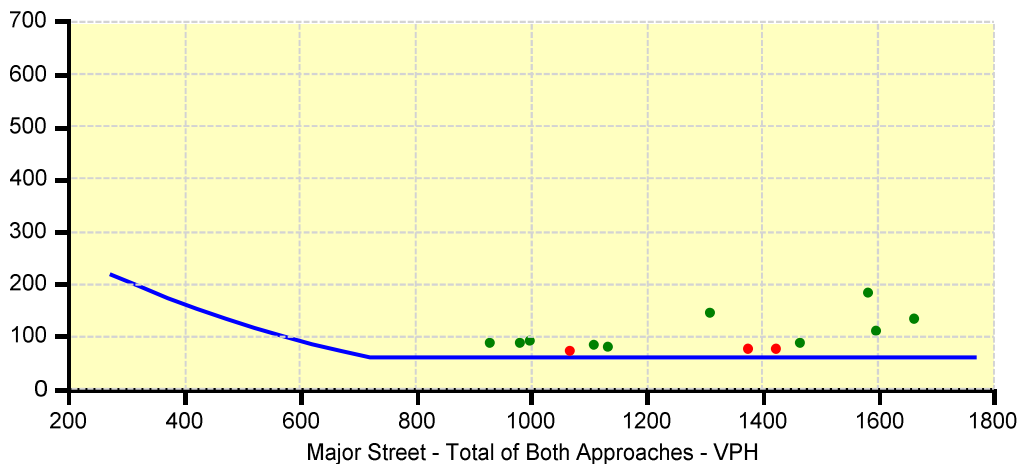
Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Little Dry Run Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1074	+	586	=	1660	134	0	Yes
16:15 - 17:15	1088	+	509	=	1597	110	0	Yes
07:00 - 08:00	464	+	1117	=	1581	185	0	Yes
15:15 - 16:15	962	+	501	=	1463	89	0	Yes
08:00 - 09:00	473	+	836	=	1309	145	0	Yes
18:15 - 19:15	720	+	412	=	1132	81	0	Yes
13:45 - 14:45	645	+	463	=	1108	85	0	Yes
06:00 - 07:00	194	+	802	=	996	91	0	Yes
12:15 - 13:15	526	+	454	=	980	87	0	Yes
09:00 - 10:00	396	+	533	=	929	88	0	Yes
15:00 - 16:00	900	+	521	=	1421	77	0	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

54 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
SR 32						Little Dry Run Rd			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
07:00 - 08:00	1766	Yes	185	-	Yes	0	-	---	Yes
07:15 - 08:15	1744	Yes	166	-	Yes	0	-	---	Yes
07:30 - 08:30	1708	Yes	171	-	Yes	0	-	---	Yes
06:45 - 07:45	1696	Yes	184	-	Yes	0	-	---	Yes
07:45 - 08:45	1587	Yes	150	-	Yes	0	-	---	Yes
06:30 - 07:30	1536	Yes	161	-	Yes	0	-	---	Yes
17:00 - 18:00	1833	Yes	132	-	No	0	-	---	No
16:45 - 17:45	1814	Yes	112	-	No	0	-	---	No
17:15 - 18:15	1794	Yes	134	-	No	0	-	---	No
16:30 - 17:30	1793	Yes	108	-	No	0	-	---	No
17:30 - 18:30	1719	Yes	139	-	No	0	-	---	No
16:15 - 17:15	1707	Yes	110	-	No	0	-	---	No
16:00 - 17:00	1690	Yes	105	-	No	0	-	---	No
15:45 - 16:45	1667	Yes	105	-	No	0	-	---	No
15:30 - 16:30	1589	Yes	100	-	No	0	-	---	No
15:15 - 16:15	1552	Yes	89	-	No	0	-	---	No
17:45 - 18:45	1539	Yes	125	-	No	0	-	---	No
15:00 - 16:00	1498	Yes	77	-	No	0	-	---	No
08:00 - 09:00	1454	Yes	145	-	No	0	-	---	No
14:45 - 15:45	1449	Yes	76	-	No	0	-	---	No
14:30 - 15:30	1400	Yes	78	-	No	0	-	---	No
06:15 - 07:15	1368	Yes	139	-	No	0	-	---	No
18:00 - 19:00	1360	Yes	100	-	No	0	-	---	No
14:15 - 15:15	1344	Yes	82	-	No	0	-	---	No
08:15 - 09:15	1297	Yes	123	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1b-04-SR 32 AT LITTLE DRY RUN RD

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

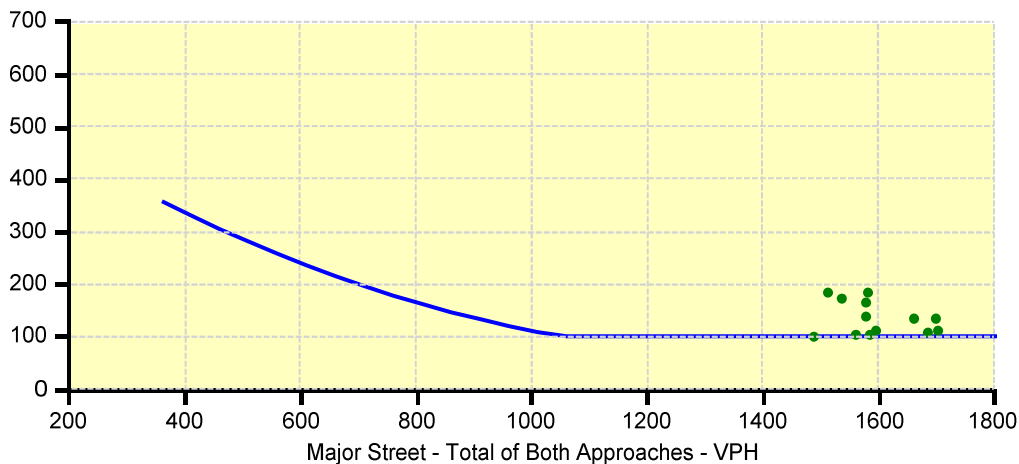
Summary

21 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Little Dry Run Rd		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1127	+	575	=	1702	112	0	Yes
17:00 - 18:00	1118	+	583	=	1701	132	0	Yes
16:30 - 17:30	1131	+	554	=	1685	108	0	Yes
17:15 - 18:15	1074	+	586	=	1660	134	0	Yes
16:15 - 17:15	1088	+	509	=	1597	110	0	Yes
16:00 - 17:00	1071	+	514	=	1585	105	0	Yes
07:00 - 08:00	464	+	1117	=	1581	185	0	Yes
17:30 - 18:30	1012	+	568	=	1580	139	0	Yes
07:15 - 08:15	506	+	1072	=	1578	166	0	Yes
15:45 - 16:45	1050	+	512	=	1562	105	0	Yes
07:30 - 08:30	527	+	1010	=	1537	171	0	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 10,178

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 10,857

Minor Street Approaches

Northbound: Ivy Hills Place

Number of Lanes :1

Total Approach Volume: 665

Southbound: Not Used

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 5 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 7 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (4) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105 140**

	Major Road				Minor Road				Met?
	SR 32				Ivy Hills Place				
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB		
17:15 - 18:15	1018	+	837	=	1855	86	0	No	
17:00 - 18:00	1037	+	799	=	1836	96	0	No	
16:45 - 17:45	1025	+	787	=	1812	96	0	No	
16:30 - 17:30	1054	+	737	=	1791	83	0	No	
17:30 - 18:30	939	+	762	=	1701	76	0	No	
16:15 - 17:15	1032	+	659	=	1691	71	0	No	
16:00 - 17:00	1005	+	626	=	1631	57	0	No	
17:45 - 18:45	883	+	693	=	1576	61	0	No	
06:45 - 07:45	349	+	1226	=	1575	65	0	No	
15:45 - 16:45	965	+	579	=	1544	41	0	No	
07:00 - 08:00	383	+	1145	=	1528	70	0	No	
15:30 - 16:30	933	+	587	=	1520	43	0	No	
06:30 - 07:30	297	+	1212	=	1509	55	0	No	
15:15 - 16:15	927	+	577	=	1504	41	0	No	
15:00 - 16:00	898	+	580	=	1478	31	0	No	
07:45 - 08:45	440	+	1033	=	1473	56	0	No	
18:00 - 19:00	786	+	682	=	1468	47	0	No	
14:45 - 15:45	860	+	589	=	1449	34	0	No	
07:30 - 08:30	411	+	1026	=	1437	56	0	No	
07:15 - 08:15	401	+	1035	=	1436	62	0	No	
08:00 - 09:00	433	+	990	=	1423	60	0	No	
08:30 - 09:30	498	+	894	=	1392	53	0	No	
08:15 - 09:15	432	+	958	=	1390	50	0	No	
06:15 - 07:15	255	+	1130	=	1385	45	0	No	
14:30 - 15:30	808		572		1380	36	0	No	

Eastern Corridor Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 5 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52 70**

Major Road SR 32						Minor Road Ivy Hills Place		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1037	+	799	=	1836	96	0	Yes
16:00 - 17:00	1005	+	626	=	1631	57	0	Yes
06:30 - 07:30	297	+	1212	=	1509	55	0	Yes
07:30 - 08:30	411	+	1026	=	1437	56	0	Yes
08:30 - 09:30	498	+	894	=	1392	53	0	Yes
15:45 - 16:45	965	+	579	=	1544	41	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
18:00 - 19:00	786	+	682	=	1468	47	0	No
14:45 - 15:45	860	+	589	=	1449	34	0	No
06:15 - 07:15	255	+	1130	=	1385	45	0	No
14:30 - 15:30	808	+	572	=	1380	36	0	No
18:15 - 19:15	742	+	592	=	1334	39	0	No
14:15 - 15:15	740	+	529	=	1269	34	0	No
18:30 - 19:30	696	+	518	=	1214	34	0	No
14:00 - 15:00	680	+	530	=	1210	36	0	No
13:45 - 14:45	643	+	548	=	1191	32	0	No
13:30 - 14:30	601	+	538	=	1139	28	0	No
18:45 - 19:45	674	+	456	=	1130	35	0	No
06:00 - 07:00	198	+	930	=	1128	28	0	No
13:15 - 14:15	559	+	540	=	1099	27	0	No
13:00 - 14:00	545	+	543	=	1088	28	0	No
11:30 - 12:30	564	+	523	=	1087	38	0	No
12:00 - 13:00	538		540		1078	44	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 7 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**
Veh/Hr Minor NB = **84 42**
Veh/Hr Minor SB = **112 56**

Major Road SR 32						Minor Road Ivy Hills Place		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1025	+	787	=	1812	96	0	Yes
16:30 - 17:30	1054	+	737	=	1791	83	0	No
16:15 - 17:15	1032	+	659	=	1691	71	0	No
16:00 - 17:00	1005	+	626	=	1631	57	0	No
17:45 - 18:45	883	+	693	=	1576	61	0	No
06:45 - 07:45	349	+	1226	=	1575	65	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
07:00 - 08:00	383	+	1145	=	1528	70	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
06:30 - 07:30	297	+	1212	=	1509	55	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	1054	+	737	=	1791	83	0	Yes
17:30 - 18:30	939	+	762	=	1701	76	0	Yes
15:30 - 16:30	933	+	587	=	1520	43	0	Yes
07:15 - 08:15	401	+	1035	=	1436	62	0	Yes
08:15 - 09:15	432	+	958	=	1390	50	0	Yes
06:15 - 07:15	255	+	1130	=	1385	45	0	Yes
11:45 - 12:45	549	+	513	=	1062	46	0	Yes
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
14:45 - 15:45	860	+	589	=	1449	34	0	No
14:30 - 15:30	808	+	572	=	1380	36	0	No
14:15 - 15:15	740	+	529	=	1269	34	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

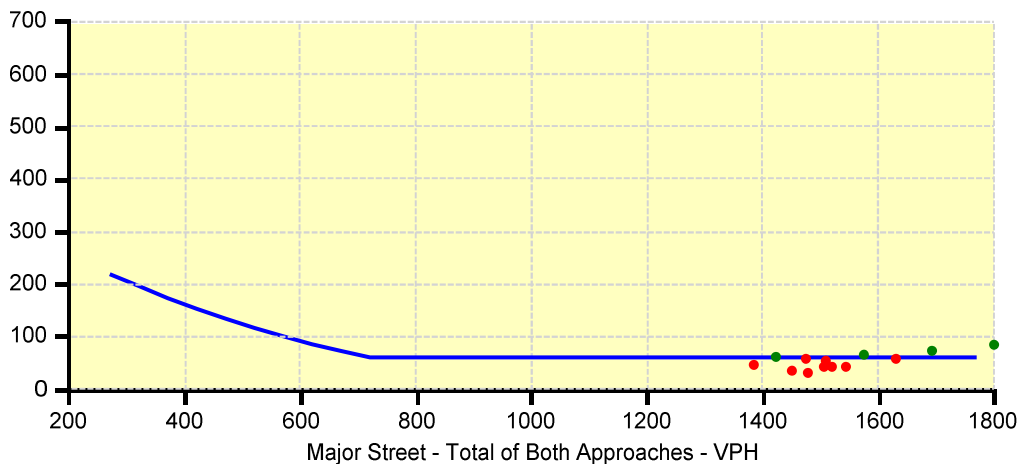
Summary

4 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Ivy Hills Place		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1018	+	837	=	1855	86	0	Yes
16:15 - 17:15	1032	+	659	=	1691	71	0	Yes
06:45 - 07:45	349	+	1226	=	1575	65	0	Yes
08:00 - 09:00	433	+	990	=	1423	60	0	Yes
16:00 - 17:00	1005	+	626	=	1631	57	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
15:30 - 16:30	933	+	587	=	1520	43	0	No
06:30 - 07:30	297	+	1212	=	1509	55	0	No
15:15 - 16:15	927	+	577	=	1504	41	0	No
15:00 - 16:00	898	+	580	=	1478	31	0	No
07:45 - 08:45	440	+	1033	=	1473	56	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

60 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **100**

Total Delay (Veh-Hrs) = **4**

Major Road SR 32						Minor Road Ivy Hills Place			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:15 - 18:15	1941	Yes	86	-	No	0	-	---	No
17:00 - 18:00	1932	Yes	96	-	No	0	-	---	No
16:45 - 17:45	1908	Yes	96	-	No	0	-	---	No
16:30 - 17:30	1874	Yes	83	-	No	0	-	---	No
17:30 - 18:30	1777	Yes	76	-	No	0	-	---	No
16:15 - 17:15	1762	Yes	71	-	No	0	-	---	No
16:00 - 17:00	1688	Yes	57	-	No	0	-	---	No
06:45 - 07:45	1640	Yes	65	-	No	0	-	---	No
17:45 - 18:45	1637	Yes	61	-	No	0	-	---	No
07:00 - 08:00	1598	Yes	70	-	No	0	-	---	No
15:45 - 16:45	1585	Yes	41	-	No	0	-	---	No
06:30 - 07:30	1564	Yes	55	-	No	0	-	---	No
15:30 - 16:30	1563	Yes	43	-	No	0	-	---	No
15:15 - 16:15	1545	Yes	41	-	No	0	-	---	No
07:45 - 08:45	1529	Yes	56	-	No	0	-	---	No
18:00 - 19:00	1515	Yes	47	-	No	0	-	---	No
15:00 - 16:00	1509	Yes	31	-	No	0	-	---	No
07:15 - 08:15	1498	Yes	62	-	No	0	-	---	No
07:30 - 08:30	1493	Yes	56	-	No	0	-	---	No
14:45 - 15:45	1483	Yes	34	-	No	0	-	---	No
08:00 - 09:00	1483	Yes	60	-	No	0	-	---	No
08:30 - 09:30	1445	Yes	53	-	No	0	-	---	No
08:15 - 09:15	1440	Yes	50	-	No	0	-	---	No
06:15 - 07:15	1430	Yes	45	-	No	0	-	---	No
14:30 - 15:30	1416	Yes	36	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1c-(7)-SR 32 & Ivy Hills Place

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

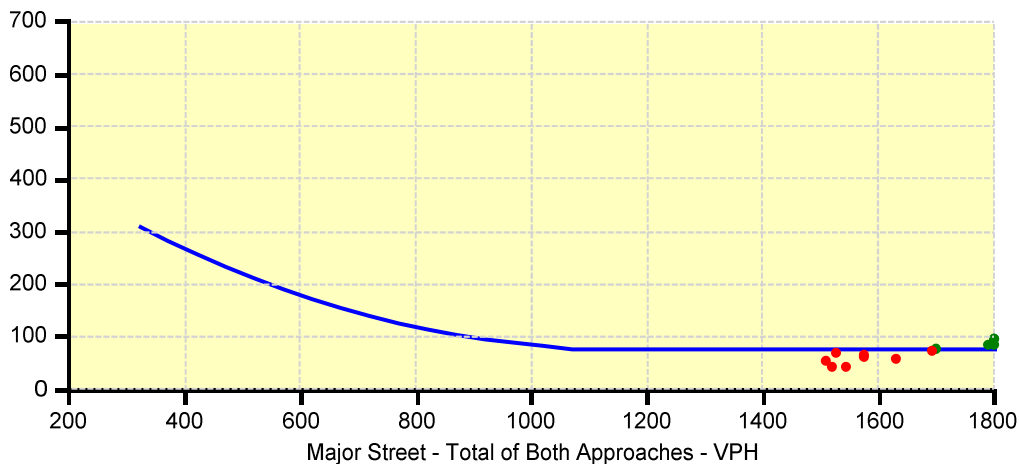
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road Ivy Hills Place		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1018	+	837	=	1855	86	0	Yes
17:00 - 18:00	1037	+	799	=	1836	96	0	Yes
16:45 - 17:45	1025	+	787	=	1812	96	0	Yes
16:30 - 17:30	1054	+	737	=	1791	83	0	Yes
17:30 - 18:30	939	+	762	=	1701	76	0	Yes
16:15 - 17:15	1032	+	659	=	1691	71	0	No
16:00 - 17:00	1005	+	626	=	1631	57	0	No
17:45 - 18:45	883	+	693	=	1576	61	0	No
06:45 - 07:45	349	+	1226	=	1575	65	0	No
15:45 - 16:45	965	+	579	=	1544	41	0	No
07:00 - 08:00	383	+	1145	=	1528	70	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 6,515

Westbound: SR 32

Number of Lanes : 1

Total Approach Volume: 9,831

Minor Street Approaches

Northbound: RIVER HILLS DR

Number of Lanes : 2+

Total Approach Volume: 1,157

Southbound: ROUND BOTTOM RD

Number of Lanes : 2+

Total Approach Volume: 4,794

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 15 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (12) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (51) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road SR 32						Minor Road RIVER HILLS DR		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
06:45 - 07:45	292	+	1327	=	1619	75	162	Yes
07:45 - 08:45	373	+	1087	=	1460	60	242	Yes
16:45 - 17:45	703	+	609	=	1312	120	586	Yes
15:45 - 16:45	666	+	532	=	1198	108	567	Yes
17:45 - 18:45	612	+	552	=	1164	60	411	Yes
14:45 - 15:45	537	+	542	=	1079	78	382	Yes
13:45 - 14:45	440	+	492	=	932	79	313	Yes
08:45 - 09:45	282	+	635	=	917	72	172	Yes
12:45 - 13:45	349	+	492	=	841	86	290	Yes
10:45 - 11:45	323	+	511	=	834	80	231	Yes
11:45 - 12:45	352	+	464	=	816	107	251	Yes
09:45 - 10:45	290	+	512	=	802	56	156	Yes
18:45 - 19:45	325	+	330	=	655	38	316	Yes
06:30 - 07:30	243	+	1236	=	1479	71	145	No
06:15 - 07:15	204	+	1082	=	1286	57	108	No
06:00 - 07:00	159	+	888	=	1047	41	81	No
05:45 - 06:45	129	+	711	=	840	25	67	No
05:30 - 06:30	101	+	584	=	685	26	48	No
05:15 - 06:15	83	+	474	=	557	24	38	No
19:45 - 20:45	250	+	233	=	483	39	201	No
20:00 - 21:00	237	+	210	=	447	36	189	No
05:00 - 06:00	65	+	382	=	447	21	35	No
20:30 - 21:30	238	+	198	=	436	26	180	No
20:15 - 21:15	227	+	209	=	436	36	182	No
20:45 - 21:45	230		163		393	23	157	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road SR 32						Minor Road RIVER HILLS DR		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	356	+	1313	=	1669	72	199	Yes
08:00 - 09:00	328	+	992	=	1320	70	225	Yes
17:00 - 18:00	713	+	605	=	1318	114	566	Yes
16:00 - 17:00	694	+	546	=	1240	96	555	Yes
15:00 - 16:00	558	+	532	=	1090	94	458	Yes
06:00 - 07:00	159	+	888	=	1047	41	81	Yes
14:00 - 15:00	473	+	527	=	1000	74	296	Yes
18:00 - 19:00	501	+	498	=	999	60	395	Yes
11:00 - 12:00	339	+	501	=	840	88	238	Yes
13:00 - 14:00	361	+	478	=	839	82	312	Yes
12:00 - 13:00	356	+	480	=	836	103	250	Yes
10:00 - 11:00	306	+	511	=	817	58	173	Yes
09:00 - 10:00	264	+	552	=	816	61	162	Yes
19:00 - 20:00	311	+	301	=	612	36	278	Yes
05:45 - 06:45	129	+	711	=	840	25	67	No
05:30 - 06:30	101	+	584	=	685	26	48	No
05:15 - 06:15	83	+	474	=	557	24	38	No
20:00 - 21:00	237	+	210	=	447	36	189	No
05:00 - 06:00	65	+	382	=	447	21	35	No
20:30 - 21:30	238	+	198	=	436	26	180	No
20:15 - 21:15	227	+	209	=	436	36	182	No
20:45 - 21:45	230	+	163	=	393	23	157	No
21:00 - 22:00	218	+	157	=	375	20	142	No
21:15 - 22:15	192	+	150	=	342	16	122	No
04:45 - 05:45	48		285		333	18	29	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

15 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400** **600**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road SR 32						Minor Road RIVER HILLS DR				
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?		
07:30 - 08:30	385	+	1180	=	1565	63	223	Yes		
06:30 - 07:30	243	+	1236	=	1479	71	145	Yes		
16:30 - 17:30	755	+	597	=	1352	111	559	Yes		
17:30 - 18:30	635	+	608	=	1243	80	500	Yes		
15:30 - 16:30	604	+	509	=	1113	105	527	Yes		
14:30 - 15:30	525	+	556	=	1081	75	369	Yes		
08:30 - 09:30	308	+	727	=	1035	65	185	Yes		
13:30 - 14:30	403	+	472	=	875	82	290	Yes		
12:30 - 13:30	356	+	513	=	869	83	290	Yes		
10:30 - 11:30	308	+	515	=	823	70	200	Yes		
11:30 - 12:30	360	+	456	=	816	106	254	Yes		
09:30 - 10:30	267		535		802	62	168	Yes		

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?		
06:45 - 07:45	292	+	1327	=	1619	75	162	Yes		
07:45 - 08:45	373	+	1087	=	1460	60	242	Yes		
16:45 - 17:45	703	+	609	=	1312	120	586	Yes		
15:45 - 16:45	666	+	532	=	1198	108	567	Yes		
17:45 - 18:45	612	+	552	=	1164	60	411	Yes		
14:45 - 15:45	537	+	542	=	1079	78	382	Yes		
13:45 - 14:45	440	+	492	=	932	79	313	Yes		
08:45 - 09:45	282	+	635	=	917	72	172	Yes		
12:45 - 13:45	349	+	492	=	841	86	290	Yes		
05:45 - 06:45	129	+	711	=	840	25	67	Yes		
10:45 - 11:45	323	+	511	=	834	80	231	Yes		
11:45 - 12:45	352		464		816	107	251	Yes		

Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

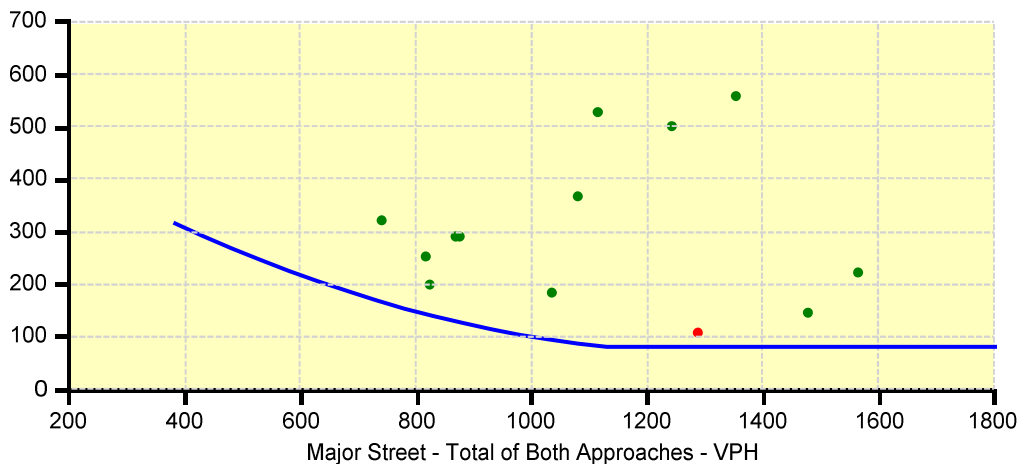
Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road RIVER HILLS DR		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:30 - 08:30	385	+	1180	=	1565	63	223	Yes
06:30 - 07:30	243	+	1236	=	1479	71	145	Yes
16:30 - 17:30	755	+	597	=	1352	111	559	Yes
17:30 - 18:30	635	+	608	=	1243	80	500	Yes
15:30 - 16:30	604	+	509	=	1113	105	527	Yes
14:30 - 15:30	525	+	556	=	1081	75	369	Yes
08:30 - 09:30	308	+	727	=	1035	65	185	Yes
13:30 - 14:30	403	+	472	=	875	82	290	Yes
12:30 - 13:30	356	+	513	=	869	83	290	Yes
10:30 - 11:30	308	+	515	=	823	70	200	Yes
11:30 - 12:30	360	+	456	=	816	106	254	Yes
							323	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

55 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road				
SR 32						RIVER HILLS DR				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
16:30 - 17:30	2022	Yes	111	-	---	559	-	Yes	Yes	
16:45 - 17:45	2018	Yes	120	-	---	586	-	Yes	Yes	
17:00 - 18:00	1998	Yes	114	-	---	566	-	Yes	Yes	
16:15 - 17:15	1948	Yes	111	-	---	550	-	Yes	Yes	
17:15 - 18:15	1946	Yes	93	-	---	555	-	Yes	Yes	
07:00 - 08:00	1940	Yes	72	-	---	199	-	Yes	Yes	
07:15 - 08:15	1902	Yes	64	-	---	224	-	Yes	Yes	
16:00 - 17:00	1891	Yes	96	-	---	555	-	Yes	Yes	
15:45 - 16:45	1873	Yes	108	-	---	567	-	Yes	Yes	
06:45 - 07:45	1856	Yes	75	-	---	162	-	Yes	Yes	
07:30 - 08:30	1851	Yes	63	-	---	223	-	Yes	Yes	
17:30 - 18:30	1823	Yes	80	-	---	500	-	Yes	Yes	
07:45 - 08:45	1762	Yes	60	-	---	242	-	Yes	Yes	
15:30 - 16:30	1745	Yes	105	-	---	527	-	Yes	Yes	
15:15 - 16:15	1702	Yes	104	-	---	491	-	Yes	Yes	
15:00 - 16:00	1642	Yes	94	-	---	458	-	Yes	Yes	
17:45 - 18:45	1635	Yes	60	-	---	411	-	Yes	Yes	
08:00 - 09:00	1615	Yes	70	-	---	225	-	Yes	Yes	
14:45 - 15:45	1539	Yes	78	-	---	382	-	Yes	Yes	
14:30 - 15:30	1525	Yes	75	-	---	369	-	Yes	Yes	
08:15 - 09:15	1470	Yes	72	-	---	200	-	Yes	Yes	
14:15 - 15:15	1454	Yes	73	-	---	332	-	Yes	Yes	
18:00 - 19:00	1454	Yes	60	-	---	395	-	Yes	Yes	
14:00 - 15:00	1370	Yes	74	-	---	296	-	Yes	Yes	
13:45 - 14:45	1324	Yes	79	-	---	313	-	Yes	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1d-05-SR 32 AT ROUND BOTTOM RD

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

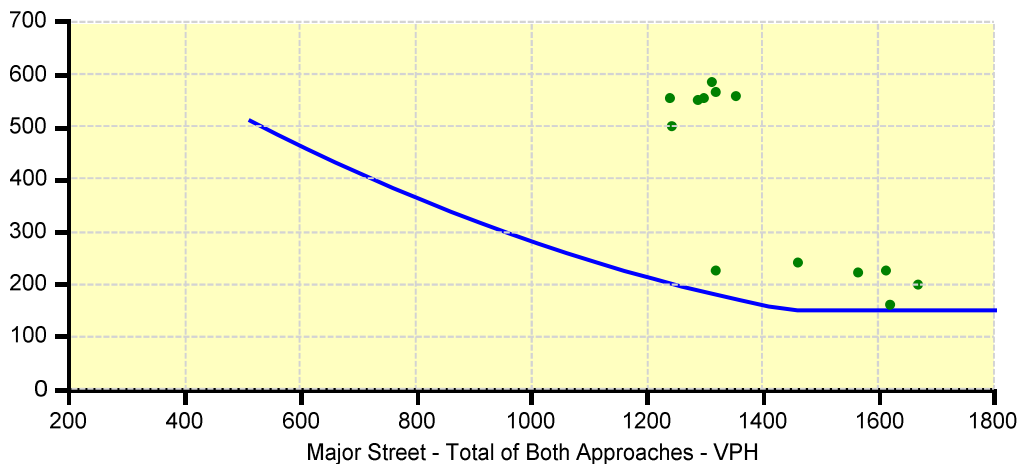
Summary

25 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road RIVER HILLS DR		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	356	+	1313	=	1669	72	199	Yes
06:45 - 07:45	292	+	1327	=	1619	75	162	Yes
07:15 - 08:15	384	+	1230	=	1614	64	224	Yes
07:30 - 08:30	385	+	1180	=	1565	63	223	Yes
07:45 - 08:45	373	+	1087	=	1460	60	242	Yes
16:30 - 17:30	755	+	597	=	1352	111	559	Yes
08:00 - 09:00	328	+	992	=	1320	70	225	Yes
17:00 - 18:00	713	+	605	=	1318	114	566	Yes
16:45 - 17:45	703	+	609	=	1312	120	586	Yes
17:15 - 18:15	678	+	620	=	1298	93	555	Yes
16:15 - 17:15	734	+	553	=	1287	111	550	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 5,427

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 6,254

Minor Street Approaches

Northbound: CHURCH ST

Number of Lanes :2+

Total Approach Volume: 3,569

Southbound: CHURCH ST

Number of Lanes :2+

Total Approach Volume: 4,439

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 7 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 14 hours, 8 are needed

Required 1B volumes reached for 11 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (53) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200**

Major Road SR 32						Minor Road CHURCH ST		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
15:15 - 16:15	514	+	378	=	892	250	383	Yes
08:15 - 09:15	238	+	554	=	792	282	225	Yes
06:15 - 07:15	169	+	623	=	792	221	121	Yes
14:15 - 15:15	383	+	362	=	745	261	337	Yes
13:15 - 14:15	334	+	350	=	684	186	284	Yes
18:15 - 19:15	353	+	286	=	639	220	292	Yes
12:15 - 13:15	282	+	357	=	639	172	270	Yes
11:15 - 12:15	292	+	326	=	618	218	233	Yes
09:15 - 10:15	227	+	319	=	546	229	229	Yes
10:15 - 11:15	231	+	302	=	533	214	201	Yes
06:00 - 07:00	136	+	482	=	618	168	79	No
05:45 - 06:45	107	+	381	=	488	109	63	No
19:15 - 20:15	247	+	184	=	431	102	206	No
19:30 - 20:30	227	+	180	=	407	79	193	No
19:45 - 20:45	204	+	179	=	383	78	195	No
05:30 - 06:30	77	+	295	=	372	76	43	No
20:00 - 21:00	186	+	164	=	350	86	189	No
20:15 - 21:15	166	+	170	=	336	93	177	No
20:30 - 21:30	167	+	141	=	308	101	191	No
20:45 - 21:45	151	+	122	=	273	92	175	No
05:15 - 06:15	59	+	213	=	272	47	38	No
21:00 - 22:00	149		105		254	80	164	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 7 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100**

Major Road SR 32						Minor Road CHURCH ST		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	677	+	430	=	1107	259	450	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
17:30 - 18:30	557	+	417	=	974	277	434	Yes
15:30 - 16:30	539	+	398	=	937	255	397	Yes
14:30 - 15:30	429	+	368	=	797	259	339	Yes
08:15 - 09:15	238	+	554	=	792	282	225	Yes
06:15 - 07:15	169	+	623	=	792	221	121	Yes
14:15 - 15:15	383	+	362	=	745	261	337	No
14:00 - 15:00	376	+	354	=	730	249	289	No
13:45 - 14:45	358	+	338	=	696	218	287	No
13:15 - 14:15	334	+	350	=	684	186	284	No
13:30 - 14:30	342	+	334	=	676	208	281	No
13:00 - 14:00	315	+	340	=	655	177	304	No
12:00 - 13:00	303	+	346	=	649	184	244	No
12:45 - 13:45	298	+	349	=	647	192	285	No
12:30 - 13:30	291	+	354	=	645	173	296	No
12:15 - 13:15	282	+	357	=	639	172	270	No
11:45 - 12:45	282	+	355	=	637	190	237	No
11:30 - 12:30	286	+	343	=	629	200	227	No
11:15 - 12:15	292	+	326	=	618	218	233	No
06:00 - 07:00	136	+	482	=	618	168	79	No
11:00 - 12:00	262	+	324	=	586	216	228	No
10:45 - 11:45	272	+	305	=	577	210	215	No
18:30 - 19:30	303	+	265	=	568	190	264	No
10:30 - 11:30	250		307		557	224	209	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

14 hours meet 1A minimums.
11 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**

Veh/Hr Minor = **160 80**

Major Road SR 32						Minor Road CHURCH ST		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:00 - 18:00	656	+	455	=	1111	279	465	Yes
07:00 - 08:00	293	+	739	=	1032	410	267	Yes
16:00 - 17:00	606	+	393	=	999	228	417	Yes
15:00 - 16:00	481	+	394	=	875	258	398	Yes
08:00 - 09:00	259	+	613	=	872	302	252	Yes
18:00 - 19:00	417	+	326	=	743	257	338	Yes
14:00 - 15:00	376	+	354	=	730	249	289	Yes
13:00 - 14:00	315	+	340	=	655	177	304	Yes
12:00 - 13:00	303	+	346	=	649	184	244	Yes
06:00 - 07:00	136	+	482	=	618	168	79	Yes
11:00 - 12:00	262	+	324	=	586	216	228	Yes
10:00 - 11:00	244		309		553	213	206	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:00 - 08:00	293	+	739	=	1032	410	267	Yes
15:15 - 16:15	514	+	378	=	892	250	383	Yes
08:00 - 09:00	259	+	613	=	872	302	252	Yes
14:15 - 15:15	383	+	362	=	745	261	337	Yes
13:15 - 14:15	334	+	350	=	684	186	284	Yes
18:15 - 19:15	353	+	286	=	639	220	292	Yes
12:15 - 13:15	282	+	357	=	639	172	270	Yes
11:15 - 12:15	292	+	326	=	618	218	233	Yes
06:00 - 07:00	136	+	482	=	618	168	79	Yes
11:00 - 12:00	262		324		586	216	228	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

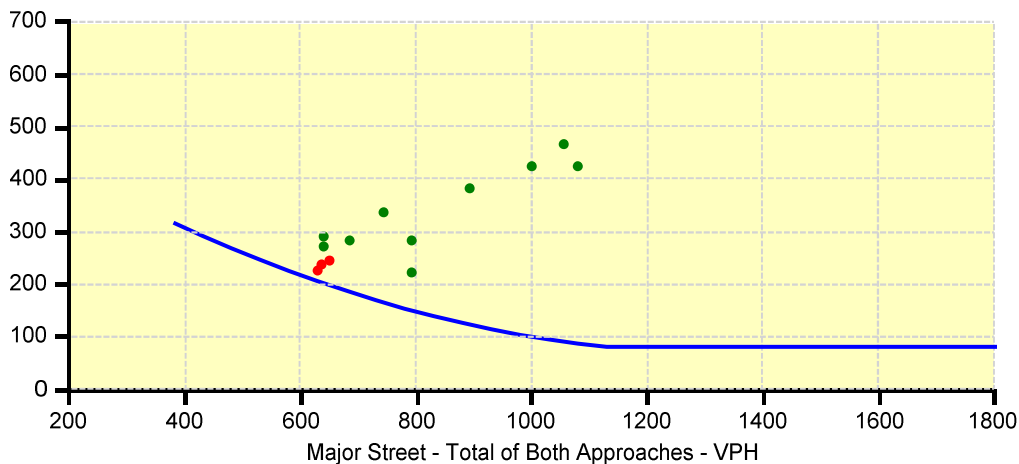
Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road CHURCH ST		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
15:15 - 16:15	514	+	378	=	892	250	383	Yes
08:15 - 09:15	238	+	554	=	792	282	225	Yes
06:15 - 07:15	169	+	623	=	792	221	121	Yes
14:15 - 15:15	383	+	362	=	745	261	337	Yes
13:15 - 14:15	334	+	350	=	684	186	284	Yes
18:15 - 19:15	353	+	286	=	639	220	292	Yes
12:15 - 13:15	282	+	357	=	639	172	270	Yes
12:00 - 13:00	303	+	346	=	649	184	244	No
							237	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

53 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

			Major Road SR 32			Minor Road CHURCH ST			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	1855	Yes	279	-	---	465	-	Yes	Yes
16:45 - 17:45	1844	Yes	261	-	---	479	-	Yes	Yes
16:30 - 17:30	1816	Yes	259	-	---	450	-	Yes	Yes
17:15 - 18:15	1794	Yes	270	-	---	467	-	Yes	Yes
16:15 - 17:15	1758	Yes	256	-	---	423	-	Yes	Yes
07:15 - 08:15	1724	Yes	423	-	Yes	300	-	---	Yes
07:00 - 08:00	1709	Yes	410	-	Yes	267	-	---	Yes
07:30 - 08:30	1700	Yes	379	-	Yes	305	-	---	Yes
17:30 - 18:30	1685	Yes	277	-	---	434	-	Yes	Yes
16:00 - 17:00	1644	Yes	228	-	---	417	-	Yes	Yes
15:45 - 16:45	1618	Yes	247	-	---	388	-	Yes	Yes
07:45 - 08:45	1607	Yes	352	-	Yes	290	-	---	Yes
15:30 - 16:30	1589	Yes	255	-	---	397	-	Yes	Yes
06:45 - 07:45	1538	Yes	368	-	Yes	200	-	---	Yes
15:00 - 16:00	1531	Yes	258	-	---	398	-	Yes	Yes
15:15 - 16:15	1525	Yes	250	-	---	383	-	Yes	Yes
17:45 - 18:45	1514	Yes	268	-	---	378	-	Yes	Yes
14:45 - 15:45	1478	Yes	259	-	---	387	-	Yes	Yes
08:00 - 09:00	1426	Yes	302	-	Yes	252	-	---	Yes
14:30 - 15:30	1395	Yes	259	-	---	339	-	Yes	Yes
06:30 - 07:30	1345	Yes	292	-	Yes	158	-	---	Yes
14:15 - 15:15	1343	Yes	261	-	---	337	-	Yes	Yes
18:00 - 19:00	1338	Yes	257	-	---	338	-	Yes	Yes
08:15 - 09:15	1299	Yes	282	-	Yes	225	-	---	Yes
14:00 - 15:00	1268	Yes	249	-	---	289	-	Yes	Yes

