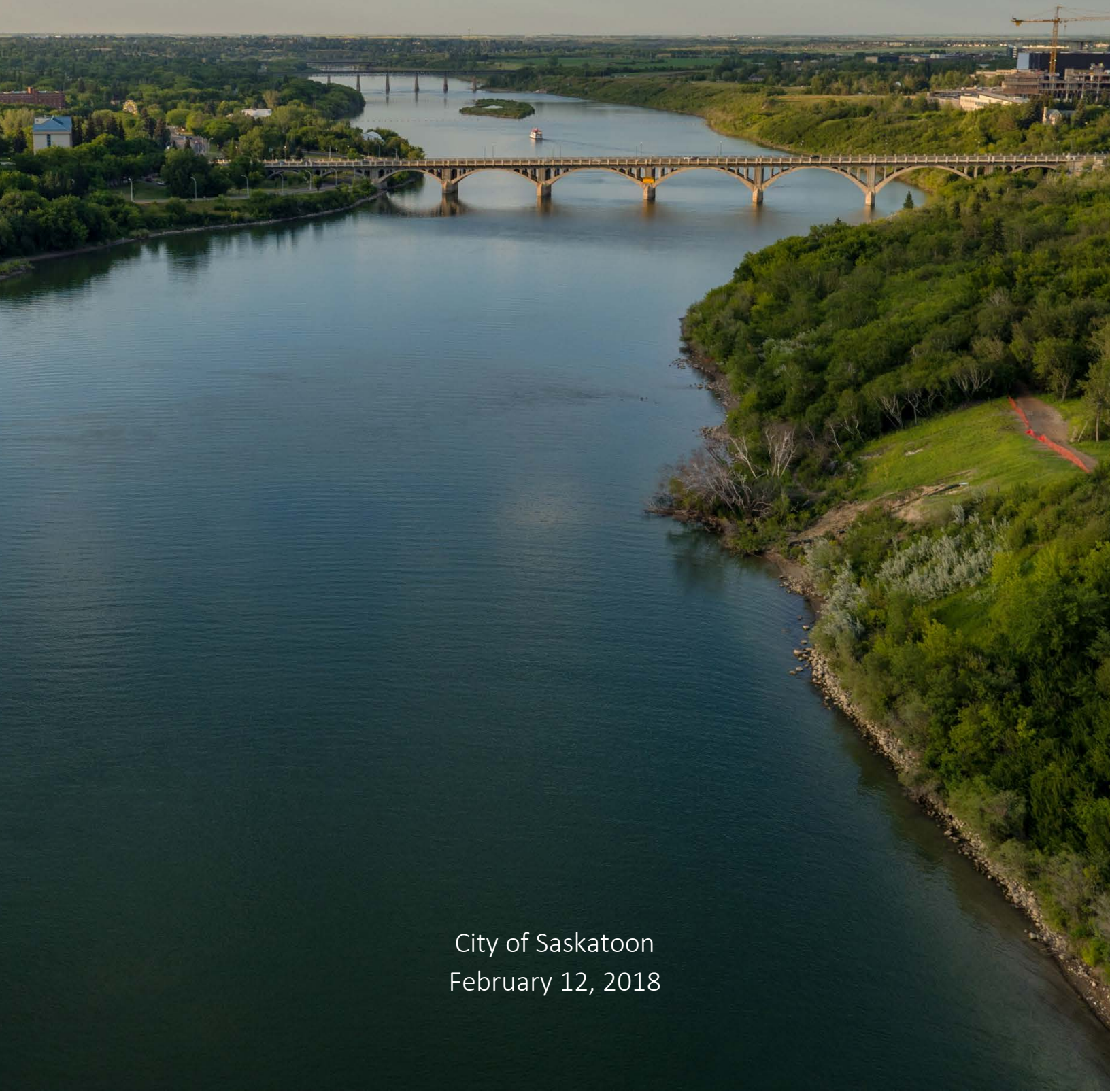


# DUNDONALD

## 2017 NEIGHBOURHOOD TRAFFIC REVIEWS



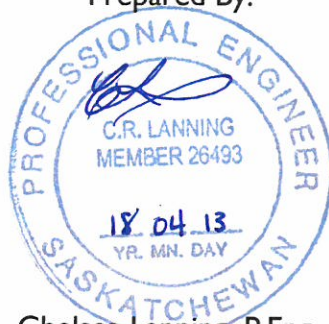
City of Saskatoon  
February 12, 2018

# Dundonald Neighbourhood Traffic Review

March 20, 2018

Authorization

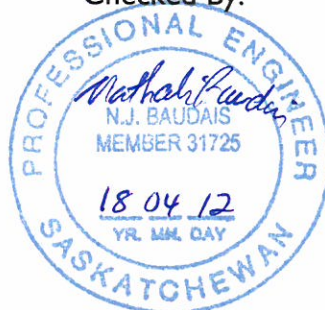
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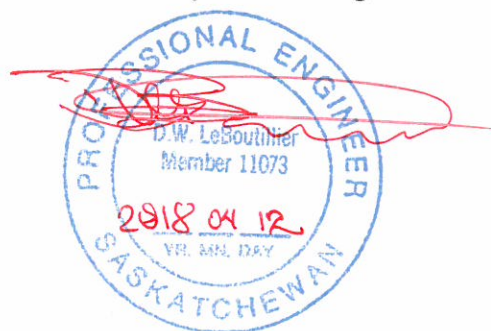
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## **Acknowledgements**

The completion of this review would not be possible without the contribution of the following organizations and individuals:

- Dundonald residents
- Dundonald Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Planning & Development
- City of Saskatoon Public Works
- City of Saskatoon Community Standards
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Troy Davies

*Cover Photograph Matt Ramage*

## 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 additional community and stakeholder consultation that provides opportunity for residents and City staff 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 June 2017 to identify traffic concerns and potential solutions within the Dundonald neighbourhood. 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 December 2017.

A summary of recommended improvements for the Dundonald neighbourhood are 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 year); 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.

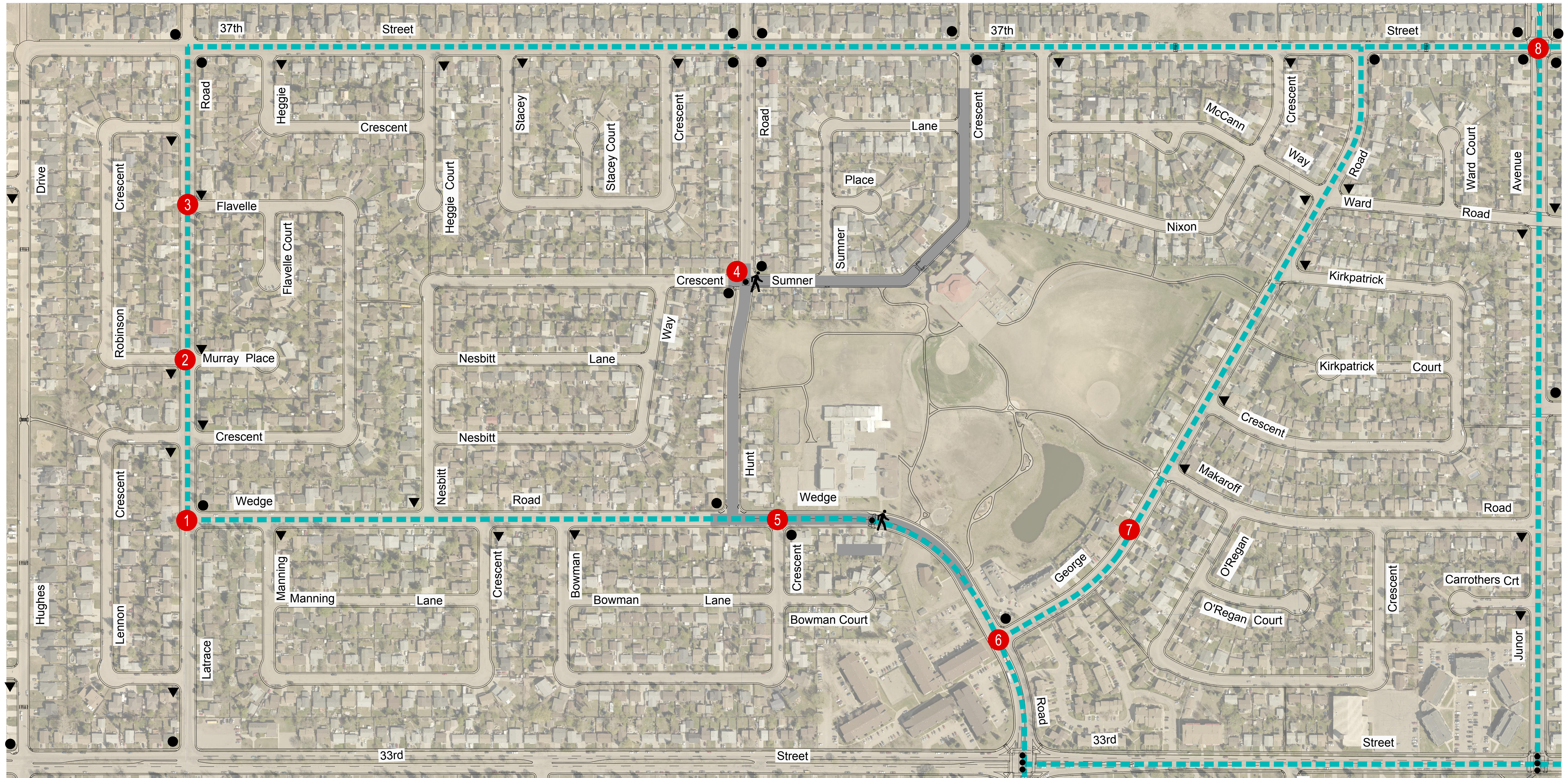
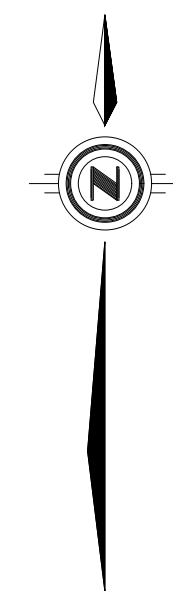
The Dundonald Traffic Plan is illustrated in **Exhibit ES-1**.



