



**PUBLIC AGENDA  
TRAFFIC SAFETY COMMITTEE**

**Tuesday, September 12, 2017, 8:45 a.m.  
Committee Room E, Ground Floor, City Hall  
Members**

**Ms. C. Janzen, Chair  
Councillor S. Gersher  
Mr. J. Chan  
Mr. K. Claffey  
Mr. D. Cook  
Mr. W. Gherasim  
Mr. B. Girling  
Mr. D. Hingston  
Sergeant D. Hoover  
Mr. A. Kamboh  
Mr. A. Reichert  
Mr. S. Shannon**

**Pages**

**1. CALL TO ORDER**

**2. CONFIRMATION OF AGENDA**

**Recommendation**

That the agenda be confirmed as presented.

**3. DECLARATION OF CONFLICT OF INTEREST**

**4. ADOPTION OF MINUTES**

**Recommendation**

That the minutes of the Traffic Safety Committee held on June 13, 2017 be adopted.

**5. REPORT OF THE CHAIR**

**6. TRAFFIC SAFETY COMMUNICATION/EDUCATION (File No. CK. 225-8)**

The Traffic Safety Committee, at its meeting held on June 13, 2017, resolved that the Committee allocate \$3,000 to the Saskatoon Radio Group and \$3,000 to Rawlco Radio for public service ads, beginning in September 2017 with a school zone safety theme, to be run at specific times of day when children are going to and from school.

The Chair will provide an update regarding the campaign.

**Recommendation**

That the information be received.

**7. REPORTS FROM ADMINISTRATION**

**7.1 Outstanding Issues Raised by Committee Members**

**7.1.1 Emergency Light for Taxicabs [File No. CK. 225-8]**

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The Standing Policy Committee on Transportation considered the above matter at its meeting held on August 15, 2017 and resolved that the information be received and referred to the Administration. Attached is an excerpt from the meeting.

**Recommendation**

That the information be received.

**7.2 Transportation 2016 Annual Report [File No. CK 6320-37]**

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Attached, for the Committee's information, is the Transportation 2016 Annual Report.

**Recommendation**

That the information be received.

**8. NEW ISSUES RAISED BY COMMITTEE MEMBERS (File No. CK. 225-8)**

**8.1 Central Avenue Between 109th Street and 112th Street (K. Claffey)**

Central Avenue, between 109th and 112th Streets, has many obstacles at the intersections that hide pedestrians at crosswalks and place the pedestrians in danger as drivers are unable to see them until they step into the traffic stream. Examples of obstacles are planters, garbage receptacles and poles which combine to clutter the intersections.

**9. ADJOURNMENT**

**PUBLIC RESOLUTION  
STANDING POLICY COMMITTEE ON TRANSPORTATION**

**Main Category: 6. COMMUNICATIONS (requiring the direction of the Committee)**

**Sub Category: 6.2 Matters Requiring Direction**

**Item: 6.2.1 Emergency Light for Taxicabs [File No. CK. 225-8]**

**Date: August 15, 2017**

*Any material considered at the meeting regarding this item is appended to this resolution package.*

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Councillor Gersher declared a conflict on this item due to her family's involvement in the business, and left the Council Chamber.

**Moved By:** Councillor Iwanchuk

That the information be received and referred to the Administration.

(Councillor Gersher was not present for the vote.)

In Favour: (4): Councillor Donauer, Councillor Jeffries, Councillor Block, and Councillor Iwanchuk

**CARRIED UNANIMOUSLY**

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# Transportation 2016 Annual Report

## Recommendation

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

## Topic and Purpose

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

## Report Highlights

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

## Strategic Goal

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

## Background

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

## Report

Attachment 1 outlines the achievements of the division in 2016.

## Our People

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

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

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

### Our Finances

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

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

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

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

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

### Our Work

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

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

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

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

The ATP was approved by City Council in June 2016.

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

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

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

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

### Our Statistics

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

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

### Our Performance Measures

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

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

### Our Future

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

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

### **Communication Plan**

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

### **Other Considerations/Implications**

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

### **Due Date for Follow-up and/or Project Completion**

This report will be provided annually.

