

NORTH PARK – RICHMOND HEIGHTS

2017 NEIGHBOURHOOD TRAFFIC REVIEWS



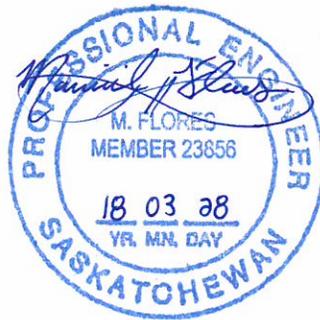
City of Saskatoon
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North Park & Richmond Heights Neighbourhood Traffic Review

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EXECUTIVE SUMMARY

The objective of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The program involves community and stakeholder consultation that provides residents and City of Saskatoon (City) staff the opportunity to work together in developing solutions that address traffic concerns within their neighbourhood. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2016.

A public meeting was held in April 2017 to identify traffic concerns and potential solutions within the North Park & Richmond Heights neighbourhoods. As a result of the meeting, a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents' input and the completed traffic assessments, a Traffic Plan was developed and presented to the community at a follow-up meeting held in October 2017.

A summary of recommended improvements for the North Park & Richmond Heights neighbourhoods is included in **Table ES-1**. The summary identifies the locations, recommended improvements, and implementation schedule. The schedule to implement the Traffic Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 years); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements ranges from 1 to 5 years.

The North Park & Richmond Heights Traffic Plan is illustrated in **Exhibit ES-1**.

Table ES-1: North Park & Richmond Heights Neighbourhoods Recommended Improvements

Item	Location	Recommendation	Justification	Implementation Schedule	
1	Balmoral Street & 8 th Avenue	Upgrade standard crosswalk to a zebra crosswalk on the east leg; Install curb extensions on the north and south sides of the east crosswalk	Improve pedestrian safety & reduce speed	1 to 5 years (traffic calming devices will be installed temporarily until proven effective)	
2	Windsor Street & 9 th Avenue	Upgrade standard crosswalks to zebra crosswalks on the west and east legs	Improve pedestrian safety	1 to 2 years	
3	Back Lane behind Former M.D. Ambulance	Traffic count in spring 2018	Determine if improvements are needed		
4	Edward Avenue (Windsor Street to Hazen Street)	Speed assessment in spring 2018	Determine if improvements are needed		
5	Windsor Street & Edward Avenue	Install zebra crosswalk on the west leg	Improve pedestrian safety		
6	Edward Avenue (Balmoral Street to Windsor Street)	Speed assessment in spring 2018	Determine if improvements are needed		
7	Alexandra Avenue & Eddy Place	Traffic count in spring 2018	Determine if improvements are needed		
8	Hazen Street & Alexandra Avenue	Install Stop Ahead warning sign for eastbound traffic	Improve visibility of stop sign		
9	Windsor Street & Alexandra Avenue	Upgrade standard crosswalks to zebra crosswalks on all legs	Improve pedestrian safety		
10	Balmoral Street (Edward Avenue to Alexandra Avenue)	Remove school zone	This part of the school zone is not consistent with current guidelines		
11	Balmoral Street (Empress Avenue to Spadina Crescent)	Speed assessment in spring 2018	Determine if improvements are needed		
12	Spadina Crescent (Windsor Street to Balmoral Street)	Relocate 50 kph speed limit sign for southbound traffic closer to Windsor Street; Install speed display board for southbound traffic	Improve visibility of speed limit sign & reduce speed		
13	Spadina Crescent (33 rd Street to Oxford Street)	Install 50 kph speed limit sign for northbound traffic; Install speed display board for northbound traffic	Reduce speed		
14	Various	Install sidewalk	Improve pedestrian safety		5 years plus

Item	Location	Recommendation	Justification	Implementation Schedule
15	7 th Avenue & Balmoral Street	Install accessibility ramps on southwest and southeast corners	Improve pedestrian safety	5 years plus



LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- ▬ BUS ROUTE
- ▬ SCHOOL ZONE
- 🚦 EXISTING TRAFFIC SIGNAL
- 🚶 EXISTING PEDESTRIAN CORRIDOR LOCATION
- # RECOMMENDATION
- PROPOSED SCHOOL ZONE REMOVAL



NORTH PARK & RICHMOND HEIGHTS TRAFFIC PLAN

TABLE OF CONTENTS

Executive Summary	i
Table of Contents.....	v
1 Introduction	1
2 Stage 1: Identifying Issues, Concerns, and Possible Solutions.....	2
2.1 Concern 1 – Speeding and Shortcutting.....	2
2.2 Concern 2 – Pedestrian Safety.....	3
2.3 Concern 3 – Traffic Control	5
2.4 Concern 4 – Parking.....	7
2.5 Concern 5 – Maintenance.....	7
2.6 Concern 6 – Major Intersections & Corridors.....	8
3 Stage 2: Development of Draft Traffic Plan.....	9
3.1 Methodology	9
3.2 Traffic Volume and Speed Assessments.....	9
3.3 Pedestrian Assessments.....	11
3.4 Collision Analysis	12
4 Stage 3: Presentation of Traffic Plan.....	13
4.1 Methodology	13
4.2 Speeding and Shortcutting.....	13
4.3 Pedestrian Safety	14
4.4 Intersection Safety	14
4.5 School Zone	14
4.6 Follow Up Consultation – Presentation of Traffic Plan.....	15
5 Stage 4: Implementation.....	16

APPENDIX A: PUBLIC MEETING #1 – APRIL 25, 2017 MINUTES

APPENDIX B: TRAFFIC DATA COLLECTION MAP

APPENDIX C: PEDESTRIAN DEVICE ASSESSMENTS

APPENDIX D: COLLISION ANALYSIS

APPENDIX E: PUBLIC MEETING #2 – OCTOBER 26, 2017 MINUTES

APPENDIX F: DECISION MATRIX

APPENDIX G: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT
TRAFFIC PLAN

LIST OF TABLES

Table 3-1: City of Saskatoon Street Classifications and Characteristics.....	10
Table 3-2: Speed Studies and Average Daily Traffic Counts (2017)	11
Table 3-3: Pedestrian Assessments.....	12
Table 4-1: Recommended Improvements – Speeding and Shortcutting	13
Table 4-2: Recommended Improvements – Pedestrian Safety.....	14
Table 4-3: Recommended Improvements – Intersection Safety.....	14
Table 4-4: Recommended Improvements – School Zone.....	14
Table 5-1: Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate	16
Table 5-2: Speed Display Board Cost Estimate	17
Table 5-3: Permanent Traffic Calming Cost Estimate	17
Table 5-4: Additional Traffic Counts Cost Estimate.....	17
Table 5-5: Sidewalks & Accessibility Ramps Cost Estimate	18
Table 5-6: Total Cost Estimate.....	18
Table 5-7: North Park & Richmond Heights Neighbourhoods Recommended Improvements..	19

LIST OF EXHIBITS

Exhibit 5-1: Recommended North Park & Richmond Heights Traffic Plan.....	21
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I INTRODUCTION

As the City of Saskatoon continues to grow, many neighbourhoods face issues such as pedestrian safety, cut-through traffic, and increased speeds. In August 2013, City Council adopted the *City of Saskatoon Traffic Guidelines and Tools* that outlines a procedure for completing traffic reviews on a neighbourhood-wide basis. Prior to this, neighbourhood traffic issues were dealt with on a case-by-case basis with mixed results. Since 2013, the formal process has proven to be very successful in providing recommendations that improve neighbourhood traffic conditions and pedestrian safety. Recommendations are developed by the Administration and residents in a collaborative fashion. Accordingly, this report provides the Traffic Plan for the North Park & Richmond Heights neighbourhoods.

The North Park & Richmond Heights neighbourhoods are located south of Circle Drive North, east of Warman Road, north of 33rd Street and west of Spadina Crescent. The land use is mostly residential with elementary schools on 9th Avenue (North Park Wilson School) and Alexandra Avenue (École St. Paul School).

The neighbourhood traffic review includes four stages:

Stage 1 – Identify issues, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon online discussion.

Stage 2 – Develop a draft Traffic Plan based on residents' input and traffic assessments.

Stage 3 – Present the draft Traffic Plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council.

Stage 4 – Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years) or long-term (5 years plus).

This report presents the study findings and recommendations.

2 STAGE 1: IDENTIFYING ISSUES, CONCERNS, AND POSSIBLE SOLUTIONS

A public meeting was held on April 25, 2017 to identify traffic concerns within the North Park & Richmond Heights neighbourhoods. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions. The meeting minutes are provided in **Appendix A**.

The following pages summarize the concerns and suggested solutions identified during the initial consultation (including all correspondence and Shaping Saskatoon discussion comments received prior to the follow-up meeting) with the residents.

2.1 Concern 1 – Speeding and Shortcutting

Shortcutting occurs when non-local traffic passes through the neighbourhood on streets that are designed and intended for low volumes of traffic (i.e. local streets). As speeding often accompanies shortcutting, these concerns have been grouped into one category.

Concerns for speeding and/or shortcutting were identified at the following locations:

- 33rd Street
- 7th Avenue from Warman Road
- 7th Avenue & 33rd Street
- Back alley west of Spadina Crescent
- Balmoral Street to 7th Avenue
- Balmoral Street & Empress Avenue
- Hazen Street
- Oxford Street
 - Shortcutting to avoid Spadina Crescent
 - Detouring traffic from 33rd Street
- Prince of Wales Avenue
- Spadina Crescent
- Windsor Street between the church and Archibald Arena
- General
 - Vehicles and motorbikes racing
 - Loud vehicles

The following solutions were proposed by residents:

- 7th Avenue – traffic calming devices at pedestrian crossings

- Back alley west of Spadina Crescent – signs (“Residents Only”, speed limit)
- Empress Ave & Oxford St – traffic circle
- Prince of Wales Avenue – speed bumps
- Spadina Crescent
 - Police presence
 - Speed display board
 - Curb extensions
 - Speed bumps
 - One-way in the southbound direction
 - Traffic calming devices at crosswalks
- Windsor Street
 - Speed bumps between the church and Archibald Arena
 - Stop sign on Spadina Crescent
 - Traffic calming devices at pedestrian crossings
- General
 - Cameras to reduce aggressive driving
 - Increased education about good driving habits
 - Reduced speed limits (40 kph or lower)
 - Increased police presence during morning peak hours and weekends

2.2 Concern 2 – Pedestrian Safety

It is important to address pedestrian safety concerns to support active transportation. Walking to nearby amenities, as opposed to driving, reduces traffic volumes.

