



Request for Decision

All-Way Stop Control - Various Intersections

Presented To: Operations Committee

Presented: Monday, Jan 09, 2012

Report Date Friday, Dec 23, 2011

Type: Managers' Reports

Recommendation

That the current traffic control at the intersections of Bouchard Street at Marcel Street, Lansing Avenue at Melbourne Street, Hawthorne Drive at Westmount Avenue, Madeleine Avenue at Main Street and Madeleine Avenue at Alexander Street be maintained.

Background

1. Bouchard Street at Marcel Street, Sudbury

At the March 21, 2011 Traffic Committee meeting, Staff presented a report regarding all-way stop control at the intersection of Bouchard Street and Marcel Street (**see Exhibit A2**). At the time, Staff reported higher than normal traffic volumes may have been a result of the ongoing construction on Regent Street. A decision to install all-way stop at this intersection was deferred until construction on Regent Street was completed and traffic volumes could be recounted. Subsequently, traffic volumes were recounted on October 4th, 2011.

Bouchard Street at Marcel Street is a cross intersection located west of Regent Street (**see Exhibit B2**). Currently this intersection is controlled with "Stop" signs facing northbound and southbound traffic on Marcel Street. This portion of Bouchard Street was also part of the Traffic Calming Pilot Project and had a median island installed on the east leg of this intersection.

Applying the data from the October 4th, 2011 turning movement count to the City's new Minimum Volume Warrant indicates that the vehicle and pedestrian volume from the side street meets approximately 43 percent of the volume requirements. The traffic volume split is 91percent on Bouchard Street and 9 percent on Marcel Street. This is outside the ratio of 70/30 warrant for an all-way stop (**see Exhibit C2**).

Comparing the 2011 turning movement counts to the previous counts from 2010 and 2007, indicates that while volumes on Marcel Street at this intersection have increased from the 2007 volumes, they have

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Division Review

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Recommended by the Department

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General Manager of Infrastructure
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Recommended by the C.A.O.

Doug Nadorozny
Chief Administrative Officer
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significantly decreased from the 2010 levels. The volumes are summarized below:

	2007	2010	2011
Southbound Traffic on Marcel Street	222	282	261
Northbound Traffic on Marcel Street	363	738	399

A review of the City's collision information from July 2008 to July 2011 revealed that there were two collisions that may be susceptible to relief through an all-way stop during this three year period. While all collisions are undesirable, the collision experience would not be considered high, and does not show a pattern that could be corrected with an all-way stop. For a major collector roadway, the Collision Warrant requires a minimum of four collisions per year over a three year period.

Councillor Cimino has also expressed concerns about the safety of pedestrians crossing Bouchard Street at this intersection to access Marcel Park. The existing median island on the east leg of this intersection was recommended by IBI Group during the Traffic Calming Pilot Project to "provide a pedestrian refuge that supports a two-stage crossing when traffic volumes make crossing difficult." During the count, we recorded 21 pedestrians crossing Bouchard Street (18 crossing the east leg and 3 crossing the west leg).

Based on the traffic volumes, pedestrian volume and collision history, installing an all-way stop at the intersection of Bouchard Street and Marcel Street is not warranted.

2. Lansing Avenue at Melbourne Street, Sudbury

Councillor Belli requested that a peak hour traffic count be conducted to determine if an all-way stop is warranted at the intersection of Lansing Avenue at Melbourne Street. The Traffic Committee approved the request for a study at its meeting on June 17, 2011.

Lansing Avenue at Melbourne Street is a cross intersection located two blocks north of Lasalle Boulevard in Ward 8 (**see Exhibit D2**). The east and west approaches of Melbourne Street intersect Lansing Avenue on a skew angle of approximately 60 degrees. Currently this intersection is controlled with "Stop" signs facing eastbound and westbound traffic on Melbourne Street.

Applying the data from the turning movement count that was conducted on September 28th, 2011 to the City's new Minimum Volume Warrant indicates that the vehicle and pedestrian volume from Melbourne Street meets only 20 percent of the requirements. The traffic volume split is 92 percent on Lansing Avenue and 8 percent on Melbourne Street. This is also outside the ratio of 70/30 needed to warrant an all-way stop (**see Exhibit E2**). During the count, we recorded 10 pedestrians crossing Lansing Avenue at Melbourne Street.

A review of collision information showed this intersection has had two reported collisions in the last 3 years that may be susceptible to relief through an all-way stop. The all-way stop warrant for a major collector road (Lansing Avenue) requires there be a minimum of 4 collisions per year over a 3 year period. While the collision history does not warrant an all-way stop, review indicated that both collisions involved vehicles from the east leg of Melbourne Street not yielding to southbound traffic on Lansing Avenue. There is a private large bush in the northeast corner of the intersection which may be restricting visibility at the intersection. Staff have asked the By-law Department to review and have it trimmed if possible. A crosswalk and stop bar will be painted on the east leg of Melbourne Avenue. These measures will help improve safety at the intersection by highlighting the requirement to stop.

Based on the traffic volumes, pedestrian volume and collision history, installing an all-way stop at the intersection of Lansing Avenue and Melbourne Street is not warranted.

3. Hawthorne Drive at Westmount Avenue, Sudbury

Councillor Belli requested that a peak hour traffic count be conducted to determine if an all-way stop is warranted at the intersection of Hawthorne Drive and Westmount Avenue.

Hawthorne Drive at Westmount Avenue is a cross intersection located between Barry Downe Road and Auger Avenue in Ward 8 (**see Exhibit F2**). Currently this intersection is controlled with "Stop" signs facing northbound and southbound traffic on Westmount Avenue.

Applying the data from the turning movement count that was conducted on June 16th, 2011 to the City's new Minimum Volume Warrant indicates that the vehicle and pedestrian volume from Westmount Avenue meets only 25 percent of the requirements. The traffic volume split is 88 percent on Hawthorne Drive and 12 percent on Westmount Avenue. This is also outside the ratio of 70/30 needed to warrant an all-way stop (**see Exhibit G2**). During the count, we recorded 17 pedestrians crossing Hawthorne Drive at Westmount Avenue.