Eastern Corridor Traffic Signal Warrants

Study Name: 1e-06-SR32@Church

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

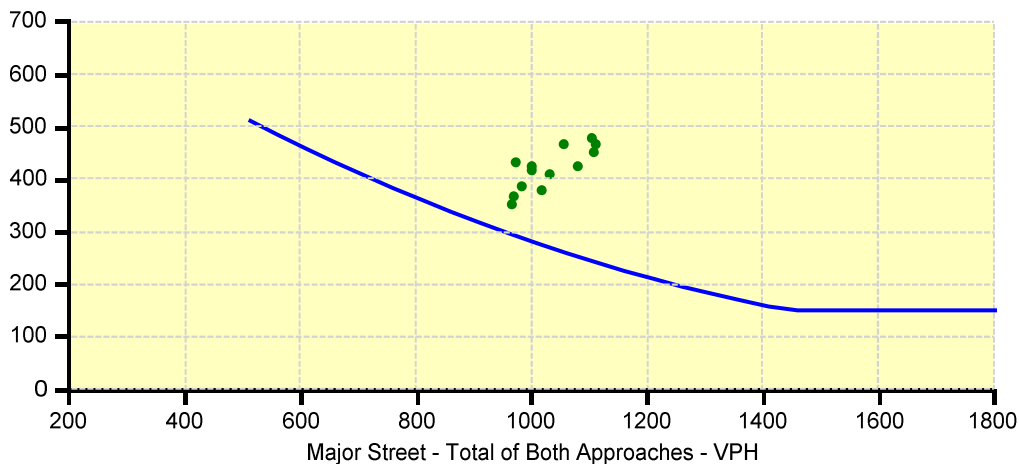
Summary

18 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Major Road SR 32						Minor Road CHURCH ST		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	656	+	455	=	1111	279	465	Yes
16:30 - 17:30	677	+	430	=	1107	259	450	Yes
16:45 - 17:45	666	+	438	=	1104	261	479	Yes
16:15 - 17:15	662	+	417	=	1079	256	423	Yes
17:15 - 18:15	608	+	449	=	1057	270	467	Yes
07:00 - 08:00	293	+	739	=	1032	410	267	Yes
07:30 - 08:30	324	+	692	=	1016	379	305	Yes
07:15 - 08:15	313	+	688	=	1001	423	300	Yes
16:00 - 17:00	606	+	393	=	999	228	417	Yes
15:45 - 16:45	584	+	399	=	983	247	388	Yes
17:30 - 18:30	557	+	417	=	974	277	434	Yes
							200	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: SR 32

Number of Lanes : 1

Total Approach Volume: 9,618

Southbound: SR 32

Number of Lanes : 1

Total Approach Volume: 4,547

Minor Street Approaches

Eastbound: NONE

Number of Lanes : 1

Total Approach Volume: 0

Westbound: CLOUGH PIKE

Number of Lanes : 1

Total Approach Volume: 4,937

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 15 hours, 8 are needed

Required 1B volumes reached for 16 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (49) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105 140**

Major Road SR 32						Minor Road NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	1316	+	338	=	1654	0	368	Yes
15:45 - 16:45	1059	+	240	=	1299	0	276	Yes
17:45 - 18:45	933	+	266	=	1199	0	300	Yes
14:45 - 15:45	811	+	263	=	1074	0	210	Yes
06:45 - 07:45	397	+	602	=	999	0	707	Yes
07:45 - 08:45	479	+	498	=	977	0	600	Yes
13:45 - 14:45	542	+	241	=	783	0	215	Yes
08:45 - 09:45	355	+	318	=	673	0	454	Yes
11:45 - 12:45	441	+	222	=	663	0	248	Yes
12:45 - 13:45	413	+	229	=	642	0	207	Yes
09:45 - 10:45	329	+	234	=	563	0	277	Yes
10:45 - 11:45	346	+	212	=	558	0	254	Yes
05:45 - 06:45	160	+	305	=	465	0	307	Yes
18:45 - 19:45	510	+	161	=	671	0	128	No
19:00 - 20:00	466	+	134	=	600	0	108	No
19:15 - 20:15	457	+	113	=	570	0	107	No
20:15 - 21:15	439	+	102	=	541	0	79	No
19:30 - 20:30	430	+	97	=	527	0	108	No
20:00 - 21:00	425	+	90	=	515	0	92	No
20:30 - 21:30	413	+	96	=	509	0	67	No
19:45 - 20:45	404	+	82	=	486	0	113	No
20:45 - 21:45	397	+	81	=	478	0	56	No
21:00 - 22:00	321	+	69	=	390	0	62	No
05:30 - 06:30	97	+	243	=	340	0	233	No
00:00 - 01:00	298		21		319	0	21	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52 70**

Major Road SR 32						Minor Road NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	1316	+	338	=	1654	0	368	Yes
15:45 - 16:45	1059	+	240	=	1299	0	276	Yes
17:45 - 18:45	933	+	266	=	1199	0	300	Yes
14:45 - 15:45	811	+	263	=	1074	0	210	Yes
06:45 - 07:45	397	+	602	=	999	0	707	Yes
07:45 - 08:45	479	+	498	=	977	0	600	Yes
13:45 - 14:45	542	+	241	=	783	0	215	Yes
08:45 - 09:45	355	+	318	=	673	0	454	Yes
18:45 - 19:45	510	+	161	=	671	0	128	Yes
11:45 - 12:45	441	+	222	=	663	0	248	Yes
12:45 - 13:45	413	+	229	=	642	0	207	Yes
09:45 - 10:45	329	+	234	=	563	0	277	Yes
10:45 - 11:45	346	+	212	=	558	0	254	Yes
19:45 - 20:45	404	+	82	=	486	0	113	Yes
05:45 - 06:45	160	+	305	=	465	0	307	Yes
20:45 - 21:45	397	+	81	=	478	0	56	No
21:00 - 22:00	321	+	69	=	390	0	62	No
05:30 - 06:30	97	+	243	=	340	0	233	No
00:00 - 01:00	298	+	21	=	319	0	21	No
21:15 - 22:15	252	+	53	=	305	0	60	No
05:15 - 06:15	86	+	178	=	264	0	157	No
21:30 - 22:30	200	+	47	=	247	0	53	No
00:15 - 01:15	211	+	16	=	227	0	15	No
21:45 - 22:45	171	+	52	=	223	0	52	No
22:00 - 23:00	151		43		194	0	44	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

15 hours meet 1A minimums.
16 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**
Veh/Hr Minor EB = **84 42**
Veh/Hr Minor WB = **112 56**

Major Road						Minor Road			
SR 32						NONE			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?	
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes	
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes	
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes	
07:30 - 08:30	542	+	530	=	1072	0	659	Yes	
14:30 - 15:30	712	+	272	=	984	0	225	Yes	
06:30 - 07:30	338	+	549	=	887	0	613	Yes	
18:30 - 19:30	571	+	182	=	753	0	154	Yes	
13:30 - 14:30	482	+	234	=	716	0	201	Yes	
08:30 - 09:30	352	+	357	=	709	0	505	Yes	
12:30 - 13:30	431	+	224	=	655	0	230	Yes	
11:30 - 12:30	418	+	229	=	647	0	229	Yes	
10:30 - 11:30	343		220		563	0	267	Yes	

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?	
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes	
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes	
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes	
07:30 - 08:30	542	+	530	=	1072	0	659	Yes	
14:30 - 15:30	712	+	272	=	984	0	225	Yes	
06:30 - 07:30	338	+	549	=	887	0	613	Yes	
18:30 - 19:30	571	+	182	=	753	0	154	Yes	
13:30 - 14:30	482	+	234	=	716	0	201	Yes	
08:30 - 09:30	352	+	357	=	709	0	505	Yes	
12:30 - 13:30	431	+	224	=	655	0	230	Yes	
11:30 - 12:30	418	+	229	=	647	0	229	Yes	
10:30 - 11:30	343		220		563	0	267	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

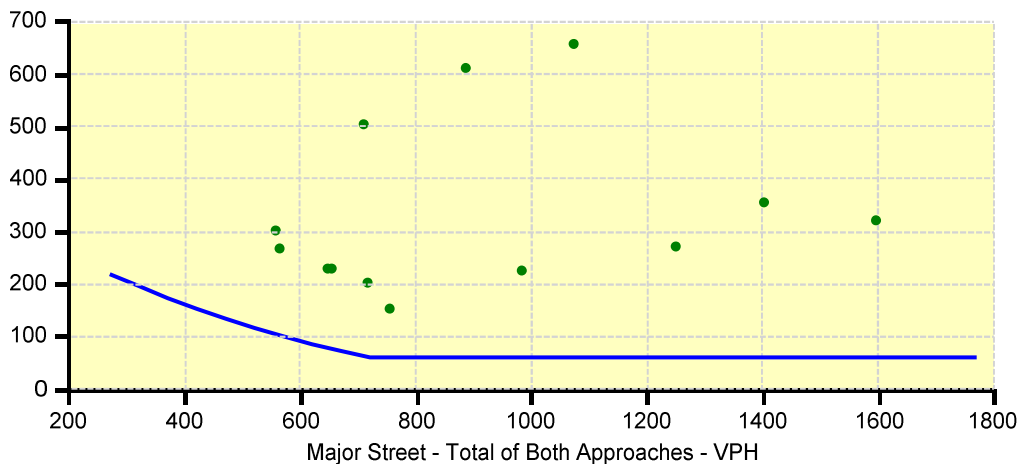
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
SR 32						NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes
07:30 - 08:30	542	+	530	=	1072	0	659	Yes
14:30 - 15:30	712	+	272	=	984	0	225	Yes
06:30 - 07:30	338	+	549	=	887	0	613	Yes
18:30 - 19:30	571	+	182	=	753	0	154	Yes
13:30 - 14:30	482	+	234	=	716	0	201	Yes
08:30 - 09:30	352	+	357	=	709	0	505	Yes
12:30 - 13:30	431	+	224	=	655	0	230	Yes
11:30 - 12:30	418	+	229	=	647	0	229	Yes
							267	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

49 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **100**

Total Delay (Veh-Hrs) = **4**

Major Road						Minor Road				
SR 32						NONE				
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?	
17:00 - 18:00	2041	Yes	0	-	---	370	-	Yes	Yes	
16:45 - 17:45	2022	Yes	0	-	---	368	-	Yes	Yes	
17:15 - 18:15	1990	Yes	0	-	---	383	-	Yes	Yes	
16:30 - 17:30	1918	Yes	0	-	---	323	-	Yes	Yes	
07:15 - 08:15	1818	Yes	0	-	---	692	-	Yes	Yes	
16:15 - 17:15	1786	Yes	0	-	---	295	-	Yes	Yes	
07:00 - 08:00	1782	Yes	0	-	---	712	-	Yes	Yes	
17:30 - 18:30	1756	Yes	0	-	---	355	-	Yes	Yes	
07:30 - 08:30	1731	Yes	0	-	---	659	-	Yes	Yes	
06:45 - 07:45	1706	Yes	0	-	---	707	-	Yes	Yes	
16:00 - 17:00	1666	Yes	0	-	---	288	-	Yes	Yes	
07:45 - 08:45	1577	Yes	0	-	---	600	-	Yes	Yes	
15:45 - 16:45	1575	Yes	0	-	---	276	-	Yes	Yes	
15:30 - 16:30	1518	Yes	0	-	---	270	-	Yes	Yes	
06:30 - 07:30	1500	Yes	0	-	---	613	-	Yes	Yes	
17:45 - 18:45	1499	Yes	0	-	---	300	-	Yes	Yes	
08:00 - 09:00	1497	Yes	0	-	---	605	-	Yes	Yes	
15:15 - 16:15	1424	Yes	0	-	---	250	-	Yes	Yes	
15:00 - 16:00	1350	Yes	0	-	---	229	-	Yes	Yes	
08:15 - 09:15	1349	Yes	0	-	---	582	-	Yes	Yes	
14:45 - 15:45	1284	Yes	0	-	---	210	-	Yes	Yes	
18:00 - 19:00	1275	Yes	0	-	---	261	-	Yes	Yes	
06:15 - 07:15	1258	Yes	0	-	---	513	-	Yes	Yes	
08:30 - 09:30	1214	Yes	0	-	---	505	-	Yes	Yes	
14:30 - 15:30	1209	Yes	0	-	---	225	-	Yes	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1f-07-SR32@Clough

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

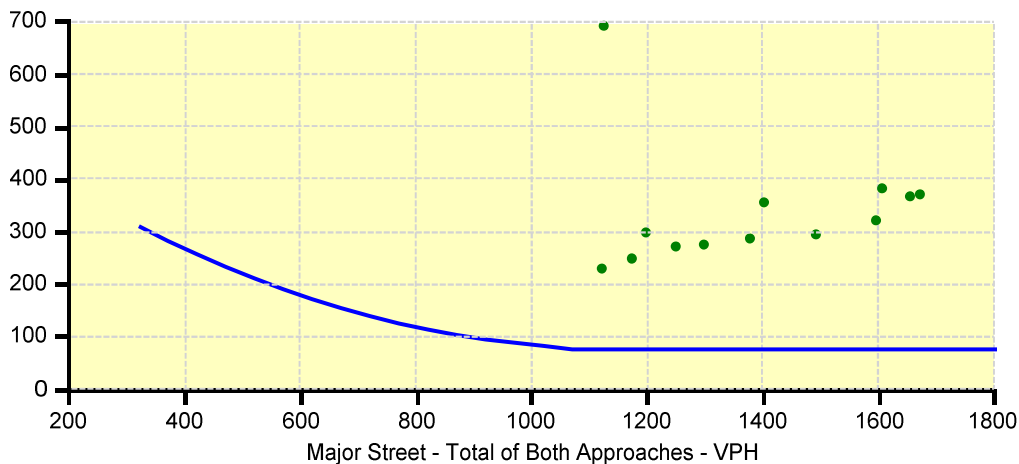
Summary

52 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
SR 32						NONE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
17:00 - 18:00	1322	+	349	=	1671	0	370	Yes
16:45 - 17:45	1316	+	338	=	1654	0	368	Yes
17:15 - 18:15	1273	+	334	=	1607	0	383	Yes
16:30 - 17:30	1278	+	317	=	1595	0	323	Yes
16:15 - 17:15	1216	+	275	=	1491	0	295	Yes
17:30 - 18:30	1107	+	294	=	1401	0	355	Yes
16:00 - 17:00	1122	+	256	=	1378	0	288	Yes
15:45 - 16:45	1059	+	240	=	1299	0	276	Yes
15:30 - 16:30	1018	+	230	=	1248	0	270	Yes
17:45 - 18:45	933	+	266	=	1199	0	300	Yes
15:15 - 16:15	933	+	241	=	1174	0	250	Yes
							692	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: ROUND BOTTOM RD

Number of Lanes : 1

Total Approach Volume: 5,929

Southbound: ROUND BOTTOM RD

Number of Lanes : 1

Total Approach Volume: 2,931

Minor Street Approaches

Eastbound: VALLEY AVE

Number of Lanes : 2+

Total Approach Volume: 2,564

Westbound: NONE

Number of Lanes : 2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 7 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 6 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (10) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

	Major Road					Minor Road				
	ROUND BOTTOM RD					VALLEY AVE				
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB	Met?
17:15 - 18:15	443	+	232	=	675		296		0	Yes
16:15 - 17:15	420	+	245	=	665		329		0	Yes
14:15 - 15:15	368	+	219	=	587		202		0	Yes
15:15 - 16:15	348	+	181	=	529		264		0	Yes
07:00 - 08:00	719	+	386	=	1105		103		0	No
07:15 - 08:15	688	+	394	=	1082		125		0	No
07:30 - 08:30	654	+	382	=	1036		123		0	No
06:45 - 07:45	691	+	322	=	1013		84		0	No
07:45 - 08:45	626	+	287	=	913		127		0	No
06:30 - 07:30	645	+	233	=	878		78		0	No
08:00 - 09:00	542	+	241	=	783		115		0	No
06:15 - 07:15	547	+	179	=	726		60		0	No
08:15 - 09:15	495	+	196	=	691		103		0	No
06:00 - 07:00	461	+	110	=	571		56		0	No
08:30 - 09:30	416	+	152	=	568		100		0	No
08:45 - 09:45	396	+	161	=	557		100		0	No
14:00 - 15:00	320	+	190	=	510		163		0	No
11:15 - 12:15	301	+	205	=	506		125		0	No
09:30 - 10:30	358	+	127	=	485		93		0	No
09:00 - 10:00	350	+	135	=	485		93		0	No
13:30 - 14:30	293	+	189	=	482		148		0	No
11:30 - 12:30	276	+	201	=	477		122		0	No
10:45 - 11:45	332	+	144	=	476		121		0	No
12:00 - 13:00	282	+	194	=	476		132		0	No
11:00 - 12:00	315		158		473		128		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 7 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

	Major Road					Minor Road				
	ROUND BOTTOM RD					VALLEY AVE				
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB	Met?
07:00 - 08:00	719	+	386	=	1105		103		0	Yes
08:00 - 09:00	542	+	241	=	783		115		0	Yes
17:00 - 18:00	446	+	267	=	713		316		0	Yes
16:00 - 17:00	417	+	221	=	638		334		0	Yes
15:00 - 16:00	362	+	202	=	564		254		0	Yes
14:00 - 15:00	320	+	190	=	510		163		0	Yes
11:15 - 12:15	301	+	205	=	506		125		0	Yes
06:45 - 07:45	691	+	322	=	1013		84		0	No
06:30 - 07:30	645	+	233	=	878		78		0	No
06:15 - 07:15	547	+	179	=	726		60		0	No
06:00 - 07:00	461	+	110	=	571		56		0	No
09:30 - 10:30	358	+	127	=	485		93		0	No
09:00 - 10:00	350	+	135	=	485		93		0	No
13:30 - 14:30	293	+	189	=	482		148		0	No
10:45 - 11:45	332	+	144	=	476		121		0	No
11:00 - 12:00	315	+	158	=	473		128		0	No
12:15 - 13:15	300	+	172	=	472		150		0	No
05:45 - 06:45	379	+	88	=	467		50		0	No
09:15 - 10:15	349	+	116	=	465		89		0	No
12:45 - 13:45	286	+	177	=	463		160		0	No
13:00 - 14:00	283	+	178	=	461		158		0	No
18:00 - 19:00	310	+	148	=	458		180		0	No
10:30 - 11:30	321	+	136	=	457		113		0	No
12:30 - 13:30	288	+	168	=	456		160		0	No
13:45 - 14:45	279		176		455		159		0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 6 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor EB = **160 80**
Veh/Hr Minor WB = **120 60**

Major Road						Minor Road		
ROUND BOTTOM RD						VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
17:00 - 18:00	446	+	267	=	713	316	0	Yes
16:00 - 17:00	417	+	221	=	638	334	0	Yes
15:00 - 16:00	362	+	202	=	564	254	0	Yes
14:00 - 15:00	320	+	190	=	510	163	0	Yes
18:00 - 19:00	310	+	148	=	458	180	0	Yes
12:30 - 13:30	288	+	168	=	456	160	0	Yes
07:00 - 08:00	719	+	386	=	1105	103	0	No
07:15 - 08:15	688	+	394	=	1082	125	0	No
07:30 - 08:30	654	+	382	=	1036	123	0	No
06:45 - 07:45	691	+	322	=	1013	84	0	No
07:45 - 08:45	626	+	287	=	913	127	0	No
06:30 - 07:30	645	+	233	=	878	78	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
06:45 - 07:45	691	+	322	=	1013	84	0	Yes
07:45 - 08:45	626	+	287	=	913	127	0	Yes
16:45 - 17:45	454	+	256	=	710	325	0	Yes
15:45 - 16:45	390	+	218	=	608	344	0	Yes
14:45 - 15:45	376	+	208	=	584	210	0	Yes
08:45 - 09:45	396	+	161	=	557	100	0	Yes
17:45 - 18:45	352	+	186	=	538	203	0	Yes
10:45 - 11:45	332	+	144	=	476	121	0	Yes
11:45 - 12:45	273	+	200	=	473	126	0	Yes
12:45 - 13:45	286	+	177	=	463	160	0	Yes
13:45 - 14:45	279	+	176	=	455	159	0	Yes
09:45 - 10:45	306	+	116	=	422	89	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

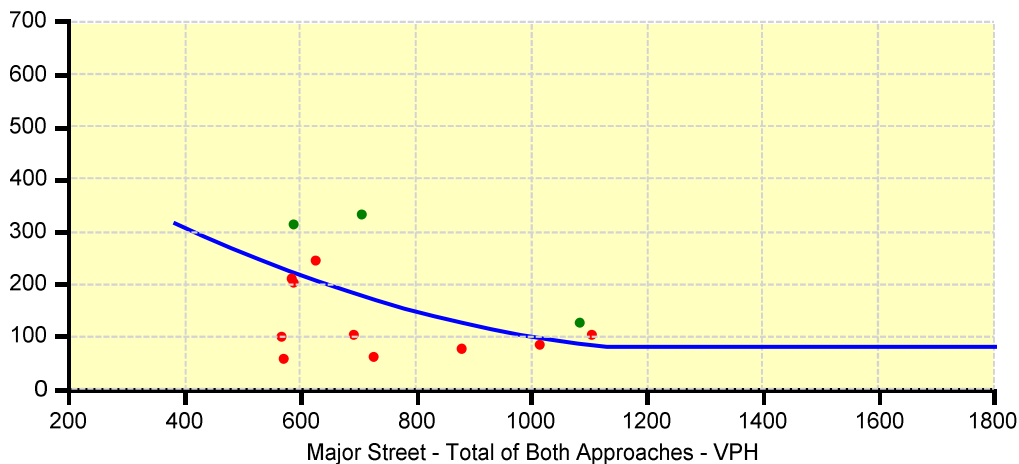
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road ROUND BOTTOM RD						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
07:15 - 08:15	688	+	394	=	1082	125	0	Yes
16:30 - 17:30	455	+	249	=	704	333	0	Yes
15:30 - 16:30	375	+	213	=	588	314	0	Yes
07:00 - 08:00	719	+	386	=	1105	103	0	No
06:45 - 07:45	691	+	322	=	1013	84	0	No
06:30 - 07:30	645	+	233	=	878	78	0	No
06:15 - 07:15	547	+	179	=	726	60	0	No
08:15 - 09:15	495	+	196	=	691	103	0	No
17:30 - 18:30	412	+	213	=	625	244	0	No
14:15 - 15:15	368	+	219	=	587	202	0	No
14:45 - 15:45	376	+	208	=	584	210	0	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

17 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road ROUND BOTTOM RD						Minor Road VALLEY AVE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:30 - 17:30	1037	Yes	333	-	Yes	0	-	---	Yes
16:45 - 17:45	1035	Yes	325	-	Yes	0	-	---	Yes
17:00 - 18:00	1029	Yes	316	-	Yes	0	-	---	Yes
16:15 - 17:15	994	Yes	329	-	Yes	0	-	---	Yes
16:00 - 17:00	972	Yes	334	-	Yes	0	-	---	Yes
17:15 - 18:15	971	Yes	296	-	Yes	0	-	---	Yes
15:45 - 16:45	952	Yes	344	-	Yes	0	-	---	Yes
15:30 - 16:30	902	Yes	314	-	Yes	0	-	---	Yes
17:30 - 18:30	869	Yes	244	-	Yes	0	-	---	Yes
15:00 - 16:00	818	Yes	254	-	Yes	0	-	---	Yes
07:00 - 08:00	1208	Yes	103	-	No	0	-	---	No
07:15 - 08:15	1207	Yes	125	-	No	0	-	---	No
07:30 - 08:30	1159	Yes	123	-	No	0	-	---	No
06:45 - 07:45	1097	Yes	84	-	No	0	-	---	No
07:45 - 08:45	1040	Yes	127	-	No	0	-	---	No
06:30 - 07:30	956	Yes	78	-	No	0	-	---	No
08:00 - 09:00	898	Yes	115	-	No	0	-	---	No
14:45 - 15:45	794	No	210	-	Yes	0	-	---	No
08:15 - 09:15	794	No	103	-	No	0	-	---	No
15:15 - 16:15	793	No	264	-	Yes	0	-	---	No
14:15 - 15:15	789	No	202	-	Yes	0	-	---	No
06:15 - 07:15	786	No	60	-	No	0	-	---	No
14:30 - 15:30	752	No	204	-	Yes	0	-	---	No
17:45 - 18:45	741	No	203	-	Yes	0	-	---	No
14:00 - 15:00	673	No	163	-	Yes	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1g-08-Round_Bottom@Valley

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

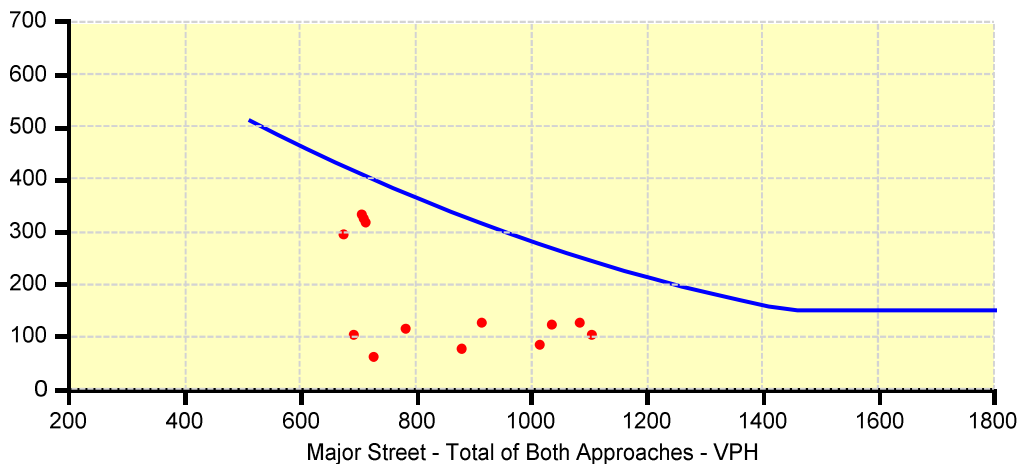
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road ROUND BOTTOM RD						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
07:00 - 08:00	719	+	386	=	1105	103	0	No
07:15 - 08:15	688	+	394	=	1082	125	0	No
07:30 - 08:30	654	+	382	=	1036	123	0	No
06:45 - 07:45	691	+	322	=	1013	84	0	No
07:45 - 08:45	626	+	287	=	913	127	0	No
06:30 - 07:30	645	+	233	=	878	78	0	No
08:00 - 09:00	542	+	241	=	783	115	0	No
06:15 - 07:15	547	+	179	=	726	60	0	No
17:00 - 18:00	446	+	267	=	713	316	0	No
16:45 - 17:45	454	+	256	=	710	325	0	No
16:30 - 17:30	455	+	249	=	704	333	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: CHURCH ST

Number of Lanes : 1

Total Approach Volume: 8,923

Southbound: CHURCH ST

Number of Lanes : 1

Total Approach Volume: 4,383

Minor Street Approaches

Eastbound: VALLEY AVE

Number of Lanes : 2+

Total Approach Volume: 2,500

Westbound: GOLF CENTER DRIVEWAY

Number of Lanes : 2+

Total Approach Volume: 60

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 5 hours, 8 are needed

Required 1B volumes reached for 13 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (17) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200**

Major Road CHURCH ST						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
07:30 - 08:30	517	+	456	=	973	373	1	Yes
06:30 - 07:30	307	+	279	=	586	314	1	Yes
16:45 - 17:45	1038	+	375	=	1413	195	6	No
17:00 - 18:00	1022	+	373	=	1395	187	5	No
16:30 - 17:30	976	+	400	=	1376	194	8	No
16:15 - 17:15	961	+	386	=	1347	180	9	No
15:45 - 16:45	964	+	376	=	1340	152	8	No
17:15 - 18:15	997	+	336	=	1333	170	4	No
16:00 - 17:00	972	+	360	=	1332	158	9	No
15:30 - 16:30	947	+	352	=	1299	141	7	No
15:15 - 16:15	876	+	343	=	1219	138	7	No
17:30 - 18:30	877	+	314	=	1191	166	3	No
15:00 - 16:00	797	+	360	=	1157	143	9	No
17:45 - 18:45	758	+	308	=	1066	142	1	No
14:45 - 15:45	683	+	354	=	1037	144	9	No
14:30 - 15:30	659	+	352	=	1011	140	8	No
18:00 - 19:00	682	+	287	=	969	128	0	No
14:15 - 15:15	610	+	331	=	941	137	7	No
18:15 - 19:15	601	+	276	=	877	111	0	No
14:00 - 15:00	572	+	290	=	862	125	5	No
13:45 - 14:45	586	+	262	=	848	114	6	No
12:30 - 13:30	603	+	223	=	826	104	9	No
13:00 - 14:00	573	+	239	=	812	115	6	No
18:30 - 19:30	562	+	246	=	808	84	0	No
12:45 - 13:45	570		232		802	107	5	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100**

Major Road CHURCH ST						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	961	+	386	=	1347	180	9	Yes
17:15 - 18:15	997	+	336	=	1333	170	4	Yes
15:15 - 16:15	876	+	343	=	1219	138	7	Yes
14:15 - 15:15	610	+	331	=	941	137	7	Yes
18:15 - 19:15	601	+	276	=	877	111	0	Yes
07:00 - 08:00	455	+	411	=	866	448	2	Yes
08:00 - 09:00	454	+	382	=	836	229	0	Yes
12:15 - 13:15	570	+	220	=	790	104	5	Yes
13:15 - 14:15	542	+	241	=	783	110	7	Yes
12:00 - 13:00	509	+	226	=	735	104	6	No
06:45 - 07:45	365	+	349	=	714	387	2	No
10:45 - 11:45	421	+	291	=	712	122	10	No
11:45 - 12:45	472	+	233	=	705	106	7	No
11:00 - 12:00	427	+	276	=	703	115	8	No
11:30 - 12:30	441	+	250	=	691	114	3	No
11:15 - 12:15	417	+	270	=	687	117	8	No
10:30 - 11:30	387	+	284	=	671	119	12	No
09:15 - 10:15	373	+	287	=	660	127	2	No
10:15 - 11:15	390	+	267	=	657	118	8	No
09:00 - 10:00	360	+	295	=	655	131	1	No
09:30 - 10:30	379	+	250	=	629	121	3	No
10:00 - 11:00	375	+	253	=	628	119	8	No
09:45 - 10:45	357	+	246	=	603	119	4	No
06:30 - 07:30	307	+	279	=	586	314	1	No
19:15 - 20:15	425		139		564	63	1	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 5 hours meet 1A minimums.
13 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**

Veh/Hr Minor = **160 80**

Major Road CHURCH ST						Minor Road VALLEY AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	961	+	386	=	1347	180	9	Yes
17:15 - 18:15	997	+	336	=	1333	170	4	Yes
07:15 - 08:15	509	+	465	=	974	424	1	Yes
08:15 - 09:15	403	+	311	=	714	195	0	Yes
06:15 - 07:15	244	+	214	=	458	237	1	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	No
16:00 - 17:00	972	+	360	=	1332	158	9	No
15:30 - 16:30	947	+	352	=	1299	141	7	No
15:15 - 16:15	876	+	343	=	1219	138	7	No
15:00 - 16:00	797	+	360	=	1157	143	9	No
14:45 - 15:45	683	+	354	=	1037	144	9	No
14:30 - 15:30	659	+	352	=	1011	140	8	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:45 - 17:45	1038	+	375	=	1413	195	6	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	Yes
17:45 - 18:45	758	+	308	=	1066	142	1	Yes
14:45 - 15:45	683	+	354	=	1037	144	9	Yes
07:45 - 08:45	513	+	440	=	953	301	0	Yes
13:45 - 14:45	586	+	262	=	848	114	6	Yes
12:45 - 13:45	570	+	232	=	802	107	5	Yes
18:45 - 19:45	531	+	209	=	740	82	1	Yes
06:45 - 07:45	365	+	349	=	714	387	2	Yes
10:45 - 11:45	421	+	291	=	712	122	10	Yes
11:45 - 12:45	472	+	233	=	705	106	7	Yes
08:45 - 09:45	369	+	284	=	653	146	1	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

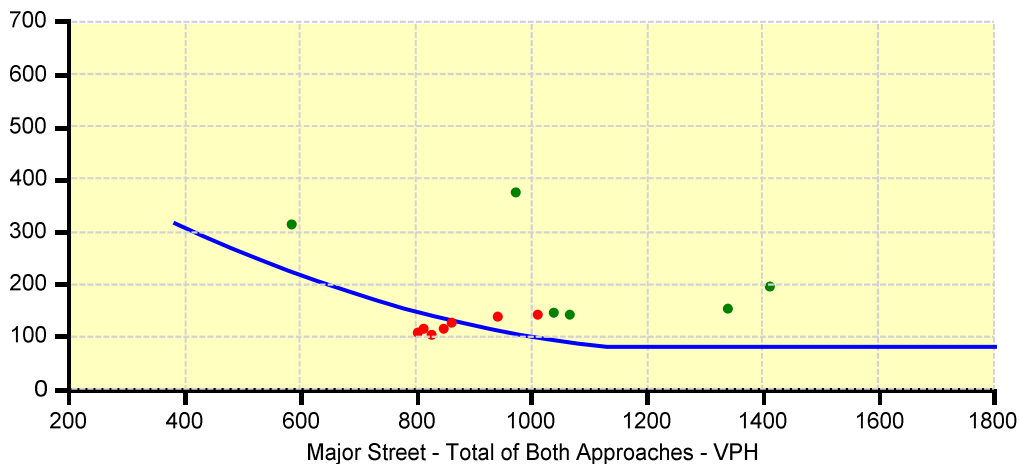
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **2 or more**

Major Road CHURCH ST						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	1038	+	375	=	1413	195	6	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	Yes
17:45 - 18:45	758	+	308	=	1066	142	1	Yes
14:45 - 15:45	683	+	354	=	1037	144	9	Yes
07:30 - 08:30	517	+	456	=	973	373	1	Yes
06:30 - 07:30	307	+	279	=	586	314	1	Yes
14:30 - 15:30	659	+	352	=	1011	140	8	No
14:15 - 15:15	610	+	331	=	941	137	7	No
14:00 - 15:00	572	+	290	=	862	125	5	No
13:45 - 14:45	586	+	262	=	848	114	6	No
12:30 - 13:30	603	+	223	=	826	104	9	No
							6	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

44 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road CHURCH ST						Minor Road VALLEY AVE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:45 - 17:45	1614	Yes	195	-	Yes	6	-	---	Yes
17:00 - 18:00	1587	Yes	187	-	Yes	5	-	---	Yes
16:30 - 17:30	1578	Yes	194	-	Yes	8	-	---	Yes
16:15 - 17:15	1536	Yes	180	-	Yes	9	-	---	Yes
17:15 - 18:15	1507	Yes	170	-	Yes	4	-	---	Yes
15:45 - 16:45	1500	Yes	152	-	Yes	8	-	---	Yes
16:00 - 17:00	1499	Yes	158	-	Yes	9	-	---	Yes
07:15 - 08:15	1399	Yes	424	-	Yes	1	-	---	Yes
17:30 - 18:30	1360	Yes	166	-	Yes	3	-	---	Yes
07:30 - 08:30	1347	Yes	373	-	Yes	1	-	---	Yes
07:00 - 08:00	1316	Yes	448	-	Yes	2	-	---	Yes
07:45 - 08:45	1254	Yes	301	-	Yes	0	-	---	Yes
06:45 - 07:45	1103	Yes	387	-	Yes	2	-	---	Yes
08:00 - 09:00	1065	Yes	229	-	Yes	0	-	---	Yes
08:15 - 09:15	909	Yes	195	-	Yes	0	-	---	Yes
06:30 - 07:30	901	Yes	314	-	Yes	1	-	---	Yes
08:30 - 09:30	861	Yes	167	-	Yes	0	-	---	Yes
15:30 - 16:30	1447	Yes	141	-	No	7	-	---	No
15:15 - 16:15	1364	Yes	138	-	No	7	-	---	No
15:00 - 16:00	1309	Yes	143	-	No	9	-	---	No
17:45 - 18:45	1209	Yes	142	-	No	1	-	---	No
14:45 - 15:45	1190	Yes	144	-	No	9	-	---	No
14:30 - 15:30	1159	Yes	140	-	No	8	-	---	No
18:00 - 19:00	1097	Yes	128	-	No	0	-	---	No
14:15 - 15:15	1085	Yes	137	-	No	7	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1h-10-Church@Valley

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

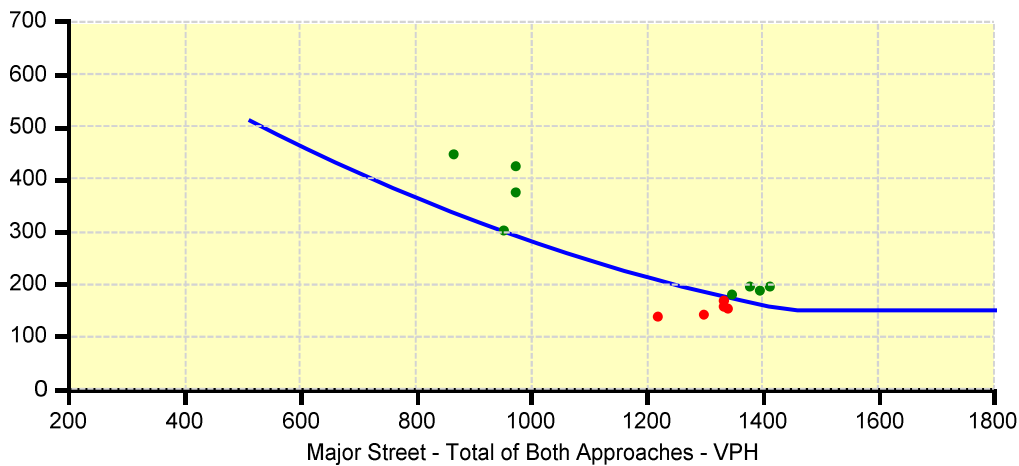
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **2 or more**

Major Road CHURCH ST						Minor Road VALLEY AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	1038	+	375	=	1413	195	6	Yes
17:00 - 18:00	1022	+	373	=	1395	187	5	Yes
16:30 - 17:30	976	+	400	=	1376	194	8	Yes
16:15 - 17:15	961	+	386	=	1347	180	9	Yes
07:15 - 08:15	509	+	465	=	974	424	1	Yes
07:30 - 08:30	517	+	456	=	973	373	1	Yes
07:45 - 08:45	513	+	440	=	953	301	0	Yes
07:00 - 08:00	455	+	411	=	866	448	2	Yes
15:45 - 16:45	964	+	376	=	1340	152	8	No
17:15 - 18:15	997	+	336	=	1333	170	4	No
16:00 - 17:00	972	+	360	=	1332	158	9	No
							7	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: WOOSTER PIKE