Pedestrian crosswalks need to adhere to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004 which states the following:

“The installation of appropriate traffic controls at pedestrian crossings shall be based on warrants listed in the document entitled *Traffic Control at Pedestrian Crossings – 2004* approved by City Council in 2004.”

Concerns regarding pedestrian safety were raised at the following locations:

- Balmoral Street
 - Missing sidewalks
 - Missing pavement markings
- Balmoral Street & Empress Avenue – missing sidewalk
- Edward Avenue – missing sidewalk in front of school

- Hazen Street & Edward Avenue – kids are crossing
- Osborne Avenue – missing sidewalk where there is a bus stop between 7th Avenue and 8th Avenue
- Prince of Wales – missing sidewalk on both sides
- Prince of Wales & Empire Avenue
 - Pedestrian safety concerns due to u-turning vehicles
 - Jaywalking
- Spadina Crescent
 - Pedestrian safety concerns at Oxford Street, Balmoral Street, and Windsor Street
 - Missing sidewalks along west side from 33rd Street to the weir
- Spadina Crescent & 33rd Street
 - Crossing can be difficult but the majority of vehicles do stop
 - Crosswalk needs to be more visible
 - Most eastbound right-turning vehicles are looking for oncoming vehicles rather than pedestrians and are not yielding
- Spadina Crescent & Prince of Wales
 - Pedestrian safety concerns
 - Crossing is difficult because of the curve and 60 kph speed limit
- Warman Road – multi-use pathway from 1500 block of Warman Road to 33rd Street is narrow with obstructions on the side
- Warman Road & 33rd Street – motorists ignore pedestrian light
- Warman Road & Hazen Street – pedestrian safety concerns
- Windsor Street
 - Missing sidewalks on both sides (in front of Archibald Arena)
 - Missing sidewalk in front of school
- General
 - Missing sidewalks in the area
 - Difficult to get onto sidewalk due to missing curb cuts on south corners of paddling pool

The following solutions were proposed by residents:

- 33rd Street – construct 33rd Street multi-use pathway to Idwylyd Drive
- 33rd Street & 7th Avenue – improve cyclist transition from multi-use pathway to 7th Avenue by installing traffic calming
- Balmoral Street – install sidewalks on the south side
- Edward Avenue – install sidewalks in front of school

- Hazen Street & Edward Avenue – crosswalk
- Prince of Wales & Empire Avenue – relocate the crosswalk to the park
- Spadina Crescent – Active Pedestrian Corridor or Pedestrian Actuated Signals at all intersections
- Spadina Crescent & 33rd Street
 - Pedestrian flashing lights (solar powered) to alert drivers
 - Active Pedestrian Corridor or Pedestrian Actuated Signal
 - Upgrade standard crosswalk to zebra crosswalk
- Spadina Crescent & Prince of Wales – pedestrian device with lights
- Spadina Crescent & Windsor Street – pedestrian device with lights
- Warman Road & 33rd Street – overpass^[BN(-T)]
- Warman Road & Hazen Street – traffic signal
- Windsor Street – install sidewalks in front of Archibald Arena
- General – install sidewalk on west-east streets to connect Spadina Crescent and surround school (east side of Edward Avenue)

2.3 Concern 3 – Traffic Control

Traffic control signs are used to assign the right-of-way. City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009 states that stop and yield signs are not to be used:

- As speed control devices;
- to stop priority traffic over minor traffic;
- on the same approach to an intersection where traffic signals are operational; or
- as a pedestrian crossing device.

An all-way stop must meet the conditions for traffic volumes, collision history, and a balanced volume from each leg to operate sufficiently.

Concerns regarding traffic controls were raised at the following locations:

- 33rd Street & Warman Road
 - Delay for eastbound left turning traffic
 - Queue is very long
- Oxford Street & Empress Avenue
 - Safety concerns
 - Traffic delays

- Hazen Street & Alexandra Avenue
 - Visibility issue of stop sign due to horizontal and vertical curve
 - Many drivers come to a rolling stop in the eastbound direction
 - Bad intersection for east and west directions when it is icy
- Prince of Wales Avenue & Windsor Street – northbound and southbound traffic does not yield
- Warman Road & 7th Avenue – long delays and queue for northbound right-turning traffic
- Warman Road & Hazen Street
 - Congestion
 - Difficult/unsafe to make left turns from Hazen Street onto Warman Road
 - Difficult to make right turns from Hazen Street onto Warman Road
 - Right turning vehicles onto Warman Road do not yield and treat outside lane as an added lane
 - Southbound U-turns
 - Drivers straddle both lanes off of Hazen Street
 - Pedestrian and cyclists do not pay attention to the shared pathway sign
- Spadina Crescent & 33rd Street – vehicles running three-way stop
- General – there are trees or high obstructions in the middle of roundabouts that obstruct visibility

The following solutions were proposed by residents:

- Prince of Wales Avenue & Windsor Street – stop sign
- Spadina Crescent & 33rd Street
 - Keep the three-way stop
 - Do not construct a roundabout
- Warman Road & Hazen Street
 - A sign to indicate to northbound drivers on Warman Road to merge after Hazen Street
 - Merge sign prior to Warman Road
 - Merge sign prior to Hazen Street
 - Widen street to make merge easier
 - Designate the outside lane as an added lane for westbound right-turning vehicles
 - Direct southbound U-turns at Cavers Street
 - Define lanes exiting Hazen Street
- General
 - Remove obstructions in the middle of roundabouts
 - Keep access and exit at Alexandra Avenue

2.4 Concern 4 – Parking

Parking is allowed on all city streets unless signage is posted. According to City of Saskatoon Bylaw 7200, *The Traffic Bylaw*, December 16, 2013, vehicles are restricted from parking within 10 metres of an intersection and one metre of a driveway or back lane.

Concerns regarding parking were at the following locations:

- 1300 block of Edward Avenue – parking concerns
- Spadina Crescent & 33rd Street – people parking in southbound right turn lane
- Windsor Street – parked vehicles narrow roadway making two-way traffic difficult in front of Archibald Arena
- General – increased parking due to new developments

The following solutions were proposed by residents:

- The Weir – close the parking lot earlier

2.5 Concern 5 – Maintenance

Maintenance is requested throughout the consultation process that reflects the work of other civic departments. These include the condition of the street signs (i.e. knocked over, damaged, obstructed by trees), trees obstructing driver's view, or roadway maintenance (i.e. snow clearing, potholes, sanding).

The following concerns regarding maintenance were identified:

- Poor road condition (i.e. ruts, potholes) along Windsor Street, 7th Avenue, and 33rd Street
- Icy roads along Windsor Street
- Tree roots growing under sidewalks at 7th Avenue & Windsor Street
- Poor sidewalk condition

2.6 Concern 6 – Major Intersections & Corridors

Major intersections include roadways with higher traffic volumes (i.e. arterials, collectors) or intersections with an existing traffic signal.

Concerns regarding major intersections were identified at the following locations:

- Warman Road & 33rd Street – improvements need to be made

The following solutions were proposed by residents:

- 33rd Street
 - Do not consider a crossing over the river
 - Do not construct a power plant / White Water Park
- Warman Road & 33rd Street – allow southbound left-turns

3 STAGE 2: DEVELOPMENT OF DRAFT TRAFFIC PLAN

3.1 Methodology

Stage 2 of the neighbourhood traffic review included the development of a draft Traffic Plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic studies and information the City has on file for the neighbourhood.
- Prepare a data collection program that will provide the appropriate information needed to undertake the assessments.
- Complete the data collection, which may include:
 - Daily and weekly traffic counts
 - Speed measurements
 - Intersection turning movement counts
 - Pedestrian counts
 - Site observations
 - Collision analysis
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgment.

The following sections provide details on the data collected for traffic volume and speed assessments, pedestrian crossing assessments, and collision analysis. A map of the traffic data collection is shown in **Appendix B**.

3.2 Traffic Volume and Speed Assessments

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. In Saskatoon, the neighbourhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on these streets should meet the City of Saskatoon guidelines shown in **Table 3-1**.

Table 3-1: City of Saskatoon Street Classifications and Characteristics

Characteristic	Classifications							
	Back Lanes		Locals		Collectors		Arterials	
	Residential	Commercial	Residential	Commercial	Residential	Commercial	Minor	Major
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance		Traffic movement major consideration	Traffic movement primary consideration
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000	5,000 – 25,000 (~12,000)	
Typical Speed Limits (kph)	20		50		50		60	60-70
Transit Service	Not permitted		Generally avoided		Permitted		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities		Lane widening or special facilities may be provided	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required	Sidewalks may be provided, separation for traffic lanes preferred	
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour		Permitted, restricted or prohibited	Prohibited or peak hour restrictions

Vehicle speeds were measured to determine the 85th percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the North Park & Richmond Heights neighbourhoods is 50 kph, except for school zones where the speed limit is 30 kph from September to June, Monday to Friday, 8:00 am to 5:00 pm.

The speed studies and Average Daily Traffic (ADT) on streets where residents identified speeding as a concern are summarized in **Table 3-2**.

Table 3-2: Speed Studies and Average Daily Traffic Counts (2017)

Street	Between	Class	Average Daily Traffic (vehicles per day)	Speed (kph)
Oxford Street	Empress Avenue to Spadina Crescent	Local	300	37
Windsor Street	10 th Avenue to Edward Avenue		400	43
	Prince of Wales Avenue to Empress Avenue		600	40
Balmoral Street	7 th Avenue to 8 th Avenue	Minor Collector	1,100	School – 36 Regular – 41
7 th Avenue	Balmoral Street to Windsor Street	Major Collector	5,400	53
Hazen Street	Rupert Drive to Edward Avenue		2,000	49
Spadina Crescent	33 rd Street to Oxford Street	Minor Arterial	9,400	56
	Balmoral Street to Windsor Street		9,100	63
	Windsor Street to Prince of Wales Avenue		7,900	61

3.3 Pedestrian Assessments

Pedestrian assessments are conducted to determine the need for pedestrian actuated signalized crosswalks which are in adherence to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004. Devices include an activated pedestrian corridor (flashing yellow lights) or pedestrian actuated signal. A warrant system assigns points for a variety of conditions including:

- Number of traffic lanes to be crossed;
- presence of a physical median;
- posted speed limit of the street;
- distance the crossing point is to the nearest protected crosswalk point; and
- number of pedestrians and vehicles at the location.

