

Presented To: Operations Committee

Presented: Monday, Oct 22, 2012

Report Date Friday, Oct 12, 2012

Type: Managers' Reports

Request for Decision

All-Way Stop Control - Various Locations

Recommendation

That the intersection of Algonquin Road and Field Street be controlled by an all-way stop, and;

That a by-law be passed by City Council to amend Traffic and Parking By-Law 2010-1 in the City of Greater Sudbury to implement the recommended change all in accordance with the report from the General Manager of Infrastructure Services dated October 9, 2012.

Background

1. Algonquin Road at Field Street

City staff was directed at the June 2011 Traffic Committee meeting to conduct a peak hour traffic count to determine if an all-way stop was warranted at the intersection of Algonquin Road and Field Street. It was agreed that the traffic count would be conducted once the new Holy Cross School was built and the expansion at St. Benedict's High School was completed.

Algonquin Road at Field Street is a cross intersection located west of Regent Street within Ward 9 (see **Exhibit 'A'**). The driveway entrance to St. Benedict High School and Holy Cross School forms the south leg of this intersection. Currently this intersection is controlled with a Stop sign facing southbound traffic on Field Street and northbound traffic from the two (2) schools.

Applying the data from the turning movement count that was conducted on September 25, 2012 to the City's new Minimum Volume Warrant indicates that the vehicle and pedestrian volume from the side street meets the minimum volume requirements (see **Exhibit 'B'**). There were a total of 175 pedestrians who crossed Algonquin Road during the four (4) peak hours.

A review of the City's collision information from 2009 to 2011 revealed that there was one (1) collision that may be susceptible to relief through an all-way stop during this three (3) year period. For a Minor Collector roadway, the Collision Warrant requires a minimum of three (3) collisions per year over a three (3) year period.

Signed By

Report Prepared By

Dave Kivi
Co-ordinator of Transportation & Traffic
Engineering Services
Digitally Signed Oct 12, 12

Division Review

David Shelsted, MBA, P.Eng.
Director of Roads & Transportation
Services
Digitally Signed Oct 12, 12

Recommended by the Department

Tony Cecutti, P.Eng., FEC
General Manager of Infrastructure
Services
Digitally Signed Oct 12, 12

Recommended by the C.A.O.

Doug Nadorozny
Chief Administrative Officer
Digitally Signed Oct 12, 12

Since the traffic volume meets the minimum vehicle volume warrant, staff recommends installing an all-way stop at the intersection of Algonquin Road and Field Street.

2. Algonquin Road at Tuscany Trail/Trailridge Drive

City staff was directed at the June 2011 Traffic Committee to conduct a peak hour traffic count to determine if an all-way stop was warranted at the intersection of Algonquin Road and Tuscany Trail/Trailridge Drive. It was agreed that the traffic count would be conducted once the new Holy Cross School was built and the expansion at St. Benedict's High School was completed.

Algonquin Road at Tuscany Trail/Trailridge Drive is a cross intersection located east of Countryside Drive within Ward 9 (see **Exhibit 'C'**). Currently this intersection is controlled with Stop signs facing northbound traffic from Tuscany Trail and southbound traffic from Trailridge Drive.

Applying the data from the turning movement count that was conducted on September 25, 2012 to the City's new Minimum Volume Warrant indicates that the vehicle and pedestrian volume from the side street meets 65 percent of the minimum volume requirements (see **Exhibit 'D'**). There were a total of seventy-five (75) pedestrians who crossed Algonquin Road during the four (4) peak hours.

A review of the City's collision information from 2009 to 2011 revealed that there were no collisions that may be susceptible to relief through an all-way stop during this three (3) year period. For a Minor Collector roadway, the Collision Warrant requires a minimum of three (3) collisions per year over a three (3) year period.

Since the adoption of the new Minimum Vehicle Warrant in 2008, staff has conducted several traffic studies at this intersection to determine if an all-way stop is warranted. The results of the previous studies and the most recent study are summarized below.

Year	Total Vehicle Volume	Vehicle & Pedestrian Volume from Side Street	Traffic Split	Total Collisions over 3 Year Period
2008	79%	62%	83%	0
2010	97%	73%	77%	0
2012	100%	65%	83%	0

The summarized data shows that the while volumes have increased on Algonquin Road, the side street volume has remained somewhat consistent since 2008. The total vehicle volume, side street volume and traffic split must be 100 percent for an all-way stop to be warranted. Also, there has been no increase in the number of collisions occurring at this intersection.

Based on the traffic volumes, pedestrian volume and collision history, staff does not recommend installing an all-way stop at the intersection of Algonquin Road at Tuscany Trail/Trailridge Drive.

