Department — Transportation Services

Introduction

Transportation encompasses more than moving people, goods and services around Edmonton. It is essential infrastructure that shapes our urban form, impacts our economic well-being and is a primary contributor to our City's environmental, financial and social sustainability. Transportation Services manages all aspects of the transportation system, including vital support functions that make up the comprehensive citywide transportation network. The Way We Move, the City's Transportation Master Plan, guides development of the transportation system in conjunction with Council's vision for a 21st century city. This plan results in a balance between meeting the future demands of a diverse and growing population with the current costs of renewing and rehabilitating our aging infrastructure. The Transportation Master Plan guides investments that support Council's initiatives and the Way Ahead goals in order to achieve our corporate targets.

The 2016-2018 operating budget advances initiatives such as the "What Moves You?" transit strategy, LRT prioritization and expansion planning, bus network optimization and active modes travel in order to meet our corporate targets for Transit Ridership (2018 Target: 105 Rides/Capita) and Journey to Work Mode (2018 target: 25.9% non-driver commuters). Initiatives such as Smart Bus (real-time schedule information) and electric bus testing also ensure a modern, convenient and environmentally-friendly transit system for citizens that support The Way Ahead goals.

The department continues to manage capital programs to protect the City's assets and improve livability and business satisfaction. Enhancing arterial and commercial routes is a key component of improving the Business Satisfaction with goods and services transportation (2018 target: 53% satisfaction). Travel Time and Reliability on the City's inner ring road and highway connectors is being maintained through efforts to minimize delays through motor vehicle collisions and meet our targets (2018 travel time targets: <11 Minutes 50% of time; < 14 Minutes - 85% of time).

The operating budget also proposes initiatives to make roads and neighbourhoods safer and more livable, such as the Road Safety Strategy (to reduce fatalities, injury and property damage from motor vehicle collisions), community traffic management plans (to address speeding and shortcutting) and Complete Streets implementation (capital renewals). All of these local initiatives are accompanied by significant enhancements in public engagement and consultation.

To ensure that Edmonton remains a safe and inclusive community, investments are proposed to enhance transit safety and security and create a low income transit pass, while also continuing the youth pass, so that all residents can easily enjoy accessible, safe transit when they need it.

Transportation Services represents a significant proportion of the City's operations, employing approximately one third of City staff, while annual operating costs of the transportation system represent approximately one-quarter of the City's tax -supported operations. Our employees comprise a workforce dedicated to the responsible stewardship of valuable City assets and to enhancing the lives of Edmontonians through their interactions with citizens everyday.

http://www.edmonton.ca/city_government/budget_taxes/department-business-plans-2016-2018.aspx

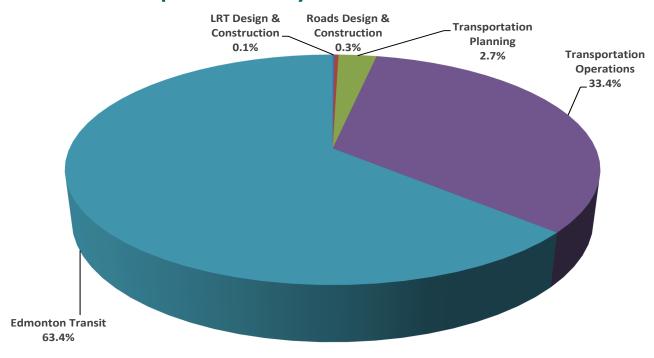
BRANCHES AND PROGRAMS												
Transportation Planning	Roads Design and Construction	Transportation Operations	Edmonton Transit	LRT Design and Construction								
Development Planning & Engineering	Arterial Roads	Engineering Services	Bus and LRT	LRT Design and Construction								
	Neighbourhood	Parking Operations	Disabled Adult Transit									
Facility and Capital	Renewal		Service (DATS)									
Planning		Roadway Maintenance										
	Special Projects											
Policy Implementation		Snow and Ice Control										
and Evaluation												
		Traffic Operations, Signals										
Public Engagement		and Street Lighting										
Sustainable		Traffic Safety and Automated										
Transportation		Enforcement										

Department — Transportation Services

Approved 2016-2018 Budget – Department Summary by Branch

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
					_ augot	
Revenue & Transfers						
41ST AVE SW QE2 HWY Interchange	12,954	17,466	-	-	-	-
Edmonton Transit	137,314	134,857	135,463	138,540	141,625	144,511
LRT Design & Construction	1,834	1,720	1,128	100	100	100
Roads Design & Construction	6	-	-	-	-	-
Transportation Operations	65,614	69,228	38,084	42,949	43,490	43,516
Transportation Planning	1,011	136	69	1,354	1,488	1,844
Total Revenue & Transfers	\$218,733	\$223,407	\$174,744	\$182,943	\$186,703	\$189,971
Expenditure & Transfers						
41ST AVE SW QE2 HWY Interchange	12,954	17,466	-	-	-	-
Edmonton Transit	311,356	317,179	344,089	352,795	364,518	380,059
LRT Design & Construction	2,500	2,430	1,867	820	831	842
Roads Design & Construction	1,403	1,335	1,463	1,572	1,624	1,679
Transportation Operations	194,400	202,976	175,687	186,175	192,926	198,228
Transportation Planning	14,740	13,771	14,473	15,410	15,778	16,338
Total Expenditure & Transfers	\$537,353	\$555,157	\$537,579	\$556,772	\$575,677	\$597,146
Net Operating Requirement	\$318,620	\$331,750	\$362,835	\$373,829	\$388,974	\$407,175

Expenditures by Branch 2016 - 2018



Department — Transportation Services

Approved 2016-2018 Budget – Department Summary by Category

(\$000)	0040	0044	Adjusted	0040	0047	0040
	2013 Actual	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers	'	'				
User Fees, Fines, Permits, etc.	200,713	206,391	158,858	162,333	165,617	168,504
Grants	18,020	17,016	-	-	-	-
Transfer from Reserves	-	-	15,886	20,610	21,086	21,467
Total Revenue & Transfers	\$218,733	\$223,407	\$174,744	\$182,943	\$186,703	\$189,971
Expenditure & Transfers						
Personnel	288,098	293,572	317,085	329,827	340,568	352,936
Materials, Goods and Supplies	52,590	55,489	46,556	52,430	56,127	59,747
External Services	70,573	86,304	66,821	74,349	75,031	79,127
Fleet Services	120,230	117,214	117,813	118,232	121,130	121,455
Intra-municipal Charges	15,531	15,596	15,130	17,849	18,702	19,129
Utilities & Other Charges	33,085	24,921	27,137	27,562	27,980	29,890
Transfer to Reserves	15,094	21,014	1,375	1,745	1,745	1,745
Subtotal	595,201	614,110	591,917	621,994	641,283	664,029
Intra-municipal Recoveries	(57,848)	(58,953)	(54,338)	(65,222)	(65,606)	(66,883)
Total Expenditure & Transfers	\$537,353	\$555,157	\$537,579	\$556,772	\$575,677	\$597,146
Net Operating Requirement	\$318,620	\$331,750	\$362,835	\$373,829	\$388,974	\$407,175
Full-time Equivalents	3,398.4	3,435.9	3,524.2	3,559.7	3,578.2	3,593.2

Budget details are provided at Branch Level

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Introduction

Edmonton Transit System (ETS) is a vital City link that connects citizens to their community - for work, leisure, education and cultural opportunities. Citizens of all ages choose to use and depend on Edmonton Transit to meet their travel needs. In 2015, Edmonton Transit will provide over two million hours of transit service and will carry approximately 90 million passengers.

The City of Edmonton's highly cultural fabric is an extension of the diversity of its population and the enthusiastic way its citizens come together to celebrate that diversity. ETS is a key facilitator of linking communities in recognition of the goal that "Edmontonians are connected to the City in which they live, work and play." ETS provides a public transit system that is fully accessible to all Edmontonians through a variety of accessibility features, including low floor and kneeling bus-



es, community buses and accessible LRT. ETS also operates the Disabled Adult Transit Service (DATS) that provides over 930,000 trips annually to those who are unable to use conventional transit. New services in 2015 included Late Night (Owl) and new Peak Period services to developing areas of the City. 2015 also saw the opening of the Metro Line LRT, connecting post secondary institutions in the City.

ETS has a number of programs to ensure that all Edmontonians have access to their City. ETS supports the Donate-A -Ride charity, which last year, donated over 100,000 adult tickets to agencies. In addition, ETS is developing a low income transit fare program to be considered by City Council. This program would introduce a subsidized fare for low-income citizens, complementing the services currently provided by Donate-A-Ride. ETS is further partnering with outside agencies to provide 100 passes to vulnerable youth for a six-month trial period. These programs will combine to ensure all citizens can go where they want, when they need to and support the long-term plan to end poverty in Edmonton within a generation.

While providing service to commuters, safety is always at the forefront of everything ETS does. The goal that "Edmonton is a safe City" recognizes that individuals who feel safe are more likely to participate in community activities and use City resources that contribute to social sustainability, health and wellness, community connectedness and quality of life. ETS demonstrated its ongoing commitment to community safety in 2015 with the launch of a zero-tolerance for sexual harassment campaign.

This 2016-2018 Operating Budget is an example of ETS' commitment to innovation, excellence and leadership. To find ways to grow ridership, ETS critically reviews routes against service standards with the intention to provide more frequent service and reduced travel time. 2017 and 2018 will see a reallocation of service hours to help achieve corporate targets.



ETS is committed to continual improvement of its services to enhance the quality of life for all citizens. This continual improvement will advance Council's Way Ahead goals of transportation mode shift, increased ridership and more efficient movement of goods and services that rely on the transportation network. ETS is proud to be a leader in moving Edmonton forward.

The City of Edmonton is a growing and vibrant City. Ongoing pressure to expand and enhance transit service is expected to continue and as such, Edmonton Transit has identified the following emerging issues:

Urban Growth and Cost of Service Delivery

The city's suburban areas are experiencing significant growth. Travel to and from areas farther from the City core can cost more to serve than central neighbourhoods. Attempts are made to meet transit service levels warranted by policy in the newer areas, however there are increasing cost pressures to deliver the service.

Financial Sustainability

There is a need to determine the optimal subsidy, expenditures and user fees to sustain current public transit services and future growth needs.

Land Use

There is a need to define how public transit will support City goals of intensification of land uses and additional infill density. Successful Transit Oriented Development (TOD) relies on the integration of transit to achieve The Way We Grow outcomes. Public transit will also be under pressure to support new residential development and business needs in non-residential areas.

Positive Change - Innovation & Continuous Improvement

Minbus

Minbus is a schedule optimization module to utilize buses more efficiently. This is a continuous improvement initiative, resulting in \$642,000 in annual savings. \$307,000 has been reallocated to other routes to address emerging operational concerns such as overloads and schedule adherence. The remaining \$335,000 was harvested for contribution to the 2% initiative savings. Minbus also resulted in a \$27 million cost avoidance, deferring the need to purchase buses required to accommodate the growing demand for peak period service.

Performance Standard Review

Annually, ETS conducts ongoing performance reviews of its bus routes to identify routes with lower ridership. In 2015, a review was conducted and 10,000 hours of service were reinvested in routes with higher ridership. In 2016, ETS is taking an aggressive approach to reallocation of service hours to grow ridership per capita.

Smart Fare

GreenTRIP funding for the regional Smart Fare initiative was announced by the province of Alberta on September 2, 2015. This allows the City of Edmonton to continue work with the City of St. Albert and the County of Strathcona on the initiative. Smart Fare will be an account based, open payment electronic fare system that provides the ability to introduce innovative fare policy options. It is projected to be implemented in 2018.

Smart Bus

By mid 2016, all buses in the ETS fleet will be equipped with the Smart Bus technology. This technology offers a variety of benefits including having real-time schedule information available to transit passengers, automated stop announcements and enhanced safety features such as live look-in for buses equipped with onboard camera systems.

Electric Bus

Testing of electric buses will occur over the winter of 2015-2016. In alignment with The Way We Green, this initiative will allow the City to evaluate the feasibility of adding a more sustainable vehicle-type to Transit's fleet.

Regionalization

Preliminary discussions have commenced with the City of St. Albert regarding improved coordination in the provision of transit services.

Approved 2016-2018 Budget – Branch Summary

(\$000)			Adjusted			
	2013	2014	2015	2016	2017	2018
	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	132,264	134,857	135,463	138,540	141,625	144,511
Grants	5,050	-	-	-	-	-
Total Revenue & Transfers	\$137,314	\$134,857	\$135,463	\$138,540	\$141,625	\$144,511
Expenditure & Transfers						
Bus & LRT	283,910	288,612	315,813	324,539	335,396	350,043
DATS	27,446	28,567	28,276	28,256	29,122	30,016
Total Expenditure & Transfers	\$311,356	\$317,179	\$344,089	\$352,795	\$364,518	\$380,059
Net Operating Requirement	\$174,042	\$182,322	\$208,626	\$214,255	\$222,893	\$235,548
Full-time Equivalents	2,289.5	2,323.0	2,395.3	2,401.3	2,409.8	2,416.8

Approved 2016-2018 Budget – Branch Summary by Cost Category

(\$000)	2013	2014	Adjusted 2015	2016	2017	2018
	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	132,264	134,857	135,463	138,540	141,625	144,511
Grants	5,050	-	-	-	-	-
Total Revenue & Transfers	\$137,314	\$134,857	\$135,463	\$138,540	\$141,625	\$144,511
Expenditure & Transfers						
Personnel	183,128	188,556	206,903	212,041	218,549	226,456
Materials, Goods and Supplies	6,348	7,929	8,247	9,157	10,897	12,661
External Services	21,166	22,181	23,823	24,438	24,969	28,589
Fleet Services	88,403	85,241	90,989	90,287	92,630	92,722
Intra-municipal Charges	8,617	8,465	7,539	9,138	9,546	10,029
Utilities & Other Charges	8,508	9,070	9,863	11,447	11,771	13,586
Subtotal	316,170	321,442	347,364	356,508	368,362	384,043
Intra-municipal Recoveries	(4,814)	(4,263)	(3,275)	(3,713)	(3,844)	(3,984)
Total Expenditure & Transfers	\$311,356	\$317,179	\$344,089	\$352,795	\$364,518	\$380,059
Net Operating Requirement	\$174,042	\$182,322	\$208,626	\$214,255	\$222,893	\$235,548
Full-time Equivalents	2,289.5	2,323.0	2,395.3	2,401.3	2,409.8	2,416.8

Budget Changes for 2016 - 2018 (\$000)

Revenue & Transfers - Changes

User Fees, Fines, Permits, etc.

Additional revenues are expected from fare increases averaging 3% annually beginning with \$1,500 in 2016, \$2,130 in 2017 and \$2,585 in 2018. A net revenue increase of \$1,577 will occur in 2016 and \$955 in 2017 from U-Pass, advertising contracts, Smart Bus and Developer Contributions. In 2018 a net revenue increase of \$301 will come from advertising contracts and Developer Contributions.

Expenditures & Transfers - Changes

Personnel

Personnel costs will increase primarily due to Settlements of \$4,746 in 2016, \$3,984 in 2017 and \$4,739 in 2018. The Operating Impacts of Capital, Low-Income and other Increments and benefits will provide increases of \$1,465 in 2016, \$2,524 in 2017 and \$3,168. Innovation personnel efficiencies of \$737 and Min-Bus savings of \$335 will occur in 2016.

Material, Goods & Supplies

There is an increase of \$777 in 2016 for Smart Bus. The Low Income Transit Pass requires \$139 in 2016, \$1,602 in 2017 and \$1,586 in 2018. Various other items will increase costs due to inflation by \$124 in 2016, \$289 in 2017 and \$281 in 2018. Savings from Innovation efficiencies will offer \$130 in 2016. Savings of \$151 in 2017 and \$103 in 2018 will be provided from Smart Bus and 2% Innovations.

External Services

Smart Fare will increase costs by \$3,264 in 2018. Smart Bus will increase costs by \$150 in 2016. Savings from 2% Innovation of \$60 will occur in 2016. DATS Accommodation will increase costs by \$174 in 2017 and \$66 in 2018. Various inflationary items will increase costs by \$525 in 2016, \$357 in 2017 and \$290 in 2018.

Fleet Services

There is an increase of \$2,508 in 2016, \$2,701 in 2017, and \$2,059 in 2018 for maintaining the fleet. A decrease of \$2,953 is expected in 2016 and \$846 in 2018 with an increase of \$2,052 in 2017 attributable to fuel cost changes. Leap year adjustments in 2016 will add \$283 which is reversed in 2017. Bus mid-life refurbishments will save \$540 in 2016, \$530 in 2017 and \$500 in 2018 in maintenance costs. Smart Bus will provide maintenance savings of \$497 in 2017 and fuel savings of \$1,100 in 2017 and \$621 in 2018.

Intra-municipal Services

An increase of \$1,599 will occur in 2016 primarily because of increased Building Maintenance costs. The majority of the increased costs of \$408 in 2017 and \$483 in 2018 come from Building Maintenance and Custodial costs.

Utilities & Other Charges

Smart Fare will require \$1,530 in 2018. The Metro Line will require an additional \$1,244 in power costs in 2016 and \$39 in 2017. Smart Bus adds \$146 in 2016, while other items from inflation and savings net to \$194 in 2016 and \$285 in 2017 and 2018.

Intra-municipal Recoveries

An increase in Accident Recoveries provides \$253 in 2016, \$111 in 2017 and \$120 in 2018. DATS recoveries will add \$125 in 2016. Other various recoveries add \$60 in 2016, \$20 in 2017 and 2018.

Full-time Equivalents - Changes

There is a total increase of 21.5 FTEs over the 3 years. The LRT Maintenance Foremen and Escalator Technician will add 3.0 FTES. Smart Bus will add 5.0 FTEs. The Low Income Transit Pass will add 13.5 FTEs.