**Table ES-1: Dundonald Neighbourhood Recommended Improvements**

<b>Item</b>	<b>Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
1	Latrace Road & Wedge Road	Curb extension & median island (south side) Pedestrian crosswalk	Reduce speed Improve pedestrian safety
2	Latrace Road & Robinson Crescent (south)	Curb extensions & median islands (both sides) Pedestrian crosswalk	Reduce speed Improve pedestrian safety
3	Latrace Road & Flavelle Crescent (north)	Curb extensions & median island (south side) Pedestrian crosswalk	Reduce speed Improve pedestrian safety
4	Hunt Road & Sumner Crescent	Upgrade pavement markings to zebra crosswalk	Increase visibility in school zone
5	Wedge Road & Bowman Crescent	Upgrade pavement markings to zebra crosswalk	Increase visibility in school zone
6	Wedge Road & George Road	Zebra crosswalk (north side) Restrict parking Pedestrian accessibility ramp	Improve pedestrian safety
7	George Road	Speed display board (facing southbound traffic between Markaroff Road & Wedge Road)	Reduce speed
8	37 <sup>th</sup> Street & Junor Avenue	Lane designation signs for southbound traffic	Provide direction on expected intersection operations
9	37 <sup>th</sup> Street Latrace Road	Update speed hump signing	Ensure consistent signage throughout the City





FOR COMMENTS & INFORMATION VISIT:  
<http://shapingsaskatoon.ca/discussions/dundonald-neighbourhood-traffic-review>

# DUNDONALD - TRAFFIC PLAN

## LEGEND

- RECOMMENDATIONS
- EXISTING STOP SIGN
- EXISTING YIELD SIGN
- BUS ROUTE
- SCHOOL ZONE
- EXISTING TRAFFIC SIGNAL
- EXISTING PEDESTRIAN ACTUATED SIGNAL LOCATION
- EXISTING ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION
- SPEED BUMP LOCATION





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APPENDIX B: TRAFFIC DATA COLLECTION

APPENDIX C: ALL-WAY STOP ASSESSMENTS

APPENDIX D: PEDESTRIAN DEVICE ASSESSMENTS

APPENDIX E: COLLISION ANALYSIS

APPENDIX F: PUBLIC MEETING #2 – December 7, 2017 MINUTES

APPENDIX G: DECISION MATRIX

APPENDIX H: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT PLAN



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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 Dundonald neighbourhood.

The Dundonald neighbourhood is located south of 37<sup>th</sup> Street, west of Junor Avenue and north of 33<sup>rd</sup> Street. The land use is mostly residential, with elementary schools on Wedge Road (Dundonald School) and Sumner Crescent (St. Peter School); a park (Dundonald Park) on Wedge Road, Hunt Road, George Road, and Sumner Crescent; and a commercial strip at the corner of Wedge Road & George Road.

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 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 in June 2017 to identify traffic concerns within the Dundonald neighbourhood. 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.

Neighbourhood concerns for speeding and shortcutting were identified at the following locations:

- George Road
- Hunt Road
- Junor Avenue
- Latrace Road
- Nesbit Crescent
- Nixon Crescent

Proposed solutions identified by residents:

- More enforcement
- Install 4-way stops
- Speed bumps / humps
- Install yield or stop signs
- Curb extensions and median islands
- Speed display boards



## 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:

- Wedge Road & Latrace Road
- George Road & pathway midblock between Wedge Road and Makaroff Road
- George Road & Makaroff Road
- George Road & Kirkpatrick Crescent
- Hunt Road & pathway midblock between Wedge Road and Sumner Crescent

Proposed solutions identified by residents:

- Paint zebra crosswalks
- Install pedestrian light (i.e. pedestrian actuated signal or active pedestrian corridor)

## 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*, April 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.

Neighbourhood concerns regarding traffic controls were raised at the following locations:

- Latrace Road & Wedge Road
- Latrace Road & 33<sup>rd</sup> Street



- George Road & Wedge Road

Proposed solutions identified by residents:

- Install 3-way stop

## 2.4 Concern 4 – 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).

Neighbourhood concerns regarding maintenance were identified at the following location:

- Snow removal issue – Hunt Road: windrows

## 2.5 Concern 5 – Active Transportation

Neighbourhood concerns regarding active transportation (including cyclist and pedestrian connectivity) were:

- Improve cycling connections within Dundonald and connecting Dundonald to downtown

## 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.

Neighbourhood concerns regarding major intersections were raised at the following locations:

- Latrace Road & 33<sup>rd</sup> Street – an all-way (3-way) stop was requested to help facilitate egress from the neighbourhood
- 33<sup>rd</sup> Street from Avenue W to Confederation Drive – this part of 33<sup>rd</sup> Street is very busy



## 3 STAGE 2: DEVELOPMENT OF DRAFT TRAFFIC PLAN

### 3.1 Methodology

Stage 2 of the neighbourhood traffic review included developing 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, traffic control assessments, pedestrian crossing assessments, traffic signal 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 85<sup>th</sup> percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the Dundonald neighbourhood is 50 kph, except for school zones where the speed limit is 30 kph from September and June, Monday to Friday, 8:00 am to 5:00 pm.

The speed studies and Average Daily Traffic (ADT) on streets where speeding was identified as an issue 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)
Latrace Road	Murray Place & Flavelle Crescent (north)	Minor Collector	2,165	57.2
	Lennon Crescent north & Lennon Crescent south		3,108	56.0
Hunt Road	37 <sup>th</sup> Street & Sumner Crescent	Local	3,917	54.3
George Road	Kirkpatrick Crescent north & Kirkpatrick Crescent south	Minor collector	2,060	54.4
	Makaroff Road & Wedge Road		3,011	54.9



### 3.3 Traffic Control Assessments

Yield, stop, and all-way stop controls need to meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009.

Turning movement counts were completed to determine the need for an all-way (i.e. three-way or four-way) stop control. Criteria outlined in Council Policy C07-007 that may warrant an all-way stop include:

- A peak hour count greater than 600 vehicles;
- an ADT greater than 6,000 vehicles per day; or
- when five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.

Further conditions that must be met for an all-way stop to be warranted are:

1. At least 35% of the traffic entering the intersection from the minor street for a four-way stop and 25% for a three-way stop.
2. No other all-way stop or traffic signals within 200 m.

Results of the studies are shown in **Table 3-3**.

**Table 3-3: All-Way Stop Warrant Criteria**

Location	Criteria 1: Peak Hour Count (greater than 600)	Criteria 2: Average Daily Traffic (greater than 6,000 vpd)	Criteria 3: Collisions within most recent 12 months (5 or more)	Results
Latrace Road & Wedge Road	400	4,080	1	Criteria not met.
Latrace Road & 33 <sup>rd</sup> Street	817	9,020	3	Criteria met. Continue to Step 2.
Wedge Road & George Road	1,000	12,440	9	Criteria met. Continue to Step 2.

Provided one of the above criteria are met, continue to Step 2 to check the condition requirements.



**Table 3-4: All-Way Stop Warrant Condition Requirements**

Location	Condition 1: Traffic on minor street is at least 35% (25% for a 3-way stop)	Condition 2: No all-way stop or traffic signals within 200 metres	Results
Latrace Road & 33 <sup>rd</sup> Street	22% (no)	>200 m (yes)	All-way stop not warranted.
Wedge Road & George Road	17% (no)	>200 m (yes)	

Details of the all-way stop assessments are provided in **Appendix C**.

### 3.4 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 the pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. 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 pedestrian 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 are provided in **Table 3-5**.

**Table 3-5: Pedestrian Assessments**

Location	Number of Pedestrians Crossing During Peak Hours	Results
George Road & Kirkpatrick Crescent (north)	22	Pedestrian Devices Not Warranted.
George Road & Wedge Road	16	
Latrace Road & Wedge Road	11	



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

### 3.5 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. Signalized intersections were not included in the collision analysis as they have higher traffic volumes resulting in higher collision trends. These intersections are studied as part of the major intersection reviews. Intersections with two or more collisions per year within Dundonald include:

- Hughes Drive (midblock near at the crosswalk with curb extensions)
- Hunt Road & Wedge Road

In this case, higher trends are noted at 33<sup>rd</sup> Street and Confederation Drive/Wedge Road, which is expected as these are arterial roadways with high traffic volumes.

Details of the collision analysis are provided **Appendix E**.

## 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 comment.
- 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, recommended improvement, and justification of 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 detailed in **Table 4-1**.