3. Roy Avenue and Lamothe Street, Sudbury

At the April 16, 2012 Operations Committee meeting, Councillor Landry-Altmann submitted a petition signed by 119 area residents and a letter from the Principal of Carl A. Nesbitt Public School requesting an all-way stop be installed at the intersection of Roy Avenue and Lamothe Street (see **Exhibits 'E' & 'F'**).

Roy Avenue at Lamothe Street is a cross intersection located north of Lasalle Boulevard within Ward 12 (see **Exhibit 'G'**). Currently this intersection is controlled with Stop signs facing eastbound and westbound traffic on Lamothe Street.

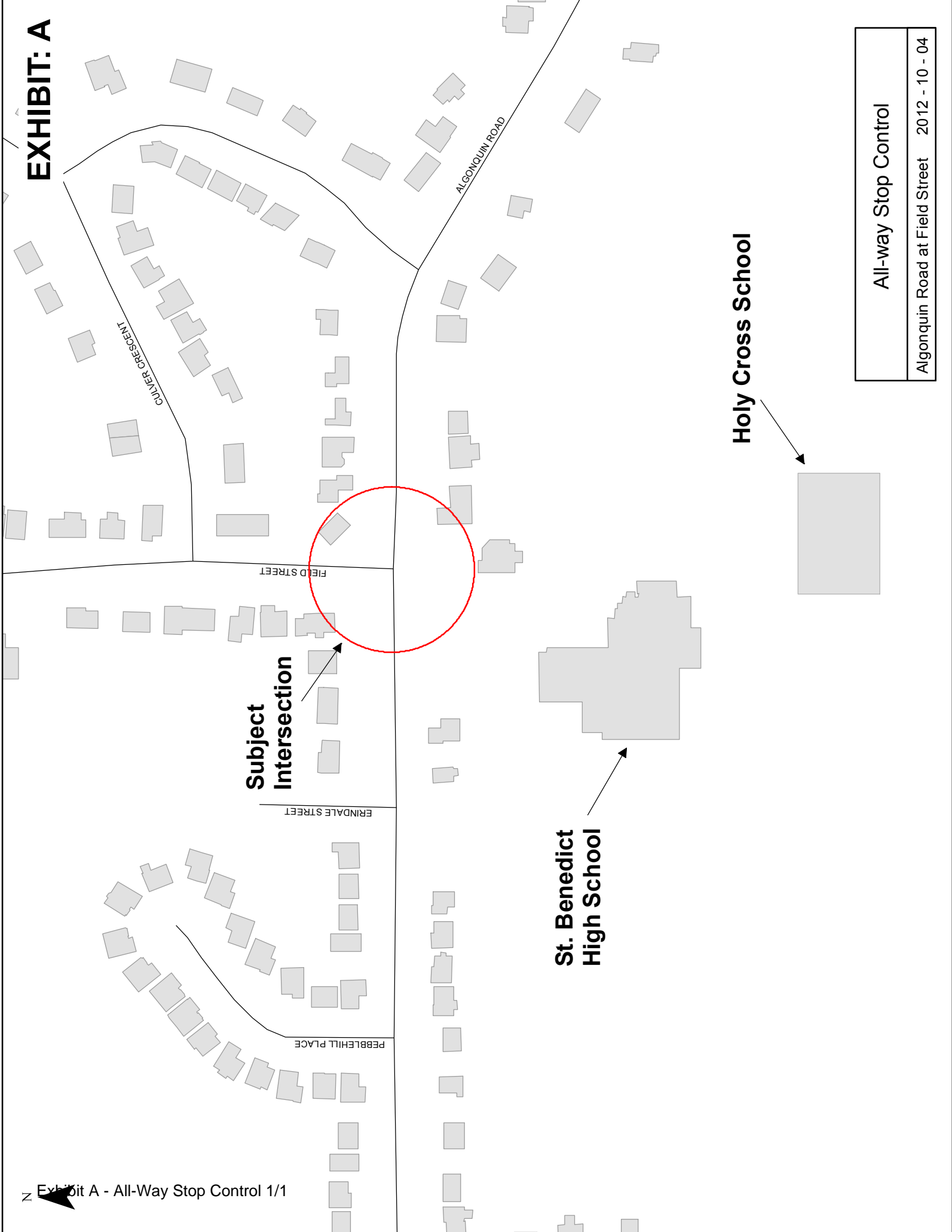
Applying the data from the turning movement count that was conducted on May 10, 2012 to the City's new Minimum Volume Warrant indicates that the total vehicle volume from all approaches meets only 47 percent of the volume requirements. Vehicle and pedestrian volume from the side street meets only 28 percent of the minimum volume requirements (see **Exhibit 'H'**). There were a total of twenty (20) pedestrians who crossed Roy Avenue during the four (4) peak hours.

