

Potentially Debt Funded Profiles

In Thousands

Page No.	Profile Name	Profile Number	2019	2020	2021	2022	2019-2022 Total	2023 Forward
601	Ambleside Integrated Site-Phase 1	19-10-1013	1,150	350			1,500	
603	Edmonton Soccer Association South Centre Expansion	17-21-1000	11,000	17,000			28,000	
605	Firearms Facilities	19-60-1376	1,500	6,500			8,000	
609	LED Streetlights Conversion	CM-66-2566	6,680	6,670	6,650		20,000	
612	Lewis Farms Community Recreation Centre & Library	15-21-5785	15,790	51,990	67,163	83,947	218,890	73,981
615	On-Site Microgeneration Solar Photovoltaics	CM-10-1012	1,000	3,000	6,000	6,500	16,500	
619	Stadium LRT Station Upgrade	19-10-1011	750	750			1,500	
622	Terwillegar Drive Expressway Upgrades	19-22-9004	1,300				1,300	
625	Valley Zoo - Nature's Wild Backyard Phase 2	19-21-9007	11,611	21,722	6,053		39,386	
		Total:	50,781	107,982	85,866	90,447	335,076	73,981

CAPITAL PROFILE REPORT

PROFILE NAME: **AMBLESIDE INTEGRATED SITE- PHASE 1**
 PROFILE NUMBER: **19-10-1013**
 DEPARTMENT: **Integrated Infrastructure Services**
 LEAD BRANCH: **Infrastructure Planning & Design**
 PROGRAM NAME:
 PARTNER: **Parks & Roads Services**
 BUDGET CYCLE: **2019-2022**

UNFUNDED

PROFILE STAGE: **L2 - CapBud Review**
 PROFILE TYPE: **Standalone**
 LEAD MANAGER: **Jason Meleifste**
 PARTNER MANAGER: **Gord Cebryk**
 ESTIMATED START: **January, 2019**
 ESTIMATED COMPLETION: **December, 2022**

Service Category: Parks Major Initiative:

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
100		BUDGET REQUEST:	1,500
		TOTAL PROFILE BUDGET:	1,500

PROFILE DESCRIPTION

The completion of design is for the development of the first phase of a fully integrated City Operations Department service yard. The Development Phase (completion of design) is estimated at \$1.5M for the construction estimated at \$38.5M (+/- 50%).

This Phase is for development of the Ambleside Site, including a new office and service yard for City Operations, Parks and Roads Services, and a new Fleet Services fuel site. The SW District facility will consolidate office and yard space that is spread throughout the southwest and southeast districts. It will serve department business lines including: infrastructure maintenance, infrastructure operations and snow removal and forestry activities; it will deploy operation units for horticulture, turf, vegetation management, sports fields, play spaces and forestry and beautification, snow removal and road maintenance; and it will accommodate growth in services until the year 2035. Adding a fuel site to the south-west quadrant at Ambleside will relieve capacity restraints on area fuel sites and accommodate demands of the City's growing fleet.

PROFILE BACKGROUND

The City purchased the land at Ambleside for the purpose of developing an integrated service site in the SW Edmonton. Previous organizational structures resulted in each department attempting to address their operational needs individually. A capital project was approved in the 2015-2018 capital cycle to construct a Parks Operations Office/yard SW yard. With the consolidation of all operations into one, a decision was made to suspend the parks project and revisit the site master plan with the goal of creating a truly integrated facility. Funding was reallocated to revise the master plan and to bring the plan to Schematic Design and costing for inclusion into the 2019-2022 budget cycle.

PROFILE JUSTIFICATION

This project is needed to address increasing inefficiencies related to overcrowding at existing facilities, increased travel times to service new areas and addressing future operational needs generated by growth and annexation. The profile also demonstrates we care about the impact of our actions on our social, economic and environmental systems.

STRATEGIC ALIGNMENT

This project will impact the Corporate Objective: manage the corporation for our community by making an impact on how we manage our business (project and asset management, employees and safety, strategy and business, financial management, partnerships and relationships).

The capital profile also advances Council's principle of "connected": We serve those here today and those who come after us.

ALTERNATIVES CONSIDERED

Finding alternative locations to support operations will be difficult and not as efficient. There are very limited opportunities for leased spaces in SW Edmonton that meet the requirements of City Operations for industrial setting, indoor vehicle bays and yard space.

COST BENEFITS

Operational cost savings due to reduced travel times, lease costs and increased service efficiencies will result if this is completed. Future growth will become increasingly more difficult to service at current levels if a better operational location is not developed.

KEY RISKS & MITIGATING STRATEGY

A preliminary risk analysis has been completed. The risk management framework will be applied to all aspects of the project and will continue to develop and evolve as the project and potential partnerships are defined.

RESOURCES

City of Edmonton seeks to purchase goods, services and construction fairly based on best value. All procurement of external resources will follow relevant corporate procurement directives and policies.

CONCLUSIONS AND RECOMMENDATIONS

Capital funds are required to be secured to fund the delivery of capital growth projects once PDDM Checkpoint 3 is reached (after planning and design) in order to adhere to the Project Development and Delivery Model, and improve project schedule and budget estimates through increased level of design to ensure realistic expectations are set prior to project tendering and construction.

Approval of this capital profile is required to fund the completion of the design in adherence to the PDDM process.

CAPITAL PROFILE REPORT

PROFILE NAME: **Ambleside Integrated Site- Phase 1**
 PROFILE NUMBER: **19-10-1013**
 BRANCH: **Infrastructure Planning & Design**

UNFUNDED
 PROFILE TYPE: **Standalone**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	1,150	350	-	-	-	-	-	-	-	1,500
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	1,150	350	-	-	-	-	-	-	-	1,500
	Requested Funding Source	-	-	1,150	350	-	-	-	-	-	-	-	1,500

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	1,150	350	-	-	-	-	-	-	-	1,500
	Requested Funding Source												
	Pay-As-You-Go	-	-	1,150	350	-	-	-	-	-	-	-	1,500
	Requested Funding Source	-	-	1,150	350	-	-	-	-	-	-	-	1,500

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
		Design	-	-	1,150	350	-	-	-	-	-	-	-
	Total	-	-	1,150	350	-	-	-	-	-	-	-	1,500

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PROFILE NAME:	EDMONTON SOCCER ASSOCIATION SOUTH SOCCER CENTRE EXPANSION	FUNDED
PROFILE NUMBER:	17-21-1000	PROFILE STAGE: Approved
DEPARTMENT:	Integrated Infrastructure Services	PROFILE TYPE: Standalone
LEAD BRANCH:	Infrastructure Delivery	LEAD MANAGER: Brian Latte
PROGRAM NAME:		PARTNER MANAGER: Roger Jevne
PARTNER:	Community & Recreation Facilities	ESTIMATED START: January, 2017
BUDGET CYCLE:	2015-2018	ESTIMATED COMPLETION: December, 2019

Service Category:	Recreation & Culture	Major Initiative:	
--------------------------	---------------------------------	--------------------------	--

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	2,000
100		BUDGET REQUEST:	28,000
		TOTAL PROFILE BUDGET:	30,000

PROFILE DESCRIPTION

Expansion of the existing South Indoor Soccer Centre, owned by the City but operated by Edmonton Soccer Association (“ESA”), by adding a new adjacent facility on the existing site containing two additional fields. Initial schematic design for the expansion was funded by ESA and is now complete. The next phase of work will be detailed design to be followed by the construction phase of this profile.

PROFILE BACKGROUND

A conceptual design phase has been completed by BR2 Architecture. A preliminary cost estimate has been provided at \$21.52 million (including design fees). Concept plan for the project is being reviewed by the City. Once approval is confirmed, detailed design can begin to confirm the design and cost estimates for the project.

