



REVISED PUBLIC AGENDA
STANDING POLICY COMMITTEE
ON TRANSPORTATION

Monday, September 14, 2015, 9:00 a.m.

Council Chamber, City Hall

Committee Members:

Councillor C. Clark, Chair, Councillor R. Donauer, Vice-Chair (Leave of Absence), Councillor T. Davies, Councillor D. Hill, Councillor M. Loewen, His Worship the Mayor (Ex-Officio)

	Pages
1. CALL TO ORDER	
2. <i>CONFIRMATION OF AGENDA</i>	6 - 18

Recommendation

1. That the following be added to Item 7.2.1:
 - a. Information submitted by Fahit Ayalp;
 - b. Letters requesting to speak:
 - i. Scott Suppes, dated September 11, 2015;
 - ii. Javed Mian, dated September 11, 2015;
 - iii. Jim Frie, dated September 11, 2015;
 - iv. Marwan Bardouh, dated September 13, 2015;
 - c. Letter from Dale Gallant, dated September 14, 2015, submitting comments;
 2. That the report of the General Manager, Transportation and Utilities regarding College Drive Classification be added as Urgent Business Item 8.1;
 3. That the report of the General Manager, Transportation and Utilities regarding Servicing Agreement - Dream Asset Management Corporation - Brighton Neighbourhood - Subdivision 67/14 be added as Urgent Business Item 8.2; and
 4. That the agenda be confirmed as amended.
3. DECLARATION OF PECUNIARY INTEREST

4. ADOPTION OF MINUTES

Recommendation

That the minutes of regular meeting of Standing Policy Committee on Transportation held on August 18, 2015 be adopted.

5. UNFINISHED BUSINESS

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

6.2 Matters Requiring Direction

6.3 Requests to Speak (new matters)

7. REPORTS FROM ADMINISTRATION

7.1 Delegated Authority Matters

7.1.1 Railway Delays [Files CK. 6170-1 and TS. 6170-1]

19 - 21

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated September 14, 2015, be received as information.

7.2 Matters Requiring Direction

7.2.1 Uber Technologies Inc. [File No. CK. 7000-1]

22 - 36

The Committee, at its meeting held on July 21, 2015, received a presentation from Fahit Alyap and requested that he provide a copy of his presentation. A copy is attached.

Letters requesting to Speak:

- Scott Suppes, dated September 11, 2015
- Javed Mian, dated September 11, 2015
- Jim Frie, dated September 11, 2015
- Marwan Bardouh, dated September 13, 2015

Letters submitting comments:

- Dale Gallant, dated September 14, 2015

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council that the City communicate its support to the Province for the regulation of Transportation Network Companies at a provincial level.

7.2.2 Wajax Power Systems - Blanket Purchase Order [Files CK. 1402-1 and WT. 7300-1]

37 - 44

Recommendation

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

1. That the Administration prepare a blanket purchase order with Wajax Power Systems for the repair of engines and transmissions exclusive to a particular bus style and model for up to the next five years, for an estimated cost of \$100,000 per year; and,
2. That Purchasing Services issue the appropriate blanket purchase order.

7.2.3 22nd Street Pedestrian Crossing Review [File No. CK. 6150-1]

45 - 96

Recommendation

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

1. That the Administration proceed with the recommendations that focus on additional study, feasibility review, and education; and
2. That upon completion of the recommendations, and if physical improvements are deemed required, the Administration will request funding from the appropriate Capital Budget in 2017.

7.2.4 Inquiry – Councillor A. Iwanchuk (September 29, 2014) Installation of Street Lights – Neatby Crescent Walkway [Files CK. 6300-1, xCK. 1700-1, xCK. 6000-5 and TS. 6295-1]

97 - 139

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated September 14, 2015 be forwarded to City Council during the 2016 Business Plan and Budget deliberations for information.

7.2.5 Intersection Improvement Project Selection [Files CK. 6320-1 and TS. 6320-1]

140 - 146

Recommendation

1. That the report of the General Manager, Transportation & Utilities Department dated September 14, 2015, be forwarded to City Council at its meeting to be held on September 28, 2015 for information during consideration of the Intersection Improvement Project Selection Process; and
2. That this report also be forwarded to City Council during the 2016 Budget and Business Plan deliberations for information.

7.2.6	Plan for Saskatoon Transit 2015 - 2020 [Files CK. 7300-1 and xCK 4110-2]	147 - 154
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Recommendation

That the report of the General Manager, Transportation & Utilities Department dated September 14, 2015, be forwarded to City Council for information.

8. URGENT BUSINESS

8.1	<i>College Drive Classification [File No. 6000-1]</i>	155 - 162
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Recommendation

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

That the additional access point from College Drive into the Brighton neighbourhood be configured as outlined in this report.

8.2	<i>Servicing Agreement – Dream Asset Management Corporation- Brighton Neighbourhood – Subdivision 67/14 [File No. 4110-46 x4300-014-067]</i>	163 - 196
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Recommendation

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

1. That the Servicing Agreement with Dream Asset Management Corporation, for a portion of the Brighton Neighbourhood to cover Lots 1-10, Block 101; Lots 1-20, Block 102; Lots 1-20, Block 103; Lots 1-22, Block 104; Lots 1-29, Block 105; Lots 1-5, Block 106; Lots 1-22; Block 107; Block 108; Block 109; Block 110; Block 111, Block 112; Block 113; all in Section 29 and Section 32, Township 36, West of the third Meridian, be approved, subject to the approval of the transportation access strategy; and
2. That His Worship the Mayor and the City Clerk be authorized to execute the Agreement under the corporate seal.

9. MOTIONS (Notice Previously Given)

10. GIVING NOTICE

11. IN CAMERA AGENDA ITEMS

12. ADJOURNMENT

**Submission to Saskatoon City Council
Points for Consideration
August 2015**

**Transportation Network Companies
(Focus on Uber)**

Why are Uber drivers protesting Uber? Drivers reveal Uber's terrible ethics. (video clip)

- <https://www.youtube.com/watch?v=ytw44PtRmnM>

Uber 'skirting' tax law in Canada, claims councillor

- "I am totally shocked and surprised that a Canadian corporation is able to get away without charging and paying GST or the HST," Karygiannis said. "Once again, it appears that Uber is skirting Canadian laws and regulations."
 - <http://www.cbc.ca/m/news/canada/toronto/uber-skirting-tax-law-in-canada-claims-councillor-1.3163716>

People who use wheelchairs have been hurt. Wheelchair pickups have dropped by 50% in San Francisco. There are reports of lawsuits by passengers for being denied service because of wheelchair requirements and Uber vehicles not being wheelchair accessible.

- "We can't get a ride. Nobody in a wheelchair can get a ride with Uber," Brooklyn resident Jean Ryan said, recalling an Uber driver who refused to take her aboard. "As soon as he saw the wheelchair, he took off. ... "At least with the yellow cabs, we had some headway after all the years of campaigning. But with the Uber, we'll just have to do the same," said Milagros Franco, who works for the Brooklyn Center for the Independence of the Disabled. "They have no accessible vehicles. They're a multi-million dollar company and they have the nerve to come out with cars that are not accessible. It's insulting."
 - <http://observer.com/2015/07/disabled-advocates-rip-uber-over-lack-of-accessibility/>
- California orders Uber to pay a \$7.3m fine. "The missing figures include the number of passengers who requested vehicles that can accommodate wheelchairs or animals and the number of times those requests were granted."
 - <http://www.engadget.com/2015/07/16/california-uber-fine/>

Is Uber operating at big losses?

- Uber operating at big losses, suggests document leak.
 - <http://www.bbc.com/news/technology-33800073>

Uber has something called surge-pricing in which fares are dynamically raised during high-demand hours. Such examples are New Year's Eve, the holiday season and sadly, a recent tragedy in Australia or Hurricane Sandy hitting New York. This doesn't happen in taxis.

- 'What a shameful disgrace': Uber jacks up prices during Sydney hostage crisis
 - <http://www.rawstory.com/2014/12/what-a-shameful-disgrace-uber-jacks-up-prices-during-sydney-hostage-crisis/>
- Uber's Snow Storm Surge Pricing Gouged New Yorkers Big Time
 - http://gothamist.com/2013/12/16/uber_surge_pricing.php

Thanks for riding Uber!

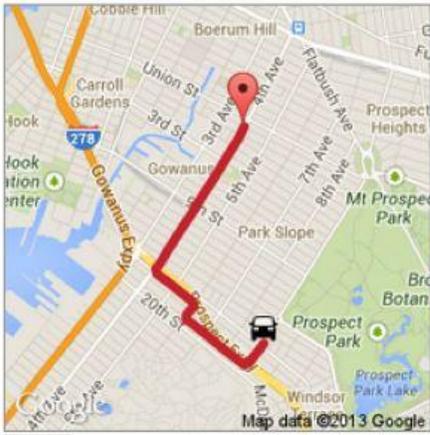
BILLED TO
Ken Greller

TRIP REQUEST DATE
December 15, 2013 at 12:05am

PAYMENT
 Personal Visa - 7851

AMOUNT CHARGED
\$94.00

NOTES
 This trip has an increased fare because it was taken while surge pricing was in effect.





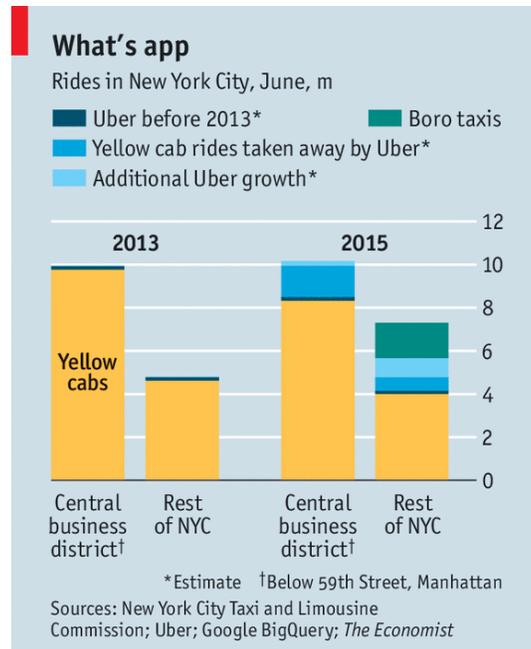
DRIVER
Kevin

Receipt issued on behalf of:
Weiter

Fare Breakdown	Trip Statistics
CHARGES	DISTANCE
Base Fare \$6.00	1.97 miles
Distance \$4.95	DURATION
Time \$4.82	11 minutes, 7 seconds
Surge x6.0 \$78.85	AVERAGE SPEED
Charge subtotal \$94.62	10.64 mph
DISCOUNTS	
Rounding Down (\$0.62)	
Discount subtotal (\$0.62)	
TOTALS	
Total Fare \$94.00	
Amount Charged (\$94.00)	
Outstanding Balance \$0.00	

A TNC like Uber will have a serious detrimental economic effect on the taxi industry.

- Getachew Ayele used to operate a local convenience store, but when he started to lose business to Shoppers Drug Mart and other chains, he jumped to the taxi industry. Ayele, 57, an Ethiopian immigrant and father of four, is today pondering another career move because of Uber, the controversial new player in the city's people-moving business. Since the ride-sharing service launched in Ottawa last October, Ayele has seen his take-home pay drop 25 to 30 per cent. It means there's less money left over once he's shelled out \$2,025 for insurance, license rental and dispatch fees each month. Money that he used to set aside for his children's university fund — \$500 to \$1,000 a year — now pays for groceries. "This is a tough time," he says. In only eight months of operation, Uber has wrought massive change in Ottawa's taxi industry.
 - <http://ottawacitizen.com/news/local-news/the-uber-effect-how-the-sharing-economy-has-shaken-ottawas-taxi-industry>
- The San Francisco Examiner reports on testimony by Kate Toran, director of taxis for San Francisco's transportation authority, who revealed that average monthly trips per city taxi have plummeted from 1,424 in 2012 to 504 in July of this year—a drop of almost 65%. Uber added San Francisco taxi service in October of 2012. In addition to cutting drivers' revenues, Toran also suggested that people who use wheelchairs could be hurt by the shift to app-based services. Her report shows wheelchair pickups have dropped from 1,378 per month in March of 2013 to 768 in July—a decrease of over 50%.
 - <http://time.com/money/3397919/uber-taxis-san-francisco/>
- The Taxi and Limousine Commission revealed new data, which was analyzed by the New York Daily News. It shows that total rides for the first six months of the year dropped ten percent compared to the same period last year....The data also shows that yellow cabs are losing revenue. The cabs this year collected \$981 million the first six months, a huge drop from the \$1.06 billion raked in last year. That means each cab in the city brought nine percent less.
 - <http://gazetterevue.com/2015/08/nyc-cab-drivers-are-not-happy-with-uber-especially-after-the-latest-numbers/>
- Tweeps Phillips, the executive director of the Committee for Taxi Safety in New York was quoted as saying: "It's remarkable that this one company is able to put vehicles on the road willy-nilly without anyone saying what this means for traffic conditions or parking or the environment."



Economist.com

- In New York, “Earnings for a typical owner-operator have already declined by approximately 24% since June 2013...”
 - <http://www.thestreet.com/story/13153924/1/how-uber-is-actually-killing-the-value-of-a-new-york-city-taxi-medallion.html>
- Ontario taxi owner files \$410-million class-action suit against Uber Canada

In his suit, Mr. Konjevic alleges that Uber conspired to break Ontario's Highway Traffic Act – which requires an appropriate licence or permit to pick up passengers for compensation – resulting in harm to the taxi industry.

- http://www.theglobeandmail.com/news/national/ontario-taxi-files-400-million-class-action-suit-against-uber-canada/article25643753/?utm_source=Shared+Article+Sent+to+User&utm_medium=E-mail:+Newsletters+/-E-Blasts+/-etc.&utm_campaign=Shared+Web+Article+Links

Regulations are in place for a purpose, for both safety and accountability. TNCs like Uber want to side-step these regulations and costs.

- “UberX is an absolute cancer,” says Sajid Mughal, a Toronto cabbie and president of iTaxiworkers, an association of more than 900 drivers. “They are killing us.” Current city regulations require cab owners to pay \$5,000 a year for a permit, while it costs their drivers more than \$600. The going rate for commercial insurance is about \$5,000 annually. Yet the drivers UberX signs up—at a clip of 40 per day—bear none of those municipal costs, and pay only their personal insurance, about a fifth of the price. “If this continues, there will be 20,000 private cabs on the road,” predicts Mughal. “Professional drivers won’t be available. It will be worse than a Third World country.”
 - <http://www.macleans.ca/economy/how-uber-disrupted-the-taxi-business/>
- Saskatoon bylaw 6066 requires an annual criminal record check in accordance with the Traffic Safety Act which all taxi drivers must get.
- Sex offenders, convicted murderer find jobs at Uber.
 - <http://money.cnn.com/2015/08/20/technology/uber-safety-lawsuit/>
- These costs that TNCs are able to ignore will be lost revenue to SGI and the City of Saskatoon.
- Some of the most pointed questioning has come from Mr. Gascón, who argues that Uber’s background checks are not as thorough as another service, called Live Scan, that is typically used by taxi companies. He said in a news conference Wednesday that about 30,000 registered sex offenders in California did not appear in a public registry Uber uses in its background checks. The checks also go back only seven years. ... In California, for instance, Uber and other companies successfully lobbied to kill a law that would have required drivers to undergo a background check by the state’s Justice Department, as is required of taxi drivers.
 - http://www.nytimes.com/2015/08/20/technology/uber-missed-criminal-records-of-drivers-prosecutors-assert.html?_r=0
- Supporters of TNCs will argue that there are and can be unsafe or dangerous taxi drivers. Sure, so does that mean if a person breaks the law, the solution is to remove the law? Will you allow a person to build a house without a permit?
- What about liability insurance? If a passenger is injured in a TNC vehicle, is the passenger covered by the personal insurance of the driver? Will the TNC walk away and say, “Hey, were just a software company.”
- We should give second thought before allowing a company to operate that not only allows you to rate the driver but also allows the driver to rate the customer.

Driving a taxi is a lifelong career for most drivers. For most TNC drivers, it's just extra cash in their spare time from their day jobs. So remember who will be the most hurt by allowing Uber and similar companies to operate.

- "Just 24% of Uber drivers say the company is their only source of personal income..."
 - <http://www.time.com/money/3678389/uber-drivers-wages/>
- TNC drivers have flooded the market. What happens when you flood the market, each driver makes less and less, but the TNC makes more and more. Imagine what that's done to taxi drivers.

What is the moral compass of a company that offers to pay the fine issued by the city when their drivers are fined for operating illegally in say Ottawa or elsewhere? What kind of arrogance does that show towards the rule of law?

- Late Thursday, the city issued a news release "in response to the potential launch" of the global ride-sharing business in Hamilton. It cautioned that not following municipal and provincial regulations could land fines higher than \$5,000 and result in the cancellation of insurance. "We share the opinion of other municipalities that Uber would be operating as a taxicab service," the city's licensing director, Ken Leendertse, says in the release. "As such, they are required to register with the municipality as a broker and are subject to the same provincial and municipal regulations — and penalties — that ensure consumer protection of residents and visitors, and ensure the health and safety of passengers and drivers."
 - <http://www.thespec.com/news-story/5261068-city-fires-caution-shot-over-uber-s-bow/>

- In Ottawa, Uber followed a proven formula to gain a market foothold: It conducted a social media blitz, offered free rides to users, and free iPhones to new drivers — all while dismissing the city's old taxi regulations as inapplicable to its services. The city responded with a series of sting operations. Bylaw officials have now laid charges against 58 drivers and collected \$16,000 in fines, but Uber has simply paid its drivers' costs and penalties, and carried on with business. Local taxi drivers are seething. They believe the city has failed to adequately defend its own regulatory regime against the Uber invasion. "For someone just to come unqualified with just a regular vehicle and start taking your job is insane," says Blue Line driver Fadl Hamade, who's working longer hours to make up for lost income.
 - <http://ottawacitizen.com/news/local-news/the-uber-effect-how-the-sharing-economy-has-shaken-ottawas-taxi-industry>
- Uber has assured its drivers that it will pay for any bylaw tickets they receive. In an email sent to its drivers Thursday, the ride-share company wrote, "Until new regulations are written, there may be a few cases of ticketing for non-criminal bylaw infractions (with no demerit points or record). If you receive a bylaw ticket for driving on the Uber platform, please email us and we will take care of it."
 - <http://www.cbc.ca/news/canada/toronto/uber-canada-says-it-will-pay-its-drivers-tickets-1.3147654>
- Other Canadian municipalities have also come out strongly against the company, especially its ride-sharing service. When UberX debuted in Montreal at the end of October, Mayor Denis Coderre flatly termed it "illegal." In Ottawa, municipal employees have been staging undercover stings, booking rides, then fining unlicensed drivers \$650 apiece. In Vancouver, where the company has run ads seeking drivers, the city's four cab companies have banded together to seek a pre-emptive court injunction.
 - <http://www.macleans.ca/economy/how-uber-disrupted-the-taxi-business/>

Allowing TNCs like Uber to operate will hurt the investments of taxi plate owners who risked their hard-earned money to legally purchase these plates that were issued by the City.

- "This is where I think we have to make sure that people are dealt with fairly and it's not just the customers and citizens that use taxi services or transportation services. If we've been licensing them for this long we may have some responsibility," Galloway said.
 - <http://www.therecord.com/news-story/5262443-taxi-union-says-uber-will-devalue-300-000-taxi-licences/>

7000-1

From: Scott suppes <scotts@cpdist.ca> on behalf of Scott suppes <scotts@cpdist.ca>
Sent: September 11, 2015 11:56 AM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, September 11, 2015 - 11:56
Submitted by anonymous user: 64.141.10.170
Submitted values are:

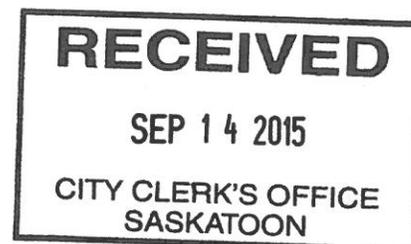
Date: Friday, September 11, 2015
To: His Worship the Mayor and Members of City Council
First Name: Scott
Last Name: suppes
Address: 225 Avenue B North
City: Saskatoon
Province: Saskatchewan
Postal Code: S7L 1E1
Email: scotts@cpdist.ca

Comments: I wish to speak at the Transportation Committee Meeting on Monday, September 14th at 9:00 am with respect to the Agenda item on Uber Transportation. Thank you

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39733>

7000-1

From: Javed Mian <shondra@comfortcab.ca> on behalf of Javed Mian <shondra@comfortcab.ca>
Sent: September 11, 2015 4:59 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, September 11, 2015 - 16:58
Submitted by anonymous user: 184.70.63.134
Submitted values are:

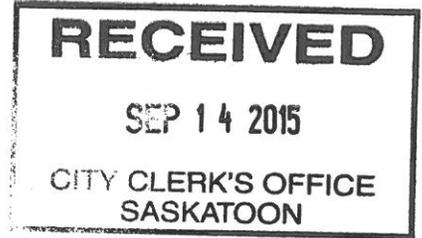
Date: Friday, September 11, 2015
To: His Worship the Mayor and Members of City Council
First Name: Javed
Last Name: Mian
Address: 11-1724 Quebec Ave
City: Saskatoon
Province: Saskatchewan
Postal Code: S7J1v9
Email: shondra@comfortcab.ca

Comments:
Hello! I would like to speak at the council meeting Monday morning in regards to Uber Taxi.

Thanks!
Javed Mian

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39781>

From: Jim Frie <shondra@comfortcab.ca>
Sent: September 11, 2015 5:00 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, September 11, 2015 - 16:59
Submitted by anonymous user: 142.165.205.193
Submitted values are:

Date: Friday, September 11, 2015
To: His Worship the Mayor and Members of City Council
First Name: Jim
Last Name: Frie
Address: 11-1724 Quebec Ave
City: Saskatoon
Province: Saskatchewan
Postal Code: S7J1V9
Email: shondra@comfortcab.ca
Comments:
Hello!

I would like to speak at the council meeting Monday Morning in regards to Uber Taxi.

Jim Frie
Comfort Cab

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39782>

7000-1

From: Marwan Bardouh <mbardouh@shaw.ca>
Sent: September 13, 2015 9:57 PM
To: Web E-mail - City Clerks
Subject: With regard to TNC

RECEIVED

SEP 14 2015

CITY CLERK'S OFFICE
SASKATOON

Hi City Clerks,

My name is Marwan Bardouh, I would like to speak at the meeting regarding TNC ON Monday, SEPTEMBER 14th, 2015 at 8:00 am. My email mbardouh@shaw.ca and my address is: 219 Weyakwin Drive Saskatoon, Sk. S7J 4M3
My phone number 306-229-0182.

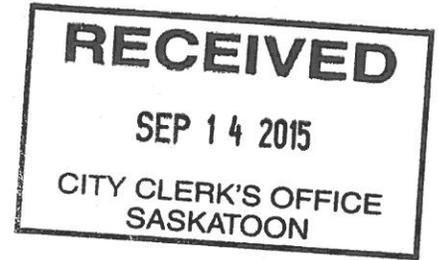
Thanks!

Marwan Bardouh

Sent from my iPhone

From: Dale Gallant <d.gallant@shaw.ca>
Sent: September 14, 2015 6:56 AM
To: City Council
Subject: Form submission from: Write a Letter to Council

Submitted on Monday, September 14, 2015 - 06:55
Submitted by anonymous user: 207.195.86.91
Submitted values are:



Date: Monday, September 14, 2015
To: His Worship the Mayor and Members of City Council
First Name: Dale
Last Name: Gallant
Address: 3430 33rd St W.
City: Saskatoon
Province: Saskatchewan
Postal Code: S7L6C9
Email: d.gallant@shaw.ca

Comments:
Sept. 14th
Transportation Committee

I am hoping you could consider my view regarding the taxi industry and the Uber question at your meeting this morning.
The City has asked the province to reinstate the ability of the City to sell taxi plates in the Cities Act. This will allow the City to make the 24 current seasonal plates permanent, with a probable sale price of \$200,000.00 each. (4.8 million) .
This is assuming our Council decides to stick with our current taxi bylaw that has only recently been updated, which required a huge amount of work and expense.
If Council doesn't stand behind the taxi industry against Uber there will be no market for taxi plates. The 4.8 million windfall and an ongoing revenue stream from the sale of taxi plates in the future, will be lost.
Currently taxi plate owners bought their plates with the knowledge that the City firmly regulated the transportation of the taxi industry in Saskatoon.
Will we be compensated if the City changes the bylaw in an injurious way to taxi plate owners?

Thank you
Dale Gallant

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39898>

Railway Delays

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated September 14, 2015, be received as information.

Topic and Purpose

The purpose of this report is to provide an update on the Steering Committee that has been formed to address delays that are currently being experienced for at-grade railway crossings throughout the city.

Report Highlights

1. Committee members have been established and two meetings have been held.
2. Discussions to address operational issues in the southwest portion of the city are ongoing with Canadian National Railway.
3. Traffic and rail data are being collected to quantify the delays.
4. Conceptual plans for grade separations are underway at priority crossings.

Strategic Goals

This report supports the Strategic Goals of Moving Around and Quality of Life by ensuring that traffic continues to flow, and supports the corporate priority of life safety initiatives within the city.

Background

City Council at its meeting held on January 26, 2015, received a report from the General Manager of Transportation & Utilities Department outlining the creation of a steering committee to address ongoing delays occurring at rail crossings throughout the city.

“City Council resolved that a committee be established between the City of Saskatoon and the Canadian National and Canadian Pacific Railways to develop solutions to reduce delays resulting from at-grade railway crossings.”

Report

Steering Committee

A Steering Committee has been formed by the City with members consisting of the Saskatoon Fire Chief, Director of Transportation, Director of Planning and Development, and representatives from the Canadian Pacific (CP) Railway and Canadian National (CN) Railway to help facilitate a resolution to this issue. The City has also invited representatives from the Combined Business Group to work with the committee, and of the representatives, five members have agreed to continue working with the committee in to the future.

Railway Delays

To date, the committee has met on two occasions to discuss the mandate of the group, ongoing operational issues, and a strategy to develop a long-term plan to address delays at at-grade railway crossings.

South West Operational Issues

The City is continuing to document delays that are occurring in the south-west portion of the city, most notably near the Montgomery Place neighbourhood where, unfortunately, the issues of significant delays persist.

The City has been notified by Transport Canada that the regulation of this private spur line falls under provincial jurisdiction. The City has reached out to the Saskatchewan Ministry of Highways and Infrastructure for assistance in enforcing The Railway Act. Under section 29 of the Act, it is an offense for a railway company to unreasonably interfere with public traffic.

In addition, under the Federal Canadian Rail Operating Rules, Section 103 states as follows:

“Except at those public crossings indicated in special instruction, no part of a movement may be allowed to stand on any part of a public crossing at grade, for a longer period than five (5) minutes, when vehicular or pedestrian traffic requires passage. Switching operations at such crossing must not obstruct vehicular or pedestrian traffic for a longer period than five (5) minutes at a time. When emergency vehicles require passage, employees must cooperate to quickly clear the involved crossings.”

Traffic Data

Through the committee, priority crossing locations have been identified and traffic data has been collected. The table below identifies the current traffic volumes at eight rail crossings throughout the city.

Location	Northbound	Southbound	Eastbound	Westbound	Total Volume
33 rd Street/3 rd Avenue	13,956	13,734			27,690
11 th Street west of Circle Drive			4,930	5,318	10,248
22 nd Street at Avenue F			15,643	15,677	31,320
33 rd Street at Edmonton Avenue			12,078	10,686	22,764
51 st Street west of Warman Road			15,758	15,858	31,616
Preston Avenue near Innovation Place	8,771	12,474			21,245
Idylwyld Drive at 25 th Street	15,780	14,406			30,186
Central Avenue at Gray Avenue	6,991	6,229			13,220

The City has requested similar data for train traffic at these locations, but has not yet received any data. Once received, the delays will be quantified to determine the impact to travel throughout the city, including the economic impacts for goods movement, the environmental impact, the impact to emergency response, etc. This information will be used to put together a business strategy for pursuing funding from senior level governments for grade separating critical crossings throughout the city.

Railway Delays

Grade Separations

Conceptual plans are being developed for priority rail crossing locations to determine the impact of constructing a grade separation. The impacted land, impact to adjacent property and any other physical constraints will be identified. A high level cost estimate will also be developed for each location. This information will be used to build business strategies to prioritize locations for senior level government funding.

Environmental Impacts

Delays at railway crossings increase fuel use, greenhouse gas (GHG) emissions and air pollution associated with vehicle idling. The environmental impacts of the delays given the current traffic and train volumes will be quantified as part of the business case.

Public and/or Stakeholder Involvement

Both CN and CP Railways are members on the committee. The Combined Business Group will also be represented on the committee. Dependent on the deliberations and direction of the committee, the general public may be invited to provide input for the committee's consideration.

Communication Plan

Media briefings may also be considered as the committee's work progresses.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The Administration will report further in early 2016.

Public Notice

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

Report Approval

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

TRANS AG – Railway Delays

Uber Technologies Inc.

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council that the City communicate its support to the Province for the regulation of Transportation Network Companies at a provincial level.

Topic and Purpose

At its meeting held on July 21, 2015, the Standing Policy Committee on Transportation resolved that the Administration bring a report to provide further information from the Province, Saskatchewan Government Insurance (“SGI”) and other municipalities on the progression of rideshare regulation.

This report provides updates on the information provided in the previous Uber Technologies Inc. (“Uber”) report during the July 21, 2015 meeting.

Report Highlights

1. SGI requires rideshare companies to operate using a Class PT plate designation.
2. To obtain a Class PT plate from SGI in Saskatoon, a taxi licence is required.
3. SGI has no special designation or exemption for rideshare companies.
4. SGI and the Province are in active discussions regarding rideshare regulation.

Strategic Goal

Saskatoon is a city on the move and the proposed amendment will help to optimize the flow of people and goods in and around the City.

Background

SGI currently groups rideshare companies under the same plate class and insurance requirements as taxis, Class 4 driver’s licence with a Class PT plate. To obtain a Class PT plate in a municipality which regulates taxi operations, an applicant must already be in possession of a taxi licence.

The regulation of rideshare companies across Canada is in a state of unrest. A detailed synopsis of how other municipalities have responded to the novel concept was included in a previous report, and little has changed in the past few months.

Report

The Administration has made numerous attempts to make contact with the proper officials at SGI in order to ascertain what, if any, long-term plans they may have regarding the regulation of rideshare companies. These attempts have been met with limited success.

We were advised that SGI is in ongoing discussions with the Province and Uber regarding the possibility of creating unique regulations for rideshare companies but no information as to the exact nature of the discussions was forthcoming. Therefore, it is not clear where these discussions might lead and respective representatives did not care to speculate.

We were advised that, at least for the time being, rideshare companies must utilize a Class PT plate to operate legally. Drivers in the City of Saskatoon will first need to obtain a taxi licence before a Class PT plate will be issued. While this prerequisite is not legislatively imposed, we have been informed that SGI will not allow exceptions to this unwritten rule. A potential consequence of operating a rideshare vehicle “out of class” is a loss of insurance coverage through SGI.

We understand that the City of Regina has lobbied the Province on this issue. In order to verify the Province’s position and to confirm the City’s support of provincial regulation, we renew our recommendation to lobby the Province by letter similar to the City of Regina.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-21, Public Notice Policy, is not required.

Report Approval

Written by: Derek Kowalski, Solicitor
Reviewed by: Barry Rossmann, Q.C., Director of Municipal Law & Civil Litigation
Approved by: Patricia Warwick, City Solicitor

Admin Report – Uber Technologies Inc.docx
227-1524-djk-7.docx

**Submission to Saskatoon City Council
Points for Consideration
August 2015**

**Transportation Network Companies
(Focus on Uber)**

Why are Uber drivers protesting Uber? Drivers reveal Uber's terrible ethics. (video clip)

- <https://www.youtube.com/watch?v=ytw44PtRmnM>

Uber 'skirting' tax law in Canada, claims councillor

- "I am totally shocked and surprised that a Canadian corporation is able to get away without charging and paying GST or the HST," Karygiannis said. "Once again, it appears that Uber is skirting Canadian laws and regulations."
 - <http://www.cbc.ca/m/news/canada/toronto/uber-skirting-tax-law-in-canada-claims-councillor-1.3163716>

People who use wheelchairs have been hurt. Wheelchair pickups have dropped by 50% in San Francisco. There are reports of lawsuits by passengers for being denied service because of wheelchair requirements and Uber vehicles not being wheelchair accessible.

- "We can't get a ride. Nobody in a wheelchair can get a ride with Uber," Brooklyn resident Jean Ryan said, recalling an Uber driver who refused to take her aboard. "As soon as he saw the wheelchair, he took off. ... "At least with the yellow cabs, we had some headway after all the years of campaigning. But with the Uber, we'll just have to do the same," said Milagros Franco, who works for the Brooklyn Center for the Independence of the Disabled. "They have no accessible vehicles. They're a multi-million dollar company and they have the nerve to come out with cars that are not accessible. It's insulting."
 - <http://observer.com/2015/07/disabled-advocates-rip-uber-over-lack-of-accessibility/>
- California orders Uber to pay a \$7.3m fine. "The missing figures include the number of passengers who requested vehicles that can accommodate wheelchairs or animals and the number of times those requests were granted."
 - <http://www.engadget.com/2015/07/16/california-uber-fine/>

Is Uber operating at big losses?

- Uber operating at big losses, suggests document leak.
 - <http://www.bbc.com/news/technology-33800073>

Uber has something called surge-pricing in which fares are dynamically raised during high-demand hours. Such examples are New Year's Eve, the holiday season and sadly, a recent tragedy in Australia or Hurricane Sandy hitting New York. This doesn't happen in taxis.

- 'What a shameful disgrace': Uber jacks up prices during Sydney hostage crisis
 - <http://www.rawstory.com/2014/12/what-a-shameful-disgrace-uber-jacks-up-prices-during-sydney-hostage-crisis/>
- Uber's Snow Storm Surge Pricing Gouged New Yorkers Big Time
 - http://gothamist.com/2013/12/16/uber_surge_pricing.php

Thanks for riding Uber!

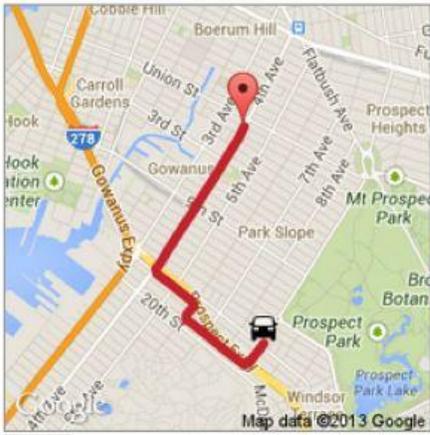
BILLED TO
Ken Greller

TRIP REQUEST DATE
December 15, 2013 at 12:05am

PAYMENT
 Personal Visa - 7851

AMOUNT CHARGED
\$94.00

NOTES
 This trip has an increased fare because it was taken while surge pricing was in effect.





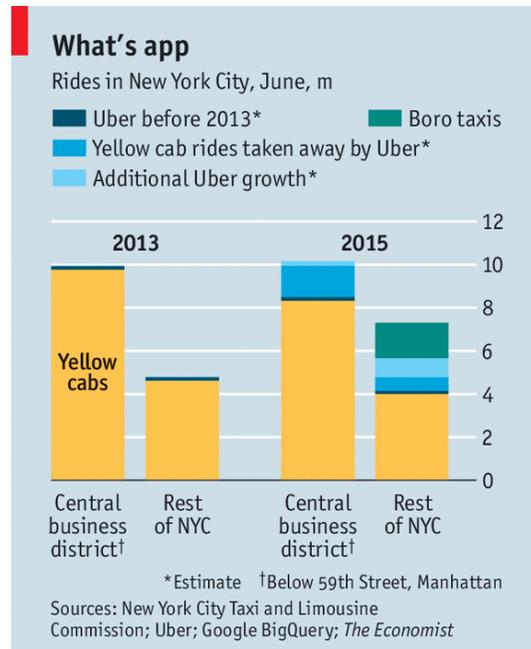
DRIVER
Kevin

Receipt issued on behalf of:
Weiter

Fare Breakdown	Trip Statistics
CHARGES	DISTANCE
Base Fare \$6.00	1.97 miles
Distance \$4.95	DURATION
Time \$4.82	11 minutes, 7 seconds
Surge x6.0 \$78.85	AVERAGE SPEED
Charge subtotal \$94.62	10.64 mph
DISCOUNTS	
Rounding Down (\$0.62)	
Discount subtotal (\$0.62)	
TOTALS	
Total Fare \$94.00	
Amount Charged (\$94.00)	
Outstanding Balance \$0.00	

A TNC like Uber will have a serious detrimental economic effect on the taxi industry.

- Getachew Ayele used to operate a local convenience store, but when he started to lose business to Shoppers Drug Mart and other chains, he jumped to the taxi industry. Ayele, 57, an Ethiopian immigrant and father of four, is today pondering another career move because of Uber, the controversial new player in the city's people-moving business. Since the ride-sharing service launched in Ottawa last October, Ayele has seen his take-home pay drop 25 to 30 per cent. It means there's less money left over once he's shelled out \$2,025 for insurance, license rental and dispatch fees each month. Money that he used to set aside for his children's university fund — \$500 to \$1,000 a year — now pays for groceries. "This is a tough time," he says. In only eight months of operation, Uber has wrought massive change in Ottawa's taxi industry.
 - <http://ottawacitizen.com/news/local-news/the-uber-effect-how-the-sharing-economy-has-shaken-ottawas-taxi-industry>
- The San Francisco Examiner reports on testimony by Kate Toran, director of taxis for San Francisco's transportation authority, who revealed that average monthly trips per city taxi have plummeted from 1,424 in 2012 to 504 in July of this year—a drop of almost 65%. Uber added San Francisco taxi service in October of 2012. In addition to cutting drivers' revenues, Toran also suggested that people who use wheelchairs could be hurt by the shift to app-based services. Her report shows wheelchair pickups have dropped from 1,378 per month in March of 2013 to 768 in July—a decrease of over 50%.
 - <http://time.com/money/3397919/uber-taxis-san-francisco/>
- The Taxi and Limousine Commission revealed new data, which was analyzed by the New York Daily News. It shows that total rides for the first six months of the year dropped ten percent compared to the same period last year....The data also shows that yellow cabs are losing revenue. The cabs this year collected \$981 million the first six months, a huge drop from the \$1.06 billion raked in last year. That means each cab in the city brought nine percent less.
 - <http://gazetterevue.com/2015/08/nyc-cab-drivers-are-not-happy-with-uber-especially-after-the-latest-numbers/>
- Tweeps Phillips, the executive director of the Committee for Taxi Safety in New York was quoted as saying: "It's remarkable that this one company is able to put vehicles on the road willy-nilly without anyone saying what this means for traffic conditions or parking or the environment."