Pedestrian and traffic data is collected during the three peak periods of: 8:00 am to 9:00 am, 11:30 am to 1:30 pm, and 3:00 pm to 5:00 pm.

A standard pedestrian crosswalk or a zebra crosswalk (i.e. striped) may be considered when a signalized crosswalk is not warranted. A summary of the pedestrian studies is provided in **Table 3-3**.

Table 3-3: Pedestrian Assessments

Location	Number of Pedestrians Crossing During Peak Hours	Result
Spadina Crescent & 33 rd Street	55	Pedestrian Devices Not Warranted
Spadina Crescent & Balmoral Street	13	
Spadina Crescent & Oxford Street	8	
Spadina Crescent & Prince of Wales Avenue	16	
Spadina Crescent & Windsor Street	39	

Details of the active pedestrian corridor and pedestrian actuated signal assessments are provided in **Appendix C**.

3.4 Collision Analysis

The most recently available five-year collision data (2012 to 2016) was provided by Saskatchewan Government Insurance (SGI). High-collision locations, typically noted as the locations with an average of two or more collisions per year, were reviewed in more depth to identify trends and possible improvements. Locations with two or more collisions per year within the North Park & Richmond Heights neighbourhoods include:

- 7th Avenue & Warman Road
- 7th Avenue & 33rd Street
- Hazen Street & Warman Road
- Warman Road (Circle Drive to Hazen Street)
- 33rd Street (5th Avenue to Warman Road)

Details of the collision analysis are provided in **Appendix D**.

4 STAGE 3: PRESENTATION OF TRAFFIC PLAN

4.1 Methodology

Stage 3 of the neighbourhood traffic review included finalizing the recommended plan. This was achieved by completing the following steps:

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvements.
- Present the draft plan to the residents at a follow-up public meeting.
- Circulate the draft plan to the civic divisions for comments.
- Revise the draft plan based on feedback from the stakeholders.
- Prepare a technical document summarizing the recommended plan and project process.

The tables in the following sections provide the details of the recommended Traffic Plan, including the location, recommendation, and justification for the recommended improvement.

4.2 Speeding and Shortcutting

As stated in Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009, “stop signs are not to be used as speed control devices.”

The recommended improvements to address speeding and shortcutting are listed in **Table 4-1**.

Table 4-1: Recommended Improvements – Speeding and Shortcutting

Location	Recommendation	Justification
Balmoral Street & 8 th Avenue	Install curb extensions on the north and south sides of the east crosswalk	Reduce speed
Back Lane behind 1640 Warman Road	Traffic count in spring 2018	Determine if improvements are needed
Edward Avenue (Windsor Street to Hazen Street)	Speed assessment in spring 2018	
Edward Avenue (Balmoral Street to Windsor Street)		
Balmoral Street (Empress Avenue to Spadina Crescent)		
Spadina Crescent (Windsor Street to Balmoral Street)	Relocate 50 kph speed limit sign for southbound traffic closer to Windsor Street; Install speed display board for southbound traffic	Improve visibility of speed limit sign & reduce speed
Spadina Crescent (33 rd Street to Oxford Street)	Install 50 kph speed limit sign for northbound traffic; Install speed display board for northbound traffic	Reduce speed

4.3 Pedestrian Safety

The recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Improvements – Pedestrian Safety

Location	Recommendation	Justification
Balmoral Street & 8 th Avenue	Upgrade standard crosswalk to a zebra crosswalk on the east leg	Improve pedestrian safety
Windsor Street & 9 th Avenue	Upgrade standard crosswalks to zebra crosswalks on the west and east legs	
Windsor Street & Edward Avenue	Install zebra crosswalk on the west leg	
Windsor Street & Alexandra Avenue	Upgrade standard crosswalks to zebra crosswalks on all legs	
Various	Install sidewalk	
7 th Avenue & Balmoral Street	Install accessibility ramps on southwest and southeast corners	

4.4 Intersection Safety

The recommended improvements to intersections that will improve the level of safety by clearly identifying the right-of-way through traffic controls are provided in **Table 4-3**.

Table 4-3: Recommended Improvements – Intersection Safety

Location	Recommendation	Justification
Alexandra Avenue & Eddy Place	Traffic count in spring 2018	Determine if improvements are needed
Hazen Street & Alexandra Avenue	Install Stop Ahead warning sign for eastbound traffic	Improve visibility of stop sign

4.5 School Zone

The recommendations for the École St. Paul school zone are listed in **Table 4-4**.

Table 4-4: Recommended Improvements – School Zone

Location	Recommendation	Justification
Balmoral Street (Edward Avenue to Alexandra Avenue)	Remove school zone	This part of the school zone is not consistent with current guidelines

4.6 Follow Up Consultation – Presentation of Traffic Plan

The recommended improvements were presented to residents and stakeholders at a follow-up public meeting on October 26, 2017. Meeting minutes are provided in **Appendix E**. Recommended improvements that were not supported were eliminated or altered accordingly.

A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix F**. Additional issues raised after the presentation of the draft Traffic Plan were considered and are outlined in **Appendix G**. Recommendations were added to the list of improvements, if necessary.

The revised list of recommendations was then circulated to the civic divisions (including Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Parking Services, Roadways & Operations, and Transit) to gather comments and concerns. General support for the recommendations was received.

5 STAGE 4: IMPLEMENTATION

Stage 4, the final stage of the neighbourhood traffic review, is to install the recommended improvements within the specified time frame. The time frame depends upon the complexity and cost of the solution. A short-term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 3 to 5 years; and long-term is 5 years plus.

The placement of signs and pavement markings will be completed short-term (1 to 2 years). Most often the installations take place in spring/summer of the following year. Therefore, installations for North Park & Richmond Heights are likely to take place in spring/summer 2018.

The estimated cost of the improvements included in the Neighbourhood Traffic Plan are outlined in the following tables:

Table 5-1: Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate
Table 5-2: Speed Display Board Cost Estimate

Table 5-3: Permanent Traffic Calming Cost Estimate

Table 5-4: Additional Traffic Counts Cost Estimate

Table 5-5: Sidewalks & Accessibility Ramps Cost Estimate

Table 5-6: Total Cost Estimate

Table 5-1: Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Balmoral Street & 8 th Avenue	Zebra crosswalk (1)	\$500	1 to 2 years
	Curb extension (2)	\$1,000	1 to 5 years (traffic calming devices will be installed temporarily until proven effective)
Windsor Street & 9 th Avenue	Zebra crosswalk (2)	\$1,000	1 to 2 years
Windsor Street & Edward Avenue	Zebra crosswalk (1)	\$500	
Hazen Street & Alexandra Avenue	Stop Ahead warning sign (1)	\$250	
Windsor Street & Alexandra Avenue	Zebra crosswalk (4)	\$2,000	
Spadina Crescent (33 rd Street to Oxford Street)	50 kph speed limit sign (1)	\$250	
Total		\$5,500	

Table 5-2: Speed Display Board Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Spadina Crescent (Windsor Street to Balmoral Street)	Speed display board (1)	\$0 (funded through Speed Program)	1 to 2 years
Spadina Crescent (33 rd Street to Oxford Street)	Speed display board (1)		
Total		\$0	

Table 5-3: Permanent Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Balmoral Street & 8 th Avenue	Curb extension (2)	\$90,000	3 to 5 years
Total		\$90,000	

Table 5-4: Additional Traffic Counts Cost Estimate

Location	Device	Cost Estimate	Time Frame
Back Lane behind 1640 Warman Road	Peak Hour Turning Movement Count	\$200	1 to 2 years
Edward Avenue (Windsor Street to Hazen Street)	Speed Assessment	\$0	
Edward Avenue (Balmoral Street to Windsor Street)	Speed Assessment	\$0	
Alexandra Avenue & Eddy Place	Peak Hour Turning Movement Count	\$200	
Balmoral Street (Empress Avenue to Spadina Crescent)	Speed Assessment	\$0	
Total		\$400	

Table 5-5: Sidewalks & Accessibility Ramps Cost Estimate

Location	Device	Cost Estimate	Time Frame
Various	Sidewalk	TBD (funded through Active Transportation Program)	5 years plus
7 th Avenue & Balmoral Street	Accessibility ramps		
Total		TBD	

Table 5-6: Total Cost Estimate

Category	Time Frame		
	Short-Term (1 to 2 years)	Medium-Term (3 to 5 years)	Long-Term (5 years plus)
Signs, Pavement Markings & Temporary Traffic Calming	\$5,500	-	-
Speed Display Board	\$0	-	-
Permanent Traffic Calming	-	\$90,000	-
Additional Traffic Counts	\$400	-	-
Sidewalks	-	-	TBD
Accessibility Ramps	-	-	TBD
Total	\$5,900	\$90,000	TBD

The total cost estimate for short-term improvements (signs, pavement markings, temporary traffic calming, and speed display boards) is **\$5,900**. The total cost estimate for medium-term improvements (permanent traffic calming) is **\$90,000**. Long-term improvements (sidewalks and accessibility ramps) will be funded through the Active Transportation Program.

The list of recommended improvements resulting from the neighbourhood traffic review, including the location and justification, is summarized in **Table 5-7**.

The recommended North Park & Richmond Heights Neighbourhood Traffic Plan is illustrated in **Exhibit 5-1**.