PROFILE JUSTIFICATION

The need has arisen primarily due to the recent and projected growth in youth teams' soccer registrations and the popularity of a ball hockey winter program that started in 2013 using field 6 in the East Indoor Soccer Centre. By 2019, at the latest, the Indoor Soccer Centres would have to end the use of Field 6 and convert back to soccer use at a time when Ball Hockey and other concrete sports groups would instead wish to double their winter programs. There is also unmet demand for more hours for use by senior teams for practices, coaching and referee clinics for the youth, and tryouts by each EMSA Zone.

STRATEGIC ALIGNMENT

The new facility will continue to be aligned with the City of Edmonton RFMP and other strategic policies & will be a multi sport facility with public access, designed to meet the requirements of applicable City policies such as EDC, Leed & % for Art.

ALTERNATIVES CONSIDERED

Build a new 4 field facility in suburban southwest: The utilization statistics do not support a need for 4 additional fields. In particular the summer months are underutilized in the existing 3 indoor facilities.

Build a new 2 field facility in suburban southwest: Since this would be a new standalone facility construction costs would be higher as using existing south Centre takes advantage of existing access roads, service roads and utilities as well as amenities such as office, meeting rooms, concession and lounge. No land has been identified by the City for such a project at this time.

Explore opportunity to build 2 fields at Rexall Place: Council recently directed Administration to explore alternatives for Rexall Place which could increase space available for Indoor soccer or ball hockey instead.

COST BENEFITS

Edmonton Soccer will repay \$ 9.5 million (plus interest) of the capital through a 20 year repayment plan.

KEY RISKS & MITIGATING STRATEGY

Capital Costs exceed projections: partnership with ESA and staged approval process with COE to ensure project remains on track and within budget.

Operating Revenue assumptions not achieved / Operating Expenses Underestimated: existing leases on current facilities begin to expire in 2023 releasing additional funds for ESA to cover revenue shortfalls or operating expense overruns.

RESOURCES

All procurement processes will adhere to the City's Procurement of Goods, Services and Construction directive. The facility will be operated by ESA.

CONCLUSIONS AND RECOMMENDATIONS

The project will allow Soccer to grow, add coaching and referee clinics, expand the number of tryouts, and offer significantly expanded practice hours for teams. The project will allow Ball Hockey to operate a winter program from 2018 using two concrete fields instead of one, which will significantly increase their winter program and increase availability for other groups like In-Line and Lacrosse. Ball Hockey's use of ESA facilities contribute over \$400,000 / year in revenue.

All these objectives will be met without creating significant financial burden to ESA's continued operation of all the Indoor Soccer Centres.

CAPITAL PROFILE REPORT

PROFILE NAME: **Edmonton Soccer Association South Soccer Centre Expansion**

FUNDED

PROFILE NUMBER: **17-21-1000**

PROFILE TYPE: **Standalone**

BRANCH: **Infrastructure Delivery**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget												
	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-	-
	2017 Cap Council	1,098	902	-	-	-	-	-	-	-	-	-	2,000
	2017 Cap Carry Forward	-862	862	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	236	1,764	-	-	-	-	-	-	-	-	-	2,000
Approved Funding Sources													
	Enterprise Reserve	236	1,764	-	-	-	-	-	-	-	-	-	2,000
	Current Approved Funding Sources	236	1,764	-	-	-	-	-	-	-	-	-	2,000

BUDGET REQUEST	Budget Request	-	-	11,000	17,000	-	-	-	-	-	-	-	28,000
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	1,500	17,000	-	-	-	-	-	-	-	18,500
	Tax-Supported Debt	-	-	9,500	-	-	-	-	-	-	-	-	9,500
	Requested Funding Source	-	-	11,000	17,000	-	-	-	-	-	-	-	28,000

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	236	1,764	11,000	17,000	-	-	-	-	-	-	-	30,000
	Requested Funding Source												
	Enterprise Reserve	236	1,764	-	-	-	-	-	-	-	-	-	2,000
	Pay-As-You-Go	-	-	1,500	17,000	-	-	-	-	-	-	-	18,500
	Tax-Supported Debt	-	-	9,500	-	-	-	-	-	-	-	-	9,500
	Requested Funding Source	236	1,764	11,000	17,000	-	-	-	-	-	-	-	30,000

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Construction	-862	862	10,318	16,303	-	-	-	-	-	-	-	-
Design	1,098	902	562	-	-	-	-	-	-	-	-	-	2,562
Equip FurnFixt	-	-	-	595	-	-	-	-	-	-	-	-	595
Percent for Art	-	-	120	102	-	-	-	-	-	-	-	-	222
	Total	236	1,764	11,000	17,000	-	-	-	-	-	-	-	30,000

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CAPITAL PROFILE REPORT

PROFILE NAME: **FIREARMS FACILITIES**
 PROFILE NUMBER: **19-60-1376**
 DEPARTMENT: **Integrated Infrastructure Services**
 LEAD BRANCH: **Infrastructure Planning & Design**
 PROGRAM NAME:
 PARTNER: **Police Service**
 BUDGET CYCLE: **2019-2022**

UNFUNDED
PROFILE STAGE: L2 - CapBud Review
PROFILE TYPE: Standalone
 LEAD MANAGER: **Jason Meliefste**
 PARTNER MANAGER: **CAO Linda Revell**
 ESTIMATED START: **January, 2019**
 ESTIMATED COMPLETION: **December, 2022**

Service Category: Protection Major Initiative:

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
100		BUDGET REQUEST:	8,000
		TOTAL PROFILE BUDGET:	8,000

PROFILE DESCRIPTION

This growth capital project, Firearms Facilities (17-60-1376), proposes to fund the design and construction of an indoor range with armoury, office space, storage and a Tactical Training House at Goodridge Corners and addition of 4 - 100 meter lanes at the William Nixon Range. These facilities would provide the EPS Firearms Training Unit a 180 degree firearms range allowing for realistic and dynamic scenarios for both pistol and carbine training. This training incorporates a decision process before engaging the target on whether or not shooting the perceived threat is justified and where both trainee and targets are moving.

In 2017, IIS worked in partnership with EPS to develop a functional planning program that provided increased definition of the needs of the EPS for space and updated cost estimates to meet 25 years of growth for this particular training function. This profile currently reflects this updated need of the EPS and completes Checkpoint 2 in the PDDM process. The project is currently proceeding with schematic design to complete Checkpoint 3 in 2019 and an updated cost estimate will be available prior to authorization of construction.

Frangible lead-free ammunition will be used exclusively at the indoor range and tactical training house. This ammunition is non-toxic addressing OH & S concerns by eliminating lead, commonly found in shooting ranges, from these locations.

The development (planning and design) phase of this project is estimated at \$8M (+- 50%), including land purchase. The total budget for design and construction is estimated at \$82M (+- 50%).

PROJECT LIST

Indoor Range at Goodridge Corners; plus an additional 4-100 Meter Lanes at William Nixon Range

PROFILE BACKGROUND

Today's operational threat environment has created a new reality for law enforcement. Active shooters, terrorism, gang violence and organized criminal acts are playing increasingly larger roles in the day-to-day operations of Police. Public safety is contingent on the safety of police officers themselves, meaning that Police officers must have the proper tools and skills to maintain public safety.

These events require that police officers effectively respond in a timely manner, using an appropriate level of force to restore or maintain public safety. The need for this type of training was first identified by the EPS in 2000 and facilities were planned at that time.

The current EPS ranges cannot accommodate the following uses:

1. Carbine qualification (50 m but EPS regards 100 meter marksmanship as mandatory in training),
2. Tactical Team Sniper training and qualifications,
3. Structured firearms training for approximately 1,200 members outside of Patrol squads,
4. Judgmental and dynamic training,
5. Firearms simulator program,
6. General practice by EPS members (demand continues to increase).
7. Training for Public Safety Unit staffing.