Approved 2016-2018 Budget – Program Summary

Program Name - Bus and LRT

Results to be Achieved

Transit is focused on enhancing the use of public transit and active modes of transportation. In support of achieving this goal, Transit has developed a series of performance measures which are used to measure performance including;

- 105 rides per capita by 2018 (103 riders per capita in 2016; 104 in 2017)
- Journey to work mode split 25.9% by 2018
- Percent customer satisfaction with reliability 75% by 2018 (70% in 2016; 72.5% in 2017)
- Percent customer satisfaction with operators' behaviour (helpful & courteous) 90% by 2018 (85% in 2016; 87.5% in 2017)
- Percent customer satisfaction with operators' driving performance 90% by 2018 (85% in 2016; 87.5% in 2017)
- Percent customer satisfaction with personal safety at bus stops, Transit Centres and LRT stations 80%
- Percent customer satisfaction with personal safety on buses and LRT 80%
- ETS security disorder rate per 100,000 boardings 6.5

Cost Drivers

- Increase of service hours (Bus and LRT)
- Aging of existing infrastructure
- Aging and service life of existing fleet
- Personnel costs
- Maintenance and fuel charges
- Integrating new and updated technology solutions

Policy and/or Legislation

- The Way Ahead/The Way We Move/The Way We Grow/The Way We Live/The Way We Green/The Way We Finance/The Way We Prosper
- Transit Service Standards Policy C539
- Edmonton Transit System Fare Policy Policy C451G2015

Resources	2013	2014	Adjusted 2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$134,802	\$132,289	\$133,057	\$136,134	\$139,219	\$142,105
Expenditure & Transfers	288,156	292,097	318,307	327,345	338,313	353,080
Subtotal	153,354	159,808	185,250	191,211	199,094	210,975
Intra-municipal Recoveries	(4,246)	(3,485)	(2,494)	(2,806)	(2,917)	(3,037)
Net Operating Requirement	\$149,108	\$156,323	\$182,756	\$188,405	\$196,177	\$207,938
Full - Time Equivalents	2,099.8	2,134.3	2,204.7	2,210.7	2,216.7	2,220.7

2015 Services

- Provided over two million service hours, with ridership projected to be approximately 90 million
- The Metro Line opened in September 2015. This added 3.3 kilometers of LRT service from Churchill station to NAIT
- Late Night (Owl) and new Peak Period service to developing areas of the City was also introduced in September 2015 Program

Changes in Services for 2016 - 2018

- Low Income Transit Pass will be considered by City Council in the fall of 2015
- Edmonton Transit will begin reallocating bus service, including more frequent service and reduced travel time to achieve its goal of growing ridership per capita and by providing service enhancements in higher demand areas, resulting in more frequent bus service, reduced passenger travel time and improved bus schedule adherence
- Edmonton Transit is proposing a rate increase averaging three percent annually over 2016 2018

Approved 2016-2018 Budget – Program Summary

Program Name - DATS

Results to be Achieved

Transit is focused on enhancing the use of public transit and active modes of transportation and accessibility to persons with disabilities. In support of achieving these goals, Transit has developed a series of performance measures which are used to measure performance including;

- DATS Ride Accommodation Rate 98%
- DATS on-time performance 90%

Cost Drivers

- Aging and service life of existing fleet
- Aging of existing infrastructure
- Increasing demand due to aging and growing population
- Movement towards aging in place and community living
- Service delivery model
- Personnel costs
- Maintenance and fuel charges
- Transit policy changes (service area coverage, service hours and fare policy)
- Eligibility policy
- Accessibility of conventional transit system

Policy and/or Legislation

- The Way Ahead/The Way We Move/The Way We Live/The Way We Prosper
- Human Rights Legislation

Resources			Adjusted			
	2013	2014	2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$2,512	\$2,568	\$2,406	\$2,406	\$2,406	\$2,406
Expenditure & Transfers	28,014	29,345	29,057	29,163	30,049	30,963
Subtotal	25,502	26,777	26,651	26,757	27,643	28,557
Intra-municipal Recoveries	(568)	(778)	(781)	(907)	(927)	(947)
Net Operating Requirement	\$24,934	\$25,999	\$25,870	\$25,850	\$26,716	\$27,610
Full - Time Equivalents	189.7	188.7	190.6	190.6	193.1	196.1

2015 Services

- Provided 940,000 trips across the City of Edmonton for approximately 9,000 registrants
- Reviewed transit infrastructure for accessibility including costing of upgrades
- Cumulative completion of approximately half of the total eligibility reviews with full completion expected during 2017

Changes in Services for 2016 - 2018

- Completion of Leading Teams, Aligning Strategies and Achieving Goals project which will positively impact employee and customer relationships as well as staff engagement. Accountability and the effectiveness and efficiency of DATS operations will also be improved
- Alignment of policies and practices to DATS mission, vision and values developed in 2015
- Update of key policies such as trip cancellation, escorts/attendants, eligibility and trip times and affected Standard Operating Procedures which is expected to result in enhanced customer experience
- DATS service delivery model review to be completed in 2016 with the objective to increase available trips within proposed budget (optimization and appropriate mix of in-house and external trips delivered)
- Continuous improvement of trip optimization through technology and process innovation including installation of latest version of scheduling software expected for the late summer of 2016
- Innovation through review of vehicle deployment including zone coverage versus City coverage, beginning of day starting points, as well as fleet type and fleet equipment 459 -

Program - Bus and LRT
Title - LRT - LRT Maintenance Foremen &
Escalator Tech

Growth on Existing Services
Funded
Ongoing

Results to be Achieved

The public's perception of reliable and accessible transit services is a significant determinant of desire to use ETS services. This is in alignment with the corporate targets detailed in The Way We Move and The Way We Grow and will contribute to increasing ridership. These factors are a key component in meeting Transit's 2018 targets of: 75% customer satisfaction with reliability aspect of service, 90% availability of escalators, 90% availability of elevators and the target of 105 Rides/Capita.

Description

- This package will increase the availability of escalators by 5% to reach the department target of 90%
- Maintains 90% availability of elevators (99% availability in 2014)
- Contributes to 75% customer satisfaction regarding reliability of service (or greater)
- Contributes to achieving target of 105 Rides/Capita

This is a request for:

- 2 additional Foreman level FTEs
- 1 Elevator/Escalator Technologist
- 3 person relief pool of service personnel

Justification

Background:

Since 2009, the LRT has seen a 250% increase in fleet size (37 vehicles increased to 94 vehicles) while our front line maintenance staff has increased by 150% (20 staff increased to 30 staff). This increase in vehicles has resulted in longer shifts and the need for additional supervisory coverage. Since 2009, there has been no comparable increase in the amount of front-line supervisory staff which currently consists of 2 EVM Foremen and 2 Service Foremen. This requested increase will represent a rough 150% increase in supervisory staffing.

To help us better manage elevator/escalator maintenance, there needs to be an increased level of monitoring of the contractor. Other transit agencies have determined that contractor oversight by the agency is absolutely essential to ensure satisfactory contractor performance. Our consultant reviewed our existing monitoring practices and has indicated significant improvements could be attained if the City takes a more direct role in monitoring the contractor in the field and pushing for improvements in contractor reporting on materials orders and labour scheduling.

The 2 additional Foreman level FTEs are to provide supervision for the Maintenance (Electro-Vehicle Mechanics & Bodymen) and Service (LRT Serviceman and LRT Cleaner) positions. Further, additional funding will support a small 3-person relief pool of service personnel who will cover the Service Foreman positions during absences (\$3,200 annually), and cover the cost of a workstation for one service foreman (\$7,500 one time). Both of the Foreman positions will be designated to night shifts and will provide support to staff working during those hours. These positions will allow for supervisory coverage within D.L. MacDonald garage to expand from 55% of the time the facility is open to 76% of the time the facility is open.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$104	-	104	1.0	\$236	-	236	2.0	\$5	-	5	-
Total	\$104	-	104	1.0	\$236	-	236	2.0	\$5	-	5	-

Program - Bus and LRT Title - Smart Bus

Operating Impacts of Capital Funded Ongoing

Results to be Achieved

Operation of the Smart Bus technology and utilization of data available with the Smart Bus technology and applications will result in improved service/schedule information available for customers and improved service reliability, resulting in a projected 0.5% increase in ridership. Information available will also contribute to fuel savings and improved maintenance practices (projected savings of approximately \$1.7 million and \$0.5 million respectively). This supports the City Vision of enhancing the use of public transit and achieving the corporate outcome target of 105 annual transit rides per capita by 2018. This service package will increase Rides/Capita by 0.57. This also supports the corporate outcomes: 'The City of Edmonton's operations are environmentally sustainable' and 'The City of Edmonton has a resilient financial position.'

Description

This service package includes funding (\$520,000) for positions required to support the Smart Bus system and to analyze/leverage new information available and produce identified tangible benefits. Positions required (in 2016) include Smart Bus Business Lead, Data Analyst (Methods Analyst), Data Management (Transportation Technician), Hardware Management (Transportation Technician), IT Support (Systems Analyst)

Funding for additional hardware/software support (\$927,000) and communication costs (\$146,000) is also required.

Projected additional revenues and cost savings possible with full deployment and support of the Smart Bus system are: Increase farebox revenue (\$400,000 in 2016; \$200,000 in 2017);

Fuel savings (\$1.1M in 2017; \$620,000 in 2018);

Bus Maintenance cost savings (\$497,000 in 2017).

Justification

Background:

The Smart Bus solution has been successfully deployed, with 304 of 932 buses presently equipped with Smart Bus technology. The operating costs identified are required to support fleet-wide deployment, and to maximize the use of the functionality available with the Smart Bus solution.

Options:

- 1. The deployment of the Smart Bus solution is funded in the Capital Priorities Plan. Funding required for hardware/software support and communications will be needed to operate the system.
- 2. Reduce or eliminate funding for positions required to support the Smart Bus system.

Implications of Not Funding:

- 1. Inability to operate the Smart Bus system and/or deterioration of components and system performance.
- 2. Reduced standard of maintenance; inability to achieve tangible and intangible benefits.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$1,593	400	1,193	5.0	(\$1,597)	200	(1,797)	-	(\$619)	-	(619)	-
Total	\$1,593	400	1,193	5.0	(\$1,597)	200	(1,797)	-	(\$619)	-	(619)	-

Program - Bus and LRT Title - Smart Fare

Operating Impacts of Capital Funded Ongoing

Results to be Achieved

The public's perception of ease of use of public transit is a significant determinant of desire to use the system. The Smart Fare system facilitates the implementation of a variety of fare pricing strategies, more convenient fare payment options for transit customers and improved integration of transit fares throughout the Capital Region. Additional revenue is expected through reductions in fare evasion. Additional ridership and revenue can be generated from introduction of fare strategies which are not feasible with the existing fare collection equipment. This is in alignment with the corporate targets detailed in The Way We Move and will contribute to increasing ridership. These factors are a key component in meeting Transit's 2018 targets of: 75% customer satisfaction with reliability aspect of service, a 25.9% of Journey to Work mode split as well as 105 Rides/Capita.

Description

Funding in this service package (\$4.8M in 2018) would cover operating costs associated with the Smart Fare system, including transaction fees, equipment maintenance, back office and support elements, including a customer service centre.

Realization of benefits (cost savings and revenue increases) is projected for 2019.

Justification

Background:

City Council has approved the capital profile for a regional account based open payment Smart Fare system and GreenTRIP funding has been confirmed by the Province of Alberta.

This service package has been prepared in advance of the award of Smart Fare system project. It assumes a hosted smart fare business model. A hosted solution is the preferred business solution to meet Payment Card Industry (PCI) requirements and regional deployment.

Options:

- 1. A solution operated by Edmonton Transit/City of Edmonton as the lead agency. This would require increased costs related to PCI requirements.
- 2. A closed loop, card based fare system was evaluated as an alternative to an account based, open payment system. A card based system would require increased capital costs and would limit customer payment options too closed loop, transit-specific payment cards. A card based system would also be difficult to expand to regional fare payment system after initial requirements have been identified.

Implications of Not Funding:

The Smart Fare system could not be activated. Opportunities to implement alternative fare policies and an integrated regional fare policy would be lost.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	-	-	-	-	-	-	-	-	\$4,792	-	4,792	-
Total	-	-	-	-	-	-	-	-	\$4,792	-	4,792	-

Program - Bus and LRT
Title - Low Income Transit Pass - Aligned with
Council Motion (OP 61)

New or Enhanced Service Funded Ongoing

Results to be Achieved

The Low Income Transit Pass Program provides a reduced monthly pass option for low income individuals. This new pass program will:

- Contribute to The City of Edmonton's goal if ending poverty in a generation (Priority #11);
- Increase accessibility to transit for people with low income;
- Increase transit ridership;
- Provide 500 free passes for Edmonton's homeless;
- Contributes to the Way We Move "Edmontonians are connected to the city in which they live, work and play".

The funding associated with this service package has been aligned to the amounts approved by Council in motion OP 61, Dec 2015.

Description

The Low Income Transit Pass Program will provide a low cost transit pass to qualifying citizens. The program would apply to users of both the conventional transit system (bus and LRT) and DATS. The recommended pass price is \$35 per month.

The program will qualify citizens through Community Services, similar to the current Leisure Access Program.

Once qualified, citizens will be able to purchase their transit pass a locations across Edmonton. The sales and distribution model and business processes are not finalized. ETS is looking to partner with the Library and other social agencies to sell and distribute this new pass program.

The new program includes a recommendation to distribute 500 free transit passes each month to Edmonton homeless. ETS would administer the distribution of the free passes through social agencies.

Justification

Background:

The program was presented to the Transportation Committee on April 22, 2015 and again on November 9, 2015.

The program was supported by the Transportation Committee, however, Administration was requested to continue to work with social agencies and Edmonton Public Libraries in order to explore the potential to improve the pass distribution network and reduce administrative costs.

The Committee also recommended that Council only approve 50% of the funding required for this new pass and that the funds be held in abeyance until it is known if Provincial grants would be able to fund the remaining 50%.

The current budget impacts are subject to change following review of the sales and distribution model and determination of the availability of offsetting Provincial funding.

A Supplemental Capital Budget adjustment request (\$400K) will be brought forward in Spring 2016 for the purchase of DATS buses required to accommodate increased trip demand generated by the program.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$230	-	230	1.0	\$2,000	-	2,000	6.5	\$2,000	-	2,000	6.0
Total	\$230	-	230	1.0	\$2,046	3	2,000	6.5	\$2,000	-	2,000	6.0

Program - Bus and LRT

Title - DATS - Change to DATS Accommodation

Rate - as Ammended (Motion OP 67)

Growth on Existing Services
Funded
Ongoing

Results to be Achieved

DATS is currently operating near capacity and Edmonton is seeing a significant increase in the demand for DATS service. These factors have a significant impact on Transit's ability to meet its corporate target detailed under The Way We Move. By funding the additional 13,500 service trips, Transit's target of meeting the 98% DATS ride accommodation rate can be maintained.

Description

To maintain DATS accommodation rate of 98%.

This is a request for funding to cover costs for 13,500 additional trips primarily covered by external contractors.

To be implemented in 2017 with full annualization in 2018.

Justification

Background:

Based on historical trends, DATS can expect an increase in trip requests of 1.5% per year, which represents roughly 15,000 trips per year. This projection could be understated due to increased pressure from population growth and aging demographics. An increase of 2% per year would involve an additional 20,000 trip requests per year, which is a more cautious projection. Without additional resources, this pressure could negatively impact DATS' accommodation rate. In 2014, DATS' accommodation rate was 98.4%. An additional 9,300 accommodated trips would cause the accommodation rate to fall below the 98% target.

DATS is pursuing numerous internal efficiency initiatives in order to accommodate growth in demand for trips, however it is not clear at this time how much of this demand can be accommodated with existing resources. This service package allows for an additional 13,500 trips to be accommodated. This was calculated using estimated variable costs for trip expansion. This funding would accommodate projected growth in trip demand in 2016, however additional trip demand beyond 2016 would require expansion of the DATS fleet by one vehicle per year.

Options:

- 1. Invest in transit Infrastructure accessibility.
- 2. Invest in operator training and vehicle (Conventional and Community Transit) accessibility.
- 3. Cap on DATS Service (reduction in accommodation rate).

Implications of Not Funding:

If funding is not approved, DATS will not be able to meet the accommodation rate target.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	-	-	-	-	\$174	-	174	-	\$61	-	61	-
Total	-	-	-	-	\$174	-	174	-	\$61	-	61	-

Introduction

The LRT Design and Construction branch is responsible for effectively and efficiently delivering LRT capital projects. The work of this branch is guided by Transportation Planning initiatives as outlined in *The Way We Move*, which sets up a framework for how the City will respond to its future transportation needs. By expanding the LRT network, the City of Edmonton can provide improved mobility choices for citizens, link to a larger number of destinations and integrate with active modes of transportation, while simultaneously managing traffic congestion.

In keeping with the LRT Network Plan and various corridor concept plans, LRT Design and Construction makes LRT expansion in the City of Edmonton a reality through the delivery of project management and technical services. Efficient administration of these projects ensures funding agreements with other levels of government can be reached and honoured.

The following LRT lines are at various stages of planning, design or construction within the City of Edmonton:

- Northwest LRT extension from NAIT to Northwest City limits (Metro Line)
- Northeast LRT to Gorman (Capital Line)
- South LRT to Heritage Valley (Capital Line)
- Southeast to West LRT (Valley Line)

The branch manages the preliminary and detailed design process, including track, roadway, structure and station plans, electrical traction power, roadway traffic, train control systems, environmental, geotechnical, drainage and utility coordination.

The maximum value for the City of Edmonton is attained through the effective assessment of an appropriate delivery method, from traditional design, bid, build to alternative procurement and delivery approaches.

