



**PUBLIC AGENDA
STANDING POLICY COMMITTEE
ON TRANSPORTATION**

Monday, June 12, 2017, 2:00 p.m.

Council Chamber, City Hall

Committee Members:

Councillor R. Donauer, Chair, Councillor Z. Jeffries, Vice-Chair, Councillor C. Block, Councillor S. Gersher, Councillor A. Iwanchuk, His Worship Mayor C. Clark (Ex-Officio)

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

Recommendation

That the agenda be confirmed as presented.

3. DECLARATION OF CONFLICT OF INTEREST

4. ADOPTION OF MINUTES

Recommendation

That the minutes of regular meeting of the Standing Policy Committee on Transportation held on May 8, 2017 be adopted.

5. UNFINISHED BUSINESS

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

6.1.1 Mayor Sheryl Spence - City of Warman - AV Shuttle Letter of Support [File No. CK 4250-1]

8 - 8

A letter dated April 25, 2017 from Mayor Sheryl Spence, City of Warman, is provided.

Recommendation

That the information be received.

6.2 Matters Requiring Direction

6.3 Requests to Speak (new matters)

- 6.3.1 **Warrick Baijius - Idylwyld Bridge Walkway and Bridge Maintenance [File No. CK 6050-6]** 9 - 9

Attached is an email from Warrick Baijius dated May 14, 2017, requesting to speak.

Recommendation

That the information be received.

- 6.3.2 **Mary Fedun - Downtown Bike Lanes [File No. CK 6000-5]** 10 - 10

Attached is a letter from Mary Fedun dated June 6, 2017, requesting to speak.

Recommendation

That the information be received.

7. REPORTS FROM ADMINISTRATION

7.1 Delegated Authority Matters

- 7.1.1 **New Sidewalks Program Update [Files CK 6220-1 and TS 6320-1]** 11 - 14

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be received as information.

- 7.1.2 **Transportation 2016 Annual Report [Files CK 6320-37 and TS 0430-1]** 15 - 49

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be received as information.

7.1.3	Urban Highway Connector Program [Files CK 6000-1 and TS 1702-01]	50 - 58
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Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be received as information.

7.1.4	Saskatoon Transit 2016 Annual Report [File No. CK 6320-1]	59 - 82
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Recommendation

1. That the report of the General Manager, Transportation & Utilities Department be received as information; and
2. That a copy of the final report be forwarded to the Saskatoon Accessibility Advisory Committee.

7.2 Matters Requiring Direction

7.2.1	Saskatoon Transit P0583 Gas Tax Capital Funding Transfer [Files CK 1402-1, x1860-1, x1702-1 and TR 7301-01]	83 - 84
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Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That \$198,838.16 be transferred from the Federal Gas Tax Fund to Capital Project #583 – Transit Bus Replacement/Refurbishment.

7.2.2	Saskatoon Transit Capital Projects Closure [Files CK 1702-1, x7300-1 and TR 7301-01]	85 - 86
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Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That \$193,612 be transferred from the former Federal Transit Funding Program funds to Capital Project #2320 – Dart System Improvements.

7.2.3 Street Cleaning and Sweeping Service Level [Files CK 116-2, x6315-3; PW 6315-3 and CP 0116-04]

87 - 96

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the Street Cleaning and Sweeping service level and budget allocation be rationalized during the 2018 Business Plan and Budget deliberations by recommending an option as outlined in this report; and
2. That the current service level for the Street Cleaning and Sweeping service line be approved.

7.2.4 Snow & Ice Service Design Project Update [File No. CK 6290-1 and PW 6290-1]

97 - 128

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the survey results be received as an accurate representation of how Saskatoon citizens move around in winter; and
2. That the Administration be directed to use the survey results and feedback from the co-design exercise as part of a citizen-centric approach to improving winter maintenance programs.

- 7.2.5 Request to Exceed in Excess of 25% of Purchase Order #364578 – Fabrication of Portable Sign Racks [Files CK 1000-4 and PW 1110-1]** 129 - 131

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That the Administration be given approval for Purchase Order #364578 for Fabrication of Portable Sign Racks to exceed 25% of the purchase order value.

- 7.2.6 Rail Safety Improvement Program Projects [Files CK 6170-1, x1860-1, AF 1702-1, x1860-002]** 132 - 135

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That Capital Project No. 1456 – Railway Crossing Safety Improvements and Capital Project No. 2448 – Intelligent Transportation System be increased by \$190,000 and \$64,000, respectively, which will be funded by the Rail Safety Improvement Program Grant; and
2. That His Worship the Mayor and the City Clerk be authorized to execute and deliver the contribution agreement for the projects approved for funding under the Rail Safety Improvement Program.

- 7.2.7 SaskTel Centre Traffic Review [Files CK 6320-1 and TS 6320-1]** 136 - 142

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be forwarded to City Council for information.

- 7.2.8 New School Zone and Neighbourhood Traffic Review Update – Stonebridge Neighbourhood [Files CK 5200-5 and TS 6280-3]** 143 - 148

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That a new school zone be installed for the new elementary school sites in the Stonebridge neighbourhood; and
2. That the proposed traffic calming for Stonebridge Common be installed on a trial basis.

- 7.2.9 New School Zones in Hampton Village, Evergreen and Rosewood Neighbourhoods [Files CK 5200-5 and TS 6280-3]** 149 - 155

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That a new school zone be installed for new elementary school sites in Hampton Village, Evergreen and Rosewood Neighbourhoods.

- 7.2.10 Request for Budget Adjustment – Capital Project #2266 - TU – Hwy 16 & 71st Street Intersection Upgrades [Files CK 6000-1, x1702-1 and TU 4111-56]** 156 - 159

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That a budget adjustment in the amount of \$1,000,000 be made to Capital Project #2266 – Hwy 16 & 71st Street Intersection Upgrades; and
2. That the budget adjustment be funded from the Transportation Funding Plan.

- 7.2.11 Amendment to Council Policy C07-019 – Traffic Bylaw Special Permits [Files CK 317-1 and TS 6145-1]** 160 - 174

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That Council Policy C07-019 – Traffic Bylaw Special Permits be amended as outlined in the report of the General Manager, Transportation & Utilities Department dated June 12, 2017.

- 7.2.12 Victoria Avenue Corridor between 11th Street and the Traffic Bridge [Files CK 6320-1, x6000-4, x6050-8 and TS 6320-1]** 175 - 184

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That the proposed plan for Victoria Avenue between 11th Street and the Traffic Bridge be forwarded to City Council for information.

- 7.2.13 Hampton Village Neighbourhood Traffic Review [File No. CK 6320-1]** 185 - 253

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That the Neighbourhood Traffic Review for the Hampton Village neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

- 8. URGENT BUSINESS**
- 9. MOTIONS (Notice Previously Given)**
- 10. GIVING NOTICE**
- 11. IN CAMERA AGENDA ITEMS**
- 12. ADJOURNMENT**

4250-1



April 25th, 2017

Honourable Mayor Clark and
Members of City Council
City of Saskatoon
222 – 3rd Avenue North
SASKATOON SK S7K 0J5

File No.: 2017-16

Dear Honourable Mayor Clark and Members of Council,

Re: AV Shuttle – Letter of Support

The importance of regional collaboration is well known. Through the work of the Planning for Growth initiative, we will have a clear framework for our region’s future; something which is aligned with the City of Warman’s strategic initiatives.

A regional transit service is just one of the many pieces specified in the P4G initiative and it is indicative of our willingness to collaborate on ideas and more specifically service provision amongst our three communities and the region as a whole.

It is incredibly important that our residents have access to affordable, high quality transit services and we are confident that AV Shuttle will be able to provide this to residents and visitors of our wonderful cities.

Please consider this our formal letter of support for this endeavor. We look forward to continued collaboration within our region.

Sincerely,

Sheryl Spence
Mayor – City of Warman

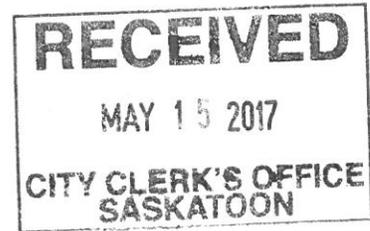
Cc: City of Warman Council

City Hall
P.O. Box 340
107 Central Street West
Warman, SK S0K 4S0
Tel: 306-933-2133
Fax: 306-933-1987
warman.ca

Public Works
P.O. Box 340
512 North Railway Street West
Warman, SK S0K 4S0
Tel: 306-933-2388
Fax: 306-933-1987
warman.ca

Recreation & Community Services
#1 - 701 Centennial Blvd
Warman, SK S0K 4S2
Tel: 306-933-2210
Fax: 306-933-2245
warman.ca

From: City Council
Sent: May 14, 2017 9:22 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Sunday, May 14, 2017 - 21:22
Submitted by anonymous user: 71.17.233.235
Submitted values are:

Date: Sunday, May 14, 2017
To: His Worship the Mayor and Members of City Council
First Name: Warrick
Last Name: Baijius
Address: 129 2nd St E
City: Saskatoon
Province: Saskatchewan
Postal Code: S7H1N3
Email: warrick.baijius@gmail.com
Comments:
Request to speak to the Standing Policy Committee on Transportation

Re: Idylwyld Bridge walkway and bridge maintenance

I would like to make a presentation to the Committee, in conjunction with Cam McMillan of Walking Saskatoon (Cam will be writing a separate letter), proposing upgrades to the Idylwyld Bridge walkway in conjunction with the upcoming bridge maintenance. I will be speaking as a member of the Idylwyld Bridge Renovation Committee, which is a committee of the Buena Vista Community Association Board.

Please let me know if you need any other information.

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/169112>

6000-5



333-10 Pearson Place
Saskatoon, Sask.
S7L 4S7

June 6, 2017

Mayor and Councillors —

I wish to speak at the Transport-
ation Meeting on Monday, June 12.
This is regarding downtown
bike lanes.

Thank you,
Harry Feder

New Sidewalks Program Update

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be received as information.

Topic and Purpose

The purpose of this report is to provide an update on the New Sidewalks program on the process for prioritizing missing sidewalk locations, and the possibility of creating a new reserve for the work required.

Report Highlights

1. The current criteria for prioritizing locations for new sidewalks is as follows:
 - Priority 1: Locations are driven by resident requests and neighbourhood traffic reviews;
 - Priority 2: Locations are in high pedestrian areas; and
 - Priority 3: Locations are in areas with an existing sidewalk along one side of the road.
2. A list of the recommended 2017 and 2018 new sidewalk projects has been identified in consideration of currently available Public Transit Infrastructure Funding (PTIF).

Strategic Goal

This report supports the Strategic Goal of Moving Around by developing an integrated transportation network that is practical and useful for pedestrians, and aligns with the priority to explore options to improve the curb, sidewalk, and facility accessibility for people with limited physical mobility.

Background

During consideration of the Transportation Business Line at the 2016 Preliminary Business Plan and Budget meeting held on November 30 and December 1, 2015, City Council resolved:

“That the Administration report to the Standing Policy Committee on Transportation regarding the process for prioritizing missing sidewalk locations and information on whether or not creation of a new reserve to fund this work would be warranted.”

Previously named Capital Project #0948 - Sidewalk/Pathway Retrofit Program was created in 2006 to address streets constructed as part of an original design that did not include sidewalks due to the design standards of the day. For clarity, this capital project has been renamed Capital Project #0948 - New Sidewalks and Pathways.

In 2011, an inventory of streets requiring sidewalks was completed and prioritized based on a set of specific criteria.

Construction proceeded as funding was made available. Historically, the program has not included retrofitting sidewalks in industrial areas or arterial roads.

City Council, at its meeting held on June 27, 2016, approved the Active Transportation Plan, and resolved, in part:

- “3. That the Administration report back with an implementation plan for the period of 2017 to 2021 with specific action items, funding and staffing resources identified.”

Effective September 15, 2016, several of the Growth Plan, Active Transportation Plan and Transit projects received approval for federal funding support through Phase 1 of PTIF. PTIF funding can be used to fund projects for transit system expansion, which may include active transportation.

Report

Current Prioritization Method

Missing sidewalks are currently prioritized based on the following criteria:

- Priority 1: Locations primarily include outstanding resident requests, recommendations from neighbourhood traffic reviews, and locations where no sidewalks exist on either side of the roadway;
- Priority 2: Locations around high pedestrian areas such as parks, schools, and public facilities; and
- Priority 3: Locations that have sidewalk along one side of the roadway, but do not lead to a park, school, senior’s complex, or public facility.

This approach to prioritizing missing sidewalks has been followed since 2009 and a review is currently in progress through the Active Transportation Plan. Further updates will be provided in early 2018 to formally revise the prioritization criteria and reflect the Active Transportation Plan and other considerations such as coordination with other modes of travel. A long-term funding strategy for construction of new sidewalks will be developed as part of the Active Transportation Plan.

2017 and 2018 Sidewalk Projects

A total of \$2.3 Million of PTIF funding has been approved to construct new sidewalks to support transit. The process used to develop the 2017 and 2018 new sidewalk locations included:

1. Priority 1 locations
2. Remove Priority 1 locations that do not support transit
3. Add locations as suggested by Saskatoon Transit
4. Review preliminary list to identify constraints such as trees or utilities
5. Finalize the list for construction

The recommended projects for the 2017 and 2018 New Sidewalk program details are listed in Attachment 1.

Public and/or Stakeholder Involvement

As part of standard procedures, construction notices will be delivered to adjacent property owners.

Communication Plan

Information on the program will be added to the City's website. Adjacent property owners will be notified prior to construction.

Financial Implications

There is sufficient funding within Capital Project #0948 – New Sidewalks and Pathways to undertake the work in 2017 and 2018.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Construction will proceed in 2017 and will continue into 2018. Further reporting on revised prioritization criteria and long-term funding strategies will occur in early 2018.

Public Notice

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

Attachment

1. 2017 and 2018 PTIF Supported New Sidewalk Projects

Report Approval

Written by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JM – New Sidewalks Program Update

2017 and 2018 PTIF Supported New Sidewalk Projects

Street	From	To	Length	Cost Estimate (\$350/linear metre)	Width
Ruth Street (north side)	Clarence Avenue	Haultain Avenue	190	\$ 61,750	1.8
115th Street	Dunlop Street	Laura Avenue	320	\$ 104,000	1.8
Wellington Street (south side)	Avenue M	Avenue O	150	\$ 48,750	1.8
33rd Street (south side)	Edmonton Avenue	Avenue P	280	\$ 91,000	1.8
8th Street (south side)	Acadia Drive	Moss Avenue	130	\$ 42,250	2.5
Cope Crescent	Cope Crescent	Cope Lane	150	\$ 48,750	1.8
Cumberland Avenue	Main Street	10th Street	95	\$ 30,875	1.8
Cumberland Avenue	14th Street	Colony Street	220	\$ 71,500	1.8
McKercher Drive	Boychuk Drive	College Drive (east side)	150	\$ 48,750	2.5
Stonebridge Blvd (south side)	Wellman Crescent	Cornish Road	215	\$ 69,875	1.8
Avenue I (west side)	36th Street	38th Street	330	\$ 107,250	1.8
Clarence Avenue	Glasgow Street	Bus stop to south	25	\$ 8,125	2.5
Ontario Avenue (east side)	34th Street	39th Street	470	\$ 152,750	1.8
Edward Avenue (east side)	Balmoral Street	St. Paul School playground	70	\$ 22,750	1.8
8th Street (south side)	McKercher Drive	Golf course entrance	210	\$ 68,250	2.5
11th Street Bypass (north side)	CDS	Fairlight Drive	1560	\$ 507,000	2.5
Central Avenue	105th Street	South	65	\$ 21,125	1.8
Clarence Avenue	Brand Road	Stonebridge Boulevard	150	\$ 48,750	2.5
Diefenbaker Drive (west side)	22nd Street	Laurier Drive	355	\$ 115,375	2.5
Konihowski Road	Pobran Crescent	Le May Crescent	65	\$ 21,125	1.8
23rd Street (north side)	Avenue D (midblock)	Avenue E	50	\$ 16,250	1.8
23rd Street (north side)	Avenue B	Avenue D	180	\$ 58,500	1.8
Lansdowne Avenue (west side)	13th Street	14th Street	70	\$ 22,750	1.8
Reid Road	Adolph Crescent (S) to	Alley	95	\$ 30,875	1.8
Witney Avenue (east side)	22nd Street	23rd Street	75	\$ 24,375	1.8
Ruth Street (south side)	St. Patrick Avenue	St. George Avenue Quebec	70	\$ 22,750	1.8
36th Street W (north side)	Idylwyld Freeway	Avenue	410	\$ 133,250	1.8
Avenue C (east side)	South side of Railroad	42nd Street	280	\$ 91,000	1.8
Schuyler Street (north side)	Avenue N	Avenue O	90	\$ 29,250	1.8
Witney Avenue (west side)	29th Street	Rylston Road	165	\$ 53,625	2.5
TOTAL=				\$2,172,625	

Transportation 2016 Annual Report

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be received as information.

Topic and Purpose

This report is to present the Transportation 2016 Annual Report outlining the division's performance in 2016.

Report Highlights

1. Our People – 67% reduction in motor vehicle collisions involving staff, developed two new Division policies – General Health and Safety, and Hazard Identification, Assessment and Control.
2. Our Finances – division revenues were up 98% from new permit application fees on right-of-way, curb crossing and over dimensional permits.
3. Our Work – community engagement was a significant focus, with approximately 150 hours spent attending public meetings throughout the city.
4. Our Statistics – overall increase in inventory of transportation assets and a steady increase in the volume of work continues.
5. Our Performance Measures – continued focus on cycling initiatives, creating more choice for moving around and reducing traffic collisions.
6. Our Future – supporting 4-year priorities and 10-year strategies.

Strategic Goal

This report supports the Strategic Goal of Moving Around by improving transportation safety and optimizing the flow of people and goods in and around the city.

Background

The City of Saskatoon Transportation division provides services for the safe and efficient movement of people, goods and services within and through the city in a cost-effective manner. The division is responsible for the planning, design, regulation and operation of the city's transportation network; traffic management and right-of-way operations and regulatory control.

Report

Attachment 1 outlines the achievements of the division in 2016.

Our People

In 2016, the division undertook the following initiatives to improve employee safety:

- Developed two division policies:
 - Health and Safety Game Plan
 - Hazard Identification, Assessment and Control

- Created a corrective actions tracking system through the SharePoint program
- Conducted hearing tests for those at risk of over-exposure
- Drafted two program safe operating procedures
- Provided Defensive Driving training to all staff

Our Finances

The division's main source of external revenue is from the Provincial Urban Highway Connector Program, an annual operating grant for the traffic signing and pavement-marking services done on Provincial Connector roadways. Other revenues include as follows:

- Permit application fees for right-of-way
- Curb crossing and over dimensional permits
- Road/lane closure application fees
- Boulevard leases
- Newspaper vending machine fees

In 2016, revenues were \$0.23 Million, an increase of 98.54% from 2015 derived from the newly implemented application fees for permits.

The 2016 operating expenses were \$8.6 Million or 10.06% more than 2015 operating expenses of \$7.82 Million. Compared to the 2016 Budget, the operating expenses were 2.42% higher than the budgeted amount of \$8.4 Million. The operational expense increase is due to a higher volume of work and requires more material, staff and equipment to support the growing needs of the city.

Capital Investments accounted for a total of \$22.16 Million for 28 projects.

Our Work

In keeping with our corporate values, the division recognizes the importance of engaging with the community. In 2016, staff attended a total of 17 public meetings throughout the city, accounting for approximately 150 staff hours.

Consultation with residents and stakeholder groups led in the development of a vision and goals for the City's Active Transportation Plan (ATP). The discussion also resolved to have key directions and action items to improve active transportation facilities, policies and standards, and support programs over the next 30 to 40 years. The ATP includes a target to double the proportionate daily walking and cycling trips by 2045.

The ATP contains an 80 point action plan organized around the following six themes:

1. Improving Connectivity
2. Safety and Security
3. Convenience
4. Land use and Growth
5. Maintenance and Accessibility
6. Education and Awareness

The ATP was approved by City Council in June 2016.

Each year, the Project Management Institute, North Saskatchewan Chapter (PMI-NSC) recognizes one project that best demonstrates exceptional performance, leadership and delivers significant value and return on investment for the customer. This year, the City of Saskatoon's Neighbourhood Traffic Review program was awarded the prestigious honour for its community-wide approach to resolving traffic issues built around working together for solutions through engagement with residents.

In 2016, an In-Service Safety Review of Roadside Safety Systems was completed on safety systems infrastructure associated with the City's high-speed roadways. All existing elements of safety systems were examined along Circle Drive and Idylwyld Drive including: crash cushions, roadside barriers, median barriers, poles, piers and guide-high safety signs, and guardrails on low-speed roads which may be associated with bridge piers and embankments. The standards of contemporary engineering safety and maintenance were met in the review as follows:

- Identified safety infrastructure gaps or deficiencies that exist along the network;
- Recommended a replacement and installation program, including a cost estimate;
- Identified best-practice maintenance programs for existing and recommended safety systems;
- Developed and/or recommended appropriate warrants; and
- Provided an In-Service Safety Review of existing safety concerns.

Recommendations were prioritized based on the potential severity of a collision, the possibility of a collision (based on traffic volumes and vehicle composition) and the overall level of risk. A three-phase implementation plan has been developed for ongoing replacement and maintenance of systems to reduce the severity of a collision, minimize the opportunity for a collision, and reduce the overall level of risk.

Our Statistics

The inventory of the division's assets continues to increase in 2016.

- Six new traffic signals (including pedestrian signals and corridors) were installed, bringing the total number of signalized intersections to 281.
- Over 60 lane kilometres of durable markings are installed throughout the city and almost 1,000 kilometres of lines are painted each year.
- Work orders for signage installations or modifications increased by 111% over 2014.
- 198 special events were held that impacted the transportation network requiring detour coordination support. This is a 69% increase over 2014.

Our Performance Measures

- In 2016, 1.7 km of cycling infrastructure was added, and the next phase of the pilot project for protected bike lanes was implemented along 4th Avenue.

- The number of collisions in Saskatoon slightly increased 1% between 2014 and 2015. Traffic collision statistics are received from Saskatchewan Government Insurance and typically lag by approximately 6 months.

Our Future

The division continues to support the Corporate Strategic Plan by focusing on the following initiatives:

- Utilize Service Saskatoon – clarify and communicate roles; develop standard responses to customer service staff; and communicate service levels and priority lists once completed
- Establish service levels – formalize asset management program for signals, signs and pavement markings; formalize policy for durable markings; develop policies for prioritizing infrastructure improvements; streamline processes and clarify roles to provide timely responses
- Increase transit ridership – continue to support the introduction of rapid transit
- Create incentives to promote density – continue to invest in pedestrian facilities (sidewalks) in existing areas
- Evaluate winter cities using a demonstration project for separated bike lanes and continue to support the implementation of the ATP
- Optimize the flow of people and goods in and around the city by continuing to implement prioritized infrastructure improvements and to begin implementation of initiatives from the Intelligent Transportation Solutions Strategy
- Develop an integrated transportation network that is practical and useful for all modes of transportation by developing a Transportation Master Plan using outputs from the Growth Plan ATP, and continue to include pedestrian and cycling facilities in all new transportation infrastructure design and construction
- Ensure that roads, streets, sidewalks and bridges repairs are of high quality – formalize asset management program for signals, signs and pavement markings

Communication Plan

A copy of the Transportation 2016 Annual Report will be posted on the City website and shared with the staff.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, policy, financial, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

This report will be provided annually.

Public Notice

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

Attachment

1. Transportation 2016 Annual Report

Report Approval

Written by: Chris Helt, Special Projects Manager, Transportation
Reviewed by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation &
Utilities Department

TRANS CH – Transportation 2016 Annual Report

Transportation

2016 Annual Report



City of
Saskatoon

Transportation & Utilities Department

Transportation Division 2016 Annual Report

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MESSAGE FROM THE DIRECTOR

Transportation division's management and staff are stewards of Saskatoon's transportation network and are committed to providing safe, reliable, and timely options for travel in the City. The division provides expertise and direction to City Council, colleagues, property and business owners, and other organizations. I am pleased to present our results in the Transportation Division 2016 Annual Report on behalf of our division.

The report outlines our contributions to achieving the City's Strategic Plan. We take great pride in providing leadership, education, and engagement on City transportation systems. Several initiatives have been completed and more are underway that will further enhance service to citizens, increase efficiencies and reduce costs.

Our financial statements show responsible stewardship of the resources that Saskatoon citizens have entrusted to us. We continue to provide excellent value to our citizens as we identify opportunities to improve efficiencies, reduce capital costs and minimize impacts to ongoing operating expenditures.

Our key focus has been on proactively managing the performance of the transportation network, prioritizing infrastructure investments, and providing more choice to move around the city using alternative modes of transportation.

Internally we continue to ensure our employees are provided with a safe and respectful work environment. Personal and professional development is key to becoming the best managed city in the country.

The division will continue to plan for the future and make needed investments to our transportation infrastructure to manage existing demands and address the challenges of growth.



Angela Gardiner
Director of Transportation

1.0 EXECUTIVE SUMMARY

The division contributes to the City's Strategic Goal of Moving Around and Sustainable Growth by providing services for the safe and efficient movement of people, goods and services within and through the city in a cost-effective manner. The division is responsible for the planning, design, regulation and operation of the city's transportation network. The division has 85 employees during peak summer season. In 2016, the division's operating budget increased by 7.64% with operating expenses of \$8.6 Million. The increase is primarily due to the City's growth and expansion which increased the volume of work for traffic operations and control, customer support as well for planning of future developments.

Capital investments included 28 funded projects at a total of \$22.16 Million. Significant investments were made in 3 areas including traffic noise sound attenuation, intersection improvements to enhance safety and efficiency and active transportation. Implementation of recommendations from the ongoing neighbourhood traffic reviews continued in 2016.

2.0 TRANSPORTATION DIVISION

As part of the City of Saskatoon, the division provides services for the safe and efficient movement of people, goods and services within and through the city in a cost-effective manner.

2.1 Our Mission

The division are stewards of Saskatoon's transportation network. We are responsible to citizens and visitors to provide:

- Safe, reliable, and timely options for travel in the city.
- Expertise and direction to City Council, colleagues, property and business owners, and other organizations.
- Leadership, education, and engagement on City transportation systems.
- Injury-free work places.

2.2 Our Guiding Principles

- **Safety:** through due diligence we plan for a safe city. We maintain a safe workplace and environment for workers and the public in everything that we do.
- **Trust & Reliability:** we are competent, reliable, and proven in the service that we provide. To maintain our integrity we have a transparent process. Citizens trust us to make good decisions.
- **Continuous Improvement:** we keep with the growth of the City while improving our processes, education, team work, public input: we identify and improve efficiencies.
- **Accountability:** we honour commitments through public service. We build and maintain public confidence through consistent and timely feedback and delivery.
- **Teamwork:** we work together as a team. We communicate, cooperate, engage and gather input from others when making decisions.

2.3 Our Core Services

- Planning and designing safe, reliable and timely options for travel in the city.
- Installing and maintaining safe, reliable and timely options for travel in the city.
- Providing leadership, education and engagement on City transportation systems.
- Providing oversight and strategies to ensure the City's Transportation network and systems are in alignment with the Corporate Strategic Plan.

2.4 Our Corporate Values

Trust: We build trust with citizens and colleagues by providing accurate technical information, analysis and responses in a timely manner.

Integrity: We lead by example, making the best decisions and striving to work beyond the scope of the position.

Respect: We build on each other's strengths, respectfully acknowledging individual beliefs.

Honesty: We are honest to each other, and encourage frank, honest discussions while being sincere, admitting mistakes and learning from them.

Courage: We take smart risks, thinking through challenges, suggesting new approaches and embracing change to enhance our level of service.

3.0 OUR PEOPLE

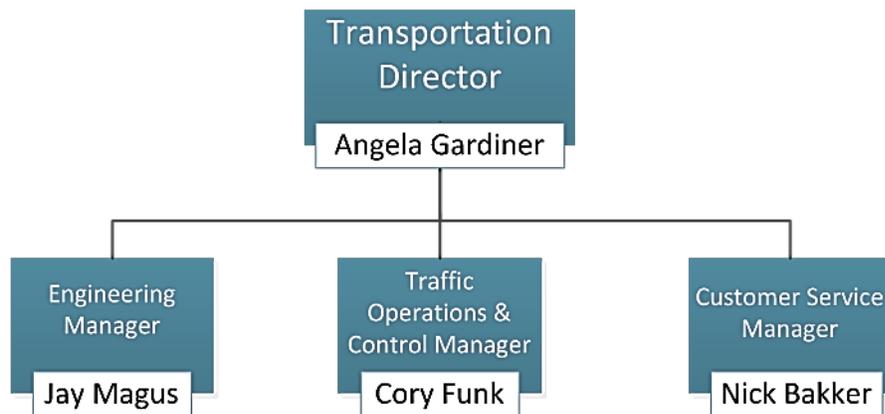
3.1 Number of Employees

Transportation had 62 permanent year-round staff, 18 seasonal and 3 temporary staff in 2016.

3.2 Representative Workforce

Equity Group	Year-Round Staff	All Staff (including seasonal)	Saskatchewan Human Rights Commission Goal
Women	16.9%	20%	46%
Aboriginal	1.5%	8.2%	14%
Disability	0.0%	1.2%	12.4%
Visible Minority	9.2%	8.2%	11%

3.3 Organizational Chart



3.4 Employee Safety

In 2016, we successfully completed our Health and Safety Game Plan:

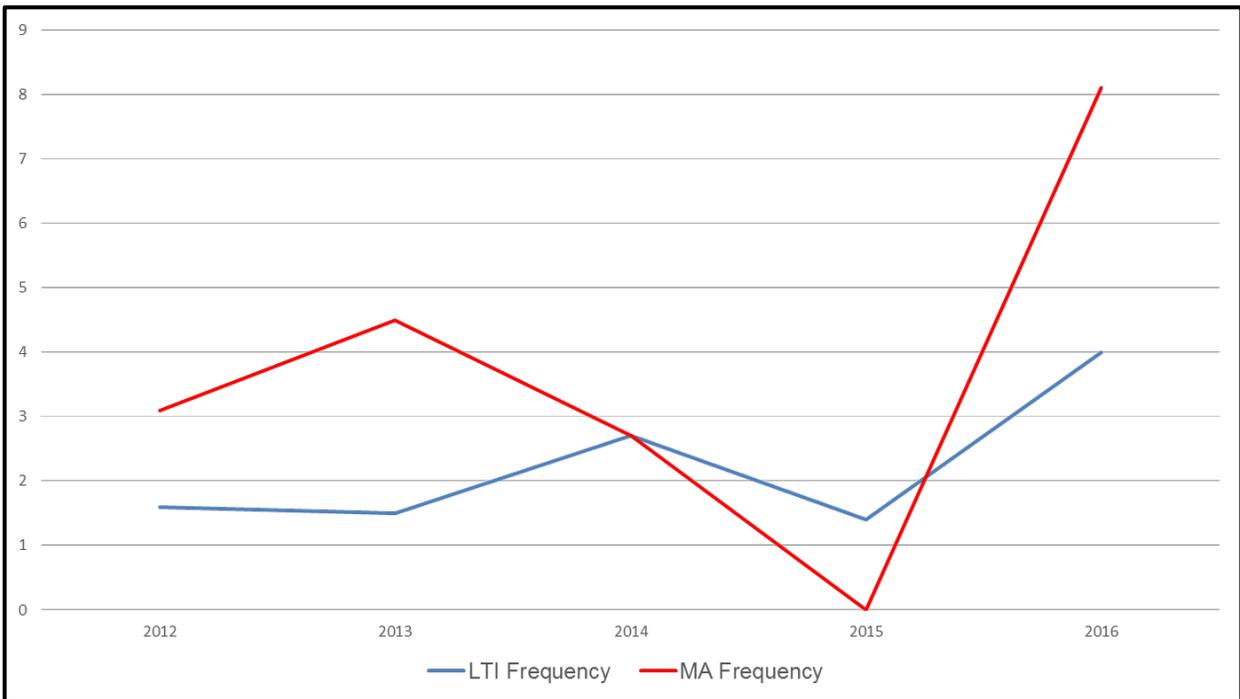
- Developed 2 Division Policies: General Health and Safety Policy, and Hazard Identification, Assessment and Control Policy
- Created a SharePoint program for tracking corrective actions
- Conducted hearing tests for those at risk of over exposure
- Drafted 2 Program Safe Operating Procedures
- Provided Defensive Driving training to all staff



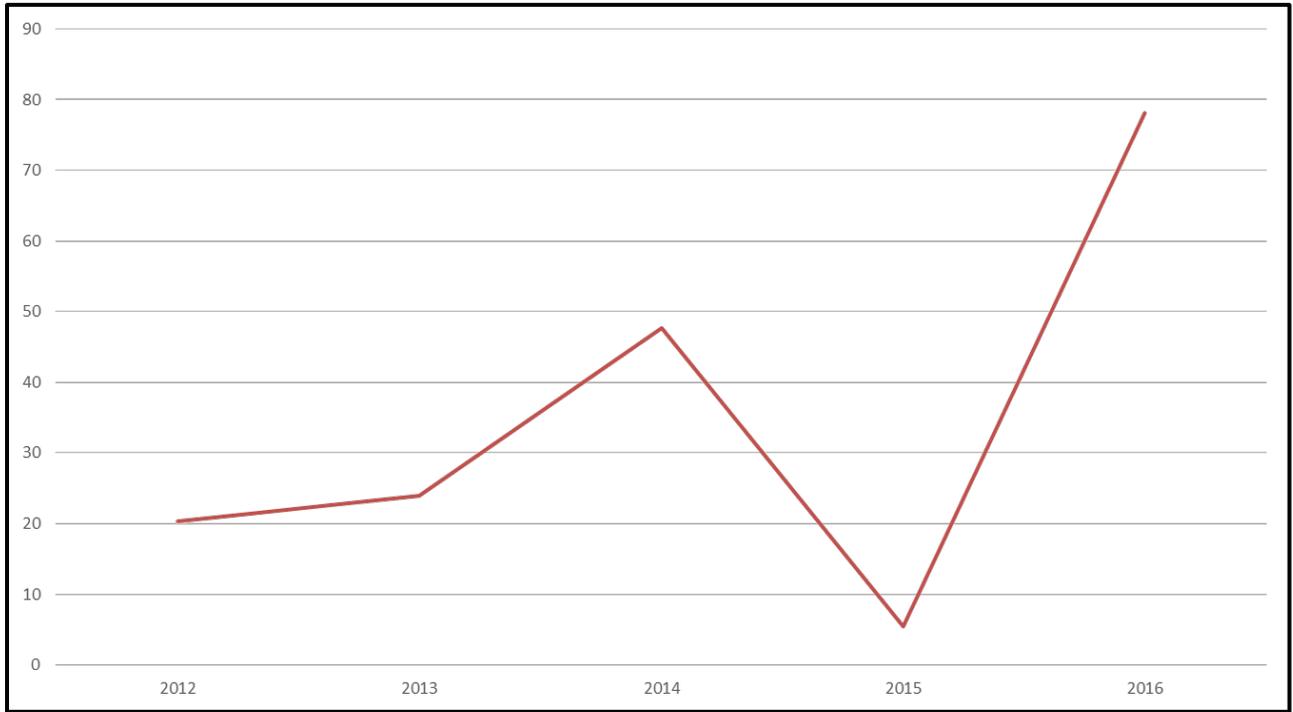
Proactive Initiatives (leading indicators)

Item	2016	2015	2014
Safety Meetings	97%	95%	87%
Tool Box Talks	75%	77%	24%
Work Observations	180 completed	118	19
Workplace Inspections	92%	92%	0%

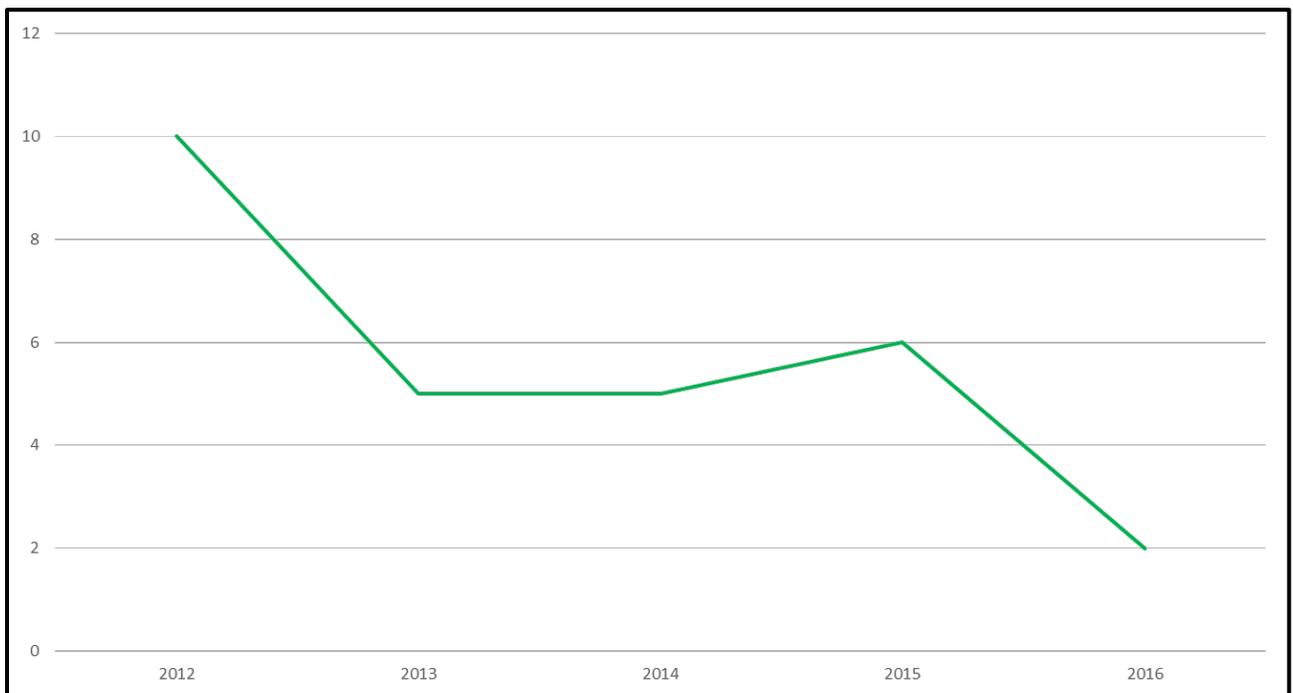
Incident Statistics (lagging indicators)



Lost Time Incident Frequency and Medical Aid Frequency



Injury Severity



Motor Vehicle Collisions

4.0 OUR FINANCES

4.1 Revenues

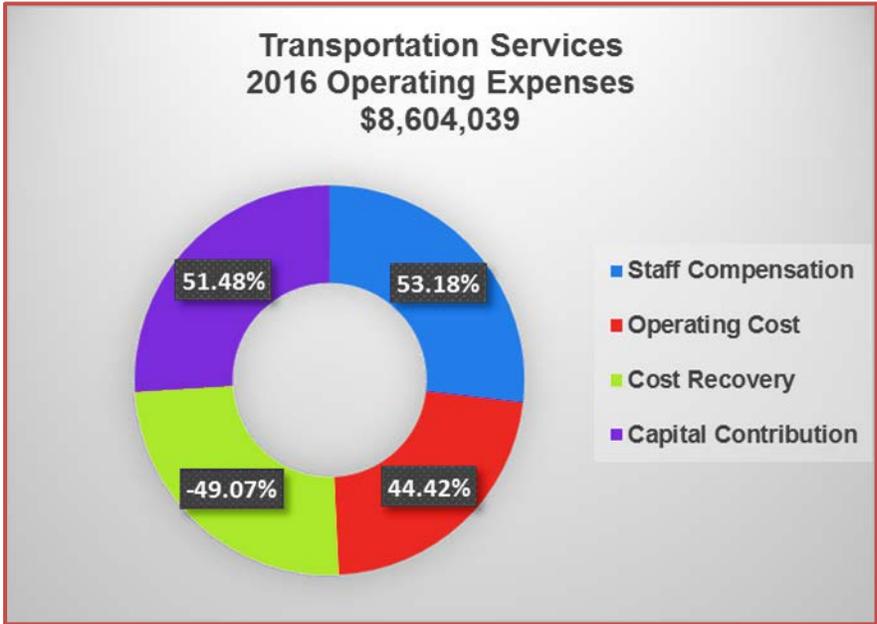
Transportation division's 2016 revenues were \$0.23 Million, an increase of 98.54% from 2015 revenues of \$0.11 Million. The increase was due to the new revenue collection from Administrative fees related to right-of-way, sidewalks/crossing and vehicle permits introduced by the City in 2016. The actual revenues were lower by 24.38% compared to the budgeted amount of \$0.29 Million, mainly due to overestimation for the new permits revenue.

The main sources of revenue are from the Urban Highway Connector Program, annual operating grant for the traffic signing and pavement-marking services done on the Provincial Connector Roadways and from right-of-way, sidewalk/crossing and vehicle permit fees. Other revenues include road/lane closure application fees, boulevard leases and newspaper vending machines fees.

4.2 Expenses

Transportation division's 2016 operating expenses were \$8.60 Million or 10.06% more than 2015 operating expenses of \$7.82 Million. Compared to the 2016 Budget, operating expenses were 2.42% higher than the budgeted amount of \$8.40 Million, mainly due to extra material, staff and equipment needed for the increase in maintenance costs of Sign Shop operations

The distribution of the division's 2015 operating expenses are illustrated in the following chart:



- Staff Compensation of \$4.58 million includes total wages and salaries, payroll costs and benefits associated with staff allocated to operations; planning, design and regulating the city's transportation network; and permit issuance for the following uses: private use of City's right of way, commercial vehicle travel and curb / sidewalk crossing.
- Operating Cost of \$3.82 million includes total cost for materials and supplies, equipment, contractual services, utilities/electricity, administration and other miscellaneous expenses. These expenses have been incurred for managing the existing transportation network; for maintaining and operating the City's traffic signal system; for manufacturing, installation and maintenance of traffic signs; for marking of street lines, crosswalk and parking stalls; and for the planning and coordination of detours.
- Cost Recovery of \$4.22 million is related to charges applied to other divisions and departments, to external customers, and to certain capital projects for construction sign rental; sign and barricades installation; underground infrastructure; traffic counts; signs installation in new neighbourhoods, repairs for damages of City's property etc.
- Capital Contribution of \$4.43 million includes \$0.06 million contribution to IS Capital Reserve; \$0.05 million contribution to Transportation Infrastructure Reserve (IR); \$0.50 million to Active Transportation Reserve; \$1.97 million to Transportation Infrastructure Expansion Reserve (TIER); and \$1.85 million to Traffic Noise Attenuation Reserve.

Higher operating cost and cost recovery in 2016 is due to City's growth and expansion which increased the volume of work for traffic operations and control, customer support as well for planning of future developments.

Transportation Division Statement of Operations For the Year Ended December 31, 2016(\$000's)			
	2015 Budget	2016 Actuals	2015 Actuals
Revenue	\$(298.5)	\$(225.7)	\$(113.7)
Expenses			
Staff Compensation	3,704.0	4,575.4	4,284.9
Operating Cost	3,169.4	3,821.6	3,696.4
Cost Recovery	(2,901.5)	(4,222.0)	(3,967.7)
Capital Contribution	4,429.0	4,429.0	3,804.2
	8,400.9	8,604.0	7,817.8
Net Operations	\$8,102	\$8,378	\$7,704

4.3 Capital Investments

Transportation division's 2016 capital investments included 28 funded projects for a total of \$22.16 Million. Total number of funded projects is higher by nine than 2015, but the investment is lower by \$50.86 Million. The higher investment in 2015 is due to the design and construction of grade separations at both the McOrmond Drive / College Drive intersection and the Boychuk Drive / Highway 16 intersection for a total of \$70.00 Million.

A summary of capital investments for 2016 compared to 2015 is presented in the following table:

Transportation Division Capital Investments (\$'000's)		
Funded Capital Projects	2016 Budget	2015 Budget
P0631 TU-TRANSPORTATION SAFETY IMPROVEMENTS	\$100.0	\$60.0
P0948 TU-NEW SIDEWALKS AND PATHWAYS	391.0	\$0.0
P1036 TU-TRAFFIC CONTROL UPGRADES	100.0	100.0
P1137 TU-BICYCLE FACILITIES	679.0	75.0
P1456 TU-RAILWAY CROSSING SAFETY IMPROVEMENTS	50.0	75.0
P1504 TU-NEIGH.TRAFFIC REVIEW PERMANENT INSTALLATIONS	610.0	0.0
P1505 TU-TRAFFIC SIGNAL UPGRADES	390.0	400.0
P1506 TU-TRAFFIC SIGNING REPLACE-INFRA	390.0	400.0
P1507 TU-GUARDRAILS	110.0	240.0
P1512 TU-NEIGHBOURHOOD TRAFFIC MANAGEMENT	410.0	350.0
P1513 TU-PAVEMENT MARKING PROGRAM	200.0	200.0
P1522 TU-TRAFFIC NOISE ATTENUATION	15,455.0	423.0
P1556 TU-SYSTEM UPGRADES/REPLACEMENTS	100.0	50.0
P1963 TU- CORP. ACCESSIBILITY IMPLEMENTATION	100.0	100.0
P2011 TU-TRANSPORTATION MODEL IMPLEMENTATION	50.0	0.0
P2016 TU-BOYCHUK DR/HWY 16 GRADE SEPARATION	0.0	35,000.0
P2017 TU-MCORMOND DRIVE/HWY 5 GRADE SEPARATION	0.0	35,000.0
P2233 TU-ADVANCED TRAFFIC MGT SYSTEM	100.0	60.0
P2234 TU-WALKWAY MANAGEMENT	110.0	0.0
P2235 TU- INTERSECTION IMPROVEMENTS	1,750.0	0.0
P2241 TU-TRUCK ENFORCEMENT/EDUCATION	50.0	0.0
P2265 TU-TRANSPORTATION EQUIPMENT ACQUISITIONS	150.0	0.0
P2428 TU-FUNCTIONAL PLANNING STUDIES	50.0	50.0
P2434 TU-HWY 11 & HWY 16 CLOVERLEAF	200.0	0.0
P2436 TU-CORRIDOR PLANNING STUDIES	75.0	0.0
P2445 TU-FREEWAYS & EXPRESSWAYS	100.0	0.0
P2446 TU-PEDESTRIAN CROSSING IMPROVEMENTS	265.0	170.0
P2448 TU-INTELLIGENT TRANSPORTATION SYSTEM	120.0	0.0
P2548 TU-INTERSECTION UPGRADES FOR MAJOR DISABILITY RAMP REPAIRS	180.0	0.0
P2549 TU-STOP/YIELD INFILL PROGRAM	0.0	65.0
P2550 TU-WEST/CENTRAL MULTI-USE CORRIDOR	0.0	150.0
P2551 TU-ACTIVE TRANSPORTATION PLAN	75.0	150.0
Total	\$22,360.0	\$73,118.0

5.0 OUR WORK

5.1. Community Engagement/Public Education/Awareness

In keeping with our corporate values, we recognize the importance of engaging citizens. For this reason, engaging with the community is a priority. In 2016, the division staff attended a total of 15 public meetings throughout the city (approximately 150 staff hours). The majority of engagement supported the Neighbourhood Traffic Review (NTR) program.

Meeting	Staff Attending
Grosvenor Park NTR	4
Silverspring NTR	5
Parkridge NTR	4
Sutherland NTR	3
Hampton Village NTR	5
Willowgrove NTR	3
Lakeridge NTR	5
Stonebridge NTR	3
Grosvenor Park NTR (2 nd meeting)	4
Silverspring NTR (2 nd meeting)	4
Parkridge NTR (2 nd meeting)	5
Sutherland NTR (2 nd meeting)	5
Hampton Village NTR (2 nd meeting)	5
Willowgrove NTR (2 nd meeting)	3
Lakeridge NTR (2 nd meeting)	3
Highway 16 / 11 Interchange Review	3
South West Transportation Study	4

5.1.1 Learn to Ride Safe Program

As a child, our first vehicle is learning to ride a bicycle and how to apply the rules of the road. The Learn to Ride Safe Program is an important step in ensuring that they develop safe and responsible cycling habits. This program was developed in 2009 and aims at presenting effective skills to prevent cycling injuries to grade three children, aged eight and nine. This program introduces children to the proper use of a bicycle, the attitudes, knowledge and skills, which can be applied later in life when learning to use a motor vehicle.

This program is based on principles of the Canadian Cycling Association CAN-BIKE Program and was presented to students by trained and certified CAN-BIKE instructors. Since the program was implemented, 14,382 students have taken part.

In 2016, this program was delivered to 78 classrooms in 43 schools to a total of 1,991 students in Saskatoon. Following the program's delivery, a survey was undertaken of the teachers whose pupil's participated and they overwhelmingly welcomed the program back in future years.

5.1.2 2016 Neighbourhood Traffic Reviews

The objective of the Neighbourhood Traffic Review Program is to address traffic concerns within residential 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 revised program involves enhanced community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The Traffic Calming Guidelines and Tools, City of Saskatoon, 2013 outlines the process.