Number of Lanes : 1

Total Approach Volume: 11,783

Westbound: WOOSTER PIKE

Number of Lanes : 1

Total Approach Volume: 5,222

Minor Street Approaches

Northbound: NEWTOWN RD

Number of Lanes : 2+

Total Approach Volume: 7,901

Southbound: NONE

Number of Lanes : 1

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 16 hours, 8 are needed

Required 1B volumes reached for 16 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (58) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1427	+	364	=	1791	570	0	Yes
16:00 - 17:00	1273	+	339	=	1612	489	0	Yes
15:00 - 16:00	1067	+	336	=	1403	449	0	Yes
18:00 - 19:00	948	+	278	=	1226	422	0	Yes
14:00 - 15:00	811	+	306	=	1117	438	0	Yes
07:00 - 08:00	513	+	568	=	1081	946	0	Yes
12:00 - 13:00	700	+	323	=	1023	504	0	Yes
13:00 - 14:00	706	+	279	=	985	421	0	Yes
08:00 - 09:00	519	+	443	=	962	683	0	Yes
11:00 - 12:00	587	+	326	=	913	453	0	Yes
09:00 - 10:00	486	+	313	=	799	525	0	Yes
10:00 - 11:00	507	+	255	=	762	387	0	Yes
19:00 - 20:00	538	+	202	=	740	278	0	Yes
06:00 - 07:00	228	+	322	=	550	478	0	Yes
20:00 - 21:00	478	+	138	=	616	193	0	No
20:15 - 21:15	426	+	122	=	548	186	0	No
20:30 - 21:30	383	+	124	=	507	187	0	No
20:45 - 21:45	355	+	119	=	474	192	0	No
21:00 - 22:00	339	+	112	=	451	167	0	No
05:45 - 06:45	193	+	249	=	442	393	0	No
21:15 - 22:15	305	+	107	=	412	152	0	No
21:30 - 22:30	273	+	92	=	365	130	0	No
05:30 - 06:30	151	+	180	=	331	336	0	No
21:45 - 22:45	241	+	87	=	328	112	0	No
22:00 - 23:00	216		82		298	97	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1427	+	364	=	1791	570	0	Yes
16:00 - 17:00	1273	+	339	=	1612	489	0	Yes
15:00 - 16:00	1067	+	336	=	1403	449	0	Yes
18:00 - 19:00	948	+	278	=	1226	422	0	Yes
14:00 - 15:00	811	+	306	=	1117	438	0	Yes
07:00 - 08:00	513	+	568	=	1081	946	0	Yes
12:00 - 13:00	700	+	323	=	1023	504	0	Yes
13:00 - 14:00	706	+	279	=	985	421	0	Yes
08:00 - 09:00	519	+	443	=	962	683	0	Yes
11:00 - 12:00	587	+	326	=	913	453	0	Yes
09:00 - 10:00	486	+	313	=	799	525	0	Yes
10:00 - 11:00	507	+	255	=	762	387	0	Yes
19:00 - 20:00	538	+	202	=	740	278	0	Yes
20:00 - 21:00	478	+	138	=	616	193	0	Yes
06:00 - 07:00	228	+	322	=	550	478	0	Yes
21:00 - 22:00	339	+	112	=	451	167	0	No
05:45 - 06:45	193	+	249	=	442	393	0	No
21:15 - 22:15	305	+	107	=	412	152	0	No
21:30 - 22:30	273	+	92	=	365	130	0	No
05:30 - 06:30	151	+	180	=	331	336	0	No
21:45 - 22:45	241	+	87	=	328	112	0	No
22:00 - 23:00	216	+	82	=	298	97	0	No
22:15 - 23:15	213	+	78	=	291	86	0	No
22:30 - 23:30	216	+	70	=	286	65	0	No
05:15 - 06:15	124		147		271	284	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

16 hours meet 1A minimums.
16 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes
14:45 - 15:45	993	+	340	=	1333	481	0	Yes
13:45 - 14:45	779	+	280	=	1059	413	0	Yes
12:45 - 13:45	738	+	292	=	1030	436	0	Yes
11:45 - 12:45	669	+	327	=	996	499	0	Yes
06:45 - 07:45	443	+	552	=	995	871	0	Yes
07:45 - 08:45	531	+	464	=	995	751	0	Yes
10:45 - 11:45	538	+	308	=	846	433	0	Yes
18:45 - 19:45	612	+	219	=	831	310	0	Yes
08:45 - 09:45	480		345		825	561	0	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes
14:45 - 15:45	993	+	340	=	1333	481	0	Yes
13:45 - 14:45	779	+	280	=	1059	413	0	Yes
12:45 - 13:45	738	+	292	=	1030	436	0	Yes
11:45 - 12:45	669	+	327	=	996	499	0	Yes
06:45 - 07:45	443	+	552	=	995	871	0	Yes
07:45 - 08:45	531	+	464	=	995	751	0	Yes
10:45 - 11:45	538	+	308	=	846	433	0	Yes
18:45 - 19:45	612	+	219	=	831	310	0	Yes
08:45 - 09:45	480		345		825	561	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

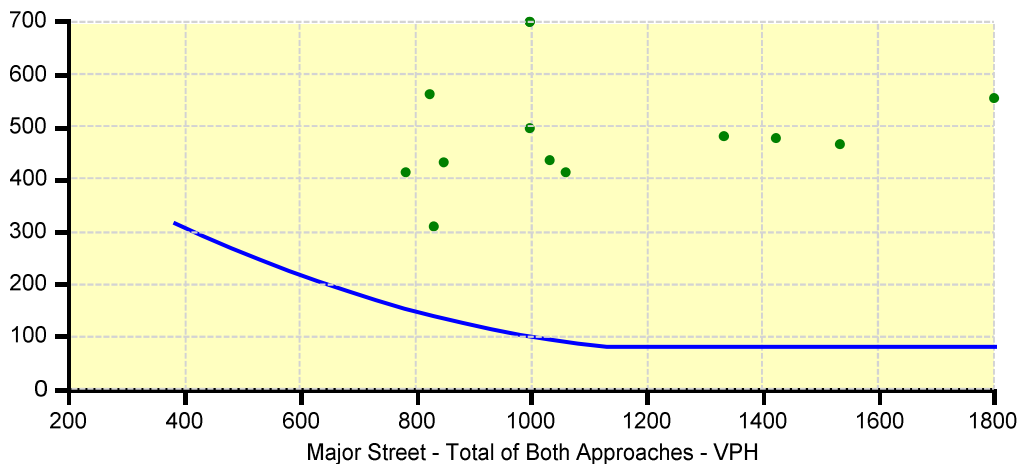
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes
14:45 - 15:45	993	+	340	=	1333	481	0	Yes
13:45 - 14:45	779	+	280	=	1059	413	0	Yes
12:45 - 13:45	738	+	292	=	1030	436	0	Yes
11:45 - 12:45	669	+	327	=	996	499	0	Yes
07:45 - 08:45	531	+	464	=	995	751	0	Yes
06:45 - 07:45	443	+	552	=	995	871	0	Yes
10:45 - 11:45	538	+	308	=	846	433	0	Yes
18:45 - 19:45	612	+	219	=	831	310	0	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

58 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
WOOSTER PIKE						NEWTOWN RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	2361	Yes	570	-	Yes	0	-	---	Yes
16:45 - 17:45	2355	Yes	555	-	Yes	0	-	---	Yes
16:30 - 17:30	2293	Yes	548	-	Yes	0	-	---	Yes
17:15 - 18:15	2226	Yes	549	-	Yes	0	-	---	Yes
16:15 - 17:15	2209	Yes	506	-	Yes	0	-	---	Yes
17:30 - 18:30	2111	Yes	521	-	Yes	0	-	---	Yes
16:00 - 17:00	2101	Yes	489	-	Yes	0	-	---	Yes
07:00 - 08:00	2027	Yes	946	-	Yes	0	-	---	Yes
07:15 - 08:15	2001	Yes	902	-	Yes	0	-	---	Yes
15:45 - 16:45	1999	Yes	467	-	Yes	0	-	---	Yes
15:30 - 16:30	1958	Yes	443	-	Yes	0	-	---	Yes
17:45 - 18:45	1900	Yes	479	-	Yes	0	-	---	Yes
07:30 - 08:30	1884	Yes	857	-	Yes	0	-	---	Yes
15:15 - 16:15	1881	Yes	442	-	Yes	0	-	---	Yes
06:45 - 07:45	1866	Yes	871	-	Yes	0	-	---	Yes
15:00 - 16:00	1852	Yes	449	-	Yes	0	-	---	Yes
14:45 - 15:45	1814	Yes	481	-	Yes	0	-	---	Yes
07:45 - 08:45	1746	Yes	751	-	Yes	0	-	---	Yes
14:30 - 15:30	1714	Yes	482	-	Yes	0	-	---	Yes
14:15 - 15:15	1651	Yes	461	-	Yes	0	-	---	Yes
18:00 - 19:00	1648	Yes	422	-	Yes	0	-	---	Yes
08:00 - 09:00	1645	Yes	683	-	Yes	0	-	---	Yes
06:30 - 07:30	1604	Yes	736	-	Yes	0	-	---	Yes
12:15 - 13:15	1575	Yes	491	-	Yes	0	-	---	Yes
14:00 - 15:00	1555	Yes	438	-	Yes	0	-	---	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1i-11-US_50@Newton

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

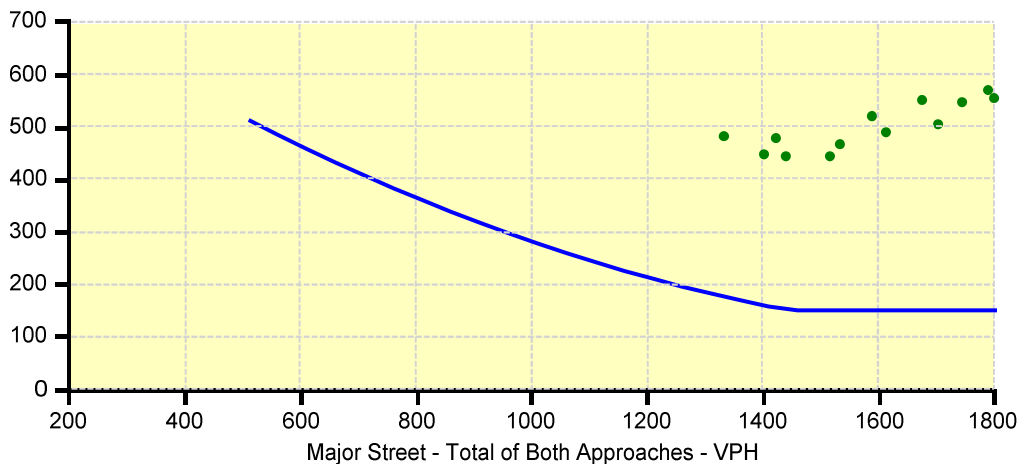
Summary

49 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road WOOSTER PIKE						Minor Road NEWTOWN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1442	+	358	=	1800	555	0	Yes
17:00 - 18:00	1427	+	364	=	1791	570	0	Yes
16:30 - 17:30	1393	+	352	=	1745	548	0	Yes
16:15 - 17:15	1346	+	357	=	1703	506	0	Yes
17:15 - 18:15	1328	+	349	=	1677	549	0	Yes
16:00 - 17:00	1273	+	339	=	1612	489	0	Yes
17:30 - 18:30	1250	+	340	=	1590	521	0	Yes
15:45 - 16:45	1191	+	341	=	1532	467	0	Yes
15:30 - 16:30	1170	+	345	=	1515	443	0	Yes
15:15 - 16:15	1099	+	340	=	1439	442	0	Yes
17:45 - 18:45	1110	+	311	=	1421	479	0	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 10,101

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,247

Minor Street Approaches

Northbound: WALTON CREEK RD

Number of Lanes :1

Total Approach Volume: 1,464

Southbound: WALTON CREEK RD

Number of Lanes :2+

Total Approach Volume: 3,261

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 7 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 9 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (11) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (39) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 7 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150 200**

Major Road US 50						Minor Road WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1093	+	821	=	1914	124	410	Yes
16:00 - 17:00	1053	+	768	=	1821	154	368	Yes
15:00 - 16:00	839	+	745	=	1584	144	333	Yes
18:00 - 19:00	777	+	597	=	1374	125	268	Yes
12:00 - 13:00	626	+	735	=	1361	118	214	Yes
14:00 - 15:00	680	+	654	=	1334	117	242	Yes
13:00 - 14:00	598	+	643	=	1241	119	206	Yes
07:15 - 08:15	517	+	1520	=	2037	30	143	No
07:00 - 08:00	490	+	1542	=	2032	21	139	No
07:30 - 08:30	536	+	1387	=	1923	30	150	No
06:45 - 07:45	416	+	1445	=	1861	19	128	No
07:45 - 08:45	514	+	1237	=	1751	36	144	No
08:00 - 09:00	491	+	1138	=	1629	42	153	No
06:30 - 07:30	341	+	1207	=	1548	18	100	No
08:15 - 09:15	471	+	1064	=	1535	36	160	No
08:30 - 09:30	472	+	1001	=	1473	42	152	No
11:30 - 12:30	595	+	757	=	1352	112	187	No
08:45 - 09:45	471	+	877	=	1348	45	155	No
11:45 - 12:45	589	+	736	=	1325	117	190	No
11:15 - 12:15	579	+	745	=	1324	109	176	No
09:00 - 10:00	477	+	800	=	1277	47	144	No
11:00 - 12:00	552	+	709	=	1261	112	178	No
09:15 - 10:15	500	+	736	=	1236	56	131	No
06:15 - 07:15	280	+	953	=	1233	11	67	No
10:45 - 11:45	528		682		1210	94	165	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **75 100**

Major Road US 50						Minor Road WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:30 - 08:30	536	+	1387	=	1923	30	150	Yes
16:30 - 17:30	1095	+	809	=	1904	140	404	Yes
17:30 - 18:30	977	+	727	=	1704	139	353	Yes
15:30 - 16:30	953	+	746	=	1699	150	363	Yes
06:30 - 07:30	341	+	1207	=	1548	18	100	Yes
14:30 - 15:30	743	+	760	=	1503	131	272	Yes
08:30 - 09:30	472	+	1001	=	1473	42	152	Yes
12:30 - 13:30	645	+	709	=	1354	124	208	Yes
11:30 - 12:30	595	+	757	=	1352	112	187	Yes
13:30 - 14:30	617	+	583	=	1200	112	235	Yes
09:30 - 10:30	501	+	665	=	1166	61	122	Yes
10:30 - 11:30	492	+	630	=	1122	93	153	Yes
18:30 - 19:30	596	+	483	=	1079	103	179	Yes
19:30 - 20:30	409	+	348	=	757	85	130	Yes
06:15 - 07:15	280	+	953	=	1233	11	67	No
06:00 - 07:00	227	+	768	=	995	7	55	No
05:45 - 06:45	192	+	607	=	799	6	40	No
05:30 - 06:30	142	+	479	=	621	5	29	No
20:45 - 21:45	282	+	279	=	561	49	100	No
20:30 - 21:30	285	+	274	=	559	58	108	No
21:00 - 22:00	274	+	255	=	529	38	84	No
05:15 - 06:15	107	+	391	=	498	7	25	No
21:15 - 22:15	269	+	226	=	495	33	72	No
21:30 - 22:30	252	+	212	=	464	34	56	No
21:45 - 22:45	211		184		395	29	42	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

9 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **120** **60**
Veh/Hr Minor SB = **160** **80**

Major Road						Minor Road			
US 50						WALTON CREEK RD			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
16:45 - 17:45	1143	+	810	=	1953	140	418	Yes	
15:45 - 16:45	999	+	766	=	1765	140	355	Yes	
14:45 - 15:45	780	+	758	=	1538	144	308	Yes	
08:15 - 09:15	471	+	1064	=	1535	36	160	Yes	
17:45 - 18:45	841	+	665	=	1506	131	313	Yes	
12:45 - 13:45	643	+	690	=	1333	124	221	Yes	
11:45 - 12:45	589	+	736	=	1325	117	190	Yes	
13:45 - 14:45	644	+	605	=	1249	112	230	Yes	
10:45 - 11:45	528	+	682	=	1210	94	165	Yes	
07:15 - 08:15	517	+	1520	=	2037	30	143	No	
07:00 - 08:00	490	+	1542	=	2032	21	139	No	
07:30 - 08:30	536	+	1387	=	1923	30	150	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
07:30 - 08:30	536	+	1387	=	1923	30	150	Yes	
16:30 - 17:30	1095	+	809	=	1904	140	404	Yes	
17:30 - 18:30	977	+	727	=	1704	139	353	Yes	
15:30 - 16:30	953	+	746	=	1699	150	363	Yes	
06:30 - 07:30	341	+	1207	=	1548	18	100	Yes	
14:30 - 15:30	743	+	760	=	1503	131	272	Yes	
08:30 - 09:30	472	+	1001	=	1473	42	152	Yes	
12:30 - 13:30	645	+	709	=	1354	124	208	Yes	
11:30 - 12:30	595	+	757	=	1352	112	187	Yes	
13:30 - 14:30	617	+	583	=	1200	112	235	Yes	
09:30 - 10:30	501	+	665	=	1166	61	122	Yes	
10:30 - 11:30	492	+	630	=	1122	93	153	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

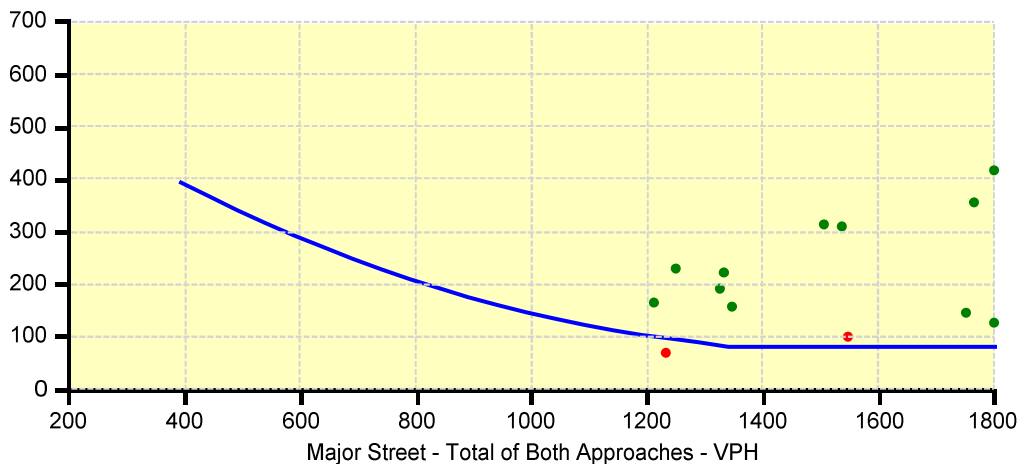
Summary

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
US 50						WALTON CREEK RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1143	+	810	=	1953	140	418	Yes
06:45 - 07:45	416	+	1445	=	1861	19	128	Yes
15:45 - 16:45	999	+	766	=	1765	140	355	Yes
07:45 - 08:45	514	+	1237	=	1751	36	144	Yes
14:45 - 15:45	780	+	758	=	1538	144	308	Yes
17:45 - 18:45	841	+	665	=	1506	131	313	Yes
08:45 - 09:45	471	+	877	=	1348	45	155	Yes
12:45 - 13:45	643	+	690	=	1333	124	221	Yes
11:45 - 12:45	589	+	736	=	1325	117	190	Yes
13:45 - 14:45	644	+	605	=	1249	112	230	Yes
10:45 - 11:45	528	+	682	=	1210	94	165	Yes
							100	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

58 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road				
US 50						WALTON CREEK RD				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
16:45 - 17:45	2511	Yes	140	-	---	418	-	Yes	Yes	
17:00 - 18:00	2448	Yes	124	-	---	410	-	Yes	Yes	
16:30 - 17:30	2448	Yes	140	-	---	404	-	Yes	Yes	
16:15 - 17:15	2416	Yes	151	-	---	377	-	Yes	Yes	
16:00 - 17:00	2343	Yes	154	-	---	368	-	Yes	Yes	
17:15 - 18:15	2332	Yes	127	-	---	387	-	Yes	Yes	
15:45 - 16:45	2260	Yes	140	-	---	355	-	Yes	Yes	
15:30 - 16:30	2212	Yes	150	-	---	363	-	Yes	Yes	
17:30 - 18:30	2196	Yes	139	-	---	353	-	Yes	Yes	
07:30 - 08:30	2103	Yes	30	-	---	150	-	Yes	Yes	
15:15 - 16:15	2098	Yes	145	-	---	348	-	Yes	Yes	
15:00 - 16:00	2061	Yes	144	-	---	333	-	Yes	Yes	
14:45 - 15:45	1990	Yes	144	-	---	308	-	Yes	Yes	
17:45 - 18:45	1950	Yes	131	-	---	313	-	Yes	Yes	
14:30 - 15:30	1906	Yes	131	-	---	272	-	Yes	Yes	
08:00 - 09:00	1824	Yes	42	-	---	153	-	Yes	Yes	
14:15 - 15:15	1818	Yes	125	-	---	266	-	Yes	Yes	
18:00 - 19:00	1767	Yes	125	-	---	268	-	Yes	Yes	
08:15 - 09:15	1731	Yes	36	-	---	160	-	Yes	Yes	
12:15 - 13:15	1730	Yes	124	-	---	211	-	Yes	Yes	
12:00 - 13:00	1693	Yes	118	-	---	214	-	Yes	Yes	
14:00 - 15:00	1693	Yes	117	-	---	242	-	Yes	Yes	
12:30 - 13:30	1686	Yes	124	-	---	208	-	Yes	Yes	
12:45 - 13:45	1678	Yes	124	-	---	221	-	Yes	Yes	
08:30 - 09:30	1667	Yes	42	-	---	152	-	Yes	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1j-12-US_50@Walton_Creek

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

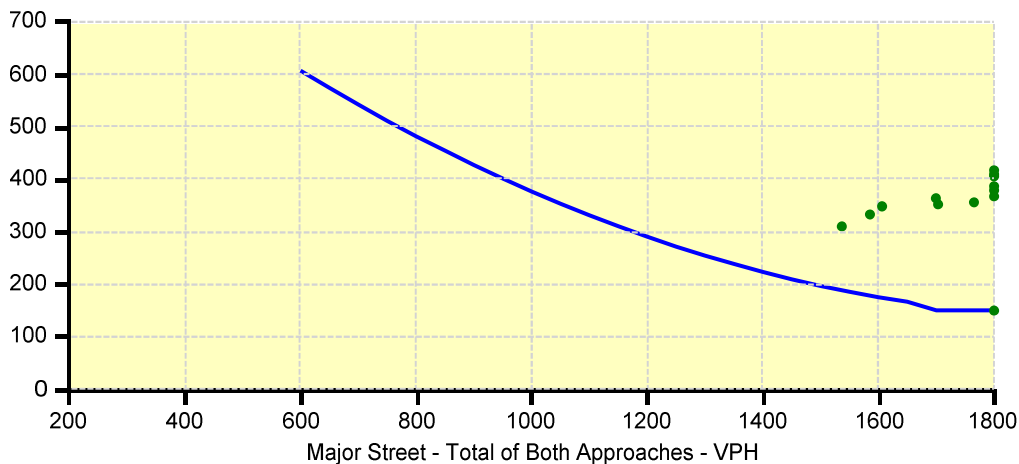
Summary

17 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road WALTON CREEK RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1143	+	810	=	1953	140	418	Yes
07:30 - 08:30	536	+	1387	=	1923	30	150	Yes
17:00 - 18:00	1093	+	821	=	1914	124	410	Yes
16:30 - 17:30	1095	+	809	=	1904	140	404	Yes
16:15 - 17:15	1091	+	797	=	1888	151	377	Yes
16:00 - 17:00	1053	+	768	=	1821	154	368	Yes
17:15 - 18:15	1051	+	767	=	1818	127	387	Yes
15:45 - 16:45	999	+	766	=	1765	140	355	Yes
17:30 - 18:30	977	+	727	=	1704	139	353	Yes
15:30 - 16:30	953	+	746	=	1699	150	363	Yes
15:15 - 16:15	870	+	735	=	1605	145	348	Yes
							333	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 12,615

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 10,876

Minor Street Approaches

Northbound: MIAMI RUN

Number of Lanes :2+

Total Approach Volume: 2,457

Southbound: SPRING HILL

Number of Lanes :1

Total Approach Volume: 81

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 14 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 9 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (12) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (38) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road MIAMI RUN		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
11:45 - 12:45	829	+	585	=	1414	212	3	Yes
17:00 - 18:00	1334	+	724	=	2058	187	5	No
16:45 - 17:45	1343	+	700	=	2043	187	4	No
17:15 - 18:15	1308	+	713	=	2021	178	4	No
16:30 - 17:30	1312	+	705	=	2017	180	6	No
16:15 - 17:15	1329	+	664	=	1993	175	7	No
17:30 - 18:30	1303	+	688	=	1991	196	3	No
16:00 - 17:00	1284	+	664	=	1948	164	8	No
15:45 - 16:45	1278	+	613	=	1891	171	9	No
15:30 - 16:30	1281	+	588	=	1869	169	5	No
17:45 - 18:45	1174	+	663	=	1837	173	2	No
15:15 - 16:15	1237	+	589	=	1826	173	5	No
07:15 - 08:15	600	+	1208	=	1808	162	4	No
07:30 - 08:30	664	+	1137	=	1801	166	5	No
15:00 - 16:00	1176	+	603	=	1779	177	4	No
07:00 - 08:00	532	+	1211	=	1743	150	2	No
14:45 - 15:45	1102	+	629	=	1731	179	5	No
18:00 - 19:00	1106	+	601	=	1707	184	3	No
07:45 - 08:45	674	+	991	=	1665	161	7	No
14:30 - 15:30	998	+	634	=	1632	166	5	No
18:15 - 19:15	1020	+	591	=	1611	183	4	No
06:45 - 07:45	414	+	1188	=	1602	137	2	No
14:15 - 15:15	906	+	651	=	1557	162	6	No
14:00 - 15:00	865	+	660	=	1525	166	4	No
08:00 - 09:00	610		908		1518	161	7	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road MIAMI RUN		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	1312	+	705	=	2017	180	6	Yes
17:30 - 18:30	1303	+	688	=	1991	196	3	Yes
15:30 - 16:30	1281	+	588	=	1869	169	5	Yes
07:30 - 08:30	664	+	1137	=	1801	166	5	Yes
14:30 - 15:30	998	+	634	=	1632	166	5	Yes
18:30 - 19:30	934	+	566	=	1500	159	5	Yes
11:30 - 12:30	818	+	617	=	1435	195	2	Yes
06:30 - 07:30	316	+	1043	=	1359	123	2	Yes
13:30 - 14:30	763	+	590	=	1353	173	12	Yes
12:30 - 13:30	777	+	560	=	1337	185	8	Yes
08:30 - 09:30	536	+	711	=	1247	134	4	Yes
10:30 - 11:30	562	+	523	=	1085	117	8	Yes
09:30 - 10:30	497	+	577	=	1074	126	6	Yes
19:30 - 20:30	640	+	421	=	1061	142	0	Yes
06:15 - 07:15	272	+	853	=	1125	91	1	No
06:00 - 07:00	217	+	724	=	941	69	1	No
20:30 - 21:30	427	+	382	=	809	90	1	No
20:45 - 21:45	372	+	344	=	716	94	2	No
05:45 - 06:45	162	+	548	=	710	57	0	No
21:00 - 22:00	338	+	316	=	654	85	3	No
21:15 - 22:15	314	+	300	=	614	78	2	No
05:30 - 06:30	132	+	431	=	563	39	0	No
21:30 - 22:30	254	+	249	=	503	61	2	No
21:45 - 22:45	216	+	233	=	449	38	1	No
05:15 - 06:15	95		340		435	23	1	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

9 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road US 50						Minor Road MIAMI RUN		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:15 - 18:15	1308	+	713	=	2021	178	4	Yes
16:15 - 17:15	1329	+	664	=	1993	175	7	Yes
15:15 - 16:15	1237	+	589	=	1826	173	5	Yes
07:15 - 08:15	600	+	1208	=	1808	162	4	Yes
18:15 - 19:15	1020	+	591	=	1611	183	4	Yes
14:15 - 15:15	906	+	651	=	1557	162	6	Yes
12:15 - 13:15	812	+	590	=	1402	184	5	Yes
13:15 - 14:15	772	+	568	=	1340	189	12	Yes
11:15 - 12:15	729	+	593	=	1322	179	5	Yes
07:00 - 08:00	532	+	1211	=	1743	150	2	No
06:45 - 07:45	414	+	1188	=	1602	137	2	No
08:15 - 09:15	586	+	816	=	1402	151	6	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:15 - 18:15	1308	+	713	=	2021	178	4	Yes
16:15 - 17:15	1329	+	664	=	1993	175	7	Yes
15:15 - 16:15	1237	+	589	=	1826	173	5	Yes
07:15 - 08:15	600	+	1208	=	1808	162	4	Yes
18:15 - 19:15	1020	+	591	=	1611	183	4	Yes
14:15 - 15:15	906	+	651	=	1557	162	6	Yes
12:15 - 13:15	812	+	590	=	1402	184	5	Yes
08:15 - 09:15	586	+	816	=	1402	151	6	Yes
13:15 - 14:15	772	+	568	=	1340	189	12	Yes
11:15 - 12:15	729	+	593	=	1322	179	5	Yes
19:15 - 20:15	720	+	443	=	1163	146	1	Yes
06:15 - 07:15	272	+	853	=	1125	91	1	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

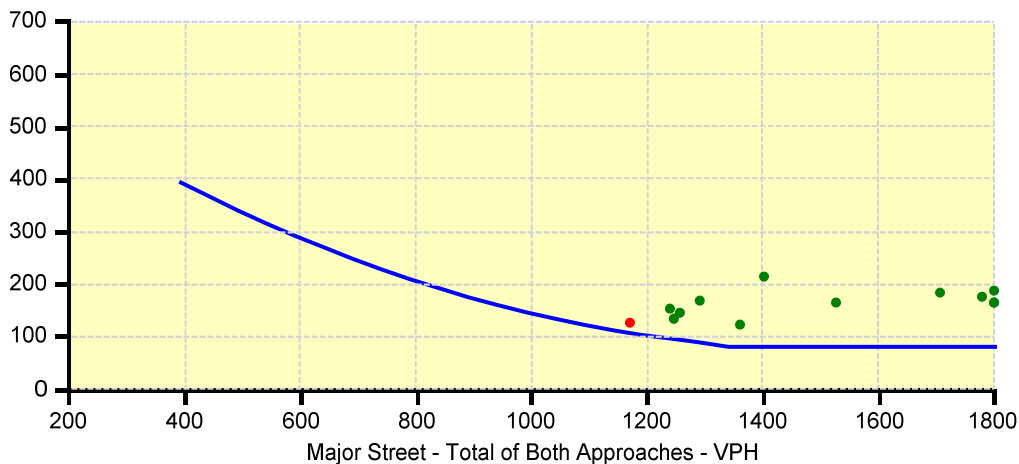
Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RUN		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1334	+	724	=	2058	187	5	Yes
16:00 - 17:00	1284	+	664	=	1948	164	8	Yes
07:30 - 08:30	664	+	1137	=	1801	166	5	Yes
15:00 - 16:00	1176	+	603	=	1779	177	4	Yes
18:00 - 19:00	1106	+	601	=	1707	184	3	Yes
14:00 - 15:00	865	+	660	=	1525	166	4	Yes
12:00 - 13:00	813	+	588	=	1401	213	4	Yes
06:30 - 07:30	316	+	1043	=	1359	123	2	Yes
13:00 - 14:00	754	+	537	=	1291	170	15	Yes
11:00 - 12:00	683	+	574	=	1257	145	5	Yes
08:30 - 09:30	536	+	711	=	1247	134	4	Yes
							3	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

60 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
US 50						MIAMI RUN			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	2250	Yes	187	-	Yes	5	-	---	Yes
16:45 - 17:45	2234	Yes	187	-	Yes	4	-	---	Yes
17:15 - 18:15	2203	Yes	178	-	Yes	4	-	---	Yes
16:30 - 17:30	2203	Yes	180	-	Yes	6	-	---	Yes
17:30 - 18:30	2190	Yes	196	-	Yes	3	-	---	Yes
16:15 - 17:15	2175	Yes	175	-	Yes	7	-	---	Yes
16:00 - 17:00	2120	Yes	164	-	Yes	8	-	---	Yes
15:45 - 16:45	2071	Yes	171	-	Yes	9	-	---	Yes
15:30 - 16:30	2043	Yes	169	-	Yes	5	-	---	Yes
17:45 - 18:45	2012	Yes	173	-	Yes	2	-	---	Yes
15:15 - 16:15	2004	Yes	173	-	Yes	5	-	---	Yes
07:15 - 08:15	1974	Yes	162	-	Yes	4	-	---	Yes
07:30 - 08:30	1972	Yes	166	-	Yes	5	-	---	Yes
15:00 - 16:00	1960	Yes	177	-	Yes	4	-	---	Yes
14:45 - 15:45	1915	Yes	179	-	Yes	5	-	---	Yes
07:00 - 08:00	1895	Yes	150	-	Yes	2	-	---	Yes
18:00 - 19:00	1894	Yes	184	-	Yes	3	-	---	Yes
07:45 - 08:45	1833	Yes	161	-	Yes	7	-	---	Yes
14:30 - 15:30	1803	Yes	166	-	Yes	5	-	---	Yes
18:15 - 19:15	1798	Yes	183	-	Yes	4	-	---	Yes
14:15 - 15:15	1725	Yes	162	-	Yes	6	-	---	Yes
14:00 - 15:00	1695	Yes	166	-	Yes	4	-	---	Yes
08:00 - 09:00	1686	Yes	161	-	Yes	7	-	---	Yes
18:30 - 19:30	1664	Yes	159	-	Yes	5	-	---	Yes
11:30 - 12:30	1632	Yes	195	-	Yes	2	-	---	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1k-(3)-US 50 & Spring Hill Dr & Miami Run

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

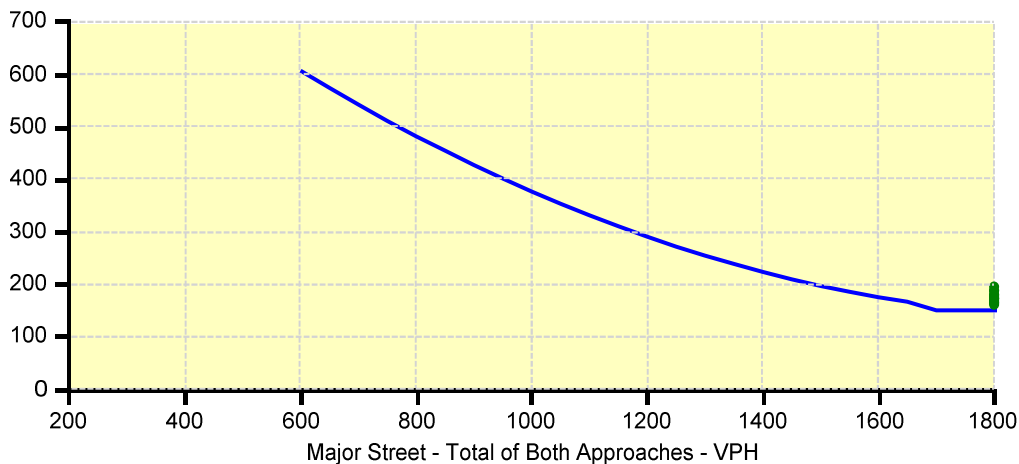
Summary

19 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RUN		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1334	+	724	=	2058	187	5	Yes
16:45 - 17:45	1343	+	700	=	2043	187	4	Yes
17:15 - 18:15	1308	+	713	=	2021	178	4	Yes
16:30 - 17:30	1312	+	705	=	2017	180	6	Yes
16:15 - 17:15	1329	+	664	=	1993	175	7	Yes
17:30 - 18:30	1303	+	688	=	1991	196	3	Yes
16:00 - 17:00	1284	+	664	=	1948	164	8	Yes
15:45 - 16:45	1278	+	613	=	1891	171	9	Yes
15:30 - 16:30	1281	+	588	=	1869	169	5	Yes
17:45 - 18:45	1174	+	663	=	1837	173	2	Yes
15:15 - 16:15	1237	+	589	=	1826	173	5	Yes
							4	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 12,885

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,263

Minor Street Approaches

Northbound: Mariemont Shopping Center

Number of Lanes :2+

Total Approach Volume: 530

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

	Major Road					Minor Road					
	US 50					Mariemont Shopping Center					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:45 - 17:45	1465	+	886	=	2351		38		0		No
17:00 - 18:00	1437	+	883	=	2320		37		0		No
16:30 - 17:30	1448	+	856	=	2304		32		0		No
17:15 - 18:15	1376	+	885	=	2261		38		0		No
16:15 - 17:15	1394	+	821	=	2215		31		0		No
17:30 - 18:30	1291	+	818	=	2109		44		0		No
16:00 - 17:00	1312	+	780	=	2092		32		0		No
15:45 - 16:45	1294	+	767	=	2061		35		0		No
15:30 - 16:30	1312	+	718	=	2030		44		0		No
15:00 - 16:00	1237	+	716	=	1953		40		0		No
17:45 - 18:45	1166	+	767	=	1933		45		0		No
15:15 - 16:15	1225	+	703	=	1928		44		0		No
07:15 - 08:15	599	+	1326	=	1925		5		0		No
07:00 - 08:00	549	+	1355	=	1904		4		0		No
07:30 - 08:30	658	+	1233	=	1891		5		0		No
18:00 - 19:00	1077	+	778	=	1855		58		0		No
14:45 - 15:45	1149	+	696	=	1845		37		0		No
07:45 - 08:45	648	+	1105	=	1753		9		0		No
14:30 - 15:30	1017	+	731	=	1748		30		0		No
06:45 - 07:45	461	+	1287	=	1748		3		0		No
18:15 - 19:15	978	+	752	=	1730		63		0		No
14:15 - 15:15	962	+	679	=	1641		33		0		No
08:00 - 09:00	596	+	1001	=	1597		13		0		No
18:30 - 19:30	868	+	720	=	1588		59		0		No
12:15 - 13:15	794		713		1507		53		0		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Time	Major Road US 50				Total	Minor Road Mariemont Shopping Center		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	1465	+	886	=	2351	38	0	No
17:00 - 18:00	1437	+	883	=	2320	37	0	No
16:30 - 17:30	1448	+	856	=	2304	32	0	No
17:15 - 18:15	1376	+	885	=	2261	38	0	No
16:15 - 17:15	1394	+	821	=	2215	31	0	No
17:30 - 18:30	1291	+	818	=	2109	44	0	No
16:00 - 17:00	1312	+	780	=	2092	32	0	No
15:45 - 16:45	1294	+	767	=	2061	35	0	No
15:30 - 16:30	1312	+	718	=	2030	44	0	No
15:00 - 16:00	1237	+	716	=	1953	40	0	No
17:45 - 18:45	1166	+	767	=	1933	45	0	No
15:15 - 16:15	1225	+	703	=	1928	44	0	No
07:15 - 08:15	599	+	1326	=	1925	5	0	No
07:00 - 08:00	549	+	1355	=	1904	4	0	No
07:30 - 08:30	658	+	1233	=	1891	5	0	No
18:00 - 19:00	1077	+	778	=	1855	58	0	No
14:45 - 15:45	1149	+	696	=	1845	37	0	No
07:45 - 08:45	648	+	1105	=	1753	9	0	No
14:30 - 15:30	1017	+	731	=	1748	30	0	No
06:45 - 07:45	461	+	1287	=	1748	3	0	No
18:15 - 19:15	978	+	752	=	1730	63	0	No
14:15 - 15:15	962	+	679	=	1641	33	0	No
08:00 - 09:00	596	+	1001	=	1597	13	0	No
18:30 - 19:30	868	+	720	=	1588	59	0	No
12:15 - 13:15	794		713		1507	53	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road US 50						Minor Road Mariemont Shopping Center			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
16:45 - 17:45	1465	+	886	=	2351	38	0	No	
17:00 - 18:00	1437	+	883	=	2320	37	0	No	
16:30 - 17:30	1448	+	856	=	2304	32	0	No	
17:15 - 18:15	1376	+	885	=	2261	38	0	No	
16:15 - 17:15	1394	+	821	=	2215	31	0	No	
17:30 - 18:30	1291	+	818	=	2109	44	0	No	
16:00 - 17:00	1312	+	780	=	2092	32	0	No	
15:45 - 16:45	1294	+	767	=	2061	35	0	No	
15:30 - 16:30	1312	+	718	=	2030	44	0	No	
15:00 - 16:00	1237	+	716	=	1953	40	0	No	
17:45 - 18:45	1166	+	767	=	1933	45	0	No	
15:15 - 16:15	1225		703		1928	44	0	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
16:45 - 17:45	1465	+	886	=	2351	38	0	No	
17:00 - 18:00	1437	+	883	=	2320	37	0	No	
16:30 - 17:30	1448	+	856	=	2304	32	0	No	
17:15 - 18:15	1376	+	885	=	2261	38	0	No	
16:15 - 17:15	1394	+	821	=	2215	31	0	No	
17:30 - 18:30	1291	+	818	=	2109	44	0	No	
16:00 - 17:00	1312	+	780	=	2092	32	0	No	
15:45 - 16:45	1294	+	767	=	2061	35	0	No	
15:30 - 16:30	1312	+	718	=	2030	44	0	No	
15:00 - 16:00	1237	+	716	=	1953	40	0	No	
17:45 - 18:45	1166	+	767	=	1933	45	0	No	
15:15 - 16:15	1225		703		1928	44	0	No	