Project management services include cost estimating, on-location resident engineering and inspection services, project controls and performance tracking.

The branch is also involved in system commissioning and coordination of testing procedures that are performed prior to revenue service. Public consultation and communication remains ongoing throughout the design and implementation stages of new LRT development to ensure there is appropriate information sharing and involvement with all key stakeholders and citizens.





LRT Design and Construction endeavours to anticipate changes to the environment in which it exists and has identified the following emerging issues:

The Metro LRT Line began operation in a staged restricted mode on September 6, 2015. Full implementation of the CBTC signal system requires completion of the system installation on the portion of the Metro Line operating on the same right of way as the current Capital Line and acceptance of the signal contractor's Safety Case. The branch will oversee the completion of the contract in 2016.

Procurement of a Public Private Partnership (P3) contractor for construction and operation of the Valley Line LRT will be completed with the assignment to a successful proponent before the end of 2015, with financial close in early 2016. The P3 contractor will start construction in early 2016, with an expected completion by 2020. The branch will establish a corporate oversight structure to monitor progress and project activities to completion, including an ongoing public engagement and communications program.

In 2015, the Canadian Federal Government announced the new Public Transit Fund. This fund will provide significant permanent support for large-scale public transit projects that address congestion and reduce travel time and provide broader economic and social benefits to Canada's largest cities. In order to be eligible for support under the Public Transit Fund, projects must have a minimum of \$1 billion in total estimated eligible costs. The City of Edmonton needs to be ready to access this fund by planning the expansion of our LRT network now and being prepared to continue to invest in and build out our LRT system.

Positive Change—Innovation & Continuous Improvement

The maximum value for the City of Edmonton is attained through the effective assessment of an appropriate delivery method, from traditional design, bid, build to alternative procurement and delivery approaches. Delivery of the Valley Line project was assessed using design bid build, design build and Public Private Partnership (P3) models.

Value for money using P3 delivery was determined, with the added cost and schedule certainty associated with this method. The branch has undertaken development of the City's first P3 contract for this largest single municipal project in Alberta's history. Through collaboration with other departments in the City, expertise in Public Private Partnership within the City of Edmonton organization is being developed.

Approved 2016-2018 Budget – Branch Summary

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	1,834	1,720	1,128	100	100	100
Total Revenue & Transfers	\$1,834	\$1,720	\$1,128	\$100	\$100	\$100
Expenditure & Transfers LRT Design and Construction	2,500	2,430	1,867	820	831	842
Total Expenditure & Transfers	\$2,500	\$2,430	\$1,867	\$820	\$831	\$842
•						
Net Operating Requirement	\$666	\$710	\$739	\$720	\$731	\$742
Full-time Equivalents	16.0	16.0	17.0	17.0	17.0	17.0

Approved 2016-2018 Budget – Branch Summary by Cost Category

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	1,834	1,720	1,128	100	100	100
Total Revenue & Transfers	\$1,834	\$1,720	\$1,128	\$100	\$100	\$100
Expenditure & Transfers						
Personnel	2,161	1,917	2,195	2,226	2,292	2,365
Materials, Goods and Supplies	71	76	101	79	76	74
External Services	263	192	506	528	528	528
Intra-municipal Charges	1,530	889	1,687	1,161	1,198	1,218
Utilities & Other Charges	528	558	279	307	307	306
Transfer to Reserves	941	918	-	-	-	-
Subtotal	5,494	4,550	4,768	4,301	4,401	4,491
Intra-municipal Recoveries	(2,994)	(2,120)	(2,901)	(3,481)	(3,570)	(3,649)
Total Expenditure & Transfers	\$2,500	\$2,430	\$1,867	\$820	\$831	\$842
Net Operating Requirement	\$666	\$710	\$739	\$720	\$731	\$742
Full-time Equivalents	16.0	16.0	17.0	17.0	17.0	17.0

Budget Changes for 2016 - 2018 (\$000)

Revenue & Transfers - Changes

User Fees, Fines, Permits, etc.

Rental revenues are expected to decrease in 2016 by \$1,028 because construction will begin on the Valley LRT Line, and the majority of the properties being rented will be vacated. In 2017 and 2018 there are no changes.

Expenditures & Transfers - Changes

Personnel

2016-2018 increases of \$31, \$66 and \$73 respectively to account for approved cost of living adjustments, movement towards job rate and benefit changes.

Material, Goods & Supplies

There is a decrease of \$22 in 2016 due to a reallocation from materials, goods and supplies to external services. There are no significant changes in subsequent years.

External Services

There is an increase of \$22 in 2016 due to a reallocation to external services from materials, goods and supplies. There are no significant changes in subsequent years.

Intra-municipal Charges

The following intra-municipal charges have increased in 2016: building maintenance \$248, on-demand financial services and utilities \$193, on-demand corporate center for project management \$97, on-demand communications \$57 and other minimal charges. A decrease of \$1,128 is due to the decrease in rental revenue which was transferred to capital as part of the funding for the Valley Line project. In 2017 and 2018 there are minimal changes.

The 2% innovation has resulted in cost reductions of \$1, \$4 and \$3 in 2016 to 2018. These are in the areas of software licensing, stationery and office supplies and telecom.

Utilities and Other Charges

In 2016 there is a small increase of \$28 and no significant change in 2017 and 2018.

Intra-municipal Recoveries

Intra-municipal capital recoveries will increase by \$580, \$37 and \$20 in 2016 to 2018 due to an increase in overall expenditures.

Full-time Equivalents - Changes

There are no changes to Full-time Equivalents.

Approved 2016-2018 Budget – Program Summary

Program Name - LRT Design and Construction

Results to be Achieved

The LRT Design and Construction branch enables expansion of Edmonton's LRT network in the most effective and efficient way possible.

Cost Drivers

The schedule of LRT construction projects is set through approvals by City Council. Costs are driven by progress in the development plans, design, property acquisition and construction.

Policy and/or Legislation

Services provided by the branch ensure all City policies and legislation are followed. Projects must honour funding agreements with other levels of government and remain within the scope approved by City Council.

Resources		Adjusted							
	2013	2014	2015	2016	2017	2018			
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget			
Revenue & Transfers	\$1,834	\$1,720	\$1,128	\$100	\$100	\$100			
Expenditure & Transfers	5,494	4,550	4,768	4,301	4,401	4,491			
Subtotal	3,660	2,830	3,640	4,201	4,301	4,391			
Intra-municipal Recoveries	(2,994)	(2,120)	(2,901)	(3,481)	(3,570)	(3,649)			
Net Operating Requirement	\$666	\$710	\$739	\$720	\$731	\$742			
Full - Time Equivalents	16.0	16.0	17.0	17.0	17.0	17.0			

2015 Services

- Provide Project Management services to fully implement the Metro Line LRT service
- Oversee procurement of Public Private Partnership contractor for the Valley LRT Line
- Continue to support planning in development of long term LRT expansion program
- Support project management of various transit and corporate construction initiatives
- Enforcement and monitor contractor compliance with enviso requirements, City environmental regulations as well as City Construction standards.

Changes in Services for 2016 - 2018

Complete financial close of the contract for the Valley LRT Line and oversee the construction phase from 2016 to scheduled Line opening in 2020. Continue to provide engineering and project management support to rail and LRT projects such as the Galleria Pedway, development of Blanchford and the Heritage Park and Ride.

Introduction

Roads Design and Construction branch is responsible for managing the effective delivery of high quality capital building projects in the City of Edmonton. From the rehabilitation of arterial roads to the renewal of neighbourhood street lighting, alleys and sidewalks, Roads Design and Construction branch balances addressing community needs with a preventative maintenance approach to ensure the sustainability of Edmonton's infrastructure. Through the rehabilitation and renewal of community infrastructure, Roads Design and Construction branch supports many Council goals.

Safe, well-constructed sidewalks and adequate street lighting provide citizens with a feeling of safety and improve accessibility. These infrastructure components are a vital first step to encouraging individuals to walk both in their neighbourhoods and to local facilities and to adopt more active lifestyles overall. Well-constructed sidewalks also ensure anyone, regardless of ability, can easily get around their community. Community strength is found in human relations; to achieve this, people need to be involved in their community. Individuals who feel safe are more likely to participate in activities and events outside the home. Safe, well-constructed infrastructure encourages citizens to get out and connect, first to their community, then to the City at large. A more engaged City is a healthier and more vibrant place for everyone.

Ensuring road-building excellence within the City is a corner stone to supporting the movement of people, products and services. A dependable road system is vital to meeting Council's targets for the efficient movement of goods and services and business satisfaction. Reliable roads assist in decreasing overall travel times, ensuring the efficient delivery of goods and services. The movement of goods and delivery of services are key to the economic vitality of Edmonton. Businesses need to be able to count on effective and reliable corridors for transportation. Maintaining travel times on these corridors means businesses in Edmonton and the Capital Region have access to an effective and reliable transportation network.

Well-maintained and constructed arterial and local roadways are also vital to effectively move citizens by mass transit and to provide bike lanes and active transportation corridors. Facilitating mass transit improves mode split measures and decreases congestion, while active transportation initiatives provide for more healthy living options, both in modal choice and recreation.





Roads Design and Construction endeavours to anticipate changes to the environment in which it exists and has identified the following emerging issues:

Funding for Capital Profiles

Throughout the City of Edmonton, developing areas have growth pressures which are creating a need to expand existing or constructing new infrastructure. Some of this expansion is the responsibility of the developer while other times it becomes the responsibility of the City of Edmonton. Without this work being completed, it will cause strain on the existing infrastructure. Roads Design and Construction works with other areas of Administration, the Province and land developers to consider strategies for funding interchanges and major transportation infrastructure as these issues arise. As neighbourhoods are renewed, there is also a need to renew existing alleys that do not have a funding source.

Scheduling Challenges

Fast tracking of projects to meet the City's vision and goals creates challenges with effectively planning, designing and coordinating projects prior to construction. During construction, challenges exist such as scheduling with utility companies and other stakeholders, which impact cost control and risk to our reputation. Roads Design and Construction is working with other areas of the organization and land developers to plan and coordinate work to meet the schedule of projects.

Provincial Funding

Anticipated fluctuations of Provincial and/or Federal funding could impact the size of the road program and these potential changes will have a direct impact on manpower requirements.

Succession Planning

Throughout Edmonton, there is a competitive work environment with a high demand for skilled, knowledgeable manpower throughout the entire roadway construction industry. The increase in projects throughout the entire City creates more demand for skilled workers. Our competitive advantage will be to attract, attain and retain skilled knowledgeable employees who have experience and expertise in the industry. Roads Design and Construction is working actively to create an engaged workforce that allows employees to fulfill their career aspirations in the City of Edmonton.

Positive Change—Innovation & Continuous Improvement

Continuous Improvement

Public engagement strategies are being reviewed to ensure citizens are informed and have a voice in the projects related to their communities. Surveys are distributed to citizens in all neighbourhood renewal areas to provide feedback from citizens for areas for improvement.

Innovation

The Local Improvement Process is currently being reworked to ensure a process that is efficient and provides effective communication to citizens exists. Lean Principles are being applied to optimize the notification process, under current mandates to create more value and provide clarity to the citizens. This initiative is aimed to avoid costs by reducing the hours to process neighbourhoods as well as provide an opportunity to streamline the process.

Process/Procedure Review

The branch will be undertaking a Process/Procedure review to ensure that all capital projects are in compliance with the Corporate Project Management Reference Guide and Project Management Best Practices. The outcome will be to ensure that the City receives the best value and contract compliance in all of our contracted construction projects.

Approved 2016-2018 Budget – Branch Summary

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	2	-	-	-	-	-
Grants	4	-	-	-	-	-
Total Revenue & Transfers	\$6	-	-	-	-	-
Expenditure & Transfers						
Arterial Roads	378	475	486	529	544	560
Neighbourhood Renewal	789	623	694	749	776	804
Special Projects	236	237	283	294	304	315
Total Expenditure & Transfers	\$1,403	\$1,335	\$1,463	\$1,572	\$1,624	\$1,679
Net Operating Requirement	\$1,397	\$1,335	\$1,463	\$1,572	\$1,624	\$1,679
Full-time Equivalents	109.0	109.0	109.0	109.0	109.0	109.0

Approved 2016-2018 Budget – Branch Summary by Cost Category

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	2	-	-	-	-	-
Grants	4	-	-	-	-	-
Total Revenue & Transfers	\$6	-	-	-	-	-
Expenditure & Transfers						
Personnel	11,214	11,954	13,128	14,001	14,506	15,035
Materials, Goods and Supplies	270	247	388	419	408	405
External Services	52	216	121	152	153	154
Fleet Services	12	13	15	13	13	13
Intra-municipal Charges	1,924	1,833	1,455	1,801	2,156	2,018
Utilities & Other Charges	220	242	439	389	388	385
Subtotal	13,692	14,505	15,546	16,775	17,624	18,010
Intra-municipal Recoveries	(12,289)	(13,170)	(14,083)	(15,203)	(16,000)	(16,331)
Total Expenditure & Transfers	\$1,403	\$1,335	\$1,463	\$1,572	\$1,624	\$1,679
Net Operating Requirement	\$1,397	\$1,335	\$1,463	\$1,572	\$1,624	\$1,679
Full-time Equivalents	109.0	109.0	109.0	109.0	109.0	109.0

Budget Changes for 2016 to 2018

Revenue & Transfers - Changes

User Fees, Fines, Permits, etc.

Not applicable

Expenditures & Transfers - Changes

Personnel

2016-2018 increases of \$873, \$505 and \$529 respectively to account for approved cost of living adjustments, movement towards job rate and benefit changes.

Material, Goods & Supplies

In 2016, there is an increase of \$40 in capital leases for computers to align with historical results. There is a decrease of \$9, \$10 and \$5 in 2016 to 2018, most of which is due to the 2% innovation.

External Services

In 2016, there is a budget reallocation of \$31 to advertising and printing to align to historical results. There are minimal changes in 2017 and 2018.

Fleet Services

There are no significant changes.

Intra-municipal Charges

In 2016, intra-municipal charges have increased by \$346 with the following breakdowns: on-demand corporate center for project management \$149, on-demand space/accomodation and utilities \$122, law \$75, on-demand communications \$25 and a decrease of \$26 in other charges. In 2017, there is an increase of \$345 in space/accomodation and utilities and \$10 in other charges. In 2018, there is a decrease of \$198 in space/accomodation and utilities due to the expiration of the lease at the existing facility and an increase of \$60 in charges from several other departments.

The 2% innovation has resulted in cost reductions of \$3, \$12 and \$7 in 2016 to 2018. These are in the areas of software licensing, stationery and office supplies and telecom.

Intra-municipal Recoveries

Intra-municipal recoveries from capital have correspondingly increased by \$1,120, \$797 and \$331 in 2016 to 2018 due to an increase in overall expenditures.

Utilities & Other Charges

In 2016, there is a net reduction of \$50 due to part of the training budget being reallocated to cell phone and other expenses. There are insignificant changes in 2017 and 2018.

Full-time Equivalents - Changes

There are no changes to Full-time Equivalents.

Approved 2016-2018 Budget – Program Summary

Program Name - Arterial Roads

Results to be Achieved

The Arterial Roads group provides detailed design and project management services for all arterial roadway projects ranging from the construction, rehabilitation or reconstruction of arterials roads to ensure the continued effective and efficient movement of people as well as goods and services. Arterial roads are assessed for surface distress and ride comfort every two years and structural integrity every five years. A Risk-Based Infrastructure Management System (RIMS) evaluates asset deterioration to assist in determining annual financial needs in order to maintain the arterial network at an acceptable condition. A Pavement Management System evaluates current and future condition data to prioritize roads for rehabilitation and reconstruction by the most cost-effective method.

Streetscape projects along with arterial roadways are coordinated with the Great Neighbourhoods Capital Program and the Downtown Community Revitalization Levy (Downtown CRL) enhance the walkability, connectivity and public realm in our communities.

Cost Drivers

- Changes in budget allocated for arterial road renewal and/or growth projects
- Inventory of arterial network
- Condition ratings of arterial roadways and associated infrastructure
- Changes in standards/policy for managing deteriorating infrastructure

Policy and/or Legislation

- The Way Ahead/The Way We Move/The Way We Grow/The Way We Live/The Way We Green
- Active Transportation Policy C544, Complete Streets Policy C573
- Sidewalk Strategy, Walkability Strategy, Bicycle Transportation Plan and Goods Movement Strategy
- Arterial Roads for Development Policy C507.
- Arterial Renewal Program (ARP) annual council approved \$55 million

Resources	Adjusted								
	2013	2014	2015	2016	2017	2018			
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget			
Revenue & Transfers	\$4	-	-	-	-	-			
Expenditure & Transfers	5,530	5,642	5,671	6,340	6,818	6,813			
Subtotal	5,526	5,642	5,671	6,340	6,818	6,813			
Intra-municipal Recoveries	(5,152)	(5,167)	(5,185)	(5,811)	(6,274)	(6,253)			
Net Operating Requirement	\$374	\$475	\$486	\$529	\$544	\$560			
Full - Time Equivalents	29.0	29.0	29.0	29.0	29.0	29.0			

2015 Services

Provided project management and engineering design services to ensure effective administration of arterial roadway contracts. Completed preliminary designs to detailed construction drawings for arterial capital projects. Completed a series of projects.

Changes in Services for 2016 - 2018

Continue to provide current levels of service and support for new arterial roadways, renewal/upgrading of existing arterials and streetscapes associated with the Downtown CRL and commercial corridors.

Approved 2016-2018 Budget – Program Summary

Program Name - Neighbourhood Renewal

Results to be Achieved

The Neighbourhood Renewal Program provides a cost-effective approach to ensure the City's neighbourhoods are maintained in a sustainable way. Renewing Edmonton's neighbourhood infrastructure enhances the livability for citizens and enhances the pride they have in their community.

