

Airport Business Area Neighbourhood Traffic Review



Airport Business Area Neighbourhood Traffic Review

Authorization

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- Saskatoon Police Service
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- Saskatoon Fire Department
- Saskatoon Transit
- City of Saskatoon Environmental Services
- City of Saskatoon Planning and Development
- City of Saskatoon Roadways, Fleet & Support
- City of Saskatoon Community Standards
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Randy Donauer

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 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 May 2019 to identify traffic concerns and potential solutions within the Airport Business Area 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 November 2019.

A summary of recommended improvements for the Airport Business Area neighbourhood 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](#), 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 goals for implementing the improvements ranges from 1 to 5 years.

The Airport Business Area Traffic Plan is illustrated in Exhibit ES-1.

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Table ES-1: Airport Business Area Neighbourhood Recommended Improvements

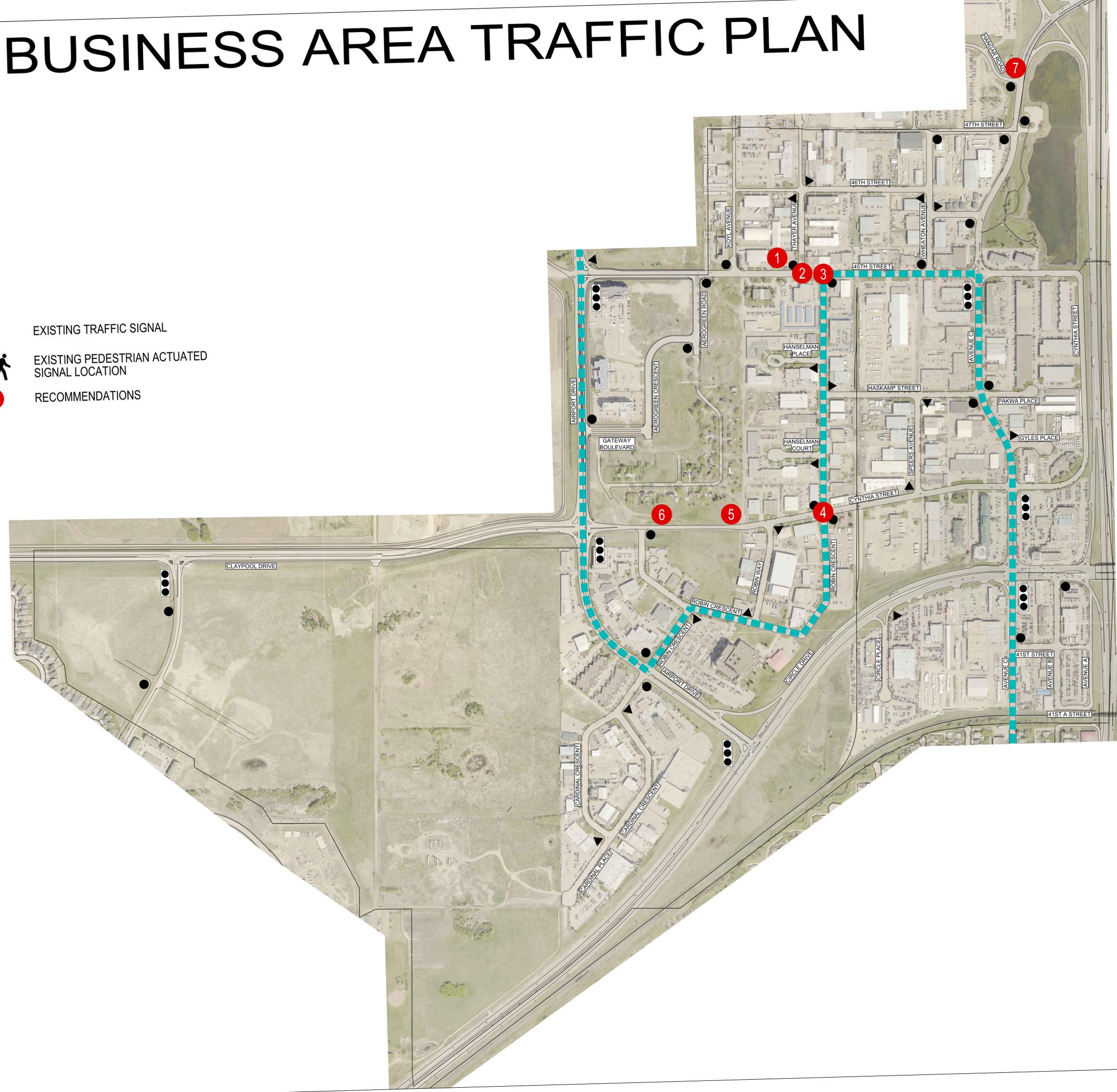
Item	Location	Recommended Improvement	Justification
1	45 th Street between Thayer Avenue and Koyl Avenue	Speed display board (westbound)	Reduce speed
2	45 th Street and Thayer Avenue	Remove existing crosswalk	Consolidate crossing at Hanselman Avenue
3	45 th Street and Hanselman Avenue	Active Pedestrian Corridor (west leg)	Improve pedestrian safety
4	Cynthia Street and Hanselman Avenue	Standard crosswalk (west leg)	Improve pedestrian safety
5	Cynthia Street between Robin Crescent (west leg) and Robin Way	Speed display board (westbound)	Reduce speed
		Speed display board (eastbound)	Reduce speed
6	Cynthia Street between Airport Drive and Robin Way	Paint shoulder lines	Typical pavement marking for collector streets with rural cross-sections
7	Avenue C between Circle Drive off ramp and Hangar Road	Speed display board (southbound)	Reduce speed

Other Projects			
8	Neighbourhood-wide	Sidewalk and ramps to be installed as per the Sidewalk Infill Program	Improve pedestrian safety
9	Avenue C between Hangar Road and 45 th Street	Install recommendations of the 2016 review as they become warranted	Improve access to Avenue C from side streets
10	Circle Drive and Avenue C	Complete an intersection improvement evaluation	Determine if improvements can be made to the operation of this intersection

AIRPORT BUSINESS AREA TRAFFIC PLAN

LEGEND

-  EXISTING STOP SIGN
-  EXISTING YIELD SIGN
-  EXISTING BUS ROUTE
-  EXISTING SCHOOL ZONE
-  EXISTING TRAFFIC SIGNAL
-  EXISTING PEDESTRIAN ACTUATED SIGNAL LOCATION
-  RECOMMENDATIONS



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1. 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 manner. Accordingly, this report provides the Traffic Plan for the Airport Business Area neighbourhood.

The Airport Business Area neighbourhood is bound by the CN Rail track to the south, Idylwyld Drive to the east, Hampton Village Neighbourhood to the west and 47th Street to the north. The land use is primarily industrial and office.

The neighbourhood traffic review includes four stages:

- **Stage 1** – Identify issues, concerns and possible solutions through the initial neighbourhood consultation and the Saskatoon Engage 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 Standing Policy Committee on Transportation.
- **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. Identify Issues, Concerns and Possible Solutions

A public meeting was held in May 2019 to identify traffic concerns within the Airport Business Area neighbourhood and residents were given the opportunity to express their concerns and suggest possible solutions. The meeting minutes and presentation are provided in **Appendix A**.

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

2.1. 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:

- 45th Street;
- Avenue C; and
- Cynthia Street.

The residents proposed the following solutions:

- Speed display boards; and
- Increased enforcement.

2.2. Pedestrian and Cyclist Safety

It is important to address pedestrian and cyclist safety concerns to support active transportation. Walking or cycling 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.

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Neighbourhood concerns regarding pedestrian safety were raised at the following locations:

- 45th Street and Avenue C North – there are currently no sidewalks for pedestrians at this busy pedestrian location.
- 45th Street and Hanselman Avenue – bus stops on each side of 45th Street should have a marked crossing to aid pedestrians at this intersection.
- Cycling connections to the north industrial area are requested.
- 817 45th Street – concerned that the existing crosswalk is not visible enough and drivers are not stopping for pedestrians.
- Airport Drive and Cardinal Crescent/Robin Crescent – Pedestrians crossing here feel very unsafe. Pedestrians are coming from the hotel and the bus stop located here.
- Cynthia Street and Robin Way – Pedestrian crossing device requested here.
- Sidewalks are needed throughout the area, especially near the Farmers Market and along 45th Street between Hanselman Avenue and Aerogreen Road.

2.3. 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 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 identified at the following locations:

- 45th Street and Wheaton Avenue – turning left onto 45th Street is difficult with long delays at this location.
- 45th Street and Thayer Avenue – turning onto 45th Street is difficult with long delays during rush hour.
- 45th Street and Koyl Avenue – turning left onto 45th Street is difficult with increased traffic volumes and speeding issues.

Proposed solutions identified by residents:

- All-way stop suggested at 45th Street and Hanselman Avenue.

2.4. 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:

- Airport Drive and Cardinal Crescent/Robin Crescent – traffic on Airport Drive is becoming busier making it difficult to exit Cardinal Crescent or Robin Crescent. Traffic signals were requested.
- Avenue C and 46th Street – turning onto Avenue C is difficult with long delays at this location.
- Avenue C and 47th Street – turning onto Avenue C is difficult with long delays at this location.
- 45th Street and Avenue C – driver compliance at the traffic signal is low, increasing the risk for collisions.
- Circle Drive and Airport Drive – southbound to westbound turn from Airport Drive onto Circle Drive needs an acceleration lane and Airport Drive backs up to the Saskatoon Inn.

3. Develop Draft Traffic Plan

3.1. Methodology

Stage 2 of the neighbourhood traffic review included 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; and
 - 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.

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

Characteristic	Classifications									
	Back Lanes		Locals		Collectors		Arterials		Freeways / Expressways	
	Residential	Commercial	Residential	Commercial	Residential	Commercial	Minor	Major		
Traffic Service Function	Land access function only (traffic movement not a consideration)		Land access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance		Traffic movement major consideration	Traffic movement primary consideration	Traffic movement primary consideration	
Land Service/ Access	Land access only function		Land access primary function		Traffic movement and land access of equal importance		Some access control	Rigid access control	No access	
Typical Traffic Volume (veh/day)	<500	<1,000	<1,000	<5,000	<5,000	8,000 to 10,000	5,000 to 25,000		>20,000 >10,000	
Traffic Flow Characteristics	Interrupted flow		Interrupted flow		Interrupted flow		Uninterrupted flow except at signals and crosswalks		Uninterrupted flow except at signals Free-flow (grade separated)	
Typical Posted Speed Limit (kph)	20		50		50		50 to 70		80 to 90	
Typical Vehicle Type	Passenger and service vehicles	All types	Passenger and service vehicles	All types	Passenger and service vehicles	All types	All types	All types, large portion of trucks	All types, large portion of trucks	
Desirable Network Connections	Lanes, Locals		Lanes, Locals, Collectors		Locals, Collectors, Arterials		Collectors, Arterials, Freeways/Expressways		Arterials, Freeways/ Expressways	
Transit Service	Not permitted		Generally avoided		Permitted		Permitted		Express buses only	
Cyclist Facilities	No restrictions or special facilities		No restrictions or special facilities		No restrictions; special facilities considered		No restrictions; special facilities considered		Prohibited*	
Pedestrians Facilities	Permitted, no special facilities		Sidewalks provided both sides		Sidewalks provided both sides, separation from traffic lanes preferred		Sidewalks provided both sides, separation from traffic lanes required		Prohibited*	
Typical Parking Restrictions	Some restrictions		No restrictions or restrictions one side only		Few restrictions other than peak hour		Permitted, restricted or prohibited	Prohibited or peak hour restrictions	Prohibited	
Minimum Intersection Spacing (m)	As needed		60		60		200	400	800 or 1,600 between interchanges	
Typical Right-of-Way Width (m)	6		15 to 22		21 to 41		33 to 43		75 to 125	

*May be considered beyond the clear zone

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 Airport Business Area neighbourhood is 50 kph.

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

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Table 3-2: Speed Studies and Average Daily Traffic Counts (2018)

Street	Between	Class	Average Daily Traffic (vehicles per day)	Speed (kph)
45 th Street	Thayer Avenue and Koyl Avenue	Collector	9,710	60
Cynthia Street	Robin Crescent (west leg) and Robin Way	Collector	4,740	62

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.

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 a one-year period within the last three years 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 and Table 3-4.

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
45 th Street and Hanselman Avenue	1,378 – Criteria met	15,530 – Criteria met	0 – Criteria NOT met	Criteria met. Proceed to Step 2.

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

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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
45 th Street and Hanselman Avenue	6% - Criteria NOT met	Criteria met	Not recommended

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

3.4. Pedestrian Assessments

Pedestrian assessments were conducted to determine the need for pedestrian actuated signalized crosswalks in adherence to the City of Saskatoon Council Policy C07-018 Traffic Control at Pedestrian Crossings.

Pedestrian crossing devices include:

- standard crosswalk;
- zebra crosswalk;
- rectangular rapid flashing beacon (ground mounted flashing lights);
- actuated pedestrian corridor (overhead flashing yellow lights); and
- pedestrian actuated signals.

The policy provides a decision matrix for locating pedestrian devices considering a number of elements:

- traffic signal warrants;
- pedestrian and traffic volumes;
- distance to nearest traffic control device;
- pedestrian desire line; and
- network connectivity.

Once a location has been identified as a necessary pedestrian connection, the type of pedestrian device is selected using a treatment matrix which considers traffic volume, posted speed limit and number of lanes for pedestrian crossing.

A summary of the pedestrian studies are provided in Table 3-5 and details provided in **Appendix D**.

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Table 3-5: Pedestrian Assessments

Location	Pedestrian Desire Confirmation	Results
45 th Street and Hanselman Avenue	Confirmed	Distance from nearest control > 200 m. Provides connection to transit stop. Active pedestrian corridor is appropriate.
Cynthia Street and Hanselman Avenue	Confirmed	Distance from nearest control > 200 m. Provides connection to transit stop. Standard crosswalk is appropriate.
Cynthia Street and Robin Way	Limited pedestrian desire	Distance from nearest control > 200 m. Does not improve active transportation connectivity. Unmarked crosswalk is appropriate.

3.5. Traffic Signal Assessments

Assessments are conducted to determine the need for traffic signals, in adherence to the Traffic Signal and Pedestrian Signal Head Warrant Handbook. A warrant system assigns points for a variety of conditions including:

- number of traffic lanes;
- posted speed limit of the street;
- distance to the nearest traffic signal; and
- number of pedestrians and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00 am to 9:00 am, 11:30 am to 1:30 pm, and 4:00 pm to 6:00 pm.

If a traffic signal is not warranted, additional measures to improve safety (i.e. parking restrictions, oversized stop signs) may be considered.

A summary of the traffic signal assessments is provided in Table 3-6.

Table 3-6: Traffic Signal Assessments

Location	Traffic Signal Warrant Points	Results
Airport Drive and Cardinal Crescent/Robin Crescent	68	Not warranted

Details of the traffic signal assessments are provided in **Appendix E**.

This intersection will be re-evaluated for possible improvements as a part of the Circle Drive Laurier Drive to Airport Drive functional planning study to determine if improvements can be made to the operation of this intersection.

3.6. Collision Analysis

The most recently available five-year collision data (2014 to 2018) 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. There were no intersections in the Airport Business Area that had two or more collisions per year.

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

4. Present 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 draft 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, “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
45 th Street between Thayer Avenue and Koyl Avenue	Speed display board (westbound)	Reduce speed
Cynthia Street between Robin Crescent (west leg) and Robin Way	Speed display board (westbound)	Reduce speed
	Speed display board (eastbound)	Reduce speed
Cynthia Street between Airport Drive and Robin Way	Paint shoulder lines	Typical pavement markings for collector streets with rural cross-sections
Avenue C between Circle Drive off ramp and Hangar Road	Speed display board (southbound)	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
45 th Street and Thayer Avenue	Remove existing crosswalk	Consolidate crossing at Hanselman Avenue
45 th Street and Hanselman Avenue	Active Pedestrian Corridor (west leg)	Improve pedestrian safety
Cynthia Street and Hanselman Avenue	Standard crosswalk (west leg)	Improve pedestrian safety
Neighbourhood-wide	Sidewalk and ramps to be installed as per the Sidewalk Infill Program	Improve pedestrian safety

4.4. Intersection Safety

There are other studies in the area that are investigating the possibilities for improvements to intersections on the arterial roads in the Airport Business area. These studies are shown in Table 4-3.

Table 4-3: Intersection Safety Studies

Location	Study	Justification
Avenue C between Hangar Road and 45 th Street	Avenue C corridor review, completed in 2016, shown in Appendix G	Improve access to Avenue C from side streets
Circle Drive and Avenue C	Intersection improvement study, ongoing	Determine if improvements can be made to the operation of this intersection

4.5. Follow-up Consultation – Presentation of Traffic Plan

The recommended improvements were presented to residents and stakeholders at a follow-up public meeting in November 2019. The meeting minutes and presentation are provided in **Appendix H**. 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 I**. Additional issues raised during and after the follow-up meeting were assessed and outlined **Appendix J**. Recommendations were added to the list of improvements if necessary. The revised list of recommendations received general support from Saskatoon Police Service, Saskatoon Light and Power, Saskatoon Fire Department,

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Environmental Services, Parking Services, Roadways, Fleet and Support, and Saskatoon Transit.

