

An aerial photograph of a road, Southside Road, running vertically through the center of the image. The road is a multi-lane highway with a clear center line. To the left of the road, there is a residential area with many houses and some commercial buildings. To the right of the road, there is a large, dark, wooded area. The overall tone of the image is muted, with a greyish-green color palette.

Southside Road

Prepared for:

City of St. John's
Police & Traffic Committee

Prepared by:

City of St. John's
Traffic Division

January 2007

BACKGROUND:

At the October 19th, 2006 meeting of the Police & Traffic Committee, the Committee met with members of the Southside Road Residents Association to discuss their concerns with respect to speeding and general traffic safety issues on Southside Road. Correspondence outlining the residents' concerns was presented to the Committee at that time and is included in Appendix A of this report.

At the conclusion of this meeting, the committee directed staff to review the suggestions/concerns submitted by the Residents Association and prepare a report for the committee's consideration.

The suggestions made by the Residents Committee are summarized below:

Short Term Suggestions:

1. Installation of more speed limit signs all along Southside Road east of Bay Bulls Road.
2. Installation of all-way stops at the following locations:
Southside Road @ Hill View Drive East
Southside Road @ Symes Bridge Road
3. Installation of traffic signals and/or roundabouts at the following locations:
Southside Road @ Blackhead Road
Southside Road @ Waterford Lane
4. Installation of a special pedestrian crosswalk where the T'Railway crosses Southside Road.
5. Reduction of speed limit at the following locations:
In the area of Civic No. 350
In the area of Civic No. 490
In the area of Noseworthy's Store
6. Relocation of an area used to queue taxis and commercial vehicles, or implementation of restrictions on that area.
7. Installation of "Local Traffic Only" signs.

Long Term Suggestions:

8. Implementation of a one way street system.
9. Installation of traffic calming measures.
10. Installation of sidewalks, storm drains & fencing.
11. Increase traffic enforcement.

DISCUSSION:

Each of the previously noted suggestions that have been raised by the residents of Southside Road are discussed individually in this section of the report.

1. Installation of more speed limit signs all along Southside Road east of Bay Bulls Road.

According to our records, there are 16 existing speed limit signs installed on the Southside Road between Bay Bulls Road and Blackhead Road. The number of existing speed limit signs on this segment of roadway is adequate to warn motorists of the posted speed limit. The installation of additional speed limit signage is not required.

2. Installation of all-way stops at the following locations:

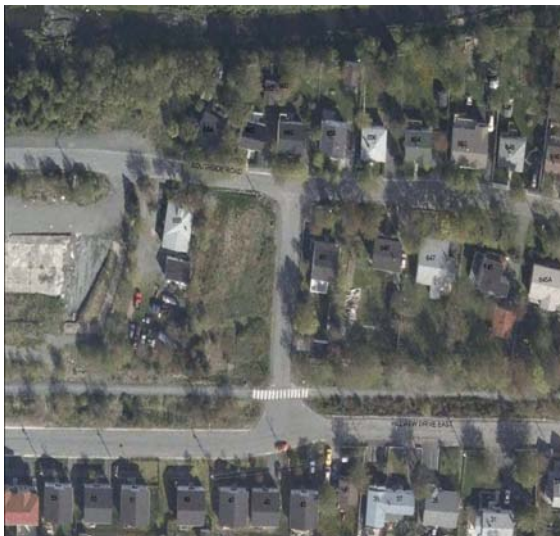


Figure 1 - Aerial Map
Southside Road @ Hill View Drive East



Figure 2 - Aerial Map
Southside Road @ Symes Bridge Road

The City of St. John's Traffic Division uses guidelines established by the Transportation Association of Canada (TAC) to determine where multi-way stops should be considered for installation. The TAC multi-way stop warrant procedure identifies five separate conditions that may warrant the installation of a multi-way stop. A copy of the warrant is included in Appendix B.

Two of the conditions consider the installation of an multi-way stop as an interim measure prior to the installation of traffic signals or prior to stop control reversal. Neither would be applicable in this instance.

The third condition considers intersection collision experience. A review of the City's collision database indicates that there were no collisions reported to police at either of these locations over the four year period from January 1, 2003 to December 31, 2006.

The final two conditions relate to traffic volumes. One requires the combined pedestrian and vehicular volumes on the minor street to average 200 units per hour for a six hour period. The highest hourly volume observed on Southside Road was 196 vehicles. Volumes on both Hillview Drive East and Syme's Bridge Road would be much lower than the volume observed on Southside Road and, as such, this criteria would not be met. The second of the two volume conditions considers the average delay to vehicles on the minor street. The criteria is for the average delay to exceed 30 seconds during the peak hour. Again, given that the highest hourly volume observed on Southside Road was 196 vehicles, vehicles on any minor street that intersects with Southside Road would not experience an average delay anywhere near the minimum requirement of 30 seconds.

Based on collision history, traffic volumes, and average vehicle delays the installation of multi-way stop controls at both requested locations is not warranted.

The installation of unwarranted multi-way stops should not be used as a method of speed control. Unwarranted stops increases the potential for rear end collisions, can cause unnecessary delay and typically leads to non-compliance and increased speeds between stops.