In 2016, traffic plans were developed for the following neighbourhoods:

- Grosvenor Park
- Hampton Village
- Lakeridge
- Parkridge
- Silverspring
- Stonebridge
- Sutherland
- Willowgrove

Since the program was initiated in late 2013, a number of recommendations have been implemented as shown in the table below:

Neighborhood	No. of Proposed Recommendations	No. Completed
Adelaide-Churchill	25	In progress
Avalon	15	13
Brevoort Park	17	15
Caswell Hill	21	17
City Park	11	9
Confederation Park	9	6
Greystone Heights	24	In progress
Haultain	17	11
Holliston	14	14
Hudson Bay Park	10	9
Kelsey-Woodlawn	11	7
Lakeview	15	13
Mayfair	37	32
Meadowgreen	12	9
Montgomery Place	27	26
Mount Royal	17	In progress
Nutana	26	24
Varsity View	18	16
Westmount	13	12

5.2 Traffic Safety

5.2.1 Prioritization Strategy for Roadway Network Improvements

Transportation network improvement projects are brought forward as part of the annual budget process and many factors are considered when bringing forward recommended projects. New initiatives, such as the Neighbourhood Traffic Review program, result in additional sources of projects that need to be considered by City Council during budget deliberations. Other identified sources of projects include:

- Intersection Improvement Reviews
- Corridor Reviews
- Pedestrian Crossing Control Reviews
- Major Infrastructure Reviews

Infrastructure improvement projects resulting from the various reviews are included in the appropriate Capital Budget program and prioritized largely based on safety, traffic volumes, funding availability, funding sources, and opportunities to coordinate with projects. A formal policy framework was developed in 2016 that is used to prioritize projects within each of the categories listed above, and prioritize between categories.

The Growth Plan and the Active Transportation Plan are also used to assist in the prioritization of projects related to other modes of travel including walking, cycling and transit.

5.2.2 Red Light Camera Program

In October 2005, the City installed Red Light Cameras (RLC) at the intersection of Avenue C and Circle Drive to improve traffic safety. Since then, RLC's have been installed at three other intersections:

- Preston Avenue and 8th Street East
- 51st Street and Warman Road
- Idylwyld Drive and 33rd Street



The effectiveness of the RLC program is monitored on an ongoing basis. The collision history shows that overall the RLC program has been effective in reducing right angle collisions, which are considered to be the most serious type of collision. Injury and fatality rates at these locations have also been reduced. It is not uncommon for rear-end collisions to increase with the installation of RLC's. The collision rate for an intersection is expressed as 'collisions per million entering vehicles', and is used to factor in changes in traffic volumes through an intersection.

Since the cameras were installed in 2005:

- Right Angle collisions (most severe) have reduced by 36% on average
- Left turn opposite collisions have increased by 1% on average
- Rear End collisions have increased by 27% on average

There were 14,184 tickets issued in 2016. Revenue from the RLC program is allocated into the Traffic Safety Reserve to fund safety improvement programs on the network for all users.

5.2.3 Automated Speed Enforcement Program (SGI Pilot Program)

In 2013, the Government of Saskatchewan announced the implementation of an Automated Speed Enforcement (ASE) pilot project to slow drivers down through high speed, high collision, and high traffic volume areas around the province. In Saskatoon, five locations along Circle Drive and five school zones were selected for the implementation of the provincial pilot project. The pilot project began March 8, 2015.

The five camera locations along Circle Drive include:

- Airport Drive
- Circle Drive South Bridge
- Preston Avenue
- Taylor Street
- 108th Street

The five school zone locations selected are:

- St. Michael Community School (33rd Street East)
- École Henry Kelsey School (Valens Drive - the camera is installed on 33rd Street West)
- Brownell School (Russell Road)
- École Canadienne-Française (Albert Avenue - the camera is installed on Clarence Avenue)
- Mother Teresa School and Silverspring School (Koniowski Road)

In 2016, 13,839 tickets were issued. The City's portion of the revenue from the ASE program is allocated into the Traffic Safety Reserve to fund programs to improve safety on the network for all users.

The preliminary impact of the pilot program is being assessed by SGI, with input from the Saskatoon Police Service (SPS) and the City. The initial results for Saskatoon are indicate:

- Average violation rates on Circle Drive are 0.4%, less than the target rate of 1% set by SGI
- Average violation rates in school zones reduced from 8.7% in May 2015 to less than 1% in June 2016. The average violation rate is 2.5%

5.2.4 High Speed Roadside Safety System Review

In 2016, an In-Service Safety Review of Roadside Safety Systems was completed to examine all existing safety systems infrastructure associated with the City's high-speed roadways. The In-Service Safety Review examined all existing elements of safety systems along Circle Drive and Idylwyld Drive including crash cushions, roadside barriers, median barriers, poles, piers and guide-high safety signs. Guardrails on low-speed roads which may be associated with bridge piers and embankments were also included. To ensure contemporary engineering safety and maintenance standards, the review included the following:

- Identifying safety infrastructure gaps or deficiencies that exist along the network;
- Recommending a replacement and installation program, including a cost estimate;
- Identifying best-practice maintenance programs for existing and recommended safety systems;
- Developing and/or recommending appropriate warrants; and
- Providing an In-Service Safety Review of existing safety concerns.

The recommendations from the review were prioritized based on the potential severity of a collision, the possibility of a collision (based on traffic volumes and vehicle composition) and the overall level of risk. A three-phase implementation plan has been developed for ongoing replacement and maintenance of systems to reduce the severity of a collision, minimize the opportunity for a collision, and overall level of risk.

5.3 Network Monitoring

The Transportation division monitors the operation of the transportation network and has been carrying out traffic volume studies on Saskatoon streets extensively since 1960. This data, besides being used for traffic planning, control, and operations purposes by City staff, has been made available to commercial enterprises, other City departments, safety organizations, research groups, and the general public. It is not feasible to count all streets in Saskatoon daily for an entire year; therefore, a sampling and expansion procedure is used.

Eight permanent locations continually record traffic volumes on an hourly basis throughout the year. In addition to the permanent count stations, short-term count stations have been established at which seven-day counts are carried out with portable counters between April and October. These portable counters record hourly traffic volumes at the various locations including interchange ramps. Attempts are made to undertake counts at each station at least once every three years, with critical areas counted annually. In addition, a number of short-term monitoring activities occur for specific engineering and neighbourhood traffic monitoring purposes.

In 2016, the following counts were undertaken as part of the transportation network modelling program:

- 234, 7-day Traffic Counts
- 30, 3-day Traffic Counts
- 22, 1-day Traffic Counts
- 8 Permanent Traffic Count Stations
- 104 Speed Assessments
- 211 Intersection Counts
- 12, 7-day Bike Counts
- 9, 1-day Pathway Counts (Pedestrians & Bikes)



5.4 Functional Planning

Functional planning studies are focused on facility design as they are multi-modal planning studies with the intent to balance the needs of all users. Some of the elements that are considered in this type of study include:

- The framework for livability, land use, development goals etc.
- The balance of access and mobility needs along the roadways
- The integration of pedestrian, transit and cycling users all the while maintaining sound engineering principles and practices
- The current City and national standards be met to plan a facility that is financially responsible

Functional designs were completed for the following new arterial roadways in 2016:

- Cynthia Street (Airport Drive – Hanselman Avenue)
- Neault Road (Claypool Drive – 22nd Street West)
- Taylor Street East (Arlington Avenue – Circle Drive)
- McOrmond Drive (College Drive – 8th Street East)

5.5 Intersection Improvements

Many intersections were constructed to service low-traffic volumes and are no longer capable of meeting the needs of modern traffic. The intersection modifications included in this project are operational improvements, such as the addition of turn lanes within right-of-way, curb radius improvements, lane designation, pavement marking changes, access management and construction of traffic islands and pedestrian ramps, where required. Construction of the modifications is undertaken as funding becomes available.

Intersections reviewed and re-designed in 2016 include:

- 22nd Street West & Diefenbaker Drive
- 22nd Street West & Fairmont Drive
- Preston Avenue & Taylor Street East
- Millar Avenue & 51st Street
- 19th Street & 3rd Avenue
- 8th Street East & McKercher Drive

Construction began at 22nd Street West and Diefenbaker Drive in 2016 and will continue into 2017.

Improvement at 22nd Street and Diefenbaker Drive



5.6 Traffic Signal System Upgrades – Maintaining and Upgrading

5.6.1 New Traffic Signal Installations

Traffic signals are used to control traffic and assign the right-of-way at high volume intersections. Signals are installed at both existing intersections once sufficient traffic demands are reached or at newly constructed intersections as part of development. In 2016, traffic signals were installed at the following locations:

- Highway 16 & Zimmerman Road
- Zimmerman Road & Market Drive
- Zimmerman Road & Meadows Parkway
- Market Drive & Costco
- Attridge Drive & Central Avenue
- Valley Road and Civic Operations Center
- Claypool Drive & McClocklin Road
- Diefenbaker Drive & 22nd Street

5.6.2 New Active Pedestrian Corridors

An Active Pedestrian Corridor utilizes amber flashing Beacons to notify motorists that a pedestrian is at the crosswalk and intending to cross. The device flashes immediately when the pedestrians activate the button.

Active pedestrian corridors were installed at the following locations:

- Cornish Road
- Forsyth Way and Cowley Road
- Pezer Crescent and Konihowski Road South
- Taylor Street East and McEown Avenue
- Needham Crescent and McCormack Road



5.7 Active Transportation

Through consultation with residents and stakeholder groups, development of the active transportation in Saskatoon included having a vision and goals, key directions, and action items to improve active transportation facilities, policies and standards, and support programs over the next 30 to 40 years. The Active Transportation Plan (ATP) includes a target to double the proportionate daily walking and cycling trips by 2045.

The ATP contains an 80 point action plan organized around the following six themes: 1) Improving Connectivity, 2) Safety and Security, 3) Convenience, 4) Land Use and Growth, 5) Maintenance and Accessibility, and 6) Education and Awareness.

The Active Transportation Plan was approved by City Council in June 2016.



In 2015, the ‘Protected Bike Lane Demonstration Project’ kicked off. Lanes were installed on 23rd Street to encourage cyclists to use the roadway by creating a safer environment. The demonstration project expanded to 4th Avenue in 2016.



6.0 CONTINUOUS IMPROVEMENT

The Division provides high-quality services to meet the dynamic needs and high expectations of our citizens. We focus on continuous improvement and providing the best possible services using innovative and creative means. We go beyond conventional approaches to meet the changing needs of our city.

Some of the Division’s 2016 initiatives for continuous improvement are listed below.

- Upgrade to the Report-a-Traffic-Issue application to allow for more options to be chosen from to provide more effective feedback and allow for better data management.
- Each year, the Project Management Institute, North Saskatchewan Chapter (PMI-NSC) recognizes one project that best demonstrates exceptional performance, leadership and delivers significant value and return on investment for the customer. In 2016, the City of Saskatoon’s Neighbourhood Traffic Review program was awarded this prestigious honour for its community-wide approach to resolving traffic issues that is built around finding solutions through engagement with residents.

7.0 OUR STATISTICS

7.1 Signalized Intersections

There are 281 signalized intersections throughout the city (232 full, 49 pedestrian- actuated).



7.2 Pavement Markings

- Durable markings – Lane – 60 km
- Annual Painting Program – Lane 931 km
- Pedestrian Crosswalks – 980



7.3 New Sign Installation Work Orders* (note: some work orders would involve more than one new sign)

- 2016 – 359
- 2015 – 326
- 2014 – 170

7.4 Sign Repair Work Orders *(note: some work orders would involve more than one new sign)

- 2016 – 1070
- 2015 – 1020
- 2014 – 840

7.5 Crash Cushion Repairs

Crash cushions are used along high speed roadways to protect infrastructure and minimize the impact of a collision. There are currently 37 crash cushions throughout the city. The following repairs/modifications were made to crash Attenuators throughout the city:

- 2016 – 16 repairs completed
- 2015 – 6 repairs completed
- 2014 – 3 repairs completed



7.6 Electronics Shop after Hours Emergency Call-Outs

The Electronics Shop has a Traffic Signal Technician on stand-by to address emergency situations with the traffic signal infrastructure. The following call-outs occurred in 2014, 2015 and 2016:

- 2016 –943 (maintenance/repair)
- 2015 – 750 (maintenance/repair)
- 2016 – 700 (maintenance/repair)

7.7 Detour Coordination - Lane Restriction Requests

Lane restrictions, or detours are requested to support construction work. In 2016, 1,912 requests were processed.

7.8 Special Events Coordination

Many special events require closure of portions of the public right-of-way. These closures require a traffic accommodation plan and are coordinated with all other restrictions throughout the city. The following number of special events requiring lane closures occurred throughout the city:

- 2016 – 198 special events
- 2015 – 124 special events
- 2014 – 117 special events

7.9 Number of Permits Issued

7.9.1 Right of Way Permits

Right-of-Way permits are required when the public right-of-way is closed by a third party for construction or development and/or used for a specific purpose, such as for accommodating a waste disposal bin. A new administrative fee was introduced in 2016, resulting in a drop of the number of permits issued as follows:

- 2016 – 415
- 2015 – 947
- 2014 - 890

7.9.2 Curb Crossing Permits

Curb crossing permits are required by both commercial and residential property owners intending to construct a curb crossing (driveway) on a sidewalk containing vertical curbs. A new administrative fee was introduced in 2016, resulting in a drop of permits issued as follows:

- 2016 – 128
- 2015 – 190
- 2014 – 195

7.9.3 Vehicle Permits

Vehicle permits are issued to commercial vehicles that are over-dimension or overweight or intending to travel off a truck route. A new administrative fee was introduced in 2016, resulting in a drop of permits issued as follows:

- 2016 – 564
- 2015 – 1521
- 2014 – 1213

8.0 OUR PERFORMANCE MEASURES

8.1 Kilometers of Cycling-Specific Infrastructure

Goal: 10-year target to increase the amount of cycling-specific infrastructure by 10%

- 1.7 km of bike lanes and paths were added
- Some cycling infrastructure was upgraded
- Protected bike lane on 4th Avenue added to demonstration project

8.2 Transportation Choices

Goal: Long-term target is to have 20% of people use cycling, walking, or transit to get to work

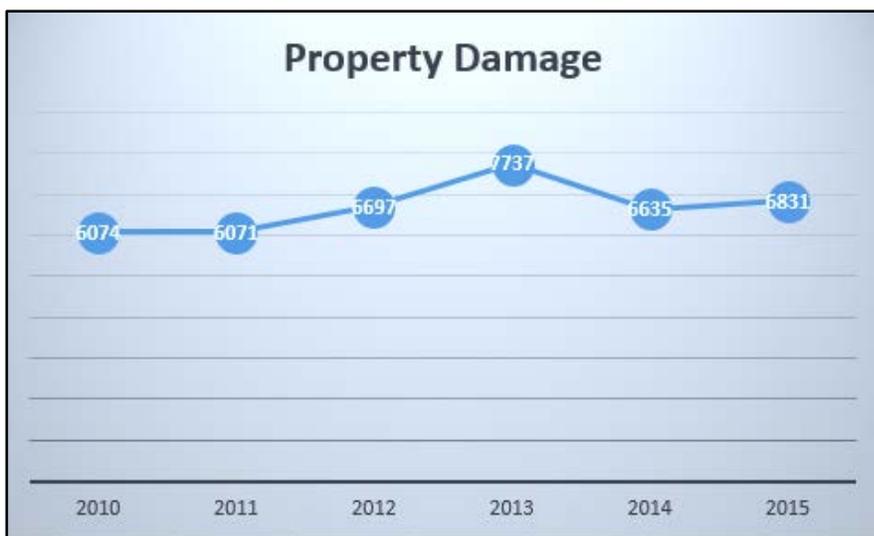
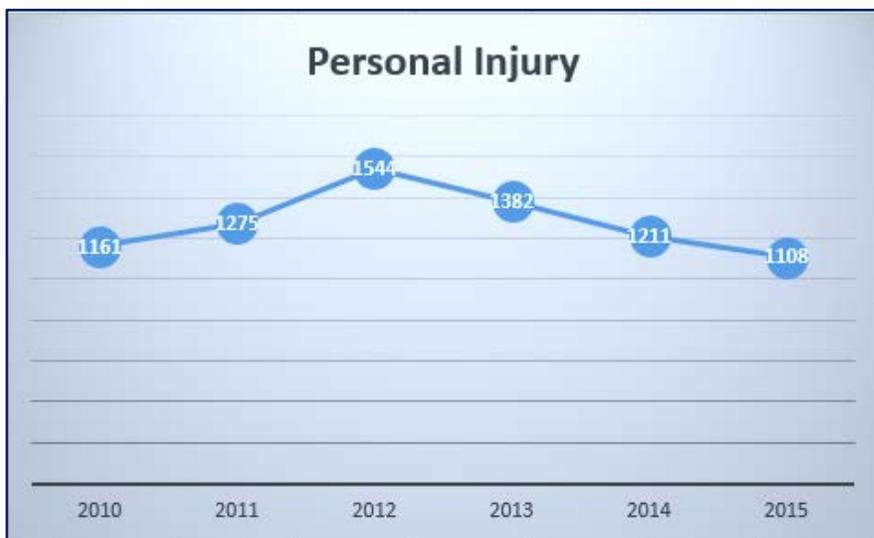
- In 2011, 11.5% used cycling, walking or transit to get to work (based on Census data)

8.3 Traffic Collisions

Goal: Decrease traffic collisions by 5% annually

	2010	2011	2012	2013	2014	2015	2016*
Fatal	10	8	5	7	5	5	6
Personal Injury	1161	1275	1544	1382	1211	1108	964
Property Damage	6074	6071	6697	7737	6635	6831	3798
TOTAL	7245	7354	8246	9126	7851	7944	4768

*Partial year



9.0 OUR FUTURE

9.1 Major Initiatives to Support the Corporate Strategic Plan

1. Service Saskatoon – clarify and communicate roles; develop standard responses to customer service staff; and communicate service levels and priority lists once completed.
2. Establish service levels – formalize asset management program for signals, signs and pavement markings; formalize policy for durable markings; develop policies for prioritizing infrastructure improvements; streamline processes and clarify roles to provide timely responses.
3. Increase transit ridership – continue to support the introduction of rapid transit
4. Create incentives to promote density – continue to invest in pedestrian facilities (sidewalks) in existing areas.
5. Winter Cities – evaluate demonstration project for separated bike lanes; continue to support the implementation of the Active Transportation Plan.
6. Optimize the flow of people and goods in and around the city - continue to implement prioritized infrastructure improvements; begin to implement initiatives from the Intelligent Transportation Solutions Strategy.
7. Develop an integrated transportation network this is practical and useful for vehicles, buses, bike and pedestrians – develop a Transportation Master Plan using outputs from the Growth Plan and Active Transportation Plan; continue to include pedestrian and cycling facilities in all new transportation infrastructure design and construction.
8. Ensure that roads, streets, sidewalks and bridges are in working order and in a good state of repair – formalize asset management program for signals, signs and pavement markings.



Urban Highway Connector Program

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be received as information.

Topic and Purpose

The purpose of this report is to provide information on how the Urban Highway Connector Program is administered.

Report Highlights

1. The City of Saskatoon (City) entered into an Urban Highway Connector Program (UHCP) Agreement with the Ministry of Highways and Infrastructure (Ministry) in 2009 as a framework to fund highway connector roadways within city limits.
2. Saskatoon operates and maintains approximately 29.7% of the existing provincial interest highway connector roadways province-wide and 35.0% of provincial interest roadways that are eligible for UHCP capital funding.
3. The City receives annual operation and maintenance (O&M) funding for provincial interest roadways at a current level of approximately \$1.1M per year.
4. The City receives capital upgrade and rehabilitation funding for provincial interest roadways depending on available funding and subject to the Ministry's schedule; an approximate \$18.8M shortfall in Ministry funding has been noted since 2009.
5. The City has received 3.83% of the total UHCP capital funding (not including Circle Drive South (CDS)).
6. Provincial programs exist in other provinces, information on how these programs operate is limited at this time.

Strategic Goals

This report supports the Strategic Goal of Moving Around by ensuring that roads are rehabilitated and continuously improving.

This report also supports the Strategic Goal of Asset and Financial Sustainability by ensuring that alternate funding sources are explored for preservation of City infrastructure.

Background

During consideration of the Highway 16 West Operational Jurisdiction Amendment report, City Council at its meeting held on December 12, 2016 resolved, in part:

- “3. That the Administration report back regarding the Urban Highway Connector Program and how it benefits various municipalities, along with a comparison with other provinces.”

Urban Highway Connector Program

Urban Highway Connectors are defined as provincial and national highway systems that lie within the boundaries of cities and are critical trade and transportation corridors through the community. The Provincial Government developed the UHCP to provide a framework which outlines the manner in which the Ministry will assist municipalities with cost of operations and maintenance, capital improvement and rehabilitation of urban connector roadways and structures.

The City entered into an UHCP Agreement with the Ministry in 2009. Through the program, maintenance funding is provided annually and distributed to various operational groups. Capital funding is approved by the UHCP on a priority province-wide basis and funded as provincial funding is available.

Report

Urban Highway Connector Program

Roadways and provincial interest levels within the UHCP are updated periodically by the Ministry. Provincial interests are classified in 4 levels as shown below:

- Level 1 – 100% Provincial interest.
- Level 2 – 75% Provincial interest.
- Level 3 – 50% Provincial interest.
- Level 4 – 25% Provincial interest.

Attachment 1 shows the most recent map of provincial interest corridors and the associated levels in the City.

Urban Connectors in Saskatoon

Attachment 2 shows the provincial interest lane km of all Saskatchewan cities that have entered into an UHCP Agreement with the Ministry. The most recent lane km values were provided by the Ministry and are represented in the last column to the right. This table shows that the City operates, maintains and rehabilitates approximately 29.7% of provincial interest roadways within Saskatchewan cities that have entered into the UHCP. It is important to note that Provincial interest Level 1 roadways are 100% funded by the province and capital allocations for Level 1 roadways are not funded by the UHCP. Therefore, Saskatoon operates and maintains approximately 35.0% of provincial interest roadways that are eligible for capital funding through the program.

While the City does not have any Level 1 provincial interest roadways, there are several roadways that the Ministry has committed to fund 100% of the next rehabilitation in the original UHCP Agreement including College Drive from Central Avenue to the east city limit, and Idylwyld Drive from north city limit to 51st Street.

Operation and Maintenance Funding

The UHCP allocates annual funding to specific O&M areas of the City. In 2017/2018, the total UHCP operating funding for the province is \$3M. The maintenance funding formula consists of the following operational areas: illumination, line painting, signing, mowing, hand patching, crack filling, micro-surfacing and snow and ice. The Ministry

and the City meet periodically to determine custom work required in either jurisdictional area of all operational areas and the yearly O&M values are adjusted as per the current custom work agreement in place. The current funding formula per lane km for O&M is \$12,508 per lane km. This value is then adjusted by multiplying the 'provincial interest level percentage' that is described above and multiplying a 'wide roadway factor'. Wide roadway factor is described below:

- Three-lane road = 1.3. (ie: $1.3 \times \$12,508 = 16,260$ per km 3-lane road).
- Two-lane road = 1.0. (ie: $1 \times \$12,508 = 12,508$ per km 2-lane road).
- One-lane road or interchange ramp = 0.5. (ie: $0.5 \times \$12,508 = \$6,254$ per km 1-lane road).

The non-adjusted O&M values per lane km for each operational group is shown in Attachment 3.

Current O&M grants provided to the City are approximately \$1.1M per year, the total value of O&M grants provided to the City since 2009 is approximately \$7.9M.

In addition to the above, there are two segments of jurisdictional operation that the City has entered into agreement with the Ministry to operate and maintain until future annexation is complete. These are Highway 16 West from Idylwyld Drive to 71st Street intersection and Highway 16 East from Highway 11 to 500 metres east of Zimmerman Road. Through the agreements, the Ministry does not fund the O&M grant for the operational jurisdiction roadways until annexation is complete. The Ministry will pay retroactively for the operation and maintenance of these two segments of roadway from the time the jurisdictional agreement was signed once annexation is complete. The Ministry has also committed to funding 100% of the next rehabilitation of these roadways subject to available funding and other provincial priorities.

Capital Funding

Since UHCP inception, capital funding levels for the program have not met the needs of the City's infrastructure. In 2017/2018, the total UHCP capital funding for the entire province is \$3.255M, a reduction of \$1M from the previous year. Capital funding is prioritized by the Ministry based on City submissions and approved depending on available funding and subject to the Ministry's schedule. Rehabilitation and upgrades completed prior to provincial funding approval do not receive funding retroactively.

The current UHCP Project Selection Policy, set by the Ministry, allows yearly project submissions from cities up to a maximum of 2 projects per city each year, at a maximum value of \$2M per project. All cities in the program can submit the same value of projects regardless of population. The projects are then evaluated and selected by the Ministry based on the following criteria:

- Project type.
- Roadway condition.
- Traffic volume.

- Speed.
- Provincial Interest Level.
- City's priority ranking.
- Historical funding.

Actual prioritization scoring of projects performed by the Ministry is not shared with the cities. The last project that was approved for Saskatoon was the 16/11 interchange girder end repairs in 2015. In 2017, funding submissions for westbound Hwy 5/College Drive from City limits to Canadian Pacific Railway overpass and south bound Idylwyld Drive from 71st Street to 51st Street were made; neither project was approved.

Attachment 4 shows the Capital funding amounts that have been allocated to cities in the program since program inception. The attached table shows the provincial contribution of CDS in 2008/2009 as funded by the UHCP. From the Administration's perspective, CDS should not be included in the UHCP allotment as it skews the total funding that Saskatoon has received since the inception of the program. Several examples of similar projects throughout the province including the Regina bypass and the Warman and Martensville interchange projects have not been included in the UHCP capital funding program for the respective city. It is noted that these other projects are outside of the respective City limits in these jurisdictions but they also benefit the cities in the same manner as the CDS project did for Saskatoon. Furthermore, the provincial portion of the North Commuter Parkway funding is not listed under the UHCP capital funding stream. These example clearly indicate that the criteria used to allocate capital funding for projects under UHCP throughout the province has not been consistently applied for all municipalities.

In addition, as per the UHCP Agreement, the interchange at McOrmond Drive and College Drive has a 50% provincial interest level, meaning that the UHCP is responsible for funding 50% of the project. In the absence of this funding, the City has entered into agreements with developers to fund 100% of the costs.

Excluding CDS, the City received approximately 3.83% of the total UHCP capital funding despite operating and maintaining 35.0% of provincial interest level 2 thru 4 roadways in the Province that are eligible for UHCP capital funding. Since the UHCP Agreement has been in place, the City has received \$7.28M in UHCP capital funding.

The total value of capital rehabilitation work on urban connectors funded by the City since the UHCP Agreement was signed in 2009 is approximately \$32.5M. If the UHCP were fully funded as per the agreement signed in 2009, the Ministry's contribution would have been \$22.5M towards the City's capital rehabilitation program. To date, the Ministry has provided only \$3.7M in capital rehabilitation funding. This represents a shortfall in UHCP Capital rehabilitation funding of approximately \$18.8M since 2009. It is estimated that approximately \$2.8M of base funding would be required each year to fully fund the Ministry's rehabilitation responsibility under the UHCP to the City, compared to the average rate of \$0.46M per year that has been provided to the City since 2009.

Other Provincial Funding Agreements

The Administration contacted several Western Canadian agencies to gather further information for this report. To date, Alberta Transportation (AT) was the only agency that provided information on their provincial funding arrangements. The following information was provided by AT:

In Alberta, there are two basic scenarios depending on the size of the community:

1. Edmonton and Calgary – In these cities, AT operates and maintains all freeway classification roadways. All other City roadways are the responsibility of the City and revenues from provincial fuel taxes are used to maintain major classification roads with ADT>5000 vehicles.
2. Other communities in Alberta – The remainder of communities in Alberta receive \$60 per capita to put towards capital projects and an additional \$1959 per lane km of Highway Connector roads to put towards maintenance or capital rehabilitation of these roadways.

Environmental Implications

Roadway construction and maintenance inherently utilize resources that produce greenhouse gases through processing, transport, installation and operation of the required products. The City utilizes treatments that take advantage of existing structures when possible to limit the overall amount of natural resources required, wastes generated and greenhouse gases emitted.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, communications, policy, financial, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

No follow up required.

Public Notice

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

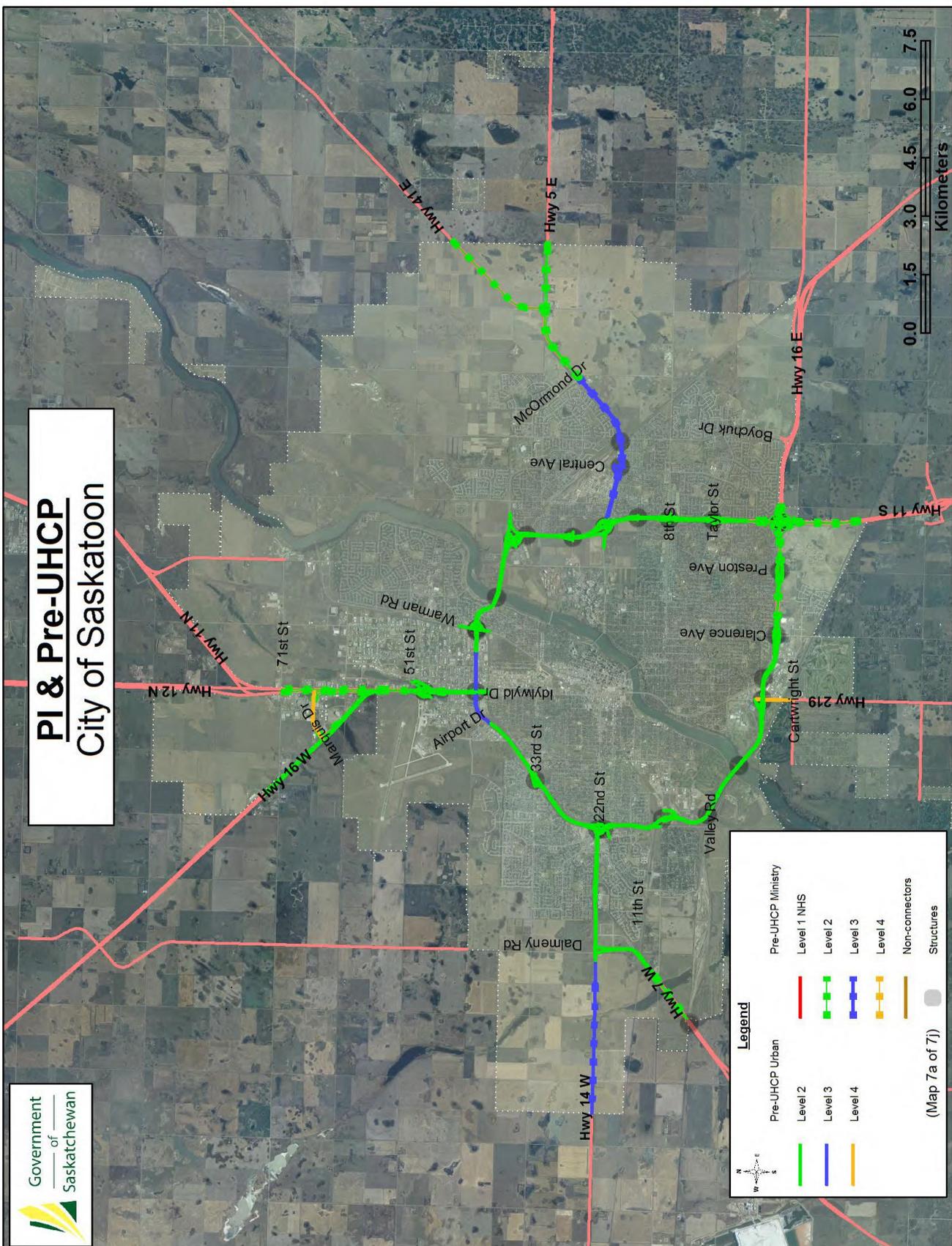
Attachments

1. PI & Pre-UHCP
2. Urban Highway Connectors in Cities (Lane Km)
3. Operations & Maintenance Grant Rate by Activity Type
4. All UHCP Funding since 2008

Report Approval

Written by: Rob Frank, Engineering Manager of Asset Preservation
Reviewed by: Mike Gutek, Director of Major Projects and Preservation
Approved by: Angela Gardiner, Acting General Manager, Transportation and Utilities Department

TRANS RF Urban Highway Connector Program



\\Atlas\sys\SPM\Mapping Projects\UHCP Saskatoon Revised: Dec 22, 2015

Urban Highway Connectors in Cities (Lane Km)

City	Total (Lane km)	Lane km under each PI Level				Total including Recent Annexations and Circle Drive South (Lane km)
		NHS Level 1	2	3	4	
Estevan	35.16	5.44	16.46	13.26		35.16
Humboldt	16.2		11.2	5		16.12
Lloydminster	26.3		23.06	3.24		27.09
Martensville	0.0					0.0
Meadow Lake	13.78		13.78			16.29
Melfort	20.9		18.66	2.24		20.9
Melville	35.98	20.34	10.92	4.72		35.98
Moose Jaw	105.24	48.2	27.9	8.96	20.18	105.24
North Battleford	54.54	21.64	32.9			54.54
Prince Albert	95.79	12.13	55.6	13.58	14.48	95.79
Regina	129.31		97.53	10.04	21.74	142.59
Saskatoon	271.6		189.12	52.96	29.52	294.20
Swift Current	50.81	27.18	23.63			54.38
Warman	5.06			5.06		0.0
Weyburn	32.24	10.3	11.54	9	1.4	32.24
Yorkton	57.42	5.06	51.2	1.16		60.50
Total	950.33	150.29	583.5	129.22	87.32	991.02

Operations & Maintenance Grant Rate by Activity Type:

Activity	Annual O&M Rate (\$/lane km)	
	Principal	Regional
Illumination	2,842.00	568.00
Line Painting	964.00	550.00
Signing	1,397.00	1,397.00
Mowing	178.00	97.00
Hand Patching	260.00	260.00
Crack Filling	93.00	93.00
Micro Surfacing	878.00	878.00
Snow and Ice	5,896.00	1,957.00
SUB-TOTAL	12,508.00	5,800.00
Structure (\$/structure * PI Level %)	1,990.00	
Non-Connector (\$/lane km)	2,254.00	

All UHCP Funding since 2008

Municipality	Funding (\$)												Total	%	Total	%	CDS	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Projected 2016-17	Total								
										Including	Excluding							
Cities:																		
Saskatoon	\$ 98,500,000		\$ 2,996,907	\$ 1,235,477	\$ 1,670,000		\$ 679,875	\$ 697,125						\$ 105,779,384	\$ 7,279,384	55.6%	\$ 7,279,384	3.83%
Lloydminster	\$ 11,220,089	\$ 1,598,377	\$ 297,750	\$ 1,075,737	\$ 2,519,952	\$ 362,643								\$ 17,074,548	\$ 17,074,548	8.97%	\$ 17,074,548	8.97%
Battleford	\$ 47,804	\$ 229,858	\$ 6,024,780		\$ 2,299,489	\$ 45,634								\$ 8,647,565	\$ 8,647,565	4.54%	\$ 8,647,565	4.54%
Regina			\$ 2,031,660				\$ 2,803,369	\$ 800,000	\$ 3,000,000					\$ 8,635,029	\$ 8,635,029	4.54%	\$ 8,635,029	4.54%
Swift Current	\$ 6,348,776	\$ 279,050	\$ 75,000	\$ 48,651	\$ 100,868	\$ 26,227			\$ 108,656	\$ 1,087,816				\$ 8,075,044	\$ 8,075,044	4.24%	\$ 8,075,044	4.24%
Prince Albert				\$ 1,787,048	\$ 2,003,918	\$ 65,887	\$ 1,022,988							\$ 5,041,341	\$ 5,041,341	2.65%	\$ 5,041,341	2.65%
Estevan	\$ 614,267			\$ 222,382	\$ 34,708	\$ 1,678,155								\$ 2,671,024	\$ 2,671,024	1.40%	\$ 2,671,024	1.40%
Yorkton			\$ 71,211	\$ 21,029			\$ 1,462,500	\$ 487,500						\$ 2,042,240	\$ 2,042,240	1.07%	\$ 2,042,240	1.07%
Melfort	\$ 300,000	\$ 532,452	\$ 693,938				\$ 56,250							\$ 1,582,640	\$ 1,582,640	0.83%	\$ 1,582,640	0.83%
Moose Jaw													\$ 1,406,250	\$ 1,406,250	0.74%	\$ 1,406,250	0.74%	
Humboldt	\$ 182,678	\$ 718,354					\$ 310,846							\$ 1,211,878	\$ 1,211,878	0.64%	\$ 1,211,878	0.64%
Moosomin		\$ 142,355	\$ 744,019	\$ 13,299										\$ 899,673	\$ 899,673	0.47%	\$ 899,673	0.47%
Meadow Lake		\$ 850,916												\$ 850,916	\$ 850,916	0.45%	\$ 850,916	0.45%
Weyburn	\$ 450,000	\$ 105,379	\$ 85,522											\$ 640,901	\$ 640,901	0.34%	\$ 640,901	0.34%
North Battleford				\$ 68,000	\$ 68,959		\$ 154,688	\$ 12,592		\$ 25,500				\$ 329,739	\$ 329,739	0.17%	\$ 329,739	0.17%
Gravelbourg			\$ 280,713											\$ 280,713	\$ 280,713	0.15%	\$ 280,713	0.15%
Warman								\$ 130,130						\$ 130,130	\$ 130,130	0.07%	\$ 130,130	0.07%
Melville										\$ 112,500				\$ 112,500	\$ 112,500	0.06%	\$ 112,500	0.06%
Martensville										\$ 75,000				\$ 75,000	\$ 75,000	0.04%	\$ 75,000	0.04%
Tisdale		\$ 61,000												\$ 61,000	\$ 61,000	0.03%	\$ 61,000	0.03%
Kamsack			\$ 46,446											\$ 46,446	\$ 46,446	0.02%	\$ 46,446	0.02%
Towns:														\$ -	\$ -	0.00%	\$ -	0.00%
Municipalities projects total	\$ 117,663,613	\$ 4,517,741	\$ 13,347,946	\$ 4,471,623	\$ 8,697,894	\$ 4,981,915	\$ 4,487,147	\$ 4,436,003	\$ 2,990,078	\$ 165,593,960				\$ 165,593,960	\$ 165,593,960	156.5%	\$ 165,593,960	156.5%
Municipalities O&M grants total	\$ 23,251	\$ 1,018,863	\$ 1,257,328	\$ 2,871,467	\$ 2,787,069	\$ 2,787,069	\$ 3,062,470	\$ 3,010,683	\$ 3,105,000	\$ 19,923,200				\$ 19,923,200	\$ 19,923,200	18.8%	\$ 19,923,200	18.8%
Municipalities Total	\$ 117,686,864	\$ 5,536,604	\$ 14,605,274	\$ 7,343,090	\$ 11,484,963	\$ 7,768,984	\$ 7,549,617	\$ 7,446,686	\$ 6,095,078	\$ 185,517,160				\$ 185,517,160	\$ 185,517,160	175.4%	\$ 185,517,160	175.4%
Global Transportation Hub (GTH)			\$ 2,034,658	\$ 2,211,066	\$ 7,019	\$ 540,350								\$ 4,793,093	\$ 4,793,093	4.53%	\$ 4,793,093	4.53%
UHCP Total	\$ 117,686,864	\$ 7,571,262	\$ 16,816,340	\$ 7,350,109	\$ 11,484,963	\$ 8,309,334	\$ 7,549,617	\$ 7,446,686	\$ 6,095,078	\$ 190,310,253				\$ 190,310,253	\$ 190,310,253	180%	\$ 190,310,253	180%

Saskatoon Transit 2016 Annual Report

Recommendation

1. That the report of the General Manager, Transportation & Utilities Department be received as information; and
2. That a copy of the final report be forwarded to the Accessibility Committee.

Topic and Purpose

The purpose of this report is to present the Saskatoon Transit 2016 Annual Report that outlines the performance of Saskatoon Transit in 2016 and includes a comparative analysis to previous years.

Report Highlights

1. Total Rides in 2016 were 8,515,269 (electronic) which was a decrease of 0.7% compared to 2015.
2. Annual Access Transit Revenue trips in 2016 were 130,265 which was 2.3% more than Revenue Trips provided in 2015.
3. The denial rate for Access Transit was 5.5% in 2016 which was a decrease of 3.7% over 2015.
4. Reliability for Access Transit remains high with average on-time performance of 92%.

Strategic Goals

This report supports the Strategic Goal of Asset and Financial Sustainability through continued fiscal responsibility, and a focused effort in meeting business needs in a cost-effective manner.

The report also supports the Strategic Goal of Quality of Life and Moving Around. Saskatoon Transit, including Access Transit, maintains a high quality of service that has a significant positive impact on the quality of life for customers and their families.

Report

A summary of the 2016 Annual Report is as follows:

Conventional Transit

Total Rides in 2016 were 8,515,269 (electronic) which was a decrease of 0.7% compared to 2015. Transit's formula based (calculated) ridership for 2016 was 12,297,395. Since not all systems across the country have automated fareboxes the calculated rate is still used for ridership statistics. It is this statistic that will be used as the basis for Federal funding under the newly announced Public Transit Infrastructure Funding program.

Even though the fleet renewal strategy was approved in June 2015, an aging fleet and the additional maintenance requirements needed to maintain that fleet resulted in increased operating costs. Fuel prices provided significant savings that resulted in the Conventional Transit average cost per passenger increasing from \$3.15 in 2015 to \$3.20 for 2016. As a comparison the cost per passenger for Regina Transit in 2015 was \$4.97.

Saskatoon Transit received 1,268 complaints in 2016, which is 286 more than 2015. Route changes this year caused an increase in complaints as both customers and operators were learning these new routes. Overall complaints were primarily about operators and the buses arriving early, late or driving by without stopping.

Access Transit – Revenue Trips

A Revenue Trip is defined as a one-way trip from point A to point B. In 2016 the total service demand for Access Transit increased by 2.3% (3007 trips). The number of registered active customers raised slightly (278) in 2016 over 2015 to 4988. Saskatoon Transit is still on track to conduct a complete review of Access Transit in 2017 in order to prepare for a 100% accessible Conventional Transit fleet in 2018.

Access Transit – Denial Trips

A Denial is a trip request by a customer that cannot be accommodated. Out of the total Denials for 2016, 83% of them were Dispatch Denials, and 17% were Customer Denials. Compared to 2015, Dispatch Denials decreased by 5% from 88%, and Customer Denials increased by 5% from 12%. This means that Customers were 5% less flexible with their times for trip requests; conversely, resources were 5% less of an issue for a Denial in 2016 compared to 2015.

Access Transit – Productivity

Despite the various challenges Access Transit operators face on the road, they were still able to maintain an average of 92% on time performance for 2016.

Public and/or Stakeholder Involvement

This report will be shared with the Transit Assistance for People with Disabilities (TAPD) Fund (Government of Saskatchewan) which provides partial funding for Access Transit.

Communication Plan

A copy of the Saskatoon Transit 2016 Annual Report will be posted on the City website and shared with the staff.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

This report is provided on an annual basis and no further follow-up is required at this time.

Public Notice

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

Attachment

1. Saskatoon Transit 2016 Annual Report

Report Approval

Written by: Hidayat Ullah, Accounting Coordinator, Saskatoon Transit
Bob Howe, Manager Access Transit
Michael Moellenbeck, Manager Conventional Transit
Cory Shrigley, Manager Customer Support and Engagement

Reviewed by: Jim McDonald, Director of Saskatoon Transit

Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JM - Saskatoon Transit 2016 Annual Report

Saskatoon Transit

2016 Annual Report



INTRODUCTION

Public Transit services in Saskatoon began January 1, 1913, with the establishment of the Saskatoon Municipal Railway. Approximately, 5,200 people used streetcars that first day of service. Over the years, the types of vehicles changed as did the name, eventually becoming Saskatoon Transit. In July 2004, the next big chapter started when Access Transit was established as the Demand Response section of Saskatoon Transit. Access Transit is meant to provide service to those who are unable to use regular transit with safety and dignity. In 2013, Saskatoon Transit celebrated 100 years of making connections within the community and continues to do so today.

Fixed Route or Conventional Transit ridership is calculated in two methods: Electronic ridership and Calculated (formula-based) ridership. Calculated ridership is used for Canadian Urban Transit Association (CUTA) reporting as it is comparable with other properties who do not have electronic fare boxes, it was also the measure used for determining the allocations for Phase 1 of the Public Transit Infrastructure Fund (PTIF). In 2016, ridership was approximately 8.5 Million Fixed Route or Conventional Transit riders, 12.3 Million for electronic-based ridership and 134,000 Demand Response or Access Transit trips. To provide that level of service Saskatoon Transit used the following:

Terminals located at:

- Confederation Mall;
- Lawson Heights Mall;
- Centre Mall;
- Place Riel at the University of Saskatchewan;
- 23rd Street Transit Mall; and
- Market Mall.

A fleet of 187 buses:

- 161 serving Fixed Route demands:
 - 145 conventional 40-foot diesel buses, of which there are still 31 High floor;
 - 10 articulating low floor 62-foot diesel buses;
 - 6 mid-sized low floor 26-foot diesel buses; and
- 26 mid-sized para transit diesel buses providing Access Transit Demand Response services.

A staff complement of 399 employees, working 365 days to provide service to the City of Saskatoon.

Conventional Transit is a Fixed Route service that operates 34 bus routes along approximately 276 kilometers of streets with 1,650 bus stops. During peak hours, there are 103 buses on various routes throughout the city resulting in a spare ratio of 56%.



In 2016, as part of Fleet Renewal Strategy Saskatoon Transit refurbished 10 buses with an expectation of extending the life of a bus by 6 to 9 years. In addition to that Saskatoon Transit also added 10 new buses to the Fleet.

Access Transit is an accessible door-to-door Demand Response service operated for citizens who, by reason of a disability, are unable to use Conventional Transit with safety and/or dignity. Unlike Conventional Transit, Access Transit does not have predetermined routes so trip booking and scheduling decisions are strategically made to allow as many trips as possible, while staying within trip time and resource availability parameters. Trip booking requests are on a first-come-first-served basis and dependent on the present limited fleet size. Access Transit is equipped with 26 wheel chair lift buses. During peak hours there are 19 on the road resulting in a spare ratio of 36%.



OUR CUSTOMER

Customer Satisfaction and Complaints:

Our goal is to provide consistent, timely, friendly, and professional services to customers, where they feel they have received service that is valuable, fair and equitable.

The City of Saskatoon's 2016 Civic Services Survey results demonstrate that public transportation is important to residents of Saskatoon. A score of 10 means "excellent" and 5 means "average". The following chart tracks customer satisfaction for public transportation, buses and routes. By providing consistent services, Saskatoon Transit was able to maintain its customer satisfaction in 2016 at 5.7.

Customer Satisfaction

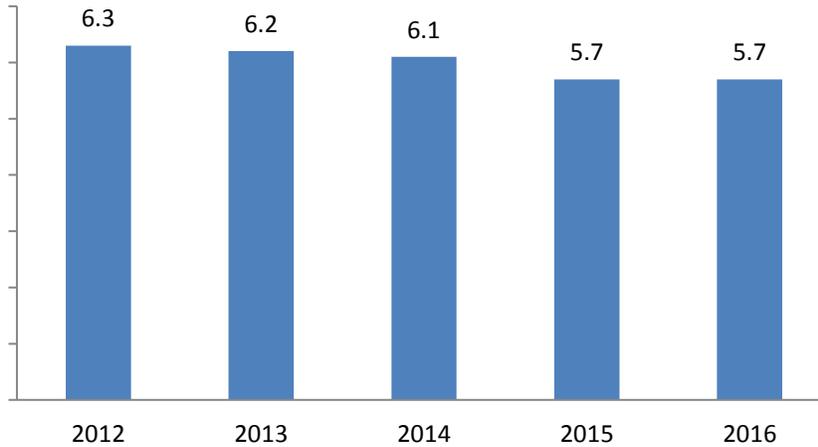


Figure 1: Customer Satisfaction

Saskatoon Transit received 1,268 complaints in 2016, which is the highest in the last four years. Overall complaints were primarily about operators and the buses arriving early, late, or driving by without stopping. Route changes this year also caused an increase in complaints as both customers and operators were learning these new routes.

Customer Complaints

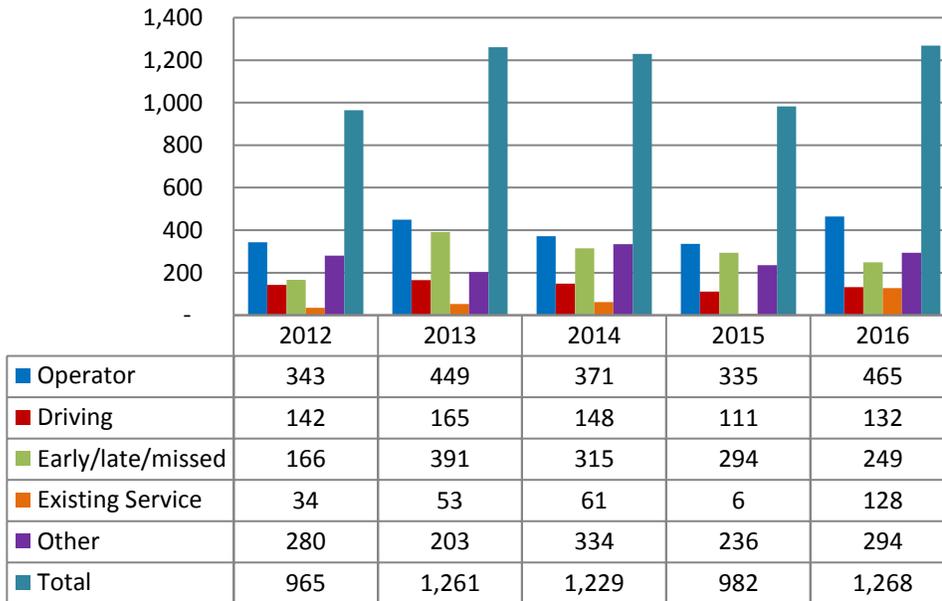


Figure 2: Transit Customer Complaints

In 2016, Saskatoon Transit received 67 commendations from the citizens which is 15 more than in 2015. They primarily related to operators.