A review of our collision information showed this intersection has had three collisions in the last three years that may be susceptible to relief through an all-way stop. The all-way stop warrant for a major collector road (Hawthorne Avenue) requires there be a minimum of 4 collisions per year over a 3 year period. While the collision history does not warrant an all-way stop, our review indicated that the collisions involved vehicles from Westmount Avenue not yielding to traffic on Hawthorne Drive. A crosswalk and stop bar has been painted on the south leg of Westmount Avenue and a stop bar was also painted on the north leg of Westmount Avenue. These measures will help improve safety at the intersection by highlighting the requirement to stop.

Based on the traffic volumes, pedestrian volume and collision history, installing an all-way stop at the intersection of Hawthorne Drive at Westmount Avenue is not recommended.

4. Madeleine Avenue at Main Street and Madeleine Avenue at Alexander Street, Sudbury

Councillor Landry-Altmann forwarded a petition dated February 16, 2011 from area residents requesting that All-Way Stops be installed at the intersections of Madeleine Avenue at Main Street and Madeleine Avenue at Alexander Street (**see Exhibit H2**) to slow traffic down.

These intersections are both T intersections located south of Lasalle Boulevard in Ward 12 (**see Exhibit I2**). Currently, both intersections are controlled with a stop sign facing eastbound traffic on Main Street and Alexander Street. Also, Ecole Felix-Ricard has a pedestrian access to its school yard on the east side of the Madeleine Avenue at Main Street entrance. Due to the proximity of the school, turning movement counts were conducted during the school year.

Applying the data from the turning movement count conducted at the Madeleine Avenue at Main Street intersection on June 27, 2011, to the City's new Minimum Vehicle Volume warrant indicates that the vehicle and pedestrian volume from the side street meets only 15 percent of the volume requirements. The traffic volume split is 76 percent on Madeleine Avenue and 24% on Main Street. This is outside the ratio of 70/30 needed to warrant an all-way stop (**see Exhibit J2**). During this count, we recorded 11 pedestrians crossing Madeleine Avenue at Main Street.

Applying the data from the turning movement count conducted at the Madeleine Avenue at Alexander Street intersection on June 28, 2011, to the City's new Minimum Vehicle Volume warrant indicates that the vehicle and pedestrian volume from the side street meets only 12 percent of the volume requirements. The traffic volume split is 68 percent on Madeleine Avenue and 32 percent on Main Street. This is within the ratio of 70/30 needed to warrant an all-way stop (see Exhibit K2). During this count, we recorded 4 pedestrians crossing Madeleine Avenue.

A review of collision information showed that both intersections had no reported collisions in the last three years. The all-way stop warrant for a minor collector road requires there be a minimum of 3 collisions per year over a 3 year period.

Based on the traffic volumes, pedestrian volume and collision history, installing an all-way stop at the intersection of Madeleine Avenue at Main Street or Madeleine Avenue at Alexander Street is not warranted.

EXHIBIT: A2



Request for Decision

All Way Stop Control - 1) Bouchard Street at Marcel Street, Sudbury and 2) Balsam Street at Garrow Road and Power Street, Copper Cliff

Presented To: Traffic Committee

Presented: Monday, Mar 21, 2011

Report Date: Thursday, Mar 10, 2011

Type: Managers' Reports

Recommendation

That the intersection of Balsam Street at Garrow Road at Power 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 March 10, 2011.

Background

1) Bouchard Street at Marcel Street

On August 4th, 2010, Councillor Cimino requested that a turning movement count be conducted to determine if an all-way stop would be warranted at the intersection of Bouchard Street and Marcel Street.

Bouchard Street at Marcel Street is a cross intersection located west of Regent Street (**see Exhibit "A"**). There is also a playground located in the southeast corner of the intersection. Currently this intersection is controlled with "stop" signs facing northbound and southbound traffic on Marcel Street. This portion of Bouchard Street was also part of the Traffic Calming Pilot Project, and had a median island installed on the east leg of this intersection.

Applying the data from the turning movement count that was conducted on August 25th, 2010 to the City's new Minimum Volume Warrant indicates that the vehicle and pedestrian volume from the side street meets approximately 75 percent of the volume requirements. The traffic volume split is 80 percent on Bouchard Street and 20 percent on Marcel Street. This is outside the ratio of 70/30 needed to warrant an "all-way" stop (**see Exhibit "B"**).

Comparing the 2010 turning movement count to a previous count conducted in 2007, indicates that volumes at this intersection may be artificially high due to the ongoing construction on Regent Street. Southbound traffic

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Division Review

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Recommended by the Department

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Recommended by the C.A.O.

Doug Nadorozny
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from Marcel Street has increased by 27 percent (222 in 2007 vs. 282 in 2010) while northbound traffic from Marcel Street has more than doubled (363 in 2007 vs. 738 in 2010).

A review of the City's collision information from 2008 to 2010 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 Major Collector roadway, the Collision Warrant requires a minimum of four (4) collisions per year over a three (3) year period.

Councillor Cimino also expressed concerns about the safety of pedestrians while crossing Bouchard Street at this intersection. The existing median island on the east leg of this intersection was recommended by the IBI Group as part of the Traffic Calming Pilot Project in order to "provide a pedestrian refuge that supports a two-stage crossing for times when traffic volumes make crossing difficult". During the seven (7) hour count, we recorded a total of five (5) pedestrians crossing Bouchard Street at this intersection (four (4) crossing the east leg and one (1) crossing the west leg).

Based on the traffic volumes, pedestrian volume and collision history, staff does not recommend installing an all-way stop at the intersection of Bouchard Street and Marcel Street. Staff will arrange to recount this intersection once construction is completed on Regent Street to ensure that traffic volumes on Marcel Street do not remain high.

2) Balsam Street at Garrow Road at Power Street

Councillor Barbeau requested that a turning movement count be conducted to determine if an all-way stop is warranted at the intersection of Balsam Street at Garrow Road/Power Street.