3. Installation of traffic signals and/or roundabouts at the following locations:



Figure 3 - Aerial Map
Southside Road @ Blackhead Road



Figure 4 - Aerial Map
Southside Road @ Waterford Lane

There are a number of factors that are taken into consideration when any intersection location within the City is considered for the installation of traffic signals. The City uses the 2005 signal matrix warrant developed by the Transportation Association of Canada as the first indicator of the need to install signals.

Given that the traffic volumes on Southside Road are not high enough to warrant a multi-way stop, they certainly would not be high enough to warrant the installation of a traffic signal. That being said, the Traffic Division did run a warrant analysis on the intersection

considered to have the highest overall traffic volumes on Southside Road - the intersection of Southside Road @ Blackhead Road. The results of this analysis are contained in Appendix C. Typically, an intersection with a score of 100 points would merit further investigation with respect to the need for installation of a traffic signal. This intersection scored 27 points.

The Installation of a roundabout would only be considered at a location where a traffic signal is warranted and where the physical geometry could accommodate the installation.

The installation of a higher level of traffic control is not required at the intersections of Southside Road with Blackhead Road and Waterford Lane.

4. Installation of a special pedestrian crosswalk where the T'Railway crosses Southside Road.



Figure 5 - Aerial Map
T'Railway Crossing @ Southside Road

The Traffic Division follows the Transportation Association of Canada's Pedestrian Crossing Control Manual when assessing the need for a special crosswalk. The process is quite similar to the evaluation systems that are in place and used to assess the need for multi-way stops and traffic signals. The criteria that are considered include the number of pedestrians using the crossing, traffic volumes and the visibility of the location to oncoming traffic. The City only installs crosswalks that are warranted under these criteria. A copy of the warrant and graph for estimated crossing opportunities are included in Appendix D. All crosswalks along the T'Railway have been reviewed and have been marked accordingly. For the peak hourly volume of 196 vehicles on Southside Road there would be in excess of 250 crossing opportunities at the T-Rail location which does not warrant the installation of a special crosswalk.

5. Reduction of speed limit at the following locations:



Figure 6 - Aerial Map
Area of # 350 Southside Road



Figure 7 - Aerial Map
Area of # 490 Southside Road



Figure 8 - Aerial Map
Area of Noseworthy's Store - Southside Road

Speeding in residential areas is one of the most frequent complaints received by the Traffic Division. Often requests are made to reduce the speed limit on a street to discourage speeding. Research has shown, however, that drivers will drive at a speed they are reasonably comfortable with regardless of the posted speed limit. A recently completed speed study conducted on Southside Road confirms this fact. Almost 100% of the drivers using Southside Road during the 24 hour traffic count that was conducted were driving in excess of the posted speed limit of 30km/h. The majority of whom (at least 85%) were driving 55km/h or less. The complete results of the speed study are included in Appendix E.

The speed limit in the area of Civic No. 350 Southside Road was reviewed by the Police and Traffic Committee in 2002, at which time the 30km/h speed limit was raised to 50km/h. The City's collision database indicates that there has been only one collision in this area

since the speed limit was changed. This was a single motor vehicle collision in which speed was not identified as a contributing factor.

The existing speed limit in the areas of Civic No. 490 and Noseworthy's Store is 30km/h. As noted previously, the recently completed speed study conducted on Southside Road indicated that almost 100% of the drivers using Southside Road area are already driving in excess of the posted speed limit of 30km/h. Further reducing the speed limit will not have any effect on reducing the actual speeds that motorists are traveling in these areas. In fact an argument could be made that the existing 30km/hr speed does nothing more than place reasonable drivers in a position where they are violating the law.

There is no geometrical condition or extenuating circumstance to warrant a further reduction in the speed limit at either of these locations.

6. Relocation of an area used to queue taxis and commercial vehicles, or implementation of restrictions on that area.

The area of property referenced by the residents is a small piece of land situated on the south side of the Southside Road approximately 40 meters west of the Blackhead Road intersection. The area is a small gravel lot that has been traditionally used by taxis as a holding area while waiting for dispatch calls. The area of land in question appears to be privately owned. The merits of forcing these vehicles from this area should be weighed against the fact that they can legally park on many other sections of Southside Road that have the potential to be much more disruptive to area residents. The use of the property does not result in any traffic safety issues.

7. Installation of "Local Traffic Only" signs.

"Local Traffic Only" signage is typically used only under temporary road construction conditions where a full road closure is in place in advance of a road junction, but local traffic can be allowed beyond the junction up to the point of the full closure. The use of this signage where no road closure is in place is not likely to deter anyone who is currently using this roadway. The restriction is not enforceable.

8. Implementation of a one way street system

One-way traffic systems have traditionally been used by traffic engineers as a means of gaining additional capacity on the street network system. They can improve traffic operations in areas that suffer from traffic congestion problems. Since the Southside Road does not have any chronic traffic congestion problems the advantages of utilizing a one way street system have to be carefully weighed against some significant disadvantages which include:

- Increased travel distance and associated travel time and fuel consumption for residents. This additional travel also typically increases the number of turning movements and consequently the number of conflict points between vehicles and pedestrians.
- Motorists not familiar with the road network tend to be confused easily with the one-way street systems.
- Changes in overall travel patterns may eliminate problems on some streets but create problems on others.
- Emergency vehicles may have to take a longer route to reach certain locations than they would otherwise have to take in a two-way system.
- One way streets typically lead to increased speeds as motorists have a wider driving surface and do not have to contend with oncoming traffic.