4.6. Engagement Summary

For the NTRs, residents and stakeholders were invited to participate in the process through two open houses that are outlined in Table 4-4.

Table 4-4: Open Houses Summary

Meeting Details	Meeting Purpose	Meeting Materials
Meeting #1 May 14, 2019 Saskatoon Inn Round Room 4 attendees	To identify specific traffic concerns and potential improvements	Meeting minutes and presentation included in Appendix A
Meeting #2 November 26, 2019 Saskatoon Inn Round Room 2 attendees	To discuss the draft neighbourhood traffic plan	Meeting minutes, presentation and draft traffic plan included in Appendix H

Residents and stakeholders in Airport Business Area were notified of the meetings via:

- a flyer delivered to each residence or business in the neighbourhood;
- City of Saskatoon events calendar, saskatoon.ca/engage, and saskatoon.ca/NTR;
- changeable message sign placed on Airport Drive prior to the first meeting;
- notifying the appropriate City Councillor.

The Engage page was used to disseminate information about the meetings, as well as status updates and notifications for the project. It also provided a forum for resident comments.

Three residents subscribed for email updates. Study updates were provided to these residents at several milestones throughout the project.

Residents were invited to provide their concerns and feedback through the following:

- saskatoon.ca/engage webpage;
- report a traffic issues application;
- written submissions at the meetings;
- written notes taken by the Administration at the meetings; and
- written, verbal, and e-mail submission to the Administration.

Residents and business owners who could not attend the meetings were able to view the meeting materials and provide feedback via the City's saskatoon.ca/engage website, or by phone, email, or mail. Feedback received throughout the process is included in **Appendix K**.

5. Implementation

Stage 4, the final stage of the neighbourhood traffic review, is to install the recommended improvements. 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. Installations for the Airport Business Area are likely to begin in spring / summer 2020.

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

- Table 5-1: Signs and Pavement Markings Cost Estimate
- Table 5-2: Speed Enforcement Cost Estimate
- Table 5-3: Pedestrian Safety Devices Cost Estimate
- Table 5-4: Total Cost Estimate

Table 5-1: Signs and Pavement Markings Cost Estimate

Location	Device	Cost Estimate	Implementation Goal
Cynthia Street between Airport Drive and Robin Way	Paint shoulder lines	\$300	1 to 2 years (all traffic calming devices will be installed temporary for at least one year to measure effectiveness)
45 th Street and Thayer Avenue	Remove existing crosswalk	\$200	
Cynthia Street and Hanselman Avenue	Standard crosswalk (west leg)	\$1,000	
Total		\$1,500	

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Table 5-2: Speed Enforcement Cost Estimate

Location	Device	Cost Estimate	Implementation Goal
45 th Street between Thayer Avenue and Koyl Avenue	Speed display board (westbound)	\$0 (Ten devices purchased in 2017 are relocated annually.)	1 to 2 years
Cynthia Street between Robin Crescent (west leg) and Robin Way	Speed display board (westbound)	\$0 (Ten devices purchased in 2017 are relocated annually.)	
Cynthia Street between Robin Crescent (west leg) and Robin Way	Speed display board (eastbound)	\$0 (Ten devices purchased in 2017 are relocated annually.)	
Avenue C between Circle Drive off ramp and Hangar Road	Speed display board (southbound)	\$0 (Ten devices purchased in 2017 are relocated annually.)	
Total		\$0	

Table 5-3: Pedestrian Safety Devices Cost Estimate

Location	Device	Cost Estimate	Implementation Goal
45 th Street and Hanselman Avenue	Active Pedestrian Corridor (west leg)	\$45,000	3 to 5 years
Total		\$45,000	

Table 5-4: Total Cost Estimate

Category	Implementation Goal	
	Short-Term (1-2 years)	Medium-Term (3 to 5 years)
Signs and Pavement Markings	\$1,500	
Speed Enforcement	\$0	
Pedestrian Safety Devices		\$45,000
Total	\$1,500	\$45,000

The total cost estimate for short-term improvements (signs and pavement markings) is \$1,500. The total cost estimate for medium-term improvements (pedestrian safety devices) is \$45,000.

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

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The resulting recommended Airport Business Area Neighbourhood Traffic Plan is illustrated in Exhibit 5-1.

Table 5-5: Airport Business Area Recommended Improvements

Item	Location	Recommended Improvement	Justification
1	45 th Street between Thayer Avenue and Koyl Avenue	Speed display board (westbound)	Reduce speed
2	45 th Street and Thayer Avenue	Remove existing crosswalk	Consolidate crossing at Hanselman Avenue
3	45 th Street and Hanselman Avenue	Active Pedestrian Corridor (west leg)	Improve pedestrian safety
4	Cynthia Street and Hanselman Avenue	Standard crosswalk (west leg)	Improve pedestrian safety
5	Cynthia Street between Robin Crescent (west leg) and Robin Way	Speed display board (westbound)	Reduce speed
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Other Projects			
8	Neighbourhood-wide	Sidewalk and ramps to be installed as per the Sidewalk Infill Program	Improve pedestrian safety
9	Avenue C between Hangar Road and 45 th Street	Install recommendations of the 2016 review as they become warranted	Improve access to Avenue C from side streets
10	Circle Drive and Avenue C	Complete an intersection improvement evaluation	Determine if improvements can be made to the operation of this intersection

AIRPORT BUSINESS AREA TRAFFIC PLAN

LEGEND

-  EXISTING STOP SIGN
-  EXISTING YIELD SIGN
-  EXISTING BUS ROUTE
-  EXISTING SCHOOL ZONE
-  EXISTING TRAFFIC SIGNAL
-  EXISTING PEDESTRIAN ACTUATED SIGNAL LOCATION
-  RECOMMENDATIONS



Appendix A

Public Meeting #1 – May 14, 2019

CITY OF SASKATOON

Airport Business Area Neighbourhood Traffic Review Minutes

Date: Tuesday, May 14, 2019

Time: 4:00 – 7:00 pm

Location: Saskatoon Inn Round Room (2002 Airport Drive)

Attendees:

Name	Position
Chelsea Lanning	City of Saskatoon Transportation Engineer Airport Business Area Neighbourhood Traffic Review Project Manager
Nathalie Baudais	City of Saskatoon Senior Transportation Engineer

Items:

Welcome and Introductions

Presentation from the Transportation Division

See Attachment: Presentation – May 2, 2019

Saskatoon Police Services

306-975-8300 OR 306-975-8068 to report a traffic complaint or a concern.

Discussion about traffic concerns in the Airport Business Area and potential solutions.

Chelsea Lanning & Nathalie Baudais

- **Koyl Avenue & 45th Street:**
 - 45th Street has gotten busy during rush hour since the road was upgraded.
 - It's almost impossible to turn left from Koyl Avenue onto 45th Street.
 - Speeding vehicles on 45th Street make it difficult to judge gaps in traffic.
 - Right turns can usually be made within a reasonable wait time.
 - Suggest an all-way stop at 45th Street & Hanselman Avenue to help produce a break in traffic.

- 45th Street
 - Pedestrian crossing is difficult. There is a bus route along 45th Street and crosswalks aren't providing adequate protection for pedestrians to cross the street.
 - Please check where the 50 kph speed limit signs are installed to make sure they are visible and placed properly.
 - Speeding is an issue.
- Circle Drive & Airport Drive
 - Southbound to westbound turn from Airport Drive onto Circle Drive needs a longer acceleration lane.
 - Airport Drive backs up pretty far (to Saskatoon Inn).
- Cynthia Street & Robin Way
 - Pedestrian crosswalk is needed here. Suggest a flashing device such as RRFB, active pedestrian corridor, or pedestrian signal. Business owner is willing to pay for something to be installed because it's currently unsafe and employees are regularly crossing the street between buildings.
- Cynthia Street
 - Speeding is an issue.
- Are there plans to develop Lark Haven Park?
- Are there plans to improve Cynthia Street between Airport Drive and Robin Way?

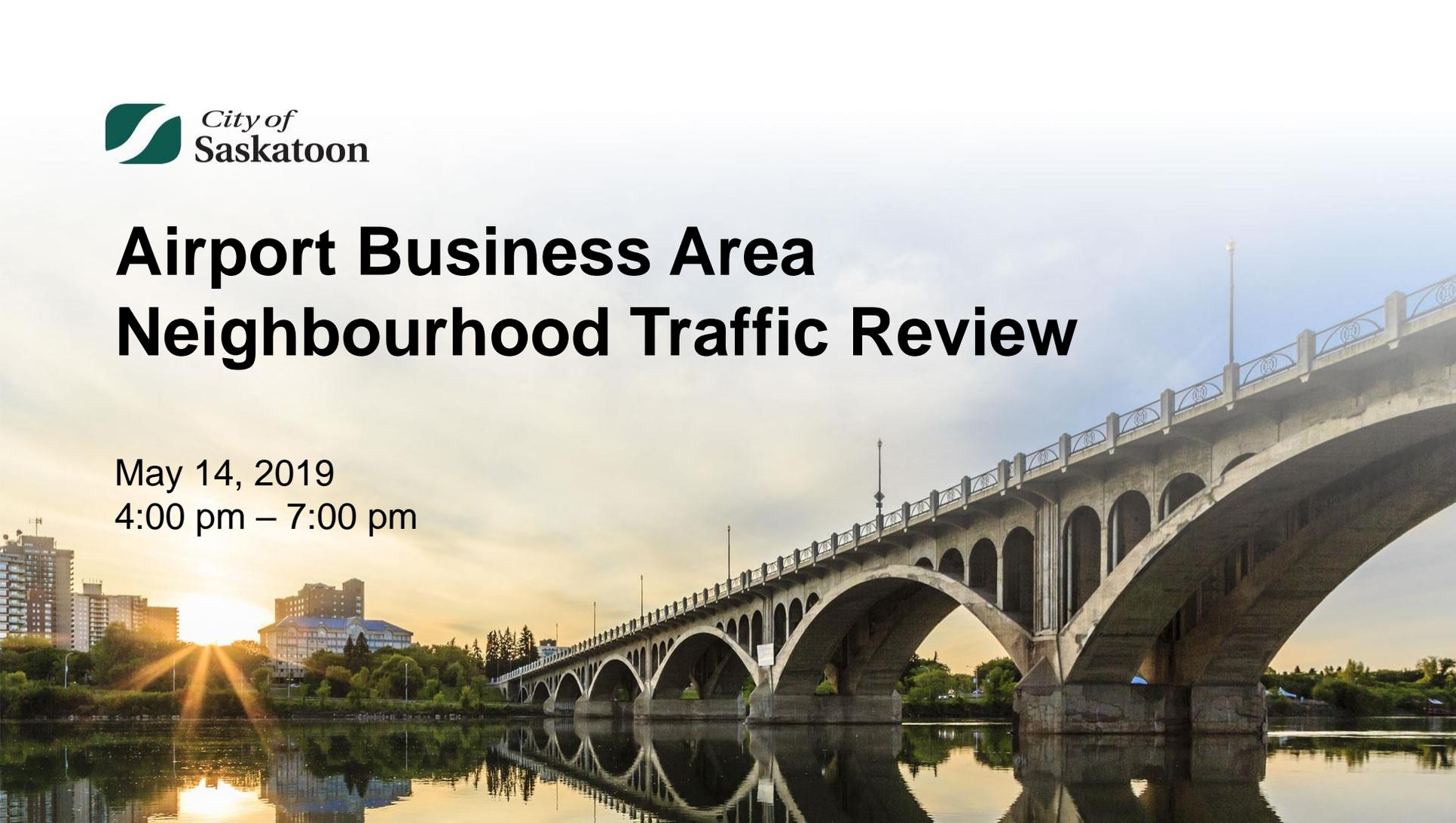
Next Steps

1. Continue monitoring traffic issues in your neighbourhood
2. Mail-in or email comments no later than June 14th, 2019
3. Additional public input via Engage Page no later than June 14th, 2019
4. Traffic counts 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 Standing Policy Committee on Transportation



Airport Business Area Neighbourhood Traffic Review

May 14, 2019
4:00 pm – 7:00 pm



Neighbourhood Traffic Review Background

- NTR Introduction
 - Developed to address traffic issues holistically rather than case by case
 - Mandate: Reduce and calm traffic, improve safety within neighbourhoods
- Neighbourhood Selection
 - Number of outstanding concerns
 - Number of collisions
 - Number of existing temporary traffic calming devices
 - Regional representation throughout the City
 - Age and stage of development of the neighbourhood

Neighbourhood Traffic Review Background

- 2014
 - 11 neighbourhood traffic reviews completed
- 2015 / 2016 / 2017 / 2018
 - 8 neighbourhood traffic reviews completed per year
- 2019 Selected Neighbourhoods
 - Pacific Heights/Kensington
 - Holiday Park / King George
 - Lawson Heights / Lawson Heights Suburban Centre
 - Nutana Park
 - Briarwood
 - Airport Business Area
 - Blairmore Suburban Centre
 - University Heights Suburban Centre

Study Area

- Study Limits
 - 47th Street, Idylwyld Drive, CN Rail tracks, and Hampton Village neighbourhood

Local and Collector Roads

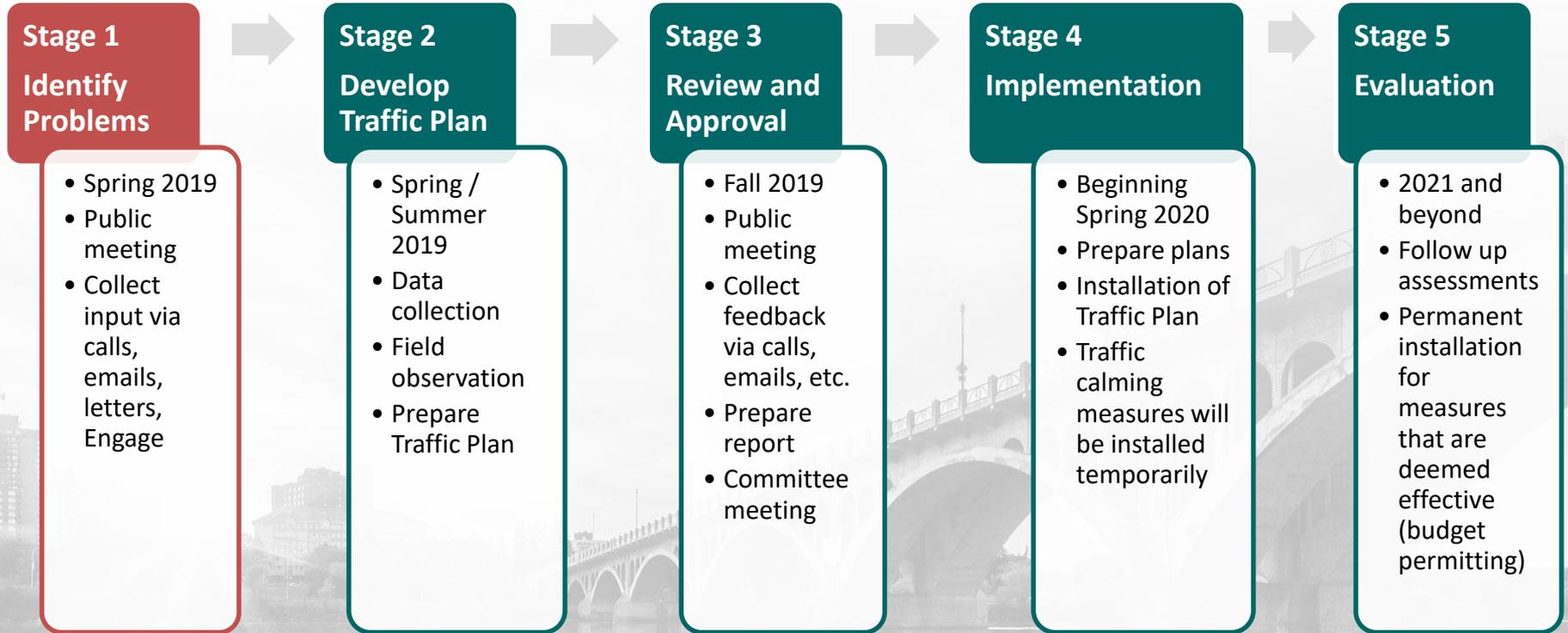


Neighbourhood Traffic Review Process



← We are here

Neighbourhood Traffic Review Schedule

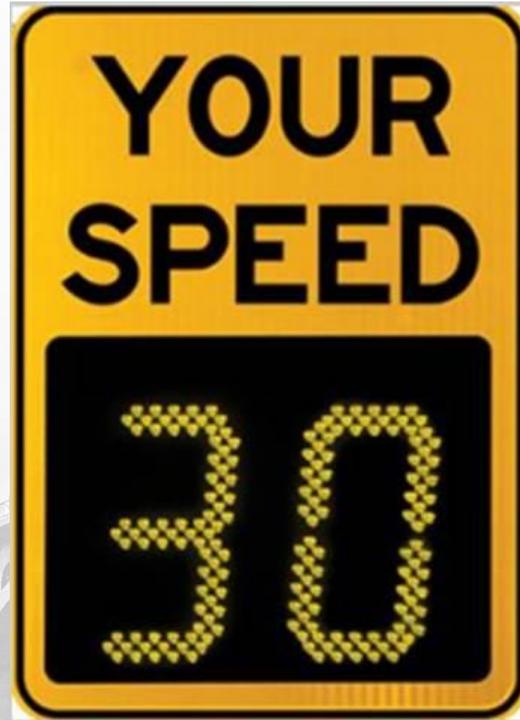


Traffic Calming Measures Examples



Speed Display Devices

- Interactive sign that displays vehicle speeds as motorists approach.
- Reduces speeds.
- Can be relocated.
- Drivers may become immune to the devices.