Eastern Corridor Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

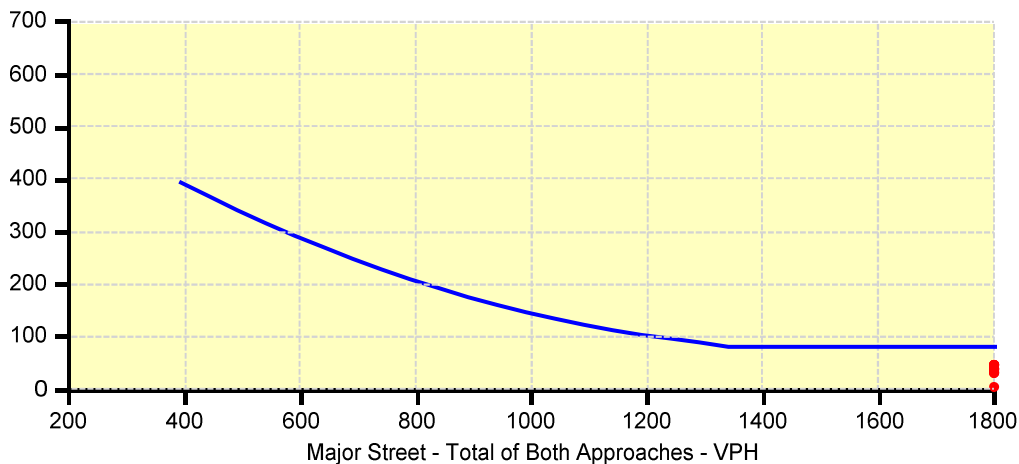
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Time	Major Road US 50				Total	Minor Road Mariemont Shopping Center		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	1465	+	886	=	2351	38	0	No
17:00 - 18:00	1437	+	883	=	2320	37	0	No
16:30 - 17:30	1448	+	856	=	2304	32	0	No
17:15 - 18:15	1376	+	885	=	2261	38	0	No
16:15 - 17:15	1394	+	821	=	2215	31	0	No
17:30 - 18:30	1291	+	818	=	2109	44	0	No
16:00 - 17:00	1312	+	780	=	2092	32	0	No
15:45 - 16:45	1294	+	767	=	2061	35	0	No
15:30 - 16:30	1312	+	718	=	2030	44	0	No
15:00 - 16:00	1237	+	716	=	1953	40	0	No
17:45 - 18:45	1166	+	767	=	1933	45	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

61 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

		Major Road				Minor Road				
		US 50				Mariemont Shopping Center				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
16:45 - 17:45	2389	Yes	38	-	No	0	-	---	No	
17:00 - 18:00	2357	Yes	37	-	No	0	-	---	No	
16:30 - 17:30	2336	Yes	32	-	No	0	-	---	No	
17:15 - 18:15	2299	Yes	38	-	No	0	-	---	No	
16:15 - 17:15	2246	Yes	31	-	No	0	-	---	No	
17:30 - 18:30	2153	Yes	44	-	No	0	-	---	No	
16:00 - 17:00	2124	Yes	32	-	No	0	-	---	No	
15:45 - 16:45	2096	Yes	35	-	No	0	-	---	No	
15:30 - 16:30	2074	Yes	44	-	No	0	-	---	No	
15:00 - 16:00	1993	Yes	40	-	No	0	-	---	No	
17:45 - 18:45	1978	Yes	45	-	No	0	-	---	No	
15:15 - 16:15	1972	Yes	44	-	No	0	-	---	No	
07:15 - 08:15	1930	Yes	5	-	No	0	-	---	No	
18:00 - 19:00	1913	Yes	58	-	No	0	-	---	No	
07:00 - 08:00	1908	Yes	4	-	No	0	-	---	No	
07:30 - 08:30	1896	Yes	5	-	No	0	-	---	No	
14:45 - 15:45	1882	Yes	37	-	No	0	-	---	No	
18:15 - 19:15	1793	Yes	63	-	No	0	-	---	No	
14:30 - 15:30	1778	Yes	30	-	No	0	-	---	No	
07:45 - 08:45	1762	Yes	9	-	No	0	-	---	No	
06:45 - 07:45	1751	Yes	3	-	No	0	-	---	No	
14:15 - 15:15	1674	Yes	33	-	No	0	-	---	No	
18:30 - 19:30	1647	Yes	59	-	No	0	-	---	No	
08:00 - 09:00	1610	Yes	13	-	No	0	-	---	No	
12:15 - 13:15	1560	Yes	53	-	No	0	-	---	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1I-(2)-US 50 & Mariemont Promenade Shopping Center

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

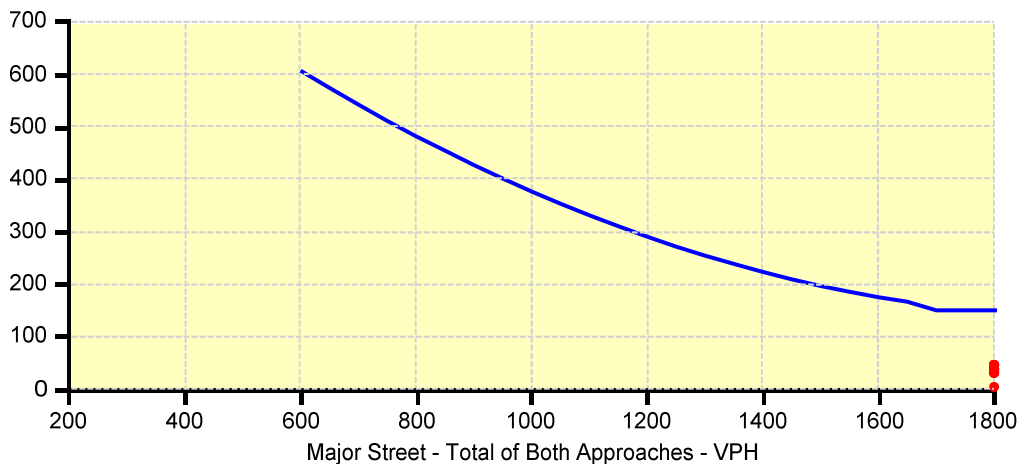
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Time	Major Road US 50				Total	Minor Road Mariemont Shopping Center		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	1465	+	886	=	2351	38	0	No
17:00 - 18:00	1437	+	883	=	2320	37	0	No
16:30 - 17:30	1448	+	856	=	2304	32	0	No
17:15 - 18:15	1376	+	885	=	2261	38	0	No
16:15 - 17:15	1394	+	821	=	2215	31	0	No
17:30 - 18:30	1291	+	818	=	2109	44	0	No
16:00 - 17:00	1312	+	780	=	2092	32	0	No
15:45 - 16:45	1294	+	767	=	2061	35	0	No
15:30 - 16:30	1312	+	718	=	2030	44	0	No
15:00 - 16:00	1237	+	716	=	1953	40	0	No
17:45 - 18:45	1166	+	767	=	1933	45	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 11,568

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,413

Minor Street Approaches

Northbound: Pocahontas Ave

Number of Lanes :1

Total Approach Volume: 102

Southbound: Pocahontas Ave

Number of Lanes :1

Total Approach Volume: 1,920

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 5 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 11 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 8 hours, 8 are needed

Required 1B volumes reached for 14 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (9) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (39) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 5 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150**

Major Road US 50						Minor Road Pochahontas Ave		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	1326	+	882	=	2208	7	184	Yes
16:00 - 17:00	1106	+	797	=	1903	9	150	Yes
18:00 - 19:00	1016	+	781	=	1797	9	169	Yes
14:15 - 15:15	775	+	692	=	1467	7	210	Yes
20:45 - 21:45	389	+	380	=	769	4	187	Yes
07:15 - 08:15	636	+	1321	=	1957	12	112	No
07:00 - 08:00	584	+	1351	=	1935	11	117	No
07:30 - 08:30	631	+	1244	=	1875	15	105	No
15:30 - 16:30	1138	+	709	=	1847	5	144	No
15:45 - 16:45	1087	+	755	=	1842	6	149	No
15:15 - 16:15	1089	+	708	=	1797	3	136	No
06:45 - 07:45	520	+	1277	=	1797	8	108	No
07:45 - 08:45	558	+	1123	=	1681	13	67	No
08:00 - 09:00	533	+	1029	=	1562	12	62	No
06:30 - 07:30	384	+	1139	=	1523	5	57	No
12:15 - 13:15	741	+	714	=	1455	4	115	No
08:15 - 09:15	482	+	936	=	1418	14	69	No
12:00 - 13:00	711	+	693	=	1404	8	107	No
12:30 - 13:30	710	+	686	=	1396	4	81	No
12:45 - 13:45	688	+	665	=	1353	6	79	No
14:00 - 15:00	710	+	630	=	1340	6	136	No
11:45 - 12:45	656	+	674	=	1330	6	119	No
19:00 - 20:00	695	+	632	=	1327	6	89	No
13:45 - 14:45	701	+	623	=	1324	5	101	No
11:30 - 12:30	625		668		1293	7	143	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **75**

Major Road US 50						Minor Road Pocahontas Ave		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:15 - 18:15	1285	+	881	=	2166	8	170	Yes
16:15 - 17:15	1193	+	839	=	2032	9	182	Yes
15:15 - 16:15	1089	+	708	=	1797	3	136	Yes
06:45 - 07:45	520	+	1277	=	1797	8	108	Yes
18:15 - 19:15	913	+	758	=	1671	9	164	Yes
14:15 - 15:15	775	+	692	=	1467	7	210	Yes
12:15 - 13:15	741	+	714	=	1455	4	115	Yes
13:15 - 14:15	640	+	601	=	1241	5	83	Yes
19:30 - 20:30	648	+	577	=	1225	7	90	Yes
11:15 - 12:15	560	+	621	=	1181	6	127	Yes
10:15 - 11:15	508	+	587	=	1095	4	83	Yes
07:45 - 08:45	558	+	1123	=	1681	13	67	No
08:00 - 09:00	533	+	1029	=	1562	12	62	No
06:30 - 07:30	384	+	1139	=	1523	5	57	No
08:15 - 09:15	482	+	936	=	1418	14	69	No
08:30 - 09:30	440	+	818	=	1258	8	66	No
19:15 - 20:15	674	+	568	=	1242	4	72	No
08:45 - 09:45	442	+	771	=	1213	8	67	No
06:15 - 07:15	270	+	943	=	1213	3	41	No
09:00 - 10:00	433	+	679	=	1112	6	65	No
09:15 - 10:15	458	+	634	=	1092	2	63	No
09:30 - 10:30	461	+	592	=	1053	2	60	No
10:00 - 11:00	487	+	542	=	1029	3	61	No
09:45 - 10:45	488	+	520	=	1008	2	59	No
06:00 - 07:00	215		740		955	1	28	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

8 hours meet 1A minimums.
14 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480 720**

Veh/Hr Minor = **120 60**

Major Road US 50						Minor Road Pochahontas Ave		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:00 - 18:00	1326	+	882	=	2208	7	184	Yes
16:00 - 17:00	1106	+	797	=	1903	9	150	Yes
15:00 - 16:00	1060	+	741	=	1801	3	209	Yes
18:00 - 19:00	1016	+	781	=	1797	9	169	Yes
14:00 - 15:00	710	+	630	=	1340	6	136	Yes
10:45 - 11:45	511	+	639	=	1150	5	128	Yes
20:15 - 21:15	511	+	500	=	1011	6	134	Yes
21:15 - 22:15	294	+	303	=	597	3	123	Yes
07:15 - 08:15	636	+	1321	=	1957	12	112	No
07:00 - 08:00	584	+	1351	=	1935	11	117	No
07:30 - 08:30	631	+	1244	=	1875	15	105	No
06:45 - 07:45	520	+	1277	=	1797	8	108	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:00 - 18:00	1326	+	882	=	2208	7	184	Yes
16:00 - 17:00	1106	+	797	=	1903	9	150	Yes
15:00 - 16:00	1060	+	741	=	1801	3	209	Yes
18:00 - 19:00	1016	+	781	=	1797	9	169	Yes
06:45 - 07:45	520	+	1277	=	1797	8	108	Yes
07:45 - 08:45	558	+	1123	=	1681	13	67	Yes
12:00 - 13:00	711	+	693	=	1404	8	107	Yes
14:00 - 15:00	710	+	630	=	1340	6	136	Yes
19:00 - 20:00	695	+	632	=	1327	6	89	Yes
13:00 - 14:00	647	+	636	=	1283	4	88	Yes
08:45 - 09:45	442	+	771	=	1213	8	67	Yes
11:00 - 12:00	558	+	651	=	1209	4	142	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

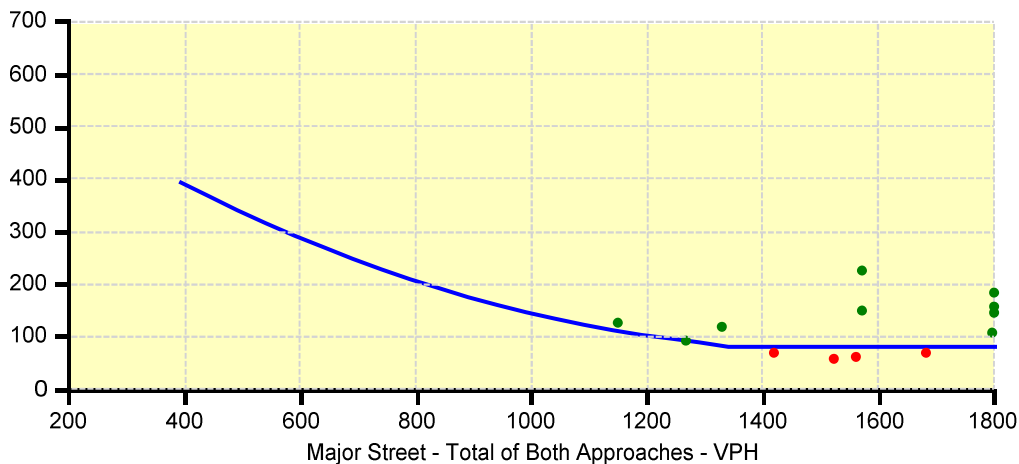
Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Major Road US 50						Minor Road Pochahontas Ave		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	1265	+	879	=	2144	10	183	Yes
17:30 - 18:30	1212	+	811	=	2023	6	157	Yes
15:30 - 16:30	1138	+	709	=	1847	5	144	Yes
06:45 - 07:45	520	+	1277	=	1797	8	108	Yes
18:30 - 19:30	836	+	734	=	1570	9	149	Yes
14:30 - 15:30	835	+	735	=	1570	6	226	Yes
11:45 - 12:45	656	+	674	=	1330	6	119	Yes
13:30 - 14:30	659	+	609	=	1268	4	93	Yes
10:45 - 11:45	511	+	639	=	1150	5	128	Yes
07:45 - 08:45	558	+	1123	=	1681	13	67	No
08:00 - 09:00	533	+	1029	=	1562	12	62	No
							57	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

61 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **100**

Total Delay (Veh-Hrs) = **4**

Major Road US 50						Minor Road Pochahontas Ave			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	2419	Yes	10	-	---	185	-	Yes	Yes
17:00 - 18:00	2399	Yes	7	-	---	184	-	Yes	Yes
17:15 - 18:15	2344	Yes	8	-	---	170	-	Yes	Yes
16:30 - 17:30	2337	Yes	10	-	---	183	-	Yes	Yes
16:15 - 17:15	2223	Yes	9	-	---	182	-	Yes	Yes
17:30 - 18:30	2186	Yes	6	-	---	157	-	Yes	Yes
07:15 - 08:15	2081	Yes	12	-	---	112	-	Yes	Yes
07:00 - 08:00	2063	Yes	11	-	---	117	-	Yes	Yes
16:00 - 17:00	2062	Yes	9	-	---	150	-	Yes	Yes
15:00 - 16:00	2013	Yes	3	-	---	209	-	Yes	Yes
17:45 - 18:45	2013	Yes	8	-	---	144	-	Yes	Yes
15:45 - 16:45	1997	Yes	6	-	---	149	-	Yes	Yes
15:30 - 16:30	1996	Yes	5	-	---	144	-	Yes	Yes
07:30 - 08:30	1995	Yes	15	-	---	105	-	Yes	Yes
18:00 - 19:00	1975	Yes	9	-	---	169	-	Yes	Yes
14:45 - 15:45	1944	Yes	3	-	---	236	-	Yes	Yes
15:15 - 16:15	1936	Yes	3	-	---	136	-	Yes	Yes
06:45 - 07:45	1913	Yes	8	-	---	108	-	Yes	Yes
18:15 - 19:15	1844	Yes	9	-	---	164	-	Yes	Yes
14:30 - 15:30	1802	Yes	6	-	---	226	-	Yes	Yes
18:30 - 19:30	1728	Yes	9	-	---	149	-	Yes	Yes
14:15 - 15:15	1684	Yes	7	-	---	210	-	Yes	Yes
18:45 - 19:45	1616	Yes	8	-	---	137	-	Yes	Yes
12:15 - 13:15	1574	Yes	4	-	---	115	-	Yes	Yes
12:00 - 13:00	1519	Yes	8	-	---	107	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1m-(1)-US 50 & Pocahontas Ave

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

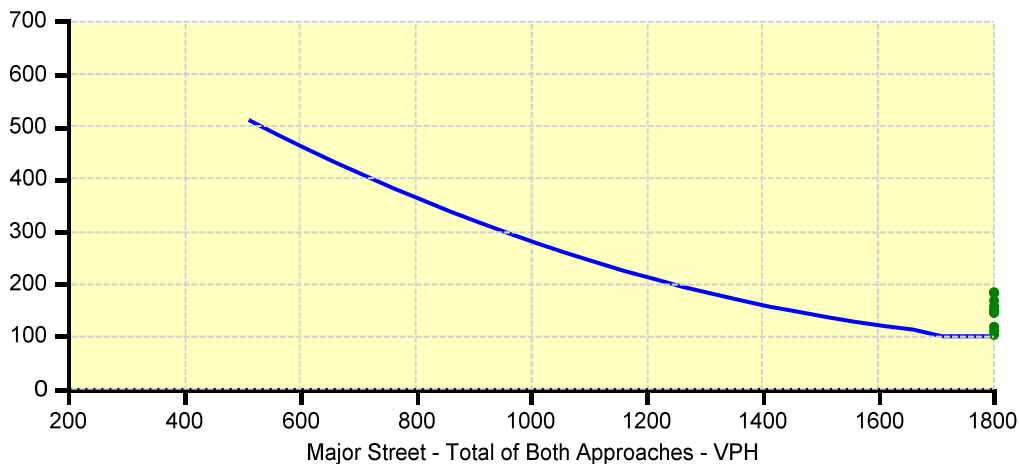
Summary

22 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Major Road US 50						Minor Road Pochahontas Ave		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1327	+	897	=	2224	10	185	Yes
17:00 - 18:00	1326	+	882	=	2208	7	184	Yes
17:15 - 18:15	1285	+	881	=	2166	8	170	Yes
16:30 - 17:30	1265	+	879	=	2144	10	183	Yes
16:15 - 17:15	1193	+	839	=	2032	9	182	Yes
17:30 - 18:30	1212	+	811	=	2023	6	157	Yes
07:15 - 08:15	636	+	1321	=	1957	12	112	Yes
07:00 - 08:00	584	+	1351	=	1935	11	117	Yes
16:00 - 17:00	1106	+	797	=	1903	9	150	Yes
07:30 - 08:30	631	+	1244	=	1875	15	105	Yes
17:45 - 18:45	1102	+	759	=	1861	8	144	Yes
							144	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 0

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 10,794

Minor Street Approaches

Northbound: MIAMI RD

Number of Lanes :2+

Total Approach Volume: 1,631

Southbound: MIAMI RD

Number of Lanes :1

Total Approach Volume: 563

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (6) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road MIAMI RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
17:15 - 18:15	0	+	766	=	766	167	36	No
17:00 - 18:00	0	+	756	=	756	168	39	No
16:45 - 17:45	0	+	752	=	752	165	46	No
08:45 - 09:45	0	+	749	=	749	71	47	No
06:00 - 07:00	0	+	745	=	745	38	10	No
16:30 - 17:30	0	+	710	=	710	148	50	No
17:30 - 18:30	0	+	706	=	706	169	38	No
17:45 - 18:45	0	+	687	=	687	158	38	No
09:00 - 10:00	0	+	675	=	675	77	41	No
16:00 - 17:00	0	+	662	=	662	149	48	No
16:15 - 17:15	0	+	644	=	644	152	47	No
09:15 - 10:15	0	+	638	=	638	72	37	No
14:15 - 15:15	0	+	635	=	635	110	39	No
12:30 - 13:30	0	+	631	=	631	92	35	No
14:00 - 15:00	0		626		626	105	38	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road					Minor Road				
	US 50					MIAMI RD				
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB	Met?
06:45 - 07:45	0	+	1127	=	1127		102		44	Yes
07:45 - 08:45	0	+	1072	=	1072		143		54	Yes
06:30 - 07:30	0	+	1070	=	1070		83		32	No
06:15 - 07:15	0	+	911	=	911		64		20	No
17:15 - 18:15	0	+	766	=	766		167		36	No
17:00 - 18:00	0	+	756	=	756		168		39	No
16:45 - 17:45	0	+	752	=	752		165		46	No
08:45 - 09:45	0	+	749	=	749		71		47	No
06:00 - 07:00	0	+	745	=	745		38		10	No
16:30 - 17:30	0	+	710	=	710		148		50	No
17:30 - 18:30	0	+	706	=	706		169		38	No
17:45 - 18:45	0	+	687	=	687		158		38	No
09:00 - 10:00	0	+	675	=	675		77		41	No
16:00 - 17:00	0	+	662	=	662		149		48	No
16:15 - 17:15	0	+	644	=	644		152		47	No
09:15 - 10:15	0	+	638	=	638		72		37	No
14:15 - 15:15	0	+	635	=	635		110		39	No
12:30 - 13:30	0	+	631	=	631		92		35	No
14:00 - 15:00	0	+	626	=	626		105		38	No
14:30 - 15:30	0	+	625	=	625		126		38	No
15:45 - 16:45	0	+	624	=	624		126		45	No
12:15 - 13:15	0	+	622	=	622		107		33	No
14:45 - 15:45	0	+	619	=	619		125		37	No
15:30 - 16:30	0	+	617	=	617		121		41	No
12:00 - 13:00	0		616		616		109		33	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road US 50						Minor Road MIAMI RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	0	+	752	=	752	165	46	Yes
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
08:45 - 09:45	0	+	749	=	749	71	47	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
07:30 - 08:30	0	+	1116	=	1116	140	59	Yes
06:30 - 07:30	0	+	1070	=	1070	83	32	Yes
08:30 - 09:30	0	+	825	=	825	91	46	Yes
16:45 - 17:45	0	+	752	=	752	165	46	Yes
06:15 - 07:15	0	+	911	=	911	64	20	No
06:00 - 07:00	0	+	745	=	745	38	10	No
16:30 - 17:30	0	+	710	=	710	148	50	No
17:45 - 18:45	0	+	687	=	687	158	38	No
16:00 - 17:00	0	+	662	=	662	149	48	No
16:15 - 17:15	0	+	644	=	644	152	47	No
14:15 - 15:15	0	+	635	=	635	110	39	No
12:30 - 13:30	0	+	631	=	631	92	35	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

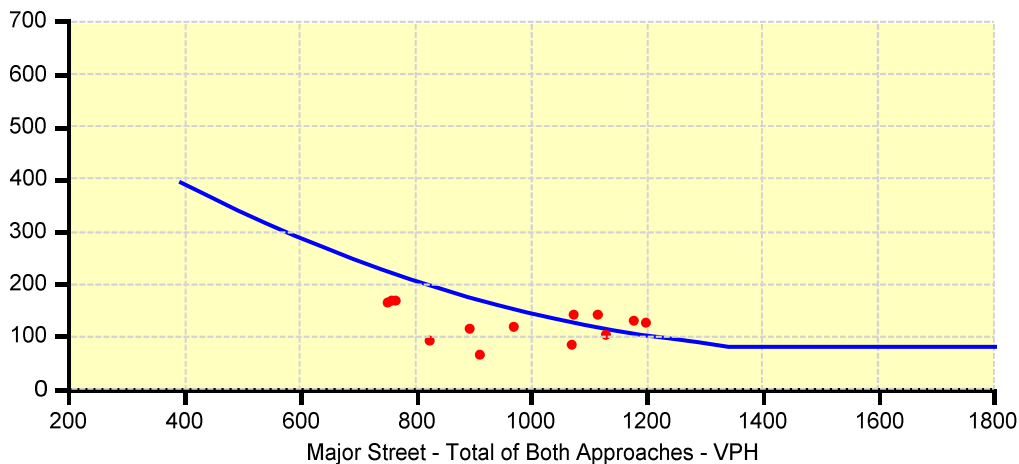
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
17:15 - 18:15	0	+	766	=	766	167	36	No
							39	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

19 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
US 50						MIAMI RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:15 - 18:15	969	Yes	167	-	Yes	36	-	---	Yes
16:45 - 17:45	963	Yes	165	-	Yes	46	-	---	Yes
17:00 - 18:00	963	Yes	168	-	Yes	39	-	---	Yes
17:30 - 18:30	913	Yes	169	-	Yes	38	-	---	Yes
17:45 - 18:45	883	Yes	158	-	Yes	38	-	---	Yes
16:15 - 17:15	843	Yes	152	-	Yes	47	-	---	Yes
07:00 - 08:00	1380	Yes	127	-	No	54	-	---	No
07:15 - 08:15	1365	Yes	131	-	No	56	-	---	No
07:30 - 08:30	1315	Yes	140	-	No	59	-	---	No
06:45 - 07:45	1273	Yes	102	-	No	44	-	---	No
07:45 - 08:45	1269	Yes	143	-	No	54	-	---	No
06:30 - 07:30	1185	Yes	83	-	No	32	-	---	No
08:00 - 09:00	1146	Yes	120	-	No	56	-	---	No
08:15 - 09:15	1060	Yes	114	-	No	54	-	---	No
06:15 - 07:15	995	Yes	64	-	No	20	-	---	No
08:30 - 09:30	962	Yes	91	-	No	46	-	---	No
16:30 - 17:30	908	Yes	148	-	No	50	-	---	No
08:45 - 09:45	867	Yes	71	-	No	47	-	---	No
16:00 - 17:00	859	Yes	149	-	No	48	-	---	No
15:45 - 16:45	795	No	126	-	No	45	-	---	No
06:00 - 07:00	793	No	38	-	No	10	-	---	No
09:00 - 10:00	793	No	77	-	No	41	-	---	No
14:30 - 15:30	789	No	126	-	No	38	-	---	No
14:15 - 15:15	784	No	110	-	No	39	-	---	No
18:00 - 19:00	784	No	129	-	No	42	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNE-13NE-Mariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

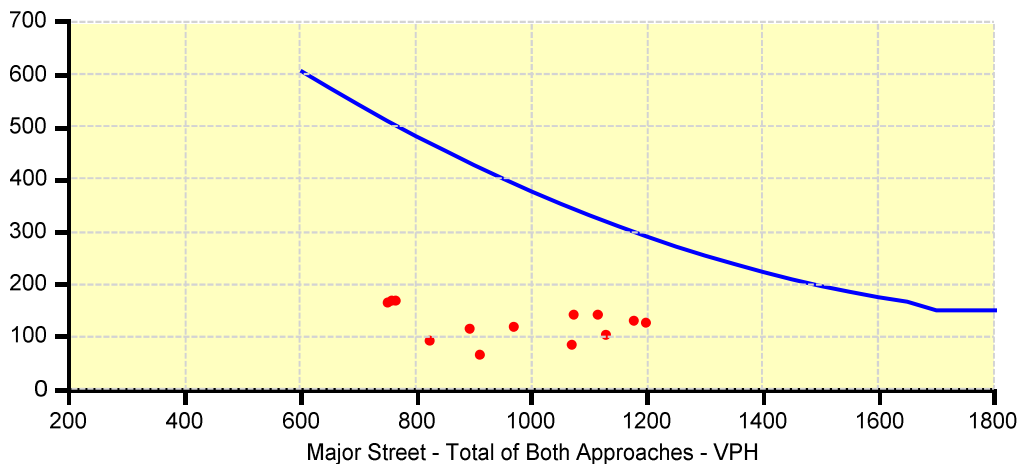
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road MIAMI RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	0	+	1199	=	1199	127	54	No
07:15 - 08:15	0	+	1178	=	1178	131	56	No
06:45 - 07:45	0	+	1127	=	1127	102	44	No
07:30 - 08:30	0	+	1116	=	1116	140	59	No
07:45 - 08:45	0	+	1072	=	1072	143	54	No
06:30 - 07:30	0	+	1070	=	1070	83	32	No
08:00 - 09:00	0	+	970	=	970	120	56	No
06:15 - 07:15	0	+	911	=	911	64	20	No
08:15 - 09:15	0	+	892	=	892	114	54	No
08:30 - 09:30	0	+	825	=	825	91	46	No
17:15 - 18:15	0	+	766	=	766	167	36	No
							39	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: NONE

Number of Lanes : 2+

Total Approach Volume: 3

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 12,516

Minor Street Approaches

Northbound: NONE

Number of Lanes :2+

Total Approach Volume: 0

Southbound: MADISONVILLE RD

Number of Lanes :2+

Total Approach Volume: 3,962

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 11 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 13 hours, 8 are needed

Required 1B volumes reached for 10 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (44) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road						Minor Road		
NONE						NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:00 - 08:00	0	+	1350	=	1350	0	182	Yes
08:00 - 09:00	0	+	1116	=	1116	0	265	Yes
16:45 - 17:45	0	+	901	=	901	0	490	Yes
17:45 - 18:45	0	+	788	=	788	0	349	Yes
09:00 - 10:00	0	+	782	=	782	0	165	Yes
15:45 - 16:45	0	+	770	=	770	0	430	Yes
14:45 - 15:45	0	+	757	=	757	0	356	Yes
12:45 - 13:45	0	+	716	=	716	0	188	Yes
13:45 - 14:45	0	+	709	=	709	0	254	Yes
11:45 - 12:45	0	+	679	=	679	0	212	Yes
10:45 - 11:45	0	+	653	=	653	0	218	Yes
06:45 - 07:45	0	+	1273	=	1273	0	139	No
06:30 - 07:30	0	+	1167	=	1167	0	113	No
06:15 - 07:15	0	+	967	=	967	0	100	No
06:00 - 07:00	0	+	773	=	773	0	79	No
05:45 - 06:45	0	+	593	=	593	0	72	No
18:45 - 19:45	0	+	588	=	588	0	229	No
10:30 - 11:30	0	+	585	=	585	0	190	No
10:15 - 11:15	0	+	567	=	567	0	175	No
10:00 - 11:00	0	+	560	=	560	0	168	No
19:00 - 20:00	0	+	528	=	528	0	190	No
19:15 - 20:15	0	+	456	=	456	0	165	No
05:30 - 06:30	0	+	432	=	432	0	51	No
20:30 - 21:30	0	+	396	=	396	0	116	No
19:30 - 20:30	0		394		394	0	146	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road						Minor Road		
NONE						NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:15 - 08:15	0	+	1328	=	1328	0	227	Yes
08:15 - 09:15	0	+	1045	=	1045	0	231	Yes
06:15 - 07:15	0	+	967	=	967	0	100	Yes
16:45 - 17:45	0	+	901	=	901	0	490	Yes
16:30 - 17:30	0	+	859	=	859	0	467	No
16:00 - 17:00	0	+	816	=	816	0	447	No
16:15 - 17:15	0	+	795	=	795	0	464	No
17:45 - 18:45	0	+	788	=	788	0	349	No
06:00 - 07:00	0	+	773	=	773	0	79	No
15:45 - 16:45	0	+	770	=	770	0	430	No
14:30 - 15:30	0	+	764	=	764	0	305	No
14:15 - 15:15	0	+	759	=	759	0	280	No
14:45 - 15:45	0	+	757	=	757	0	356	No
15:30 - 16:30	0	+	754	=	754	0	463	No
15:00 - 16:00	0	+	751	=	751	0	396	No
14:00 - 15:00	0	+	745	=	745	0	264	No
15:15 - 16:15	0	+	742	=	742	0	424	No
18:00 - 19:00	0	+	738	=	738	0	310	No
09:15 - 10:15	0	+	734	=	734	0	170	No
12:00 - 13:00	0	+	720	=	720	0	214	No
12:15 - 13:15	0	+	720	=	720	0	219	No
12:45 - 13:45	0	+	716	=	716	0	188	No
12:30 - 13:30	0	+	710	=	710	0	212	No
13:45 - 14:45	0	+	709	=	709	0	254	No
11:30 - 12:30	0		708		708	0	220	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

13 hours meet 1A minimums.
10 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480 720**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road						Minor Road			
NONE						NONE			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
06:45 - 07:45	0	+	1273	=	1273	0	139	Yes	
07:45 - 08:45	0	+	1198	=	1198	0	291	Yes	
16:45 - 17:45	0	+	901	=	901	0	490	Yes	
08:45 - 09:45	0	+	864	=	864	0	166	Yes	
17:45 - 18:45	0	+	788	=	788	0	349	Yes	
15:45 - 16:45	0	+	770	=	770	0	430	Yes	
14:45 - 15:45	0	+	757	=	757	0	356	Yes	
12:45 - 13:45	0	+	716	=	716	0	188	Yes	
13:45 - 14:45	0	+	709	=	709	0	254	Yes	
11:45 - 12:45	0	+	679	=	679	0	212	Yes	
10:45 - 11:45	0	+	653	=	653	0	218	Yes	
09:45 - 10:45	0	+	604	=	604	0	164	Yes	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
07:00 - 08:00	0	+	1350	=	1350	0	182	Yes	
08:00 - 09:00	0	+	1116	=	1116	0	265	Yes	
17:00 - 18:00	0	+	877	=	877	0	476	Yes	
16:00 - 17:00	0	+	816	=	816	0	447	Yes	
09:00 - 10:00	0	+	782	=	782	0	165	Yes	
06:00 - 07:00	0	+	773	=	773	0	79	Yes	
15:00 - 16:00	0	+	751	=	751	0	396	Yes	
14:00 - 15:00	0	+	745	=	745	0	264	Yes	
18:00 - 19:00	0	+	738	=	738	0	310	Yes	
12:00 - 13:00	0	+	720	=	720	0	214	Yes	
13:45 - 14:45	0	+	709	=	709	0	254	No	
11:30 - 12:30	0	+	708	=	708	0	220	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

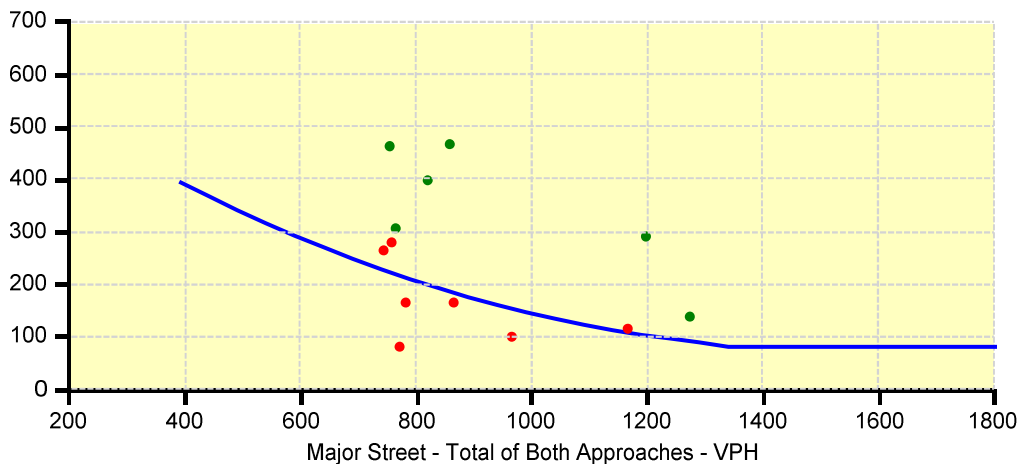
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
NONE						NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
06:45 - 07:45	0	+	1273	=	1273	0	139	Yes
07:45 - 08:45	0	+	1198	=	1198	0	291	Yes
16:30 - 17:30	0	+	859	=	859	0	467	Yes
17:30 - 18:30	0	+	821	=	821	0	396	Yes
14:30 - 15:30	0	+	764	=	764	0	305	Yes
15:30 - 16:30	0	+	754	=	754	0	463	Yes
06:30 - 07:30	0	+	1167	=	1167	0	113	No
06:15 - 07:15	0	+	967	=	967	0	100	No
08:45 - 09:45	0	+	864	=	864	0	166	No
09:00 - 10:00	0	+	782	=	782	0	165	No
06:00 - 07:00	0	+	773	=	773	0	79	No
							280	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

48 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road				
NONE						NONE				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
07:30 - 08:30	1558	Yes	0	-	---	288	-	Yes	Yes	
07:15 - 08:15	1555	Yes	0	-	---	227	-	Yes	Yes	
07:00 - 08:00	1532	Yes	0	-	---	182	-	Yes	Yes	
07:45 - 08:45	1489	Yes	0	-	---	291	-	Yes	Yes	
16:45 - 17:45	1391	Yes	0	-	---	490	-	Yes	Yes	
08:00 - 09:00	1381	Yes	0	-	---	265	-	Yes	Yes	
17:00 - 18:00	1353	Yes	0	-	---	476	-	Yes	Yes	
17:15 - 18:15	1328	Yes	0	-	---	441	-	Yes	Yes	
16:30 - 17:30	1326	Yes	0	-	---	467	-	Yes	Yes	
08:15 - 09:15	1276	Yes	0	-	---	231	-	Yes	Yes	
16:00 - 17:00	1263	Yes	0	-	---	447	-	Yes	Yes	
16:15 - 17:15	1259	Yes	0	-	---	464	-	Yes	Yes	
17:30 - 18:30	1217	Yes	0	-	---	396	-	Yes	Yes	
15:30 - 16:30	1217	Yes	0	-	---	463	-	Yes	Yes	
15:45 - 16:45	1200	Yes	0	-	---	430	-	Yes	Yes	
15:15 - 16:15	1166	Yes	0	-	---	424	-	Yes	Yes	
15:00 - 16:00	1147	Yes	0	-	---	396	-	Yes	Yes	
17:45 - 18:45	1137	Yes	0	-	---	349	-	Yes	Yes	
08:30 - 09:30	1126	Yes	0	-	---	174	-	Yes	Yes	
14:45 - 15:45	1113	Yes	0	-	---	356	-	Yes	Yes	
14:30 - 15:30	1069	Yes	0	-	---	305	-	Yes	Yes	
18:00 - 19:00	1048	Yes	0	-	---	310	-	Yes	Yes	
14:15 - 15:15	1039	Yes	0	-	---	280	-	Yes	Yes	
08:45 - 09:45	1030	Yes	0	-	---	166	-	Yes	Yes	
14:00 - 15:00	1009	Yes	0	-	---	264	-	Yes	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nNW-13NWMariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