PROFILE JUSTIFICATION

The EPS has not increased the capacity of its firearms training facilities since 1982. Over the course of the past several years, the EPS was able to utilize existing private or Department of National Defence ranges to add capacity. Many of these ranges have closed or closed access to the EPS and the ability to utilize these ranges as alternative training sites has significantly diminished.

Existing facilities do not allow for dynamic, judgmental training that mimics real-world scenarios. The Headquarters range is designed for shooters to be stationary while the targets move to change distance. At WNTC, targets can only be engaged from set firing lines and must be placed at fixed locations. By contrast, live fire dynamic judgmental training utilizes moving targets and teaches members to utilize shielding, distance and movement to reduce danger to themselves as well as to bystanders; while being able to identify and prioritize potential threats in varying lighting conditions. This type of training greatly improves citizen and officer safety, especially since the use of guns in criminal activity is increasing and has been recommended by the Alberta Association of Chiefs of Police Firearms Training Subcommittee.

In 2017, Alberta Policing Standards increased its requirements for Firearms Training from qualification on firearms for all members annually to training for all members that will include judgmental training. This will increase the annual mandatory training requirements from approximately 30% of sworn staff to 100% of sworn staff. Currently, the EPS is not compliant with this standard and is unable to become compliant without approval of the Firearms Training Facility. In addition, OH & S rulings for law enforcement members will impact the delivery of firearms training for the EPS. The OH & S ruling in New Brunswick against the RCMP related to not equipping and training members for active shooter situations. The EPS anticipates that there will be the requirement for all police agencies to conform to the recommendations of the ruling. The EPS may have to increase inventory slightly but the more immediate impact will be the requirement to train more members in the use of carbines. This is anticipated to extend beyond Patrol members to other members. This will impact carbine training with 200 more members requiring training in the near term. Within five years an additional 300 or more members are anticipated to be trained regularly. Carbine training for recruits is planned to be part of their Block 1 or initial training.

Public and judicial scrutiny of the application of lethal and non-lethal force by police is increasing. Scenario training helps mitigate this risk.

STRATEGIC ALIGNMENT

This profile aligns with the Corporate Objective to manage the corporation for our community, by making an impact to how we manage our business (technology, data, employees and safety) by being able to serve those here today and those who come after us.

ALTERNATIVES CONSIDERED

Due to the limitations of private ranges, EPS cannot explore them as an alternative. No other alternatives exist.

While there are alternatives to constructing new facilities, they involve a reliance on private shooting ranges and the addition of increased staff for the training cadre. Often the private ranges have limited lanes, struggle to maintain their certification and generally prioritize to accommodate their own private members. The EPS relies on a tightly scheduled course of training in order to meet standards and the unreliability of these ranges could impact EPS' ability to meet provincial standards.

COST BENEFITS

Investment of funds for facility development to support training will enable the EPS to meet necessary obligations under provincial policing standards and mitigate potential legal liability in the event of an incident involving use of firearms.

Firearms training space for law enforcement and other security professionals is limited in Northern Alberta. Opportunities to provide training from this space to other agencies is being pursued.

KEY RISKS & MITIGATING STRATEGY

The creation of a third pistol range would assist with the mitigation of several risks pertaining to allegations of ineffective or inefficient training resulting in a loss of public safety including Occupational Health and Safety risks for EPS sworn staff. This range would add enough capacity to meet future EPS needs in the long term. The functional program anticipated a twenty-five year time frame.

RESOURCES

Will conform to all City of Edmonton procurement and project governance policies and procedures for securing materials, supplies, equipment and contractors.

CONCLUSIONS AND RECOMMENDATIONS

To follow the new gating process proposed by IIS, the EPS is working with IIS to complete schematic design in 2019 preparatory to the 2019-2022 Capital Budget approval. Functional programming was done in 2017 to support this work. The intent will be to develop a firmer cost estimate for detailed design and construction.

These facilities will provide the capacity for firearms training for the EPS in the long term.

This project proposes to move forward and be ready to proceed to the tender stage for the two firearms training facilities in order to meet current and future training needs, and to enable the EPS to respond to the changing dynamics of the policing environment.

Recommend that capital funds be approved to proceed with both project components.

CAPITAL PROFILE REPORT

PROFILE NAME: **Firearms Facilities**

UNFUNDED

PROFILE NUMBER: **19-60-1376**

PROFILE TYPE: **Standalone**

BRANCH: **Infrastructure Planning & Design**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000
	Requested Funding Source	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000
	Requested Funding Source												
	Pay-As-You-Go	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000
	Requested Funding Source	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
		Design	-	-	1,500	500	-	-	-	-	-	-	-
	Land	-	-	-	6,000	-	-	-	-	-	-	-	6,000
	Total	-	-	1,500	6,500	-	-	-	-	-	-	-	8,000

OPERATING IMPACT OF CAPITAL

Type of Impact: External Services

Branch:	2022				2023				2024				2025			
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Police Service	-	500	500	-	-	680	680	-	-	-	-	-	-	-	-	-
Total Operating Impact	-	500	500	-	-	680	680	-	-	-	-	-	-	-	-	-

CAPITAL PROFILE REPORT

PROFILE NAME: Firearms Facilities

PROFILE NUMBER: 19-60-1376

BUDGET CYCLE: 2019-2022

Project Number	Project Name	Start Date	End Date	Description
000001	Design and Construction Range Facilities	1/1/2019	12/31/2022	Design, Construction and fit-up of Indoor Range including Tactical Training House and 4-100 meter lanes. 100 meter lanes to be constructed at existing William Nixon Training Centre.
000002	Design and construction of 100 meter lane expansion at WNTC	1/1/2019	12/31/2021	Construction of 4 - 100 meter qualification lanes at William Nixon Training Centre
000003	Land Purchase at Goodridge Corners	1/1/2019	12/31/2019	Purchase of 6 to 8 acres of land at the North West Campus site in Goodridge Corners.
000004	Furniture and Equipment Indoor Range - NWC	1/1/2022	12/31/2022	Required furniture and other equipment to set up office spaces in the Indoor Range.

CAPITAL PROFILE REPORT

PROFILE NAME: **LED STREETLIGHT CONVERSION**
 PROFILE NUMBER: **CM-66-2566**
 DEPARTMENT: **City Operations**
 LEAD BRANCH: **Parks & Roads Services**
 PROGRAM NAME:
 PARTNER:
 BUDGET CYCLE: **2019-2022**

UNFUNDED

PROFILE STAGE: **L2 - CapBud Review**
 PROFILE TYPE: **Composite**
 LEAD MANAGER: **Gord Cebryk**
 PARTNER MANAGER: **Gord Cebryk**
 ESTIMATED START: **January, 2019**
 ESTIMATED COMPLETION: **December, 2022**

Service Category: Roads Major Initiative:

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
100		BUDGET REQUEST:	20,000
		TOTAL PROFILE BUDGET:	20,000

PROFILE DESCRIPTION

LED conversion program was recognized with the Charles Labatiuk Award for its contribution to environmental stewardship in 2014, and nominated 2012. This project seeks to replace 46,000 high pressure sodium luminaires, low hanging fruit, with LED in order to contribute to environmental stewardship (lower greenhouse gas emission), financial savings (maintenance and power), and innovation (use of technologies). The profile contributes to the overall City's GHG Management Plan.