Table 5-7: North Park & Richmond Heights Neighbourhoods Recommended Improvements

Item	Location	Recommendation	Justification	Implementation Schedule
1	Balmoral Street & 8 th Avenue	Upgrade standard crosswalk to a zebra crosswalk on the east leg; Install curb extensions on the north and south sides of the east crosswalk	Improve pedestrian safety & reduce speed	1 to 5 years (traffic calming devices will be installed temporarily until proven effective)
2	Windsor Street & 9 th Avenue	Upgrade standard crosswalks to zebra crosswalks on the west and east legs	Improve pedestrian safety	1 to 2 years
3	Back Lane behind 1640 Warman Road	Traffic count in spring 2018	Determine if improvements are needed	
4	Edward Avenue (Windsor Street to Hazen Street)	Speed assessment in spring 2018	Determine if improvements are needed	
5	Windsor Street & Edward Avenue	Install zebra crosswalk on the west leg	Improve pedestrian safety	
6	Edward Avenue (Balmoral Street to Windsor Street)	Speed assessment in spring 2018	Determine if improvements are needed	
7	Alexandra Avenue & Eddy Place	Traffic count in spring 2018	Determine if improvements are needed	
8	Hazen Street & Alexandra Avenue	Install Stop Ahead warning sign for eastbound traffic	Improve visibility of stop sign	
9	Windsor Street & Alexandra Avenue	Upgrade standard crosswalks to zebra crosswalks on all legs	Improve pedestrian safety	
10	Balmoral Street (Edward Avenue to Alexandra Avenue)	Remove school zone	This part of the school zone is not consistent with current guidelines	
11	Balmoral Street (Empress Avenue to Spadina Crescent)	Speed assessment in spring 2018	Determine if improvements are needed	
12	Spadina Crescent (Windsor Street to Balmoral Street)	Relocate 50 kph speed limit sign for southbound traffic closer to Windsor Street; Install speed display board for southbound traffic	Improve visibility of speed limit sign & reduce speed	
13	Spadina Crescent (33 rd Street to Oxford Street)	Install 50 kph speed limit sign for northbound traffic; Install speed display board for northbound traffic	Reduce speed	
14	Various	Install sidewalk	Improve pedestrian safety	

Item	Location	Recommendation	Justification	Implementation Schedule
15	7 th Avenue & Balmoral Street	Install accessibility ramps on southwest and southeast corners	Improve pedestrian safety	5 years plus



LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- ▬▬▬ BUS ROUTE
- ▬ SCHOOL ZONE
- 🚦 EXISTING TRAFFIC SIGNAL
- 🚶 EXISTING PEDESTRIAN CORRIDOR LOCATION
- # RECOMMENDATION
- PROPOSED SCHOOL ZONE REMOVAL



NORTH PARK & RICHMOND HEIGHTS TRAFFIC PLAN

APPENDIX A: PUBLIC MEETING #1 – APRIL 25, 2017 MINUTES

North Park / Richmond Heights Neighbourhood Traffic Review
Thursday, April 25, 2017, 7:00 PM – 9:00 PM
Ecole St. Paul Elementary School (1527 Alexandra Ave)

Agenda

1. Welcome & Introductions
2. Presentation from Transportation Division
3. Small Group Discussions & Report Back to Large Group
4. Next Steps
5. Large Group Discussion – Questions & Answers

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – North Park / Richmond Heights Neighbourhood Traffic Review

(Presented by Mariniel Flores, P.Eng., Transportation Engineer)

- Presentation Outline
 - Neighbourhood Traffic Review Process
 - North Park / Richmond Heights Review Schedule
 - Sources of Information
 - Past Concerns Received
 - Description of Traffic Calming & Pedestrian Safety Devices
 - Corridor Reviews & Major Intersection Reviews
- Neighbourhood Traffic Review Process
 - August 2013 – New process
 - Mandate – Improve road safety for all road users within neighbourhoods, reduce traffic volumes, slow vehicular speeds, improve pedestrian crossings & intersections where necessary
 - 2014 – Reviewed 11 neighbourhoods
 - 2015 – Reviewed 8 neighbourhoods
 - 2016 – Reviewed 8 neighbourhoods
 - 2017 – North Park / Richmond Heights, Silverwood Heights, Pleasant Hill, Dundonald, Buena Vista / Exhibition / Queen Elizabeth, Wildwood, Erindale / Arbor Creek
- North Park / Richmond Heights Review Schedule
 - Stage 1 – Identify issues & possible solutions through community consultation (April to Fall 2017)
 - Stage 2 – Develop a draft traffic plan
 - Stage 3 – Present draft traffic plan to community for feedback (Fall 2017)
 - Stage 4 – Implement changes over time (Beginning Spring 2018)
- Sources of Information

- Past studies
- Collision analysis
- Feedback from public consultation
- Traffic counts & assessments
- Past Concerns Received
 - Speeding/Shortcutting – Hazen St, Oxford St, Windsor St
 - Pedestrian Safety – Windsor St, Edward Ave
 - Missing Sidewalks – Balmoral St, Windsor St
 - Warman Rd & Hazen St
- Traffic Calming Devices
 - Speed Display Board
 - Curb Extension
 - Raised Median Island
 - Roundabout
 - Diverter
 - Right In / Right Out Island
 - Directional Closure
 - Raised Median Through Intersection
 - Full Closure
- Pedestrian Devices
 - Standard Crosswalk
 - Zebra Crosswalk
 - Active Pedestrian Corridor
 - Pedestrian Actuated Signal
- Corridor Reviews & Major Intersection Reviews
 - Created to address issues at intersections along arterial streets as Neighbourhood Traffic Reviews addresses local and collector streets within neighbourhoods
 - Recommendations will be identified and projects will be prioritized for funding approval
 - Report will be presented to City Council

3. Table Group Discussions

- Residents were divided into groups to discuss traffic concerns in North Park / Richmond Heights and potential solutions
- Group 1: Lanre Akindipe (City Facilitator)
 - 7th Ave
 - Speeding from Warman Rd
 - Full of potholes
 - Balmoral St
 - Speeding to link to 7th Ave

- Missing sidewalks. Enough space south of Balmoral St.
 - Pavement markings missing
 - Oxford St
 - Shortcutting to avoid Spadina Cres
 - Spadina Cres
 - Speeding because there are no stops. Install a stop sign on Spadina Cres to reduce speeding at Windsor St.
 - Pedestrian safety concerns crossing Spadina Cres
 - Speed display boards are good. Install a speed display board on Spadina Cres.
 - Oxford St & Empress Ave
 - Safety concerns
 - Traffic delays
 - Spadina Cres & 33rd St
 - Install pedestrian flashing lights (solar powered) to alert drivers
 - 33rd St
 - Roads are in poor condition
 - General
 - Why does the City detour traffic off 33rd St onto Oxford St? Why not onto Balmoral St?
 - Increased parking due to new developments. They should force developers to provide parking on their property.
 - Tree roots growing under sidewalks close to 7th Ave & 33rd St
 - Provide update on 33rd St bridge
 - What will be constructed in place of the building at 7th Ave & Windsor St? It might increase traffic volumes in the neighbourhood.
- Group 2: Yang Li (City Facilitator)
 - Warman Rd & Hazen St
 - Unsafe for people making left turn onto Warman Rd
 - Cars that make right turns from Hazen St onto Warman Rd treat the outer lane on Warman Rd as a dedicated right turn lane (added lane) without yielding and it creates hazards and conflicts when northbound cars are merging to the outer lane. Formalize the curb lane as a right turn dedicated lane for westbound right-turning traffic.
 - Princes of Wales & Windsor St
 - Northbound and southbound traffic doesn't yield. Upgrade to a stop sign.
 - Spadina Cres & 33rd St
 - What is the timeline for the roundabout?
 - 33rd St & Warman Rd
 - Delay for eastbound left turning traffic and queue is very long. Review this intersection.
 - 7th Ave & 33rd St
 - Cars accelerate at the stop sign and makes noise

- Warman Rd & 7th Ave
 - Northbound right-turning traffic has significant long delays and queues
- General
 - Lack of sidewalk in this area. Sidewalks have to be built on those west-east streets to connect Spadina Cres and surrounding school (east side of Edward Ave)
 - Does City have plans to install new signals on Warman Rd?
- Group 3: Mariniel Flores (City Facilitator)
 - Balmoral St
 - Missing sidewalks
 - Windsor St
 - Missing sidewalks on both sides where there is an arena and high-density residential
 - Spadina Cres
 - Missing sidewalks along west side from 33rd St to the weir
 - Speeding. More enforcement needed. Traffic calming (e.g., curb extensions) could be installed.
 - Speed bumps can be installed
 - Increased traffic volumes
 - Drivers are cruising along Spadina Crescent. Suggested one-way in the southbound direction. However, this would limit access.
 - Loud vehicles 24/7
 - Crosswalks along Spadina Crescent needs traffic calming
 - Would like a pedestrian device (Active Pedestrian Corridor or Pedestrian Actuated Signal) at all intersections along Spadina Crescent
 - Spadina Cres & 33rd St
 - Crosswalk needs to be more visible. Could be upgraded to a zebra crosswalk.
 - Most eastbound right-turning vehicles are looking for oncoming vehicles rather than pedestrians and are not yielding.
 - Crosswalk is well-used but is difficult for adults and children to cross
 - Would like a pedestrian device (Active Pedestrian Corridor or Pedestrian Actuated Signal)
 - Balmoral St & Empress Ave
 - Missing sidewalk
 - Drivers are speeding and not stopping for pedestrians
 - Spadina Cres & Pembina Ave
 - Would like a pedestrian device (Active Pedestrian Corridor or Pedestrian Actuated Signal)
 - 7th Avenue
 - Wide and lots of traffic from Warman Rd. Allow southbound left-turns at Warman Rd & 33rd St.

- Install traffic calming at pedestrian crossings along 7th Ave and along Windsor St
 - Difficult to get onto sidewalk because there are missing curb cuts on the south corners to the paddling pool
 - Sidewalk and roads in poor condition
- Back alley west of Spadina Cres
 - Speeding
 - Shortcutting
 - Install signs (“Residents Only” signs, speed limit signs)
- Prince of Wales
 - Missing sidewalks on both sides
- Spadina Cres & Prince of Wales
 - Install pedestrian device with lights
- Spadina Cres & Windsor St
 - Install pedestrian device with lights
- Ecole St. Paul Elementary School
 - Missing sidewalks around school along Edward Ave and along Windsor St
- 33rd St
 - It would be nice if the 33rd Street multi-use pathway would be complete up to Idylwyld Drive
 - Westbound vehicles speeding
- 33rd St & 7th Ave
 - Cyclist transition from multi-use pathway to 7th Avenue could be improved. Install traffic calming.
- Osborne Ave between 7th Ave & 8th Ave
 - There is a bus stop with no sidewalk present
- Warman Rd & Hazen St
 - Pedestrian crossing concerns. Signal suggested.
- Warman Rd & 33rd St
 - Drivers ignore pedestrian light. Construct an overpass.
- Weir
 - Close weir parking lot earlier
 - Parking concerns at the weir
- 1300 block of Edward Ave
 - Parking concerns
- General
 - Implement reduced speed limits (40 km/h or lower). It might not be practical since it is difficult to enforce.
 - More police presence needed during am peak hours and weekends to ticket recreational drivers that are stunting

4. Next Steps

(Presented by Mariniel Flores, P.Eng., Transportation Engineer)

1. Continue monitoring traffic issues in your neighbourhood

2. Mail-in or email comments no later than May 26, 2017
3. Additional public input via City on-line Community Engagement webpage no later than May 26, 2017 at <http://shapingsaskatoon.ca/discussions/north-park-slash-richmond-heights-neighbourhood-traffic-review>
4. Traffic & pedestrian data collection, analysis
5. Develop recommendations and prepare draft Traffic Plan
6. Follow-up public input meeting to provide input on draft Traffic Plan
7. Determine revisions and finalize Traffic Plan
8. Present Traffic Plan to City Council for approval