A license plate survey conducted on the Southside Road in October, 2006, on a typical work day between the hours of 3:30pm and 5:30pm tracked cars entering the Southside Road at Blackhead Road and exiting at Bay Bulls Road. Of the 161 vehicles tracked over the two hour period, 64 vehicles or 36% passed through the area and could likely be considered as non-residential traffic. While the survey indicated that some vehicles are using Southside road as a thoroughfare the amount of thru traffic is by no means excessive and certainly would not warrant the implementation of a one-way street system in this area.

9. Installation of traffic calming measures

Installation of traffic calming measures such as speed humps, present some of the following issues.

- Like other vehicles, emergency response vehicles must also reduce speeds for traffic calming installations. This slows the response time for emergency services such as fire, ambulance and police.
- Traffic Calming measures often only slow vehicles at the specific location where they are installed. Motorists tend to increase their speed after passing over / through a traffic calming area. This also leads to a corresponding increase in traffic noise due to the braking and acceleration of vehicles.
- Some traffic calming measures, such as speed humps / bumps can pose a hazard for motorcycles, cyclists, and pedestrians particularly in evening periods and adverse weather conditions when visibility of the bump may be reduced.
- Traffic calming measures can cause problems with traffic volumes on adjacent streets as motorists will often change their routes to avoid them.

- Some traffic calming measures can often be problematic for municipal operations such as snow clearing, public transit, garbage collection, etc.

The average daily traffic volume on the Southside Road is approximately 1300 vehicles. There are approximately 180 dwelling units on the Southside Road between Blackhead Road and Bay Bulls Road. Based on an average generation rate of 7 trips per dwelling unit per day, 180 dwelling units would normally be expected to generate approximately 1260 trips per day. The generation rates based on 7 trips per day per dwelling unit is very close to the actual traffic counts that were recorded on the Southside Road.

Traffic calming measures are normally only deployed under situations where neighborhoods are experiencing large amounts of thru traffic. This is not the case on the Southside Road. Traffic calming measures are not required.

10. Installation of sidewalks, storm drains & fencing

Installation of sidewalk(s) along the Southside Road will increase pedestrian convenience and safety. Upgrading, however, will not solve the speeding problem and may, in fact, exacerbate it further because the upgraded road will make it more attractive for motorists to use this route. The potential to intensify a speeding problem however is not reason in itself to overlook or delay the upgrading of a roadway. The upgrading of Southside Road is expected to cost approximately \$6.2 million dollars. This figure includes required storm sewers but does not include the segment of roadway from Waterford Lane to Bay Bulls Road. The project has been added to the City's capital works list for consideration.

11. Increase traffic enforcement

Speeding is ultimately an enforcement problem and while the City has no responsibility for the enforcement of moving violations we have used non-intrusive measures such as portable radar units pavement markings to help slow traffic down. The portable radar unit has been deployed on the Southside Road several times in the past.

Complaints with respect to speeding should be referred to the Royal Newfoundland Constabulary.

CONCLUSION & RECOMMENDATIONS

The Southside Road Residents Committee have made a number of both short and long term suggestions to the City in an effort to resolve what they perceive to be traffic safety issues on the Southside Road. The Traffic Division has reviewed and commented on each of these issues individually. The existing daily traffic volumes on Southside Road are considered normal for the number of residential dwelling units located on this street. The licence plate study indicates that the majority of the traffic on Southside Road is local. There is a small volume of through traffic that uses Southside Road during peak traffic periods but this volume would not be considered excessive by any means.

Almost 100% of the traffic on Southside Road was violating the existing posted speed limit of 30km/h in the 24 hour period over which count information was gathered. Further reductions in the speed limit are simply not required. In light of the previous discussions, the issue of speeding can only be addressed by enforcement. It is recommended that the City continue working with the RNC and Southside Road Residents Committee to further address the issue of speeding by:

- i) Determining the most appropriate times for the RNC to target their enforcement efforts.
- ii) Deploying the City's neighbourhood radar program on Southside Road periodically throughout the summer months.

APPENDIX A

To: St. John's Traffic Committee.
From: Southside Road Residents Association.
Presented October 19th 2006 at City Hall

Sirs/Madams,

Our Association was formed to deal with what we see as a most dangerous traffic situation on our road . A surge of development has made changes necessary now. Our road is not passable by more than one car in many places. Many residents have their doorsteps only a couple of feet from the road . There are no sidewalks and open ditches in many areas. Commercial vehicles use the road as a thruway . Taxis scream along because there is not one stop light, stop sign, yield sign or even a pedestrian crossing light. I believe we live on the longest unobstructed raceway in town. There appears to be little or no numbers available on accident rates and injuries. Cats and dogs are regular victims.

After much discussion ,we believe that the most effective method is to use increased signage and traffic controls to address the problem.