PROFILE BACKGROUND

The City has approximately 117,000 streetlights. Starting in 2010, the City began installing LED luminaires in coordination with neighbourhood renewal projects. In 2013, LED installations were also being used on arterial roadway construction projects, and walkway projects. As such, there have been approximately 38% of the City's luminaires converted to LED technology, translating into cost savings for maintenance and power. This project seeks to replace additional 46,000 high pressure sodium luminaires, low hanging fruit, with LED in order to contribute to environmental stewardship (lower greenhouse gas emission), financial savings (maintenance and power), and innovation (use of technologies).

PROFILE JUSTIFICATION

- COE streetlight energy reduction consumption by an average of up to 40%;
- Reducing green house gasses by approximately 208 tonnes per year per 1,000 luminaires upgraded;
- Reduced light pollution and light trespass;
- Proposed funding identified is an internally funded option.

STRATEGIC ALIGNMENT

This profile will impact the following objectives:
 Service: The profile primarily supports maintaining or improving service levels

The capital profile also advances Council's principle of "connected": We care about the impact of our actions on our environmental systems.

ALTERNATIVES CONSIDERED

Alternative is to provide partial funding, no funding.

COST BENEFITS

LED technology has improved, prices have dropped. Opportunity to replace all the City's streetlights with LED luminaires at current prices, estimated simple payback of approx. 10 years. Tangible benefits: cost savings from energy and maintenance. Intangible benefits: environmental stewardship, reduction of greenhouse gas emissions, social cost due to GHG emission reduction.

KEY RISKS & MITIGATING STRATEGY

Risk is that the financial estimates upon which this project has been based upon, can change which will affect the payback period and cost savings provided.

RESOURCES

Resources will be required to either manage the project or implement the project, depending on the alternative that is chosen.

CAPITAL PROFILE REPORT

PROFILE NAME: **LED Streetlight Conversion**
 PROFILE NUMBER: **CM-66-2566**
 BRANCH: **Parks & Roads Services**

UNFUNDED
 PROFILE TYPE: **Composite**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	6,680	6,670	6,650	-	-	-	-	-	-	20,000
	Revised Funding Sources (if approved)												
	Other	-	-	6,180	5,670	6,150	-	-	-	-	-	-	18,000
	Pay-As-You-Go	-	-	500	1,000	500	-	-	-	-	-	-	2,000
	Requested Funding Source	-	-	6,680	6,670	6,650	-	-	-	-	-	-	20,000

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	6,680	6,670	6,650	-	-	-	-	-	-	20,000
	Requested Funding Source												
	Other	-	-	6,180	5,670	6,150	-	-	-	-	-	-	18,000
	Pay-As-You-Go	-	-	500	1,000	500	-	-	-	-	-	-	2,000
	Requested Funding Source	-	-	6,680	6,670	6,650	-	-	-	-	-	-	20,000

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Construction	-	-	6,580	6,670	6,650	-	-	-	-	-	-	-
Design	-	-	100	-	-	-	-	-	-	-	-	-	100
	Total	-	-	6,680	6,670	6,650	-	-	-	-	-	-	20,000

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CAPITAL PROFILE REPORT

PROFILE NAME: LED Streetlight Conversion				
PROFILE NUMBER: CM-66-2566				
BUDGET CYCLE: 2019-2022				
Project Number	Project Name	Start Date	End Date	Description
000001	LED STREETLIGHT CONVERSION	6/1/2019	6/30/2021	replace 46,000 high pressure sodium luminaires, low hanging fruit, with LED in order to contribute to environmental stewardship (lower greenhouse gas emission), financial savings (maintenance and power), and innovation (use of technologies). The profile contributes to the overall City's GHG Management Plan.

PROFILE NAME:	LEWIS FARMS COMMUNITY RECREATION CENTRE AND LIBRARY	FUNDED
PROFILE NUMBER:	15-21-5785	PROFILE STAGE: Approved
DEPARTMENT:	Integrated Infrastructure Services	PROFILE TYPE: Standalone
LEAD BRANCH:	Infrastructure Delivery	LEAD MANAGER: Brian Latte
PROGRAM NAME:		PARTNER MANAGER: Roger Jevne
PARTNER:	Community & Recreation Facilities	ESTIMATED START: January, 2015
BUDGET CYCLE:	2015-2018	ESTIMATED COMPLETION: December, 2019

Service Category:	Recreation & Culture	Major Initiative:
--------------------------	---------------------------------	--------------------------

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	28,420
100		BUDGET REQUEST:	292,871
		TOTAL PROFILE BUDGET:	321,291

PROFILE DESCRIPTION

Development of a community recreation centre at Lewis Farms District Park including a training aquatic venue, fitness centre, gymnasium, multipurpose spaces, twin arenas, access and parking. In December 2014 Council approved the following amendment to the 2015-2018 Capital Budget: That Capital Profile Lewis Farms Community Recreation Centre #15-21-5785 be added and funded in the amount of \$3.5 million to fund schematic design of the Lewis Farms Community Recreation Centre and the Lewis Estates Library, with funding from an increase in PAYG.

(update May 9, 2017) Following the schematic design of the Lewis Farms Community Recreation Centre and the Lewis Estates Library, the next phase is to complete the design of the recreation centre, library, and district park. This profile will also include phases for the purchase of the property required as well as construction and related costs for the recreation centre, library and district park.

PROFILE BACKGROUND

Council approved Recreation Facility Master Plan and Medium Term Recreation Facility and Sports Field Plan recommendations include the development of a community recreation centre on Lewis Farms District Park in the west suburban growth area of the city.

In December 2014 Council approved the following amendment to the 2015-2018 Capital Budget: That Capital Profile Lewis Farms Community Recreation Centre #15-21-5785 be added and funded in the amount of \$3.5 million to fund schematic design of the Lewis Farms Community Recreation Centre and the Lewis Estates Library, with funding from an increase in PAYG.

(update May 9, 2017) The Edmonton Catholic School Board is a contributing partner in developing portions of this project

PROFILE JUSTIFICATION

Supports the Way's plans and outcomes; integrates with Recreation Facility Master Plan, 10-Year Arena Capital Strategy, and Medium Term Recreation Facility Plan; increases program opportunities in suburban growth area of city.

STRATEGIC ALIGNMENT

The project supports corporate goals and outcomes including "Healthy City" by offering facilities and public spaces, to improve connectivity and vibrancy for all identities; "Urban Places" by providing access to holistic, integrated neighbourhood level amenities for all seasons and "Regional Prosperity" as The City of Edmonton has a resilient financial position providing public facilities and diversifying the economy.

ALTERNATIVES CONSIDERED

Alternatives were explored through the development of the Recreation Facility Master Plan, Medium Term Recreation Facility and Sports Field Plan, and the 2011 Functional Program Study for Lewis Farms.

COST BENEFITS

Citizens will have access to and benefit from programs and services that provide enjoyment and personal health benefits. Attendance generated by the Centre will increase overall participation in recreation facilities. Edmonton's quality of life and livability benefits from physical, sport, leisure, cultural and recreation opportunities and activities for all ages and abilities.

KEY RISKS & MITIGATING STRATEGY

A preliminary risk analysis has been completed. The risk management framework will be applied to all aspects of the project and will continue to be develop and evolve as the project and potential partnerships are defined.

RESOURCES

The City of Edmonton seeks to purchase goods, services and construction fairly and based on best value. Community and Recreation Facilities will follow Human Resource Management policies and procedures for engagement, training and retention of staff.

CONCLUSIONS AND RECOMMENDATIONS

Lewis Farms Community Recreation Centre is envisioned to be a welcoming, vibrant, dynamic place that serves the west catchment area and aquatic sport users as identified in the Council approved Recreation Facility Master Plan and Medium Term Plan.