**Table 4-1: Recommended Improvements – Speeding and Shortcutting**

Location	Recommended Improvement	Justification
Latrace Road & Wedge Road	Curb extension & median island (south side)	Reduce speed
Latrace Road & Robinson Crescent (south)	Curb extensions & median islands (both sides)	Reduce speed
Latrace Road & Flavelle Crescent (north)	Curb extensions & median island (south side)	Reduce speed
George Road between Makaroff Road & Wedge Road	Speed display board	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	Recommended Improvement	Justification
Latrace Road & Wedge Road	Pedestrian crosswalk	Improve pedestrian safety
Latrace Road & Robinson Crescent (south)	Pedestrian crosswalk	Improve pedestrian safety
Latrace Road & Flavelle Crescent (north)	Pedestrian crosswalk	Improve pedestrian safety
Hunt Road & Sumner Crescent	Upgrade to zebra crosswalk	Improve pedestrian safety and visibility in school zone
Wedge Road & Bowman Crescent	Upgrade to zebra crosswalk	Improve pedestrian safety and visibility in school zone
Wedge Road & George Road	Zebra crosswalk (north leg) Pedestrian accessibility ramp Restrict parking	Improve pedestrian safety

### 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	Recommended Improvement	Justification
37 <sup>th</sup> Street & Junor Avenue	Lane designation signs for southbound traffic	Provide direction on expected intersection operations

## 4.5 Parking

The recommended improvements to parking that will improve the level of safety are provided in **Table 4-4**.

**Table 4-4: Recommended Improvements – Parking**

Location	Recommended Improvement	Justification
Wedge Road & George Road	Parking restrictions on Wedge Road at 15 m from crosswalk	Improve sightlines and pedestrian crossing safety

## 4.6 Follow Up Consultation – Presentation of Traffic Plan

The recommended improvements were presented to residents and stakeholders at a follow-up public meeting in December 2017. Meeting minutes are provided in **Appendix F**. 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 G**. Additional issues raised during the follow-up meeting were assessed and outlined **Appendix H**. 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, Environmental Services, Parking Services, Roadways & Operations and Transit) to gather comments and concerns. General support 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, pavement markings and temporary traffic calming 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 Dundonald are likely to take place in spring / summer 2018.

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

- **Table 5-1:** Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate
- **Table 5-2:** Speed Enforcement & Speed Display Boards Cost Estimate
- **Table 5-3:** Permanent Traffic Calming Cost Estimate
- **Table 5-4:** Sidewalks / Pedestrian Ramps Cost Estimate
- **Table 5-5:** Total Cost Estimate

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

Location	Device (# of Devices)	Cost Estimate	Time Frame
Latrace Road & Wedge Road	Median Island (1) Curb Extension (1) & Standard Crosswalk (1)	\$1,500	1 to 2 years (all traffic calming devices will be installed temporary for at least one year to measure effectiveness)
Latrace Road & Robinson Crescent (south)	Median Island (2) Curb Extension (2) & Standard Crosswalk (2)	\$3,000	
Latrace Road & Flavelle Crescent (north)	Median Island (1) & Curb Extension (2)	\$2,000	
Hunt Road & Sumner Crescent	Zebra Crosswalk	\$250	
Wedge Road & Bowman Crescent	Zebra Crosswalk	\$250	
Wedge Road & George Road	Zebra Crosswalk & No Parking Sign	\$500	
37 <sup>th</sup> Street & Junor Avenue	Lane Designation Sign	\$250	
37 <sup>th</sup> Street / Latrace Road	Various Signs (14)	\$3,500	
<b>Total</b>		<b>\$11,250</b>	

**Table 5-2: Speed Enforcement & Speed Display Boards Cost Estimate**

Location	Device	Cost Estimate	Time Frame
George Road	Speed Display Board (1)	\$0	1 to 2 years
<b>Total</b>		<b>\$0</b>	

**Table 5-3: Permanent Traffic Calming Cost Estimate**

Location	Device (# of Devices)	Cost Estimate	Time Frame
Latrace Road & Wedge Road	Median Island (1) Curb Extension (1)	\$95,000	3 to 5 years
Latrace Road & Robinson Crescent (south)	Median Island (2) Curb Extension (2)	\$190,000	
Latrace Road & Flavelle Crescent (north)	Median Island (1) Curb Extension (2)	\$185,000	
<b>Total</b>		<b>\$470,000</b>	

**Table 5-4: Pedestrian Ramps Cost Estimate**

Location	Device (# of Devices)	Cost Estimate	Time Frame
Wedge Road & George Road	Pedestrian Ramp (2)	\$5,000	5 years plus
<b>Total</b>		<b>\$5,000</b>	



**Table 5-5: 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	\$11,250	NA	NA
Speed Enforcement & Speed Display Boards	\$0	NA	NA
Permanent Traffic Calming	NA	\$470,000	NA
Pedestrian Ramps	NA	NA	\$5,000
<b>Total</b>	<b>\$11,250</b>	<b>\$470,000</b>	<b>\$5,000</b>

The total cost estimate for short-term improvements (signs, pavement markings and temporary traffic calming) is **\$11,250**. The total cost estimate for the medium- and long-term improvements (permanent traffic calming and pedestrian ramps) is **\$475,000**.

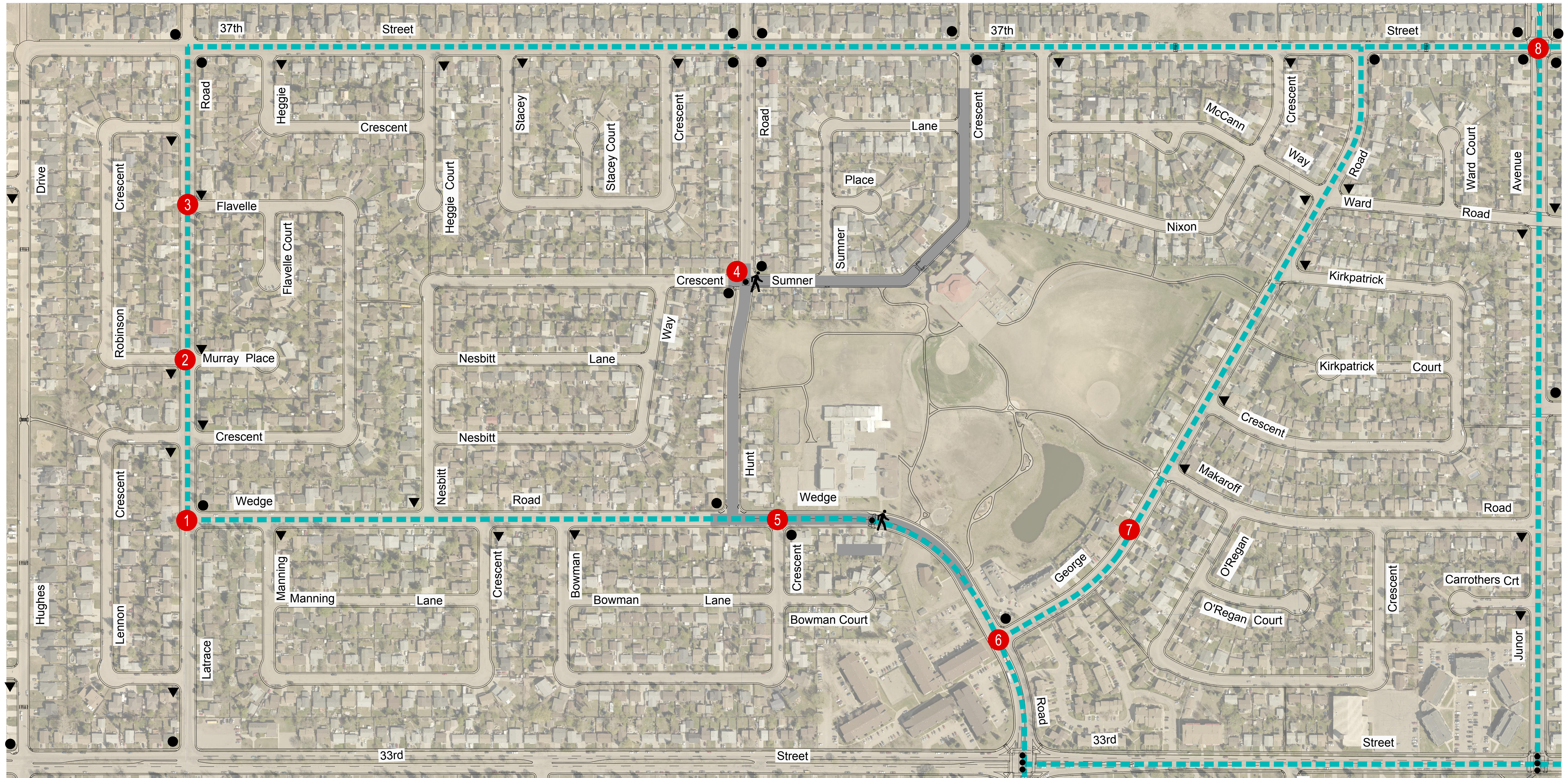
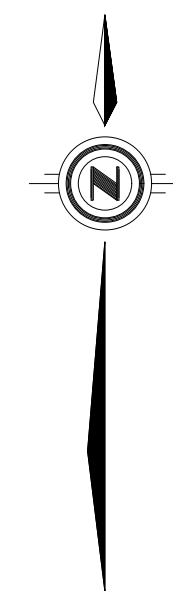
Resulting from the neighbourhood traffic review is a list of recommended improvements, including the location and justification as summarized in **Table 5-6**.