Neighbourhood Reconstruction - During reconstruction, roads are rehabilitated and repaved and sidewalks and streetlights are replaced. Reconstruction is typically a two-year process.

Other projects delivered by RDC's Neighbourhood Renewal Program include:

- Neighbourhood, Collector and Industrial Overlay/Full Depth Reclamation- Roads are rehabilitated, repaved and sidewalk panels treated to eliminate trip hazards.
- Local and Collector Streetscapes Construction and building of streets to enhance walkability, connectivity and public realm through physical improvement, which may include roadway redesign, decorative street lights, tree planting and street furniture.
- Active Modes Projects Constructing, missing link sidewalks, shared use paths and pedestrian bus pads.
- Northeast Edmonton Roads Projects Installation of sub drain systems, reconstruction and repaying of roadways.

This program implements various renewal techniques that will improve sidewalk and roadway conditions and increase the service life of neighbourhood infrastructure. The City's Risk-Based Infrastructure Management System (RIMS) is applied to manage the growing renewal needs. The program coordinates with the Great Neighbourhoods Capital Program and the Drainage Neighbourhood Renewal Program.

Cost Drivers

- Inventory of collector and local roads
- Condition ratings of roadways and associated infrastructure
- Changes in standards/policy for managing deteriorating infrastructure

Policy and/or Legislation

- The Way Ahead/The Way We Move/The Way We Grow/The Way We Live/The Way We Green
- Active Transportation Policy C544, Complete Streets Policy C573
- Sidewalk Strategy, Walkability Strategy, Bicycle Transportation Plan and Goods Movement Strategy
- Local Improvements Policy C433D
- Local Improvement Policy C200B

Resources	Adjusted							
	2013	2014	2015	2016	2017	2018		
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget		
Revenue & Transfers	\$2	-	-	-	-	-		
Expenditure & Transfers	6,034	6,312	7,012	7,491	7,754	8,042		
Subtotal	6,032	6,312	7,012	7,491	7,754	8,042		
Intra-municipal Recoveries	(5,245)	(5,689)	(6,318)	(6,742)	(6,978)	(7,238)		
Net Operating Requirement	\$787	\$623	\$694	\$749	\$776	\$804		
Full - Time Equivalents	59.0	59.0	59.0	59.0	59.0	59.0		

2015 Services

Provided design, project management and on-site construction inspection for neighbourhoods and local / collector roadways that have been prioritized for renewal. Also provided design and/or project management and on-site construction of sidewalk and shared use paths through out the City.

Changes in Services for 2016 - 2018

Continue to provide current levels of service and support for renewal/upgrading of neighbourhoods and streetscapes associated with the Downtown CRL.

Approved 2016-2018 Budget – Program Summary

Program Name - Special Projects

Results to be Achieved

The Special Projects Program delivers design, project management, on-location engineering, inspection and contract administration for special projects in the road right-of-way, focusing on bridges and interchanges. This program is accountable for delivering the appropriate quality and scope of capital projects, on time and on budget. The group provides technical and management expertise to implement industry best practices and lead project excellence.

Cost Drivers

- Inventory of bridges and interchanges
- Condition ratings of bridges and associated infrastructure
- Changes in standards/policy for managing deteriorating infrastructure
- Changes in capital budget for special roadway projects

Policy and/or Legislation

- The Way Ahead/The Way We Move/The Way We Grow/The Way We Live/The Way We Green
- Active Transportation Policy C544, Complete Streets Policy C573

Resources	2013	2014	Adjusted 2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	-	-	-	-	-	-
Expenditure & Transfers	2,128	2,551	2,863	2,944	3,052	3,155
Subtotal	2,128	2,551	2,863	2,944	3,052	3,155
Intra-municipal Recoveries	(1,892)	(2,314)	(2,580)	(2,650)	(2,748)	(2,840)
Net Operating Requirement	\$236	\$237	\$283	\$294	\$304	\$315
Full - Time Equivalents	21.0	21.0	21.0	21.0	21.0	21.0

2015 Services

Provided design and construction project management services for special projects in the roadway right-of-way. Coordinated construction of sidewalks, bus stops, curb ramps and cycling infrastructure. Provided project management services for connectors and coordinated the Bridge Rehabilitation Program including bridge assessments, design and construction of various locations including the Walterdale Bridge replacement and the 102 Ave / Groat Road Bridge replacement. Provided project management services for the 41 Avenue and QEII Highway interchange.

Changes in Services for 2016 - 2018

Continue to provide current levels of service and support for bridge/interchange rehabilitation and growth projects, new Anthony Henday Drive connector roadways approved in the capital budget, renewal/upgrading of existing snow storage facilities approved in the capital budget.

Introduction

Edmonton's transportation network is a major building block of our great City. Transportation Operations enables the effective operation, maintenance and sustainability of the City's vast transportation network including:

- · over 10,000 km off-roads, sidewalks and alleys
- 163 bridge structures
- 113,000 street lights
- over 150,000 traffic signs

From ensuring safe driving conditions throughout the year, to maintaining a clean and accessible road network, to testing and researching materials for our City's road infrastructure, to traffic control management, the Transportation Operations branch reaches far and wide. Over 850 dedicated employees work daily to keep things moving on our roads. Together they provide essential services to our customers – Edmonton's diverse and growing population.

Transportation Operations proudly advances the City's vision, *The Way Ahead*, through multiple avenues. Maintaining a safe, economical and sustainable transportation network contributes to The Way We Move, The Way We Live, The Way We Finance, The Way We Grow and The Way We Green. In addition, the Road Safety Strategy and Smart Roads Strategies projects are direct contributors to the City's vision. Transportation Operations also provides support to the Active Transportation Strategy Renewal, Energy Transition Plan and Complete Streets Implementations projects – all of which directly contribute to the City's vision.

Specifically, Transportation Operations plays a significant role in The Way Ahead and supports the City's vision of a safe and attractive city, where citizens are well connected in the way they live, work and play. Key programs and initiatives improve livability and safety and allow citizens to access public transit and active modes of transportation, such as walking and cycling. Other activities directly support business associations and special event groups as well as facilitate the efficient and effective movement of goods and services, contributing to the City's economic health.

Key initiatives in the 2016-2018 Operating Budget Cycle will include:

- Implementation of the EPark Parking Management System: This project will facilitate automation and improve customer experience for all parking services that the City delivers to the citizens of Edmonton.
- LED Street Light Conversion Program Expansion: Expansion of the existing LED Street Light Conversion project will assist in meeting the greenhouse gas reductions targets in accordance with the City's Greenhouse Gas Management Plan and will also ensure that the City is demonstrating leadership in regards to the principles identified in the City's Light Efficient Community Policy. The program and accompanying policy documents facilitate the City's efforts in environmental stewardship.
- Road Safety Strategy Implementation: City Council has endorsed the Vision Zero Road Safety Strategy, which
 identifies a long-term plan to reduce collisions and injuries in the City. Implementation of the strategy provides a
 long-term, sustained approach to delivering programs and projects that will allow the City to progress towards the
 targets for injury and collision reduction as identified in the strategy. The implementation of the strategy will also
 make Edmonton a more walkable community and improve quality of life for the citizens of Edmonton.



• Program and Service Delivery Review: The branch continues to identify efficiencies that it re-invests in higher priority services in response to public demand. During this operating budget cycle, Transportation Operations will carry out detailed program reviews with respect to its winter and summer road maintenance program and services to business associations, as well as delivery of the City's Transportation Electrical Services programs. The intent of these reviews will be to optimize efficiencies through process review and optimization, as well as evaluation of different service delivery models.

Transportation Operations endeavours to anticipate changes to the environment in which it exists and has identified the following emerging issues:

Downtown Core Activity Management

High levels of construction activity in the Downtown Core will limit route options for motorists and increase the level of congestion into and throughout the downtown core.

Business Associations Requirements

Enhanced service requirements for business associations are necessary to facilitate business vitality and to promote Edmonton as a desired tourism destination.

Inventory Growth Management

Increased inventory growth will result in the need for additional resources and operational facilities.

Growing Citizen Expectations

Higher citizen expectations for summer and winter road maintenance.

Social Media Information Availability

Increased access to services through social media and other avenues.

Traffic Safety Initiatives

Increased public demand for traffic safety Initiatives, including school zone enforcement, neighbourhood traffic issues and educational campaigns

Increasing Environmental Standards

More stringent environmental standards and regulations, along with City-developed targets for greenhouse gas reductions and reductions to our environmental footprint.

Impact of Previous Council Decisions

Vision Zero Road Safety Strategy

In September 2015, City Council approved the Vision Zero Road Safety strategy, which is based on the five safety pillars of Education, Engineering, Enforcement, Engagement and Evaluation. These pillars will be used to form the programs and projects across four key categories related to road safety:

- Community Traffic Safety specifically Neighbourhood Shortcutting and School Safety
- Roadway Engineering Countermeasures including right-turn re-designs and protected left-turn controls
- Speed Management including both automated and manned enforcement
- Pedestrian Safety installation of pedestrian controls

Delivery and resourcing of these programs and projects will be funded through a combination of integration with existing capital programs, as well as program and project specific funding through the Traffic Safety and Automated Enforcement Reserve. These initiatives will span both the operating and capital budgets and will be delivered in accordance with service packages and capital profiles that are subject to Council approvals.

Parking Control Technology

In July 2014, City Council approved capital funding to replace existing on-street and off-street parking equipment with modernized technology. Required funding for ongoing operational support and maintenance of the fully integrated payby-plate parking system is reflected in the 'Parking Control Technology System Support' service package.

Snow and Ice Control

The 2015 budget deliberations identified that funding for snow and ice control does not meet the annual budget requirement for the current policy. A portion of this request was approved and City Council directed the remaining amount required to be implemented over the next three years. This is reflected in the 'Snow & Ice Control - Bring funding level to 100%' service package.

Positive Change—Innovation & Continuous Improvement

Signals and Street Lighting Service Delivery Options Review

A review of service delivery options for signals and street lighting operating and maintenance will be conducted to identify opportunities for cost reductions through alternate service delivery options. Cost reductions could potentially be \$5-10 million annually, commencing in 2018.

LED Street Light Conversion Project Continuity

The LED Street Light Conversion is a self-funding initiative that addresses both the capital cost for the conversion to LED street lights and reduces street light power consumption by approximately 40 per cent. In addition, this initiative will significantly reduce greenhouse gas generation in support the City's Greenhouse Gas Management Plan and Energy Transition Strategy.

Implement Mapped Plowed Street Technology

Implementation of 'Mapping Plowed Street' technology will enable arterial and collector plowing activities to be regularly communicated online for citizen awareness. This technology will provide an information map identifying completed routes and overall progress status. Updates to the map will be made 3 times daily (after every 8 hour shift) during plowing operations. Innovations of this mapping system will allow residents to more effectively plan their trips according to the progress made in plowing operations.

Investigate Various Winter Street Sand Improvements

Over the 2015/2016 winter season, a detailed safety and efficiency review will identify if the rock chip currently being mixed into the winter street sand improves traction for drivers. If it is determined that the rock chip mix is not improving traction satisfactorily, the rock chips may be removed from the winter street sand mix starting in the winter of 2016/2017 and save the City approximately \$430,000.

Implement New Pay-by-Plate Technology

Conversion of existing on and off street parking revenue control equipment to pay-by-plate technology will improve customer service by offering a variety of payment options. Operational efficiencies will be achieved through new technologies that decrease operational and maintenance requirements.

Approved 2016-2018 Budget – Branch Summary by Program

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc. 1	65,598	69,228	22,198	23,623	23,822	23,822
Grants	16	-	-	-	-	-
Transfer from Reserves	-	-	15,886	19,326	19,668	19,694
Total Revenue & Transfers	\$65,614	\$69,228	\$38,084	\$42,949	\$43,490	\$43,516
	·	·				
Expenditure & Transfers						
Engineering Services	3,312	3,778	4,651	5,418	5,656	5,919
Parking Operations	4,171	4,818	5,496	6,074	6,887	6,899
Roadway Maintenance	61,749	58,652	58,484	62,354	65,477	68,266
Snow and Ice Control	71,025	73,834	60,107	62,184	63,752	65,369
Traffic Operations, Signals and Street Lighting	30,653	32,075	35,463	35,219	35,886	36,481
Traffic Safety and Automated Enforcement	23,490	29,819	11,486	14,926	15,268	15,294
Total Expenditure & Transfers	\$194,400	\$202,976	\$175,687	\$186,175	\$192,926	\$198,228
Net Operating Requirement	\$128,786	\$133,748	\$137,603	\$143,226	\$149,436	\$154,712
Full-time Equivalents	869.3	869.3	879.3	894.8	903.8	910.8

¹ Note, there was a change in the treatment of Traffic Safety and Automated Enforcement in 2015

Approved 2016-2018 Budget – Branch Summary by Cost Category

(\$000)	2013	2014	Adjusted 2015	2016	2017	2018
	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	65,598	69,228	22,198	23,623	23,822	23,822
Grants	16	-	-	-	0	-
Transfer from Reserves	-	-	15,886	19,326	19,668	19,694
Total Revenue & Transfers	\$65,614	\$69,228	\$38,084	\$42,949	\$43,490	\$43,516
Expenditure & Transfers						
Personnel	78,741	77,267	80,397	84,997	88,170	91,536
Materials, Goods and Supplies	45,294	46,434	37,239	42,009	43,995	45,870
External Services	41,697	46,444	40,095	46,338	47,189	47,456
Fleet Services	30,281	31,017	26,759	27,885	28,437	28,667
Intra-municipal Charges	3,375	2,124	4,256	5,521	5,572	5,631
Utilities & Other Charges	14,508	13,480	15,200	15,046	15,143	15,244
Transfer to Reserves	15,094	21,014	1,375	1,745	1,745	1,745
Subtotal	228,990	237,780	205,321	223,541	230,251	236,149
Intra-municipal Recoveries	(34,590)	(34,804)	(29,634)	(37,366)	(37,325)	(37,921)
Total Expenditure & Transfers	\$194,400	\$202,976	\$175,687	\$186,175	\$192,926	\$198,228
Net Operating Requirement	\$128,786	\$133,748	\$137,603	\$143,226	\$149,436	\$154,712
Full-time Equivalents	869.3	869.3	879.3	894.8	903.8	910.8

Budget Changes for 2016 to 2018 (\$000)

Revenue & Transfers - Changes

User Fees, Fines, Permits, etc.

Increase mostly due to implementation of Parking Control System Technology System Support and two initiatives such as Adoption of Provincial Overdimensional Permit System and Pavement Design and Quality Assurance Testing.

Transfers from Reserve

An increase in operating expense for the Office of Traffic Safety is required to be funded from Traffic Safety and Automated Enforcement Reserve.

Expenditures & Transfers - Changes

Personnel

2016-2018 increases of \$2,686, \$2,187 and \$2,797 respectively to account for approved cost of living adjustments, movement towards job rate and benefit changes. \$808, \$118 and \$19 relate to operating impact of capital projects and \$485, \$426 and \$418 relate to inventory growth from contributed assets impacting snow and Ice control and street cleaning. \$426, \$336 and \$17 relate to inventory growth on existing services. \$195, \$106 and \$115 due to new or enhanced service such as public engagement and education.

Material, Goods & Supplies

Total increases for 2016-2018 are \$4,770, \$1,986 and \$1,875. \$3,377, \$230 and \$240 are attributed to match the Capital Program. Hired equipment costs for inventory growth are \$945, \$964 and \$953. Inflation on hired equipment are \$601, \$618 and \$637. In 2016 \$596 is related to material rate increase and \$600 to increase on gravel and oil roads materials. Decreases in 2016 for \$740 attributed to 2% innovation and \$609 related to various cost reductions. Increases in 2017 and 2018 of \$174 and \$45 primarily due to vehicle leases for roadway maintenance inspectors.

External Services

Total increases for 2016-2018 are \$6,243, \$851 and \$267. Inflation increase on the snow and Ice and Spring cleaning cost for 2016 to 2018 are \$394, \$425 and \$430. In 2016 and 2017, the operating impact of implementing the centralized systems management and maintenance are \$471 and \$198. In 2016, increases are \$2,000 related to Concrete Mudpumping/Slabjacking contract, \$991 in cost for snow clearing, \$505 increase of sand recycling contracts, \$193 relates to various cost increases. 2016 decreases of \$1,200 due to reduction of Sand/Salt Mixing and TSESA overhead contracts. In 2017, \$25 are from various cost reductions and in 2018, \$197 are related mostly to cost efficiencies of implementing parking technology. 2016-2018 increases of \$2,890, \$253 and \$34 respectively for Traffic Safety and BRZ service packages.

Fleet Services

Total Fleet changes for 2016-2018 are \$1,126, \$552 and \$230. Increase include 2016 \$163 fabrication shop charges. Fleet fuel costs in 2016 is a reduction of \$715 and an increase of \$62 in 2017. Future fleet replacement an increase of \$494 in 2016 and a decease of \$396 in 2018. Fleet increases for 2016-2018 are \$1,113, \$204 and \$498 and other fleet charges are \$71, \$66 and \$128.

Intra-municipal Charges

2016-2018 various intra-municipal increase are \$185, \$51 and \$59. In 2016 there is an increase of \$1,080 related to restatement between intra-municipal charges and recoveries.

Utilities & Other Charges

2016 has a power reduction of \$324 and 2017 and 2018 have a power increase of \$182 and \$186. Other utility increases are \$70, \$15 and \$15. In 2016 increase of \$100 for other expenses. 2017 and 2018 reduction on telephone charges by \$100 each year.

Transfer to Reserves

2016 increase of \$370 from new parking technology savings, which will fund the capital project.