CHANGES TO APPROVED PROFILE

In December 2014 Council approved the following amendment to the 2015-2018 Capital Budget: That Capital Profile Lewis Farms Community Recreation Centre #15-21-5785 be added and funded in the amount of \$3.5 million to fund schematic design of the Lewis Farms Community Recreation Centre and the Lewis Estates Library, with funding from an increase in PAYG.

2015 Fall SCBA (CA#40): (3.4.6) To record additional \$200k funding received in 2015. This is the Edmonton Catholic School Division contribution to completion of schematic design.

2017 Spring (#17-20) 2.1-5: Additional funding of \$17.7 million to complete the detailed design of the recreation centre, library, and district park. Of this \$17.7 million, \$16.8 million would be funded from tax-supported debt, with an additional \$0.9 million in partnership funding (Edmonton Catholic School Division). If this request is approved, total funding for this profile will be \$21.4 million. As this additional phase of work is approved, timelines for completion of the profile have been extended to Q3 2019.

Spring SCBA 2018: (2.2-04) Additional Tax Supported Debt is required to acquire land for the Lewis Farms Recreation Centre and Library.

CAPITAL PROFILE REPORT

PROFILE NAME: **Lewis Farms Community Recreation Centre and Library**
 PROFILE NUMBER: **15-21-5785**
 BRANCH: **Infrastructure Delivery**

FUNDED
 PROFILE TYPE: **Standalone**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
APPROVED BUDGET												
Approved Budget												
Original Budget Approved	3,500	-	-	-	-	-	-	-	-	-	-	3,500
2015 Cap Council	200	-	-	-	-	-	-	-	-	-	-	200
2015 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	-
2016 Cap Capital Budget Adj (one-off)	-	-	-	-	-	-	-	-	-	-	-	-
2016 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	-
2017 Cap Council	4,740	8,860	4,120	-	-	-	-	-	-	-	-	17,720
2017 Cap Carry Forward	-6,219	6,219	-	-	-	-	-	-	-	-	-	-
2018 Cap Council	-	7,000	-	-	-	-	-	-	-	-	-	7,000
Current Approved Budget	2,221	22,079	4,120	-	-	-	-	-	-	-	-	28,420
Approved Funding Sources												
Partnership Funding	200	928	-	-	-	-	-	-	-	-	-	1,128
Pay-As-You-Go	1,508	1,992	-	-	-	-	-	-	-	-	-	3,500
Tax-Supported Debt	513	19,159	4,120	-	-	-	-	-	-	-	-	23,792
Current Approved Funding Sources	2,221	22,079	4,120	-	-	-	-	-	-	-	-	28,420

BUDGET REQUEST	Budget Request	-	-	15,790	51,990	67,163	83,947	58,956	15,025	-	-	-	292,871
	Revised Funding Sources (if approved)												
	Partnership Funding	-	-	-	-	-	20,000	-	-	-	-	-	20,000
	Pay-As-You-Go	-	-	15,790	51,990	67,163	63,947	58,956	15,025	-	-	-	272,871
	Requested Funding Source	-	-	15,790	51,990	67,163	83,947	58,956	15,025	-	-	-	292,871

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	2,221	22,079	19,910	51,990	67,163	83,947	58,956	15,025	-	-	-	321,291
	Requested Funding Source												
	Partnership Funding	200	928	-	-	-	20,000	-	-	-	-	-	21,128
	Pay-As-You-Go	1,508	1,992	15,790	51,990	67,163	63,947	58,956	15,025	-	-	-	276,371
	Tax-Supported Debt	513	19,159	4,120	-	-	-	-	-	-	-	-	23,792
	Requested Funding Source	2,221	22,079	19,910	51,990	67,163	83,947	58,956	15,025	-	-	-	321,291

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
REVISED BUDGET (IF APPROVED)													
Construction		-6,219	6,219	11,811	38,888	48,076	65,671	41,937	9,078	-	-	-	215,461
Contingency		-	-	3,190	10,502	13,567	12,918	11,909	3,035	-	-	-	55,121
Design		8,440	8,860	4,752	2,080	2,687	2,558	2,358	601	-	-	-	32,335
Equip FurnFixt		-	-	-	-	2,161	2,161	2,161	2,161	-	-	-	8,645
Land		-	7,000	-	-	-	-	-	-	-	-	-	7,000
Percent for Art		-	-	158	520	672	639	590	150	-	-	-	2,729
Total		2,221	22,079	19,910	51,990	67,163	83,947	58,956	15,025	-	-	-	321,291

OPERATING IMPACT OF CAPITAL

Type of Impact: Interdepartmental, Material & Equipment, Personnel, Revenue

Branch:	2018				2019				2020				2021			
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Community & Recreation Facilities				-				-				-				-
Facility & Landscape Infrastructure				-				-				-				-
Total Operating Impact				-				-				-				-

CAPITAL PROFILE REPORT

PROFILE NAME:	ON-SITE MICROGENERATION SOLAR PHOTOVOLTAICS	UNFUNDED
PROFILE NUMBER:	CM-10-1012	PROFILE STAGE: L2 - CapBud Review
DEPARTMENT:	Integrated Infrastructure Services	PROFILE TYPE: Composite
LEAD BRANCH:	Infrastructure Planning & Design	LEAD MANAGER: Jason Meleifste
PROGRAM NAME:		PARTNER MANAGER:
PARTNER:	Economic & Environmental Sustainability	ESTIMATED START: January, 2019
BUDGET CYCLE:	2019-2022	ESTIMATED COMPLETION: December, 2022

Service Category:	Building Renewal	Major Initiative:
--------------------------	-------------------------	--------------------------

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
100		BUDGET REQUEST:	16,500
		TOTAL PROFILE BUDGET:	16,500

PROFILE DESCRIPTION

The City's Corporate Greenhouse Gas Management Plan identifies mitigating strategies for reducing greenhouse gas emissions from City operations. The accelerated deployment of on-site microgeneration solar photovoltaics on City buildings and sites is one of the measures identified by the Plan to reduce greenhouse gas emissions by offsetting the energy used by City buildings. By accelerating the installation of solar photovoltaics from 2019 through 2030, the City will reduce corporate GHG emissions by 10,000 tonnes and are anticipated to have positive financial returns over the lifetime of the assets.

Design and construction for the full implementation of the program, per the objectives of the GHG Management Plan, is estimated at \$16.5M (+50%) for the 2019-2022 budget cycle.

PROFILE BACKGROUND

The acceleration of solar photovoltaic installations on City buildings and sites is one of the tactics recommended as part of the portfolio of actions identified in the City's approved Corporate GHG Management Plan. The actions are supported by best available data and information on capital requirements, life cycle cost benefit analysis, and further informed by extensive input and advice from corporate project planning, design, engineering, and project delivery staff.

The deployment of solar photovoltaic installations will be coordinated with the planned facility rehabilitation schedule that identifies buildings for rehabilitation based on condition needs assessments as well as new building construction designs. The alignment with building rehabilitation and new building constructions schedules will ensure efficient use of time and resources and limit the amount of disruption to service operations and customer impacts.

PROFILE JUSTIFICATION

The rigorous analysis and consultation used in developing the Corporate GHG Management Plan found that the business case actions from a Financial Return on Investment (FROI) standpoint, ranging from strongest to weakest, were green electricity purchases, LED street lights, building energy retrofits, electric buses, and large microgeneration solar photovoltaics. All of the options related to investing in City assets, including microgeneration solar photovoltaic systems, have positive net present value benefits over a 20 year period from a FROI standpoint.

Internal discussion has led to the alignment of funds for potential projects on a per-building basis, this alignment is based on the 2019-2022 new construction schedule and on a study to determine which existing facilities could be potential sights for solar installations. A total of 20MW of solar PV is planned to be installed between 2019-2030 with a total estimated carbon reduction of 10,000 tonnes CO₂e.