### **Public Notice**

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

### **Attachment**

1. Transportation 2016 Annual Report

**Report Approval**

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

TRANS CH – Transportation 2016 Annual Report



# Transportation

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## 2016 Annual Report



# Transportation Division 2016 Annual Report

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## MESSAGE FROM THE DIRECTOR

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

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

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

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

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

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



Angela Gardiner  
Director of Transportation

## **1.0 EXECUTIVE SUMMARY**

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

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

## 2.0 TRANSPORTATION DIVISION

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

### 2.1 Our Mission

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

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

### 2.2 Our Guiding Principles

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

### 2.3 Our Core Services

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

## 2.4 Our Corporate Values

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

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

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

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

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

### 3.0 OUR PEOPLE

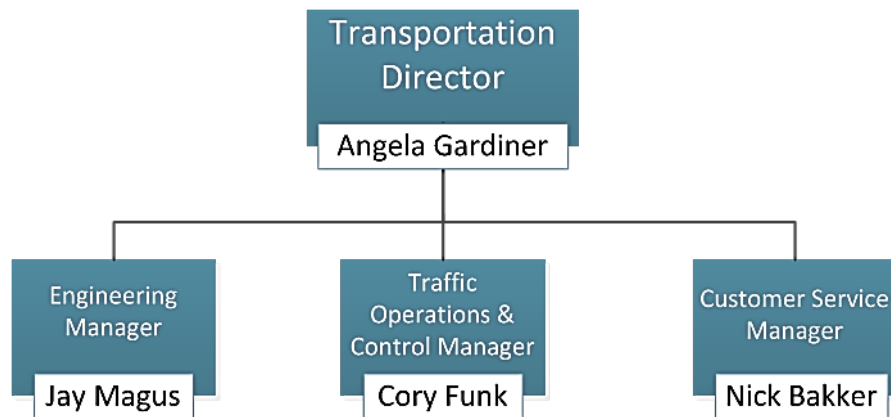
#### 3.1 Number of Employees

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

#### 3.2 Representative Workforce

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

#### 3.3 Organizational Chart



#### 3.4 Employee Safety

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

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

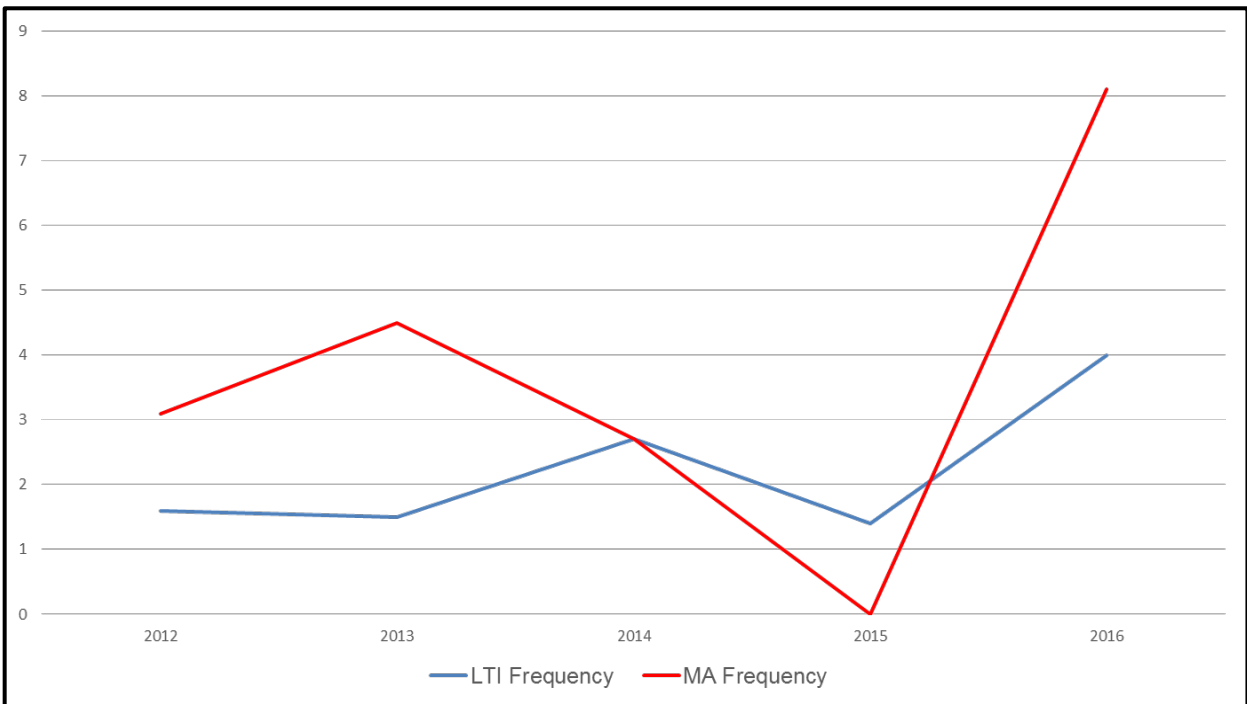




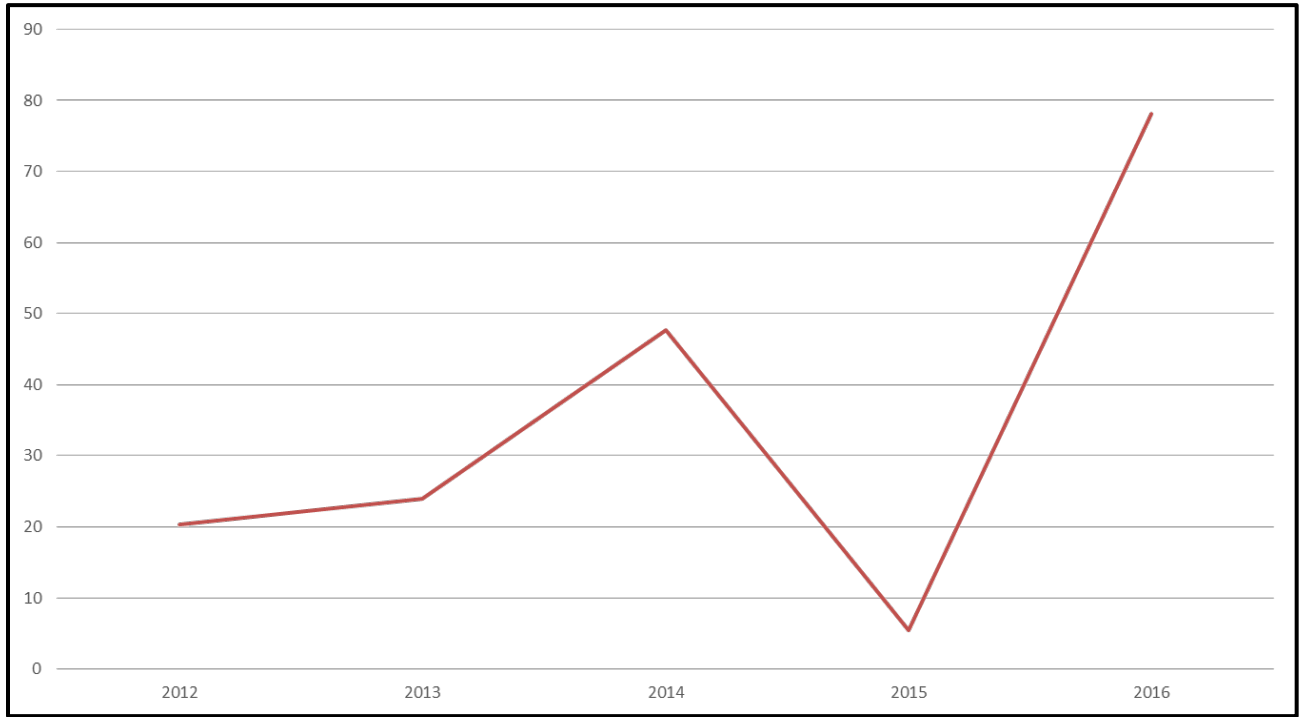
Proactive Initiatives (leading indicators)