Intra-municipal Recoveries

2016-2018 operating impact from capital programs are \$3,867, \$246 and \$257. Capital recovery increases to engineering are \$592, \$489 and \$547. Recoveries for snow and ice clearing, traffic and parking operations increase in 2016 by \$193 and decrease in 2017 and 2018 by \$776 and \$208. In 2016, \$2,000 is attributed to an increase in Concrete Mudpumping/Slabjacking contract and \$1,080 relates to restatement between intramunicipal recoveries and charges.

Full-time Equivalents - Changes

2016-2018 increases are 15.5, 9.0 and 7.0. Operating impacts of contributed assets for 2016-2018 are 6.0, 6.5 and 6.0, operating impact of implementing capital projects for 2016 and 2017 are 6.6 and 1.0, growth on existing services impact is 4.0 in 2016 and 3.0 in 2017. There is a reduction in 2016 and 2017 of 1.5 FTEs each year due to efficiencies related to the parking control technology. Increase of 1.0 FTE in 2018 due to environmental reviews. Transfer of 0.6 FTE in 2016 to corporate services to provide IT support for parking technology. Increase of 1.0 FTE in 2016 relates to the BRZ operational model.

Approved 2016-2018 Budget – Program Summary

Program Name - Engineering Services

Results to be Achieved

Engineering Services provides geotechnical and environmental engineering, pavement structural design, collects pavement and roadway asset condition information, provides quality assurance testing and research of construction materials, geomatic services and aggregate materials processing services. These services contribute to the Way We Move by ensuring the City has sustainable and accessible infrastructure which will allow goods and services to move efficiently throughout the City. These services also support the Way We Green by ensuring City projects and operations are environmentally sustainable, are designed to minimize significant adverse environmental impacts and meets all applicable environmental legislation.

Cost Drivers

- Scope and scale of capital roadway renewal and maintenance programs
- Volume and complexity of private development applications
- Number of landslides and erosion problems requiring investigation or remediation
- Quantity of contaminated sites requiring investigation or remediation

Policy and/or Legislation

- Alberta Environmental Protection & Enhancement Act
- Canadian Environmental Protection Act
- Canadian Fisheries Act

Resources	2013	2014	Adjusted 2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$2,029	\$1,150	\$1,393	\$1,643	\$1,643	\$1,643
Expenditure & Transfers	10,306	12,832	14,328	15,687	16,414	17,224
Subtotal	8,277	11,682	12,935	14,044	14,771	15,581
Intra-municipal Recoveries	(6,994)	(9,054)	(9,677)	(10,269)	(10,758)	(11,305)
Net Operating Requirement	\$1,283	\$2,628	\$3,258	\$3,775	\$4,013	\$4,276
Full - Time Equivalents	98.2	98.2	109.7	110.7	111.7	112.7

2015 Services

- Provided field and laboratory testing for quality assurance of the construction materials being provided on City construction projects.
- Provided pavement engineering design and roadway rehabilitation expertise.
- Collected pavement and sidewalk performance data including surface distress, roughness and structural adequacy.
- Provided construction surveying and geomatic services for Transportation Services.
- Provided environmental engineering and contaminated site remediation expertise.
- Monitored melt water discharges and groundwater related to the City's snow storage facilities.
- Provided monitoring for vibrations, noise, groundwater and slope movement instrumentation.
- Provided geotechnical reviews and expertise on a variety of building projects and development applications.
- Coordinated the investigation, design and construction of remedial measures associated with landslides and erosion problems.
- Managed the aggregate materials processing program, including recycled aggregate production, the recycling of winter street sand and the production of hot mix asphalt during the winter months.

Changes in Services for 2016 - 2018

No changes in services are planned.

Approved 2016-2018 Budget – Program Summary

Program Name - Traffic Operations, Signals and Street Lighting

Results to be Achieved

Traffic Operations provides the services that allow for the safe and efficient direction of all roadway users. The program provides traffic control management, right-of-way management, streetlight and signal maintenance, road and base mapping, road markings, on-street parking, as well as development and compliance of the City's traffic bylaws. These services contribute to The Way We Move by ensuring that goods and services move efficiently, connecting Edmontonians to the City in which they live, work and play and providing sustainable and accessible infrastructure.

Cost Drivers

- Contract costs with EPCOR and other electrical service contractors
- Managing lifecycle condition of traffic signals, signs, pavement markings and street lights
- Development and construction activity demand
- Utility rates

Policy and/or Legislation

- Street Lighting Renewal Policy C564
- Municipal Government Act
- Traffic Safety Act
- Traffic Bylaw #5590

Resources			Adjusted			
	2013	2014	2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$4,082	\$5,179	\$3,132	\$3,403	\$3,403	\$3,403
Expenditure & Transfers	39,290	38,603	44,244	43,982	44,653	45,254
Subtotal	35,208	33,424	41,112	40,579	41,250	41,851
Intra-municipal Recoveries	(8,637)	(6,528)	(8,781)	(8,763)	(8,767)	(8,773)
Net Operating Requirement	\$26,571	\$26,896	\$32,331	\$31,816	\$32,483	\$33,078
Full - Time Equivalents	171.4	171.4	157.3	163.3	164.3	164.3

2015 Services

- Operated and maintained over 99,000 streetlights, 140,000 signs, 1,100 traffic signals and 3,300 on-street parking meters.
- Assessed and optimized the roadway networks traffic signal timings to accommodate all modes.
- Installed, operated, managed and maintained traffic signals, traffic signs, markings and streetlight infrastructure to City standards.
- Managed traffic routes and volumes for temporary traffic disruptions and special events with signs, detours, barricades and signal timings to promote efficient flow of vehicles, pedestrians and transit.
- Provided on-street parking meters and residential parking programs.
- Installed LED streetlights to promote environmental stewardship and energy cost savings.
- Provisions of services for major special events including ITU World Triathlon, and Tour of Alberta.

- Implement Light Efficient Community Policy and LED Streetlight Replacement Project.
- Enhancements of services to Business Revitalization Zones.

Approved 2016-2018 Budget – Program Summary

Program Name - Parking Operations

Results to be Achieved

Parking Management provides the centralized delivery of parking services through the management of on-street operations and City owned/leased off-street parking facilities. Implementation of effective parking management strategies contribute to The Way Ahead by aligning with City growth and business initiatives, providing a sustainable balance between availability and affordability of parking and offering a choice on alternative modes of transportation.

Cost Drivers

- Parking supply, demand and availability
- Changes in transportation mode shift
- Land use development and zoning requirements
- Market rate pricing for off-street parking facilities
- Implementation of emerging technology

Policy and/or Legislation

- Traffic Bylaw #5590

Resources			Adjusted			
	2013	2014	2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$13,597	\$14,455	\$15,273	\$16,191	\$16,390	\$16,390
Expenditure & Transfers	7,550	7,900	8,484	9,246	9,266	9,051
Subtotal	(6,047)	(6,555)	(6,789)	(6,945)	(7,124)	(7,339)
Intra-municipal Recoveries	(3,379)	(3,082)	(2,988)	(3,172)	(2,379)	(2,152)
Net Operating Requirement	(\$9,426)	(\$9,637)	(\$9,777)	(\$10,117)	(\$9,503)	(\$9,491)
Full - Time Equivalents	16.5	16.5	32.6	31.1	29.6	29.6

2015 Services

- Initiated review of parking management strategies to optimize on-street public parking availability and achieve a balance meeting the needs of residents and businesses.
- Commenced implementation of the EPark parking management system with the installation of on-street pay machines.
- Reviewed and applied parking restrictions for safe, efficient traffic flow, on-street bike lanes, special needs and event parking.
- Approved and implemented residential parking programs.
- Administered permitted/non-permitted parking uses of public road right of way which included accessible parking, loading zones and time restricted parking.
- Negotiated and administered contracts for off-street parking operations.
- Maximized revenue generation through competitive and strategic rate setting reflective of current market conditions.

- Commence the implementation of the EPark System in off-street parkades including license plate recognition technology and guidance.
- Initiate mobile enforcement (vehicles) for EPark ticketing.

Approved 2016-2018 Budget – Program Summary

Program Name - Roadway Maintenance

Results to be Achieved

Roadway Maintenance supports the City's economic vitality by efficiently maintaining a safe, economical and effective road transportation and pedestrian sidewalk systems. This is accomplished by ensuring that potholes and trip hazards are repaired and streets and sidewalks are swept. Infrastructure maintenance activities also include: rural road maintenance, bridge maintenance and inspection and maintenance of other auxiliary infrastructure such as guardrails, stairs, among others. These services contribute to the Way We Move by ensuring that goods and services move efficiently, connecting Edmontonians to the City in which they live, work and play and providing sustainable and accessible infrastructure.

Cost Drivers

- Increasing road inventory
- Lifecycle condition of transportation assets
- Fluctuation of winter temperatures increasing the number of freeze and thaw cycles affecting pothole maintenance
- Contractor costs fluctuations

Policy and/or Legislation

- Roadway Cleaning Policy C550
- Municipal Government Act

Resources			Adjusted			
	2013	2014	2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$4,450	\$2,720	\$2,387	\$2,373	\$2,373	\$2,373
Expenditure & Transfers	74,405	73,969	65,567	76,205	79,571	82,614
Subtotal	69,955	71,249	63,180	73,832	77,198	80,241
Intra-municipal Recoveries	(12,656)	(15,317)	(7,083)	(13,851)	(14,094)	(14,348)
Net Operating Requirement	\$57,299	\$55,932	\$56,097	\$59,981	\$63,104	\$65,893
Full - Time Equivalents	345.9	345.9	335.4	341.4	346.4	349.4

2015 Services

- Completed Spring clean-up as per policy.
- Recovered 75 per cent of the applied winter abrasive material during street sweeping program to recycle for future winter season use.
- Completed repairs and maintenance of roadways and roadway infrastructure to maintain safe conditions and preserve the asset value of the roadway network.
- Filled over 600,000 potholes.
- Managed over 23,000 citizen calls.
- Microsurfacing completed on time and under budget.
- Asphalt overlay and neighbourhood rehabilitation completed within schedule and under budget.

Changes in Services for 2016 - 2018

Maintain current levels of service on the growing roadway and active transportation network.

Approved 2016-2018 Budget – Program Summary

Program Name - Snow and Ice Control

Results to be Achieved

The 'Snow and Ice Control' program ensures that the transportation network is safe and that efficient movement of pedestrians, motorists and cyclists is possible throughout the winter season. Snow and Ice Control includes operational maintenance such as snow plowing and blading, snow removal, among others. These services contribute to The Way We Move by ensuring that goods & services move efficiently and by connecting Edmontonians to the City in which they live, work and play.

Cost Drivers

- Increased service level standards to snow and ice control in accordance with the updated policy
- Increases to the roadway inventory
- Number and severity of snow events affecting snow and ice control and spring clean-up
- Fluctuations on contract equipment costs

Policy and/or Legislation

- Snow and Ice Policy C409H
- Municipal Government Act

Resources			Adjusted			
	2013	2014	2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$177	\$205	\$13	\$13	\$13	\$13
Expenditure & Transfers	73,949	74,657	61,212	63,495	65,079	66,712
Subtotal	73,772	74,452	61,199	63,482	65,066	66,699
Intra-municipal Recoveries	(2,924)	(823)	(1,105)	(1,311)	(1,327)	(1,343)
Net Operating Requirement	\$70,848	\$73,629	\$60,094	\$62,171	\$63,739	\$65,356
Full - Time Equivalents	201.3	201.3	208.3	211.3	214.8	217.8

2015 Services

- Managed Snow and Ice Control program as per the Snow and Ice Control Policy C409H including sanding, plowing and blading of the transportation network.
- Removed additional snow as required from roadways according to priority.
- Reused winter street sand recovered during spring street sweeping campaign.
- Managed over 44,000 winter related citizen calls
- One sided windrow pilot

- Implementation of service level enhancements (residential blading and windrow clearing etc.) which support changes made to Snow and Ice Control Policy C409H. Enhancements are expected to improve accessbility in neighbourhoods.
- Identification of further efficiencies in the delivery of Snow and Ice Control related activities (i.e. sand recycling, sand mixing).
- Redefine level of services through benchmarking and public consultation.

Approved 2016-2018 Budget – Program Summary

Program Name - Traffic Safety and Automated Enforcement

Results to be Achieved

The Office of Traffic Safety provides comprehensive evidence based analytical services like speed management including automated photo enforcement, engineering assessments and reviews and road user behaviour programs focused on reducing fatal, injury and property damage preventable collisions. Office of Traffic Safety works closely with other road safety stakeholders to increase collaboration and integration of education, engineering, enforcement, evaluation and engagement efforts for collision reduction, resulting in increased efficiency and effectiveness of services. These services align with The Way We Move by ensuring safer Goods and Services Movement and making Edmonton a Safer City by reducing motor vehicle collisions.

Cost Drivers

- Equipment performance and use of technology
- Legislative changes
- Road user behaviour

Policy and/or Legislation

- Traffic Safety Reserve
- Implementation of Safety Measures Around Schools Policy C514
- Traffic Safety Act
- Municipal Government Act
- Traffic Bylaw #5590

Resources			Adjusted			
	2013	2014	2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$41,279	\$45,519	\$15,886	\$19,326	\$19,668	\$19,694
Expenditure & Transfers	23,490	29,819	11,486	14,926	15,268	15,294
Subtotal	(17,789)	(15,700)	(4,400)	(4,400)	(4,400)	(4,400)
Intra-municipal Recoveries	-	-	-	-	-	-
Net Operating Requirement	(\$17,789)	(\$15,700)	(\$4,400)	(\$4,400)	(\$4,400)	(\$4,400)
Full - Time Equivalents	36.0	36.0	36.0	37.0	37.0	37.0
204E Comileon						

2015 Services

- Performed traffic safety audits and assessments and advanced collision data analysis
- Reviewed speed management continuum initiatives and community safety programs
- Managed all automated photo enforcement technologies and aspects of equipment purchase, certification, deployment, maintenance and violation processing in conjunction with Edmonton Police Services to address traffic safety through education, engineering and enforcement programs
- Promoted traffic safety, increased levels of awareness and provided educational and public education programs to influence road user behaviour
- Enhanced management and control of the program through a systems approach

- Implementation of Vision Zero Road Safety Strategy including Community Traffic Safety, Engineering, Speed Management and Pedestrian Safety (Traffic Signals Pedestrian / Vehicle Safety) related programs.
- Enhanced School Zone Enforcement.

Program - Engineering Services
Title - Geotechnical Engineering Reviews and
Design

Growth on Existing Services
Funded
Ongoing

Results to be Achieved

By acquiring an additional senior geotechnical position, it will be possible to reduce the time required to provide geotechnical reviews to the Sustainable Development Department for various development applications, as well as the geotechnical reviews and consulting required for in-house projects for Transportation Services.

In order to ensure that the City of Edmonton has sustainable and accessible infrastructure, it is essential that major infrastructure projects undertaken by the City and private development projects are subjected to professional geotechnical design and review prior to proceeding, to ensure that the projects properly recognize any geotechnical constraints which may impact the success of the projects over their anticipated lifespan.

Description

The volume and complexity of the geotechnical work being undertaken by Engineering Services has increased significantly over the last three years. It has gotten to the point where another senior engineer is required to meet the business area demands and schedules. This position requires the skills and experience to independently review & evaluate consultant geotechnical reports for development and top-of-bank issues, repair landslides, design erosion control measures and conduct in-house geotechnical investigations. This position will also be required to contribute to the research and development of new policies and procedures for construction and private development problems where soil conditions have a significant impact. Currently the section has only two senior and one junior engineer working in this area.

The annual cost of \$154,000 associated with this FTE, will be recovered through the billing of the numerous business areas requesting the reviews and designs (this last bit is only for the geotechnical position). Funding for the FTE will come as a recovery from a combination of both Capital and Operating budgets, as determined at the discretion of the requesting Business Area.

Justification

The Geotechnical sub-section is responsible for the administration of contracts for geotechnical work being performed by private geotechnical firms for the City. In 2012, 19 projects were managed and by 2014, the number of projects being managed was 40. The sub-Section also provides detailed reviews for Sustainable Development prior to development approvals. The number of development files processed has increased from approximately 175 in 2012, to over 300 in 2014. The current staff level of three engineers is proving inadequate to provide the necessary detailed reviews being requested.

Failure to fund this new FTE will result in ever longer delays in providing required geotechnical reviews and investigations. The inability of existing staff to meet the demand for engineering reviews will result in ever greater delays that will impact commercial and residential development along with City projects.

Engineering Services operates as a revenue center with an annual financial target of full cost recovery with no reliance on tax levy funding. The salary and benefits for this position will be accommodated within the various service rates used by the Section, which are typically charged to the various Capital Programs.

incremental		201	6			201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	-	-	-	-	-	-	-	1.0	-	-	-	-
Total	-	-	-	-	-	-	-	1.0	-	-	-	-

Program - Roadway Maintenance Title - Roadway Maintenance Street Cleaning, Asphalt and Concrete Repair Inventory Growth Operating Impacts of Contributed Assets
Funded
Ongoing

Results to be Achieved

Funding will provide current service levels for increased inventory for road maintenance (not including snow and ice). This includes asphalt & concrete repair, streetscape maintenance and adherence to street cleaning policy - C550 Street Cleaning.

Current resources of \$26 million for 162.43 FTEs, materials and equipment that directly support the corporate outcomes "Goods and Services move efficiently" and "The Transportation system is integrated, safe and gives citizens choice to their mode of movement". Additionally, these programs directly impact Transportation Services' strategic goals for network quality.

Description

This service package identifies the funding required to maintain inventory increases in the roadway network, estimated at 1.5% per year from developer contributed assets and increased streetscape maintenance with the completion of Capital Boulevard (108 Street) in 2016 and the Quarters in 2017. This package includes funding asphalt and concrete repair, street cleaning and streetscape maintenance to maintain current service levels. This package includes 3 permanent FTEs each year. There is no direct impact to other departments as a result of this request.