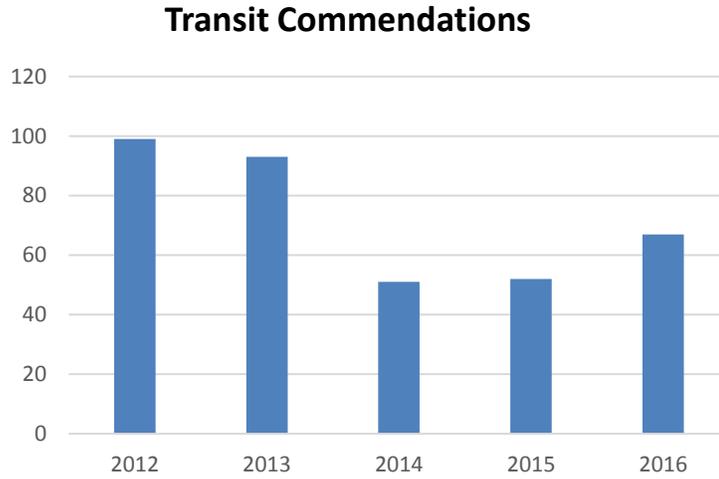


Figure 3: Transit Commendations

Competitive Fares:

Saskatoon Transit offers discounted fares for low-income residents, seniors, elementary, high school and post-secondary students. Fares accepted include cash, tickets or one of several passes that allow unlimited monthly rides (i.e. Adult Pass and High School Student Pass). Senior citizens may purchase passes for periods of one month, three months, six months and one year. Post-secondary students may purchase a semester pass that allows unlimited rides. All fare types are accepted on both Access Transit and Conventional Transit buses.

Adult fares on Saskatoon Transit are compared to other similar sized cities in the following charts. Of note - Regina does not have a senior monthly fare; they currently only offer semi-annual and annual senior passes.

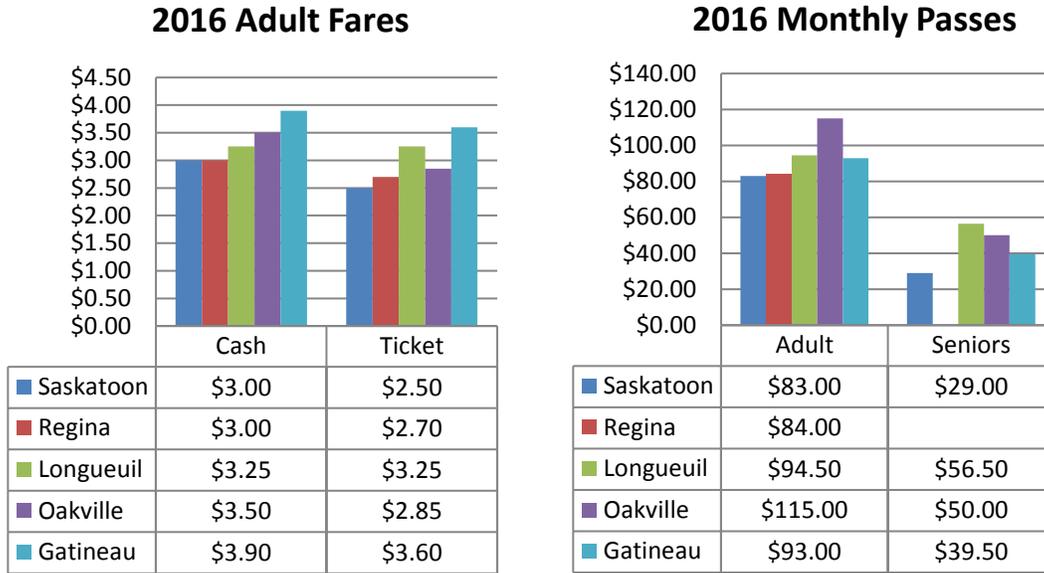


Figure 4: 2016 Adult Fares and Monthly Passes

Conventional Transit:

Between 2015 and 2016, ridership increased by 0.7% (using calculated--based ridership) and decreased by 0.7% (using electronic ridership). Transit ridership is distributed between the following categories: seniors, cash/ticket, month/day pass, discounted pass, and post-secondary pass. Currently, the top three categories of transit users include monthly/day pass (29%), post-secondary (21%), and discounted pass (18%).

2016 Ridership Distribution - Electronic Ridership

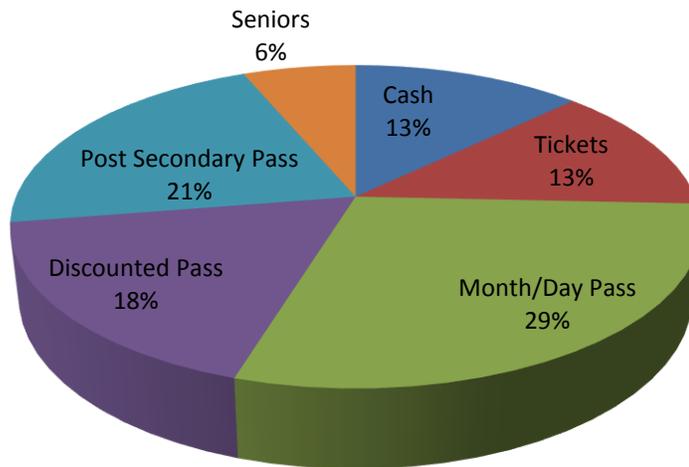


Figure 5: 2016 Ridership Distribution

Total Rides for 2016 are 8,515,269 which is a decrease of 0.7% compared to 2015. Transit’s calculated ridership for 2016 was 12,297,395 which is 3,782,126 rides more than actual ridership information provided by the automated fare box system. Saskatoon Transit calculates ridership based on both methods because CUTA use calculated ridership to compare information with other properties as not all properties have electronic fare box system.

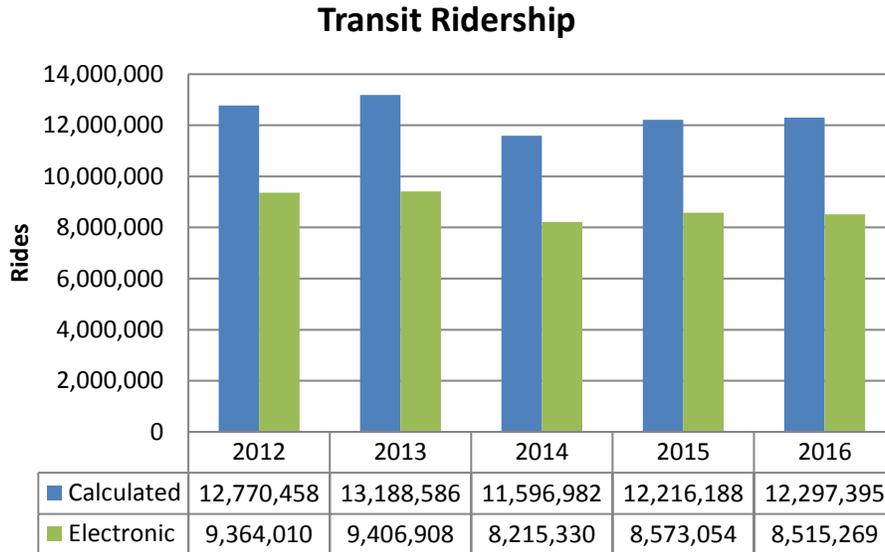


Figure 6: 5-Year Transit Ridership Trend

A recent report from CUTA showed 2015 passengers per service hour of 40.01, 18.34, 34.77 and 14.01 respectively for Longueuil, Regina, Gatineau and Oakville (peer communities). Saskatoon Transit’s passenger per service hour numbers for the 5-year period ending 2016 is shown below.

Conventional Transit: Passengers per Vehicle Hour

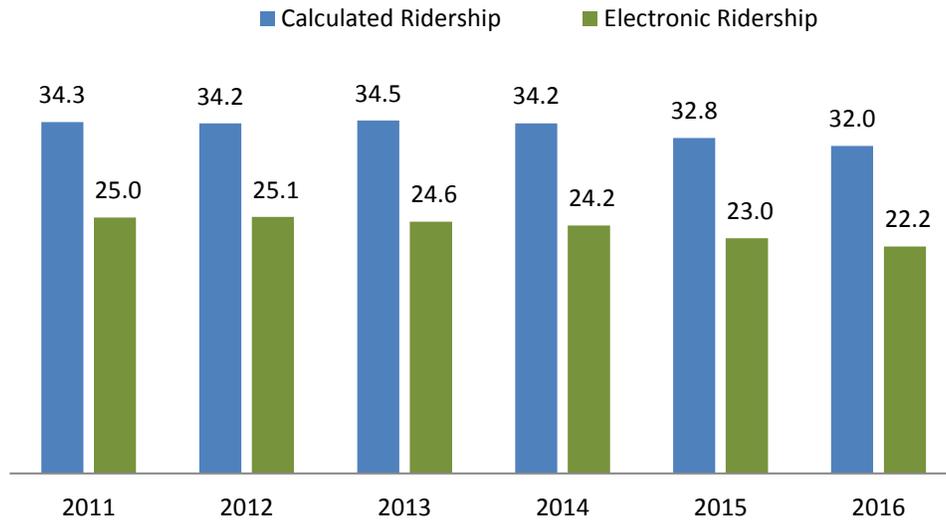


Figure 7: Passengers per Vehicle Hour

Transit will continue to focus on increasing ridership by providing strong customer service and a service that is safe, convenient, efficient and affordable. These initiatives support the Strategic Goal of *Moving Around* and the Growth Plan to Half a Million. The intention is to provide Transit that is considered a viable option as part of the overall transportation network.

Access Transit:

From a purely statistical perspective, service improved in 2016 over 2015. There was a 2.3% (3,007 trips) increase in Revenue Trips provided, and a 3.7% decrease in trip request Denials. This resulted in a 5.5% Denial rate for 2016 compared to a 9.3% Denial rate in 2015. This decrease in Denials is due to a combination of variables: milder weather conditions, further efficiencies found in dispatching, 222 less customer “No-Shows”, a change to how Denials are defined (to be more consistent with other Canadian paratransit properties definition of a “Denial”) and Latent Demand.

Revenue Trips vs Denials: 5-Year Comparison

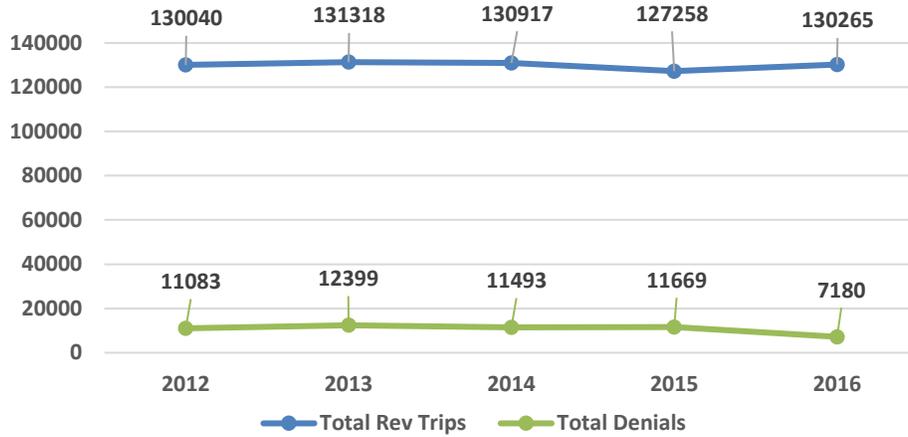


Figure 8: Revenue Trips vs Denials

Latent Demand is defined as a customer’s expectation, desire, or preference for a service that goes unsatisfied because sufficient capacity and/or resources are not available when they want or need them. Due to the fact that Latent Demand is virtually impossible to measure accurately, we have to look in the past for trends that would provide a plausible example. A perfect example is illustrated by Access Transit trip request Denials back in 2004. 2003 was the last full year of service provided by the private sector, and the City of Saskatoon took over the service in June of 2004. Trip request Denials increased by 134% in 2004. This dramatic increase was due to new expectations by people living with disabilities in our community that they would finally be able to successfully get their trip requests when they wanted or needed them due to the City of Saskatoon taking over the service, and a misperceived major increase in resources (buses and staffing), which was just not the case.

Access Transit Administration is certain that Latent Demand is building. Although difficult to measure and quantify, the fact that our resources have remained virtually the same since 2010, Demand for service has leveled off contrary to demographic projections, yet Denials have decreased. This is a clear indication that some of our customers have given up trying to book trips with Access Transit and have either found other sources of transportation or have become much less involved with the community.

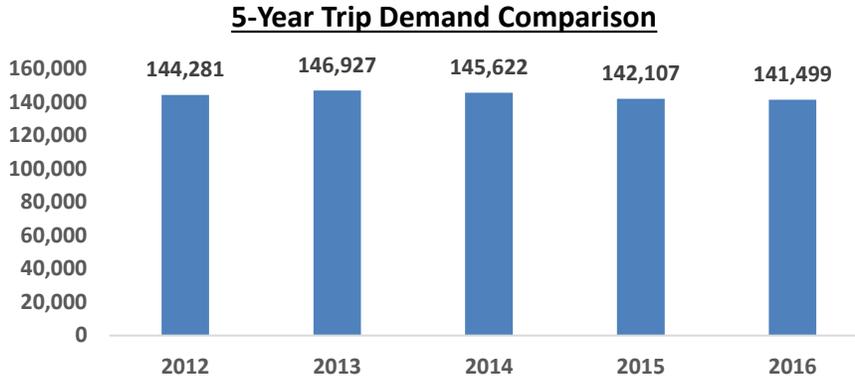


Figure 9: 5-Year Trip Demand Comparison

The number of our current registered active customers continues to trend close to 5000. This number fluctuates monthly as customers come and go from our service. The number of new customers registering for Access Transit was relatively the same in 2015 (536) as it was in 2016 (538). Our total Active Customer base as of January 2, 2016 was 4988, which is a slight increase (278) from 2015 when it was 4710.

A denial is a trip requested by a customer that cannot be accommodated. There are two types of denials: Customer Denials and Dispatch Denials. A Customer Denial is when a customer refuses the alternate trip time offered to them by a dispatcher, regardless of the proximity of time to the original request. A Dispatch Denial is a trip request that cannot be accommodated due to insufficient resources (insufficient run time or bus availability for that trip).

Although the term “denial” is a common key performance indicator (KPI) used across Canada in the paratransit industry, the detailed definition of the statistic differs in many regions. With the end goal of eventually establishing some standard Saskatchewan Provincial paratransit KPI’s, Access Transit Administration has worked closely with the Regina Paratransit Administration and the Saskatchewan Human Rights Commission since 2015 to harmonize the definition of some KPI’s so that our statistics are truly comparable (apples to apples). “Denials” was the first KPI definition that was worked on. As of January 1, 2016, the Saskatchewan transit industry definition of a denial changed from “any trip that cannot be accommodated” to “any trip that cannot be accommodated as of 12:00 noon of the previous day”. That means that any trip request after 12:00 noon of the previous day is not counted as a denial.

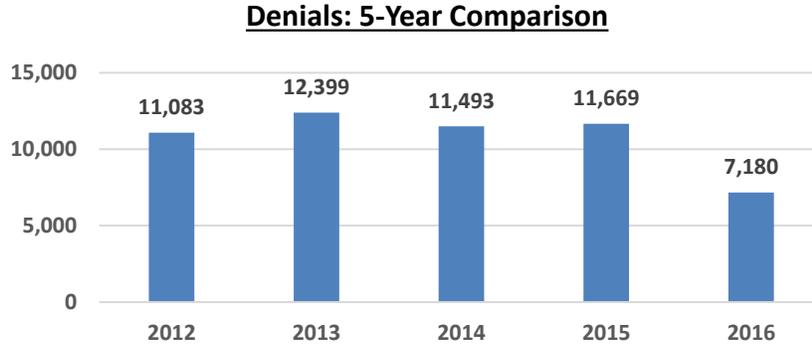


Figure 10: 5-Year Denial Comparison

The new definition has certainly had a dramatic effect on denials from a statistical perspective; however, it is not all good news in terms of quality of life for some people living with disabilities in our community who want more trips available with more opportunity/ability to be spontaneous. The best chance our customers have to secure a trip when and where they need it, is to book it 7 days in advance, due to our limit of resources/capacity.

In December of 2016, Saskatoon City Council authorized the increase of Access resources by one bus and one operator. The increase is effective July 1, 2017, which will assist with further reducing denials in 2017.

Taxi Trips

Taxi usage for 2016 was relatively the same using only 66 more taxis in 2016 compared to 2015 as monthly weather patterns and demand were very similar with the exception of a milder October in 2016.

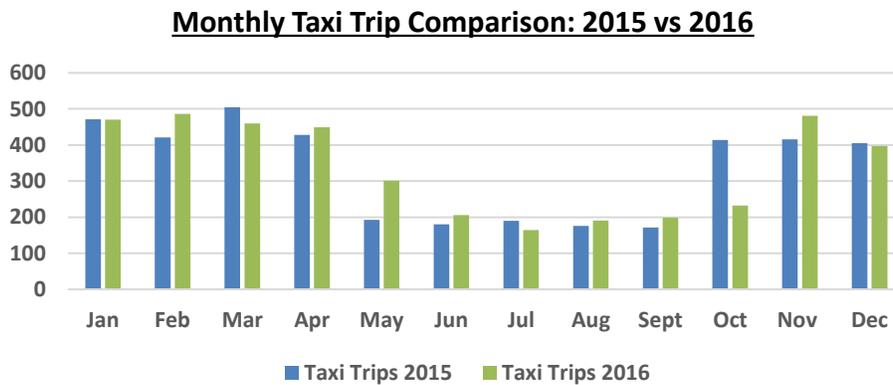


Figure 11: Taxi Trip Comparison 2015 vs 2016

On-Time Performance

Considering our climate and the geographic challenges (bridges, railroad tracks) not to mention that there are a significant number of destination attractions throughout the entire city on both sides of the river, the on-time performance of

Access Transit Operators is remarkable. Our 5-year average is 92.2%. This is a true testament to the dedication to our customers and our service by our staff.

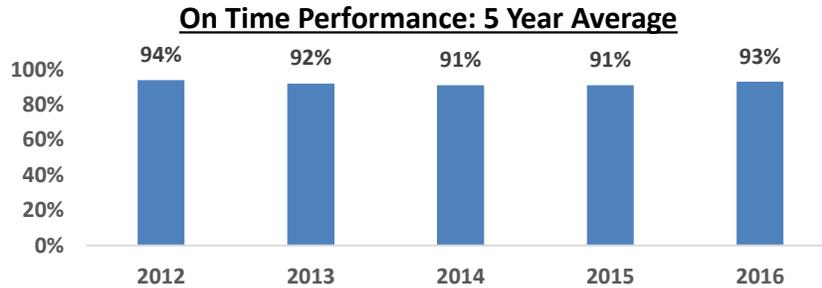


Figure 12: On-Time Performance

OUR PEOPLE

Transit services are provided to the residents of the City of Saskatoon 365 days per year. The Transit team is made up of a diverse and skilled group of people including operators, customer service staff, administration staff, dispatchers, booking and scheduling clerks, planners, payroll employees, mechanics, utility and servicemen, accountants, driver trainers, supervisors and managers. Transit's team also includes support from Human Resources to assist in administering collective bargaining/labour related issues, recruitment and health and safety programs in the workplace. Facilities provides support with building maintenance and repairs. All levels and classifications of employees are passionate about delivering a quality transit service to the community on a daily basis.

Transit's employee complement increased by 2.6% or 10.0 employees between 2012 and 2016. In comparison, Conventional Transit service hours increased by 10,586 hours or 2.8% in that same time period and the population has increased by 12%. Access transit service hours increased by 619 hours or 1.3%.

Saskatoon Transit Employees (FTEs)

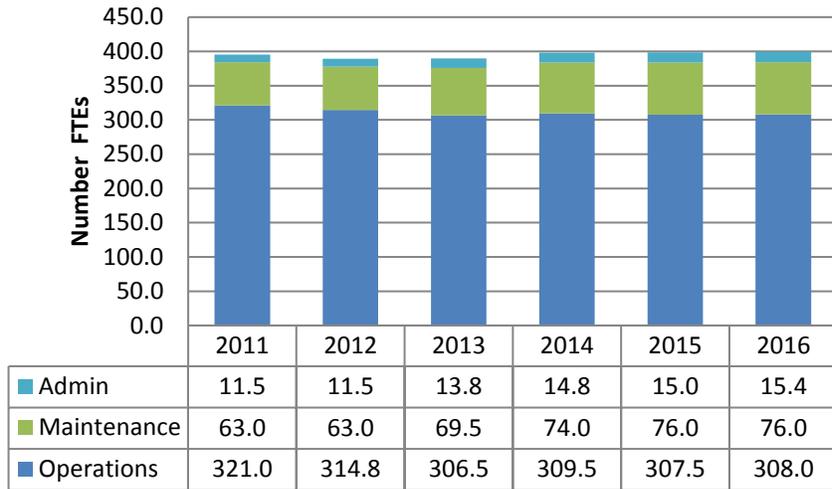


Figure 13: Saskatoon Transit FTEs

A combination of milder weather and a positive focus on safety initiatives with staff participation has resulted in the safety statistics showing dramatic improvement over the numbers from the previous 4 years. In 2016, Saskatoon Transit experienced 17 lost-time incidents for a total of 1,043 lost-time days with a frequency rate of 4.56.

Transit Lost Time Incidents

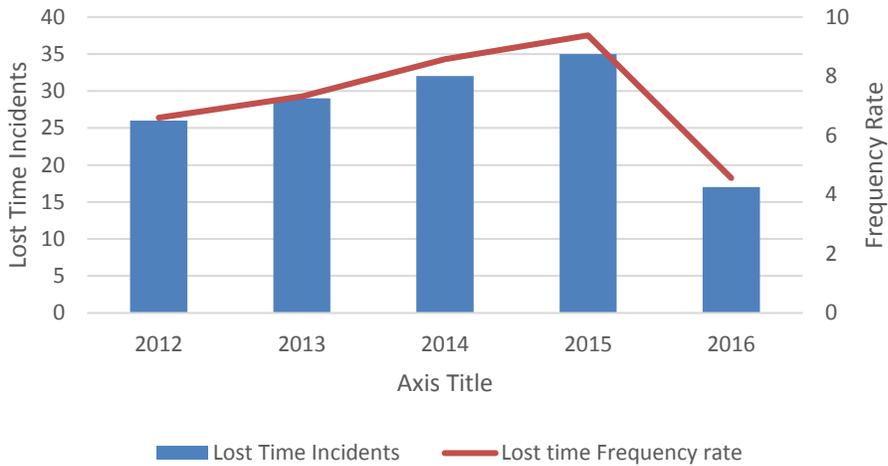


Figure 14: Lost Time Incidents

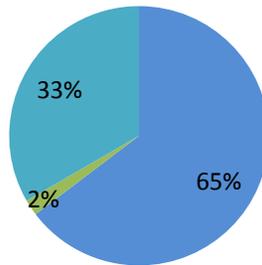
OUR FINANCES

In 2016, Saskatoon Transit’s service line operating budget was \$45.5 Million made up of \$40.8 Million for Conventional Transit and \$4.7 Million for Access Transit. The actual operating expenses for 2016 came in under budget at \$44.1 Million. The savings of \$1.4 Million (3.2%) on operating expenses were primarily related to low fuel prices and reduced fuel consumption due to a warmer winter.

The budgeted funding sources for Saskatoon Transit’s service line were \$1.8 Million through provincial funding for DCR Passes and Accessible Transit Grant and \$14.0 Million from Fares and other revenue sources with the remainder made up through the city contribution. The 2016 actual funding received was under budget by \$1.4 Million. The graphs below show a breakdown of Transit’s 2016 funding sources.

2016 Transit Funding

■ City Contribution ■ Province of Sask ■ Fares



2016 Access Transit Funding

■ City Contribution ■ Province of Sask ■ Fares

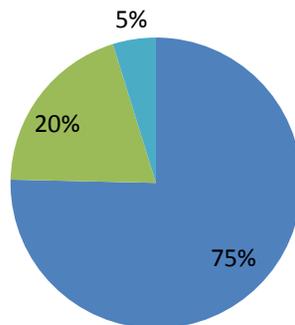


Figure 15: Contribution Rates

Conventional Transit's city contribution in 2015 was 63.8% while in 2016 the contribution increased by 0.8%. Access Transit's City Contribution was 74.2% in 2015 and in 2016 the contribution increased by 1.1%. A report from CUTA showed 2015 Conventional Transit City Contributions for peer cities as 46%, 64%, 39%, and 64% respectively for Longueuil, Regina, Gatineau and Oakville.

The \$1.4 Million in operating savings for the Transit service line was off-set by lower than budgeted revenue of \$1.4 Million. Therefore, 2016 actuals resulted in a variance of \$630,000 from budgeted city contribution to actuals. Below is the summary of operating budgets for both Conventional Transit and Access Transit.

2016 Conventional Transit Operating Budget (\$000)

	Budget	Actual	Variance	%
Revenue				
Fare Revenue	\$12,740	\$12,043	(\$697)	-5.47%
Charter, advertising, and other	\$1,083	\$1,071	(\$12)	-1.11%
City Contribution	\$26,235	\$25,434	(\$801)	-3.05%
Province of Sask	\$769	\$784	\$15	2.00%
Total revenue	\$40,827	\$39,333	(\$1,494)	-3.66%
Expenses				
Transit Operations	\$21,057	\$20,606	\$450	2.14%
Fuel, Lube & Oil	\$5,017	\$3,234	\$1,783	35.54%
Transit Maintenance	\$7,820	\$8,387	(\$567)	-7.25%
Building				
Maintenance	\$1,053	\$1,053	(\$0)	-0.04%
City Hall Services	\$634	\$638	(\$4)	-0.63%
General & admin	\$2,874	\$3,042	(\$168)	-5.84%
Capital (debt & reserve)	\$2,373	\$2,373	\$0	0.00%
Total Expense	\$40,827	\$39,333	\$1,494	3.66%

Figure 16: Conventional Transit Operating Budget

While Saskatoon Transit is modernizing its bus fleet, the older buses do incur additional maintenance which resulted in increased operating costs. Fuel prices provided significant savings but still not enough to reduce the cost per passenger. The Conventional Transit average cost per passenger increased to \$3.20 in 2016 from \$3.15 in 2015. However, at \$3.20, Saskatoon Transit still compares well with the most recent CUTA fact book, showing the 2015 transit

average cost per passenger at \$4.62, \$4.97, \$6.83 and \$7.92 respectively for Longueuil, Regina, Gatineau and Oakville.

The cost per passenger is calculated by taking total operating expenses and dividing them by ridership. The graph below shows the average based on calculated and electronic, at present CUTA statistics only show calculated results as not all properties have electronic fareboxes.

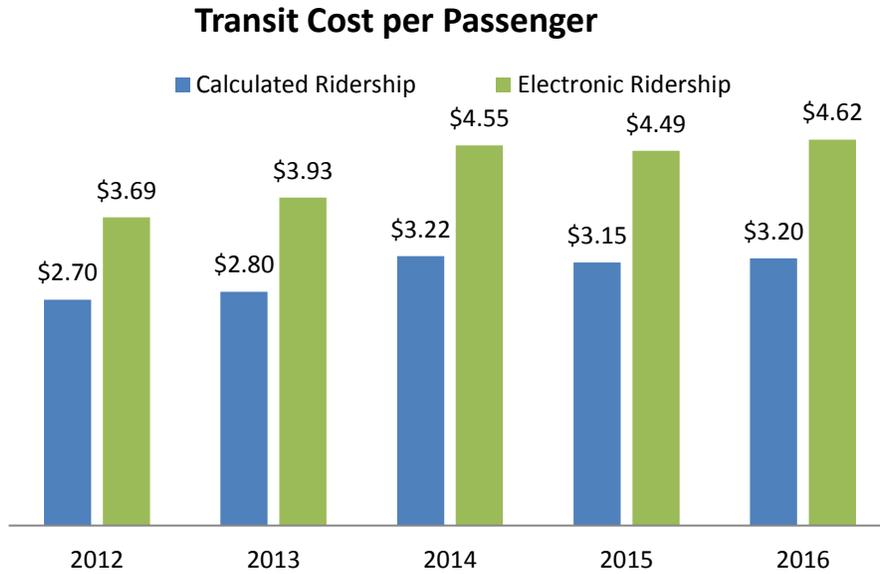


Figure 17: Transit Cost per Passenger

2016 Access Transit Operating Budget (000's)

	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>%</u>
Revenue				
City Contribution	3,450	3,621	\$171	5%
Province of Saskatchewan grant	996	954	(\$42)	-4%
Fares	245	230	(\$15)	-6%
Total Revenue	\$4,691	\$4,805	\$114	2%
Expenses				
Salaries & payroll	3,287	3,556	(\$269)	-8%
Fuel, lube, oil	347	206	\$141	41%
IS -Facilities services	247	247	\$0	0%
Maintenance equip & radio	276	285	(\$9)	-3%
Other expense	281	258	\$23	8%
Transfer to reserves	253	253	\$0	0%
Total Expenses	\$4,691	\$4,805	(\$114)	-2%

Figure 18: Access Transit Operating Budget

In 2016, the average cost per trip for Access Transit was \$36.89. Through the Provincial Transit Assistance for People with Disabilities Program, Access Transit receives an operating grant (based on available funding and ridership data). The 2016 operating grant amounted to \$7.33 per trip such that the total cost per trip to the city was \$29.56. This cost is inclusive of all program expenditures and is calculated by dividing total expenditures by the total number of revenue trips less the operating grant.

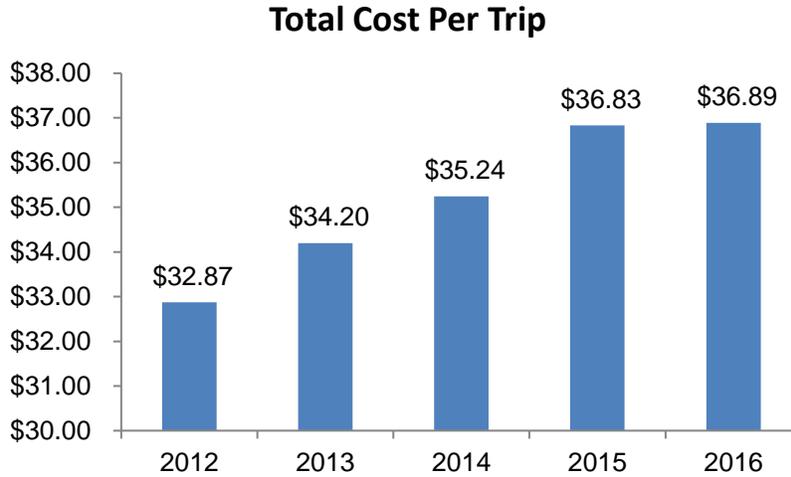


Figure 19: Access Transit Cost per Trip

OUR WORK – MOVING FORWARD

Meeting customer service expectations and providing a safe and reliable ride are integral to increasing ridership. To better fulfill these promises, Transit Operations will begin offering the Certified Professional Bus Operator designation (CPBO) to applicable Bus Operators. This designation, developed by the Motor Carrier Passenger Council of Canada, recognizes the efforts and professionalism exhibited each and every day by our staff and offers a framework of success for individuals to model themselves after. This designation will be offered along with our continual training program which focuses on customer service delivery, situation de-escalation and driving for comfort and efficiency. The principles reinforced through both of these processes will support the promises within the soon to be released Passenger Pledge and will provide Transit staff with the necessary tools to succeed.

In 2017, Saskatoon Transit will conduct a complete review of the Access Transit model with a view to better integration with Conventional Transit. As we move toward a 100% accessible fleet in 2018, this review will allow for a more efficient use of resources in providing coverage throughout Saskatoon.

Technology within the transit industry continues to provide opportunities for increased operational efficiencies, data analytics and customer tools. Saskatoon Transit is working with various vendors to improve its ability to report on performance measures as well as informational tools for customers. Products such as these allow administration to make more accurate service delivery decisions while providing customers the ability to conveniently and reliably plan their trip.

Internal processes and standard operating procedures continue to be refined and developed at Saskatoon Transit. On-going reviews of how we do what we do will aid in the consistency of the service we provide as well as create opportunities to more effectively serve the citizens of Saskatoon.

Growth Plan to Half a Million:

In April of 2016, the Growth Plan to Half a Million was approved in principle by City Council. Transit forms an integral, coordinated part of this plan, in addition to Transportation Networks, Corridor Growth and Core Bridges. Part of the plan involves creation of two Bus Rapid Transit (BRT) routes over the next 30 – 40 years, the Blue Line (North South) and the Red Line (East West). It also calls for changing service in existing neighbourhoods to support the BRT lines and regular riders' access to transit in general. The plan calls for increased funding for Capital equipment and Service hours to support higher ridership in the Saskatoon area.

8th Street and 22nd Street Initiatives:

In an effort to better serve citizens and grow ridership, Saskatoon Transit implemented a concept that reallocates resources in order to increase frequency along popular routes.

Route changes to 8th Street occurred in July of 2016 to demonstrate the possibilities of a BRT system using principles found in the Growth Plan to Half a Million. Service along 8th Street supported 7.5-minute frequencies during peak periods and 10-minute frequencies during the remainder of the weekday, with 30-minute frequencies during evenings, weekends, and statutory holidays.

In July of 2017, routing near 22nd Street will be adjusted and will follow the principles and frequencies of 8th Street. Adjustments to Idylwyld Drive and College Drive are set for the summer of 2018.

Relocation to the Civic Operations Centre:

The City of Saskatoon initiated a project to replace the current Caswell Hill bus barns with a new purpose built garage. The site of the new facility is called the Civic Operations Centre (COC) and is located on Valley Road near the current landfill. Eventually this site will have facilities for other city divisions; however, at the moment, only the transit facility and a snow storage site have been occupied. The garage is the product of a public private partnership, which will see the day to the day operation of the facility itself managed by ENGIE Services. The garage is capable of housing up to 224 Transit buses and its LEED status is presently being confirmed. Much of the last quarter of 2016 was spent preparing for the move to the new facility.

Customer Support and Engagement:

2015 saw the creation of this section out of existing groups within Saskatoon Transit. In 2016, this section was lead for a number of initiatives that affected the way Saskatoon Transit deals with and affects Customers. In March 2016, citizen engagement was conducted on the proposed new routes to support the 8th Street Initiative. Throughout the year, this section was the lead on dealing with the transit software vendor TRAPEZE as well as Google and Transit App in order to get real-time information out to Customers. It also oversaw many of the upgrades and training for the current software modules enabling Saskatoon Transit to provide better responses to Customers who call in with complaints or requests for information.

Passenger Pledge:

In an effort to better serve our customer base and continue improving the transit experience, Saskatoon Transit is still working on developing customer commitments that will be a public pledge to the kind of service delivered to transit customers. The development of this passenger pledge has been based on the CUTA model which has become industry best practice. CUTA has developed training programs and initiatives that have supported the development of customer commitments and it is still the intent that Saskatoon Transit will use these practices. The development of the passenger pledge will continue to address the strategic goal outlined in the five-year transit plan of changing attitudes around transit and increasing Saskatoon Transit ridership.

Access Transit:

The Access Transit Administration will be reviewing other types of buses available in the market as 2016 is the last year that our current style of cutaway chassis will be available in diesel. Our storage facility is only set up to fuel vehicles with diesel. There are new types of smaller buses coming into this market segment that are diesel but they are smaller and more expensive. The advantage or trade-off is that their fuel economy is better, and some of the builds appear to be better quality which will translate into a longer lifespan.

Access Transit Administration would like to take this opportunity to sincerely thank the Provincial Government, the Saskatoon Health Region, and the City of Saskatoon for continuing this essential service for people living with disabilities in our community. Our team is dedicated to providing a caring quality service to our customers. Last but not least, we want to thank our customers for using Access Transit.

IN CONCLUSION

Saskatoon Transit has had a challenging few years, highlighted by equipment, bargaining and personnel related issues. In 2016, bargaining for the 2012 Collective Agreement was finally concluded and the workforce was looking forward to moving into a new facility. There is a concerted effort to move Saskatoon Transit forward and continue to build a reliable service as well as relationships with employees and customers.

Funding from PTIF has come available, most of this will be spent starting in 2017 and will see a number of additional buses purchased over the next three years that will allow Saskatoon Transit to get closer to its target of 100% accessible buses. PTIF will also allow a number of engineering designs to be developed for Bus Rapid Transit facilities that support the Growth Plan to Half a Million. With the latest announcements for PTIF Phase II Saskatoon could see up to \$200 Million in grants from the Federal Government which could be used to make the BRT a reality on the road.

Saskatoon Transit currently provides service mandated through the Official Community Plan, with some augmentation to provide peak hour frequency. The concepts of coverage and frequency, as part of the same spectrum, are adequate and in general being met, but through the Growth Plan to Half a Million, Saskatoon is on the way to providing effective Mass Transit to those in this City in both service delivery and the planning of same. We have turned a significant corner in terms of cross divisional coordination and this should stand the City in good stead for the future.

Saskatoon Transit is committed to doing better! One of the primary aims is to connect our community by providing professional, reliable, safe and affordable mobility options.

Saskatoon Transit P0583 Gas Tax Capital Funding Transfer

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That \$198,838.16 be transferred from the Federal Gas Tax Fund to Capital Project #583 – Transit Bus Replacement/Refurbishment.

Topic and Purpose

The purpose of the report is to obtain City Council approval to transfer \$198,838.16 from the Federal Gas Tax Fund (GTF) to Capital Project #583 – Transit Bus Replacement/Refurbishment.

Report Highlights

1. The GTF is available to municipalities to build and revitalize local infrastructure.
2. Additional funding of \$198,838.16 is to be transferred from the GTF to Capital Project #583 Transit Bus Replacement/Refurbishment to cover the full costs of the bus purchases.

Strategic Goal

The recommendation in this report supports the Strategic Goal of Asset and Financial Sustainability. Allocating resources to civic assets ensures that they are well-managed and well-maintained, meeting the needs of citizens.

Background

On September 29, 2014, City Council approved the purchase of ten new Nova low-floor buses for a total cost of \$4,630,000 funded by the GTF. These buses were delivered in 2015.

On June 22, 2015, City Council approved that funding in the amount of \$4,950,000.00 be made from available GTFs and be transferred to Capital Project 583 – Transit Bus Replacement/Refurbishment for the purchase of ten new low-floor buses. These buses were delivered in 2016.

Report

Federal Gas Tax Fund

The GTF assists municipalities by providing funding for local infrastructure projects. Communities are able to use the GTF towards a wide variety of projects such as public transit, water and wastewater infrastructure, drinking water, and solid waste management to name a few.

Funding is provided twice per year to provinces and territories who then flow this funding to the municipalities to support local infrastructure priorities.

Additional Funding for Transit Bus Purchases

The purchase of the buses and subsequent fit-out of these purchases with radios was higher than the estimated costs detailed in the City Council reports. The total cost for the buses including getting them ready for service was \$4,701,502.26 and \$5,077,335.90 for the buses delivered in 2015 and 2016 respectively. Additional funding of \$198,838.16 is required to fully fund these purchases. The funding from the GTF has been received by the City of Saskatoon and is available to cover the extra costs required.

Financial Implications

A transfer of GTFs to Capital Project #583 Transit Bus Replacement/ Refurbishment is required in the amount of \$198,838.16.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, communications, policy, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

There is no follow-up report.

Public Notice

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

Report Approval

Written by: Beverly Stanley, Accounting Coordinator II
Reviewed by: Shelley Korte, Director of Business Administration, Transportation & Utilities Portfolio
Reviewed by: James McDonald, Director of Saskatoon Transit
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JM – Saskatoon Transit P0583 Gas Tax Capital Funding Transfer.docx

Saskatoon Transit Capital Projects Closure

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That \$193,612 be transferred from the former Federal Transit Funding Program funds to Capital Project #2320 – Dart System Improvements.

Topic and Purpose

The purpose of this report is to obtain City Council approval to fund a capital project over expenditure.

Report Highlights

1. During a comprehensive review of Capital projects, one project was found to be complete and can be closed, with a net over expenditure of \$193,612.
2. This project requires Council approval to fund over expenditures.

Strategic Goal

The recommendation in this report supports the Strategic Goal of Asset and Financial Sustainability. Allocating resources to civic assets ensures that they are well-managed and maintained, meeting the needs of citizens.

Background

A comprehensive review of Saskatoon Transit capital programs has resulted in the closure of one project, Capital Project #2320 – Dart System Improvements. This project was originally approved in 2009 and included the implementation of software for real-time mapping, bus stop annunciations, bus head sign integration and transit signal priority.

Report

Capital Project #2320 – Dart System Improvements (approved budget of \$3,106,000) has a net over expenditure of \$193,612. The over expenditure is due to the extended time and complexity of the implementation. In addition, inflation had an impact due to the time lag of estimated expenditures and realization of actual costs (2009 to 2014).

The Administration is recommending that funding from the former Federal Transit Funding Program in the amount of \$193,612 be allocated to allow for the closure of this project. This project was covered under a former federal funding program, not to be confused with the 2016 Public Transit Infrastructure Funding Program.

Financial Implications

There is sufficient funding in the former Federal Transit Funding Program funds to cover the outstanding balance in Capital Project #2320 – Dart System Improvements.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, communications, policy, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

There will be no follow-up report.

Public Notice

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

Report Approval

Written by: Beverly Stanley, Accounting Coordinator II
Reviewed by: Shelley Korte, Director of Business Administration, Transportation & Utilities Portfolio
Reviewed by: James McDonald, Director of Saskatoon Transit
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities

TRANS JM Saskatoon Transit Capital Projects Closure

Street Cleaning and Sweeping Service Level

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the Street Cleaning and Sweeping service level and budget allocation be rationalized during the 2018 Business Plan and Budget deliberations by recommending an option as outlined in this report; and
2. That the current service level for the Street Cleaning and Sweeping service line be approved.

Topic and Purpose

The purpose of this report is to provide information on the current service level provided under the Street Cleaning and Sweeping service line and options for service level and budget rationalization.

Report Highlights

1. The Street Cleaning and Sweeping service line is the first to be presented using the Administration's new formal service level template.
2. The Street Cleaning and Sweeping service line delivers core programming for citizens from April to October.
3. Since 2014, the Street Cleaning and Sweeping programs have undergone extensive improvements to meet citizen expectations but with these improvements have come budgetary pressures.

Strategic Goals

This report supports the Strategic Goals of Quality of Life, Continuous Improvement, Environmental Leadership, Moving Around, and Asset and Financial Sustainability. The annual sweeping program is responsive to the needs of citizens, preserves air quality, reduces the amount of debris in storm water runoff, and improves overall city cleanliness for Saskatoon citizens and visitors. Defined service levels ensure the City is making informed financial decisions and investing in services that matter to citizens.

Background

At the April 4, 2017 meeting of the Standing Policy Committee on Transportation, the Administration committed to bring forward a formal service level document for the Street Cleaning and Sweeping service line for consideration prior to the 2018 Business Plan and Budget deliberations.

At the May 15, 2017 meeting of the Governance and Priorities Committee, the Administration committed to bring forward a series of service level documents on core services.

Report

Formal Service Level Template

Work to define service levels and attach unit costs for informed decision making has been a priority of the Administration for the last three years as part of the Continuous Improvement Strategic Goal and the 4-year priority “opportunities to modernize civic government”. In early 2017, a multi-division internal process review team developed a template to outline service level information at the service line level.

The template for formal service level documents communicates two key messages:

1. Information for citizens, Committees, and City Council about “what we do”, “why we do it”, and “how much it costs” for each service line.
2. Viable options to the current state of service levels, entitled “what else is possible”.

This service level template will be used to support the presentation of service levels for core service lines.

Street Cleaning and Sweeping Service Line

Street sweeping is a core function of the City. Each program within the service line is executed to enable mobility, preserve air and water quality, maintain surface drainage, keep roads safe, and improve aesthetics of City streets and adjacent infrastructure.

Currently, the service line consists of four programs:

- Spring Debris Removal (April and May),
- Comprehensive Street Sweep (May to June),
- Housekeeping (May to September), and
- Comprehensive Street Cleaning for Drainage Improvement (October).

Attachment 1 provides additional detail on each program’s intended outcome, performance measures, guiding service attributes and customer values, and estimated unit costs.

Service Level Improvements and Budget Pressures

Since 2014, the Street Cleaning and Sweeping programs have undergone extensive improvements to meet citizen expectations. Examples of improvements include:

- Schedule and work practice changes to manage safety in school zone;
- Introduction of No-Parking signage and restrictions to improve the overall quality of the program;
- Schedule and program design changes to reduce negative parking impacts on citizens;
- Responsive service for those requesting street sweeping prior to special events;
- Changes to the frequency of housekeeping-type sweeping activities; and
- Continued expansion of the roadway network included in the street sweeping inventory.

Street Cleaning and Sweeping Service Level

Budgetary pressures have accompanied these improvements. Since 2014, program costs for street cleaning and sweeping have exceeded the approved budget by approximately \$650,000 per year. Administration has identified a structural deficiency with the Street Cleaning and Sweeping Service Line's expenditure budget based on current service levels that needs to be addressed to establish a sound foundation on which to move forward with multi-year budgeting.

Attachment 2 provides three options to rationalize the Street Sweeping and Cleaning program's service level and budget. Option scenarios include:

1. An increase to the annual budget allocation to meet current service level.
 - a. Impact: Service delivery continues to meet citizen expectations.
 - b. Risk: Budget increase to this mill-rate supported service line.
2. A reduction in the current service level to meet the current budget allocation.
 - a. Impact: No cost increases to this mill-rate supported service line.
 - b. Risk: Service is delivered in a manner contrary to citizen expectations, and may increase water and sewer maintenance costs due to higher levels of debris entering the storm sewer system.
3. A compromise between service level reductions and a budgetary increase.

The Administration recommends that the Standing Policy Committee on Transportation recommends an option, to eliminate the base budget funding deficiency of this service line, to City Council for the 2018 Business Plan and Budget deliberations.

Options to the Recommendation

The Standing Policy Committee on Transportation may direct the Administration to investigate further options to rationalize the Street Cleaning and Sweeping service level and budget prior to making a recommendation to City Council for the 2018 Business Plan and Budget deliberations.

Communication Plan

Street sweeping activities are traditionally promoted through Public Service Announcements, social media, website, and through the Building Better Roads campaign. Any change to the current service level or program will be communicated through these methods as needed.

Financial Implications

Each year since 2014, the street sweeping and cleaning service line has been approximately \$650,000 over-budget. Efficiencies have been introduced to reduce expenditures; however, the current service level cannot be provided within the current budget.

Environmental Implications

If the street cleaning and sweeping service level was significantly decreased or eliminated, the long-term quality of storm water run-off would be adversely effected as winter road maintenance materials would enter the storm water system and eventually

Street Cleaning and Sweeping Service Level

the South Saskatchewan River. Additionally, air quality in the city would decline in the absence of continued maintenance programming.

Other Considerations/Implications

There are no policy, public and/or stakeholder involvement, privacy, or CPTED implications or considerations.

Due Date for Follow-up

A follow-up report outlining details, as needed, to support the recommended rationalization of service level and budget will be presented to City Council during the 2018 Business Plan and Budget deliberations.

Public Notice

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

Attachments

1. Service Level for Street Cleaning and Sweeping Service Level
2. Options to the Current Service Level for Street Cleaning and Sweeping

Report Approval

Written by: Kristin Bruce, Performance Improvement Coordinator,
Employee Experience & Performance
Brandon Harris, Director of Roadways & Operations

Reviewed by: Kim Matheson, Director of Employee Experience & Performance

Approved by: Angela Gardiner, Acting General Manager,
Transportation & Utilities

TRANS KB – Street Cleaning and Sweeping Service Level

Service Level for Street Cleaning and Sweeping

Scope

Service Level (SL) documents are prepared to allow citizens of the City of Saskatoon (City) to review and understand the services *currently* provided. This document includes activities completed under the Street Cleaning and Sweeping service line. This service may be completed by various divisions in the City.

Service Overview: what we do

The Street Cleaning and Sweeping service line funds two programs: Street Cleaning and Sweeping as well as Dust Palliation.

The City's annual Street Cleaning and Sweeping program focuses on improving citizen mobility for all modes of transportation, preserving air and water quality, maintaining surface drainage integrity, as well as improving aesthetics of City streets and adjacent infrastructure by removing sand and debris. The program provides sand and debris removal starting in April and city-wide sweeping service from May to June. Repeat sweeping service is provided to high use areas including high traffic streets and high density business districts from May to September. In October, the program focuses on sweeping areas at highest risk for spring flooding.

The City's Dust Palliation program focuses on managing air quality issues for properties within the city limits that are near high traffic gravel roads. The program applies a dust suppressant material to graded gravel roads in early summer; if needed a second application is done in the fall.

Purpose: why we do it

The City's Annual Street Cleaning and Sweeping program is provided to improve the quality of life of citizens, meet diverse transportation needs, and reduce environmental impacts.



Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
Spring Debris Removal	Responsiveness, Efficiency, Environmental Responsibility, Safety	Major debris is removed from high traffic streets, medians, and park frontages to reduce debris entering the storm water system, to improve air quality, and to improve traction by removing loose material.	Pick up at least 25% of winter operations debris. Complete program prior to the end of May.
Comprehensive Street Sweep	Quality, Safety, Aesthetics	Curb-to-curb sweeping of residential streets.	Complete program prior to the end of June. Relocate and fine less than 4,000 vehicles per year. No-Parking signs posted no less than 36 hours in advance of sweep. Vehicle locations available within Find My Vehicle App within 5 minutes of relocation.
Housekeeping	Responsiveness, Accessibility, Aesthetics, Quality of Life, Economic Prosperity, Safety	Routine debris removal for high traffic streets and high density business areas to improve cleanliness and minimize dust in high use areas Debris removal for special events and emergencies.	Remove debris from high traffic driving lanes once per month from May to September. Remove debris from Business Improvement Districts once per month from June to September.
Comprehensive Street Cleaning for Drainage Improvement	Quality, Fiscal Responsibility, Safety	Curb-to-curb sweeping of high flood risk and heavy tree canopy areas to improve spring drainage.	No-Parking signs posted no less than 36 hours in advance of sweep. Relocate and fine less than 1,000 vehicles per year. Vehicle locations available within Find My Vehicle App within 5 minutes of relocation.
Dust Palliation	Responsiveness, Safety, Quality of Life	Strategic application of dust suppressant on high traffic gravel roads within the city limits to limit the negative impact to air quality.	Dust suppressant applied on rural roads prior to the end of July.

Resource Allocation: what does it cost

All costing information presented is estimated based on available data.

Service Line	Programs	2017 Budgeted Cost to Deliver Service	2017 Estimated Actual Cost to Deliver Service	2017 Estimated Variance
Street Cleaning and Sweeping	Spring Debris Removal, Comprehensive Street Sweep, Housekeeping*	\$3,640,000	\$4,250,000	\$610,000
	Dust Palliation	\$125,000	\$125,000	\$0

* The Comprehensive Street Cleaning for Drainage Improvement program is not funded through the Street Cleaning and Sweeping Service Line and as such is not included above. This program is funded through the Storm Water Management Utility Service Line.

Program	Cost per Program	Cost per Unit
Spring Debris Removal <i>Unit: # kms (= 670 kms)</i>	\$1,200,000	\$1,800 per kilometre
Comprehensive Street Sweep <i>Unit: # square metres (= 17 M sq. m.)</i>	\$2,400,000	\$0.14 per square metre
Housekeeping	Rotating Business Improvement District Sweeps \$225,000 <i>Unit: # square metres (= 2 M sq. m.)</i>	\$0.11 per square metre
	Rotating Priority Street Sweeps \$410,000 <i>Unit: # kms (= 810 kms)</i>	\$500 per kilometre
Comprehensive Street Cleaning for Drainage Improvement	\$275,000 <i>Unit: # neighborhoods (= 9 neighborhoods)</i>	\$35,600 per neighborhood
Dust Palliation <i>Unit: # square metres (= 80 K sq. m.)</i>	\$125,000	\$1.60 per square metre

Financial Assumptions

- The total cost to provide the Street Cleaning and Sweeping Program in future years will be similar to that in 2014, 2015, and 2016, because the service level being provided is similar.
- Increases in the total cost to deliver the program occur due to the cost of inflation and additional inventory growth.
- Growth in inventory is generally one to two years behind, as new roadway maintenance does not immediately become the responsibility of Roadways and Operations in developing neighbourhoods. Sweeping in developing neighbourhoods is the responsibility of the developer.

Supporting Information



Constraints

Risk factors and variances that impact the ability to deliver the service include:

- Weather,
- The amount of debris on roadways, and
- Hauling and disposal fees of debris.

Additionally, discontinuing the current service level may increase water and sewer maintenance costs due to higher levels of debris entering the storm sewer system.

Supporting References

- Anti-dumping Bylaw No. 5713

Options to the Current Service Level for Street Cleaning and Sweeping

Optional Service Levels: *what else is possible*

Table 1 below provides three options to rationalize the Street Cleaning and Sweeping service level with the budget allocation. All costing information presented is estimated based on available data. Options include:

1. An increase to the annual budget allocation to meet the current service level;
2. A reduction in the current service level to meet the current budget allocation; and
3. A compromise between options one and two.

Following this Table 2 outlines options to increase the current service level after the base budget issue has been addressed.

Table 1

#	Option Description	Change in Service Level	Service Line Annual Cost	Required Adjustment to Current Budget	Impact to Current Variance
1	Rationalized Funding with Current Service Level	No change	\$4.25 M	Addition of \$610 K	Eliminated

#	Option Description	Change in Service Level	Service Line Annual Cost	Required Adjustment to Current Budget	Impact to Current Variance
2	A) Reduce Service Level to Meet Current Budget	<ul style="list-style-type: none"> • Convert Comprehensive Street Sweep Program Model to Debris Pick-up Model • Lower overall quality of program as signage, ticketing, towing services are no longer used • Current cost reduction of \$600 K • Contrary to current citizen expectations 	\$3.65 M	\$0	Eliminated
	B) Reduce Service Level to Meet Current Budget	<ul style="list-style-type: none"> • Each year, half of the residential neighborhoods would be swept in the Comprehensive Street Sweep Program using current practices • Lower overall quality of program • Current cost reduction of \$1 M • \$400 K is available to manage future growth or to create budget savings • Contrary to current citizen expectations 	\$3.25 M	Reduction of \$400 K	Eliminated

#	Option Description	Change in Service Level	Service Line Annual Cost	Required Adjustment to Current Budget	Impact to Current Variance
3	Compromise	<ul style="list-style-type: none"> • Elimination of No-Parking signage within Comprehensive Street Sweep • Replace with a Calendar Sweep Program where streets scheduled for sweeping will not be physically posted as no parking • Increased fines and vehicle relocations • Current cost reduction of \$400 K • Contrary to current citizen expectations 	\$3.85 M	Addition of \$210 K	Eliminated

Table 2

#	Option Description	Change in Service Level	Service Line Annual Cost	Required Adjustment to Current Budget	Impact to Current Variance
4	A) Expanded Comprehensive Street Cleaning for Drainage Improvement Program	<ul style="list-style-type: none"> • Reduce spring flooding risk 	Costs for this option will be presented in a follow up report to SPC on Transportation.		
	B) Create Service Level for Sidewalks and Medians	<ul style="list-style-type: none"> • Remove debris built up from winter operations from sidewalks and boulevards adjacent to high traffic streets • Risk of damage to tree inventory 	\$4.4 M	Addition of \$115 K	Increases to \$725 K
	C) Increased Service Level for BIDs	<ul style="list-style-type: none"> • Currently providing routine debris removal service to BIDs once per month from May to September • Increase service to twice a month from May to September 	\$4.7 M	Addition of \$420 K	Increases to \$1 M
	D) Increased Service Level for Dust Palliation in Backlanes	<ul style="list-style-type: none"> • Strategic completion of dust palliation in backlanes 	\$4.25 M plus increases of \$1.60 per square metre	Increases \$1.60 per square metre	Increased

Snow & Ice Service Design Project Update

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the survey results be received as an accurate representation of how Saskatoon citizens move around in winter; and
2. That the Administration be directed to use the survey results and feedback from the co-design exercise as part of a citizen-centric approach to improving winter maintenance programs.

Topic and Purpose

This report provides the findings of the engagement phases of the Snow & Ice Service Design Project, conducted throughout March and April 2017. The two main objectives of this report are to:

- 1) Instill confidence that the survey results are a current representation of Saskatoon citizen experiences and values; and
- 2) Approve the citizen centric approach for modifying existing programs and proposing new services.

Report Highlights

1. The Snow & Ice Service Design Initiative was tailored to consider all common modes of transportation in winter using a service design approach. Citizens Co-design event deliverables include clear, visual interpretation of citizen mobility barriers and innovative ideas for addressing challenges.
2. Almost 1,800 (1,786) people completed the survey, with representation from different ages, neighbourhoods, transportation preferences, and backgrounds.
3. The Co-Design event allowed citizens to illustrate mobility barriers and generate innovative ideas for mobility improvement in the winter.
4. The execution phase will include a review of existing services that address the top issues for respondents, testing solutions, and evaluating ideas before implementation for the 2017/18 winter season.

Strategic Goals

This report supports the Strategic Goals of Continuous Improvement, Moving Around, Environmental Leadership, and Quality of Life by obtaining citizen feedback on their perception of snow and ice maintenance, understanding their challenges and exploring innovative solutions to improve winter mobility in Saskatoon.

Background

The City of Saskatoon (City) is seeking ways to improve mobility for Saskatoon citizens during the winter. As Saskatoon grows, innovative solutions are critical to sustaining services and improving the lives of residents.

During the 2017 Business Plan and Budget Deliberations held on November 30 and December 1, 2016, City Council considered the Winter Road Maintenance – 2017 Options for Additional Snow Removal Funds, and resolved, that Option 1 be implemented as outlined in the report. As part of this option, Administration was to “develop and begin implementation of an engagement and communications plan to measure satisfaction and collect feedback from residents about the winter road maintenance level of service. The plan would leverage on existing neighbourhood engagement programs and could include open houses, focus groups, and polling surveys.”

Report

Three-Phase Snow & Ice Service Design Initiative Undertaken

The Snow & Ice Service Design Initiative was tailored to address all common modes of transportation used by Saskatoon residents during the winter: passenger vehicles, bicycles, sidewalks, and public transit. It also explored the values of citizens and businesses in the context of civic spending, investment in mobility, and impacts on the environment. The findings from the investigation provide the foundation for future service level changes and improvements to existing programs. The Service Design approach for this project has three phases; a Snow & Ice survey, a citizen co-design event, and an execution phase. To-date, the survey and co-design event have been completed.

In total there were 1,786 surveys completed throughout the month of March with representation from users of all four main transportation modes and 64 neighbourhoods across the City. The Snow & Ice survey was open for the month of March, utilizing radio and print advertising as well as social media for promotion. Citizens were also given an opportunity to discuss their issues with City staff and provide instant feedback through “I am concerned...”, “I want to know...” and “I appreciate...” feedback sheets. This technique proved as a successful tool when speaking with residents who were passionate about snow and ice maintenance as their thoughts were able to be captured directly.

Mobility Barriers Identified

The survey was specifically designed to identify barriers for residents of different ages, neighbourhoods, transportation preferences, and backgrounds. Survey respondents were asked to indicate which modes of transportation they use in the winter (personal vehicle, transit, cycling or using sidewalks) and what their experience has been.

- The majority of Saskatoon drivers reported that freeways such as Circle Drive, as well as major arterial roads such as 22nd Street and 8th Street, are typically safe and in fair-to-good condition during the winter.
- Respondents were divided on neighbourhood road conditions, those with concerns stating uncleared snow as their biggest challenge.
- Transit users indicated good or excellent winter accessibility at most bus stops but suggest some inconsistency where windrows can become a concern.

- The majority of cyclists indicated that downtown protected bike lanes were in usable condition; however, almost half of cyclists report not using the bike lanes at all in the winter.
- Aggressive drivers were reported as the greatest deterrent for winter cycling, followed by a combination of ice, snow and slush concerns.
- The largest concern with City sidewalks, in winter, is residential sidewalk clearing bylaw compliance.
- Survey results showed that there is a strong willingness for residents to help their neighbours with shovelling snow.

Values questions presented in the survey were designed to gather data on how citizens personally balance the importance of controlling civic spending, maintaining a high level of mobility, and protecting the environment. More than half of participants agree or strongly agree that winter service levels should be improved and accept that there will be additional costs and environmental impacts associated with increased winter maintenance work.

A complete set of survey results can be found in Attachment 1.

Co-Design Event Identifies Barriers and Generates Ideas

The second phase of the Service Design initiative was a citizen co-design event. During the event, participants representing various community interest groups explored survey results and verbatim comments received from citizens throughout March. The session allowed participants to step into the shoes of residents and business owners, understand the challenges they face every day, and come up with innovative ideas to modify existing programs or pilot new initiatives to improve winter mobility for all residents. Deliverables of the sessions included clear, visual interpretations of citizen mobility barriers and a number of innovative ideas for addressing mobility challenges.

Some examples of ideas generated in the exercise include adding pedestrian bulbs along major streets, enhanced bylaw enforcement for residential and business sidewalk clearing, partnerships with community groups for sidewalk snow and ice management, incentives for people to take transit, support programs for encouraging proper winter mobility equipment such as winter tires, and changes to infrastructure design.

Exploring Solutions for 2017/18 Winter Program Improvements

The final stage of the initiative is the execution phase, which consists of translating ideas and suggestions into actionable deliverables. The execution phase includes the following elements:

- Reviewing 2017/18 winter program designs considering citizen suggestions and feedback;
- Implementation of program design changes to address barriers;
- Development of internal expert innovation teams to determine feasibility and create prototypes and pilot studies for proposed projects;
- Undertake tests and pilot studies; and
- Evaluate outcomes and recommend initiatives for budgetary consideration.

Public and/or Stakeholder Involvement

All citizens, including the City's Citizen Advisory Panel, were invited to participate in the survey through the Shaping Saskatoon site. The City recognized that online engagement does not provide an opportunity for everyone to participate, especially those who either do not have access to computers or are lacking the technical capability to complete the survey. For this reason, booths were set up at the Homestyles Show, Gardenscape Show, Market Mall, the University of Saskatchewan, and the Newcomers Information Centre where survey access and assistance was provided. In addition to English, the survey was also available in French, Mandarin and Arabic; which is a City of Saskatoon first.

The Co-design exercise was held the evening of April 25, 2017. In attendance were City officials, two City Councillors, His Worship the Mayor and representatives of the following groups:

- Accessibility Advisory Committee;
- Business Improvement Districts (Broadway, Downtown, Riversdale & 33rd Street);
- In Motion;
- Newcomer's Information Centre;
- Population and Public Health – Injury Prevention;
- Public School Board;
- Saskatoon Council on Aging;
- Saskatoon Cycles; and
- Saskatoon Environmental Advisory Committee.

Options to the Recommendation

City Council may direct Administration to expand the engagement exercise to obtain a statistical, quantitative representation to validate the qualitative analysis completed. The estimated cost of this additional exercise is \$40,000.

City Council may direct Administration to continue with the existing program review approach that seeks to incrementally increase efficiency and quantity of existing programs rather than developing new citizen-centric programs.

Communication Plan

A variety of tools will be used to update the media and the public on the results of the Snow & Ice survey and Co-Design event. This will include a news release and social media updates on Twitter and Facebook directing people to the website for survey results.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Recommended initiatives will be presented to City Council during the 2018 Business Plan and Budget deliberations.

Public Notice

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

Attachment

1. Snow & Ice Survey Results, March 2017

Report Approval

Written by: Leah Lagacy, Director's Assistant, Roadways & Operations
Reviewed by: Brandon Harris, Director of Roadways & Operations
Approved by: Angela Gardiner, Acting General Manager,
Transportation & Utilities

TRANS LL – Snow & Ice Service Design Project Update

Snow & Ice Survey Results March 2017

Results compiled by: Fast Consulting

Frequencies

Shaping Saskatoon - Questions Asked of All

Q2 What modes of transportation do you use in Saskatoon in the winter?

	Frequency	Percent	Valid Percent
Valid Pedestrian	1004	56.2	56.2
Driving	1669	93.4	93.4
Transit	316	17.7	17.7
Cycling	191	10.7	10.7
Total	1786	100.0	100.0

Q3 What is your age?

	Frequency	Percent	Valid Percent
Valid 0-20	26	1.5	1.5
21-35	488	27.3	27.3
36-50	522	29.2	29.2
51-70	664	37.2	37.2
71+	80	4.5	4.5
Prefer not to answer	6	.3	.3
Total	1786	100.0	100.0

Q4 In what neighbourhood do you live?

	Frequency	Percent	Valid Percent
Valid Varsity View	40	2.2	2.2
Brighton	3	.2	.2
Lakewood	9	.5	.5
Brianwood	36	2.0	2.0
College Park	57	3.2	3.2
Lakeridge	29	1.6	1.6
Lakewood	5	.3	.3
Lakeview	59	3.3	3.3
Rosewood	28	1.6	1.6
Wildwood	31	1.7	1.7
Nutana	98	5.5	5.5
Adelaide/Churchill	36	2.0	2.0
Avalon	37	2.1	2.1
Brevoort Park	27	1.5	1.5
Buena Vista	58	3.2	3.2
Eastview	40	2.2	2.2
Exhibition	25	1.4	1.4
Greystone Heights	16	.9	.9
Grosvenor Park	13	.7	.7
Haultain	40	2.2	2.2
Holliston	25	1.4	1.4
Nutana Park	24	1.3	1.3
Queen Elizabeth	29	1.6	1.6
Stonebridge	58	3.2	3.2
The Willows	2	.1	.1

Q4 In what neighbourhood do you live?

	Frequency	Percent	Valid Percent
Valid University Heights	5	.3	.3
Arbor Creek	28	1.6	1.6
Aspen Ridge	1	.1	.1
Erindale	27	1.5	1.5
Evergreen	28	1.6	1.6
Forest Grove	30	1.7	1.7
Silverspring	30	1.7	1.7
Sutherland	39	2.2	2.2
University Heights	2	.1	.1
Willowgrove	51	2.9	2.9
Blairmore	4	.2	.2
Kensington	10	.6	.6
Confederation	52	2.9	2.9
Dundonald	34	1.9	1.9
Fairhaven	23	1.3	1.3
Hampton Village	41	2.3	2.3
Holiday Park	13	.7	.7
Hudson Bay Park	12	.7	.7
Massey Place	16	.9	.9
Meadowgreen	18	1.0	1.0
Montgomery Place	15	.8	.8
Mount Royal	17	1.0	1.0
Pacific Heights	25	1.4	1.4
Parkridge	25	1.4	1.4
Westview	28	1.6	1.6
Caswell Hill	40	2.2	2.2
City Park	66	3.7	3.7
King George	21	1.2	1.2
Pleasant Hill	14	.8	.8
Riversdale	23	1.3	1.3
Westmount	11	.6	.6
Kelsey-Woodlawn	5	.3	.3
Lawson Heights	27	1.5	1.5
Mayfair	16	.9	.9
North Park	27	1.5	1.5
Richmond Heights	7	.4	.4
River Heights	31	1.7	1.7
Silverwood Heights	80	4.5	4.5
Prefer not to answer	19	1.1	1.1
Total	1786	100.0	100.0

Q16 I believe that winter service levels should be improved, and I accept that there will be additional costs and environmental emissions associated with this work.

	Frequency	Percent	Valid Percent
Valid Strongly Agree	344	19.3	19.3
Agree	640	35.8	35.8
Neutral	379	21.2	21.2
Disagree	248	13.9	13.9
Strongly Disagree	77	4.3	4.3
Prefer not to answer	98	5.5	5.5
Total	1786	100.0	100.0

Q17 I value reducing environmental impacts over increasing the City's snow and ice management service levels.

	Frequency	Percent	Valid Percent
Valid Strongly Agree	163	9.1	9.1
Agree	427	23.9	23.9
Neutral	494	27.7	27.7
Disagree	390	21.8	21.8
Strongly Disagree	191	10.7	10.7
Prefer not to answer	121	6.8	6.8
Total	1786	100.0	100.0

Q28 I value minimizing civic spending over increasing the City's snow and ice management service levels.

	Frequency	Percent	Valid Percent
Valid Strongly Agree	143	8.0	8.0
Agree	351	19.7	19.7
Neutral	433	24.2	24.2
Disagree	554	31.0	31.0
Strongly Disagree	192	10.8	10.8
Prefer not to answer	113	6.3	6.3
Total	1786	100.0	100.0

Q18 In your neighbourhood, do you feel sidewalks are cleared in a timely manner?

	Frequency	Percent	Valid Percent
Valid Always	144	8.1	8.1
Usually	697	39.0	39.0
Inconsistently	628	35.2	35.2
Never	232	13.0	13.0
Prefer not to answer	85	4.8	4.8
Total	1786	100.0	100.0

Q19 Do you help neighbors, or have neighbors helped you, with clearing your sidewalks of snow and ice?

	Frequency	Percent	Valid Percent
Valid Yes	1304	73.0	73.0
No	385	21.6	21.6
Prefer not to answer	97	5.4	5.4
Total	1786	100.0	100.0

Q20 Have you been nominated, or have you nominated someone, as a City of Saskatoon Snow Angel?

	Frequency	Percent	Valid Percent
Valid Yes	142	8.0	8.0
No	1547	86.6	86.6
Prefer not to answer	97	5.4	5.4
Total	1786	100.0	100.0

Q21 I believe school zones are maintained sufficiently in the winter to protect the safety of children?

	Frequency	Percent	Valid Percent
Valid Yes	740	41.4	41.4
Neutral	826	46.2	46.2
No	220	12.3	12.3
Total	1786	100.0	100.0

Q22 Snow removal is typically performed throughout the night, mainly to accommodate traffic volumes and parking during regular business hours. Noise associated with snow removal has the potential to disrupt citizens.

	Frequency	Percent	Valid Percent
Valid I have not experienced night-time snow removal activities.	497	27.8	27.8
I am not inconvenienced by winter road maintenance noise lev	979	54.8	54.8
I am inconvenienced by winter road maintenance noise levels	172	9.6	9.6
i am inconvenienced by winter road maintenance noise levels	30	1.7	1.7
Prefer not to answer	108	6.0	6.0
Total	1786	100.0	100.0

Q23 Please select your top three snow and ice related items based on how important they are to you: Multiple Response

	Frequency	Percent	Valid Percent
Valid Clear driving lanes	1241	69.5	69.5
Sand/Salt Intersections and Curves	1264	70.8	70.8
Clear Sidewalks	643	36.0	36.0
Sand/Salted Sidewalks	282	15.8	15.8
Clear bike lanes	159	8.9	8.9
Accessible transit	193	10.8	10.8
Bare pavement grading	187	10.5	10.5
On street residential parking	291	16.3	16.3
Back lane snow clearing	71	4.0	4.0
Safe School Zones	452	25.3	25.3
Fully accessible driveways	123	6.9	6.9
Total	1786	100.0	100.0

Frequency Table Shaping Saskatoon - Pedestrian

Q2.1 What modes of transportation do you use in Saskatoon in the winter? [Pedestrian]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Pedestrian	1056	100.0	100.0	100.0

Q3 What is your age? (Pedestrian Section Only)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-20	12	1.1	1.1	1.1
21-35	307	29.1	29.1	30.2
36-50	301	28.5	28.5	58.7
51-70	391	37.0	37.0	95.7
71+	43	4.1	4.1	99.8
Prefer not to answer	2	.2	.2	100.0
Total	1056	100.0	100.0	

Q4 In what neighbourhood do you live? (Pedestrian Section Only)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Varsity View	36	3.4	3.4	3.4
Brighton	1	.1	.1	3.5
Lakewood	3	.3	.3	3.8
Briarwood	21	2.0	2.0	5.8
College Park	27	2.6	2.6	8.3
Lakeridge	13	1.2	1.2	9.6
Lakewood	3	.3	.3	9.8
Lakeview	32	3.0	3.0	12.9
Rosewood	6	.6	.6	13.4
Wildwood	22	2.1	2.1	15.5
Nutana	74	7.0	7.0	22.5
Adelaide/Churchill	23	2.2	2.2	24.7
Avalon	18	1.7	1.7	26.4
Brevoort Park	16	1.5	1.5	27.9
Buena Vista	45	4.3	4.3	32.2
Eastview	19	1.8	1.8	34.0
Exhibition	18	1.7	1.7	35.7
Greystone Heights	10	.9	.9	36.6
Grosvenor Park	9	.9	.9	37.5
Haultain	30	2.8	2.8	40.3
Holliston	19	1.8	1.8	42.1
Nutana Park	14	1.3	1.3	43.5
Queen Elizabeth	23	2.2	2.2	45.6
Stonebridge	22	2.1	2.1	47.7
The Willows	1	.1	.1	47.8
University Heights	2	.2	.2	48.0
Arbor Creek	9	.9	.9	48.9
Aspen Ridge	1	.1	.1	49.0

Q4 In what neighbourhood do you live? (Pedestrian Section Only)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Erindale	13	1.2	1.2	50.2
Evergreen	19	1.8	1.8	52.0
Forest Grove	15	1.4	1.4	53.4
Silverspring	11	1.0	1.0	54.5
Sutherland	22	2.1	2.1	56.5
University Heights	2	.2	.2	56.7
Willowgrove	31	2.9	2.9	59.7
Blairmore	1	.1	.1	59.8
Kensington	5	.5	.5	60.2
Confederation	24	2.3	2.3	62.5
Dundonald	11	1.0	1.0	63.5
Fairhaven	14	1.3	1.3	64.9
Hampton Village	19	1.8	1.8	66.7
Holiday Park	7	.7	.7	67.3
Hudson Bay Park	8	.8	.8	68.1
Massey Place	8	.8	.8	68.8
Meadowgreen	8	.8	.8	69.6
Montgomery Place	5	.5	.5	70.1
Mount Royal	11	1.0	1.0	71.1
Pacific Heights	7	.7	.7	71.8
Parkridge	14	1.3	1.3	73.1
Westview	12	1.1	1.1	74.2
Caswell Hill	36	3.4	3.4	77.7
City Park	58	5.5	5.5	83.1
King George	11	1.0	1.0	84.2
Pleasant Hill	6	.6	.6	84.8
Riversdale	20	1.9	1.9	86.6
Westmount	5	.5	.5	87.1
Kelsey-Woodlawn	3	.3	.3	87.4
Lawson Heights	16	1.5	1.5	88.9
Mayfair	8	.8	.8	89.7
North Park	18	1.7	1.7	91.4
Richmond Heights	3	.3	.3	91.7
River Heights	22	2.1	2.1	93.8
Silverwood Heights	52	4.9	4.9	98.7
Other	2	.2	.2	98.9
Prefer not to answer	12	1.1	1.1	100.0
Total	1056	100.0	100.0	

Q5 The City clears sidewalks on bridges, in the downtown core and in front of civic facilities. How would you rate the city's performance on clearing these sidewalks?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	151	14.3	14.3	14.3
Good	699	66.2	66.2	80.5
Poor	159	15.1	15.1	95.5
Very Poor	27	2.6	2.6	98.1
Prefer not to answer	20	1.9	1.9	100.0
Total	1056	100.0	100.0	

Q6 What is your biggest concern with winter sidewalk conditions?

	Frequency	Percent
Valid Icy, slippery surfaces	590	55.9
Uncleared snow	186	17.6
Uneven surfaces and or trip hazards	130	12.3
Snow piles/windrows	76	7.2
Uncleared snow in bike lanes	5	.5
Power cords across sidewalk	1	.1
Road snow ploughed to sidewalk	4	.4
No consideration for disabled persons	3	.3
No concerns	3	.3
Drainage issues from melting snow/pooling water	3	.3
Thaw, freeze cycle/ice build up	3	.3
Sloppy, slushy conditions due to melted snow	4	.4
Hidden, unexpected ice/under snow, fresh snow/black ice	2	.2
All of the above	27	2.6
Unsure/dk	19	1.8
Total	1056	100.0

Q6 What is your biggest concern with winter sidewalk conditions?

		Valid Percent	Cumulative Percent
Valid	Icy, slippery surfaces	55.9	55.9
	Uncleared snow	17.6	73.5
	Uneven surfaces and or trip hazards	12.3	85.8
	Snow piles/windrows	7.2	93.0
	Uncleared snow in bike lanes	.5	93.5
	Power cords across sidewalk	.1	93.6
	Road snow ploughed to sidewalk	.4	93.9
	No consideration for disabled persons	.3	94.2
	No concerns	.3	94.5
	Drainage issues from melting snow/pooling water	.3	94.8
	Thaw, freeze cycle/ice build up	.3	95.1
	Sloppy, slushy conditions due to melted snow	.4	95.5
	Hidden, unexpected ice/under snow, fresh snow/black ice	.2	95.6
	All of the above	2.6	98.2
	Unsure/dk	1.8	100.0
	Total	100.0	

Q7 Do you normally use any of the following mobility aids?

		Frequency	Percent	Valid Percent
Valid	Cane	28	2.7	2.7
	Walker	7	.7	.7
	Wheelchair	3	.3	.3
	Mobility Scooter	3	.3	.3
	Service Animal	2	.3	.3
	None	964	91.3	91.3
	Total	1056	100.0	100.0

Q7 Do you normally use any of the following mobility aids? [Other (please specify)]

		Frequency	Percent	Valid Percent
Valid	Medical brace/medical aide	3	.3	10.3
	Pushing stroller	10	.9	34.5
	Fleet vehicle	1	.1	3.4
	Walking sticks/poles	3	.3	10.3
	Traction boots/grippers/spikes	8	.8	27.6
	A person assist me	3	.3	10.3
	Unsure/dk	1	.1	3.4
	Total	29	2.7	100.0
Missing	System	1027	97.3	
Total		1056	100.0	

Q8 How have you found the condition of the Meewasin Trail this winter?

		Frequency	Percent	Valid Percent
Valid	Excellent	118	11.2	11.2
	Usable	267	25.3	25.3
	Unusable	20	1.9	1.9
	I have not walked on the Meewasin Trail this winter	651	61.6	61.6
	Total	1056	100.0	100.0

Q8Comment How have you found the condition of the Meewasin Trail this winter?

		Frequency	Percent	Valid Percent
Valid	Icy, slippery patches/sections	21	2.0	28.0
	Uncleared snow	8	.8	10.7
	Water/pooling in some sections, then freeze	3	.3	4.0
	Clear snow off bench/clean benches	1	.1	1.3
	Clear/remove snow in timely manner	7	.7	9.3
	No concerns/good condition/satisfied	13	1.2	17.3
	Thaw, freeze cycle/ice build up	4	.4	5.3
	Uncleared snow - in some sections	3	.3	4.0
	Avoid unusable sections	3	.3	4.0
	Sloppy, slushy conditions due to melted snow	1	.1	1.3
	Some sections - poor condition/uneven, heaving, cracked	1	.1	1.3
	More lighting on paths/replace burnt out lights	1	.1	1.3
	Satisfied with condition of paths	2	.2	2.7
	Respect patrons using path when operating equipment on path	1	.1	1.3
	Miscellaneous	4	.4	5.3
	Unsure/dk	2	.2	2.7
	Total	75	7.1	100.0
Missing	System	981	92.9	
Total		1056	100.0	

Q9Comment When walking about the city in winter, what do you personally find are your greatest challenges? Multiple Response

	Responses		Percent of Cases
	N	Percent	
Q9 Uncleared snow - sidewalks	395	28.7%	46.5%
Icy, slippery conditions/Icy patches - sidewalks	426	31.0%	50.1%
Uncleared snow in timely manner - bridge	25	1.8%	2.9%
Uncleared snow - businesses	15	1.1%	1.8%
Snow piles/windrows	102	7.4%	12.0%
Uncleared snow - park paths	17	1.2%	2.0%
Speed of traffic/undue care & attention	30	2.2%	3.5%
Sloppy, slushy conditions due to melted	13	.9%	1.5%
Uneven surfaces	75	5.5%	8.8%
Uncleared snow - streets, crosswalks, intersections, curbs	61	4.4%	7.2%
Rutted, uneven roads	20	1.5%	2.4%
Using too much salt/sand	5	.4%	.6%
Sidewalks - poor condition/uneven, heaving, cracked	19	1.4%	2.2%
Uncleared snow - bike lanes	2	.1%	.2%
Hidden, unexpected ice/under snow, fresh snow/black ice	31	2.3%	3.6%
Slipping/falling	17	1.2%	2.0%
Crossing rutted, icy streets	11	.8%	1.3%
Drainage issues from melting snow/pooling	30	2.2%	3.5%
Crossing streets - snowy/icy conditions	2	.1%	.2%
Thaw, freeze cycle/ice build up	41	3.0%	4.8%
Lack of sidewalks/no sidewalks for pedestrians	7	.5%	.8%
Accessibility for all/access ramps	1	.1%	.1%
Miscellaneous	3	.2%	.4%
Poorly timed lights/unresponsive	4	.3%	.5%
No challenges	22	1.6%	2.6%
Total	1374	100.0%	161.6%

Q10Comment Do you have any recommendations for improvement? Multiple Response

		Responses		Percent of Cases
		N	Percent	
Q10	Clear snow in a timely manner	61	7.6%	9.0%
	Use salt/sand	77	9.6%	11.3%
	Satisfied with City efforts	30	3.7%	4.4%
	Maintain streets/sidewalks with equipment/more equipmen	19	2.4%	2.8%
	Enforcing by-laws/enforcement	166	20.7%	24.4%
	Clear snow piles/windrows dumped on sidewalks	46	5.7%	6.8%
	Clear snow in timely manner - bike lanes	5	.6%	.7%
	Snow removal operators - be aware surroundings/cars/people	3	.4%	.4%
	Cleared snow - bridges/bus stops	17	2.1%	2.5%
	Clear sidewalks and crosswalks of snow & ice	46	5.7%	6.8%
	More protection of elements/warm up - more bus shelters	4	.5%	.6%
	Thaw, freeze cycle/ice build up, water pooling	4	.5%	.6%
	Respond quick/earlier action to storms	17	2.1%	2.5%
	Enforcing by-laws - business	27	3.4%	4.0%
	Less reliance on salt/sand	13	1.6%	1.9%
	Drainage issues/clear storm drains	21	2.6%	3.1%
	Increase frequency of snow clearing/removal of all streets	43	5.4%	6.3%
	Sidewalks in poor condition	24	3.0%	3.5%
	Leave some compacted snow - safer to walk on	6	.7%	.9%
	Need sidewalks - some streets/neighbourhoods don't have them	10	1.2%	1.5%
	Longer/more frequent walk lights - crosswalks slipery	11	1.4%	1.6%
	Speed of traffic/undue care & attention toward pedestrians	13	1.6%	1.9%
	Raise taxing to pay for snow removal	5	.6%	.7%
	City should clean all sidewalks/contract out	25	3.1%	3.7%
	Provide online reporting/complaint line	6	.7%	.9%
	Hire more staff to clear snow - charge for service	16	2.0%	2.4%
	Good neighbour/information/educate residents	16	2.0%	2.4%
	Heated sidewalks	3	.4%	.4%
	Get rid of bike lanes	3	.4%	.4%
	Monitoring program - snow conditions on street & sidewalks	9	1.1%	1.3%
	Miscellaneous	18	2.2%	2.6%
	None/nothing/no comment	38	4.7%	5.6%
Total		803	100.0%	118.1%

Frequency Table Shaping Saskatoon Cycling

Q2.4 What modes of transportation do you use in Saskatoon in the winter? [Cycling]

	Frequency	Percent	Valid Percent
Valid Cycling	194	100.0	100.0

Q3 What is your age? (Cycling Section Only)

	Frequency	Percent	Valid Percent
Valid 0-20	1	.5	.5
21-35	78	40.2	40.2
36-50	59	30.4	30.4
51-70	55	28.4	28.4
71+	1	.5	.5
Total	194	100.0	100.0

Q4 In what neighbourhood do you live? (Cycling Section Only)

	Frequency	Percent	Valid Percent
Valid Varsity View	15	7.7	7.7
Briarwood	2	1.0	1.0
College Park	6	3.1	3.1
Lakeridge	1	.5	.5
Lakewood	1	.5	.5
Lakeview	4	2.1	2.1
Rosewood	1	.5	.5
Wildwood	2	1.0	1.0
Nutana	17	8.8	8.8
Adelaide/Churchill	2	1.0	1.0
Avalon	3	1.5	1.5
Brevoort Park	5	2.6	2.6
Buena Vista	9	4.6	4.6
Eastview	1	.5	.5
Exhibition	5	2.6	2.6
Grosvenor Park	3	1.5	1.5
Haultain	9	4.6	4.6
Holliston	3	1.5	1.5
Nutana Park	1	.5	.5
Queen Elizabeth	2	1.0	1.0
Stonebridge	3	1.5	1.5
Arbor Creek	2	1.0	1.0
Erindale	5	2.6	2.6
Evergreen	1	.5	.5
Forest Grove	3	1.5	1.5
Silverspring	3	1.5	1.5
Sutherland	2	1.0	1.0
Willowgrove	1	.5	.5
Confederation	2	1.0	1.0
Fairhaven	1	.5	.5

Q4 In what neighbourhood do you live? (Cycling Section Only)

	Frequency	Percent	Valid Percent
Valid Hampton Village	1	.5	.5
Holiday Park	2	1.0	1.0
Hudson Bay Park	2	1.0	1.0
Meadowgreen	1	.5	.5
Mount Royal	3	1.5	1.5
Pacific Heights	3	1.5	1.5
Parkridge	2	1.0	1.0
Westview	2	1.0	1.0
Caswell Hill	10	5.2	5.2
City Park	15	7.7	7.7
King George	3	1.5	1.5
Riversdale	7	3.6	3.6
Westmount	5	2.6	2.6
Kelsey-Woodlawn	1	.5	.5
Lawson Heights	2	1.0	1.0
Mayfair	4	2.1	2.1
North Park	8	4.1	4.1
River Heights	4	2.1	2.1
Silverwood Heights	4	2.1	2.1
Total	194	100.0	100.0

Q11 Have you experienced challenges or restrictions when using the downtown protected bike lanes this winter?

	Frequency	Percent	Valid Percent
Valid No	15	7.7	7.7
Yes, but usable	66	34.0	34.0
The bike lanes have been unusable this winter	23	11.9	11.9
I have not used the downtown bike lanes this winter	90	46.4	46.4
Total	194	100.0	100.0

Q11Comment. Have you experienced challenges or restrictions when using the downtown protected bike lanes this winter?

	Frequency	Percent	Valid Percent
Valid Don't like/against bike lanes/dangerous	15	7.7	20.0
Bike lanes are too icy/snow covered	35	18.0	46.7
Businesses move snow into bike lanes	17	8.8	22.7
People park in bike lanes	5	2.6	6.7
Good job	3	1.5	4.0
Total	75	38.7	100.0
Missing System	119	61.3	
Total	194	100.0	

Q12 Have you experienced challenges or restrictions when cycling in the shared vehicle/bike lanes this winter?

	Frequency	Percent	Valid Percent
Valid No	15	7.7	7.7
Yes, but usable	73	37.6	37.6
The bike lanes have been unusable this winter	35	18.0	18.0
I have not cycled on the shared bike lanes this winter	71	36.6	36.6
Total	194	100.0	100.0

Q12Comment Have you experienced challenges or restrictions when cycling in the shared vehicle/bike lanes this winter?

	Frequency	Percent	Valid Percent
Valid Aggressive drivers/Bad drivers	21	10.8	30.0
Sand/salt in lanes creates slush/unsafe conditions	5	2.6	7.1
Bike lanes are dangerous/ride on road instead	17	8.8	24.3
Vehicles block lanes	4	2.1	5.7
Not cleared/snow build up	22	11.3	31.4
Total	70	36.1	100.0
Missing System	124	63.9	
Total	194	100.0	

Q13 When cycling, how have you found the condition of the Meewasin Trail this winter?

	Frequency	Percent	Valid Percent
Valid Excellent	44	22.7	22.7
Usable	54	27.8	27.8
Unusable	5	2.6	2.6
I have not cycled on the Meewasin Trail this winter	91	46.9	46.9
Total	194	100.0	100.0

Q13Comment. When cycling, how have you found the condition of the Meewasin Trail this winter?

	Frequency	Percent	Valid Percent
Valid Too icy/snow covered	14	7.2	41.2
Dangerous/won't ride	5	2.6	14.7
Good job	15	7.7	44.1
Total	34	17.5	100.0
Missing System	160	82.5	
Total	194	100.0	

Q14 When cycling around the city in winter, what do you personally find are your greatest challenges? Multiple Response

	Frequency	Percent	Valid Percent
Valid Road conditions	119	61.3	61.3
Pathway conditions	50	25.8	25.8
Lack of dedicated cycling lanes	104	53.6	53.6
Reduced visibility of lane markings	59	30.4	30.4

Q14 Comment When cycling around the city in winter, what do you personally find are your greatest challenges? (Multiple Response)

		Responses		Percent of Cases
		N	Percent	
Q14	Ice and snow	13	20.0%	25.0%
	Aggressive drivers	22	33.8%	42.3%
	Slushy sand	9	13.8%	17.3%
	Need a proper bike lane grid to all area	7	10.8%	13.5%
	Bike lanes are too dangerous	8	12.3%	15.4%
	Rutted roads	6	9.2%	11.5%
Total		65	100.0%	125.0%

Q15 Comment Do you have any recommendations to improve cycling conditions? (Multiple Response)

		Responses		Percent of Cases
		N	Percent	
Q15	Plow/clear snow of streets	42	25.9%	30.9%
	Improve signage or indication of bike la	8	4.9%	5.9%
	Assign more bike lanes	52	32.1%	38.2%
	Clear slush/sand	4	2.5%	2.9%
	Separate drivers/bikes - sharrows not wo	19	11.7%	14.0%
	Legislate to protect bikes/educate drive	25	15.4%	18.4%
	Stop businessess shovelling sidewalk sno	11	6.8%	8.1%
	Alllow bikes on sidewalks	1	.6%	.7%
Total		162	100.0%	119.1%

Frequency Table Shaping Saskatoon - Driver

Q2.2 What modes of transportation do you use in Saskatoon in the winter? [Driving]

	Frequency	Percent	Valid Percent
Valid Driving	1733	100.0	100.0

Q3 What is your age? (Driver Section Only)

	Frequency	Percent	Valid Percent
Valid 0-20	24	1.4	1.4
21-35	466	26.9	26.9
36-50	511	29.5	29.5
51-70	649	37.4	37.4
71+	77	4.4	4.4
Prefer not to answer	6	.3	.3
Total	1733	100.0	100.0

Q4 In what neighbourhood do you live? (Driver Section Only)

	Frequency	Percent	Valid Percent
Valid Varsity View	36	2.1	2.1
Brighton	3	.2	.2
Lakewood	9	.5	.5
Briarwood	37	2.1	2.1
College Park	57	3.3	3.3
Lakeridge	29	1.7	1.7
Lakewood	4	.2	.2
Lakeview	58	3.3	3.3
Rosewood	28	1.6	1.6
Wildwood	33	1.9	1.9
Nutana	84	4.8	4.8
Adelaide/Churchill	33	1.9	1.9
Avalon	34	2.0	2.0
Brevoort Park	25	1.4	1.4
Buena Vista	51	2.9	2.9
Eastview	40	2.3	2.3
Exhibition	27	1.6	1.6
Greystone Heights	16	.9	.9
Grosvenor Park	12	.7	.7
Haultain	37	2.1	2.1
Holliston	24	1.4	1.4
Nutana Park	24	1.4	1.4
Queen Elizabeth	28	1.6	1.6
Stonebridge	62	3.6	3.6
The Willows	2	.1	.1
University Heights	4	.2	.2
Arbor Creek	28	1.6	1.6
Aspen Ridge	2	.1	.1
Erindale	25	1.4	1.4

Q4 In what neighbourhood do you live? (Driver Section Only)

	Frequency	Percent	Valid Percent
Valid Evergreen	29	1.7	1.7
Forest Grove	32	1.8	1.8
Silverspring	31	1.8	1.8
Sutherland	34	2.0	2.0
University Heights	2	.1	.1
Willowgrove	49	2.8	2.8
Blairmore	4	.2	.2
Kensington	11	.6	.6
Confederation	51	2.9	2.9
Dundonald	33	1.9	1.9
Fairhaven	22	1.3	1.3
Hampton Village	42	2.4	2.4
Holiday Park	12	.7	.7
Hudson Bay Park	13	.8	.8
Massey Place	16	.9	.9
Meadowgreen	16	.9	.9
Montgomery Place	15	.9	.9
Mount Royal	18	1.0	1.0
Pacific Heights	25	1.4	1.4
Parkridge	27	1.6	1.6
Westview	28	1.6	1.6
Caswell Hill	38	2.2	2.2
City Park	66	3.8	3.8
King George	19	1.1	1.1
Pleasant Hill	12	.7	.7
Riversdale	21	1.2	1.2
Westmount	9	.5	.5
Kelsey-Woodlawn	4	.2	.2
Lawson Heights	27	1.6	1.6
Mayfair	14	.8	.8
North Park	24	1.4	1.4
Richmond Heights	7	.4	.4
River Heights	29	1.7	1.7
Silverwood Heights	81	4.7	4.7
Other	4	.2	.2
Prefer not to answer	16	.9	.9
Total	1733	100.0	100.0

Q16 What has been your personal experience driving on Circle Drive and the other high speed, high traffic roadways this winter?

	Frequency	Percent	Valid Percent
Valid Usually in good condition	788	45.5	45.5
Fair condition but typically safe	680	39.2	39.2
Poor condition with major safety concerns	178	10.3	10.3
I have not driven on Circle Drive this winter	40	2.3	2.3
Prefer not to answer	47	2.7	2.7
Total	1733	100.0	100.0

Q16Comment What has been your personal experience driving on Circle Drive and the other high speed, high traffic roadways this winter? (Multiple Response)

	Responses		Percent of Cases
	N	Percent	
Q16 Circle Drive etc not plowed fast enough after snowfall	101	30.6%	35.6%
I avoid Circle Drive etc in winter/not safe	23	7.0%	8.1%
Sand/Salt more often to reduce ice	14	4.2%	4.9%
Reduce speed limit/drivers are too fast for winter condition	29	8.8%	10.2%
Circle drive etc was icy/slippery	42	12.7%	14.8%
Improve road signage/clear lane lines	11	3.3%	3.9%
Encourage courtesy driving/merging through PSA's	9	2.7%	3.2%
Purchase more equipment for faster plowing	1	.3%	.4%
Contract out snow removal so it is faster/well done	3	.9%	1.1%
Clear windrows/sides of bridges and freeways	21	6.4%	7.4%
Ticket people for bad driving (speeding/merging/text)	14	4.2%	4.9%
Mandatory winter tires	6	1.8%	2.1%
Move photo radar to better locations	3	.9%	1.1%
Continue and increase photo radar	3	.9%	1.1%
Research alternatives to salt/sand/damages to car	15	4.5%	5.3%
Plow completely to the ground/have supervisor check	4	1.2%	1.4%
Fix potholes/poor road surface	5	1.5%	1.8%
Good job	26	7.9%	9.2%
Total	330	100.0%	116.2%

Q17 What has been your personal experience driving on major arterial roads such as 22nd Street, 8th Street, College Drive this winter?

	Frequency	Percent	Valid Percent
Valid Usually in good condition	707	40.8	40.8
Fair condition but typically safe	572	33.0	33.0
Fair condition but sometimes unsafe	329	19.0	19.0
Poor condition with major safety concerns and loss of mobility	66	3.8	3.8
Prefer not to answer	59	3.4	3.4
Total	1733	100.0	100.0

Q17Comment What has been your personal experience driving on major arterial roads such as 22nd Street, 8th Street, College Drive this winter? (Multiple Response)

	Responses		Percent of Cases
	N	Percent	
Q17 Roads were often icy/rutted	41	21.1%	23.6%
Not plowed fast enough after snow	55	28.4%	31.6%
Bad drivers (speeding/texting/merging)	14	7.2%	8.0%
Improve road signage/visible lane lines	11	5.7%	6.3%
Fix potholes/poor road surface condition	19	9.8%	10.9%
Hard to judge/not much snow this year	12	6.2%	6.9%
Should remove snow completely/don't leave windrow	23	11.9%	13.2%
Sanding/salting too much	1	.5%	.6%
Good job	18	9.3%	10.3%
Total	194	100.0%	111.5%

Q18 What has been your personal experience driving on bridges and overpasses this winter?

	Frequency	Percent	Valid Percent
Valid Usually in good condition	802	46.3	46.3
Fair condition but typically safe	572	33.0	33.0
Fair condition but sometimes unsafe	253	14.6	14.6
Poor condition with major safety concerns and loss of mobili	46	2.7	2.7
Prefer not to answer	60	3.5	3.5
Total	1733	100.0	100.0

Q18Comment What has been your personal experience driving on bridges and overpasses this winter?

	Frequency	Percent	Valid Percent
Valid Bridges tend to be icy	32	1.8	34.8
Snow not completely removed/left to side	33	1.9	35.9
Snow not cleared fast enough	7	.4	7.6
Hard to judge/not much snow this year	6	.3	6.5
Improve road signage/Visible lane lines	4	.2	4.3
Plow/sweep sidewalks	2	.1	2.2
Misc	8	.5	8.7
Total	92	5.3	100.0
Missing System	1641	94.7	
Total	1733	100.0	

Q19 When traveling around your neighbourhood this winter, how have you found the conditions?

	Frequency	Percent	Valid Percent
Valid Good mobility and safety	190	11.0	11.0
Usable and safe at a reduced speed	840	48.5	48.5
Mobility or safety concerns even at a reduced speed	551	31.8	31.8
Unusable or unsafe	91	5.3	5.3
Prefer not to answer	61	3.5	3.5
Total	1733	100.0	100.0

Q19 Comment When traveling around your neighbourhood this winter, how have you found the conditions? (Multiple Response)

		Responses		Percent of Cases
		N	Percent	
Q19	Streets are icy	75	16.7%	20.4%
	Streets are rutted.	80	17.9%	21.8%
	Streets have not been plowed/cleared of snow	159	35.5%	43.3%
	Hard to judge/not much snow this year	27	6.0%	7.4%
	Fix potholes/poor road surface	25	5.6%	6.8%
	Sand/Salt more often to reduce ice	20	4.5%	5.4%
	Bad drivers (speeding/texting/merging)	14	3.1%	3.8%
	Improve road signage/visibler lane lines	1	.2%	.3%
	Reduce the speed limit to 30km	12	2.7%	3.3%
	Sidewalks are not passable	18	4.0%	4.9%
	Live on bus route/everything is cleared quickly	10	2.2%	2.7%
	Stop people from blowing/shovelling snow into street	5	1.1%	1.4%
	Misc	2	.4%	.5%
Total		448	100.0%	122.1%

Q20 Local residential streets are cleared on an as needed basis to address hazards such as blown in snow or problematic rutting. How would you rate the safety of residential streets?

		Frequency	Percent	Valid Percent
Valid	Excellent	66	3.8	3.8
	Good	704	40.6	40.6
	Poor	652	37.6	37.6
	Very Poor	252	14.5	14.5
	Prefer not to answer	58	3.3	3.3
	Total	1732	99.9	100.0
Missing	System	1	.1	
Total		1733	100.0	

Q21 Have you experienced on-street parking challenges due to snow in residential neighbourhoods?