We believe the following measures should be considered:

More speed signs east of Bay Bulls Road, and Anti-Litter signs posted all along.

A stoplight at the intersection of Waterford Lane and Southside Road. —

A three way stop at the intersection of Hillview East and Southside Road.

A pedestrian crosswalk light at the intersection of the railbed trail and Southside Road.

A three way stop at the intersection of Symes Bridge Road and Southside Road.

Reduced speed zones in the area of Noseworthy's store and the blind turn located in the area of #490 .

A stoplight at the foot of Shea Heights and Southside Road.

The area at the foot of Shea Heights should have restrictions imposed to prevent the area from being used as a standby area by taxis and commercial vehicles. This would have them move to a more suitable area.

. The area #350 of Southside is to have it's speed limit returned to 30k/ph. This same area is in need of fencing and improved storm drains to protect pedestrians from being drenched by passing traffic whenever it is wet.

This is a list of our most immediate suggestions and makes no attempt to address other long term solutions such as a one way traffic system, traffic dividers , sidewalks or other capitol works on Southside Road.

Since residents approached council with a petition of 101 names on September 18 th there has been better enforcement by the RNC. Whenever we called the RNC before this they increased enforcement as well.

Dedicated traffic enforcement units could help address some of our concerns and we urge Council to re-visit this issue in light of the traffic safety concerns in our neighbourhood and throughout the city.

There needs to be more communication with residents of our area when decisions are made that may affect our safety.

sincerely,

Robert Breen , Southside Road Residents Association , Spokesman

From: "Catherine Despatie" <Catherine_Despatie@oceaniccorp.com>
Subject: **Southside Road**
Date: October 3, 2006 12:50:39 PM NDT
To: <robertbreen@nl.rogers.com>

Hello Robert,

As a long time resident of the Southside I was very pleased to receive your notice on Sunday. It is just not acceptable that we, on the traditional "wrong side of the track", are not given the same priority by council as the rest of the city. My grandmother, Ellen Horan, was involved with this struggle until the time of her death in 1971 and it disappoints and concerns me that council has not made any progress on this issue in the 35 years since her death.

I quickly reviewed some of the suggestions that have been raised by other residents of the Southside and would like to add that traffic control areas have worked in several older parts of larger cities such as Toronto and Montreal. These areas consist of a series of three to four consecutive traffic berms spread out within a few feet of each other. These traffic control areas could be placed at several locations along the Southside and could probably be built directly on the existing road, thus making for a cost-effective alternative to sidewalks, increased patrol, and such.

I will be present for the meeting on the 5th and look forward to meeting you. Please feel free to contact me if there is anything else I can do.

With best regards,

Catherine Despatie

Catherine Despatie
Marketing Manager

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From: "Mary O'Keeffe" <marytokeeffe@hotmail.com>
Subject: **October 19 presentation**
Date: October 15, 2006 8:07:13 PM NDT
To: robertbreen@nl.rogers.com

Hello Robert,

I received your presentation for the October 19 meeting at City Hall. You have covered all the possibilities as far as I can see.

The 2 points most pertinent to my area are:

- **Stop light** at the foot of Shea Heights and Southside Road-there continues to be confusion as to who has the right of way (certainly not pedestrians!)
-
- **Restore speed limit to 30 kph, and put up signage to that effect.** The signs were removed a couple of years ago, coinciding, oddly enough, with the blasting operations for the Sewage Treatment plant. This is the part of Southside Road that Dawn Corner claimed was 50 kph; but when I moved here in 2000, the posted speed limit was 30. Dawn Corner, supervisor of Traffic and Parking, also claimed that "30 kph was inappropriately low for the road, which made it difficult to enforce." [e-mail to me dated March 6, 2006]. I don't think this is a logical argument!

I'm sorry I cannot attend the meeting, but I look forward to hearing about it.

Good Luck, and thanks for all your work.

Mary O'Keeffe

From: "Christiane@nl.rogers.com" <christiane@nl.rogers.com>
Subject: **Southside Rd**
Date: October 1, 2006 2:25:07 PM NDT
To: <robertbreen@nl.rogers.com>

Hi Robert,

Thanks for taking on this issue of safety on our street. We live at 808 Southside Rd (Waterford Hamlet) and are very concerned about the speeds being used by drivers on the road. Our stretch, while not narrow, is straight and leads directly from the off ramp of Pitts Memorial Drive. This often results in very high speeds by drivers using the 30km/hr zone as a thoroughfare to reach sections of western Water Street. Unfortunately, access for these people from the eastern end of Pitts Memorial is very difficult & so they use Southside Rd.

The full length of Southside Rd is used by walkers, bikers and runners in order to avoid the busier streets such as Waterford Bridge Rd and Water Street. However with the traffic volume and speed increasing dramatically, it is becoming much more dangerous. **We firmly believe that people living on this street and surrounding areas are more mindful of safe speeds and also the garbage discarded by drivers.**

We were unaware of the petition being circulated & we would certainly like to have our names added to it and any others relating to this issue.