The recommended Dundonald Neighbourhood Traffic Plan is illustrated in **Exhibit 5-1**.

**Table 5-6: Dundonald Neighbourhood Recommended Improvements**

<b>Item</b>	<b>Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
1	Latrace Road & Wedge Road	Curb extension & median island (south side) Pedestrian crosswalk	Reduce speed Improve pedestrian safety
2	Latrace Road & Robinson Crescent (south)	Curb extensions & median islands (both sides) Pedestrian crosswalk	Reduce speed Improve pedestrian safety
3	Latrace Road & Flavelle Crescent (north)	Curb extensions & median island (south side) Pedestrian crosswalk	Reduce speed Improve pedestrian safety
4	Hunt Road & Sumner Crescent	Enhance pavement markings to zebra crosswalk	Increase visibility in school zone
5	Wedge Road & Bowman Crescent	Enhance pavement markings to zebra crosswalk	Increase visibility in school zone
6	Wedge Road & George Road	Zebra crosswalk (north side) Restrict parking Pedestrian accessibility ramp	Improve pedestrian safety
7	George Road	Speed display board (facing southbound traffic between Markaroff Road & Wedge Road)	Reduce speed
8	37 <sup>th</sup> Street & Junor Avenue	Lane designation signs for southbound traffic	Provide direction on expected intersection operations
9	37 <sup>th</sup> Street Latrace Road	Update speed bump signing	Ensure consistent signage throughout the City








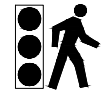

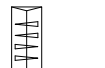




FOR COMMENTS & INFORMATION VISIT:  
<http://shapingsaskatoon.ca/discussions/dundonald-neighbourhood-traffic-review>

# DUNDONALD - TRAFFIC PLAN

## LEGEND

-  RECOMMENDATIONS
-  EXISTING STOP SIGN
-  EXISTING YIELD SIGN
-  BUS ROUTE
-  SCHOOL ZONE
-  EXISTING TRAFFIC SIGNAL
-  # RECOMMENDATIONS
-  EXISTING PEDESTRIAN ACTUATED SIGNAL LOCATION
-  EXISTING ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION
-  SPEED BUMP LOCATION





APPENDIX A: PUBLIC MEETING #1 – JUNE 15, 2017 MINUTES



**Dundonald Neighbourhood Traffic Review**  
**Thursday, June 15, 2017, 7:00 – 9:00 P.M.**  
**St. Peter School (202 Sumner Crescent)**

Facilitators:

- Kathy Dahl (Great Works Consulting)

City of Saskatoon Representatives:

- Chelsea Lanning, Goran Lazic, Mariniel Flores, Danae Balogun

Agenda

- Welcome & introductions
- Presentation from the Transportation Division
- Small group discussions
- Small group discussions – report back to large group
- Next Steps
- Questions/Answers

Presentation from Transportation Division – Dundonald Neighbourhood Traffic Review

(Presented by Chelsea Lanning – Transportation Engineer)

Presentation Outline:

- Neighbourhood Traffic Review Process
- Dundonald Review Schedule
- Sources of Information
- Concerns Received
- Examples of Traffic Calming & Pedestrian Safety Devices

Neighbourhood Review Process:

- **August 2013** – New process; neighbourhood review vs issue by issue; eight neighbourhoods reviewed per year
- **Mandate** – Reduce & calm traffic, improve safety within neighbourhoods
- **2014** – 11 neighbourhoods
- **2015** – 8 neighbourhoods
- **2016** – 8 neighbourhoods
- **2017** – Buena Vista, Queen Elizabeth / Exhibition, Pleasant Hill, Wildwood, Silverwood Heights, Richmond Heights / North Park, Erindale / Arbour Creek, Dundonald

Study Area:

- 37<sup>th</sup> Street (north), Junor Avenue (east), 33<sup>rd</sup> Street West (south), Hughes Drive (west)

#### Timeline for Dundonald Review:

- **Stage 1** – Identify issues & possible solutions through community consultation (June to fall 2017/early 2018)
- **Stage 2** – Develop a draft traffic plan (fall 2017/early 2018)
- **Stage 3** – Present draft traffic plan to community for feedback (fall 2017/early 2018)
- **Stage 4** – Implement the changes over time (as early as spring 2018)

#### Sources of Information:

- Past Studies
- Collision Analysis
- Feedback from Public Consultation
- Traffic Counts & Assessments

#### Concerns Received:

- Speeding – George Road, Hunt Road, Junor Avenue, Latrace Road, Nesbit Crescent

#### Traffic Calming Devices (Examples of devices used in Saskatoon):

1. Speed Display Boards
2. Raised Median Island – narrows road; provides center refuge for pedestrians
3. Curb Extensions – narrows road
4. Roundabouts
5. Diverter – used to address high traffic volumes
6. Right-in/right-out island – used to address high traffic volumes
7. Directional Closure – restrict movements onto the street from one direction
8. Raised median through intersection – restrict movements
9. Full closure

#### Pedestrian Devices:

1. Standard crosswalk
2. Zebra crosswalk (striped pavement markings)
3. Active pedestrian corridor (flashing yellow lights)
4. Pedestrian-activated signal

**Saskatoon Police Services: 306-975-8300 OR 306-975-8068 to report a traffic complaint or a concern.**

#### Small Group Discussions

- Breakout into small groups to discuss traffic concerns in Dundonald and potential solutions

#### Group 1: Mariniel Flores

- Latrace Road:



- speeding/shortcutting (excessive traffic volume, not just local traffic) to get to Claypool Drive or north end or to get to Kensington/Walmart
- Possible Solution: Extend Claypool Dr to Dalmeny Rd to reduce traffic on Latrace Rd.
- Racing on Latrace Rd because it is wide (7:00pm – 10:00pm)
- Buses are speeding
- Speed bumps have been effective and inexpensive – want them on Latrace Rd
- More enforcement (at different times of the day)
- 3-way stop at Latrace Rd & Wedge Rd
- 3-way stop at Latrace Rd & 33<sup>rd</sup> St
- More education about aggressive driving
- Speed display board
- Safety for children
- Elk Point will increase traffic on Latrace Rd and it's noisy (what is the timing of Claypool Dr extension?)
- Install traffic calming (median/curb extensions; minimize parking restriction required for traffic calming)
- Don't want this to be a commuter road – need to address concerns
- Pedestrian devices at Wedge Rd & Latrace Rd or standard crosswalk
- Interested about Claypool Dr extension, Elk Point, extension of McClocklin Rd
- Maybe photo radar on Latrace
- High school speeding
- Littering from high school kids
- Wedge Rd – buses speeding (should think of giving them more time – schedule-wise)
- No good way to bike out of Dundonald – no good connections to downtown
- Wedge Rd & George Rd – bad corner
- Excessive volumes on Hunt Rd
- Many semis/work trucks (gravel trucks) on Latrace Rd (shortcutting through) which cause a lot of debris

#### Group 2: Danae Balogun

- George Rd – why are they (drivers) on that road?
- Speed humps don't always work – car parts in front yard
- George Rd has the curb extensions, but they don't feel that they have slowed traffic down
- 30 kph zone along George, but not along parks
- Liked having the flashing speed sign, but not seen as a long term measure
- How does new neighbourhood development affect existing neighbourhood traffic and the increase in traffic?
- Calgary puts in the infrastructure first
- Boundary on the leaflet
- 22<sup>nd</sup> St – reduce to 60 kph

- Police radar – but not viewed as a solution long-term
- Don't feel safe to let kids bike on streets
- Not sure if the speed signs would increase or decrease speeds
- People slide through stop sign at Wedge Rd
- Not sure how the traffic calming treatments would work
- Group home at Lennon Cr & Latrace Rd (N)
- Fast speeds turning into Lennon Cr (S) off of Latrace Rd
- Portable speed camera – keep track of speed and have the data for the speeds
- Speed study to capture speeds
- Pedestrian crossing proposed across George Rd from pathway midblock between Wedge Rd and Makaroff Rd
- Pedestrian activated signals proposed at George Rd & Makaroff Rd and George Rd & Kirkpatrick Cr. Also some sight line issues due to trees at George Rd & Kirkpatrick Cr.
- Speeding/fast turn from Wedge Rd north-west bound onto George Rd north-east bound
- Pedestrian crossing with curb extensions on Hughes Rd is very narrow.
- Suggest:
  - Speed study along Latrace Rd and George Rd
  - Ped crossings that are heavily used for school aged children that could be improved
  - Consider traffic impacts as Elk Point develops.