		Frequency	Percent	Valid Percent
Valid	No	313	18.1	18.1
	Some inconveniences, but reasonable considering we live in a winter city	743	42.9	42.9
	Unreasonable inconveniences	407	23.5	23.5
	I have not parked on-street in residential neighbourhoods	269	15.5	15.5
	Total	1732	99.9	100.0
Missing	System	1	.1	
Total		1733	100.0	

Q21Comment Have you experienced on-street parking challenges due to snow in residential neighbourhoods?

		Frequency	Percent	Valid Percent
Valid	Snow is pushed to the curb eliminating parking	101	5.8	37.0
	Snow against curb pushes cars into traffic lanes	35	2.0	12.8
	Remove the snow/don't leave windrows	46	2.7	16.8
	Hard to judge/not much snow this year	35	2.0	12.8
	Limited parking available/very busy	12	.7	4.4
	I clear the snow in front of my house myself/city won't do it	26	1.5	9.5
	I've gotten stuck parking more than once	18	1.0	6.6
	Total	273	15.8	100.0
Missing	System	1460	84.2	
Total		1733	100.0	

Q22 What has been your experience with on-street parking in the downtown core and other dense business areas?

		Frequency	Percent	Valid Percent
Valid	No issues or disruptions caused by snow	500	28.9	29.0
	Disruptions during or immediately after a storm	660	38.1	38.2
	Significant disruptions all winter long	93	5.4	5.4
	I have not parked in the down town core	473	27.3	27.4
	Total	1726	99.6	100.0
Missing	System	7	.4	
Total		1733	100.0	

Q22Comment What has been your experience with on-street parking in the downtown core and other dense business areas? (Multiple Response)

		Responses		Percent of Cases
		N	Percent	
Q22	Snow is pushed to the curb eliminating parking	1	.7%	.8%
	Snow against curb pushes cars into traffic lanes	7	4.8%	5.7%
	Remove the snow/don't leave windrows	17	11.6%	13.9%
	Hard to judge/not much snow this year	9	6.1%	7.4%
	Limited parking available/very busy	13	8.8%	10.7%
	Bike lanes are a problem/eliminate	23	15.6%	18.9%
	I've gotten stuck parking more than once	6	4.1%	4.9%
	I don't go downtown because of parking issues	51	34.7%	41.8%
	Businesses push snow into parking spots	1	.7%	.8%
	Be prepared to walk a distance	1	.7%	.8%
	Expensive	18	12.2%	14.8%
Total		147	100.0%	120.5%

Q23Comment Do you have any recommendations for improvement? (Multiple Response)

	Responses		Percent of Cases
	N	Percent	
Q23 Plow faster after snowfall	131	12.8%	15.4%
Completely remove snow/no windrows	164	16.0%	19.3%
Sand/Salt more often to reduce ice	132	12.9%	15.5%
Offer online reporting options for unsafe streets/intersect	6	.6%	.7%
Improve public transit into downtown	2	.2%	.2%
Improve road signage/visible lane lines	30	2.9%	3.5%
Encourage courtesy driving through PSA's	27	2.6%	3.2%
Purchase more equipment for faster plowing	14	1.4%	1.6%
Contract out snow removal so it is faster/well done	38	3.7%	4.5%
Plow all streets at least once per winter	96	9.4%	11.3%
Plow alleys	9	.9%	1.1%
Enforce car parking on snow routes (ticket or tow)	16	1.6%	1.9%
Stop people from moving snow from driveway to street	12	1.2%	1.4%
Ticket people for bad driving (speeding/merging/no signal)	31	3.0%	3.7%
Plow narrow streets more often (older neighbourhoods)	19	1.9%	2.2%
Clear both sides of a school zone immediately after snow fall	15	1.5%	1.8%
Mandatory winter tires	14	1.4%	1.6%
Continue with photo radar	2	.2%	.2%
Plow during snowfall/don't wait until it stops	61	6.0%	7.2%
Covered roadways and pathways	1	.1%	.1%
Research alternatives to salt/sand	18	1.8%	2.1%
Elimate bike lanes	19	1.9%	2.2%
Plow completely to the ground/have supervisor check	23	2.2%	2.7%
Plow sidewalks	6	.6%	.7%
Fix potholes/poor road surface condition	33	3.2%	3.9%
Plan wider streets/too narrow to not clear snow	7	.7%	.8%
Plow overnight/before peak driving times	13	1.3%	1.5%
Reduce city speed limit	17	1.7%	2.0%
Look to other cities/how do they do it?	34	3.3%	4.0%
Clear the drains	6	.6%	.7%
Misc	27	2.6%	3.2%
Total	1023	100.0%	120.5%

Frequency Table Shaping Saskatoon - Transit

Q2.3 What modes of transportation do you use in Saskatoon in the winter? [Transit]

	Frequency	Percent	Valid Percent
Valid Transit	320	100.0	100.0

Q4 In what neighbourhood do you live? (Transit Section Only)

	Frequency	Percent	Valid Percent
Valid Varsity View	9	2.8	2.8
Lakewood	2	.6	.6
Brianwood	2	.6	.6
College Park	8	2.5	2.5
Lakeridge	2	.6	.6
Lakewood	1	.3	.3
Lakeview	10	3.1	3.1
Rosewood	4	1.3	1.3
Wildwood	5	1.6	1.6
Nutana	25	7.8	7.8
Adelaide/Churchill	3	.9	.9
Avalon	9	2.8	2.8
Brevoort Park	7	2.2	2.2
Buena Vista	13	4.1	4.1
Eastview	8	2.5	2.5
Exhibition	5	1.6	1.6
Greystone Heights	1	.3	.3
Grosvenor Park	2	.6	.6
Haultain	12	3.8	3.8
Holliston	6	1.9	1.9
Nutana Park	6	1.9	1.9
Queen Elizabeth	11	3.4	3.4
Stonebridge	7	2.2	2.2
University Heights	2	.6	.6
Arbor Creek	2	.6	.6
Erindale	2	.6	.6
Evergreen	1	.3	.3
Forest Grove	7	2.2	2.2
Silverspring	2	.6	.6
Sutherland	15	4.7	4.7
Willowgrove	6	1.9	1.9
Blairmore	2	.6	.6
Kensington	2	.6	.6
Confederation	9	2.8	2.8
Dundonald	4	1.3	1.3
Fairhaven	6	1.9	1.9
Hampton Village	2	.6	.6
Holiday Park	2	.6	.6
Hudson Bay Park	3	.9	.9
Massey Place	5	1.6	1.6
Meadowgreen	5	1.6	1.6

Q4 In what neighbourhood do you live? (Transit Section Only)

	Frequency	Percent	Valid Percent
Valid Montgomery Place	1	.3	.3
Mount Royal	6	1.9	1.9
Pacific Heights	1	.3	.3
Parkridge	3	.9	.9
Westview	3	.9	.9
Caswell Hill	10	3.1	3.1
City Park	12	3.8	3.8
King George	4	1.3	1.3
Pleasant Hill	4	1.3	1.3
Riversdale	2	.6	.6
Westmount	4	1.3	1.3
Kelsey-Woodlawn	2	.6	.6
Lawson Heights	3	.9	.9
Mayfair	2	.6	.6
North Park	9	2.8	2.8
Richmond Heights	2	.6	.6
River Heights	7	2.2	2.2
Silverwood Heights	6	1.9	1.9
Prefer not to answer	4	1.3	1.3
Total	320	100.0	100.0

Q24 What transit service do you typically use?

	Frequency	Percent	Valid Percent
Valid Access Transit	14	4.4	4.4
Conventional Transit	306	95.6	95.6
Total	320	100.0	100.0

Q25 Please rate the accessibility of bus stops in the winter.

	Frequency	Percent	Valid Percent
Valid Excellent	35	10.9	10.9
Good	157	49.1	49.1
Poor	81	25.3	25.3
Very Poor	19	5.9	5.9
Prefer not to answer	28	8.8	8.8
Total	320	100.0	100.0

Q25Comment Please rate the accessibility of bus stops in the winter.

		Frequency	Percent	Valid Percent
Valid	Bus stops need to be cleared of snow and piles	35	10.9	44.3
	Build more bus shelters	8	2.5	10.1
	Train drivers to stop closer to curb, safer exits	1	.3	1.3
	Thank/acknowledge house owners who are keeping stop clear	1	.3	1.3
	Concrete pad at all stops/no dirt or grass	4	1.3	5.1
	More buses/improve schedule	12	3.8	15.2
	Snowbanks/windrows block exit/stepping over	18	5.6	22.8
	Total	79	24.7	100.0
Missing	System	241	75.3	
Total		320	100.0	

Q26 Do you experience challenges related to snow or ice when boarding or getting off the bus?

		Frequency	Percent	Valid Percent
Valid	Yes, comment	117	36.6	36.6
	No	203	63.4	63.4
	Total	320	100.0	100.0

Q26Comment Do you experience challenges related to snow or ice when boarding or getting off the bus?

		Frequency	Percent	Valid Percent
Valid	Ice/icy sections	45	14.1	38.5
	Stepping off into snow banks	60	18.8	51.3
	Stepping off into puddles	12	3.8	10.3
	Total	117	36.6	100.0
Missing	System	203	63.4	
Total		320	100.0	

Q27Comment Do you have any recommendations for improvement? (Multiple response code)

		Responses		Percent of Cases
		N	Percent	
Valid	Keep exit and entry sidewalks clear of snow and ice	75	56.0%	70.8%
	Build more bus shelters	10	7.5%	9.4%
	Heated shelters at main terminals (downtown, UofS, malls)	3	2.2%	2.8%
	Train drivers to stop closer to curb, safer exits	9	6.7%	8.5%
	Have city workers ride the bus to learn	7	5.2%	6.6%
	Thank/acknowledge house owners who are keeping stop clear	5	3.7%	4.7%
	Hire temp workers to clear snow	5	3.7%	4.7%
	Concrete pad at all stops/no dirt or grass	8	6.0%	7.5%
	More handholds when exiting bus	3	2.2%	2.8%
	Tracking app	3	2.2%	2.8%
	More buses/improve schedule	3	2.2%	2.8%
	Misc	3	2.2%	2.8%
Total		134	100.0%	126.4%

Request to Exceed in Excess of 25% of Purchase Order #364578 – Fabrication of Portable Sign Racks

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Administration be given approval for Purchase Order #364578 for Fabrication of Portable Sign Racks to exceed 25% of the purchase order value.

Topic and Purpose

The purpose of this report is to request City Council approval for Purchase Order #364578 for Fabrication of Portable Sign Racks to exceed 25% of the purchase order value. Costs were exceeded due to customization of the racks that secure the yellow “No Parking” signs used for Snow Maintenance and Street Sweeping.

Report Highlights

1. Custom sign racks have been developed for the numerous yellow “No Parking” signs used for Street Sweeping and Snow Maintenance. These racks will decrease loading and unloading time, potential shoulder and neck injury risk and allow for better optimization of space in City facilities.
2. An initial design exercise was completed with an engineering firm and Administration sought competitive pricing for the fabrication of the racks. After fabrication of a prototype, Administration tested the prototype rack late in 2016.

Strategic Goals

This report supports the Strategic Goal of Continuous Improvement, through the iteration of more effective operations strategies and procedures. This report also supports the Strategic Goal of Asset and Financial Sustainability, by investing in City processes to reduce workplace injuries and optimizing physical space requirements in City yards.

Background

Yellow signs are used to post ‘no parking’ areas for snow removal and street sweeping activities. Full implementation of the current signing scheme, including bylaw amendments, occurred in 2014, and continuous improvement on the process and equipment is ongoing.

Report

New Custom Designed Racks

Current sign handling practices are labour intensive and not ergonomically designed. In order to improve safety and efficiency of sign handling, City staff collaborated to conceptualize a new rack design that addressed safety and efficiency concerns. An original steel prototype was built in-house but it was too heavy for implementation.

Request to Exceed in Excess of 25% of Purchase Order #364578 – Fabrication of Portable Sign Racks

Aluminum was then selected as a preferred material, however, internal City resources are limited in their ability to work with aluminum.

This innovation is anticipated to have the net effects of increasing productivity of staff, reducing health and safety related injuries, and allow City crews to better use limited available space in the City Yards. A nominal cost saving related to reduced overtime for sign co-ordination is expected.

Design and Collaboration for Fabrication of Racks

Three firms were requested to provide pricing on the fabrication of the racks, and Shear Fabrication Ltd. (Shear), the lowest bidder, was awarded the purchase order for the amount of \$58,485 (including GST and PST). Shear worked collaboratively with Administration and the Engineering Services provider to solve issues prior to fabrication, which avoided costly design changes; however, not all issues were foreseen.

After testing in late 2016, several modifications were required to solve issues with the design. Administration forecast that modifications would be made to the prototype after testing, but due to the price of aluminum and the scope of the design changes, costs for the racks exceeded these initial estimates.

Options to the Recommendation

Administration could be directed to build as many racks as possible with the remaining funds in the Purchase Order rather than the original amount of 10 racks allotted for in the Purchase Order. However, as the materials for the racks were a custom order and have already been procured by the fabricator, the City would still be required to pay for the materials. The fabricator's quotation is also subject to review, should the purchase order quantities change.

Policy Implications

According to Policy A02-027, Corporate Purchasing Procedure, City Council approval is required for contract increases above 25% of the original contract value.

Financial Implications

Details of the estimated project cost that pertain to the Purchase Order #364578 are as follows:

Anticipated Final Purchase Order Cost	\$76,280.00
Less Original Purchase Order Cost	55,700.00
Total Cost over the Original Purchase Order	<u>\$20,580.00</u>
Less Existing Additional Change Orders	2,706.00
Change Order Amount being requested	<u>\$17,874.00</u>

There is sufficient funding available in the 2017 Snow & Ice and Drainage budgets to cover the increased costs of this contract. These costs are funded by the mill-rate and Storm Water Utility. Due to PST changes by the Province of Saskatchewan, additional taxes will be incurred on this purchase order as a result of approval of this change order.

Request to Exceed in Excess of 25% of Purchase Order #364578 – Fabrication of Portable Sign Racks

Other Considerations/Implications

There are no public and/or stakeholder involvement, communications, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

The project is scheduled to be completed in Summer 2017.

Public Notice

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

Report Approval

Written by: Barrett Froc, Operations Engineer, Construction & Design
Reviewed by: Brandon Harris, Director of Roadways & Operations
Approved by: Angela Gardiner, Acting General Manager,
Transportation & Utilities

TRANS BF – Request to Exceed in Excess of 25% of Purchase Order #364578 – Fabrication of Portable Sign Racks

Rail Safety Improvement Program Projects

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That Capital Project No. 1456 – Railway Crossing Safety Improvements and Capital Project No. 2448 – Intelligent Transportation System be increased by \$190,000 and \$64,000, respectively, which will be funded by the Rail Safety Improvement Program Grant; and
2. That His Worship the Mayor and the City Clerk be authorized to execute and deliver the contribution agreement for the projects approved for funding under the Rail Safety Improvement Program.

Topic and Purpose

The purpose of this report is to obtain City Council approval to enter into a funding contribution agreement for the Rail Safety Improvement Program.

Report Highlights

1. The Rail Safety Improvement Program (RSIP) is to improve the safety of rail transportation through transportation, technology, research and public education and awareness.
2. The City of Saskatoon (City) was approved for funding for the Rail Crossing Information System and the Fairlight Drive Railway Crossing Improvement projects.
3. Existing funds in Capital Project No. 1456 – Railway Crossing Safety Improvements and Capital Project No. 2448 – Intelligent Transportation System will be used for the City's share of the funding available for these projects, and the projects will be increased by the amount of funding expected from the RSIP.

Strategic Goals

This report supports the long-term strategy of reducing the gap in funding required to rehabilitate and maintain the City's infrastructure under the Strategic Goal of Asset and Financial Sustainability. This report also supports the long-term strategy of optimizing the flow of people and goods in and around the city under the Strategic Goal of Moving Around.

Background

On April 24, 2017, as part of Rail Safety Week, Transport Canada announced \$20 million in funding for 131 projects and initiatives under the RSIP.

Report

Overview of the Rail Safety Improvement Program

The RSIP is a three-year, \$55-million program that will help improve rail safety, contribute to the reduction of injuries and fatalities, and increase public confidence in Canada's rail transportation system. This program is delivered by Transport Canada and funded by the Government of Canada.

Rail Safety Improvement Program Projects

The types of projects and initiatives that are eligible under the RSIP are as follows:

- Infrastructure, Technologies, and Research:
 - safety enhancements and infrastructure such as installation of flashing lights, bells, and gates, as well as roadway and intersection improvements;
 - implementation of Intelligent Transportation System or other innovative technologies;
 - research and studies related to enhancing safety of rail lines such as blocked crossings; and
 - closure of crossing for both private and public crossings.

- Education and Awareness:
 - projects that enhance awareness of grade crossings and trespassing hazards;
 - promote safe practices at road/railway grade crossings on railway properties; and
 - research, studies and analysis that contribute to a better understanding of behaviours, attitudes and impact of rail safety issues.

The following entities are eligible to apply under RSIP: provinces and territories; Indigenous communities, groups and organizations; municipalities, local and regional governments; road and transit authorities; Crown Corporations; for-profit organizations such as railway operators or owners; not-for-profit organizations; and individuals.

Available funding is up to 80% of total eligible expenditures except for elements of the project where the work is the responsibility of the railway company, in which case the funding is limited to 50% of total eligible expenditures.

Projects Approved

In December 2016, the Administration applied for the following five projects:

- Grade Crossing Safety Assessments
- Safety Pathways
- Railway Crossing Information System
- Fairlight Drive Railway Crossing Improvement
- 11th Street Railway Crossing Grade Separation Functional Study

Of the five projects applied for, the City has received funding approval for the following two projects:

- Railway Crossing Information System
This project is to design, supply, and install a Railway Crossing Information System at the 11th Street grade crossing and integrate it with the City's existing traffic management system. The Railway Crossing Information System consists of train detectors, a wireless communication system, and infrastructure upgrades. Once implemented, it will provide real-time information of the railway crossing and prediction of blockage to motorists, emergency responders and other road users for proactive planning of their route. This project will require the expertise of an external service provider to develop and implement a system that is compatible with the existing traffic management system.

- **Fairlight Drive Railway Crossing Improvement**
This crossing is complex as it involves a wide variance in train speeds that results in inconsistent warning times, three sets of tracks that could have simultaneous moves over the crossings, reduced sight lines approaching the crossing and proximity to access roads. To address these, this project will install gates encompassing the Canadian Pacific Railway (CPR) and private tracks. CPR will also upgrade the existing protection system, including a constant warning time control system. The majority of this work will be done by CPR.

The remaining three projects that did not receive funding will remain on Transport Canada's pending list for another year and will be considered for funding in 2018-2019.

Funding Strategy

Total cost of the Railway Crossing Information System project is estimated at \$80,000, and the City's 20% will be funded from existing funding within Capital Project No. 2448 – Intelligent Transportation System. This capital project must be increased by \$64,000 to reflect the approved RSIP funding.

The Fairlight Drive Railway Crossing Improvement is estimated at \$380,000 and the City's portion will be funded from existing funding within Capital Project No. 1456 – Railway Crossing Safety Improvements. Because this work is the responsibility of CPR, the RSIP will only fund 50% of this work. This capital project must be increased by \$190,000 to reflect the approved RSIP funding.

The City will make claims for reimbursement under the RSIP as the projects progress. In order for the City to receive reimbursement, it must enter into a contribution agreement with Transport Canada for the Railway Crossing Information System and Fairlight Drive Railway Crossing Improvement projects.

Public and/or Stakeholder Involvement

Discussions are currently underway with CPR regarding the completion of the work required for the Fairlight Drive Railway Crossing. Internal discussions with Information Technology and Emergency Services will be initiated as required to develop the terms of the Railway Crossing Information System.

Financial Implications

The financial implications are addressed in the body of this report.

Other Considerations/Implications

There are no options, policy, environmental, privacy, or CPTED implications or considerations, and a communication plan is not required.

Due Date for Follow-up and/or Project Completion

The Railway Crossing Information System project is expected to be completed by March 2019 and the Fairlight Drive Railway Crossing Improvement project is expected to be completed by March 2018.

Public Notice

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

Report Approval

Written by: Kari Smith, Acting Director of Finance
Reviewed by: Mike Jordan, Director of Government Relations
Angela Gardiner, Acting General Manager, Transportation & Utilities Department
Approved by: Kerry Tarasoff, CFO/General Manager, Asset & Financial Management Department

SaskTel Centre Traffic Review

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated June 12, 2017, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to provide information on the changes to the transportation network to improve access to the SaskTel Centre during large events.

Report Highlights

1. Site observations identified significant congestion at intersections including: Apex Street and Thatcher Avenue, Marquis Drive and Bill Hunter Avenue; and Highway 16 and Marquis Drive delaying movement of traffic at access points.
2. A number of modifications were implemented in two phases, which improved parking lot access reducing delay time by 20 to 25 minutes.
3. There are a number of long-term improvements that are recommended to further improve pedestrian and vehicle access.

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

Public concerns of intersection congestion, delays and not having sufficient time to park prior to the start of events were communicated to the City of Saskatoon and SaskTel Centre. A review was completed to identify opportunities to improve intersections and the access points to SaskTel Centre in order to accommodate high volumes of traffic attending large events.

Report

Observations – Traffic and Pedestrian Conflicts

The Administration observed traffic accessing SaskTel Centre on January 27, 2017 and February 18, 2017, with the following main themes identified:

- Congestion and traffic conflicts at the intersections of: Apex Street and Thatcher Avenue, Marquis Drive and Bill Hunter Avenue, and Marquis Drive and Thatcher Avenue.
- Congestion on Marquis Drive west of Bill Hunter Avenue, and between Idylwyld Drive and Thatcher Avenue.
- Static and electronic signage is inconsistent.
- Concerns of pedestrian safety and accommodation.

Traffic conflict and congestion details are provided in Attachment 1.

Phased Implementation

Recommendations were implemented in two phases at different Saskatchewan Rush games. At the Saskatchewan Rush game March 24, 2017, the first phase of improvements were implemented to minimize conflicts:

- Apex Street was provided two lanes of one-way traffic east of Thatcher Avenue, around to 60th Street, and into the southeast parking lots.
- An additional parking lot access along 60th Street was provided.
- The cross section on Thatcher Avenue was revised to include the following:
 - Northbound lane
 - Lane with electronic sign
 - Two Southbound left turning lanes
 - Southbound shared through/right turning lane
- Marquis Drive/Thatcher Avenue intersection - revised geometry and traffic signals to permit two westbound left turn lanes.
- New temporary signage was installed as per an updated signage plan to provide standard and consistent signage to drivers.
- New messages were used for the electronic sign to provide standard and consistent messaging.
- Rock Star Parking – SaskTel Centre staff reinforced the access to Rock Star Parking via Bill Hunter Avenue, thus reducing traffic southbound on Thatcher Avenue turning right onto Apex Street, and then turning left at Bill Hunter Avenue.
- Installed 'No Stopping' signage on the south side of Apex Street east of Thatcher Avenue for approximately the first 100 metres.
- Installed 'No Parking' signage on the south side of 60th Street between Thatcher Avenue and Highway 16.

Observations from March 24, 2017 identified the following:

- Minimal delays for northbound traffic turning left at Idylwyld Drive/Marquis Drive.
- Minimal spillback past the Costco access from the westbound queue of traffic on Marquis Drive turning left onto Thatcher Drive.
- Minimal spillback into Marquis Drive/Thatcher Avenue intersection from the southbound queue of traffic on Thatcher Drive turning left onto Apex Street.
- Traffic congestion was cleared at the Marquis Drive/Thatcher Avenue intersection approximately 25 minutes earlier than the previous Rush game.
- SaskTel Centre staff observed a large shift in the timing of typical food and drink sales prior to the start of the game.

At the Saskatchewan Rush game on April, 8, 2017, the second phase of improvements were implemented to further improve traffic flow:

- Traffic cones were placed on Marquis Drive in the eastbound direction between the curb-line (most southerly) lane, and the next lane to the north.
- Static temporary signage and electronic signage on Marquis Drive reinforced the message for drivers to turn right onto Bill Hunter Avenue from the curb lane, and

also to turn right at the island onto Bill Hunter Avenue from the second lane from the curb.

- Eastbound traffic on Marquis Drive was re-directed by SaskTel Centre Staff to turn right onto Thatcher Avenue once the northwest parking lot was full.

Observations from April 8, 2017 showed further improvements as follows:

- Traffic cones stopped spillback by not allowing merging at the intersection of Highway 16 and Marquis Drive by directing drivers to turn right at the island (creating a dual right turn situation).
- The westbound queue on Highway 16 dissipated approximately 20 minutes earlier than the previous Rush game.

The implemented recommendations of both phase 1 and phase 2 is summarized in Attachment 2.

For events attracting crowds larger than 9,000, the recommendation is to have a permanent traffic accommodation plan to confidently and safely move traffic and pedestrians.

Long-term Improvements

Long-term improvements are also recommended to further improve traffic flows and pedestrian safety on the transportation system near SaskTel Centre, including:

1. Apex Street paving:
 - Immediately north of 60th Street there is approximately a 200 metre segment that has a gravel surface. Prior to the Friday, March 24, 2017 Rush game, the Administration placed additional gravel and graded the location several times due to soft spring-time conditions. The required paving in this location would cost approximately \$350,000. If not paved, a cost of \$1,000 per treatment would need to be budgeted to pay for the ongoing gravel maintenance.
2. Apex Street sidewalks:
 - East of Thatcher Avenue no sidewalks exist. Sidewalks should be installed on both sides from Thatcher Avenue east until Idylwyld Drive. Further work is required to confirm constraints for construction of the sidewalks, including trees, utilities, and available property. The cost estimate is approximately \$220,000.
3. Thatcher Avenue sidewalks:
 - North of Marquis Drive no sidewalks exist. Sidewalks should be installed on the west side of Thatcher Avenue north until Neepawa Street. The cost estimate is approximately \$130,000.
4. Additional sidewalk winter maintenance:
 - During the winter season a significant sidewalk de-icing program is required to reduce the potential for slip and falls. This would include all sidewalks from SaskTel Centre north to Neepawa Street (if new sidewalks were constructed that far north). This would cost approximately \$300 per event and would most likely have to be done by

outside contractors due to commitments to clear City owned sidewalks after snowfalls.

Public and/or Stakeholder Involvement

The Administration worked with the SaskTel Centre staff on this review and exploration of improvements.

The Administration delivered information flyers to the businesses located on Apex Street, east of Thatcher Avenue and north of 60th Street, notifying of the one-way nature of Apex Street during large SaskTel Centre events. Flyers were also delivered prior to the March 24 and April 8, 2017 events.

Communication Plan

SaskTel Centre and the City of Saskatoon will continue to communicate the revised access scheme placed for the public and event attendees during large events through e-mail distribution lists, tweets, Facebook, and public service announcements.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The Administration will continue to work with the SaskTel Centre to develop a funding strategy for the long-term improvements for submission to City Council during the 2018 Business Plan and Budget Deliberations.

Public Notice

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

Attachments

1. Game Day Observations
2. Traffic Accommodation Drawing

Report Approval

Written by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JM – SaskTel Centre Traffic Review.docx

Game Day Observations

Game Day Access Observations

The Administration observed traffic accessing the SaskTel Centre parking lot via the adjacent streets on Friday, January 27, 2017 and Saturday, February 18, 2017. The following was observed:

1. Significant conflict occurs at the intersection of Apex Street and Thatcher Avenue, specifically the following movements stopping the flow of vehicles destined for the parking lots:
 - Northbound outbound flow of vehicles completed drop-offs, taxicabs, and limos.
 - Eastbound flow of vehicles from Bill Hunter Avenue.
 - Pedestrians crossing on both sides of Thatcher Avenue.
2. Later arriving vehicles (after 6:55 p.m.) via Highway 16 find the Bill Hunter Avenue gate closed and use Apex Street to drive east, and then south, to enter the parking lots from the southeast corner, further compounding conflict at Apex Street / Thatcher Avenue.
3. Significant conflict occurs at the Marquis Drive and Bill Hunter Avenue intersection, and on Marquis Drive west of Bill Hunter Avenue, specifically:
 - All traffic wants to turn right onto Bill Hunter Avenue, queuing the traffic from Highway 16 ramp onto Marquis Drive.
 - Inbound traffic from Beam Road and Highway 16 southbound (turning left onto Marquis Drive) immediately try to merge right so they can turn right ahead at Bill Hunter Avenue. Numerous vehicles following close were left in the intersection waiting for the vehicles ahead of them to merge right and creating an unsafe condition.
 - Once the northwest parking lot is full, SaskTel Centre staff direct traffic east on Apex Street, further compounding the conflict at the Thatcher Avenue and Apex Street intersection.
4. At the intersection of Marquis Drive and Idylwyld Drive the northbound left turn is delayed as there is no available space on Marquis Drive to turn into.
5. Marquis Drive between Idylwyld Drive and Thatcher Avenue was very congested between 7:00 p.m. and 7:55 p.m.
6. The intersection of Marquis Drive and Thatcher Avenue was also still congested at 7:55 p.m.
7. Signage:
 - Not consistent with standard practice (i.e. disabled parking signage tacked onto the orange signage)

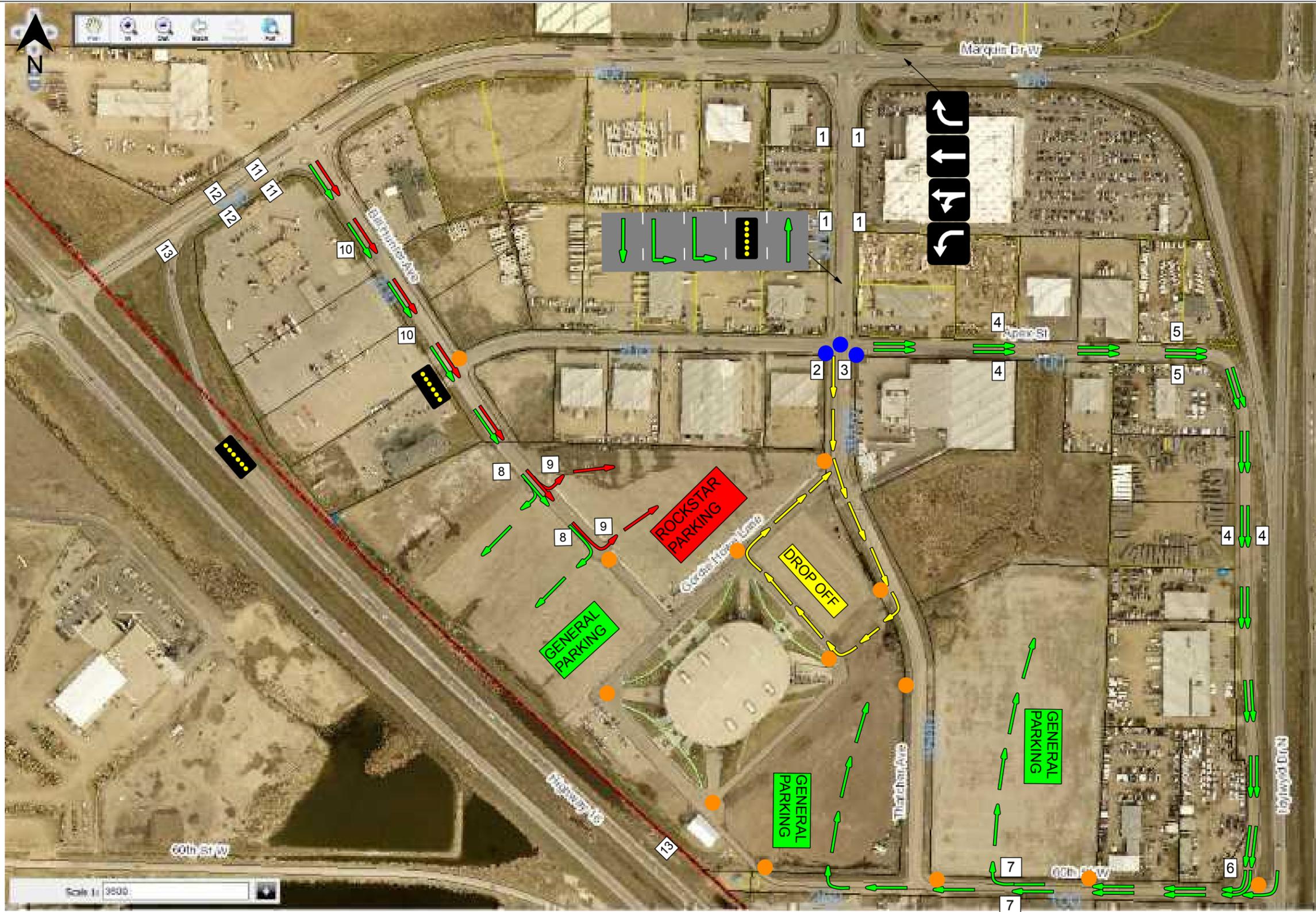
- Different colors for the same sign (orange vs. yellow)
- Different messages on the electronic signage ('VIP Parking' vs. 'Rock Star Parking')
- Use of street names is not appropriate (i.e. turn left at 'Apex Street'), drivers may not know where 'Apex Street' is.

8. Electronic Signage:

- Too many messages (five or six message is too much for a driver to read, comprehend, and react)
- Message about food and liquor not relevant

9. Pedestrian Safety:

- On January 27, 2017, road conditions were very slippery and there were many slips on Thatcher Avenue.
- East of the intersection of Apex Street and Thatcher Avenue vehicles stop to drop people off.
- On Apex Street east of Thatcher Avenue there are no sidewalks, but there is a significant amount of parking available in this area, forcing people to walk on the street due to the snow on the boulevard.



New School Zone and Neighbourhood Traffic Review Update – Stonebridge Neighbourhood

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That a new school zone be installed for the new elementary school sites in the Stonebridge neighbourhood; and
2. That the proposed traffic calming for Stonebridge Common be installed on a trial basis.

Topic and Purpose

The purpose of this report is to request approval to install a new school zone in the Stonebridge neighbourhood to improve pedestrian safety and provide information on the temporary traffic calming for Stonebridge Common.

Report Highlights

1. The installation of a new school zone to reduce speed in the Stonebridge neighbourhood at Chief Whitecap School and St. Kateri Tekakwitha Catholic School is recommended with both schools expected to open September 2017.
2. A Neighbourhood Traffic Plan for the Stonebridge neighbourhood is currently underway to reduce speeding, traffic shortcutting, and improve pedestrian safety.
3. Temporary traffic calming and traffic control modifications are recommended for Stonebridge Common.

Strategic Goal

This report supports the Strategic Goal of Moving Around by providing safe facilities for pedestrians, cyclists, and drivers.

Background

The Stonebridge neighbourhood has a new school zone site that includes two schools shared between the Saskatoon Public School Board, the Greater Saskatoon Catholic School Board, and the City of Saskatoon. The two schools are scheduled to open on September 1, 2017.

As outlined in Policy C07-015, Reduced Speed Zones for Schools, the installation of a reduced speed zone of 30 kilometres per hour (kph) is recommended at all elementary school sites and will be in effect between the hours of 8:00 A.M. to 5:00 P.M., Monday to Friday, September 1 to June 30. The extents of the school zone will include the frontage of the school and important crosswalks used by pedestrians as part of their route to school.

Typically in the Neighbourhood Traffic Review (NTR) process there is an initial meeting held in the spring to identify the issues, and a second meeting in the fall to present the recommendations to the residents. For the Stonebridge Neighbourhood, the initial meeting was held in December 2016, and the second meeting was held in May 2017. This process was extended six months to allow for the analysis to reflect the interchange at Victor Road and Highway 11 being open.

Report

Stonebridge Neighbourhood School Zone Site

The new school zone for Chief Whitecap School and St. Kateri Tekakwitha Catholic School will be combined into one continuous reduced speed zone. The school zone will include:

- Gordon Road bound by, and including, the intersections at Stonebridge Common (east) and Stonebridge Common (west);
- Stonebridge Common (west) bound by, and including, the intersections at Gordon Road and Brainerd Crescent;
- Stonebridge Common (east) bound by, and including, the intersections at Gordon Road and Snell Crescent; and
- The adjacent 30 to 50 metres of the intersecting streets of Stonebridge Common (northern arc), Laycock Crescent, Brainerd Crescent, Hartley Road, and Snell Crescent.

The road classifications of the impacted streets are as follows:

- Gordon Road, Stonebridge Common (northern arc) are major collector streets; and
- Stonebridge Common (west), Stonebridge Common (east), Brainerd Crescent, Snell Crescent are local streets.

The Stonebridge school zone is illustrated in Attachment 1.

Stonebridge NTR Update

The initial meeting in the Stonebridge NTR process was held on December 6, 2016 to discuss issues regarding pedestrian safety, speeding, and short-cutting in the neighbourhood. At this meeting, the residents requested that traffic calming measures near the new schools be installed prior to the school opening, concurrently with the school zone.

On May 25, 2017 the following improvements, to be installed concurrently with the school zone, were recommended to the residents at a second public meeting.

New School Zone and Neighbourhood Traffic Review Update – Stonebridge Neighbourhood

Brainerd Crescent	Maintain the temporary curb extensions previously installed to reduce speed and enhance pedestrian safety at crossings into the park.
Galloway Road	Install a three-way stop and add a crosswalk on the south side to improve intersection safety.
Langlois Way	Remove the temporary curb extension previously installed.
Vic Boulevard	Install a three-way stop to improve intersection safety.
Snell Crescent	Maintain the temporary curb extensions previously installed to reduce speed and enhance pedestrian safety at crossings into the park.

The locations of the recommended improvements are illustrated in Attachment 2.

Recommendations addressing the remaining concerns in the Stonebridge neighbourhood were also presented at the second public meeting. The residents' feedback is currently under review by the Administration. A comprehensive Stonebridge Neighbourhood NTR report will be submitted to the Standing Policy Committee on Transportation and City Council in the fall of 2017.

Public and/or Stakeholder Involvement

In May 2017 the Administration circulated the school zone plans to the Saskatoon Public School Board and Greater Saskatoon Catholic School Board.

Communication Plan

A Public Service Announcement will be released to inform motorists of the new school zone. Social media message(s) will be utilized to communicate the changes. The City will collaborate with the Saskatoon Public School Board and the Greater Catholic School Board in the drafting and dissemination of messaging.

Upon completion of the Stonebridge NTR the final Neighbourhood Traffic Plan will be shared with the residents of the neighbourhood using several methods: City website, the Community Association, and by a direct mail-out.

Policy Implications

The installation of new school zone in the neighbourhood of Stonebridge is in accordance with Policy C07-015, Reduced Speed Zones for Schools.

Financial Implications

The cost for installation of school zone and three-way stop signage is approximately \$2,500. Funding is available within approved Capital Project #1512 – Neighbourhood Traffic Management.

Other Considerations/Implications

There are no other options, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If approved, the new school zone signage and the three-way stops will be installed prior to the opening of the schools.

Public Notice

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

Attachments

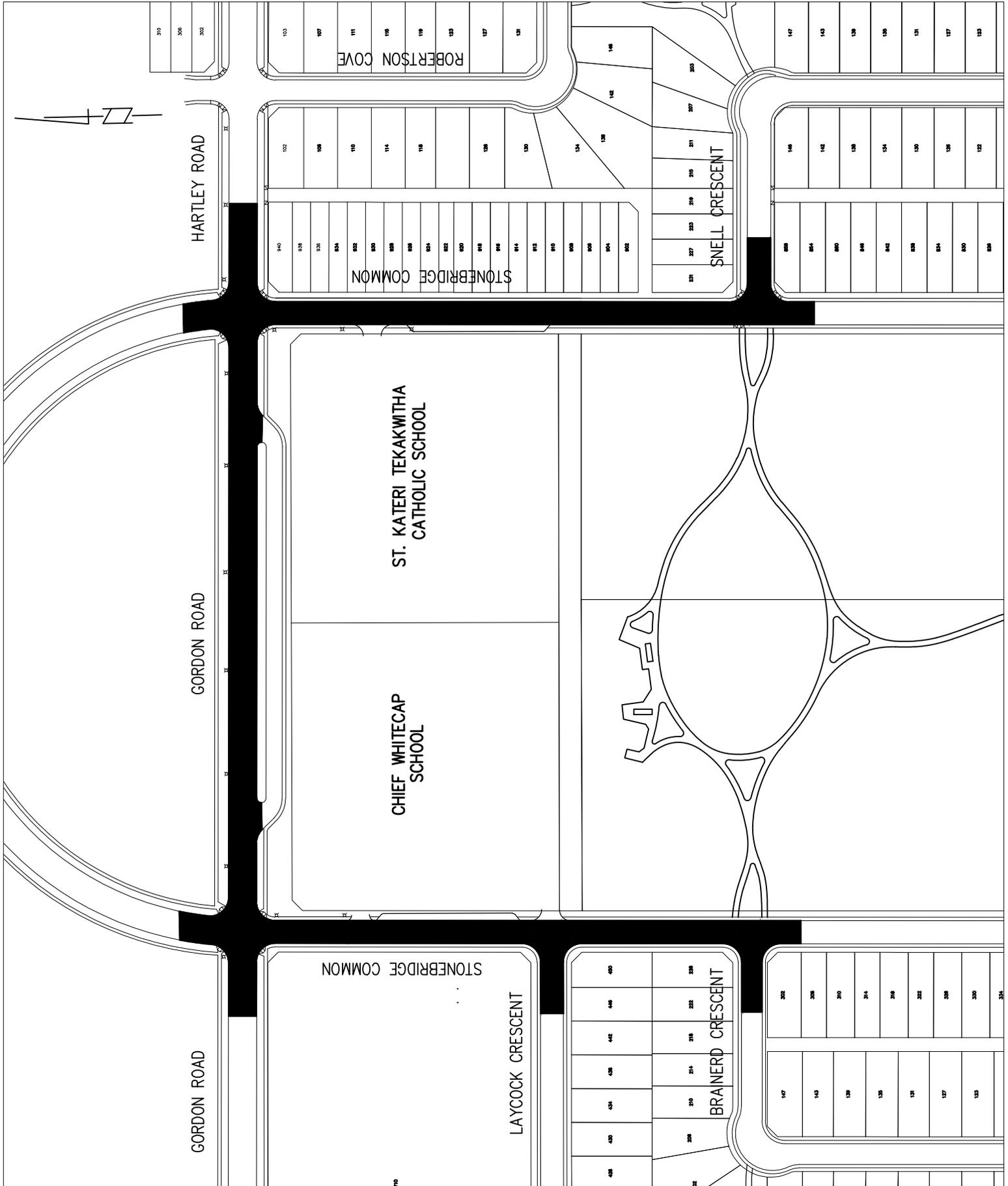
1. Proposed School Zone in Stonebridge
2. Stonebridge Common – Recommended Improvements

Report Approval

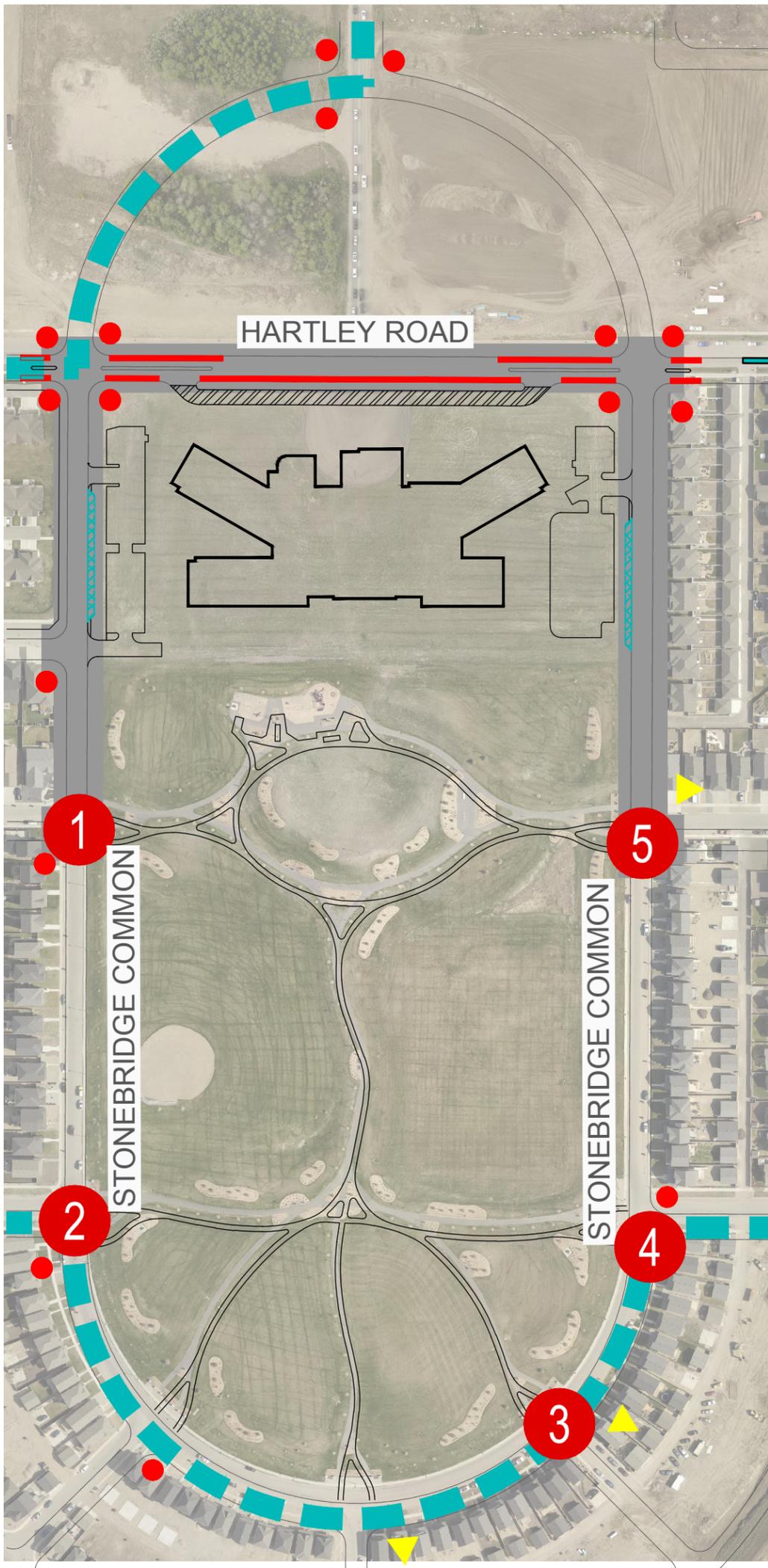
Written by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JM - New School Zone and NTR Update – Stonebridge Neighbourhood

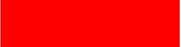
Proposed School Zone in Stonebridge



Stonebridge Common - Recommended Improvements



LEGEND

-  EXISTING STOP SIGN
 -  EXISTING YIELD SIGN
 -  BUS ROUTE
 -  SCHOOL ZONE
 -  DROP OFF/
PICKUP ZONE
 -  BUS LOADING/
UNLOADING ZONE
 -  NO PARKING ZONE
 -  TRANSIT STOP
- 



Stonebridge Common (30kph speed zone will be included as part of the school plan)

1	Brainerd Cres	Curb Extensions (already installed)	Reduce speed & enhance pedestrian safety at crossing to park
2	Galloway Rd	3-way stop & add crosswalk on south side	Improve intersection safety
3	Langlois Way	Remove temporary curb extension	Not needed
4	Vic Blvd	3-way stop	Improve intersection safety
5	Snell Cres	Curb Extensions (already installed)	Reduce speed & enhance pedestrian safety at crossing to park

New School Zones in Hampton Village, Evergreen and Rosewood Neighbourhoods

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That a new school zone be installed for new elementary school sites in Hampton Village, Evergreen and Rosewood Neighbourhoods.

Topic and Purpose

The purpose of this report is to request approval to install a new school zone at the school sites in the neighbourhoods of Hampton Village, Evergreen and Rosewood to improve pedestrian safety.

Report Highlights

1. The installation of a new school zone to reduce speed in the Hampton Village Neighbourhood at Ernest Lindner School and St. Lorenzo Ruiz Catholic School is recommended with both schools expected to open in September 2017.
2. The installation of a new school zone to reduce speed in the Evergreen Neighbourhood at Sylvia Fedoruk School and St. Nicholas Catholic School is recommended with both schools expected to open in September 2017.
3. The installation of a new school zone to reduce speed in the Rosewood Neighbourhood at Colette Bourgonje and St. Therese of Lisieux Catholic School recommended with both schools expected to open in September 2017.
4. Active Pedestrian Corridors are being installed in conjunction with the school zones.

Strategic Goal

This report supports the Strategic Goal of Moving Around by providing safe facilities for pedestrians, cyclists, and drivers.

Background

There is one school site in each of the Hampton Village, Evergreen, and Rosewood neighbourhood's shared between the Saskatoon Public School Board and Greater Catholic School Board, and the City of Saskatoon. All six schools are scheduled to open September 1, 2017.

As outlined in Policy C07-015, Reduced Speed Zones for Schools, the installation of a reduced speed zone of 30 kilometres per hour (kph) is recommended at all elementary school sites and is to be in effect between the hours of 8:00 A.M. to 5:00 P.M., Monday to Friday, September 1 to June 30.

The extents of the school zone will include the frontage of the school and any important crosswalks used by pedestrians as part of their route to school.

Report

Hampton Village Neighbourhood School Site

The new school zone for Ernest Lindner School and St. Lorenzo Ruiz Catholic School will be combined into one continuous reduced speed zone. The school zone will include:

- Hampton Circle bound by, and including, the intersections at Hampton Green (west) and East Hampton Boulevard;
- The adjacent 30 to 50 metres of the intersecting streets of East Hampton Boulevard, Denham Crescent, and Hampton Gate South; and
- Hampton Green in its entirety.