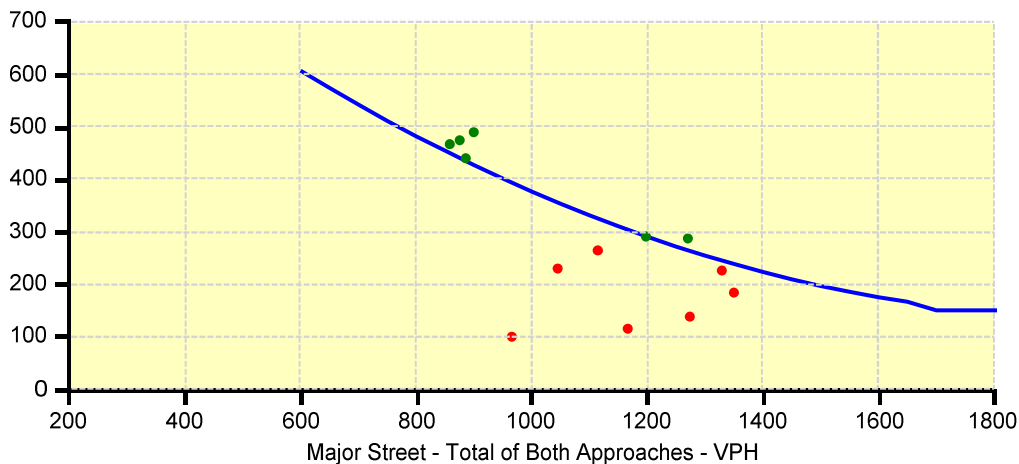
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
NONE						NONE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
07:30 - 08:30	0	+	1270	=	1270	0	288	Yes
07:45 - 08:45	0	+	1198	=	1198	0	291	Yes
16:45 - 17:45	0	+	901	=	901	0	490	Yes
17:15 - 18:15	0	+	887	=	887	0	441	Yes
17:00 - 18:00	0	+	877	=	877	0	476	Yes
16:30 - 17:30	0	+	859	=	859	0	467	Yes
07:00 - 08:00	0	+	1350	=	1350	0	182	No
07:15 - 08:15	0	+	1328	=	1328	0	227	No
06:45 - 07:45	0	+	1273	=	1273	0	139	No
06:30 - 07:30	0	+	1167	=	1167	0	113	No
08:00 - 09:00	0	+	1116	=	1116	0	265	No
							231	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 11,955

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 3

Minor Street Approaches

Northbound: CRYSTAL SPRINGS RD

Number of Lanes :2+

Total Approach Volume: 471

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

	Major Road				Minor Road					
	US 50				CRYSTAL SPRINGS RD					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407		47		0	No
17:00 - 18:00	1406	+	0	=	1406		49		0	No
16:30 - 17:30	1396	+	0	=	1396		45		0	No
16:15 - 17:15	1363	+	0	=	1363		39		0	No
17:15 - 18:15	1333	+	0	=	1333		48		0	No
16:00 - 17:00	1314	+	0	=	1314		34		0	No
17:30 - 18:30	1277	+	0	=	1277		39		0	No
15:45 - 16:45	1246	+	0	=	1246		34		0	No
15:30 - 16:30	1226	+	0	=	1226		33		0	No
17:45 - 18:45	1177	+	0	=	1177		38		0	No
15:15 - 16:15	1155	+	0	=	1155		32		0	No
15:00 - 16:00	1092	+	0	=	1092		35		0	No
18:00 - 19:00	1017	+	0	=	1017		35		0	No
14:45 - 15:45	1005	+	0	=	1005		38		0	No
18:15 - 19:15	927	+	0	=	927		31		0	No
14:30 - 15:30	873	+	0	=	873		35		0	No
18:30 - 19:30	779	+	0	=	779		28		0	No
14:15 - 15:15	775	+	0	=	775		31		0	No
12:15 - 13:15	744	+	0	=	744		26		0	No
11:30 - 12:30	743	+	0	=	743		30		0	No
12:00 - 13:00	736	+	0	=	736		26		0	No
11:45 - 12:45	735	+	0	=	735		22		0	No
12:30 - 13:30	717	+	0	=	717		26		0	No
14:00 - 15:00	717	+	0	=	717		29		0	No
11:15 - 12:15	703		0		703		32		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No
15:00 - 16:00	1092	+	0	=	1092	35	0	No
18:00 - 19:00	1017	+	0	=	1017	35	0	No
14:45 - 15:45	1005	+	0	=	1005	38	0	No
18:15 - 19:15	927	+	0	=	927	31	0	No
14:30 - 15:30	873	+	0	=	873	35	0	No
18:30 - 19:30	779	+	0	=	779	28	0	No
14:15 - 15:15	775	+	0	=	775	31	0	No
12:15 - 13:15	744	+	0	=	744	26	0	No
11:30 - 12:30	743	+	0	=	743	30	0	No
12:00 - 13:00	736	+	0	=	736	26	0	No
11:45 - 12:45	735	+	0	=	735	22	0	No
12:30 - 13:30	717	+	0	=	717	26	0	No
14:00 - 15:00	717	+	0	=	717	29	0	No
11:15 - 12:15	703		0		703	32	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road						Minor Road			
US 50						CRYSTAL SPRINGS RD			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
16:45 - 17:45	1407	+	0	=	1407	47	0	No	
17:00 - 18:00	1406	+	0	=	1406	49	0	No	
16:30 - 17:30	1396	+	0	=	1396	45	0	No	
16:15 - 17:15	1363	+	0	=	1363	39	0	No	
17:15 - 18:15	1333	+	0	=	1333	48	0	No	
16:00 - 17:00	1314	+	0	=	1314	34	0	No	
17:30 - 18:30	1277	+	0	=	1277	39	0	No	
15:45 - 16:45	1246	+	0	=	1246	34	0	No	
15:30 - 16:30	1226	+	0	=	1226	33	0	No	
17:45 - 18:45	1177	+	0	=	1177	38	0	No	
15:15 - 16:15	1155	+	0	=	1155	32	0	No	
15:00 - 16:00	1092		0		1092	35	0	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
16:45 - 17:45	1407	+	0	=	1407	47	0	No	
17:00 - 18:00	1406	+	0	=	1406	49	0	No	
16:30 - 17:30	1396	+	0	=	1396	45	0	No	
16:15 - 17:15	1363	+	0	=	1363	39	0	No	
17:15 - 18:15	1333	+	0	=	1333	48	0	No	
16:00 - 17:00	1314	+	0	=	1314	34	0	No	
17:30 - 18:30	1277	+	0	=	1277	39	0	No	
15:45 - 16:45	1246	+	0	=	1246	34	0	No	
15:30 - 16:30	1226	+	0	=	1226	33	0	No	
17:45 - 18:45	1177	+	0	=	1177	38	0	No	
15:15 - 16:15	1155	+	0	=	1155	32	0	No	
15:00 - 16:00	1092		0		1092	35	0	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

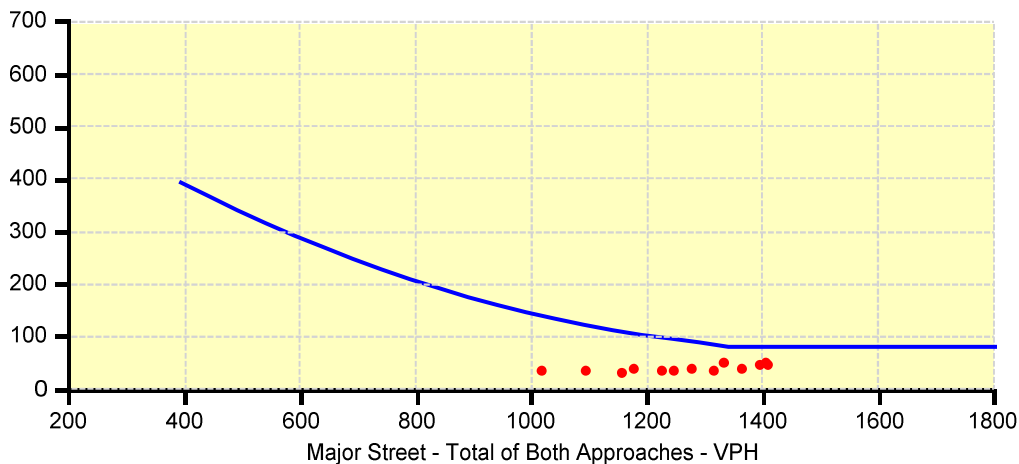
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

18 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road			Minor Road						
US 50			CRYSTAL SPRINGS RD						
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	1455	Yes	49	-	No	0	-	---	No
16:45 - 17:45	1454	Yes	47	-	No	0	-	---	No
16:30 - 17:30	1441	Yes	45	-	No	0	-	---	No
16:15 - 17:15	1402	Yes	39	-	No	0	-	---	No
17:15 - 18:15	1381	Yes	48	-	No	0	-	---	No
16:00 - 17:00	1348	Yes	34	-	No	0	-	---	No
17:30 - 18:30	1316	Yes	39	-	No	0	-	---	No
15:45 - 16:45	1280	Yes	34	-	No	0	-	---	No
15:30 - 16:30	1259	Yes	33	-	No	0	-	---	No
17:45 - 18:45	1215	Yes	38	-	No	0	-	---	No
15:15 - 16:15	1187	Yes	32	-	No	0	-	---	No
15:00 - 16:00	1127	Yes	35	-	No	0	-	---	No
18:00 - 19:00	1052	Yes	35	-	No	0	-	---	No
14:45 - 15:45	1043	Yes	38	-	No	0	-	---	No
18:15 - 19:15	958	Yes	31	-	No	0	-	---	No
14:30 - 15:30	908	Yes	35	-	No	0	-	---	No
18:30 - 19:30	807	Yes	28	-	No	0	-	---	No
14:15 - 15:15	806	Yes	31	-	No	0	-	---	No
11:30 - 12:30	773	No	30	-	No	0	-	---	No
12:15 - 13:15	770	No	26	-	No	0	-	---	No
12:00 - 13:00	762	No	26	-	No	0	-	---	No
11:45 - 12:45	757	No	22	-	No	0	-	---	No
14:00 - 15:00	746	No	29	-	No	0	-	---	No
12:30 - 13:30	743	No	26	-	No	0	-	---	No
11:15 - 12:15	735	No	32	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSE-13SEMariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

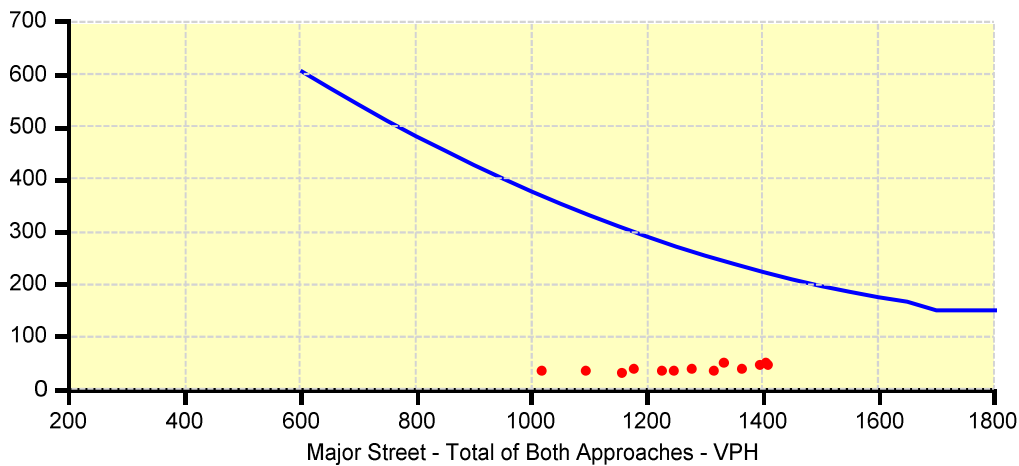
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road CRYSTAL SPRINGS RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1407	+	0	=	1407	47	0	No
17:00 - 18:00	1406	+	0	=	1406	49	0	No
16:30 - 17:30	1396	+	0	=	1396	45	0	No
16:15 - 17:15	1363	+	0	=	1363	39	0	No
17:15 - 18:15	1333	+	0	=	1333	48	0	No
16:00 - 17:00	1314	+	0	=	1314	34	0	No
17:30 - 18:30	1277	+	0	=	1277	39	0	No
15:45 - 16:45	1246	+	0	=	1246	34	0	No
15:30 - 16:30	1226	+	0	=	1226	33	0	No
17:45 - 18:45	1177	+	0	=	1177	38	0	No
15:15 - 16:15	1155	+	0	=	1155	32	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 2+

Total Approach Volume: 8,162

Westbound: US 50

Number of Lanes :2+

Total Approach Volume: 0

Minor Street Approaches

Northbound: None

Number of Lanes :2+

Total Approach Volume: 129

Southbound: MADISONVILLE RD

Number of Lanes :2+

Total Approach Volume: 4,002

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 8 hours, 8 are needed

Required 1B volumes reached for 8 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (4) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (18) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	931	+	0	=	931	18	505	Yes
17:45 - 18:45	833	+	0	=	833	9	355	Yes
15:45 - 16:45	822	+	0	=	822	13	436	Yes
14:45 - 15:45	670	+	0	=	670	13	343	Yes
14:30 - 15:30	586	+	0	=	586	10	293	No
11:45 - 12:45	551	+	0	=	551	7	211	No
12:00 - 13:00	537	+	0	=	537	6	219	No
11:30 - 12:30	532	+	0	=	532	7	220	No
12:15 - 13:15	526	+	0	=	526	8	234	No
14:15 - 15:15	516	+	0	=	516	7	281	No
12:30 - 13:30	511	+	0	=	511	9	222	No
13:00 - 14:00	496	+	0	=	496	8	206	No
12:45 - 13:45	496	+	0	=	496	10	208	No
13:15 - 14:15	490	+	0	=	490	6	207	No
11:15 - 12:15	489	+	0	=	489	9	216	No
14:00 - 15:00	469	+	0	=	469	9	268	No
18:45 - 19:45	468	+	0	=	468	6	231	No
13:30 - 14:30	463	+	0	=	463	6	227	No
13:45 - 14:45	452	+	0	=	452	5	256	No
11:00 - 12:00	445	+	0	=	445	9	220	No
07:30 - 08:30	411	+	0	=	411	9	283	No
19:00 - 20:00	405	+	0	=	405	7	191	No
07:15 - 08:15	399	+	0	=	399	9	227	No
10:45 - 11:45	389	+	0	=	389	7	214	No
07:00 - 08:00	388		0		388	10	177	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road				Minor Road						
	US 50				None						
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB		Met?
16:45 - 17:45	931	+	0	=	931		18		505		Yes
17:45 - 18:45	833	+	0	=	833		9		355		Yes
15:45 - 16:45	822	+	0	=	822		13		436		Yes
14:45 - 15:45	670	+	0	=	670		13		343		Yes
14:30 - 15:30	586	+	0	=	586		10		293		No
11:45 - 12:45	551	+	0	=	551		7		211		No
12:00 - 13:00	537	+	0	=	537		6		219		No
11:30 - 12:30	532	+	0	=	532		7		220		No
12:15 - 13:15	526	+	0	=	526		8		234		No
14:15 - 15:15	516	+	0	=	516		7		281		No
12:30 - 13:30	511	+	0	=	511		9		222		No
13:00 - 14:00	496	+	0	=	496		8		206		No
12:45 - 13:45	496	+	0	=	496		10		208		No
13:15 - 14:15	490	+	0	=	490		6		207		No
11:15 - 12:15	489	+	0	=	489		9		216		No
14:00 - 15:00	469	+	0	=	469		9		268		No
18:45 - 19:45	468	+	0	=	468		6		231		No
13:30 - 14:30	463	+	0	=	463		6		227		No
13:45 - 14:45	452	+	0	=	452		5		256		No
11:00 - 12:00	445	+	0	=	445		9		220		No
07:30 - 08:30	411	+	0	=	411		9		283		No
19:00 - 20:00	405	+	0	=	405		7		191		No
07:15 - 08:15	399	+	0	=	399		9		227		No
10:45 - 11:45	389	+	0	=	389		7		214		No
07:00 - 08:00	388		0		388		10		177		No

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

8 hours meet 1A minimums.
8 hours meet 1B minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road						Minor Road			
US 50						None			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?	
17:15 - 18:15	919	+	0	=	919	10	449	Yes	
16:15 - 17:15	893	+	0	=	893	20	463	Yes	
15:15 - 16:15	749	+	0	=	749	15	432	Yes	
18:15 - 19:15	668	+	0	=	668	8	282	Yes	
12:15 - 13:15	526	+	0	=	526	8	234	Yes	
14:15 - 15:15	516	+	0	=	516	7	281	Yes	
13:15 - 14:15	490	+	0	=	490	6	207	Yes	
11:15 - 12:15	489	+	0	=	489	9	216	Yes	
11:00 - 12:00	445	+	0	=	445	9	220	No	
07:30 - 08:30	411	+	0	=	411	9	283	No	
07:15 - 08:15	399	+	0	=	399	9	227	No	
10:45 - 11:45	389	+	0	=	389	7	214	No	

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?	
17:15 - 18:15	919	+	0	=	919	10	449	Yes	
16:15 - 17:15	893	+	0	=	893	20	463	Yes	
15:15 - 16:15	749	+	0	=	749	15	432	Yes	
18:15 - 19:15	668	+	0	=	668	8	282	Yes	
12:15 - 13:15	526	+	0	=	526	8	234	Yes	
14:15 - 15:15	516	+	0	=	516	7	281	Yes	
13:15 - 14:15	490	+	0	=	490	6	207	Yes	
11:15 - 12:15	489	+	0	=	489	9	216	Yes	
11:00 - 12:00	445	+	0	=	445	9	220	No	
07:30 - 08:30	411	+	0	=	411	9	283	No	
07:15 - 08:15	399	+	0	=	399	9	227	No	
10:45 - 11:45	389	+	0	=	389	7	214	No	

Eastern Corridor Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

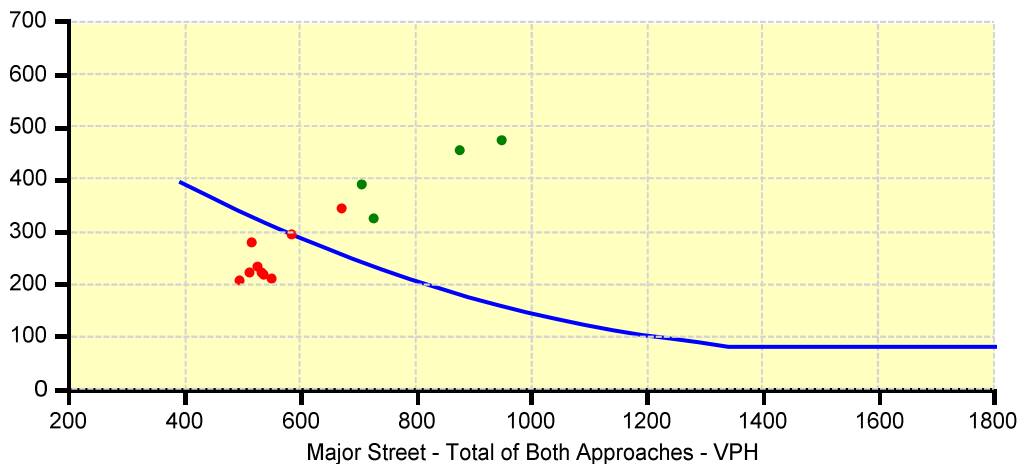
Summary

4 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	948	+	0	=	948	16	476	Yes
16:00 - 17:00	875	+	0	=	875	15	456	Yes
18:00 - 19:00	726	+	0	=	726	8	324	Yes
15:00 - 16:00	706	+	0	=	706	12	390	Yes
14:45 - 15:45	670	+	0	=	670	13	343	No
14:30 - 15:30	586	+	0	=	586	10	293	No
11:45 - 12:45	551	+	0	=	551	7	211	No
12:00 - 13:00	537	+	0	=	537	6	219	No
11:30 - 12:30	532	+	0	=	532	7	220	No
12:15 - 13:15	526	+	0	=	526	8	234	No
14:15 - 15:15	516	+	0	=	516	7	281	No
							222	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

18 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

			Major Road			Minor Road				
			US 50			None				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
16:45 - 17:45	1454	Yes	18	-	---	505	-	Yes	Yes	
17:00 - 18:00	1440	Yes	16	-	---	476	-	Yes	Yes	
16:30 - 17:30	1437	Yes	18	-	---	477	-	Yes	Yes	
17:15 - 18:15	1378	Yes	10	-	---	449	-	Yes	Yes	
16:15 - 17:15	1376	Yes	20	-	---	463	-	Yes	Yes	
16:00 - 17:00	1346	Yes	15	-	---	456	-	Yes	Yes	
17:30 - 18:30	1310	Yes	10	-	---	398	-	Yes	Yes	
15:45 - 16:45	1271	Yes	13	-	---	436	-	Yes	Yes	
15:30 - 16:30	1259	Yes	14	-	---	474	-	Yes	Yes	
17:45 - 18:45	1197	Yes	9	-	---	355	-	Yes	Yes	
15:15 - 16:15	1196	Yes	15	-	---	432	-	Yes	Yes	
15:00 - 16:00	1108	Yes	12	-	---	390	-	Yes	Yes	
18:00 - 19:00	1058	Yes	8	-	---	324	-	Yes	Yes	
14:45 - 15:45	1026	Yes	13	-	---	343	-	Yes	Yes	
18:15 - 19:15	958	Yes	8	-	---	282	-	Yes	Yes	
14:30 - 15:30	889	Yes	10	-	---	293	-	Yes	Yes	
18:30 - 19:30	811	Yes	7	-	---	259	-	Yes	Yes	
14:15 - 15:15	804	Yes	7	-	---	281	-	Yes	Yes	
11:45 - 12:45	769	No	7	-	---	211	-	Yes	No	
12:15 - 13:15	768	No	8	-	---	234	-	Yes	No	
12:00 - 13:00	762	No	6	-	---	219	-	Yes	No	
11:30 - 12:30	759	No	7	-	---	220	-	Yes	No	
14:00 - 15:00	746	No	9	-	---	268	-	Yes	No	
12:30 - 13:30	742	No	9	-	---	222	-	Yes	No	
11:15 - 12:15	714	No	9	-	---	216	-	Yes	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1nSW-13SWMariemont_Square

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

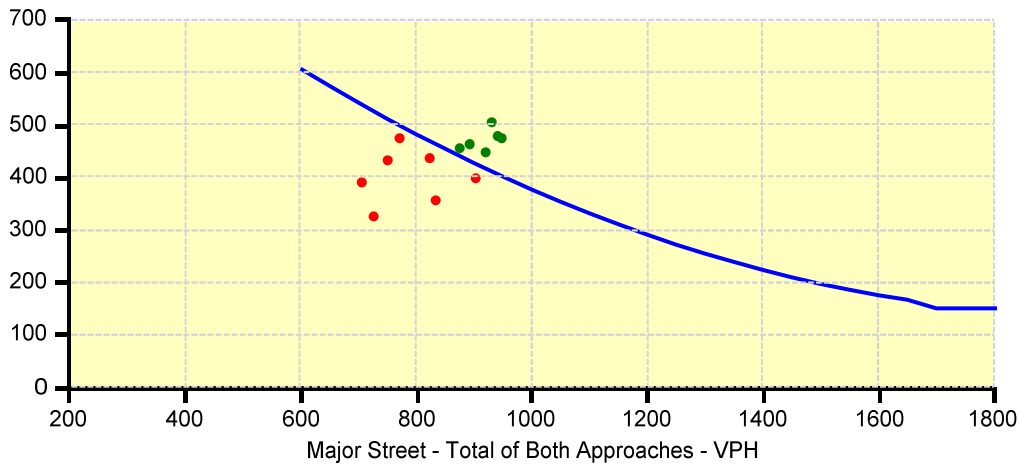
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road						Minor Road		
US 50						None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	948	+	0	=	948	16	476	Yes
16:30 - 17:30	942	+	0	=	942	18	477	Yes
16:45 - 17:45	931	+	0	=	931	18	505	Yes
17:15 - 18:15	919	+	0	=	919	10	449	Yes
16:15 - 17:15	893	+	0	=	893	20	463	Yes
16:00 - 17:00	875	+	0	=	875	15	456	Yes
17:30 - 18:30	902	+	0	=	902	10	398	No
17:45 - 18:45	833	+	0	=	833	9	355	No
15:45 - 16:45	822	+	0	=	822	13	436	No
15:30 - 16:30	771	+	0	=	771	14	474	No
15:15 - 16:15	749	+	0	=	749	15	432	No
							324	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 1

Total Approach Volume: 8,998

Westbound: US 50

Number of Lanes :1

Total Approach Volume: 9,737

Minor Street Approaches

Northbound: Driveway

Number of Lanes :1

Total Approach Volume: 38

Southbound: WATTERSON RD

Number of Lanes :2+

Total Approach Volume: 2,629

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 3 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 7 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (30) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150 200**

Major Road US 50						Minor Road Driveway		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	989	+	655	=	1644	5	318	Yes
16:00 - 17:00	849	+	569	=	1418	5	292	Yes
15:00 - 16:00	709	+	620	=	1329	3	224	Yes
07:30 - 08:30	571	+	1002	=	1573	1	177	No
07:45 - 08:45	570	+	957	=	1527	3	168	No
07:15 - 08:15	542	+	978	=	1520	2	179	No
07:00 - 08:00	476	+	983	=	1459	3	175	No
08:00 - 09:00	551	+	900	=	1451	3	145	No
18:00 - 19:00	787	+	571	=	1358	2	195	No
06:45 - 07:45	407	+	944	=	1351	2	147	No
14:45 - 15:45	698	+	609	=	1307	3	192	No
08:15 - 09:15	463	+	839	=	1302	5	139	No
14:30 - 15:30	673	+	586	=	1259	3	190	No
14:15 - 15:15	669	+	574	=	1243	2	172	No
06:30 - 07:30	336	+	877	=	1213	2	113	No
18:15 - 19:15	678	+	519	=	1197	1	179	No
11:30 - 12:30	610	+	574	=	1184	3	169	No
08:30 - 09:30	419	+	754	=	1173	5	125	No
11:45 - 12:45	587	+	583	=	1170	3	172	No
14:00 - 15:00	625	+	537	=	1162	2	161	No
11:15 - 12:15	572	+	587	=	1159	4	150	No
12:45 - 13:45	536	+	608	=	1144	2	130	No
13:00 - 14:00	552	+	589	=	1141	2	143	No
13:45 - 14:45	583	+	546	=	1129	1	166	No
12:00 - 13:00	547		582		1129	2	168	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75 100**

Major Road US 50						Minor Road Driveway		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:30 - 18:30	967	+	666	=	1633	3	252	Yes
07:30 - 08:30	571	+	1002	=	1573	1	177	Yes
16:30 - 17:30	918	+	610	=	1528	4	316	Yes
15:30 - 16:30	785	+	588	=	1373	6	265	Yes
14:30 - 15:30	673	+	586	=	1259	3	190	Yes
06:30 - 07:30	336	+	877	=	1213	2	113	Yes
11:30 - 12:30	610	+	574	=	1184	3	169	Yes
08:30 - 09:30	419	+	754	=	1173	5	125	Yes
13:30 - 14:30	578	+	546	=	1124	2	147	Yes
12:30 - 13:30	512	+	612	=	1124	1	144	Yes
18:30 - 19:30	562	+	459	=	1021	0	160	Yes
09:30 - 10:30	443	+	513	=	956	2	107	Yes
10:30 - 11:30	395	+	520	=	915	5	111	Yes
06:15 - 07:15	271	+	795	=	1066	1	85	No
06:00 - 07:00	195	+	637	=	832	0	71	No
19:30 - 20:30	353	+	312	=	665	0	97	No
05:45 - 06:45	144	+	489	=	633	0	49	No
20:00 - 21:00	308	+	284	=	592	0	92	No
19:45 - 20:45	311	+	267	=	578	0	84	No
20:15 - 21:15	282	+	254	=	536	0	84	No
20:30 - 21:30	281	+	241	=	522	0	76	No
20:45 - 21:45	246	+	229	=	475	0	62	No
05:30 - 06:30	116	+	340	=	456	0	41	No
21:15 - 22:15	222	+	228	=	450	0	61	No
21:00 - 22:00	232		217		449	0	58	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 7 hours meet 1A minimums.
15 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400** **600**
Veh/Hr Minor NB = **120** **60**
Veh/Hr Minor SB = **160** **80**

Major Road US 50						Minor Road Driveway		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:45 - 18:45	873	+	632	=	1505	2	214	Yes
16:45 - 17:45	904	+	587	=	1491	5	307	Yes
15:45 - 16:45	878	+	610	=	1488	6	319	Yes
07:00 - 08:00	476	+	983	=	1459	3	175	Yes
14:45 - 15:45	698	+	609	=	1307	3	192	Yes
11:30 - 12:30	610	+	574	=	1184	3	169	Yes
13:45 - 14:45	583	+	546	=	1129	1	166	Yes
08:00 - 09:00	551	+	900	=	1451	3	145	No
06:45 - 07:45	407	+	944	=	1351	2	147	No
08:15 - 09:15	463	+	839	=	1302	5	139	No
06:30 - 07:30	336	+	877	=	1213	2	113	No
08:30 - 09:30	419	+	754	=	1173	5	125	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:15 - 18:15	1004	+	663	=	1667	5	278	Yes
07:15 - 08:15	542	+	978	=	1520	2	179	Yes
16:15 - 17:15	864	+	590	=	1454	6	305	Yes
15:15 - 16:15	741	+	598	=	1339	2	251	Yes
08:15 - 09:15	463	+	839	=	1302	5	139	Yes
14:15 - 15:15	669	+	574	=	1243	2	172	Yes
18:15 - 19:15	678	+	519	=	1197	1	179	Yes
11:15 - 12:15	572	+	587	=	1159	4	150	Yes
12:15 - 13:15	545	+	584	=	1129	3	158	Yes
13:15 - 14:15	535	+	557	=	1092	2	151	Yes
06:15 - 07:15	271	+	795	=	1066	1	85	Yes
09:15 - 10:15	432	+	554	=	986	2	105	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

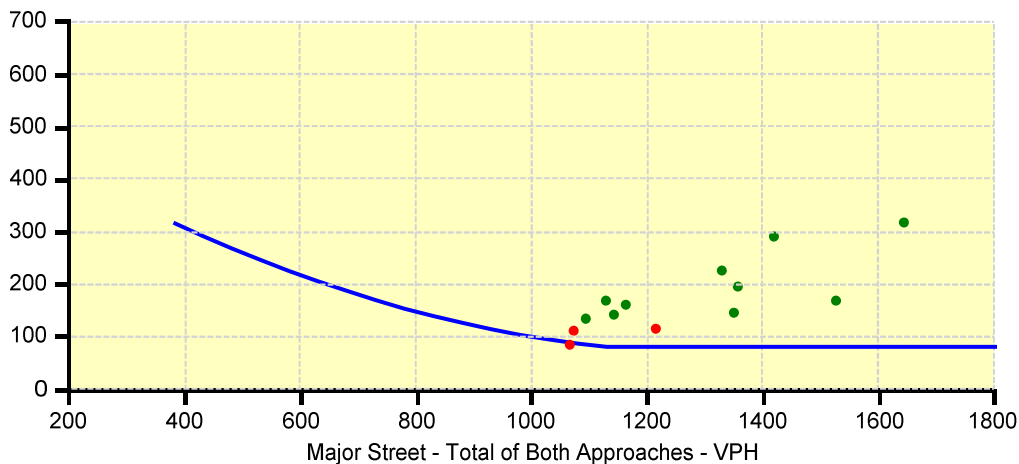
Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road Driveway		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	989	+	655	=	1644	5	318	Yes
07:45 - 08:45	570	+	957	=	1527	3	168	Yes
16:00 - 17:00	849	+	569	=	1418	5	292	Yes
18:00 - 19:00	787	+	571	=	1358	2	195	Yes
06:45 - 07:45	407	+	944	=	1351	2	147	Yes
15:00 - 16:00	709	+	620	=	1329	3	224	Yes
14:00 - 15:00	625	+	537	=	1162	2	161	Yes
13:00 - 14:00	552	+	589	=	1141	2	143	Yes
12:00 - 13:00	547	+	582	=	1129	2	168	Yes
11:00 - 12:00	518	+	576	=	1094	4	135	Yes
06:30 - 07:30	336	+	877	=	1213	2	113	No
							111	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

54 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

		Major Road				Minor Road			
		US 50				Driveway			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:00 - 18:00	1967	Yes	5	-	---	318	-	Yes	Yes
17:15 - 18:15	1950	Yes	5	-	---	278	-	Yes	Yes
17:30 - 18:30	1888	Yes	3	-	---	252	-	Yes	Yes
16:30 - 17:30	1848	Yes	4	-	---	316	-	Yes	Yes
15:45 - 16:45	1813	Yes	6	-	---	319	-	Yes	Yes
16:45 - 17:45	1803	Yes	5	-	---	307	-	Yes	Yes
16:15 - 17:15	1765	Yes	6	-	---	305	-	Yes	Yes
07:30 - 08:30	1751	Yes	1	-	---	177	-	Yes	Yes
17:45 - 18:45	1721	Yes	2	-	---	214	-	Yes	Yes
16:00 - 17:00	1715	Yes	5	-	---	292	-	Yes	Yes
07:15 - 08:15	1701	Yes	2	-	---	179	-	Yes	Yes
07:45 - 08:45	1698	Yes	3	-	---	168	-	Yes	Yes
15:30 - 16:30	1644	Yes	6	-	---	265	-	Yes	Yes
07:00 - 08:00	1637	Yes	3	-	---	175	-	Yes	Yes
15:15 - 16:15	1592	Yes	2	-	---	251	-	Yes	Yes
15:00 - 16:00	1556	Yes	3	-	---	224	-	Yes	Yes
18:00 - 19:00	1555	Yes	2	-	---	195	-	Yes	Yes
14:45 - 15:45	1502	Yes	3	-	---	192	-	Yes	Yes
14:30 - 15:30	1452	Yes	3	-	---	190	-	Yes	Yes
14:15 - 15:15	1417	Yes	2	-	---	172	-	Yes	Yes
18:15 - 19:15	1377	Yes	1	-	---	179	-	Yes	Yes
11:30 - 12:30	1356	Yes	3	-	---	169	-	Yes	Yes
11:45 - 12:45	1345	Yes	3	-	---	172	-	Yes	Yes
14:00 - 15:00	1325	Yes	2	-	---	161	-	Yes	Yes
11:15 - 12:15	1313	Yes	4	-	---	150	-	Yes	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1o-15-Wooster@Watterson

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

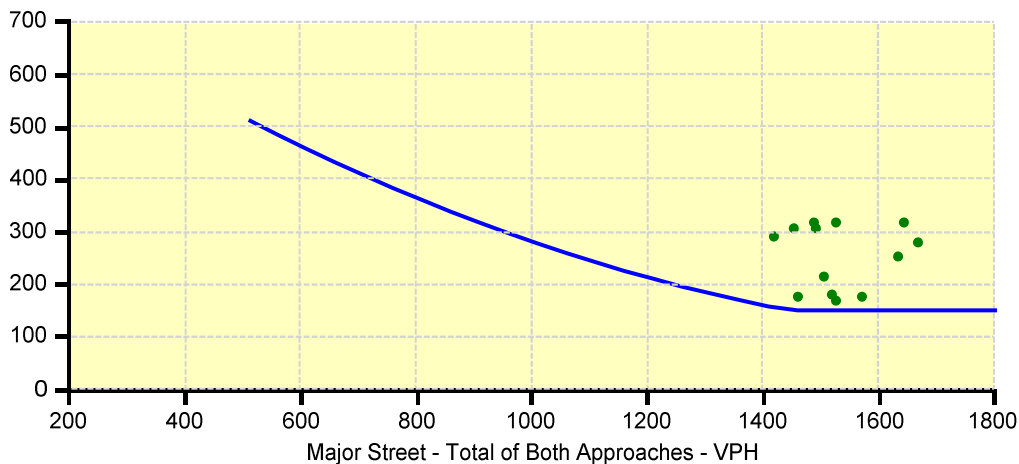
Summary

18 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road Driveway		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	1004	+	663	=	1667	5	278	Yes
17:00 - 18:00	989	+	655	=	1644	5	318	Yes
17:30 - 18:30	967	+	666	=	1633	3	252	Yes
07:30 - 08:30	571	+	1002	=	1573	1	177	Yes
16:30 - 17:30	918	+	610	=	1528	4	316	Yes
07:45 - 08:45	570	+	957	=	1527	3	168	Yes
07:15 - 08:15	542	+	978	=	1520	2	179	Yes
17:45 - 18:45	873	+	632	=	1505	2	214	Yes
16:45 - 17:45	904	+	587	=	1491	5	307	Yes
15:45 - 16:45	878	+	610	=	1488	6	319	Yes
07:00 - 08:00	476	+	983	=	1459	3	175	Yes
							305	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 1

Total Approach Volume: 7,168

Westbound: US 50

Number of Lanes :1

Total Approach Volume: 8,278

Minor Street Approaches

Northbound: WOOSTER PIKE

Number of Lanes :2+

Total Approach Volume: 1,681

Southbound: MEADOWLARK LANE

Number of Lanes :1

Total Approach Volume: 922

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 8 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (11) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