Regarding the suggestions for a solution:

1. Stop signs to slow things down - could mean more trouble with drivers running the stop signs early in the morning to get to work.
2. Dead end the road in one or more places creating cul-de-sacs - cost to city council.
3. Create a one way system, or two one way systems - this would be OUR solution - minimal cost to city council with alternating directions for each section discouraging/eliminating the thoroughfare.
4. Roundabouts to slow things down - they do work, but cost money & increase snow-clearing time.
5. Fill in all open ditches and provide sidewalks - won't reduce the driver's speed.
6. One or more pedestrian crosswalks with flashing lights - dangerous as pedestrians have a false sense of security and drivers again won't reduce speed early in the mornings.
7. Have the road designated "LOCAL TRAFFIC ONLY" - who controls this?
8. Increased enforcement using dedicated patrol units as suggested by Mayor Wells - short term solution, but impractical in the long run and possible cost to council.

We are unable to make it Thursday evening, but would appreciate your including our thoughts in your deliberations and please include our thanks to you and all for taking a proactive approach to this issue before an accident does happen.

Thanks again,
Rob Gamberg & Christiane Martin
808 Southside Rd
St. John's, NL
A1E 1A7

APPENDIX B

MUTCD MULTI-WAY STOP CONTROL WARRANT

INTERSECTION: MAJOR STREET: Southside Road
MINOR STREET: Hillview Drive East / Syme's Bridge Road
Date of Count: October 12 & 13, 2006

OF APPROACH LANES:

MAJOR: 1
MINOR: 1

Condition 1

- i) Where volumes on intersecting roadways are approximately equal
AND
ii) Combined pedestrian and vehicular volumes on minor street
average 200 units per hour for an eight (six) hour period.

Condition 1 Met: NO
Condition i Met: NO

Condition ii Met: NO

Hour	08:00 AM	09:00 AM	12:00 PM	01:00 PM	04:00 PM	05:00 PM
Major Street	174	89	131	132	157	196
Minor Street	<100	<100	<100	<100	<100	<100

Condition 2

Where the average delays to minor street traffic exceeds 30 seconds per vehicle during the peak hour.

Condition 2 Met: NO

Condition 3

Where traffic signals are not warranted and there are five or more reported collisions per year of a type susceptible to correction by a multi-way stop (ie/ left and right turn type collisions).

Condition 3 Met: NO

Neither of the intersections on Southside Road, for which multi-way stops were suggested, experienced 5 or more reported collisions in one year

Condition 4

As an interim measure prior to the installation of traffic signals.

Condition 4 Met: NO

Condition 5

As an interim measure to stop control reversal.

Condition 5 Met: NO

CONDITIONS MET:

NONE

MULTI - WAY STOP WARRANTED:

NO

APPENDIX C

APPENDIX D

Pedestrian Crosswalk Warrant

Location: _____

Date: _____

Peak Hour Analyzed: _____

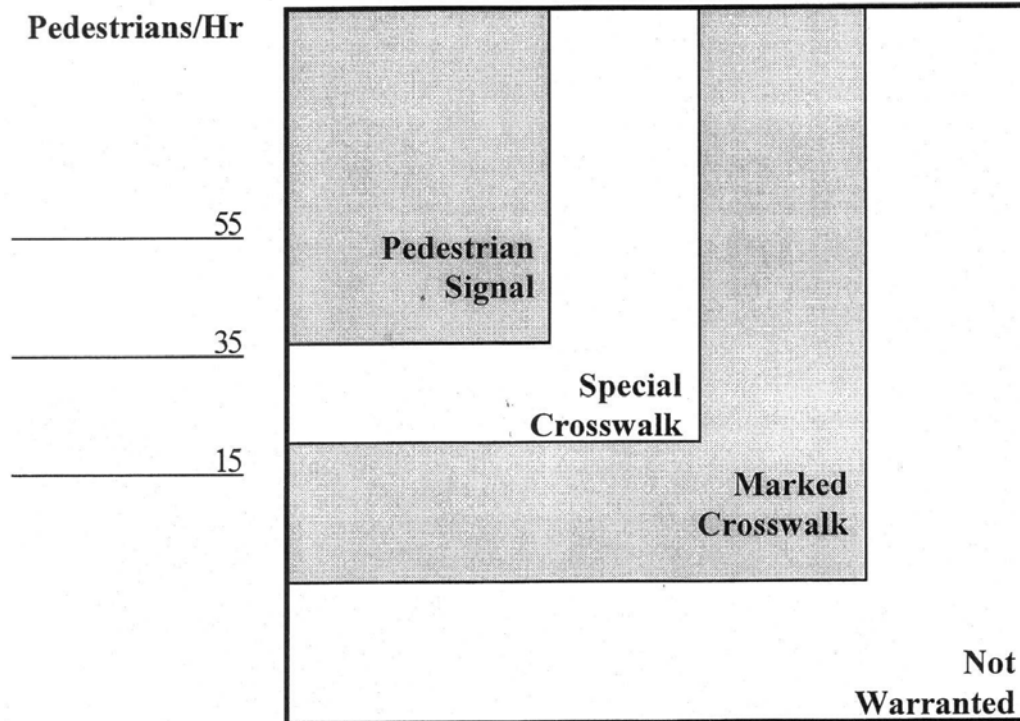
Pedestrian Volumes (in Equivalent Adult Units)