The road classifications of the impacted streets are as follows:

- Hampton Circle and Hampton Gate South are major collector streets;
- East Hampton Boulevard are minor collector streets; and
- Denham Way and Hampton Green are local streets.

There will be an Active Transportation Corridor installed at the intersection of Hampton Circle and Denham Crescent that provides direct connection to the school site.

The Hampton Village school zone is illustrated in Attachment 1.

Evergreen Neighbourhood School Site

The new school zone for Sylvia Fedoruk School and St. Nicholas Catholic School will be combined into one continuous reduced speed zone. The school zone will include:

- Evergreen Boulevard from, and including, the intersection at Salloum Crescent to immediately west of Glacial Shores Way;
- Manek Road from immediately south of Kloppenburg Way to south of the future Active Pedestrian Corridor connecting Funk Park to the west with Lacoursière Park to the east; and
- The adjacent 30 to 50 metres of the intersecting streets of Salloum Crescent, Kloppenburg Crescent, and Glacial Shores Manor.

The road classifications of the impacted streets are as follows:

- Evergreen Boulevard is a major collector street;
- Manek Road is a minor collector street; and
- Salloum Crescent, Kloppenburg Crescent, Glacial Shores Way, and Glacial Shores Manor are local streets.

There will be an Active Transportation Corridor installed on Manek Road that connects Funk Park to the west with Lacoursière Park to the east. Lacoursière Park connects to the Green Bridge, an active transportation connection over McOrmond Drive.

The Evergreen school zone is illustrated in Attachment 2.

Rosewood Neighbourhood School Site

The new school zone for Colette Bourgonje School and St. Therese of Lisieux Catholic School will be combined into one continuous reduced speed zone. The school zone will include:

- Olson Lane West from, and including, the intersection at Rosewood Gate South to immediately south of Rosewood Boulevard;
- Rosewood Gate South from, and including the intersection at Olson Lane West to the extent of existing development south of Olson Lane West (approximately one block face);
- Olson Lane East from, and including, the intersection at Rosewood Gate South to the extent of existing development northeast of Rosewood Gate South (the length of the school site); and
- The adjacent 30 to 50 metres of the intersecting streets of Gillies Street, Gillies Lane, and Flynn Manor.

The road classifications of the impacted streets are as follows:

- Olson Lane West, Olson Lane East, and Rosewood Gate South are minor collector streets; and
- Gillies Street, Gillies Lane, and Flynn Manor are local streets.

Further expansion of the school zone along Rosewood Gate West to the south and Olson Lane East to the east will occur as the neighbourhood develops further.

There will be an Active Pedestrian Corridor installed at the intersection of Olson Lane West and Flynn Manor. In the future, an Active Pedestrian Corridor will be installed at the intersection of Olson Lane East and a future road east of the school site.

The Rosewood school zone is illustrated in Attachment 3.

Public and/or Stakeholder Involvement

In January 2017, the Administration met with Saskatoon Public Schools and Greater Saskatoon Catholic Schools to discuss the new school zone for each neighbourhood. Both school divisions supported the installation of the new school zones.

Communication Plan

A Public Service Announcement and social media will be used to inform motorists of the new school zones. The City will also request the Community Associations' assistance in updating the communities. The City will collaborate with Saskatoon Public School Board and the Greater Catholic School Board in the drafting and dissemination of messaging.

Policy Implications

The installation of the new school zones in the neighbourhoods of Hampton Village, Evergreen and Rosewood are in accordance with Policy C07-015, Reduced Speed Zones for Schools.

Financial Implications

The cost to install the school zone signage is approximately \$3,000. Funding is available within approved Capital Project #1512 – Neighbourhood Traffic Management.

The Active Pedestrian Corridors cost is estimated at \$30,000 each and are funded through levies collected from lot sales in the Hampton Village, Evergreen and Rosewood neighbourhoods.

Other Considerations/Implications

There are no other options, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If approved, the new school zone signage will be installed prior to the opening of the schools scheduled for September 1, 2017.

Public Notice

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

Attachments

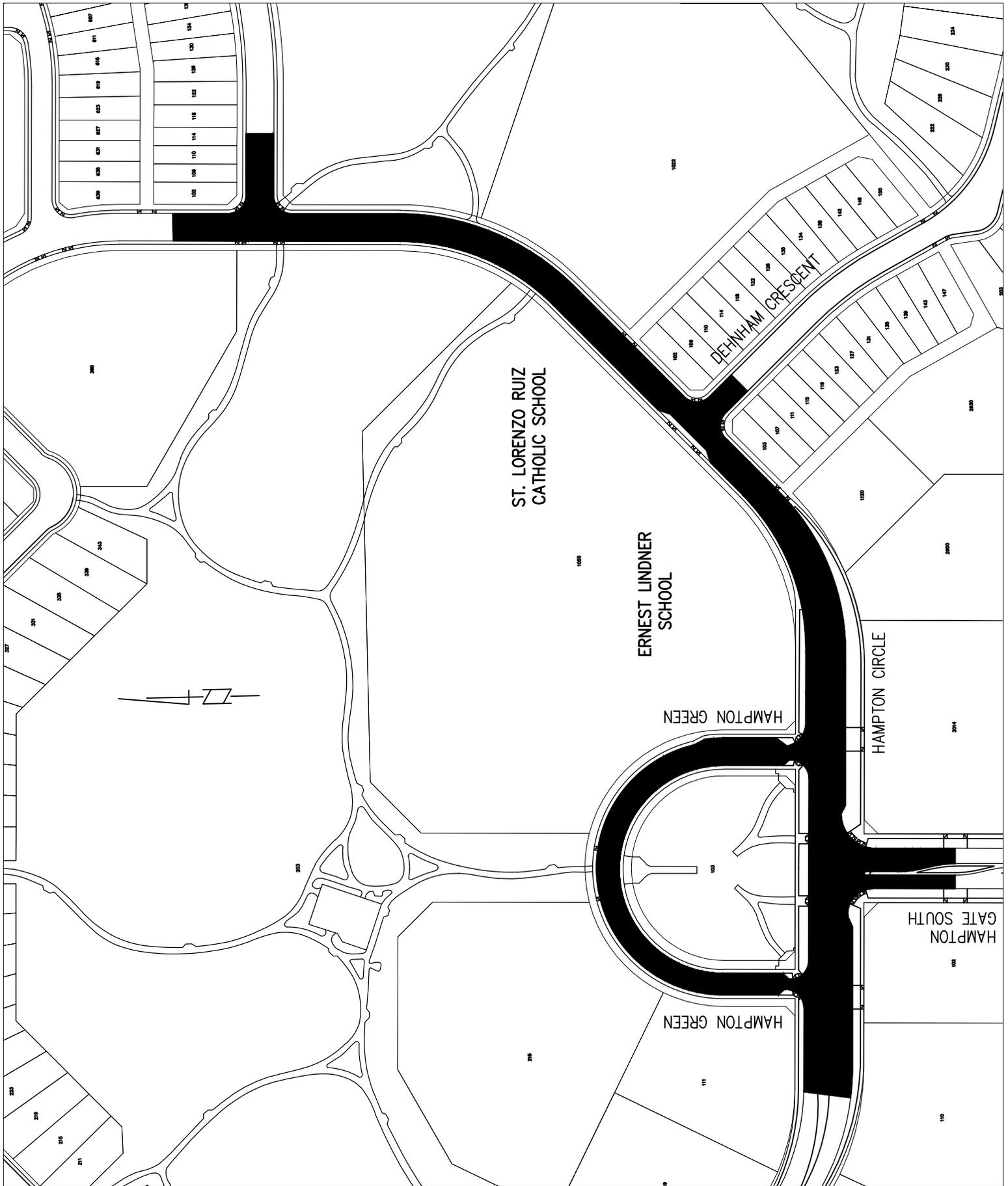
1. Proposed School Zone Hampton Village
2. Proposed School Zone for Evergreen
3. Proposed School Zone for Rosewood

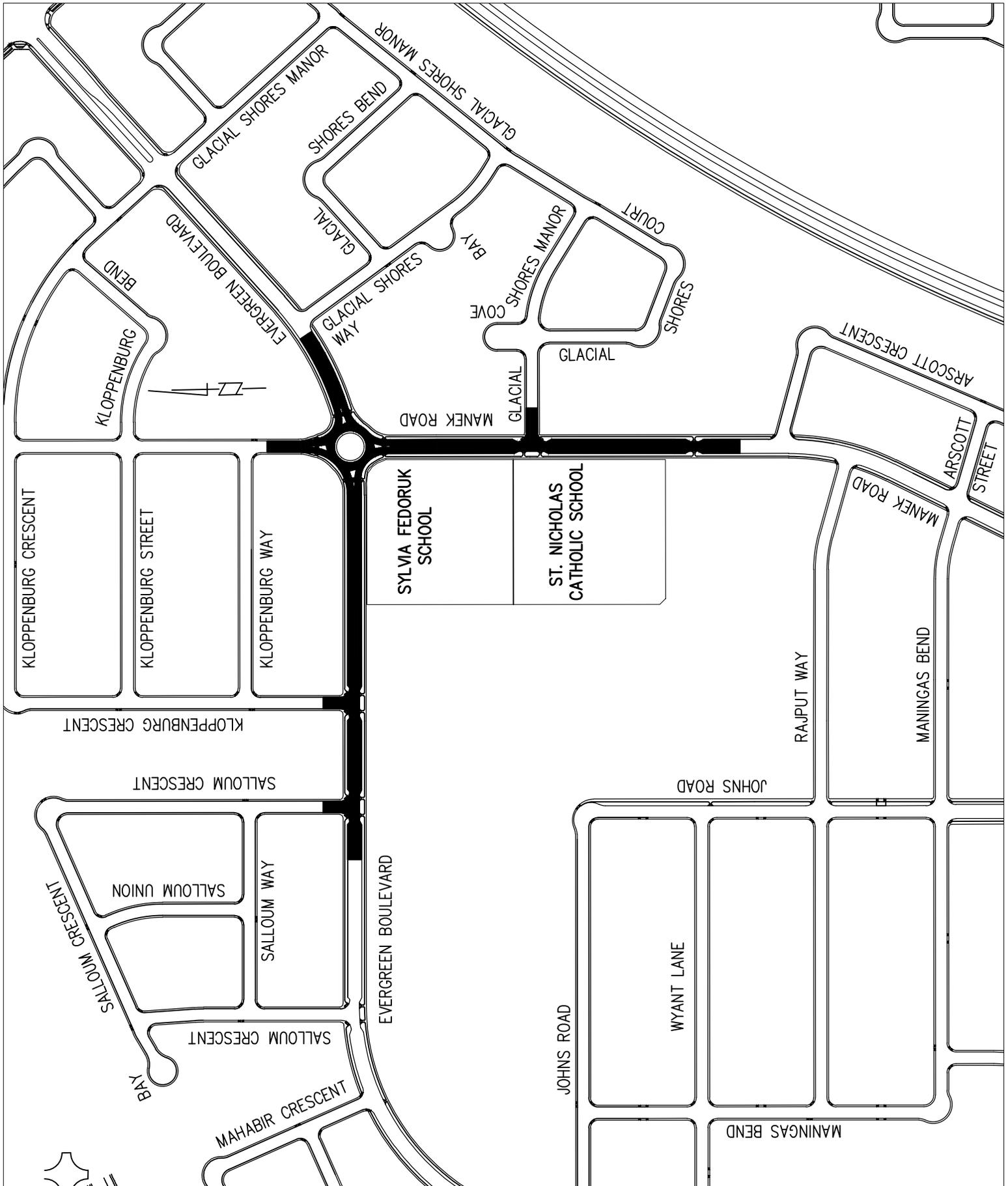
Report Approval

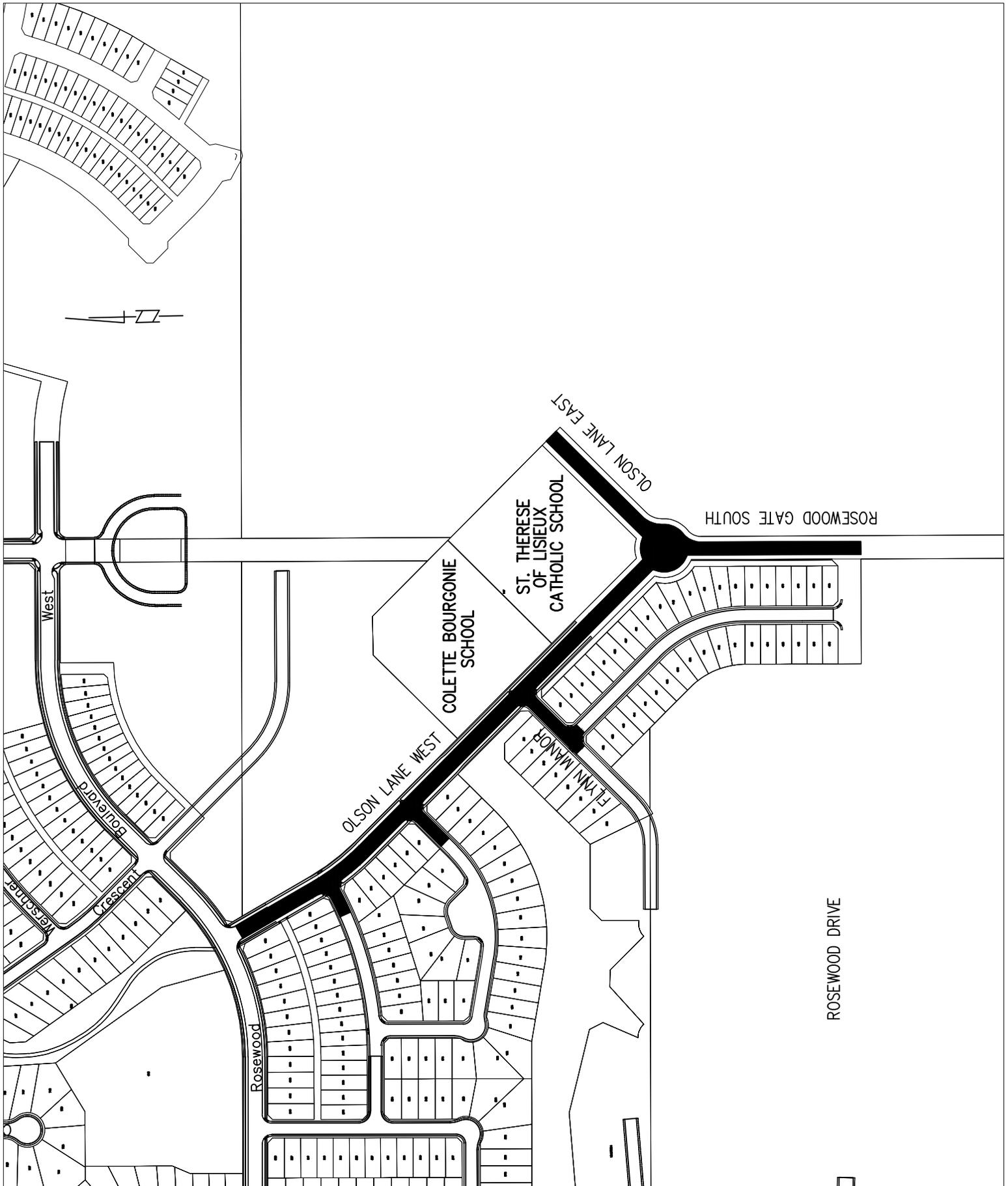
Written by: Jay Magus, Acting Director of Transportation

Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JM - New School Zones - Hampton Evergreen Rosewood.docx







Request for Budget Adjustment – Capital Project #2266 - TU – Hwy 16 & 71st Street Intersection Upgrades

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That a budget adjustment in the amount of \$1,000,000 be made to Capital Project #2266 – Hwy 16 & 71st Street Intersection Upgrades; and
2. That the budget adjustment be funded from the Transportation Funding Plan.

Topic and Purpose

The purpose of this report is to obtain City Council approval for a budget adjustment required to complete the roadway construction for the improvement of 71st Street and Highway 16 in order to advance the development of the area and initiate future growth plans.

Report Highlights

1. The City took over responsibility for the intersection of Highway 16 and 71st Street, including the Rural Municipality of Corman Park's (RM) financial responsibility for improvements.
2. Additional estimated costs for water service relocation and new pavement design standard resulted in a budget shortfall of \$1,000,000 that the Administration is recommending be funded from the Major Transportation Infrastructure Funding Plan.

Strategic Goal

The recommendations in this report support the Strategic Goal of Sustainable Growth and Moving Around as it will ensure safe and efficient movement of traffic across the highway as growth in the area has placed increased demands on the existing roadway network.

Background

As part of the boundary alteration proposal approved by City Council, at its meeting held on June 23, 2014, the City took over responsibility for the intersection of Highway 16 and 71st Street including the RMs financial responsibility for improvements. City Council, at its meeting on September 29, 2014, approved that the City enter into an agreement with Ministry of Highways and Infrastructure to take over operational jurisdiction of Highway 16 from the current city limits up to, and including, the intersection of 71st Street. The original design and estimate for the intersection was completed by the RM and reviewed by the City's Administration. Attachment 1 shows the limits of the intersection improvements. The total cost of the intersection modifications was estimated at \$4,670,000.

Report

City Council approved new pavement design guidelines on August 19, 2014, and new guidelines were implemented for all development after January 1, 2015. The original budget estimate of \$4,670,000 did not include the revised pavement design standards. The contract to realign the intersection was tendered in 2016, which included the revised pavement design guidelines. The project was awarded with construction initiated in May of 2016 and is expected to be completed by the end of the 2017 construction season. The revised pavement design standards resulted in additional costs of \$400,000 above the RM's original estimate.

In addition, a utility conflict was identified resulting in the need to relocate water services in the Biz Hub industrial Park. This conflict was not identified by either the RM or the City prior to tendering the intersection contract. The water service relocation contract was tendered in 2017 and expected completion in the 2017 construction season. This project can be executed independent of the roadway project but is a requirement of the agreement with the developer. The estimated cost of \$600,000 for the relocation of services was not included in the original budget estimate.

The Administration is recommending a budget adjustment in the amount of \$1,000,000 to be funded from the Major Transportation Infrastructure Funding Plan.

Options to the Recommendation

An option would be to not approve the budget adjustment. This would result in reducing the scope of work in the roadway contract and not being able to complete the intersection upgrade. Cancellation of the water service relocation work would inhibit development in the Biz Hub Industrial Park.

Public and/or Stakeholder Involvement

Meetings were held at the time with land owners to finalize the concept plan for the intersection improvement.

Communication Plan

Construction notices were distributed to all property owners in the area. Details explaining the scope of work and expected duration of construction were shared to minimize impact to businesses and residents. Appropriate communication materials will be prepared to give advanced warning of road restrictions. These may include advanced road signage, Public Service Announcements, Daily Road Reports, Traffic Detour Service Alerts, the Road Restrictions and Construction Projects Interactive Map and social media. City-wide communications to inform the general public of changes to the safety and functionality of this intersection will be considered at the appropriate time.

Financial Implications

Capital Project #2266 – Highway 16 & 71st Street Intersection Upgrades was approved in 2015 in the amount of \$4,670,000 cash flowed through annexation in the amount of \$3,077,000 and a \$1,593,000 contribution from the Ministry of Highways and Infrastructure and adjacent developers. The Administration is recommending that the budget adjustment of \$1,000,000 be funded from the Major Transportation Infrastructure Funding Plan.

Environmental Implications

The recommendation will have negative land use and greenhouse gas emission implications associated with this improvement. The overall environmental impacts of developments have not been quantified at this time.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The project is planned to be completed to a roadway paved level of service during the current year.

Public Notice

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

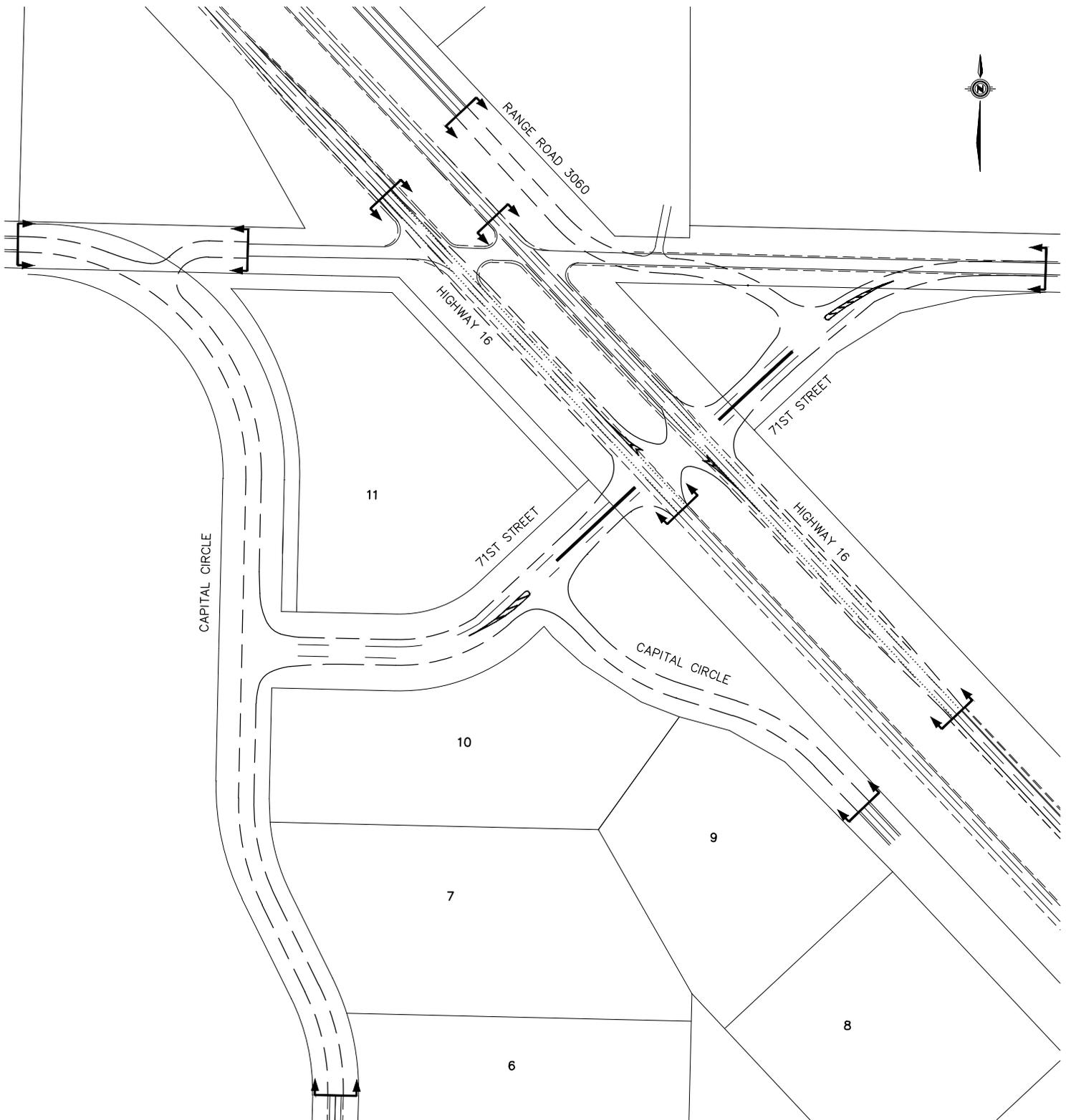
Attachment

1. Plan of 71st Street and Highway 16 Intersection Upgrade

Report Approval

Written by: Jake Chen, Project Engineer, Construction & Design
Reviewed by: Celene Anger, Director of Construction & Design
Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS JC Request for Budget Adjustment – Capital Project P2266 – TU – Hwy 16 & 71st Street Intersection Upgrades



Amendment to Council Policy C07-019 – Traffic Bylaw Special Permits

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That Council Policy C07-019 – Traffic Bylaw Special Permits be amended as outlined in this report.

Topic and Purpose

The purpose of this report is to seek approval to amend Council Policy C07-019 – Traffic Bylaw Special Permits to define the criteria for Unlicensed Vehicle Permits to improve roadway safety.

Report Highlights

Council Policy C07-019 – Traffic Bylaw Special Permits requires approval for amendment to clarify conditions for issuing permits to operate unlicensed vehicles and equipment on public right-of-way.

Strategic Goal

This report supports the Strategic Goal of Moving Around by improving the safety of all road users (pedestrians, cyclists, and drivers), and helps movement of people and goods around the city efficiently and safely.

Background

Bylaw No. 7200 – The Traffic Bylaw section 48(3) describes the following:

“The General Manager may impose such conditions on the registered owner or operator of a vehicle, construction equipment or farm equipment in the permit as the General Manager considers appropriate.”

Council Policy C07-019 – Traffic Bylaw Special Permits also indicates that permits may be issued for unlicensed vehicles if the General Manager is satisfied that the vehicle can be safely operated upon the street without the likelihood of damage to the street or property.

Report

Unlicensed, slow-moving vehicles have the potential to create unsafe situations when not displaying proper lighting and/or not maintaining a safe travel speed. While the Administration currently has the authority to issue permits where appropriate, including specific conditions, there is some confusion in the industry regarding what will be permitted. The following is a summary of the criteria that has been incorporated into the policy to clarify situations and/or conditions where permits may be issued:

- Unlicensed equipment operated on public right-of-way outside of a designated work zone requires the following:
 - Use of functioning indicator lights, turn signals and a flashing beacon; or
 - One accompanying pilot or escort vehicle at the rear of the equipment being transported.
 - Exceptions for snow clearing equipment: Operators actively engaged in snow removal after a City declared Snow Event have the option to obtain a Snow Clearing Permit that will, within the permit conditions, allow minor relaxation of operating conditions in terms of defining larger snow-clearing work zones.
- Permits shall not be issued to earth scrapers, articulated rock trucks nor any construction and farm equipment with non-rubber tracks. Such equipment must be transported on a properly equipped, currently licensed and registered trailer.
- Permits issued for self-propelled and towed farm equipment that exceed 3.6 metres in width must stipulate the requirement of one accompanying pilot or escort vehicle at the rear of the equipment being transported.

The revised policy is included in Attachment 1.

Public and/or Stakeholder Involvement

A stakeholder meeting was held on March 22, 2017, to outline the proposed amendments and address any questions. Over 50 stakeholders attended the meeting. Questions on both the existing regulations and the proposed changes were discussed. While some opposition was received, general support was identified to improve the safety on the road network.

Internal stakeholders including the Roadways & Operations division, Parks division and Saskatoon Police Service have also been consulted and support the proposed amendments.

Communication Plan

Information regarding the existing regulations and the amendments will be shared with stakeholders and the general public on the City website and through the North Saskatoon Business Association and the Saskatoon Construction Association. Information is also shared with all permit applicants.

Policy Implications

Council Policy C07-019 – Traffic Bylaw Special Permits will be revised as outlined in this report.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

If approved, the policy will be in effect immediately.

Public Notice

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

Attachment

1. Council Policy – C07-019 – Traffic Bylaw Special Permits

Report Approval

Written by: Tom Simpson, Customer Service Coordinator, Transportation
Reviewed by: Nick Bakker, Customer Service Manager, Transportation
Reviewed by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

TRANS TS Amendment to Council Policy C07-019 – Traffic Bylaw Special Permits.docx

CITY OF SASKATOON

COUNCIL POLICY

NUMBER

C07-019

POLICY TITLE <i>Traffic Bylaw Special Permits</i>	ADOPTED BY: <i>City Council</i>	EFFECTIVE DATE <i>September 4, 2007</i>
		UPDATED TO <i>December 14, 2015</i>
ORIGIN/AUTHORITY <i>Planning and Operations Committee Reports No. 92007 and 6-2009; Legislative Report No. 8-2009; and Item 8.3.8 of the Standing Policy Committee on Transportation – December 14, 2015</i>	CITY FILE NO. <i>CK 6000-1, 317-1 and 1720-1</i>	PAGE NUMBER <i>1 of 11</i>

1. PURPOSE

To establish the criteria for permitting commercial vehicles to operate in excess of the allowable weights, dimensions and routes as prescribed in Bylaw 7200: The Traffic Bylaw.

2. DEFINITIONS

- 2.1 After Hours - Any time outside of regular City Hall business hours which are Monday to Friday, 8:00 a.m. and 5:00 p.m. Holidays fall outside the scope of regular City Hall business hours.
- 2.2 CBD - The area of the City bounded by the South Saskatchewan River to the South and to the East, Idylwyld Drive to the West and 25th Street to the North as shown on Schedule No. 8, Vehicle Route Map, Bylaw 7200.
- 2.3 City - The City of Saskatoon.
- 2.4 Construction Equipment – Any unlicensed implement, equipment, machine or vehicle:
- (a) that is not designed, used or intended to be used primarily for the transportation of passengers or goods; and
 - (b) that is designed, used or intended to be used for:

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- (i) road or general construction or industrial purposes; or
- (ii) earth moving, excavation and demolition services; or
- (iii) transporting earth, gravel or rocks or any other material;

and includes front-end loaders, scrapers, graders, articulated rock trucks, cranes, backhoes, bobcats, zoom booms, genie lifts, rubber tire hoes and any similar equipment.

- 2.5 Destination Site - The location to which a vehicle must travel for a pick-up, a delivery or to perform a service.
- 2.6 Excess Load – Any load that exceeds the maximum vehicle weights prescribed in Schedule 7, Bylaw 7200.
- 2.7 Excess Load Permit - A permit to allow a vehicle travelling on City streets to exceed the maximum vehicle weights prescribed in Schedule No. 7, Bylaw 7200.
- 2.8 Excess Dimension - Any vehicle with dimensions that exceed the maximum vehicle dimensions prescribed in Bylaw 7200.
- 2.9 Excess Dimension Permit - A permit to allow a vehicle travelling on City streets to exceed the maximum vehicle dimensions prescribed in Bylaw 7200.
- 2.10 Farm Equipment – Any unlicensed or self-propelled implement, equipment or machine designed, used or intended for agricultural use, including tractors, combines and other similar equipment.
- 2.11 Level 1, 2 and 3 Vehicles - Vehicle levels as described in Schedule No. 7, Bylaw 7200.

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2.12 Vehicle Routing Permit - A permit to allow a vehicle travelling on City streets to deviate from established vehicle routes prescribed in Schedule No. 8, Bylaw 7200.

2.13 Unlicensed Vehicle – Farm equipment and construction equipment as defined in Bylaw 7200 and this Policy.

2.14 Unlicensed Vehicle Permit – A permit to allow farm equipment or construction equipment to travel on City streets without being transported on a trailer.

3. POLICY

3.1 Permits Required

- a) An Excess Load Permit is required if a vehicle travelling on City streets weighs in excess of the maximum vehicle weights prescribed in Schedule No. 7, Bylaw 7200.
- b) An Excess Dimension Permit is required if a vehicle travelling on City streets exceeds the maximum vehicle dimensions prescribed in Bylaw 7200.
- c) A Vehicle Routing Permit is required if a vehicle deviates from the established vehicle routes prescribed in Schedule No. 8, Bylaw 7200.
- d) An Excess Load Permit or an Excess Dimension Permit cannot be used in place of a Vehicle Routing Permit. A vehicle that exceeds the maximum vehicle weights or that exceeds the maximum vehicle dimensions prescribed in Bylaw 7200 and that wishes to travel off an established vehicle route must obtain a Vehicle Routing Permit in addition to the appropriate Excess Load or Excess Dimension Permit.

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- e) An Unlicensed Vehicle Permit is required if farm equipment or construction equipment travels on City streets without being transported on a trailer. An Unlicensed Vehicle Permit will contain all necessary conditions relating to weights, dimensions and routing. Application for an Excess Load, Excess Dimension or a Vehicle Routing Permit is not required in addition to an Unlicensed Vehicle Permit.

- f) Farm equipment and construction equipment transported on a trailer do not require an Unlicensed Vehicle Permit. Farm equipment and construction equipment transported on a trailer shall be subject to the general weight, dimension and routing provisions of Bylaw 7200 and therefore require the appropriate Excess Load and/or Excess Dimension Permits in addition to the appropriate Vehicle Routing Permit.

3.2 Excess Load Permits

- a) An Excess Load Permit is required when a vehicle travelling on City streets exceeds the maximum vehicle weights prescribed in Schedule No. 7, Bylaw 7200.

- b) Excess Load Permits will be issued if the General Manager of Transportation and Utilities or a designate of the General Manager of Transportation and Utilities is satisfied that the vehicle can be safely operated or moved upon the street without the likelihood of damage to the street or property. However:
 - (i) Excess Load Permits will not be issued for divisible loads.

- c) Excess Load Permits may outline any or all of the following conditions:
 - (i) A specific route or routes to be used to and from the destination site.

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Time of day restrictions for travel.

- d) Excess Load Permits will be provided on an annual basis or as a single-use permit, as required. An Excess Load Permit shall only apply to a single vehicle, unless a fleet of vehicles require permits; in which case, the license plates for the fleet will be included in the permit. The permit is not transferrable. An administration fee will be charged for the issuance of a permit.

3.3 Excess Dimension Permits

- a) An Excess Dimension Permit is required when a vehicle travelling on City streets exceeds the maximum dimensions prescribed in Bylaw 7200. Regardless of permit possession, the operator of a vehicle must also obey all posted clearances.
- b) Excess Dimension Permits will be issued if the General Manager of Transportation and Utilities or a designate of the General Manager of Transportation and Utilities is satisfied that the vehicle can be safely operated or moved upon the street without the likelihood of damage to the street or property. However:
 - (i) Excess Dimension Permits will not be issued for divisible loads.
 - (ii) Excess Dimension Permits will not be issued for vehicles measuring greater than 3.6 metres in width requiring travel on Idylwyld Drive and/or Circle Drive between the hours of 7:00 a.m. to 9:00 a.m. and/or 4:00 p.m. to 6:00 p.m., Monday to Friday.
- c) Excess Dimension Permits may outline any or all of the following conditions:

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A specific route or routes to be used to and from the destination site.

- (i) Time of day restrictions for travel.
- (ii) Flagging or other identification requirements in order to ensure that the vehicle has minimal impact on safety and roadway network operation. Typical Excess Dimension Permit flagging/identification requirements are listed in Table 1.

Table 1: Excess Dimension Permit Flagging/Identification Requirements

Width (metres)	Requirements
Greater than 2.6	Red flags on the extremities of the load that overhang the sides or rear of the vehicle.
Greater than 3.05	Signs required at the rear in addition to the above.
Greater than 3.3	A minimum of one amber flashing or rotating beacon visible for 200 m in addition to the above.
Greater than 5.0	Trail vehicle required rear only in addition to the above.
Length	Requirements
Greater than 25 m	Sign required at rear.
Greater than 27.5 m	Amber beacon and rear sign.
Greater than 31 m	Amber beacons and signs front and rear.
Greater than 36 m	All of the above.

- d) Excess Dimension Permits will be provided on an annual basis or as a single-use permit, as required. An Excess Dimension Permit shall only apply to a single vehicle, unless a fleet of vehicles require permits; in which case, the license plates for the fleet will be included in the permit. The permit is not transferable. An administrative fee will be charged for the issuance of a permit.

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3.4 Vehicle Routing Permits

- a) Vehicles requiring a Vehicle Routing Permit include:
 - (i) Level 3 vehicles requiring access to the CBD at any time.
 - (ii) Level 3 vehicles requiring travel off primary vehicle routes or outside unrestricted areas.

- b) Generally, Vehicle Routing Permits will be issued if the General Manager of Transportation and Utilities or a designate of the General Manager of Transportation and Utilities is satisfied that the vehicle can be safely operated or moved upon the street without the likelihood of damage to the street or property. However:
 - (i) Vehicle Routing Permits allowing a Level 3 vehicle access to the CBD at any time will only be granted under special circumstances as per the following criteria:
 - The carrier can prove to Transportation and Utilities that a Level 1 or Level 2 vehicle is incapable of performing, or unavailable to perform, the service.
 - The vehicle can safely travel to the destination and manoeuvre on the destination site as determined by Transportation and Utilities. The vehicle must be contained within the site during all loading/unloading while still providing safe access for patrons and other vehicles/pedestrians.

 - (ii) Vehicle Routing Permits allowing a Level 3 vehicle to travel off primary vehicle routes or outside unrestricted areas will only be granted after consideration of the following criteria:

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- The vehicle can safely access the business using secondary truck routes and arterial roadways.
- The vehicle can safely manoeuvre on the destination site as determined by Transportation and Utilities. The vehicle must be contained within the site during all loading/unloading while still providing safe access for patrons and other vehicles/pedestrians.
- Whether it is appropriate to allow an intercity delivery off of a primary vehicle route.

- c) Vehicle Routing Permits may outline any or all of the following conditions:
- (i) A specific route or routes to be used to and from the destination site.
 - (ii) Time of day restrictions for travel.
 - (iii) Flagging or other identification requirements in order to ensure that the vehicle has minimal impact on safety and roadway network operation.
- d) Vehicle Routing Permits will be provided on an annual basis or as a single-use permit, as required. A Vehicle Routing Permit shall only apply to a single vehicle, unless a fleet of vehicles require permits; in which case, the license plates for the fleet must be included in the permit. The permit is not transferable. An administrative fee will be charged for the issuance of a permit.

3.5 Unlicensed Vehicle Permits

- a) **An Unlicensed Vehicle not transported on a trailer requires an Unlicensed Vehicle Permit to be displayed or have readily available at all times.**

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- b) Unlicensed Vehicle Permits will be issued if the General Manager of Transportation and Utilities or a designate of the General Manager of Transportation and Utilities is satisfied that the vehicle can be safely operated upon the street without the likelihood of damage to the street or property. However:
- (i) **Unlicensed Vehicle Permits shall not be issued to earth scrapers, articulated rock trucks nor any and all construction and farm equipment with non-rubber tracks. Such equipment must be transported on a properly equipped, currently licensed and registered trailer.**
 - (ii) Unlicensed Vehicle Permits will not be issued for vehicles measuring greater than 3.3 meters in width requiring travel on any portion of Circle Drive or Idylwyld Drive south of 8th Street between the hours of 7:00 a.m. to 9:00 a.m. and/or 4:00 p.m. to 6:00 p.m., Monday through Friday.
 - (iii) **Unlicensed Vehicle Permits issued for vehicles between 3.6 metres to 4.0 metres in width must stipulate a requirement for a pilot vehicle at the rear of the vehicle and will include Time of Day Restrictions.**
 - (iv) **Unlicensed Vehicle Permits issued for a vehicle measuring greater than 4.0 metres in width will require pilot vehicles in front and at the rear of the vehicle, and travel will only be permitted between 7:00 p.m. and 7:00 a.m.** ~~Unlicensed Vehicle Permits will not be issued for a vehicle measuring greater than 4 metres in width.~~
 - (v) Unlicensed Vehicle Permits will not be issued where the gross vehicle weight is more than 55,000 kilograms.
 - (vi) ~~Unlicensed Vehicle Permits will not be issued where the vehicle is track-propelled.~~
 - (vii) Unlicensed Vehicle Permits will not be issued when it is intended that the vehicle will carry a load of any kind.

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- c) **When operating outside of a designated work zone unlicensed vehicle shall:**
 - (i) **Have functioning indicator lights, turn signals and a flashing beacon; or**
 - (ii) **Have one accompanying pilot or escort vehicle at the rear of unlicensed vehicle while being transported.**

- d) Unlicensed Vehicle Permits may outline any or all of the following conditions:
 - (i) Lane travel restrictions (i.e. the vehicle shall travel in the right-most lane).
 - (ii) Time of day restrictions for travel.
 - (iii) Flagging or other identification requirements in order to ensure that the vehicle has minimal impact on safety and roadway network operations.
 - (iv) Specific route or routes to be used to and from the destination site.

- e) Unlicensed Vehicle Permits will be provided on an annual basis or as a single-use permit, as required. An Unlicensed Vehicle Permit shall only apply to a single vehicle, unless a fleet of vehicles require permits; in which case, a description of each vehicle must be included in the permit. The permit is not transferrable. An administrative fee will be charged for the issuance of a permit.

- f) **Unlicensed vehicles actively engaged in snow removal after a City declared Snow Event may obtain a Snow Clearing Permit that will exempt the requirements outlined in Section 3.5c) when operated within a defined zone.**

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3.6 Permit Application Process

- a) All permit applications are to be submitted via phone or fax at the following contact numbers:
 Phone: (306) 975-2454
 Fax: (306) 975-2971

- a) Permit applications will be processed from Monday to Friday between 8:00 a.m. and 5:00 p.m., with the exception of holidays.

- b) It is the responsibility of the trucking company to obtain any permits stated herein to travel within City Limits and to allow a minimum of two business days for the processing of the permits required. The City will aim to process permits within 2 business days of the receipt of the permit request.

4. RESPONSIBILITIES

4.1 Trucking Companies - Trucking companies shall be responsible to:

- a) Obtain any of the aforementioned permits.
- b) Provide the vehicle operator with the permit number, as well as the routing details and other permit conditions.

4.2 Transportation and Utilities - The Transportation and Utilities Department shall be responsible to:

- a) Administer requests and grant permits.
- b) Establish the fee structure for permits.
- c) Administer, review and recommend updates to this policy.

4.3 City Council - City Council shall be responsible to:

- a) Approve of any changes to this policy.

Victoria Avenue Corridor between 11th Street and the Traffic Bridge

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the proposed plan for Victoria Avenue between 11th Street and the Traffic Bridge be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to provide an update on transportation improvements to Victoria Avenue, between 11th Street and the Traffic Bridge, in conjunction with the North Commuter Parkway project and planned improvements on Victoria Avenue between 11th Street and 8th Street.

Report Highlights

1. The Victoria Avenue Corridor Review resulted in a plan to address the combination of motor vehicles, pedestrians and cyclists anticipated after the Traffic Bridge is reopened.
2. The proposed plan will provide an AAA (all ages and abilities) cycling facility link between the approved improvements on Victoria Avenue between 8th Street and 11th Street and the multi-use pathways on the Traffic Bridge.

Strategic Goals

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

This report also supports the Strategic Goal of Asset and Financial Sustainability, as the Administration is working collaboratively to combine a “Complete Streets” solution with other works being completed under the North Commuter Parkway Project.

Background

City Council, at its meeting held on April 24, 2017, considered a report on Victoria Avenue Corridor Transportation Improvements and resolved, in part:

- “4. That the Administration provide a report to Council outlining options to integrate the Victoria Avenue cycling network with the Traffic Bridge Project.”

The Traffic Bridge scheduled to reopen in fall of 2018 will reconnect Victoria Avenue south of the river to 3rd Avenue north of the river in conjunction with the North Commuter Parkway project. Once open, 7,000 vehicles per day are anticipated, similar to the traffic volume prior to the Traffic Bridge closure in 2010.

As part of the next steps in developing a five-year implementation plan, the Active Transportation Plan identified Victoria Avenue as a high priority area of expansion to integrate a bicycle network in addition to other transportation movement improvements. The purpose is to align all rehabilitation initiatives and collaboratively combine a “Complete Streets” solution to improve all modes of movement for the Traffic Bridge and Victoria Avenue.

A review of Victoria Avenue between 8th Street and 11th Street was completed earlier in 2017, and resulted in a re-designation of space to include an AAA cycling facility – in this case a raised cycle track.

Report

Victoria Avenue between 8th Street and 11th Street

The preferred Victoria Avenue design reflects resident’s recent feedback on pedestrian accommodation and traffic assessments taken prior to the 2010 Traffic Bridge closure. The design includes a raised cycle track to accommodate an AAA cycling facility, a reduction to one southbound lane, retention of street parking, and retention of wide sidewalks.

Traffic Bridge and Original Design for Victoria Avenue between 11th Street and Bridge

Details of the Traffic Bridge cross-section and Victoria Avenue between 11th Street and the bridge are included in Attachment 1. Highlights of the original design are as follows:

- Traffic Bridge:
 - Two driving lanes (one per direction) 3.7 m wide.
 - Paint sharrows on the driving lanes.
 - No division of lanes (i.e. no raised median).
 - A 3.0 m multi-use pathway on both sides.
 - Travel in either direction on a multi-use pathway for cyclists and pedestrians.
- Victoria Avenue between 11th Street and bridge:
 - Two driving lanes (one per direction) 3.6 m wide.
 - Unprotected (i.e. no buffer) bike lanes immediately adjacent to the driving lanes 1.5 m wide.
 - Divided driving lanes via a 1.5 m raised median.
 - A 2.5 m sidewalk on both sides (cyclists would be required to dismount and walk if on the sidewalk).

Two illustrations of the bridge cross-section are included in Attachment 2.

Proposed Design for Victoria Avenue between 11th Street and Bridge

The proposed plan will introduce an AAA cycling facility on both sides of the street.

The modifications to the proposed cross-section will proceed in conjunction with the North Commuter Parkway project scheduled in the fall of 2018.

Victoria Avenue Corridor between 11th Street and Traffic Bridge

The proposed cross-section, including a comparison to the original plan, is illustrated in Attachment 3. A plan view of the street, new sidewalks, and cycle track is provided in Attachment 4. Key modifications to Victoria Avenue are listed in the table below:

Item	Original Design	Proposed Design
Sidewalk (concrete)	<ul style="list-style-type: none">• 2.5 m northbound• 2.0 m southbound grade separated (existing)	<ul style="list-style-type: none">• 2.0 m northbound• 2.0 m southbound grade separated (existing)
Bicycle Facility	1.5 m on street cycle lanes (asphalt, one each direction)	<ul style="list-style-type: none">• 2.3 m northbound concrete raised cycle track• 2.4 m southbound asphalt raised cycle track
Median (concrete)	1.5 m raised median	1.2 m raised median

Traffic lanes will be maintained at 3.6 meters to be consistent with the travel widths on the new Traffic Bridge. A median is required due to the existing street lighting and to facilitate right turns only at the ramp intersections.

The cycle track design will be an AAA cycling facility as outlined in the ATP. It consists of a 2.4 m wide cycle track constructed at a grade 150 mm higher than the adjacent roadway surface in the southbound (uphill) direction, and a 2.3 m wide cycle track in the northbound (downhill) direction also constructed 150 mm higher than the roadway surface.

Maintaining AAA Continuity at Intersections

Between 8th Street and the north end of the Traffic Bridge there will be two configurations of the AAA cycling network as follows:

- Raised cycle track on both sides between 8th Street and the bridge
- Multi-use pathways on both sides of the bridge (plus sharrows on the driving lanes)

Details on how the AAA cycling network is maintained at the intersection of Victoria Avenue and 11th Street is provided in Attachment 5.

Details on how the AAA cycling network is maintained at the connection of Victoria Avenue to the Traffic Bridge is provided in Attachment 6.

Public and/or Stakeholder Involvement

At the public meeting held on March 16, 2017, the Victoria Avenue between 8th Street and 11th Street corridor plan was presented. Although the segment of Victoria Avenue between 11th Street and the Traffic Bridge was not within the scope, residents provided feedback that this was a missing link in a AAA cycling network.

Communication Plan

The final plan will be shared with Nutana residents using several methods: City website, the Community Association, and by a direct mail-out.

Financial Implications

A price request has been issued to Graham Commuter Partners to complete this work as a part of the Traffic Bridge portion of the North Commuter Parkway project. If the cost estimate is deemed too high to absorb within the existing capital budget, the City can complete the work by using another contractor once the Traffic Bridge is complete.

Maintenance of the cycle track, including snow clearing and pavement markings, will be incorporated into existing operating budgets.

Environmental Implications

The overall impact of the recommendations on traffic characteristics, and the impacts on greenhouse gas emissions, has not been quantified at this time.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

No follow-up is required.