Balsam Street at Garrow Road/Power Street is a cross intersection located in Copper Cliff (see Exhibit "C"). The Copper Cliff Library is located on the northwest corner of the intersection and the McClelland Arena and R.G. Dow Pool are located northeast of the intersection. Currently this intersection is controlled with "stop" signs facing northeast bound traffic on Power Street and southwest bound traffic on Garrow Road.

Applying the data from the turning movement count that was conducted on May 25th, 2010 to the City's new Minimum Volume Warrant indicates that the traffic volume at this intersection meets the minimum vehicle volume requirements (see Exhibit "D"). A review of the City's collision information from 2008 to 2010 revealed that there were three (3) 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 traffic volume meets the minimum vehicle volume warrant, staff recommends installing an all-way stop at the intersection of Balsam Street at Garrow Road/Power Street. Also, staff recommends that physical changes be made to the intersection to better define the approaches and to improve safety for pedestrians. These changes will be funded from the 2011 Capital Roads budget.

EXHIBIT: A

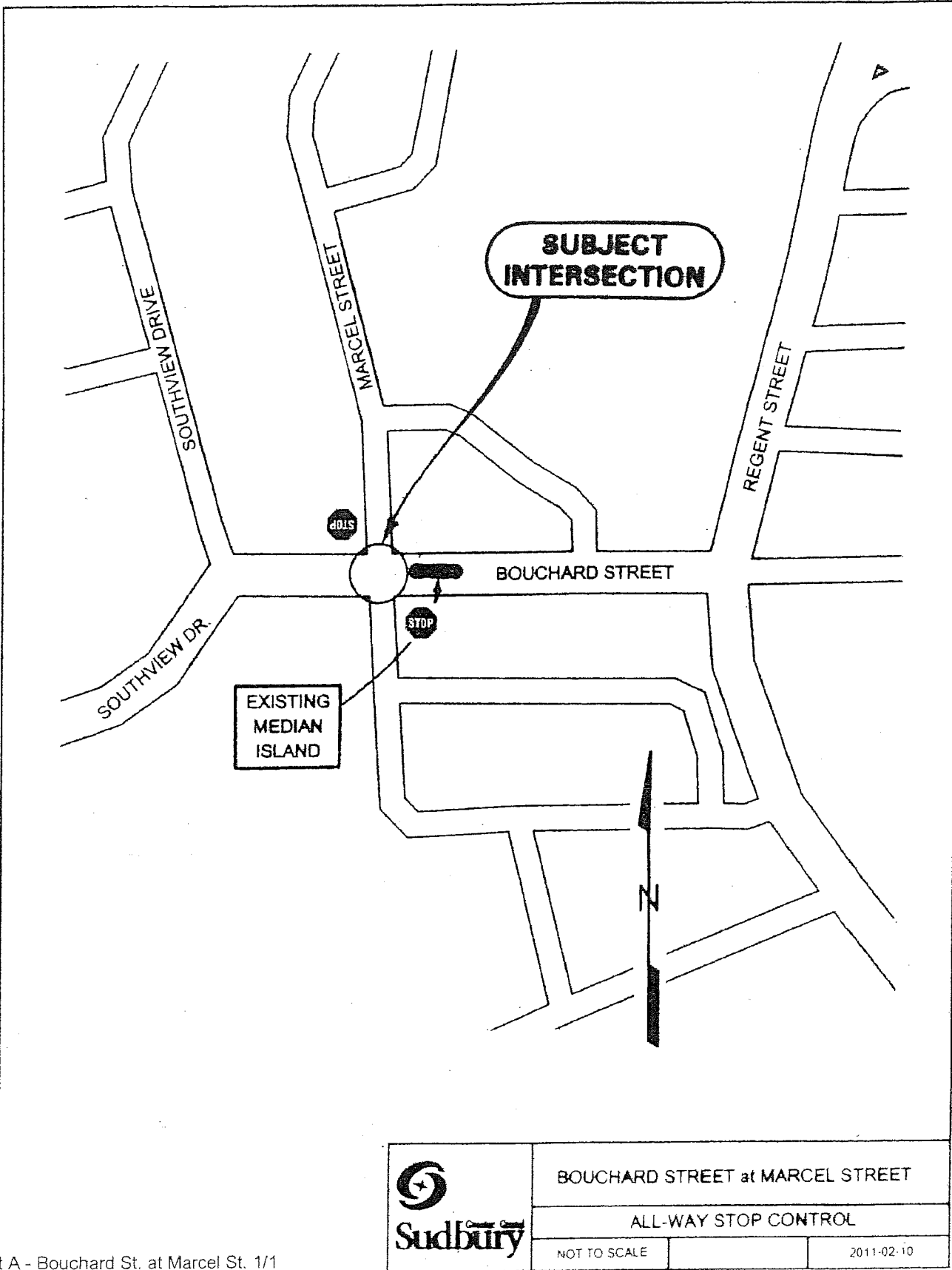


EXHIBIT: B



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Bouchard Street at Marcel Street	Date:	March 3, 2011
Date of TM Count:	August 25, 2010	Analyst:	JR
Type of Intersection:	Cross		
Roadway Type	Arterial/Major Collector		
AADT of Main Road:	10500		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	63.3	%
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	780	100.0%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	146	73.2%
Traffic Split	70/30	70/30	70/30	81 / 19	63.3%