	Major Road				Minor Road			
	US 50				WOOSTER PIKE			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	798	+	565	=	1363	226	59	Yes
07:30 - 08:30	471	+	893	=	1364	83	135	No
07:45 - 08:45	469	+	850	=	1319	70	116	No
07:15 - 08:15	451	+	863	=	1314	97	136	No
16:15 - 17:15	730	+	533	=	1263	181	56	No
16:00 - 17:00	724	+	531	=	1255	154	52	No
17:30 - 18:30	751	+	498	=	1249	195	59	No
08:00 - 09:00	447	+	796	=	1243	66	97	No
17:45 - 18:45	732	+	502	=	1234	170	65	No
07:00 - 08:00	385	+	833	=	1218	115	118	No
15:45 - 16:45	695	+	519	=	1214	147	47	No
15:30 - 16:30	682	+	521	=	1203	150	44	No
06:45 - 07:45	332	+	793	=	1125	112	93	No
15:15 - 16:15	616	+	502	=	1118	148	48	No
18:00 - 19:00	649	+	463	=	1112	126	68	No
08:15 - 09:15	375	+	733	=	1108	58	74	No
15:00 - 16:00	558	+	502	=	1060	159	54	No
06:30 - 07:30	285	+	737	=	1022	89	64	No
14:45 - 15:45	507	+	493	=	1000	163	51	No
08:30 - 09:30	338	+	640	=	978	62	68	No
14:30 - 15:30	493	+	472	=	965	145	56	No
18:15 - 19:15	536	+	416	=	952	99	63	No
14:15 - 15:15	464	+	463	=	927	133	46	No
11:15 - 12:15	454	+	458	=	912	109	57	No
11:30 - 12:30	466		444		910	116	56	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road WOOSTER PIKE		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:45 - 08:45	469	+	850	=	1319	70	116	Yes
17:00 - 18:00	775	+	526	=	1301	267	60	Yes
16:00 - 17:00	724	+	531	=	1255	154	52	Yes
06:45 - 07:45	332	+	793	=	1125	112	93	Yes
18:00 - 19:00	649	+	463	=	1112	126	68	Yes
15:00 - 16:00	558	+	502	=	1060	159	54	Yes
11:15 - 12:15	454	+	458	=	912	109	57	Yes
14:00 - 15:00	445	+	447	=	892	100	35	Yes
06:30 - 07:30	285	+	737	=	1022	89	64	No
12:15 - 13:15	398	+	500	=	898	93	76	No
12:30 - 13:30	375	+	520	=	895	86	83	No
08:45 - 09:45	321	+	572	=	893	74	65	No
11:00 - 12:00	425	+	463	=	888	92	50	No
12:45 - 13:45	366	+	521	=	887	85	78	No
06:15 - 07:15	236	+	647	=	883	70	48	No
13:00 - 14:00	375	+	506	=	881	85	81	No
13:45 - 14:45	414	+	448	=	862	88	53	No
10:45 - 11:45	384	+	465	=	849	93	50	No
13:15 - 14:15	364	+	474	=	838	86	65	No
13:30 - 14:30	371	+	451	=	822	89	53	No
09:00 - 10:00	312	+	504	=	816	88	55	No
09:15 - 10:15	343	+	469	=	812	88	52	No
09:30 - 10:30	349	+	440	=	789	89	46	No
10:30 - 11:30	307	+	436	=	743	75	45	No
09:45 - 10:45	321		421		742	76	44	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road US 50						Minor Road WOOSTER PIKE		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
17:15 - 18:15	825	+	541	=	1366	234	58	Yes
07:15 - 08:15	451	+	863	=	1314	97	136	Yes
16:15 - 17:15	730	+	533	=	1263	181	56	Yes
14:45 - 15:45	507	+	493	=	1000	163	51	Yes
16:00 - 17:00	724	+	531	=	1255	154	52	No
07:00 - 08:00	385	+	833	=	1218	115	118	No
15:45 - 16:45	695	+	519	=	1214	147	47	No
06:45 - 07:45	332	+	793	=	1125	112	93	No
08:15 - 09:15	375	+	733	=	1108	58	74	No
06:30 - 07:30	285	+	737	=	1022	89	64	No
08:30 - 09:30	338	+	640	=	978	62	68	No
14:30 - 15:30	493	+	472	=	965	145	56	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
07:30 - 08:30	471	+	893	=	1364	83	135	Yes
16:45 - 17:45	781	+	528	=	1309	244	63	Yes
17:45 - 18:45	732	+	502	=	1234	170	65	Yes
15:45 - 16:45	695	+	519	=	1214	147	47	Yes
06:30 - 07:30	285	+	737	=	1022	89	64	Yes
14:45 - 15:45	507	+	493	=	1000	163	51	Yes
08:30 - 09:30	338	+	640	=	978	62	68	Yes
12:45 - 13:45	366	+	521	=	887	85	78	Yes
11:45 - 12:45	434	+	447	=	881	109	60	Yes
13:45 - 14:45	414	+	448	=	862	88	53	Yes
10:45 - 11:45	384	+	465	=	849	93	50	Yes
09:30 - 10:30	349	+	440	=	789	89	46	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

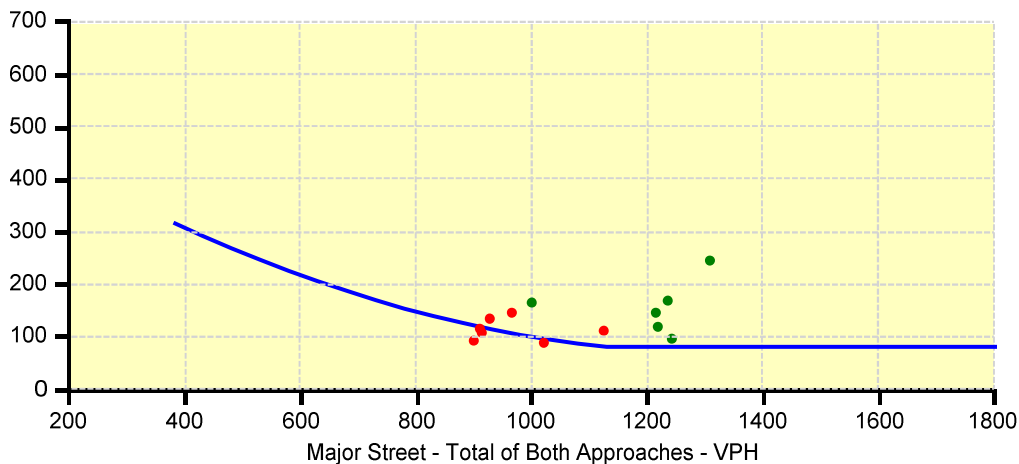
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road WOOSTER PIKE		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	781	+	528	=	1309	244	63	Yes
08:00 - 09:00	447	+	796	=	1243	66	97	Yes
17:45 - 18:45	732	+	502	=	1234	170	65	Yes
07:00 - 08:00	385	+	833	=	1218	115	118	Yes
15:45 - 16:45	695	+	519	=	1214	147	47	Yes
14:45 - 15:45	507	+	493	=	1000	163	51	Yes
06:45 - 07:45	332	+	793	=	1125	112	93	No
06:30 - 07:30	285	+	737	=	1022	89	64	No
14:30 - 15:30	493	+	472	=	965	145	56	No
14:15 - 15:15	464	+	463	=	927	133	46	No
11:15 - 12:15	454	+	458	=	912	109	57	No
							56	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

52 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road			Minor Road						
US 50			WOOSTER PIKE						
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
17:15 - 18:15	1658	Yes	234	-	Yes	58	-	---	Yes
16:30 - 17:30	1648	Yes	226	-	Yes	59	-	---	Yes
17:00 - 18:00	1628	Yes	267	-	Yes	60	-	---	Yes
16:45 - 17:45	1616	Yes	244	-	Yes	63	-	---	Yes
17:30 - 18:30	1503	Yes	195	-	Yes	59	-	---	Yes
16:15 - 17:15	1500	Yes	181	-	Yes	56	-	---	Yes
17:45 - 18:45	1469	Yes	170	-	Yes	65	-	---	Yes
16:00 - 17:00	1461	Yes	154	-	Yes	52	-	---	Yes
15:30 - 16:30	1397	Yes	150	-	Yes	44	-	---	Yes
15:00 - 16:00	1273	Yes	159	-	Yes	54	-	---	Yes
14:45 - 15:45	1214	Yes	163	-	Yes	51	-	---	Yes
07:30 - 08:30	1582	Yes	83	-	---	135	-	No	No
07:15 - 08:15	1547	Yes	97	-	---	136	-	No	No
07:45 - 08:45	1505	Yes	70	-	---	116	-	No	No
07:00 - 08:00	1451	Yes	115	-	---	118	-	No	No
15:45 - 16:45	1408	Yes	147	-	No	47	-	---	No
08:00 - 09:00	1406	Yes	66	-	---	97	-	No	No
06:45 - 07:45	1330	Yes	112	-	No	93	-	---	No
15:15 - 16:15	1314	Yes	148	-	No	48	-	---	No
18:00 - 19:00	1306	Yes	126	-	No	68	-	---	No
08:15 - 09:15	1240	Yes	58	-	---	74	-	No	No
06:30 - 07:30	1175	Yes	89	-	No	64	-	---	No
14:30 - 15:30	1166	Yes	145	-	No	56	-	---	No
18:15 - 19:15	1114	Yes	99	-	No	63	-	---	No
08:30 - 09:30	1108	Yes	62	-	---	68	-	No	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1p-16-Columbia@Meadowlark

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

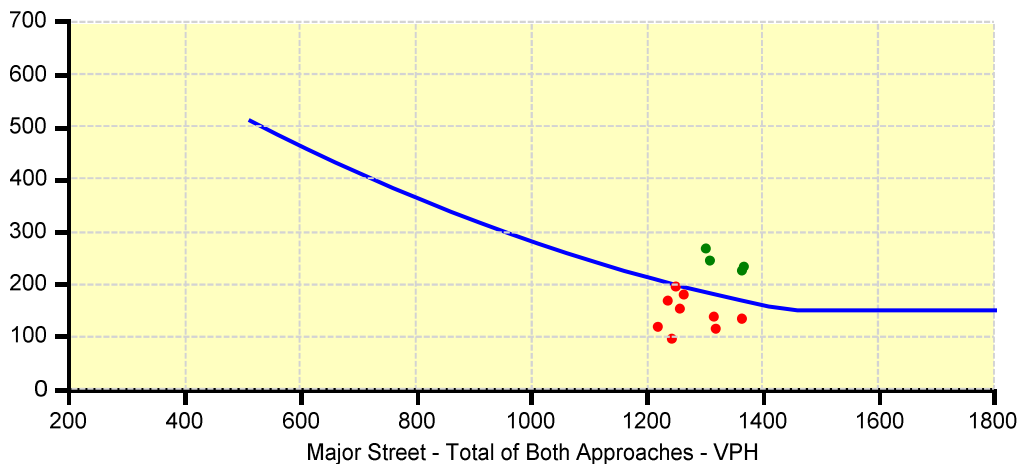
Summary

4 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road WOOSTER PIKE		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:15 - 18:15	825	+	541	=	1366	234	58	Yes
16:30 - 17:30	798	+	565	=	1363	226	59	Yes
16:45 - 17:45	781	+	528	=	1309	244	63	Yes
17:00 - 18:00	775	+	526	=	1301	267	60	Yes
07:30 - 08:30	471	+	893	=	1364	83	135	No
07:45 - 08:45	469	+	850	=	1319	70	116	No
07:15 - 08:15	451	+	863	=	1314	97	136	No
16:15 - 17:15	730	+	533	=	1263	181	56	No
16:00 - 17:00	724	+	531	=	1255	154	52	No
17:30 - 18:30	751	+	498	=	1249	195	59	No
08:00 - 09:00	447	+	796	=	1243	66	97	No
							65	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: RED BANK RD

Number of Lanes : 2+

Total Approach Volume: 6,308

Westbound: WOOSTER PK

Number of Lanes :2+

Total Approach Volume: 1,930

Minor Street Approaches

Northbound: WOOSTER RD

Number of Lanes :2+

Total Approach Volume: 6,397

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 4 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 7 hours, 8 are needed

Required 1B volumes reached for 7 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (41) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

	Major Road				Minor Road			
	RED BANK RD				WOOSTER RD			
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	771	+	179	=	950	464	0	Yes
15:30 - 16:30	604	+	175	=	779	383	0	Yes
17:30 - 18:30	589	+	123	=	712	379	0	Yes
14:30 - 15:30	442	+	173	=	615	367	0	Yes
14:15 - 15:15	435	+	156	=	591	365	0	No
14:00 - 15:00	429	+	125	=	554	359	0	No
13:45 - 14:45	422	+	118	=	540	371	0	No
12:30 - 13:30	375	+	158	=	533	345	0	No
13:15 - 14:15	377	+	137	=	514	348	0	No
13:00 - 14:00	371	+	143	=	514	339	0	No
12:45 - 13:45	364	+	150	=	514	340	0	No
11:45 - 12:45	354	+	158	=	512	343	0	No
12:00 - 13:00	359	+	152	=	511	352	0	No
13:30 - 14:30	385	+	120	=	505	347	0	No
12:15 - 13:15	355	+	145	=	500	343	0	No
11:30 - 12:30	348	+	149	=	497	338	0	No
11:15 - 12:15	338	+	149	=	487	329	0	No
07:45 - 08:45	345	+	119	=	464	670	0	No
07:30 - 08:30	348	+	113	=	461	746	0	No
11:00 - 12:00	322	+	135	=	457	328	0	No
07:15 - 08:15	330	+	116	=	446	799	0	No
08:15 - 09:15	323	+	114	=	437	558	0	No
08:00 - 09:00	314	+	121	=	435	623	0	No
07:00 - 08:00	314	+	110	=	424	814	0	No
08:30 - 09:30	301		116		417	510	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

	Major Road				Minor Road					
	RED BANK RD				WOOSTER RD					
Time	Major EB	+	Major WB	=	Total		Minor NB		Minor SB	Met?
16:30 - 17:30	771	+	179	=	950		464		0	Yes
15:30 - 16:30	604	+	175	=	779		383		0	Yes
17:30 - 18:30	589	+	123	=	712		379		0	Yes
14:30 - 15:30	442	+	173	=	615		367		0	Yes
14:15 - 15:15	435	+	156	=	591		365		0	No
14:00 - 15:00	429	+	125	=	554		359		0	No
13:45 - 14:45	422	+	118	=	540		371		0	No
12:30 - 13:30	375	+	158	=	533		345		0	No
13:15 - 14:15	377	+	137	=	514		348		0	No
13:00 - 14:00	371	+	143	=	514		339		0	No
12:45 - 13:45	364	+	150	=	514		340		0	No
11:45 - 12:45	354	+	158	=	512		343		0	No
12:00 - 13:00	359	+	152	=	511		352		0	No
13:30 - 14:30	385	+	120	=	505		347		0	No
12:15 - 13:15	355	+	145	=	500		343		0	No
11:30 - 12:30	348	+	149	=	497		338		0	No
11:15 - 12:15	338	+	149	=	487		329		0	No
07:45 - 08:45	345	+	119	=	464		670		0	No
07:30 - 08:30	348	+	113	=	461		746		0	No
11:00 - 12:00	322	+	135	=	457		328		0	No
07:15 - 08:15	330	+	116	=	446		799		0	No
08:15 - 09:15	323	+	114	=	437		558		0	No
08:00 - 09:00	314	+	121	=	435		623		0	No
07:00 - 08:00	314	+	110	=	424		814		0	No
08:30 - 09:30	301		116		417		510		0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 7 hours meet 1A minimums.
Only 7 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor NB = **160** **80**
Veh/Hr Minor SB = **120** **60**

Major Road RED BANK RD						Minor Road WOOSTER RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:15 - 17:15	763	+	168	=	931	448	0	Yes
17:15 - 18:15	661	+	144	=	805	405	0	Yes
15:15 - 16:15	519	+	184	=	703	385	0	Yes
14:15 - 15:15	435	+	156	=	591	365	0	Yes
13:15 - 14:15	377	+	137	=	514	348	0	Yes
12:15 - 13:15	355	+	145	=	500	343	0	Yes
11:15 - 12:15	338	+	149	=	487	329	0	Yes
07:45 - 08:45	345	+	119	=	464	670	0	No
07:30 - 08:30	348	+	113	=	461	746	0	No
11:00 - 12:00	322	+	135	=	457	328	0	No
07:15 - 08:15	330	+	116	=	446	799	0	No
08:15 - 09:15	323	+	114	=	437	558	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	763	+	168	=	931	448	0	Yes
17:15 - 18:15	661	+	144	=	805	405	0	Yes
15:15 - 16:15	519	+	184	=	703	385	0	Yes
14:15 - 15:15	435	+	156	=	591	365	0	Yes
13:15 - 14:15	377	+	137	=	514	348	0	Yes
12:15 - 13:15	355	+	145	=	500	343	0	Yes
11:15 - 12:15	338	+	149	=	487	329	0	Yes
07:45 - 08:45	345	+	119	=	464	670	0	No
07:30 - 08:30	348	+	113	=	461	746	0	No
11:00 - 12:00	322	+	135	=	457	328	0	No
07:15 - 08:15	330	+	116	=	446	799	0	No
08:15 - 09:15	323	+	114	=	437	558	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

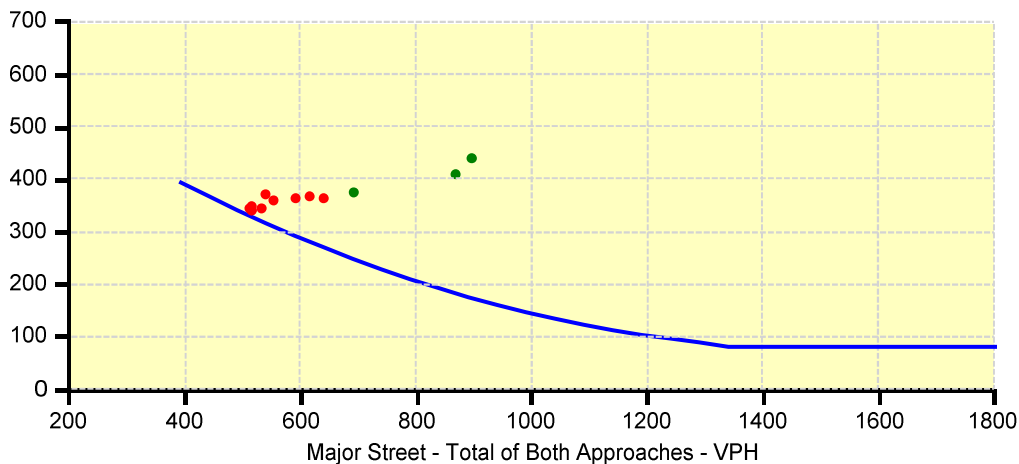
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road WOOSTER RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	743	+	153	=	896	440	0	Yes
16:00 - 17:00	698	+	169	=	867	411	0	Yes
15:00 - 16:00	492	+	199	=	691	373	0	Yes
14:45 - 15:45	450	+	191	=	641	362	0	No
14:30 - 15:30	442	+	173	=	615	367	0	No
14:15 - 15:15	435	+	156	=	591	365	0	No
14:00 - 15:00	429	+	125	=	554	359	0	No
13:45 - 14:45	422	+	118	=	540	371	0	No
12:30 - 13:30	375	+	158	=	533	345	0	No
13:15 - 14:15	377	+	137	=	514	348	0	No
13:00 - 14:00	371	+	143	=	514	339	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

41 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
RED BANK RD						WOOSTER RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:30 - 17:30	1414	Yes	464	-	Yes	0	-	---	Yes
16:45 - 17:45	1384	Yes	446	-	Yes	0	-	---	Yes
16:15 - 17:15	1379	Yes	448	-	Yes	0	-	---	Yes
17:00 - 18:00	1336	Yes	440	-	Yes	0	-	---	Yes
16:00 - 17:00	1278	Yes	411	-	Yes	0	-	---	Yes
07:15 - 08:15	1245	Yes	799	-	Yes	0	-	---	Yes
07:00 - 08:00	1238	Yes	814	-	Yes	0	-	---	Yes
15:45 - 16:45	1228	Yes	408	-	Yes	0	-	---	Yes
17:15 - 18:15	1210	Yes	405	-	Yes	0	-	---	Yes
07:30 - 08:30	1207	Yes	746	-	Yes	0	-	---	Yes
06:45 - 07:45	1192	Yes	789	-	Yes	0	-	---	Yes
15:30 - 16:30	1162	Yes	383	-	Yes	0	-	---	Yes
07:45 - 08:45	1134	Yes	670	-	Yes	0	-	---	Yes
06:30 - 07:30	1105	Yes	702	-	Yes	0	-	---	Yes
17:30 - 18:30	1091	Yes	379	-	Yes	0	-	---	Yes
15:15 - 16:15	1088	Yes	385	-	Yes	0	-	---	Yes
15:00 - 16:00	1064	Yes	373	-	Yes	0	-	---	Yes
08:00 - 09:00	1058	Yes	623	-	Yes	0	-	---	Yes
14:45 - 15:45	1003	Yes	362	-	Yes	0	-	---	Yes
08:15 - 09:15	995	Yes	558	-	Yes	0	-	---	Yes
06:15 - 07:15	991	Yes	601	-	Yes	0	-	---	Yes
14:30 - 15:30	982	Yes	367	-	Yes	0	-	---	Yes
14:15 - 15:15	956	Yes	365	-	Yes	0	-	---	Yes
17:45 - 18:45	953	Yes	344	-	Yes	0	-	---	Yes
08:30 - 09:30	927	Yes	510	-	Yes	0	-	---	Yes

Eastern Corridor Traffic Signal Warrants

Study Name: 1q-20-Red_Bank@Wooster

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

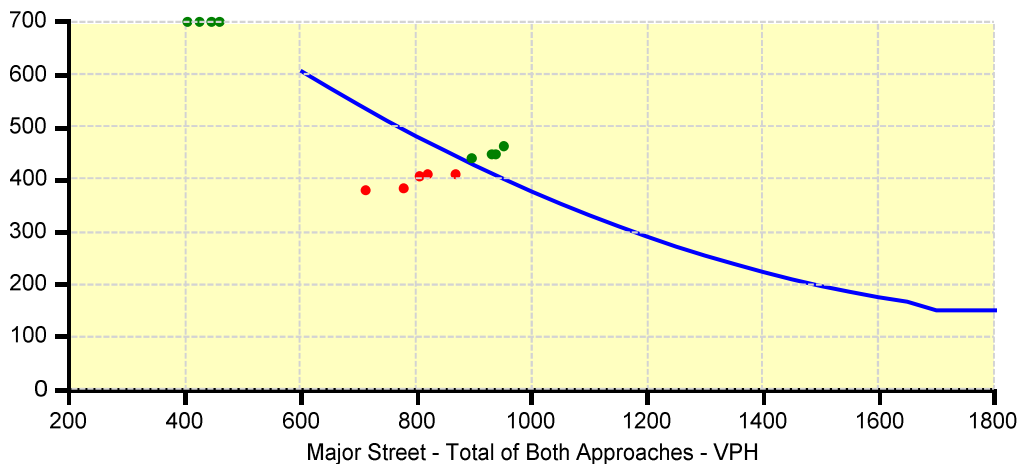
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road WOOSTER RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	771	+	179	=	950	464	0	Yes
16:45 - 17:45	785	+	153	=	938	446	0	Yes
16:15 - 17:15	763	+	168	=	931	448	0	Yes
17:00 - 18:00	743	+	153	=	896	440	0	Yes
07:30 - 08:30	348	+	113	=	461	746	0	Yes
07:15 - 08:15	330	+	116	=	446	799	0	Yes
07:00 - 08:00	314	+	110	=	424	814	0	Yes
06:45 - 07:45	305	+	98	=	403	789	0	Yes
16:00 - 17:00	698	+	169	=	867	411	0	No
15:45 - 16:45	645	+	175	=	820	408	0	No
17:15 - 18:15	661	+	144	=	805	405	0	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 125

Number of Lanes : 2+

Total Approach Volume: 11,863

Westbound: SR 125

Number of Lanes :2+

Total Approach Volume: 13,284

Minor Street Approaches

Northbound: ELSTUN RD

Number of Lanes :2+

Total Approach Volume: 1,358

Southbound: REINKE SHOPPING CENTER

Number of Lanes :2+

Total Approach Volume: 754

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 3 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (7) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (4) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **420**

Veh/Hr Minor = **140 105**

Major Road SR 125						Minor Road ELSTUN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
06:45 - 07:45	355	+	2104	=	2459	163	29	Yes
07:45 - 08:45	491	+	1573	=	2064	140	45	Yes
17:00 - 18:00	1660	+	810	=	2470	125	109	No
16:45 - 17:45	1661	+	785	=	2446	117	110	No
17:15 - 18:15	1613	+	792	=	2405	127	111	No
16:30 - 17:30	1592	+	764	=	2356	109	95	No
16:15 - 17:15	1475	+	744	=	2219	104	99	No
17:30 - 18:30	1433	+	761	=	2194	119	117	No
06:30 - 07:30	315	+	1872	=	2187	130	21	No
16:00 - 17:00	1396	+	735	=	2131	111	101	No
15:45 - 16:45	1362	+	764	=	2126	110	81	No
15:30 - 16:30	1274	+	753	=	2027	105	75	No
17:45 - 18:45	1234	+	726	=	1960	105	92	No
15:15 - 16:15	1180	+	750	=	1930	101	62	No
15:00 - 16:00	1080	+	725	=	1805	87	52	No
18:00 - 19:00	1100	+	693	=	1793	101	82	No
06:15 - 07:15	274	+	1485	=	1759	107	14	No
14:45 - 15:45	952	+	682	=	1634	78	54	No
18:15 - 19:15	943	+	621	=	1564	94	77	No
14:30 - 15:30	854	+	703	=	1557	72	54	No
08:45 - 09:45	444	+	1011	=	1455	75	30	No
14:15 - 15:15	750	+	702	=	1452	61	58	No
14:00 - 15:00	700	+	690	=	1390	58	56	No
13:45 - 14:45	672	+	689	=	1361	58	54	No
18:30 - 19:30	793		546		1339	85	62	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **630**

Veh/Hr Minor = **70 52**

Major Road SR 125						Minor Road ELSTUN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	406	+	2176	=	2582	179	37	Yes
16:30 - 17:30	1592	+	764	=	2356	109	95	Yes
17:30 - 18:30	1433	+	761	=	2194	119	117	Yes
15:30 - 16:30	1274	+	753	=	2027	105	75	Yes
08:00 - 09:00	498	+	1346	=	1844	111	40	Yes
14:30 - 15:30	854	+	703	=	1557	72	54	Yes
18:30 - 19:30	793	+	546	=	1339	85	62	Yes
06:00 - 07:00	208	+	1126	=	1334	74	10	Yes
09:00 - 10:00	407	+	905	=	1312	75	25	Yes
14:15 - 15:15	750	+	702	=	1452	61	58	No
14:00 - 15:00	700	+	690	=	1390	58	56	No
13:45 - 14:45	672	+	689	=	1361	58	54	No
11:30 - 12:30	526	+	653	=	1179	57	25	No
13:30 - 14:30	570	+	606	=	1176	61	41	No
12:15 - 13:15	532	+	642	=	1174	52	35	No
11:45 - 12:45	517	+	657	=	1174	56	26	No
12:00 - 13:00	503	+	639	=	1142	58	28	No
11:15 - 12:15	501	+	636	=	1137	51	22	No
11:00 - 12:00	484	+	606	=	1090	44	23	No
12:30 - 13:30	500	+	579	=	1079	49	33	No
13:15 - 14:15	510	+	543	=	1053	59	28	No
13:00 - 14:00	494	+	551	=	1045	54	27	No
05:45 - 06:45	170	+	807	=	977	56	4	No
12:45 - 13:45	435	+	535	=	970	52	31	No
10:45 - 11:45	404		557		961	39	17	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 3 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**
Veh/Hr Minor NB = **112 56**
Veh/Hr Minor SB = **84 42**

Major Road SR 125						Minor Road ELSTUN RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:45 - 17:45	1661	+	785	=	2446	117	110	Yes
07:30 - 08:30	456	+	1815	=	2271	166	42	Yes
06:30 - 07:30	315	+	1872	=	2187	130	21	Yes
16:30 - 17:30	1592	+	764	=	2356	109	95	No
16:15 - 17:15	1475	+	744	=	2219	104	99	No
16:00 - 17:00	1396	+	735	=	2131	111	101	No
15:45 - 16:45	1362	+	764	=	2126	110	81	No
15:30 - 16:30	1274	+	753	=	2027	105	75	No
17:45 - 18:45	1234	+	726	=	1960	105	92	No
15:15 - 16:15	1180	+	750	=	1930	101	62	No
15:00 - 16:00	1080	+	725	=	1805	87	52	No
18:00 - 19:00	1100		693		1793	101	82	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
06:45 - 07:45	355	+	2104	=	2459	163	29	Yes
17:15 - 18:15	1613	+	792	=	2405	127	111	Yes
16:15 - 17:15	1475	+	744	=	2219	104	99	Yes
07:45 - 08:45	491	+	1573	=	2064	140	45	Yes
15:15 - 16:15	1180	+	750	=	1930	101	62	Yes
18:15 - 19:15	943	+	621	=	1564	94	77	Yes
08:45 - 09:45	444	+	1011	=	1455	75	30	Yes
14:15 - 15:15	750	+	702	=	1452	61	58	Yes
11:30 - 12:30	526	+	653	=	1179	57	25	Yes
13:15 - 14:15	510	+	543	=	1053	59	28	Yes
05:45 - 06:45	170	+	807	=	977	56	4	Yes
19:15 - 20:15	584		326		910	48	53	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

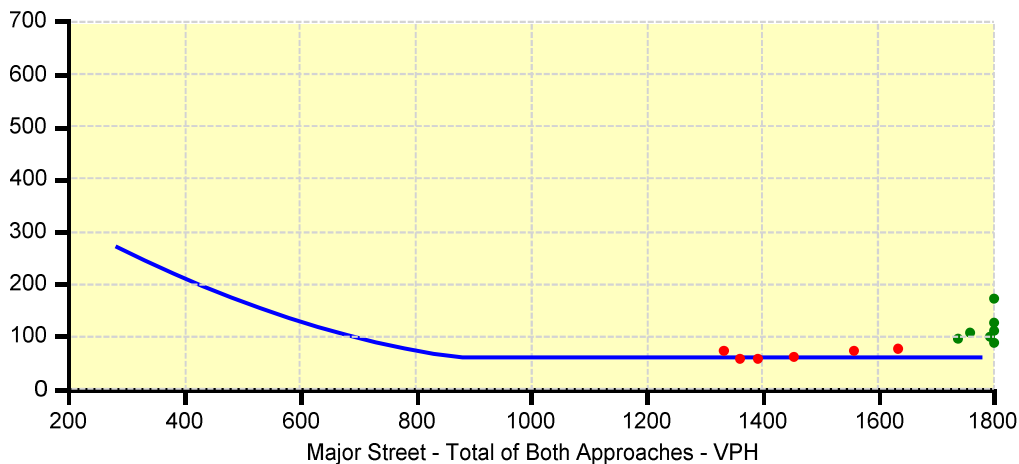
Summary

7 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road SR 125						Minor Road ELSTUN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:15 - 08:15	439	+	2036	=	2475	172	40	Yes
17:00 - 18:00	1660	+	810	=	2470	125	109	Yes
16:00 - 17:00	1396	+	735	=	2131	111	101	Yes
15:00 - 16:00	1080	+	725	=	1805	87	52	Yes
18:00 - 19:00	1100	+	693	=	1793	101	82	Yes
06:15 - 07:15	274	+	1485	=	1759	107	14	Yes
08:15 - 09:15	479	+	1257	=	1736	94	37	Yes
14:45 - 15:45	952	+	682	=	1634	78	54	No
14:30 - 15:30	854	+	703	=	1557	72	54	No
14:15 - 15:15	750	+	702	=	1452	61	58	No
14:00 - 15:00	700	+	690	=	1390	58	56	No
							54	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

62 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
SR 125						ELSTUN RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
07:00 - 08:00	2798	Yes	179	-	Yes	37	-	---	Yes
07:15 - 08:15	2687	Yes	172	-	Yes	40	-	---	Yes
06:45 - 07:45	2651	Yes	163	-	Yes	29	-	---	Yes
07:30 - 08:30	2479	Yes	166	-	Yes	42	-	---	Yes
17:00 - 18:00	2704	Yes	125	-	No	109	-	---	No
16:45 - 17:45	2673	Yes	117	-	No	110	-	---	No
17:15 - 18:15	2643	Yes	127	-	No	111	-	---	No
16:30 - 17:30	2560	Yes	109	-	No	95	-	---	No
17:30 - 18:30	2430	Yes	119	-	No	117	-	---	No
16:15 - 17:15	2422	Yes	104	-	No	99	-	---	No
16:00 - 17:00	2343	Yes	111	-	No	101	-	---	No
06:30 - 07:30	2338	Yes	130	-	No	21	-	---	No
15:45 - 16:45	2317	Yes	110	-	No	81	-	---	No
07:45 - 08:45	2249	Yes	140	-	No	45	-	---	No
15:30 - 16:30	2207	Yes	105	-	No	75	-	---	No
17:45 - 18:45	2157	Yes	105	-	No	92	-	---	No
15:15 - 16:15	2093	Yes	101	-	No	62	-	---	No
08:00 - 09:00	1995	Yes	111	-	No	40	-	---	No
18:00 - 19:00	1976	Yes	101	-	No	82	-	---	No
15:00 - 16:00	1944	Yes	87	-	No	52	-	---	No
06:15 - 07:15	1880	Yes	107	-	No	14	-	---	No
08:15 - 09:15	1867	Yes	94	-	No	37	-	---	No
14:45 - 15:45	1766	Yes	78	-	No	54	-	---	No
18:15 - 19:15	1735	Yes	94	-	No	77	-	---	No
08:30 - 09:30	1710	Yes	88	-	No	35	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1r-22-SR_125@Elstun

Study Date : 2/6/2018

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

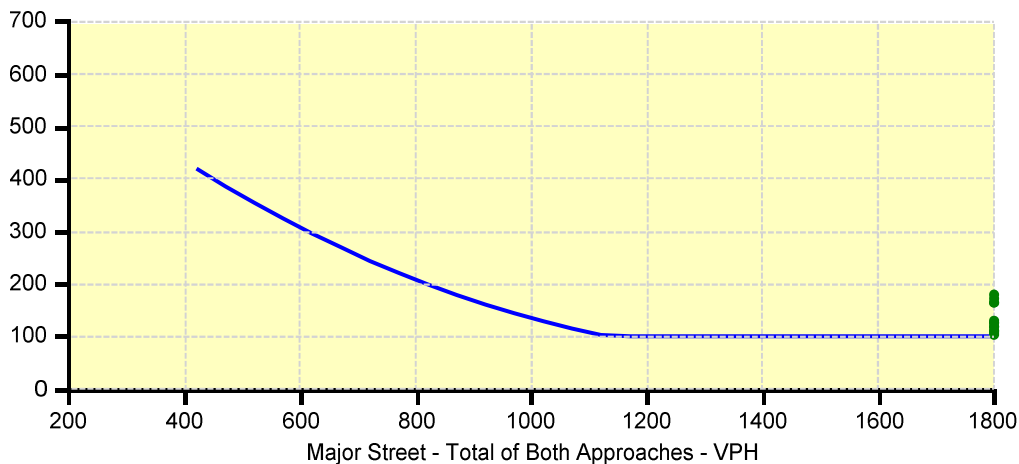
Summary

20 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road SR 125						Minor Road ELSTUN RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	406	+	2176	=	2582	179	37	Yes
07:15 - 08:15	439	+	2036	=	2475	172	40	Yes
17:00 - 18:00	1660	+	810	=	2470	125	109	Yes
06:45 - 07:45	355	+	2104	=	2459	163	29	Yes
16:45 - 17:45	1661	+	785	=	2446	117	110	Yes
17:15 - 18:15	1613	+	792	=	2405	127	111	Yes
16:30 - 17:30	1592	+	764	=	2356	109	95	Yes
07:30 - 08:30	456	+	1815	=	2271	166	42	Yes
16:15 - 17:15	1475	+	744	=	2219	104	99	Yes
17:30 - 18:30	1433	+	761	=	2194	119	117	Yes
06:30 - 07:30	315	+	1872	=	2187	130	21	Yes
							101	Yes



Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Signal Warrants - Summary

Major Street Approaches

Northbound: RED BANK RD

Number of Lanes : 1

Total Approach Volume: 6,430

Southbound: RED BANK RD

Number of Lanes : 1

Total Approach Volume: 10,617

Minor Street Approaches

Eastbound: None

Number of Lanes : 2+

Total Approach Volume: 0

Westbound: US 50 RAMPS

Number of Lanes : 2+

Total Approach Volume: 1,786

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 12 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 14 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (5) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (8) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

		Major Road				Minor Road				
		RED BANK RD				None				
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB	Met?
07:30 - 08:30	718	+	554	=	1272		0		287	Yes
06:30 - 07:30	589	+	464	=	1053		0		202	Yes
16:30 - 17:30	533	+	1332	=	1865		0		136	No
16:45 - 17:45	495	+	1278	=	1773		0		145	No
16:15 - 17:15	494	+	1275	=	1769		0		117	No
17:00 - 18:00	477	+	1232	=	1709		0		139	No
16:00 - 17:00	482	+	1207	=	1689		0		112	No
15:45 - 16:45	476	+	1089	=	1565		0		99	No
17:15 - 18:15	410	+	1128	=	1538		0		133	No
15:30 - 16:30	450	+	1019	=	1469		0		96	No
15:15 - 16:15	460	+	951	=	1411		0		99	No
17:30 - 18:30	341	+	994	=	1335		0		115	No
15:00 - 16:00	429	+	868	=	1297		0		100	No
17:45 - 18:45	307	+	927	=	1234		0		98	No
14:45 - 15:45	406	+	827	=	1233		0		97	No
14:30 - 15:30	373	+	765	=	1138		0		96	No
18:00 - 19:00	275	+	822	=	1097		0		90	No
08:30 - 09:30	529	+	532	=	1061		0		149	No
14:15 - 15:15	359	+	683	=	1042		0		96	No
08:45 - 09:45	493	+	512	=	1005		0		117	No
13:15 - 14:15	385	+	615	=	1000		0		89	No
14:00 - 15:00	358	+	637	=	995		0		90	No
13:45 - 14:45	365	+	629	=	994		0		93	No
12:30 - 13:30	341	+	649	=	990		0		83	No
12:45 - 13:45	338		652		990		0		83	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road RED BANK RD						Minor Road None		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	495	+	1278	=	1773	0	145	Yes
15:45 - 16:45	476	+	1089	=	1565	0	99	Yes
07:00 - 08:00	742	+	531	=	1273	0	326	Yes
17:45 - 18:45	307	+	927	=	1234	0	98	Yes
14:45 - 15:45	406	+	827	=	1233	0	97	Yes
08:00 - 09:00	636	+	547	=	1183	0	209	Yes
13:45 - 14:45	365	+	629	=	994	0	93	Yes
12:45 - 13:45	338	+	652	=	990	0	83	Yes
11:45 - 12:45	371	+	579	=	950	0	89	Yes
10:45 - 11:45	399	+	514	=	913	0	78	Yes
09:00 - 10:00	435	+	477	=	912	0	88	Yes
06:00 - 07:00	364	+	395	=	759	0	89	Yes
10:30 - 11:30	377	+	489	=	866	0	73	No
10:15 - 11:15	360	+	464	=	824	0	73	No
10:00 - 11:00	343	+	439	=	782	0	74	No
18:45 - 19:45	201	+	533	=	734	0	60	No
05:45 - 06:45	311	+	327	=	638	0	62	No
19:00 - 20:00	170	+	449	=	619	0	50	No
19:15 - 20:15	150	+	408	=	558	0	49	No
20:00 - 21:00	146	+	381	=	527	0	34	No
19:30 - 20:30	135	+	389	=	524	0	45	No
19:45 - 20:45	131	+	393	=	524	0	42	No
05:30 - 06:30	250	+	250	=	500	0	51	No
20:15 - 21:15	138	+	360	=	498	0	32	No
20:30 - 21:30	143		344		487	0	27	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
14 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor EB = **160 80**
Veh/Hr Minor WB = **120 60**

Major Road						Minor Road			
RED BANK RD						None			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?	
16:30 - 17:30	533	+	1332	=	1865	0	136	Yes	
07:15 - 08:15	746	+	547	=	1293	0	316	Yes	
08:15 - 09:15	587	+	543	=	1130	0	179	Yes	
06:15 - 07:15	476	+	432	=	908	0	137	Yes	
16:15 - 17:15	494	+	1275	=	1769	0	117	No	
16:00 - 17:00	482	+	1207	=	1689	0	112	No	
15:45 - 16:45	476	+	1089	=	1565	0	99	No	
15:30 - 16:30	450	+	1019	=	1469	0	96	No	
15:15 - 16:15	460	+	951	=	1411	0	99	No	
17:30 - 18:30	341	+	994	=	1335	0	115	No	
15:00 - 16:00	429	+	868	=	1297	0	100	No	
17:45 - 18:45	307	+	927	=	1234	0	98	No	

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?	
16:45 - 17:45	495	+	1278	=	1773	0	145	Yes	
15:45 - 16:45	476	+	1089	=	1565	0	99	Yes	
17:45 - 18:45	307	+	927	=	1234	0	98	Yes	
14:45 - 15:45	406	+	827	=	1233	0	97	Yes	
07:45 - 08:45	684	+	545	=	1229	0	249	Yes	
06:45 - 07:45	666	+	505	=	1171	0	268	Yes	
08:45 - 09:45	493	+	512	=	1005	0	117	Yes	
13:45 - 14:45	365	+	629	=	994	0	93	Yes	
12:45 - 13:45	338	+	652	=	990	0	83	Yes	
11:45 - 12:45	371	+	579	=	950	0	89	Yes	
10:45 - 11:45	399	+	514	=	913	0	78	Yes	
09:45 - 10:45	310	+	434	=	744	0	76	Yes	