Justification

With a growing inventory of roadway assets (35% increase in the last 25 years), the district operations of the Roadway Maintenance section requires additional human resources to maintain our level of service standards. Other factors such as diversification of roadway assets with improved designs and unique road cross-sections require additional manpower to keep the City's asset inventory on a good estate of repair.

Not funding this service package would result in lower level of service for our residents due to newly developed assets not being maintained and faster deterioration rate for existing assets (where preventive maintenance actions are not being implemented on).

incremental		2016				201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$442	-	442	3.0	\$461	-	461	3.0	\$432	-	432	3.0
Total	\$442	-	442	3.0	\$461	-	461	3.0	\$432	-	432	3.0

Program - Snow and Ice Control
Title - Roadway Maintenance Snow & Ice
Control Inventory Growth

Operating Impacts of Contributed Assets
Funded
Ongoing

Results to be Achieved

Funding will provide current service levels for increased inventory and maintain adherence to Snow and Ice control policy - C409H. Current resources of \$60.1 million are for 208.3 FTEs and de-icing materials.

This program directly supports the Corporate Outcomes "Goods and Services move efficiently" and The Transportation system is integrated, safe and gives citizens choice to their mode of movement". These program directly impact Transportation Services strategic goals for network quality.

Description

This service package identifies the funding required to maintain inventory increases in the roadway network for snow and ice control from developer contributions, estimated at 1.5% (\$900K) and includes 3 permanent FTEs each year; maintenance of Shared Use Paths estimated at \$5,000 each year; and the maintenance of new protected bicycle facilities estimated at \$30,000 and includes 0.5 FTE. There is no direct impact to other departments as a result of this request.

Justification

With a growing inventory of roadway assets (35% increase in the last 25 years), the district operations of the Roadway Maintenance section requires additional human resources to maintain our level of service standards specified in the Snow and Ice Control Policy C409H. This forecast is based on a 4 year forecast from City Economist for growth of contributed assets and an approved Capital expenditure for construction of Shared Use Paths and protected bicycle facilities in the current capital budget cycle. This service package will allow for inventory growth with the current service level.

Not funding service for increased inventory would result in decreased level of service. This would mean that Transportation Services' strategic goal for Winter Reliability would not be met.

incremental		2016				201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$907	-	907	3.0	\$969	-	969	3.5	\$978	-	978	3.0
Total	\$907	-	907	3.0	\$969	-	969	3.5	\$978	-	978	3.0

Program - Traffic Operations, Signals and Street Lighting
Title - LED Streetlight Conversion Project

Operating Impacts of Capital Funded Ongoing

Results to be Achieved

Since 2010, the City began installing LED luminaires in conjunction with neighborhood renewal projects, arterial roadway construction projects and walkway projects. These projects have allowed an evaluation of streetlighting requirements and ensuring that standards are met.

The LED Streetlight Project supports The Way Ahead by supporting transportation mode shift, promoting efficient goods and services movement as well as safety and security for all citizens and further advancing the City of Edmonton as an environmentally sustainable and resilient City. Additionally, the project seeks to replace all remaining high pressure sodium and metal halide luminaires with LED in order to contribute to environmental stewardship (lower greenhouse gas emission, financial savings (maintenance and power) and innovation (use of technologies)).

Description

1.0 additional FTE is required to support the successful implementation and ongoing maintenance of streetlight infrastructure identified within the scope of the LED Streetlight Conversion capital project (15-66-2561) approved by Council in the Capital Priorities Plan for 2015-2018 and as indicated in the Accelerated LED Street Light Conversion Funding Options Report.

Justification

Current resources are insufficient to support the successful implementation of this capital project. Internal resources will secure in-house knowledge and skilled personnel who can efficiently manage the full cycle of streetlight infrastructure, from initial implementation through review of designs and construction management, communication with staff from different departments and external groups and support ongoing operation and maintenance of the City's infrastructure.

Not funding this service package would result in delays in delivering the project and all other street lighting and composite capital projects and lower level of service in correspondence with public on construction and maintenance issues.

incremental		2016				201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$154	-	154	1.0	-	-	-	-	-	-	-	-
Total	\$154	-	154	1.0	-	-	-	-	-	-	-	-

Program - Traffic Operations, Signals and Street Lighting
Title - Parking Control Technology System Support

Operating Impacts of Capital Funded Ongoing

Results to be Achieved

Funding will provide the required on-going operational support and maintenance of a fully integrated Pay-by-Plate parking system for on and off-street parking facilities. The new parking system replaces 3,300 coin operated meters and cash booth technologies used in 5 City owned and leased parkade facilities. Current parking control equipment used by the City has reached end of life resulting in increased maintenance and repair costs.

Modernized parking technology supports The Way Ahead by helping to promote Edmontonian's use of public transit and active modes of travel. Information generated by the new parking system will provide the public with access to parking trends for on-street parking availability and real time availability at City managed parkades. With stall availability and parking pricing information, more informed choices can be made on journey to work modes including transit, carsharing, cycling and walking. Accessibility to the transportation network with active mode experience contributes to the department's corporate outcomes.

Description

Parkplus software licencing and maintenance \$200,000

Pay machine centralized systems management and remote communications \$220,000

Licence plate recognition software and equipment maintenance \$50,000

Parkade guidance system maintenance - 5 parkade facilities \$200,000 (2017)

IT support \$78,000, 0.6 FTE beginning in 2016

Justification

In July 2014, City Council approved capital funding to replace existing on and off-street parking equipment with modernized technologies. New Pay-by-Plate technology will improve service to the public by offering a variety of payment options (coin, credit card and mobile payment). New information on real time off-street parking availability, stall utilization, directional guidance and location based revenue can be gathered and applied towards improving management of parking services. Operational efficiencies are gained through automated enforcement, including the opportunity for better enforcement of parking bans required for snow and ice control operations. Benefits and service enhancements of the Pay-by-Plate technology have been verified through the recent E-Park Pilot Project.

The revenue generating ability of on and off-street parking operations is directly dependent on the support, maintenance and reliability of these new technologies. Funding of these operations will ensure customer service continuity while safeguarding the resulting parking revenue stream. The revenue levels achieved are used to fund commitments to the arena and to pay back the borrowed capital.

incremental		2016				201	7		2018				
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	
Annualization	-	-	-	-	-	-	-	-	-	-	-	-	
New Budget	\$548	548	-	0.6	\$200	200	-	-	-	-	-	-	
Total	\$548	548	-	0.6	\$200	200	-	-	-	-	-	-	

Program - Traffic Operations, Signals and Street Lighting
Title - Streetlighting Capital Priorities

Operating Impacts of Capital Funded Ongoing

Results to be Achieved

Ensuring adequate resources for maintenance of the City's optimal streetlight system encourage the use of public transit and active modes; good nighttime visibility enhances the safety and comfort of all road users including transit users who must walk to transit access points. In the same manner, this program improves business satisfaction as goods and services move efficiently along all key goods and service routes throughout the City.

Description

This service package is to maintain service levels to the public in response to the increasing capital investments approved in the 2015-2018 Capital Priorities Plan in order to successfully manage the entire process of design, construction and coordination of work, ongoing maintenance programs and database management of various streetlight infrastructure affected by various capital projects. This includes the majority of Road projects, Neighborhood Renewal, Community Services projects, Sustainable Development projects and Transit projects. Delays encountered in the design phase will directly impact the construction schedule. Ensuring sufficient resources are available to meet the design timelines is important in order to minimize impacts on delivery dates of the entire project. Furthermore, additional inspections will be added to construction projects in order to minimize the impacts during the life of the infrastructure and its ongoing maintenance. Timely recording of the as-built within the base maps may reduce risks of damages caused by third parties. Additional resources will enable addressing the inquiries from citizens, Business Revitalization Zones and other departments on time and increase customer satisfaction.

Justification

The City's capital investment into Transportation Operations projects alone has grown 350% since 2013, of which the majority investment is in Neighborhood Renewal and Arterial Road Renewal. Streetlight resources have not kept pace with the growth in workload which is hindering the ability to meet customer expectations. Current resources are insufficient to support the expectations for timely streetlight plan reviews, site inspections and site visits required for the growth in volume of capital construction projects.

Not funding this service package will result in delays in the initial design Plan reviews, done by external sources, will directly delay construction and capital and composite project completion schedules. This will directly impact the public, other City departments and projects done by 3rd parties on City Right of Way. A lower level of service on resident inquiries is to be expected as well.

incremental		2016				201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$125	-	125	1.0	\$125	-	125	1.0	-	-	-	-
Total	\$125	-	125	1.0	\$125	-	125	1.0	-	-	-	-

Program - Traffic Operations, Signals and Street Lighting Title - Traffic Controller System Conversion Operating Impacts of Capital Funded Ongoing

Results to be Achieved

Old and outdated traffic controllers and cabinets that still exist in the City increase the number of potential signal malfunction and result in less than efficient operation of the intersection due to limited capabilities of the system.

The conversion aims to maintain the optimal traffic signal system for all roadway users including transit by providing improved signal management options as well as a centrally controlled system that has the ability to influence a more fluid traffic flow. This has the capability to increase transit ridership by improving travel times. Additionally, the efficient movement of goods and services is enhanced with the managed traffic congestion.

Description

Additional budget and 3 FTEs are required, dedicated to the successful implementation and ongoing maintenance of Traffic Controller System Conversion capital project (15-66-2511) approved by Council in the Capital Priorities Plan for 2015-2018. This capital project is to equip all traffic signal controllers to new ethernet based and wireless technologies in order to communicate remotely with the CENTRACS central traffic signal management system.

Doing so maximizes the value achieved from the City's CENTRACS investment in 2009 and offers efficiencies in remote traffic management towards achieving The Way We Move goals and objectives. Full conversion will result in a cost savings in 2017 and 2018 to the City by utilizing wireless communications versus existing leased phone lines, thereby reducing communication costs.

Justification

Traffic controllers, traffic cabinets and the legacy central traffic signal management system are in need of replacement in order to minimize the risk of traffic signal disruptions. The City has already invested into the new central signal system (CENTRACS) in 2009, but the benefit from this investment cannot be maximized if the traffic controllers are not able to communicate with CENTRACS. Communication with CENTRACS allows remote management of traffic signal controllers from the Traffic Management Center (TMC), supporting proactive timing adjustments and providing greater ability for the TMC to react to immediate and unexpected traffic volume activity.

Adding internal resources will secure in-house technical expertise and skilled personnel in the initial implementation phase thereby increasing the ability for efficient and effective ongoing maintenance of the same equipment and technologies into future years. The traffic signal inventory has increased by over 20% in the last 10 years. Current staffing levels are required to operate and maintain level of service standards. Without additional resources, there would be an increase in cost for maintenance and a risk to public safety by not completing required equipment upgrades before failure. This would result in increased costs in order to acquire external support for repairs and maintenance.

Current resources are insufficient to support the aggressive timeline for the implementation of this capital project. The hardware used for the legacy central management system and in older traffic cabinets are becoming obsolete, expensive, difficult to maintain and source parts for. Approximately 60% (over 600 signals) in the traffic signal system are controlled by the aging central system currently supported by internal staff. This capital project is now approved and expected to be carried out as planned, in order to minimize the risk of traffic controller disruptions due to obsolete equipment.

incremental	2016					201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Exp	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$438	-	438	3.0	(\$100)	-	(100)	-	(\$100)	-	(100)	-
Total	\$438	-	438	3.0	(\$100)	-	(100)	-	(\$100)		(100)	-

Program - Traffic Operations, Signals and Street Lighting
Title - Dynamic Message Sign Service
Technician

Operating Impacts of Capital Funded Ongoing

Results to be Achieved

The messaging system has proven to be very valuable in enhancing traffic safety initiatives, relieving traffic congestion, providing real time road conditions, communicating snow removal operations, road emergencies and repairs, major special events, notice of construction planned or in progress and alternate driving routes. The success of the program is felt by the simple notification on the roadway to all motorists and citizens alike as motorists are able to plan ahead by either choosing an alternate route or a different mode of travel as well as continually promoting goods and services to move efficiently through and across the city.

Description

Request for 1 new FTE Dynamic Message Sign Service Technician to maintain a growing inventory of DMS (Dynamic Messaging Systems) and speed display signs used in daily traffic controls and capital construction programs. This new Dynamic Message Sign Service Technician position will be funded from cost recovery of capital projects and external third party rentals. No tax levy is required.

Justification

A new position is required to maintain this increasing inventory in good order so that the units can be deployed to construction sites and external service requests, ready for rental and to mobilize speed display signs to enhance traffic safety. The capital investments are set for the next four years and are higher than the prior capital cycle. As a result, we are requesting an additional staff to assist us in meeting the demands for traffic control services in various capital projects. This cost for this position will be fully recovered through the rental of these signs.

The DMS inventory began in 2002 with 8 units, in 2009 speed display signs were also added to the inventory resulting in a combined inventory of 212 units in 2015. (an average yearly increase of over 200%, valued at approx. \$3.4 million) These units have proven to be very valuable in enhancing traffic safety initiatives, relieving traffic congestion, providing real time road conditions, communicating snow removal operations, road emergencies and repairs, major special events, notice of road construction (planned or in progress) and recommending alternate driving routes. Speed display signs are used by the Office of Traffic Safety to improve driver awareness and to further enhance traffic safety objectives. Their effectiveness has resulted in additional units being purchased for citywide use.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	-	-	-	1.0	-	-	-	-	-	-	-	-
Total	-	-	-	1.0	-	-	-	-	-	-	-	-

Program - Roadway Maintenance
Title - Roadway Maintenance Inspectors

Growth on Existing Services
Funded
Ongoing

Results to be Achieved

Funding will provide the resources to address customer service gaps and provide increased oversight of contracted equipment. These inspectors complete the field investigation of citizens concerns, identify work required and assemble and prioritize repairs to sidewalks and potholes and asphalt patching. Currently it takes an average of 2 weeks to investigate and track complaints during peak demand periods, the corporate target is 5 business days. The additional 10 inspectors, along with planned technology improvements, will allow us to meet the expected response times for 90% of citizen inquiries. These inspectors will also allow for increased oversight of contracted/hired equipment during winter snow events. Efficient deployment and oversight of hired equipment increases effectiveness and allows us to meet our plowing time standards. Meeting these standards has a direct impact on the network reliability in winter months.

Resources required are 5 FTEs and a budget of \$640,000, including indirect costs and materials.

These additional resources to focus on investigation of service issues for all Roadway Maintenance programs and oversight of hired equipment, directly impact the corporate outcomes "Goods and Services move efficiently" and The Transportation system is integrated, safe and gives citizens choice to their mode of movement". This also impacts Transportation Services' ability to meet our strategic goals for network quality and winter reliability.

Description

This service package identifies the funding required to meet inspection requirements on Citizens' concerns and oversight of increased amount of hired equipment, estimated at \$640,000 and 5 FTEs (one per district). The current number of 5 inspectors has not increased since 1985 and can not keep pace with increased customer inquiries and hired equipment usage arising from inventory growth over the past 30 years. This funding includes the operating impact for a 1/2 ton truck required for each employee to use (total of 5).

Justification

This service package is required due to a 54% increase in population since 1985 (the inspection team in the Roadway Maintenance section has remained the same since then) and an increase in customer inquiries of more than 300% (from 19,000 inquiries in 2007 to 67,000 in 2014). This service package will positively impact all our programs (Snow and Ice, Street Cleaning, Asphalt and Concrete Repair) by increasing the level of inspection (awareness of the condition of our assets), supervision (quality of both private and public forces) and reducing the response time to resident inquiries. Approving this service package will also reduce risk exposure to the public and mitigate liability to the City for unknown hazardous roads conditions.

The implications of not funding this service package include: Longer waiting time for investigating road related complaints (currently 2 weeks during peak periods), not meeting corporate target of 5 business days, not meeting plowing standards due to lack of supervision of contracted forces and an overall negative impact on network reliability during the winter months.

incremental	2016					201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$302	-	302	3.0	\$316	-	316	2.0	\$22	-	22	-
Total	\$302	-	302	3.0	\$316	-	316	2.0	\$22	-	22	-

Program - Traffic Safety and Automated Enforcement Title - School Zone Enforcement - Corps of Commissionaires Growth on Existing Services
Funded
Ongoing

Results to be Achieved

Overall speed and collisions within school zones will be decreased by having positions dedicated to school zone enforcement.

These resources will continue to ensure Edmonton is a safe City for vulnerable users such as children. Also, these resources will support Transportation Services' Network Management outcomes by increasing safety and optimizing the efficiency of goods and services movement. This proposed program can yield safety benefits which are in line with the department's goals of achieving collision reductions along all arterial roadways, major corridors and truck routes.

Description

An additional 3 Corps of Commissionaire Peace Officers would be hired specifically for school zone enforcement in order to ensure motorists are compliant with the reduced speed limits in school zones. With the introduction of school zones in Edmonton, an increase in demand for mobile automated photo enforcement occurred. Having completed a year worth of speed enforcement in school zones, three additional units are requested to meet the demand and still provide for the ongoing demand for speed enforcement in communities. The additional 3 contracted positions may be funded out of the Traffic Safety & Automated Enforcement Reserve (TSAER) and have an annual cost of \$195,000. Zero Tax Levy Impact.