5. Large Group Discussion – Questions & Answers

- Resident: Multi-use pathway along 1500 block of Warman Rd to 33rd St is narrow with obstructions on the side
 - Councillor Hill: Not large enough for cyclists and pedestrians
- Resident: There are pedestrian crossing concerns at 33rd St & Spadina Cres. A roundabout was brought up in the past. Is it still on?
 - City: It is one of the phases of the 33rd St Multi-Use Corridor Master Plan but there is no funding at this time.
- Resident: There are trees or high obstructions in the middle of roundabouts. It should not be there as it obstructs visibility.
- Resident: Collect traffic data in the summer especially on 7th Ave and Spadina Cres
- Councillor Hill: I don't support the 33rd St bridge
- Resident: Will North Commuter Parkway and Traffic bridges decrease traffic volumes in the area?
 - Councillor Hill: It should. The bridges will be complete by October 2018.
- Resident: Improvements need to be made to 33rd St & Warman Rd intersection
- Resident: Concerned about new development at Warman Rd & 7th Ave creating more traffic. Where are vehicles going to park?
- Resident: Will a pedestrian/cyclist facility be included in the hydropower facility?
 - Councillor Hill: That is being discussed

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Mariniel Flores – City of Saskatoon, Transportation & Utilities, P.Eng., Transportation Engineer

- Lanre Akindipe – City of Saskatoon, Transportation & Utilities, P.Eng.,
Transportation Engineer
- Yang Li – City of Saskatoon, Transportation & Utilities, Engineer-in-Training,
Transportation Engineer
- Councillor Darren Hill – City of Saskatoon

APPENDIX B: TRAFFIC DATA COLLECTION MAP



LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- ▬ BUS ROUTE
- ▬ SCHOOL ZONE
- 🚦 EXISTING TRAFFIC SIGNAL
- 🚶 EXISTING PEDESTRIAN CORRIDOR LOCATION
- TRAFFIC + PEDESTRIAN COUNT
- TRAFFIC VOLUME + SPEED STUDY
- 786 vpd → NUMBER OF VEHICLES PER DAY
- 47.2 kph → 85th PERCENTILE SPEED



NORTH PARK & RICHMOND HEIGHTS TRAFFIC DATA

APPENDIX C: PEDESTRIAN DEVICE ASSESSMENTS

Spadina Crescent & 33rd Street

Pedestrian Corridor Calculation

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					P.C.		Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides					Factored Counts				Warrant Points
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			
7:00												
7:15												
7:30												
7:45												
8:00	176	176	4				4	4	4	704		
8:15	208	384	1				1	1	5	1,920		
8:30	210	418							1	418		
8:45	192	402	2				2	2	2	804		
9:00		192							2	384		
9:15												
9:30												
9:45												
AM Totals	786		7				7					
11:30	167											
11:45	187	354	2				2	2	2	708		
12:00	195	382	4				4	4	6	2,292		
12:15	197	392	1				1	1	5	1,960		
12:30	224	421	3				3	3	4	1,684		
12:45	201	425	3				3	3	6	2,550		
13:00	233	434	4				4	4	7	3,038		
13:15	190	423	2				2	2	6	2,538		
Noon Totals	1,594		19				19					
14:00												
14:15												
14:30												
14:45												
15:00	218	218	8				8	8	8	1,744		
15:15	224	442	4				4	4	12	5,304	1	
15:30	243	467	5				5	5	9	4,203		
15:45	267	510	5				5	5	10	5,100		
16:00	279	546	2				2	2	7	3,822		
16:15	296	575	1				1	1	3	1,725		
16:30	307	603	4				4	4	5	3,015		
16:45	320	627							4	2,508		
17:00		320										
17:15												
17:30												
17:45												
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	2,154		29				29				5,304	
Totals	4,534		55				55					
			100%				100%					
			North Crosswalk =									
			South Crosswalk =				55					

<<< install crosswalk on this side of the int.

SUMMARY

Total Warranted PC Points: **5,304** or **5,304** / period
 Highest PC point value: **5,304** at
 Average PC point value: **3,095**
 No. of periods warranted: **1**

Spadina Crescent & 33rd Street

Pedestrian Actuated Signal Warrant

Prepared By: Mariniel Flores Date: Saturday, October 21, 2017

Location & Roadway Classification: Spadina Cres (Minor Arterial) & 33rd St (Minor Arterial)
 Date of Count: Day of wk: Wednesday Mth, Day, Yr: Wednesday, July 26, 2017
 Weather: 18.7°C
 Traffic Control Devices: Yield sign on 33rd St
 Current Pedestrian Control: Zebra crosswalk
 Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 4 lanes
 Is there a physical median in this crosswalk(s)? y (y or n)
 Speed limit (or 85th percentile speed) 50 km/h
 85th percentile (check one)
 Posted Limit
 Distance to nearest protected crosswalk 135 m
 Location: Spadina Cres & Oxford St
 Type: Stop sign, standard crosswalk on south leg
 Is the orientation of this crosswalk(s) N-S? n (y or n)
 Duration of pedestrian count 5 hrs

Elementary: 55 Total Warranted PC Points: 5,304 or 5,304 / period
 High School: Highest PC point value: 5,304 at
 Adult: Active Ped Corridor Points: 1
 Senior: Pedestrian Actuated Signal Points: 47
 Vehicles passing through crosswalk(s): 4,534

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the South Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	North Crosswalk			South Crosswalk					
					Child	Teen	Adult	Senior / Imaired	Senior / Imaired	Adult	Teen	Child	
7:00													
7:15													
7:30													
7:45													
8:00	104		54	18									4
8:15	117		69	22									1
8:30	93		84	33									
8:45	96		69	27									2
9:00													
9:15													
9:30													
9:45													
AM Totals	410		276	100									7
11:30	65		75	27									
11:45	64		86	37									2
12:00	63		101	31									4
12:15	76		89	32									1
12:30	84		108	32									3
12:45	88		82	31									3
13:00	84		116	33									4
13:15	55		95	40									2
Noon Totals	579		752	263									19
14:00													
14:15													
14:30													
14:45													
15:00	64		114	40									8
15:15	86		97	41									4
15:30	67		139	37									5
15:45	85		147	35									5
16:00	82		162	35									2
16:15	81		175	40									1
16:30	79		188	40									4
16:45	92		172	56									
17:00													
17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
PM Totals	636		1,194	324									29
Totals	1,625		2,222	687									55
					North Crosswalk =				South Crosswalk =				55

Spadina Crescent & Balmoral Street

Pedestrian Actuated Signal Warrant

Prepared By: Mariniel Flores Date: Saturday, October 21, 2017

Location & Roadway Classification: Spadina Cres (Minor Arterial) & Balmoral St (Minor Collector)
 Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, August 1, 2017
 Weather: 16.4°C
 Traffic Control Devices: Stop sign on Balmoral St
 Current Pedestrian Control: Standard crosswalk on south leg
 Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes
 Is there a physical median in this crosswalk(s)? n (y or n)
 Speed limit (or 85th percentile speed) 50 km/h
 85th percentile (check one)
 Posted Limit
 Distance to nearest protected crosswalk 210 m
 Location: Spadina Cres & Oxford St
 Type: Stop sign, standard crosswalk on south leg
 Is the orientation of this crosswalk(s) N-S? n (y or n)
 Duration of pedestrian count 5 hrs

Elementary: **13** Total Warranted PC Points: _____ or _____ / period
 High School: _____ Highest PC point value: **2,205** at _____
 Adult: _____ Active Ped Corridor Points: _____
 Senior: _____ Pedestrian Actuated Signal Points: **18**
 Vehicles passing through crosswalk(s): **2,938**

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the South Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	North Crosswalk				South Crosswalk				
					Child	Teen	Adult	Senior / Imnaired	Senior / Imnaired	Adult	Teen	Child	
7:00													
7:15													
7:30													
7:45													
8:00	87		17	8									1
8:15	105		19	1									4
8:30	72		19	5									
8:45	62		28	6									
9:00													
9:15													
9:30													
9:45													
AM Totals	326		83	20									5
11:30	60		64	4									
11:45	47		75	7									
12:00	56		76	2									
12:15	56		66	1									
12:30	70		63	9									
12:45	82		72	8									
13:00	51		58	7									
13:15	66		62	1									
Noon Totals	488		536	39									
14:00													
14:15													
14:30													
14:45													
15:00	65		64	3									
15:15	70		86	4									2
15:30	73		82	5									1
15:45	64		84	4									
16:00	79		119	3									
16:15	75		122	3									
16:30	53		143										4
16:45	68		165	12									1
17:00													
17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
PM Totals	547		865	34									8
Totals	1,361		1,484	93									13
					North Crosswalk =				South Crosswalk =				13

Spadina Crescent & Oxford Street

Pedestrian Actuated Signal Warrant

Prepared By: Mariniel Flores Date: Saturday, October 21, 2017

Location & Roadway Classification: Spadina Cres (Minor Arterial) & Oxford St (Local)
 Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, July 18, 2017
 Weather: 14.1°C
 Traffic Control Devices: Stop sign on Oxford St
 Current Pedestrian Control: Standard crosswalk on south leg
 Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes
 Is there a physical median in this crosswalk(s)? n (y or n)
 Speed limit (or 85th percentile speed) 50 km/h
 85th percentile (check one)
 Posted Limit
 Distance to nearest protected crosswalk 135 m
 Location: Spadina Cres & 33rd St
 Type: Yield sign, zebra crosswalk
 Is the orientation of this crosswalk(s) N-S? n (y or n)
 Duration of pedestrian count 5 hrs

Elementary: 8 Total Warranted PC Points: _____ or _____ / period
 High School: _____ Highest PC point value: 792 at _____
 Adult: _____ Active Ped Corridor Points: _____
 Senior: _____ Pedestrian Actuated Signal Points: 16
 Vehicles passing through crosswalk(s): 3,198

