



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

Croft Road Corridor Study
Analysis & Recommendations Report

Appendix 2: Traffic Signal Warrant & Stop Control Application Analysis

Signal Warrants - Summary

Major Street Approaches

Eastbound: COLUMBUS

Number of Lanes: 1
 85% Speed > 40 MPH.
 Total Approach Volume: **1,163**

Westbound: COLUMBUS

Number of Lanes: 1
 85% Speed > 40 MPH.
 Total Approach Volume: **1,681**

Minor Street Approaches

Northbound: CROFT

Number of Lanes: 1

 Total Approach Volume: **0**

Southbound: CROFT

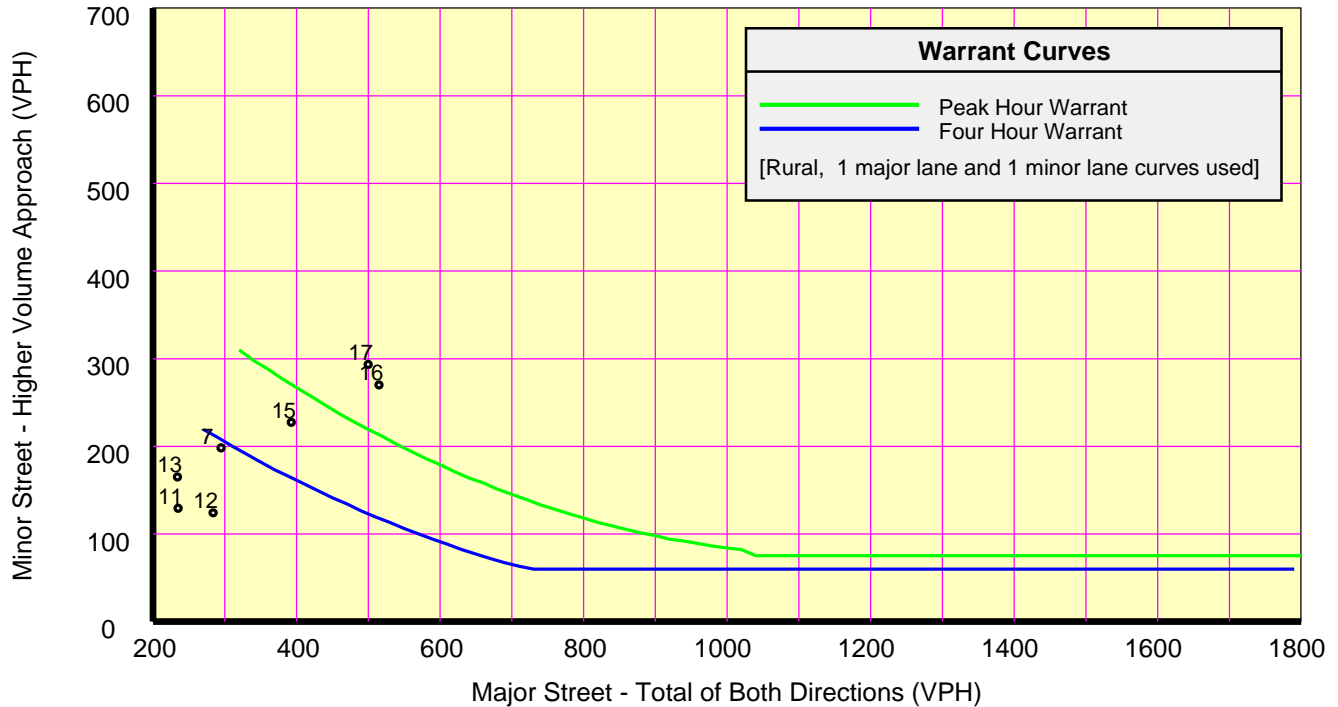
Number of Lanes: 1

 Total Approach Volume: **1,656**

Warrant Summary (Rural values apply.)