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

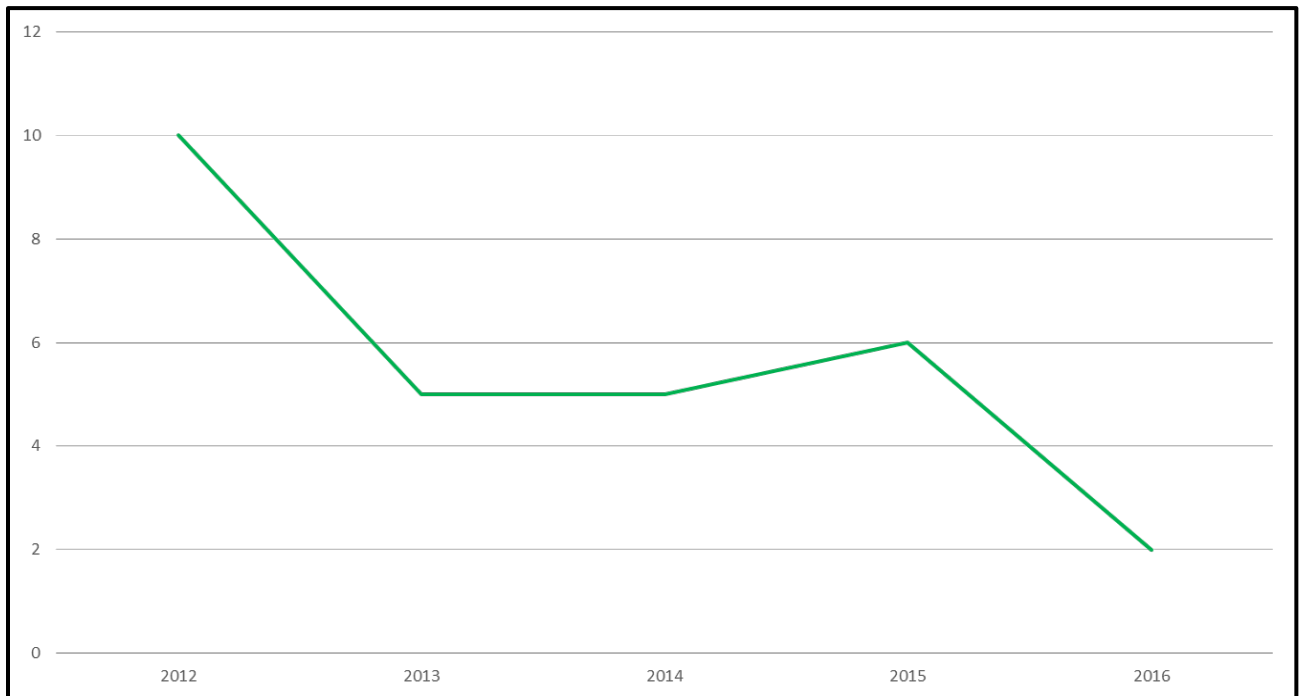
Incident Statistics (lagging indicators)



Lost Time Incident Frequency and Medical Aid Frequency



Injury Severity



Motor Vehicle Collisions

## 4.0 OUR FINANCES

### 4.1 Revenues

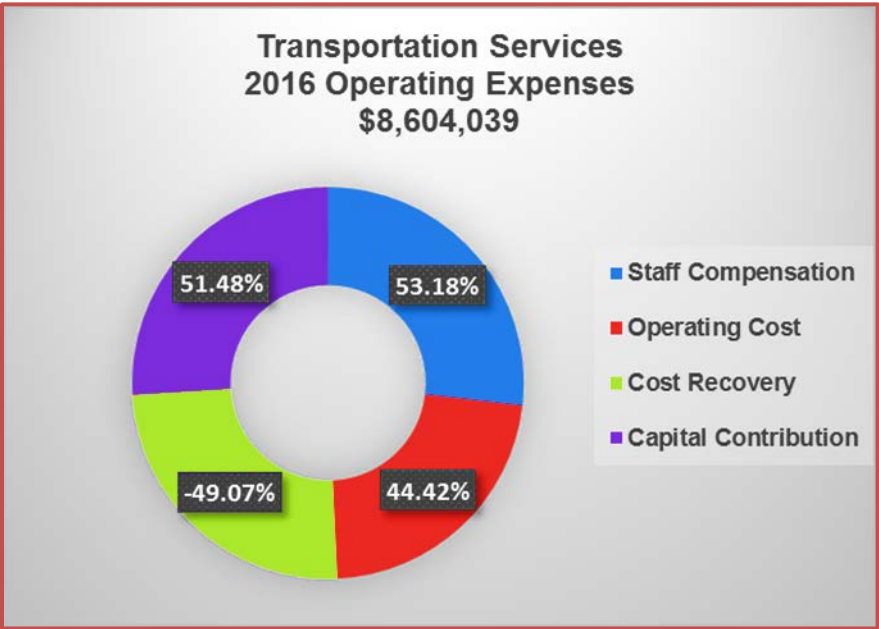
Transportation division's 2016 revenues were \$0.23 Million, an increase of 98.54% from 2015 revenues of \$0.11 Million. The increase was due to the new revenue collection from Administrative fees related to right-of-way, sidewalks/crossing and vehicle permits introduced by the City in 2016. The actual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