Economist.com

- In New York, “Earnings for a typical owner-operator have already declined by approximately 24% since June 2013...”
 - <http://www.thestreet.com/story/13153924/1/how-uber-is-actually-killing-the-value-of-a-new-york-city-taxi-medallion.html>
- Ontario taxi owner files \$410-million class-action suit against Uber Canada

In his suit, Mr. Konjevic alleges that Uber conspired to break Ontario's Highway Traffic Act – which requires an appropriate licence or permit to pick up passengers for compensation – resulting in harm to the taxi industry.

- http://www.theglobeandmail.com/news/national/ontario-taxi-files-400-million-class-action-suit-against-uber-canada/article25643753/?utm_source=Shared+Article+Sent+to+User&utm_medium=E-mail:+Newsletters+/-E-Blasts+/-etc.&utm_campaign=Shared+Web+Article+Links

Regulations are in place for a purpose, for both safety and accountability. TNCs like Uber want to side-step these regulations and costs.

- “UberX is an absolute cancer,” says Sajid Mughal, a Toronto cabbie and president of iTaxiworkers, an association of more than 900 drivers. “They are killing us.” Current city regulations require cab owners to pay \$5,000 a year for a permit, while it costs their drivers more than \$600. The going rate for commercial insurance is about \$5,000 annually. Yet the drivers UberX signs up—at a clip of 40 per day—bear none of those municipal costs, and pay only their personal insurance, about a fifth of the price. “If this continues, there will be 20,000 private cabs on the road,” predicts Mughal. “Professional drivers won’t be available. It will be worse than a Third World country.”
 - <http://www.macleans.ca/economy/how-uber-disrupted-the-taxi-business/>
- Saskatoon bylaw 6066 requires an annual criminal record check in accordance with the Traffic Safety Act which all taxi drivers must get.
- Sex offenders, convicted murderer find jobs at Uber.
 - <http://money.cnn.com/2015/08/20/technology/uber-safety-lawsuit/>
- These costs that TNCs are able to ignore will be lost revenue to SGI and the City of Saskatoon.
- Some of the most pointed questioning has come from Mr. Gascón, who argues that Uber’s background checks are not as thorough as another service, called Live Scan, that is typically used by taxi companies. He said in a news conference Wednesday that about 30,000 registered sex offenders in California did not appear in a public registry Uber uses in its background checks. The checks also go back only seven years. ... In California, for instance, Uber and other companies successfully lobbied to kill a law that would have required drivers to undergo a background check by the state’s Justice Department, as is required of taxi drivers.
 - http://www.nytimes.com/2015/08/20/technology/uber-missed-criminal-records-of-drivers-prosecutors-assert.html?_r=0
- Supporters of TNCs will argue that there are and can be unsafe or dangerous taxi drivers. Sure, so does that mean if a person breaks the law, the solution is to remove the law? Will you allow a person to build a house without a permit?
- What about liability insurance? If a passenger is injured in a TNC vehicle, is the passenger covered by the personal insurance of the driver? Will the TNC walk away and say, “Hey, were just a software company.”
- We should give second thought before allowing a company to operate that not only allows you to rate the driver but also allows the driver to rate the customer.

Driving a taxi is a lifelong career for most drivers. For most TNC drivers, it's just extra cash in their spare time from their day jobs. So remember who will be the most hurt by allowing Uber and similar companies to operate.

- "Just 24% of Uber drivers say the company is their only source of personal income..."
 - <http://www.time.com/money/3678389/uber-drivers-wages/>
- TNC drivers have flooded the market. What happens when you flood the market, each driver makes less and less, but the TNC makes more and more. Imagine what that's done to taxi drivers.

What is the moral compass of a company that offers to pay the fine issued by the city when their drivers are fined for operating illegally in say Ottawa or elsewhere? What kind of arrogance does that show towards the rule of law?

- Late Thursday, the city issued a news release "in response to the potential launch" of the global ride-sharing business in Hamilton. It cautioned that not following municipal and provincial regulations could land fines higher than \$5,000 and result in the cancellation of insurance. "We share the opinion of other municipalities that Uber would be operating as a taxicab service," the city's licensing director, Ken Leendertse, says in the release. "As such, they are required to register with the municipality as a broker and are subject to the same provincial and municipal regulations — and penalties — that ensure consumer protection of residents and visitors, and ensure the health and safety of passengers and drivers."
 - <http://www.thespec.com/news-story/5261068-city-fires-caution-shot-over-uber-s-bow/>

- In Ottawa, Uber followed a proven formula to gain a market foothold: It conducted a social media blitz, offered free rides to users, and free iPhones to new drivers — all while dismissing the city's old taxi regulations as inapplicable to its services. The city responded with a series of sting operations. Bylaw officials have now laid charges against 58 drivers and collected \$16,000 in fines, but Uber has simply paid its drivers' costs and penalties, and carried on with business. Local taxi drivers are seething. They believe the city has failed to adequately defend its own regulatory regime against the Uber invasion. "For someone just to come unqualified with just a regular vehicle and start taking your job is insane," says Blue Line driver Fadl Hamade, who's working longer hours to make up for lost income.
 - <http://ottawacitizen.com/news/local-news/the-uber-effect-how-the-sharing-economy-has-shaken-ottawas-taxi-industry>
- Uber has assured its drivers that it will pay for any bylaw tickets they receive. In an email sent to its drivers Thursday, the ride-share company wrote, "Until new regulations are written, there may be a few cases of ticketing for non-criminal bylaw infractions (with no demerit points or record). If you receive a bylaw ticket for driving on the Uber platform, please email us and we will take care of it."
 - <http://www.cbc.ca/news/canada/toronto/uber-canada-says-it-will-pay-its-drivers-tickets-1.3147654>
- Other Canadian municipalities have also come out strongly against the company, especially its ride-sharing service. When UberX debuted in Montreal at the end of October, Mayor Denis Coderre flatly termed it "illegal." In Ottawa, municipal employees have been staging undercover stings, booking rides, then fining unlicensed drivers \$650 apiece. In Vancouver, where the company has run ads seeking drivers, the city's four cab companies have banded together to seek a pre-emptive court injunction.
 - <http://www.macleans.ca/economy/how-uber-disrupted-the-taxi-business/>

Allowing TNCs like Uber to operate will hurt the investments of taxi plate owners who risked their hard-earned money to legally purchase these plates that were issued by the City.

- "This is where I think we have to make sure that people are dealt with fairly and it's not just the customers and citizens that use taxi services or transportation services. If we've been licensing them for this long we may have some responsibility," Galloway said.
 - <http://www.therecord.com/news-story/5262443-taxi-union-says-uber-will-devalue-300-000-taxi-licences/>

7000-1

From: Scott suppes <scotts@cpdist.ca> on behalf of Scott suppes <scotts@cpdist.ca>
Sent: September 11, 2015 11:56 AM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, September 11, 2015 - 11:56
Submitted by anonymous user: 64.141.10.170
Submitted values are:

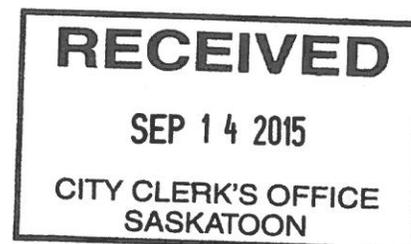
Date: Friday, September 11, 2015
To: His Worship the Mayor and Members of City Council
First Name: Scott
Last Name: suppes
Address: 225 Avenue B North
City: Saskatoon
Province: Saskatchewan
Postal Code: S7L 1E1
Email: scotts@cpdist.ca

Comments: I wish to speak at the Transportation Committee Meeting on Monday, September 14th at 9:00 am with respect to the Agenda item on Uber Transportation. Thank you

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39733>

7000-1

From: Javed Mian <shondra@comfortcab.ca> on behalf of Javed Mian <shondra@comfortcab.ca>
Sent: September 11, 2015 4:59 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, September 11, 2015 - 16:58
Submitted by anonymous user: 184.70.63.134
Submitted values are:

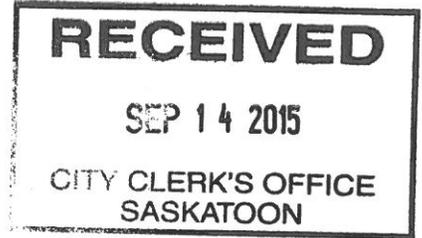
Date: Friday, September 11, 2015
To: His Worship the Mayor and Members of City Council
First Name: Javed
Last Name: Mian
Address: 11-1724 Quebec Ave
City: Saskatoon
Province: Saskatchewan
Postal Code: S7J1v9
Email: shondra@comfortcab.ca

Comments:
Hello! I would like to speak at the council meeting Monday morning in regards to Uber Taxi.

Thanks!
Javed Mian

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39781>

From: Jim Frie <shondra@comfortcab.ca>
Sent: September 11, 2015 5:00 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, September 11, 2015 - 16:59
Submitted by anonymous user: 142.165.205.193
Submitted values are:

Date: Friday, September 11, 2015
To: His Worship the Mayor and Members of City Council
First Name: Jim
Last Name: Frie
Address: 11-1724 Quebec Ave
City: Saskatoon
Province: Saskatchewan
Postal Code: S7J1V9
Email: shondra@comfortcab.ca
Comments:
Hello!

I would like to speak at the council meeting Monday Morning in regards to Uber Taxi.

Jim Frie
Comfort Cab

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39782>

7000-1

RECEIVED

SEP 14 2015

CITY CLERK'S OFFICE
SASKATOON

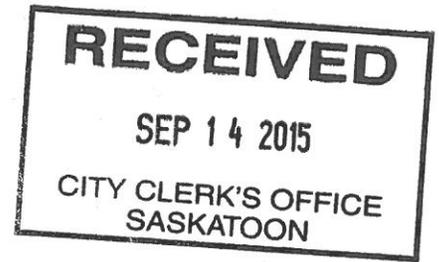
From: Marwan Bardouh <mbardouh@shaw.ca>
Sent: September 13, 2015 9:57 PM
To: Web E-mail - City Clerks
Subject: With regard to TNC

Hi City Clerks,
My name is Marwan Bardouh, I would like to speak at the meeting regarding TNC ON Monday, SEPTEMBER 14th, 2015 at 8:00 am. My email mbardouh@shaw.ca and my address is: 219 Weyakwin Drive Saskatoon, Sk. S7J 4M3
My phone number 306-229-0182.
Thanks!
Marwan Bardouh

Sent from my iPhone

From: Dale Gallant <d.gallant@shaw.ca>
Sent: September 14, 2015 6:56 AM
To: City Council
Subject: Form submission from: Write a Letter to Council

Submitted on Monday, September 14, 2015 - 06:55
Submitted by anonymous user: 207.195.86.91
Submitted values are:



Date: Monday, September 14, 2015
To: His Worship the Mayor and Members of City Council
First Name: Dale
Last Name: Gallant
Address: 3430 33rd St W.
City: Saskatoon
Province: Saskatchewan
Postal Code: S7L6C9
Email: d.gallant@shaw.ca

Comments:
Sept. 14th
Transportation Committee

I am hoping you could consider my view regarding the taxi industry and the Uber question at your meeting this morning.
The City has asked the province to reinstate the ability of the City to sell taxi plates in the Cities Act. This will allow the City to make the 24 current seasonal plates permanent, with a probable sale price of \$200,000.00 each. (4.8 million) .
This is assuming our Council decides to stick with our current taxi bylaw that has only recently been updated, which required a huge amount of work and expense.
If Council doesn't stand behind the taxi industry against Uber there will be no market for taxi plates. The 4.8 million windfall and an ongoing revenue stream from the sale of taxi plates in the future, will be lost.
Currently taxi plate owners bought their plates with the knowledge that the City firmly regulated the transportation of the taxi industry in Saskatoon.
Will we be compensated if the City changes the bylaw in an injurious way to taxi plate owners?

Thank you
Dale Gallant

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/39898>

Wajax Power Systems – Blanket Purchase Order

Recommendation

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

1. That the Administration prepare a blanket purchase order with Wajax Power Systems for the repair of engines and transmissions exclusive to a particular bus style and model for up to the next five years, for an estimated cost of \$100,000 per year; and,
2. That Purchasing Services issue the appropriate blanket purchase order.

Topic and Purpose

The purpose of this report is to request City Council approve a blanket purchase order from Wajax Power Systems for the supply of parts, sales and service for Detroit Diesel engines, Allison Transmissions, and hybrid battery systems.

Report Highlights

1. A blanket purchase order is required for more effective purchasing and reduces administration's time for sole sourcing.
2. Wajax Power Systems is the only authorized distributor in Saskatoon that can provide the required transmission and electrical system repairs for this particular bus style and model.
3. It is recommended that the Administration negotiate a multi-year blanket purchase order with Wajax Power Systems.
4. The Administration will review and evaluate in five years.

Strategic Goal

This report supports the Strategic Goal of Continuous Improvement by standardizing parts for buses and establishing multi-year blanket purchase orders.

Report

Blanket Purchase Order is Required

Blanket purchase orders will allow Saskatoon Transit to reduce the administrative time spent raising and managing individual purchase orders. This approach will give the Administration the best opportunity to reduce unit costs and obtain the benefit of bulk pricing discounts by combining a number of smaller purchases into a single layer contract. Managing procurement under a single, larger blanket purchase order will enable Wajax Power Systems to lower their administrative costs.

Wajax Power Systems is the Only Supplier

Saskatoon Transit is required to purchase, install and overhaul Transit Bus engines and transmissions on an emergency basis with a goal of minimizing down time and creating the least amount of disruption to the City of Saskatoon's Transit service. At times, due to spending limits on purchase orders, we can only order one or two parts per purchase order; this slows down the process of repairs. Wajax Power Systems is the only authorized distributor that can provide the required proprietary Detroit & Allison parts for this particular bus style and model (Attachment 1).

Negotiate a Blanket Purchase Order

The Administration is recommending that the City negotiate directly with Wajax Power Systems to obtain a blanket purchase order for Saskatoon Transit. By combining purchases into one contract, the City will have additional bargaining power and be able to take advantage of purchasing discounts.

Review

Reviews of the vendor will be monitored regularly and Saskatoon Transit Administration will evaluate in five years.

Options to the Recommendation

The supply of the materials could be individually sole sourced. Wajax Power Systems would be the only authorized bidder in Saskatoon. The Administration believes that the most advantageous approach for the City is to negotiate a blanket purchase order directly with the supplier to get the best pricing available.

Financial Implications

Funds for this purchase are available in the Saskatoon Transit approved 2015 (and future) Capital Project #P1194 Transit-eng Overhaul.

Other Considerations/Implications

There are no policy, public and/or stakeholder involvement, communication plan, environmental, Privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

This blanket purchase order should be in place by October 1, 2015 with an option to extend the blanket for up to four additional years, provided the supplier provides acceptable pricing and maintains status as the sole supplier.

Public Notice

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

Attachment

1. Wajax Power Systems Letter Dated September 16, 2014, and Tognum AG Distributer Agreement

Report Approval

Written by: Paul Bracken, Maintenance Manager
Reviewed by: James McDonald, Director of Saskatoon Transit
Approved by: Celene Anger, Acting General Manager, Transportation & Utilities Department

TRANS PB - Wajax Power Systems – Blanket Purchase Order



3210 Idylwyld Drive N
Saskatoon, Saskatchewan
S7L 5Y7

306.242.3113 Tel
306.242.2965 Fax
www.wajaxpower.com

September 16, 2014

City Of Saskatoon Transit System
315 Ave C. North
Saskatoon, Sask.
S7
Attn: Mr. Jack Morchoruk

Dear Jack,

Re: Suppliers of Parts, Sales & Service for Detroit Diesel engines & Allison Transmissions.

In a recent conversation, a discussion of the services provided by Wajax Power Systems was requested.

Wajax Power Systems is located at 3210 Idylwyld Drive North; we provide a full selection of genuine parts, sales & service for Detroit Diesel 2 & 4 cycle engines as well as Allison automatic transmissions for On-Highway and Off-Highway applications.

With 28 locations across Canada we have an extensive inventory to meet customer needs .Our trained staff combined with state of the art Electronic equipment and tooling for specialized products makes us an industry choice when selecting factory authorized care . We offer full parts and labor warranty coverage on products and workmanship.

Our local facility is 31,000 sq. ft. and is well equipped to handle any transit applications and work required.

I have enclosed a copy of our Quality Truck and Bus Care Service guide for your review. Also, feel free to visit us @wajaxpower.com for more information and browsing.

We appreciate your business and will do our very best to get your units turned around as we know you are in demanding times. Jack, should you require any further information , please do not hesitate to contact our office .

Kind regards



Joe Rudnicki

Regional Manager – Saskatchewan

CC: Bruce Kumitch – Sales

Tognum AG

Distributor Agreement

AGREEMENT, effective **January 1, 2014** by and between

Tognum AG	Maybachplatz 1	88045 Friedrichshafen	Germany
(Name)	(Street)	(City)	(Country)

hereinafter called TOGNUM AG, and

Integrated Distribution Systems dba Wajax Power Systems (West)	Edmonton / Alberta	Canada
(Name)	(City)	(Country)

hereinafter called DISTRIBUTOR.

GENERAL PURPOSE

The purpose of this Distributor Agreement, herein called Agreement, is to appoint DISTRIBUTOR as an authorized Distributor to:

- a) to sell and service Products and Parts
- b) to establish the location(s) from which DISTRIBUTOR shall conduct Distributorship Operations, and
- c) to identify the principal management and principal owners of DISTRIBUTOR upon whom TOGNUM AG relies in entering into this Agreement

This Agreement sets forth the rights and responsibilities of TOGNUM AG and DISTRIBUTOR relating to the to the sale and servicing of Products and Parts and the circumstances in which the Agreement may be terminated.

Accordingly, DISTRIBUTOR and TOGNUM AG hereby agree as follows:

I. Rights Granted by TOGNUM AG and Acceptance and Acknowledgments by DISTRIBUTOR

A Rights Granted by TOGNUM AG

In reliance on DISTRIBUTOR's agreement to fulfill the responsibilities and perform the functions described in Paragraph SECOND of this Agreement, TOGNUM AG hereby grants DISTRIBUTOR the non-exclusive rights to:

- a) buy from TOGNUM AG and Manufacturer(s) the Products identified in the Product Addendum to this Agreement and related Parts for resale or use by DISTRIBUTOR in its Distributorship Operations;

- b) identify itself as an authorized Distributor and to conduct, at the location(s) approved by TOGNUM AG, herein called Distributorship Locations, all of the Distributorship Operations contemplated by this Agreement; and
- c) execute Service Dealer Agreements with authorized Service Dealers approved by TOGNUM AG.

B Acceptance and Acknowledgments by DISTRIBUTOR

DISTRIBUTOR hereby accepts from TOGNUM AG the rights specified in this Paragraph FIRST. In doing so, DISTRIBUTOR acknowledges that:

- a) TOGNUM AG and Manufacturer(s) have reserved to themselves the right to conduct in DISTRIBUTOR's Area of Responsibility Distributorship Operations in connection with Products and Parts and to sell Products and Parts directly to any customer;
- b) DISTRIBUTOR will act within the assigned Area of Responsibility and not sell or service any Products or Parts directly or indirectly to customers located outside DISTRIBUTOR's Area of Responsibility;
- c) as an independently owned and managed business, DISTRIBUTOR's success and enjoyment of profitable operations will be determined substantially by how effectively its Distributorship Operations are conducted and managed;
- d) DISTRIBUTOR has not paid any fee or other consideration for this Agreement. Neither this Agreement nor any right granted by this Agreement is a property right; and
- e) neither this Agreement nor any right or responsibility under this Agreement may be transferred, assigned, delegated, or sold by DISTRIBUTOR without the prior written approval of TOGNUM AG.

II. Assumption of Responsibilities by DISTRIBUTOR

DISTRIBUTOR will establish, maintain, and effectively conduct the complete Distributorship Operations contemplated by this Agreement in connection with each of the Products described in the Product Addendum. DISTRIBUTOR hereby assumes and will fulfill the functions and responsibilities reflected in this Agreement, including:

- a) sales and sales promotion responsibilities;
- b) service responsibilities on all Products as described within the Product Addendum that may at any time be located in the Area of Responsibility; and
- c) performance of all of DISTRIBUTOR's other obligations under this Agreement.

III. Management and Ownership

TOGNUM AG has selected DISTRIBUTOR and has entered into this Agreement in substantial reliance upon:

- a) DISTRIBUTOR's representation to TOGNUM AG relating to its business organization and financial structure and to its ability to fulfill the functions and responsibilities assumed by DISTRIBUTOR under Paragraph SECOND of this Agreement;
- b) the personal qualifications and business abilities of DISTRIBUTOR's Principal Manager(s) and Principal Owner(s) who are so designated by DISTRIBUTOR in the

Management and Ownership Addendum, furnished by DISTRIBUTOR to TOGNUM AG and accepted by TOGNUM AG by its endorsement thereon, and whoever represents DISTRIBUTOR will have and actively exercise full managerial authority for the operating management of DISTRIBUTOR; and

- c) the agreement of DISTRIBUTOR and TOGNUM AG that the person(s) named in the Management and Ownership Addendum as Principal Owner(s) will continue to own both of record and beneficially the percentage of ownership interests in DISTRIBUTOR shown therein.

DISTRIBUTOR shall provide, at the request of TOGNUM AG, a plan for the continuation of DISTRIBUTOR in the event of death, incapacity, or withdrawal from the business of any person named as a Principal Manager or Principal Owner.

DISTRIBUTOR acknowledges that this Agreement is to be construed as a personal service agreement. Accordingly, DISTRIBUTOR agrees that continuation of the business relationship between DISTRIBUTOR and TOGNUM AG established by this Agreement is conditioned upon DISTRIBUTOR continuing to have principal management and principal ownership acceptable to TOGNUM AG. If DISTRIBUTOR desires to make a change in its Principal Manager(s) or sell its principal assets or change its ownership, DISTRIBUTOR will give TOGNUM AG prior written notice of the proposed change or sale. TOGNUM AG will base its approval decision on whether the proposed change is likely to result in a successful Distributorship Operation with acceptable management and ownership which will provide satisfactory sales, service, and facilities for users of Products at the approved location(s).

IV. Additional Terms

The additional terms set forth in the following appendices and addenda to this Agreement are an integral part of this Agreement:

- o "Supplement", Form No. DA Supplement, if applicable
- o "Additional Provisions Applicable to Distributor Agreement", Form No. DA 2
- o "Product Addendum", Form No. DA 4
- o "Locations and Premises Addendum", Form No. DA 6
- o "Management and Ownership Addendum", Form No. DA 7
- o "Bank Account Addendum", Form No. DA 8
- o "Bulletins Addendum", Form No. DA 9

V. Term

This Agreement will expire without any action by either DISTRIBUTOR or TOGNUM AG on **March 31, 2014**. However, this Agreement may be continued in effect thereafter by mutual agreement by TOGNUM AG and DISTRIBUTOR evidenced by a written extension agreement executed by TOGNUM AG and DISTRIBUTOR prior to the expiration of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate as of the day and year first above written.

VI. AREA OF RESPONSIBILITY

The Province of Alberta;

The part of the Province of British Columbia bounded on the North by the Yukon Territories border and the Northwest Territories border, on the East by the Alberta border and on the South and West by following Long. 130° South from the Yukon Territory border to Lat. 59°, then East to Long. 125°, then South to Lat. 57°, then East to Long. 123°, the South to Lat. 56°, then East to Long. 121°, then South to Lat. 55°, then East to the Alberta border;

The Yukon Territory and North West Territory;

X The provinces of Saskatchewan and Nuvanut;

All in Canada

Within this Area of Responsibility, DISTRIBUTOR will sell and service the Products and Parts as specified in the Product Addendum. Such Distributor Area of Responsibility will be used by TOGNUM AG in making evaluations of the effectiveness of DISTRIBUTOR's performance of its responsibilities under this Agreement. The Distributor Area of Responsibility will also be used in the development of sales guides and other matters relating to Distributorship Operations. The Distributor Area of Responsibility described herein will continue to be used for the foregoing purposes until it is changed in accordance with this Agreement.

**Integrated Distribution Systems
dba Wajax Power Systems (West)**
(DISTRIBUTOR)

Tognum AG
(TOGNUM AG)

EDMONTON, SEPT 20/13
(Location and Date)

Friedrichshafen, 30/9/13
(Location and Date)

By 
(Signature)

By  
(Signature)

Richard Plain, President
(Name and Title)

Walter Scharg, Director Distribution Management
Ralph Kartscher, Senior Manager Distribution Management & Contract Management
(Name and Title)

22nd Street Pedestrian Crossing Review

Recommendation

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

1. That the Administration proceed with the recommendations that focus on additional study, feasibility review, and education; and
2. That upon completion of the recommendations, and if physical improvements are deemed required, the Administration will request funding from the appropriate Capital Budget in 2017.

Topic and Purpose

The purpose of this report is to provide information in response to an inquiry from Councillor P. Lorje requesting a report on the effectiveness of the additional pedestrian actuated signals and overall safety on 22nd Street.

Report Highlights

1. Phase 1 improvements on 22nd Street reduced the overall annual frequency of pedestrian-vehicle collisions by 52%, including one fatality. However, the 26 month post-Phase 1 evaluation period is too short to provide an adequate safety analysis. Therefore, proceeding to Phase 2 (to prohibit crossing at all unmarked crosswalks) and Phase 3 (to install a barrier) is not recommended at this time.
2. Factors contributing to pedestrian injuries and fatalities such as unsafe pedestrian behavior, vehicle and driver factors, problematic physical environments and other special conditions were assessed.
3. There are additional less restrictive measures available prior to proceeding to Phase 2 that will improve safety including: crosswalk visibility improvements, traffic signal improvements, geometric modifications, education, enforcement and restricted pedestrian crossings. Specific recommendations are provided.

Strategic Goal

This report supports the Strategic Goal of Moving Around by providing pedestrian safety enhancements to improve the safety of pedestrians, cyclists, and motorists.

Background

City Council, at its meeting held on August 17, 2011, considered a report from the General Manager of Infrastructure Services in response to an inquiry from Councillor P. Lorje (November 21, 2010) and approved the implementation of a three-phase, progressively restrictive program in order to increase the level of safety for pedestrians and motorists along 22nd Street West. City Council also resolved, in part:

- “4) that the Administration report back within one year on the effectiveness of the additional pedestrian actuated signals and overall safety on 22nd Street.”

Report

A technical report detailing an engineering assessment of 22nd Street pedestrian safety and countermeasures is presented in Attachment 1, and addresses the following:

- Effectiveness of Phase 1;
- Factors contributing to pedestrian injuries and fatalities; and
- Potential measures that can be helpful in improving safety.

Effectiveness of Phase 1

Phase 1, completed in 2012, consisted of:

- Two pedestrian actuated signals installed along 22nd Street West, at the intersections of Avenue M and Avenue R;
- Yellow pedestrian warning signs were removed to eliminate pedestrian and motorist confusion; and
- An education program in collaboration with the Saskatoon Police Service (SPS) to increase awareness, and increased enforcement of jaywalking and speeding by the SPS.

Pedestrian-vehicle collision frequency was used as a comparison between 22nd Street and city-wide data to ascertain key characteristics of the 22nd Street Corridor collision profile. Two periods were compared before the Phase 1 implementation (January 2008 to October 2012) and after the Phase 1 implementation (November 2012 to December 2014).

The detailed assessment is provided on pages 4 to 7 of the attachment. The assessment acknowledges that the 26 month post-Phase 1 evaluation period is very short and does not provide sufficient data to determine trends. In addition, other measures have been identified to help address the pedestrian safety concerns prior to proceeding to more restrictive measures. Further investigation into contributing factors will also help identify solutions to improve pedestrian safety along 22nd Street.

At this time, progressing to Phase 2 (to prohibit crossing at all unmarked locations) or Phase 3 (to install a barrier) is not recommended.

Factors Contributing to Pedestrian Injuries and Fatalities

A combination of unsafe pedestrian behavior, vehicle and driver factors, problematic physical environments, and other special conditions all contribute to pedestrian-vehicle conditions.

The major contributing factors to pedestrian-vehicle collisions on 22nd Street, before and after Phase 1 implementation, were assessed using key performance metrics. The result from the assessment ranged from acceptable, improvement possible, or requires consideration. Details on the effectiveness of Phase 1 and a table for the major contributing factors relating to pedestrian collisions are shown in Table 5 on page 17 of the attachment.

Technical Report Recommendations

A summary of the recommendations is presented below:

Measure	Recommendations
<i>Crosswalk Visibility</i>	
Mark unsignalized crosswalks	Crosswalks at unsignalized intersections remain unmarked.
Improve overhead lighting	<ul style="list-style-type: none"> Assess possibility of pedestrian lighting improvements at unsignalized intersections using a spot street light warrant. Conduct a Crime Prevention Through Environmental Design (CPTED) review of the corridor.
Improve crosswalk signage	Pedestrian oriented signs at signals could be improved with “Cross on Walk Only” signs.
<i>Traffic Signals</i>	
Additional crossing control devices	Additional pedestrian actuated signals are not warranted.
Modify signal timing	<ul style="list-style-type: none"> Investigate synchronization changes to reduce vehicles progression speeds. Modify signal timing throughout the corridor to reduce pedestrian delays.
Implement automatic detection technology	Investigate the feasibility of testing automatic detection technology within the study corridor.
<i>Geometric Modifications</i>	
Reduce lane widths	Investigate the feasibility of changing the road cross-section once the Growth Plan and Active Transportation Master Plan projects are complete.
Reduce number of lanes	
<i>Education</i>	
Motorist and pedestrian education	<ul style="list-style-type: none"> Enhance signage for motorists about high pedestrian activity. Improve no crossing/ high collision signs (larger, more visible, different message).
Use speed monitoring radar signs	Investigate further the feasibility of installing speed display boards. If feasible, install at one or two locations within the corridor.
<i>Enforcement</i>	
Increase enforcement of jaywalking and speeding by the Saskatoon Police Service.	
<i>Restrict Pedestrian Crossings</i>	
<ul style="list-style-type: none"> Conduct walking time analysis to determine walking time increases should the crossing be restricted. Assess location of additional signalized crossings whether warranted or not. 	

Communication Plan

A motorist and pedestrian education program will be developed and implemented as part of the Road Safety Action Plan.

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.

Financial Implications

The Administration will proceed with completing the majority of the recommendations as part of ongoing monitoring of the transportation network. Upon completion of the recommendations, the Administration will request funding from the appropriate Capital Budget in 2017.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The majority of the recommendations include desk-top work. The Administration will complete these tasks and request funding from the appropriate Capital Budget to implement physical improvements, if deemed required, in 2017.

Public Notice

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

Attachment

1. 22nd Street Pedestrian Safety and Countermeasures Technical Report

Report Approval

Written by: Justine Nyen, Transportation Engineer, Transportation
Jay Magus, Engineering Manager, Transportation
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Celene Anger, Acting General Manager, Transportation & Utilities
Department

City of Saskatoon



22nd STREET PEDESTRIAN SAFETY & COUNTERMEASURES TECHNICAL REPORT

August 6, 2015

Transportation & Utilities Department

Prepared By: Marina Melchiorre, P.Eng., Transportation Engineer
Justine Nyen, P.Eng., Transportation Engineer

Checked By: Jay Magus, P.Eng., Engineering Manager, Transportation

EXECUTIVE SUMMARY

22nd Street West, from Avenue H to Witney Avenue, is a two-kilometre section of roadway classified as a major arterial street. This report is in response to the Council Report dated July 2011 committing the Administration report back within one year on the effectiveness of the implemented first stage of a three-phase, progressively restrictive program. Phase 1, completed in 2012, comprised two pedestrian activated signals installed at the intersections of Avenue M and Avenue R and the implementation of an education program that included portable speed display trailers, increased enforcement for jaywalking and speeding, and signage (“high pedestrian collision location” and “cross at signals”).

Phase 1 implementation reduced the overall annual frequency of pedestrian-vehicle collisions by 52% over 26 months. In terms of collision severity, one fatality occurred after implementation when a pedestrian ran onto the roadway and was struck by a truck. The number of pedestrian injuries, however, increased. Although this increase follows the citywide trend, pedestrian countermeasures could reduce the number and seriousness of injuries. At this time, neither the Phase 2 measures to prohibit crossing at all unmarked locations, nor the Phase 3 recommendation to install a barrier to physically restrict crossing, are recommended.

Crosswalks at unsignalized intersections should remain unmarked. Transportation Association of Canada (TAC) recommends marked crosswalks be accompanied by overhead flashing beacons (active pedestrian corridor) or signals (full or pedestrian actuated) when warranted. Four candidate locations for pedestrian actuated signals, Avenue I, Avenue K, Avenue U and Avenue V, based on spacing between signalized intersections, are not warranted when evaluated.

Acknowledging that the 26-month post-Phase 1 evaluation period is very short, additional measures could still be helpful. A combination of unsafe pedestrian behavior, vehicle and driver factors, problematic physical environments, and other special conditions all contribute to pedestrian-vehicle conditions. Detailed investigation showed that safety can be addressed by reducing pedestrian delay at traffic signals, employing measures to decrease vehicle speeds, and improving perceptions of risk and awareness of pedestrian crossing right of way rules.

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1 INTRODUCTION

22nd Street West, from Avenue H to Witney Avenue, is a two-kilometre section of roadway classified as a major arterial street. In this report, this section of 22nd Street West will be referred to as the study corridor, study area, or simply 22nd Street.

1.1 Background

This report is in response to the Council Report dated July 2011 (Appendix A) committing the Administration report back within one year on the effectiveness of the implemented first stage of a three-phase, progressively restrictive program. The program presented was as follows:

Phase 1 (Completed in 2012)

- Two pedestrian activated signals installed at the intersections of Avenue M and Avenue R
- Removal of pedestrian warning signs
- Education program implemented: portable speed display trailers, increased enforcement for jaywalking and speeding, and signage (“high pedestrian collision location” and “cross at signals”)

Phase 2

- Crossing at all remaining unmarked locations prohibited via appropriate signage
- Increased enforcement by Saskatoon Police Service
- Determine if and where additional legal and safe pedestrian crossings are warranted

Phase 3

- Install a barrier along the centre median restricting crossing between signals.

1.2 Scope

This report evaluates pedestrian-vehicle collisions in terms of pedestrian behaviour, motorist behaviour, environmental conditions and existing infrastructure. It also revisits the Phase 2 recommendations and presents a comprehensive assessment of measures to increase pedestrian safety. The report concludes with a recommendation comprising a combination of measures along with an implementation plan.

1.3 Corridor description

22nd Street comprises three lanes in both the eastbound and westbound directions, and carries approximately 25,000 to 40,000 vehicles per day (traffic decreased 20 percent

after opening of Circle Drive South). Land use throughout this section of 22nd Street is mixed, with approximately 75% comprised of commercial properties (zoned B3 and B4); while the remaining 25% is comprised of high-density dwelling units (zoned RM3 and RM4).

By definition, under The Traffic Safety Act, legal crosswalks exist at each intersection of two streets. This includes three-legged intersections (i.e. “T-Intersections”) and off-set intersections. In total, 19 legal crosswalks exist along 22nd Street, between Avenue H to Witney Avenue, three of which have pedestrian-activated signals (Avenue M, Avenue R, and Avenue T), and four of which have full signals (Avenue H, Avenue P, Avenue W and Witney Avenue). The remaining 12 legal crossings do not have pavement markings, yet curb cuts exist in the centre median to allow for pedestrian accessibility.

Table 1: 22nd Street Intersection Infrastructure

Cross-street	Control	Configuration	Median Facility
Avenue H	Traffic Signal	Intersection	None/Turn Bay
Avenue I	TWSC	Intersection	None/Turn Bay
Avenue J	NB & SB Stop	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue K	TWSC	Intersection	None/Turn Bay
Avenue L	NB & SB Stop	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue M	Pedestrian Actuated Signal	Intersection	None/Turn Bay
Avenue N	NB Stop	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue O East	NB Stop	Right-In/Right-Out T-intersection	Pedestrian Ramp & Refuge
Avenue O West	SB Stop	Right-In/Right-Out T-intersection	None/Turn Bay
Avenue P	Traffic Signal	Intersection	None/Turn Bay
Avenue Q	NB & SB Stop	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue R	Pedestrian Actuated Signal	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue S	NB & SB Stop	Right-In/Right-Out	4 metre wide
Avenue T	Pedestrian Actuated Signal	Intersection	None/Turn Bay

Cross-street	Control	Configuration	Median Facility
Avenue U	NB & SB Stop	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue U - Avenue V	Uncontrolled	Median opening	None
Avenue V	NB & SB Stop	Right-In/Right-Out	Pedestrian Ramp & Refuge
Avenue W	Traffic Signal	Intersection	None/Turn Bay
Avenue X	NB Stop	Right-In/Right-Out T-intersection	Pedestrian Ramp & Refuge
Avenue Y	NB Stop	Right-In/Right-Out T-intersection	Pedestrian Ramp & Refuge
Witney Avenue	Traffic Signal	Intersection	None/Turn Bay

A comparison of the number and spacing of protected crossings on 22nd Street West versus other streets in the city does not necessarily yield directly comparable figures. For example, the two-kilometre section of 8th Street, from Cumberland Avenue to Circle Drive, has nine signals, but the adjacent land use is completely zoned commercial district (B4) and there are no residential frontages along the street. Further, intersections on 8th Street are mostly four-legged and are spaced at 200 metres apart compared to 100 metres on 22nd Street. Similarly, sections of 20th Street, a minor arterial with several pedestrian-actuated crossings, are mostly zoned as commercial, service, or industrial district. Commercial business areas typically exhibit higher traffic/pedestrian volumes and multiple vehicle turning movements, resulting in a higher risk for pedestrian-vehicle conflict points, thus necessitating the need for additional pedestrian-actuated crossings and traffic signals.

2 EFFECTIVENESS OF PHASE 1 IMPLEMENTATION

2.1 Impact on Number and Severity Pedestrian-Vehicle Collisions

The 2011 Council Report compared pedestrian-vehicle collision statistics on 22nd Street versus a section of 8th Street East to determine if the study area exhibited higher number of collisions. This approach does not necessarily yield directly comparable figures. As previously mentioned, the mix of land uses and intersection configurations are unique to 22nd Street.