Warrant 1 - Eight Hour Vehicular Volumes	Not Satisfied
Warrant 1A - Minimum Vehicular Volume Not Satisfied Required volumes reached for 3 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic Not Satisfied Required volumes reached for 1 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants Not Satisfied Required volumes reached for 2 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 hours (3) volumes exceed minimum >= required (1). Delay data not evaluated.	
Warrant 3B - Peak Hour Volumes Satisfied Volumes exceed minimums for at least one hour.	
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

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

War 1A-Minimum Volume

War 1B-Interruption of Traffic

War 1C-Combination of Warrants

Hour Begin	Major Total	Minor Vol	Dir	Maj 350	Min 105	Hour Begin	Major Total	Minor Vol	Dir	Maj 525	Min 53	Hour Begin	Major Total	Minor Vol	Dir	Maj 420	Min 84
16:00	515	270	SB	Yes	Yes	16:30	534	308	SB	Yes	Yes	16:15	519	297	SB	Yes	Yes
17:00	500	293	SB	Yes	Yes	16:15	519	297	SB	No	Yes	15:15	436	227	SB	Yes	Yes
15:00	393	227	SB	Yes	Yes	16:00	515	270	SB	No	Yes	15:00	393	227	SB	No	Yes
07:00	295	198	SB	No	Yes	15:45	481	252	SB	No	Yes	17:15	361	213	SB	No	Yes
07:15	294	192	SB	No	Yes	15:30	459	235	SB	No	Yes	07:00	295	198	SB	No	Yes
14:45	291	160	SB	No	Yes	15:15	436	227	SB	No	Yes	07:15	294	192	SB	No	Yes
12:00	284	124	SB	No	Yes	15:00	393	227	SB	No	Yes	14:45	291	160	SB	No	Yes
11:45	280	129	SB	No	Yes	07:00	295	198	SB	No	Yes	12:00	284	124	SB	No	Yes
12:15	274	126	SB	No	Yes	07:15	294	192	SB	No	Yes	11:45	280	129	SB	No	Yes
12:30	259	133	SB	No	Yes	14:45	291	160	SB	No	Yes	12:15	274	126	SB	No	Yes
11:30	259	139	SB	No	Yes	12:00	284	124	SB	No	Yes	12:30	259	133	SB	No	Yes
07:30	248	177	SB	No	Yes	11:45	280	129	SB	No	Yes	11:30	259	139	SB	No	Yes
11:15	247	137	SB	No	Yes	12:15	274	126	SB	No	Yes	07:30	248	177	SB	No	Yes
12:45	235	151	SB	No	Yes	12:30	259	133	SB	No	Yes	11:15	247	137	SB	No	Yes
11:00	235	129	SB	No	Yes	11:30	259	139	SB	No	Yes	12:45	235	151	SB	No	Yes
13:00	234	165	SB	No	Yes	07:30	248	177	SB	No	Yes	11:00	235	129	SB	No	Yes
06:45	223	137	SB	No	Yes	11:15	247	137	SB	No	Yes	13:00	234	165	SB	No	Yes
07:45	222	155	SB	No	Yes	12:45	235	151	SB	No	Yes	17:30	233	137	SB	No	Yes
08:30	203	123	SB	No	Yes	11:00	235	129	SB	No	Yes	06:45	223	137	SB	No	Yes
08:00	198	131	SB	No	Yes	13:00	234	165	SB	No	Yes	07:45	222	155	SB	No	Yes
08:15	197	113	SB	No	Yes	17:30	233	137	SB	No	Yes	08:30	203	123	SB	No	Yes
08:45	195	123	SB	No	Yes	06:45	223	137	SB	No	Yes	08:00	198	131	SB	No	Yes
09:00	190	119	SB	No	Yes	07:45	222	155	SB	No	Yes	08:15	197	113	SB	No	Yes
14:30	182	110	SB	No	Yes	08:30	203	123	SB	No	Yes	08:45	195	123	SB	No	Yes

DLZ OHIO, INC.

6121 Huntley Rd.
Columbus, OH 43229
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Study Name : Croft - Columbus Multi-Way Stop Warrant 2034

Multi-Way Stop Warrant Report

Major Street Approaches

Eastbound: COLUMBUS

Total Approach Volume: 1,189
85% Speed > 40 MPH.

Westbound: COLUMBUS

Total Approach Volume: 1,724
85% Speed > 40 MPH.