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

* 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: C

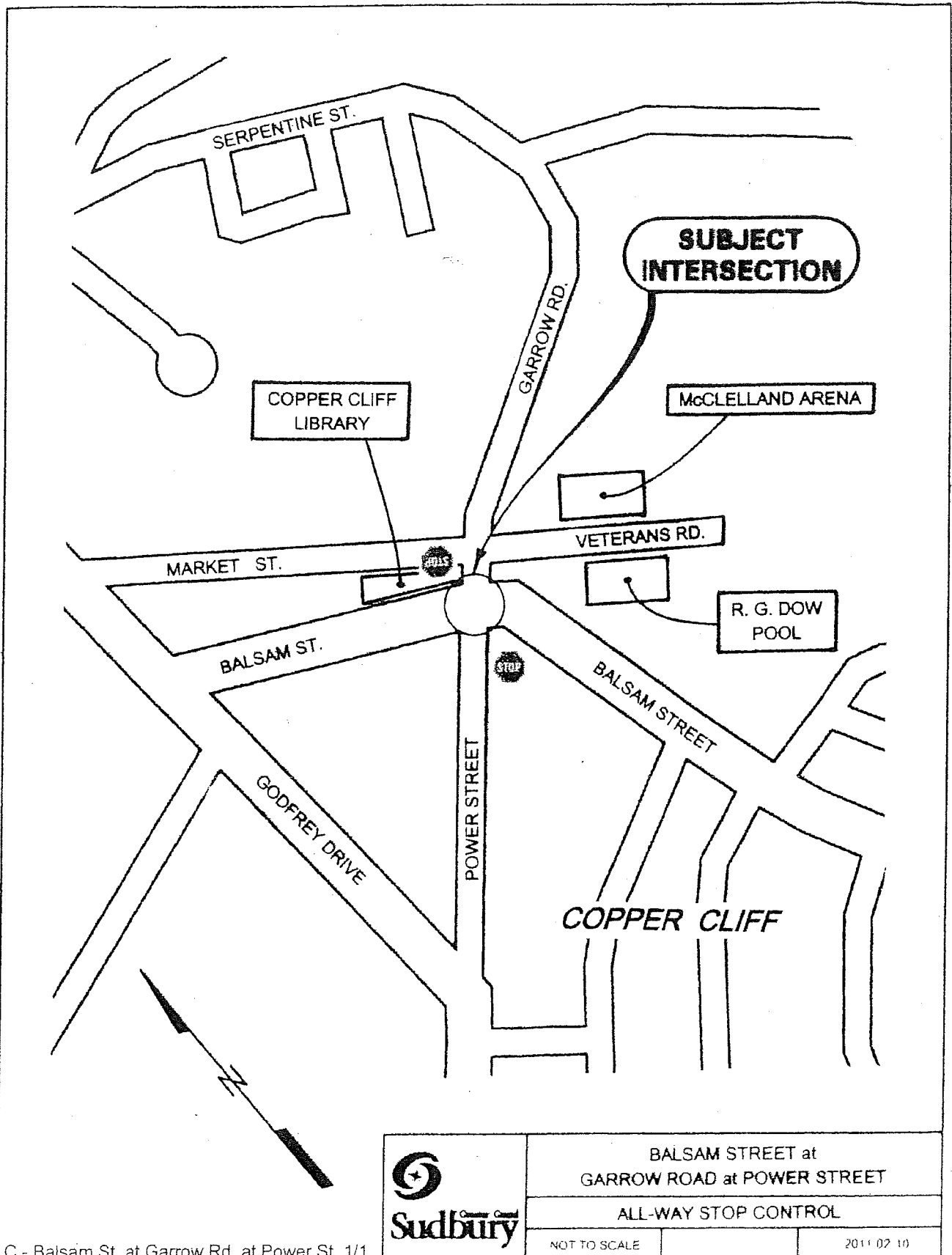
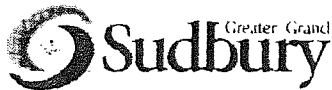


Exhibit C - Balsam St. at Garrow Rd. at Power St. 1/1

EXHIBIT: D



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Balsam Street at Power Street	Date:	March 3, 2011
Date of TM Count:	May 25, 2010	Analyst:	JR
Type of Intersection:	Cross		
Roadway Type	Minor Collector		
AADT of Main Road:	3998		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	100.0	%
Warrant #2	Collision History	33.3	%
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	461	100.0%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	185	100.0%
Traffic Split	70/30	70/30	70/30	62 / 38	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	33.3%
Warrant #3 Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.				No	Y/N