Public Notice

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

Attachments

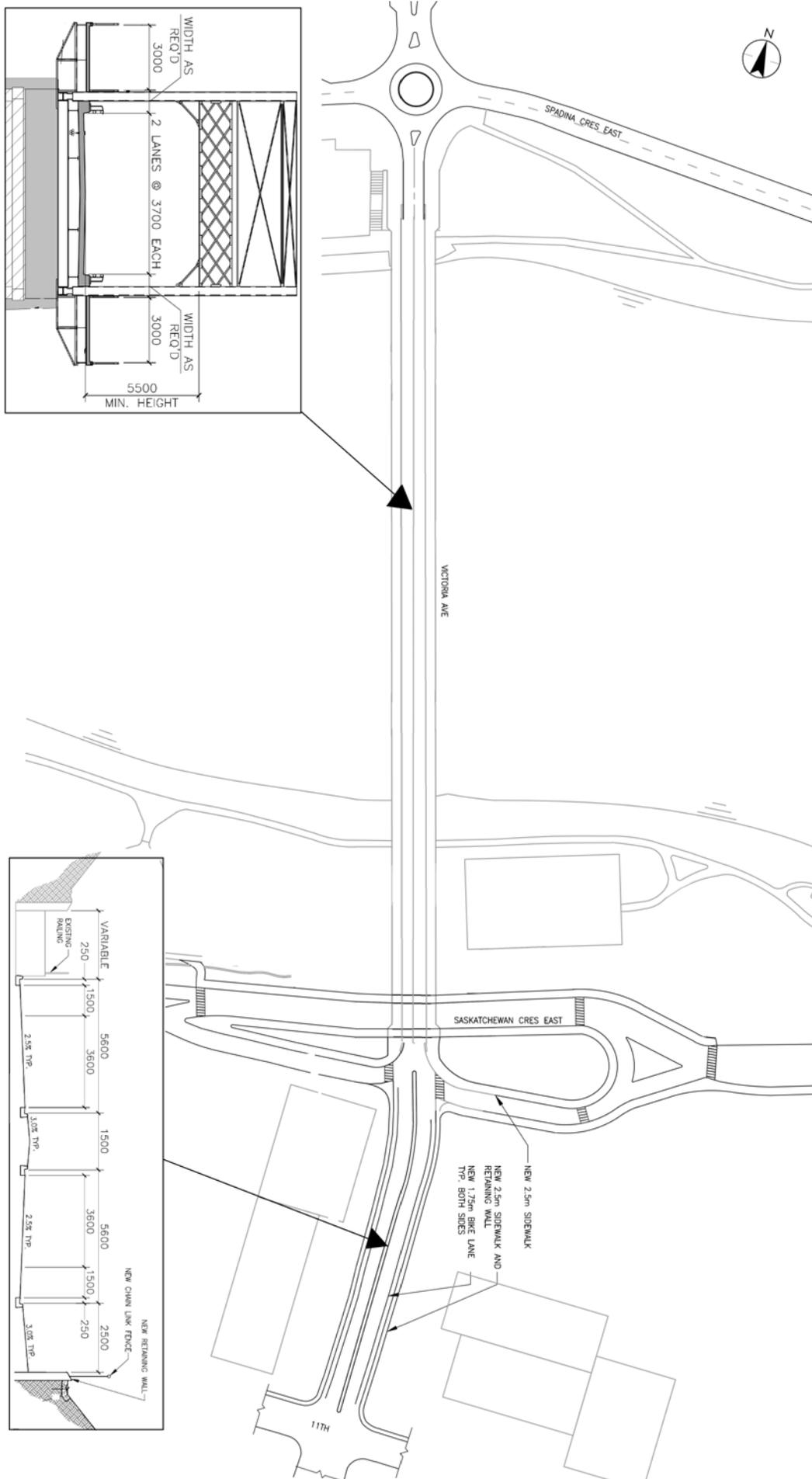
1. Traffic Bridge Cross-Section and Victoria Avenue between 11th Street and the Bridge
2. Traffic Bridge illustrations
3. Victoria Avenue between 11th Street and Bridge – Proposed Cross-Section
4. Victoria Avenue between 11th Street and Bridge – Plan View
5. Intersection of Victoria Avenue and 11th Street
6. Connection of Victoria Avenue to Traffic Bridge

Report Approval

Written by: Chelsea Lanning, Transportation Engineer
Reviewed by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

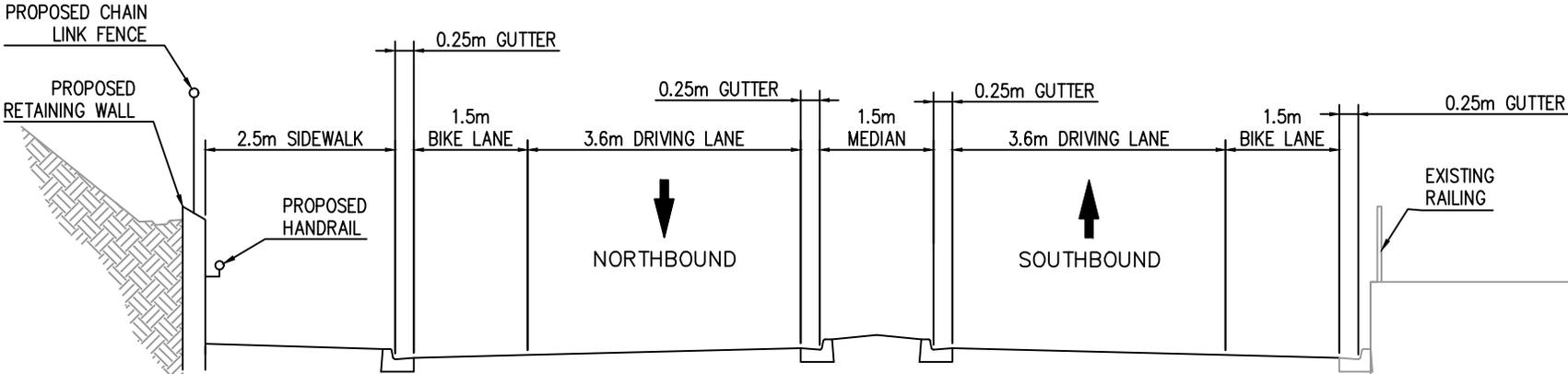
TRANS – CL – Victoria Avenue Corridor between 11th Street and Traffic Bridge

Traffic Bridge Cross-Section and Victoria Avenue between 11th Street and the Bridge

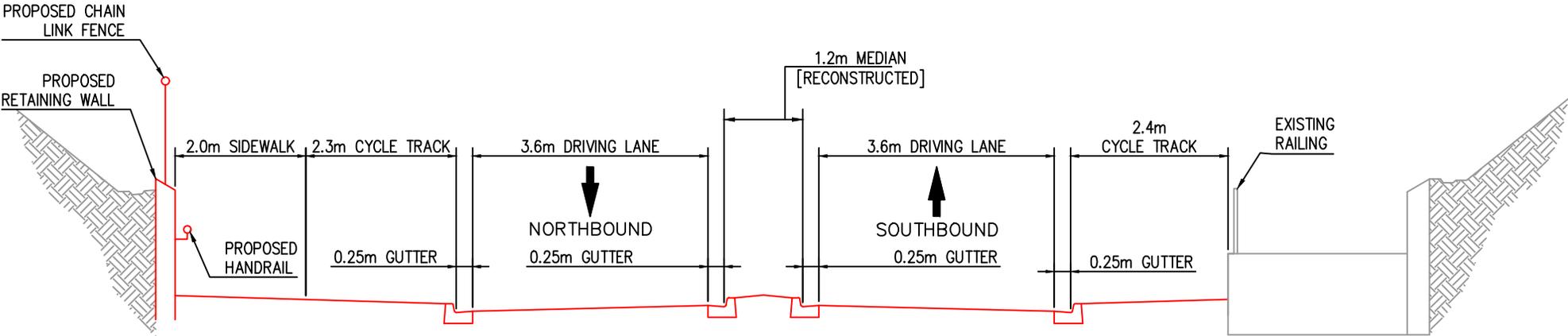


Traffic Bridge Illustrations



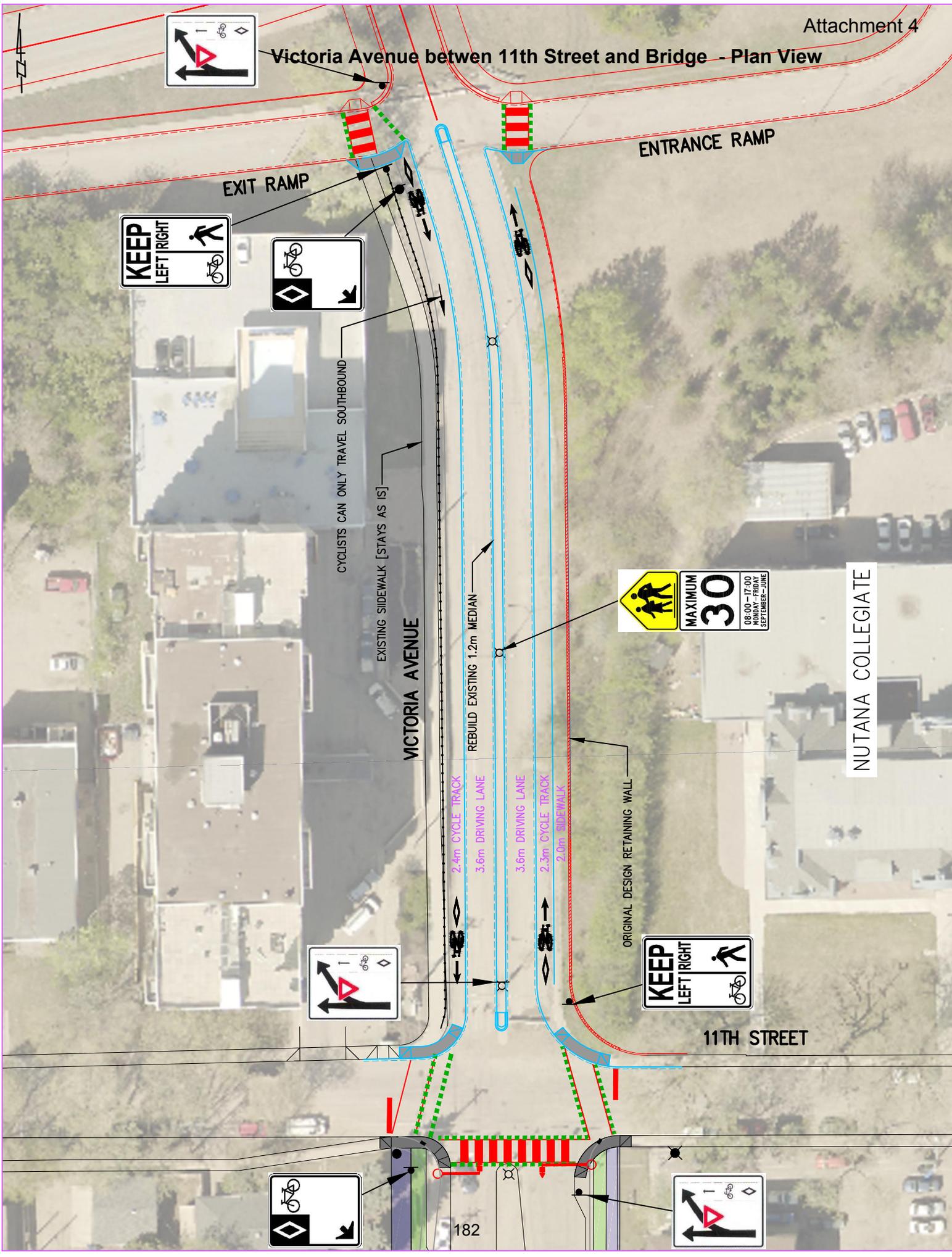


ORIGINAL APPROVED CROSS SECTION - VICTORIA AVENUE - NORTH OF 11TH STREET

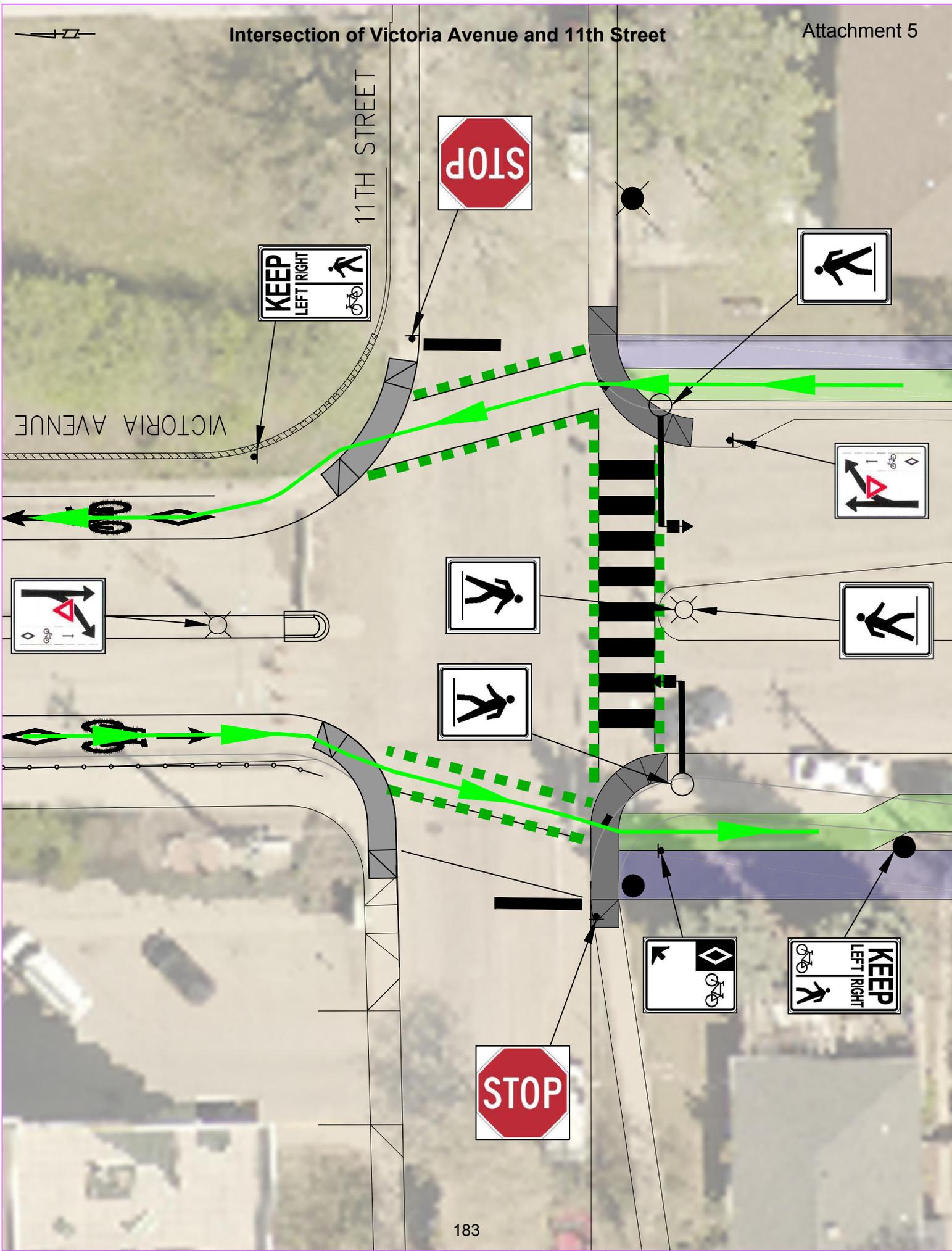


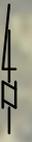
PROPOSED CROSS SECTION - VICTORIA AVENUE - NORTH OF 11TH STREET

Victoria Avenue between 11th Street and Bridge - Plan View



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TRAFFIC BRIDGE

SASK CRESCENT



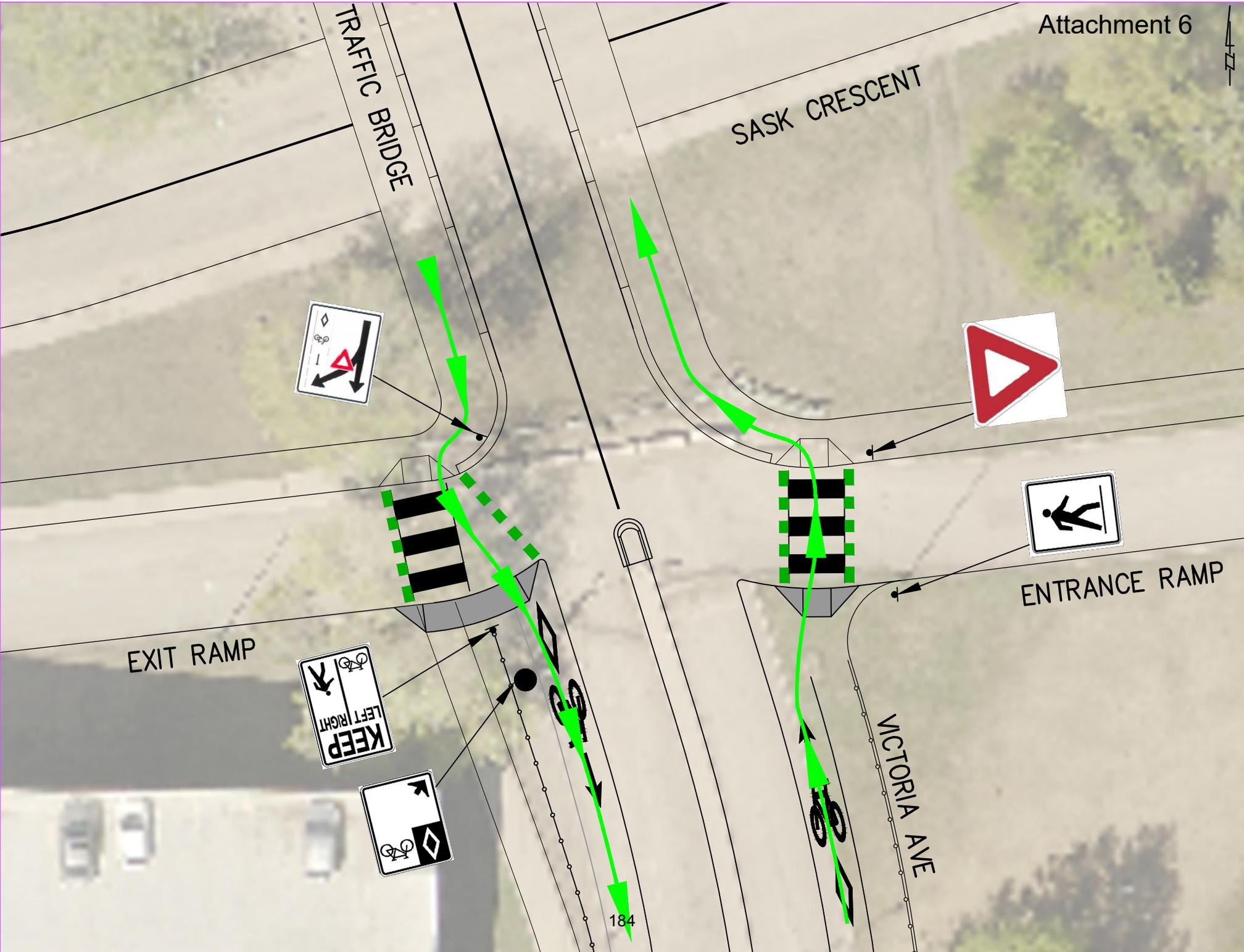
ENTRANCE RAMP

VICTORIA AVE

EXIT RAMP



184



Hampton Village Neighbourhood Traffic Review

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Neighbourhood Traffic Review for the Hampton Village neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

Topic and Purpose

The purpose of this report is to provide information on the Neighbourhood Traffic Review (NTR) for the Hampton Village neighbourhood.

Report Highlights

A Neighbourhood Traffic Plan for the Hampton Village neighbourhood was developed in consultation with the community in response to concerns such as speeding, traffic shortcutting, and pedestrian safety. The plan will be implemented over time as funding for the improvements is available.

Strategic Goal

This report supports the Strategic Goal of Moving Around by providing a plan to guide the installation of traffic calming devices and pedestrian safety enhancements to improve the safety of pedestrians, motorists, and cyclists.

Background

A public meeting was held in June 2016 to identify traffic concerns and potential solutions within the Hampton Village neighbourhood. Representatives from the Saskatoon Police Service were in attendance to address traffic enforcement issues. Based on the residents' input provided at the initial public meeting and the analysis of the traffic data collected, a Neighbourhood Traffic Plan was developed and presented to the community at a second public meeting held in January 2017.

Report

The development and implementation of the Traffic Plan includes four stages:

1. Identify existing problems, concerns, and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon.ca website;
2. Develop a draft traffic plan based on residents' input and traffic assessments;
3. Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; and make adjustments as needed to present the plan to City Council for adoption; and
4. Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years), or long-term (more than 5 years).

Hampton Village Neighbourhood Traffic Review

The majority of concerns identified during the consultation included shortcutting, speeding, pedestrian safety, and parking.

The Administration is recommending the following modifications to improve safety in the Hampton Village neighbourhood:

- Stop signs
- Median islands
- Curb extensions
- Parking restrictions
- Yield signs
- Playground signs
- School zone signs
- Crosswalks
- Guide sign
- Temporary speed display board
- Active pedestrian corridor
- Enforcement
- Permanent traffic calming

The installation of each proposed improvement will be implemented in three specific time frames as follows:

Short-term (1 to 2 years)	Temporary traffic calming measures, signage, pavement markings, enforcement, speed display boards
Medium-term (3 to 5 years)	Permanent traffic calming devices, Active Pedestrian Corridors
Long-term (more than 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks

The Hampton Village NTR is included in Attachment 1.

If approved by City Council, all of the temporary traffic calming measures will be installed in 2017. The annual report on the NTRs will provide an update on the status of converting the temporary measures to a permanent condition.

Public and/or Stakeholder Involvement

In June 2016, a public meeting was held to discuss traffic concerns and identify potential solutions. The feedback received was used to develop the Neighbourhood Traffic Plan which was presented at a follow-up public meeting in January 2017. Additional feedback received at the follow-up public meeting was also incorporated into the NTR.

The proposed improvements were circulated to internal civic stakeholders of various divisions and departments: Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Parking Services, Roadways & Operations, and Saskatoon Transit. Feedback was incorporated into the recommended NTR.

Communication Plan

The final Neighbourhood Traffic Plan will be shared with the residents of the impacted neighbourhood using several methods: City website, the Community Association, and by a direct mail-out.

Financial Implications

The implementation of the Neighbourhood Traffic Plan will have financial implications. The costs are summarized in the following table:

Item	2018	Beyond 2018
Signs, Pavement Markings & Temporary Traffic Calming	\$23,500	-
Permanent Traffic Calming	-	\$175,000
Pedestrian Device	-	-
TOTAL	\$23,500	\$175,000

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the work in 2018, which includes implementation of all signage, pavement markings, and temporary traffic calming measures. The Active Pedestrian Corridor will be installed in the summer of 2017 and is previously funded.

The remainder of the work beyond 2018 includes the construction of permanent traffic calming measures and will be considered alongside all other improvements identified through the NTR Program. The Administration will include in their annual budget submission package the list of projects recommended to be funded and the rationale used to prioritize the projects.

Environmental Implications

The overall impact of the recommendations on traffic characteristics, including the impacts on greenhouse gas emissions, has not been quantified at this time.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

If adopted by City Council, temporary traffic calming devices and signage will be implemented during the 2018 construction season.

Public Notice

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

Attachment

1. Hampton Village Neighbourhood Traffic Review, May 9, 2017

Report Approval

Written by: Lanre Akindipe, Transportation Engineer, Transportation
Reviewed by: Jay Magus, Acting Director of Transportation
Approved by: Angela Gardiner, Acting General Manager, Transportation &
Utilities Department

TRANS LA – Hampton Village Neighbourhood Traffic Review

HAMPTON VILLAGE

2016 Neighbourhood Traffic Reviews

CITY OF SASKATOON

May 9, 2017

Hampton Village Neighbourhood Traffic Review

May 9, 2017

Authorization

Prepared By:



Lanre Akindipe, P. Eng.
Transportation Engineer

Checked By:



Jay Magus, P. Eng.
Transportation Engineer Manager

Acknowledgements

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

- Hampton Village residents
- Hampton Village Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Planning & Development
- City of Saskatoon Roadways and Operations
- City of Saskatoon Community Standards
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Troy Davies

EXECUTIVE SUMMARY

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

A public meeting was held in June 2016 to identify traffic concerns and potential solutions within the Hampton Village 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 January 2017.

A summary of recommended improvements for the Hampton Village neighbourhood are included in **Table ES-1**. The summary identifies the locations, the recommended improvement, and a schedule for implementation. The schedule to implement the Traffic Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 year); medium-term (3 to 5 years) and long-term (more than 5 years). Accordingly, the specific time frame to implement the improvements ranges from 1 to 5 years.

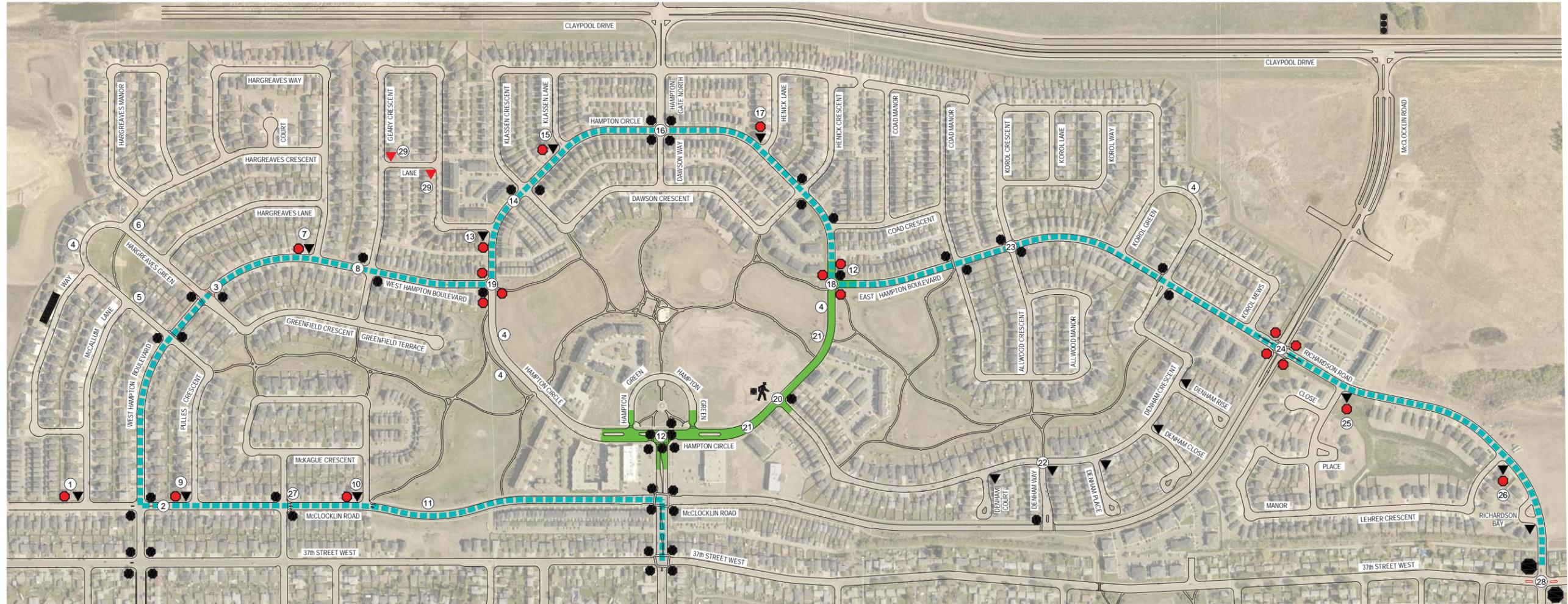
The Hampton Village Traffic Management Plan is illustrated in **Exhibit ES-1**.

Table ES-I: Hampton Village Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
1	McClocklin Road & McCallum Lane	Replace yield sign with a stop sign	Improve safety
2	McClocklin Road & West Hampton Boulevard	Install median island on the east leg of McClocklin Road	Improve safety
3	West Hampton Boulevard & Hargreaves Green	Install a standard crosswalk on the north leg of West Hampton Boulevard	Improve pedestrian safety; Reduce driver speed
4	Around Parks	Install Playground Signs	Improve pedestrian safety around park
5	McCallum Lane & Hargreaves green	Install standard crosswalk	Improve pedestrian safety
6	Hargreaves Crescent & Hargreaves green	Install standard crosswalk	Improve pedestrian safety
7	West Hampton Boulevard & Hargreaves Lane	Replace yield sign to stop sign	Improve safety
8	West Hampton Boulevard & Geary Crescent	Install median Island on the west leg of West Hampton Boulevard; Install “No Parking” signs 10 m from the intersection	Reduce driver speed; Improve safety
9	McClocklin & Pulles Crescent	Replace yield sign with stop sign	Improve Safety
10	McClocklin Road & McKague Crescent	Install “No Parking” signs on both sides of the north leg of McKague Crescent 10 m from the intersection; Permanently install median island and curbing; Replace yield sign with a stop sign	Improve visibility and pedestrian safety
11	McClocklin Road (Junor Road – McKague Crescent)	Install Speed Display board; Install Pedestrian ahead sign.	Improve pedestrian safety; reduce driver speed.
12	Junor Road & Hampton Circle	Install “No Parking” signs 10 m from the intersection	Improve safety and sight lines
13	Hampton Circle & Geary Crescent	Replace yield sign with stop sign	Improve safety
14	Hampton Circle & Klassen Crescent	Install median island on the south leg of Hampton Circle	Reduce driver speed
15	Hampton Circle & Klassen Lane	Replace yield sign with stop sign	Improve safety
16	Hampton Circle & Hampton Gate North	Install “No Parking” signs 15 m from all approaches at the intersection Install median island on all legs of the intersection with stop signs	Improve safety
17	Hampton Circle & Henick Lane	Replace yield sign with stop sign	Improve safety

Table ES-I Continued

Item	Location	Recommendation	Reason
18	Hampton Circle & East Hampton Boulevard	Install a three way stop; Install median island on the north and south legs of Hampton Circle with stop signs	Improve pedestrian safety; Improve traffic delay
19	Hampton Circle & West Hampton Boulevard	Install a three-way stop; Install median island on the north leg of Hampton Circle with stop sign; Extend the existing "No Parking" signs by 5 m on Hampton Circle	Improve traffic flow (allows vehicle to pass in inside lane while bus is stopped) & improve pedestrian safety (enhances crosswalk visibility)
20	Hampton Circle & Denham Crescent	Install an Active Pedestrian Corridor; Install "No Parking" signs 10 m from the intersection	Enhance pedestrian safety
21	Hampton Circle (West of Hampton Gate South to North of East Hampton Boulevard); 10 metres south of Denham Crescent & Hampton Circle	Install School Zone signs	Enhance pedestrian safety
22	Denham Crescent & Denham Way	Install a guide sign "Access to McClocklin Road"	Reduce shortcutting
23	East Hampton Boulevard & Korol Crescent	Install median island on the east and west legs of East Hampton Boulevard	Reduce driver speed
24	Richardson Road & McClocklin Road	Install a four-way stop: Install a median island on the north leg of McClocklin road with stop sign Install "No Parking" sign 15 m from the intersection on all approaches	Improve traffic delays: Improve safety and sight lines
25	Richardson Road & Manor Place	Replace yield sign with a stop sign; Install "No Parking" sign 10 m from the Intersection	Improve safety and sight lines
26	Richardson Road & Lehrer Crescent	Replace yield sign with a stop sign; Install "No Parking" sign 10 m from the Intersection	Improve safety and sight lines
27	McClocklin Road & Sumner Crescent	Remove the temporary median Island	It narrows the roadway
28	Richardson Road & 37 th Street	Install a Median Island on the West and East legs of 37 th Street with stop signs	Enhance visibility and improve safety
29	Geary Lane & Geary Crescent	Install Yield signs to give right of way to Geary Crescent	Improve safety



LEGEND

- ▼ EXISTING YIELD SIGN
- EXISTING STOP SIGN
- PROPOSED STOP SIGN
- ▼ PROPOSED YIELD SIGN
- BUS ROUTE
- SCHOOL ZONE
- 🚦 EXISTING TRAFFIC SIGNAL
- 🚶 PROPOSED ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION

**EXHIBIT ES-1
HAMPTON VILLAGE TRAFFIC PLAN**



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I INTRODUCTION

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

The Hampton Village neighbourhood is located on the west portion of Saskatoon and is bound by 37th Street to the south, McCallum Way to the west and Claypool Drive to the north. The land use is mostly residential, with proposed elementary schools location on Hampton Green.

The neighbourhood traffic review includes four stages:

- **Stage 1** - Identify issues, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon online discussion.
- **Stage 2** - Develop a draft traffic plan based on resident's input and traffic assessments.
- **Stage 3** - Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council for approval.
- **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 (more than 5 years).

This report presents the study findings and recommendations.

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

A public meeting was held in June 2016 to identify traffic concerns within the Hampton Village neighbourhood. At the meeting, residents were given the opportunity to express concerns and suggest possible solutions. The meeting minutes are provided in **Appendix A**.

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

2.1 Concern 1 – Speeding and Shortcutting

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

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

- McClocklin Road
- Hampton Circle
- East Hampton Boulevard
- West Hampton Boulevard – speeding from Hampton Circle to McClocklin Road
- Richardson Road
- McCallum Lane – speeding and shortcutting from McCallum Way to McClocklin Road
- Sumner Crescent – speeding between 37th Street and McClocklin Road
- Back Alley:
 - Back Alley off Geary Crescent (used by trucks and cars)
- General:
 - Narrow Roadways especially along Coad Manor
 - Dangerous and unsafe for vehicles backing out of driveways especially on East and West Hampton boulevards.

Proposed solutions identified by residents:

- Hampton Circle:
 - Install speed bumps or indents
 - Police enforcement

- Three way stops at West and East Hampton Boulevards
- Install 30 kph speed zone around school area
- McClocklin Road:
 - Install speed bumps or indents just like 37th Street
 - Police enforcement
 - Pedestrian device needed at Richardson Road to help pedestrian to safely cross
 - All way stop at Richardson Road and McClocklin Road to reduce speeding and enhance safety
 - Install traffic calming along McClocklin Road between Junor Road and West Hampton Boulevard
- East Hampton Boulevard:
 - Install speed bumps or indents
 - Police enforcement
 - All way stop at Korol Crescent
 - All way stop at Richardson Road and East Hampton Boulevard to reduce speeding and enhance safety
- West Hampton Boulevard:
 - Install speed bumps or indents just like 37th Street
 - Police enforcement
 - Install an all way stop between McClocklin Road and Hampton Circle
- Richardson Road:
 - Install traffic calming along Richardson Road

2.2 Concern 2 – Pedestrian Safety

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

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

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

Neighbourhood concerns regarding pedestrian safety were at the following locations:

- Richardson Road & McClocklin Road:
 - Very difficult for pedestrians to cross McClocklin Road
 - Lots of children crossing to use the park at Korol Green
 - Parking at this intersection create visibility issues to see pedestrians
- Hampton Circle & East Hampton Boulevard:
 - Unsafe for pedestrians to cross Hampton Circle
 - No Playground sign along Hampton Circle
- Hampton Circle & West Hampton Boulevard:
 - Unsafe for pedestrians to cross Hampton Circle
 - No Playground sign along Hampton Circle
- Korol Green
 - No Playground sign along the park
- Hargreaves Green:
 - Improve crossing around the park
 - No Playground sign along the park
- McClocklin Road & McKague Crescent
 - Pedestrian safety especially with vehicles parked closed to the intersection (visibility concerns)
- Denham Crescent & Hampton Circle
 - So many pedestrian crossing this location – pedestrian crossing needed

Proposed solutions identified by residents:

- East and West Hampton Boulevards – Install Active pedestrian corridor to enhance pedestrian safety at these intersections.
- Install active pedestrian corridor at Denham Crescent and Hampton Circle.
- Install a full traffic signal with pedestrian flashing lights at Richardson Road & McClocklin Road.
- Install Playground signs around parks and playgrounds.
- Restrict parking at intersections to enhance visibility.

2.3 Concern 3 – New Joint School

A new joint use school is to be constructed in the Hampton Village neighbourhood in the northwest of the city. As part of the future planning for the school, a transportation impact and traffic operations assessment was carried out. The recommendations of the assessment are incorporated in the Hampton Village neighbourhood review.

Concerns from residents regarding the new schools include:

- Safety of school children crossing Hampton Circle
- Speeding on Hampton Circle and at Hampton Green
- Safety of school children crossing the intersection of Denham Crescent & Hampton Circle

Proposed solutions identified by residents:

- School Zone should include East Hampton Blvd & Hampton Circle and Hampton Circle & Hampton Green.
- School Zone should have no parking on both sides especially on Hampton Circle (between Junor Avenue and Denham Crescent).
- School buses should load outside school zone.
- There should be a 30 km/hr zone around the entire Hampton green Circle.
- Install speed bumps on Hampton Circle.
- Install flashing lights on Hampton Circle across the school (this should display during school hours).
- The 30 kph school zone should be enforced all through the day (24 hours, 7 days a week).

2.4 Concern 4 – Traffic Control

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

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

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

Hampton Village Neighbourhood concerns regarding traffic controls were at the following locations:

- McClocklin Road & West Hampton Boulevard – Long delays and safety concerns.
- Richardson Road & 37th Street – Delays and safety concerns.
- West Hampton Boulevard & Hampton Circle – Delays in safely making an Eastbound left turn.
- McClocklin Road & Richardson Road – Long delays on Richardson Road and safety concerns at the intersection.
- East Hampton Boulevard & Hampton Circle – Delays in safely making a Westbound left turn.
- Junor Avenue & 37th Street – Delays on Junor Avenue during off peak periods, close proximity of many stop signs on Junor Avenue.
- Hampton Gate North & Hampton Circle – Not stopping at a four-way stop; rolling through stop signs.
- Junor Avenue & McClocklin Road – Delays at the intersection during peak periods

Proposed solutions identified by residents:

- McClocklin Road & West Hampton Boulevard – Install a four-way stop
- Richardson Road & 37th Street – Install a four-way stop
- West Hampton Boulevard & Hampton Circle – Install a three-way stop
- McClocklin Road & Richardson Road – Install a four-way stop; Install a traffic signal
- East Hampton Boulevard & Hampton Circle – Install a three-way stop
- Junor Avenue & 37th Street – Remove the four-way stop and have stop signs on 37th Street
- Hampton Gate North & Hampton Circle – Install a traffic signal
- Junor Avenue & McClocklin Road – Install a traffic signal

2.5 Concern 5 – Parking

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

Neighbourhood concerns regarding parking were at the following locations:

- Hampton Circle (between Junor Road and East Hampton Boulevard) – Parking on both sides narrows the road width.
- Denham Crescent & Hampton Circle – Parking too close to the intersection.
- Richardson Road & McClocklin Road – Too many parking close to the intersection; parking narrows the road width at this intersection.
- Richardson Road & Lehrer Crescent – Parking close to the intersection resulting in visibility and safety concerns.
- Richardson Road & Manor Place – Parking close to the intersection resulting in visibility and safety concerns.
- Hampton Circle & Junor Road – Parking too close to the intersection.
- McClocklin Road and McKague Crescent– Visibility issues as a result of parked vehicles.

Proposed solutions identified by residents:

- Hampton Circle (between Junor Road and East Hampton Boulevard) – Restrict parking on one side of this roadway.
- Denham Crescent & Hampton Circle – Restrict parking at this intersection.
- Richardson Road & McClocklin Road – Restrict parking at this intersection and extend the restriction to East of McClocklin Road.
- Richardson Road & Lehrer Crescent – Restrict parking at this intersection.
- Richardson Road & Manor Place – Restrict parking at this intersection.
- Hampton Circle & Junor Road – Restrict parking at this intersection.
- McClocklin Road and McKague Crescent– Restrict parking north and east of this intersection.

2.6 Concern 6 – Major Intersections & Corridors

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

Neighbourhood concerns regarding major intersections were at the following locations:

- Claypool Drive:
 - When will this roadway be completed? It has taken too long.
 - How and when will Claypool Drive connect to the west side of Hampton Village?

Proposed solutions identified by residents:

- The completion of Claypool Drive should be sooner than later to improve traffic flow.
- There should be a connection of Claypool Drive to the west end of Hampton Village to create an alternate route.

3 STAGE 2: DEVELOPMENT OF DRAFT TRAFFIC PLAN

3.1 Methodology

Stage 2 of the Neighbourhood Traffic Review included developing a draft traffic management plan. This was completed through the following actions:

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

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

3.2 Traffic Volume and Speed Assessments

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

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

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel 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 Hampton Village neighbourhood is 50 kph, except for school zones where the speed limit will be 30 kph from September and June, Monday to Friday, 8:00 a.m. to 5:00 p.m.

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

Table 3-2: Speed Studies and Average Daily Traffic Counts (2016)

Street	Between	Class	Average Daily Traffic (vehicles per day)	Speed (kph)
Sumner Crescent	37 th Street & McClocklin Road	Local	280	51
McClocklin Road	Junor Avenue & Sumner Crescent	Collector	1,420	58
McClocklin Road	Junor Avenue & West Hampton Boulevard		1,080	54
Hampton Circle	Junor Avenue & Hampton Green		3,870	49
West Hampton Boulevard	Hampton Circle & McClocklin Road		1,300	43

3.3 Traffic Control Assessments

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

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

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

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

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

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

Table 3-3: All-Way Stop Warrant Criteria

Location	Criteria 1: Peak Hour Count (greater than 600)	Criteria 2: Average Daily Traffic (greater than 6,000vpd)	Criteria 3: Collisions within most recent 12 months (5 or more)	Results
Hampton Circle & East Hampton Boulevard	625 (yes)	6,780 (yes)	2 (no)	Continue to Step 2.
Hampton Circle & West Hampton Boulevard	717 (yes)	9,100 (yes)	2 (no)	Continue to Step 2.
McClocklin Road & Richardson Road	940 (yes)	12,140 (yes)	1 (no)	Continue to Step 2.
Junor Avenue & 37 th Street	977 (yes)	10,530 (yes)	2 (no)	Continue to Step 2.
37 th Street & Richardson Road	245 (no)	2,870 (no)	2 (no)	All-Way Stop Not Warranted
West Hampton Boulevard & McClocklin Road	583 (no)	5,940 (no)	0 (no)	

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

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

Location	Condition 1: Traffic on minor street is at least 35% for four-way stop and 25% for three-way stop	Condition 2: No all-way stop or traffic signals within 200 metres	Results
Hampton Circle & East Hampton Boulevard	29% (yes)	430 m (yes)	Three-Way Stop Warranted
Hampton Circle & West Hampton Boulevard	33% (no)	430 m (yes)	Three-Way Stop Warranted
McClocklin Road & Richardson Road	31% (no)	Greater than 200 m (yes)	Four-Way Stop not Warranted
Junor Avenue & 37 th Street	23% (no)	90 m (no)	All-Way Stop Not Warranted

3.4 Pedestrian Assessments

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

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

Pedestrian and traffic data is collected during the five peak hours of: 8:00 a.m. to 9:00 a.m., 11:30 a.m. to 1:30 p.m., and 3:00 p.m. to 5:00 p.m.

A standard pedestrian crosswalk or a zebra crosswalk (i.e. striped) may be considered when a signalized crosswalk is not warranted. In this neighbourhood, no pedestrian assessments were conducted.

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 a.m. to 9:00 a.m., 11:30 a.m. to 1:30 p.m., and 4:00 p.m. to 6:00 p.m.

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 3-5**.

Table 3-5: Traffic Signal Assessments

Location	Traffic Signal Warrant Points	Results
McClocklin Road & Richardson Road	34	Traffic Signal Not Warranted
Junor Avenue & McClocklin Road	51	Traffic Signal Not Warranted
Hampton Gate North & Hampton Circle	8	Traffic Signal Not Warranted

Details of the traffic signal assessments are provided **Appendix C**.

3.6 Collision Analysis

The most recently available five year collision data (2011 to 2015) was provided by SGI. High-collision locations, typically noted as the locations with an average of two or more collisions per year, were reviewed in more depth to identify trends and possible improvements. Locations with two or more collisions per year include:

- West Hampton Boulevard & McClocklin Road
- Junor Avenue & McClocklin Road

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

4 STAGE 3: PRESENTATION OF TRAFFIC PLAN

4.1 Methodology

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

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvement
- 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 management plan, including the location, recommended improvement, and the justification of the recommended improvement.

4.2 Speeding and Shortcutting

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

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

Table 4-1: Recommended Improvements – Speeding and Shortcutting

Location	Recommended Improvement	Justification
McClocklin Road & West Hampton Boulevard	Install median island on the east leg of McClocklin Road	Reduce speed; improve safety
West Hampton Boulevard & Hargreaves Green	Install a standard crosswalk on the north leg of West Hampton Boulevard Install a median island on the north leg of West Hampton Boulevard	Improve pedestrian safety; reduce driver speed
West Hampton Boulevard & Geary Crescent	Install median Island on the west leg of West Hampton Boulevard Install “No Parking” signs 10m from the intersection	Reduce driver speed; improve safety
Hampton Circle & Klassen Crescent	Install median Island on the south leg of Hampton Circle	Reduce driver speed
Hampton Circle & Hampton Gate North	Install “No Parking” signs 15 m from all approaches at the intersection Installed median island on all legs of the intersection with stop signs.	Reduce speed; improve safety
Denham Crescent & Denham Way	Install a guide sign “Access to McClocklin Road”	Reduce shortcutting
East Hampton Boulevard & Korol Crescent	Install median island on the east and west legs of East Hampton Boulevard	Reduce driver 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
Around parks	Install playground signs	Improve pedestrian safety around park
McCallum Lane & Hargreaves Green	Install standard crosswalk	Improve pedestrian safety
Hargreaves Crescent & Hargreaves green	Install standard crosswalk	Improve pedestrian safety
McClocklin Road & McKague Crescent	Install “No Parking” signs on both sides of the north leg of McKague Crescent 10 m from the intersection; Permanently install median island and curbing; Replace yield sign with a stop sign.	Improve visibility and pedestrian safety
McClocklin Road (Junor Road – McKague Crescent)	Install Speed Display Board; Install Pedestrian ahead sign	Improve pedestrian safety; reduce driver speed
Hampton Circle & East Hampton Boulevard	Install a three-way stop; Install median island on the north and south legs of Hampton Circle with stop signs	Improve pedestrian safety; Improve traffic delay
Hampton Circle & West Hampton Boulevard	Install a three-way stop; Install median island on the north leg of Hampton Circle with stop sign; Extend the existing ‘No Parking’ signs by 5 m on Hampton Circle	Improve pedestrian safety; Improve traffic delay
Hampton Circle & Denham Crescent	Install an Active Pedestrian Corridor; Install “No Parking” signs 10 m from the intersection	Enhance pedestrian safety
Hampton Circle (West of Hampton Gate South to North of East Hampton Boulevard); 10 m south of Denham Crescent & Hampton Circle	Install School Zone signs	Enhance pedestrian safety

4.4 Intersection Safety

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

Table 4-3: Recommended Improvements – Intersection Safety

Location	Recommended Improvement	Justification
McClocklin road & McCallum Lane	Replace yield sign with a stop sign	Improve safety
West Hampton Boulevard & Hargreaves Lane	Replace yield sign to stop sign	Improve safety
McClocklin & Pulles Crescent	Replace yield sign with stop sign	Improve safety
Hampton Circle & Geary Crescent	Replace yield sign with stop sign	Improve safety
Hampton Circle & Klassen Lane	Replace yield sign with stop sign	Improve safety
Hampton Circle & Henick Lane	Replace yield sign with stop sign	Improve safety
Richardson Road & McClocklin Road	Install a four-way stop; Install a median island on the north leg of McClocklin road with stop sign; Install “No Parking” sign 15 m from the intersection on all approaches	Improve traffic delays; Improve safety and sight lines
Richardson Road & Manor place	Replace yield sign with stop sign: Install “No Parking” sign 10 m from the intersection	Improve safety and sight lines
Geary Lane & Geary Crescent	Install Yield signs to give right-of-way to Geary Crescent	Improve safety
Richardson Road & Lehrer Crescent	Replace yield sign with stop sign: Install “No Parking” sign 10 m from the intersection	Improve safety and sight lines
Richardson Road & 37 th street	Install a Median Island on the West and East legs of 37 th Street with stop signs	Enhance visibility; Improve safety

4.5 Parking

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

Table 4-4: Recommended Improvements – Parking

Location	Recommended Improvement	Justification
Junor Road & Hampton Circle	Install “No Parking” signs 10 m from the intersection	Improve safety and sight lines

4.6 Follow Up Consultation – Presentation of Traffic Management Plan

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

A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix F**. Additional issues raised during the follow-up meeting were assessed and outlined **Appendix G**. Recommendations were added to the list of improvements if necessary.

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

5 STAGE 4: IMPLEMENTATION

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

The placement of signs, pavement markings and temporary traffic calming will be completed short-term (1 to 2 years). Most often the installations take place in spring / summer of the following year. Therefore installations for Hampton Village are likely to take place in spring / summer 2017.

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

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

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

Location	Device (# of Devices)	Cost Estimate	Time Frame
McClocklin Road & McCallum Lane	Stop sign (1)	\$ 250	1 to 2 years
McClocklin Road & West Hampton Boulevard	Median island (1)	\$ 500	
West Hampton Boulevard & Hargreaves Green	Standard crosswalk	\$ 250	
Around Parks	Playground signs (5)	\$ 1,250	
McCallum Lane & Hargreaves green	Standard crosswalk	\$ 250	
Hargreaves Crescent & Hargreaves green	Standard crosswalk	\$ 250	
West Hampton Boulevard & Hargreaves Lane	Stop sign (1)	\$ 250	
West Hampton Boulevard & Geary Crescent	Median island (1) "No Parking" signs (2)	\$ 500 \$ 500	
McClocklin & Pulles Crescent	Stop sign (1)	\$ 250	
McClocklin Road & McKague Crescent	"No Parking" signs (2) Stop sign (1)	\$ 500 \$ 250	
McClocklin Road (Junor Road – McKague Crescent)	Pedestrian Ahead sign (1)	\$ 250	
Junor Road & Hampton Circle	"No Parking" signs (3)	\$ 750	
Hampton Circle & Geary Crescent	Stop sign (1)	\$ 250	
Hampton Circle & Klassen Crescent	Median island (1)	\$ 500	
Hampton Circle & Klassen Lane	Stop sign (1)	\$ 250	
Hampton Circle & Hampton Gate North	Median island (4) "No Parking" signs (4) Stop sign (4)	\$ 2,000 \$ 1,000 \$ 1,000	
Hampton Circle & Henick Lane	Stop sign (1)	\$ 250	
Hampton Circle & East Hampton Boulevard	Stop sign (4) Median island (2)	\$ 1,000 \$ 1,000	
Hampton Circle & West Hampton Boulevard	Stop sign (3) Median island (1)	\$ 750 \$ 500	
Hampton Circle & Denham Crescent	"No Parking" signs (4)	\$ 1,000	

Table 5-1 Continued

Location	Device (# of Devices)	Cost Estimate	Time Frame
Hampton Circle (West of Hampton Gate South to North of East Hampton Boulevard); 10 metres south of Denham Crescent & Hampton Circle	School zone signs (2)	\$ 500	1 to 2 years
Denham Crescent & Denham Way	Guide sign	\$ 500	
East Hampton Boulevard & Korol Crescent	Median island (2)	\$ 1,000	
Richardson Road & McClocklin Road	Stop sign (4)	\$ 1,000	
	Median island (1)	\$ 500	
Richardson Road & Manor Place	"No Parking" signs (4)	\$ 1,000	
	Stop sign (1)	\$ 250	
Geary Lane & Geary Crescent	No Parking signs (2)	\$ 500	
	Yield sign (2)	\$ 500	
Richardson Road & Lehrer Crescent	Stop sign (1)	\$ 250	
	"No Parking" signs (2)	\$ 500	
Richardson Road & 37 th Street	Median island (2)	\$ 1,000	
	Stop sign (2)	\$ 500	
Total		\$23,500	

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

Location	Device	Cost Estimate	Time Frame
McClocklin Road (Junor Road – McKague Crescent)	Speed Display Board	\$0 (funded through Speed Program)	1 to 2 years
Total		\$0	

Table 5-3: Pedestrian Safety Devices Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Hampton Circle & Denham Crescent	Active Pedestrian Corridor (1)	\$0 (funded through reserve funds for new schools)	1 year
Total		\$0	

Table 5-4: Permanent Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
McClocklin Road (between Richardson Road & Denham Crescent)	Median island (1)	\$ 5,000	3 to 5 years
McClocklin Road & Denham Crescent	Median island (1)	\$ 5,000	
McClocklin Road & Junor Avenue	Median island (2)	\$ 10,000	
McClocklin Road & McKague Crescent	Median island (1) Curb extension (1)	\$ 5,000 \$ 45,000	
McClocklin Road & Sumner Crescent	Curb extension (2)	\$ 90,000	
37 th Street & Hunt Road	Median island (1)	\$ 5,000	
West Hampton Boulevard & Hampton Circle	Median island (1)	\$ 5,000	
West Hampton Boulevard & Hargreaves Green	Median island (1)	\$ 5,000	
Total		\$175,000	

Table 5-5: Total Cost Estimate

Category	Time Frame	
	Short-Term (1 to 2 years)	Medium-Term (3 to 5 years)
Signs, Pavement Markings & Temporary Traffic Calming	\$23,500	NA
Speed Enforcement & Speed Display Boards	\$0	NA
Pedestrian Safety Devices	\$0	NA
Permanent Traffic Calming	NA	\$175,000
Total	\$23,500	\$175,000

The total cost estimate for short-term improvements (signs, pavement markings and temporary traffic calming) is **\$23,500**. The total cost estimate for long-term improvements (permanent traffic calming and pedestrian safety devices) is **\$175,000**.