STRATEGIC ALIGNMENT

This profile aligns with the Corporate Objective to manage the corporation for our community, by making an impact to how we manage our business (technology and data, project and asset management, employees and safety, strategy and business, environmental stewardship, financial management, and partnerships and relationships) by being able to serve those here today and those who come after us.

ALTERNATIVES CONSIDERED

The Greenhouse Gas Management Plan has been developed by the City in a very integrated approach. The different mitigation tactics that have been identified in the report are not scalable or trade able. Each plays a critical role in reducing part of the required 50% reduction in GHG emissions by 2013. Therefore no alternatives to PV installation have been identified.

COST BENEFITS

The cost benefits of the overall GHG management plan lead to \$76M in financial return to the City of Edmonton above the total capital costs for all projects, over the lifetime of the plan. One piece of this financial return due to the electrical cost savings from producing our own electricity through solar photovoltaics.

KEY RISKS & MITIGATING STRATEGY

Structural requirements of facilities may limit number of existing buildings & total roof area per building that can be used without significant structural upgrades, are not included in the capital cost request. Mitigation to consider other types of space such as facade mounted, new construction, & ground mounted installations.

Design of new facilities may not prioritize solar PV installation, which may limit the total PV that can be installed. Mitigation to begin discussion about changing design guidelines to help maximize solar installation capacity on City facilities.

RESOURCES

Projects will use internal and external resources. Internal for project management, technical review & support, inspections & survey, operational health & safety oversight. External, following relevant corporate procurement directives & policies. to undertake &/or manage design & construction work.

CONCLUSIONS AND RECOMMENDATIONS

Capital funds are required to be secured to fund the delivery of On-Site Microgeneration Solar Photovoltaics projects once PDDM Checkpoint 3 is reached (after planning and design) in order to adhere to the Project Development and Delivery Model, and improve project schedule and budget estimates through increased level of design to ensure realistic expectations are set prior to project tendering and construction. Approval of this capital profile is required to fund delivery work in adherence to the PDDM process.

CAPITAL PROFILE REPORT

PROFILE NAME: **On-Site Microgeneration Solar Photovoltaics**
 PROFILE NUMBER: **CM-10-1012**
 BRANCH: **Infrastructure Planning & Design**

UNFUNDED
 PROFILE TYPE: **Composite**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500
	Requested Funding Source	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500
	Requested Funding Source												
	Pay-As-You-Go	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500
	Requested Funding Source	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
		Construction	-	-	600	2,700	5,400	6,175	-	-	-	-	-
	Design	-	-	400	300	600	325	-	-	-	-	-	1,625
	Total	-	-	1,000	3,000	6,000	6,500	-	-	-	-	-	16,500

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CAPITAL PROFILE REPORT

PROFILE NAME: On-Site Microgeneration Solar Photovoltaics

PROFILE NUMBER: CM-10-1012

BUDGET CYCLE: 2019-2022

Project Number	Project Name	Start Date	End Date	Description
000001	TBD			

CAPITAL PROFILE REPORT

PROFILE NAME: **STADIUM LRT STATION UPGRADE**
 PROFILE NUMBER: **19-10-1011**
 DEPARTMENT: **Integrated Infrastructure Services**
 LEAD BRANCH: **Infrastructure Planning & Design**
 PROGRAM NAME:
 PARTNER: **Edmonton Transit**
 BUDGET CYCLE: **2019-2022**

UNFUNDED

PROFILE STAGE: **L2 - CapBud Review**
 PROFILE TYPE: **Standalone**
 LEAD MANAGER: **Jason Meleifste**
 PARTNER MANAGER: **Eddie Robar**
 ESTIMATED START: **January, 2019**
 ESTIMATED COMPLETION: **December, 2022**

Service Category: Public Transit Major Initiative:

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
	100	BUDGET REQUEST:	1,500
		TOTAL PROFILE BUDGET:	1,500

PROFILE DESCRIPTION

The project includes rebuilding the Stadium LRT station to align with urban LRT design principles. Major elements include improvement to public safety, security, barrier-free accessibility, and means of integrating the station into the future Stadium Transit Oriented Development Plans, and alignment with the recently approved Stadium Area Redevelopment Plan (Council-approved February 2018).

Development phase for this project is estimated at \$1.5M (+- 50%) to advance the project from Checkpoint 2 to 3. Total cost for design and construction for the upgrades is estimated at \$27.5M (+- 50%).

PROFILE BACKGROUND

The station opened in 1978 as part of the original LRT line. It is nearing 40 years of age and is in need of upgrades to replace aging infrastructure. There is also a desire to improve public safety, accessibility and security. Upgrades of this station will align with a number of the City's plans and operations including the the Stadium Transit Oriented Development. Conceptual planning is funded under the PTIF program and will be completed in 2018.

This project will complete the design and build, the project is considered 'growth' due to significant upgrades proposed to the existing facility to address safety, security, barrier-free accessibility, and urban integration.

PROFILE JUSTIFICATION

Stadium station is more than 40 years of age and is in need of significant upgrades to replace aging infrastructure and improve public safety, security, and accessibility. Integrating the station with the future Stadium Transit Oriented Development plans and alignment with the Stadium Area Redevelopment Plan has also been identified as a requirement.

STRATEGIC ALIGNMENT

This profile aligns with the strategic objective of making transformational impacts in our community by making a discrete and measurable impact on Council's four strategic goals: healthy city, urban places, regional prosperity and climate resilience, by creating a community to connect people to what matters to them. This profile also aligns to the City of Edmonton's Transportation Master Plan: Enhancing transit safety and security measures.

ALTERNATIVES CONSIDERED

Main alternatives are:

- Status quo: continued use and maintenance of the existing facility without renewal or enhancement. The Stadium Area Redevelopment Plan identifies a future station location to the south, nearer to the new "Main Street" crossing. This relocation is not anticipated for 25+ years, and may include retaining the existing station location as a Commonwealth Stadium "event-only" station.
- Renewal: reduce scope of the project to minor rehabilitation, mainly update of finishes and rehabilitation of main building systems.

In both instances, the main concerns for safety, security and accessibility are not addressed and the rider experience is not improved.

COST BENEFITS

Tangible Benefits:

- Improved station safety and security
- Improved barrier-free accessibility
- Improved convenience and comfort
- Improved architectural appearance
- Integration with future area development plans

Intangible Benefits:

- Will promote Transit use as the preferred mode of transportation
- Will promote development of the Stadium Transit Oriented Development and implementation of the Stadium Area Redevelopment Plan

KEY RISKS & MITIGATING STRATEGY

Tender prices may exceed the available budget:

Contingencies will be built into the scope and budget of the work

The work scope will be reduced so as not to exceed approved funding amounts.

A budget adjustment or budget transfer from other Transit profiles could be evaluated.

Project deadline not met: Scope reduction.

Maintaining a functional station and LRT line during construction: project phasing and constructability considerations analyzed and planned during design.

RESOURCES

The project will be delivered using a combination of internal and external resources of Integrated Infrastructure Services. All procurement of external resources will follow relevant corporate procurement Administrative Directives & Procedures and Council policies.

CONCLUSIONS AND RECOMMENDATIONS

Approval of this capital profile is required to fund the detailed design and construction of the upgrades to Stadium LRT Station so that this important infrastructure asset can continue to serve the citizens of Edmonton by improving the safety, security, barrier-free accessibility, and integration with the neighbourhood.