Horizontal Deflection Devices

- Physical measure that requires motorists to steer around them.
- Discourage short-cutting traffic.
- May reduce vehicle speeds, turning movement conflicts or enhance the neighbourhood environment.
- Enhance pedestrian crossings and sign placement.
- Relatively inexpensive.

Curb Extension



Raised Median Island



Roundabout



Vertical Deflection Devices

- Causes a vertical upward movement of the vehicle.
- Reduces vehicle speeds.
- May reduce traffic volumes, turning movement conflicts or enhance the neighbourhood environment.
- Can increase emergency response times.
- Can affect transit and maintenance operations.

Raised Crosswalk



Raised Intersection



Speed Humps



Obstructions

- Physically restrict certain vehicle movements.
- Used to discourage shortcutting.
- Should only be used where horizontal or vertical deflection measures cannot adequately address a traffic problem.

Directional Closure



Diverter



Right In / Right Out Island



Raised Median Through Intersection



Full Closure



Pedestrian Crossing Devices

- Assist pedestrians in safely crossing streets.
- Promotes orderly and predictable movement of vehicular and pedestrian traffic.

Standard Crosswalk



Zebra Crosswalk



Rectangular Rapid Flashing Beacon



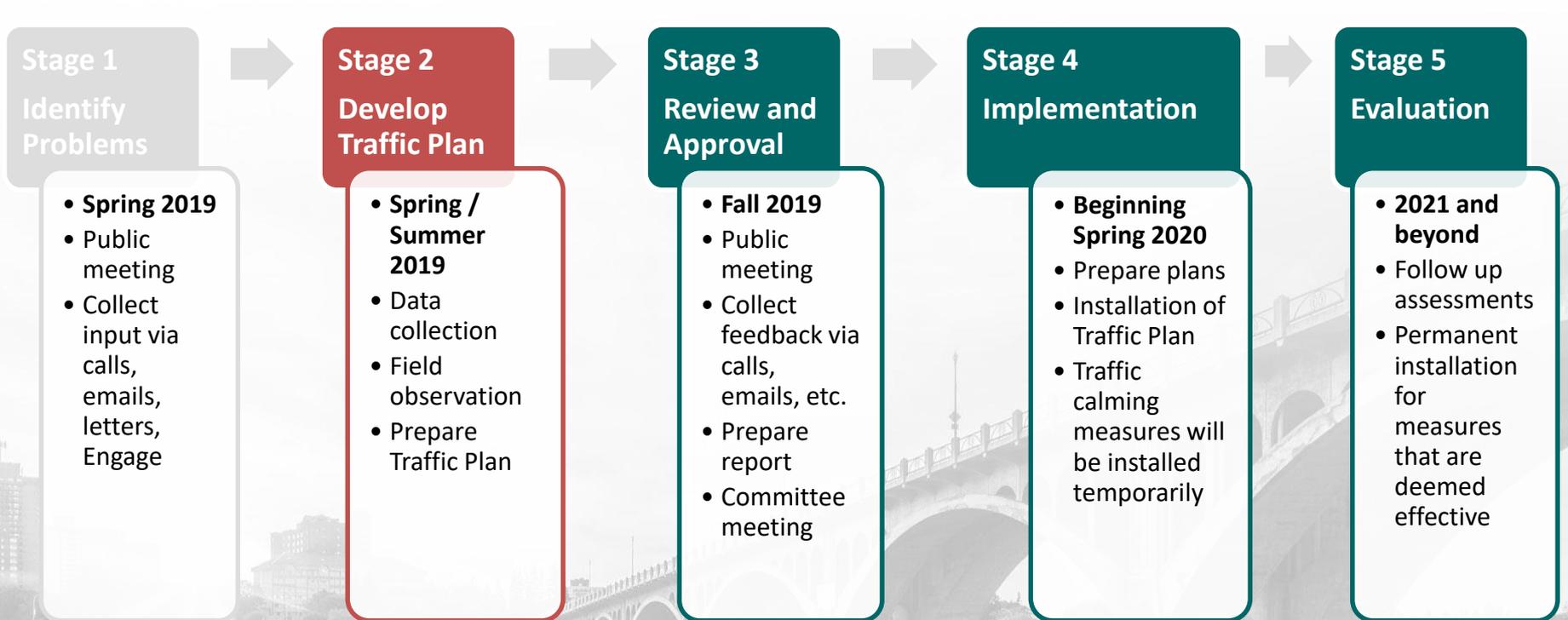
Active Pedestrian Corridor



Pedestrian Actuated Signal

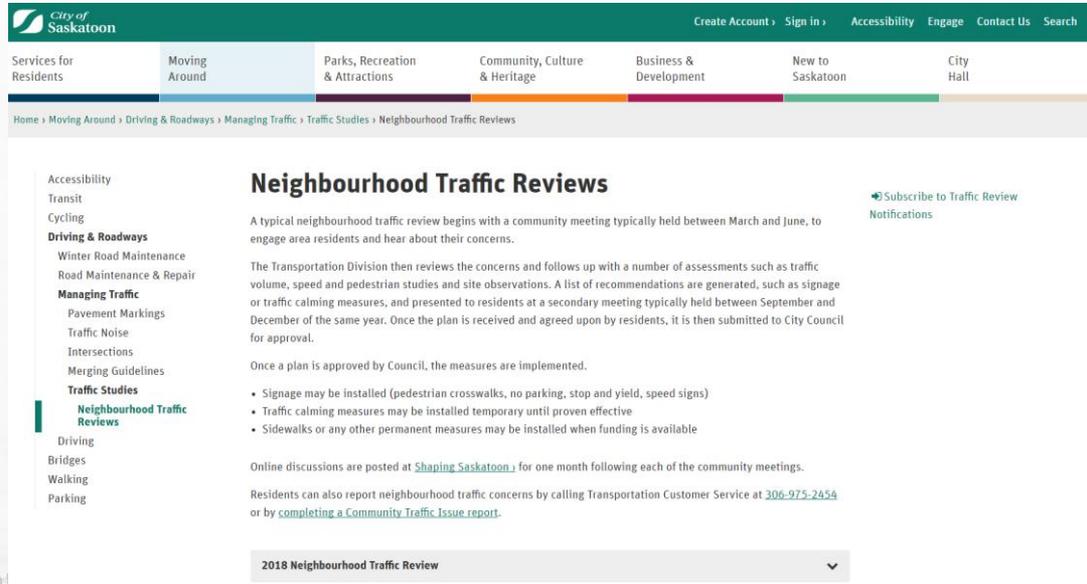


Next Steps



Join the Discussion

- Subscribe for updates at www.saskatoon.ca/NTR
- Post comments at www.saskatoon.ca/engage
- Provide comments by:
June 14, 2019



The screenshot shows the City of Saskatoon website interface. At the top, there is a navigation bar with the City of Saskatoon logo and links for 'Create Account', 'Sign In', 'Accessibility', 'Engage', 'Contact Us', and 'Search'. Below this is a secondary navigation bar with categories: 'Services for Residents', 'Moving Around', 'Parks, Recreation & Attractions', 'Community, Culture & Heritage', 'Business & Development', 'New to Saskatoon', and 'City Hall'. The main content area is titled 'Neighbourhood Traffic Reviews' and includes a breadcrumb trail: 'Home > Moving Around > Driving & Roadways > Managing Traffic > Traffic Studies > Neighbourhood Traffic Reviews'. A left-hand sidebar lists various transportation-related topics, with 'Neighbourhood Traffic Reviews' highlighted. The main text explains the process of a traffic review, from community meetings to Council approval. A 'Subscribe to Traffic Review Notifications' link is visible in the top right. At the bottom, there is a dropdown menu for '2018 Neighbourhood Traffic Review'.

Appendix B

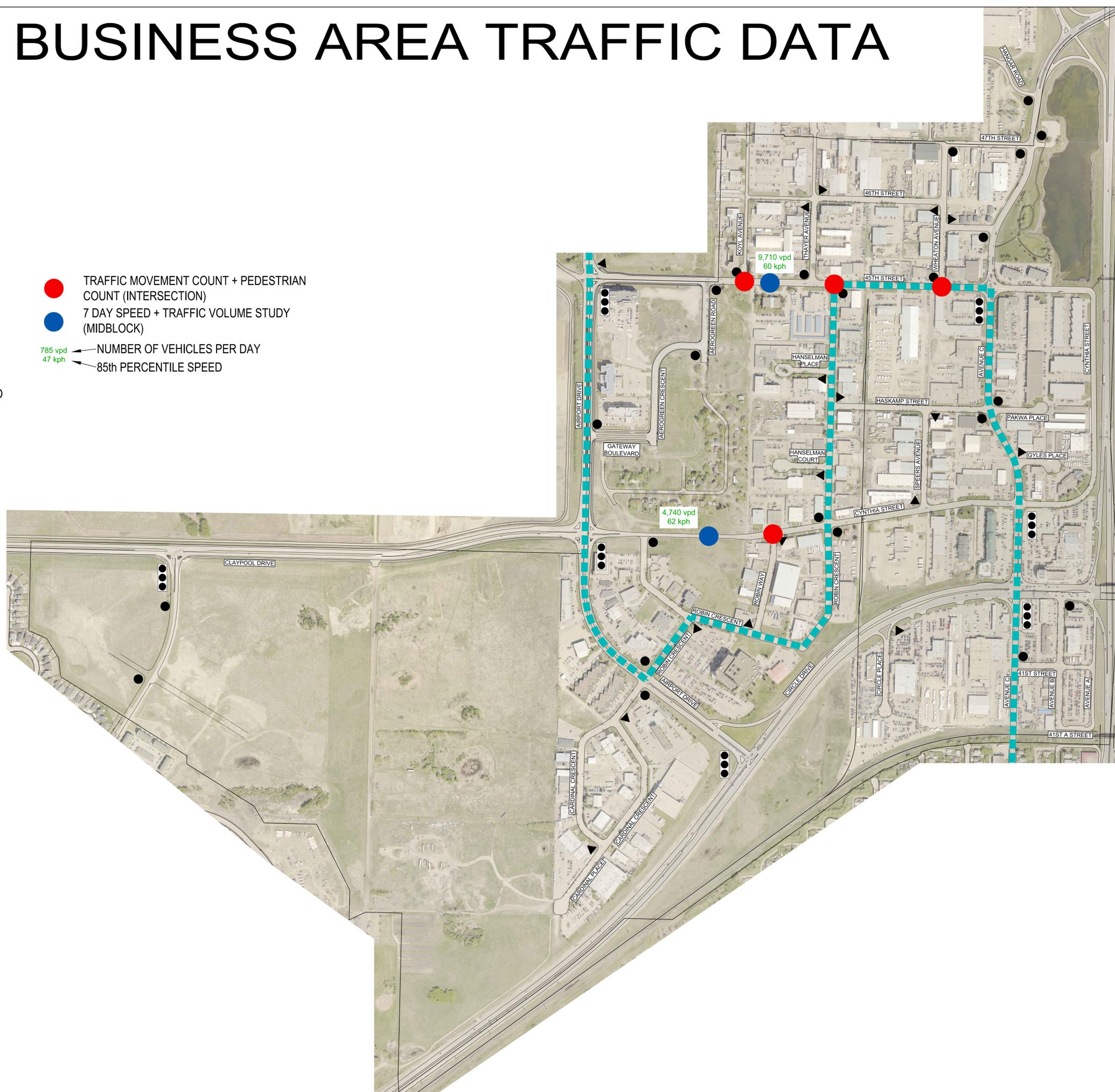
Traffic Data Collection

AIRPORT BUSINESS AREA TRAFFIC DATA

LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- ⋮ EXISTING TRAFFIC SIGNAL
- ⋮ EXISTING PEDESTRIAN ACTUATED SIGNAL LOCATION

- TRAFFIC MOVEMENT COUNT + PEDESTRIAN COUNT (INTERSECTION)
- 7 DAY SPEED + TRAFFIC VOLUME STUDY (MIDBLOCK)
- 785 vpd — NUMBER OF VEHICLES PER DAY
- 47 kph — 85th PERCENTILE SPEED



Appendix C

All-Way Stop Assessments

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

Step 1:

One of the following criteria must be met to warrant an all-way stop:

- i) When five or more collisions are reported in a one-year period within the three years and are of a type susceptible to correction be 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.
- v) When an engineering study has identified a safety concern dangerous pattern of traffic that is susceptible to correction by an all-way stop control.

Location	Criteria 1: # of Collisions	Criteria 2: Peak hour is greater than 600 vehicles OR total exceeds 6,000 vpd	Criteria 3: Delay	Criteria 4: Interim Measure	Criteria 5: Safety Concern	All-Way Stop Warrant
45 th Street and Hanselman Avenue	2 – Criteria NOT met	1,378 – Criteria met 15,530 – Criteria met	NA	No – Criteria NOT met	NA	Criteria met. Proceed to Step 2.

Continue to Step 2 if one of the criteria are met.

Step 2:

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.

Location	Condition 1: % of Traffic from minor street	Condition 2: Traffic Signals or all-way stop within 200m	All-Way Stop Warrant
45 th Street and Hanselman Avenue	6% - Condition NOT met	No – Condition met	Conditions NOT met.

Appendix D

Pedestrian Device Assessments

45th Street and Hanselman Avenue

Preliminary Assessment Decision Point		Pedestrian Crossing
Traffic Signal Warrant	Points	-
	Warranted (Y/N)	No
Average Hourly Pedestrian Volume \geq 15 EAU ¹ s AND vehicular volume \geq 1,500 veh/day?	Average Hourly Pedestrian Volume	1 EAU
	Vehicular Volume	9,700 vehicles per day
	Answer (Y/N)	No
Is this site > 200 metres from the nearest traffic control device?	Distance from the nearest traffic control device	350 m
	Answer (Y/N)	Yes
Is average hourly latent pedestrian crossing demand \geq 15 EAUs OR is there requirement for system connectivity?	Latent pedestrian crossing demand	Increase from existing demand
	Required connection?	Provides connection to bus stops for local transit service.
	Answer (Y/N)	Yes
Treatment Selection	Table-1 in Pedestrian Crossing Guide	9,000 < ADT < 12,000 Active pedestrian corridor appropriate

¹ EAU – Equivalent Adult Units to account for pedestrian age and physical ability. Adults – 1.0 EAU; Children \leq 12 years – 2.0 EAUs; Older pedestrians \geq 65 years – 1.5 EAUs; Pedestrian with impairment – 2.0 EAUs.

Cynthia Street and Hanselman Avenue

Preliminary Assessment Decision Point		Pedestrian Crossing
Traffic Signal Warrant	Points	-
	Warranted (Y/N)	No
Average Hourly Pedestrian Volume \geq 15 EAU's AND vehicular volume \geq 1,500 veh/day?	Average Hourly Pedestrian Volume	1 EAU
	Vehicular Volume	4,740 vehicles per day
	Answer (Y/N)	No
Is this site > 200 metres from the nearest traffic control device?	Distance from the nearest traffic control device	450 m
	Answer (Y/N)	Yes
Is average hourly latent pedestrian crossing demand \geq 15 EAUs OR is there requirement for system connectivity?	Latent pedestrian crossing demand	Increase from existing demand
	Required connection?	Provides connection to bus stops for local transit service.
	Answer (Y/N)	Yes
Treatment Selection	Table-1 in Pedestrian Crossing Guide	4,500 < ADT < 9,000 Standard crosswalk appropriate

¹ EAU – Equivalent Adult Units to account for pedestrian age and physical ability. Adults – 1.0 EAU; Children \leq 12 years – 2.0 EAUs; Older pedestrians \geq 65 years – 1.5 EAUs; Pedestrian with impairment – 2.0 EAUs.

Cynthia Street and Robin Way

Preliminary Assessment Decision Point		Pedestrian Crossing
Traffic Signal Warrant	Points	-
	Warranted (Y/N)	No
Average Hourly Pedestrian Volume ≥ 15 EAU ¹ s AND vehicular volume ≥ 1,500 veh/day?	Average Hourly Pedestrian Volume	1 EAU
	Vehicular Volume	4,740 vehicles per day
	Answer (Y/N)	No
Is this site > 200 metres from the nearest traffic control device?	Distance from the nearest traffic control device	400 m
	Answer (Y/N)	Yes
Is average hourly latent pedestrian crossing demand ≥ 15 EAUs OR is there requirement for system connectivity?	Latent pedestrian crossing demand	No change from existing demand
	Required connection?	This intersection does not improve connectivity of the active transportation network
	Answer (Y/N)	No

¹ EAU – Equivalent Adult Units to account for pedestrian age and physical ability. Adults – 1.0 EAU; Children ≤ 12 years – 2.0 EAUs; Older pedestrians ≥ 65 years – 1.5 EAUs; Pedestrian with impairment – 2.0 EAUs.