An improved method is to compare 22nd Street's pedestrian-vehicle collision frequency with citywide data to ascertain key characteristics of the 22nd Street corridor's collision profile. The Saskatchewan Traffic Accident Information System (TAIS) contains geospatial points (Urban Grid Codes) where pedestrian-vehicle collisions have occurred since 1988. The corridor encompasses 6.6% of Saskatoon locations. Note that TAIS includes only reported collisions.

Two periods are compared: Before Phase 1 implementation (2008 to October 2012) and after Phase 1 implementation (November 2012 to December 2013). At the time of this report, the TAIS was current to the end of 2013. Using a 14 month collision analysis period to appraise the impact of new infrastructure requires caution because collisions analysis periods are typically three to five years¹. Detailed pedestrian-vehicle collision history for 22nd Street is found in Appendix B.

The following exhibits and tables were prepared to illustrate the comparison:

- Figure 1 illustrates the total pedestrian collisions by year
- Table 2 illustrates the collision severity
- Figure 2 illustrates the distribution of collisions by location

¹ Due to the randomness of traffic collisions, it is likely that any one year could have a much higher or lower number of collisions than the typical year. A rule of thumb is to collect data from the previous 3 to 5 years, with 3 years as a working minimum. A longer period of time increases the statistical value of the data; however, if the period is too long, there is a chance that traffic volume and patterns may have changed. (American Association of State Highway and Transportation Officials, 2010)

Figure 1: Total Pedestrian Collisions by Year

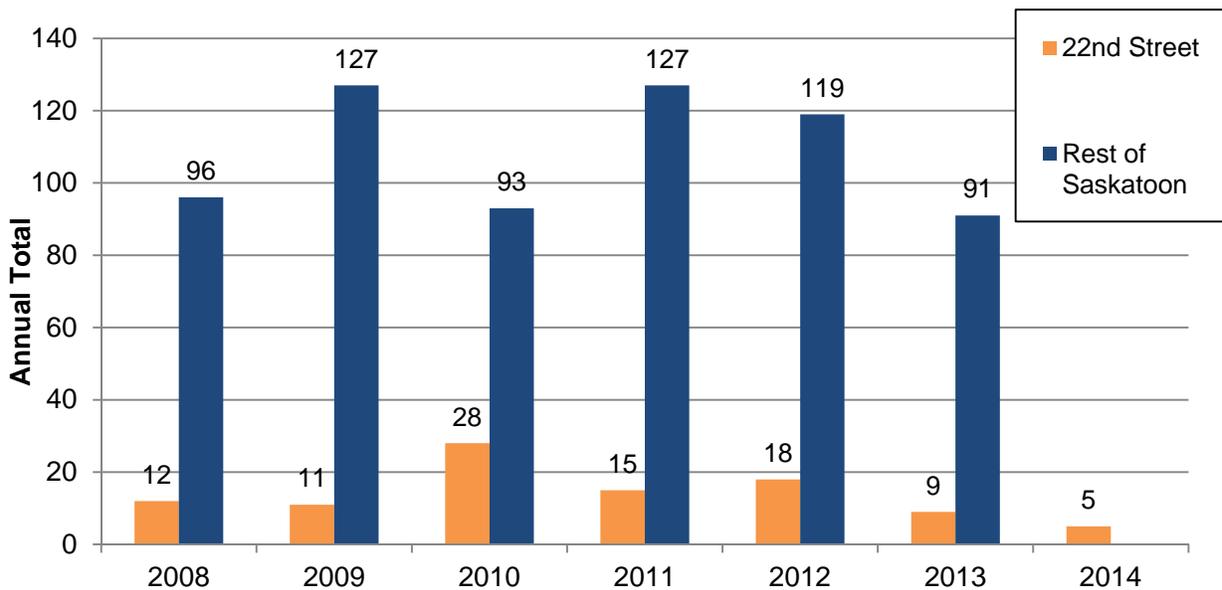
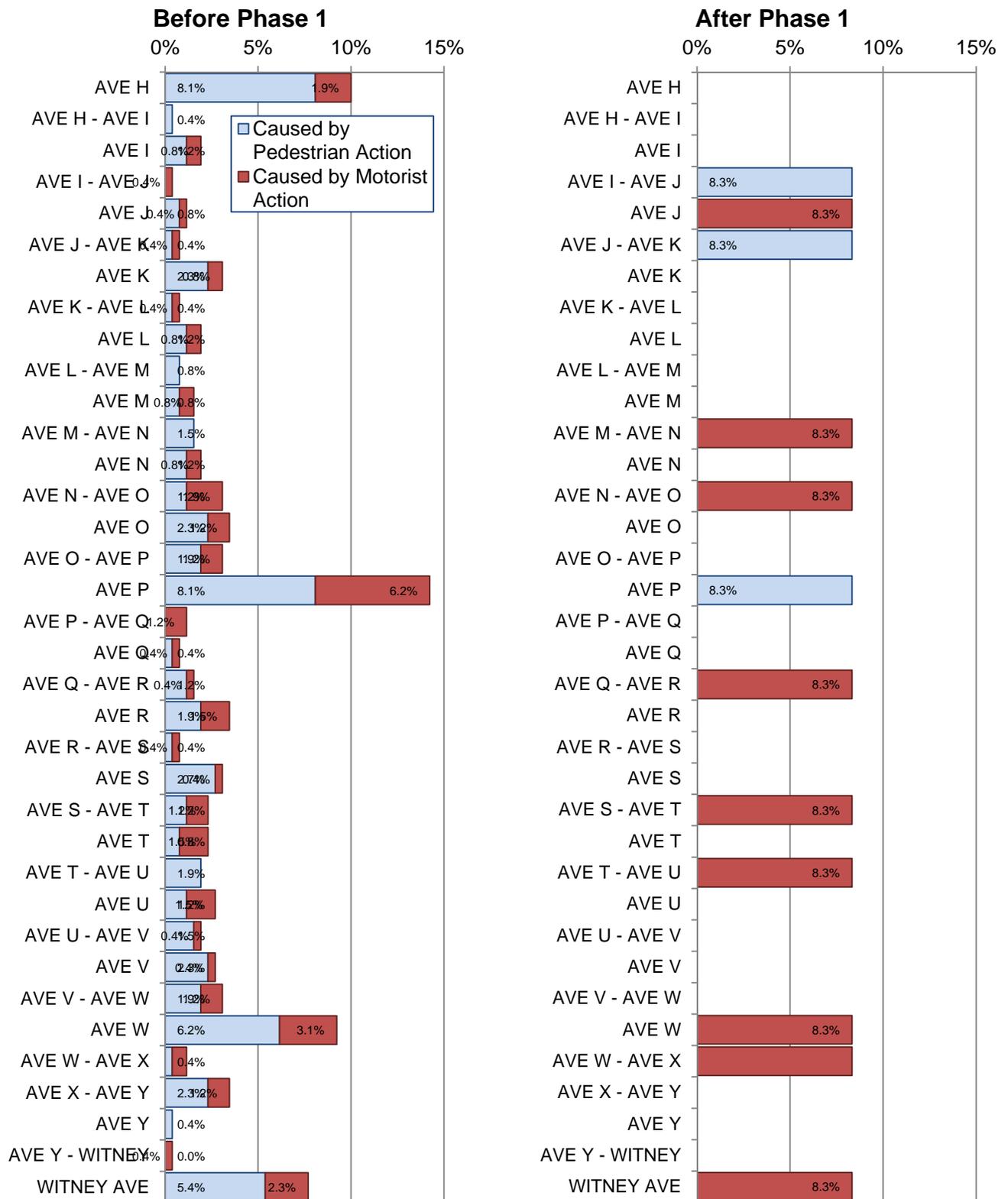


Table 2: Collision Severity

	22nd Street			
	Before Phase 1		After Phase 1	
	Collisions per year	Distribution	Collisions per year	Distribution
Fatal	0.2	1.2%	0.0	0.0%
Personal Injury	14.5	86.4%	9.4	91.7%
Property Damage	2.1	12.3%	0.9	8.3%
Total	16.8		10.3	

	Rest of Saskatoon			
	Before Phase 1		After Phase 1	
	Collisions per year	Distribution	Collisions per year	Distribution
Fatal	1.4	1.3%	0.9	1.0%
Personal Injury	94.6	83.1%	83.1	94.2%
Property Damage	17.8	15.6%	4.3	4.9%
Total	113.8		88.3	

Figure 2: Distribution of Collisions by Location (to December 2013)



The following comments and observations are made regarding the preceding figures, table, and appended information:

Before Phase 1 Implementation (2008 to October 2012)

- 81 collisions total
- Average of 16.8 collisions per year
- 12.7% of Saskatoon's total
- 1 fatality
- 86.4% personal injury collisions compared to 83.1% citywide
- 64% of collisions indicate pedestrian action as the major contributing factor compared to 56% for the rest of Saskatoon

After Phase 1 Implementation: (November 2012 to December 2013)

- 10.4% of Saskatoon's total for a decrease of 2.3% for data to December 2013
- 92% personal injury collisions compared to 94% citywide (increase follows citywide trend) for data ending December 2013
- 33% of collisions indicate a pedestrian action as the major contributing factor compared to 52% for the rest of Saskatoon
- Intersection collisions decreased 34% contrary to citywide trend.
- Non-intersection collisions decreased 15% contrary to citywide trend

SGL provided limited data for 2014 near the very end of this study. The information provided was 2014 collisions on 22nd Street. In consideration of this data the following comments are provided:

- One fatality in 2014
- 17 collisions total for data ending December 2014 (5 collisions occurred in 2014, for a total of 17 collisions between November 2012 and December 2014)
- Average of 7.9 collisions per year for data ending December 2014 (between November 2012 and December 2013)

2.2 Conclusions on Phase 1 Implementation

Phase 1 implementation reduced the overall annual frequency of pedestrian-vehicle collisions by 52% over 26 months. In terms of collision severity, one fatality occurred after implementation when a pedestrian ran onto the roadway and was struck by a truck. The number of pedestrian injuries, however, increased. Although this increase follows the citywide trend, pedestrian countermeasures could reduce the number and seriousness of injuries. Acknowledging that the 26-month post-Phase 1 evaluation period is very short, additional measures could still be helpful. Further investigation into contributing factors will help identify additional actions to improve 22nd Street pedestrian safety.

3 FACTORS CONTRIBUTING TO PEDESTRIAN INJURIES AND FATALITIES

3.1 Consideration of Multiple Variables

A combination of unsafe pedestrian behavior, vehicle and driver factors, problematic physical environments, and other special conditions all contribute to pedestrian-vehicle conditions. Therefore, a table that displays only two or three factors leaves much unsaid (Campbel, Zegeer, Huang, & Cynecki, 2004). For example, a table depicting pedestrian collisions by time of occurrence will show that a certain proportion occurs at night. However, not all of the observed trends shown in such a table would be caused by reduced nighttime visibility. Although reduced visibility at night plays an important role in the likelihood of a collision, the nighttime figures are also influenced by the number of people who are exposed to risk at night as opposed to in the daytime, the ages of the pedestrians, and the role of alcohol. Thus, any table of collision data reflects the influence of variables not shown, as well as the influence of the variables that are depicted. The pedestrian-vehicle collision triangle (Figure 3) illustrates possible contributing factors.

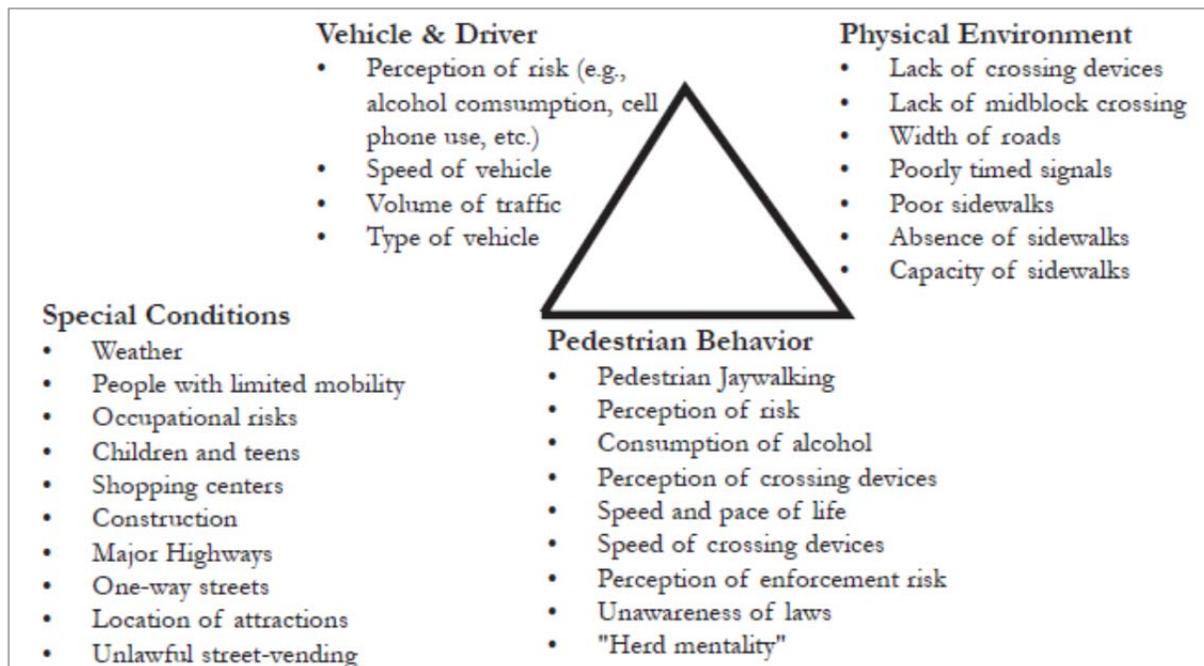


Figure 3: Pedestrian-vehicle collision triangle (Heinonen & Eck, 2007)

3.2 Pedestrian Behaviour

Unsafe pedestrian behavior is a major factor in pedestrian injuries and fatalities. Citywide, pedestrians were at fault in 56% of these incidents between 2008 and 2013.

3.2.1 Pedestrian jaywalking

Jaywalking is a general term for any form of illegal street-crossing by a pedestrian including walking against a pedestrian walk signal, crossing where there is no crosswalk, crossing outside of a marked crosswalk, and walking on a street along with traffic. Bylaw No. 7200, The Traffic Bylaw states in reference to jaywalking that “a pedestrian shall not cross a street within one block from a traffic signal except at a crosswalk” (Part VI, Section 37(1))

Table 3: Pedestrian Action as Major Contributing Factor

	22nd Street			Rest of Saskatoon		
	Before Phase 1	After Phase 1	2008-2013	Before Phase 1	After Phase 1	2008-2013
Intersection With Lane	0	0	0	2	0	2
Intersection With Driveway	0	0	0	19	5	24
Intersection With Street	34	2	36	168	23	191
Non-Intersection	17	2	19	122	25	147
Total	51	4	55	311	53	364
	63%	33%	59%	56%	52%	55%

As shown in Table 3, pedestrian action was the major contributing factor for 63% of pedestrian-vehicle collisions before and 33% after Phase 1 implementation whereas citywide pedestrian at-fault collisions remained between 56% and 52%.

3.2.2 Pedestrian impairment

Consumption of alcohol or drugs (prescribed or illegal) contributes to unsafe pedestrian behaviour. Prior to Phase 1 implementation, 3 collisions involved an impaired pedestrian. For the same period, there were 9 collisions in the rest of the city involving an impaired pedestrian. No collisions reported pedestrian impairment as a major contributing factor post-Phase 1 implementation.

3.2.3 Pedestrian speed versus crossing-device speed

If pedestrians have to wait a relatively long time for a walk signal, they are more likely to cross midblock to avoid delays. At signalized intersections, pedestrians become impatient when they experience delays in excess of 30 seconds per person, and there is a high likelihood of non-compliance with the signal indication. In contrast, if expected

delay is 10 seconds per person or less, compliance is very likely (Transportation Research Board, 2010).

Calculations of pedestrian delay based on the Highway Capacity Manual 2010 methodology for pedestrian level of service for signalized intersections are listed in Table 4 . Throughout the corridor, controlled crossings are near or above 30 seconds per person. Observe that the delay incurred per person is independent of the number of pedestrians crossing and the crossing capacity. The coordination of signals on 22nd Street means that these wait time could be longer depending on upstream and downstream extensions of green time at signals.

Table 4: Wait Times to Cross 22nd Street at Signals

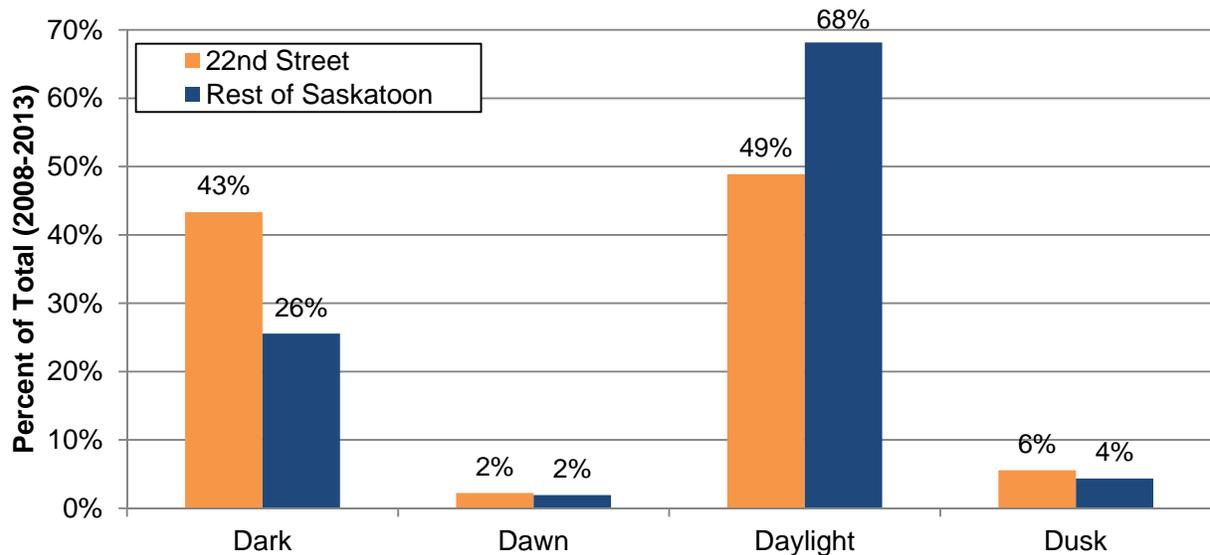
	Pedestrian Delay (seconds/person)			
	Mid-Day	AM	PM	Off Peak
Avenue H	35	35	40	24
Avenue M (PAS)	39	39	49	39
Avenue P	37	37	42	26
Avenue R (PAS)	39	39	49	39
Avenue T (PAS)	42	42	52	27
Avenue W	41	41	50	26
Witney Avenue	32	32	38	26

3.2.4 Pedestrian speed and pace of life

Pedestrian non-compliance with signs and signals is a significant factor in pedestrian-vehicle collisions. For instance, pedestrians move more quickly in big cities when compared with small towns (Walmsley & Lewis, 1989).

The daily pattern of pedestrian activity on 22nd Street differs from the rest of Saskatoon as supported by the time of day of pedestrian-involved collisions. On 22nd Street, 51% of all collisions occurred during non-daylight conditions compared to 32% for the rest of Saskatoon (Figure 4).

Figure 4: Distribution of Natural Light Conditions



Similarly, Figure 5 illustrates that 37% of collisions on 22nd Street occurred between 7:00pm and 3:00pm compared to 23% for the rest of the city.

Figure 6 shows that collisions for the rest of the city follow the same distribution as traffic; Collision frequency by time of day follows vehicle exposure. Higher collision frequencies are a result of higher exposures, both in traffic and pedestrian activity. For 22nd Street, conversely, collision frequency increases during the time of day when traffic volumes decrease.

Figure 5: Distribution of Collisions by Time of Occurrence

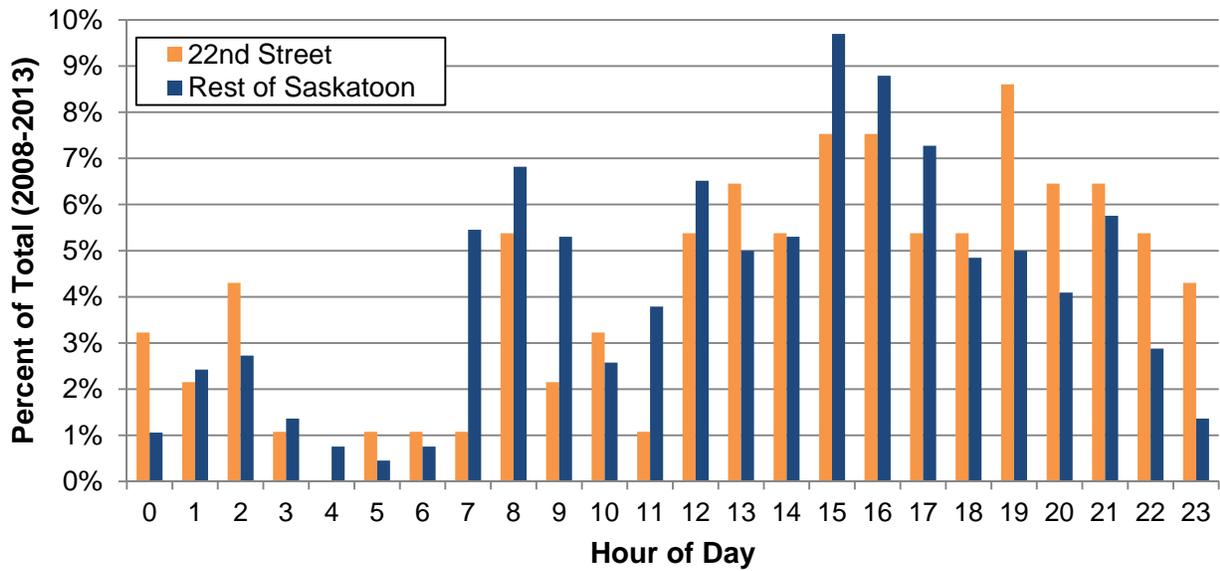
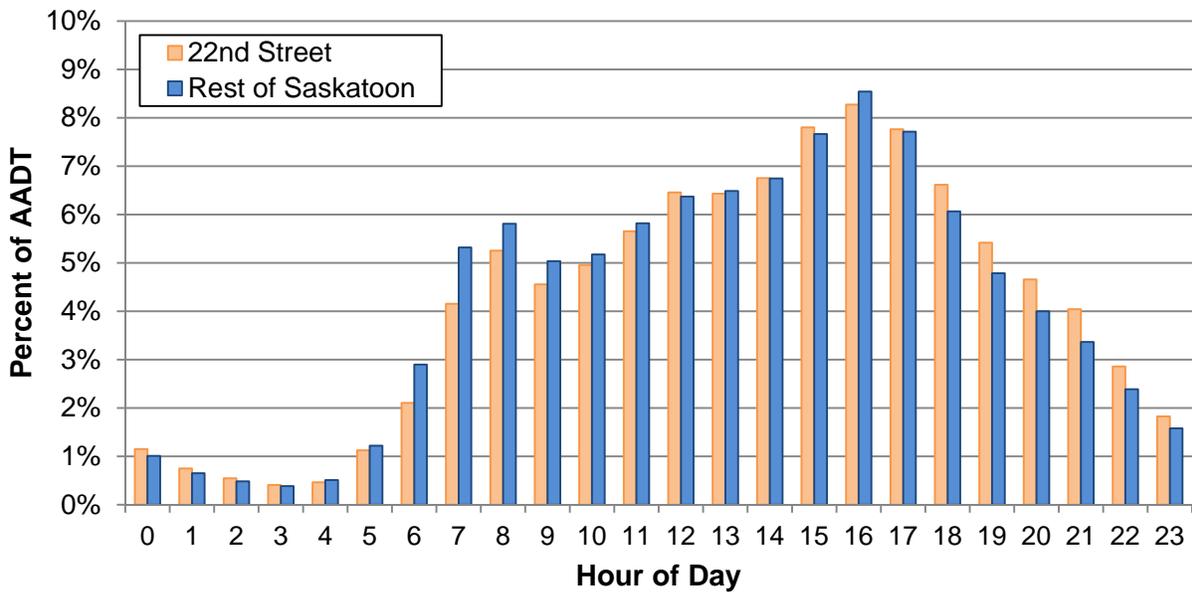


Figure 6: Distribution of Traffic Volumes by Hour of Day (2014)



3.3 Vehicle and Driver Behaviour

Vehicles and their drivers' behavior are the second major group of factors that could contribute to pedestrian-vehicle collisions that result in injuries and fatalities.

3.3.1 Speed of vehicles

Speeding is a major contributor to vehicle-vehicle collisions. First, speed increases the chances of a collision. Simply, faster vehicle speeds make it more difficult for drivers to see pedestrians, and at the same time, high speeds reduce the amount of time the driver and pedestrian have to avoid a collision. Second, given a collision, the faster the vehicle the more severe the injury to the pedestrian.

A week long speed study conducted in May 2015 determined that the 85th percentile speed is 60kph where 50kph is the posted speed.

Enforcement statistics including Traffic Act violations in this corridor were unavailable.

3.3.2 Volume of traffic

The greater the pedestrian and vehicle traffic, the greater the chances that pedestrians and vehicles will encounter each other on the street. Volumes range between 35,000 to 40,000 vehicles per day based on 2014 data.

3.4 Perception and Awareness

3.4.1 Perceptions of risk

Often, pedestrians have perceptions of low risk when they frequently travel familiar routes. Distracted pedestrians are also at higher risk. Drivers can also be unaware of their own risk of hitting a pedestrian. Furthermore, some of the factors that affect pedestrian perceptions of risk can also influence driver perceptions of risk. For instance, alcohol, familiarity with travel routes, and cell phone use might reduce a driver's ability to recognize the risk of hitting a pedestrian.

The installation of "High Pedestrian Collision Location" signs aimed to help in this regard.

3.4.2 Pedestrian perceptions of enforcement risk

Some pedestrians may conform to walking regulations because of personal preference or habit, while other pedestrians calculate the risk of getting caught by police against the benefits of jaywalking.

Enforcement statistics including Bylaw 7200, The Traffic Bylaw citations in this corridor were unavailable.

3.4.3 Pedestrian perceptions of crossing devices

Some pedestrians might not understand or be aware of signs that convey safe walking procedures. “High Pedestrian Collision Area: Cross at Ave P or Ave M” signs may confuse pedestrians since they are posted at legal crossings at the offset intersections at Avenue O that are, technically, legal crossings.

Figure 7: View from the West of Avenue O intersection



3.4.4 Unawareness of pedestrian laws and safety

Another problem related to pedestrian laws is the possibility that pedestrians might be unaware of or misunderstand pedestrian laws that designate where and when they have the right of way. Also, it is possible that some drivers are unaware of their rights and duties or pedestrians’ rights and duties. Pertinent excerpts of the Provincial Traffic Act related to pedestrian crossing and crosswalks are detailed in APPENDIX C.

3.5 Physical Environment

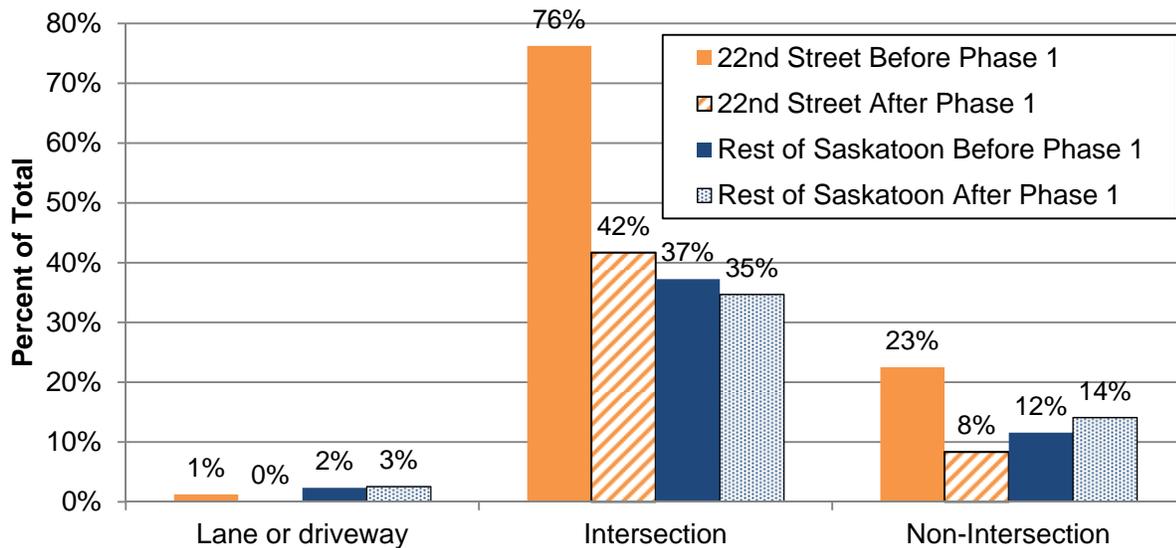
The physical layout of the right-of-way and crossing devices might encourage some pedestrians to cross or enter roads in unsafe situations. The following environmental features could encourage risky pedestrian behavior.

3.5.1 Absence of midblock crosswalks

Pedestrians might avoid inconvenient intersection crossings because they delay the pace of travel. Midblock crossings, non-intersection and lane or driveway locations,

hosted 43 percent of all fatal or injury collisions in Saskatoon between 2008 and 2013. During that same period, mid-block crossing collisions resulted in 18% of all injuries on 22nd Street. On 22nd Street, non-intersection collisions occur with less frequency than at intersections, perhaps due to intersection spacing of 100 metres or less.

Figure 8: Distribution of Collisions by Location



3.5.2 Width of roads

Pedestrians are far less likely to jaywalk when crossing distance increases (Transportation Research Board, 2010). This finding suggests that narrower roads could encourage unsafe pedestrian behavior. On the other hand, wider roads promote higher vehicle speeds, resulting in a possible trade-off with regard to pedestrian safety. Three lanes of traffic in each direction pose crossing challenges as 22nd Street is among the widest and busiest arterial roadways in Saskatoon.

Pedestrians use their judgement to determine whether the available headway between conflicting vehicles is long enough for safe crossing. If the available headway is greater than the critical headway, it is assumed the pedestrian will cross. Contrariwise, if the available headway is less than the critical headway, it is assumed the pedestrian will not cross. With three lanes to cross, pedestrians require longer acceptable headways.

Based on the Highway Capacity Manual 2010 methodology for two-way stop-controlled intersections, the probability of delay and average pedestrian delay is determined. Allowing for a two-stage crossing and a 1.2m/s pedestrian walking speed, 1,500 vehicles per hour in one direction during peak hours, the average wait of an adequate gap is 4.9 minutes.

It is possible for pedestrians to incur less actual delay because of yielding vehicles. This likelihood is a function of vehicle volumes, motorist yield rates, and number of through lanes, all of which are not favourable to pedestrians crossing 22nd Street.

3.5.3 Poor timing of crossing signals

Fast crossing signals can also create problems in some circumstances. For instance, wide roads (or widening roads as a strategy) could have the unintended consequence of putting specific pedestrian groups at higher risk when signals do not allow enough time for these groups to cross safely.

Throughout the corridor, walk times range from 5 to 7 seconds while pedestrian clearance times range from 16 to 20 seconds. This timing is acceptable because to cross the entire width of 22nd Street, approximately 25 metres, takes the average person between 21 and 25 seconds based on walking speeds of 1.2 and 1.0 metres/second respectively.

3.5.4 Poor conditions of sidewalks

Poor sidewalk conditions might influence pedestrians to overlook safety and seek better walking conditions along the street. Poor sidewalk conditions, including the absence of curb cuts, also places people with movement-related limitations in a dilemma; the street is risky, but the sidewalk is impassible.

Between 2008 and 2013, three reported collisions were where a person in a battery or muscle powered wheelchair was on the driving surface. None of these collisions occurred on 22nd Street, nor does 22nd Street have any sidewalks rated as candidates for the sidewalk replacement program as of May 2015.

3.6 Major Contributing Factors and Existing Conditions

Pedestrian-vehicle collisions occur when physical environments allow pedestrians to come into contact with moving vehicles. If this occurs repeatedly, then a pedestrian-vehicle collision problem exists. Referring to *Figure 3: Pedestrian-vehicle collision triangle*, most problems will be the result of failures on all three sides of the triangle: pedestrians who are inattentive or incapable of using the street safely; drivers who operate in ways that make it difficult for them to detect pedestrians in the road; and physical environments that encourage unsafe pedestrian and/or driver behavior. The relative importance of each side of the triangle will vary from problem to problem. Fixing any one side may reduce the problems, in principle. Fixing more than one side should give greater assurance that the response to the problem will work.

Table 5 summarizes the major contributing factors and existing conditions.

Table 5: Major Contributing Factors and Existing Conditions

Major Contributing Factors	Metric	Before Phase 1	After Phase 1 (current conditions)	Caveats	Conclusion
Pedestrian Behaviour					
Pedestrian jaywalking	Pedestrian at-fault collisions (% of total on 22nd St)	63%	33%	After sample too small	Requires consideration
Pedestrian impairment	Collisions involving impairment (total in Saskatoon)	33%	0%	After sample too small	Requires consideration
Pedestrian speed versus crossing-device speed	Signals with acceptable pedestrian delay (% with less than 30 s delay)	n/a	0%		Improvement possible
Pedestrian speed and pace of life	Majority of collisions during non-peak times?	yes	yes		Requires consideration
Vehicle and Driver Behaviour					
Speed of vehicles	Running speed too high?	n/a	yes		Improvement possible
Volume of traffic	vehicles per day	40,000 to 45,000	35,000 to 40,000	typical volume for major arterial street	Acceptable, still requires consideration
Perception and Awareness					
Perceptions of risk				Cannot be measured	Improvement possible
Pedestrian perceptions of enforcement risk	Enforcement adequate?	n/a	n/a		Improvement possible
Pedestrian perceptions of crossing devices				Cannot be measured	Improvement possible
Unawareness of pedestrian laws and safety				Cannot be measured	Improvement possible
Physical Environment					
Absence of midblock crosswalks	Non-intersection collisions (% of total on 22nd St)	23%	8%	After sample too small	Acceptable, still requires consideration
Width of roads	Acceptable average pedestrian delay during peak?	n/a	No, 4.9 minute average wait		Improvement possible
Poor timing of crossing signals	Signals with acceptable pedestrian crossing times (% of total)	n/a	100%		Acceptable
Poor conditions of sidewalks	Sidewalk/ramps requiring retrofit	n/a	None		Acceptable

4 POTENTIAL MEASURES

4.1 Crosswalk Visibility

4.1.1 Mark unsignalized crosswalks

Crosswalk treatments vary with different combinations of pavement markings, signage and illumination. Standard crosswalk (parallel white lines with side-mounted signs and optional warning signs), zebra crosswalks (standard crosswalk with the addition of zebra pavement markings) or pedestrian corridors (overhead illuminated sign with down-shining luminaires) (Transportation Branch, 2004).

Marked crosswalks should be accompanied by other treatments, such as traffic-calming treatments, pedestrian actuated signals where warranted, or other substantial crossing improvements (University of North Carolina Highway Safety Research Center, 2005). As well, TAC does not recommend marked crosswalks with side- or overhead- mounted signs for multi-lane roads with Average Daily Traffic greater than 9,000 vehicles per day (National Committee on Uniform Traffic Control, 2012). Instead, TAC recommends marked crosswalks be accompanied by overhead flashing beacons (active pedestrian corridor) or signals (full or pedestrian actuated).

Marked crosswalks alone are insufficient because pedestrian crash risk may be increased by creating a false perception of safety. A marked crosswalk emboldens pedestrians as the expectation increases that motorists will stop for pedestrians. However, motorists who stop for pedestrians crossing multi-lane streets may block the view of drivers in other lanes who; therefore, are not able to see that a pedestrian is crossing. It also results in approaching vehicles switching lanes and manoeuvring around a vehicle that has stopped or is decelerating for a pedestrian, increasing the potential for a collision with the pedestrian. As a result, motorists have shown a reluctance to stop for pedestrians crossing multi-lane streets.

Pedestrian warning signs should only be used at locations that are unusually hazardous, where crossing activity is unexpected, or at locations where a pedestrian crossing is not readily apparent. However, signalized intersections could be enhanced with median placement of pedestrian crossing signs.

Recommendations:

- Crosswalks at unsignalized intersections remain unmarked.

4.1.2 Improve Overhead Lighting

On 22nd Street, overhead lighting is provided by lights on the median. This placement limits the best possible illumination of sidewalks and legal crossings. Add that pedestrian activity increases during non-daylight conditions, improvement of sidewalk lighting could decrease collision risk.

The proper placement of lighting and its uniformity can help reduce the road safety risks as well as increase comfort and security at a crosswalk. Pedestrians often assume that drivers can see them at night and may be deceived by their own ability to see the oncoming headlights. Without sufficient overhead lighting (both in the crosswalk and at refuge areas), motorists may not be able to see pedestrians in time to stop. Pedestrian crossing areas may be supplemented with brighter or additional lighting. Best practices prefer lighting on both sides of wide streets and streets in commercial districts.

Figure 9: View on 22nd Street from the West (at Avenue S)



Typically, streetlight policy is to light roadways and not sidewalks although more municipalities have amended their policies to allow for pedestrian lighting, either as street lighting on the curbside or as standalone fixtures. In particular, the cities of Burlington, Edmonton, Hamilton, Ottawa, and Sudbury have realigned their policies using American National Standard Practice for Roadway Lighting (RP-8) or TAC's Guide for the Design of Roadway Lighting (recommends identical minimum lighting levels as those in RP-8) (City of Greater Sudbury, 2014). RP-8 has been developed by the Illuminating Engineering Society of North America (IESNA). The primary purpose of the guideline is to serve as the basis for design of fixed lighting for roadways, adjacent bikeways, and pedestrian ways.

Benefits:

- Enhances safety of all roadway users, particularly pedestrians
- Enhances commercial district areas
- Improves nighttime security

Recommendations:

- Assess possibility of pedestrian lighting improvements at unsignalized intersections using a spot street light warrant.
- Conduct a Crime Prevention Through Environmental Design (CPTED) review of the corridor.

4.1.3 Improve crosswalk signage

Signs provide vital information to the users of the street so that appropriate decisions are made at the correct time. Signs provide directional assistance, travel information, warnings or regulatory guidance. Compliance with standardized signing practices helps ensure that driver and pedestrian expectations are met and encourages better compliance and behaviour. The use of too many signs creates visual clutter and could promote non-compliance. Sign maintenance is also an important part of providing information to the users of the road.