### Group 3: Chelsea Lanning

- Why is there a 'No Stopping' zone across from St Peters School and Dundonald School?
- Junor Ave & 37<sup>th</sup> St 4-way stop is really busy. No lanes marked for through and turn movements and people aren't sure if it is supposed to be 2 lanes. Maybe install lane markings or designation signs.
- Speeding on George Rd
- Kids have trouble crossing George Rd at Makaroff Rd. Could an active pedestrian corridor be considered?
- Turning off George Rd onto Wedge Rd is difficult.
  - Also pedestrian safety issues here.
  - Parking on Wedge Rd near George Rd Stop & Go makes it hard to see.
  - Location of the end of the school zone makes it hard to judge the speed of oncoming traffic.
- Hunt Rd, George Rd, and Latrace Rd are being used to cut through to the north end (Claypool Dr)
- 33<sup>rd</sup> St from Ave W to Confederation drive is really busy.
- Wedge Rd has improved since the opening of Claypool Dr.
- Shortcutting and speeding from George Rd to McCann Way to Nixon Cr
- 37<sup>th</sup> Street speed bumps – people are trying to avoid the speed humps. Check to make sure signage is there. People are driving on the sidewalk to avoid them

- Some would like to see speed humps removed from Hughes Dr, others wouldn't. Some would like to see them added to Latrace Rd.
- Curb extensions proposed at Latrace Rd & Wedge Rd, and Latrace Rd & Flavelle Cr (N)
- George Rd – speeding and collisions near Makaroff Rd. Maybe a speed display board here & stop sign at Makaroff Rd instead of yield. Look into active pedestrian corridor.
- Busses speeding on George Rd
- Look into 3-way stop at Wedge Rd & George Rd

### Next Steps

1. Continue monitoring traffic issues in your neighbourhood
2. Mail-in or email comments no later than July 15, 2017
3. Additional public input via City on-line Community Engagement webpage no later than July 15, 2017

<http://shapingsaskatoon.ca/discussions>

4. Traffic count data collection, analysis
5. Develop recommendations and prepare draft traffic plan
6. Follow-up public meeting to provide input on draft plan
7. Determine revisions and finalize traffic plan
8. Present traffic plan to City Council for approval

### Question & Answer

Resident: How do we know about follow-up meeting?

Kathy: Flyers will be delivered like last time. Councillor and Community Association have also helped advertise in the past.

Resident: You should do the counts when school is in.

City: Some counts will be completed in summer and some in school season (Sept/Oct)

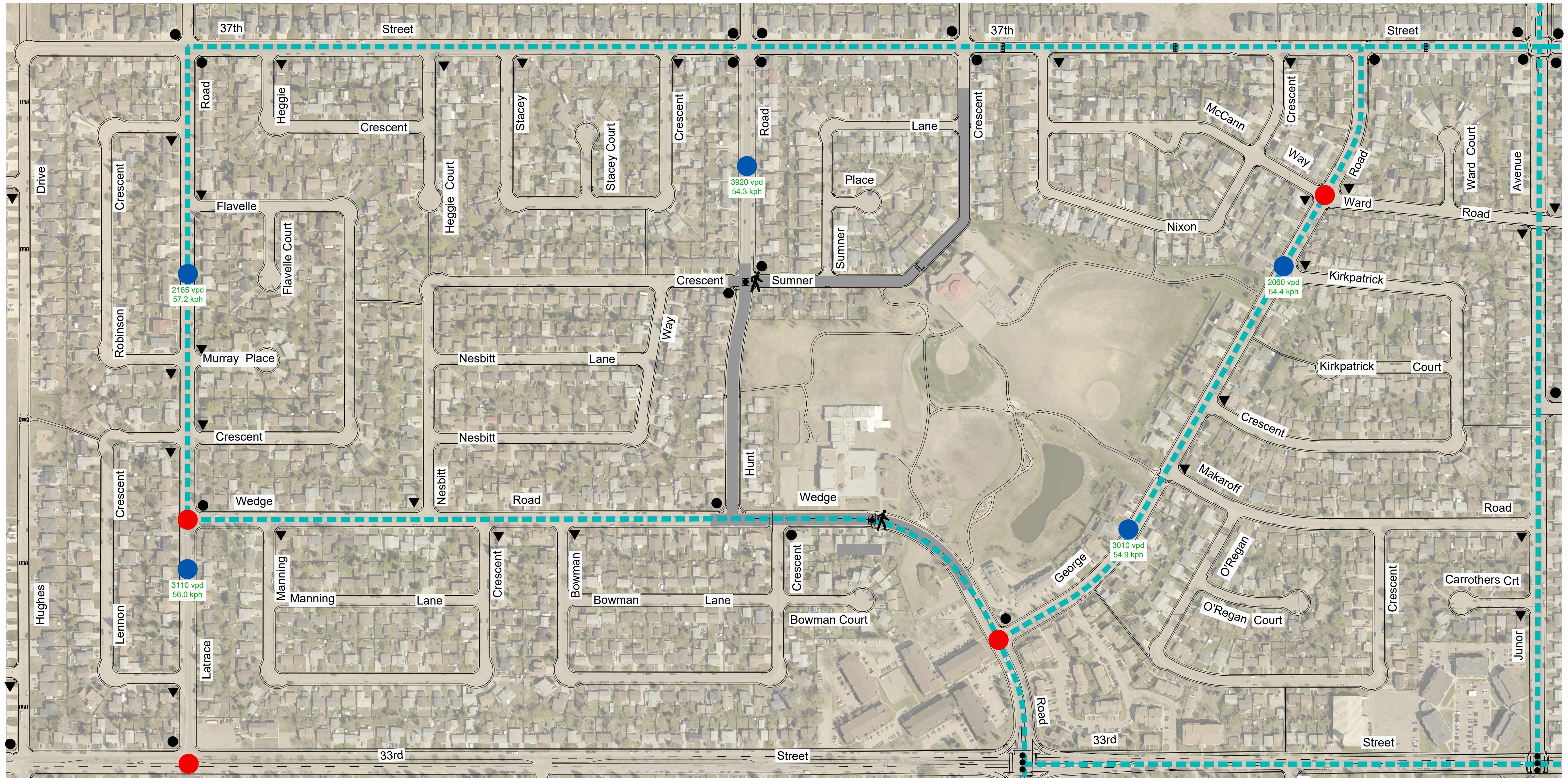
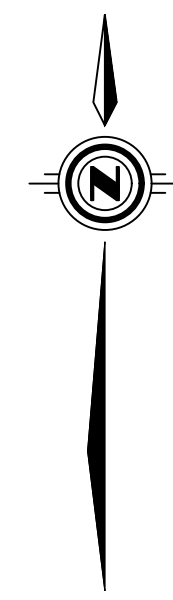
Resident: Do Latrace Rd counts when school year is in session because of high school traffic.

City: Thank-you for that information. When we are counting you can expect to see tubes on ground and cameras installed and this information will be reviewed.



## APPENDIX B: TRAFFIC DATA COLLECTION





**LEGEND**

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

# DUNDONALD - TRAFFIC DATA





## APPENDIX C: ALL-WAY STOP ASSESSMENTS



**All-way Stop Assessment (Policy C07-007 – Traffic Control – Use of Stop & Yield Signs)**

Step 1:

The following conditions must be met for all-way stop control to be considered:

- i) The combined volume of traffic entering the intersection over the five peak hour periods from the minor street must be at least 25% of the total volume for a three-way stop control, and at least 35% of the total volume for a four-way stop control.
- ii) There can be no all-way stop control and traffic signal within 200 metres of the proposed intersection being considered for all-way stop control on either of the intersecting streets.

<b>Location</b>	<b>Condition 1: % of Traffic from minor street</b>	<b>Condition 2: Traffic Signals or all-way stop within 200m</b>	<b>All-Way Stop Warrant</b>
Latrace Rd & Wedge Rd	17% - Condition NOT met	No – Condition met	Conditions NOT met.
Latrace Rd & 33rd St	22% - Condition NOT met	No – Condition met	
Wedge Rd & George Rd	17% - Condition NOT met	No – Condition met	

Provided the above criteria are met, the following conditions, singly or in combination, may warrant the installation of all-way stop signs:

- i) When five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.
- ii) When the total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour or the total intersection entering volume exceeds 6,000 vehicles per day.
- iii) The average delay per vehicle to the minor street traffic must be 30 seconds or greater during the peak hour.
- iv) As an interim measure to control traffic while arrangements are being made for the installation of traffic signals.

Location	Criteria 1: 5 or more collisions in most recent 12 months	Criteria 2: total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour	Criteria 3: total intersection entering volume exceeds 6,000 vehicles per day	Results
Latrace Rd & Wedge Rd	0 – Condition NOT met	400 – Condition NOT met	4080 – Condition NOT met	Three-way stop NOT warranted.
Latrace Rd & 33rd St	0 – Condition NOT met	817 – Condition met	9,020 – Condition met	Three-way stop NOT warranted.
Wedge Rd & George Rd	2 – Condition NOT met	1,000 – Condition met	12,440 – Condition met	Three-way stop NOT warranted.

## APPENDIX D: PEDESTRIAN DEVICE ASSESSMENTS



## Appendix D: Pedestrian Device Assessments

### George Rd & Kirkpatrick Cr North

Prepared : Chelsea Lanning Date: Wednesday, November 22, 2017

Location & Roadway Classification: George Rd & Kirkpatrick Cr  
 Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, October 31, 2017  
 Weather: 0  
 Traffic Control Devices: Yield on Kirkpatrick Cr  
 Current Pedestrian Control: Zebra crossing and curb extensions exist here  
 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 \_\_\_\_\_ m

Location: \_\_\_\_\_

Type: \_\_\_\_\_

Is the orientation of this crosswalk(s) N-S? n (y or n)

Duration of pedestrian count \_\_\_\_\_ hrs

Elementary:	22	Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	742	at	
Adult:		Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	13		
Vehicles passing through crosswalk(s):	1,071				

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

\*Assumed all pedestrians were children for this stage of the study. Since a device was not warranted with the highest scoring pedestrians used, no further analysis of pedestrian type was completed.