	<u>Number</u>	<u>Factor</u>	<u>EAU</u>
Children (<12 yrs)	_____	x 2.0 =	_____
Seniors (> 65 yrs)	_____	x 1.5 =	_____
Disabled Persons	_____	x 2.0 =	_____
Adults	_____	x 1.0 =	_____
			Total EAU = _____

Total vehicle volume: _____

Crossing Opportunities: _____ (see attached chart)

Pedestrian Crossing Control Warrant Chart



Crossing Opportunities Per Hour

60

90

120

Warrant Met: _____

Recommendation: _____

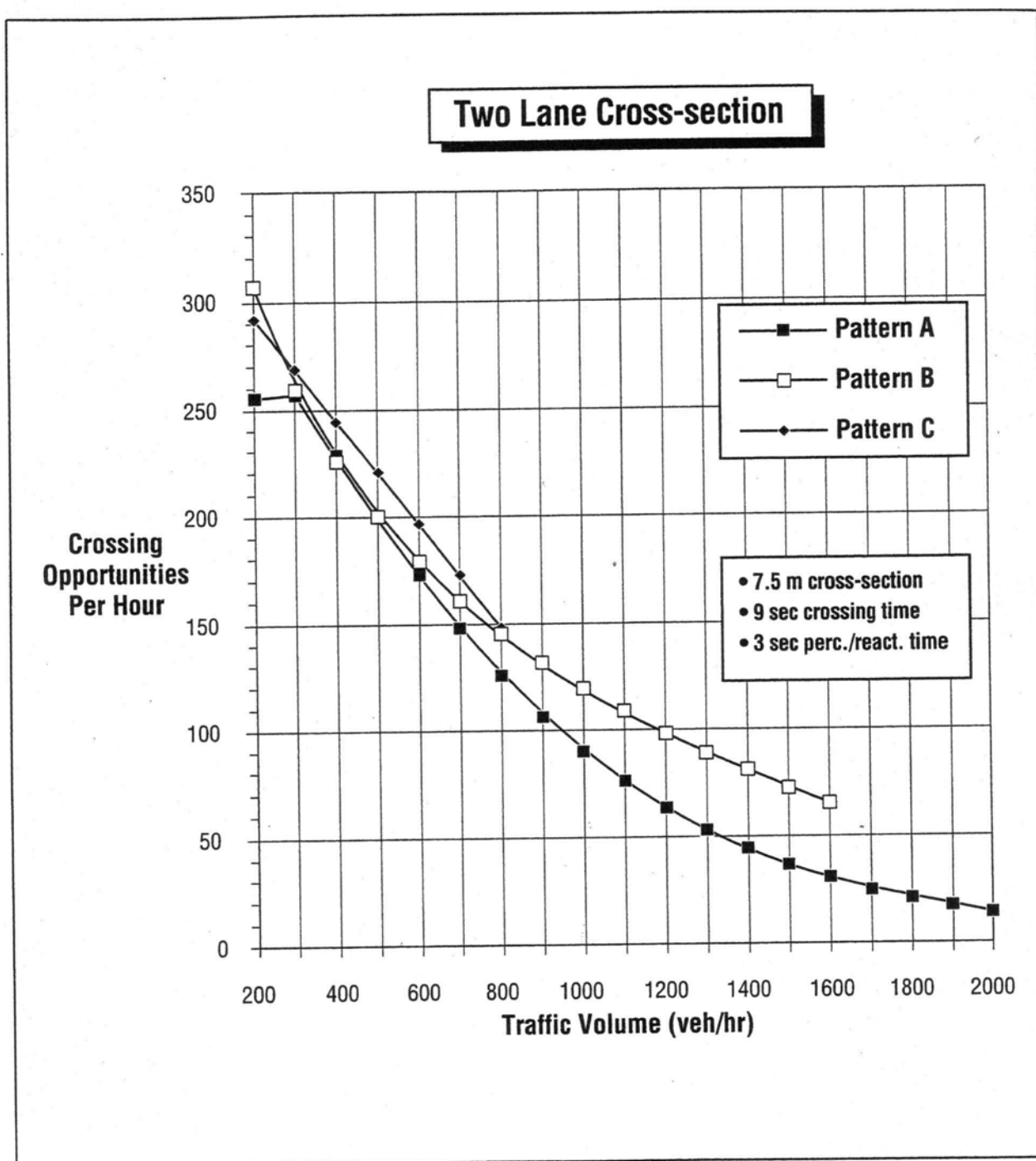
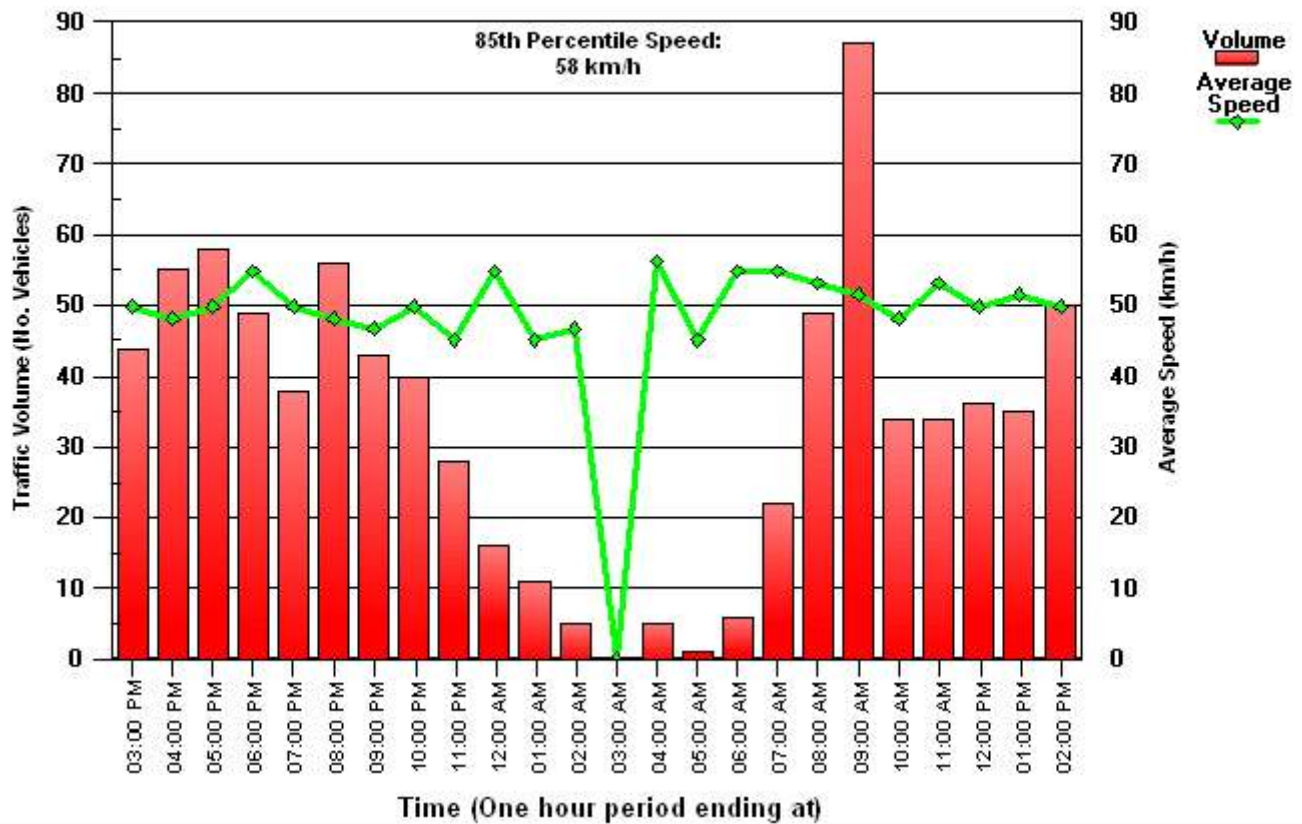