Supplementary signage at crosswalks for both drivers and pedestrians has shown to offer a safety benefit. Supplementary signage should be concise, have a consistent message and be posted in the same location at all crosswalks. Additionally, signage should not obstruct pedestrians from the view of motorists. Yet, as discussed previously, signs alone should not delineate crosswalks when warrants indicate that signals or corridors are required on busy multi-lane roadways.

Benefits:

- Provides timely information to road users approaching and at a crosswalk

Recommendations:

- Pedestrian oriented signs at signals could be improved with “Cross on Walk Only” signs.

4.2 Traffic Signals

4.2.1 Additional crossing control devices

TAC recommends overhead flashing beacons systems (active pedestrian corridors) but adds that the devices can negatively affect traffic operations when traffic volumes are higher than 12,000 vehicles per day (National Committee on Uniform Traffic Control,

2012). Traffic signals, full or pedestrian actuated, are recommended depending on warrant calculations. Research concludes that devices with a red signal indication show promise as a pedestrian crossing treatment for high-volume, high-speed arterials but this needs further investigation (Fitzpatrick, et al., 2006).

There are no minimum spacing requirements for pedestrian actuated signals because pedestrian desire lines and volumes should dictate. Since intersections on 22nd Street are spaced at approximately 100 metres apart, it is reasonable to not have new pedestrian-actuated signals within one block of another signal unless there is a high crossing demand from at-risk groups (i.e. people with limited mobility, children and teens).

Candidate locations are Avenue I, Avenue K, Avenue U and Avenue V based on spacing between signalized intersections. Devices at these locations are not warranted when evaluated.

Benefits:

- Provides intervals in traffic at an unsignalized intersection so pedestrians can cross the street.

Recommendation:

- No additional traffic signals.

4.2.2 Modify signal timing

Pedestrians are more sensitive to delay than drivers. As shown earlier, the pedestrian delay at signalized intersections on 22nd Street is too high. Decreasing cycle lengths is one way to improve pedestrian delay, although the impact will be borne by motorists. For that reason, fixed time traffic signals are better at consistently allow crossing opportunities.

Furthermore, traffic signal synchronization can be optimized for lower traffic speeds whereas signal progression can be set so that vehicles that maintain legal speeds and avoid stopping. Alternatively, eliminating progression altogether could reduce pedestrian waiting times at unsignalized intersections.

Benefits:

- Reduces vehicle speeds
- Reduces pedestrian wait times at signals
- Reduces pedestrian delay at unsignalized intersections

Recommendations:

- Investigate synchronization changes to reduce vehicle progression speeds.
- Modify signal timing throughout the corridor to reduce pedestrian delays.

4.2.3 Implement automatic detection technology

At locations with demand-actuated walking phases, research findings also tell us that automatic detection technology is preferred to that of push-button actuation as nearly 50% of pedestrians do not activate a push-button (PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System, 2004). When a pedestrian waiting to cross the roadway has been detected, the “Walk” signal will be activated. In addition, automatic detectors can be programmed to extend the crossing time for slower pedestrians such as the elderly or special needs users.

Automatic detection systems are not widely used and there may be compatibility issues with coordinated signal systems. Given that this is a new technology, their reliability under various environmental conditions is not well documented.

Benefits:

- Improves pedestrian compliance at a signalized crosswalk
- Increases walking times for slow moving pedestrians

Recommendation:

- Investigate the feasibility of testing automatic detection technology within the study corridor.

4.3 Geometric Modifications

4.3.1 Reduce lane widths

Implementation of reduced travel lane widths is intended to maintain the same number of travel lanes for vehicles. However, the effective travel lane width is reduced and will help reduce vehicle operating speeds. Reducing lane widths can be achieved through a perceived narrowing such as reconfiguring the lane markings (i.e. reduce lane width from 3.6 to 3.4 metres), adding bicycle lanes in the curb lane, adding on-street parking, or through a physical narrowing such as relocating curb and gutter towards the centre of the roadway.

Roadway narrowing may reduce traffic volumes as they divert to other parallel roadways. A thorough traffic circulation evaluation should be carried out prior to implementation. Bicycle lanes or wide curb lanes are encouraged if vehicle volumes and speeds are high.

Benefits:

- Reduces vehicle speeds
- Redistribute space to other users of the road

Recommendation:

- Investigate the feasibility of changing the road cross-section once the Growth Plan and Active Transportation Master Plan projects are complete.

4.3.2 Reduce number of lanes

22nd Street is difficult to cross due to the number of lanes— creating a wide crossing. Reducing the number of vehicle travel lanes on a multi-lane roadway can reduce the pedestrian exposure to vehicles. Street narrowing is applied by implementing a “Road Diet”. A Road Diet involves “converting an existing four-lane undivided roadway segment to a three-lane segment consisting of two through lanes and a center two-way left-turn lane (TWLTL). The reduction of lanes allows the roadway cross section to be reallocated for other uses such as bike lanes, pedestrian refuge islands, transit stops, or parking (Leidos, 2014).

The Road Diet principle can be applied to 22nd Street with the removal of the centre median to allow for two through in each direction plus a centre TWLTL. It may be possible to add on-street parking while allowing for bicycle lanes on both sides of the street—instead of providing a centre turn lane. Consideration could be given to designs that incorporate raised medians and left-turn bays, however, winter maintenance issues must be considered.

A 24-hour study of motor vehicles on 22nd Street near Avenue S shows that throughout the day lane utilization is relatively constant in both directions. 22% of vehicles use the curb lane, 43% the centre lane, and 35% the median lane. Moreover, 22nd Street is operating well below segment capacity.

Subsequently, 22nd Street has been identified as a high priority transit corridor with the potential of accommodating a Bus Rapid Transit line. With that knowledge, the opportunity exists to incorporate initial pedestrian improvements along with temporary transit and bicycle facilities ahead of BRT implementation.

Benefits:

- Reduces pedestrian exposure to vehicles
- Improves neighbourhood aesthetics

Recommendation:

- Investigate the feasibility of changing the road cross-section once the Growth Plan and Active Transportation Master Plan projects are complete.

4.4 Education

Education is a valuable component to improving perceptions and awareness of risk related to pedestrian travel.

Recommendation:

- Enhance signage for motorists about high pedestrian activity.
- Improve no crossing/ high collision signs (larger, more visible, different message).

4.4.1 Use speed monitoring radar signs

A speed monitoring radar sign is basically a sign board that can either be mounted on a trailer or the ground and displays the speed of a passing vehicle. They can be used by police departments for enforcement purposes. Speed monitoring radar signs can also be used in conjunction with neighbourhood speed awareness and education programs. Speed trailers are a temporary or periodic treatment to supplement broader education awareness. However, there may be an issue with using a speed monitoring radar sign on a street with 6 lanes.

Occasional police enforcement is needed to supplement the speed monitoring radar sign. Their placement should not block sightlines between pedestrians, drivers and other signage or traffic control devices.

Benefits:

- Enhances enforcement efforts and helps reduce vehicle speed on the approach to a crosswalk

Recommendation:

- Investigate further the feasibility of installing speed display boards. If feasible, install at one or two locations within the corridor.

4.5 Enforcement

Police enforcement is a key component in preserving right-of-way compliance for all modes of travel and helps to decrease safety risks for pedestrians. There is a number of actions road agencies can take to implement enforcement campaigns designed to protect pedestrians. In addition, mass media campaigns can be used to make the public aware of upcoming enforcement operations and help establish better driving behaviour. Enforcement operations should begin with warnings prior to issuing citations for violations.

Benefits:

- Increases driver-awareness of the need to share the roadway
- Reduces pedestrian-related collisions

Recommendation:

- Increase enforcement of jaywalking and speeding by Saskatoon Police Service

4.6 Restrict Pedestrian Crossings

Prohibiting pedestrians from using a particular crossing will reduce or eliminate conflicts between vehicles and pedestrians. However, it is difficult to discourage pedestrians from using a crossing at an intersection as pedestrians will tend to cross a roadway at a point that is most convenient for them. Typically, prohibiting pedestrian crossings only occur at intersections with very long crossing distances or high volumes of turning traffic (such as a double left turn situation).

In addition to signs, physical barriers can be used to reinforce the message that pedestrian crossings are prohibited. The decision to prohibit pedestrian crossings should only be made after evaluating the impacts to neighbourhood walking routes. This particular safety countermeasure should only be considered where the risks to pedestrians are increased and other mitigating measures have already been considered. Finally, median barriers may not deter impaired pedestrians from entering the street.

Benefit:

- Restricts pedestrians from using a high risk crossing

Recommendations:

- Conduct walking time analysis to determine walking time increases should crossing be restricted. Assess location of additional signalized crossings whether warranted or not.
- Evaluate most effective median landscape treatment to eliminate curb cuts on the median should crossings be restricted.

5 RECOMMENDATIONS

Table 6 summarizes additional measures to improve pedestrian safety on 22nd Street. A detailed implementation plan will consider available budget and coordination with other civic departments.

Table 6: Summary of Recommendations

Measure	Benefits	Recommendations
Crosswalk Visibility		
Mark unsignalized crosswalks		<ul style="list-style-type: none"> • Crosswalks at unsignalized intersections remain unmarked.
Improve Overhead Lighting	<ul style="list-style-type: none"> • Enhances safety of all roadway users, particularly pedestrians • Enhances commercial district areas • Improves nighttime security 	<ul style="list-style-type: none"> • Assess possibility of pedestrian lighting improvements at unsignalized intersections using a spot street light warrant. • Conduct a Crime Prevention Through Environmental Design (CPTED) review of the corridor.
Improve crosswalk signage	<ul style="list-style-type: none"> • Provides timely information to road users approaching and at a crosswalk 	<ul style="list-style-type: none"> • Pedestrian oriented signs at signals could be improved with “Cross on Walk Only” signs.
Traffic Signals		
Additional Crossing Control Devices	<ul style="list-style-type: none"> • Provides intervals in traffic at an unsignalized intersection so pedestrians can cross the street. 	<ul style="list-style-type: none"> • Additional pedestrian actuated signals are not warranted.
Modify signal timing	<ul style="list-style-type: none"> • Reduces vehicle speeds • Reduces pedestrian wait times at signals. • Reduces pedestrian delay at unsignalized intersections. 	<ul style="list-style-type: none"> • Investigate synchronization changes to reduce vehicle progression speeds. • Modify signal timing throughout the corridor to reduce pedestrian delays.
Implement automatic detection technology	<ul style="list-style-type: none"> • Improves pedestrian compliance at a signalized crosswalk • Increases walking times for slow moving pedestrians 	<ul style="list-style-type: none"> • Investigate the feasibility of testing automatic detection technology within the study corridor.

Geometric Modifications	
Reduce lane widths	<ul style="list-style-type: none"> Reduces vehicle speeds Redistributes space to other users of the road
Reduce number of lanes	<ul style="list-style-type: none"> Reduces pedestrian exposure to vehicles Improves neighbourhood aesthetics
Education	
Motorist and pedestrian education	<ul style="list-style-type: none"> Improves perceptions and awareness of risk to drivers and pedestrians.
Use speed monitoring radar signs	<ul style="list-style-type: none"> Enhances enforcement efforts and helps reduce vehicle speed on the approach to a crosswalk
Enforcement	
	<ul style="list-style-type: none"> Increases driver-awareness of the need to share the roadway Reduces pedestrian-related collisions
Restrict Pedestrian Crossings	
	<ul style="list-style-type: none"> Restricts pedestrians from using a high risk crossing
	<ul style="list-style-type: none"> Investigate the feasibility of changing the road cross-section once the Growth Plan and Active Transportation Master Plan projects are complete.
	<ul style="list-style-type: none"> Enhance signage for motorists about high pedestrian activity. Improve no crossing/ high collision signs (larger, more visible, different message). Investigate further the feasibility of installing speed display boards. If feasible, install at one or two locations within the corridor.
	<ul style="list-style-type: none"> Increase enforcement of jaywalking and speeding by Saskatoon Police Service.
	<ul style="list-style-type: none"> Conduct walking time analysis to determine walking time increases should crossing be restricted in the future. Assess location of additional signalized crossings whether warranted or not. Evaluate most effective median landscape treatment to eliminate curb cuts on the median should crossings be restricted in the future.

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APPENDIX A: 2011 COUNCIL REPORT

TO: Secretary, Planning and Operations Committee
FROM: General Manager, Infrastructure Services Department
DATE: July 23, 2011
SUBJECT: Enquiry – Councillor P. Lorje (November 21, 2010)
Pedestrian/Vehicle Issues – 22nd Street Corridor
AND
Westmount Local Area Plan
AND
Unpredictable Pedestrian Crossings
FILE NO: CK. 6150-1

RECOMMENDATIONS: that the following report be submitted to City Council, at its meeting to be held on August 17, 2011, recommending:

- 1) that a post budget increase in the amount of \$120,000 be approved for Capital Project 0631 – Traffic Safety Improvements, for the installation of two pedestrian actuated signals along 22nd Street West, at the intersections of Avenue M and Avenue R;
- 2) that the post budget increase in the amount of \$120,000 be funded from the 2012 allocation to the Traffic Safety Reserve;
- 3) that a copy of this report be forwarded to the Board of Police Commissioners and the Traffic Safety Committee for its information; and
- 4) that the Administration report back within one year on the effectiveness of the additional pedestrian actuated signals and overall safety on 22nd Street.

BACKGROUND

The following enquiry was made by Councillor P. Lorje at the meeting of City Council held on November 21, 2010:

“Will the Administration please review the pedestrian/vehicle issues along the 22nd Street corridor and report as soon as possible on any practical solutions to improve safety along the roadway, particularly from Avenue H through to Avenue W.”

City Council, at its meeting held on June 27, 2011, approved the Westmount Local Area Plan (LAP) Final Report, which included the following recommendation:

“That the Infrastructure Services Department, Transportation Branch, conduct a pedestrian count on 22nd Street West between Avenue H North and Witney Avenue, and

determine appropriate measures to enhance pedestrian crossings at non-controlled intersections with the goal to improve pedestrian safety.”

At its meeting held on July 12, 2011, the Planning and Operations Committee received a memo from the Traffic Safety Committee (Attachment 1) forwarding comments and a recommendation for a barrier along 22nd Street West. The Committee resolved that the information be received and forwarded to the Administration for inclusion in its report to City Council dealing with the outstanding enquiry from Councillor Lorje on pedestrian/vehicle issues on 22nd Street.

Also attached is a copy of correspondence from Tracy Ridalls, on behalf of Smart Cities Healthy Kids (Attachment 2), outlining the results of a study comparing pedestrian crossings along 22nd Street West, 8th Street East, and 20th Street West, and indicating their opposition to a barrier being placed along 22nd Street West.

REPORT

Twenty-Second Street West, from Avenue H to Witney Avenue, is a two-kilometre section of roadway classified as a major arterial street. Major arterial streets are designed to carry up to 50,000 vehicles per day, and typically form neighbourhood boundaries.

Twenty-Second Street West is comprised of three lanes in both the eastbound and westbound directions, and carries between 40,000 and 45,000 vehicles per day. Land use throughout this section of 22nd Street West is mixed, with approximately 75% comprised of commercial properties (zoned B3 and B4); while the remaining 25% is comprised of high-density dwelling units (zoned RM3 and RM4).

By definition, under *The Traffic Safety Act*, legal crosswalks exist at each intersection of two streets. This includes three-legged intersections (i.e. “T-Intersections”) and off-set intersections. In total, 19 legal crosswalks exist along 22nd Street, from Avenue H to Witney Avenue, five of which have pedestrian-activated signals (Avenue H, Avenue P, Avenue T, Avenue W and Witney Avenue). The remaining 14 legal crossings do not have pavement markings; however curb cuts exist in the centre median to allow for stroller and wheelchair accessibility.

Yellow diamond advance warning signs indicating, “Pedestrian Crossing Ahead”, are usually placed approximately 50 metres in advance of a marked crosswalk, generally in a location where pedestrians wouldn’t normally cross, such as around a curve, or on a major arterial road. On 22nd Street, these warning signs have been placed for both marked and unmarked crosswalks, sometimes closer than 50 metres apart, due to the number of legal crossings that exist. (It had been previously noted that the visibility of some warning signs was limited due to shrubbery. These signs have recently been relocated.) Sometimes, both motorists and pedestrians mistakenly believe that these warning signs are actually marking where the legal crossing location is, creating a false sense of security for pedestrians.

From June 10 to 17, 2011, three pedestrian-vehicle collisions occurred on 22nd Street West, one of which resulted in a fatality. A review of the most recently available five-year collision history (2006 to 2010), obtained from Saskatchewan Government Insurance (SGI), indicated that there

were 63 reported pedestrian-vehicle collisions along 22nd Street West from Avenue H to Witney Avenue during that time period. Most resulted in personal injury, none were fatal. A significant percentage of the reported collisions (71%) indicate pedestrian action as the major contributing factor, which included pedestrian impairment; running into the roadway; and/or crossing without the right-of-way, either between intersections or against a red light. Detailed pedestrian-vehicle collision history for 22nd Street West is included in Attachment 3.

A comparison of the number and spacing of protected crossings on 22nd Street West versus other streets in the city does not necessarily yield directly comparable figures. For example, the two-kilometre section of 8th Street, from Cumberland Avenue to Circle Drive, has nine signals, but the adjacent land use is completely zoned commercial district (B4) and there are no residential frontages along the street. Similarly, sections of 20th Street West, a minor arterial with several pedestrian-actuated crossings, are mostly zoned as commercial, service, or industrial district. Commercial business areas typically exhibit higher traffic/pedestrian volumes and multiple vehicle turning movements, resulting in a higher risk for pedestrian-vehicle conflict points, thus necessitating the need for additional pedestrian-actuated crossings and traffic signals.

A collision history comparison of 22nd Street West to an analogous section of 8th Street East between Broadway Avenue and Sommerfield Avenue (a major arterial roadway exhibiting a similar geometric cross-section and adjacent land use), indicates that there were 12 reported pedestrian-vehicle collisions in the same time period, between 2006 and 2010, none of which were fatal. This is significantly less than the 63 collisions along 22nd Street West. Only two of the reported collisions were due to pedestrian action. A detailed pedestrian-vehicle collision history for 8th Street East is shown in Attachment 2.

Fewer pedestrian related collisions occurred on this section of 8th Street despite the fact that it has fewer marked crosswalks (four are signalized and the remaining crosswalks are unmarked) than 22nd Street West. This suggests that the number of pedestrian-vehicle collisions cannot be solely attributed to the number of pedestrian-actuated crossings available.

Pedestrian counts were conducted at various locations along 22nd Street West, between Avenue H and Witney Avenue, between the summer of 2010 and the summer of 2011. Counts were conducted during pedestrian peak hours (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.).

Pedestrian volumes at each intersection varied from 50 to 215 pedestrians per day, during the peak hours. Of the total number of those crossing 22nd Street West, the following observations were made:

- Approximately 10% were children; 30% were teenagers, 60% were adults;
 - 11% were on bikes.
 - 15% of the pedestrians/cyclists crossed between legal crosswalks, i.e. "jaywalking";
 - Of those jaywalking, 44% did so within one block of a traffic signal;
 - Of those jaywalking, 11% were children, 13% were teenagers, 76% were adults.

An analysis was completed to determine if additional pedestrian activated signalized crosswalks were warranted along 22nd Street West. The signal warrant is a tool that is used to compare crossing locations relative to other similar locations. It assigns points for a variety of conditions that exist at a crossing location, including the number of traffic lanes to be crossed, the presence of a physical median, the posted speed limit, the distance to the nearest protected crosswalk point, and the number of pedestrians and vehicles. The minimum requirement for the installation of a pedestrian actuated traffic signal is 100 points or greater. In addition to the warrant, engineering judgement is used to evaluate the appropriateness of any traffic control measure, given adjacent land uses and other location specific conditions.

Based on the conditions outlined above, the pedestrian studies yielded warrant values ranging from 79 to 122 points.

The Administration will be implementing a three-phase, progressively restrictive program, as outlined below, in order to increase pedestrian and motorist safety along 22nd Street West and will work closely with the Saskatoon Police Services (SPS) to determine the effectiveness of each phase implemented. Should SPS continue to observe non-compliance of the Traffic Bylaw (i.e. continued jaywalking and speeding) despite increased enforcement, then the next phase of the program will be implemented. If it is found that the measures implemented sufficiently increase safety, then subsequent phases will not be implemented.

Phase 1

In Phase 1, two pedestrian activated signals will be installed along 22nd Street West, at the intersections of Avenue M and Avenue R, at the earliest possible date, upon post-budget approval. These locations were selected due to the results of the pedestrian studies and the lack of pedestrian-actuated crossings between Avenue H and Avenue P. The yellow pedestrian warning signs will also be removed to eliminate pedestrian and motorists confusion.

An education program to increase awareness will be created and implemented by the Administration. Creation and implementation of the education program will be done in consultation with the appropriate community consultants and SPS. SPS will also be requested to implement the use of portable speed trailers and increase the level of enforcement for jaywalking and speeding along 22nd Street West.

Crossing between pedestrian-activated signals is not recommended nor encouraged. However, in order to facilitate access to adjacent neighbourhoods and businesses for pedestrians, Phase 1 does not prohibit crossing at the unmarked locations.

Phase 2

Should the above measures fail to improve the pedestrian-motorist safety and reduce the number of collisions, Phase 2 will be implemented. In Phase 2, crossing at all remaining unmarked locations will be prohibited via appropriate signage and an increased level of enforcement by SPS. The Administration will also conduct an additional review of 22nd Street to determine if and where additional legal and safe pedestrian crossings are warranted.

Phase 3

Should the above measures fail to improve the pedestrian-motorist safety and reduce the number of collisions, a report will be submitted for Council approval to move to implement Phase 3, which will physically restrict any crossing between pedestrian-actuated signals by installing a barrier along the 22nd Street West centre median. Details of the design of the barrier will be determined, if the measure is deemed necessary, however, it will be designed to prevent or deter pedestrians from jaywalking, while ensuring that it has an aesthetic appeal and does not restrict sightlines.

OPTIONS

While there has been some support for the immediate installation of a barrier along the centre median of 22nd Street West to prevent jaywalking, it is the opinion of the Administration that such a measure is too restrictive, particularly given the City's role in promoting active transportation, such as walking and cycling. Additionally, it is typically the Administration's practice to begin by implementing the least restrictive measures possible. An estimate indicates that the cost of a six-foot high, ornamental-style spear-top fence would be approximately \$200,000.

Marking all legal crosswalks along 22nd Street West with signage and pavement markings is also not recommended. A marked crosswalk raises the expectation that motorists will stop for pedestrians. However, motorists who stop for pedestrians crossing multi-lane streets may block the view of drivers in other lanes who, therefore, aren't able to see that a pedestrian is crossing. It also results in approaching vehicles switching lanes and manoeuvring around a vehicle that has stopped or is decelerating for a pedestrian, increasing the potential for a collision with the pedestrian. As a result, motorists have shown a reluctance to stop for pedestrians crossing multi-lane streets.

It should also be noted that although traffic calming devices are sometimes used to increase pedestrian safety, such measures would not be considered in a case such as this. Traffic calming devices are physical measures (such as curb extensions, speed humps, etc) used on local and collector roadways and are generally not considered appropriate for arterial roadways. Because arterial roadways are designed to carry large traffic volumes, implementation of traffic calming devices on them can lead to several safety issues, such as:

- Delay in emergency services response times - Arterial roads are important routes for emergency vehicles.
- Increase in shortcutting vehicles – The inconvenience and discomfort of the traffic calming features on arterial roads may encourage drivers to use alternative roadways displacing the traffic to neighbouring local roads which could result in increased risk for vehicle/pedestrian conflicts on roadways with typically higher pedestrian volumes.

POLICY IMPLICATIONS

The installation of pedestrian actuated signals on 22nd Street West at the intersections of Avenue R and Avenue M is in accordance with Policy C07-018 – Traffic Control at Pedestrian Crossings.

FINANCIAL IMPLICATIONS

It is estimated that the installation of the two pedestrian actuated signals will cost approximately \$120,000. The Administration is recommending a post-budget increase to Capital Project 0631 – Traffic Safety Improvements in the amount of \$120,000, to be funded from the 2012 allocation to the Traffic Safety Reserve.

ENVIRONMENTAL IMPLICATIONS

There are no environmental and/or greenhouse gas implications.

PUBLIC NOTICE

Public Notice pursuant to Section 3 of Policy C01-021, Public Notice Policy, is not required.

ATTACHMENTS

1. Memo dated July 12, 2011, from the Secretary, Traffic Safety Committee;
2. Correspondence dated July 12, 2011, from the Tracy Ridalls;
3. 5-Year Reported Collision History (2006 - 2010) 22nd Street West, Avenue H to Witney Avenue; and
4. 5-Year Reported Collision History (2006 - 2010) 8th Street East, Broadway Avenue to Sommerfield Avenue.

Written by: Rosemarie Sexon, EIT, Traffic Safety Engineer
Transportation Branch

Approved by: Angela Gardiner, Manager
Transportation Branch

Approved by: "Mike Gutek"
Mike Gutek, General Manager
Infrastructure Services
Dated: "July 28, 2011"

Copy to: Murray Totland
City Manager

PO RS 22nd Street Pedestrian Vehicle Issues.doc

APPENDIX B: DETAILED COLLISION INFORMATION

USTREETZ	YYYY	MM	DD	AC/CTIME	Accident Severity	MaxOf/Accident Site	MaxOf/Accident Configuration	MaxOf/Pre-collision Vehicle Action	Pedestrian Action	MaxOf/Pedestrian Major Contributing Factors	MCF1	MCF2	Fault PED
AVE L	2013	4	1	1:45	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead	Walking On Roadway (Travelled Portion) - pedestrian was walking in the middle of the driving surface intended for vehicular traffic, with or against traffic	Did not cause/contribute to the collision			PED
WITNEY AVE	2011	6	17	9:59	Property Damage	Intersection With Street	Fixed/Movable Object	Going Straight Ahead	Walking Along Roadway - With Traffic - a pedestrian was walking along the edge of a roadway with no sidewalks in the direction of traffic flow	Did not cause/contribute to the collision			PED
AVE P	2009	4	11	1:25	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Road condition (surface or structure)			PED
1500 W AVE O - AVE P	2013	10	6	2:16	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Other human action			PED
AVE S	2010	11	24	1:54	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Other human action			PED
2200 W AVE V - AVE W	2008	3	31	1:30	Personal Injury	Non-Intersection	Fixed/Movable Object	Slowing or Stopping on the Roadway		Inattentive			VEH
WITNEY AVE	2009	11	25	1:50	Property Damage	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Fail to yield the ROW	Inattentive		VEH
WITNEY AVE	2010	3	20	1:40	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE P	2012	1	20	1:50	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE T	2010	10	30	1:58	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE T	2010	12	10	1:20	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE W	2011	8	12	2:43	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE K	2011	11	9	1:50	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE O	2011	12	10	2:17	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE H	2009	5	29	5:40	Personal Injury	Intersection With Street	Fixed/Movable Object	Starting in Traffic (Accelerating)		Did not cause/contribute to the collision			PED
2000 W AVE T - AVE U	2008	1	22	8:19	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Impaired - ability to cope with a situation in traffic is impaired by alcohol consumption. Impairment usually implies over the legal limit even though charges may or may not have been laid			PED
1900 W AVE S - AVE T	2010	2	16	1:40	Property Damage	Non-Intersection	Rear End	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE O	2012	6	28	1:20	Personal Injury	Intersection With Street	Other	Going Straight Ahead		Inattentive - any failure to pay particular attention to the driving task			PED
2400 W AVE X - AVE Y	2008	10	31	1:56	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead					VEH
300 W AVE C - AVE D	2009	8	6	1:43	Personal Injury	Intersection With Lane or Alley	Fixed/Movable Object	Turning Right					VEH
AVE S	2010	3	1	1:56	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead					VEH
2400 W AVE X - AVE Y	2008	7	26	1:19	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Fail to yield the right-of-way - a person or vehicle failing to allow lawful passage to others			PED
1900 W AVE S - AVE T	2008	12	11	2:03	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Other human action	Inattentive		VEH
AVE W	2011	1	12	1:55	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision			PED
AVE H	2008	11	30	5:2	Personal Injury	Intersection With Street	Other	Going Straight Ahead		Inattentive			VEH
900 W AVE I - AVE J	2012	12	10	1:15	Personal Injury	Non-Intersection	Fixed/Movable Object	Turning Left		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision			PED
400 W AVE D - AVE E	2010	5	3	1:50	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Impaired - ability to cope with a situation in traffic is impaired by alcohol consumption. Impairment usually implies over the legal limit even though charges may or may not have been laid			PED
1400 W AVE N - AVE O	2009	2	5	1:54	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Distracted			PED
WITNEY AVE	2010	6	17	2:36	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision			PED
AVE W	2012	1	24	1:10	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
AVE W	2009	3	5	6:50	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left		Impaired - ability to cope with a situation in traffic is impaired by alcohol consumption. Impairment usually implies over the legal limit even though charges may or may not have been laid			PED
1400 W AVE N - AVE O	2012	7	28	2:17	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision			PED
2200 W AVE V - AVE W	2012	11	14	2:53	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Uninvolved vehicle			VEH
1400 W AVE N - AVE O	2012	11	3	2:12	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Fail to yield the ROW			VEH
1300 W AVE M - AVE N	2011	10	13	1:51	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
1400 W AVE N - AVE O	2011	10	13	2:47	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
1200 W AVE L - AVE M	2009	10	13	1:36	Personal Injury	Non-Intersection	Other	Other		Did not cause/contribute to the collision			PED
AVE P	2010	7	2	1:32	Property Damage	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision			PED
AVE V	2011	6	14	2:20	Fatal	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
1000 W AVE J - AVE K	2012	1	22	1:56	Property Damage	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Impaired - ability to cope with a situation in traffic is impaired by alcohol consumption. Impairment usually implies over the legal limit even though charges may or may not have been laid			PED
2000 W AVE T - AVE U	2010	6	18	2:19	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Did not cause/contribute to the collision			PED
600 W AVE F - AVE G	2009	12	3	1:52	Property Damage	Railroad Level Crossing	Other	Going Straight Ahead		Did not cause/contribute to the collision			PED
2300 W AVE W - AVE X	2011	7	30	2:46	Personal Injury	Non-Intersection	Fixed/Movable Object	Going Straight Ahead		Pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision			PED

USTREETZ	YYYY	MM	DD	AC/CTIME	Accident Severity	MaxOf/Accident Site	MaxOf/Accident Configuration	MaxOf/Pre-collision Vehicle Action	Pedestrian Action	MaxOf/Pedestrian Major Contributing Factors	MCF1	MCF2	Fault
AVE P	2008	10	1	2:38	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Inattentive - any failure to pay particular attention to the driving task	Taking evasive action		VEH
AVE H	2010	6	1	15:15	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision.	Road condition (surface or structure)		VEH
AVE H	2010	11	18	8:50	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead		Drugs (Prescription or illegal) - impairment due to the use of drugs or medication	Inattentive	Driving too fast for road conditions	PEP
AVE T	2010	1	24	1:53	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive	Other Human Condition to PEP	VEH
AVE O	2008	12	2	1:30	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive		VEH
AVE V	2010	1	9	3:00	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive		VEH
WITNEY AVE	2008	9	25	1:55	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive		VEH
AVE H	2008	9	25	1:55	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE H	2008	9	25	1:55	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE H	2010	5	14	2:05	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Left			Did not cause/contribute to the collision		PEP
AVE W	2012	8	12	1:00	Personal Injury	Intersection With Street	Fixed/Movable Object	Slowing or Stopping on the Roadway			Did not cause/contribute to the collision		PEP
WITNEY AVE	2009	12	19	38	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision	Fail to yield the ROW	VEH
AVE H	2010	2	11	15:15	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead					VEH
AVE H	2010	9	29	2:43	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead					VEH
WITNEY AVE	2013	10	2	2:02	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Other Human Conditions		VEH
AVE W	2012	1	10	12:15	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right			Other human action		VEH
WITNEY AVE	2011	5	13	8:32	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Inattentive	Fail to yield the ROW	PEP
AVE P	2010	3	8	19:24	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Inattentive	Fail to yield the ROW	VEH
AVE T	2010	10	26	18:20	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive	Fail to yield the ROW	VEH
AVE P	2010	11	18	16:35	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive	Fail to yield the ROW	VEH
AVE H	2011	2	22	10:12	Personal Injury	Intersection With Street	Other	Turning Left			Inattentive	Fail to yield the ROW	VEH
AVE H	2011	2	8	16:45	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive		PEP
AVE W	2012	2	28	8:35	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Inattentive		VEH
AVE K	2012	5	16	14:24	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right			Inattentive		VEH
AVE M	2012	6	22	16:30	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right			Inattentive		VEH
WITNEY AVE	2008	10	2	10:50	Property Damage	Intersection With Street	Fixed/Movable Object	Turning Left			Impaired		PEP
1500 W AVE O - AVE P	2013	11	30	3:09	Personal Injury	Intersection With Street	Lost Control - Right Ditch	Going Straight Ahead		Pedestrian action - a collision resulting from some action of a pedestrian. The action recorded in template box 64 is assumed to be the action that contributed to the collision.	Distracted		PEP
WITNEY AVE	2008	3	6	1:70	Personal Injury	Intersection With Street	Other	Turning Right			Distracted		VEH
AVE P	2010	1	15	2:44	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE V	2010	10	31	18:59	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
2200 W AVE V - AVE W	2010	10	18	1:00	Property Damage	Intersection With Street	Rear End	Slowing or Stopping on the Roadway			Did not cause/contribute to the collision		PEP
WITNEY AVE	2012	2	3	2:00	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right			Did not cause/contribute to the collision		PEP
AVE W	2012	6	11	12:17	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Did not cause/contribute to the collision		PEP
AVE J	2012	11	5	16:17	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE W	2013	6	14	1:51	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Did not cause/contribute to the collision		PEP
AVE P	2012	8	5	13:15	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Did not cause/contribute to the collision		PEP
AVE W	2013	7	21	2:38	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
WITNEY AVE	2012	10	20	12:30	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Left			Did not cause/contribute to the collision		PEP
AVE R	2011	5	17	2:13	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right			Did not cause/contribute to the collision	Inattentive	PEP
AVE P	2013	1	10	17:16	Personal Injury	Intersection With Street	Fixed/Movable Object	Starting in Traffic (ceceles)					PEP
AVE H	2008	11	30	1:32	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right					VEH
AVE K	2013	3	13	1:35	Personal Injury	Intersection With Street	Fixed/Movable Object	Turning Right					VEH
AVE J	2013	6	29	23:16	Property Damage	Intersection With Street	Fixed/Movable Object	Turning Left					VEH
AVE V	2010	7	24	2:02	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Inattentive		PEP
AVE O	2011	3	15	8:47	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE J	2011	10	21	1:59	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE N	2010	7	30	9:50	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP
AVE V	2011	4	20	2:12	Personal Injury	Intersection With Street	Fixed/Movable Object	Going Straight Ahead			Did not cause/contribute to the collision		PEP

APPENDIX C: TRAFFIC SAFETY ACT EXCERPTS

Chapter T-18.1* of the Statutes of Saskatchewan, 2004

(Effective July 1, 2006)

DIVISION 3 Stopping and Parking

Interpretation of Division

207 (a) “crosswalk” means:

- (i) a clearly marked pedestrian crossing; or
- (ii) if there is no clearly marked pedestrian crossing, the prolongation through the intersection of the lateral boundary lines of the adjacent or intersecting sidewalks at the end of a block;

(b) “intersection” means the area contained within the straight production of the lateral curb lines, or, in the absence of curb lines, of the lateral boundary lines, of two or more highways that join one another at an angle, whether or not one of those highways crosses the other.

Rules re stopping

209 (6.1) If a driver is required by this Act to bring a vehicle to a stop at a stop sign, the driver shall bring the vehicle to a stop:

- (a) on the near side of the intersection at the marked stop line;
- (b) on the near side of the intersection immediately before entering the pedestrian crosswalk; or
- (c) if there is no stop line or pedestrian crossing:
 - (i) in a city, town, village, resort village or hamlet, or in the prescribed part of a municipal district, no further than three metres back from the intersection; or
 - (ii) outside the boundaries of a city, town, village, resort village or hamlet, or in the prescribed part of a municipal district, no further than 10 metres back from the intersection

DIVISION 5 General Rules Governing Driving

Rules re pedestrians

223(1) A driver of a vehicle on a highway within a hamlet or any municipality other than a rural municipality or the prescribed part of a municipal district shall stop the vehicle and yield the right of way to the pedestrian if:

- (a) the driver of the vehicle approaches an intersection or clearly marked pedestrian crosswalk where a peace officer is not on duty and traffic lights are not in operation; and
- (b) the pedestrian is crossing the highway.

(1.1) If a driver is required to stop a vehicle for the purpose of yielding the right of way to a pedestrian pursuant to subsection (1), the driver shall:

- (a) if there is a marked crosswalk, stop the vehicle on the near side of the intersection immediately before entering the crosswalk; or
- (b) if there is a marked stop line on the near side of the intersection, stop the vehicle at the stop line.

(2) If a vehicle is stopped in compliance with subsection (1), no person driving a vehicle proceeding in the same direction on the highway shall overtake or pass that vehicle.

(3) No pedestrian shall leave a curb or other place of safety and proceed into the path of a vehicle on a highway that is so close that it is impracticable for the driver to yield the right of way.

(4) Nothing in this section relieves the driver of a vehicle from the duty to exercise due care for the safety of pedestrians.

(5) No person, other than a pedestrian in charge of an animal, shall walk along that portion of a highway used for vehicular traffic, except close to the edge on his or her left.

Inquiry – Councillor A. Iwanchuk (September 29, 2014) Installation of Street Lights – Neatby Crescent Walkway

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated September 14, 2015 be forwarded to City Council during the 2016 Business Plan and Budget deliberations for information.

Topic and Purpose

This report is to provide information to an inquiry from Councillor A. Iwanchuk regarding drainage and pathway lighting for two walkways (Needham Crescent to Neatby Crescent and Heise Crescent to Needham Crescent in the Parkridge neighborhood).

Report Highlights

1. Pedestrian data determined the two walkways in the Parkridge neighbourhood serve as a pedestrian connection.
2. The installation of pathway lighting to improve visibility is recommended.
3. Improvement to drainage is recommended as ice accumulates in the walkways during winter and spring months.

Strategic Goal

This report supports the Strategic Goal of Moving around with well-planned neighbourhoods that encourage walking and cycling.

Background

The following inquiry was made by Councillor Iwanchuk at the Regular Business Meeting of City Council held on September 29, 2014:

“Would the Administration please report in time for the 2015 budget deliberations, the cost of installing one street light on the walkway where the t-point is between Neatby and Needham and which goes north to Hart Road or to add additional street lights along the walkway as well as installing one street light at the walkway at the west end of Neatby Crescent.”