CAPITAL PROFILE REPORT

PROFILE NAME: **Stadium LRT Station Upgrade**
 PROFILE NUMBER: **19-10-1011**
 BRANCH: **Infrastructure Planning & Design**

UNFUNDED
 PROFILE TYPE: **Standalone**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	750	750	-	-	-	-	-	-	-	1,500
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	750	750	-	-	-	-	-	-	-	1,500
	Requested Funding Source	-	-	750	750	-	-	-	-	-	-	-	1,500

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	750	750	-	-	-	-	-	-	-	1,500
	Requested Funding Source												
	Pay-As-You-Go	-	-	750	750	-	-	-	-	-	-	-	1,500
	Requested Funding Source	-	-	750	750	-	-	-	-	-	-	-	1,500

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
		Design	-	-	750	750	-	-	-	-	-	-	-
	Total	-	-	750	750	-	-	-	-	-	-	-	1,500

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CAPITAL PROFILE REPORT

PROFILE NAME: **TERWILLEGAR DRIVE EXPRESSWAY UPGRADES**
 PROFILE NUMBER: **19-22-9004**
 DEPARTMENT: **Integrated Infrastructure Services**
 LEAD BRANCH: **Infrastructure Planning & Design**
 PROGRAM NAME:
 PARTNER: **Parks & Roads Services**
 BUDGET CYCLE: **2019-2022**

UNFUNDED

PROFILE STAGE: **L2 - CapBud Review**
 PROFILE TYPE: **Standalone**
 LEAD MANAGER: **Jason Meliefste**
 PARTNER MANAGER: **Anna Dechamplain**
 ESTIMATED START: **March, 2019**
 ESTIMATED COMPLETION: **November, 2022**

Service Category: Major Initiative:

GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
100		BUDGET REQUEST:	1,300
		TOTAL PROFILE BUDGET:	1,300

PROFILE DESCRIPTION

This project is for the design for the construction for expanding Terwillegar Drive to an expressway from Whitemud Drive to Anthony Henday Drive. An expressway is a high capacity, relatively high speed roadway with controlled access spacing, and signalization at intersections. This work expands Terwillegar Drive to four lanes in each direction, upgrading existing signalized intersections, potential use of smart signal and ITS technology, potential transit in the fourth lanes in each direction, and shared use path construction along the corridor. The expressway does not require the construction of the ultimate interchanges at Whitemud Drive or Anthony Henday Drive, although upgrades to those interchanges may be required in the future due to growing traffic demand.

PROFILE BACKGROUND

Terwillegar Drive is currently a major arterial with traffic signals at major intersections, including Haddow Drive, 23 Avenue, Rabbit Hill Road and 40 Avenue. Terwillegar Drive was constructed starting in the 1980's with the intention that Terwillegar Drive would ultimately be converted to a freeway.

To convert Terwillegar to a freeway, the intersections at 23 Avenue, Rabbit Hill Road and 40 Avenue were built along the ultimate interchange ramps and space in the middle was protected to construct the ultimate interchanges. Haddow Drive was built at a later date and has not been constructed to allow for an interchange to be constructed.

Administration has conducted numerous planning studies to develop designs, cost estimates, project scheduling and construction staging for Terwillegar Drive to address some of the concerns related to a freeway (cost, access, design standards, community impacts) and based on feedback from Council and the public, Administration explored an expressway as an alternative to a freeway.

PROFILE JUSTIFICATION

During peak hours, traffic along portions of Terwillegar Drive approaches the available capacity thresholds, with congestion occurring at major intersections. Additional capacity improvements are required to address these issues, as traffic volumes along Terwillegar will continue to increase with ongoing development in Southwest Edmonton.

Upgrading Terwillegar Drive to an expressway will provide additional capacity to address congestion in this part of SW Edmonton.

STRATEGIC ALIGNMENT

This profile aligns with the strategic objective of making transformational impacts in our community by making a discrete and measurable impact on Council's four strategic goals: healthy city, urban places, regional prosperity and climate resilience, by creating a community to connect people to what matters to them.

ALTERNATIVES CONSIDERED

Widening is required to accommodate existing traffic and short term growth, as well as anticipated long term traffic increases. One alternative would be to maintain the existing roadway infrastructure as-is, which is currently approaching capacity, and is expected to become insufficient to handle projected traffic demand.

Another alternative would be to fund the construction of interchanges at key intersections to address capacity constraints and pursue a freeway for Terwillegar Drive.

COST BENEFITS

Tangible benefits include decreased travel time, decreased collision rates, and decreased emissions. Intangible benefits include maintained or improved citizen satisfaction with roadway capacity in the area.

KEY RISKS & MITIGATING STRATEGY

Key risks for this project include interruptions to motorists and transit routes, in terms of congestion and travel delay during construction of the expressway. To mitigate, communication with the public, including commuters and other stakeholders will be critical to share detour plan and construction timelines. Additional risks are typical of all construction projects, and include schedule delays and cost overruns. These risks can be mitigated through proper project management.

RESOURCES

Planning and design can be completed internally or externally depending on capacity and technical knowledge. All procurement of external resources will follow relevant corporate procurement directives and policies.

CONCLUSIONS AND RECOMMENDATIONS

To address long standing congestion issues along this corridor, it is recommended that funding for this project be approved.

CAPITAL PROFILE REPORT

PROFILE NAME: **Terwillegar Drive Expressway Upgrades**
 PROFILE NUMBER: **19-22-9004**
 BRANCH: **Infrastructure Planning & Design**

UNFUNDED
 PROFILE TYPE: **Standalone**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	1,300	-	-	-	-	-	-	-	-	1,300
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	1,300	-	-	-	-	-	-	-	-	1,300
	Requested Funding Source	-	-	1,300	-	-	-	-	-	-	-	-	1,300

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	1,300	-	-	-	-	-	-	-	-	1,300
	Requested Funding Source												
	Pay-As-You-Go	-	-	1,300	-	-	-	-	-	-	-	-	1,300
	Requested Funding Source	-	-	1,300	-	-	-	-	-	-	-	-	1,300

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
		Design	-	-	1,300	-	-	-	-	-	-	-	-
	Total	-	-	1,300	-	-	-	-	-	-	-	-	1,300

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PROFILE NAME: VALLEY ZOO - NATURE'S WILD BACKYARD PHASE II	UNFUNDED
PROFILE NUMBER: 19-12-9007	PROFILE STAGE: L2 - CapBud Review
DEPARTMENT: Integrated Infrastructure Services	PROFILE TYPE: Standalone
LEAD BRANCH: Infrastructure Delivery	LEAD MANAGER: Brian Latte
PROGRAM NAME:	PARTNER MANAGER: Roger Jevne
PARTNER: Community & Recreation Facilities	ESTIMATED START: January, 2019
BUDGET CYCLE: 2019-2022	ESTIMATED COMPLETION: December, 2022

Service Category: Recreation & Culture		Major Initiative:	
GROWTH	RENEWAL	PREVIOUSLY APPROVED:	-
100		BUDGET REQUEST:	39,386
		TOTAL PROFILE BUDGET:	39,386

PROFILE DESCRIPTION

Nature's Wild Backyard Phase II is the next phase in the redevelopment of the Edmonton Valley Zoo mandated by the 2005 Masterplan Update, rehabilitating the original 1959 infrastructure. This second phase is tender ready and construction can begin as soon as funding is available for the project. Nature's Wild Backyard Phase II completes the project initiated in the 2015 - 2018 Capital Budget. Phase II ensures that the original 1959 infrastructure of Edmonton Valley Zoo is renewed to today's standards and expectations, that permanent utility connections are installed, and that the entire Storyland area remains usable.

The area of the Zoo designated as Nature's Wild Backyard was once 'Storyland Zoo', now known as the 'Inner Zoo', the original incarnation of the Edmonton Valley Zoo and the area of the Zoo historically associated with young children and their families. Much has changed since 1959 and prevailing attitudes towards zoo and exhibit design are no exception. The Edmonton Valley Zoo has recalibrated its overall vision to align with these broader shifts in zoological culture and now aspires to be a global leader in conservation, education, and environmental stewardship. As the primary locus of children's activity within the Zoo, Nature's Wild Backyard will be one of the primary enablers of the Zoo's overall aspiration of positioning itself as a leader in these areas.