* 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: B2

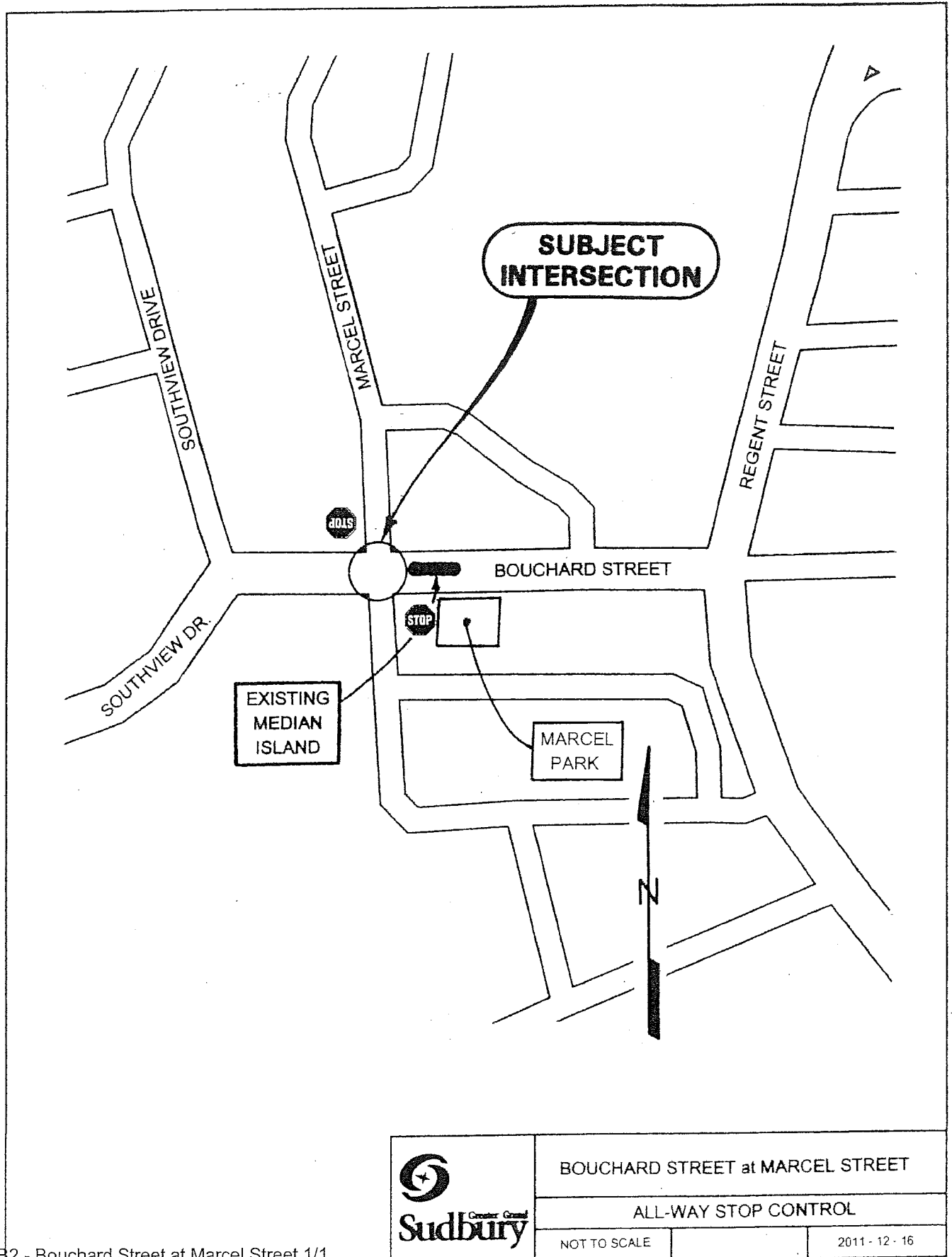


EXHIBIT: C2



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location: Bouchard Street at Marcel Street Date: October 25, 2011
 Date of TM Count: 10/04/2011 Analyst: JR
 Type of Intersection: Cross
 Roadway Type: Arterial/Major Collector
 AADT of Main Road: 10000

All-Way Stop Warrant Summary

Warrant #1 Minimum Vehicle Volume 30.0 %
 Warrant #2 Collision History 16.7 %
 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	930	100.0%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	87	43.4%
Traffic Split	70/30	70/30	70/30	91 / 9	30.0%

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*	2/3	16.7%

Warrant #3 Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures. No Y/N

* 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: D2

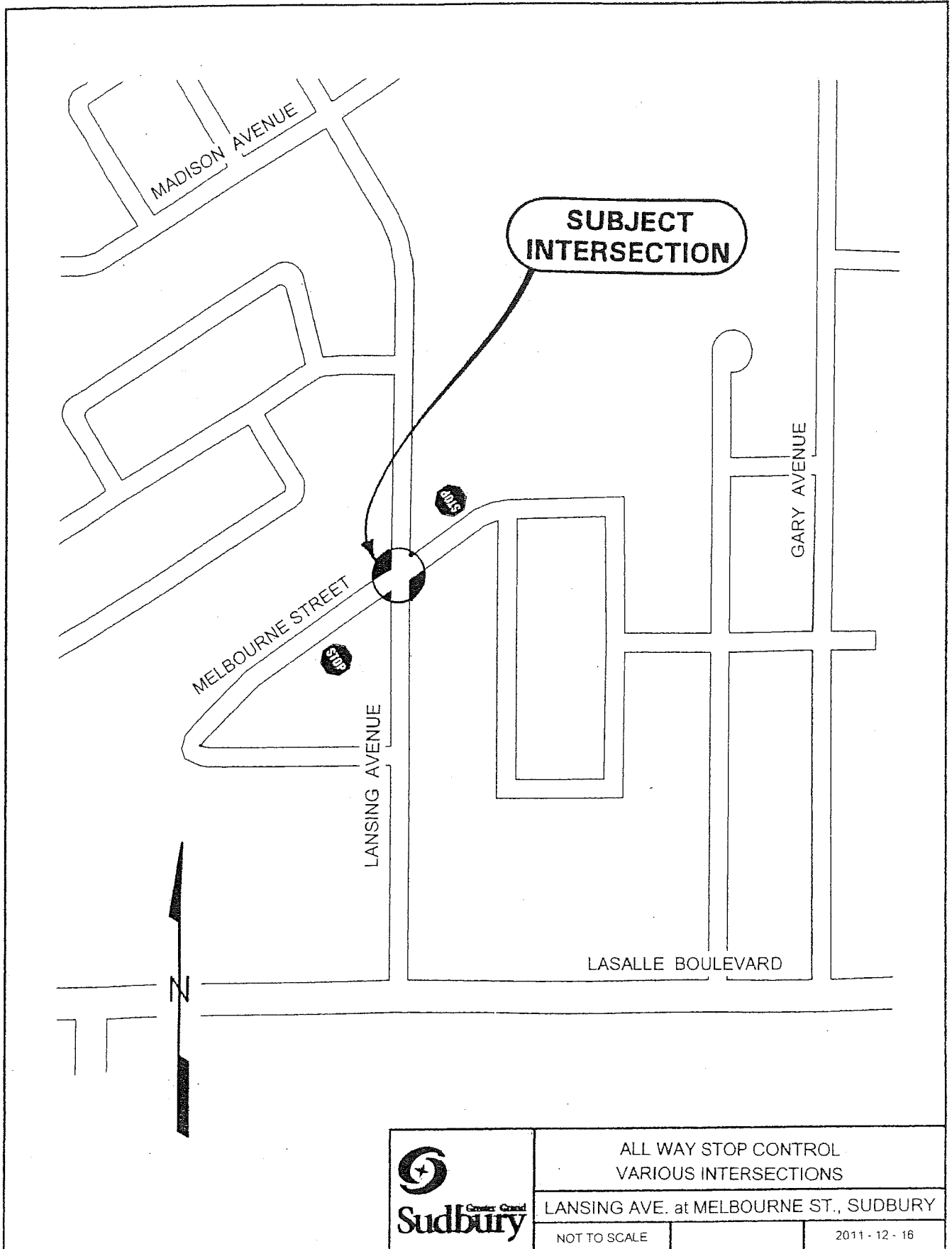


EXHIBIT: E2



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location: Lansing Avenue at Melbourne Street Date: October 4, 2011
 Date of TM Count: 09/28/2011 Analyst: JR
 Type of Intersection: Cross
 Roadway Type: Arterial/Major Collector
 AADT of Main Road: 7300