A report was submitted to the Special Meeting of City Council – 2015 Corporate Business Plan and Detailed Budget held on December 2, 3, and 9, 2014 recommending:

- “1. That the information be received; and
2. That the Administration be directed to report back further once the necessary studies have been completed.”

Report

Pedestrian Data

The Parkridge neighborhood walkways serve as an active transportation connection to the Blairmore Suburban Area, Bethlehem Catholic High School, Tommy Douglas Collegiate and the Shaw Centre. They also serve as an access point for children in Blairmore to walk to nearby elementary schools in Parkridge.

The Needham Crescent to Neatby Crescent walkway is Y-shaped and is aligned east to west, and north to Hart Road. The exit points are to Needham Crescent and Neatby Crescent, and to the north with the east-west pathway along Hart Road. Similarly, the Needham Crescent and Heise Crescent walkway is Y-shaped and is aligned east to west, and to the north with the east-west pathway along Hart Road. The locations of the walkways are shown in Attachment 1.

Pedestrian data was collected at both walkways over a 24 hour period on a weekday and Saturday in March and a weekday in June 2015. The purpose of the different dates of data collection was to compare pedestrian usage between daylight hours and after sunset hours, and also weekday versus weekend. A summary of the 24 hour pedestrian counts is provided in the table below:

Walkway	24 Hour Pedestrian Count Data		
	Wednesday, March 25, 2015	Saturday, March 28, 2015	Wednesday, June 3, 2015
Needham Crescent to Neatby Crescent	403	60	324
Needham Crescent to Heise Crescent	128	54	161

During these 24 hour periods, the peak hours for pedestrian usage vary and are summarized in the table below:

Walkway	Peak Hours		
	Wednesday, March 25, 2015	Saturday, March 28, 2015	Wednesday, June 3, 2015
Needham Crescent to Neatby Crescent	8:00 – 9:00 AM 3:00 – 4:00 PM	8:00 – 9:00 AM 1:00 – 2:00 PM	9:00 – 10:00 AM 3:00 – 4:00 PM
Needham Crescent to Heise Crescent	8:00 – 9:00 AM 3:00 – 4:00 PM	8:00 – 9:00 AM 7:00 – 8:00 PM	8:00 – 9:00 AM 3:00 – 4:00 PM

A review of the information provided in the table yields the following observations:

- Weekdays have more pedestrian activity than weekends, which can be attributed to Tommy Douglas Collegiate and Bethlehem High School.
- The weekday peak hours coincide with the start and end of school.
- The weekdays counted over two different seasons illustrate similar usage, indicating that the walkways are used in winter.
- The weekend PM peak hour in March was after sunset, indicating that the walkways are used in dark conditions.

Not shown in the previous table, but indicated in the data, was that there is pedestrian activity between midnight and 5 AM on the weekends.

Lighting

A Crime Prevention Through Environmental Design (CPTED) Safety Audit Review of the identified walkways was undertaken in March of 2015 (Attachment 2). During the review, participants had an opportunity to use the walkway after sunset. It was identified by the participants that visibility was limited specifically where the walkway forms a Y-shape. Also, it was noted that the Y-shape intersection at the centre of the walkway may act as an entrapment zone and presents a way-finding challenge due to the lack of signage.

As these walkways are well-used by residents, it is recommended that pathway lighting be installed. The lighting would operate on a timer and be operational from 6 AM to 11 PM daily. The need for pathway lighting was supported by 83% of the participants in the Safety Audit.

Drainage

The participants of the CPTED Safety Audit review observed wet and icy conditions on the walkways from poor drainage resulting in pooling of water, as well as concerns with inconsistent snow removal in the walkways which causes ice to form.

As a result of the review, it is recommended that both walkways be graded to improve drainage. A detailed topographical survey of the walkways is required prior to grading.

Options to the Recommendation

If funding is not available for both walkways, it is recommended to first proceed with the installation of pathway lighting and drainage grading in the Needham Crescent to Neatby Crescent walkway. This walkway has more pedestrian activity than the Heise Crescent to Needham Crescent connection.

Public and/or Stakeholder Involvement

The CPTED Safety Audit Review of the identified walkways was undertaken in March of 2015 and provided the opportunity for Parkridge residents, Parkridge Community Association and City of Saskatoon employees to participate in the review and provide comments.

The community had 17 members participate in the safety audit walk through and 7 people provided comments via email.

Comments focused on maintenance and lighting; 83% of the participants felt that lighting should be installed in the walkways, 65% of the participants felt that overall maintenance was adequate.

Communication Plan

If adopted, residents in the Parkridge neighborhood will be informed of the recommendation of this report through the Community Consultant.

Policy Implications

The provided recommendations align with the procedures in Policy C07-017 Walkway Evaluation and Closure.

Financial Implications

Implementation of the recommendations will have financial implications. The estimated costs are summarized in the following table:

Item	Estimated Cost
Drainage for both walkways	\$ 60,000
Needham – Neatby	\$ 23,000
Heise – Needham	\$ 23,000
TOTAL	\$106,000

Funding of these recommendations is typically provided by Capital Project #2234 - Walkway Management. A funding request of \$110,000 for this project has been included in the 2016 proposed capital budget, funded from the Traffic Safety Reserve.

The Parkridge Community Association has offered to contribute \$5,000 toward the recommendations. They also offered to organize fundraisers to raise additional funds if required.

Environmental Implications

Improvements to walkways are expected to have positive greenhouse gas emission implications. Walkways will reduce the total vehicle mileage and improve the walkability in the community.

Safety/Crime Prevention through Environmental Design (CPTED)

A CPTED Safety Audit was completed with the Parkridge Community on March 17, 2015 in which 17 community residents participated in a walk-through of the walkways.

Other Considerations/Implications

There are no privacy considerations or implications.

Due Date for Follow-up and/or Project Completion

If approved, the project will be completed in 2016.

Public Notice

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

Attachments

1. Walkway Locations
2. CPTED Review Report: Parkridge Walkways

Report Approval

Written by: Shirley Matt, Senior Transportation Engineer
Reviewed by: Jay Magus, Transportation Engineering Manager
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Celene Anger, Acting General Manager, Transportation & Utilities Department

TRANS SM – Inq Iwanchuk (Sept 29, 2014) Installation of Street Lights – Neatby Cres Walkway.docx

Walkway Locations

Needham Crescent & Neatby Crescent Walkway

Printed: June 23, 2015
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Needham Crescent & Heise Crescent Walkway

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Parkridge Walkways CPTED Review Report



June, 2015 | Community Services Department, Planning & Development

Neighbourhood Safety Program

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1.0 General Background

Crime Prevention Through Environmental Design (CPTED) is a collaborative, multi-faceted approach to reducing opportunities for crime, improving perceptions of safety, and strengthening community bonds. CPTED emphasizes the relationship between the immediate physical environment and social behaviour related to crime. CPTED strategies are usually developed jointly by a number of trained individuals to ensure a creative and balanced approach to problem solving.

The principles of CPTED were adopted into the City of Saskatoon's Development Plan in May 2008 and the Senior Management Team approved the CPTED Design Review Administrative Policy No. A09-034 in September of 2008.

Safe growth and the principles of CPTED are formally included within the City of Saskatoon's Official Community Plan (OCP). Community safety is recognized as a fundamental value in building a community with a sustainable quality of life" (Section 2.1). The principles of CPTED are an important aspect in creating a city form that supports the development safe and sustainable community and are embedded in Section 3.0 of the OCP.

This process was initiated through a Council inquiry, from Councillor Iwanchuck, at the September 29, 2014 City Council meeting. The inquiry asked about the cost of installing street lights in the Neatby and Needham Crescent walkways. According to City Council Policy C07-017 – Walkway Evaluation and Closure, a CPTED review must be carried out in order to understand the nature of the issues in the area, any lighting problem, and to determine the best solutions for this walkway. This report addresses the CPTED review section of that inquiry and recommends targeted improvements, including lighting and maintenance, for these walkways.

There are two pedestrian walkways identified in this report (see Map 1). Both are in the Parkridge neighborhood and are located between Needham Crescent & Neatby Crescent, and Needham Crescent & Heise Crescent. These Parkridge walkways were originally assessed in 2009 as a part of a larger walkway closure study undertaken by Infrastructure Services.

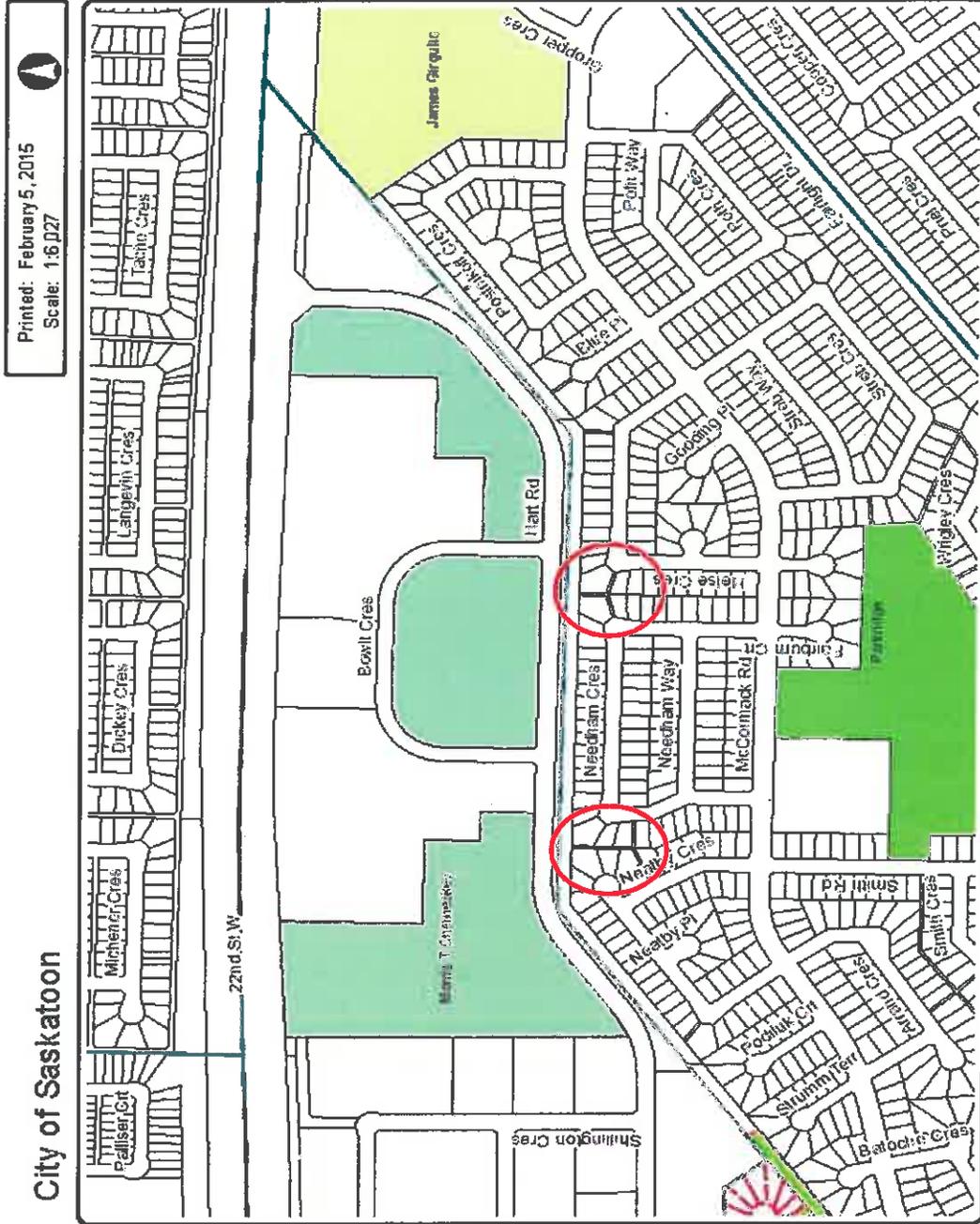
Many walkways were assessed across the city to determine if they should remain open. During this time, the Blairmore Suburban Centre was still under construction and the walkways were expected to see increased use after the completion of the Suburban Centre and the two high schools and leisure centre pool that were to be constructed.. A technical safety audit was done in 2009 to examine use of the walkways and how well they adhered to CPTED principles. It was decided these walkways were essential in facilitating access between the new Blairmore

Suburban Centre and the Parkridge neighborhood and so the walkways were recommended to remain open.

A CPTED Safety Audit Review of the identified walkways was undertaken in March of 2015 and the findings of this review form the basis of the recommendations in this report. This safety audit was completed with members from the Parkridge Community Association, residents of the Parkridge neighborhood, as well as City of Saskatoon employees. A total of seventeen people actively participated in the safety audit, while an additional seven people provided comments by email.

View of Parkridge Walkway





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Map 1: Location Plan

2.0 Walkway Reviews

2.1 Needham Crescent & Neatby Crescent Walkway



Map 2: Needham-Neatby Walkway

This Y-shaped pedestrian walkway runs east to west between Needham Crescent and Neatby Crescent, and north towards Hart Road (Map 2). Exit points are adjacent to 306 and 310 Needham Crescent and 126 and 130 Neatby Crescent. The north exit point extends to connect with a pedestrian path south of Hart Road.

The pedestrian walkway is about 80m long from east to west, and 70m long from its centre to the north exit. It is approximately 3m wide with a 1.5m-wide paved path centered within that space. The walkway is bordered by residential housing with wooden or metal fencing that is typically 1.8m (6ft) high and quite solid.

This walkway is long and its *Y* design limits visibility along the path. This means that the *Y* intersection at the centre of the walkway can act as an entrapment zone. Residential entrances at Needham Crescent and Neatby Crescent are visible to those in the neighborhood and provide natural surveillance at the entrances of the walkways. However, natural surveillance within the walkway itself is poor. The walkway is public space but feels isolated between tall fences, and residents cannot see the walkway, or who might be in the walkway, from their backyard or houses, limiting natural surveillance of path activity.

This design also presents a way-finding challenge. The area can be difficult to navigate due to a lack of signage. It is not obvious from the neighborhood entrances to the walkway that this path allows access to Hart Road and the Blairmore Suburban Centre. Proper signage allows users to easily find the path to their destination.

Maintenance along this pathway is an issue. Grading of the site limits drainage of the path which creates issues with ice and snow buildup. Lack of snow removal on the walkway puts pedestrians at risk in slippery snow and ice conditions. Several trees also become overgrown the walkway which blocks natural light and reduces visibility for users. Trees and other foliage should be trimmed to ensure a clear view of the walkway and its entrances. Taking ownership of the image of this walkway will help contribute to legitimate use of the walkway.

Appropriate lighting can contribute to feelings of safety along the walkway. When the path is dark, there is poor visibility of others using the path and visibility of the path surface itself, which can be slippery when ice or snow is present. The walkway is not currently lit. Existing street lights are located close to entrances but there are not reliable light sources within the walkway itself. Glare is also an issue when walking towards the north exit. The existing Hart Road pathway has a light at the end of this walkway. From the center of the walkway it appears bright and effectively blinds users to anything else between them and the light. The difference between the light and darkness blinds users. Since lighting can influence feelings of safety in outdoor areas, it can be a useful aspect of a properly functioning walkway.



Figure 1: View of Blairmore Suburban Centre

North End Facing Hart Road

This walkway provides a direct link to amenities and parks in the Blairmore Suburban Centre. The two new high schools: Tommy Douglas Collegiate and Bethlehem High School both opened in 2007 and higher enrolment has increased the number of pedestrians using the walkway since 2007. The walkway provides a convenient link to these services (Figure 1). Connectivity between these areas helps to establish new relationships and positive interactions between pedestrian users of the path.



Figure 2: Litter along Walkway

View of Litter along Walkway

A public space with litter or property damage can affect the image of an area. Figure 2 shows a potential discarded drug bag on the path. Proper maintenance and cleaning of the walkway will create a sense of place for legitimate users of the space.



Figure 3: Drainage Concerns



Figure 4: Drainage Concerns

Drainage Concerns for the Pathway: Facing North and East from Centre of Path

Inconsistent snow removal in the walkway causes ice buildup on the path. Drainage and runoff from surrounding property enters directly into the walkway and can cause big deep puddles of water (Figure 4). Snow and ice can accumulation then prevents proper drainage and creates dangerous walking conditions for pedestrians (Figure 3). This walkway does not address pedestrian needs across all seasons and was identified by community members during the Safety Audit as dangerous because of these drainage concerns. Users have indicated that they will climb on the fences to get around the puddles as they go back and forth to school. This can actually pull off fence boards and damage the structures.



Figure 5: Lighting Concerns

Looking South from Hart Road

No lighting in the walkway means that pedestrians must walk in the dark over uneven or icy surfaces. A single streetlight at the end of the walkway creates glare for pedestrians as they walk north from a dark walkway to a lit path, limiting vision of what is ahead (Figure 5).



Figure 6: Sightlines and Tree Maintenance

Looking West from Needham Crescent

The tree at the entrance of the walkway is overgrown and prevents light from entering the walkway (Figure 6). Overgrown trees can also limit neighborhood visibility of the entrance to this walkway.



Figure 7: Evidence of Graffiti Vandalism



Figure 8: Further Evidence of Graffiti Vandalism

Evidence of Property Damage

Evidence of graffiti vandalism detracts from the area's image and makes it seem unkempt (Figures 7 & 8). Graffiti vandalism can also leave areas vulnerable to future vandalism. Residents and Public Works Division have had recent success in cleaning up graffiti vandalism but must continue to ensure that the space looks properly cared for.



Figure 9: Sightlines and Entrapment Concerns

Looking East from Neatby Crescent

This walkway is long and visibility is poor because of corners in the Y design. Poor sightlines into the walkway mean pedestrians can only see part way into the walkway (Figure 9). A potential entrapment zone exists in the centre and is exacerbated by tall fencing.

2.2 Heise Crescent & Needham Crescent Walkway

Needham Crescent & Heise Crescent Walkway

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Map 3: Heise-Needham Walkway

This Y-shaped pedestrian walkway runs east to west between Needham Crescent and Heise Crescent, and north towards Hart Road (Map 3). Exit points are adjacent to 138 and 202 Needham Crescent and 160 and 202 Heise Crescent. The north exit point extends to connect with a pedestrian path south of Hart Road.

The pedestrian walkway is about 60m long from east to west, and 30m long from its centre to the north exit. It is about 3m wide with a 1.5m-wide path centered within that space. It is bordered on both sides by residential housing with wooden or metal fencing that is 1.8m (6ft) high and quite solid.

The Y-design of this walkway limits visibility at the entrances and within the path. This means that the Y-intersection at the centre of the walkway can act as an entrapment zone. Residential entrances on Needham Crescent and Heise Crescent are visible to those in the neighborhood and

provide natural surveillance at the entrances of the walkway. However, surveillance within the walkway itself is poor. The walkway is public space but feels isolated between tall fences, and residents cannot see the walkway, or who might be in the walkway, from their backyard or houses, limiting natural surveillance of path activity

This design also presents a way-finding challenge. The area can be difficult to navigate due to a lack of signage. It is not obvious from the neighborhood entrances to the walkway that this path allows access to Hart Road and the Blairmore Suburban Centre. This is due to the Y design and an inability to see what lies beyond the center point. Proper signage allows users to easily find the path to their desired destination.

Maintenance along this pathway is an issue. Grading of the site limits drainage of the path which creates issues with ice and snow buildup. Lack of snow removal on the walkway puts pedestrians at risk in slippery snow and ice conditions. The maintenance of resident's fencing is an issue in this walkway and some are actually falling down. It is unclear if this is a neglect issue or if the fence has been vandalized. Either way it should be corrected. Finally, graffiti vandalism is an ongoing issue in this walkway; however there is clear evidence that residents have cleaned or painted it over. Taking ownership of the image of this walkway will help contribute to legitimate use of the walkway.

Appropriate lighting can contribute to feelings of safety along the walkway. When the path is dark, there is poor visibility of others using the path and visibility of the path surface itself, which can be slippery when ice or snow is present. The walkway is not currently lit. Existing street lights are located close to entrances but there are not reliable light sources within the walkway itself. Glare is also an issue when walking towards the north exit. The existing Hart Road pathway has a light at the end of this walkway. From the center of the walkway it appears bright and effectively blinds users to anything else between them and the light. The difference between the light and darkness blinds users. Since lighting can influence feelings of safety in outdoor areas, it can be a useful aspect of a properly functioning walkway.



Looking West from Heise Crescent

Trees have become overgrown and are blocking the view of the walkway (Figure 10). Visibility of entrances to the walkway is an important aspect of natural surveillance and supporting access to the pathway.

Figure 10: Sightlines and Maintenance



Figure 11: Covering Vandalism



Figure 12: Evidence of Graffiti Vandalism

Looking North towards Hart Road

Fence on right is in disrepair, and there is some evidence of vandalism present (Figure 12). Property owners have attempted to cover the graffiti vandalism, and should continue to do so (Figure 11). Proper maintenance can add to the image of an area and help to deter future vandalism if the area appears well-maintained and cared for.



Figure 13: Drainage Concerns

Looking West from Center of Y-Intersection

Poor drainage along the path has created unsafe walking conditions for pedestrians. The surface of this pathway is very icy during winter months (Figure 13). In low-lighting conditions, this is a dangerous place to walk.



Figure 14: Walkway Lighting Concerns

Facing Hart Road

No lighting within the walkway means that pedestrians must walk in the dark over uneven or icy surfaces. One streetlight at the north end of the walkway creates glare for pedestrians as they walk north from a dark walkway onto a lit path (Figure 14). Pedestrians feel much safer if they can see what lies ahead and can recognize faces.



Figure 15: Access to Blairmore Suburban Centre

Facing North

This walkway provides a direct link to amenities and parks in Blairmore Suburban Centre (Figure 15). Maintaining this connection can increase positive interactions between residents and support active transportation.

2.3 Pedestrian Counts on Walkways

Pedestrian counts were done in 2009 and 2015. Since the 2009 counts were carried out differently than the recent counts, the data is not comparable. Counts done in 2015 utilized Miovision technology to accurately track 24-hour use of the walkways, while the 2009 counts were tallied by people and data was only collected during peak use times. However, there is an overall trend of higher walkway use when comparing the 2009 and the 2015 data. This is likely the result of two new high schools and a large community center that have been built in the Blairmore Suburban Centre since 2009. Tommy Douglas Collegiate High School and Bethlehem Catholic High school both opened with limited enrolment in 2007, and the first class to finish Grade 12 graduated in the 2010 school year. The Shaw centre opened to the public in two phases. Phase 1 of the centre was opened on January 14, 2007, while Phase two officially opened on September 12, 2009. The steady increases of services in the Blairmore Suburban Centre correspond to greater pedestrian use of the walkways.

Pedestrian counts were conducted on Wednesday March 25, 2015, Saturday March 28, 2015 and Wednesday June 3, 2015 to account for weekday and weekend use and the different natural lighting levels in the seasons (see attachment 6.4) The walkways were monitored for 24 hours with Miovision pedestrian counter technology to determine density of use. Weekend use was steady with 60 users at the Needham-Neatby walkway and 54 at Heise-Needham within the 24-hour period. However, weekday use was much higher, with a total of 403 users at Needham-Neatby and 128 users at Heise-Needham during that period. Dramatic spikes in use were recorded between 12:00-1:00 PM and between 3:00-4:00 PM during the weekday count at the Needham-Neatby walkway, while there were less significant spikes at the Heise-Needham walkway. This coincides directly with the Tommy Douglas Collegiate and Bethlehem High School hours of operation and implies that students are a significant user group.

According to the pedestrian data, night-time use of these walkways after 5:00 PM is minimal. The March 2015 pedestrian counts average 14 users at the Needham-Neatby walkway, while the Heise-Needham walkway had around 25 users between 5-11PM. In June the trend reverses with 65 users at the Needham-Neatby walkway and only 39 at Heise-Needham. As daylight lasts longer, it appears that residents use the walkways more. Adding lighting to the walkways, with the increase in destinations north of Parkridge, may increase use in these walkways and an increase in legitimate users will support a safer environment.

2.4 Crime Activity 2009-2013

Selected incidents of crime were collected from the area surrounding the walkways in order to evaluate the activity and to assess what types of crime are happening near these walkways (see attachment 6.1 for table). The information presented in the graph (Figure 16) highlights all reported crime activities in the study area from 2009-2015. There have been relatively few reported crime incidences adjacent to the walkway site in 2013. Many of the incidents are single incidents except at the two high schools where violence and drug related incidents are highest. Property crimes, such as break and enter are higher in the surrounding residential area.

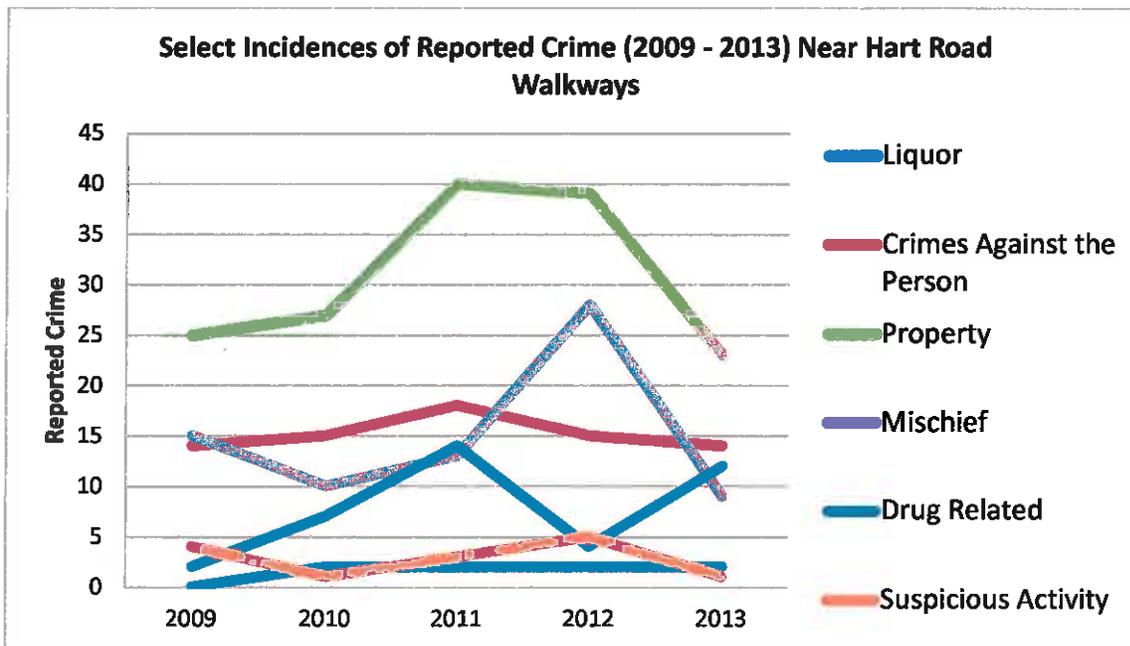


Figure 16: Incidences of Reported Crime (2009-2013)

Over time, some types of crimes have changed more than others. Liquor related crimes show no change since 2010. Crimes against a person peaked in 2011 but, for the most part have remained unchanged. Property crimes rose in the area until 2011, stayed until 2012, and then dropped to below 2009 levels in 2013. Incidents of mischief have also steadily declined since 2009 except for a significant rise in 2012. It has since fallen well below 2009 levels. Drug-related crimes follow a rise and fall pattern, where they had risen steadily until peaking in 2011, dropped very low in 2012 and are now approaching the 2011 peak once more.

2.5 Community Input

17 members of the community participated in a safety audit of the walkway on March 17, 2015 and an additional 7 people provided comments via email, for a total participation of 24 community members. Comments were mainly focused on maintenance and lighting of the walkways. 83% of participants felt that lighting should be installed at walkway intersections, or at the entrance to each walkway, and 65% of respondents felt that overall maintenance was either poor or very poor. However, there is strong support for these walkways because of their use by students and in connecting residents to amenities in Blairmore Suburban Centre. Only 6% of respondents suggested that the walkway be closed. All responses from the community can be found in Section 6.4 of this report.

2.6 Alternate Routes

Because of the street design within the Parkridge neighborhood, the Needham-Neatby Crescent walkway is one of the few linkages to the Blairmore Suburban Centre (SC) amenities such as Tommy Douglas School, Bethlehem Catholic High School and the Shaw Centre. Since this and the Heise-Needham walkway are the only routes available for pedestrians, it is convenient for the youth attending school to walk to their destination. The alternative to taking these pedestrian walkways in order to access the Blairmore SC is to exit the neighborhood via McCormack Road, take Fairlight Drive heading east, and finally circle back around on 22nd Street West. This is a long and inconvenient detour to take, and increases the likelihood that residents will drive to Blairmore SC. For example, driving from Neatby Crescent to the Shaw Centre is approximately 3.8 km, or an 8 minute drive. Driving from Heise Crescent is slightly shorter to access the Shaw Centre at 3.2 km, or a 7 minute drive. In comparison, walking from Parkridge to the Shaw centre from Neatby Crescent or Heise Crescent would take 10-15 minutes if using the walkways. The design of the Parkridge neighborhood makes it difficult to access Blairmore SC directly. Because of the disparity in distances between different modes of transportation, Parkridge residents would be driving to Blairmore instead of walking if the walkways did not exist. If residents do not feel safe using the walkways, or don't feel their family members are safe, then they will not use them and will choose to drive. These are important and well-used walkways that link these adjacent neighborhoods and support active transportation within the community.

These walkways are used despite concerns over maintenance and a lack of lighting. In fact, they are the only choice for some to travel from Parkridge neighbourhood to the Blairmore Suburban Centre. Ensuring that this walkway is properly maintained will limit future property damage and increase use of the walkways. Both walkways have an unconventional shape and are quite long which presents potential safety issues which are exacerbated by poor maintenance and visibility for the legitimate users of the path. While appropriate lighting does not necessarily guarantee safety, it can do much to contribute to feelings of safety while walking in low-light conditions. Limited lighting coupled with the entrapment area at the centre of the Y design of these walkways does not contribute to feelings of safety. Addressing maintenance and lighting concerns would allow for greater ease of active transportation between the Parkridge and Blairmore areas and would contribute to feelings of safety for those using the walkway.

3.0 Significant Findings

The Parkridge walkways are a valued addition to the neighborhood. Since the construction of the Blairmore Suburban Centre, their use has increased. The Needham-Neatby Crescent walkway and the Heise-Needham Crescent walkway are the most convenient way to access the new services and schools of the Blairmore Suburban Centre. The walkways encourage walking as a form of transportation, and increase pedestrian traffic within the neighborhood. This activates the sidewalks and walkways and puts more “eyes on the street”. The community’s primary concerns with these walkways are maintenance and lighting.

Currently, the maintenance, design, and snow removal does not facilitate proper drainage of the paths, which leads to dangerous snow and ice buildup. The walkways are cleared by Transportation & Utilities once per winter season, but more attention to these paths is needed considering the amount of use they get and the potential for inappropriate activity.

Overall maintenance of the fencing along the paths is average, as some fencing is in disrepair along the Needham & Heise Crescent walkway, and instances of graffiti vandalism in both locations. There is evidence of some graffiti vandalism being removed or covered by residents, but a more concerted effort is necessary to clean off the graffiti vandalism as soon as it appears in the walkways.

Lighting the pathways was a solution initially identified by Parkridge community residents and prompted the Council Request. This solution was also echoed by Safety Audit participants. Winter months limit daylight and make it difficult to see the path in morning and evening hours. The walkway design is such that some form of lighting is needed to ensure users can see, particularly at the terminus of the three paths which also can act as an entrapment zone. The context of the use of these walkways has changed since the neighbourhood developed. There is significant development, residential, institutional, and commercial, north of the Parkridge neighbourhood. There are opportunities for residents to access the high schools, a leisure centre, shopping, and places of employment. The walkways facilitate this access and also add an option to driving in this area.

As was stated previously, the Y-design of these walkways is not used anymore and they present a unique challenge. Typically, lighting in a walkway would not be considered, at least not in a walkway of this design. The combination of the rise in use, the significant development on the north side of Parkridge, Saskatoon as a winter city, and an increased emphasis on alternate forms of transportation all contribute to the addition of pedestrian lighting in the walkways as a reasonable option. However, this lighting, if approved, should have some unique qualities to add to the quality of life for all users and surrounding residents. It is not anticipated that this mix of uses and walkways and destinations will arise again soon.

3.1 Lighting

While lighting may not directly deter crime, it does have a direct link to fear levels. These walkways are well-used by residents of the neighborhood, but low-lighting conditions can contribute to feelings that the walkway is unsafe or increased opportunities for crime to occur. Appropriate lighting can support to appropriate use of the walkways but filling them with legitimate users. This heightens an unwelcome feeling of surveillance and increases natural surveillance in and around the walkways.

Several lighting options have been proposed by SL&P and present viable options for lighting the walkways. Both walkways experience similar lighting issues due to the Y design. There is significant support for lighting the walkways, as 83% of the Safety Audit participants gave support for installing lights at either the walkway intersections, or at entrances.

There are three options for lighting that have been provided by SL&P. Option one includes a single light at the terminus of the walkway legs, which would provide light at the centre where there is an entrapment zone. This will, however, also produce glare for those walking towards this light. Option two provides a more even lighting option with 5 lights spaced within the walkway. However, are concerns that this may be too much lighting despite the length of the walkways. Too many lights or lighting that is too bright along the path may disrupt neighboring properties or contribute to unnecessary light pollution. Option three includes 3 lights and very careful sighting and configuration of the light pools. This was suggested later in the process and is pending a detailed analysis. Details of options one and two can be found in attachments 6.5 and 6.6.

A decision will be required regarding the style and number of lights needed to adequately illuminate the path during use, balance the impact on adjacent homeowners, keep light trespass to a minimum, and not attract additional illegitimate users or uses. To address this, all three options must be equipped with timers. This will ensure that users can safely use the walkways during times of high demand but the lights are not on when there is very little or no legitimate users. Walkway lights should be **off** from 11 pm to 6 am every day.

4.0 Recommendations

The following recommendations address the neighbourhood's concerns regarding maintenance and feelings of safety. Community input identified the needs of the walkways through a safety audit.

- 4.1 That Neighbourhood Planning works with the Parkridge Community Association to produce an informational letter for residents adjacent to the walkways. This letter will identify how residents and adjacent landowners can help keep the walkway users safe and include:
 - Trimming trees that overhang or encroach on the walkway to ensure good natural surveillance for walkway users and adjacent resident;
 - Ensuring that fencing is in good repair to support a good image of the walkway;
 - Suggesting fencing alternatives to increase visibility into the walkway if an adjacent resident is considering replacement; and
 - Identifying the importance of removing graffiti vandalism immediately.
- 4.2 That Neighbourhood Planning meet with the Parkridge Community Association to encourage community involvement and “ownership” in maintaining the walkways so that some level of maintenance and monitoring is a community effort.
- 4.3 That Transportation & Utilities - Transportation apply to have this project identified under *Capital Project 2234 Walkway Management* for 2016 to secure funding to re-establish proper drainage in the walkways.
- 4.4 That Neighbourhood Planning and Transportation & Utilities - Transportation meet with Transportation & Utilities – Public Works to discuss the recommendations from this safety audit and an improved schedule of snow removal for the walkways.
- 4.5 That Transportation & Utilities – Transportation monitor the walkways for one year once all the recommendations have been completed to ensure that the walkways and, if approved and installed, the lighting is functioning properly.
- 4.6 That Saskatoon Light and Power install the lighting according to the approved option to improve visibility.
- 4.7 That the lights in these walkways only be approved if they operate on a timer and are only operational from 6am to 11pm daily.
- 4.8 That Neighbourhood Planning distributes a letter in the Parkridge neighbourhood to inform residents of the timing schedule for the walkway lights.
- 4.9 That Transportation and Utilities sign all three entrances of each walkway to inform users of the walkway lighting schedule.

5.0 Implementation

This report was created in response to an inquiry from Councillor A. Iwanchuk dated September 29, 2014 regarding the potential installation of lights on the walkway between Neatby Crescent & Needham Crescent. This report will form part of the response to this inquiry as it determines additional lighting is warranted for one or both of the Parkridge walkways after a CPTED Safety Audit of the area was completed. This report will be forwarded to Shirley Matt of Transportation for further review.

6.0 Attachments

- 6.1 Parkridge Walkways 2013 Selected Incidents of Crime**
- 6.2 Crime Statistics from Study Area 2009-2013**
- 6.3 Summary of Parkridge Walkway Safety Audits**
- 6.4 Parkridge Area Walkways Pedestrian Counts: Needham-Neatby Walkway**
- 6.5 Parkridge Area Walkways Pedestrian Counts: Heise-Needham Walkway**
- 6.6 Saskatoon Light & Power Lighting Options**

Attachment 6.2: Crime Statistics from Study Area 2009-2013

Category	2009	2010	2011	2012	2013
Liquor	0	2	2	2	2
Crimes Against the Person	14	15	18	15	14
Property	25	27	40	39	23
Mischief	15	10	13	28	9
Drug Related	2	7	14	4	12
Suspicious Activity	4	1	3	5	1

Attachment 6.3: Summary of Parkridge Walkway Safety Audits**Audit Area:** Walkways in Parkridge: Hart Road and Needham Crescent Connection**Date:** Tuesday March 17, 2015**Time:** 7:30 - 10PM**Description of Audit Group:**

Size – 17 people participated in safety audit. An additional 7 people provided comments by email but did not attend. Input received from 24 residents in total

Age

- 25-29 (1) 6%
- 35-39 (4) 24%
- 45-49 (3) 18%
- 50-54 (1)
- 55-59 (1)
- 60-64 (3) 18%
- 70-74 (1)
- 75-79 (1)
- 80 + (1)
- Chose not to answer (1)

Sex

- Female (8) 47%
- Male (6) 35%
- Chose not to answer (3)

Affiliation

- City of Saskatoon Administration (5) 29%
- City Councillor (1)
- Community Association (4) 23%
- Resident (6) 35%
- Chose not to answer (1)

General Impression:

- Scary on ice
- Very poor drainage at T intersection of Walkway
- Pathways at intersections on both side of Needham are very dark
- Dark, long, icy and wet
- Closed in
- Poor drainage results in floods
- Treacherous, dangerous, slippery

- West walkway was dark
- Fair
- No visibility
- Uneven

Words to describe the place:

- Unloved, dark, treacherous (for walking), long, wet, icy, dark, slippery, no snow removal, vandalism, unsafe, enclosed, dirty, dangerous

Lighting:

- Good (2)
- Satisfactory (3)
- Poor (4)
- Very Poor (6) 35%
- Chose not to answer (2)

Comments:

- Both walkways are very poor
- In favour of adding lighting for safety
- Lights should be added

Is the Lighting Even:

- No (11) 65%
- Yes (4)
- Chose not to Respond (2)

Why:

- There are no lights on the pathways adjacent to Needham
- Adjacent street lights shine on ends of the path; not in the Y middle
- Lights only located on the north end of both walkways
- Lack of light
- Only limited lighting from homes & street lights
- Only lighting at the ends of each opening not through.