Appendix E

Traffic Signal Warrant Assessments

City of Saskatoon Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	Airport Drive	Direction (EW or NS)	NS
Side Street (name)	Cardinal Cr/Robin Cres	Direction (EW or NS)	EW
Quadrant / Int #		Comments	
for Warrant Calculation Results, please hit 'Page Down'			
CHECK SHEET			

Road Authority:	City of Saskatoon
City:	Saskatoon
Analysis Date:	2020 Jan 21, Tue
Count Date:	2019 Nov 26, Tue
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Airport Drive NB		1		2			1		2
Airport Drive SB		1		1		1			2
Cardinal Cr/Robin Cres WB				1					
Cardinal Cr/Robin Cres EB				1					

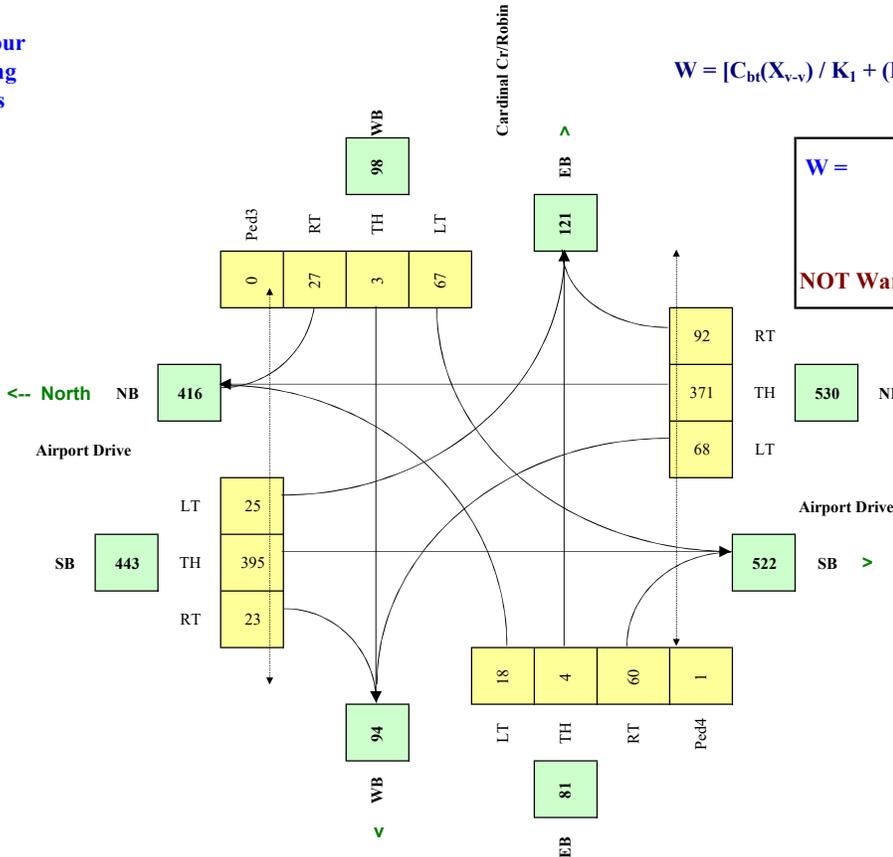
Are the Cardinal Cr/Robin Cres WB right turns significantly impeded by through movements? (y/n) n
 Are the Cardinal Cr/Robin Cres EB right turns significantly impeded by through movements? (y/n) n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Airport Drive	NS	50	1.0%	y	2.0
Cardinal Cr/Robin Cres	EW	50	1.0%	y	

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	250,000
Central Business District	(y/n)	n

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	87	414	90	20	350	45	65	2	19	8	4	17		2		1
8:00 - 9:00	137	352	139	23	349	23	25	3	27	10	5	31				2
11:30 - 12:30	29	156	46	13	171	15	29	1	10	12	2	34			1	2
12:30 - 13:30	81	306	104	24	284	26	39	7	35	24	5	65				
4:00 - 5:00	40	572	96	43	668	17	148	2	52	28	3	132				
5:00 - 6:00	32	423	77	28	545	11	98	3	21	25	3	79				1
Total (6-hour peak)	406	2,223	552	151	2,367	137	404	18	164	107	22	358	0	2	1	6
Average (6-hour peak)	68	371	92	25	395	23	67	3	27	18	4	60	0	0	0	1

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v,v}) / K_1 + (F(X_{v,p})L) / K_2] \times C_i$$

W =	68	67	1
		Veh	Ped

NOT Warranted

RESET SHEET

Appendix F

Collision Analysis

Street 1	Street 2	Ugrid	All collisions (2014 – April 2019)	All collisions (2018 – April 2019)	Right Angle, Left Turn & Right Turn Only (2014-2018)	Right Angle, Left Turn & Right Turn Only (2018/19)	Average # of Collisions Per Year (2014-2018)
Koyl Avenue	45 th Street – 46 th Street	F3-13	1	1	0	0	0.2
47 th Street	Thayer Avenue	F2-19	1	0	1	0	0.2
46 th Street	Thayer Avenue	F3-43	6	2	2	0	1.2
47 th Street	Thayer Avenue – Wheaton Avenue	F2-11	1	0	0	0	0.2
47 th Street	Wheaton Avenue	F2-2	1	0	1	0	0.2
Hangar Road	Front of 3A	F2-22	2	0	0	0	0.4
45 th Street	Airport Drive – Berney Avenue/ Aerogreen Road	E3-5	3	0	1	0	0.6
45 th Street	Berney Avenue/ Aerogreen Road	E3-3	2	0	1	0	0.4
45 th Street	Koyl Avenue – Thayer Avenue	F3-28	1	0	0	0	0.2
45 th Street	Thayer Avenue	F3-8	4	2	0	0	0.8
45 th Street	Hanselman Avenue – Thayer Avenue	F3-67	1	0	0	0	0.2
45 th Street	Hanselman Avenue	F3-41	4	1	0	0	0.8
45 th Street	Hanselman Avenue – Wheaton Avenue	F3-9	2	0	1	0	0.4
45 th Street	Wheaton Avenue	F3-15	7	1	2	0	1.4
45 th Street	Avenue C – Wheaton Avenue	F3-65	2	0	1	0	0.4
Hanselman Avenue	Hanselman Place	F3-60	1	0	0	0	0.2
Haskamp Street	Speers Avenue	F3-63	1	0	0	0	0.2
Speers Avenue	Cynthia Street – Haskamp Street	F3-36	1	1	0	0	0.2
Haskamp Street	Avenue C – Speers Avenue	F3-46	4	0	0	0	0.8
Hanselman Avenue	Hanselman Court	F3-37	1	0	0	0	0.2
Hanselman Avenue	Cynthia Street – Hanselman Court	F3-25	1	0	0	0	0.2
Cynthia Street	Jeremy Drive – Robin Crescent	E3-14	1	0	0	0	0.2
Cynthia Street	Robin Crescent	E3-18	2	0	0	0	0.4
Cynthia Street	Robin Way	F3-49	1	0	0	0	0.2
Cynthia Street	Hanselman Road – Robin Way	F3-47	3	0	1	0	0.6
Cynthia Street	Hanselman Avenue	F3-30	3	0	2	0	0.6
Cynthia Street	Hanselman Avenue – Speers Avenue	F3-33	3	0	0	0	0.6
Cynthia Street	Speers Avenue	F3-50	2	1	1	1	0.4
Cynthia Street	Avenue C – Speers Avenue	F3-35	4	2	1	0	0.8
Robin Crescent	200 Cynthia Street – Robin Crescent	E4-12	1	0	0	0	0.2
Robin Crescent	Airport Drive – Robin Crescent	E4-7	1	1	0	0	0.2
Cardinal Crescent (100 block)		E4-8	2	1	0	0	0.4
41 st Street	Avenue C	F4-26	4	4	2	2	0.8
Avenue C	40 th Street – 41 st Street RR Crossing	F4-20	4	1	0	0	0.8
Avenue B	2000 N 41 st Street – Circle Drive	F4-39	3	0	1	0	0.6
41 st Street	Avenue B	F4-17	2	0	1	0	0.4
Avenue B	1900N 40 th Street – 41 st Street	F4-60	1	0	0	0	0.2
Gyles Place (midblock)		F3-42	1	0	1	0	0.2
Cynthia Street	45 th Street – Avenue C	F3-1	3	1	0	0	0.6
45 th Street	Cynthia Street	F3-4	1	0	0	0	0.2
45 th Street	Avenue C – Service Road	F3-20	1	0	1	0	0.2

Appendix G

Avenue C Corridor Study

Inquiry – Councillor R. Donauer (March 21, 2016) Traffic Study – Area of Hangar Rd., 47th St. West, and Ave. C

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated January 10, 2017, be forwarded to City Council for information.

Topic and Purpose

This report provides recommendations from the traffic study of the area around Hangar Road, 47th Street West, and Avenue C North.

Report Highlights

1. A description of the traffic characteristics in the area is provided.
2. Implementation of traffic signals is assessed in accordance with the Transportation Association of Canada (TAC) practices.
3. Traffic conditions and three-year collision data (2012 to 2014) are provided.
4. A budget adjustment is anticipated for comprehensive Airport Business District traffic review in 2017, at which time the Avenue C corridor will be re-visited.

Strategic Goal

This report supports the Strategic Goal of Moving Around by providing improved safety for all road users (pedestrians, cyclists, and drivers), and helps provide a great place to live, work, and raise a family.

Background

The following inquiry was made by Councillor R. Donauer at the meeting of City Council held on March 21, 2016:

“Would the Administration please complete a traffic study on the area of Hangar Road, 47th Street West, and Avenue C and report back with solutions on how to facilitate traffic from the Hangar Road and 47th Street area turning northbound onto Avenue C. With increased traffic, this is becoming a safety issue. Specifically, would you please report back on the possibility of having traffic lights installed on Avenue C and Hangar Road, or Avenue C and 47th Street West.”

At its meeting held on June 27, 2016, City Council received an update report on the status of this inquiry, which outlined the steps being undertaken to complete the review.

Report

Traffic Characteristics

1. Avenue C and 47th Street:
 - A four-legged intersection with stop signs giving the right-of-way to Avenue C, the posted speed limit is 50 kph.
2. Avenue C and Hangar Road:
 - A three-legged intersection with stop signs giving the right-of-way to Avenue C, the posted speed limit is 50 kph.
3. Avenue C, aligned north-south:
 - Classified as an arterial roadway.
 - Four lane cross-section with two lanes of traffic in each direction.
 - Parking is not permitted on either side of the street.
4. 47th Street, the west leg of the intersection with Avenue C:
 - Classified as a local roadway.
 - Two lane cross-section with one lane in each direction.
 - Parking is permitted on both sides of the street.
5. Hangar Road, the west leg of its intersection with Avenue C:
 - Classified as a local roadway.
 - Two lane cross-section with one lane in each direction.
 - Parking is not permitted on either side of the street (the roadway is not wide enough to permit parking).

Assessment Methodology

The City of Saskatoon uses a warrant system developed by TAC to evaluate the need for traffic signals at each intersection. This system is used by engineers to ensure that installation is consistent and all anticipated objectives are met. The warrant procedure incorporates factors such as vehicular and pedestrian volumes, roadway characteristics, speed, traffic conflicts, crossing exposure, etc.

While collision history is considered, it is not a direct factor in determining the need for traffic signals. Gap acceptance, visibility and driver expectation are also considered to ensure safe movements through an intersection.

The traffic signal warrant calculation system alone does not provide sufficient information in order to make a final decision on whether to install a traffic signal at a specific location, and does not replace the need for experienced and objective analysis on a site-by-site basis. The installation of traffic signals does not guarantee a reduction in collision rates and, in fact, the number of collisions may increase, if traffic signals are installed when not required.

Traffic Conditions and Collision History

Pedestrian and traffic counts were collected on June 7, 2016, during peak hours (7:00 a.m. to 9:00 a.m.; 11:30 a.m. to 1:30 p.m.; 4:00 p.m. to 6:00 p.m.). The counts were used to complete a Traffic Signal Warrant to evaluate if the installation of a traffic signal

is required at the intersection of Avenue C and 47th Street. The current configuration of the corridor is illustrated in Attachment 1.

Collision data was reviewed from the most recent three year period (2012 to 2014), at the intersections of Avenue C/46th Street, Avenue C/47th Street and Avenue C/Hangar Road and identified the following:

Collision Data 2012 to 2014

Locations and Number of Collisions	Comments
14 collisions occurred at the 47 th Street intersection	<ul style="list-style-type: none">• 6 right angle collisions occurred involving eastbound 47th Street traffic entering Avenue C• 4 rear end collisions occurred in both northbound and southbound Avenue C traffic
8 collisions occurred at the Hangar Road intersection	<ul style="list-style-type: none">• 2 right angle collisions occurred involving eastbound Hangar Road traffic entering Avenue C
6 collisions occurred at the 46 th Street intersection	<ul style="list-style-type: none">• 3 right angle collisions occurred involving eastbound 46th Street traffic entering Avenue C

Implementation is considered when a Traffic Signal Warrant has a value of 100 points or more. The resulting point value at the intersection of Avenue C/47th Street was calculated at a score of 30 points. The Traffic Signal Warrant is shown in Attachment 2.

The Administration also examined the impact of consolidating eastbound left-turns and northbound left-turns to and from Hangar Road, and 46th Street West, to a single location at 47th Street West (Attachment 3). Converting Hangar Road and 46th Street approaches to right-in/right-out and installing a traffic signal at 47th Street West results in a Traffic Signal Warrant score of 74 points. The Traffic Signal Warrant for the potential future configuration is shown in Attachment 4.

As a result of this study, if any signal were to be implemented in this area, the best solution would involve installation of signals at the intersection of Avenue C and 47th Street in conjunction with restricted movements at the other two intersections. Due to the relatively low Warrant score of 74, the Administration does not recommend signals at this time. However, this solution should be considered when looking at the broader area, during a possible comprehensive review of access and traffic conditions in the Airport Business District.

Industrial Area Traffic Reviews

The Administration is currently completing traffic reviews for the North Industrial and Marquis Industrial areas. These projects were funded from the Automated Speed Enforcement revenues via a budget adjustment in the Traffic Safety Reserve in 2016. The Administration has received a formal request from the Saskatoon Airport Authority for a more comprehensive review of traffic flows in the area, which would be accommodated best through a comprehensive review that includes community and stakeholder engagement. The Administration will be bringing forward a report in 2017 and will include the Airport Business District Traffic Review project as a potential project. If the project proceeds, the Avenue C corridor can be revisited at that time

during the comprehensive review that will include consultation with businesses in the area.

Public and/or Stakeholder Involvement

If the Airport Business District Traffic Review moves forward, the public and stakeholders will be invited to participate and provide input on the issues and potential solutions.

Other Considerations/Implications

There are no options, communications, policy, financial, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

If the Airport Business Traffic Review does not proceed, then the Administration will follow up in early 2019 with a re-assessment after the North Commuter Parkway is open and traffic patterns have normalized.