All-Way Stop Warrant Summary

Warrant #1 Minimum Vehicle Volume 19.6 %
 Warrant #2 Collision History 16.7 %
 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	509	100.0%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	39	19.6%
Traffic Split	70/30	70/30	70/30	92 / 8	26.7%

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*	2/3	16.7%

Warrant #3 Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures. No Y/N

* 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: F2

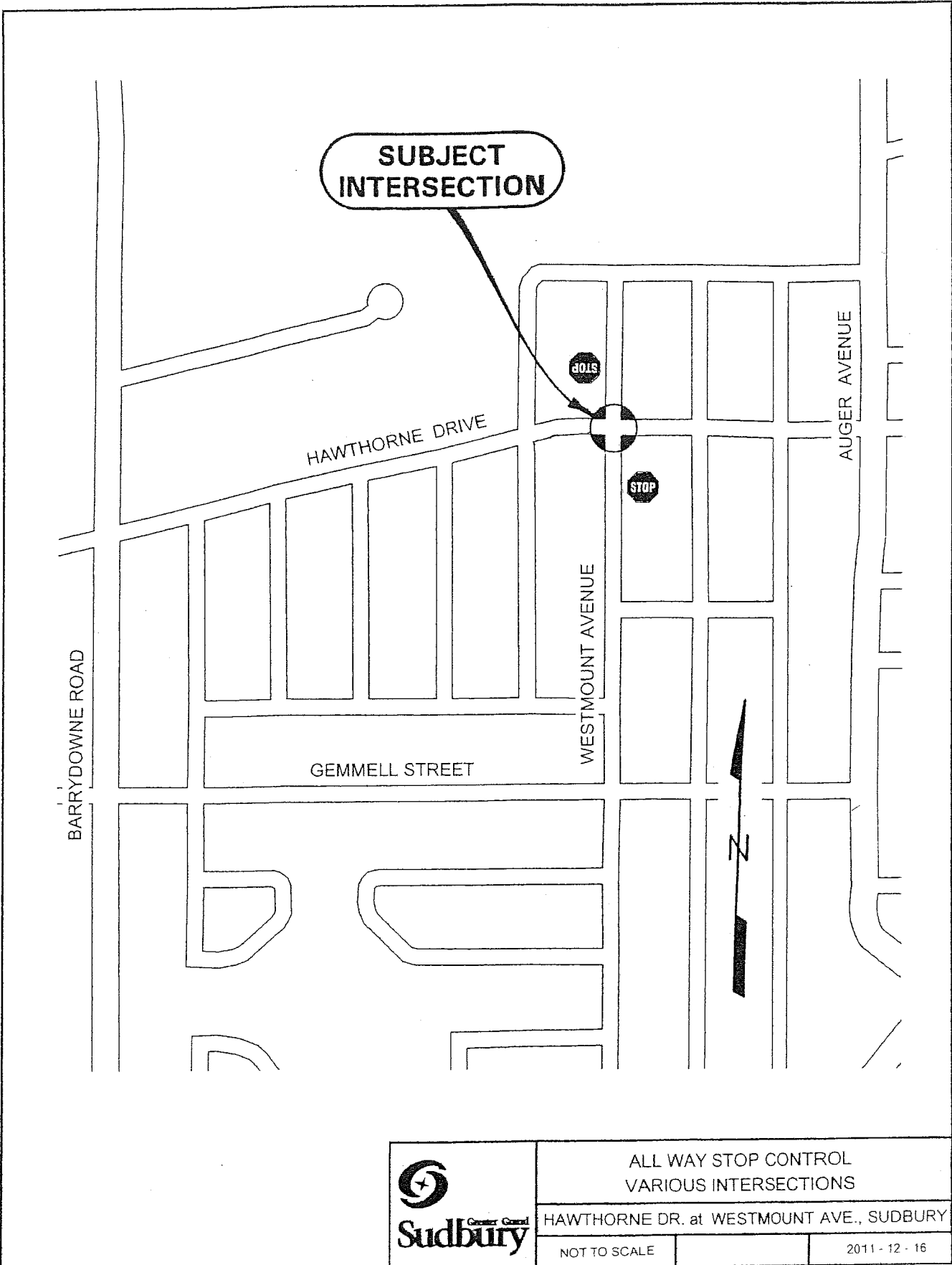
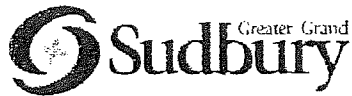


EXHIBIT: G2



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Westmount Avenue at Hawthorne Drive	Date:	August 9, 2011
Date of TM Count:	06/16/2011	Analyst:	JR
Type of Intersection:	Cross		
Roadway Type	Arterial/Major Collector		
AADT of Main Road:	5600		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	25.1	%
Warrant #2	Collision History	25.0	%
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	411	82.3%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	50	25.1%
Traffic Split	70/30	70/30	70/30	88 / 12	40.0%

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	25.0%

Warrant #3 Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures. No Y/N

* 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: H2

FEBRUARY 16, 2011

We, the residents of Madeleine, Martin, Main & Alexander Streets are requesting a 3-way Stop Sign at the corner of Madeleine & Main & Madeleine & Alexander Streets. We have serious speeding issues. Local children access the school entrance off of Madeleine and parents also drop off their children at this entrance to avoid congestion on Starlight Ave and turning challenges onto Lasalle Blvd

NAME	ADDRESS	TELEPHONE
Robert Mack	[REDACTED] Madeleine	[REDACTED]
Alphonse LaRose	[REDACTED] Madeleine	[REDACTED]
BARB INGRAM	[REDACTED] Madeleine	[REDACTED]
Jack Ingram	[REDACTED] "	[REDACTED]
M. G. Quenneville	[REDACTED] Madeleine	[REDACTED]
Maxine Quenneville	[REDACTED] Madeleine	[REDACTED]
Lynn Jackson	[REDACTED] Madeleine	[REDACTED]
P. Jackson	[REDACTED] "	[REDACTED]
Jennifer Whiting	[REDACTED] Madeleine	[REDACTED]
Doug Hodgins	[REDACTED] Madeleine	[REDACTED]
CHRISTOS KISSOS	[REDACTED] MADELEINE AVE	[REDACTED]
Tina Kitsos	[REDACTED] Madeleine Ave	[REDACTED]
Chrysoula Kitsos	[REDACTED] Madeleine Ave	[REDACTED]
Konstantinos Kitsos	[REDACTED] Madeleine	[REDACTED]
Talitha Paul	[REDACTED] Madeleine	[REDACTED]
Jim [unclear]	[REDACTED] Madeleine Ave	[REDACTED]
[unclear]	[REDACTED] Madeleine Ave	[REDACTED]
[unclear]	[REDACTED] MADELEINE AVE	[REDACTED]