How many lights are out:

- One on Hart Road (7)
- None (4)
- Chose not to answer (6)

Is light obscured by trees and bushes:

- No (15)
- Yes (1)
- Yes and no (1) – tree is blocking light in east walkway

How well does the lighting illuminate the walkways:

- Evaluated 1 to 5, with 1 being very poor

- 1 (12) 65%
- 2 (1)
- 3 (1)
- Chose not to answer (3)

Comments:

- Walkways so poorly lit making it a hazard to walk the length of it safely
- Has no overhead lighting within walkway
- There is no lighting currently along the pathways on either side of Needham, drainage is poor at best in these pathways. Snow has not been cleared, is icy and wet.
- Sidewalks are not visible in dark, slippery due to ice melt
- No lights in walkways
- Middle section darker
- Lights only come from houses if residents has back light on.
- A low level of lighting would be sufficient. I used a flashlight from entrance to end of walkway and that was sufficient to see shapes for people but not faces

Signage:

- The participants were split on whether there were street signs nearby to identify where you are
- Everyone agreed that there were no signs nearby to tell you where to obtain emergency assistance.
- Many participants wrote that directional signage in the walkway was needed.

Sightlines:

- 14 out of 17 (82%) participants indicated that they could not clearly see what was up ahead. The lack of lighting, dark coloured fences and bushes were the reasons given as to why.
- Everyone agreed that there are places where someone could be hiding – specifically, in the bushes, or around the corner at the T intersection of the walkways
- Trimming bushes, installing mirrors, using transparent building materials for fences and adding lighting were ways to improve sightlines.

Isolation – Eye Distance:

- 9 out of 17 (53%) said that the area felt isolated

Isolation – Ear Distance:

- Residents of nearby homes are the closest people available to call for help.
- Participants stated that the area was either unpatrolled or that they did not know

Movement Predictors:

- Most respondents stated that it is obvious or easy to predict movement.
- There is no alternative, well-lit, frequently travelled route to take instead of the walkways

Possible Entrapment Sites:

- The T intersection of the walkways can be used as an entrapment zone.

Escape Routes:

- Consensus was that escape would be easy if the walkways were not so icy, and that there are multiple escape routes.

Nearby Land Uses:

- Residential, stores, parks and schools.
- There was no consensus on the impression of the adjacent land uses.

Maintenance:

- The majority of responses were that the maintenance was either poor or very poor (65%). Most participants noted that there was litter.
- Most did not know to whom to report maintenance concerns

Factors That Make The Place More Human:

- No consensus on whether the area feels cared for or abandoned.
- Majority of participants noticed graffiti on the fences and that some fence boards had been vandalized.

Overall Design:

- The majority felt that the overall design was poor, and that if they were unfamiliar with the area that they would have difficulty finding their way around.

Improvements and Recommendations:

- Lighting installed at walkway intersections, or at the entrance to each walkway (83%).
- Consideration for motion detector (6%), solar powered lights (6%), or timer (6%)
- Direction of lighting should be down toward the path (6%)
- clear snow (35%), improve drainage (47%)
- close walkway (6%)
- Repair/resurface walkway (24%)
- Trim bushes (6%)
- Encourage use of chain link for fencing (6%)
- Install reflective directional signage (6%)
- Establish one main pathway for evening and dark time users (6%)
- Install cameras (6%)
- Inform parents of criminal offences that could occur (6%)

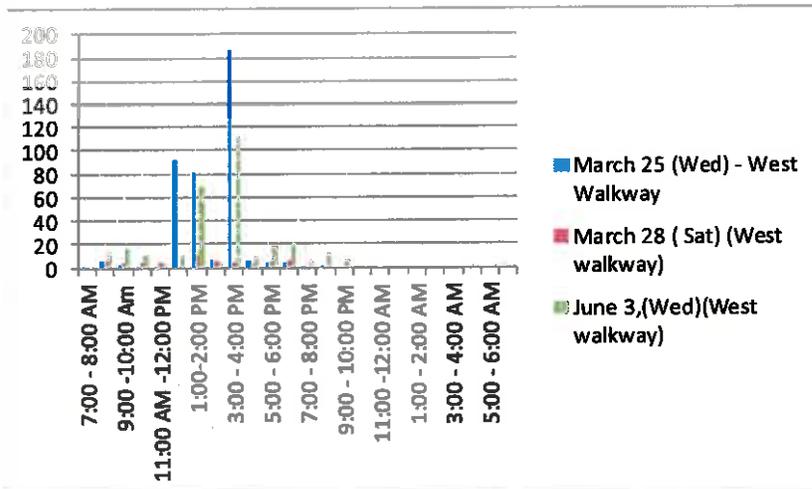
Additional Comments

- Kids walk to school through these walkways everyday
- Want to feel safe using these walkways to access amenities in Blairmore

Attachment 6.4: Parkridge Area Walkways Pedestrian Counts: Needham-Neatby Walkway

West walkway - Pathway Leading Needham Crescent and Neatby Crescent

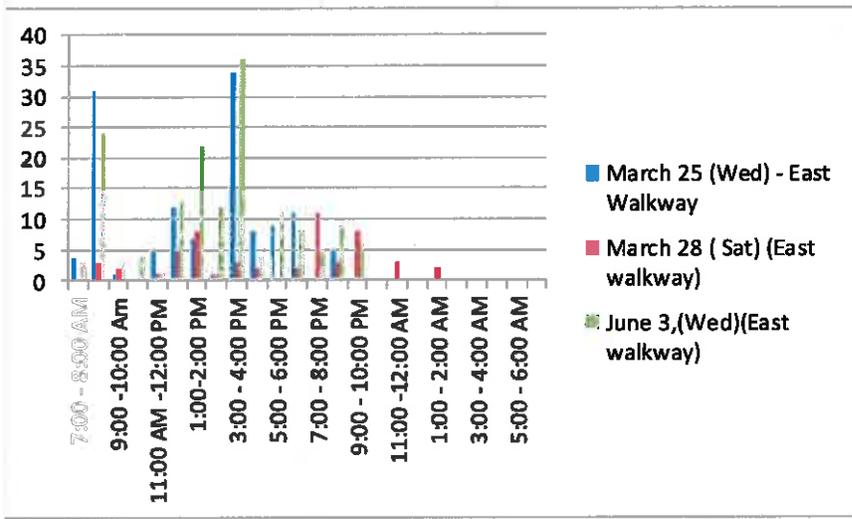
Time	March 25 (Wed) - West Walkway	March 28 (Sat) (West walkway)	June 3,(Wed)(West walkway)	
7:00 - 8:00 AM	1	0	2	
8:00 - 9:00 AM	5	5	14	AM Peak Hour
9:00 -10:00 Am	3	5	17	AM Peak Hour
10:00-11:00 AM	2	4	11	
11:00 AM -12:00 PM	1	4	3	
12:00 - 1:00 PM	93	0	11	
1:00-2:00 PM	82	12	69	PM Peak Hour
2:00 - 3:00 PM	8	6	5	
3:00 - 4:00 PM	186	4	112	PM Peak Hour
4:00 -5:00 PM	7	3	9	
5:00 - 6:00 PM	5	4	18	
6:00 - 7:00 PM	5	6	22	
7:00 - 8:00 PM	2	2	6	
8:00 - 9:00 PM	1	1	12	
9:00 - 10:00 PM	0	2	7	
10:00 - 11:00 PM	0	0	0	
11:00 -12:00 AM	0	1	0	
12:00 - 1:00 AM	0	0	0	
1:00 - 2:00 AM	0	0	0	
2:00 - 3:00 AM	0	0	0	
3:00 - 4:00 AM	0	0	0	
4:00 - 5:00 AM	0	0	2	
5:00 - 6:00 AM	0	0	2	
6:00 - 7:00 AM	1	0	2	
Total	403	60	324	



Attachment 6.5: Parkridge Area Walkways Pedestrian Counts: Heise-Needham Walkway

East walkway - Pathway leading to Needham Crescent and Heise Crescent

Time	March 25 (Wed) - East Walkway	March 28 (Sat) (East walkway)	June 3,(Wed)(East walkway)	
7:00 - 8:00 AM	4	0	3	
8:00 - 9:00 AM	31	3	24	AM Peak Hour
9:00 -10:00 Am	1	2	3	
10:00-11:00 AM	0	0	4	
11:00 AM -12:00 PM	5	1	1	
12:00 - 1:00 PM	12	5	13	
1:00-2:00 PM	7	8	22	
2:00 - 3:00 PM	1	1	12	
3:00 - 4:00 PM	34	3	36	PM Peak Hour
4:00 -5:00 PM	8	2	4	
5:00 - 6:00 PM	9	0	11	
6:00 - 7:00 PM	11	2	8	
7:00 - 8:00 PM	0	11	5	PM Peak Hour
8:00 - 9:00 PM	5	3	9	
9:00 - 10:00 PM	0	8	6	
10:00 - 11:00 PM	0	0	0	
11:00 -12:00 AM	0	3	0	
12:00 - 1:00 AM	0	0	0	
1:00 - 2:00 AM	0	2	0	
2:00 - 3:00 AM	0	0	0	
3:00 - 4:00 AM	0	0	0	
4:00 - 5:00 AM	0	0	0	
5:00 - 6:00 AM	0	0	0	
6:00 - 7:00 AM	0	0	0	
Total	128	54	161	



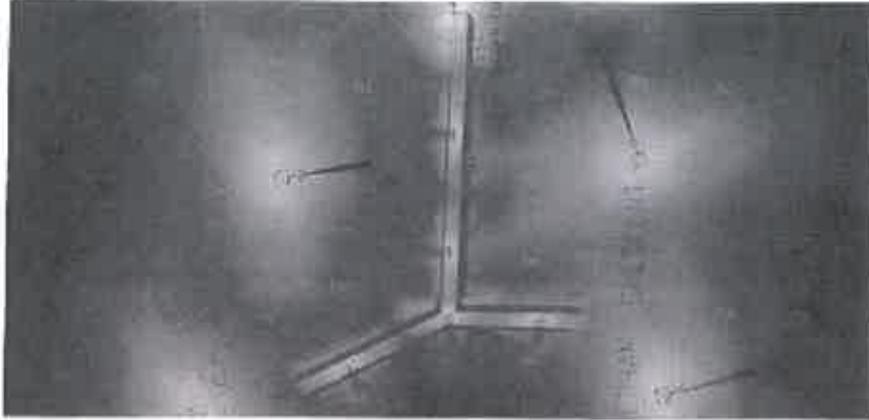
Attachment 6.6: Saskatoon Light & Power Light Plan Options

Option 1.1

- Existing Pathway Light: Lori Pathway Light (100 Watt Metal Halide)
- New Pole Height: 12' pole
- New Fixture Type: LED Pathway NKT Series (14 Watt LED)
- Average: 9.7 Lux
- Average/Min: 32.3 : 1



Plan View



Side View



Option 1.2

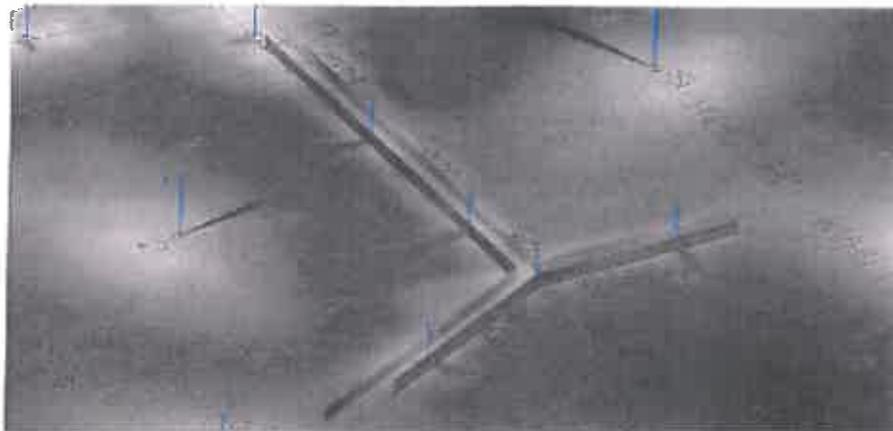
- Existing Pathway Light: Icon Pathway Light (100 Watt Metal Halide)
- New Pole Height: 18' pole
- New Fixture Type: LED Pathway NXT Series (14 Watt LED)
- Average: 7.1 Lux
- Average/Min: 17.8 : 1



Plan View



Side View



Option 2.1

- Existing Pathway Light: Iron Pathway Light (100 Watt Metal Halide)
- New Pole Height: 12' pole
- New Fixture Type: LCD Pathway NX1 Series (14 Watt LED)
- Average: N/A
- Average/Min: N/A



Plan View



Side View



Option 2.2

- Existing Pathway Light: ICOR Pathway Light (100 Watt Metal halide)
- New Pole Height: 18' pole
- New Fixture Type: LED Pathway NXT Series (14 Watt LED)
- Average: N/A Lux
- Average/Min: N/A



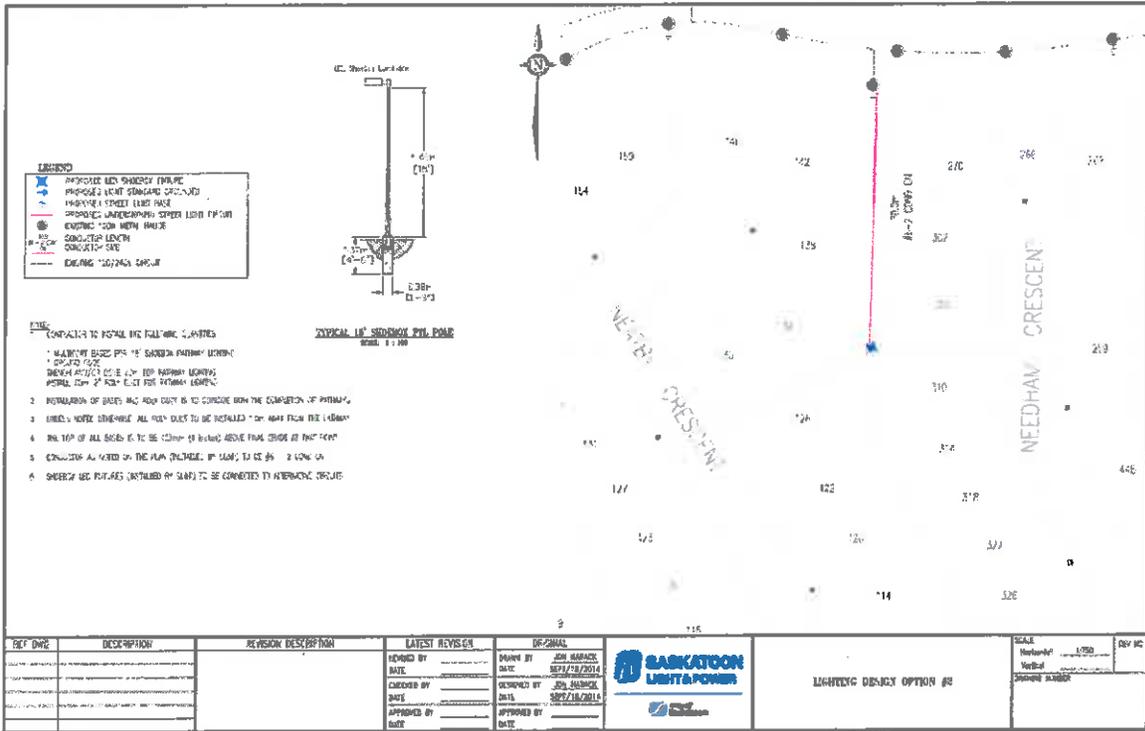
Plan View



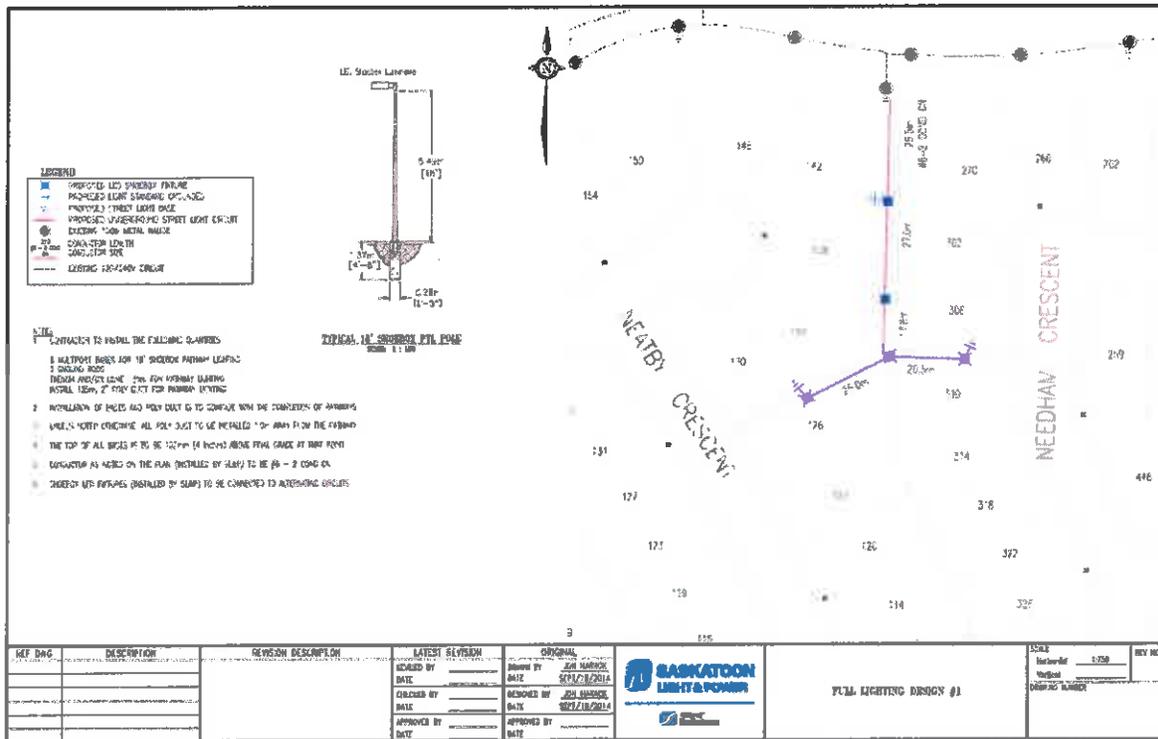
Side View



Proposed Lighting Option 1 with 1 Central Light



Proposed Lighting Option 2 with 5 Lights



Intersection Improvement Project Selection

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated September 14, 2015, be forwarded to City Council during the 2016 Budget and Business Plan deliberations for information.

Topic and Purpose

This report identifies the top twenty intersections throughout the City of Saskatoon requiring improvements based on the selection criteria of collision history, operational capacity of the intersection and coordination with other initiatives.

Report Highlights

1. The prioritization process for undertaking intersection reviews considers the collision history, operational capacity of the intersection and coordination with other initiatives. The Intersection Priority List ranks each intersection based on the calculated priority points.
2. The recommended improvements are outlined along with the proposed funding strategy under Capital Project #2235 – Intersection Improvements for 2016 and 2017.
3. Two projects for minor intersection improvements are also identified for 2016.
4. This strategy in identifying intersection improvement projects is fluid and will be expanded as the City grows.
5. The Transportation Infrastructure Expansion Reserve (TIER) funds construction projects and programs to improve and expand the transportation network. The Traffic Safety Reserve (TSR) provides funding for traffic safety related projects.

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 provide a great place to live, work, and raise a family.

Background

The Standing Policy Committee on Transportation, at its meeting held on August 18, 2015, received a report that outlined the criteria and process used to select and prioritize the intersections requiring reviews for improvements to road safety and/or operating conditions.

The selection criteria are based on collision history, intersection capacity analysis, and coordination with other City initiatives. Priority points are calculated using a combination of intersection crash rates and average intersection delays. Consideration is also given to other City initiatives that may have a significant impact on future operation of specific roadways and intersections that include the Growing Forward! Shaping Saskatoon

project (Growth Plan) and/or the North Commuter Parkway project. Once the Active Transportation Master Plan and Growth Plan are completed and approved by City Council, the Administration recommends that the intersection review selection process be updated to include consideration of these plans.

The Committee also requested additional information on the state of the relevant reserves for capital expenditures.

Report

Prioritized Intersection List

Attachment 1 presents a table listing the intersections in the City that have the highest collision rates and also operate inefficiently in terms of vehicle delay and the corresponding Level of Service. As such, the criteria used to prioritize takes into account both safety and intersection capacity. The intersections are ranked based on the assigned priority points, which are the by-product of intersection crash rates and vehicular delays.

This selection process is used to quantify, compare and prioritize the intersections that need geometric modifications to improve the safety and/or operation. It also serves as a basis for developing a long-term funding strategy under Capital Project #2235 – Intersection Improvements, which is intended to fund improvements to intersections that have potential safety hazards and/or poor levels of service. This project covers the costs of review, design, land acquisition (if required) and construction.

The Prioritized Intersection List also provides a recommended course of action for each intersection on the list. For those intersections that do not have a prepared functional plan with improvements, the first step is to undertake a review, prepare a detailed design with cost estimates, and request funding for implementation in future years. The plans for some intersections on this list need to be coordinated with other related City initiatives, such as future interchange plans and the potential impact of the Growth Plan initiative.

Intersections Improvements and Functional Plan

Based on the criteria, the following locations are priorities for geometric modifications:

1. 51st Street/Lenore Drive and Warman/Wanuskewin Road:
A detailed functional plan for geometric improvements at this intersection has been developed (Attachment 2). The improvements include realignment of travel lanes and turning radii, as well as reconstruction of concrete islands. These modifications should be made prior to completion of the North Commuter Parkway project. A funding request of \$850,000 for construction in 2016 has been included in the Capital Budget submission.
2. 51st Street and Millar Avenue:
Funding of \$50,000 has been requested in the 2016 Capital Budget submission to undertake an internal review of this intersection and prepare a functional plan

Intersection Improvement Project Selection

with detailed cost estimates. Based on the outcome of the review and funding requirements, construction will be proposed in future budget years.

3. Avenue C and Circle Drive:
Funding will be requested in the 2017 Capital Budget submission to undertake an internal review of this intersection and prepare a functional plan with detailed cost estimates. Based on the outcome of the review and funding requirements, the implementation phase will be proposed in future budget years.
4. 22nd Street and Diefenbaker Drive:
A funding request of \$350,000 for construction in 2016 has been included in the Capital Budget submission. It is recommended that geometric improvements proceed in 2016. The construction work includes realignment of east-west left-turn lanes for improved visibility and construction of the eastbound right-turn lane.

Minor Projects

To ensure 'minor' intersection improvements are also completed, two projects have been identified for 2016. These projects have not been vetted through the collision history and traffic analysis review, as the type of modifications required may not be reflected in formal statistics, but benefit overall traffic flows. For 2016, two intersections are recommended for minor improvements:

1. Taylor Street and Preston Avenue:
The construction work includes the addition of east-west left-turn bays and improved alignment. The estimated cost of this work is \$200,000.
2. Taylor Street and Arlington Avenue:
The construction work includes extending the eastbound curb lane to add a second receiving lane. The estimated cost of this work is \$300,000.

Work in Progress

The Administration would like to highlight that this prioritized list of intersection improvements is fluid as traffic patterns change due to development patterns and growth of the City. Collision history is typically provided by SGI on an annual basis, and the Administration will update the collision history review accordingly. It is anticipated that the list may change year over year. Finally, the Administration will strive to add more intersections to the list over time, thus providing more information to the public.

Status of TIER and TSR

The purpose of TIER is to provide funding for additions to the City's transportation network. It is funded annually from an authorized provision in the City's Operating Budget, which takes into account the average monthly Consumer Price Index for the City for the immediately preceding year. At the end of 2015, there will be a balance of \$1.512 Million in TIER, with an allocation of \$1.971 Million in 2016. With a pre-authorized debt repayment of \$674,000 for Capital Project #2435 – Airport Drive Arterial Expansion, the available funds in 2016 is \$2.809 Million.

Intersection Improvement Project Selection

Other than modifications to the roadway network, programs typically funded by TIER include retrofitting of traffic signals, improvements to traffic signal infrastructure, functional planning work for future enhancements, improvements to the City's transportation model, etc.

The purpose of TSR is to provide funding for vehicular traffic, pedestrian and safety related projects including traffic calming. It is funded from the City's share of the fine revenue generated from red light cameras and automated speed enforcement (ASE). It is estimated that in 2016, there will be approximately \$1 Million available from the red light camera program. At this time, no projections have been made for revenues from the ASE pilot program due to the lack of historical trending data. Any revenues generated from the ASE pilot program in 2015 or 2016 will be allocated for 2017 projects. This funding is typically used to address neighbourhood traffic and pedestrian crossing concerns, rail crossing improvements, or traffic safety improvements.

Certain projects may be funded from one or both of these reserves.

Public and/or Stakeholder Involvement

If the recommended modifications impact adjacent private property or access points, discussions will be held with impacted property owners. The list of potential projects will be discussed with SGI.

Financial Implications

The proposed 2016 intersection reviews and construction work will be funded from Capital Project #2235 – Intersection Improvements. Based on the preliminary capital budget plan, there is sufficient funding in the corresponding capital reserves to fund the recommended projects.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

If approved in the 2016 Business Plan and Budget Deliberation process, the Administration will proceed with detailed design and tendering for the intersection improvements in 2016.

Public Notice

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

Attachments

1. Intersection Priority List
2. Warman Road & 51st Street/Lenore Drive and Warman/Wanuskewin Road Functional Plan

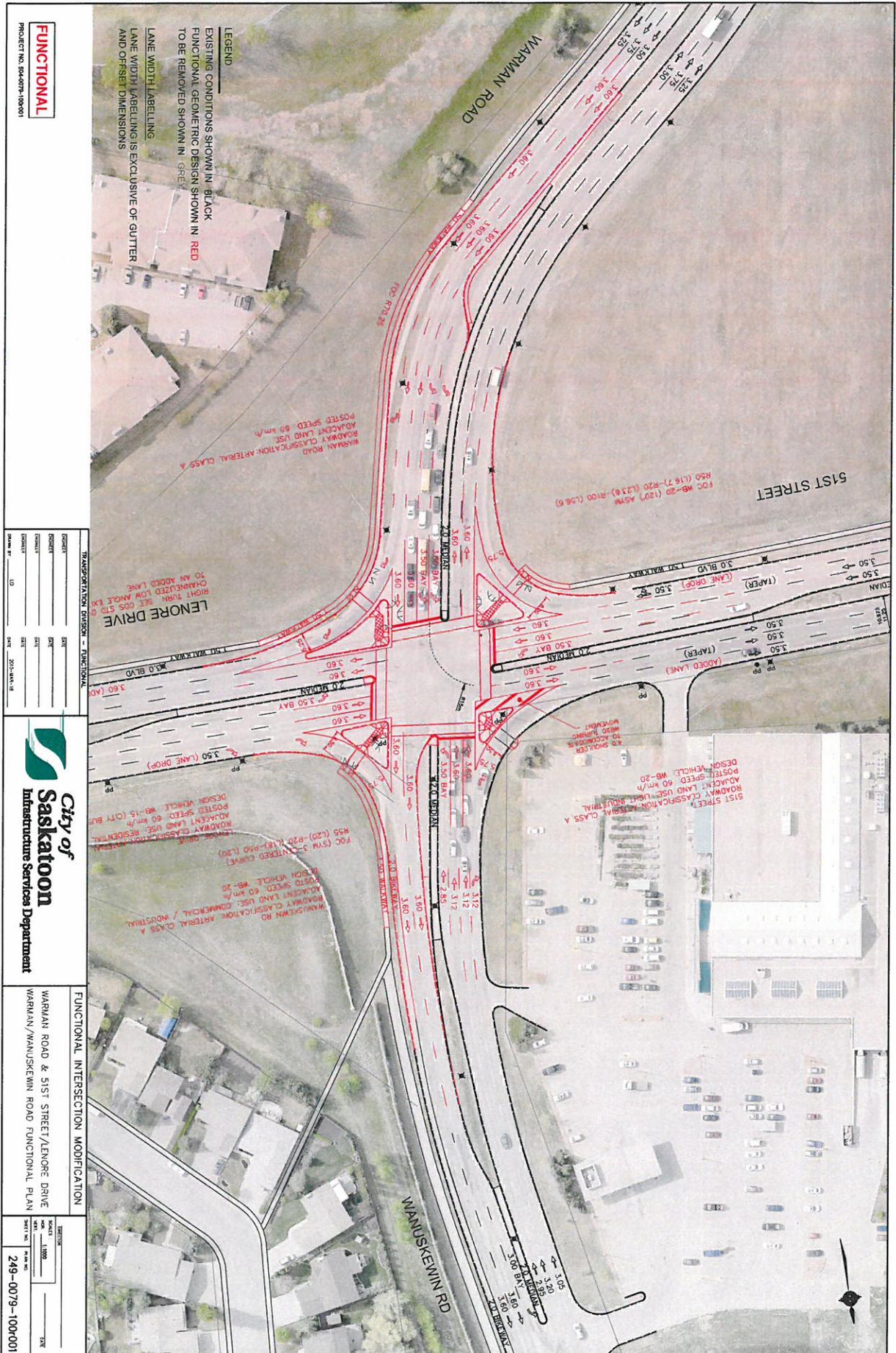
Intersection Improvement Project Selection

Report Approval

Written by: Goran Lazic, Senior Engineer, Transportation
Reviewed by: Jay Magus, Engineering Manager, Transportation
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Celene Anger, Acting General Manager, Transportation & Utilities
Department

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INTERSECTION PRIORITY LIST									
Rank	Street 1	Street 2	Crash Rate per Million Trips	(a) Crash Rate Ranking	Average Delay (seconds)	Intersection LOS	(b) LOS Ranking	(a+b) Ranking Points	Coordination with other City initiatives
1	51ST ST/LENORE	WANUSKEWIN / WARMAN	0.8193	1	78.7	E	5	6	Recommendation: construct geometric improvements in 2016
2	COLLEGE DR	PRESTON AVE	0.5203	7	123.0	F	1	8	Wait for Growth Plan recommendations
3	51ST ST	MILLAR AVE	0.6267	4	71.2	E	6	10	Recommendation: complete functional design study in 2016
4	ATTRIDGE DR	CENTRAL AVE	0.5167	9	120.2	F	2	11	Improvements currently underway
5	33RD ST	IDYLWYLD DR	0.5605	5	68.7	E	7	12	Wait for Growth Plan recommendations
6	AVE C	CIRCLE DR	0.5182	8	88.7	F	4	12	Recommendation: complete functional design study in 2017
7	22ND ST	DIEFFENBAKER DR	0.8003	2	33.8	C	11	13	Recommendation: construct geometric improvements in 2016
8	22ND ST	IDYLWYLD DR	0.5367	6	54.0	D	9	15	Wait for Growth Plan recommendations
9	8TH ST	MCKERCHER DR	0.6604	3	28.2	C	13	16	Wait for Growth Plan recommendations
10	CIRCLE DR	MILLAR AVE	0.3326	17	95.7	F	3	20	Functional design in 2017 after completion of NCPP
11	22ND ST	CONFEDERATION/FAIRLIG	0.4419	13	54.8	D	8	21	Wait for Growth Plan recommendations
12	8TH ST	CLARENCE AVE	0.4834	11	30.2	C	12	23	Wait for Growth Plan recommendations
13	8TH ST	PRESTON AVE	0.5061	10	27.8	C	14	24	Wait for Growth Plan recommendations
14	22ND ST	AVE W	0.3762	16	34.0	C	10	26	Wait for Growth Plan recommendations
15	8TH ST	ACADIA DR	0.4643	12	27.5	C	15	27	Wait for Growth Plan recommendations
16	20TH ST	IDYLWYLD DR	0.4092	14	17.9	B	19	33	Upon completion of Idylwyld Drive corridor review
17	CIRCLE DR	FAITHFULL AVE	0.2879	18	25.7	C	16	34	Future review
18	CIRCLE DR	CLARENCE AVE (South)	0.3775	15	12.1	B	20	35	Future review
19	8TH ST E	CIRCLE DR (East Inters.)	0.2610	19	24.8	C	17	36	Wait for Growth Plan recommendations
20	CIRCLE DR E	IDYLWYLD DR (West)	0.2262	20	23.5	C	18	38	Wait for Growth Plan, intersection capacity study already



Plan for Saskatoon Transit 2015 - 2020

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated September 14, 2015, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to provide members of the Standing Policy Committee on Transportation and City Council with an action plan for Saskatoon Transit. There are changes to both structure and operations that will be needed to move ahead in building relationships with riders and to prepare for the implementation of the Growth Plan to Half a Million (Growth Plan). This report will cover some of the activities planned for the period 2015 – 2020, and future reports will further detail the status of the changes underway.

Report Highlights

1. Saskatoon Transit services will transition over time as the Growth Plan's Long Term Transit Plan is implemented.
2. In 2017, Saskatoon Transit will move out of its current location. The move will require operational and scheduling changes for all employees but will be transparent to riders.
3. To meet the expectations of riders, Transit must continue to become more reliable, effective and accessible.
4. A critical demographic is those individuals who may not be able to continue driving yet do not meet the criteria to use Access Transit services.
5. Saskatoon Transit must continue to renew its fleet with the target of being 100% accessible by 2018.
6. A new Section will be implemented immediately, focused on customer service and engaging with customers, community partners and staff.
7. Over time, additional resources will be required at Transit to better support drivers and customers.

Strategic Goals

This report supports the Strategic Goals of Continuous Improvement and Moving Around, including the 4-Year Priority to change attitudes around public transit and increase Saskatoon Transit ridership.

Background

In 2013, Transit staff were involved in a project to develop Transit 2.0 which was quickly incorporated into the development of the Growth Plan which includes a Transit Plan as well as a Rapid Transit Business Case.

In 2015, City Council endorsed performance metrics for the goals in the 10 year Strategic Plan. In order to make the transit system a more efficient and attractive transportation option, the performance target for Transit Ridership was set to “increase transit ridership to 62 rides per capita” from the 2014 level of 31.9 rides per capita.

Report

Transition from Current State to Support the Growth Plan

The Growth Plan will include recommendations for Transit moving forward from the current conventional service to a service that will meet the needs of residents when Saskatoon reaches a population of half a million. As part of the preparation to support this, Transit will begin rolling out staged changes that will link into the future requirements to support BRT. Initial changes will focus on establishing service to demonstrate how Transit can achieve desired frequency on future BRT lines.

The Growth Plan project’s review of existing transit service has found that as a whole, the current route structure provides a strong base of conventional, coverage-based transit services throughout the city.

Transition to the tenets of the Growth Plan will require a series of discussions around how to best meet the needs of current and future riders with allocated resources. Those discussions will include the decision support framework and methodologies needed to allow Council to make fully informed, fact-based decisions. The work on developing these support tools, including metrics, is starting now and will be supported by some of the other changes for Saskatoon Transit stated in the sections pertaining to structure and an engaged workforce below.

The future recommendations from the Administration will range from route rationalization to service additions. The balance between appropriate walking distances, trip length, and service frequency will be foundational for the route system ultimately implemented. Once these principles have been discussed and a direction set by Council through the Growth Plan initiative, Transit will be able to begin implementing route adjustments. The Administration will keep Committee fully informed through advance reports.

Dealing With the Relocation of the Main Transit Garage

Saskatoon Transit will be moving out of the current location, close to the downtown core, to one that is on the outskirts of the city in 2017. This move will, for the most part, have little impact on customers and will help Transit move to better support the Growth Plan.

The relocation, however, will require operational changes within Transit employee groups. Some of these changes will include different start points for the work (presently it is in the Transit Mall downtown). This may include starting service at various transit terminals around the city and then routing downtown. The changes to the service will increase the amount of travel time that is included in the operator work and will have

some financial impacts that will affect the operation from that point forward. Administration will report further on this in advance of the 2017 budget process.

In addition, Transit will be well placed to operate a Control Centre as found in many other transit systems in North America. The benefits to having a Control Centre will be consistent monitoring of the system using the NOVUS software. Calls will route to the Control Centre instead of directly to an on-road Supervisor and will be followed up in queue unless there are emergent situations. A Control Centre will allow instant identification of a vehicle on the road when there are issues, will allow monitoring the progress of buses along routes and direct changes due to congestion or road closures. A Control Centre will, however, mean a shift and/or changes to current and future employee and group duties, particularly for the Supervisor and Time Clerk positions.

Continuing Fleet Renewal

In order to support requirements found in the Growth Plan, Saskatoon Transit must have a reliable, accessible fleet which will mean retiring all of the current conventional high floor buses over time. The fleet review, presented in May, brought information forward about the age and state of the current transit fleet. Capital funding was provided for the purchase of 10 buses in each of 2015 and 2016. This funding will need to continue in the years following to be able to support the fleet strategy and the transition to a fully accessible fleet by 2018.

As stated in the Accessible Transit Report delivered to the Standing Policy Committee on Transportation in August, the accessible community is requiring more and more support. As Saskatoon's population grows older, it will be of critical importance to provide a 100% accessible fleet for riders. Additionally, a strategy for the Access Transit fleet will be developed to determine if Transit has the correct number of vehicles and operators to support the increasing customer base, and also to determine how the conventional low floor fleet can be utilized to take up some of that load.

Creation of a New Section Within Saskatoon Transit

Saskatoon Transit will change its structure with the creation of a new section aimed at supporting expanded engagement with Customers, while at the same time developing a Customer Service Oriented Culture within the entire workforce. The new organization is shown in Attachment 1.

The Planning and Customer Service Sections will be removed from the Operations Section and a new section created, including a direct relationship with the Marketing and Communications position. Vesting the section manager with the title of Chief Customer Service Officer provides a focal point for issues at a high level within Saskatoon Transit and ensures this person can be seen as a Customer Advocate who has authority within the system. This position will also be the main point for engagement activities throughout the city and will ensure that responses are appropriate and timely. The Engineer/Urban planner in this section will be included in the 2016 budget submission, and will lead implementation of the technical aspects of the growth plan, ensure neighbourhood concept plans are transit-oriented, and will be

responsible to ensure service is optimized given the resources available. The Engineer/Urban planner will be responsible to take transit concepts and work with neighbourhood and roadways planners to ensure new developments are inherently transit friendly.