Public Notice

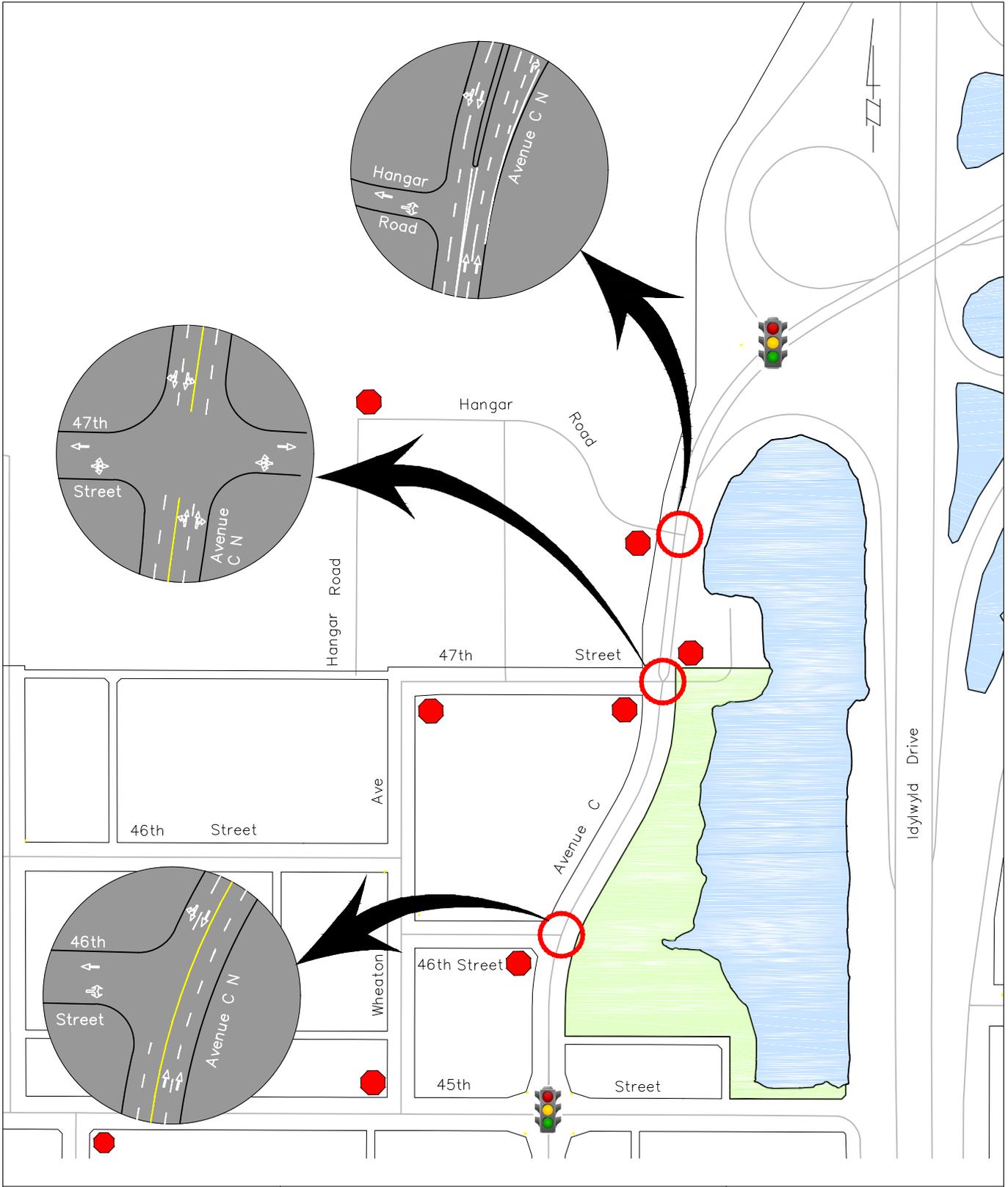
Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

1. Existing Corridor Configuration
2. Traffic Signal Warrant – Existing Configuration
3. Potential Future Corridor Configuration
4. Traffic Signal Warrant – Potential Future Configuration

Report Approval

Written by: Jay Magus, Engineering Manager, Transportation
Dave LeBoutillier, Senior Transportation Engineer, Transportation
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities
Department



PLAN DESCRIPTION/REVISIONS	
4	
3	
2	
1	
DRAWN BY <u>AMR</u>	
DATE <u>2016-AUG-03</u>	
SCALE : HOR. <u>NTS</u> VERT. _____	



City of Saskatoon
Transportation & Utilities Department

**EXISTING CORRIDOR CONFIGURATION
AVENUE C NORTH
45th STREET - IDYLWYLD DRIVE**

APPROVED	
ENGINEER	_____
ENGINEER	_____
PLAN NO.	ATTACHMENT 1

TRAFFIC SIGNAL WARRANT - EXISTING CONFIGURATION

City of Saskatoon Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	Ave C	Direction (EW or NS)	NS
Side Street (name)	47th St	Direction (EW or NS)	EW
Quadrant / Int #		Comments	DWL
for Warrant Calculation Results, please hit 'Page Down'			
CHECK SHEET			

Road Authority:	City of Saskatoon
City:	City of Saskatoon
Analysis Date:	2016 Aug 02, Tue
Count Date:	2016 Jun 07, Tue
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th-RT-LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Ave C NB			1			1		165	2
Ave C SB			1			1		475	2
47th St WB				1					
47th St EB				1					

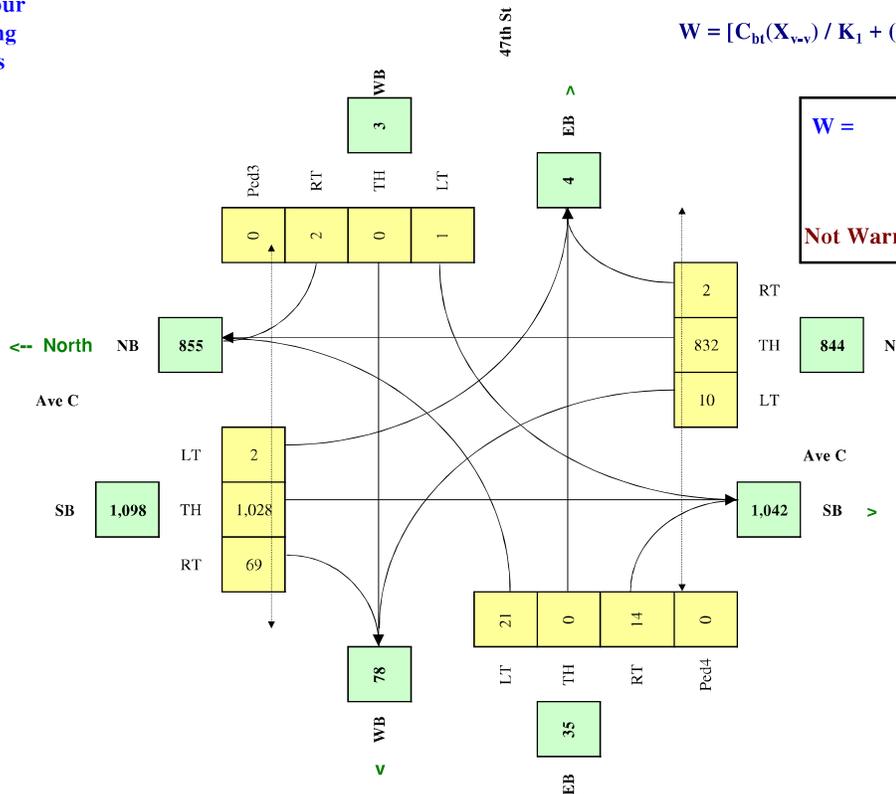
Are the 47th St WB right turns significantly impeded by through movements? (y/n) n
 Are the 47th St EB right turns significantly impeded by through movements? (y/n) n

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	225,000
Central Business District	(y/n)	n

Other input	Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Ave C	60	6.0%	y	0.0
47th St	EW	2.0%	n	

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
press 'Set Peak Hours' Button to set the peak hour periods	18	1050	0	0	805	60	0	0	0	9	0	2	0	0	1	0
	2	744	1	0	869	58	0	0	0	8	0	0	0	6	0	0
	10	768	5	3	849	69	2	0	2	30	0	15	0	0	0	0
	12	728	6	4	943	49	3	1	6	25	0	22	0	0	0	0
	6	960	2	2	1383	132	0	0	4	28	0	27	0	0	0	0
	9	743	0	1	1317	44	0	0	0	27	0	17	0	3	0	1
Total (6-hour peak)	57	4,993	14	10	6,166	412	5	1	12	127	0	83	0	9	1	1
Average (6-hour peak)	10	832	2	2	1,028	69	1	0	2	21	0	14	0	2	0	0

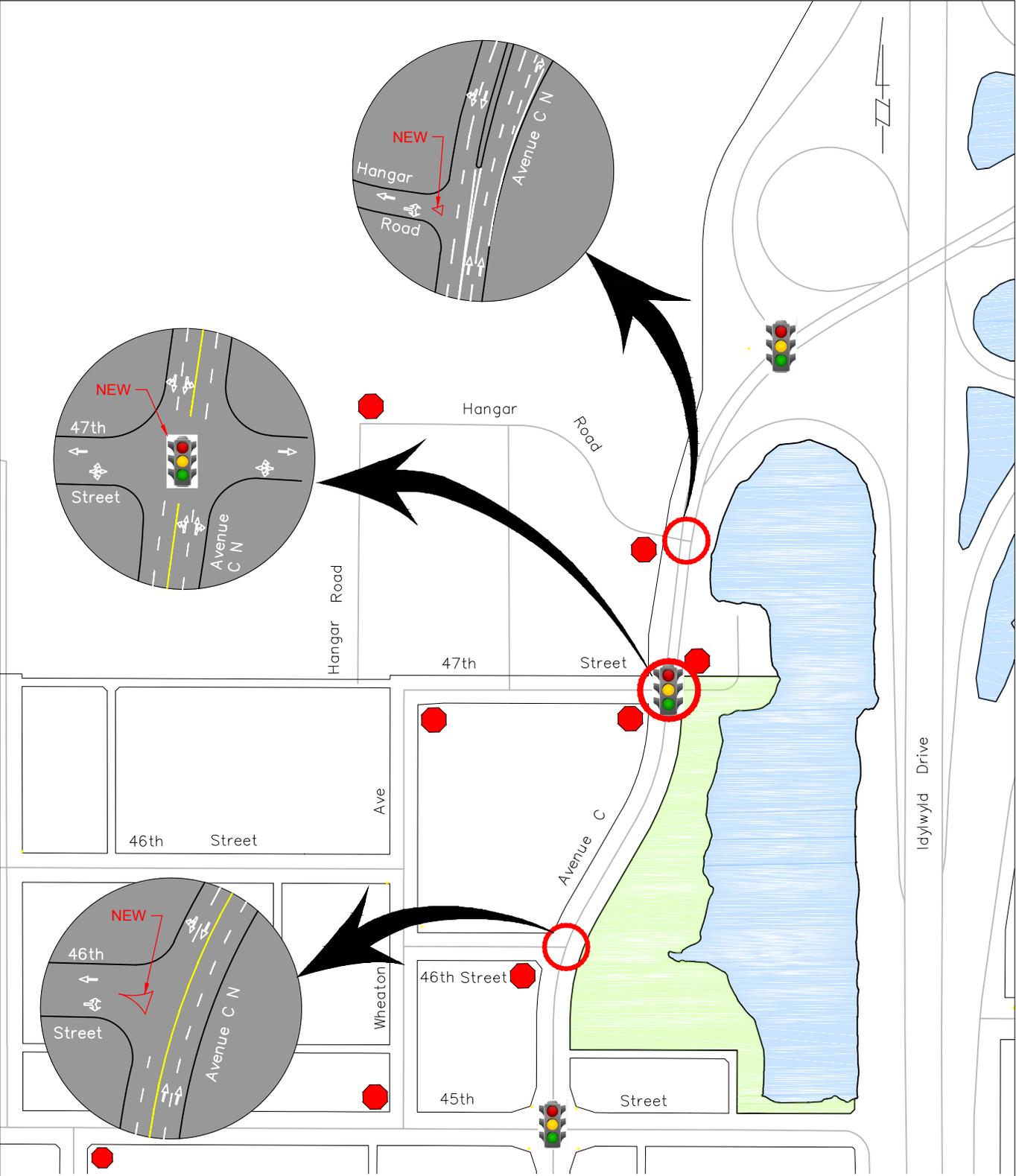
Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v,v}) / K_1 + (F(X_{v,p}) L) / K_2] \times C_1$$

W =	30	29	1
		Veh	Ped
Not Warranted - $V_s < 75$			

RESET SHEET



PLAN DESCRIPTION/REVISIONS	
4	
3	
2	
1	
DRAWN BY <u>AMR</u>	
DATE <u>2016-AUG-03</u>	
SCALE : HOR. <u>NTS</u> VERT. _____	



City of Saskatoon
Transportation & Utilities Department

OPTION 1- POTENTIAL FUTURE CORRIDOR CONFIGURATION
AVENUE C NORTH
45th STREET - IDYLWYLD DRIVE

APPROVED	
ENGINEER	_____
ENGINEER	_____
PLAN NO.	ATTACHMENT 3

TRAFFIC SIGNAL WARRANT - POTENTIAL FUTURE CONFIGURATION

City of Saskatoon Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	Avenue C N	Direction (EW or NS)	NS
Side Street (name)	47th Street W	Direction (EW or NS)	EW
Quadrant / Int #		Comments	DWL
for Warrant Calculation Results, please hit 'Page Down'			
CHECK SHEET			

Road Authority:	City of Saskatoon
City:	Saskatoon
Analysis Date:	2016 Aug 23, Tue
Count Date:	2016 Jun 07, Tue
Date Entry Format:	(yyyy-mm-dd)

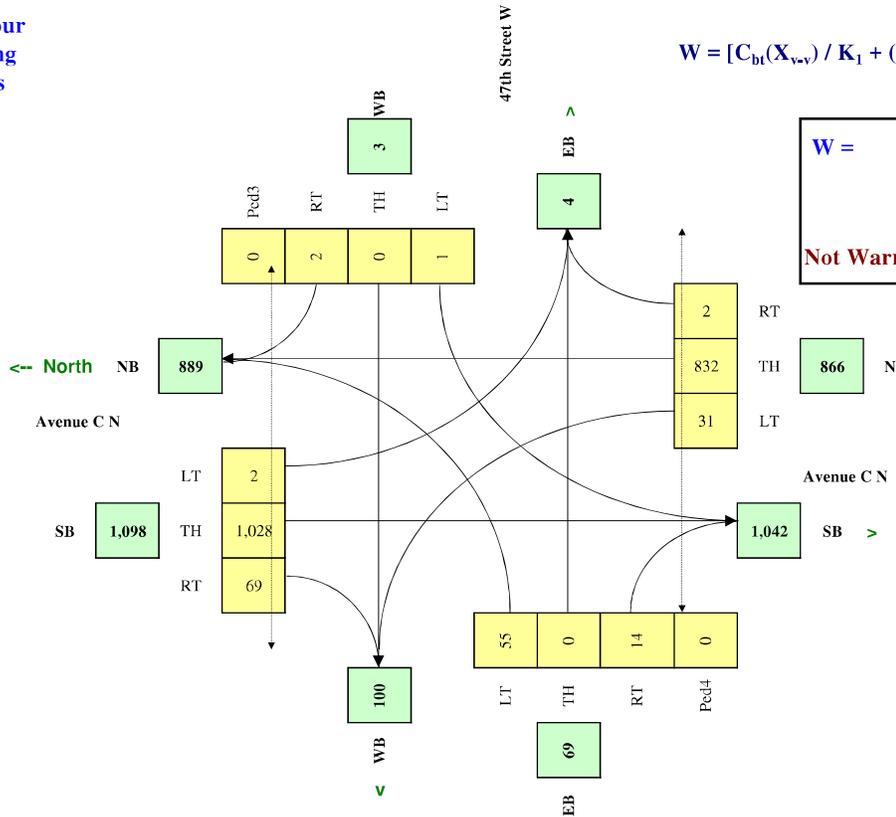
Lane Configuration		Excl LT	Th & LT	Through	Th-RT-LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Avenue C N	NB		1			1		336	2
Avenue C N	SB		1			1		276	2
47th Street W	WB			1					
47th Street W	EB			1					
Are the 47th Street W WB right turns significantly impeded by through movements? (y/n)									y
Are the 47th Street W EB right turns significantly impeded by through movements? (y/n)									y

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	260,000
Central Business District	(y/n)	n

Other input	Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Avenue C N	NS	60	6.0%	n
47th Street W	EW		2.0%	n

Set Peak Hours	NB			SB			WB			EB			Ped1	Ped2	Ped3	Ped4
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	NS W Side	NS E Side	EW N Side	EW S Side
7:00 - 8:00	47	1050	0	0	805	60	0	0	0	28	0	2	0	0	1	0
8:00 - 9:00	27	744	1	0	869	58	0	0	0	57	0	0	0	6	0	0
11:30 - 12:30	35	768	5	3	849	69	2	0	2	53	0	15	0	0	0	0
12:30 - 13:30	27	728	6	4	943	49	3	1	6	64	0	22	0	0	0	0
16:00 - 17:00	26	960	2	2	1383	132	0	0	4	65	0	27	0	0	0	0
17:00 - 18:00	26	743	0	1	1317	44	0	0	0	64	0	17	3	0	0	1
Total (6-hour peak)	188	4,993	14	10	6,166	412	5	1	12	331	0	83	3	6	1	1
Average (6-hour peak)	31	832	2	2	1,028	69	1	0	2	55	0	14	1	1	0	0

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v-v}) / K_1 + (F(X_{v-p}) L) / K_2] \times C_1$$

W =	74	73	1
		Veh	Ped
Not Warranted - Vs<75			

RESET SHEET

Appendix H

Public Meeting #2 – November 26, 2019

CITY OF SASKATOON

Airport Business Area Neighbourhood Traffic Review Minutes

Date: Tuesday, November 26, 2019

Time: 4:00 – 6:00 pm

Location: Saskatoon Inn Round Room (2002 Airport Drive)

Attendees:

Name	Position
Nathalie Baudais	City of Saskatoon Senior Transportation Engineer
Mariniel Flores	City of Saskatoon, Transportation Engineer
Katie Sapiuha	City of Saskatoon, Transportation Engineer

Items:

Welcome and Introductions

Presentation from the Transportation Division

See Attachment: Presentation – November 26, 2019

Saskatoon Police Services

306-975-8300 OR 306-975-8068 to report a traffic complaint or a concern.

Discussion about the draft traffic plan in the Airport Business Area.