Whereas zoo design has historically opted for a distinct division between human visitors and animal inhabitants, more recent approaches have foregrounded the importance of immersion as a means of enriching the educational value of exhibits, while simultaneously improving the living conditions of the resident animals. Immersive landscapes are those in which animals and humans alike are enveloped by a common habitat. This approach serves to erase the boundaries and hierarchical divisions between animals and visitors found at conventional zoos. By engaging animals on their own terms and in their own habitats, visitors are better able to understand the high degree of interconnectivity between themselves, the animals they are viewing, and the world around them. Children and adults perceive and engage the world in very different ways. At an elemental level, children operate at a very different scale than their adult counterparts. Unlike adults, children also tend to learn about the world and their place in it with a high degree of physicality: through play. Using immersive landscapes and a 'child's eye view' as points of departure, the project pursues four primary gestures of spatial engagement as means of defining a new conceptual framework for the Zoo: UNDER, BETWEEN, ON, and ABOVE. These abstract experiential types speak to a wide range of possible means of bodily relation to a given landscape and simultaneously sponsor play as a primary mechanism for engaging that landscape. These engagement archetypes are propagated architecturally through the creation of type-forms that begin to order the site physically and experientially. Animals within the Zoo's collection are categorized through affinities with the aforementioned formal types, creating a scenario wherein a single species can be engaged through a series of experiential fields, rather than from a single vantage point. This approach helps to facilitate a comprehensive understanding both the 'part' (animal) and the 'whole' (habitat). Unlike conventional means of curating animal collections, this approach emphasizes the connections between humans and animals as 'bodies in space', rather than grouping species according to their geographic origins, thus fostering an interspecies connection that is rooted in empathy built through shared experience. One of the chief limitations of the existing Inner Zoo is its capacity to support four season programming. Edmonton's climate encompasses extreme variation. Rather than shrink from these extremes, the design for this precinct has made a commitment to offering a range of experiences that are different from day to day, day to night, season to season, and even year to year. The Edmonton Valley Zoo, and the Inner Zoo in particular, holds a special place in the hearts of generations of Edmontonians.

It is the ambition of this project to reignite this passion and to ensure that the Valley Zoo, and Nature's Wild Backyard in particular, becomes a place where lasting memories are forged for generations yet to come.

PROFILE BACKGROUND

In 2005, Council approved the Edmonton Valley Zoo Master Plan. Redeveloping the Zoo's original 1950's era infrastructure which has reached the end of its life cycle and no longer meets zoo standards into Nature's Wild Backyard (NWBY) is an key aspect of the master plan. For constructability and budget purposes NWBY was split into two phases. Phase 1, approved for construction in 2015, will be completed on schedule and on budget in late 2018. The 2019 - 2022 profile scope is to complete the construction of NWBY Phase II. Design of Phase II is complete and ready to tender for construction as soon as budget is approved. NWBY offers an opportunity to redevelop 1950's era infrastructure to today's zoo standards, to meet public expectations, to build on the success of recently completed projects, to ignite passion for wildlife conservation, and to ensure that the zoo continues to be a special place that inspires love and learning of animals and nature. The Valley Zoo Development Society has committed to raising \$5,400,000 for Zoo Projects. Added to their previous contributions of \$600,000 (Design) and \$3,000,000 (NWBY Phase 1) the overall community commitment is \$9,000,000.

PROFILE JUSTIFICATION

Nature's Wild Backyard is mandated by the 2005 Masterplan. This project preserves and enhances City assets, increases attendance and revenue, ensures the Edmonton Valley Zoo meets required industry standards for animal welfare, education and safety, and improves guest experiences, satisfaction and perception. Nature's Wild Backyard continues the focus on revitalizing an existing facility and providing rich environments that contribute to excellence in animal welfare and enhanced guest experiences. Previous zoo projects have been delivered in a timely fashion and on budget. Council's strategic policy directions will be implemented by ensuring infrastructure is efficiently managed and providing an enhanced quality of life through the provision of outstanding parks and public spaces. Further, this project will support the primary goal of the Valley Zoo Development Society to support the continued development of exhibits and programs operated by the City.

STRATEGIC ALIGNMENT

This profile aligns with the following City of Edmonton Strategic Goals:

- Healthy City (Edmonton's public spaces, festivals and events increase its vibrancy)
- Urban Places (The COE maintains and provides adaptable, accessible and appropriate infrastructure for the city)

By installation of permanent utility infrastructure also supports Climate Resilience (Edmonton's neighbourhoods and infrastructure are better prepared and more resilient to disaster, crisis and severe weather impacts)

ALTERNATIVES CONSIDERED

The alternative is to delay implementation which would increase the project cost due to escalation and potential design changes required to meet newly introduced codes or standards. A delay in the construction would require that the zoo close portions of the facility to public access as they have been replaced by updated facilities and the old areas are either not suitable for animal habitats or unsafe for public access. Further a number of animals would remain in temporary housing or would have to be moved to other facilities as their current habitats need to be improved to meet increasing standards (eg. primates, meerkats, capybara, wallaby, burrowing owl, red fox), the zoo's prairie dogs currently residing at Calgary Zoo would not be able to return to Edmonton. Finally, some areas of the zoo would have to operate on temporary utility lines as Phase 1 of NWBY required the cessation of permanent services and the utility work cannot be completed until Phase II implementation.

COST BENEFITS

Delaying the project to a future budget cycle would incur escalating costs and the possibility of design updates related to code or standard changes. The Zoo's attendance has increased 80% because of the redevelopments since 2011 and community interest and willingness to partner has also escalated. Partners continue to indicate interest in supporting NWBY Phase 2.

KEY RISKS & MITIGATING STRATEGY

There is a low risk that the project will not be completed on time or on budget. The Zoo has demonstrated that they are able to complete projects in a timely fashion and within the allocated budget and, given that this project is at construction tender stage, it is anticipated that this project will be completed on budget and on time.

RESOURCES

The project will require support from IIS and the Zoo and a contracted consultant team and the prime contractor.

CONCLUSIONS AND RECOMMENDATIONS

Nature's Wild Backyard Phase 2 completes the project approved by Council in the 2015 - 2018 Capital Budget and is the conclusion of the Zoo Master Plan's ten steps to a great community zoo. The projects to date have revitalized community interest in this exceptional facility and it is recommended that Nature's Wild Backyard project be completed with the development of Phase II during the 2019 - 2022 budget cycle.

CONTINGENCY OF APPROVAL

N/A

CHANGES TO APPROVED PROFILE

N/A

CAPITAL PROFILE REPORT

PROFILE NAME: **Valley Zoo - Nature's Wild Backyard Phase II**
 PROFILE NUMBER: **19-12-9007**
 BRANCH: **Infrastructure Delivery**

UNFUNDED
 PROFILE TYPE: **Standalone**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

BUDGET REQUEST	Budget Request	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386
	Revised Funding Sources (if approved)												
	Pay-As-You-Go	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386
	Requested Funding Source	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386
	Requested Funding Source												
	Pay-As-You-Go	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386
	Requested Funding Source	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	Beyond 2026	Total
		Construction	-	-	11,222	20,995	5,850	-	-	-	-	-	-
	Design	-	-	297	556	155	-	-	-	-	-	-	1,008
	Percent for Art	-	-	92	172	48	-	-	-	-	-	-	311
	Total	-	-	11,611	21,722	6,053	-	-	-	-	-	-	39,386

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-