In the recent months, Transit has experienced some excellent engagement activities with groups like the Association for Equity of Blind Canadians, the Saskatoon Accessibility Advisory Committee and continuing to meet with Bus Riders of Saskatoon. In order to continue developing this level of engagement with riders, to support the Growth Plan and to ensure the Administration is listening to issues regarding the current system, Transit will continue to do more of these activities. Examples include engaging with the various Business Improvement Districts and business community as well as those who regularly interact with Transit. And of utmost importance, Management needs to continue to rebuild engagement with Saskatoon Transit Employees and create a culture of Customer Service where everyone is seen as Customers and understand the need to treat all Customers appropriately.

Developing a culture of Customer Focus and engagement within Saskatoon Transit is a high priority for the leadership within Transit and this section in particular. As better relationships are developed with employees, better relationships are also built with the riding public; we listen to them and we live up to the promises/expectations and give them fact based responses to their questions. In this manner, as much as possible, Transit becomes a transparent organization that does what it says and continues to make a difference in peoples lives everyday.

Supporting an Engaged Workforce

Having Individual Development Plan (IDP) documentation done every year for every employee will be mandatory at Transit. Saskatoon Transit is embarking on a project to revise and reintroduce IDP's to all employees. A diagram of the program is shown in Attachment 2.

As part of this new IDP process, Transit is embarking on a new program in concert with the Motor Carrying Passenger Council of Canada to qualify all Transit Operators as Certified Professional Bus Operators. Professional Certification of Transit Operators brings Transit in line with a large percentage of transit properties in Canada and demonstrates to the employees, as well as the public, Transit's positive investment in our staff.

Changes that were made earlier this year allowing Supervisors more time on the road and at Transit Terminals to support Operators is working and achieving what is required to develop relationships that allow more engagement between Management and employees. In order to maintain these tasks, conduct the IDP process, provide enhanced operator and customer support, and operate the Control Centre, more resources will be required. A future report will outline the Administration's recommendations for resource requirements, which will be dealt with through the annual budget process.

Public and/or Stakeholder Involvement

Public and stakeholder engagement is a key part of this plan. Building an internal culture of engagement and customer service and then expanding that to riders and potential riders is instrumental for Transit to succeed in this overall direction. Partners in the community such as Bus Riders of Saskatoon, Downtown Business Improvement District, and Association for Equity of Blind Canadians will be asked for their continuing input as Transit moves forward.

Communication Plan

Communications will be ongoing throughout the five years covered by this plan. Most communications will be specifically tailored by the Transit Marketing Coordinator and will align with this Plan, the Growth Plan's key project milestones and deliverables as well as Transportation & Utilities direction.

Financial Implications

Staff reallocations will be utilized wherever possible to meet the new Transit organization. The organizational changes which will create the new Customer Engagement and Support Section, along with the Chief Customer Services Officer, will require an existing and approved FTE within Transit to be reallocated. By mid-2016, the Administration will be in a position to report on the additional resources that are expected to be required to continue to adequately support employees and customers. Finally, additional capital funding, starting in 2016 and continuing on, will be required to continue with the fleet renewal strategy as outlined in previous reports.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

This report will be followed up with a progress report each fall between 2016 and 2020.

Public Notice

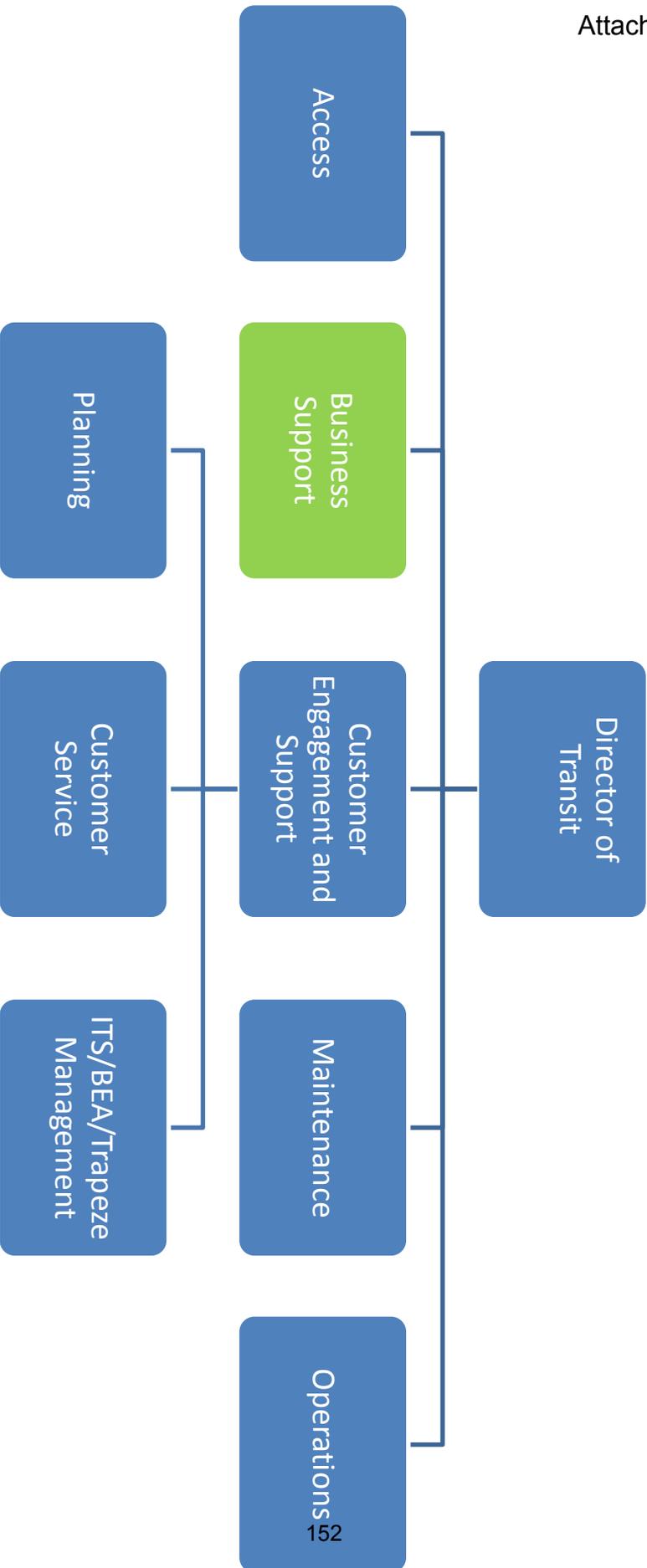
Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

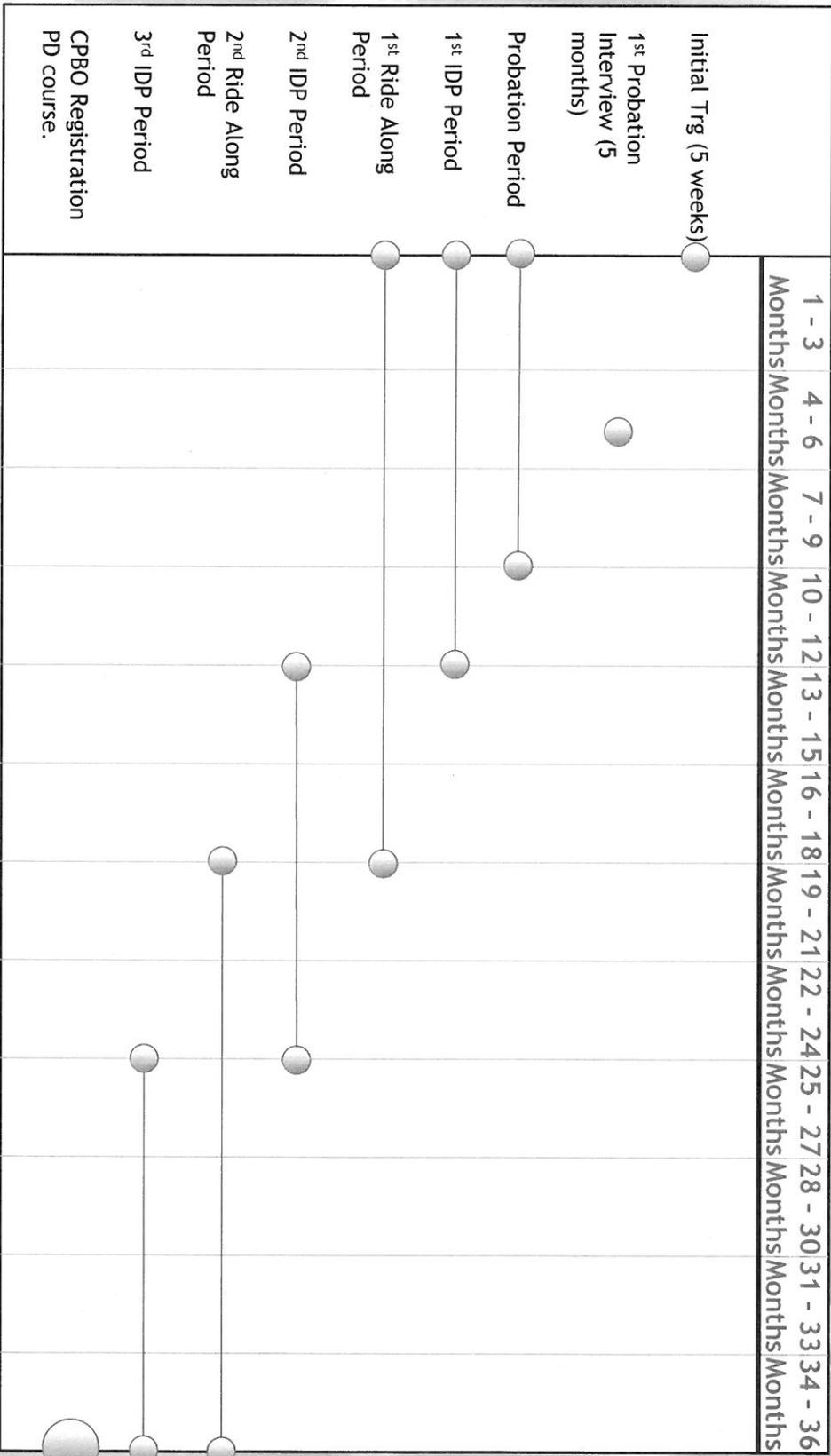
1. Saskatoon Transit Organization Chart
2. Operator Training and Professional Development Cycle

Report Approval

Written by: Jim McDonald, Director of Saskatoon Transit
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department



Operator Training and Professional Development Cycle



1st Ride Along Period – an 18 month period where the Operator will have at least one Supervisor Ride Along – a Safe Work Observation which can also be used as an on road assessment, discussion with the Operator. The ride along will be documented to file.

2nd IDP Period - the 12 month assessment period which will be reported on. This period will include any of the performance notes that have come up in the second year of service. The Operator should have been apprised of any and all entries to the personnel file prior to this so there should be no new entries or surprises when the interview happens.

2nd Ride Along Period - an 18 month period where the Operator will have at least one Supervisor Ride Along – a Safe Work Observation which can also be used as an on road assessment, discussion with the Operator. The ride along will be documented to file.

3rd IDP Period - the 12 month assessment period which will be reported on. This period will include any of the performance notes that have come up in the second year of service. The Operator should have been apprised of any and all entries to the personnel file prior to this so there should be no new entries or surprises when the interview happens.

CPBO Registration – Saskatoon Transit is accredited to certify Certified Professional Bus Operators or (CPBO). CPBO is an industry accreditation aimed at developing a more consistent group of Operators from property to property. Prospective CPBOs need 36 months as an Operator in a 5 year period to be eligible.

Professional Development Course – a new initiative aimed at developing and keeping skills fresh and engaging our Operator groups. Here is a breakdown of the course.

- Complete the Smart Driver and PDIC Courses

- Apply correct and effective procedures for Wheelchair Securement and Seat Ergonomics (on bus portion)

- Conduct refresher Customer Service training (based on CUTA Ambassador course training principles)

- Review Transit Updates and any changes to Operating Procedures

- Any topical issues raised by the City of Saskatoon – these could be Respectful Workplace, Code of Conduct, etc.

- Review and apply effective Stress Management Tools (using a CUTA training tool)

- Discussion of the Progressive Discipline Process

College Drive Classification

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the additional access point from College Drive into the Brighton neighbourhood be configured as outlined in this report.

Topic and Purpose

The purpose of this report is to outline the transportation access strategy for the Brighton neighbourhood, including information on whether a grade separation is required at the Brighton neighbourhood access on College Drive, located between the Canadian Pacific Railway (CPR) overpass and McOrmond Drive. A revised configuration for the interchange at McOrmond Drive and College Drive, along with a cost estimate, is included.

Report Highlights

1. The Administration uses forecasted population horizons of 400,000 and 500,000 to design future infrastructure needs. Individual intersection operation is evaluated in terms of the Level of Service (LOS) and volume to capacity for the operations of an intersection.
2. The proposed at-grade intersection on College Drive will provide an important connection to the Brighton neighbourhood now and in the future, without the need for a grade separation.
3. Traffic signal control technology is used to maximize the efficiency and safety of signalized intersections.
4. The configuration of the McOrmond Drive and College Drive interchange has been revised to provide a higher level of service to neighbourhoods north of College Drive.
5. A funding plan has been developed for the revised interchange which results in development paying for 100% of the interchange.

Strategic Goals

This report supports the Strategic Goal of Moving Around by creating “complete communities” in new neighbourhoods that feature greater connectivity, both internally and externally. It also supports the long-term goal to develop an integrated transportation network that is practical and useful for vehicles, transit, bikes and pedestrians.

Background

Access to the Holmwood Sector is limited by the CPR line that runs the length of the southwest sector boundary and the future perimeter highway alignment which currently bounds the east and southeast edge of the sector. The approved Holmwood Sector Plan specifies seven access/egress locations for Holmwood which is estimated, at full

build-out, to have a population that exceeds 73,000 people and employ nearly 18,500 people.

Since the Holmwood Sector Plan was developed, the City adopted a Strategic Plan and initiated the Growing Forward! Shaping Saskatoon project. Both of these initiatives and the Official Community Plan Bylaw No. 8769 promote a high degree of connectivity within and between neighbourhoods.

City Council at its meeting held on March 23, 2015, approved a report from the General Manager, Transportation & Utilities Department to change the classification of College Drive, between the CPR tracks and the city limits, to Urban Expressway in order to improve connectivity into the Holmwood Sector and resolved, in part:

- “3. That, before the intersection goes forward with respect to the additional access point into the Brighton neighbourhood, the matter be referred to the Standing Policy Committee on Transportation to look at whether a grade separation is required.”

City Council, at its meeting held on June 22, 2015, approved a report from the Chief Financial Officer/General Manager of Asset and Financial Management which outlined the funding plans for interchanges at Highway 16/Boychuk Drive and McOrmond Drive/College Drive. Council resolved, in part:

- “3. That the funding strategy for the interchange at McOrmond Drive and College Drive be approved in principle and details brought forward once negotiations with Dream Developments have been completed.”

Report

Transportation Planning Approach

Transportation planning work is ongoing for the segment of College Drive between the CPR overpass and Zimmerman Road. This work is being completed in conjunction with the Owner’s Engineer work on the McOrmond Drive interchange and the developer’s work planning the Brighton neighbourhood including the remainder of the Holmwood Sector. Traffic forecasts based on population and employment projections have been generated for future city populations of 400,000 and 500,000, which are being used to design infrastructure to accommodate future needs. Opportunities to stage future needs are also considered.

The transportation access strategy for the Brighton neighbourhood includes an additional access point along College Drive, construction of an interchange at McOrmond Drive and College Drive, and extension of 8th Street East as a six-lane Arterial roadway, including the construction of an overpass across the CPR tracks. A high level of connectivity is also planned within the Holmwood Sector.

Intersection Analysis Results

Transportation engineering practice measures the capacity of an intersection in terms of LOS, and volume to capacity (v/c ratio). The LOS is based on average delay to a driver,

the longer a driver has to wait, the poorer the LOS. LOS can be expressed for either the entire intersection, or an individual movement.

The v/c ratio is a mathematical equation with the 'volume' representing either actual or forecasted traffic volumes, and the 'capacity' representing a hard number based on the width of lane, speed of the road, grade of the road, etc. The v/c ratio is expressed for an individual movement only, and a value of 1.0 represents 'at capacity' and, although other considerations must be considered before recommendations are generated, it does provide an excellent method to measure the operations of an intersection.

An evaluation of the projected traffic volume at the Brighton neighbourhood access point along College Drive has been completed. The table below shows the projected operations at three different planning horizons:

Intersection: Brighton Access / College Drive	Weekday Peak Hour			
	AM		PM	
	LOS ¹	v/c ratio ²	LOS	v/c ratio
Opening Day	A	0.80	B	0.95
400k Scenario	B	0.86	B	0.75
500k Scenario	C	0.95	B	0.97

¹ The LOS shown represents the entire intersection

² The v/c ratio shown is for the movement at the highest capacity

The intersection into the Brighton neighbourhood will provide an eastbound right-turn and in the future, will require a northbound left-turn. The intersection may also be used to provide access during construction of the interchange at McOrmond Drive. The intersection will be designed to maintain free flow westbound traffic as shown in Attachment 1. When the northbound left-turn out of Brighton is put into operation in the future, eastbound traffic on College Drive will be subject to a new traffic signal which will enable the left-turn out of Brighton. Peak eastbound traffic occurs in the PM, while the peak left-turn traffic out of Brighton will occur in the AM.

Based on the projected traffic demands, an at-grade intersection will operate adequately and a grade separation is not warranted.

Intersection Control Technology

The current approach to signal timings, which adheres to accepted traffic engineering practices, includes designing traffic signal timings based on existing traffic volumes. Intersection traffic counts are conducted, and traffic engineering software is used to determine the appropriate signal timings for a specific location. Weekday peak hour traffic volumes vary slightly from day to day, but typically not enough to warrant specific timing settings for different week days. However, it is common practice to change signal timing plans throughout the day (AM, PM, and off-peak times) and on weekends as the peak hours' shift. Real-time vehicle sensors that advise and guide signal timing plans is an existing technology, and the City commonly uses this technology to activate the left-turn arrows and green light on side streets. As an example, vehicle detectors on the minor street will input a call for minimum green time and subsequently extend the green

College Drive Classification

interval for additional vehicles. As soon as traffic on the minor street clears, the signal reverts back to green on the major street. The objective is to minimize the interruption of traffic on the major street while providing adequate service to the minor street. All signals outside the downtown core, including all the intersections on College Drive, operate on this principle.

As development progresses, the Administration will continue to monitor and implement traffic signal control technology where appropriate, with a goal of maximizing the westbound and eastbound traffic flow on College Drive.

Interchange Configuration

As the design of the Holmwood Sector progresses, more detailed information of the traffic demands has become available to update the projected operation of the interchange at McOrmond Drive and College Drive. As a result, a modification to the previously approved configuration is being recommended. The revised configuration includes a free flow loop in the south east quadrant as shown in Attachment 2. This loop provides a superior connection for vehicles traveling eastbound, who wish to access McOrmond Drive north of College Drive.

Funding Plan

The original phasing of the transportation infrastructure for the Holmwood Sector was to construct an overpass across the CPR tracks on 8th Street, followed by construction of an interchange at McOrmond Drive and College Drive. Given the growth in the University Heights Sector, the need for an interchange at McOrmond Drive and College Drive has become a priority, resulting in a change in strategy, with the McOrmond Drive interchange now proceeding before the CPR overpass.

The estimated cost of the revised interchange at McOrmond Drive and College Drive is \$52.5 Million. The original funding plan, as outlined in the neighbourhood concept plan, included contributions from the developers of Brighton and the Holmwood Suburban Centre, the Interchange Levy, leaving the City responsible for contributing up to 22% of the cost of the interchange. The Administration has negotiated a revised funding plan which eliminates the City's direct contribution, funding the interchange completely from development. The revised funding plan is outlined below:

- 23.73% Brighton Developers
- 16.78% west portion of Holmwood Suburban Centre Developers
- 30.39% remaining Holmwood Sector Developers
- 29.1% Interchange Levy

Dream Asset Management Corporation (Dream), which represents 60% of the lands within the Brighton development and 100% of the western portion of the Suburban Centre will pay the City 31.01% of the costs of the interchange (\$16.28 Million) upon construction of the interchange, up to a maximum of \$17.91 Million. If the costs of the interchange exceed \$57.75 Million once tendered, the remaining portion of the Suburban Centre will be responsible for the excess costs, up to 40.5% of the total cost

of the interchange. In addition, Dream will also pay the City their portion of the costs of the CPR overpass (\$5.46 Million), to be used for construction of the McOrmond Drive and College Drive interchange. This arrangement will result in a minimum of \$21.74 Million of the \$52.5 Million interchange cost available from the developers upon construction. Since the remaining costs are funded through levies from future development, the City will borrow funds to provide the necessary cash flow, to be repaid as development in the sector progresses.

Options to the Recommendation

Should City Council wish to ensure flexibility in constructing an interchange at this intersection in the future, both the Brighton neighbourhood and McOrmond Drive interchange will need to be re-designed. The Administration does not recommend this option since the projected traffic volumes at the 500k population indicate that the intersection will operate sufficiently. The impacts of pursuing this option are as follows:

- The grade required for the structure would extend further into the Brighton neighbourhood than the first intersection triggering the re-design of at least two crescents inside the neighbourhood;
- The development of ramps and side-slopes would have private property impacts in the Arbor Creek neighbourhood;
- The grade of the interchange would be above the existing berms and walls increasing the traffic noise in the Arbor Creek neighbourhood;
- The eastbound and westbound McOrmond Drive interchange ramps would not be adequately separated from the proposed ramps to function acceptably, this could be mitigated by introducing a collector-distributor configuration along College Drive for the McOrmond Drive and Brighton neighbourhood interchanges, increasing costs;
- Implementing a collector-distributor configuration would delay the delivery of the McOrmond Drive interchange while the segment of College Drive from the CPR overpass to Zimmerman Road is re-planned and designed, increasing costs; and
- The westbound ramp from an interchange at this location would terminate on the upslope of the CPR rail overpass triggering significant upgrades to that overpass and embankment, increasing costs.

Constructing an interchange would have significant financial implications with limited benefits to traffic flows compared to the operation of an at-grade intersection.

A partial interchange may cost upwards of \$30 Million given the physical constraints at this location.

Public and/or Stakeholder Involvement

In 2013, the functional plan for the College Drive and McOrmond Drive interchange was presented at a public open house. The feedback at that time focused on the desire to expedite the construction of the interchange and the desire to retain a free flow movement for southbound traffic. No information related to the re-classification of College Drive was presented at that time. Additional stakeholder and public involvement would occur as a result of the Holmwood Sector Plan and Brighton Neighbourhood Concept Plan amendment process.

Communication Plan

Information regarding the McOrmond Drive interchange will be made available on the City's website. As that project progresses, specific information, including any construction or traffic flow impacts, will be shared via the City's Daily Road Report, the City Service Alerts (saskatoon.ca/service-alerts), the online construction map (saskatoon.ca/constructionmap) and through advertisements and public service announcements as appropriate.

Financial Implications

The estimated cost of the McOrmond Drive and College Drive interchange is \$52.5 Million and will be fully funded by development. However, due to the timing of the collection of development levies based on lot sales and the corresponding developer contributions to the project, borrowing will be required to provide the necessary cash flow to complete the project and repaid using the future developer contributions.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The amendment to the Holmwood Sector Plan is planned for mid-2016. The timing of construction of the McOrmond Drive and College Drive interchange is dependent on approval of senior government funding for the interchange at Boychuk Drive and Highway 16, as the two projects will be combined into one contract. If funding approval is obtained by the end of 2015, procurement will begin in early 2016, with contract award by fall 2016. The two interchanges will be operational in 2018.

Public Notice

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

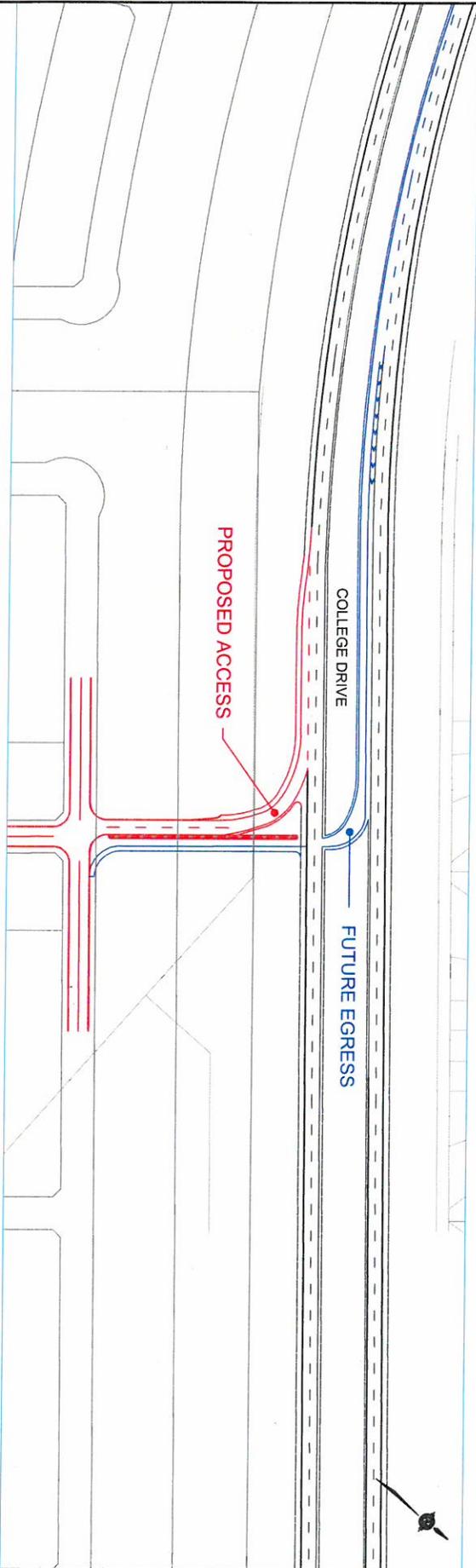
Attachments

1. Brighton Intersection Concept Geometrics
2. McOrmond Drive and College Drive Interchange Configuration

Report Approval

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

TRANS JM – College Drive Classification.docx



PLAN DESCRIPTION/REVISIONS	
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 DATE 2015-SEP-11
 SCALE : HOR. 1:3000 VERT.



City of Saskatoon
 Transportation & Utilities Department

**BRIGHTON INTERSECTION
 CONCEPT GEOMETRICS**

APPROVED

DIRECTOR

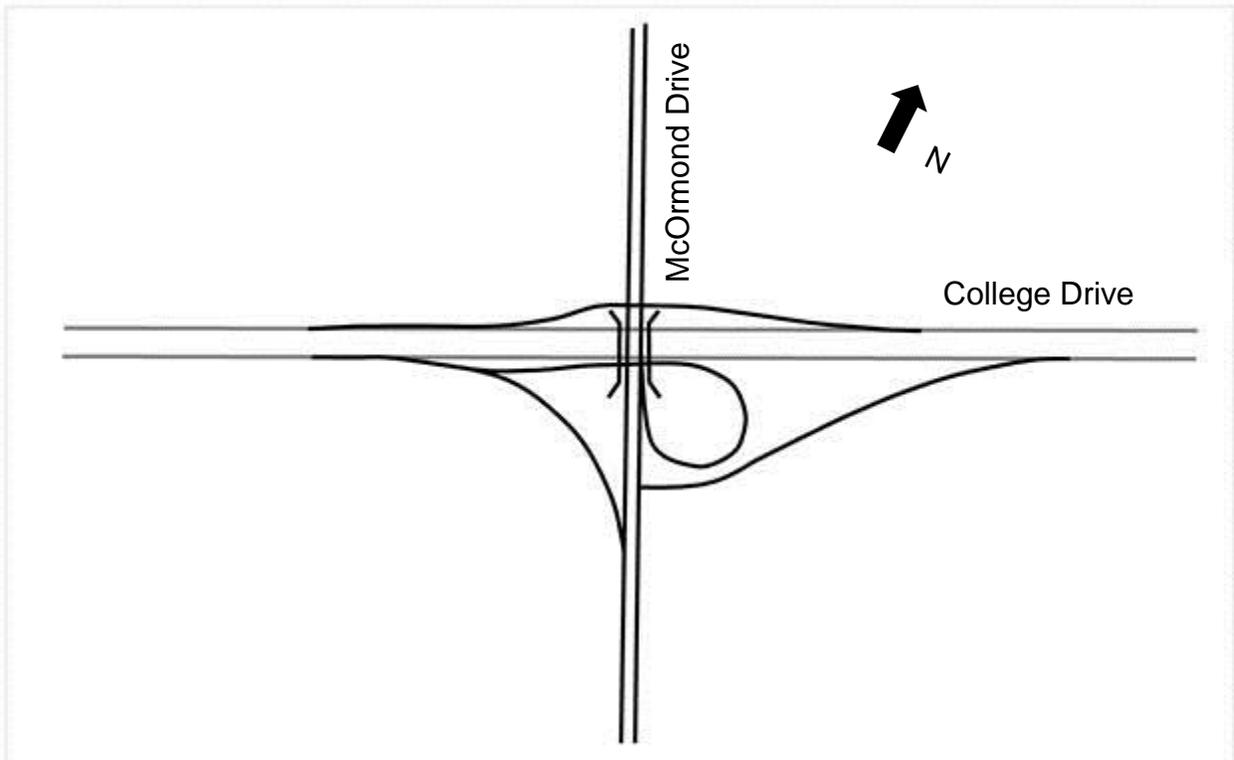
ENGINEER

ENGINEER

PLAN NO.

249-0063-114r001

McOrmond Drive and College Drive Interchange Configuration



Servicing Agreement – Dream Asset Management Corporation- Brighton Neighbourhood – Subdivision 67/14

Recommendation

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

1. That the Servicing Agreement with Dream Asset Management Corporation, for a portion of the Brighton Neighbourhood to cover Lots 1-10, Block 101; Lots 1-20, Block 102; Lots 1-20, Block 103; Lots 1-22, Block 104; Lots 1-29, Block 105; Lots 1-5, Block 106; Lots 1-22; Block 107; Block 108; Block 109; Block 110; Block 111, Block 112; Block 113; all in Section 29 and Section 32, Township 36, West of the third Meridian, be approved, subject to the approval of the transportation access strategy; and
2. That His Worship the Mayor and the City Clerk be authorized to execute the Agreement under the corporate seal.

Topic and Purpose

This report is to obtain City Council approval to enter into a Servicing Agreement to assign responsibility for the construction and payment of various servicing items for property within the Brighton neighbourhood.

Report Highlights

The Administration is recommending that the Servicing Agreement with Dream Asset Management Corporation (Attachment 1) be entered into to cover the development of Lots 1-10, Block 101; Lots 1-20, Block 102; Lots 1-20, Block 103; Lots 1-22, Block 104; Lots 1-29, Block 105; Lots 1-5, Block 106; Lots 1-22; Block 107; Block 108; Block 109; Block 110; Block 111, Block 112; Block 113; all in Section 29 and Section 32, Township 36, West of the third Meridian.

Strategic Goal

The recommendations in this report support the Strategic Goal of Sustainable Growth as the development area is within a concept plan which was previously approved and supports the development of residential property.

Background

The Brighton neighbourhood concept plan was previously approved by City Council. When a Developer within the neighbourhood requests a subdivision, the City necessitates as a condition of approval that a servicing agreement be entered into as a condition of approval.

Report

The City is recommending that a Servicing Agreement be entered into with Dream Asset Management Corporation to cover the development of Lots 1-10, Block 101; Lots 1-20, Block 102; Lots 1-20, Block 103; Lots 1-22, Block 104; Lots 1-29, Block 105; Lots 1-5, Block 106; Lots 1-22; Block 107; Block 108; Block 109; Block 110; Block 111, Block 112; Block 113; all in Section 29 and Section 32, Township 36, West of the third Meridian, subject to the following, which includes both standard and a number of non-standard clauses which are necessary due to the unique nature of the development, and have been agreed upon by the developer:

A. Standard Items:

1. Servicing of the development area is to be completed before December 31, 2015.
2. That the prepaid service rates be such rates as the Council of the City of Saskatoon may have in general force and effect for the 2015 season.

B. Non Standard Items:

1. The Developer is responsible for the cost of all upgrades beyond the City's standard along 8th Street and McOrmond Drive adjacent to the development.
2. Traffic Control Devices beyond the City standard will be funded by the developer.
3. A paved all-weather roadway will be provided and maintained by the Developer with at least two separate access points linking College Drive with the Canadian Pacific Railway (CPR) until both the 8th Street and McOrmond Drive arterial roadways are open to traffic in the future.
4. The Developer has agreed to fund their share and the City has agreed to design and construct an overpass with pedestrian facilities when required at the CPR tracks including the initial installation of an upgraded rail warning system with gates.
5. The City will design and construct an interchange at McOrmond Drive and College Drive and the Developer will partially fund the construction based on projected traffic volumes.
6. The Developer will pay into a fund to allow for a number of scheduled street sweeps before the area is turned over to the City for maintenance.
7. The Developer will design, construct and fund a north pedestrian connection between Brighton, College Park and Arbor Creek.
8. The Developer will construct in the future and partially fund an additional access point to College Drive.

The Servicing Agreement is based on a transportation access strategy outlined in a companion report.

Options to the Recommendation

The Planning and Development Act, 2007 states that a municipality may require that an applicant requesting subdivision enter into a servicing agreement that allows for the

inclusion and implementation of terms and conditions. No other option other than approval without conditions or denial is available.

Public and/or Stakeholder Involvement

Public meetings were held at the time the concept plan for the neighbourhood was undertaken.

Communication Plan

At the time the concept plans were unveiled, notices were distributed to all property owners in the area and surrounding area. As well, the local community associations were notified. If construction impacts the neighbouring residents or initiates renewed public interest, additional communications may be considered to address unanticipated or emerging needs.

Financial Implications

The funding for any private developer responsibility has been addressed within the servicing agreement. The funding for all construction that is the responsibility of the City of Saskatoon with the exception of the final details of the College Drive and McOrmond Drive interchange is self-supporting and approved in the Prepaid Capital Budget.

Environmental Implications

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

Safety/Crime Prevention Through Environmental Design (CPTED)

A CPTED plan is not required for this construction as per Administration Policy A09-034.

Other Considerations/Implications

There are no policy or privacy implications.

Due Date for Follow-up and/or Project Completion

The project is expected to be completed to a road base level of structure during the current construction year, and if not completed, a clause within the agreement invokes the following year levy rates.

Public Notice

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

Attachment

1. Servicing Agreement – The City of Saskatoon and Dream Asset Management Corporation.

Report Approval

Written by: Daryl Schmidt, Land Development Manager
Reviewed by: Celene Anger, Director of Construction & Design
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities
Department

TRANS DS – Dream – Brighton Subdivision No. 67-14.docx

Servicing Agreement

The effective date of this Agreement is _____, 2015.

Between:

The City of Saskatoon, a municipal corporation pursuant to the provisions of *The Cities Act*, S.S. 2002, Chapter C-11.1 (the “City”)

- and -

Dream Asset Management Corporation, a British Columbia corporation, carrying on business in the City of Saskatoon, in the Province of Saskatchewan (the “Developer”)

Whereas the Developer has made application to the City for approval of a Plan of Subdivision, a copy of which is attached to this Agreement and marked as Schedule “A” (the “Plan”);

Whereas the City requires as a condition of approval of the Plan that the Developer enter into an Agreement with the City respecting the installation and construction of certain services and other matters referred to in this Agreement;

Whereas the City deems it advisable that the Development Area be developed as provided in this Agreement, and that the Developer and the City provide the facilities as set out in this Agreement; and

Now therefore the City and the Developer agree as follows:

Part I Introduction

Plan of Proposed Subdivision

The Plan showing the proposed subdivision of Section 29 and Section 32, all in Township 36, Range 4, West of the Third Meridian located in the City of Saskatoon, in the Province of Saskatchewan, in the Dominion of Canada, attached to this Agreement as Schedules "A" is made part of this Agreement.

Definitions and Term

1. (1) Throughout this Agreement:
 - (a) "Development Area" means all that portion of the lands outlined in red on Schedules "A" consisting of approximately 2,737 metres of frontage, including 2,063 metres of Residential frontage and 674 metres of Commercial/Institutional/Multi-family parcel land being those lands which, subject to regulatory approval, have been approved for development; and
 - (b) "Manager" means the General Manager of the City's Transportation and Utility Services Department.
 - (c) "Street Length" means the total length of streets within the Development Area comprising 2,453 metres.
- (2) The term of this Agreement shall be two years commencing on the effective date and ending on the day two years from the effective date (the "Term").

Part II Off-Site Servicing

City Servicing

2. Upon the execution of this Agreement the City shall within a reasonable time, and in coordination with the Developer's various stages of service construction, cause the Development Area to be improved and benefited by the supply, placement, installation, construction, use and enjoyment of the following services:
 - (a) Trunk Sewer Service;
 - (b) Primary Water Main Service;

- (c) Arterial Road Service;
- (d) Interchange Service;
- (e) Parks and Recreation Service;
- (f) Buffer Strip Service;
- (g) Street Signing and Traffic Controls Service;
- (h) Fencing Service;
- (i) Planning Service;
- (j) Street Lighting Service;
- (k) Inspection Service;
- (l) Prepaid Extended Maintenance Service;
- (m) Underground Electrical Service;
- (n) Community Centre;
- (o) McOrmond and College Drive Interchange Service;
- (p) Canadian Pacific Railway Overpass Service;
- (q) Pedestrian Overpass Service;
- (r) Heavy Debris Blitz Sweep Service, and;
- (s) Servicing Agreement Service;

The City warrants that all such services shall be of a size and capacity sufficient to satisfy the servicing requirements of any and all permitted uses to be situated within the Development Area.

Levies & Charges Payable by the Developer

3. (1) In consideration of the City providing the various services upon and in relation to the Development Area as specified in Section 2, the Developer shall pay to the City the following fees, levies and other charges calculated in accordance with and at the rates described in Schedule "B":

- (a) Trunk Sewer Levy;
- (b) Primary Water Main Levy;
- (c) Arterial Road Levy;
- (d) Interchange Levy;
- (e) Parks and Recreation Levy;
- (f) Buffer Strip Levy;
- (g) Street Signing and Traffic Controls Levy;
- (h) Fencing Levy;
- (i) Planning Levy;
- (j) Street Lighting Levy;
- (k) Inspection Levy;
- (l) Prepaid Extended Maintenance Levy;
- (m) Underground Electrical Levy;
- (n) Community Centre Levy;
- (o) McOrmond and College Drive Interchange Charge;
- (p) Canadian Pacific Railway Overpass Charge;
- (q) Pedestrian Overpass Charge;
- (r) Heavy Debris Blitz Sweep Charge; and,
- (s) Servicing Agreement Fee.