- 45th Street between Thayer Avenue & Koyl Avenue:
 - If the speed display board helps lower speeds, that's good.
 - Lower speeds on 45th Street would help with turning left onto 45th Street.
 - When police enforce speed limits, the lower speeds create gaps in traffic.
- 45th Street & Thayer Avenue
 - Removing the existing crosswalk makes sense once the pedestrian device is installed at 45th Street & Hanselman Avenue.
- 45th Street & Hanselman Avenue
 - Installing an Active Pedestrian Corridor (APC) makes sense because of the bus stop. Good idea.

- The Farmers Market relocation to 2600 Koyl Avenue (Cavendish building) has been approved and will be opening in the spring. This will increase traffic in the neighbourhood but will likely be in the off-peak hours.
- Would like to see sidewalks near the new Farmers Market location installed to connect to the Transit stops.
- Would like to request that the sidewalk on 45th Street (north side) between Hanselman Avenue and Aerogreen Road be given higher priority than other missing sidewalks in the neighbourhood.

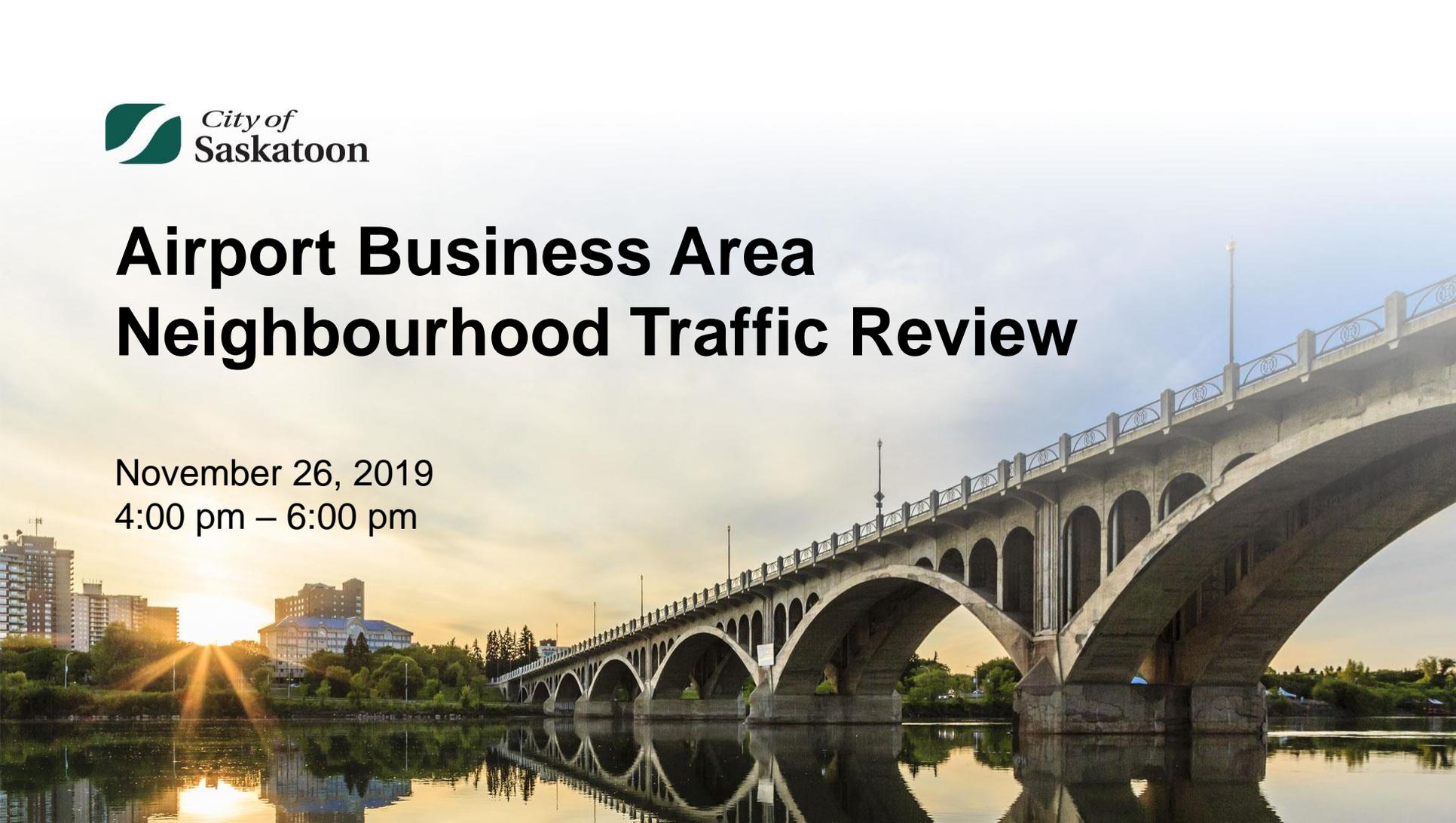
Next Steps

1. Mail-in or email comments no later than December 27th, 2019.
2. Additional public input via City Engage Page no later than December 27th, 2019.
3. Additional consultation if required.
4. Present traffic plan to Standing Policy Committee on Transportation as information.
5. If City Council approval is required for a recommendation (e.g. road closure), a recommendation will be included in the report for City Council approval.
6. What if I don't agree?



Airport Business Area Neighbourhood Traffic Review

November 26, 2019
4:00 pm – 6:00 pm



Neighbourhood Traffic Review Process

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

Study Area

- Study Limits
 - 47th Street, Idylwyld Drive, CN Rail tracks, and Hampton Village neighbourhood

Local and Collector Roads

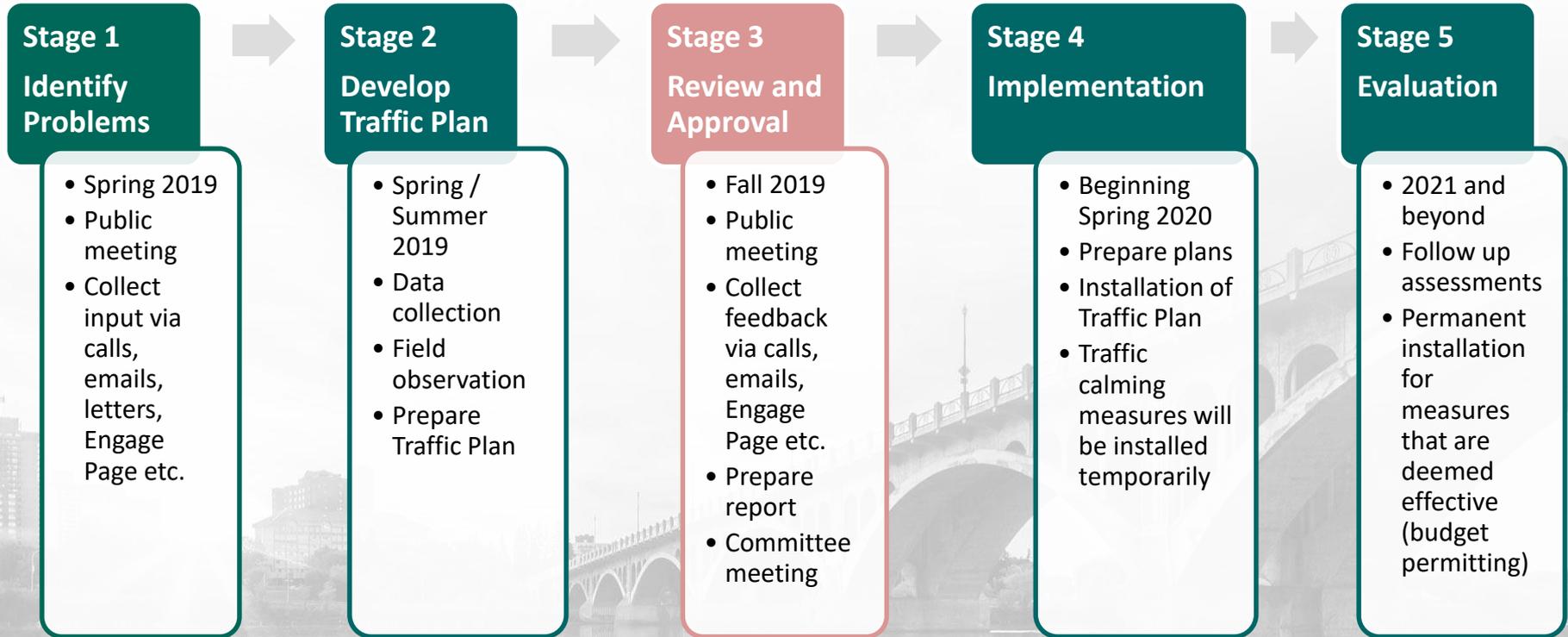


Neighbourhood Traffic Review Process



We are here

Neighbourhood Traffic Review Schedule



What We Heard

A. Speeding / Shortcutting Concerns:

- 45th Street
- Avenue C
- Cynthia Street

What We Heard

B. Pedestrian Safety Concerns:

- 45th Street & Koyl Avenue
- 45th Street & Hanselman Avenue
- Cynthia Street & Robin Way
- Cynthia Street & Hanselman Avenue
- Missing sidewalks throughout the Airport Business Area

What We Heard

C. Intersection Safety and Delay Concerns:

- Avenue C & 47th Street
- Avenue C & 46th Street
- Avenue C & Hangar Road
- 45th Street & Koyl Avenue
- 45th Street & Hanselman Avenue
- Airport Drive & Cardinal Crescent

What We Heard

D. Other Concerns:

- Airport Drive merge lane onto Circle Drive southbound needs extending
- Circle Drive & Avenue C intersection concerns
- Cycling facilities to, from, and within Airport Business Area are desired

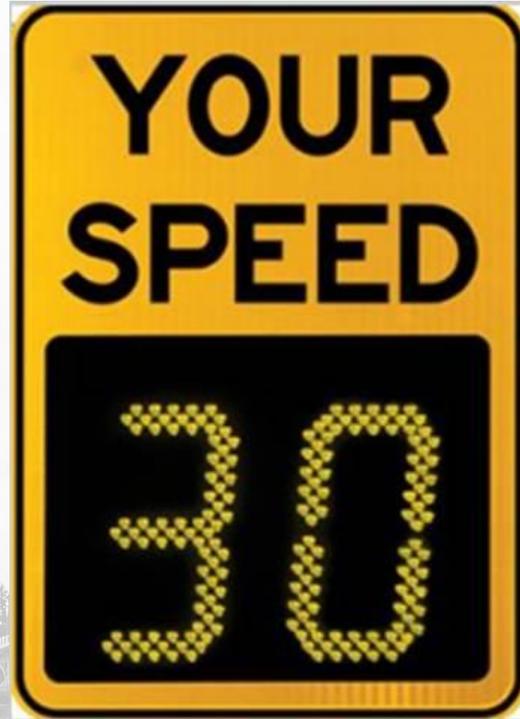
What We Did

- Field observations
- Data collection:
 - 4 pedestrian counts
 - 4 intersection counts
 - 2 traffic volume / speed studies
- Collision Analysis
- Forwarded Speed Data to Saskatoon Police Service

What We Propose

- Speed Display Boards
- Crosswalks
- Active Pedestrian Corridor
- Lane designation signs

Speed Display Devices



Standard Crosswalk

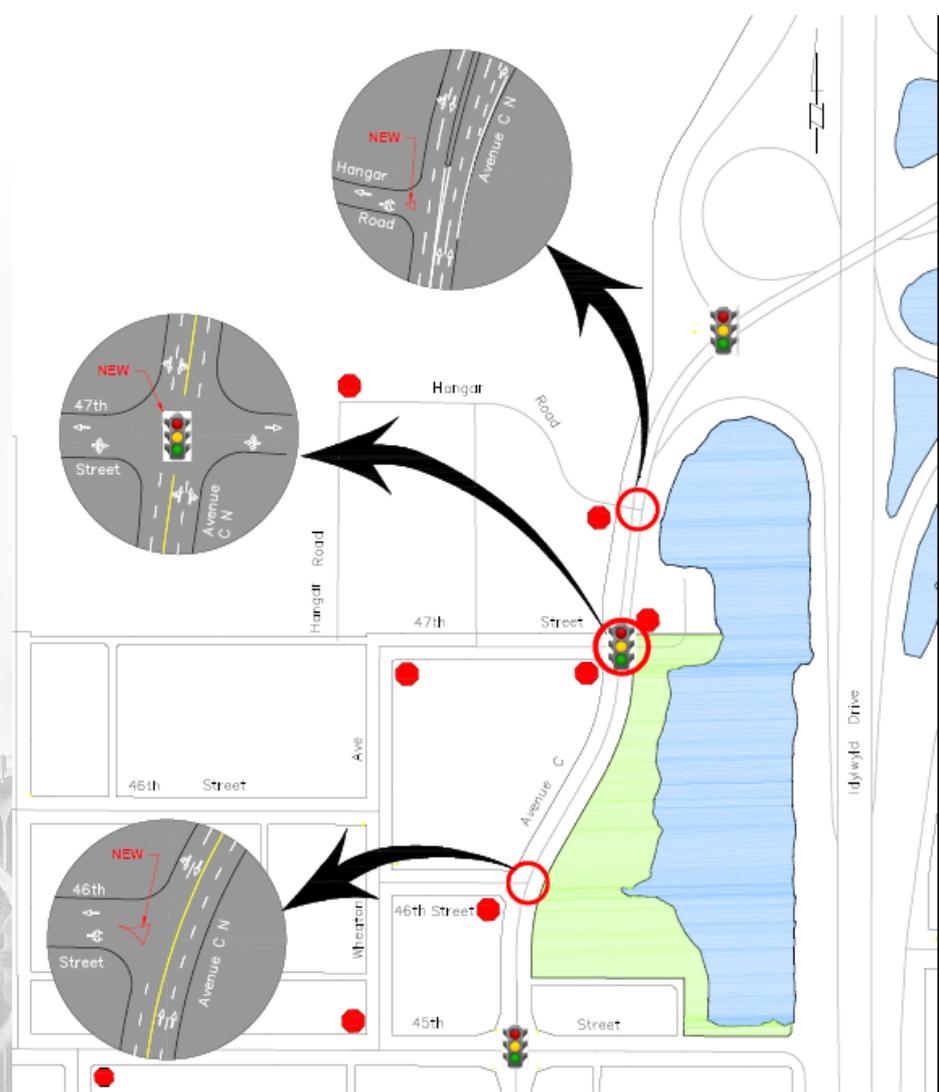


Pedestrian Actuated Signal

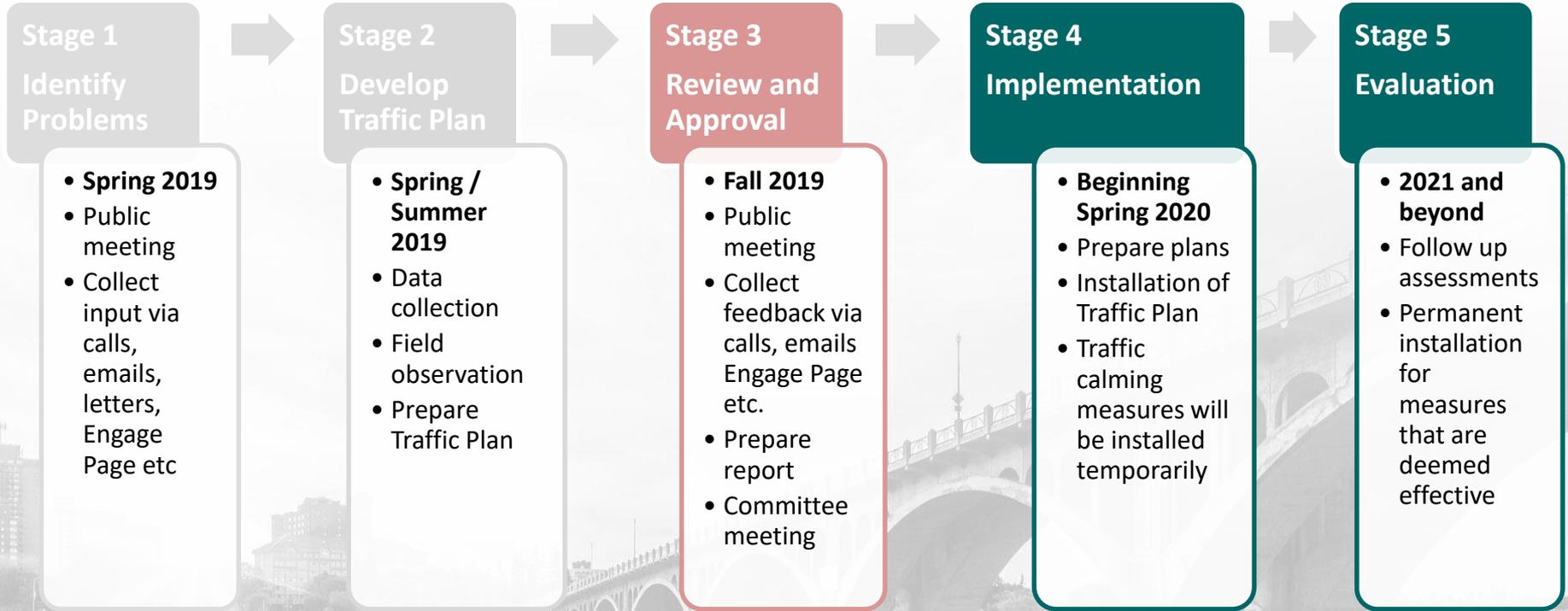


Additional Studies / Projects

- Avenue C Corridor Study
 - Presented at the January 10, 2017 meeting of City Council.
 - Recommended installing right in/right out restrictions at Hangar Road and 46th Street; and traffic signals at 47th Street.
 - Changes are not yet warranted based on transportation policy.