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

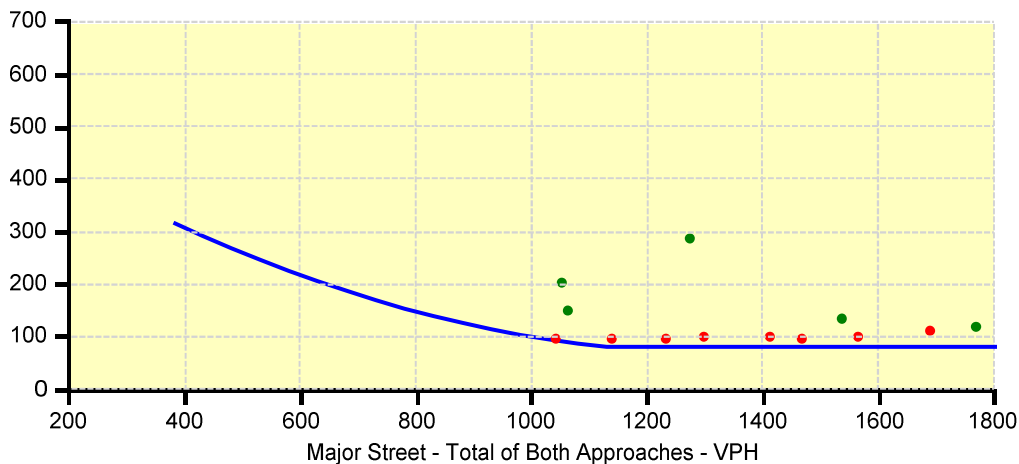
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road None		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:15 - 17:15	494	+	1275	=	1769	0	117	Yes
17:15 - 18:15	410	+	1128	=	1538	0	133	Yes
07:30 - 08:30	718	+	554	=	1272	0	287	Yes
08:30 - 09:30	529	+	532	=	1061	0	149	Yes
06:30 - 07:30	589	+	464	=	1053	0	202	Yes
16:00 - 17:00	482	+	1207	=	1689	0	112	No
15:45 - 16:45	476	+	1089	=	1565	0	99	No
15:30 - 16:30	450	+	1019	=	1469	0	96	No
15:15 - 16:15	460	+	951	=	1411	0	99	No
15:00 - 16:00	429	+	868	=	1297	0	100	No
14:45 - 15:45	406	+	827	=	1233	0	97	No
							96	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

51 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
RED BANK RD						None			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
07:15 - 08:15	1609	Yes	0	-	---	316	-	Yes	Yes
07:00 - 08:00	1599	Yes	0	-	---	326	-	Yes	Yes
07:30 - 08:30	1559	Yes	0	-	---	287	-	Yes	Yes
07:45 - 08:45	1478	Yes	0	-	---	249	-	Yes	Yes
06:45 - 07:45	1439	Yes	0	-	---	268	-	Yes	Yes
08:00 - 09:00	1392	Yes	0	-	---	209	-	Yes	Yes
08:15 - 09:15	1309	Yes	0	-	---	179	-	Yes	Yes
06:30 - 07:30	1255	Yes	0	-	---	202	-	Yes	Yes
16:30 - 17:30	2001	Yes	0	-	---	136	-	No	No
16:45 - 17:45	1918	Yes	0	-	---	145	-	No	No
16:15 - 17:15	1886	Yes	0	-	---	117	-	No	No
17:00 - 18:00	1848	Yes	0	-	---	139	-	No	No
16:00 - 17:00	1801	Yes	0	-	---	112	-	No	No
17:15 - 18:15	1671	Yes	0	-	---	133	-	No	No
15:45 - 16:45	1664	Yes	0	-	---	99	-	No	No
15:30 - 16:30	1565	Yes	0	-	---	96	-	No	No
15:15 - 16:15	1510	Yes	0	-	---	99	-	No	No
17:30 - 18:30	1450	Yes	0	-	---	115	-	No	No
15:00 - 16:00	1397	Yes	0	-	---	100	-	No	No
17:45 - 18:45	1332	Yes	0	-	---	98	-	No	No
14:45 - 15:45	1330	Yes	0	-	---	97	-	No	No
14:30 - 15:30	1234	Yes	0	-	---	96	-	No	No
08:30 - 09:30	1210	Yes	0	-	---	149	-	No	No
18:00 - 19:00	1187	Yes	0	-	---	90	-	No	No
14:15 - 15:15	1138	Yes	0	-	---	96	-	No	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1s-25-Red_Bank@US50-Ramps

Study Date : 2/6/2018

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

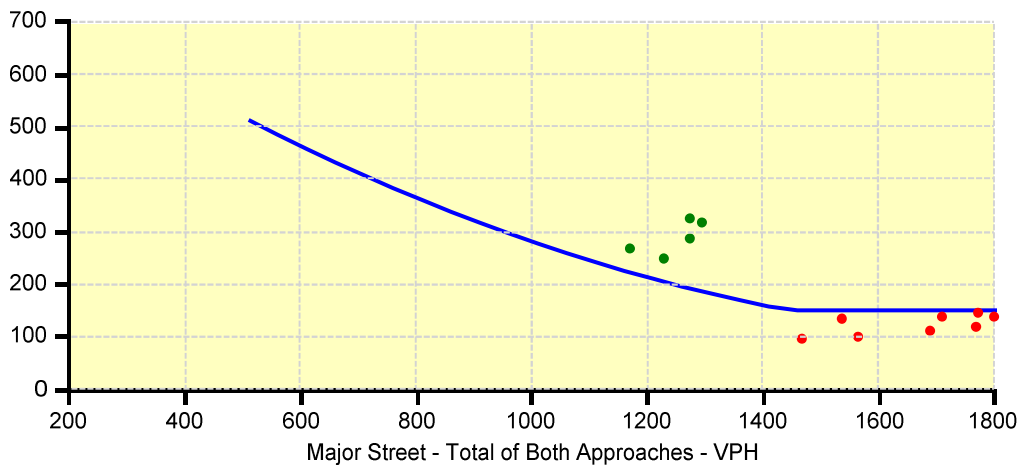
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road RED BANK RD						Minor Road None		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
07:15 - 08:15	746	+	547	=	1293	0	316	Yes
07:00 - 08:00	742	+	531	=	1273	0	326	Yes
07:30 - 08:30	718	+	554	=	1272	0	287	Yes
07:45 - 08:45	684	+	545	=	1229	0	249	Yes
06:45 - 07:45	666	+	505	=	1171	0	268	Yes
16:30 - 17:30	533	+	1332	=	1865	0	136	No
16:45 - 17:45	495	+	1278	=	1773	0	145	No
16:15 - 17:15	494	+	1275	=	1769	0	117	No
17:00 - 18:00	477	+	1232	=	1709	0	139	No
16:00 - 17:00	482	+	1207	=	1689	0	112	No
15:45 - 16:45	476	+	1089	=	1565	0	99	No
							133	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: WILMER AVE

Number of Lanes : 2+

Total Approach Volume: 5,706

Southbound: WILMER AVE

Number of Lanes :2+

Total Approach Volume: 1,133

Minor Street Approaches

Eastbound: BEECHMONT CIRCLE

Number of Lanes :2+

Total Approach Volume: 5,524

Westbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 4 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (3) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (16) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **200 150**

		Major Road				Minor Road			
		WILMER AVE				BEECHMONT CIRCLE			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?	
17:15 - 18:15	545	+	125	=	670	662	0	Yes	
16:15 - 17:15	498	+	128	=	626	711	0	Yes	
16:00 - 17:00	466	+	128	=	594	659	0	No	
15:45 - 16:45	438	+	114	=	552	624	0	No	
07:15 - 08:15	464	+	74	=	538	214	0	No	
15:30 - 16:30	420	+	105	=	525	588	0	No	
07:30 - 08:30	441	+	77	=	518	199	0	No	
07:00 - 08:00	458	+	51	=	509	202	0	No	
15:15 - 16:15	419	+	90	=	509	526	0	No	
15:00 - 16:00	413	+	78	=	491	487	0	No	
07:45 - 08:45	399	+	80	=	479	213	0	No	
06:45 - 07:45	429	+	49	=	478	193	0	No	
11:45 - 12:45	416	+	61	=	477	260	0	No	
11:30 - 12:30	401	+	73	=	474	257	0	No	
11:15 - 12:15	392	+	70	=	462	249	0	No	
12:00 - 13:00	388	+	71	=	459	261	0	No	
12:15 - 13:15	379	+	74	=	453	260	0	No	
14:45 - 15:45	375	+	66	=	441	450	0	No	
08:00 - 09:00	357	+	83	=	440	218	0	No	
12:30 - 13:30	354	+	83	=	437	259	0	No	
11:00 - 12:00	373	+	62	=	435	224	0	No	
12:45 - 13:45	341	+	91	=	432	283	0	No	
14:30 - 15:30	354	+	66	=	420	401	0	No	
06:30 - 07:30	366	+	47	=	413	184	0	No	
14:15 - 15:15	340		66		406	369	0	No	

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **100 75**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
17:15 - 18:15	545	+	125	=	670	662	0	Yes
16:15 - 17:15	498	+	128	=	626	711	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	No
15:45 - 16:45	438	+	114	=	552	624	0	No
07:15 - 08:15	464	+	74	=	538	214	0	No
15:30 - 16:30	420	+	105	=	525	588	0	No
07:30 - 08:30	441	+	77	=	518	199	0	No
07:00 - 08:00	458	+	51	=	509	202	0	No
15:15 - 16:15	419	+	90	=	509	526	0	No
15:00 - 16:00	413	+	78	=	491	487	0	No
07:45 - 08:45	399	+	80	=	479	213	0	No
06:45 - 07:45	429	+	49	=	478	193	0	No
11:45 - 12:45	416	+	61	=	477	260	0	No
11:30 - 12:30	401	+	73	=	474	257	0	No
11:15 - 12:15	392	+	70	=	462	249	0	No
12:00 - 13:00	388	+	71	=	459	261	0	No
12:15 - 13:15	379	+	74	=	453	260	0	No
14:45 - 15:45	375	+	66	=	441	450	0	No
08:00 - 09:00	357	+	83	=	440	218	0	No
12:30 - 13:30	354	+	83	=	437	259	0	No
11:00 - 12:00	373	+	62	=	435	224	0	No
12:45 - 13:45	341	+	91	=	432	283	0	No
14:30 - 15:30	354	+	66	=	420	401	0	No
06:30 - 07:30	366	+	47	=	413	184	0	No
14:15 - 15:15	340		66		406	369	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 4 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480** **720**
Veh/Hr Minor EB = **160** **80**
Veh/Hr Minor WB = **120** **60**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
07:00 - 08:00	458	+	51	=	509	202	0	Yes
15:00 - 16:00	413	+	78	=	491	487	0	Yes
06:45 - 07:45	429	+	49	=	478	193	0	No
11:45 - 12:45	416	+	61	=	477	260	0	No
11:30 - 12:30	401	+	73	=	474	257	0	No
11:15 - 12:15	392	+	70	=	462	249	0	No
12:00 - 13:00	388	+	71	=	459	261	0	No
12:15 - 13:15	379	+	74	=	453	260	0	No
18:00 - 19:00	359	+	90	=	449	454	0	No
14:45 - 15:45	375		66		441	450	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
07:00 - 08:00	458	+	51	=	509	202	0	Yes
15:00 - 16:00	413	+	78	=	491	487	0	Yes
06:45 - 07:45	429	+	49	=	478	193	0	No
11:45 - 12:45	416	+	61	=	477	260	0	No
11:30 - 12:30	401	+	73	=	474	257	0	No
11:15 - 12:15	392	+	70	=	462	249	0	No
12:00 - 13:00	388	+	71	=	459	261	0	No
12:15 - 13:15	379	+	74	=	453	260	0	No
18:00 - 19:00	359	+	90	=	449	454	0	No
14:45 - 15:45	375		66		441	450	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

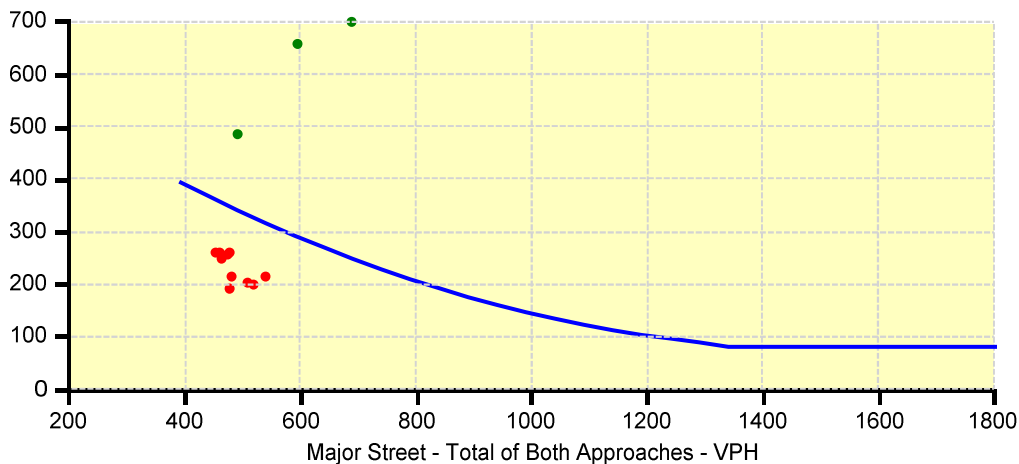
Summary

Only 3 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
15:00 - 16:00	413	+	78	=	491	487	0	Yes
07:15 - 08:15	464	+	74	=	538	214	0	No
07:30 - 08:30	441	+	77	=	518	199	0	No
07:00 - 08:00	458	+	51	=	509	202	0	No
07:45 - 08:45	399	+	80	=	479	213	0	No
06:45 - 07:45	429	+	49	=	478	193	0	No
11:45 - 12:45	416	+	61	=	477	260	0	No
11:30 - 12:30	401	+	73	=	474	257	0	No
11:15 - 12:15	392	+	70	=	462	249	0	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

16 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:45 - 17:45	1432	Yes	742	-	Yes	0	-	---	Yes
17:00 - 18:00	1409	Yes	722	-	Yes	0	-	---	Yes
16:30 - 17:30	1401	Yes	723	-	Yes	0	-	---	Yes
16:15 - 17:15	1337	Yes	711	-	Yes	0	-	---	Yes
17:15 - 18:15	1332	Yes	662	-	Yes	0	-	---	Yes
16:00 - 17:00	1253	Yes	659	-	Yes	0	-	---	Yes
17:30 - 18:30	1217	Yes	602	-	Yes	0	-	---	Yes
15:45 - 16:45	1176	Yes	624	-	Yes	0	-	---	Yes
15:30 - 16:30	1113	Yes	588	-	Yes	0	-	---	Yes
17:45 - 18:45	1057	Yes	519	-	Yes	0	-	---	Yes
15:15 - 16:15	1035	Yes	526	-	Yes	0	-	---	Yes
15:00 - 16:00	978	Yes	487	-	Yes	0	-	---	Yes
18:00 - 19:00	903	Yes	454	-	Yes	0	-	---	Yes
14:45 - 15:45	891	Yes	450	-	Yes	0	-	---	Yes
14:30 - 15:30	821	Yes	401	-	Yes	0	-	---	Yes
18:15 - 19:15	816	Yes	418	-	Yes	0	-	---	Yes
14:15 - 15:15	775	No	369	-	Yes	0	-	---	No
07:15 - 08:15	752	No	214	-	Yes	0	-	---	No
18:30 - 19:30	740	No	363	-	Yes	0	-	---	No
11:45 - 12:45	737	No	260	-	Yes	0	-	---	No
14:00 - 15:00	733	No	351	-	Yes	0	-	---	No
11:30 - 12:30	731	No	257	-	Yes	0	-	---	No
12:00 - 13:00	720	No	261	-	Yes	0	-	---	No
18:45 - 19:45	718	No	344	-	Yes	0	-	---	No
07:30 - 08:30	717	No	199	-	Yes	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1t-(5)-Beechmont Circle & Wilmer Ave

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

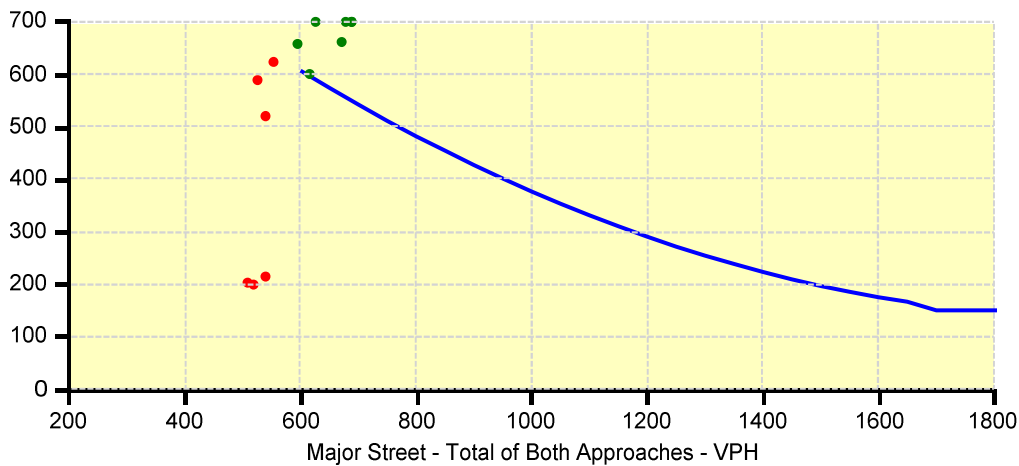
Summary

7 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **Mixed**

Major Road WILMER AVE						Minor Road BEECHMONT CIRCLE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	565	+	125	=	690	742	0	Yes
17:00 - 18:00	566	+	121	=	687	722	0	Yes
16:30 - 17:30	557	+	121	=	678	723	0	Yes
17:15 - 18:15	545	+	125	=	670	662	0	Yes
16:15 - 17:15	498	+	128	=	626	711	0	Yes
17:30 - 18:30	493	+	122	=	615	602	0	Yes
16:00 - 17:00	466	+	128	=	594	659	0	Yes
15:45 - 16:45	438	+	114	=	552	624	0	No
07:15 - 08:15	464	+	74	=	538	214	0	No
17:45 - 18:45	434	+	104	=	538	519	0	No
15:30 - 16:30	420	+	105	=	525	588	0	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Northbound: EASTERN AVE

Number of Lanes : 1

Total Approach Volume: 1,325

Southbound: EASTERN AVE

Number of Lanes : 1

Total Approach Volume: 3,756

Minor Street Approaches

Eastbound: LINWOOD AVE

Number of Lanes : 2+

Total Approach Volume: 2,451

Westbound: None

Number of Lanes : 2+

Total Approach Volume: 8

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	162	+	454	=	616	165	1	No
17:00 - 18:00	132	+	445	=	577	159	1	No
16:30 - 17:30	143	+	422	=	565	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
16:15 - 17:15	128	+	395	=	523	146	1	No
16:00 - 17:00	119	+	402	=	521	164	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
15:00 - 16:00	89	+	352	=	441	143	0	No
18:00 - 19:00	78	+	327	=	405	110	2	No
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No
18:15 - 19:15	72	+	278	=	350	100	1	No
07:30 - 08:30	140	+	203	=	343	365	0	No
07:00 - 08:00	143	+	189	=	332	449	0	No
14:30 - 15:30	68	+	253	=	321	145	0	No
06:45 - 07:45	139	+	175	=	314	390	0	No
07:45 - 08:45	126	+	187	=	313	332	0	No
08:00 - 09:00	112	+	198	=	310	264	0	No
18:30 - 19:30	66	+	233	=	299	77	2	No
14:15 - 15:15	69	+	228	=	297	122	0	No
14:00 - 15:00	76		212		288	115	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
17:00 - 18:00	132	+	445	=	577	159	1	Yes
16:00 - 17:00	119	+	402	=	521	164	1	Yes
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
15:00 - 16:00	89	+	352	=	441	143	0	No
18:00 - 19:00	78	+	327	=	405	110	2	No
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No
18:15 - 19:15	72	+	278	=	350	100	1	No
07:30 - 08:30	140	+	203	=	343	365	0	No
07:00 - 08:00	143	+	189	=	332	449	0	No
14:30 - 15:30	68	+	253	=	321	145	0	No
06:45 - 07:45	139	+	175	=	314	390	0	No
07:45 - 08:45	126	+	187	=	313	332	0	No
08:00 - 09:00	112	+	198	=	310	264	0	No
18:30 - 19:30	66	+	233	=	299	77	2	No
14:15 - 15:15	69	+	228	=	297	122	0	No
14:00 - 15:00	76	+	212	=	288	115	0	No
08:15 - 09:15	91	+	196	=	287	205	0	No
06:30 - 07:30	123	+	158	=	281	342	0	No
12:30 - 13:30	69	+	210	=	279	126	0	No
12:45 - 13:45	61	+	213	=	274	118	0	No
12:15 - 13:15	65	+	208	=	273	123	0	No
13:30 - 14:30	67		195		262	87	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor EB = **160 80**
Veh/Hr Minor WB = **120 60**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	119	+	402	=	521	164	1	Yes
17:00 - 18:00	132	+	445	=	577	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
15:00 - 16:00	89	+	352	=	441	143	0	No
18:00 - 19:00	78	+	327	=	405	110	2	No
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
17:00 - 18:00	132	+	445	=	577	159	1	Yes
16:00 - 17:00	119	+	402	=	521	164	1	Yes
15:00 - 16:00	89	+	352	=	441	143	0	Yes
18:00 - 19:00	78	+	327	=	405	110	2	Yes
14:45 - 15:45	80	+	304	=	384	149	0	No
07:15 - 08:15	147	+	205	=	352	441	0	No
07:30 - 08:30	140	+	203	=	343	365	0	No
07:00 - 08:00	143	+	189	=	332	449	0	No
14:30 - 15:30	68	+	253	=	321	145	0	No
06:45 - 07:45	139	+	175	=	314	390	0	No
07:45 - 08:45	126	+	187	=	313	332	0	No
08:00 - 09:00	112	+	198	=	310	264	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

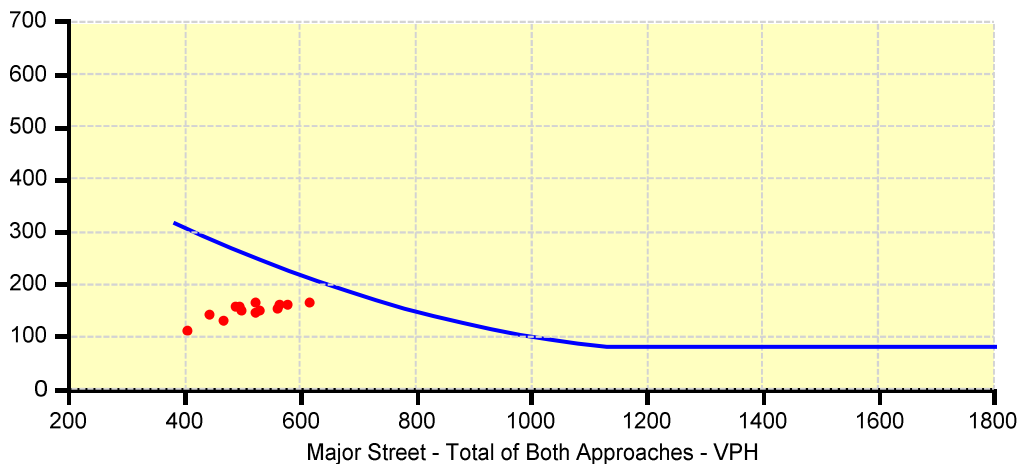
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	162	+	454	=	616	165	1	No
17:00 - 18:00	132	+	445	=	577	159	1	No
16:30 - 17:30	143	+	422	=	565	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
16:15 - 17:15	128	+	395	=	523	146	1	No
16:00 - 17:00	119	+	402	=	521	164	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
							0	No



Eastern Corridor Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road EASTERN AVE						Minor Road LINWOOD AVE			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
07:15 - 08:15	793	No	441	-	Yes	0	-	---	No
16:45 - 17:45	782	No	165	-	Yes	1	-	---	No
07:00 - 08:00	781	No	449	-	Yes	0	-	---	No
17:00 - 18:00	737	No	159	-	Yes	1	-	---	No
16:30 - 17:30	725	No	159	-	Yes	1	-	---	No
17:15 - 18:15	713	No	153	-	Yes	1	-	---	No
07:30 - 08:30	708	No	365	-	Yes	0	-	---	No
06:45 - 07:45	704	No	390	-	Yes	0	-	---	No
16:00 - 17:00	686	No	164	-	Yes	1	-	---	No
17:30 - 18:30	678	No	149	-	No	1	-	---	No
16:15 - 17:15	670	No	146	-	No	1	-	---	No
15:15 - 16:15	652	No	156	-	Yes	1	-	---	No
15:30 - 16:30	649	No	150	-	Yes	1	-	---	No
15:45 - 16:45	645	No	158	-	Yes	1	-	---	No
07:45 - 08:45	645	No	332	-	Yes	0	-	---	No
06:30 - 07:30	623	No	342	-	Yes	0	-	---	No
17:45 - 18:45	596	No	129	-	No	2	-	---	No
15:00 - 16:00	584	No	143	-	No	0	-	---	No
08:00 - 09:00	574	No	264	-	Yes	0	-	---	No
14:45 - 15:45	533	No	149	-	No	0	-	---	No
18:00 - 19:00	517	No	110	-	No	2	-	---	No
08:15 - 09:15	492	No	205	-	Yes	0	-	---	No
06:15 - 07:15	473	No	246	-	Yes	0	-	---	No
14:30 - 15:30	466	No	145	-	No	0	-	---	No
18:15 - 19:15	451	No	100	-	No	1	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 1u-(6)-Eastern Ave & Linwood Ave

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

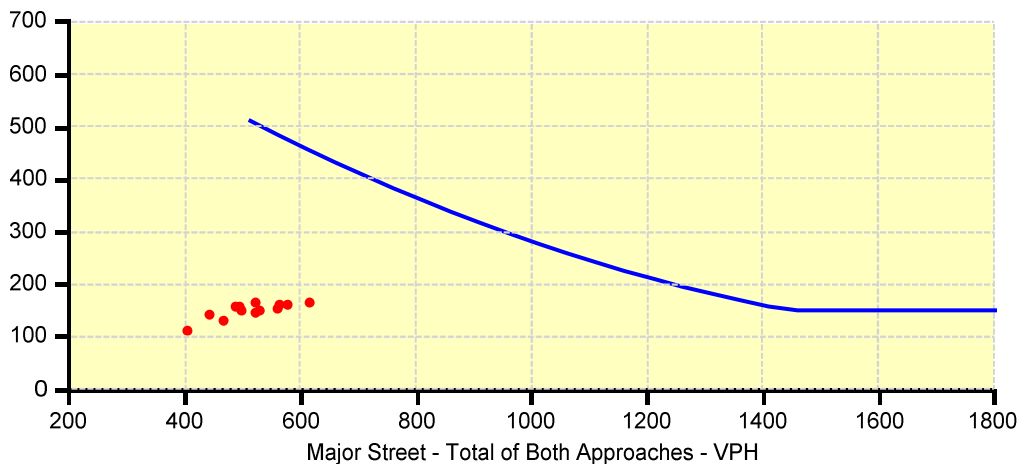
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road EASTERN AVE						Minor Road LINWOOD AVE		Met?
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:45 - 17:45	162	+	454	=	616	165	1	No
17:00 - 18:00	132	+	445	=	577	159	1	No
16:30 - 17:30	143	+	422	=	565	159	1	No
17:15 - 18:15	117	+	442	=	559	153	1	No
17:30 - 18:30	109	+	419	=	528	149	1	No
16:15 - 17:15	128	+	395	=	523	146	1	No
16:00 - 17:00	119	+	402	=	521	164	1	No
15:30 - 16:30	92	+	406	=	498	150	1	No
15:15 - 16:15	101	+	394	=	495	156	1	No
15:45 - 16:45	96	+	390	=	486	158	1	No
17:45 - 18:45	89	+	376	=	465	129	2	No
							0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: US 50

Number of Lanes : 1

Total Approach Volume: 9,489

Westbound: US 50

Number of Lanes :1

Total Approach Volume: 8,144

Minor Street Approaches

Northbound: None

Number of Lanes :2+

Total Approach Volume: 0

Southbound: PLAINVILLE RD

Number of Lanes :1

Total Approach Volume: 1,407

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 10 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 13 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (8) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (20) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road US 50						Minor Road None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:45 - 17:45	1114	+	570	=	1684	0	111	No
17:00 - 18:00	1106	+	547	=	1653	0	111	No
16:30 - 17:30	1097	+	548	=	1645	0	100	No
17:15 - 18:15	1080	+	517	=	1597	0	114	No
16:15 - 17:15	1055	+	510	=	1565	0	93	No
16:00 - 17:00	1031	+	508	=	1539	0	83	No
17:30 - 18:30	1032	+	493	=	1525	0	112	No
17:45 - 18:45	965	+	482	=	1447	0	113	No
15:45 - 16:45	984	+	462	=	1446	0	72	No
07:15 - 08:15	575	+	839	=	1414	0	90	No
07:30 - 08:30	599	+	787	=	1386	0	100	No
07:00 - 08:00	517	+	861	=	1378	0	83	No
07:45 - 08:45	540	+	779	=	1319	0	113	No
15:30 - 16:30	880	+	432	=	1312	0	68	No
18:00 - 19:00	856	+	456	=	1312	0	114	No
06:45 - 07:45	456	+	837	=	1293	0	70	No
15:15 - 16:15	830	+	461	=	1291	0	74	No
15:00 - 16:00	806	+	451	=	1257	0	85	No
08:00 - 09:00	509	+	746	=	1255	0	116	No
14:30 - 15:30	729	+	509	=	1238	0	100	No
14:45 - 15:45	746	+	466	=	1212	0	98	No
18:15 - 19:15	756	+	440	=	1196	0	94	No
08:15 - 09:15	452	+	744	=	1196	0	117	No
06:30 - 07:30	352	+	789	=	1141	0	61	No
14:15 - 15:15	641		492		1133	0	98	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1106	+	547	=	1653	0	111	Yes
16:00 - 17:00	1031	+	508	=	1539	0	83	Yes
07:00 - 08:00	517	+	861	=	1378	0	83	Yes
18:00 - 19:00	856	+	456	=	1312	0	114	Yes
08:00 - 09:00	509	+	746	=	1255	0	116	Yes
14:45 - 15:45	746	+	466	=	1212	0	98	Yes
11:45 - 12:45	596	+	475	=	1071	0	120	Yes
12:45 - 13:45	571	+	477	=	1048	0	91	Yes
13:45 - 14:45	497	+	477	=	974	0	77	Yes
10:45 - 11:45	472	+	456	=	928	0	89	Yes
15:45 - 16:45	984	+	462	=	1446	0	72	No
06:45 - 07:45	456	+	837	=	1293	0	70	No
06:30 - 07:30	352	+	789	=	1141	0	61	No
09:00 - 10:00	409	+	545	=	954	0	72	No
06:15 - 07:15	287	+	656	=	943	0	45	No
09:30 - 10:30	427	+	439	=	866	0	58	No
09:15 - 10:15	394	+	467	=	861	0	65	No
10:15 - 11:15	437	+	404	=	841	0	52	No
10:30 - 11:30	419	+	417	=	836	0	60	No
09:45 - 10:45	408	+	400	=	808	0	55	No
10:00 - 11:00	404	+	384	=	788	0	55	No
19:00 - 20:00	440	+	323	=	763	0	50	No
06:00 - 07:00	217	+	525	=	742	0	36	No
19:15 - 20:15	378	+	292	=	670	0	52	No
19:30 - 20:30	386		260		646	0	57	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
13 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road						Minor Road		
US 50						None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
11:15 - 12:15	544	+	473	=	1017	0	121	Yes
16:45 - 17:45	1114	+	570	=	1684	0	111	No
17:00 - 18:00	1106	+	547	=	1653	0	111	No
16:30 - 17:30	1097	+	548	=	1645	0	100	No
17:15 - 18:15	1080	+	517	=	1597	0	114	No
16:15 - 17:15	1055	+	510	=	1565	0	93	No
16:00 - 17:00	1031	+	508	=	1539	0	83	No
17:30 - 18:30	1032	+	493	=	1525	0	112	No
17:45 - 18:45	965	+	482	=	1447	0	113	No
15:45 - 16:45	984	+	462	=	1446	0	72	No
07:15 - 08:15	575	+	839	=	1414	0	90	No
07:30 - 08:30	599	+	787	=	1386	0	100	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	1097	+	548	=	1645	0	100	Yes
17:30 - 18:30	1032	+	493	=	1525	0	112	Yes
07:30 - 08:30	599	+	787	=	1386	0	100	Yes
15:30 - 16:30	880	+	432	=	1312	0	68	Yes
14:30 - 15:30	729	+	509	=	1238	0	100	Yes
06:30 - 07:30	352	+	789	=	1141	0	61	Yes
08:30 - 09:30	407	+	690	=	1097	0	105	Yes
11:30 - 12:30	599	+	486	=	1085	0	129	Yes
12:30 - 13:30	562	+	488	=	1050	0	111	Yes
18:30 - 19:30	615	+	400	=	1015	0	79	Yes
13:30 - 14:30	515	+	457	=	972	0	73	Yes
10:30 - 11:30	419	+	417	=	836	0	60	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

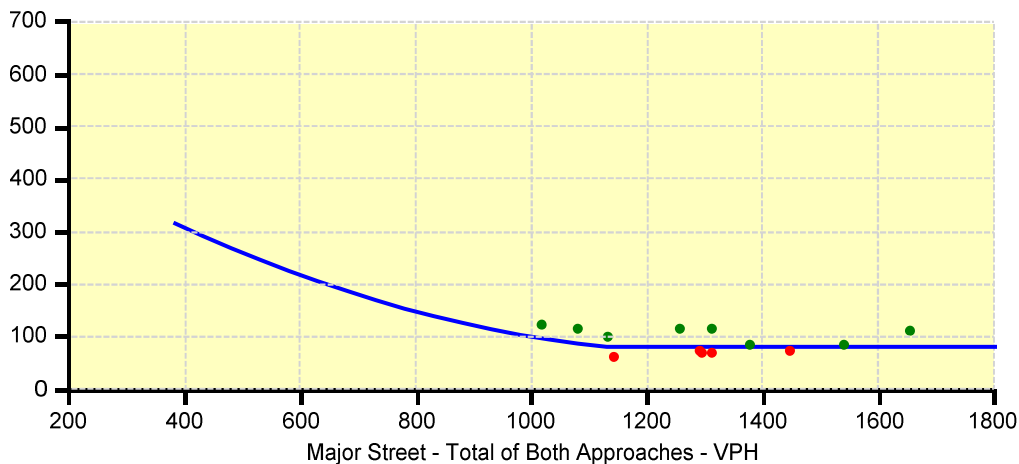
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
17:00 - 18:00	1106	+	547	=	1653	0	111	Yes
16:00 - 17:00	1031	+	508	=	1539	0	83	Yes
07:00 - 08:00	517	+	861	=	1378	0	83	Yes
18:00 - 19:00	856	+	456	=	1312	0	114	Yes
08:00 - 09:00	509	+	746	=	1255	0	116	Yes
14:15 - 15:15	641	+	492	=	1133	0	98	Yes
12:15 - 13:15	591	+	490	=	1081	0	114	Yes
11:15 - 12:15	544	+	473	=	1017	0	121	Yes
15:45 - 16:45	984	+	462	=	1446	0	72	No
15:30 - 16:30	880	+	432	=	1312	0	68	No
06:45 - 07:45	456	+	837	=	1293	0	70	No
							74	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

52 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = 800

Veh/Hr Minor = 100

Total Delay (Veh-Hrs) = 4

Major Road						Minor Road			
US 50						None			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:45 - 17:45	1795	Yes	0	-	---	111	-	Yes	Yes
17:00 - 18:00	1764	Yes	0	-	---	111	-	Yes	Yes
16:30 - 17:30	1745	Yes	0	-	---	100	-	Yes	Yes
17:15 - 18:15	1711	Yes	0	-	---	114	-	Yes	Yes
17:30 - 18:30	1637	Yes	0	-	---	112	-	Yes	Yes
17:45 - 18:45	1560	Yes	0	-	---	113	-	Yes	Yes
07:30 - 08:30	1486	Yes	0	-	---	100	-	Yes	Yes
07:45 - 08:45	1432	Yes	0	-	---	113	-	Yes	Yes
18:00 - 19:00	1426	Yes	0	-	---	114	-	Yes	Yes
08:00 - 09:00	1371	Yes	0	-	---	116	-	Yes	Yes
14:30 - 15:30	1338	Yes	0	-	---	100	-	Yes	Yes
08:15 - 09:15	1313	Yes	0	-	---	117	-	Yes	Yes
11:30 - 12:30	1214	Yes	0	-	---	129	-	Yes	Yes
12:00 - 13:00	1214	Yes	0	-	---	130	-	Yes	Yes
08:30 - 09:30	1202	Yes	0	-	---	105	-	Yes	Yes
12:15 - 13:15	1195	Yes	0	-	---	114	-	Yes	Yes
11:45 - 12:45	1191	Yes	0	-	---	120	-	Yes	Yes
12:30 - 13:30	1161	Yes	0	-	---	111	-	Yes	Yes
11:15 - 12:15	1138	Yes	0	-	---	121	-	Yes	Yes
11:00 - 12:00	1079	Yes	0	-	---	101	-	Yes	Yes
16:15 - 17:15	1658	Yes	0	-	---	93	-	No	No
16:00 - 17:00	1622	Yes	0	-	---	83	-	No	No
15:45 - 16:45	1518	Yes	0	-	---	72	-	No	No
07:15 - 08:15	1504	Yes	0	-	---	90	-	No	No
07:00 - 08:00	1461	Yes	0	-	---	83	-	No	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2a-14-US50@Plainville

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

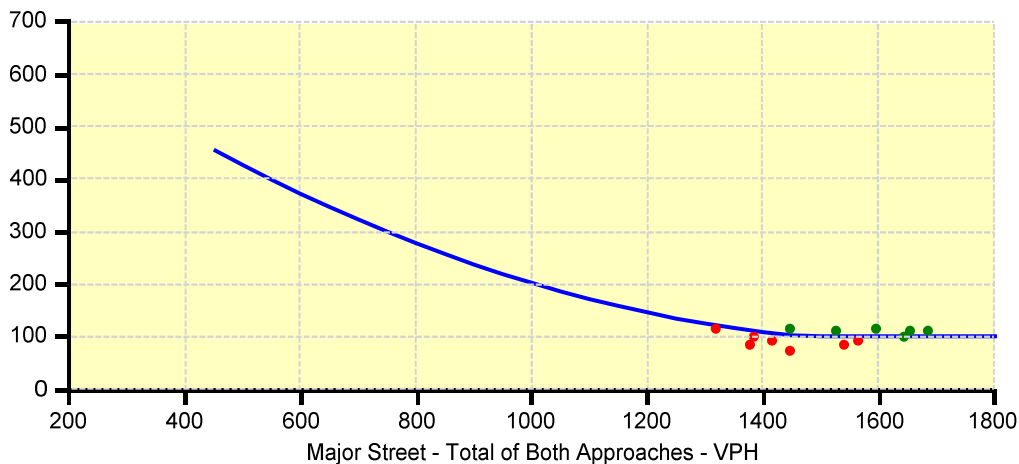
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road US 50						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:45 - 17:45	1114	+	570	=	1684	0	111	Yes
17:00 - 18:00	1106	+	547	=	1653	0	111	Yes
16:30 - 17:30	1097	+	548	=	1645	0	100	Yes
17:15 - 18:15	1080	+	517	=	1597	0	114	Yes
17:30 - 18:30	1032	+	493	=	1525	0	112	Yes
17:45 - 18:45	965	+	482	=	1447	0	113	Yes
16:15 - 17:15	1055	+	510	=	1565	0	93	No
16:00 - 17:00	1031	+	508	=	1539	0	83	No
15:45 - 16:45	984	+	462	=	1446	0	72	No
07:15 - 08:15	575	+	839	=	1414	0	90	No
07:30 - 08:30	599	+	787	=	1386	0	100	No
							83	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 32