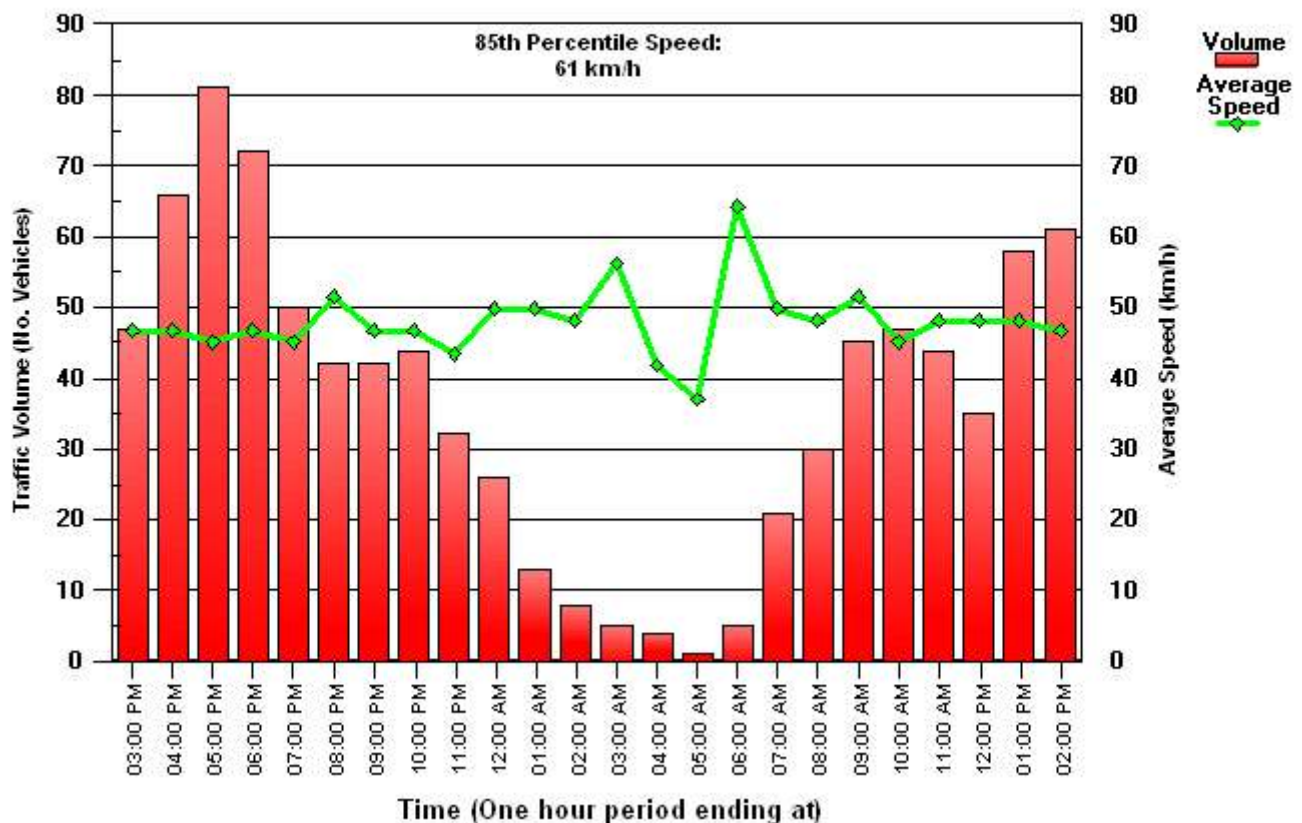
Figure 9: Estimated Crossing Opportunities for a 2 Lane Cross-Section