FEBRUARY 16, 2011

We, the residents of Madeleine, Martin, Main & Alexander Streets are requesting a 3-way Stop Sign at the corner of Madeleine & Main & Madeleine & Alexander Streets. We have serious speeding issues. Local children access the school entrance off of Madeleine and parents also drop off their children at this entrance to avoid congestion on Starlight Ave and turning challenges onto Lasalle Blvd

NAME	ADDRESS	TELEPHONE
MIKE LANDRY SUZANNE LANDRY	MARTIN AVE Sudbury Cnt MARTIN AVE Sudbury Cnt	[REDACTED]
Russell G. Ross	Madeleine Ave	[REDACTED]
Julie Valade	Madeleine Ave	[REDACTED]
Joan Valade	Sagebrush Pl	[REDACTED]
Jamie Valade R. VALADE	Madeleine Ave SAGEBRUSH PL	[REDACTED]
Hattie Desjardins	Madeleine Ave	[REDACTED]
NORM AUBIN	MADELINE ST	[REDACTED]
L. H. Bissell	Madeleine Ave	[REDACTED]
Diane Bissell	Madeleine Ave	[REDACTED]
MALENA AUDETTE	MADELEINE AVE	[REDACTED]
Richard Audette	Madeleine Ave	[REDACTED]
Leighton Bissell	Madeleine	[REDACTED]
Rory Collins	Madeleine Ave	[REDACTED]
Judy Giffen	Madeleine Cnt	[REDACTED]
Claudette Macki	Madeleine	[REDACTED]
Nancy + Jim Howard	Madeleine Ave	[REDACTED]

FEBRUARY 16, 2011

We, the residents of Madeleine, Martin, Main & Alexander Streets are requesting a 3-way Stop Sign at the corner of Madeleine & Main & Madeleine & Alexander Streets. We have serious speeding issues. Local children access the school entrance off of Madeleine and parents also drop off their children at this entrance to avoid congestion on Starlight Ave and turning challenges onto Lasalle Blvd

NAME	ADDRESS	TELEPHONE
Ethel Campbell	Madeleine St.	
Wendy Wadsworth	Madeleine St.	
Rene Desjardins	Madeleine St.	
Andre Tefik	Madeleine	
Louise Lefebvre	Madeleine	
Angeline Rulon	Madeleine	
Edgar Rulon	Madeleine	
Roselle Scott	Madeleine	
Yves Josselin	Madeleine	
Brigitte Quesset	Madeleine	
D. Carlson	Madeleine	
Lauren	Madeleine	
J. NAGANISHI	A. Mart	
A. Martin	MADELEINE AVE.	
GARY KOIVU	Madeleine Ave	
La Knopf	Madeleine Ave	
C. Haynes	Madeleine Ave	
Paul Haynes	Madeleine Ave	
S. Manitowish	Madeleine Ave	
L. Manitowish	Madeleine Ave	

FEBRUARY 16, 2011

We, the residents of Madeleine, Martin, Main & Alexander Streets are requesting a 3-way Stop Sign at the corner of Madeleine & Main & Madeleine & Alexander Streets. We have serious speeding issues. Local children access the school entrance off of Madeleine and parents also drop off their children at this entrance to avoid congestion on Starlight Ave and turning challenges onto Lasalle Blvd

NAME	ADDRESS	TELEPHONE
Cécile Duchaine Madeleine Rocco Ray Arcand Philip Lasarte	Madeleine ave Madeleine Ave Madeleine Lower St	[REDACTED]
K. McNeill Joe Shields Brianna May	MADELEINE ST Madeleine AV Madeleine ave	[REDACTED]
GARRY HOOGE Kevin Roy	MADELEINE [REDACTED]	[REDACTED]
James & Kathy & Dominic	Alexander St. [REDACTED] ALEXANDER ST	[REDACTED]
Matthew Landry Er. Forget [REDACTED]	Martin Ave [REDACTED]	[REDACTED]

FEBRUARY 16, 2011

We, the residents of Madeleine, Martin, Main & Alexander Streets are requesting a 3-way Stop Sign at the corner of Madeleine & Main & Madeleine & Alexander Streets. We have serious speeding issues. Local children access the school entrance off of Madeleine and parents also drop off their children at this entrance to avoid congestion on Starlight Ave and turning challenges onto Lasalle Blvd

NAME	ADDRESS	TELEPHONE
Michel Guerin	[REDACTED] Martin St	[REDACTED]
Carole Guerin	[REDACTED] Martin St	[REDACTED]
JOSIEH PELLETIER	[REDACTED] MARTIN AVE	[REDACTED]
Joseph Bess	[REDACTED] MARTIN	[REDACTED]
Chae McLaughlin	[REDACTED] Martin Ave	[REDACTED]
Jackie Scott	[REDACTED] Martin St.	[REDACTED]
Shirley Agnew	[REDACTED] Martin	[REDACTED]
Yvonne Stn	[REDACTED] Martin	[REDACTED]
J. Scott/Kaplan	[REDACTED] Martin Ave	[REDACTED]
Jeannette Noel	[REDACTED] Alexander St	[REDACTED]
Matthew Roach	[REDACTED] Martin Ave	[REDACTED]
Lindsay Roach	[REDACTED] Martin Ave	[REDACTED]
Jeannine Marks	[REDACTED] MADELEINE AVE	[REDACTED]
Peter Markot	[REDACTED] Madeleine Ave	[REDACTED]
[REDACTED]	[REDACTED] MARTIN AVE	[REDACTED]
Loraine Edwards	[REDACTED] Martin Ave	[REDACTED]
[REDACTED]	[REDACTED] Martin Ave	[REDACTED]
[REDACTED]	[REDACTED] Martin Ave	[REDACTED]
[REDACTED]	[REDACTED] MARTIN AVE.	[REDACTED]
Paul Lemege	[REDACTED] MARTIN AVE (UPPER)	[REDACTED]
ANNA LEMECHA	[REDACTED] Martin Ave	[REDACTED]
[REDACTED]	[REDACTED] Martin Ave	[REDACTED]