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

### 4.2 Expenses

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

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



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

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

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

### 4.3 Capital Investments

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

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

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

## 5.0 OUR WORK

### 5.1. Community Engagement/Public Education/Awareness

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

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

#### 5.1.1 Learn to Ride Safe Program

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

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

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

## 5.1.2 2016 Neighbourhood Traffic Reviews

The objective of the Neighbourhood Traffic Review Program is to address traffic concerns within residential neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves enhanced community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The Traffic Calming Guidelines and Tools, City of Saskatoon, 2013 outlines the process.

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

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

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

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

## 5.2 Traffic Safety

### 5.2.1 Prioritization Strategy for Roadway Network Improvements

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

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

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

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

### 5.2.2 Red Light Camera Program

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

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



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



Since the cameras were installed in 2005:

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

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

### **5.2.3 Automated Speed Enforcement Program (SGI Pilot Program)**

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

The five camera locations along Circle Drive include:

- Airport Drive
- Circle Drive South Bridge
- Preston Avenue
- Taylor Street
- 108<sup>th</sup> Street

The five school zone locations selected are:

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

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

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

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

#### **5.2.4 High Speed Roadside Safety System Review**

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

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

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

### **5.3 Network Monitoring**

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

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

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

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



## 5.4 Functional Planning

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

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

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

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

## 5.5 Intersection Improvements

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

Intersections reviewed and re-designed in 2016 include:

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

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

Improvement at 22<sup>nd</sup> Street and Diefenbaker Drive



## 5.6 Traffic Signal System Upgrades – Maintaining and Upgrading

### 5.6.1 New Traffic Signal Installations

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

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

### 5.6.2 New Active Pedestrian Corridors

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

Active pedestrian corridors were installed at the following locations:

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



## 5.7 Active Transportation

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

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

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



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





# 6.0 CONTINUOUS IMPROVEMENT

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

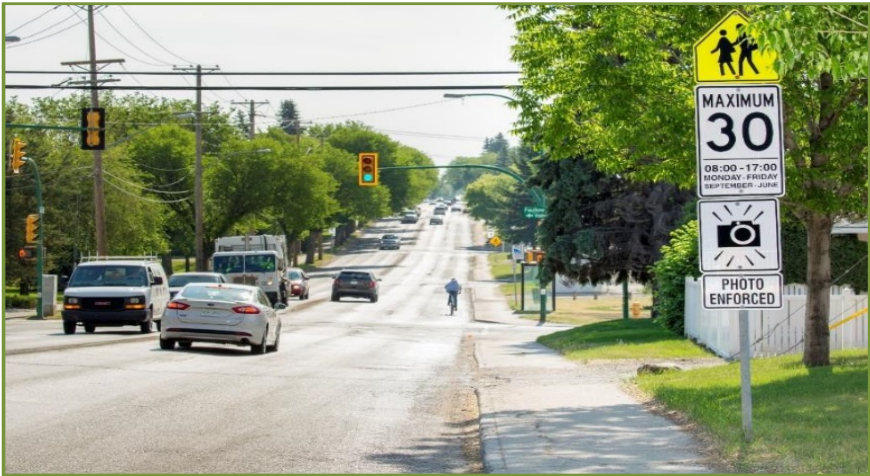
Some of the Division’s 2016 initiatives for continuous improvement are listed below.

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

# 7.0 OUR STATISTICS

## 7.1 Signalized Intersections

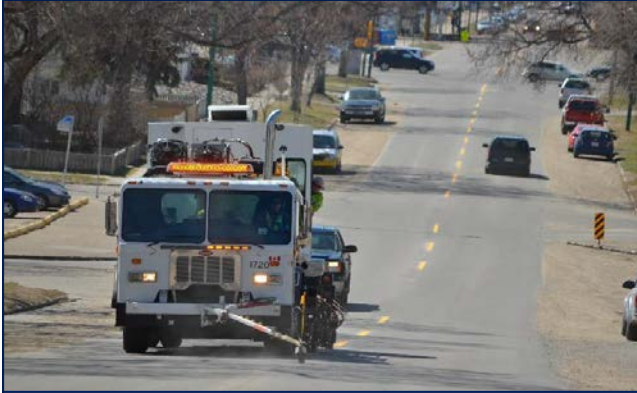
There are 281 signalized intersections throughout the city (232 full, 49 pedestrian- actuated).