Justification

The City of Edmonton reintroduced school zones with reduced speed limits in September 2014. In order to ensure that motorists are compliant with the reduced speed limits and to improve vulnerable road user safety, additional enforcement personnel are required. Since the introduction of school speed limit zones, enforcement has been conducted using present resources. The addition of school speed limit zones has added an additional 350 enforcement sites since inception in the fall of 2014. This represents an increase of over 50% more speed enforcement zones for the present inventory of enforcement equipment. Speeding infractions in school zones continue to be over represented in relation to speeding in non-school speed limit zones. The addition of three units will help meet the greater needs of both communitywide enforcement as well as school zone enforcement. The increase in mobile enforcement unit resources specifically for school zone enforcement will increase the availability of speed enforcement units for neighbourhoods which have seen an increase in demand and a decrease in ability to meet that demand.

incremental	2016					201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$195	195	-	-	\$4	4	-	-	\$4	4	-	-
Total	\$195	195	-	-	\$4	4	-	-	\$4	4	-	-

Program - Traffic Safety and Automated Enforcement Title - Neighbourhood Rehab/Reconstruction due to Road Safety Audits Growth on Existing Services
Funded
Ongoing

Results to be Achieved

At the concept stage, neighbourhoods and communities which are candidates for reconstruction or rehabilitation, present opportunities for safety reviews to be conducted. By completing an in-service road safety review, engineers can provide recommendations to improve safety within these areas. If implemented, these mitigation measures can lead to a reduction of 5-10% at a neighbourhood level, or 30-99% depending on the existing safety concern for a specific movement at a certain location.

Road safety audits provide the opportunity for planners and engineers to identify and correct traffic safety concerns before they emerge. Completing these audits will also support The Way Ahead outcomes by ensuring that the new designs for neighbourhoods/communities are attractive, compact and safe for all the road users. Road safety audits support the Network Management outcomes by increasing the safety and optimizing the efficiency of goods and services movement.

Description

This service package includes budget funding and co-ordination of implementation resulting from the safety assessment. These recommendations include redesigning the road and implementing the recommendation of the road safety reviews to name a few. Costs associated with these audits are estimated at \$250,000 annually and may be funded from the Traffic Safety and Automated Enforcement Reserve (TSAER). Zero Tax Levy Impact.

Justification

City arterials, collector roads, neighbourhoods and communities are continually undergoing rehabilitation and changes, to accommodate the shifting transportation demands. The assessment and/or auditing of road design and operation optimizes road safety benefits and provides a greater return on investment. Limited in-service road safety reviews have been conducted in the past due to budget limitations and as a result, the opportunity to implement engineering safety improvements as part of rehabilitation projects is not being optimized. By completing an in-service road safety review on all transportation projects, engineers can provide recommendations to improve safety within these areas. If implemented, these mitigation measures can lead to a reduction of 5-10% at a neighbourhood level, higher collision reduction levels can be anticipated for specific engineering counter measures. Road Safety audits ensure that all rehabilitation and growth road project optimize the opportunity to improve traffic and pedestrian safety.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$250	250	-	-	-	-	-	-	-	-	-	-
Total	\$250	250	-	-	-	-	-	-	-	-	-	-

Program - Traffic Safety and Automated Enforcement
Title - Road Safety Engineer

Growth on Existing Services
Funded
Ongoing

Results to be Achieved

The creation of this position will streamline the road safety assessment process by incorporating a position that will specifically deal with making safety recommendations that need to be considered to reduce collisions. This aligns with Council's goals to reduce collisions, injuries and fatalities in Edmonton. Additionally, this FTE position is created to mitigate traffic safety concerns in the City - this will be done through proactive measures, by targeting safety concerns before they emerge, as well as by reactive measures and recommending changes that are needed to achieve sufficient collision reduction. This is in line with the department's goals of achieving collision reductions along all arterial roadways, major corridors and truck routes.

Description

This service package includes the permanent position of a Road Safety Engineer. The cost associated with this position is \$171,000 annually and should be supported through the Traffic Safety and Automated Enforcement Reserve (TSAER). Zero Tax Levy Impact.

Justification

The City of Edmonton is continuously trying to find new ways to improve safety at existing and new locations. In order to proceed with this in a strategic process, optimize funding through capital and operational programs, it is imperative that road safety audits and assessments be conducted prior to the expenditure of major capital or operation funding. Traffic safety needs to be considered at the planning and design stages and the shift from reactive to proactive safety assessment is essential to mitigate safety issues before they emerge. The systemic integration of road safety engineering into transportation projects ensures road safety is embedded into the process and all opportunities to leverage safety are identified and implemented.

Preliminary reviews suggest that an integrated and coordinated approach to road safety, including reviews of road design prior to construction provides a 5 to 10% reduction in collisions through the incorporation of road safety counter measures. By completing an in-service road safety review on all transportation projects, engineers can provide recommendations to improve safety within these areas. If implemented, these mitigation measures can lead to a reduction of 5-10% at a neighbourhood level, higher collision reduction levels can be anticipated for specific engineering counter measures. Road Safety audits ensure that all rehabilitation and growth road project optimize the opportunity to improve traffic and pedestrian safety.

incremental		2016				201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$171	171	-	1.0	-	-	-	-	-	-	-	-
Total	\$171	171	-	1.0	-	-	-	-	-	-	-	-

Program - Traffic Safety and Automated Enforcement
Title - Public Engagement and Education

New or Enhanced Service Funded Ongoing

Results to be Achieved

Funding will support various transportation public engagement and public education road safety campaigns that support The Way We Move goals and objectives, in order to change road user behavior, reduce collisions, and encourage multimodal sustainable travel options.

Description

Between 2016-2018 funding will resource:

- Road and Pedestrian Safety Education Campaigns: Public education plays an important role in shaping the attitudes and behaviors of all road users ensuring they become responsible drivers, passengers, pedestrians and cyclists.
- Community Public Engagement: In-house staff resources will be used to improve all aspects of public engagement including planning, session delivery and project evaluation and reporting with a focus on community and neighbourhood traffic safety issues and initiatives.
- Road Safety Application (app): The initial 'app' development will provide one-way road safety warnings and conditions and will eventually be developed into a two-way communications device for road safety and road users.
- Advanced Video Based Road Safety Analytics: The contribution of the City of Edmonton will help to advance traffic safety behavioral research as well as creating tools for educating pedestrian and road users of potential safety issue, particularly around schools, neighbourhoods and in key pedestrian corridors.
- School Age Transportation Mode Shift Education: This initiative will create a program tailored for teachers that will allow them to deliver mode-shift and safety education. This program will be a primary method of shaping traffic safety for future generations.
- Traffic Safety Culture Change Initiative: This initiative includes the delivery of the annual Traffic Safety Culture Survey which is intended to engage citizens in regards to their views on traffic and pedestrian safety in the City. Data from the survey will provide direction in regards to program development in line with citizen and community needs and expectations
- Major Traffic Safety Conferences: including the international conference on Urban Traffic Safety hosted by the City of Edmonton and the upcoming International Council of Alcohol Drugs and Traffic Safety hosted by the City of Edmonton in 2019.

Costs associated should be funded out of the Traffic Safety & Automated Enforcement Reserve (TSAER). Zero Tax Levy impact.

Justification

The City of Edmonton Road Safety Strategy for 2016- 2020 provides a strategic plan to continue reducing the prevalence of fatalities, major injuries, injuries and property damage from motor vehicle collisions. This strategy incorporates Edmonton's strategic plan -The Way Ahead and aligns with two of its strategic goals, The Way We Live and The Way We Move. This strategic plan builds on the previous road safety initiatives, incorporates leading global road safety practices, identifies targets and supports a long-term commitment to road safety. Four FTEs are needed for the comprehensive public engagement and education programs which are intended to reduce collisions in accordance with the needs of the community.

incremental	2016				2017				2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$2,500	2,500	-	2.0	\$116	116	-	1.0	\$115	115	-	1.0
Total	\$2,500	2,500	-	2.0	\$116	116	-	1.0	\$115	115	-	1.0

Program - Traffic Safety and Automated Enforcement
Title - Traffic Safety Research Chair

New or Enhanced Service Funded Ongoing

Results to be Achieved

The Law Enforcement Research Chair is a new initiative which supports Edmonton's strategic goal to be a safer city and is part of the 2015-2020 Road Safety Strategy. The research chair will ensure leading and best practice is utilized in law enforcement related activites and the efficient and effective use of law enforcement resources. A permanent research chair of the University of Alberta will be established at a Doctoral level to conduct ongoing law enforcement research.

Description

This academic position, would examine law enforcement state of practice, conduct research and evaluation and recommend new state of art practices and policies. Through this evidence based approach, an optimization of law enforcement and integrated collaborative resources will be achieved. Costs associated should be funded out of the Traffic Safety & Automated Enforcement Reserve (TSAER). Zero Tax Levy impact.

Justification

This research chair will compliment the Edmonton Urban Traffic Safety Research Chair established at the University of Alberta to improve Urban Traffic Safety as part of the previous work done on traffic safety. The addition of a Law Enforcement Research Chair ensures that all initiatives on traffic safety will have the best available research and evaluation for both transportation and law enforcement activities and the integration and collaboration of both transportation and law enforcement initiatives. The establishment of the Urban Traffic Safety Research Chair has resulted in the practical improvement of traffic safety operations, publishing of new research in peer review journals and served as a catalyst to expand the transportation engineering program at the University of Alberta. The chair is now part of the Centre for Smart Transportation which includes additional academic resources from Doctoral, to Masters, to undergraduate students and includes representatives from all orders of government, private business interests and other national and international partnerships or affiliations to universities. It is anticipated that the establishment of this research chair in law enforcement will have the same potential.

incremental	2016					201	17		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$150	150	-	-	-	-	-	-	-	-	-	-
Total	\$150	150	-	-	-	-	-	-	-	-	-	-

Introduction

From strategy to design, Transportation Planning guides the development of an expanding network of transportation options providing users a range of safe and accessible travel options, while ensuring responsible development for future generations.

Transportation Planning promotes public transit, active modes and the effective movement of goods and services within the transportation network through the development of comprehensive long-term plans and policies. Through key planning initiatives, the team ensures that the vision and long-term goals established in the transportation strategic plan, The Way We Move are implemented through policy development, transportation system monitoring, concept planning, future forecasting and evaluating progress.

The branch leads the development of a comprehensive Transit Strategy that will shape how the City of Edmonton delivers transit service in the future. This will include significant efforts to ensure the process is inclusive and reflects Edmonton's diversity. Monitoring, modelling and evaluation of the transportation network provides the information for evidence-based decision making and the metrics needed to assess performance measures for meeting Council's goals.

Transportation Planning plays a significant role in The Way Ahead and supports the City's vision of a safe and attractive city where citizens are well connected in the way they live, work and play. Key initiatives encourage citizens to use public transit and active modes of transportation, such as walking and cycling. Other activities support the efficient and effective movement of goods and services, contributing to the city's economic health.



- Transit Strategy development: Identifies and develops a strategic approach to public transit that best positions the City of Edmonton to meet the diverse needs of its citizens
- LRT Network Prioritization and funding scenarios: Prioritizes LRT expansion through efficient allocation of resources. Establishes effective construction, staging and funding mechanisms
- Complete Streets implementation: Implements a holistic approach to roadway design, provides safe and attractive roadways for all users

Integration with other City of Edmonton initiatives is a significant aspect of the branch's role. Plans for transportation infrastructure guide development choices across the City and promote growth in the urban core. These approaches provide transportation options that support the City's efforts to become more environmentally sustainable and resilient. Public engagement plays an active and key role in all transportation projects. The branch works to build relationships and strengthen communities through involving people in a dialogue about decisions that impact them, based on a belief that decisions are stronger when local knowledge and aspirations are paired with technical expertise. Citizens are engaged through programming and activities that encourage making sustainable transportation choices to enhance use of public transit and active modes of transportation.



Transportation Planning endeavours to anticipate changes to the environment in which it exists and has identified the following emerging issues:

Meeting Growing Expectations for Engagement

Transportation programs and projects, by their very nature, have an impact on the lives of citizens. Over time, there has been a marked increase in demand for greater public access and influence on the decision-making processes of government and public agencies. New approaches to public engagement require bringing individuals and groups together with the City to build on a commitment to two-way communication and shared authority.

Shortcutting and Speeding

As the city continues to grow, the transportation network is under increasing pressure and some motorists are finding their way through communities to avoid congestion. Many residents are concerned for the safety of children, pedestrians, cyclists and motorists on their neighbourhood streets. The recent Traffic Shortcutting Audit identified neighbourhood shortcutting as a priority for citizens and outlined that an ongoing structured and sustainable approach was required to address traffic volumes and speed in communities. The City is advancing an integrated approach to combat shortcutting as part of the Road Safety Strategy. The program will first partner with community stakeholders in public engagement outreach to gather valuable local knowledge and then align with traffic management staff for fast-implementation traffic controls and/or the Neighbourhood Renewal Program for more permanent neighbourhood redesigns. Increased coordination of City initiatives and internal/external stakeholders will develop a holistic approach to enhance the livability of communities.

Land Use and Transportation Integration

Building a great city that is competitive on the national and world stages requires the efficient integration of transportation and land use, maximizing mobility and place-making opportunities to attract and retain citizens and businesses, as well as to manage future growth of the region. Given the major investment of building LRT, the City needs to be a good steward of this investment by maximizing opportunities to integrate land use with transportation to create higher density, mixed-use developments in existing and future communities served by LRT. In addition, transit supportive infrastructure, such as Park and Ride facilities that serve regional users will likely become more of a priority.

Funding of Major Infrastructure

As development continues to push towards the boundaries of the City, growth in some of these developing areas may be constrained without the upgrading of key transportation infrastructure. Many of the interchanges or major infrastructure requirements are under provincial jurisdiction and funding for these upgrades is not currently available. As more neighbourhoods develop and with the future growth of the City, the requirements for new or upgraded infrastructure will increase. Transportation Planning, working with other areas of Administration, the Province, Capital Region Board and land developers will consider strategies for funding interchanges and major transportation infrastructure, as this issue is likely to persist and become more critical.

Positive Change—Innovation & Continuous Improvement

Continuous Improvement

Policy Implementation and Evaluation has been reviewing its processes for delivering inquiries to clients and has added a number of automation processes that have saved time.

A major update of the Regional Travel Model is being started that will update travel behaviour based on the Household Travel Survey, as well as improving forecasting capability for Transit, including LRT planning and Park and Ride.

Innovation

Development Planning and Engineering undertook an initiative to review and modify long-established internal processes in order to provide process and cost efficiencies, improve accountability, consistency and transparency and enhanced customer service. Results include cost savings from reduced mileage and driving time, improved productivity, more accurate documentation and improved collaboration.

A citywide model is being developed that will predict traffic shortcutting routes in neighbourhoods. This information will be used as an input into the Community Traffic Management Program process.

Approved 2016-2018 Budget – Branch Summary

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	1,011	136	69	70	70	71
Transfer from Reserves	-	=	-	1,284	1,418	1,773
Total Revenue & Transfers	\$1,011	\$136	\$69	\$1,354	\$1,488	\$1,844
Expenditure & Transfers						
Development Planning and Engineering	2,816	2,308	2,440	2,748	3,524	3,582
Facility and Capital Planning	-	=	-	1,958	2,005	2,035
Policy Implementation and Evaluation	11,924	11,463	12,033	6,072	5,457	5,546
Public Engagement	-	=	-	1,437	1,563	1,913
Sustainable Transportation	-	-	-	3,195	3,229	3,262
Total Expenditure & Transfers	\$14,740	\$13,771	\$14,473	\$15,410	\$15,778	\$16,338
Not Operating Descriptment	¢42 720	\$42 G2E	£14 404	\$44.056	£44 200	\$44.404
Net Operating Requirement	\$13,729	\$13,635	\$14,404	\$14,056	\$14,290	\$14,494
Full-time Equivalents	114.6	118.6	123.6	137.6	138.6	139.6

Approved 2016-2018 Budget – Branch Summary by Cost Category

(\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers						
User Fees, Fines, Permits, etc.	1,011	136	69	70	70	71
Transfer from Reserves	-	-	-	1,284	1,418	1,773
Total Revenue & Transfers	\$1,011	\$136	\$69	\$1,354	\$1,488	\$1,844
Expenditure & Transfers						
Personnel	12,854	13,878	14,462	16,562	17,051	17,544
Materials, Goods and Supplies	604	803	581	766	751	737
External Services	2,767	2,136	2,276	2,893	2,192	2,400
Fleet Services	4	54	50	47	50	53
Intra-municipal Charges	378	226	162	228	230	233
Utilities & Other Charges	1,294	1,270	1,356	373	371	369
Transfer to Reserves	-	-	-	-	-	-
Subtotal	17,901	18,367	18,887	20,869	20,645	21,336
Intra-municipal Recoveries	(3,161)	(4,596)	(4,414)	(5,459)	(4,867)	(4,998)
Total Expenditure & Transfers	\$14,740	\$13,771	\$14,473	\$15,410	\$15,778	\$16,338
Net Operating Requirement	\$13,729	\$13,635	\$14,404	\$14,056	\$14,290	\$14,494
Full-time Equivalents	114.6	118.6	123.6	137.6	138.6	139.6

Budget Changes for 2016 to 2018 (\$000)

Revenue & Transfers - Changes

User Fees, Fines, Permits, etc.

Transfer from Reserves (Traffic Safety Automated Enforcement Reserve) of \$829 for Community Traffic Management and \$455 for Public Engagement and Education. For 2017 and 2018, the increments are \$133 and \$357. Remaining revenues are expected to remain steady from 2016 to 2018 with modest changes as development activity is slowing.

Expenditures & Transfers - Changes

Personnel

2016-2018 increases of \$686, 362 and \$349 respectively to account for approved cost of living adjustments, movement towards job rate and benefit changes. Public Engagement & Education, Community Traffic Management and Enhanced Concept Planning total \$1,414, \$127 and \$144.

Material, Goods & Supplies

In 2016, there is a budget reallocation of \$100 to equipment purchases and \$89 increase in other expenditures. In 2016 to 2018, there is a decrease of \$4, \$22 and \$13 in software licensing, stationery and office supplies and telecom due to the 2% innovation.