Time (15 minute interval)	Vehicle Counts				Pedestrian Counts								
	SB	VB	NB	EB	North Crosswalk				South Crosswalk				
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child	
7:00	8	2	8										
7:15	15	2	8										
7:30	27	1	19										
7:45	17	4	9										
8:00	19	4	12										
8:15	30	4	8										
8:30	30	5	27										1
8:45	18	1	22										5
9:00													
9:15													
9:30													
9:45													
<b>AM Total</b>	<b>164</b>	<b>23</b>	<b>113</b>										<b>6</b>
11:30	7		10										
11:45	13		12										
12:00	4	2	16										
12:15	14	1	7										
12:30	12	1	10										
12:45	12		16										
13:00	9		11										
13:15	11	2	14										
<b>Non Total</b>	<b>82</b>	<b>6</b>	<b>96</b>										
14:00													
14:15													
14:30													
14:45													
15:00	17	1	20										
15:15	21	2	29										2
15:30	23	1	26										
15:45	21		29										
16:00	20	1	23										2
16:15	13		33										
16:30	21		29										2
16:45	26	4	28										
17:00	18	1	36										3
17:15	22	2	27										4
17:30	22		29										2
17:45	12	2	28										1
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
<b>PM Total</b>	<b>236</b>	<b>14</b>	<b>337</b>										<b>16</b>
<b>Totals</b>	<b>482</b>	<b>43</b>	<b>546</b>										<b>22</b>
					<b>North Crosswalk =</b>				<b>South Crosswalk =</b>				<b>22</b>

Time 15 minute intervals	Vehicle Counts		Pedestrian Counts					P.C.		P.C. Warranted	Points of Warranted		
			Total Both Sides					Recorded Count				Points	
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.	(1=Yes)	Periods		
7:00	18												
7:15	25	43											
7:30	47	72											
7:45	30	77											
8:00	35	65											
8:15	42	77											
8:30	62	104	1				1	1	1	104			
8:45	41	103	5				5	5	6	618			
9:00		41							5	205			
9:15													
9:30													
9:45													
<b>AM Total</b>	<b>300</b>		<b>6</b>				<b>6</b>						
11:30	17												
11:45	25	42											
12:00	22	47											
12:15	22	44											
12:30	23	45											
12:45	28	51											
13:00	20	48											
13:15	27	47											
<b>AM Total</b>	<b>184</b>												
14:00													
14:15													
14:30													
14:45													
15:00	38	38											
15:15	52	90	2				2	2	2	180			
15:30	50	102							2	204			
15:45	50	100											
16:00	44	94	2				2	2	2	188			
16:15	46	90							2	180			
16:30	50	96	2				2	2	2	192			
16:45	58	108							2	216			
17:00	55	113	3				3	3	3	339			
17:15	51	106	4				4	4	7	742			
17:30	51	102	2				2	2	6	612			
17:45	42	93	1				1	1	3	279			
18:00		42							1	42			
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
<b>PM Total</b>	<b>587</b>		<b>16</b>				<b>16</b>						
<b>Totals</b>	<b>1,071</b>		<b>22</b>				<b>22</b>						
			100%				100%						
			<b>North Crosswalk =</b>										
			<b>South Crosswalk =</b>				<b>22</b>						

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



George Rd & Wedge Rd

Prepared by: Chelsea Lanning Date: Wednesday, November 22, 2017

Location & Roadway Classification: George Rd & Wedge Rd  
 Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, October 31, 2017  
 Weather: ☀  
 Traffic Control Devices: Yield on Kirkpatrick Cr  
 Current Pedestrian Control: None  
 Other Notes:

Number of travel lanes passing through the crosswalk  2 lanes  
 Is there a physical median in this crosswalk(s)?  n (y or n)  
 Speed limit (for 85th percentile speed)  50 km/h  
 85th percentile (check one)  
 Posted Limit  
 Distance to nearest protected crosswalk  \_\_\_\_\_ m  
 Location: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Is the orientation of this crosswalk(s) N-S?  n (y or n)  
 Duration of pedestrian count  7 hrs

Elementary:	16	Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	1,221	at	
Adult:		Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	17		
Vehicles passing through crosswalk(s):	4,465				

ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED  
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED

\*Assumed all pedestrians were children for this stage of the study. Since a device was not warranted with the highest scoring pedestrians used, no further analysis of pedestrian type was completed.

Time (15 minute interval)	Vehicle Counts				Pedestrian Counts							
	SB	WB	NB	EB	North Crosswalk				South Crosswalk			
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child
7:00	66	1		26								
7:15	70	4		47								
7:30	110	2		51	2							
7:45	91	4		46								
8:00	92	2		57								3
8:15	109	16		93								
8:30	135	16		96								
8:45	76	5		64								
9:00												
9:15												
9:30												
9:45												
<b>AM Total</b>	<b>749</b>	<b>50</b>		<b>480</b>	<b>2</b>							<b>3</b>
11:30	50	3		61								
11:45	46	4		61								
12:00	38	2		76								
12:15	43	4		58	2							
12:30	46	4		57								
12:45	53	3		67	2							
13:00	36			48								
13:15	28	3		64								
<b>Mass Total</b>	<b>340</b>	<b>23</b>		<b>492</b>	<b>4</b>							
14:00												
14:15												
14:30												
14:45												
15:00	32	10		112								
15:15	72	9		93								
15:30	81	3		110								
15:45	56	4		134								
16:00	54	7		139								2
16:15	53	2		125								
16:30	47	2		125								1
16:45	68	5		139								
17:00	71	6		172								
17:15	54	3		146	1							
17:30	72	3		129	1							1
17:45	61	2		130	1							
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
<b>PM Total</b>	<b>721</b>	<b>56</b>		<b>1,554</b>	<b>3</b>							<b>4</b>
<b>Totals</b>	<b>1,810</b>	<b>129</b>		<b>2,526</b>	<b>9</b>							<b>7</b>
					<b>North Crosswalk = 9</b>				<b>South Crosswalk = 7</b>			



Time 15 min. Intervals	Vehicle Counts		Pedestrian Counts					P.C.		Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides					Factored Count				Warrant Points
			15 min.	30 min	Child	Teen	Adult	Senior / Impaired	Total			
7:00	93											
7:15	121	214										
7:30	163	284	2				2	2	2	568		
7:45	141	304							2	608		
8:00	151	292	3				3	3	3	876		
8:15	218	369							3	1,107		
8:30	247	465										
8:45	145	392										
9:00		145										
9:15												
9:30												
9:45												
<b>AM Total</b>	<b>1,279</b>		<b>5</b>				<b>5</b>					
11:30	114											
11:45	111	225										
12:00	116	227										
12:15	105	221	2				2	2	2	442		
12:30	107	212							2	424		
12:45	123	230	2				2	2	2	460		
13:00	84	207							2	414		
13:15	95	179										
<b>PM Total</b>	<b>855</b>		<b>4</b>				<b>4</b>					
14:00												
14:15												
14:30												
14:45												
15:00	154	154										
15:15	174	328										
15:30	194	368										
15:45	194	388										
16:00	200	394	2				2	2	2	788		
16:15	180	380							2	760		
16:30	174	354	1				1	1	1	354		
16:45	212	386							1	386		
17:00	249	461										
17:15	203	452	1				1	1	1	452		
17:30	204	407	2				2	2	3	1,221		
17:45	193	397	1				1	1	3	1,191		
18:00		193							1	193		
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
<b>PM Total</b>	<b>2,331</b>		<b>7</b>				<b>7</b>					
<b>Totals</b>	<b>4,465</b>		<b>16</b>				<b>16</b>					
			100%				100%					
			<b>North Crosswalk =</b>				<b>9</b>	<<< install crosswalk on this side of the int.				
			<b>South Crosswalk =</b>				<b>7</b>					

**Latrace Rd & Wedge Rd:**

**Prepared By:** Chelsea Lanning **Date:** Wednesday, November 22, 2017

**Location & Roadway Classification:** Latrace Rd & Wedge Rd  
**Date of Count:** Day of wk: Wednesday **Mo, Day, Yr:** Wednesday, October 11, 2017  
**Weather:** 0  
**Traffic Control Devices:** Yield on Kirkpatrick Cr  
**Current Pedestrian Control:** None  
**Other Notes:**

**Number of travel lanes passing through the crosswalk:** 2 lanes

**Is there a physical median in this crosswalk(s)?** n (y or n)

**Speed limit (for 85th percentile speed)** 50 km/h  
 85th percentile (check one)  
 Posted Limit

**Distance to nearest protected crosswalk:** \_\_\_\_\_ m  
**Location:** \_\_\_\_\_  
**Type:** \_\_\_\_\_

**Is the orientation of this crosswalk(s) N-S?** n (y or n)

**Duration of pedestrian count** 7 hrs

<b>Elementary:</b>	<b>11</b>	<b>Total Warranted PC Points:</b>		<b>or</b>	<b>1 period</b>
<b>High School:</b>		<b>Highest PC point value:</b>	<b>705</b>	<b>at</b>	
<b>Adult:</b>		<b>Active Ped Corridor Points:</b>			
<b>Senior:</b>		<b>Pedestrian Actuated Signal Points:</b>	<b>14</b>		
<b>Vehicles passing through crosswalk(s):</b>	<b>1,531</b>				

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

\*Assumed all pedestrians were children for this stage of the study. Since a device was not warranted with the highest scoring pedestrians used, no further analysis of pedestrian type was completed.