## 7.2 Pavement Markings

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



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

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

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

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

## 7.5 Crash Cushion Repairs

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

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



## **7.6 Electronics Shop after Hours Emergency Call-Outs**

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

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

## **7.7 Detour Coordination - Lane Restriction Requests**

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

## **7.8 Special Events Coordination**

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

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

## **7.9 Number of Permits Issued**

### **7.9.1 Right of Way Permits**

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

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

### **7.9.2 Curb Crossing Permits**

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

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

### 7.9.3 Vehicle Permits

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

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

## 8.0 OUR PERFORMANCE MEASURES

### 8.1 Kilometers of Cycling-Specific Infrastructure

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

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

### 8.2 Transportation Choices

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

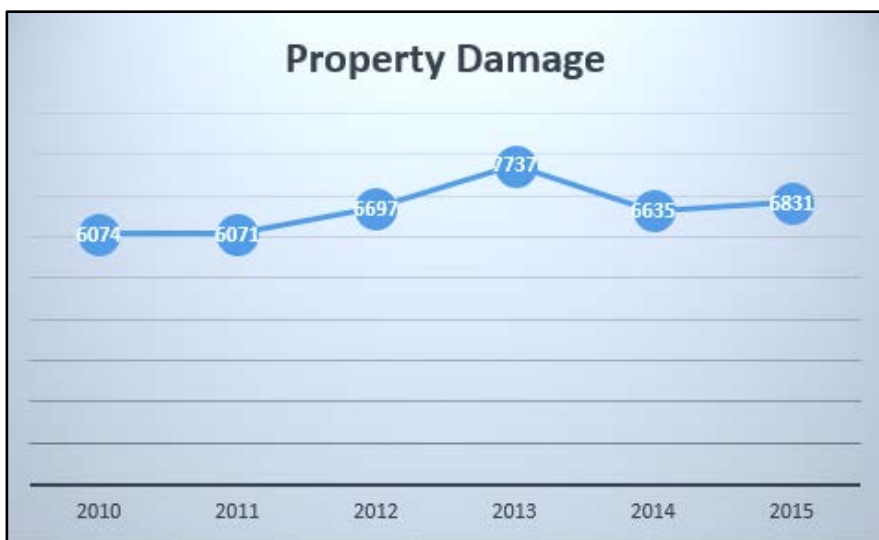
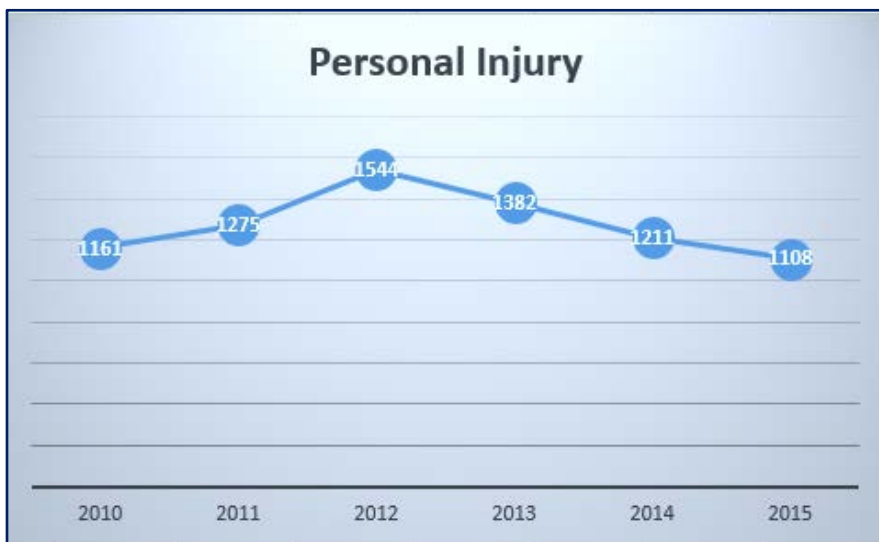
- In 2011, 11.5% used cycling, walking or transit to get to work (based on Census data)

### 8.3 Traffic Collisions

Goal: Decrease traffic collisions by 5% annually

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

\*Partial year



## **9.0 OUR FUTURE**

### **9.1 Major Initiatives to Support the Corporate Strategic Plan**

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