Next Steps



Next Steps

1. Send comments no later than November 24, 2019
2. Additional consultation if required
3. Present traffic plan to City Council as information
4. If City Council approval is required, an additional recommendation will be included in the report to City Council.
5. What if I don't agree?

Stay Engaged

- Subscribe for updates at www.saskatoon.ca/NTR
- Post comments at www.saskatoon.ca/engage
- Provide comments by December 24, 2019

The screenshot shows the City of Saskatoon website navigation and content. The top navigation bar includes 'City of Saskatoon', 'Create Account', 'Sign in', 'Accessibility', 'Engage', 'Contact Us', and 'Search'. Below this is a horizontal menu with categories: 'Services for Residents', 'Moving Around', 'Parks, Recreation & Attractions', 'Community, Culture & Heritage', 'Business & Development', 'New to Saskatoon', and 'City Hall'. The breadcrumb trail reads: 'Home > Moving Around > Driving & Roadways > Managing Traffic > Traffic Studies > Neighbourhood Traffic Reviews'. The left sidebar lists various services under 'Accessibility', 'Transit', 'Cycling', 'Driving & Roadways', 'Road Maintenance & Repair', 'Managing Traffic', 'Traffic Studies', and 'Neighbourhood Traffic Reviews'. The main content area is titled 'Neighbourhood Traffic Reviews' and includes a 'Subscribe to Traffic Review Notifications' link. The text describes the review process, from community meetings to Council approval. A dropdown menu for '2018 Neighbourhood Traffic Review' is visible at the bottom of the page.

This screenshot shows a specific Neighbourhood Traffic Review page for the 'Airport Business Area'. The header reads 'Airport Business Area' and includes a sub-header: 'The Neighbourhood Traffic Review Process provides the opportunity to consider and address traffic concerns for a neighbourhood as a whole.' The background image shows a street scene with trees and a stop sign. At the bottom, there are navigation tabs for 'Engage', 'Background', and 'Process', along with a 'Contact Us' button.

The bottom right section of the page features the City of Saskatoon logo, which consists of a stylized green leaf icon and the text 'City of Saskatoon'. The page number '25' is displayed in the bottom right corner.

Airport Business Area Traffic Plan – Recommendations

Item	Location	Recommendation	Reason
1	45 th Street between Thayer Avenue and Koyl Avenue	Speed Display Board (westbound)	Reduce speed
2	45 th Street & Thayer Avenue	Remove existing crosswalk	Consolidate crossing at Hanselman Avenue
3	45 th Street & Hanselman Avenue	Install Active Pedestrian Corridor (west leg)	Provide protected crossing at the Transit stop location
4	Cynthia Street & Hanselman Avenue	Install standard crosswalk (west leg)	Provide crossing at the Transit stop location
5.1	Cynthia Street between Robin Crescent (W leg) and Robin Way	Speed Display Board (westbound)	Reduce speed
5.2		Speed Display Board (eastbound)	Reduce speed
6	Cynthia Street between Airport Drive & Robin Way	Paint shoulder lines	Typical pavement marking for collector streets with rural cross-sections
7	Avenue C between Circle Drive off ramp and Hangar Road	Speed Display Board (southbound)	Reduce speed
Other Projects			
8	Neighbourhood-wide	Sidewalk and ramp infill to be implemented as per the Sidewalk Infill Program	Increase pedestrian safety
9	Ave C between Hangar Road & 45 th Street	Install recommendations of the 2016 review as they become warranted	Improve access to Avenue C from side streets
10	Circle Drive & Avenue C	Complete an intersection improvement evaluation	Determine if improvements can be made to the operation of this intersection

AIRPORT BUSINESS AREA TRAFFIC PLAN

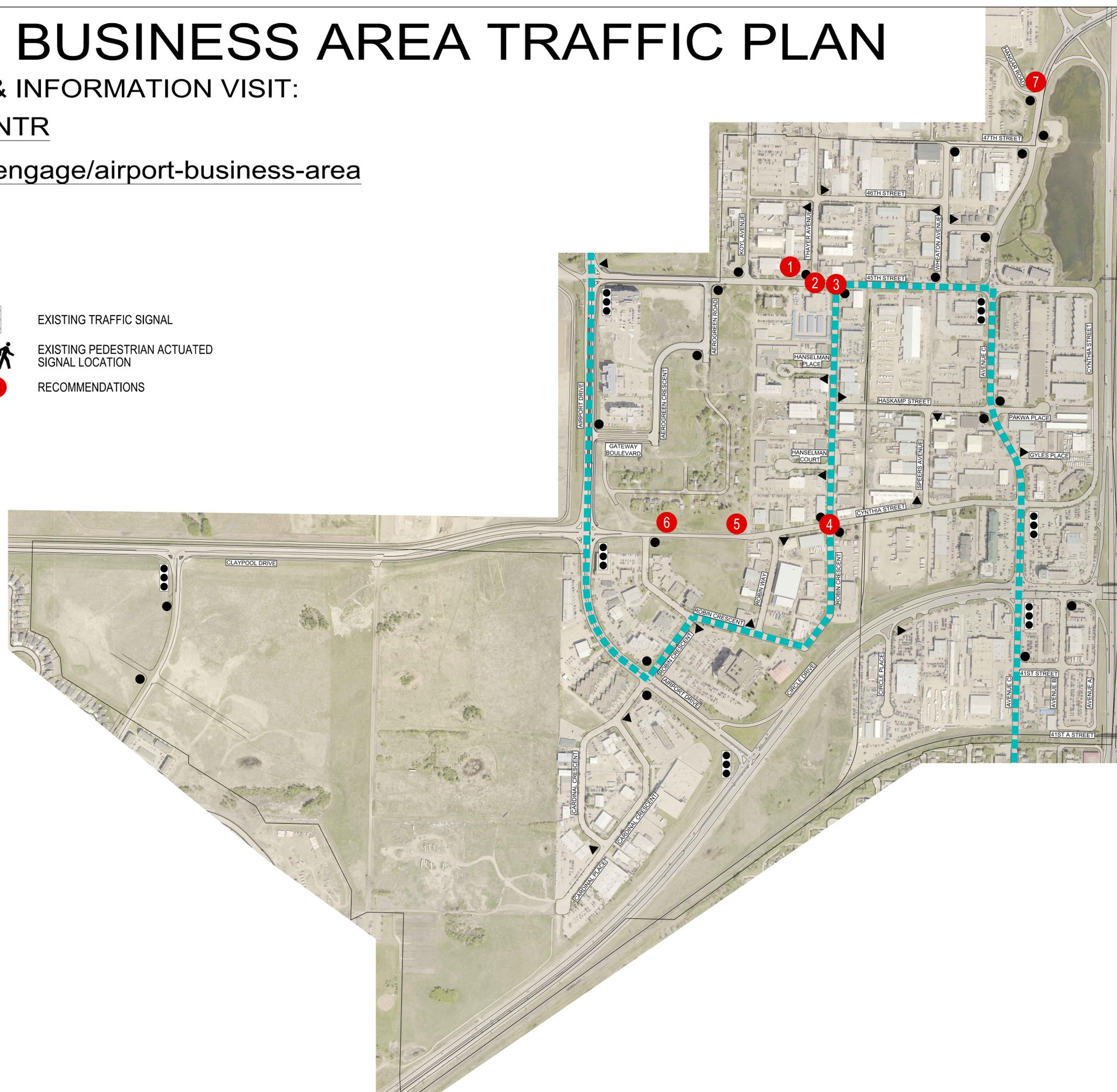
FOR COMMENTS & INFORMATION VISIT:

www.saskatoon.ca/NTR

www.saskatoon.ca/engage/airport-business-area

LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- █ EXISTING SCHOOL ZONE
- ⬆ EXISTING TRAFFIC SIGNAL
- ⬆ EXISTING PEDESTRIAN ACTUATED SIGNAL LOCATION
- Ⓝ RECOMMENDATIONS



Appendix I

Decision Matrix

Appendix I: Decision Matrix

Item	Location	Recommendation	Reason	Comments from 2 nd Meeting	Decision
1	45 th Street between Thayer Avenue and Koyl Avenue	Speed Display Board (westbound)	Reduce speed	If the speed display board helps lower speeds, that's good. Lower speeds on 45 th Street would help with turning left onto 45 th Street. When police enforce speed limits, the lower speeds create gaps in traffic.	Carried
2	45 th Street and Thayer Avenue	Remove existing crosswalk	Consolidate crossing at Hanselman Avenue	Removing the existing crosswalk makes sense once the pedestrian device is installed at 45 th Street and Hanselman Avenue.	Carried
3	45 th Street and Hanselman Avenue	Install Active Pedestrian Corridor (west leg)	Provide protected crossing at the Transit stop location	Installing an Active Pedestrian Corridor makes sense because of the bus stop. Good idea.	Carried
4	Cynthia Street and Hanselman Avenue	Install standard crosswalk (west leg)	Provide crossing at the Transit stop location	No comments received.	Carried
5	Cynthia Street between Robin Crescent (west leg) and Robin Way	Speed Display Board (westbound)	Reduce speed	No comments received.	Carried
		Speed Display Board (eastbound)	Reduce speed	No comments received.	Carried
6	Cynthia Street between Airport Drive and Robin Way	Paint shoulder lines	Typical pavement markings for collector streets with rural cross-sections	No comments received.	Carried
7	Avenue C between Circle Drive off ramp and Hangar Road	Speed Display Board (southbound)	Reduce speed	No comments received.	Carried

Appendix J

Additional Concerns Received
After Presentation of Draft Plan

Appendix J: Addition Comments

Location	Comments	Decision
2600 Koyl Avenue	The Farmers Market relocation to 2600 Koyl Avenue has been approved and will increase traffic in the neighbourhood, but likely in the off-peak hours. Would like to see sidewalks near the new Farmers Market location installed to connect to the Transit stops.	New sidewalk installation are completed through the Sidewalk Infill program. The desire for this location has been passed on to the program manager for consideration in that program.
45 th Street between Hanselman Avenue and Aerogreen Road	A sidewalk is requested to be given higher priority along this section than other locations in the neighbourhood.	New sidewalk installation are completed through the Sidewalk Infill program. The desire for this location has been passed on to the program manager for consideration in that program.
Airport Drive and Cardinal Crescent/Robin Crescent	Traffic signals are requested here. Traffic during peak hours is very busy along this stretch, especially since the development of Hampton Village making it difficult to turn onto Airport Drive. Delays are long, and drivers are taking risks to make movements.	A traffic signal warrant was completed for this location and signals are not warranted at this time. The intersection will be included in the scope of an upcoming functional study for Circle Drive and Airport Drive.

Appendix K

Public Feedback

Comments for this thread are now closed ✕

3 Comments City of Saskatoon

 Login ▼

 Recommend  Tweet  Share

Sort by Best ▼



10 months ago

My concern is with the intersection of Ave. C and 45th Street West. I work in a building in this area and use this intersection every day. There is a serious accident at this intersection almost weekly if not daily sometimes. When I am traveling west at this intersection, I usually wait at least 5 seconds after the light turns green because someone always blows past going South or North. I am recommending either flashing "high collision area" lights get put up and/or cameras to help control some of the motorist in this area.

I am also recommending better a paint job on the stop lines going West on this intersection. If motorist are not pulled up far enough, the light will not turn green. Perhaps a sign that says "stop line here" will help as well.

   Share ▶



Nathalie Baudais, Transp. Eng. Mod  Ashley · 10 months ago

Thanks for raising this concern, Traffic signals for Avenue C fall outside of the scope of the NTR but we will take a look at the signal timing, signage and pavement markings for this intersection as part of our regular business operations.

We review SGI collision reports annually throughout the city annually. Only certain collision types can be corrected through red light camera enforcement. This intersection did not meet the threshold of these collision types.

   Share ▶



Nathalie Baudais, Transp. Eng. Mod · a year ago

We are collecting comments through emails, phone calls, Engage page discussion and through the upcoming survey. All comments received will be compiled and used to identify locations for data collection such as traffic volume, speed and pedestrian studies and site observations. A second meeting will then be held to discuss the draft traffic plan for the neighbourhood.

   Share ▶

 Subscribe  Disqus' Privacy Policy

Lanning, Chelsea

From:
Sent: Tuesday, November 12, 2019 4:51 PM
To: Lanning, Chelsea
Subject: Cardinal Cres. Airport Drive

Categories: Airport

Good afternoon.

I am writing on behalf of our staff and board of directors that take their lives in their hands every time they enter the intersection of Cardinal Cres. and Airport Drive.

If you are leaving Cardinal Cres. in the morning or after work and are turning left (North), the average wait time to get across is 12+ minutes. When there is a break in traffic, it is usually so minimal that you must speed across. Every one of our staff and Board have stated that they often are forced to proceed in a way that they normally would not do in other circumstances, or they will not get across. Last March, I was a victim of this intersection. I ended up getting hit. My vehicle had 17,000 in damage and I was hurt. This is an intersection that our staff anticipate that they will be hit in at some point. The only alternative for drivers, is to turn right(South) onto Airport and go 15 minutes out of our way just to go North again.

Our organization also hosts a number of meetings and events where attendees stay at the Saskatoon Inn. In meeting/event evaluations, attendees have stated that the walk and/or drive across Airport Drive is dangerous and needs to be dealt with. In addition, the bus stop for the entire Cardinal Cres. requires riders to cross over Airport Drive. There are numerous businesses that have employees that bus to work. The addition of Hampton Village has increased the traffic considerably and the risk to drivers and pedestrians is significant.

This needs to be a priority of the City of Saskatoon. Lights need to be installed.

Thank you for the opportunity to submit feedback.

Best regards,

Lanning, Chelsea

From:
Sent: Wednesday, November 06, 2019 2:11 PM
To: Lanning, Chelsea
Subject: Neighbourhood Traffic Review - Airport Business Area

Categories: Airport

Hi Chelsea,

I work on Airport Dr and have noticed, with the growing of Hamptons, airport hotels, etc., that Airport Dr traffic to/from Circle Dr can get very busy, especially in rush hours. It makes it very hard to cross Airport Dr from Robin Cres safely and in a timely manner. It can feel like you are waiting forever after work.

I've also noticed that the light for Airport Dr turning onto Circle Dr N seems to be very short at times. It seems as though if people aren't pulled up over the stop line, the light doesn't initiate. I've sat through 3 light cycles without the one from Airport Dr turning green. Also, if the next person in line doesn't pull up fast enough once the car ahead has gone through the intersection, the light will go straight to yellow. It seems that at least during rush hours (after work especially), the light should be on a timer more than a sensor.

Thank you,

Lanning, Chelsea

From:
Sent: Tuesday, November 05, 2019 12:06 PM
To: Lanning, Chelsea
Subject: Feedback to Airport Business Area - Neighbourhood Traffic Reviews
Categories: Airport

Hi Chelsea,

We just received a flyer in our mail from the City of Saskatoon Engage regarding feedback on proposed traffic changes in the Airport Drive Area. This is the first time I have heard of this otherwise I would of commented earlier.

I work at _____ and our office is in Cardinal Crescent. I just want to voice my concerns about getting out of Cardinal Crescent, especially turning left onto Airport Drive at rush hour. It's an absolute gong show to say the least. Traffic coming from both ways on Airport Drive makes it extremely difficult to get out as you can't get a break to turn left or cross to Robin Cres and most times you can't turn right as traffic is backed up Airport Dr. Best case scenario would be to put a light there...but would take anything offered to help lessen this painful exit tho. Ugh!

I hoping other people have commented on this intersection too. I've seen the frustrated faces of other drivers (I _____) trying to get out too!

Thanks for letting me vent! ☺

Regards,

Lanning, Chelsea

From:
Sent: Tuesday, November 05, 2019 11:48 AM
To: Lanning, Chelsea
Subject: Airport Drive Traffic Review

Categories: Airport

Hi Chelsea,

I would like to raise the concern of Cardinal Cres and Airport Dr. I leave Cardinal Cres every day and have to turn left onto Airport Dr. This is a very difficult corner to maneuver safely. There is often a line blocking your view at 5pm in both directions. This area is getting more businesses located in it, along with a large number of people using Airport Dr to access Hampton, this is creating a larger issue with this intersection.

Lanning, Chelsea

From: [REDACTED]
Sent: Friday, November 01, 2019 1:45 PM
To: Lanning, Chelsea
Subject: Neighborhood Traffic Reviews - Airport

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Airport

Hi Chelsea

During the afternoon rush hour for sure getting off of Thayer Ave onto 45th Street is difficult. There is a lot of traffic going both ways down 45th Street and people trying to get off of Thayer gets backed up. It would great if we can get a traffic light that is on a sensor for people. At some points I have waited for at least 5 minutes before I am able to turn.