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the South Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	North Crosswalk			South Crosswalk					
					Child	Teen	Adult	Senior / Imaired	Senior / Imaired	Adult	Teen	Child	
7:00													
7:15													
7:30													
7:45													
8:00	111		41	1									1
8:15	96		47	1									1
8:30	100		29										1
8:45	77		52	6	1								1
9:00													
9:15													
9:30													
9:45													
AM Totals	384		169	8	1								4
11:30	73		60	2									1
11:45	65		79	2									
12:00	59		81	2									
12:15	54		79	1									
12:30	71		74	1									
12:45	98		75	2									
13:00	72		67	3									
13:15	54		73	3									
Noon Totals	546		588	16									1
14:00													
14:15													
14:30													
14:45													
15:00	67		86	1									
15:15	72		102	3									
15:30	92		72	2									
15:45	68		99	1									
16:00	55		140	1									1
16:15	56		124	1									
16:30	62		148	2									
16:45	75		157	1									1
17:00													
17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
PM Totals	547		928	12									2
Totals	1,477		1,685	36	1								7
					North Crosswalk = 1				South Crosswalk = 7				

Spadina Crescent & Prince of Wales Avenue

Pedestrian Actuated Signal Warrant

Prepared By: Marinief Flores Date: Saturday, October 21, 2017

Location & Roadway Classification: Spadina Cres (Minor Arterial) & Prince of Wales Ave (Minor Collector)
 Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, July 18, 2017
 Weather: 14.1°C
 Traffic Control Devices: Stop sign on Prince of Wales St
 Current Pedestrian Control: Standard crosswalk on north leg
 Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes
 Is there a physical median in this crosswalk(s)? n (y or n)
 Speed limit (or 85th percentile speed) 60 km/h
 85th percentile (check one)
 Posted Limit
 Distance to nearest protected crosswalk 160 m
 Location: Spadina Cres & Pembina Ave
 Type: Stop sign, zebra crosswalk on south leg
 Is the orientation of this crosswalk(s) N-S? n (y or n)
 Duration of pedestrian count 5 hrs

Elementary: 16 Total Warranted PC Points: _____ or _____ / period
 High School: _____ Highest PC point value: 1,506 at _____
 Adult: _____ Active Ped Corridor Points: _____
 Senior: _____ Pedestrian Actuated Signal Points: 22
 Vehicles passing through crosswalk(s): 3,074

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the North Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	North Crosswalk				South Crosswalk				
					Child	Teen	Adult	Senior / Imaired	Senior / Imaired	Adult	Teen	Child	
7:00													
7:15													
7:30													
7:45													
8:00	103		37	1	1								
8:15	97		44	4	1								
8:30	98		33	3	3								
8:45	65		47	5	3								
9:00													
9:15													
9:30													
9:45													
AM Totals	363		161	13	8								
11:30	76		60	7									
11:45	63		68	7	2								
12:00	49		74	4									
12:15	54		71	5									
12:30	73		68	2	2								
12:45	84		66	3									
13:00	73		63	4									
13:15	61		72	3									
Noon Totals	533		542	35	4								
14:00													
14:15													
14:30													
14:45													
15:00	75		75	5									
15:15	60		91	4	1								
15:30	90		58	2									
15:45	58		89	3									
16:00	60		132	5									
16:15	69		103	7	2								
16:30	70		140	4									
16:45	78		146	3	1								
17:00													
17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
PM Totals	560		834	33	4								
Totals	1,456		1,537	81	16								
					North Crosswalk = 16				South Crosswalk = _____				

Spadina Crescent & Windsor Street

Pedestrian Actuated Signal Warrant

Prepared By: Mariniel Flores Date: Saturday, October 21, 2017

Location & Roadway Classification: Spadina Cres (Minor Arterial) & Windsor St (Local)
 Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, July 18, 2017
 Weather: 14.1°C
 Traffic Control Devices: Stop sign on Windsor St
 Current Pedestrian Control: Standard crosswalk on north leg
 Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes
 Is there a physical median in this crosswalk(s)? n (y or n)
 Speed limit (or 85th percentile speed) 60 km/h
 85th percentile (check one)
 Posted Limit
 Distance to nearest protected crosswalk 230 m
 Location: Spadina Cres & Balmoral St
 Type: Stop sign, standard crosswalk on south leg
 Is the orientation of this crosswalk(s) N-S? n (y or n)
 Duration of pedestrian count 5 hrs

Elementary: 39 Total Warranted PC Points: _____ or _____ / period
 High School: _____ Highest PC point value: 2,988 at _____
 Adult: _____ Active Ped Corridor Points: _____
 Senior: _____ Pedestrian Actuated Signal Points: 32
 Vehicles passing through crosswalk(s): 2,937

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the North Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	North Crosswalk				South Crosswalk				
					Child	Teen	Adult	Senior / Imaired	Senior / Imaired	Adult	Teen	Child	
7:00													
7:15													
7:30													
7:45													
8:00	102		35	3	1								
8:15	92		40	2									
8:30	102		29	2	2								
8:45	68		50	2	5								
9:00													
9:15													
9:30													
9:45													
AM Totals	364		154	9	8								
11:30	70		60										
11:45	56		71		1								
12:00	54		74	2	4								
12:15	47		68		2								
12:30	74		69	2	1								
12:45	88		67	1									
13:00	69		61	3	4								
13:15	56		63	3									
Noon Totals	514		533	11	12								
14:00													
14:15													
14:30													
14:45													
15:00	66		73		4								
15:15	59		95	1	4								
15:30	87		58		1								
15:45	54		87	2	8								
16:00	58		130	1	1								
16:15	53		109	2									
16:30	77		130	1									
16:45	64		141	4	1								
17:00													
17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
PM Totals	518		823	11	19								
Totals	1,396		1,510	31	39								
					North Crosswalk = 39				South Crosswalk =				

APPENDIX D: COLLISION ANALYSIS

Street 1	Street 2	UGRID	2012	2013	2014	2015	2016	Total Number of Collisions (2012 - 2016)	Total Number of Collisions (2016)	Right Angle, Left Turn & Right Turn Only (2012 - 2016)	Right Angle, Left Turn & Right Turn Only (2016)	Average Number of Collisions (2012 - 2016)
7th Ave	Warman Rd	SKH5-41	7	4	7	3	4	25	4	0	0	5
7th Ave	33rd St	SKH5-29	2	5	6	3	4	20	4	14	4	4
Hazen St	Warman Rd	SKH4-9	7	2	4	3	2	18	2	5	0	4
Warman Rd	Circle - Hazen	SKH4-8	4	0	2	3	3	12	3	0	0	2
33rd St	5th - Warman	SKH5-31	3	1	1	3	0	8	0	3	0	2
7th Ave	Balmoral St	SKH5-15	2	0	3	0	2	7	2	4	0	1
Warman Rd	7th / Windsor - Cavers	SKH5-26	1	3	1	1	1	7	1	1	0	1
Warman Rd	33rd - Empress	SKH5-59	1	5	0	1	0	7	0	2	0	1
6th Ave	1400 Balmoral - Empress	SKH5-40	1	2	0	1	1	5	1	0	0	1
Spadina Cr	1700 Prince Of Wales - Windsor	SKJ4-1	3	0	1	1	0	5	0	0	0	1
Prince Of Wales Ave	Windsor St	SKJ5-36	1	1	1	0	2	5	2	4	1	1
Windsor St	Empress - Prince Of Wales	SKJ5-38	1	0	3	0	1	5	1	0	0	1
Cavers St	Warman Rd	SKH4-5	0	2	0	1	1	4	1	2	0	1
8th Ave	Balmoral St - Osborne St	SKH5-64	0	0	1	2	1	4	1	0	0	1
Balmoral St	Edward Ave	SKJ5-17	1	0	1	1	1	4	1	4	1	1
Spadina Cr	Windsor St	SKJ5-5	1	1	1	0	1	4	1	0	0	1
5th Ave	33rd St	SKH5-20	0	1	1	0	1	3	1	1	0	1
Balmoral St	Warman Rd	SKH5-24	1	0	0	0	2	3	2	2	1	1
7th Ave	Balmoral - Windsor	SKH5-45	0	3	0	0	0	3	0	0	0	1
Alexandra Ave	Hazen St	SKJ4-17	0	2	0	1	0	3	0	2	0	1
Alexandra Ave	Eddy Pl - Richmond	SKJ4-25	1	1	0	1	0	3	0	0	0	1
Rupert Dr	Eddy - Noble	SKJ4-3	1	1	0	1	0	3	0	1	0	1
Alexandra Ave	Richmond Cr	SKJ4-49	0	0	3	0	0	3	0	0	0	1
Prince Of Wales	1700 Hazen - Prince Of Wales	SKJ4-8	0	1	1	0	1	3	1	0	0	1
33rd St	Edward - Spadina	SKJ5-24	1	0	2	0	0	3	0	0	0	1
Spadina Cr	1300 Balmoral St - Oxford	SKJ5-26	0	3	0	0	0	3	0	0	0	1
Spadina Cr	Balmoral - Windsor	SKJ5-6	0	1	1	1	0	3	0	0	0	1
6th Ave	33rd St	SKH5-17	1	0	0	1	0	2	0	0	0	0
10th Ave	Balmoral - Windsor	SKH5-33	1	0	1	0	0	2	0	0	0	0
Warman Rd	5th - Balmoral	SKH5-54	1	0	1	0	0	2	0	0	0	0
9th Ave	Balmoral St	SKH5-6	0	1	1	0	0	2	0	2	0	0
Empress St	8th - 10th	SKH5-61	0	1	0	0	1	2	1	0	0	0
Spadina Cr	Ravine - Windsor	SKJ4-2	0	1	1	0	0	2	0	0	0	0
Hazen St	Prince Of Wales Ave	SKJ4-30	2	0	0	0	0	2	0	2	0	0
Richmond Cr	Richmond Pl S	SKJ4-31	0	0	1	0	1	2	1	0	0	0
Hazen St	Alexandra - Edward	SKJ4-4	0	1	0	1	0	2	0	0	0	0
Rupert Dr	Alexandra - Noble	SKJ4-44	2	0	0	0	0	2	0	0	0	0
Alexandra Ave	Rupert Dr	SKJ4-55	0	1	0	0	1	2	1	0	0	0
Alexandra Ave	Hazen - Windsor	SKJ4-9	0	0	1	1	0	2	0	0	0	0
33rd St	Edward Ave	SKJ5-14	0	1	0	1	0	2	0	0	0	0
Edward Ave	Cavers - Windsor	SKJ5-23	0	0	1	0	1	2	1	0	0	0
Alexandra Ave	Balmoral - Windsor	SKJ5-31	0	1	0	0	1	2	1	0	0	0
Edward Ave	Oxford - Osborne	SKJ5-32	1	0	0	1	0	2	0	0	0	0
Empress Ave	1500 Balmoral - Windsor	SKJ5-41	0	0	1	1	0	2	0	1	0	0
Empire Ave	1600	SKJ5-46	0	0	0	1	1	2	1	0	0	0
Prince Of Wales	1600 Empire - Hazen	SKJ5-48	2	0	0	0	0	2	0	0	0	0
9th Ave	Cavers St	SKH4-31	0	1	0	0	0	1	0	1	0	0
Eddy St	Rupert Dr	SKH4-38	0	0	0	0	1	1	1	0	0	0
Hazen St	Rupert Dr - Warman Rd	SKH4-6	0	1	0	0	0	1	0	0	0	0
Cavers St	9th Ave - Edwards Ave	SKH4-7	0	0	0	0	1	1	1	0	0	0
10th Ave	33rd St	SKH5-1	1	0	0	0	0	1	0	0	0	0
8th Ave	Osborne St	SKH5-10	0	1	0	0	0	1	0	1	0	0
8th Ave	9th Ave - Windsor	SKH5-12	0	0	0	1	0	1	0	0	0	0
Balmoral St	6th - 7th	SKH5-19	1	0	0	0	0	1	0	0	0	0
Warman Rd	Windsor St	SKH5-25	0	1	0	0	0	1	0	0	0	0
5th Ave	Warman Rd	SKH5-35	0	0	1	0	0	1	0	0	0	0
7th Ave	Windsor St	SKH5-36	0	0	0	1	0	1	0	1	0	0
33rd St	8th - 10th St	SKH5-39	0	0	1	0	0	1	0	1	0	0
7th Ave	33rd - Empress	SKH5-44	0	1	0	0	0	1	0	0	0	0
8th Ave	Empress - Osborne St	SKH5-49	0	1	0	0	0	1	0	0	0	0
10th Ave	Windsor St	SKH5-5	0	1	0	0	0	1	0	0	0	0
7th Ave	Osborne St	SKH5-55	0	0	1	0	0	1	0	0	0	0
10th Ave	Empress - Osborne	SKH5-60	0	0	0	1	0	1	0	0	0	0
Warman Rd	5th - 7th	SKH5-62	0	0	1	0	0	1	0	0	0	0
9th Ave	Windsor St	SKH5-7	0	0	1	0	0	1	0	0	0	0