Number of Lanes : 1

Total Approach Volume: 8,461

Westbound: SR 32

Number of Lanes :1

Total Approach Volume: 10,545

Minor Street Approaches

Northbound: 8 MILE RD

Number of Lanes :2+

Total Approach Volume: 1,654

Southbound: None

Number of Lanes :2+

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 9 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 12 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (5) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road SR 32						Minor Road 8 MILE RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:15 - 17:15	1022	+	787	=	1809	142	0	No
16:30 - 17:30	965	+	831	=	1796	158	0	No
16:45 - 17:45	958	+	814	=	1772	155	0	No
17:00 - 18:00	933	+	810	=	1743	154	0	No
16:00 - 17:00	956	+	723	=	1679	126	0	No
17:15 - 18:15	884	+	774	=	1658	138	0	No
15:45 - 16:45	916	+	729	=	1645	133	0	No
07:00 - 08:00	425	+	1160	=	1585	165	0	No
17:30 - 18:30	866	+	713	=	1579	135	0	No
15:30 - 16:30	893	+	681	=	1574	134	0	No
06:45 - 07:45	340	+	1194	=	1534	155	0	No
15:15 - 16:15	839	+	648	=	1487	141	0	No
17:45 - 18:45	802	+	672	=	1474	128	0	No
07:15 - 08:15	434	+	1016	=	1450	147	0	No
06:30 - 07:30	288	+	1158	=	1446	144	0	No
15:00 - 16:00	803	+	621	=	1424	133	0	No
14:45 - 15:45	768	+	622	=	1390	117	0	No
07:30 - 08:30	436	+	922	=	1358	134	0	No
14:30 - 15:30	694	+	630	=	1324	120	0	No
18:00 - 19:00	695	+	624	=	1319	120	0	No
06:15 - 07:15	244	+	1074	=	1318	118	0	No
14:15 - 15:15	625	+	640	=	1265	110	0	No
07:45 - 08:45	422	+	814	=	1236	119	0	No
14:00 - 15:00	564	+	635	=	1199	103	0	No
18:15 - 19:15	596		558		1154	100	0	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road SR 32						Minor Road 8 MILE RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	933	+	810	=	1743	154	0	Yes
16:00 - 17:00	956	+	723	=	1679	126	0	Yes
07:15 - 08:15	434	+	1016	=	1450	147	0	Yes
15:00 - 16:00	803	+	621	=	1424	133	0	Yes
18:00 - 19:00	695	+	624	=	1319	120	0	Yes
06:15 - 07:15	244	+	1074	=	1318	118	0	Yes
14:00 - 15:00	564	+	635	=	1199	103	0	Yes
08:15 - 09:15	380	+	655	=	1035	104	0	Yes
11:00 - 12:00	426	+	554	=	980	104	0	Yes
13:45 - 14:45	502	+	585	=	1087	94	0	No
13:30 - 14:30	494	+	567	=	1061	81	0	No
06:00 - 07:00	191	+	861	=	1052	83	0	No
13:15 - 14:15	487	+	539	=	1026	82	0	No
13:00 - 14:00	473	+	539	=	1012	92	0	No
12:45 - 13:45	470	+	500	=	970	99	0	No
10:45 - 11:45	402	+	557	=	959	98	0	No
10:15 - 11:15	373	+	554	=	927	78	0	No
12:00 - 13:00	444	+	482	=	926	83	0	No
12:30 - 13:30	442	+	473	=	915	97	0	No
10:30 - 11:30	372	+	543	=	915	92	0	No
12:15 - 13:15	414	+	487	=	901	87	0	No
09:45 - 10:45	378	+	521	=	899	81	0	No
09:30 - 10:30	362	+	530	=	892	86	0	No
10:00 - 11:00	366	+	513	=	879	73	0	No
09:15 - 10:15	344		528		872	98	0	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
12 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road						Minor Road		
SR 32						8 MILE RD		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
07:00 - 08:00	425	+	1160	=	1585	165	0	Yes
16:15 - 17:15	1022	+	787	=	1809	142	0	No
16:30 - 17:30	965	+	831	=	1796	158	0	No
16:45 - 17:45	958	+	814	=	1772	155	0	No
17:00 - 18:00	933	+	810	=	1743	154	0	No
16:00 - 17:00	956	+	723	=	1679	126	0	No
17:15 - 18:15	884	+	774	=	1658	138	0	No
15:45 - 16:45	916	+	729	=	1645	133	0	No
17:30 - 18:30	866	+	713	=	1579	135	0	No
15:30 - 16:30	893	+	681	=	1574	134	0	No
06:45 - 07:45	340	+	1194	=	1534	155	0	No
15:15 - 16:15	839	+	648	=	1487	141	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	965	+	831	=	1796	158	0	Yes
07:00 - 08:00	425	+	1160	=	1585	165	0	Yes
17:30 - 18:30	866	+	713	=	1579	135	0	Yes
15:30 - 16:30	893	+	681	=	1574	134	0	Yes
14:30 - 15:30	694	+	630	=	1324	120	0	Yes
08:00 - 09:00	386	+	704	=	1090	108	0	Yes
13:30 - 14:30	494	+	567	=	1061	81	0	Yes
06:00 - 07:00	191	+	861	=	1052	83	0	Yes
11:30 - 12:30	451	+	551	=	1002	92	0	Yes
09:00 - 10:00	331	+	587	=	918	106	0	Yes
12:30 - 13:30	442	+	473	=	915	97	0	Yes
10:30 - 11:30	372	+	543	=	915	92	0	Yes

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

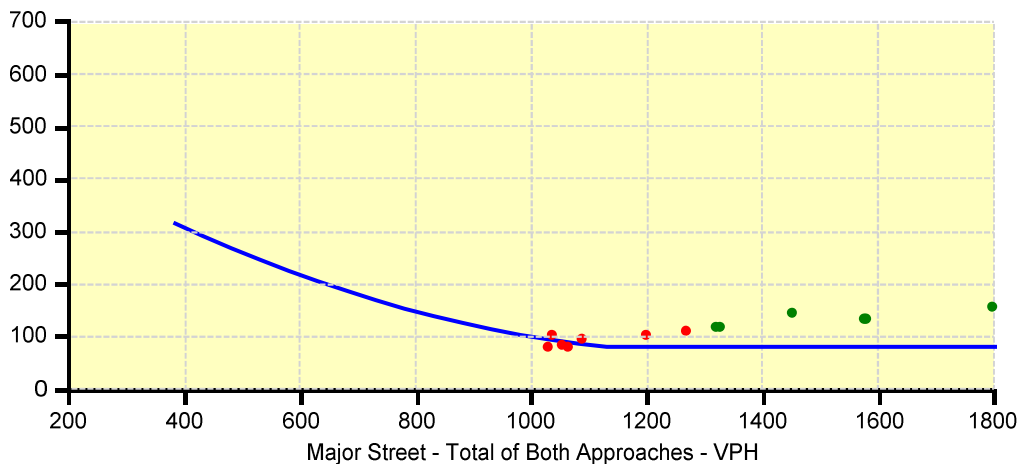
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road 8 MILE RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	965	+	831	=	1796	158	0	Yes
17:30 - 18:30	866	+	713	=	1579	135	0	Yes
15:30 - 16:30	893	+	681	=	1574	134	0	Yes
07:15 - 08:15	434	+	1016	=	1450	147	0	Yes
14:30 - 15:30	694	+	630	=	1324	120	0	Yes
06:15 - 07:15	244	+	1074	=	1318	118	0	Yes
14:15 - 15:15	625	+	640	=	1265	110	0	No
14:00 - 15:00	564	+	635	=	1199	103	0	No
13:45 - 14:45	502	+	585	=	1087	94	0	No
13:30 - 14:30	494	+	567	=	1061	81	0	No
06:00 - 07:00	191	+	861	=	1052	83	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

55 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Number of Minor Lanes = **2 or more**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **150**

Total Delay (Veh-Hrs) = **5**

Major Road						Minor Road			
SR 32						8 MILE RD			
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?
16:30 - 17:30	1954	Yes	158	-	Yes	0	-	---	Yes
16:45 - 17:45	1927	Yes	155	-	Yes	0	-	---	Yes
17:00 - 18:00	1897	Yes	154	-	Yes	0	-	---	Yes
07:00 - 08:00	1750	Yes	165	-	Yes	0	-	---	Yes
06:45 - 07:45	1689	Yes	155	-	Yes	0	-	---	Yes
16:15 - 17:15	1951	Yes	142	-	No	0	-	---	No
16:00 - 17:00	1805	Yes	126	-	No	0	-	---	No
17:15 - 18:15	1796	Yes	138	-	No	0	-	---	No
15:45 - 16:45	1778	Yes	133	-	No	0	-	---	No
17:30 - 18:30	1714	Yes	135	-	No	0	-	---	No
15:30 - 16:30	1708	Yes	134	-	No	0	-	---	No
15:15 - 16:15	1628	Yes	141	-	No	0	-	---	No
17:45 - 18:45	1602	Yes	128	-	No	0	-	---	No
07:15 - 08:15	1597	Yes	147	-	No	0	-	---	No
06:30 - 07:30	1590	Yes	144	-	No	0	-	---	No
15:00 - 16:00	1557	Yes	133	-	No	0	-	---	No
14:45 - 15:45	1507	Yes	117	-	No	0	-	---	No
07:30 - 08:30	1492	Yes	134	-	No	0	-	---	No
14:30 - 15:30	1444	Yes	120	-	No	0	-	---	No
18:00 - 19:00	1439	Yes	120	-	No	0	-	---	No
06:15 - 07:15	1436	Yes	118	-	No	0	-	---	No
14:15 - 15:15	1375	Yes	110	-	No	0	-	---	No
07:45 - 08:45	1355	Yes	119	-	No	0	-	---	No
14:00 - 15:00	1302	Yes	103	-	No	0	-	---	No
18:15 - 19:15	1254	Yes	100	-	No	0	-	---	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2b-03-US32@8-Mile

Study Date : 1/24/2018

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

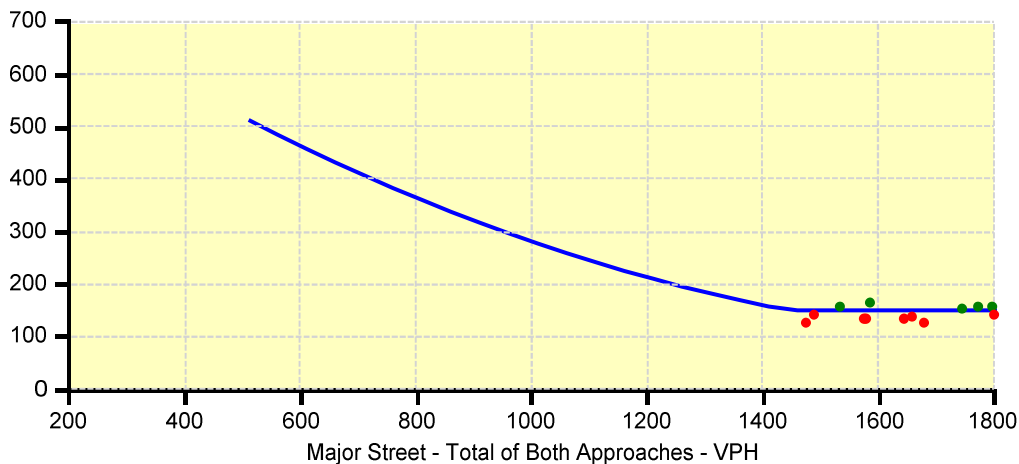
Summary

5 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road SR 32						Minor Road 8 MILE RD		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:30 - 17:30	965	+	831	=	1796	158	0	Yes
16:45 - 17:45	958	+	814	=	1772	155	0	Yes
17:00 - 18:00	933	+	810	=	1743	154	0	Yes
07:00 - 08:00	425	+	1160	=	1585	165	0	Yes
06:45 - 07:45	340	+	1194	=	1534	155	0	Yes
16:15 - 17:15	1022	+	787	=	1809	142	0	No
16:00 - 17:00	956	+	723	=	1679	126	0	No
17:15 - 18:15	884	+	774	=	1658	138	0	No
15:45 - 16:45	916	+	729	=	1645	133	0	No
17:30 - 18:30	866	+	713	=	1579	135	0	No
15:30 - 16:30	893	+	681	=	1574	134	0	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Signal Warrants - Summary

Major Street Approaches

Eastbound: BEECHMONT CIRCLE

Number of Lanes : 1

Total Approach Volume: 5,193

Westbound: BEECHMONT CIRCLE

Number of Lanes : 1

Total Approach Volume: 1,497

Minor Street Approaches

Northbound: None

Number of Lanes : 2+

Total Approach Volume: 0

Southbound: WOOSTER RD

Number of Lanes : 1

Total Approach Volume: 996

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 1 hours, 8 are needed

Required 1B volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **200 150**

Major Road BEECHMONT CIRCLE						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
17:15 - 18:15	449	+	78	=	527	0	96	No
08:00 - 09:00	381	+	143	=	524	0	48	No
17:00 - 18:00	426	+	83	=	509	0	111	No
16:15 - 17:15	380	+	105	=	485	0	117	No
08:15 - 09:15	360	+	125	=	485	0	40	No
18:00 - 19:00	400	+	81	=	481	0	89	No
06:15 - 07:15	375	+	99	=	474	0	26	No
16:30 - 17:30	374	+	98	=	472	0	127	No
16:00 - 17:00	364	+	105	=	469	0	81	No
16:45 - 17:45	374	+	89	=	463	0	111	No
18:15 - 19:15	371	+	83	=	454	0	95	No
08:30 - 09:30	333	+	110	=	443	0	43	No
15:45 - 16:45	339	+	95	=	434	0	76	No
13:00 - 14:00	304	+	115	=	419	0	42	No
12:30 - 13:30	282	+	135	=	417	0	50	No
12:45 - 13:45	290	+	122	=	412	0	52	No
06:00 - 07:00	315		95		410	0	18	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **100 75**

Major Road BEECHMONT CIRCLE						Minor Road None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
17:00 - 18:00	426	+	83	=	509	0	111	Yes
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
06:30 - 07:30	419	+	119	=	538	0	29	No
08:00 - 09:00	381	+	143	=	524	0	48	No
16:15 - 17:15	380	+	105	=	485	0	117	No
08:15 - 09:15	360	+	125	=	485	0	40	No
18:00 - 19:00	400	+	81	=	481	0	89	No
06:15 - 07:15	375	+	99	=	474	0	26	No
16:30 - 17:30	374	+	98	=	472	0	127	No
16:00 - 17:00	364	+	105	=	469	0	81	No
16:45 - 17:45	374	+	89	=	463	0	111	No
18:15 - 19:15	371	+	83	=	454	0	95	No
08:30 - 09:30	333	+	110	=	443	0	43	No
15:45 - 16:45	339	+	95	=	434	0	76	No
13:00 - 14:00	304	+	115	=	419	0	42	No
12:30 - 13:30	282	+	135	=	417	0	50	No
12:45 - 13:45	290	+	122	=	412	0	52	No
06:00 - 07:00	315	+	95	=	410	0	18	No
15:30 - 16:30	324	+	83	=	407	0	72	No
18:30 - 19:30	320	+	80	=	400	0	91	No
13:15 - 14:15	299		95		394	0	54	No

Eastern Corridor Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 1 hours meet 1A minimums.
Only 4 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**
Veh/Hr Minor NB = **160 80**
Veh/Hr Minor SB = **120 60**

Major Road BEECHMONT CIRCLE						Minor Road None		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:30 - 17:30	374	+	98	=	472	0	127	Yes
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
08:00 - 09:00	381	+	143	=	524	0	48	No
08:15 - 09:15	360	+	125	=	485	0	40	No
16:15 - 17:15	380		105		485	0	117	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
17:30 - 18:30	468	+	85	=	553	0	95	Yes
16:30 - 17:30	374	+	98	=	472	0	127	Yes
15:30 - 16:30	324	+	83	=	407	0	72	Yes
18:30 - 19:30	320	+	80	=	400	0	91	Yes
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
06:30 - 07:30	419	+	119	=	538	0	29	No
08:00 - 09:00	381	+	143	=	524	0	48	No
08:15 - 09:15	360		125		485	0	40	No

Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

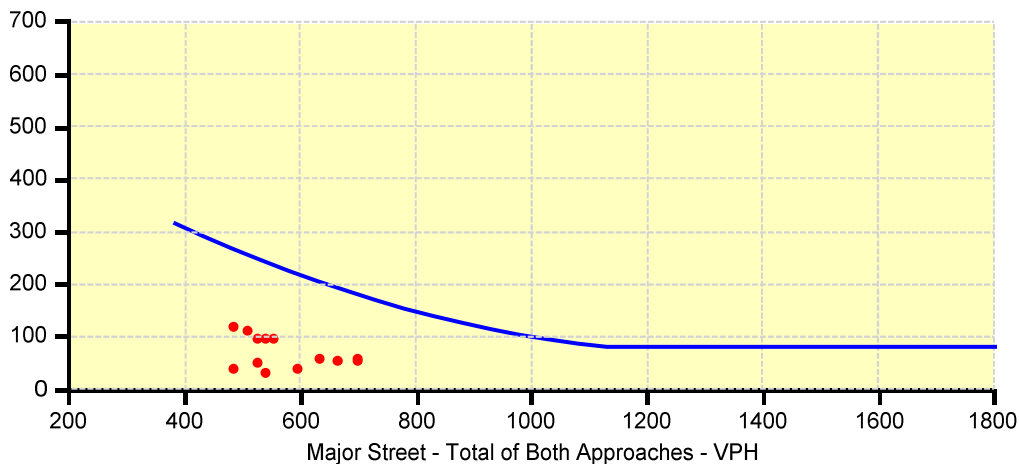
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road BEECHMONT CIRCLE						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
17:15 - 18:15	449	+	78	=	527	0	96	No
08:00 - 09:00	381	+	143	=	524	0	48	No
17:00 - 18:00	426	+	83	=	509	0	111	No
							117	No



Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =1

Volume and Delay Requirements

Veh/Hr All Approaches = **800**

Veh/Hr Minor = **100**

Total Delay (Veh-Hrs) = **4**

Major Road						Minor Road				
BEECHMONT CIRCLE						None				
Time	Total of All Approaches	Met?	Minor NB	Delay NB	Met?	Minor SB	Delay SB	Met?	Warrant Met?	
07:15 - 08:15	753	No	0	-	---	56	-	No	No	
07:00 - 08:00	749	No	0	-	---	52	-	No	No	
07:30 - 08:30	720	No	0	-	---	55	-	No	No	
07:45 - 08:45	691	No	0	-	---	58	-	No	No	
17:30 - 18:30	648	No	0	-	---	95	-	No	No	
17:45 - 18:45	638	No	0	-	---	97	-	No	No	
06:45 - 07:45	633	No	0	-	---	38	-	No	No	
17:15 - 18:15	623	No	0	-	---	96	-	No	No	
17:00 - 18:00	620	No	0	-	---	111	-	Yes	No	
16:15 - 17:15	602	No	0	-	---	117	-	Yes	No	
16:30 - 17:30	599	No	0	-	---	127	-	Yes	No	
16:45 - 17:45	574	No	0	-	---	111	-	Yes	No	
08:00 - 09:00	572	No	0	-	---	48	-	No	No	
18:00 - 19:00	570	No	0	-	---	89	-	No	No	
06:30 - 07:30	567	No	0	-	---	29	-	No	No	
16:00 - 17:00	550	No	0	-	---	81	-	No	No	
18:15 - 19:15	549	No	0	-	---	95	-	No	No	
08:15 - 09:15	525	No	0	-	---	40	-	No	No	
15:45 - 16:45	510	No	0	-	---	76	-	No	No	
06:15 - 07:15	500	No	0	-	---	26	-	No	No	
18:30 - 19:30	491	No	0	-	---	91	-	No	No	
18:45 - 19:45	489	No	0	-	---	106	-	Yes	No	
19:00 - 20:00	486	No	0	-	---	123	-	Yes	No	
08:30 - 09:30	486	No	0	-	---	43	-	No	No	
15:30 - 16:30	479	No	0	-	---	72	-	No	No	

Eastern Corridor

Traffic Signal Warrants

Study Name: 2c-(4)-Beechmont Circle & Wooster Rd

Study Date : 12/20/2017

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

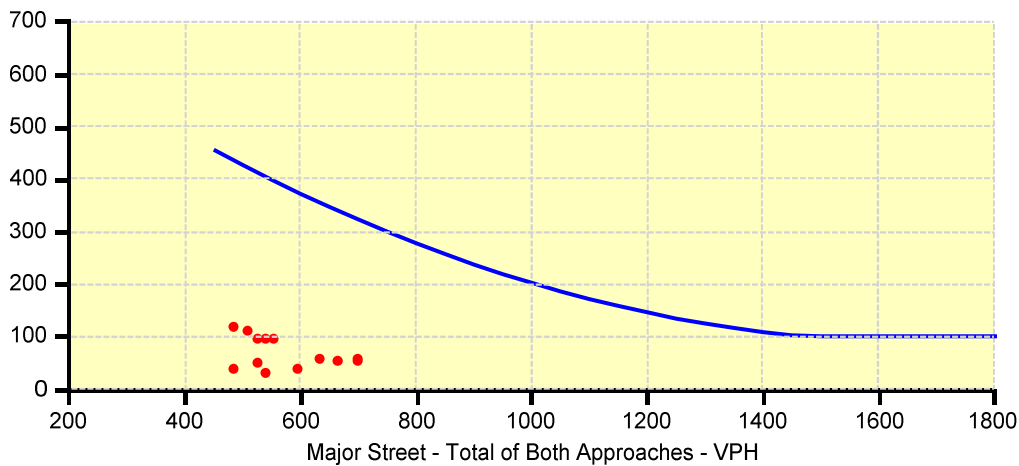
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **Mixed**

Major Road BEECHMONT CIRCLE						Minor Road None		Met?
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
07:00 - 08:00	571	+	126	=	697	0	52	No
07:15 - 08:15	556	+	141	=	697	0	56	No
07:30 - 08:30	524	+	141	=	665	0	55	No
07:45 - 08:45	483	+	150	=	633	0	58	No
06:45 - 07:45	476	+	119	=	595	0	38	No
17:30 - 18:30	468	+	85	=	553	0	95	No
17:45 - 18:45	458	+	83	=	541	0	97	No
06:30 - 07:30	419	+	119	=	538	0	29	No
17:15 - 18:15	449	+	78	=	527	0	96	No
08:00 - 09:00	381	+	143	=	524	0	48	No
17:00 - 18:00	426	+	83	=	509	0	111	No
							117	No



HCS7 Signalized Intersection Results Summary

General Information						Intersection Information													
Agency						Duration, h		0.25											
Analyst		MJH		Analysis Date		Dec 13, 2017		Area Type		Other									
Jurisdiction				Time Period		PM Peak Hour		PHF		0.90									
Urban Street		US 50		Analysis Year		2016		Analysis Period		1> 5:00									
Intersection		US 50 & Promenade S...		File Name		12-Existing-PM.xus													
Project Description		Existing PM Peak Hour																	
Demand Information				EB			WB			NB			SB						
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R				
Demand (v), veh/h					1421	44	18	868		18		31							
Signal Information																			
Cycle, s	50.0	Reference Phase	2																
Offset, s	0	Reference Point	End																
Uncoordinated	Yes	Simult. Gap E/W	On																
Force Mode	Fixed	Simult. Gap N/S	On																
Green	25.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Yellow	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Red	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Timer Results				EBL		EBT		WBL		WBT		NBL		NBT		SBL		SBT	
Assigned Phase						2				6				8					
Case Number						7.0				6.0				9.0					
Phase Duration, s						32.0				32.0				18.0					
Change Period, (Y+R c), s						7.0				7.0				6.0					
Max Allow Headway (MAH), s						3.1				3.1				3.3					
Queue Clearance Time (g s), s						21.6				24.5				2.8					
Green Extension Time (g e), s						2.5				0.4				0.0					
Phase Call Probability						1.00				1.00				1.00					
Max Out Probability						0.98				1.00				0.00					
Movement Group Results				EB			WB			NB			SB						
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R				
Assigned Movement					2	12	1	6		3		18							
Adjusted Flow Rate (v), veh/h					1579	49	20	964		20		34							
Adjusted Saturation Flow Rate (s), veh/h/ln					1795	1610	329	1795		1810		1610							
Queue Service Time (g s), s					19.6	0.8	2.9	9.2		0.4		0.8							
Cycle Queue Clearance Time (g c), s					19.6	0.8	22.5	9.2		0.4		0.8							
Green Ratio (g/C)					0.50	0.50	0.50	0.50		0.24		0.24							
Capacity (c), veh/h					1795	805	179	1795		434		386							
Volume-to-Capacity Ratio (X)					0.880	0.061	0.112	0.537		0.046		0.089							
Back of Queue (Q), ft/ln (95 th percentile)					275.6	8.8	9.1	116.2		6.8		11.9							
Back of Queue (Q), veh/ln (95 th percentile)					10.9	0.4	0.4	4.6		0.3		0.5							
Queue Storage Ratio (RQ) (95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00							
Uniform Delay (d 1), s/veh					11.2	6.4	21.2	8.5		14.6		14.8							
Incremental Delay (d 2), s/veh					5.2	0.0	0.1	0.2		0.0		0.0							
Initial Queue Delay (d 3), s/veh					0.0	0.0	0.0	0.0		0.0		0.0							
Control Delay (d), s/veh					16.4	6.5	21.3	8.7		14.6		14.8							
Level of Service (LOS)					B	A	C	A		B		B							
Approach Delay, s/veh / LOS				16.1	B		9.0	A		14.7	B		0.0						
Intersection Delay, s/veh / LOS				13.4									B						
Multimodal Results				EB			WB			NB			SB						
Pedestrian LOS Score / LOS				2.2	B		0.7	A		2.8	C		2.8	C					
Bicycle LOS Score / LOS				1.8	B		1.3	A			F								

HCS7 Two-Way Stop-Control Report

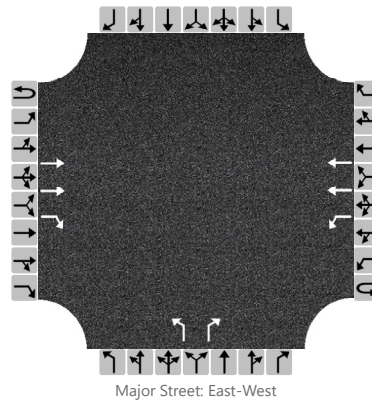
General Information

Analyst	MJH
Agency/Co.	
Date Performed	1/24/2018
Analysis Year	2017
Time Analyzed	PM Peak Hour - Existing
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	US 50 at Promenade S.C.
Jurisdiction	
East/West Street	US 50
North/South Street	Promenade S.C. Driveway
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume, V (veh/h)			1421	44		18	868			18		31				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.10				6.80		6.90				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.20				3.50		3.30				

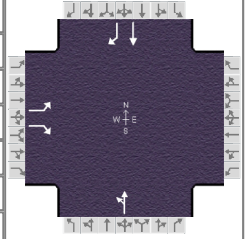
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						20				20		34				
Capacity, c (veh/h)						405				43		337				
v/c Ratio						0.05				0.46		0.10				
95% Queue Length, Q ₉₅ (veh)						0.2				1.6		0.3				
Control Delay (s/veh)						14.4				145.3		16.9				
Level of Service, LOS						B				F		C				
Approach Delay (s/veh)					0.3				64.4							
Approach LOS									F							

HCS7 Signalized Intersection Results Summary

General Information

Agency				Intersection Information		
Analyst	MJH	Analysis Date	Dec 12, 2017	Duration, h	0.25	
Jurisdiction		Time Period	PM PEAK	Area Type	Other	
Urban Street	Eastern Ave	Analysis Year	2017	PHF	0.90	
Intersection	Eastern Ave & Linwood...	File Name	16-Existing-PM.xus	Analysis Period	1> 5:00	
Project Description	Existing PM Peak Hour					



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	145		44				21	111			333	111

Signal Information

Cycle, s	50.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	Yes	Simult. Gap E/W	On	Green	18.0	20.0	0.0	0.0	0.0	0.0	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
				Red	2.0	2.0	0.0	0.0	0.0	0.0	

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8				6		2
Case Number		9.0				8.0		7.0
Phase Duration, s		26.0				24.0		24.0
Change Period, (Y+R _c), s		6.0				6.0		6.0
Max Allow Headway (MAH), s		2.6				2.6		2.6
Queue Clearance Time (g _s), s		5.0				4.7		10.0
Green Extension Time (g _e), s		0.2				0.7		0.6
Phase Call Probability		1.00				1.00		1.00
Max Out Probability		0.00				0.00		0.03

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3		18				1	6		2		12
Adjusted Flow Rate (v), veh/h	161		49				147			370		123
Adjusted Saturation Flow Rate (s), veh/h/ln	1795		1560				1737			1856		1535
Queue Service Time (g _s), s	3.0		1.0				0.0			8.0		2.8
Cycle Queue Clearance Time (g _c), s	3.0		1.0				2.7			8.0		2.8
Green Ratio (g/C)	0.40		0.40				0.36			0.36		0.36
Capacity (c), veh/h	718		624				709			668		553
Volume-to-Capacity Ratio (X)	0.224		0.078				0.207			0.554		0.223
Back of Queue (Q), ft/ln (50 th percentile)	23.5		6.9				23.7			71		20.6
Back of Queue (Q), veh/ln (50 th percentile)	0.9		0.3				0.9			2.8		0.8
Queue Storage Ratio (RQ) (50 th percentile)	0.00		0.00				0.00			0.00		0.00
Uniform Delay (d ₁), s/veh	9.9		9.3				11.1			12.8		11.1
Incremental Delay (d ₂), s/veh	0.1		0.0				0.1			0.6		0.1
Initial Queue Delay (d ₃), s/veh	0.0		0.0				0.0			0.0		0.0
Control Delay (d), s/veh	9.9		9.3				11.2			13.4		11.2
Level of Service (LOS)	A		A				B			B		B
Approach Delay, s/veh / LOS	9.8		A	0.0			11.2		B	12.8		B
Intersection Delay, s/veh / LOS	11.8						B					

Multimodal Results

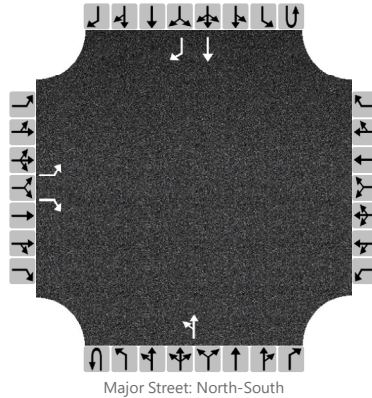
	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.3	B	0.7	A	2.3	B
Bicycle LOS Score / LOS		F			0.7	A	1.3	A

HCS7 Two-Way Stop-Control Report

General Information

Analyst	MJH	Intersection	Eastern Av at Linwood Av
Agency/Co.		Jurisdiction	
Date Performed	2/7/2018	East/West Street	Linwood Ave
Analysis Year	2018	North/South Street	Eastern Ave
Time Analyzed	2017 - PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0	0	1	1
Configuration		L		R						LT					T	R
Volume, V (veh/h)		145		44						21	111				333	111
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

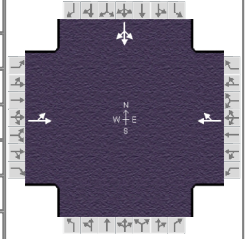
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		161		49						23						
Capacity, c (veh/h)		491		673						1064						
v/c Ratio		0.33		0.07						0.02						
95% Queue Length, Q ₉₅ (veh)		1.4		0.2						0.1						
Control Delay (s/veh)		15.9		10.8						8.5						
Level of Service, LOS		C		B						A						
Approach Delay (s/veh)	14.7								1.5							
Approach LOS	B															

HCS7 Signalized Intersection Results Summary

General Information

Agency				Intersection Information		
Analyst	MJH	Analysis Date	Jan 24, 2018	Duration, h	0.25	
Jurisdiction	Cincinnati	Time Period		Area Type	Other	
Urban Street	US 50	Analysis Year	2016	PHF	0.90	
Intersection	US 50 at Plainville Road	File Name	2a-PM.xus	Analysis Period	1 > 7:00	
Project Description	PM Peak Hour - Signalized					



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	180	950			530	40				50	0	140

Signal Information

Cycle, s	60.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	Yes	Simult. Gap E/W	On	Green	41.8	7.2	0.0	0.0	0.0	0.0	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	3.0	0.0	0.0	0.0	0.0	
				Red	2.0	2.0	0.0	0.0	0.0	0.0	

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6		2				4
Case Number		8.0		8.0				12.0
Phase Duration, s		47.8		47.8				12.2
Change Period, (Y+R _c), s		6.0		6.0				5.0
Max Allow Headway (MAH), s		3.3		3.3				3.3
Queue Clearance Time (g _s), s		43.8		11.5				9.2
Green Extension Time (g _e), s		0.0		7.3				0.0
Phase Call Probability		1.00		1.00				1.00
Max Out Probability		1.00		0.07				1.00

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2	12				7	4	14
Adjusted Flow Rate (v), veh/h		1256			633						211	
Adjusted Saturation Flow Rate (s), veh/h/ln		1398			1847						1632	
Queue Service Time (g _s), s		32.3			9.5						7.2	
Cycle Queue Clearance Time (g _c), s		41.8			9.5						7.2	
Green Ratio (g/C)		0.70			0.70						0.12	
Capacity (c), veh/h		1043			1287						196	
Volume-to-Capacity Ratio (X)		1.203			0.492						1.078	
Back of Queue (Q), ft/ln (95 th percentile)		1443			87						306.3	
Back of Queue (Q), veh/ln (95 th percentile)		56.8			3.4						12.1	
Queue Storage Ratio (RQ) (95 th percentile)		0.00			0.00						0.00	
Uniform Delay (d ₁), s/veh		11.7			4.2						26.4	
Incremental Delay (d ₂), s/veh		100.7			0.1						86.5	
Initial Queue Delay (d ₃), s/veh		0.0			0.0						0.0	
Control Delay (d), s/veh		112.4			4.3						112.9	
Level of Service (LOS)		F			A						F	
Approach Delay, s/veh / LOS	112.4	F		4.3	A		0.0			112.9	F	
Intersection Delay, s/veh / LOS	79.8						E					

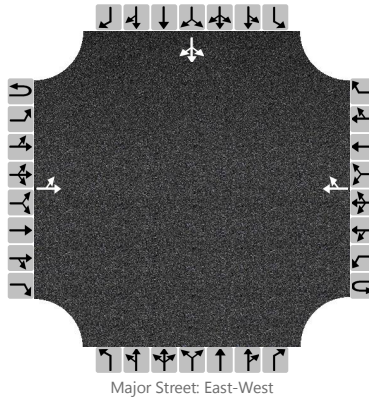
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.8	B	1.3	A	2.1	B	2.1	B
Bicycle LOS Score / LOS	2.6	C	1.5	B			0.8	A

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	MJH	Intersection	US 50 at Plainville Rd
Agency/Co.		Jurisdiction	Mariemont
Date Performed	4/13/2016	East/West Street	US 50
Analysis Year	Existing	North/South Street	Plainville Rd
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Intersection 14		

Lanes



Vehicle Volumes and Adjustments

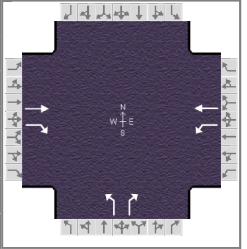
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LTR	
Volume (veh/h)		180	950				530	40						50	0	140
Percent Heavy Vehicles		2												2	2	2
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		1256													212	
Capacity		960													142	
v/c Ratio		1.31													1.50	
95% Queue Length		0.8													14.3	
Control Delay (s/veh)		9.7													314.1	
Level of Service (LOS)		A													F	
Approach Delay (s/veh)	6.1												314.1			
Approach LOS													F			

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.25
Analyst	MJH	Analysis Date	Jan 24, 2018	Area Type	Other
Jurisdiction	Cincinnati	Time Period		PHF	0.90
Urban Street	SR 32	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	SR 32 @ 8 Mile Rd	File Name	4S-PM.xus		
Project Description	PM Peak Hour - Signalized				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		850	130	330	510		40		250			

Signal Information											
Cycle, s	93.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	Yes	Simult. Gap E/W	On	Green	13.1	49.4	12.5	0.0	0.0	0.0	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	
				Red	2.0	2.0	2.0	0.0	0.0	0.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		55.4	19.1	74.5		18.5		
Change Period, ($Y+R_c$), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		3.1	3.1	3.1		3.3		
Queue Clearance Time (g_s), s		46.5	15.1	12.6		14.5		
Green Extension Time (g_e), s		1.5	0.0	4.1		0.0		
Phase Call Probability		1.00	1.00	1.00		1.00		
Max Out Probability		1.00	1.00	0.00		1.00		

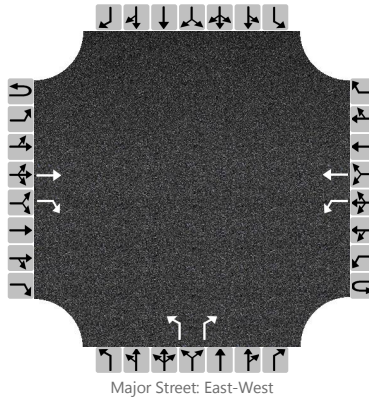
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6	16	5	2		3		18			
Adjusted Flow Rate (v), veh/h		944	144	367	567		44		278			
Adjusted Saturation Flow Rate (s), veh/h/ln		1870	1610	1810	1870		1739		1610			
Queue Service Time (g_s), s		44.5	4.3	13.1	10.6		2.1		12.5			
Cycle Queue Clearance Time (g_c), s		44.5	4.3	13.1	10.6		2.1		12.5			
Green Ratio (g/C)		0.53	0.53	0.69	0.74		0.13		0.28			
Capacity (c), veh/h		994	855	364	1378		234		443			
Volume-to-Capacity Ratio (X)		0.951	0.169	1.007	0.411		0.190		0.627			
Back of Queue (Q), ft/ln (95 th percentile)		756.7	64.8	472.1	139.5		41.5		233.6			
Back of Queue (Q), veh/ln (95 th percentile)		29.8	2.6	18.9	5.5		1.6		9.3			
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d_1), s/veh		20.6	11.2	29.2	4.6		35.8		29.5			
Incremental Delay (d_2), s/veh		17.7	0.0	48.9	0.1		0.1		2.1			
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		38.3	11.3	78.1	4.7		35.9		31.6			
Level of Service (LOS)		D	B	F	A		D		C			
Approach Delay, s/veh / LOS	34.7	C		33.5	C		32.2	C		0.0		
Intersection Delay, s/veh / LOS	33.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	0.6	A	2.3	B	2.3	B
Bicycle LOS Score / LOS	2.3	B	2.0	B		F		

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	MJH	Intersection	SR 32 @ 8 Mile Rd
Agency/Co.		Jurisdiction	Union Township
Date Performed	4/26/2016	East/West Street	SR 32
Analysis Year	Existing	North/South Street	8 Mile Road
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Intersection 3		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	1	1	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			850	130		330	510			40		250				
Percent Heavy Vehicles						2				2		2				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						367				44		278				
Capacity						649				54		318				
v/c Ratio						0.57				0.81		0.87				
95% Queue Length						3.5				3.5		8.0				
Control Delay (s/veh)						17.5				189.5		60.5				
Level of Service (LOS)						C				F		F				
Approach Delay (s/veh)					6.9				78.2							
Approach LOS									F							