Lanning, Chelsea

From: Baudais, Nathalie
Sent: Tuesday, October 08, 2019 11:43 AM
To: Lanning, Chelsea
Subject: INFO: 45th St Crosswalk - RE: Traffic-related Request ~18107 - Found word(s) score risk free in the Text body

Nathalie Baudais, P.Eng. | [tel 306.986.3097](tel:306.986.3097)

Senior Transportation Engineer
City of Saskatoon | 222 3rd Avenue North | Saskatoon, SK S7K 0J5
Treaty 6 Territory & Homeland of the Métis
nathalie.baudais@saskatoon.ca
www.saskatoon.ca

*If you receive this email in error, please do not review, distribute or copy the information.
Please contact the sender and delete the message and any attachments*

From:
Sent: Tuesday, March 20, 2018 4:02 PM
To: Baudais, Nathalie (TU - Transportation) <Nathalie.Baudais@Saskatoon.ca>
Subject: [SPAM] - RE: Traffic-related Request ~18107 - Found word(s) score risk free in the Text body

Thanks Nathalie.

From: Baudais, Nathalie (TU - Transportation) [<mailto:Nathalie.Baudais@Saskatoon.ca>]
Sent: Tuesday, March 20, 2018 8:51 AM
To:

Lanning, Chelsea

From: Baudais, Nathalie
Sent: Tuesday, October 08, 2019 11:42 AM
To: Lanning, Chelsea
Subject: INFO: 45th St Crosswalk (Areva) FW: Traffic-related Request ~18107

Nathalie Baudais, P.Eng. | tel 306.986.3097

Senior Transportation Engineer
City of Saskatoon | 222 3rd Avenue North | Saskatoon, SK S7K 0J5
Treaty 6 Territory & Homeland of the Métis
nathalie.baudais@saskatoon.ca
www.saskatoon.ca

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Please contact the sender and delete the message and any attachments*

From:
Sent: Tuesday, October 31, 2017 4:27 PM
To: Baudais, Nathalie (TU - Transportation) <Nathalie.Baudais@Saskatoon.ca>; Li, Yang (TU - Transportation) <Yang.Li@Saskatoon.ca>
Cc:
Subject: RE: Traffic-related Request ~18107

Thanks for the response and the additional information. I look forward to the results of the study.

From: Baudais, Nathalie (TU - Transportation) [<mailto:Nathalie.Baudais@Saskatoon.ca>]
Sent: Tuesday, October 31, 2017 2:24 PM
To:
Cc: l
Subject: RE: Traffic-related Request ~18107

Hi

We will proceed with an updated study to verify if this location warrants an actuated pedestrian device.

In terms of installing signage, all signs on private property need to abide by the Sign Regulations outlined in Appendix A to the Zoning Bylaw No. 8770. <https://www.saskatoon.ca/sites/default/files/documents/city-clerk/bylaws/8770.pdf>

Cc: Baudais, Nathalie (TU - Transportation)
Subject: RE: Traffic-related Request ~18107

Thanks for your response. When can we get started with the site visit and data collection? How can we help?

From: Li, Yang (TU - Transportation) [<mailto:Yang.Li@Saskatoon.ca>]
Sent: Tuesday, October 24, 2017 1:15 PM
To:
Cc: Baudais, Nathalie (TU - Transportation)
Subject: RE: Traffic-related Request ~18107

H

We are not able to make any decision until a pedestrian study is completed. A pedestrian study is used to determine if any pedestrian device is warranted according to the attached City policy. The review includes site visit and collection of traffic and pedestrian data.

I will provide you with my recommendations once the study is completed.

Thank you.

Yang Li, Engineer-in-Training | tel 306.975.3523
Transportation Engineer – Transportation Division
City of Saskatoon | 222 3rd Avenue North | Saskatoon, SK S7K 0J5
Yang.Li@Saskatoon.ca
www.saskatoon.ca

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From:
Sent: Thursday, October 19, 2017 11:01 AM
To: Li, Yang (TU - Transportation) <Yang.Li@Saskatoon.ca>
Subject: RE: Traffic-related Request ~18107

We already have a cross walk that connects our 2 buildings on the north and south side of 45th Street, however painted lines and signs are proving ineffective with 45th Street now being 4 lanes. We want to better manage the risk of employees crossing between our 2 buildings . I would like to discuss with someone the potential to install a flashing crosswalk light, at expense, similar to that used by between their buildings on Fletcher, or in the Saskatoon Airport area (see below).

Could you please connect me with the Transportation Division person who can make this sort of decision?

From: csc@saskatoon.ca [mailto:csc@saskatoon.ca]
Sent: Tuesday, October 17, 2017 10:33 AM
To:
Cc: Web E-mail - Transportation <Transportation@Saskatoon.ca>
Subject: Re: Traffic-related Request ~18107

Thank you for your email.

Your concern has been forwarded to the Transportation department to provide followup and determine the necessary course of action.

Regards,

Customer Service Centre

I would like to discuss traffic safety in front of our buildings on 45th St. with someone. We would like to request a crosswalk sign be installed. Can you please direct me to the proper department or person?

Lanning, Chelsea

From:
Sent: Saturday, June 22, 2019 9:23 PM
To: Lanning, Chelsea
Cc: Donauer, Randy (City Councillor)
Subject: Airport NTR feedback

Follow Up Flag: Follow up
Flag Status: Completed

Greetings. I only just now discovered that this review was going on, and so I am submitting my response, even though it is late; hopefully you don't have to trash it because it's late.

I live in Lawson Heights, and work in the airport district

My number one concern is trying to get home alive. There is no risk-free way to turn left (north) onto Ave C (from 46th or 47th Streets), or even onto 45th (from Wheaton) during afternoon rush hour, 4-5pm. My usual route is to take Wheaton north to 47th, and then attempt the turn onto Ave C from there. A usual wait is 3-5 minutes; it's 7-10 min on a high traffic day. If I don't want to endure the stress and risk, I will make a right turn onto Ave C, and then make a series of rights immediately after crossing 45th, through the parking lot of The Landing (Tervita etc) complex, until I'm back on 45th eastbound, and can make the left turn at the lights. Not a good practice, I know. But there is no better alternative. I hope you can fix this major safety issue.

The other main concern is the lack of bicycle access to this district. I was hoping, when I began working in this area, to bike lots (at least in decent weather). It's not far from Lawson Heights; but there is NO easy / safe way to bike across the north end. The lack of any kind of safe bike route from the Warman/51st intersection to Millar/50th is very intimidating. Once at 50th, it's possible to go west on this across the north end (with all the big trucks), although the very first time I tried this (four years ago), I not only got a flat tire, I wrecked my rim. Crossing Faithfull at 50th is also scary. A ped/bike crosswalk, marked with a blinking light, would be a huge safety improvement. The ped/bike crossing over Idylwyld is safe (crumbling steps notwithstanding—I hope...), but nerve-wracking. I did try biking the traffic overpass once—never again. I hope that eventually Saskatoon can connect its chief industrial employment areas with Active Transportation access. (Like the bike path along Marquis—well done!).

Finally – and this is not a comment about traffic, but about the presentation. Specifically, the final page. (I also sent this to the project manager for the Lawson Hts report. I'm guessing this is part of a template that came from some city office. I'd appreciate you forwarding this thought to whoever is in charge of the template.) I don't want to sound grinchy, but I noticed that on the otherwise beautiful and thoughtful final page, with the marvellously multi-cultural "thank-you" graphic, the Indigenous languages of this territory (e.g. Cree, Lakota/Dakota) are quite absent. While undoubtedly unintentional, it nevertheless sends a very unfortunate message, that Indigenous people are (once again) invisible and/or irrelevant. Saskatoon is, fortunately, doing much in many ways to change that—and here's one more place where positive change can be made.

thanks / hay-hay / miigwech



Lanning, Chelsea

From: Adams, Kelly
Sent: Wednesday, May 29, 2019 2:24 PM
To: Baudais, Nathalie
Cc: ST - Service Saskatoon Customer Care Centre
Subject: Request for crosswalk

Hi Nathalie,

would like to request a crosswalk light on 45th St W/Hanselman Ave. The bus stop is on the other side of the road and it's really busy in this area for crossing.

Thank you,

Kelly Adams | tel 306.975.2476

Customer Care Agent

Service Saskatoon Customer Care Centre

City of Saskatoon | 222 3rd Avenue North | Saskatoon, SK S7K 0J5

kelly.adams@saskatoon.ca

www.saskatoon.ca

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Lanning, Chelsea

From: Patrick, Jacqueline
Sent: Thursday, May 16, 2019 10:04 AM
To: City of Saskatoon - Neighbourhood Traffic Reviews
Subject: 510 45th St W

Hello,

was unable to attend the traffic review meeting and he would like to bring a concern forward. They are seeing an increase of pedestrians on 45th St and Avenue C North. They do not have sidewalks here and it is becoming problematic in the winter when snow is piled on the side of the roads. Many pedestrians are walking on the road causing safety concerns.

Thank you,

Jacqueline Patrick | tel 306.975.2476

Customer Care Agent

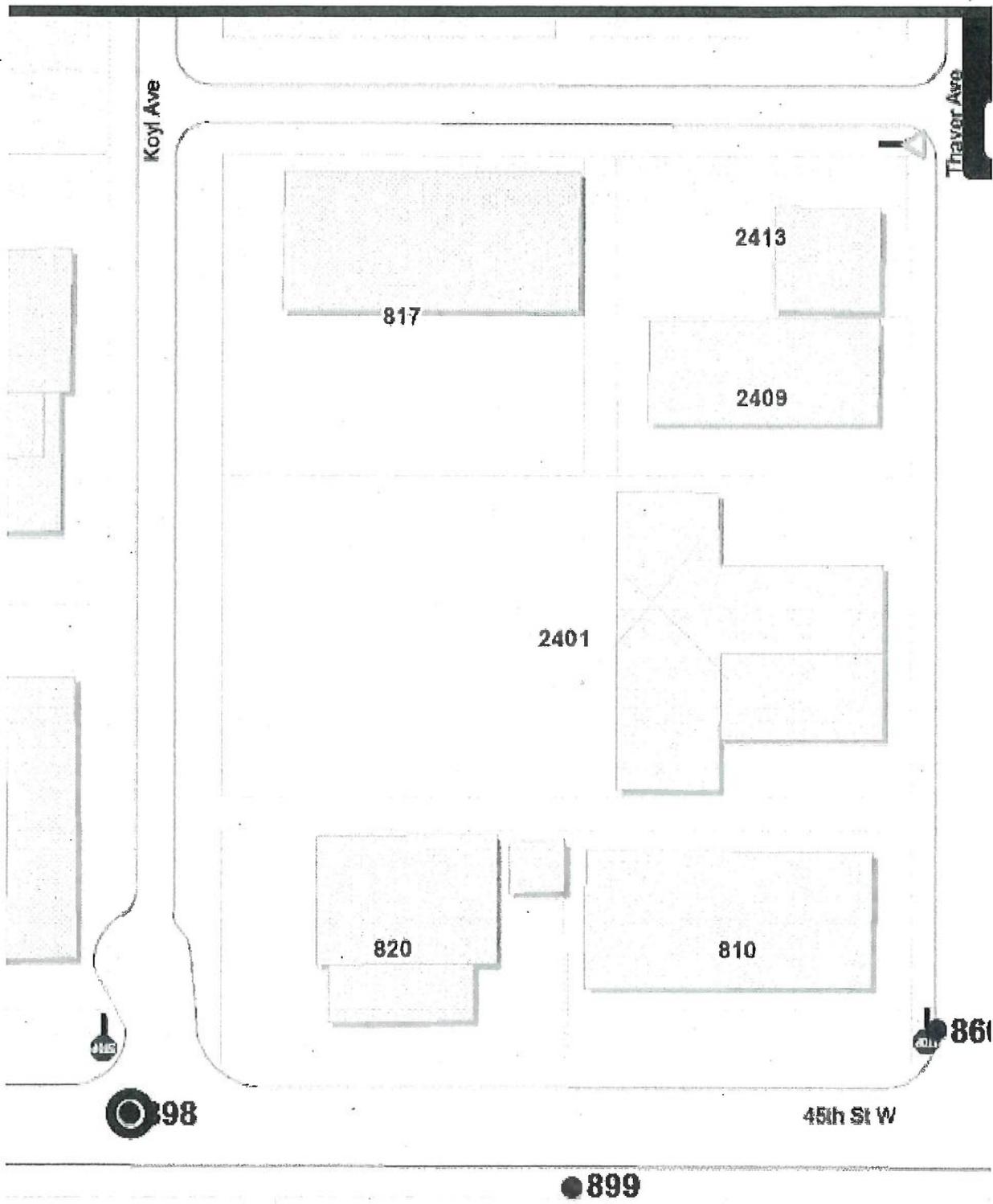
Service Saskatoon Customer Care Centre

City of Saskatoon | 222 3rd Avenue North | Saskatoon, SK S7K 0J5

jacqueline.patrick@saskatoon.ca

www.saskatoon.ca

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From: Simpson, Tom (TU - Transportation)
Sent: Wednesday, November 7, 2018 3:03 PM
To:
Cc: Web E-mail - Transportation <Transportation@Saskatoon.ca>
Subject: RE: Saskatoon Report a Traffic Issue received

Good afternoon

Thank you for the enquiry. I will ask our Senior Engineer to review this location as traffic and pedestrian volumes may have changed..

There are a few options when it comes to crosswalks:

- Unmarked
- Standard
- Zebra
- Pedestrian Corridor
- Active Pedestrian Corridor
- Pedestrian Actuated Signal

In addition there are a number of conditions that must be met for each installation:

- Total pedestrians crossing
- Distance to cross
- Speed of traffic
- Proximity to a signalized intersection
- Etc.

Prior to any installation or changes for any crosswalk our Engineering Section will review the request, and if necessary, do some counts, pedestrian and vehicular.

Please feel free to contact me directly with any transportation related concern,

Thomas Simpson | tel 306.975-2811
Customer Service Manager, Transportation
City of Saskatoon | 222 3rd Avenue North | Saskatoon, SK S7K 0J5
tom.simpson@saskatoon.ca
www.saskatoon.ca

From: City of Saskatoon [<mailto:Transportation@Saskatoon.ca>]
Sent: Sunday, November 4, 2018 10:22 AM
To: Web E-mail - Transportation <Transportation@Saskatoon.ca>
Subject: Saskatoon Report a Traffic Issue received



New Traffic Issue Reported!

Request ID: 898

Issues: SPEEDING,

Name:

Email:

Lanning, Chelsea

From: Matt, Shirley (TU - Transportation)
Sent: Wednesday, August 28, 2013 2:12 PM
To: Akindipe, Olanrewaju (TU - Transportation)
Cc: Web E-mail - Transportation
Subject: FW: Community Traffic Issue -
Attachments: Community Traffic Incident.xml; CommunityTrafficIssue.xsn

Lanre

Can you answer this one.

Shirley

I only notice this problem when leaving work, when it seems traffic is at it's peak at this intersection (it may be at noon as well). When trying to turn right from Cardinal Crescent onto Airport Drive, I need to get over to the left lane to eventually turn left onto Circle Drive Eastbound. However the left hand lane on Airport drive will be backed up from the lights all the way up to (and beyond Cardinal/Robin Cres.). To the point where things get dangerous with people cutting across the road, sitting mid-intersection to turn, etc... Something that just needs to be observed. I don't know if the traffic is high enough to warrant a set of lights, but off peak hours a set of lights would most likely impede traffic...but if there was something that detected that a car was on Cardinal/Robin Crescent it would change the lights to allow this vehicle to cross?

This area has only been getting worse since Hampton Village has grown and maybe there is some larger business growth in the Airport area in the last few years? Either way it's quite dangerous some days. I found it much easier to bike to work and back to avoid the hassle of this section of road since I'm quite surprised that I haven't come across any major accidents.

From: Web E-mail - Transportation
Sent: August 28, 2013 1:20 PM
To: Matt, Shirley (IS - Transportation)
Subject: FW: Community Traffic Issue - Conrad Andres

Can you please follow up on this web inquiry! Thank you!

Regards,



IS Transportation Branch
222 - 3rd Ave North Saskatoon SK S7K 0J5
Ph (306)975-2454 Fx (306)975-2971

From: VSX08FXX@saskatoon.ca [mailto:VSX08FXX@saskatoon.ca]
Sent: August 27, 2013 11:23 PM

Traffic Signage

Traffic Control - Stop & Yield

Lanes

Walkways

Describe the problem (s). Be specific and provide as much information as possible. Indicate times of day, directions of travel, magnitude and extent of problems, and so forth.

I only notice this problem when leaving work, when it seems traffic is at it's peak at this intersection (it may be going to turn right from Cardinal Crescent onto Airport Drive, I need to get over to the left lane to eventually turn around. However the left hand lane on Airport drive will be backed up from the lights all the way up to (and beyond) the point where things get dangerous with people cutting across the road, sitting mid-intersection to turn, etc... Something that just needs to be observed. I don't know if the traffic is high enough at off peak hours a set of lights would most likely impede traffic but if there was something that detected that

Personal Information

Name: _____

Email: _____

Address: _____

Date: 27/08/2013