Staff also counted this intersection on June 13, 2008 and completed an All-Way Stop warrant. At that time the intersection met forty-eight (48) percent of the Minimum Vehicle Volume warrant.

A review of the City's collision data from 2009 to 2011 revealed there were three (3) collisions in the three (3) year period that would be susceptible to relief through an all-way stop. For a Minor Collector roadway, the Collision Warrant requires a minimum of three (3) collisions per year over a three (3) year period. An analysis of the collision information revealed that all three (3) collisions involved an eastbound vehicle on Lamothe Street failing to stop at the stop sign and colliding with a vehicle in the intersection. Staff has issued a work order to have a tree trimmed around the stop sign, stop bars painted and a stop ahead sign installed.

Based on the traffic volumes, pedestrian volume and collision history, staff does not recommend installing an all-way stop at the intersection of Roy Avenue and Lamothe Street.

EXHIBIT: A



Subject
Intersection

St. Benedict
High School

Holy Cross School

All-way Stop Control

Algonquin Road at Field Street 2012 - 10 - 04

EXHIBIT: B



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Algonquin Road at Field Street	Date:	October 2, 2012
Date of TM Count:	Tuesday, September 25, 2012	Analyst:	JR
Type of Intersection:	Cross		
Roadway Type	Minor Collector		
AADT of Main Road:	2000		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	100.0	%
Warrant #2	Collision History	11.1	%
Warrant #3	Traffic Control Signals	No	Y/N

All-Way Stop Warranted? **Yes** Y/N

Warrant #1 - Minimum Vehicle Volume					
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Vehicles per hour	Percent Compliance
AADT	> 5000	1000 - 5000	< 1000		
Count Period	7 hours	4 peak hours	4 peak hours		
Total vehicle volume from all approaches is	500/hr	350/hr	250/hr	362	100.0%
Veh + Pedestrian volume from side street is	200/hr	140/hr	N/A	196	100.0%
Traffic Split	70/30	70/30	70/30	54/46	100.0%

Warrant #2 - Collision History					
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Number of Collisions per year	Percent Compliance
Collisions per Year over 3 year period	4*	3*	2*	1/3	11.1%

Warrant #3	Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.	No	Y/N
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- * Only those collisions susceptible to relief through multi-way stop control must be consider (i.e. right angle and turning types).
- If the intersection meets warrant # 1, then the all-way stop is recommended regardless of the remaining warrants.
- If the intersection does not meet warrant #1 and does not meet warrant #2, then the all-way stop is not recommended.
- If the intersection does not meet warrant #1 and does meet warrant #2, then the all-way stop is recommended.

Algonquin
Public School

Subject
Intersection

All-way Stop Control

Algonquin Road at Tuscany Trail/Trailridge Drive

2012 - 10 - 04

EXHIBIT: D



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Algonquin Road at Tuscany Trail	Date:	October 3, 2012
Date of TM Count:	Tuesday, September 25, 2012	Analyst:	JR
Type of Intersection:	Cross		
Roadway Type	Minor Collector		
AADT of Main Road:	2000		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	65.0	%
Warrant #2	Collision History	0.0	%
Warrant #3	Traffic Control Signals	No	Y/N

All-Way Stop Warranted? **No** Y/N

Warrant #1 - Minimum Vehicle Volume					
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Vehicles per hour	Percent Compliance
AADT	> 5000	1000 - 5000	< 1000		
Count Period	7 hours	4 peak hours	4 peak hours		
Total vehicle volume from all approaches is	500/hr	350/hr	250/hr	371	100.0%
Veh + Pedestrian volume from side street is	200/hr	140/hr	N/A	91	65.0%
Traffic Split	70/30	70/30	70/30	75/25	83.3%

Warrant #2 - Collision History					
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Number of Collisions per year	Percent Compliance
Collisions per Year over 3 year period	4*	3*	2*	0	0.0%

Warrant #3	Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.	No	Y/N
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- * Only those collisions susceptible to relief through multi-way stop control must be consider (i.e. right angle and turning types).
- If the intersection meets warrant # 1, then the all-way stop is recommended regardless of the remaining warrants.
- If the intersection does not meet warrant #1 and does not meet warrant #2, then the all-way stop is not recommended.
- If the intersection does not meet warrant #1 and does meet warrant #2, then the all-way stop is recommended.