Resulting from the Neighbourhood Traffic Review is a list of recommended improvements, including the location and justification as summarized in **Table 5-6**.

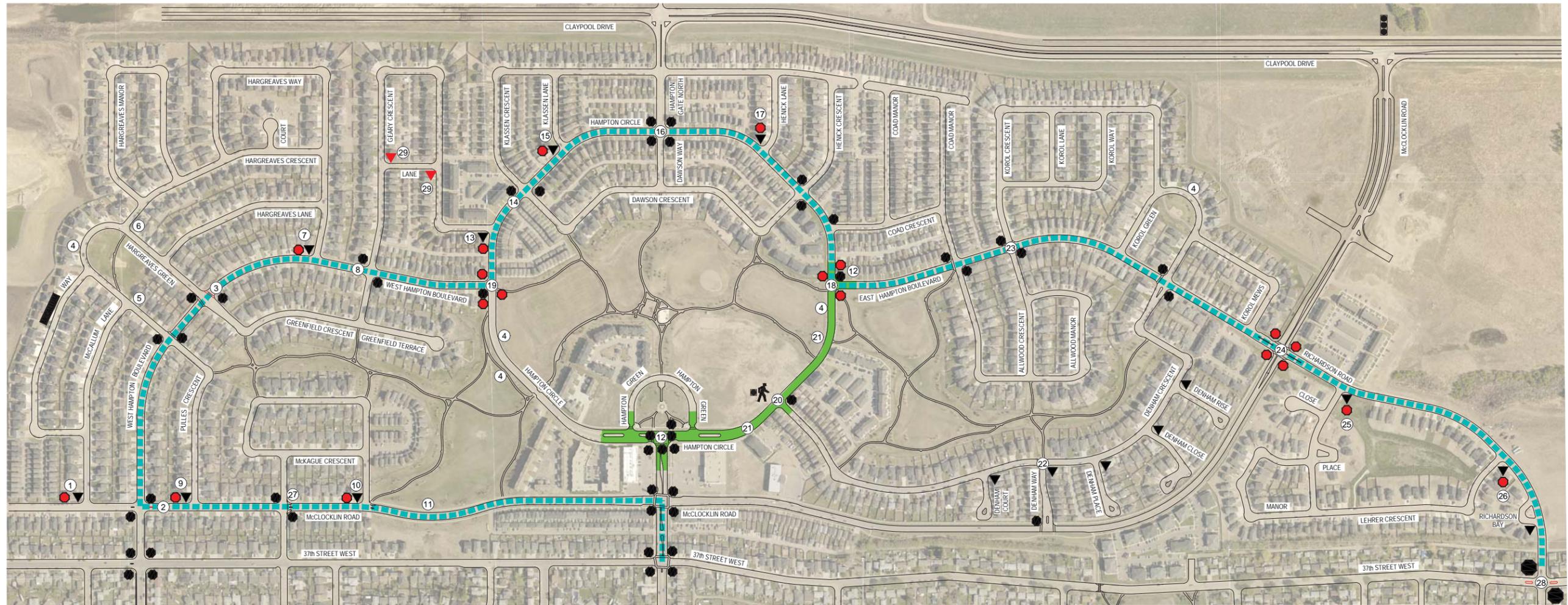
The resulting recommended Hampton Village Neighbourhood Traffic Plan is illustrated in **Exhibit ES - 1**.

Table 5-6: Hampton Village Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
1	McClocklin road & McCallum Lane	Replace yield sign with a stop sign.	Improve safety
2	McClocklin Road & West Hampton Boulevard	Install median island on the east leg of McClocklin Road	Improve safety
3	West Hampton Boulevard & Hargreaves Green	Install a standard crosswalk on the north leg of West Hampton Boulevard	Improve Pedestrian Safety; Reduce driver speed
4	Around Parks	Install Playground Signs	Improve pedestrian safety around park
5	McCallum Lane & Hargreaves green	Install standard crosswalk	Improve pedestrian safety
6	Hargreaves Crescent & Hargreaves green	Install standard crosswalk	Improve pedestrian safety
7	West Hampton Boulevard & Hargreaves Lane	Replace yield sign to stop sign	Improve safety
8	West Hampton Boulevard & Geary Crescent	Install median Island on the west leg of West Hampton Boulevard Install "No Parking" signs 10 m from the intersection	Reduce driver speed; Improve safety
9	McClocklin & Pulles Crescent	Replace yield sign with stop sign	Improve Safety
10	McClocklin Road & McKague Crescent	Install "No Parking" signs on both sides of the north leg of McKague Crescent 10 m from the intersection; Permanently install median island and curbing; Replace yield sign with a stop sign	Improve visibility and pedestrian safety
11	McClocklin Road (Junor Road – McKague Crescent)	Install Speed Display board; Install Pedestrian ahead sign.	Improve pedestrian safety; reduce driver speed.
12	Junor Road & Hampton Circle	Install "No Parking" signs 10 m from the intersection	Improve safety and sight lines
13	Hampton Circle & Geary Crescent	Replace yield sign with stop sign	Improve safety
14	Hampton Circle & Klassen Crescent	Install median island on the south leg of Hampton Circle	Reduce driver speed
15	Hampton Circle & Klassen Lane	Replace yield sign with stop sign	Improve safety
16	Hampton Circle & Hampton Gate North	Install "No Parking" signs 15 m from all approaches at the intersection Install median island on all legs of the intersection with stop signs	Improve safety
17	Hampton Circle & Henick Lane	Replace yield sign with stop sign	Improve safety

Table 5-6 Continued

Item	Location	Recommendation	Reason
18	Hampton Circle & East Hampton Boulevard	Install a three-way stop; Install median island on the north and south legs of Hampton Circle with stop signs	Improve pedestrian safety; Improve traffic delay
19	Hampton Circle & West Hampton Boulevard	Install a three way stop; Install median island on the north leg of Hampton Circle with stop sign; Extend the existing “No Parking” signs by 5 m on Hampton Circle	Improve traffic flow (allows vehicle to pass in inside lane while bus is stopped) & improve pedestrian safety (enhances crosswalk visibility)
20	Hampton Circle & Denham Crescent	Install an Active Pedestrian Corridor; Install “No Parking” signs 10m from the intersection	Enhance pedestrian safety
21	Hampton Circle (West of Hampton Gate South to North of East Hampton Boulevard); 10 msouth of Denham Crescent & Hampton Circle	Install School Zone signs	Enhance pedestrian Safety
22	Denham Crescent & Denham Way	Install a guide sign “Access to McClocklin Road”	Reduce shortcutting
23	East Hampton Boulevard & Korol Crescent	Install median island on the east and west legs of East Hampton Boulevard	Reduce driver speed
24	Richardson Road & McClocklin Road	Install a four way stop: Install a median island on the north leg of McClocklin road with stop sign Install “No Parking” sign 15 metres from the intersection on all approaches	Improve traffic delays: Improve safety and sight lines
25	Richardson Road & Manor Place	Replace yield sign with a stop sign; Install “No Parking” sign 10m from the Intersection	Improve safety and sight lines
26	Richardson Road & Lehrer Crescent	Replace yield sign with a stop sign; Install “No Parking” sign 10m from the Intersection	Improve safety and sight lines
27	McClocklin Road & Sumner Crescent	Remove the temporary median Island	It makes the roadway too narrow
28	Richardson Road & 37 th Street	Install a Median Island on the West and East legs of 37 th Street with stop signs	Enhance visibility and Improve safety
29	Geary Lane & Geary Crescent	Install Yield Signs to give right of way to Geary Crescent	Improve safety



LEGEND

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

**EXHIBIT 5-1
HAMPTON VILLAGE TRAFFIC PLAN**



APPENDIX A: PUBLIC MEETING #1 – JUNE 14, 2016 MINUTES

Hampton Village Neighbourhood Traffic Review
Tuesday, June 14, 2016, 7:00 PM – 9:00 PM
Hampton Free Methodist Church

Agenda

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

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – Hampton Village Neighbourhood Traffic Review (Presented by Lanre Akindipe, P.Eng, Transportation Engineer)

Presentation Outline

- Neighbourhood Traffic Review Process
- Hampton Village Review Schedule
- Sources of Information
- Past Concerns Received
- Description of Traffic Calming & Pedestrian Safety Devices
- Corridor Reviews & Major Intersection Reviews

Neighbourhood Traffic Review Process

- August 2013 – New process
- Mandate – Reduce and calm traffic, and improve safety within neighbourhoods
- 2014 – Reviewed 11 neighbourhoods
- 2015 – Reviewed 8 neighbourhoods
- 2016 – Sutherland, Willowgrove, Stonebridge, Hampton Village, Grosvenor Park, Parkridge, Silverspring, Lakeridge

Hampton Village Review Schedule

- Stage 1 – Identify issues & possible solutions through community consultation (June to Fall 2016)
- Stage 2 – Develop a draft traffic plan
- Stage 3 – Present draft traffic plan to community for feedback (Early 2017)
- Stage 4 – Implement changes over time (Beginning Spring 2017)

Sources of Information

- Past studies
- Collision Analysis
- Feedback from public consultation
- Traffic Counts & Assessments

Past Concerns Received

- Speeding – McCallum Lane, McClocklin Road, Hargreaves way & Hampton Circle.
- Safety Concerns – McClocklin at: Richardson Road, 37th Street, West Hampton Blvd and McKague Crescent.
- Signage – 37th Street and Junor Avenue (SB), Hargreaves Green & West Hampton Blvd
- Parking
- Road Width

Traffic Calming Devices

- Speed Display Board
- Curb Extension
- Raised Median Island
- Roundabout
- Diverter
- Right-In/Right-Out Island
- Directional Closure
- Raised Median Through Intersection
- Full Closure
- Pedestrian Devices
- Standard Crosswalk
- Zebra Crosswalk
- Active Pedestrian Corridor
- Pedestrian Actuated Signal

Corridor Reviews & Major Intersection Reviews

- Created to address issues at intersections along arterial streets as Neighbourhood Traffic Reviews addresses local and collector streets within neighbourhoods
- Recommendations will be identified and projects will be prioritized for funding approval
- Report will be presented to City Council

3. Small Group Discussions

Residents were divided into small groups to discuss traffic concerns in Hampton Village and potential solutions

Group 1: Mariniel Flores (City Facilitator)

- West Hampton Blvd (from Hampton Circle to McClocklin Road):
 - Speeding
 - Dangerous for vehicles backing out of driveways

Recommendation

- Speed bumps
- West Hampton Blvd and Hampton Circle :
 - Many pedestrians, unsafe

Recommendation

- Suggested installing an Active Pedestrian Corridor.
- McCallum Lane (McCallum Way to McClocklin Road):
 - Shortcutting

Recommendation

- Perhaps connection to future Claypool Drive will help? Is this planned?
- McCallum Lane and McClocklin Road:
 - Westbound right turn ramp on corner house's lawn with tight turns
- East Hampton Blvd and Hampton Circle:

Recommendation

- Suggested installing an Active Pedestrian Corridor.
- School Zone should include East Hampton Blvd & Hampton Circle and Hampton Circle & Hampton Green.
- School Zone should have no parking on both sides. School buses loading just outside school zones or drop off loop.
- Parking blocking driveways in Geary Crescent
- Vehicles in Geary Crescent completing u-turns and damage lawns in Geary crescent
- Care Home near McCallum Lane park everywhere in McCallum Lane and block driveways
- Richardson Road and McClocklin Road
 - Unsafe intersection for pedestrians

Recommendation

- Suggested installing an Active Pedestrian Corridor.
- Townhouse Complex on Richardson Road parked in the ditch – Parking issues
- Richardson Road and McClocklin Road – Vehicles EB left turn have to wait long.
- Only one bus route in the neighbourhood – every hour service, need to improve this (coverage and frequency)
- General – sidewalk clearing need to be improved
- Hampton Circle and Dawson Way – Like the four way stop
- Claypool Drive and McClocklin Road is very good
- When is Claypool Drive extension going to be completed?
- McClocklin Road and Hampton Green – Congestion, too close to 37th St W. Improvements needed.

Group 2: Shirley Matt (City Facilitator)

- School Site
 - Traffic impact on Hampton green and pedestrian crossings

Recommendations

- 30km/hr zone – make it around the entire Hampton green Circle.
- Speeding
 - Hampton Circle – Around the Circle
 - McClocklin Road (Junor Avenue to Summer crescent)
- Pedestrian Safety :
 - McClocklin Road and McKague – visibility issues as a result of parked vehicles.
- Richardson and McClocklin:
 - Recommendation**
 - All way stop requested
- McClocklin (Hunt Road and West Hampton Blvd)
 - Reverse Stop sign back to McClocklin
- Recommendations**
 - Bulb out corner

Other Concerns

- Claypool – is at 60km/hr. This should be slowed down during construction to 40km/hr
- McClocklin Road and Richardson Road – Pothole in Roadway.

Group 3: Lanre Akindipe (City Facilitator)

- Speeding on Hampton Circle and West Hampton Blvd
- Enhance Pedestrian Crosswalk at West Hampton Blvd

Recommendations

- Install speed bumps like 37th street.
- Visibility Safety Concerns
 - Back Alley off Geary Crescent (used by trucks and cars)
- School Safety Concerns
 - Recommendations**
 - Install flashing lights in school (this should display during school hours)
 - Install speed bumps
 - The school zone should be 24 – 7
 - Speed in residential neighbourhood should be less than 50km/hr
- Back Alley Speeding and Shortcutting
- Parking close to intersections (Richardson Road)

Group 4: Justine Nyen (City Facilitator)

- McClocklin Road and Richardson Road
 - Police enforcement is not necessary
 - Increased volumes with development; difficult to turn left onto McClocklin road.
 - Pedestrian safety concerns; school crossing

Recommendations

- Pedestrian device needed
- Richardson Road and Manor place
 - Road curve makes it difficult to see
 - Parking causes sight obstruction
- Richardson Road and Lehrer Crescent
 - Road curve makes it difficult to see
 - Parking causes sight obstruction
- Richardson Road and 37th street
 - 4 way stop needed
- Coad Manor
 - Very narrow, causes one way / backing up
- Denham Crescent and Hampton Circle
 - Pedestrian crossing needed
- Hampton Circle
 - Playground signs needed
 - Playground crossings and signs needed
 - Pedestrian safety, blind spots, kids crossing
 - 1 condo access with school bus parking
 - Shortcutting to McClocklin road
 - 3 way stop at Hampton Circle and West Hampton Blvd
- McClocklin road
 - Speeding from Junor road going west
- West Hampton Blvd and McClocklin
 - 4 ways stop needed
- West Hampton Blvd (between McClocklin and Hampton Circle)
 - Speeding because there are no stops
- Sumner Crescent (Between 37th street and McClocklin)
 - Traffic calming and speeding
- 37th street speed humps causes more traffic on McClocklin. Consider speed humps on McClocklin also.

4. Next Steps

(Presented by Jay Magus, Engineering Manager)

1. Continue monitoring traffic issues in your neighbourhood
2. Mail-in or email comments no later than July 15, 2016
3. Additional public input via City on-line Community Engagement webpage no later than July 25, 2016 at <http://shapingsaskatoon.ca/discussions/lakeridge-neighbourhood-traffic-review>
4. Traffic & pedestrian data collection, analysis
5. Develop recommendations and prepare draft Traffic Plan
6. Follow-up public input meeting to provide input on draft Traffic Plan
7. Determine revisions and finalize Traffic Plan
8. Present Traffic Plan to City Council for approval

5. Large Group Discussion – Questions & Answers

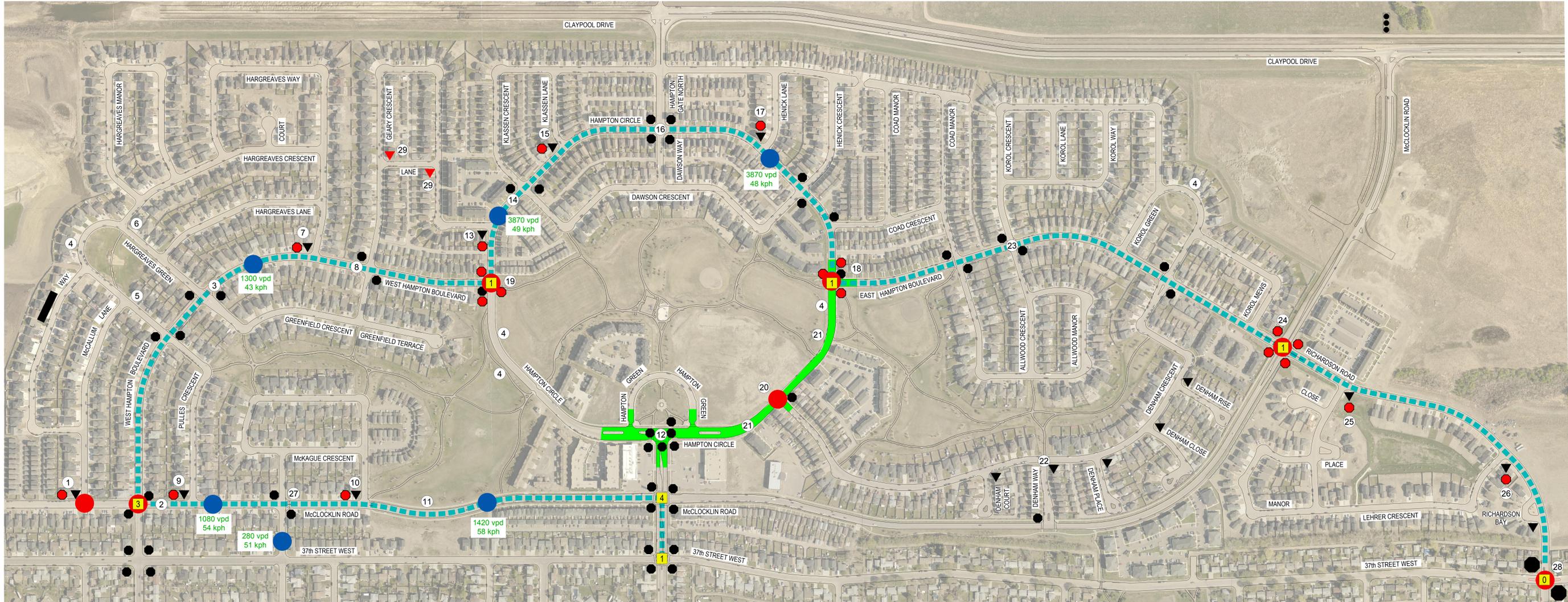
Question/Comment 1:

- Resident: It is unsafe for kids to cross the intersection of Richardson and McClocklin. With new developments and new schools coming next year, it will be very unsafe.
- **City's response:** We will bring a detailed traffic plan next year as a part of the school plan.
- Resident: A lot of people coming from Dundonald to Claypool Drive and there is a lot of speeding. Speeding will increase and it will be beneficial if speed enforcement cameras can be installed.
- **City's response:** The speed enforcement program is a 2 year pilot project and we will decide what we will do after the pilot project is completed.

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Lanre Akindipe – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Mariniel Flores – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Shirley Matt – City of Saskatoon, Transportation & Utilities, Senior Transportation Engineer
- Jay Magus – City of Saskatoon, Transportation & Utilities, Engineering Manager
- Justin Nyen – City of Saskatoon, Transportation & Utilities, Transportation Engineer

APPENDIX B: TRAFFIC DATA COLLECTION



LEGEND

- PROPOSED STOP SIGN
- ▼ PROPOSED YIELD SIGN
- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- - - EXISTING BUS ROUTE
- PROPOSED SCHOOL ZONE
- EXISTING TRAFFIC SIGNAL
- 3 AVERAGE NUMBER OF COLLISIONS PER YEAR [2011-2015]
- TRAFFIC + PEDESTRIAN COUNT
- 7-DAY TRAFFIC VOLUME + SPEED STUDY
- 786 vpd — 47.2 kph NUMBER OF VEHICLES PER DAY + 85th PERCENTILE SPEED

HAMPTON VILLAGE TRAFFIC DATA



APPENDIX C: TRAFFIC SIGNALS ASSESSMENTS

City of Saskatoon Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	McClacklin Road	Direction (EW or NS)	NS
Side Street (name)	Richardson Road	Direction (EW or NS)	EW
Quadrant / Int #		Comments	LA
for Warrant Calculation Results, please hit 'Page Down'			
	CHECK SHEET		

Road Authority:	City of Saskatoon
City:	Saskatoon
Analysis Date:	2017 Apr 21, Fri
Count Date:	2017 Jan 17, 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
McClacklin Road	NB				1			3,000	1
McClacklin Road	SB				1			400	1
Richardson Road	WB				1				
Richardson Road	EB				1				

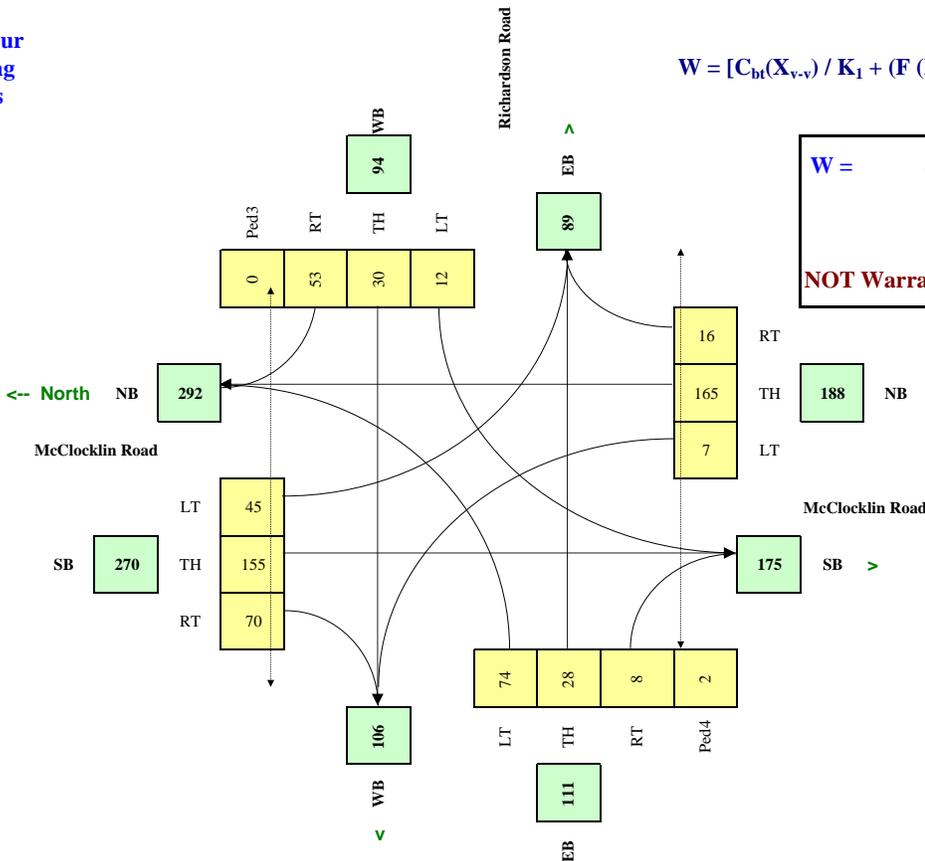
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	230,000
Central Business District	(y/n)	n

Are the Richardson Road WB right turns significantly impeded by through movements? (y/n) n
 Are the Richardson Road EB right turns significantly impeded by through movements? (y/n) n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
McClacklin Road	NS	50	2.0%	y	65.0
Richardson Road	EW		2.0%	y	

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	3	323	8	16	46	23	10	15	104	139	45	6	1	1	0
8:00 - 9:00	9	214	19	19	62	18	8	23	66	107	50	15	6	0	1	0
11:30 - 12:30	5	112	14	22	127	55	12	17	36	34	12	4	0	1	0	5
12:30 - 13:30	4	109	6	28	85	49	6	19	24	59	14	3	0	0	0	0
16:00 - 17:00	6	136	24	106	332	123	17	54	51	53	28	10	2	1	0	1
17:00 - 18:00	15	96	23	80	279	149	18	49	37	54	21	9	0	1	0	1
Total (6-hour peak)	42	990	94	271	931	417	71	177	318	446	170	47	9	4	1	9
Average (6-hour peak)	7	165	16	45	155	70	12	30	53	74	28	8	2	1	0	2

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 =	34	34	0	
		Veh	Ped	
NOT Warranted				

RESET SHEET

City of Saskatoon Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	Junor Ave	Direction (EW or NS)	NS
Side Street (name)	McClacklin Rd	Direction (EW or NS)	EW
Quadrant / Int #		Comments	LA
for Warrant Calculation Results, please hit 'Page Down'			
	CHECK SHEET		

Road Authority:	City of Saskatoon
City:	Saskatoon
Analysis Date:	2017 Jan 27, Fri
Count Date:	2017 Jan 11, Wed
Date Entry Format:	(yyyy-mm-dd)

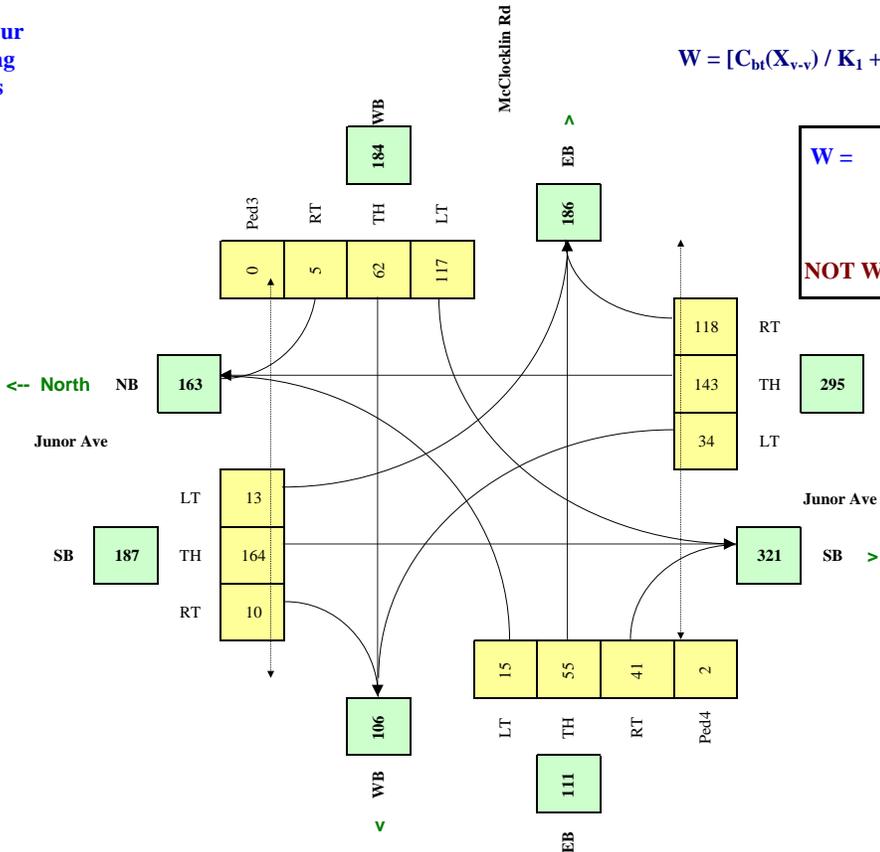
Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Junor Ave NB		1				1		1,000	1
Junor Ave SB		1				1		3,500	1
McClacklin Rd WB		1				1			
McClacklin Rd EB		1				1			

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	220,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Junor Ave	NS	50	2.0%	y	65.0
McClacklin Rd	EW	50	2.0%	y	65.0

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	12	67	197	8	202	8	57	29	2	5	98	47	1	1	0
8:00 - 9:00	26	80	118	8	245	22	70	43	7	11	75	58	6	0	1	0
11:30 - 12:30	27	91	64	10	105	7	70	54	5	14	34	32	0	1	0	5
12:30 - 13:30	27	92	99	17	95	5	60	36	7	11	30	28	0	0	0	0
16:00 - 17:00	63	268	109	18	169	9	209	103	6	23	51	40	2	1	0	1
17:00 - 18:00	50	260	122	17	168	10	233	106	5	24	42	40	0	1	0	1
Total (6-hour peak)	205	858	709	78	984	61	699	371	32	88	330	245	9	4	1	9
Average (6-hour peak)	34	143	118	13	164	10	117	62	5	15	55	41	2	1	0	2

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 =	51	51	0	
		Veh	Ped	
NOT Warranted				

RESET SHEET

City of Saskatoon Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	Hampton Circle	Direction (EW or NS)	EW
Side Street (name)	Hampton Gate N	Direction (EW or NS)	NS
Quadrant / Int #		Comments	LA
for Warrant Calculation Results, please hit 'Page Down'			
	CHECK SHEET		

Road Authority:	City of Saskatoon
City:	Saskatoon
Analysis Date:	2017 Apr 21, Fri
Count Date:	2015 Jul 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
Hampton Circle	WB				1			1,000	1
Hampton Circle	EB				1			3,500	1
Hampton Gate N	NB				1				
Hampton Gate N	SB				1				

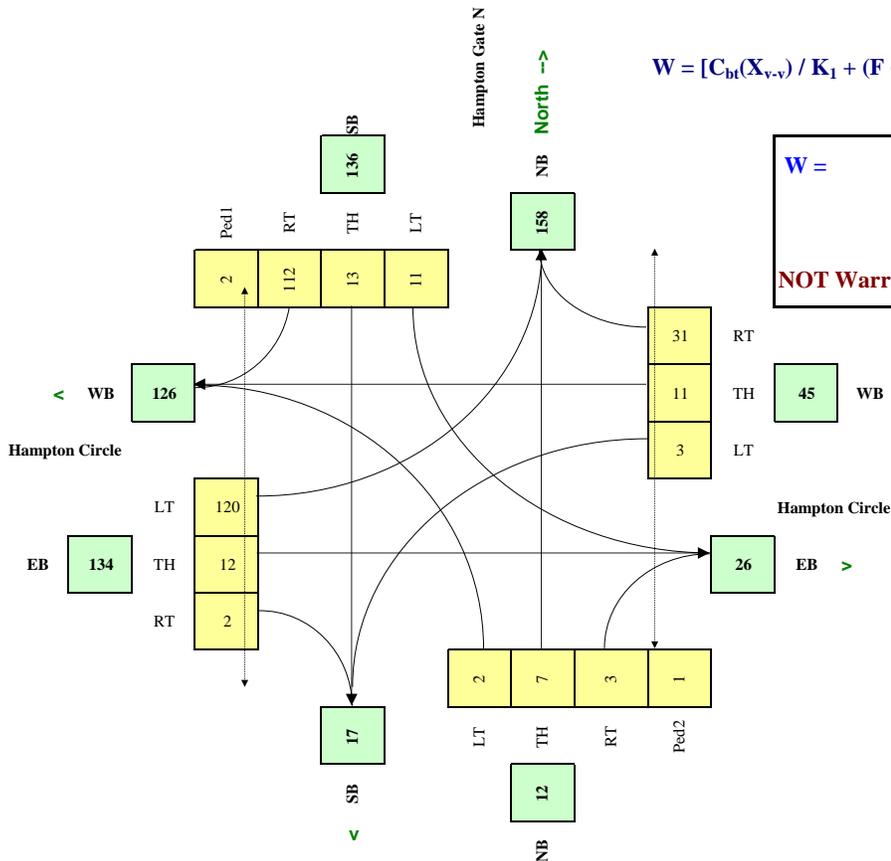
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	230,000
Central Business District	(v/n)	n

Are the Hampton Gate N NB right turns significantly impeded by through movements? (y/n) **n**
 Are the Hampton Gate N SB right turns significantly impeded by through movements? (y/n) **n**

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Hampton Circle	EW	50	2.0%	y	65.0
Hampton Gate N	NS		2.0%	y	

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	1	8	2	2	4	31	1	5	86	309	6	1	1	1	0
8:00 - 9:00	3	11	1	4	6	39	5	6	31	148	11	0	6	0	1	0
11:30 - 12:30	3	2	1	7	8	65	1	13	12	54	7	2	0	1	0	5
12:30 - 13:30	2	10	2	9	13	73	0	10	17	74	10	1	0	0	0	0
16:00 - 17:00	3	4	4	19	26	230	2	16	15	61	18	1	2	1	0	1
17:00 - 18:00	2	8	6	27	19	235	7	16	25	75	21	6	0	1	0	1
Total (6-hour peak)	14	43	16	68	76	673	16	66	186	721	73	11	9	4	1	9
Average (6-hour peak)	2	7	3	11	13	112	3	11	31	120	12	2	2	1	0	2

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 =	8	8	0
		Veh	Ped
NOT Warranted			

RESET SHEET

APPENDIX D: COLLISION ANALYSIS

Street 1	Street 2	Ugrid	All Collisions (2011 - 2015)	All Collisions (2015)	Right Angle, Left turn & Right turn only (2011 - 2015)	Right Angle, Left turn & Right turn only (2015)	Average # of Collisions (2011 - 2015)
37 th Street	Richardson Road	SKD5-50	2	2	2	2	0.4
West Hampton Blvd	McClocklin Road	SKA5-12	13	1	9	0	2.6
East Hampton Blvd	Hampton Circle	SKC4-30	3	0	2	0	0.6
West Hampton Blvd	Hampton Circle	SKB4-10	7	2	4	2	1.4
Richardson Road	McClocklin Road	SKD4-2	7	2	5	1	1.4
37 TH Street	Junor Avenue	SKC5-47	7	0	0	0	1.4
McClocklin Road	Junor Avenue	SKC4-5	19	1	9	1	3.8

APPENDIX E: PUBLIC MEETING #2 – JANUARY 24, 2017 MINUTES

Hampton Village Neighbourhood Traffic Review Follow – Up Meeting
Tuesday, January 24, 2017, 7:00 PM – 9:00 PM
Hampton Free Methodist Church
2930 McClocklin Road

Agenda

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

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – Hampton Village Neighbourhood Traffic Review

(Presented by Lanre Akindipe, P.Eng, Transportation Engineer)

Presentation Outline

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

Neighbourhood Traffic Management Program

- Address neighbourhood traffic issues:
 - Speeding concerns
 - Short-cutting concerns
 - Pedestrian safety
 - Intersection safety

How We Got Here

- June 2016 – Initial Traffic Meeting
- June 2016 to January 2017 – gather feedback, conduct traffic studies, collect data, develop traffic plan
- January 2017 – Follow Up Traffic Meeting - display proposed traffic plan and gather feedback
- 2017 – Revise draft traffic plan, approval from City Council, Implement recommendations

What We Heard

A. Speeding Concerns:

- Hampton Circle
- McClocklin Road
- Sumner Crescent
- Richardson Road
- West Hampton Boulevard
- East Hampton Boulevard

B. Pedestrian and Intersection Safety:

- West Hampton Boulevard & Hampton Circle
- East Hampton Boulevard & Hampton Circle
- McClocklin Road & Richardson Road
- Denham Crescent & Hampton Circle
- McKague Crescent & McClocklin Road
- McClocklin Road & West Hampton Boulevard
- Richardson Road & 37th Street
- 37th Street & Junor Road

C. Parking:

- Richardson Road & McClocklin Road
- Denham Crescent & Hampton Circle
- Hampton Green & Hampton Circle
- Richardson Road & Manor Place
- Richardson Road & Lehrer Crescent

D. Other Issues:

- Shortcutting
- School Safety
- Playground Safety
- Road Width

What We Did

- Collected Data:
 - Past Studies
 - Comments from Initial meeting
 - Resident responses (phone calls, emails, letters, Shaping Saskatoon webpage)
 - 9 Intersection / Pedestrian counts
 - 5 – 7 day traffic count (24 hour) & Average Speed measurements
 - Collision History
 - Field Reviews
 - Assesses the Issues
 - Generate Proposed Recommendations

What We Propose

- Median Island
- All way Stops (3 way & 4 way stop signs)
- Replacing an all way stop with stop signs
- Speed Display Board
- Standard Crosswalks
- Active Pedestrian Corridor
- Parking restrictions
- Replacing Yield signs with stop signs
- Signage

3. Small Group Discussions

Residents were divided into small groups to discuss traffic concerns in Lakeridge and potential solutions. Refer to the separate attachment – “Table discussions and additional comments”.

4. Next Steps

(Presented by Lanre Akindipe, City of Saskatoon)

1. Send comments no later than **February 24, 2017**
2. Additional public input via Shaping Saskatoon no later than **February 24, 2017**
<http://shapingsaskatoon.ca/discussions/hampton-village-neighbourhood-traffic-review>
3. Additional consultation if required
4. Present traffic plan to Transportation Committee
5. Present traffic plan to City Council for approval
6. What happens after City Council approval?
 - Implementation begins. Signs and temporary traffic calming will be installed as early as spring (2017)
7. What if I don't agree?
 - Opportunity to speak to Transportation Committee as well as City Council
 - After Council approval, recommendations are installed temporarily. Opportunity to provide feedback on how the devices are working. Feedback will help us decide whether to remove or install the traffic calming device permanently.

5. Large Group Discussion – Questions & Answers

Resident

Really appreciate the City looking at the traffic flow in this neighbourhood. Will this process be continued? It should considering that the schools will be opened and development is ongoing

City

There was a traffic study done for the schools so and this was considered as part of the review. We will continue to observe traffic and revisit it if needed.

Resident

Are there plans to look these recommendations again or do we have to wait?

City

Devices are temporal and if they prove to be effective, they will be installed permanently. With the developments going on, traffic impact studies are also conducted for the planned development. The developer will be submitting information and you are assured that shortcutting is a concern for us too.

Resident

Road near Richardson road and McClocklin road is not complete. Is that the City's responsibility or developer's? Will it be completed this year? Is it a two way traffic lane?

City

It is the developer's responsibility and it will be a two way traffic lane. Unfortunately, it will not be completed this year.

Resident

What is the timeline for the next steps? When is the administration planning to present it to City Council? Will the information be on the Shaping Saskatoon website?

City

There is no timeline on it now but it will be in the next few months. The timeline will not be on the Shaping Saskatoon webpage as this webpage will close in a month. However, you can send the project manager an email and he will let you know what the timelines are.

Resident

How long does this process take? All I want is just a "No Parking" signs and it is taking so long.

City

Unfortunately, with the new process the whole neighbourhood is being looked at as a whole and recommendations are made for the neighbourhood as a whole.

Resident

Will there be enforcements to make sure residents adhere to these changes?

City

Yes, enforcements will be in place. Also, you can always contact the City if you noticed any parking infringement.

Resident

I noticed some rubber curbing and rubber islands around Hampton Village, what are the plans for these?

City

As mentioned, these calming devices are installed for about a year to see how they function and they are typically made permanent once the effectiveness is ascertained.

Councillor Davies

- There is a bidding in process for the land by the shopper's drug mart. Not sure when the bidding is done.
- Claypool will also be done soon – proper design (sidewalks and bicycle facility included)
- Dog park is coming soon Bushes are being removed. Completion date not sure.
- Concept plan for business should be coming to City Council soon.
- Q - Is there anything the City can do to make the developers work faster?
A – I am working with the developer to make the process faster.

Other Information

City – Active Pedestrian Corridor will be installed this summer in front of school and funding is available for that.

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Lanre Akindipe – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Mariniel Flores – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Goran Lazic – City of Saskatoon, Transportation & Utilities, Senior Transportation Engineer
- Marina Melchiorre – City of Saskatoon, Transportation & Utilities, Senior Transportation Engineer
- Chelsea Lanning – City of Saskatoon, Transportation & Utilities, Transportation Engineer

APPENDIX F: DECISION MATRIX

Item	Location	Recommendation	Reason	Group 1 - Mariniel	Group 2 - Marina	Group 3 - Goran	Group 4 - Chelsea	Decision
1	McClocklin road & McCallum Lane	Replace yield sign with a stop sign.	Improve safety	In favour	In favour	In favour	In favour	Carried
2	McClocklin Road & West Hampton Boulevard	Install median island on the east leg of McClocklin Road	Improve safety	Group prefers a 4 - way stop	In favour	In favour	Concern about it not being a 4 way stop. It should be revisited when Elk Point comes in	A four way stop is not warranted at this location. Traffic volumes will continue to be monitored
3	West Hampton Boulevard & Hargreaves Green	Install a standard crosswalk on the north leg of West Hampton Boulevard Install a median island on the north leg of West Hampton Boulevard	Improve pedestrian safety; Reduce driver speed	Group suggests a 4 - way stop	In favour	In favour	In favour	Carried
4	Around parks	Install playground signs	Improve pedestrian safety around park	More signs should be installed on McClocklin road (between Junor Avenue & McKague Crescent, including Denham Crescent)	More signs needs to be installed on McClocklin Road east of McKague Crescent	Sign missing at Korol Green	Signs should be installed at Korol green park	Playgorund signs will be installed around parks including the Korol green park and on McClocklin Road (between Junor Avenue & McKague Crescent)
5	McCallum lane & Hargreaves green	Install standard crosswalk	Improve pedestrian safety	In favour	In favour	In favour	In favour	Carried
6	Hargreaves Crescent & Hargreaves green	Install standard crosswalk	Improve pedestrian safety	In favour	In favour	In favour	In favour	Carried
7	West Hampton Boulevard & Hargreaves lane	Replace yield sign to stop sign	Improve safety	In favour	In favour	In favour	In favour	Carried
8	West Hampton Boulevard & Geary Crescent	Install median Island on the west leg of West Hampton Boulevard Install "No Parking" signs 10m from the intersection	Reduce driver speed; Improve safety	In favour	In favour	In favour	In favour	Carried
9	McClocklin & Pulles Cres	Replace yield sign with stop sign	Improve safety	In favour	In favour	In favour	In favour	Carried
10	McClocklin Road & McKague Crescent	Install "No Parking" signs on both sides of the north leg of McKague Crescent 10m from the intersection; Permanently install median island and curbing; Replace yield sign with a stop sign.	Improve visibility and pedestrian safety	In favour	In favour	In favour	In favour	Carried
11	Junor Road & 37th street	Replace the four way stop with stop signs on 37th street	Improve traffic delays	In favour	In favour	Does Junor Road & McClocklin warrant a Traffic signal? If no,how close is it to warrant a traffic signal?	Group likes the stop signs. They are opposed to removing them.	Due to the opposition to the removal of the four way stop, the current traffic control will remain.

Item	Location	Recommendation	Reason	Group 1 - Mariniel	Group 2 - Marina	Group 3 - Goran	Group 4 - Chelsea	
12	McClocklin Road (Junor Road – McKague Crescent	Install Speed Display Board; Install Pedestrian ahead sign	Improve pedestrian safety; reduce driver speed	In favour	In favour	In favour	In favour	Carried
13	Junor Road & Hampton Circle	Install “No Parking” signs 10m from the intersection	Improve safety and sight lines	The "No Parking" signs should be extended. There should be "No Parking" on the south side between Junor Avenue to Denham Crescent	In favour	Paint Crosswalk and include the top of Circle in School speed limit zone (Hampton Green)	In favour	Carried
14	Hampton Circle & Geary Crescent	Replace yield sign with stop sign	Improve safety	In favour	In favour	In favour	In favour	Carried
15	Hampton Circle & Klassen Crescent	Install median Island on the south leg of Hampton Circle	Reduce driver speed	In favour	In favour	In favour	In favour	Carried
16	Hampton Circle & Klassen Lane	Replace yield sign with stop sign	Improve safety	In favour	In favour	In favour	In favour	Carried
17	Hampton Circle & Hampton Gate North	Install “No Parking” signs 15m from all approaches at the intersection Installed median island on all legs of the intersection with stop signs.	Improve safety	In favour	In favour	In favour	In favour	Carried
18	Hampton Circle & Henick Lane	Replace yield sign with stop sign	Improve safety	In favour	In favour	In favour	In favour	Carried
19	Hampton Circle & East Hampton Boulevard	Install a three way stop; Install median island on the north and south legs of Hampton Circle with stop signs	Improve pedestrian safety; Improve traffic delay	In favour	In favour	In favour	Major crossing for kids due to the rink location. An Active Pedestrian corridor should be considered. Consider a temporary installation for winter for the rink.	To install a three way stop. This will also help pedetsrians to safely cross the intersection
20	Hampton Circle & West Hampton Boulevard	Install a three way stop; Install median island on the north leg of Hampton Circle with stop sign; Extend the existing ‘No Parking’ signs by 5 metres on Hampton Circle	Improve pedestrian safety; Improve traffic delay	In favour	In favour	In favour	In favour	Carried
21	Hampton Circle & Denham Crescent	Install an Active Pedestrian Corridor; Install “No Parking” signs 10m from the intersection	Enhance pedestrian safety	In favour	In favour	In favour	Groupd wishes this will be installed before school opens.	Carried
22	Hampton Circle (West of Hampton Gate South to North of East Hampton Boulevard); 10metres south of Denham Crescent & Hampton Circle	Install School Zone signs	Enhance Pedestrian Safety	Group wants all the perimeters of the scool zone to have signs	In favour	In favour	In favour	Carried

Item	Location	Recommendation	Reason	Group 1 - Mariniel	Group 2 - Marina	Group 3 - Goran	Group 4 - Chelsea	
23	Denham Crescent & Denham Way	Install a guide sign "Access to McClocklin Road"	Reduce Shortcutting	No Parking 10m on Denham Way at Denham Crescent and 10m on Denham Crescent (basically all approaches)	In favour	In favour	This will increase traffic on Denham Way	Carried
24	East Hampton Boulevard & Korol Crescent	Install median island on the east and west legs of East Hampton Boulevard	Reduce driver speed	Suggest having a 4 - way stop if median aren't effective. There is a transit stop on the northeast side. Make sure there is enough space.	In favour	In favour	In favour	A four way stop is not warranted at this location. To Install median island on the east and west legs of East Hampton Boulevard.
25	Richardson Road & McClocklin Road	Install a four way stop; Install a median island on the north leg of McClocklin road with stop sign Install "No Parking" sign 15metres from the intersection on all approaches	Improve traffic delays; Improve Safety and Sight Lines	Like 4 - way Stop but Traffic signals preferred if warranted. Parking restrictions is well received and extension if possible. Put in sidewalks on the east side of McClocklin road to prevent parking issues.	In favour	In favour; Parking along Richardson road is a big issue.	Concerned about parking close to concrete median.	Based on the all way stop warrant condition requirements, a four way stop is not warranted at this location. The current warrant points is a few points short of the required points for a four way stop. Considering an increase in traffic and pedestrian volume in the future, a four way stop is recommended.
26	Richardson Road & Manor place	Replace yield sign with stop sign: Install "No Parking" sign 10m from the intersection	Improve Safety and Sight Lines	In favour	In favour	In favour	In favour	Carried
27	Richardson Road & Lehrer Crescent	Replace yield sign with stop sign: Install "No Parking" sign 10m from the intersection	Improve Safety and Sight Lines	In favour	In favour	In favour	In favour	Carried
28	Richardson Road & 37th street	Install a Median Island on the West and East legs of 37th Street with stop signs	Enhance Visibility and Improve Safety	In favour	In favour	In favour	Group wants 4 way stop; Poor sight lines down Richardson road due to speeding, curve and buildings/ trees.	A four way stop is not warranted at this location. To Install a Median Island on the West and East legs of 37th Street with stop signs.

APPENDIX G: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT
PLAN

APPENDIX G: ADDITIONAL CONCERNS

Item	Location	Comments	Response	Added to Final Recommendations
1	Geary Lane & Geary Crescent	Install a Yield Sign to give right of way to Geary Crescent	It will be included as part of the recommendations	X
2	McClocklin road (between Junor Avenue & McKague Crescent, including Denham Crescent)	More playground signs should be installed on this strip of McClocklin Road	It will be included as part of the recommendations	X
3	Korol Park	Playground Signs should be installed at Korol green park	It will be included as part of the recommendations	X