APPENDIX E

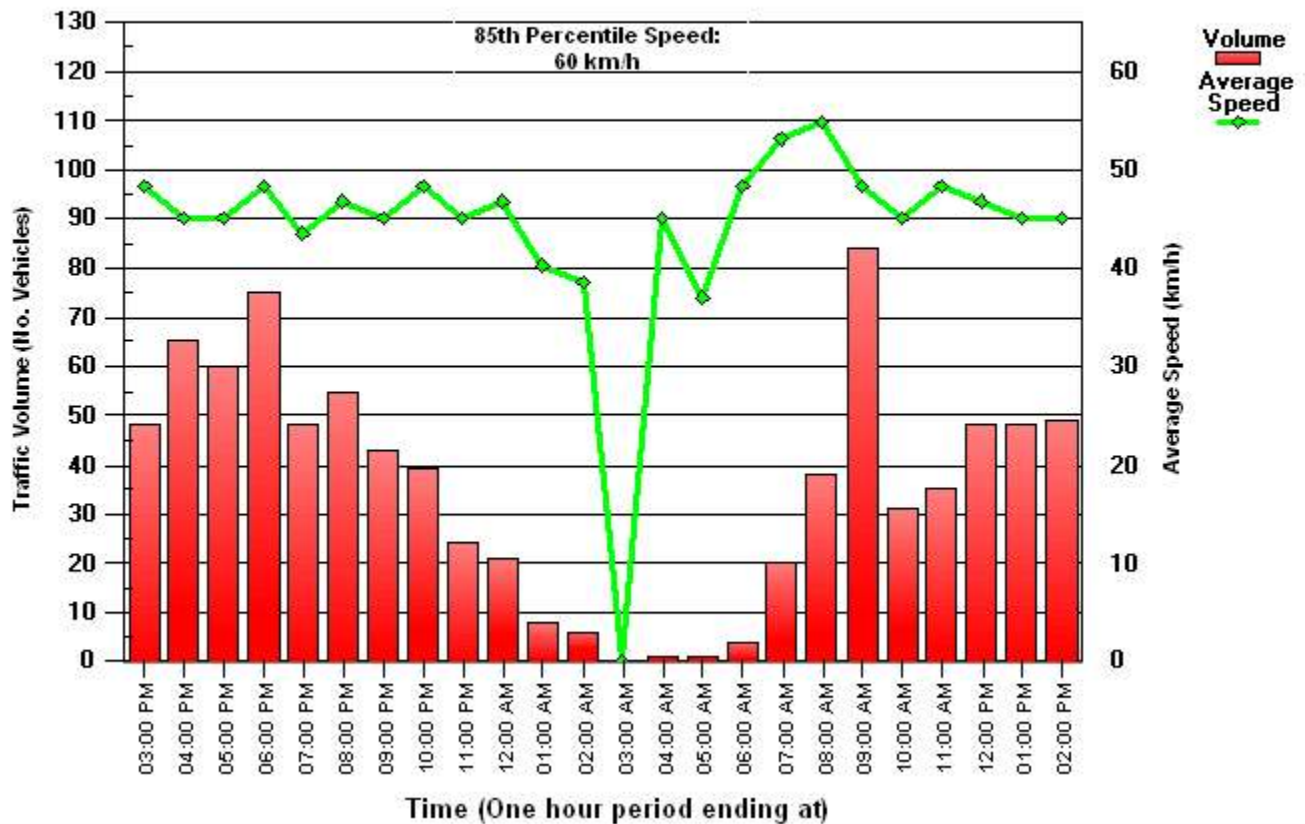
**Hourly Volume & Speed
Eastbound at Symes Bridge**



**Hourly Volume & Speed
Westbound at Symes Bridge**



**Volume & Average Speed vs Time
Eastbound at Hillview Drive East**



**Hourly Volume & Speed
Westbound at Hillview Drive East**