External Services

Public Engagement & Education, Community Traffic Management and Enhanced Concept Planning changes total \$745, \$20 and \$230 in 2016 to 2018 respectively. In 2016, there is a budget reallocation of \$128 from engineering services and general contract work to other expenditures. In 2017, engineering services will be reduced by \$721 to offset the decrease in intra-municipal recoveries from Sustainable Development. There are minimal changes in 2018.

Fleet Services

There are no significant changes.

Intra-municipal Charges

In 2016, there will be an increase of \$66 in various intra-municipal charges (human resources \$17, materials management \$38 and parking \$26 offset by a \$15 reduction in building maintenance). There are insignificant changes in 2017 and 2018.

Utilities & Other Charges

Debt Interest expense will be reduced by \$1,016 in 2016 as a result of the repayment of the fuel grant loan offset by \$33 increase in other expenses. There are minimal changes in 2017 and 2018.

The 2% innovation has resulted in cost reductions of \$4, \$22 and \$13 in 2016 to 2018. These are in the areas of software licensing, stationery and office supplies and telecom.

Intra-municipal Recoveries

In 2016, intra-municipal recoveries from capital have increased by \$961 mainly due to Enhanced Concept Planning and intra-municipal recoveries from Sustainable Development have increased by \$84. In 2017, there is a \$721 reduction in intra-municipal recoveries from the Sustainable Development department as a result of reduced development permits projected by Sustainable Development. To offset this decrease in the source of funding, expenses are budgeted to be reduced in Transportation Planning. Other intra-municipal recoveries will increase by \$129. In 2018, intra-municipal and capital recoveries will increase by \$131 mainly due to Public Engagement.

Full-time Equivalents - Changes

There is an increase of 14.0, 1.0 and 1.0 FTEs in 2016 to 2018 respectively for Public Engagement and Education, Enhanced Concept Planning and Community Traffic Management.

Approved 2016-2018 Budget – Program Summary

Program Name - Policy Implementation and Evaluation

Results to be Achieved

The Policy Implementation and Evaluation group leads the coordination of the City transportation policy including, The Way We Move, the City's Transportation Master Plan as well as supports the implementation of the Way We Grow, Green, Live, Prosper and Finance. The team also provides the data and evaluation tools to support evidence based decision making by Administration and Council. This is done by maintaining travel behaviour models that predict how the transportation system will work given a set of parameters (number of travel lanes, land use, population, LRT alignment, etc.) and by collaborating with regional partners and the Province of Alberta on long range transportation forecasting. Data collected by this group is used to inform the ongoing work of Transportation Planning, Transportation Operations and Edmonton Transit. The budget for this program includes both the Branch Administration and Office of General Manager.

Cost Drivers

- Number and complexity of data collection requests for LRT, transit, bikes, walking, auto and goods movement
- Number and complexity of model inquiries to understand travel behaviour
- Model update requirements to ensure tools are relevant
- Increasing need for innovative engagement tools for strategy development
- Collaboration and coordination of projects across the City
- Increase in the number of corporate strategic initiatives/ transformative projects
- Increase in project management rigor for strategic planning

Policy and/or Legislation

- The Way Ahead / The Way We Move / The We We Grow / The Way We Live / The Way We Green
- Sidewalk Strategy, Walkability Strategy, Bicycle Transportation Plan and Goods Movement Strategy
- Active Transportation Policy C544
- Complete Streets Policy C573

Resources	2013	2014	Adjusted 2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$41	\$22	\$11	\$11	\$11	\$11
Expenditure & Transfers	12,632	12,503	13,009	6,322	5,707	5,796
Subtotal	12,591	12,481	12,998	6,311	5,696	5,785
Intra-municipal Recoveries	(708)	(1,040)	(976)	(250)	(250)	(250)
Net Operating Requirement	\$11,883	\$11,441	\$12,022	\$6,061	\$5,446	\$5,535
Full - Time Equivalents	72.0	72.0	76.0	39.0	39.0	39.0

2015 Services

- Data collection for LRT, transit, bikes, walking, auto and goods movement
- Travel modelling requests
- Travel model updates
- Household Travel Survey
- Complete Streets Guideline update including identification of Main Streets
- Transit Strategy development
- The Way Ahead Implementation Plan and progress measures
- Support for other Ways Plans such as Nodes and Corridors and The Energy Transition Plan

- Enhance model tools to better respond to transit and Community Traffic Management (CTMP) inquiries
- Continue integration of land use and transportation with the development of main streets and the Nodes and Corridors program

Approved 2016-2018 Budget – Program Summary

Program Name - Sustainable Transportation

Results to be Achieved

Sustainable Transportation supports transportation options such as walking and cycling, including developing concept plans for active transportation infrastructure in support of the City's Sidewalk Strategy and Bicycle Transportation Plan. Land development applications are reviewed in the Central Area of the City, to ensure that the requirements for transportation are met and taking into consideration safety and operational issues for all modes of travel. Sustainable Transportation collaborates with Sustainable Development to ensure the integration of land use and transportation is supported in community revitalization projects, area redevelopment planning, transit-oriented development initiatives and parks planning. Working with community partners, Community Traffic Management initiatives are implemented to address neighbourhood shortcutting and speeding. Sustainable Transportation also maintains and implements the City's Urban Traffic Noise Policy.

Cost Drivers

- Increasing need for public engagement, including the use of innovative engagement tools
- Increasing complexity associated with higher quality active transportation infrastructure
- Increasing number of corporate strategic initiatives, transformative projects and projects led by other departments / branches that require collaboration and coordination
- Increasing demands for community traffic management to address neighbourhood shortcutting issues
- Changes in the number and/or complexity of land development circulations in the Central Area

Policy and/or Legislation

- The Way Ahead / The Way We Move / The We We Grow / The Way We Live / The Way We Green
- Sidewalk Strategy, Walkability Strategy, Bicycle Transportation Plan and Goods Movement Strategy
- Active Transportation Policy C544
- Complete Streets Policy C573
- Urban Traffic Noise Policy C506A

Resources (\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers	-	-	-	\$829	\$846	\$866
Expenditure & Transfers	-	-	-	3,585	3,626	3,672
Subtotal		-		2,756	2,780	2,806
Intra-municipal Recoveries	-	-	-	(390)	(397)	(410)
Net Operating Requirement				\$2,366	\$2,383	\$2,396
Full - Time Equivalents	-	-	-	21.0	21.0	21.0

2015 Services

- Concept plans for active transportation, including sidewalks, shared-use paths, transit accessibility and curb ramps
- Concept plans for major bike routes
- Update of the Bicycle Transportation Plan
- Development of a Policy for Community Traffic Management
- Delivery of initiatives to address traffic shortcutting (currently 26 neighbourhoods pending)
- Review, input and approval of the transportation and servicing components of Area Redevelopment Plans, Transit Oriented Development Plans, Zoning amendments, Subdivision applications, Development Permits and Road Closures in the Central Area

- Implementation of a sustainable program for community traffic management, with a range of processes and tools to address varying levels of complexity
- Implementation of an ongoing program of monitoring the operational and safety performance of the City's growing network of cycling infrastructure 511 -

Approved 2016-2018 Budget – Program Summary

Program Name - Development Planning and Engineering

Results to be Achieved

Development Planning and Engineering reviews and approves transportation components of land use plans and engineering designs for new growth areas and re-developments in areas of existing infrastructure. This group carries out inspection and acceptance of all roadway construction completed in support of private development. Service level targets are to provide responses to land use and development applications and review of first submission engineering drawings within 4 weeks.

Cost Drivers

- Changes in the numbers or complexity of land development circulations, engineering drawings and developer related construction project as well as associated public consultation
- Industry requirement needs

Policy and/or Legislation

- The Way Ahead / The Way We Move / The Way We Grow / The Way We Live / The Way We Green
- Sidewalk Strategy, Walkability Strategy, Bicycle Transportation Plan and Industrial Land Strategy
- Active Transportation Policy C544
- Complete Streets Policy C573
- Urban Traffic Noise Policy C506A

Resources	2013	2014	Adjusted 2015	2016	2017	2018
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget
Revenue & Transfers	\$970	\$114	\$58	\$59	\$59	\$60
Expenditure & Transfers	5,269	5,864	5,878	6,258	6,411	6,557
Subtotal	4,299	5,750	5,820	6,199	6,352	6,497
Intra-municipal Recoveries	(2,453)	(3,556)	(3,438)	(3,510)	(2,887)	(2,975)
Net Operating Requirement	\$1,846	\$2,194	\$2,382	\$2,689	\$3,465	\$3,522
Full - Time Equivalents	42.6	46.6	47.6	47.6	47.6	47.6

2015 Services

- Review, input and approve transportation and servicing components of Area and Neighbourhood Structure Plans, Zoning amendments, Subdivision applications, Development Permits and Road Closures
- Review engineering drawings including subdivision and arterial roadway drawings as submitted by developers
- Inspect developer constructed transportation infrastructure and issuance of Construction Completion Certificates and Final Acceptance Certificates for developments, in compliance with City standards

Changes in Services for 2016 - 2018

- Maintain effective and appropriate levels of service delivery, in response to changing market demands

Approved 2016-2018 Budget – Program Summary

Program Name - Facility and Capital Planning

Results to be Achieved

Facility and Capital Planning develops and coordinates concept plans and initial designs for roadway widening, new roadway links, freeways, LRT and transit improvements within the City. By planning transportation facilities and then coordinating the portfolio of capital projects that will be brought forward for funding, this section is a key link in supporting the growth of the City of Edmonton. Concept Planning mitigates risk and long range liability by protecting the stewardship for growth and operation of our transportation network. Facility and Capital Planning also acts as an advisor, reviewer and approval body for the Development Industry in growth areas. Assessment of current operations of the transportation system, integration of forecasting models and operating budget constraints determine the priority and number of concept plans completed. Concept Planning is completed through the combination of both internal and external resources. The Facility and Capital planning group strives to maintain a high level of public engagement with all complete concept plans working towards adhering to Project Management best practices.

Cost Drivers

- Increasing need for public engagement, including the use of innovative engagement tools
- Increasing complexity associated with multi-modal transportation facilities and infrastructure
- Increasing number of corporate strategic initiatives, transformative projects and projects led by other departments / branches that require collaboration and coordination
- Increasing need for developing unique funding applications
- Implementing and coordinating Transportation and City-wide infrastructure planning and design within communities and on arterial roadways
- Implementing Complete Streets elements into ongoing Design and Construction projects

Policy and/or Legislation

- The Way Ahead / The Way We Move / The Way We Grow / The Way We Live / The Way We Green
- Sidewalk Strategy, Walkability Strategy, Bicycle Transportation Plan and Goods Movement Strategy
- Active Transportation Policy C544
- Complete Streets Policy C573

Resources (\$000)	2013 Actual	2014 Actual	Adjusted 2015 Budget	2016 Budget	2017 Budget	2018 Budget
Revenue & Transfers	-	-	-	-	-	-
Expenditure & Transfers	-	-	-	3,182	3,250	3,308
Subtotal	-	-	-	3,182	3,250	3,308
Intra-municipal Recoveries	-	-	-	(1,224)	(1,245)	(1,273)
Net Operating Requirement	-	-	-	\$1,958	\$2,005	\$2,035
Full - Time Equivalents	-	-	-	22.0	22.0	22.0

2015 Services

- Concept planning for arterial renewal and reconstruction program
- Concept planning for collector roadways as part of the Neighbourhood Renewal Program
- Concept planning for arterial streetscape projects
- Concept planning for LRT
- Working with regional partners to complete functional plans for the Heavy Haul Connector Roadway
- Annexation support
- Utility line assignment review
- Coordination with regional municipalities

Changes in Services for 2016 - 2018

- Large complex concept plans for Yellowhead Trail, 75 Street, future LRT corridors

Approved 2016-2018 Budget – Program Summary

Program Name - Public Engagement

Results to be Achieved

This section manages public engagement, social marketing, public education and web initiatives for all Transportation projects and programs. It plays a key role in the development and coordination of all public involvement aspects of transportation projects, bringing greater community voice to projects that enable mode shift by proactively engaging stakeholders in the development of stronger designs. Social marketing and public education programs provide citizens with the tools they need to start walking, biking, ridesharing and/or using transit, which will help reduce the number of single occupant vehicles on the roads over time. The area also develops, maintains and enhances the department's web presence to ensure timely information is provided to citizens.

Cost Drivers

- Marked increase in demand for public access and influence on government decisions
- New public engagement approaches
- Making participation easier and more meaningful (remove barriers)

Policy and/or Legislation

- The Way Ahead / The Way We Move / The Way We Grow / The Way We Green / The Way We Live
- Sidewalk Strategy, Walkability Strategy and Bicycle Transportation Plan
- Complete Streets Policy C573
- Active Transportation Policy C544
- Public Involvement Policy C513

Resources	Adjusted									
	2013	2014	2015	2016	2017	2018				
(\$000)	Actual	Actual	Budget	Budget	Budget	Budget				
Revenue & Transfers	-	-	-	\$455	\$572	\$907				
Expenditure & Transfers	-	-	-	1,522	1,651	2,004				
Subtotal	-	-		1,067	1,079	1,097				
Intra-municipal Recoveries	-	-	-	(85)	(88)	(91)				
Net Operating Requirement		-		\$982	\$991	\$1,006				
Full - Time Equivalents	-	-	-	8.0	9.0	10.0				

2015 Services

- Planning and implementation support for public engagement projects
- Social marketing initiatives to encourage mode shift
- Support developing and maintaining online content for Transportation Services
- Corporate Commuter Options pilot program (SmartTrip)

- Enhance public engagement consultation and delivery; activities and processes
- Enhance social marketing initiatives
- Implement Corporate Commuter Options program (SmartTrip) broadly with corporate partners
- Develop and establish a School Age Mode Shift strategy

Program - Transportation Planning
Title - Community Traffic Management

New or Enhanced Service Funded Ongoing

Results to be Achieved

Funding will enable traffic management planning to be undertaken in four communities per year to address shortcutting traffic. This would be an ongoing program, recognizing typical community traffic management plans take two years from inception to permanent implementation. Positive outcomes would support the goals of The Way We Move and The Way We Live, as well as the objectives of the City's Active Transportation and Complete Streets Policies.

Description

Community traffic management employs mainly physical measures to address neighbourhood shortcutting, which is often associated with safety concerns as a result of excessive traffic volumes and speeds. The process to develop a community traffic management plan is community-driven and collaborative and focuses on extensive public engagement in all aspects of plan development, trial implementation and ultimately the implementation of permanent measures. It is noted that additional resourcing in the form of Capital funding for the permanent implementation will also be required. There will be 5.0 FTEs added in 2016.

The service package may be funded as part of the Joint Road Traffic Strategy Implementation Plan and through the Traffic Safety and Automated Enforcement Reserve. Zero tax levy impact.

Justification

More than 18 neighbourhoods have expressed concerns about shortcutting traffic and an interest to participate in a traffic management planning process. Transportation Services currently has no resources to allocate to an ongoing program to address community traffic concerns related to shortcutting; dedicated resource allocation for community traffic management (both Operating and Capital) were eliminated in previous budget deliberations. Traffic shortcutting is currently the subject of an audit being carried out by the City Auditor, with recommendations anticipated to come to Audit Committee in June 2015. No other programs are currently available to provide this service to Edmonton neighbourhoods. Without this program, traffic management plans will not be developed or implemented, and Administration will not be able to effectively address residents' concerns regarding shortcutting traffic in their neighbourhoods.

incremental	2016					201	7		2018			
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	-
New Budget	\$829	829	-	5.0	\$17	17	-	-	\$20	20	-	-
Total	\$829	829	-	5.0	\$17	17	-	-	\$20	20	-	-

Program - Transportation Planning Title - Enhanced Concept Planning

New or Enhanced Service Funded Ongoing

Results to be Achieved

As a result of the Strategic and Operational Review completed within Transportation Services, Transportation Planning is required to complete concept plans for future arterial reconstruction projects and collector reconstruction projects to ensure that public engagement has been completed and that a Complete Streets approach has been included. In addition for selected Arterial Renewal projects, Transportation Planning will also be completing concept planning. It is anticipated that one arterial reconstruction project, three collector reconstruction projects and two to three renewal projects will require concept planning each year.

Description

The Arterial Renewal Program and the Neighborhood Renewal Program are on-going programs that maintain our roadways to ensure optimum life cycle costs are achieved for these important infrastructure components. The inclusion of bicycle network and sidewalks and shared use path connections, possible changes around schools and possible traffic management improvements are becoming highly important for communities. With the direction from Council for better public engagement and the department identified need for the development of concept level options for feedback from the public, Transportation Planning needs to become involved in these programs. As a new service for Transportation Planning to provide, we need to add the appropriate staff to support the program on an ongoing basis. This service package is Council Initiative related. The service package may be funded by Capital funding. Zero Tax Levy Impact. A total of 7.0 FTEs will be added in 2016.

Justification

In the past, arterial and collector renewal and reconstruction projects were completed on a like for like basis with very little enhancement provided and with limited input from the public, which has resulted in some negative feedback about the process. It has been identified that the City needs to begin engaging neighborhoods much sooner, to ensure that issues and concerns are identified and considered prior to design. Recent projects such as the 99 Street and 112 Avenue, along with the Complete Streets Guidelines, have highlighted the need for a new proactive complete approach to these programs. Adding in a concept planning component to the front-end of these programs will allow for public engagement and implementation of the Complete Streets approach for the design of the roadway corridors.

If this package is not funded, the technical work will not be completed, the public will not provide input into the elements of the roadway design and implementing the Complete Streets approach will be more difficult.

incremental	2016			2017				2018				
(\$000)	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs	Ехр	Rev	Net	FTEs
Annualization	-	-	-	-	-	-	-	-	-	-	-	
New Budget	-	-	-	7.0	-	-	-	-	-	-	-	-
Total	-	-	-	7.0	-	-	-	-	-	-	-	-