

City of Madison, Wisconsin Traffic Engineering
Minimum Criteria Summary for Installation of All-Way Stop Signs in Urban Areas

For a multiway stop to be considered for installation the criteria listed under 1. or 2. or 3. or 4. should be met.

Intersection of: **Commercial Ave & Nakoosa Trl**

1. Traffic Signal Justified	
Where traffic signals are warranted and urgently needed, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.	
Are traffic signals warranted and urgently needed?	No

2. Crash Problem	
<i>Crash data for period of: 1/1/2012 - 12/31/2012</i>	
A crash problem, as indicated by 5 or more reported crashes of a type susceptible of correction by a multiway stop installation in a 12-month period. Such crashes include right and left-turn collisions as well as right-angle collisions.	
	% Of Criteria Met
Number of crashes in the last 12 Months =	1
Correctables =	1 20%
Does a crash problem exist which would be susceptible to correction by a multiway stop installation?	NO

NO, The minimum criteria to be considered for a multiway stop HAS NOT BEEN MET for the intersection of

Commercial Ave & Nakoosa Trl

24-Hr Factored Approach Volumes From Manual Turning Movement Study

3. Minimum Volumes & Delay			
a.) Vehicles per hour for any eight hours in which the average volume of traffic entering the intersection from the major street exceeds:			
85th Percentile Speed	Required Volume (Including Bikes)	Avg Highest Hours	% Of Criteria Met
≤ 40 m.p.h.	300	247	82%
> 40 m.p.h.	210	NA	NA
b.) For the same 8 hours, the average volume from the minor street must exceed:			
85th Percentile Speed	Required Volume (Including Bikes & Peds)	Avg Highest Hours	% Of Criteria Met
≤ 40 m.p.h.	200	139	70%
> 40 m.p.h.	140	NA	NA
c.) Delay to minor street vehicular traffic must average at least 30 seconds per vehicle during the peak traffic hour for at least one direction.			
Required Delay	Estimated Delay	Direction	% Of Criteria Met
30	8.27	EB Delay	27.6%
Has minimum volume & delay criteria been met			NO

4. No single criterion met but 2 & 3 are both 80% met.	
No single criterion met but 2, 3a.), 3b.) and 3c.) are at least 80% met.	
NO	