Minor Street Approaches

Southbound: CROFT

Total Approach Volume: 1,883

Warrant Summary

- Criteria A - Interim Measure** Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.
- Criteria B - Crash Experience** Not Satisfied
Number of crashes (2) is less than the minimum required (5).
- Criteria C - Minimum Volumes and Delays** Satisfied
Average Delay Per Vehicle (43) is more than minimum required (30).
Average of 8 highest hours exceeds volume criteria.
- Criteria D - 80% of Volumes, Delays, and Crashes** Not Satisfied
Average Delay Per Vehicle (43) is more than minimum required (30).
Number of crashes (2) is less than the minimum required (4).
Average of 8 highest hours exceeds volume criteria.

Analysis of 8-Hour Volume Warrants:

Time	Major Total	Major Avg	Minor Total	Minor Avg	Crit C			Crit D		
					Major	Minor	Meets?	Major	Minor	Meets?
16:00 - 17:00	438	283.0	249	183.0	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
17:00 - 18:00	427		266							
15:00 - 16:00	336		228							
07:00 - 08:00	251		198							
12:00 - 13:00	243		122							
11:00 - 12:00	201		129							
13:00 - 14:00	199		151							
08:00 - 09:00	169		121							
09:00 - 10:00	164		109							
23:00 - 00:00	0		0							
22:00 - 23:00	0		0							
21:00 - 22:00	0		0							
20:00 - 21:00	0		0							
19:00 - 20:00	0		0							
18:00 - 19:00	0		0							
14:00 - 15:00	0		0							
10:00 - 11:00	0		0							
06:00 - 07:00	0		0							
05:00 - 06:00	0		0							
04:00 - 05:00	0		0							
03:00 - 04:00	0		0							
02:00 - 03:00	0		0							
01:00 - 02:00	0		0							
00:00 - 01:00	0		0							

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Study Name : **Croft - Columbus - Tuttle Extension Multi-Way Stop Warrant 2034**

Multi-Way Stop Warrant Report

Major Street Approaches

Northbound: Tuttle

Total Approach Volume: **1,237**
 85% Speed < 40 MPH.

Southbound: Croft

Total Approach Volume: **1,861**
 85% Speed < 40 MPH.

Minor Street Approaches

Eastbound: Columbus

Total Approach Volume: **1,155**

Westbound: Columbus

Total Approach Volume: **1,262**

Warrant Summary

Criteria A - Interim Measure **Not Evaluated**

If traffic signals are justified, stop signs can be installed as an interim measure.

Criteria B - Crash Experience **Not Satisfied**

Number of crashes (2) is less than the minimum required (5).

Criteria C - Minimum Volumes and Delays **Satisfied**

Average Delay Per Vehicle (58) is more than minimum required (30).
 Average of 8 highest hours exceeds volume criteria.

Criteria D - 80% of Volumes, Delays, and Crashes **Not Satisfied**

Average Delay Per Vehicle (58) is more than minimum required (30).
 Number of crashes (2) is less than the minimum required (4).
 Average of 8 highest hours exceeds volume criteria.

Analysis of 8-Hour Volume Warrants:

Time	Major Total	Major Avg	Minor Total	Minor Avg	Crit C			Crit D		
					Major	Minor	Meets?	Major	Minor	Meets?
17:00 - 18:00	448	301.1	323	234.0	300-Yes	200-Yes	Both	240-Yes	160-Yes	Both
16:00 - 17:00	419		329							
15:00 - 16:00	356		276							
07:00 - 08:00	309		212							
13:00 - 14:00	243		178							
12:00 - 13:00	226		216							
11:00 - 12:00	210		183							
08:00 - 09:00	198		155							
09:00 - 10:00	197		146							
23:00 - 00:00	0		0							
22:00 - 23:00	0		0							
21:00 - 22:00	0		0							
20:00 - 21:00	0		0							
19:00 - 20:00	0		0							
18:00 - 19:00	0		0							
14:00 - 15:00	0		0							
10:00 - 11:00	0		0							
06:00 - 07:00	0		0							
05:00 - 06:00	0		0							
04:00 - 05:00	0		0							
03:00 - 04:00	0		0							
02:00 - 03:00	0		0							
01:00 - 02:00	0		0							
00:00 - 01:00	0		0							