EXHIBIT: I2

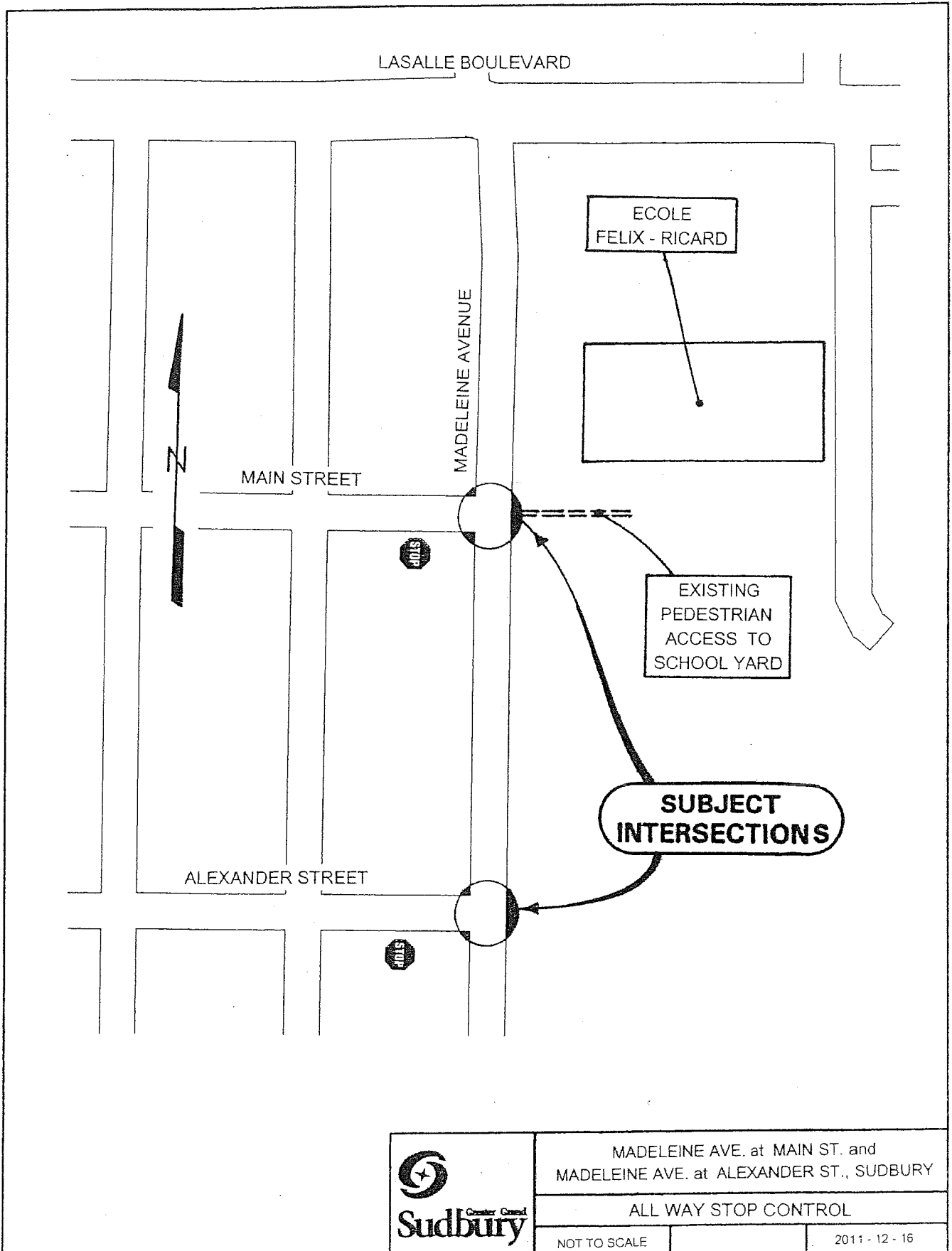


Exhibit I2 - T Intersections Located South of Lasalle Boulevard 1/1

EXHIBIT: J2



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location: Madeleine Avenue at Main Street Date: October 3, 2011
Date of TM Count: 06/27/2011 Analyst: JR
Type of Intersection: T
Roadway Type: Minor Collector
AADT of Main Road: 1500

All-Way Stop Warrant Summary

Warrant #1 Minimum Vehicle Volume %
Warrant #2 Collision History %
Warrant #3 Traffic Control Signals Y/N

All-Way Stop Warranted?

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	90	25.6%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	22	15.4%
Traffic Split	70/30	70/30	70/30	76 / 24	80.0%

Warrant #2 - Collision History

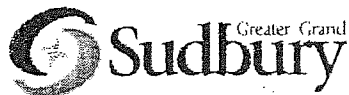
Roadway Type	Arterial/Major Collector	Minor Collector	Local	Number of Collisions per year	Percent Compliance
Collisions per Year over 3 year period	4*	3*	2*	0	0.0%

Warrant #3 Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures. Y/N

* 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.

EXHIBIT: K2



CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Madeleine Ave at Alexander St	Date:	October 3, 2011
Date of TM Count:	June 28, 2011	Analyst:	JR
Type of Intersection:	T		
Roadway Type	Local		
AADT of Main Road:	500		

All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	12.1	%
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	53	15.1%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	17	12.1%
Traffic Split	70/30	70/30	70/30	68/32	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*	0	0.0%

Warrant #3	Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.	<input type="checkbox"/> No <input type="checkbox"/> 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.