Time (15 minute interval)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	North Crosswalk				South Crosswalk				
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child	
7:00	18	2	14										
7:15	27	3	15										
7:30	23		31										
7:45	34	4	27		2								
8:00	45	3	15										
8:15	50	6	22										
8:30	37	6	23										
8:45	21	3	17										
9:00													
9:15													
9:30													
9:45													
<b>AM Total</b>	<b>255</b>	<b>27</b>	<b>164</b>		<b>2</b>								
11:30	16	4	12										
11:45	17	5	15										
12:00	13	3	7										
12:15	17	4	12										
12:30	16	2	17										
12:45	13	2	12										
13:00	9	6	11										
13:15	22	3	18										
<b>Non Total</b>	<b>123</b>	<b>29</b>	<b>104</b>										
14:00													
14:15													
14:30													
14:45													
15:00	23		20										
15:15	13	6	17		1								
15:30	21	8	31		3							2	
15:45	30	8	43										
16:00	21	10	28										
16:15	26	6	36									1	
16:30	34	6	34										
16:45	47	7	26		1								
17:00	34	13	29										
17:15	50	6	38									1	
17:30	43	4	29										
17:45	30	6	46										
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
<b>PM Total</b>	<b>372</b>	<b>80</b>	<b>377</b>		<b>5</b>							<b>4</b>	
<b>Totals</b>	<b>750</b>	<b>136</b>	<b>645</b>		<b>7</b>							<b>4</b>	
					<b>North Crosswalk = 7</b>				<b>South Crosswalk = 4</b>				

Time 15 minute intervals	Vehicle Counts		Pedestrian Counts					P.C.		Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides					Factored Count				Warrant Points
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			
7:00	34											
7:15	45	79										
7:30	54	99										
7:45	65	119	2				2	2	2	238		
8:00	63	128							2	256		
8:15	78	141										
8:30	66	144										
8:45	41	107										
9:00		41										
9:15												
9:30												
9:45												
<b>AM Total</b>	<b>446</b>		<b>2</b>				<b>2</b>					
11:30	32											
11:45	37	69										
12:00	23	60										
12:15	33	56										
12:30	35	68										
12:45	27	62										
13:00	26	53										
13:15	43	69										
<b>PM Total</b>	<b>256</b>											
14:00												
14:15												
14:30												
14:45												
15:00	43	43										
15:15	36	79	1				1	1	1	79		
15:30	60	96	5				5	5	6	576		
15:45	81	141							5	705		
16:00	59	140										
16:15	68	127	1				1	1	1	127		
16:30	74	142							1	142		
16:45	80	154	1				1	1	1	154		
17:00	76	156							1	156		
17:15	94	170	1				1	1	1	170		
17:30	76	170							1	170		
17:45	82	158										
18:00		82										
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
<b>PM Total</b>	<b>829</b>		<b>9</b>				<b>9</b>					
<b>Totals</b>	<b>1,531</b>		<b>11</b>				<b>11</b>					
			100%				100%					
			<b>North Crosswalk =</b>				<b>7</b>	<<< install crosswalk on this side of the int.				
			<b>South Crosswalk =</b>				<b>4</b>					



## APPENDIX E: COLLISION ANALYSIS

Street 1	Street 2	Ugrid	All collisions (2012 - 2016)	All collisions (2016)	Right Angle, Left Turn & Right Turn Only (2012-2016)	Right Angle, Left Turn & Right Turn Only (2016)	Average # of Collisions Per Year (2012-2016)
Hughes Ave	33 <sup>rd</sup> St to 37 <sup>th</sup> St	A5-17	10	0	0	0	5
Hughes Ave	37 <sup>th</sup> St	A5-70	2	1	0	0	0
Latrace Rd	37 <sup>th</sup> St	A5-52	3	0	0	0	1
Robinson Cr	0-99	A5-86	1	0	0	0	0
Latrace Rd	Flavelle Cr N to Murray Pl	A5-68	1	0	0	0	0
Latrace Rd	Murray Pl	A5-64	1	1	0	0	0
Murray Pl	0-99	A5-85	2	0	0	0	0
Murray Pl	Midblock	A5-69	1	0	0	0	0
Flavelle Cr	200	A5-72	1	1	0	0	0
Flavelle Cr	100	A5-9	1	0	0	0	0
Latrace Rd	Lennon Cr N to Wedge Rd	A5-77	3	0	0	0	1
Latrace Rd	Wedge Rd	A5-39	1	0	0	0	0
Latrace Rd	33 <sup>rd</sup> St to Wedge Rd	A5-6	1	0	0	0	0
33 <sup>rd</sup> St	Latrace Rd	A5-14	3	0	0	0	1
Manning Ln	Midblock	A5-7	1	0	0	0	0
Manning Cr	Manning Cr to Manning Ln	A5-42	2	1	1	1	0
Bowman Cr	Bowman Cr to Bowman Ln	A5-56	3	0	2	0	1
Bowman Cr	Bowman Ln to Wedge Rd	A5-48	1	0	0	0	0
Manning Cr W leg	Wedge Rd	A5-38	1	0	0	0	0
Wedge Rd	Manning Cr to Nesbitt Cr	A5-37	3	0	0	0	1
Wedge Rd	Manning Cr E to Nesbitt Cr	A5-35	2	2	0	0	0
Wedge Rd	Bowman Cr E to Manning Cr W	A5-33	2	0	0	0	0
Wedge Rd	Bowman Cr W to Hunt Rd	A5-31	2	1	0	0	0
Wedge Rd	Hunt Rd	A5-15	10	1	4	0	2
Wedge Rd	Bowman Cr E	A5-75	1	0	0	0	0
Nesbitt Cr	Nesbitt Way to Nesbitt Ln	A5-29	1	0	0	0	0
Nesbitt Cr	Nesbitt Ln to Nesbitt Cr	A5-24	1	0	0	0	0
Hunt Rd	Nesbitt Cr to Wedge Rd	A5-58	3	0	0	0	1
Hunt Rd	Nesbitt Cr/Sumner Cr	A5-21	3	2	1	1	1
Hunt Rd	37 <sup>th</sup> St to Nesbitt Cr	A5-78	3	2	0	0	1
Stacey Cr	200	A5-57	1	0	0	0	0
37 <sup>th</sup> St	Heggie Cr W	A5-66	1	1	0	0	0
37 <sup>th</sup> St	Heggie Cr to Stacey Cr	A5-61	2	2	0	0	0
37 <sup>th</sup> St	Stacey Cr E	A5-76	2	2	0	0	0
37 <sup>th</sup> St	Stacey Cr to Stacey Cr	A5-13	2	0	0	0	0
37 <sup>th</sup> St	Stacey Cr E	A5-51	1	0	1	1	0
37 <sup>th</sup> St	Hunt Rd	A5-12	9	1	6	1	2
37 <sup>th</sup> St	Hunt Rd to Sumner Cr	B5-22	1	0	0	0	0
37 <sup>th</sup> St	Sumner Cr	B5-24	3	0	3	0	1
Sumner Cr	200	B5-33	4	1	0	0	1
Sumner Cr	100	B5-38	1	0	0	0	0
Sumner Ln	Sumner Pl	B5-44	2	0	1	0	0
Nixon Cr	300	B5-43	1	0	0	0	0
37 <sup>th</sup> St	Nixon Cr W	B5-28	1	1	0	0	0
37 <sup>th</sup> St	George Rd	B5-25	5	2	1	0	1
37 <sup>th</sup> St	George Rd to Junor Ave	B5-36	3	1	0	0	1
George Rd	37 <sup>th</sup> St to Ward Rd	B5-10	1	0	0	0	0
George Rd	McCann Way/Ward Rd	B5-23	3	0	2	0	1
George Rd	Kirkpatrick Cr to Kirkpatrick Cr	B5-19	2	2	0	0	0



Street 1	Street 2	Ugrid	All collisions (2012 - 2016)	All collisions (2016)	Right Angle, Left Turn & Right Turn Only (2012-2016)	Right Angle, Left Turn & Right Turn Only (2016)	Average # of Collisions Per Year (2012-2016)
Kirkpatrick Crt	Midblock	B5-34	1	0	0	0	0
Kirkpatrick Cr	George Rd to Kirkpatrick Crt	B5-17	2	0	0	0	0
George Rd	Kirkpatrick Cr	B5-20	4	2	1	0	1
George Rd	Makaroff Cr	B5-12	1	0	0	0	0
Makaroff Rd	O'Regan Cr to O'Regan Cr	B5-130	1	1	0	0	0
O'Regan Cr	100	B5-7	2	0	0	0	0
George Rd	Makaroff Cr to Wedge Rd	B5-13	3	0	0	0	1
Wedge Rd	Bowman Cr to George Rd	B5-6	7	1	0	0	1
George Rd	Wedge Rd	B5-11	9	3	5	3	2
Wedge Rd	33 <sup>rd</sup> St to George Rd	B5-8	8	1	2	0	2
37 <sup>th</sup> St	Junor Ave	C5-47	4	1	0	0	1
Junor Ave	Peterson Cr/Ward Rd	C5-50	4	2	0	0	1

APPENDIX F: PUBLIC MEETING #2 – OCTOBER 10, 2017 MINUTES



**Dundonald Neighbourhood  
Traffic Review  
Thursday, December 7, 2017, 7:00 – 9:00 P.M.  
St. Peter School  
202 Sumner Crescent**

Facilitators:

- Mitch Riabko & Kathy Dahl (Great Works Consulting)

City of Saskatoon Representatives:

- Chelsea Lanning (Transportation Engineer), Nathalie Baudais (Senior Transportation Engineer),  
Mariniel Flores (Transportation Engineer), Mingqing Deng (Transportation Engineer-in-Training)

Councillors Present:

- Councillor Troy Davies

Agenda

- Welcome & introductions
- Presentation from the Transportation Division
- Small group discussions
- Small group discussion – report back to large group
- Next steps
- Question / answers

Presentation from Transportation Division – Dundonald Neighbourhood Traffic Review  
(Presented by Chelsea Lanning - Transportation Engineer)

Presentation Outline:

- Neighbourhood Traffic Management Program
- How We Got Here
- What We Heard
- What We Did
- What We Propose

Neighbourhood Traffic Management Program:

- Developed in 2013
- Address neighbourhood traffic issues on local and collector streets:
  - Speeding concerns
  - Short-cutting concerns
  - Pedestrian safety
  - Intersection safety

Study Area:

- Area bound by 37<sup>th</sup> St (north), Junor Ave (east), 33<sup>rd</sup> St W (south), properties adjacent to the west side of Hughes Dr (west)

How We Got Here:

- June 2017 – Initial meeting
- June to December – gather feedback, conduct traffic studies, collect data, develop traffic plan
- December 2017 – Follow-up meeting – display proposed traffic plan and gather feedback

What We Heard:

- Speeding / Short-cutting Concerns:
  - Latrace Road
  - Hunt Road

- George Road
- Pedestrian Safety Concerns:
  - Latrace Road & Wedge Road
  - Latrace Road & Flavelle Crescent
  - Wedge Road & George Road
  - George Road & Makaroff Road
  - George Road & Kirkpatrick Crescent
- Other Concerns:
  - Bus loading zones near Dundonald School
  - Signage cleanup
  - Tree trimming to make signs more visible

#### What We Did:

- Collected Data:
  - Past studies
  - Comments from initial meeting
  - Resident responses (phone calls, emails, letters)
  - Recorded comments from Shaping Saskatoon discussions
  - 3 Intersection / Pedestrian counts
  - 5 – 7 day traffic count (24 hour) & Average Speed measurements
  - Collision history
- Field reviews
- Assessed the issues
- Generated proposed recommendations

#### What We Propose:

- Median islands
- Curb extensions
- Zebra crosswalks
- Speed display board
- **Saskatoon Police Services: 306-975-8300 OR 306-975-8068 to report a traffic complaint or a concern.**

#### Small Group Discussions

- Breakout into small groups to discuss traffic concerns in Dundonald and potential solutions

\*\*\*Refer to separate attachments – *Table Discussions*.\*\*\*

#### Next Steps

1. Send comments no later than January 12, 2018
2. Additional public input via City on-line Community Engagement webpage no later than January 12, 2018

<http://shapingsaskatoon.ca/discussions>

3. Additional consultation if required
4. Present traffic plan to City Council for information (Councillor, Community Association & Community Consultant will be notified. Traffic plan is posted online one week prior to Council meeting).



5. What if I don't agree?
  - Contact Councillor, write a letter to Council or request to speak at Council.
6. Implementation to begin Spring 2018 (signs & temporary traffic calming)

## Q&A

Resident: What is the count on Latrace Rd and on 33<sup>rd</sup> St?

CofS: Latrace Rd has between 2,000 to 3,000 vehicles per day.

Resident: What is the number to get an all-way stop?

CofS: We look at a few things including collisions, volume for compliance (35% to 65% traffic split). The Latrace and 33<sup>rd</sup> Street intersection does not warrant an all-way stop at this time (split is 78% traffic on 33<sup>rd</sup>. The intersection of George Road and Wedge Road does not warrant an all-way stop at this time (split is 83% traffic on Wedge).

Resident: 80% of the volume being on Wedge Rd is the problem.

Resident: Spending money on existing signs and speed humps – don't waste money making signs bigger. People know that the speed humps are there. They know the school zone is there.

Resident: Look at long-term. People want to get downtown quickly. Increase the speed limit on designated roads to discourage shortcutting through neighbourhoods. Have Claypool Dr with 60km/h speed limit. 33<sup>rd</sup> wasn't intended for this kind of traffic.

Councillor Davies: Designing for this on the northeast side with the new interchanges. Design is to push traffic to the arterial roads.

Resident: What is the timing to get Claypool to Neault Rd?

Councillor Davies: That will depend on the development in Kensington. Housing market has cooled so it may be several years before the road is extended.

Resident: Problem is all traffic that is trying to get to Claypool Dr.

Councillor Davies: Amenities like Tim's are being planned in Hampton Village (north of Dundonald) so people don't shortcut through the neighbourhood to get to the Blairmore and Kensington commercial areas. The construction of these amenities will begin in 2018.

## APPENDIX G: DECISION MATRIX



# Appendix G: Decision Matrix

Item	Location	Recommendation	Reason	Mariniel's Group	Nathalie's Group	Chelsea's Group	Decision
1	Latrace Rd & Wedge Rd	Curb Extension & Median Island (south side) Pedestrian crosswalk	Reduce speed Improve pedestrian safety	Like it; speed display board in the 1200 block of Latrace Rd (northbound is worse; maybe put it in the middle of Latrace Rd). Like the Steeves Ave speed display board – seems effective there. Want the speed boards to max out displayed speed so young drivers don't try to get the highest speed.	Median islands, turning traffic movements for trailers. Parked vehicles may get hit.	Want to make sure Latrace & 37 <sup>th</sup> St gets addressed with Elk Point neighbourhood.	Carried. Curb extensions are a long term solution as opposed to a speed board.
2	Latrace Rd & Robinson Cr (South leg)	Curb Extensions & Median Islands Pedestrian crosswalk (both sides)	Reduce speed Improve pedestrian safety	Like it as long as the bus doesn't block the traffic lane (make sure there's enough room there)	Speed display board for Latrace.	Consider speed board instead.	Carried. Transit has reviewed the traffic calming plan and has not raised an issue with the installation.
3	Latrace Rd & Flavelle Cr (North leg)	Curb Extension & Median Island (south side) Pedestrian crosswalk	Reduce speed Improve pedestrian safety	Like it. Nearby residents that aren't at the meeting might not like the curb extension that takes their parking space. Maybe a speed display board instead in the southbound direction.  Consider speed humps on Latrace Rd.	Speed humps may be a better selection.  Waste of taxpayer dollars. Claypool to 33 <sup>rd</sup> St connection would alleviate shortcutting on Latrace Rd. Latrace will connect to Hampton Village eventually so measures still needed.		Carried. Curb extensions are a long term solution as opposed to a speed board.
4	Hunt Rd & Sumner Cr	Enhance pavement markings to Zebra crosswalk	Increase visibility in School Zone	Support this.			Carried
5	Wedge Rd & Bowman Cr	Enhance pavement markings to Zebra crosswalk	Increase visibility in School Zone	Support this.	Zebra should be in both directions.		Carried
6	Wedge Rd & George Rd	Zebra crosswalk (North side) Restrict parking Pedestrian accessibility ramp	Improve pedestrian safety	Difficult to turn left here; enforcing jaywalking. Neutral, this group doesn't live near here.	All-way stop or signals would be nice.	Do another count after it's installed.	Carried. A pedestrian device is not warranted at this time and the all-way stop warrant conditions were not met.
7	George Rd	Speed Display Board (SB between Makaroff Rd & Wedge Rd)	Reduce speeding	Buses speed, so support this.	OK		Carried
8	37 <sup>th</sup> St & Junor Ave	Lane Designation Signs for southbound traffic	Provide direction on intersection operations	Icy – needs more sanding; buses slide at this 4-way stop. Support the lane designation sign.			Carried
9	37 <sup>th</sup> Street Latrace Road	Update Speed Bump Signing	Consistency throughout the neighbourhood	Support this	Drivers go around on sidewalk.		Carried

APPENDIX H: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT  
PLAN



## Appendix H: Additional Concerns Received After Presentation of Draft Plan

Location	Concern	Decision
Hunt Road Mid-block crossing in school zone	Curb extensions and request for a midblock crossing	A midblock crossing is not recommended at this location.
	People are speeding because they don't realize it's a school zone. Reminder sign on Hunt near Wedge Rd; silhouettes for safety.	The two schools were consulted about modifications to the school zone. It was decided to keep the school zones as they are.
	Windrows should be removed on Hunt Rd for safety; road gets narrow.	Forwarded to Roadways & Operations
Sumner Crescent across from school	Parking enforcement needed here.	Forwarded to Parking Enforcement.
Junor Ave & Richardson Rd	Councillor Davies would like a crosswalk to be looked at here.	Recorded for review in future during Westview NTR.
33 <sup>rd</sup> St & Latrace Rd	Want a 3-way stop here. Difficult to turn and can't see in the winter (due to snow). Drivers are speeding (the one at Steeves and Diefenbaker has helped).	This was assessed through the Neighbourhood Review and did not meet the warrant criteria for installation of an all-way stop.
Neault Rd	What is the timeline to connect to Claypool for shortcutting traffic from Kensington?	No timeline known at this time; dependent on the rate of development.
Bus Rapid Transit (BRT)	22 <sup>nd</sup> St too far away, maybe express bus for 33 <sup>rd</sup> St.	Forwarded to Transit for consideration.
Elk Point Latrice Rd & Claypool Dr	Do not want Latrace to be straight which may be encouraging speeding & shortcutting (change this in concept plan)	Will be considered when reviewing Concept Plan for Elk Point