EXHIBIT: E



WARD 12 - QUARTIER 12
NEW SUDBURY COMMUNITY ACTION NETWORK (NSCAN12)
RÉSEAU D'ACTION COMMUNAUTAIRE DU NOUVEAU- SUDBURY (RACNS12)
CONTACT: 524-9436
EMAIL: artpet@persona.ca

25/03/2012

PETITION FOR A FOUR WAY STOP AT THE CORNER OF LAMOTHE AND ROY STS.

Installation of a 40km hour speed zone near the Carl Nesbitt Elementary School on Roy Street has not been successful.

This issue was brought up once again at the New Sudbury C.A.N. Ward 12 February 29, 2012 meeting. To ensure the safety of the students and residents we once again strongly request the traffic department install a four way stop on the corner of Roy and Lamothe Streets.

We sincerely hope that this can be accomplished in the very near future.

		1275 Buryclawne	
		1264 Lincoln Rd	
		1252 Lincoln Rd	
		1235 LINCOLN SUDBURY	
		1208 Roy Ave Sud	
		1193 Roy Ave Sud	



Carl A. Nesbitt Public School

1241 Roy Street, Sudbury, Ontario P3A 3M5 | Tel: 705.566.3935 | Fax: 705.566.6608

Terry Moss, RPHE, BEd, MEd
Principal

Janelle Bast, BA, BEd, MEd
Vice-Principal

Sue Longchamps
Secretary

EXHIBIT: F

April 2, 2012

*4 World
Class School*

Councillor Joscelyne Landry-Altmann:

As Principal of Carl A. Nesbitt Public School, I am providing this letter of support to the City of Greater Sudbury for a new four-way stop sign at the corner of Lamothe Street and Roy Avenue in New Sudbury.

Carl A. Nesbitt Public School is located at 1241 Roy Avenue. Our school has an enrolment of 245 students in Grades 3 to 8. We also have a daycare.

Roy Avenue is a very busy street. Most of our students and families access the school from our main entrance. Our daycare patrons also enter and exit from Roy Avenue.

Bus drivers use the Roy Avenue entrance during the day to pick up students for field trips and at the end of the day to pick up students to return home. Our visitor and staff parking areas are located on both Roy Avenue and Lamothe Street.

Adding a four-way stop at this corner will promote student, staff and community safety.

The stop sign will force drivers to slow down in front of the school, whether they are accelerating towards Lasalle Boulevard or decelerating towards Lamothe Street. Many do not observe the 40 km speed limit that is currently posted in this area.

I would very much appreciate if you could present my request for a four-way stop to the appropriate personnel at the City of Greater Sudbury.

Thank you for your kind consideration. Safety, as always, is first and foremost.

Sincerely,

Terry Moss
Principal

Subject Intersection

LAMOITHE STREET

LINCOLN ROAD

HOLLAND ROAD

ARVO AVENUE

SPARKS STREET

ROY AVENUE

Carl A. Nesbitt
Public School

LEON AVENUE

MCCORMACK COURT

ATLEE AVENUE

All-way Stop Control

Roy Avenue at Lamothe Street 2012 - 10 - 04

EXHIBIT: H



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Roy Avenue and Lamothe Street	Date:	June 22, 2012
Date of TM Count:	Thursday, May 10, 2012	Analyst:	JR
Type of Intersection:	Cross		
Roadway Type	Minor Collector		
AADT of Main Road:	3600		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	27.9	%
Warrant #2	Collision History	33.3	%
Warrant #3	Traffic Control Signals	No	Y/N

All-Way Stop Warranted? **No** Y/N

Warrant #1 - Minimum Vehicle Volume					
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Vehicles per hour	Percent Compliance
AADT	> 5000	1000 - 5000	< 1000		
Count Period	7 hours	4 peak hours	4 peak hours		
Total vehicle volume from all approaches is	500/hr	350/hr	250/hr	164	46.9%
Veh + Pedestrian volume from side street is	200/hr	140/hr	N/A	39	27.9%
Traffic Split	70/30	70/30	70/30	76/24	80.0%

Warrant #2 - Collision History					
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Number of Collisions per year	Percent Compliance
Collisions per Year over 3 year period	4*	3*	2*	1	33.3%

Warrant #3	Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.	No	Y/N
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- * Only those collisions susceptible to relief through multi-way stop control must be considered (i.e. right angle and turning types).
- If the intersection meets warrant # 1, then the all-way stop is recommended regardless of the remaining warrants.
- If the intersection does not meet warrant #1 and does not meet warrant #2, then the all-way stop is not recommended.
- If the intersection does not meet warrant #1 and does meet warrant #2, then the all-way stop is recommended.