Commercial Ave & Nakoosa Trl Intersection
Existing Conditions



Wal-Mart

Porchlight

1



Porchlight

Wal-Mart

Commercial Ave

Nakoosa Tr

N

3



Porchlight

Nakoosa Trail

2

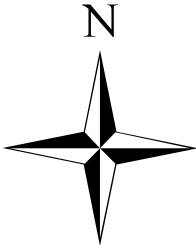


Porchlight

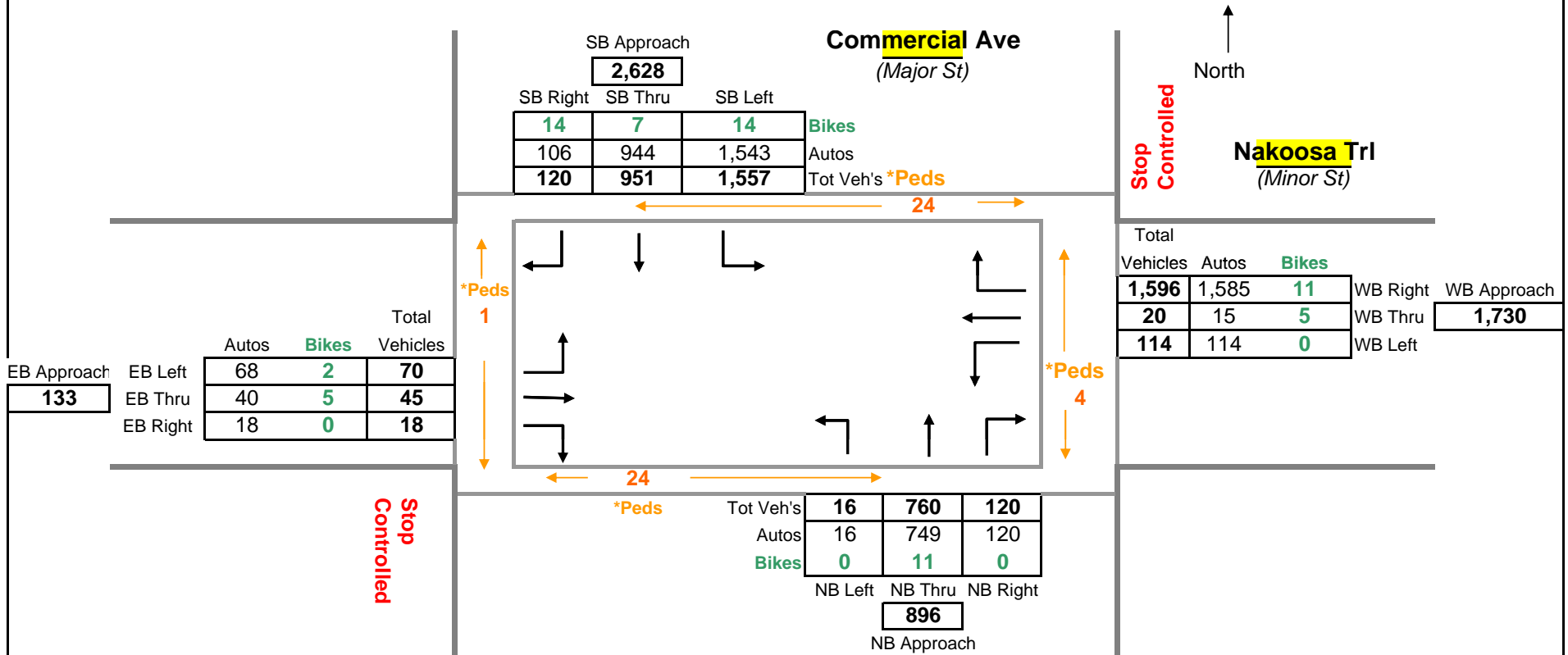
Wal-Mart

3

Commecial Ave & Nakoosa Trl 2012 Crashes



24-Hr Factored Approach Volumes From Manual Turning Movement Study



85th Percentile Speed =	37	mph
Neighborhood Intersection =	No	(YES / NO)
Traffic Signals Justified =	No	(YES / NO)
Number of crashes in the last 12 Months =	1	1/1/2012 - 12/31/2012
Number of Correctable Crashes =	1	Period For Crashes
Year Of Traffic Volumes =	2013	
Date Of Turning Movement Study =	06/19/2013	
Time Of Turning Movement Study =	7a-9a, 11a-12p, 4p-6p	
Total Hours Counted =	6	

Notes

Enter information highlighted in yellow
Make Sure St Names Spelled Same In Each Cell
Enter raw turning movement data below

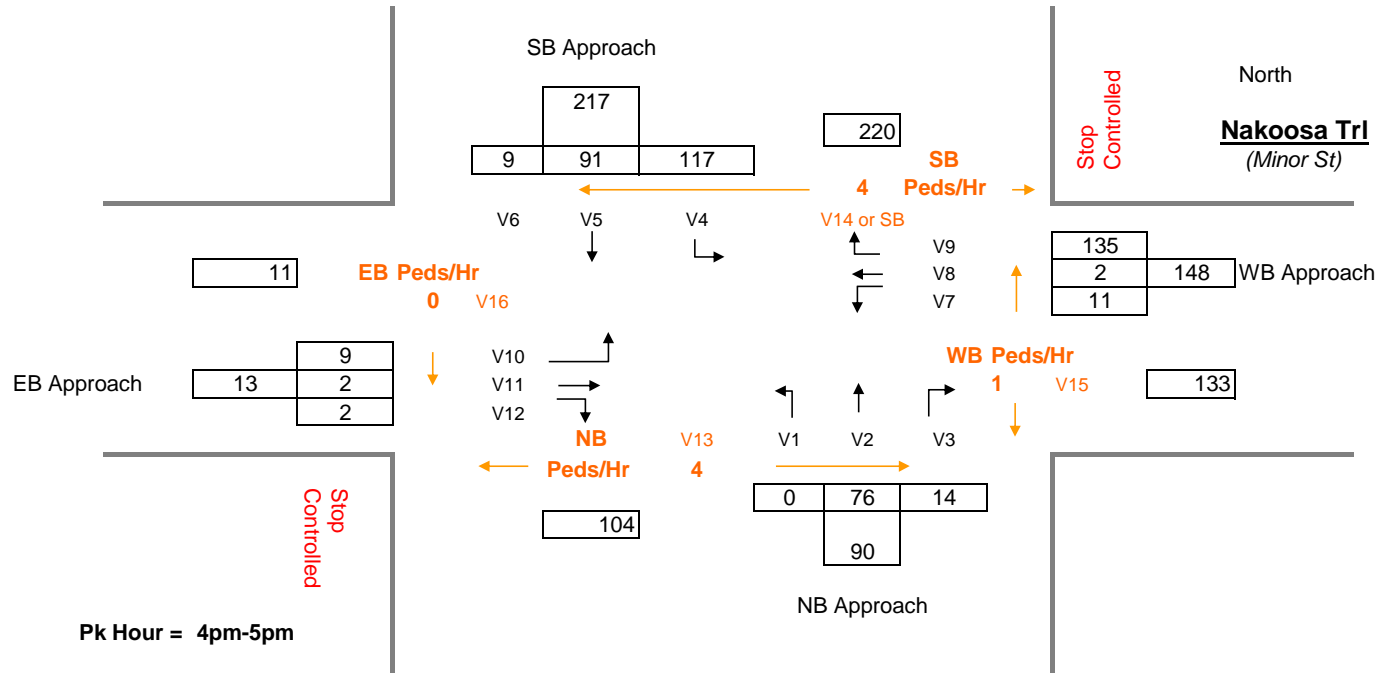
**Peds are not factored*
***Delay calculated using HCS2000 software*

INTERSECTION PEAK HOUR VOLUMES

From Manual Turning Movement Study

Commercial Ave

(Major St)



Pk Hr AWT Turning Movements From Manual Turning Movement Study

Peak Hour	EB				WB				NB				SB			
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total
4:00 PM	9	2	2	13	11	2	135	148	0	76	14	90	117	91	9	217