Street 1	Street 2	UGRID	2012	2013	2014	2015	2016	Total Number of Collisions (2012 - 2016)	Total Number of Collisions (2016)	Right Angle, Left Turn & Right Turn Only (2012 - 2016)	Right Angle, Left Turn & Right Turn Only (2016)	Average Number of Collisions (2012 - 2016)
Balmoral St	8th - 9th	SKH5-73	1	0	0	0	0	1	0	0	0	0
8th Ave	33rd St	SKH5-8	0	1	0	0	0	1	0	1	0	0
8th Ave	Empress St	SKH5-88	1	0	0	0	0	1	0	1	0	0
8th Ave	33rd - Empress	SKH5-9	1	0	0	0	0	1	0	0	0	0
Prince Of Wales Ave	Empire Ave - Spadina	SKJ4-27	0	1	0	0	0	1	0	0	0	0
Hazen St	Alexandra - Prince Of Wales	SKJ4-29	0	0	0	0	1	1	1	0	0	0
Edward Ave	Hazen St	SKJ4-35	0	1	0	0	0	1	0	0	0	0
Richmond Cr	Eddy St - Richmond Pl N	SKJ4-57	0	1	0	0	0	1	0	0	0	0
Empire Ave	Prince Of Wales - Prince Of Wales	SKJ4-6	0	1	0	0	0	1	0	0	0	0
Alexandra Ave	Balmoral St	SKJ5-11	1	0	0	0	0	1	0	1	0	0
Alexandra Ave	Windsor St	SKJ5-12	0	0	1	0	0	1	0	1	0	0
Alexandra Ave	Hazen - Windsor	SKJ5-13	1	0	0	0	0	1	0	0	0	0
Edward Ave	Osborne St	SKJ5-16	0	0	0	0	1	1	1	0	0	0
Edward Ave	Windsor St	SKJ5-19	0	0	1	0	0	1	0	0	0	0
Spadina Cr	1200 33rd - Oxford	SKJ5-2	0	0	0	0	1	1	1	0	0	0
Empress Ave	1300 Oxford - Prince Of Wales	SKJ5-20	1	0	0	0	0	1	0	0	0	0
Empress Ave	1400 Balmoral - Prince Of Wales	SKJ5-21	0	1	0	0	0	1	0	0	0	0
Balmoral St	Prince Of Wales Ave	SKJ5-25	0	0	0	1	0	1	0	0	0	0
Windsor St	Empress - Spadina	SKJ5-34	1	0	0	0	0	1	0	0	0	0
Prince Of Wales Ave	1400	SKJ5-55	0	0	1	0	0	1	0	0	0	0
Spadina Cr	1600 Prince Of Wales - Windsor	SKJ5-7	1	0	0	0	0	1	0	0	0	0

APPENDIX E: PUBLIC MEETING #2 – OCTOBER 26, 2017 MINUTES

North Park / Richmond Heights Neighbourhood Traffic Review
Thursday, October 26, 2017, 7:00 PM – 9:00 PM
Ecole St. Paul Elementary School (1527 Alexandra Ave)

Agenda

1. Welcome & Introductions
2. Traffic Management Presentation
3. Draft Plan (Table Group) Discussion – Seeking Your Input
4. Next Steps – Where From Here?
5. Questions & Answers

1. Welcome & Introductions

(Presented by Mitch Riabko, Facilitator)

2. Traffic Management Presentation

(Presented by Mariniel Flores, Transportation Engineer)

- Presentation Outline
 - Neighbourhood Traffic Review Process
 - North Park / Richmond Heights Review Schedule
 - What We Heard
 - What We Did
 - What We Propose
- Neighbourhood Traffic Review Process
 - Mandate – Address neighbourhood traffic issues on local and collector streets
 - Speeding
 - Shortcutting
 - Pedestrian safety
 - Intersection safety
 - 2017 – North Park / Richmond Heights, Silverwood Heights, Pleasant Hill, Dundonald, Buena Vista, Queen Elizabeth / Exhibition, Wildwood, Erindale / Arbor Creek
- North Park / Richmond Heights Review Schedule
 - Stage 1 – Identify issues & possible solutions through community consultation (April to October 2017)
 - Stage 2 – Develop a draft traffic plan
 - Stage 3 – Present draft traffic plan to community for feedback (October 2017)
 - Stage 4 – Implement changes over time (Beginning Spring 2018)
- What We Heard
 - Speeding Concerns
 - 7th Avenue

- Balmoral Street
 - Hazen Street
 - Oxford Street
 - Prince of Wales Avenue
 - Spadina Crescent
 - Windsor Street
 - Shortcutting Concerns
 - 7th Avenue
 - Oxford Street
 - Spadina Crescent
 - Pedestrian Safety Concerns
 - Hazen Street
 - Prince of Wales Avenue
 - Spadina Crescent
 - Intersection Concerns
 - Warman Road (at 33rd Street, 7th Avenue, Hazen Street)
 - Hazen Street & Alexandra Avenue
 - Prince of Wales Avenue & Windsor Street
 - Spadina Crescent & 33rd Street
 - Parking Concerns
 - Edward Avenue
 - Spadina Crescent & 33rd Street
 - Windsor Street
 - Other Concerns
 - Missing Sidewalks and Ramps (Locations are on a priority list – subject to funding)
 - Damaged Sidewalks
 - Road Condition
 - Major Intersections
- What We Did
 - Compiled Information Received
 - Past studies
 - Comments from initial meeting
 - Resident responses (phone calls, emails, letters)
 - Comments from Shaping Saskatoon
 - Collected Data
 - 11 intersection/pedestrian counts
 - 9 – 3-day traffic counts (24 hour) & speed measurements
 - Collision data
 - Site Visits / Field Reviews
 - Assessed Concerns
 - Generated Proposed Recommendations
- What We Propose
 - Zebra Crosswalks
 - Curb Extensions

- Stop Ahead Warning Sign
- Speed Limit Sign
- Speed Display Boards

3. Table Group Discussions

- Residents were divided into small groups to discuss the proposed recommendations

Refer to Discussion Summary attachment for small group comments

4. Next Steps

(Presented by Mariniel Flores, Transportation Engineer)

1. Send comments no later than November 24, 2017
2. Additional public input via Shaping Saskatoon website no later than November 24, 2017 at <http://shapingsaskatoon.ca/discussions/north-park-slash-richmond-heights-neighbourhood-traffic-review>
3. Additional consultation if required
4. Present traffic plan to City Council as information
5. If City Council approval is required, an additional recommendation will be included in the report to City Council
6. What if I don't agree?
 - If at any point throughout the process you don't agree with the recommendations, there are opportunities to voice your opinion. You can reserve five minutes to speak during the Transportation Committee meeting and/or City Council meeting.
 - Recommendations will be implemented. Traffic calming devices are installed on a temporary basis using rubber curbs for a trial period of at least one year so we can determine if they are effective. Please let us know if something is not working or needs to be changed or removed.