(collectively the “Development Charges”)

- (2) The Developer shall pay to the City the Development Charges as follows:
 - (a) within 21 calendar days after the execution of this Agreement, the Developer shall pay to the City 25% of all the Development Charges

with the balance of the Development Charges being due and payable in three equal installments upon January 31, 2016, May 31, 2016, and September 30, 2016;

- (b) the Developer acknowledges that the Development Charges will be subject to such rates as the Council of The City of Saskatoon has established and has in general force and effect for the 2015 construction season and the Developer acknowledges and agrees that should the construction of services as outlined in Subsection 13(a) not be completed to the base stage of road construction during 2015, that the Development Charges shall be adjusted to reflect the rates in effect for the construction year that all base material has been installed. The City acknowledges that should the Development Charges be adjusted, the payment schedule contained in Subsection 3(2)(a) shall be adjusted forward from the dates in this Agreement to the date construction commences in the subsequent year. The provisions of this clause shall not apply where the failure to reasonably complete results from any strike, labour dispute, Act of God, or any other similar cause beyond the reasonable control of the Developer.

Cost Sharing of Services

4. (1) Both the Developer and the City acknowledges that each party will undertake the construction of various services as set out below that will benefit the Development Area.
- (2) The Developer agrees to provide and or pay upon invoice for all services that are above the City's current standard. The upgrades may be constructed over time depending on lot development within the neighbourhood. The timing of the construction will be at the discretion of the Manager. For clarity, the total cost shall exclude land acquisition costs and interest. Where the upgraded service has been directly provided by the City the percentage of total cost shall include labour, materials, supplies, detouring costs, material testing and all other related costs including 10% for design and construction engineering costs. The upgrades will include the following:
- (a) Traffic Improvements:
- (i) Arterial Roadways - upgrades beyond the City's 4 lane standard including but not limited to additional lanes, double left turning bays, centre median upgrades, swales between roadways and boulevards exceeding 2 metres in width beyond a fine grade and seeding standard along 8th Street East west of

McOrmond Drive and McOrmond Drive north of 8th Street East. For this item only, the City requires that;

- a) All of the upgrades will initially be charged to the developer. The City intends to administer a charge for the proportional share of the approximate cost of the upgrades on McOrmond Drive from all saleable lands not owned by the Developer that benefit the Brighton neighbourhood outlined in green on Schedule "C" and separately the benefit for those lands within the Holmwood Sector Plan designated as Business Park and Suburban Area situated west of the approximate current boundary of Zimmerman Road outlined in blue on schedule "C". The City also intends on administering a charge for the approximate cost of 8th Street East improvements that benefit both the Brighton neighbourhood outlined in green on Schedule "C" and the neighbourhood to the south of 8th Street East noted in yellow on Schedule 'C'. The charges shall be calculated separately on a front metre basis for residential zoned property less than 40 metres deep and 169 front metres per hectare for all other saleable property within the area; and,
 - b) the City will hold all such monies including interest from the collection of the charge and will make reimbursement payments to the Developer each year upon proportional staged construction of the improvements; and,
 - c) the requirements of clause 4)2)(i)a) shall extend beyond the currency of this agreement for a period of 17 years from the date of execution; and,
- (ii) College Drive Access - upon the request of the Manager the Developer shall provide a dedication of land, design and construct with signalization to the satisfaction of the City an additional access roadway to College Drive including intersection improvements between the Canadian Pacific Railway (CPR) and McOrmond Drive.
- a) The Developer will initially fund 70.8% of the construction and the City will fund 29.2%. The City intends to administer a charge for the proportional

share of the approximate cost of the access point from all saleable lands not owned by the Developer within the Brighton neighbourhood outlined in green on Schedule "C". The charges shall be calculated separately on a front metre basis for residential zoned property less than 40 metres deep and 169 front metres per hectare for all other saleable property within the area; and,

- b) the City will hold all such monies including interest from the collection of the charge and will make reimbursement payments to the Developer each year upon proportional staged construction of the improvements; and,
- c) the requirements of clause 4)2)(ii)a) shall extend beyond the currency of this agreement for a period of 17 years from the date of execution; and,

(iii) Signing and Traffic Control Devices – traffic control signals will receive funding for up to 3 signalized intersections within the neighbourhood. Signals required by the Manager beyond this level of service will be paid for by the Developer. Any additional signing above the City's normal standard will be paid for by the Developer.

(iv) All Weather Paved Roadway – upon execution of this agreement the Developer must design, provide and maintain to the City's satisfaction, a roadway with at least two separate and independent access points throughout the development of the neighbourhood for both emergency and resident access. The roadways must provide a linkage between the Canadian Pacific Railway crossing and College Drive. The roadways must remain in operation until the McOrmond Drive and 8th Street arterial roadways are open to traffic.

(b) Berming and Fencing:

(i) Berms – will be required within municipal buffer strips along the Canadian Pacific Railway tracks and along College Drive adjacent to the neighbourhood. Any berm required to be constructed to a higher elevation than the City standard will be paid for by the Developer.

- (ii) Fencing - chain link fencing will be required within municipal buffer strips along the Canadian Pacific Railway tracks and along Highway 5 adjacent to the neighbourhood. Any fence that is proposed to be enhanced beyond the City's chain link standard will be the expense of the Developer.
- (3) Interchange and Overpasses:
- (a) Canadian Pacific Railway Overpass ("CPR Overpass") –
 - (i) The City consents to completing the design and construction of a 6 lane overpass including pedestrian facilities and the extension of 8th Street to Boychuk Drive to a 6 lane standard in the future situated at the intersection of the Canadian Pacific Railway and 8th Street East. The CPR Overpass will begin construction no sooner than the earlier of 80% of the Brighton neighbourhood is constructed with roadways or the CPR crossing warrants a grade separation based upon the standards set out by Transport Canada documented in the "Canadian Road / Railway grade Crossings Detailed Safety Assessment Field Guide" and the "Draft RTD 10 Road/Railway Grade Crossing Technical Standards and Inspection, Testing and Maintenance Requirements."
 - (ii) The construction of the CPR Overpass and related roadways may be phased to initially accommodate 4 lanes of the ultimate 6 lane structure. The City will undertake an analysis of the timing for the final 2 lane phase.
 - (iii) Prior to the construction of the CPR Overpass the City will seek approval from the CPR and the Developer will provide at his cost a modification to the CPR/8th Street intersection including a warning system and crossing arms.
 - (iv) The City agrees to administer a charge collected proportionately upon subdivision for the approximate cost of the CPR Overpass including the initial cost of a warning system and crossing arms noted in 3(1)p) based on frontage for residential zoned property less than 40 metres deep and all other saleable properties based on 169 front metres per hectare situated between and including the approximate boundary of the neighbourhood south of 8th Street and the approximate current boundary of Zimmerman Road outlined in red on schedule "C"; and,

- a) for all saleable property noted in Schedule “C” the City will continue to charge the levy for the CPR Overpass and to hold all such monies including interest up to the commencement of the CPR overpass; and,
 - b) after the completion of the CPR Overpass for the saleable property not owned by the Developer noted in Schedule “C” the City will continue to charge the levy adjusted for the final cost including warranty charges; and,
- (b) McOrmond Drive and College Drive Interchange (“the Interchange”)
- (i) The City consents to completing the design and construction of a grade separated interchange as soon as is feasible and is required by the Manager at the intersection of McOrmond Drive and College Drive; and,
 - (ii) the Developer agrees to provide and maintain in the interim during construction of the interchange between the development area and the detour roadway established and constructed as part of the interchange project a temporary paved all weather roadway to City standards extending from the Development Area to the existing intersection with College Drive; and,
 - (iii) the interchange shall be cost shared between the Developer and the City. Until the interchange begins construction the Developer agrees to pay a charge noted in clause 3(1)o that includes 23.72% calculated from the lands encompassing the Brighton Neighbourhood outlined in green on Schedule “C”. An additional charge based on 16.78% calculated from 50% of those lands identified in the Holmwood Sector Plan adjacent to 8th Street between McOrmond Drive and the approximate current boundary of Zimmerman Road outlined in blue on schedule “C” will be assessed upon future subdivision. In addition, lands remaining within the Holmwood Sector situated east of the proposed Zimmerman Road upon future subdivision will also be subject to a charge based on 30.4% of the cost of the interchange. The charge shall be assessed on a front metre basis for residential zoned

property less than 40 metres deep and 169 front metres per hectare for all other saleable property within the area; and,

- (iv) when the interchange begins construction the Developer will pay the City upon staged construction completion 14.23% of all costs representing the lands within the Brighton neighbourhood owned by the Developer calculated from a total cost limit of 57.75 million dollars for the Interchange outlined in green on Schedule “C”. In addition the Developer agrees to pay upon invoice 16.78% of all costs representing 50% of the lands within the Holmwood Sector Plan outlined in Blue on Schedule “C” owned by the Developer not including a total cost limit. The cost pertaining to the Developer will be evidenced by the issuance of invoices from the City for that portion of all engineering, detouring, construction and all other related costs not already received by the charge for the Developer’s portion noted in clause 4)3)b)iii for the interchange, and;
- (v) the City agrees that for all saleable property not owned by the Developer noted in Schedule “C” outlined in green and blue to assess the various charges in proportion to ownership upon subdivision for the interchange; and,
- (vi) after the completion of the interchange for the saleable property not owned by the Developer noted in clause 4)3)b(v) the City will continue to assess the various calculated charges; and,
- (vii) The Developer will be responsible for a two year warranty period after the issuance of the construction completion certificate for all warranty claims that may occur with regards to “The Interchange” calculated at 31.01% of such amounts; and,
- (viii) The City agrees that for the Brighton neighbourhood only, the Interchange Levy noted in clause 3(1)d will be limited per year to an increase of the lessor of 5% or the increase in the Arterial Road Reserve from the rates established by the Council of the City of Saskatoon for the 2015 construction year.

- c) Interchange and CPR Overpass Funding Reallocations
- (i) The City will utilize its best efforts to obtain partial external funding for the construction of the Interchange from the Urban Highway Connector Program administered by the Province of Saskatchewan. Any funding that the City may obtain will be proportionately offset against the financial obligations of the City, the Developer and other land owners noted in clause 4)3(b), and;
 - (ii) In order to expedite the construction of the Interchange as soon as possible the City will consider, and the Developer agrees, that upon the commencement of the construction of the Interchange, the City has the option of receiving a prepayment from the Developer to be paid upon invoicing for a portion of the cost of the CPR Overpass that has been estimated at 32.12 million dollars. The calculation of the prepayment will be the product of the estimated cost of 32.12 million dollars and the contributing percent from the Brighton neighbourhood as it relates to the land currently owned by the Developer calculated at 18.69%. The City and the Developer agree that upon exercise of this option the charge noted in clause 3)1)p will be adjusted and continue to be implemented in the future based on the estimated cost of the CPR overpass for all other lands not owned by the Developer within the Brighton neighbourhood identified in red on Schedule "C".
- d) Pedestrian Overpass
- (i) The Developer at his cost, agrees to construct when required by the Manager, a pedestrian overpass between the Brighton, College Park and Arbor Creek neighbourhoods including linking pedestrian facilities outlined in Brown on Schedule "C", and;
 - a) The City agrees to administer a charge collected proportionately upon subdivision for the approximate cost of the Pedestrian Overpass noted in 3(1)q) based on frontage for residential zoned property less than 40 metres deep and all other saleable properties based on 169 front metres per hectare outlined in Green calculated on 100% of the area and outlined in Blue calculated on 50% of the area, all on schedule "C" excluding those lands south of 8th Street; and,

- b) for all saleable property not owned by the Developer noted in Schedule "C" outlined in Green and Blue excluding those lands south of 8th Street the City will continue to charge the levy for the Pedestrian Overpass and to hold all such monies including interest up to the completion of each overpass and to remit same to the Developer upon the staged completion; and,
 - c) the Developer agrees that if the City constructs any of the overpasses to pay upon invoice for the costs of such services and the City agrees to reimburse the Developer for amounts collected as noted in clause 4(3)(d)i(a), and 4(3)(d)i(b); and,
 - d) the requirements of clause 4)3(d)(i)b shall extend beyond the currency of this agreement for a period of 17 years from the date of execution.
- (4) The City will use its best commercial efforts upon subdivision to collect the various levies from the saleable property not owned by the Developer as noted in clauses 4)3(d)(i)b, 4)2)(a)(i) and 4)2)(a)ii and the Developer will not hold the City liable for any land that the City incorrectly charged or failed to collect from.
- (5) Should any of the services as set out in Section 4 not be complete at the expiration of the Term, this Section shall survive the Term until the completion of the services, receipt of payment for same and the end of any applicable warranty period.

Payment Dates and Interest

5. (1) All of the Development Charges and other fees, levies and charges payable by the Developer to the City pursuant to this Agreement shall be due and payable upon the various dates specified in this Agreement.
- (2) Should any amount or invoice not be paid at the times or within the period so specified, interest shall be payable at Royal Bank of Canada prime rate plus one and one-half (1½%) percent per annum on all such overdue amounts. In addition to any other remedy which may be available to the City, should any amount invoiced to the Developer not be paid within the times specified, the City shall upon seven (7) days written notice to the Developer have the right to immediately stop construction until such amount or invoice has been paid.

Retroactive Charges

6. The Developer acknowledges that this Agreement is retroactive in effect and all Development Charges and other levies, fees or charges provided for in this Agreement shall specifically apply to any lands developed or services provided before the execution of this Agreement.

Letters of Credit

7. (1) Upon the execution of this Agreement, the Developer shall deposit with the City Clerk, City of Saskatoon, a letter of credit in a form acceptable to the City Solicitor, City of Saskatoon, from a chartered bank carrying on business in the Province of Saskatchewan. The Letter of Credit shall be calculated in the amount of \$1,587.00 per front metre, being the sum of \$4,343,619. The letter of credit shall secure the Developer's performance of the provisions of this Agreement. The Letter of Credit shall be irrevocable during the currency of this Agreement, but may be reduced from time to time in proportion to the amount of construction performed and Development Charges paid by the Developer. The Developer shall keep the Letter of Credit current until completion of all construction of services provided for in this Agreement and until the full payment of all Development Charges and all other levies, fees and charges have been received by the City.
- (2) The Developer shall deposit a further letter of credit with the City, after the tender and prior to the award of "The Interchange" project, as noted in subsection 4(3)(b) in the amount equaling the developers share of the estimated costs of "The Interchange" including all design and construction engineering. The current estimate of the Developers obligation is \$23,912,658. The letter of credit shall secure the Developer's performance of the provisions of this Agreement. The Letter of Credit shall extend beyond the currency of this Agreement and will be reduced upon the Developers payment obligations being received by the City pertaining to "The Interchange". The Developer shall keep the Letter of Credit current until completion of all construction of services provided for in this Agreement and until the full payment of all invoices pertaining to "The Interchange" have been received by the City.

Developer Application To Do Work

8. (1) The Developer may apply to the City, at the address mentioned in this Agreement respecting the delivery of notices, to undertake the design and

construction of all those works and services to be provided by the City pursuant to clauses 2(a), 2b, 2(e), 2(f) and 2(h) of this Agreement. The Manager shall forthwith consider any such application, and, if deemed appropriate, shall issue the Developer formal approval to proceed with all such works, or any portion thereof. Such approval shall prescribe to the current City standards and specifications applicable to any such works, and may be issued upon such terms and conditions, as the Manager, acting reasonably, considers appropriate.

- (2) The Developer upon application and approval from the City may perform the Heavy Debris Blitz Sweep Service noted in Subsection 2(r). The level of service requirement will be 3 scheduled sweepings per year for 2 years within the Development Area beginning after the construction of pavement. Upon completion and acceptance of this service the City will refund the amount collected for the Heavy Debris Blitz Sweep Charge noted in Subsection 3(r).
- (3) Should the Developer undertake any works pursuant to Subsection 8(1) and 8(2) of this Agreement, the Developer agrees that all such works shall be constructed in accordance with the standards and specifications prescribed in the Manager's approval relating to the works.

Shallow Buried Utilities

9. (1) The City agrees to make all necessary arrangements for the installation of street lighting facilities on streets within the Development Area in accordance with the City's standard specification for commercial development. Any deviation required by the Developer may result in additional charges.
- (2) The Developer shall have the responsibility to consult with the Saskatchewan Power Corporation, Saskatchewan Energy Corporation, the Saskatchewan Telecommunications Corporation and the Electric System Branch of the City of Saskatoon as to the timing and construction of utilities within the Development Area.

Maintenance in Accordance with *The Cities Act*

10. All services and other facilities supplied, placed, installed and constructed by the City pursuant to the provisions of this Agreement shall be maintained in keeping with the provisions of *The Cities Act*.

City's Indemnification

11. The City will indemnify and save harmless the Developer with respect to any action commenced against the Developer as a result of any act or omission of the City upon or in relation to the City's obligations set out in this Agreement, including the acts or omissions of its officers, employees, servants or agents, or anyone for whom the City is responsible at law.

Part III Development Area Servicing

Developer Servicing Responsibilities

12. Except as herein expressly provided, the Developer agrees that development and servicing is its sole responsibility and it agrees to cause the Development Area to be serviced and developed by the supply, placement, installation, construction and maintenance of the following services:

- (a) Direct Services:
 - (i) Water mains;
 - (ii) Sanitary sewer mains;
 - (iii) Storm sewer mains;
 - (iv) Grading;
 - (v) Water and sewer service connections;
 - (vi) Sidewalks and curbing;
 - (vii) Walkways;
 - (viii) Paved lanes;
 - (ix) Street cutting; and
 - (x) Street paving.
- (b) High Groundwater Levels:

An overall groundwater study was prepared in conjunction with the approval of the concept plan for the Brighton neighbourhood. The

Developer shall hire a consulting engineer to report specifically on the groundwater conditions within the Development Area. The report shall include recommendations of the consulting engineer, including recommendations respecting remediation procedures deemed appropriate to mitigate high groundwater conditions. The City shall review the recommendations and if the City considers it necessary, it shall inform the Developer of the requirement to implement the recommended remediation procedures. The Developer agrees to complete the recommended remediation procedures at its cost. The work shall be completed to the satisfaction of the Manager.

Developer Warranties

13. (1) All works constructed by the Developer pursuant to Subsection 8(1) or Section 12 of this Agreement on, in or under any street, avenue, lane, easement or other public place shall be the property of the City upon completion of construction. Such works shall be warranted and maintained by the Developer for the periods specified as follows:

Water Mains	2 years from the date of Construction Completion Certificate
Sanitary Sewer Mains	2 years from the date of Construction Completion Certificate
Storm Sewer Mains	2 years from the date of Construction Completion Certificate
Service Connections	2 years from the date of Construction Completion Certificate
Sidewalks and Curbs	2 years from the date of Construction Completion Certificate
Street Paving	2 years from the date of Construction Completion Certificate
All others	2 years from the date of Construction Completion Certificate

A Construction Completion Certificate shall be issued on completion and acceptance of each phase of work. The warranty periods as outlined in this Subsection shall apply notwithstanding the expiration of the Term of this Agreement.

- (2) The Developer shall put up such barricades, lights or other protection for persons and property as will adequately protect the public or any person in the neighbourhood and maintain same during the course of construction, and, upon the request of the Manager or the Saskatoon Police Service, shall improve or change same.

- (3) When the Developer has completed all of the storm sewers, sanitary sewers, waterworks, easement cutting, sidewalks and curbs and paving pursuant to any work done under Subsection 12, it may so notify the Manager, in writing, who shall within 15 days of such a notice, carry out the required inspection, and if the Manager is satisfied on inspection that the work is substantially complete and will not be materially affected by other work, he shall within 15 days issue a Construction Completion Certificate to that effect, and the maintenance period for the works included in the Certificate shall start on the day the Certificate is issued.
- (4) Upon completion and acceptance by the Manager as required in Subsection 13(3) hereof, the Developer shall carry out any work, by way of repair or replacement, as directed by the Manager, and which the Manager acting reasonably deems necessary to conform to the approved plans and specifications:
 - (a) after the issuance of the Construction Completion Certificate, the Developer shall be responsible for any and all repairs and replacement to any utilities and improvements which may become necessary up to the end of the maintenance periods set out in Subsection 13(1);
 - (b) if during the construction or maintenance period any material defects become apparent in any of the utilities or improvements installed or constructed by the Developer under this Agreement, and the Manager requires repairs or replacements to be done, the Developer shall be so notified, and within a reasonable time after said notice shall cause any repairs or replacements to be done, and if the Developer shall default, or any emergency exists, the City may complete the repairs or replacement and recover the reasonable cost thereof from the Developer;
 - (c) the Developer shall be responsible for adjusting all hydrants and main valve boxes and all service valve boxes to the established grades as they are developed, until such time as the City issues the Construction Completion Certificates for the maintenance of streets and lanes; and
 - (d) the Developer agrees that maintenance is a continuous operation that must be carried on until the expiry date of the maintenance period for each and every utility, and that no releases from liability of any kind will be given until all repairs or replacements required by the Manager acting reasonably in his final inspection reports have been made. The final inspection reports shall be completed no later than 60 days prior to the end of the warranty period. A formal release will

be issued upon correction of all deficiencies listed in the final inspection reports.

- (5) During the maintenance periods referred to in this Agreement and notwithstanding any other provisions to the contrary, in the case of an emergency involving the breakage of a waterline or the stoppage of a sewer line constructed by the Developer, the City may take such emergency repair measures as it deems necessary, through its officers, servants or agents, on its behalf, to prevent damage to property, and the reasonable costs of such repair work shall be payable by the Developer on demand.

Developer Covenants

14. In relation to the development and servicing of the Development Area, the Developer agrees:

- (a) that all topsoil excavated from any streets, lanes, walkways and easements shall be stockpiled and used in the following order or priority:
 - (i) development of boulevards;
 - (ii) development of parks; and
 - (iii) allocation to lots or building sites requiring additional topsoil.

In no case shall any topsoil be removed from the Development Area without the express written permission of the Manager;

- (b)
 - (i) to provide all utility, construction and service easements which may be required, at no cost to the City or any other utility agency or service, and to comply with the terms of any easement agreement entered into by the Developer with respect to such easements provided that such easements shall not materially adversely affect the development of the Development Area;
 - (ii) to provide and register a utility easement plan if required by the Manager; and
 - (iii) to provide for a covenant in all sale, ground lease or transfer agreements within the Development Area to the effect that the grades set on any such easements shall not be altered without the prior approval of the Manager, whose approval will not be unreasonably withheld;

- (c) to indemnify and save harmless the City with respect to any action commenced against the City as a result of any act or omission of the Developer in relation to the Developer's obligations set out in this Agreement, including the acts or omissions of its officers, employees, servants or agents, or anyone for whom the Developer is at law responsible;
- (d) that all work carried out by the Developer shall be designed and the works supervised by a qualified firm of consulting engineers retained by the Developer. Plans and specifications of design must be approved by the Manager acting reasonably, and all design and work carried out must conform to the current City of Saskatoon specifications as to material and construction practices for such services;
- e) that the Developer shall obtain all approvals required by Saskatchewan Environment and Resource Management and the Saskatchewan Water Corporation, together with any other consent or approvals which may be required by law, copies of all such approvals shall be provided to the Manager;
- (f) to supply all necessary labour, material, equipment and to construct, provide and maintain all sanitary sewers complete with manholes and all other accessories throughout the Development Area;
- (g) to supply all necessary labour, material, equipment and to construct, provide and maintain all water mains, including valves, hydrants and all other accessories throughout the Development Area;
- (h) to supply all necessary labour, material, equipment and to construct, provide and maintain a storm water drainage system for the Development Area, including all storm sewer mains, piping, manholes, catch basins and other accessories;
- (i) to supply all necessary labour, materials, equipment, and to construct and provide all sidewalks and curbs throughout the Development Area;
- (j) to supply all necessary labour, materials, equipment, and to construct and provide all walkways throughout the Development Area;
- (k) to supply all necessary labour, materials, equipment, and to construct and pave all streets and lanes as required throughout the Development Area;

- (l) to provide the City with all such detailed plans, specifications, tests and records as the Manager may reasonably require both before and after construction. The “as built” plans shall be to the City’s standard in size, scale and form and shall be on both mylar transparencies and digital copy. The Developer shall submit a deposit calculated by the product of \$10.00 and the Development Area frontage equaling an amount of \$27,370 to be held until all such information pertaining to this clause has been received and reviewed to the satisfaction of the City. The deposit will be refundable by the City up to a period of three years from the execution date of the agreement.
- (m) to supply the City with proof of adequate commercial general liability insurance which includes a non-owned vehicle endorsement and vehicle liability insurance, minimum coverage to be as follows:

Commercial General Liability Insurance which includes a non-owned vehicle endorsement:

\$5,000,000.00 for each occurrence

Vehicle Liability Insurance:

\$5,000,000.00 for each occurrence

which coverage shall be maintained throughout the Term of this Agreement;

- (n) to cost share with other Developers within the Brighton neighbourhood upon subdivision based on benefiting frontage and overall percentage of ownership for the following services:
 - (i) the cost of all roadways adjacent to neighbourhood parks, linear parks and designated school sites;
 - (ii) benefiting water and sewer oversizing improvements; and
 - (iii) the cost of all enhancements within the core area of the neighbourhood.
- (o) The Developer agrees to remove the accumulation of mud and dirt on all paved streets up to the issuance of the final acceptance certificate for paving within the Development Area.

Standard of Construction

15. With respect to work undertaken by the Developer pursuant to Subsection 8(1), where for any reason the Manager requires construction by the Developer to be different from the City's standards, or different from the conditions of this Agreement, the Developer shall construct in accordance with the instructions of the Manager, but the City shall pay to the Developer any reasonable excess costs involved.

Changes in City Services

16. In the event that the Developer requires changes in City services, other than those contemplated in this Agreement, same shall be provided at the expense of the Developer. Changes requested by the Developer shall be in writing addressed to the Manager.

Part IV General

Approval for Installation of Services

17. The City shall consider all applications for approval made by the Developer as are required respecting the development and servicing of the Development Area by the Developer. All approvals resulting from the applications shall be issued in the normal course and under usual conditions and in accordance with the City's standard specifications respecting the class of works in question.

Expeditious Construction

18. All works required to be performed by this Agreement shall be carried out as expeditiously as time and construction conditions permit.

Assignment

19. During the Term of this Agreement, the Developer shall not assign this Agreement without the prior express written consent of the City being first obtained, such consent shall not be unreasonably withheld or delayed by the City.

Dispute Resolution

20. In the case of any dispute between the City and the Developer arising out of the performance of this Agreement, or afterwards as to any matter contained in this Agreement, either party shall be entitled to give to the other notice of such dispute and demand arbitration thereof. Such notice and demand being given, each party shall at once appoint an arbitrator and these shall jointly select a third. The decision of any two of the three arbitrators shall be final and binding upon the parties, who covenant that their dispute shall be so decided by arbitration alone, and not by recourse to any court or action of law. If the two arbitrators appointed by the parties do not agree upon a third, or a party who has been notified of a dispute fails to appoint an arbitrator, then the third arbitrator and/or the arbitrator to represent the party in default shall be appointed by a Judge of the Court of Queen's Bench at the Judicial Centre of Saskatoon. *The Arbitration Act, 1992* of the Province of Saskatchewan shall apply to any arbitration hereunder, and the costs of arbitration shall be apportioned equally between the parties hereto.

Applicable Law

21. The laws of the Province of Saskatchewan shall apply and bind the parties in any and all questions pertaining to this Agreement.

Force and Effect

22. This Agreement shall remain in full force and effect until such time as both the City and the Developer have fully completed their respective obligations hereunder, and, for greater certainty, until such time as all Development Charges, fees, levies and other charges payable by the Developer to the City pursuant to the terms of this Agreement have been paid.

Agreement Runs With the Land

23. The Developer acknowledges and agrees that this Agreement runs with the land, and binds it, and subject to Section 19, its successors and permitted assigns; and, further, agrees that the City may elect, at its sole option, to register an Interest based on this Agreement against the property subject to this Agreement in the Land Titles Registry for Saskatchewan charging all those lands comprising the Development Area with the performance of this Agreement.

Notices

24. (1) Any notice or consent (including any invoice, statement, request or other communication) required or permitted to be given by any party to this Agreement to the other party shall be in writing and shall be delivered or sent by registered mail (except during a postal disruption or threatened postal disruption) or facsimile transmission, email or other electronic communication to the applicable address set forth below:

(a) in the case of Dream Asset Management Corporation to:

Dream Asset Management Corporation
112 - 2100 8th Street East
Saskatoon, Saskatchewan
S7H 0V1
Attention: Don Armstrong, Vice President,
Dream Asset Management Corporation
Facsimile: (306) 955-7673

(b) in the case of the City to:

The City of Saskatoon
c/o Office of the City Clerk
222 3rd Avenue North
Saskatoon, Saskatchewan
S7K 0J5
Attention: General Manager,
Transportation and Utilities Department
Facsimile: (306) 975-2784

- (2) Any notice delivered personally shall be deemed to have been validly and effectively given and received on the date of such delivery provided same is on a business day (Monday to Friday, other than a statutory holiday).
- (3) Any notice sent by registered mail shall be deemed to have been validly and effectively given and received on the fifth business day following the date of mailing.
- (4) Any notice sent by facsimile or email or other electronic communication shall be deemed to have been validly and effectively given and received on the business day next following the date on which it was sent (with confirmation of transmittal received).

- (5) Either party to this Agreement may, from time to time by notice given to the other party, change its address for service under this Agreement.

Entire Agreement

25. This Agreement constitutes the complete and exclusive statement of the Agreement between the parties, which supersedes all proposals, oral or written, and all other communications or representations between the parties, relating to the subject matter of this Agreement.

Illegality

26. If one or more of the phrases, sentences, clauses or articles contained in this Agreement is declared invalid by a final and unappealable order or decree of any court of competent jurisdiction, this Agreement shall be construed as if such phrase, sentence, clause or paragraph had not been inserted in this Agreement.

Amendment

27. This Agreement may be changed only by written amendment signed and sealed by authorized representatives of the parties.

Headings

28. The headings contained in this Agreement are inserted for convenience of reference only and are not to be considered when interpreting this Agreement.

Covenants

29. Each obligation of the City or of the Developer in this Agreement, even though not expressed as a covenant, is considered to be a covenant for all purposes.

Time of Essence

30. Time shall be of the essence of this Agreement and every part of this Agreement.

Further Assurances

31. The Developer and the City shall, at their own expense, promptly execute such further documentation to give effect to this Agreement as the Developer and the City, as the case may be, may reasonably require from time to time

Approval of Plan of Subdivision

32. Upon execution of this Agreement by both parties, the City acknowledges that condition that the Developer enter into a development and servicing agreement with The City of Saskatoon of Subdivision Application 67/14 have been met by the Developer.

In Witness Whereof the parties hereto have hereunto affixed their corporate seals, duly attested by the hands of their proper officers in that behalf, as of the day and year first above written.

The City of Saskatoon

Mayor

c/s

City Clerk

Dream Asset Management Corporation

c/s

Schedule "B"

Fees, Levies and Other Charges Applicable to the Development Area

The charges payable by the Developer to the City pursuant to Section 3 hereof shall be calculated in accordance with the rates as the Council of The City of Saskatoon has established and are in general force and effect for the 2015 construction season. By way of illustration only, the following rates were effective for the 2014 construction season:

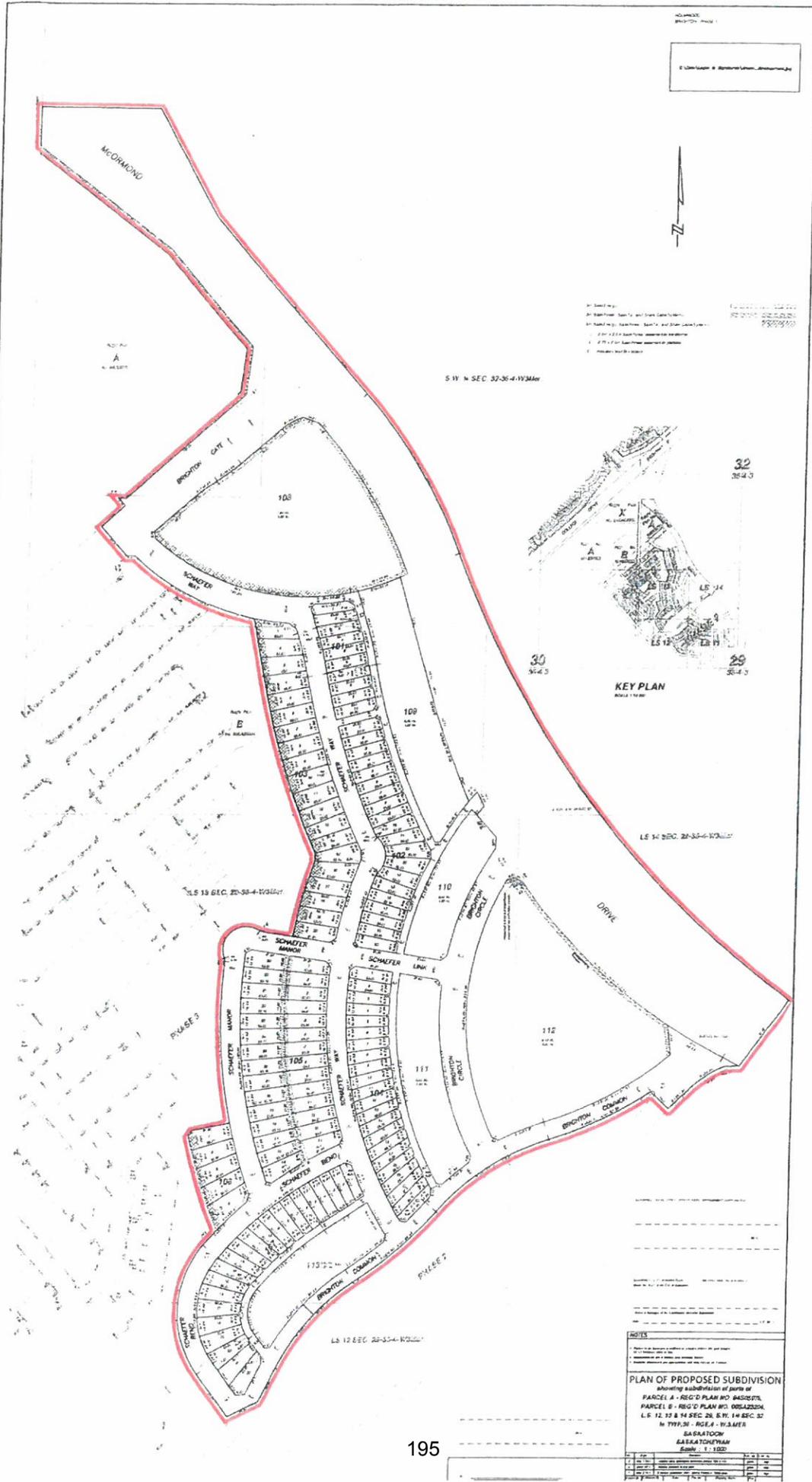
	<u>Residential</u>	<u>Commercial/Institutional</u> <u>Multi Family Parcels</u>	
(a) Trunk Sewer Levy.....	\$ 561.45	\$ 790.25	per front metre;
(b) Primary Water Main Levy.....	\$ 157.15	\$ 157.15	per front metre;
(c) Arterial Road Levy.....	\$ 519.45	\$ 519.45	per front metre;
(d) Interchange Levy.....	\$ 95.10	\$ 190.20	per front metre;
(e) Parks and Recreation Levy.....	\$ 388.00	\$ 388.00	per front metre;
(f) Buffer Strip Levy	\$ 38.95	\$ 38.95	per front metre;
(g) Street Signing & Traffic Controls Levy.....	\$ 16.80	\$ 16.80	per front metre;
(h) Fencing Levy.....	\$ 11.75	\$ 11.75	per front metre;
(i) Planning Levy	\$ 15.50	\$ 15.50	per front metre;
(j) Street Lighting Levy.....	\$ 76.35	\$ 87.80	per front metre;
(k) Inspection Levy.....	\$ 19.10	\$ 19.10	per front metre;
(l) Prepaid Extended Maintenance Levy.....	\$ 17.25	\$ 17.25	per front metre;
(m) Underground Electrical Levy.....	\$ 1,790.00	\$ -	per lot;
(n) Community Centre Levy.....	\$ 186.00	\$ 186.00	per front metre;
(o) McOrmond & College Drive Interchange Charge	\$ 302.00	\$ 302.00	per front meter;
(p) Canadian Pacific Railway Overpass Charge.....	\$ 254.20	\$ 254.20	per front meter;
(q) Pedestrian Overpass Charge.....	\$ 76.25	\$ 76.25	per front meter;

Schedule "B" Continued

- (r) Heavy Debris Blitz Sweep Charge..... \$ 68.85 \$ 68.85 per Street length metre;
- (s) Servicing Agreement Fee..... \$2,382.00 per agreement.

The Trunk Sewer Levy, Primary Watermain Levy, Arterial Road Levy, Interchange Levy, Parks and Recreation Levy, Community Centre Levy, McOrmond & College Drive Interchange Charge, Canadian Pacific Railway Overpass Charge and Pedestrian Overpass Charge for the Commercial/Institution and multi-family parcel land will be calculated at an area rate of 169 equivalent front metres per hectare. Area rate: $169 \times \$2,863.50 = \$483,931.50$ per hectare.

SCHEDULE 'A'



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1. All lots are to be surveyed and shown as to area and boundaries.
 2. All lots are to be surveyed and shown as to area and boundaries.
 3. All lots are to be surveyed and shown as to area and boundaries.
 4. All lots are to be surveyed and shown as to area and boundaries.
 5. All lots are to be surveyed and shown as to area and boundaries.

S 1/4 Sec. 28, T. 34S., R. 14W.



LE 34 SEC. 28-35-4-1022

LE 12 SEC. 28-35-4-1022

NOTES

1. All lots are to be surveyed and shown as to area and boundaries.
2. All lots are to be surveyed and shown as to area and boundaries.
3. All lots are to be surveyed and shown as to area and boundaries.
4. All lots are to be surveyed and shown as to area and boundaries.
5. All lots are to be surveyed and shown as to area and boundaries.

PLAN OF PROPOSED SUBDIVISION
 Showing subdivision of parts of
 PARCEL A - REG'D PLAN NO. 10432574
 PARCEL B - REG'D PLAN NO. 08424204
 L.S. 12, 13 & 14 SEC. 28, T. 34S., R. 14W. SEC. 27
 IN TWP. 34S. - R. 14W. - T. 34S.
 SURVEYOR
 E. K. KATONIAN
 Date: 1-1-2022

SCHEDULE 'C'