5. Questions & Answers

- Resident: Why are the abandoned rail tracks at Warman Road & 33rd Street there? They need to be removed.
 - City: This was identified as we were working on the 33rd Street Multi-Use Corridor Project. More information will be gathered.
(Please contact Mariniel Flores at mariniel.flores@saskatoon.ca for more information)

List of Representatives

- Mitch Riabko – Great Works Consulting, Facilitator
- Mariniel Flores, P.Eng. – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Goran Lazic, P.Eng. – City of Saskatoon, Transportation & Utilities, Transportation Engineer

- Sheliza Kelts, P.Eng. – City of Saskatoon, Transportation & Utilities, Transportation Engineer

North Park / Richmond Heights Neighbourhood Traffic Review: Table Group Discussions

Item	Location	Recommendation	Reason	Group 1: Goran Lazic	Group 2: Sheliza Kelts	Group 3: Mariniel Flores
1	Balmoral Street & 8th Avenue	Upgrade standard crosswalk to a zebra crosswalk on the east leg; Install curb extensions on the north and south sides of the east crosswalk	Improve pedestrian safety; Reduce driver speed	Ok	Ok	Ok as long as snow clearing isn't impacted; Like the roll-out school zone signs
2	Windsor Street & 9th Avenue	Upgrade standard crosswalks to zebra crosswalks on the west and east legs	Improve pedestrian safety	Ok	Ok	Ok
3	Windsor Street & Edward Avenue	Install zebra crosswalk on the west leg	Improve pedestrian safety	Review the east crossing because of the new sidewalk	Ok	Ok
4	Windsor Street & Alexandra Avenue	Upgrade standard crosswalks to zebra crosswalks on all legs	Improve pedestrian safety	Ok	Ok	Ok
5	Hazen Street & Alexandra Avenue	Install Stop Ahead warning sign for eastbound traffic	Improve visibility of stop sign	Poor street lighting eastbound downhill around the curve; Improve street lighting	Ok	Ok; Good warning but lots of trees; Tree obstructing stop sign; Large vehicles park on Hazen Street; Rear-end collisions at this intersection
6	Spadina Crescent (33rd Street to Oxford Street)	Install 50 km/hr speed limit sign for northbound traffic; Install speed display board for northbound traffic	Reduce driver speed	Ok	Ok	Ok; Suggest photo radar between Oxford Street and Balmoral Street; Speed humps suggested; Increase enforcement (speed traps); Vehicles are slamming on their brakes at Balmoral Street; Northbound traffic is more of a problem than southbound traffic during pm peak hour and evenings
7	Spadina Crescent (Windsor Street to Balmoral Street)	Relocate 50 km/hr speed limit sign for southbound traffic closer to Windsor Street; Install speed display board for southbound traffic	Improve visibility of speed limit sign; Reduce driver speed	Ok	Want it on the north side of Windsor Street prior to the crosswalk; Easier to see	Ok; Suggest photo radar between Oxford Street and Balmoral Street; Speed humps suggested; Increase enforcement (speed traps); Vehicles are slamming on their brakes at Balmoral Street
8	Balmoral Street (Edward Avenue to Alexandra Avenue)	Remove school zone	This part of the school zone is not consistent with current guidelines	Make crosswalks along Balmoral Street (at Edward Avenue and at Alexandra Avenue) more visible	Do not support; Kids crossing; Brings attention to the kids; Poor sight lines at Alexandra Avenue & Balmoral Street	Some ok, some neutral, some against

Additional Comments

Item	Location	Comments
1	1600 block of Alexandra Avenue between Windsor Street and Hazen Street	Congested; Too narrow for two-way traffic with parked vehicles
2	33rd Street & 7th Avenue	Hedges hanging over sidewalk by Shoppers Drug Mart
3	33rd Street & Warman Road	Extend pedestrian crossing time east to west
4	7th Avenue & Warman Road	Parking issue due to Mosque development (existing funeral chapel); Improve pedestrian and bicycle crossing with a warning bike crossing sign or other measures since vehicles are not stopping behind stop sign
5	Alexandra Avenue	Suggest pedestrian crosswalk sign along Alexandra Avenue on bus route adjacent from Eddy Place; There is a senior facility to get to the park
6	Back lane behind MD Ambulance	Busy; Check the traffic volume and where traffic is going since MD Ambulance is now closed
7	Balmoral Street	Speeding off and onto Balmoral Street from Spadina Crescent; Speeding near Empress Avenue; Suggest median islands
8	Edward Avenue	Suggest restricting parking down Edward Avenue along the curve with traffic calming; Speeding in the school zone; Suggest median islands; Parking issue; Lots of kids and not enough crosswalks; Jaywalking; Bus route; Grass on the school side was tall; Snow piled on the west side causing drainage issues
9	Hazen Street & Warman Road	Paint the centre line to keep traffic on the right side of the road from encroaching too far; Right turns from Hazen Street to Warman Road; Waiting five minutes to turn left; Suggest traffic lights with detection to trigger light
10	Spadina Crescent & Balmoral Street	Poor sight lines for left-turning vehicles
11	Spadina Crescent & Windsor Street	Poor sight lines for right-turning vehicles

North Park / Richmond Heights Neighbourhood Traffic Review: Table Group Discussions

12	Warman Road	Radar on Warman Road leads to blockages; Improve pedestrian and bicycle crossing with a warning bike crossing sign or other measures between Cavers Road and Hazen Street since vehicles are not stopping behind stop sign
13	Windsor Street	Speed enforcement (radar) during school at 7th Avenue and at 10th Avenue suggested; No sidewalks on Windsor Street and many routes to the river
14	General	Parking issues due to infills / multiple dwellings with legal basement suites in the neighbourhood

APPENDIX F: DECISION MATRIX

Item	Location	Recommendation	Reason	Group 1: Goran Lazic	Group 2: Sheliza Kelts	Group 3: Mariniel Flores	Decision
1	Balmoral Street & 8th Avenue	Upgrade standard crosswalk to a zebra crosswalk on the east leg; Install curb extensions on the north and south sides of the east crosswalk	Improve pedestrian safety; Reduce driver speed	Ok	Ok	Ok as long as snow clearing isn't impacted; Like the roll-out school zone signs	Carried
2	Windsor Street & 9th Avenue	Upgrade standard crosswalks to zebra crosswalks on the west and east legs	Improve pedestrian safety	Ok	Ok	Ok	Carried
3	Windsor Street & Edward Avenue	Install zebra crosswalk on the west leg	Improve pedestrian safety	Review the east crossing because of the new sidewalk	Ok	Ok	Carried
4	Windsor Street & Alexandra Avenue	Upgrade standard crosswalks to zebra crosswalks on all legs	Improve pedestrian safety	Ok	Ok	Ok	Carried
5	Hazen Street & Alexandra Avenue	Install Stop Ahead warning sign for eastbound traffic	Improve visibility of stop sign		Ok	Ok; Good warning but lots of trees; Large vehicles park on Hazen Street; Rear-end collisions at this intersection	Carried
6	Spadina Crescent (33rd Street to Oxford Street)	Install 50 km/hr speed limit sign for northbound traffic; Install speed display board for northbound traffic	Reduce driver speed	Ok	Ok	Ok; Suggest photo radar between Oxford Street and Balmoral Street; Speed humps suggested; Increase enforcement (speed traps); Vehicles are slamming on their brakes at Balmoral Street; Northbound traffic is more of a problem than southbound traffic during pm peak hour and evenings	Carried; Sent speed data to Saskatoon Police Service for enforcement
7	Spadina Crescent (Windsor Street to Balmoral Street)	Relocate 50 km/hr speed limit sign for southbound traffic closer to Windsor Street; Install speed display board for southbound traffic	Improve visibility of speed limit sign; Reduce driver speed	Ok	Want it on the north side of Windsor Street prior to the crosswalk; Easier to see	Ok; Suggest photo radar between Oxford Street and Balmoral Street; Speed humps suggested; Increase enforcement (speed traps); Vehicles are slamming on their brakes at Balmoral Street	Carried
8	Balmoral Street (Edward Avenue to Alexandra Avenue)	Remove school zone	This part of the school zone is not consistent with current guidelines	Make crosswalks along Balmoral Street (at Edward Avenue and at Alexandra Avenue) more visible	Do not support; Kids crossing; Brings attention to the kids; Poor sight lines at Alexandra Avenue & Balmoral Street	Some ok, some neutral, some against	Supported by school division; Carried

APPENDIX G: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT
TRAFFIC PLAN

Item	Location	Comments	Response
1	1600 block of Alexandra Avenue between Windsor Street and Hazen Street	Congested; Too narrow for two-way traffic with parked vehicles	This is the standard width for a local roadway
2	33rd Street & 7th Avenue	Hedges hanging over sidewalk by Shoppers Drug Mart	Forwarded to Bylaw Compliance
3	33rd Street & Warman Road	Extend pedestrian crossing time east to west	Will be considered in the review of improvements at this intersection
4	7th Avenue & Warman Road	Parking issue due to Mosque development (existing funeral chapel)	Forwarded to Parking Services
		Improve pedestrian and bicycle crossing with a warning bike crossing sign or other measures since vehicles are not stopping behind stop sign	Intersection will be reviewed as part of Bus Rapid Transit Project
5	Alexandra Avenue	Suggest pedestrian crosswalk sign along Alexandra Avenue on bus route adjacent from Eddy Place; There is a senior facility to get to the park	Traffic count will be collected in spring 2018 – added to the recommendation list
6	Back lane behind 1640 Warman Road	Busy; Check the traffic volume and where traffic is going since MD Ambulance is now closed	Traffic count will be collected in spring 2018 – added to the recommendation list
7	Balmoral Street	Speeding off and onto Balmoral Street from Spadina Crescent; Speeding near Empress Avenue; Suggest median islands	Speed assessment will be completed in spring 2018 – added to the recommendation list
8	Edward Avenue	Suggest restricting parking down Edward Avenue along the curve with traffic calming	Speed assessment will be completed in spring 2018 – added to the recommendation list
		Speeding in the school zone; Suggest median islands; Parking issue; Lots of kids and not enough crosswalks; Jaywalking; Bus route	Speed assessment will be completed in spring 2018 – added to the recommendation list
		Snow piled on the west side causing drainage issues	Forwarded to Roadways & Operations
9	Hazen Street & Alexandra Avenue	Poor street lighting eastbound downhill around the curve; Improve street lighting	Forwarded to Saskatoon Light & Power
		Tree obstructing stop sign	Forwarded to Parks

Item	Location	Comments	Response
10	Hazen Street & Warman Road	Paint the centre line to keep traffic on the right side of the road from encroaching too far	Centre lines are painted on arterial roadways and higher roadway classifications. Review of centre lines on collector roadways will be completed. Hazen Street is classified as a collector roadway and will be included in the review.
		Waiting five minutes to turn left; Suggest traffic lights with detection to trigger light	Intersection will be reviewed as part of Bus Rapid Transit Project
		Improve pedestrian and bicycle crossing with a warning bike crossing sign or other measures between Cavers Road and Hazen Street since vehicles are not stopping behind stop sign at Hazen Street	
11	Spadina Crescent & Balmoral Street	Poor sight lines for left-turning vehicles	Site visits and field reviews confirm that sight lines are adequate
12	Spadina Crescent & Windsor Street	Poor sight lines for right-turning vehicles	Site visits and field reviews confirm that sight lines are adequate
13	Warman Road	Radar on Warman Road leads to blockages	Forwarded to Saskatoon Police Service
14	Windsor Street	Speed enforcement (radar) during school hours at 7th Avenue and at 10th Avenue suggested	Forwarded to Saskatoon Police Service
		No sidewalks on Windsor Street and many routes to the river	Missing sidewalk location is on a priority list, which is subject to funding
15	General	Parking issues due to infills / multiple dwellings with legal basement suites in the neighbourhood	Information about Neighbourhood Infill Development provided to resident