



REPORT FOR ACTION

2020 Proposed Capital Works Budget as Part of Ten-Year (2020-2029) Program

Date: May 30, 2019

To: The Board of Governors of Exhibition Place

From: Chief Executive Officer

Wards: All Wards

SUMMARY

While the City has yet to provide the 2020 Capital Budget Process, Directions and Guidelines to all City Divisions and Agencies for 2020, Exhibition Place has prepared its 2020 Capital Works Program Submission consistent with historical submissions within the ten-year cycle program review which includes the 2020 State of Goods Repair (SOGR) of \$13.820M debt target approved as part of the 2019 Capital Budget Process. The ten-year cycle review allows Exhibition Place to adjust its current program each subsequent year based on changing needs, building assessments, legislative changes, mandates and priorities.

Although the debt target for 2020 is \$13.820M the SOGR Capital Budget is based on the building assessment of \$13.930M with a difference of \$0.110M which will be funded by the CNEA as they have committed to covering 50% of capital projects for the Food Building which has a 2020 project spend of \$0.220M (50% - \$0.110M). The total of Debt and CNEA funding meets the total program cost of \$13.930M for 2020.

The total program cost of \$13.930M includes the approved \$2.000M cash flow for 2020 to partially fund phase 1 (\$4.230M approved for 2019-2021) of the electrical underground high voltage utilities project for \$16.295M over ten years (2019 to 2028).

Even with the additional funding being recommended, the Net Accumulated Backlog at the end of 2020 for the grounds stands at \$30.386M.

RECOMMENDATIONS

The Chief Executive Officer recommends that:

1. The Board approve the Proposed 2020 Above the Line Capital Works State-of-Good Repair Budget (Section A and B of Summary) of \$13.930 million (City Debt Target and CNEA Funding), as part of the ten-year (2020-2029) proposed program submission to the City of Toronto.

2. The Board direct the Chief Executive Officer to submit the 2020 Budget to the City Financial Planning Division as part of the 2020 Budget Process.

FINANCIAL IMPACT

The proposed 2020 Capital Works Program totals \$13.930M as a total program budget as detailed in Appendix “A” to this report.

DECISION HISTORY

The Exhibition Place 2017 – 2019 Strategic Plan has a Public Space and Infrastructure Goal to ensure that our State-of-Good Repair plan and processes are adequately linked to our capital plan and as a Strategy to support this Goal maintain and improve our event space.

COMMENTS

Background

Over the next 10 years, the targets for the net capital program budget for Exhibition Place range from a maximum of \$25.055M in 2029 to a minimum of \$11.935M in 2025.

In order to formulate the Capital Program and as required by the City, building assessments were carried out for all the non-tenanted buildings. Results from these assessments are included, where applicable, in this ten-year capital program. Recent studies included the Storm Water Management, Beanfield Centre, Food Building, and Heritage Structures.

Attached as Appendix “A” is the proposed Ten-Year (2020-2029) Capital Works Program for Exhibition Place with the current year 2020 budget being \$13.930M. The 2020 SOGR budget is submitted in accordance with the guidelines, policies and the five expenditure categories as established by the City Finance Planning Department.

Summary of Program by Expenditures Categories

1. Health and Safety:

At \$.100M (0.7%) these capital projects have an urgent requirement for repairs due to concerns of a health and safety hazard;

2. Legislated/City Policy:

Nil for 2020, these capital projects are required by the Provincial or Federal legislation or compliance with City Policy;

3. State of Good Repair:

At \$11.550M (82.9%) these capital projects are for the maintenance, repair or replacement of existing assets including asset rehabilitation required to meet health and safety issues or extend the useful life of the asset by 10 or more years;

4. Service Improvement:

At \$2.280M (16.4%) these capital projects are for improvement of service delivery above the current Council-approved standard or provides for the introduction of new services; and

5. Growth Related:

Nil for 2020, these capital projects supports growth and development across the City.

For information purpose only, at the bottom of the spread sheet of each of the building projects, as well as on the summary sheet, there is a separate table showing the SOGR Building Assessment Backlog, the annual SOGR requirement, the SOGR submission for that year and the net SOGR backlog remaining for that same year, which is above and beyond the allowable net capital program funding.

As discussed in the summary, the original debt target of \$13.820M for 2020 will not adequately address all the essential items arising from recently completed state-of-good-repair building assessments that include the Enercare Centre, the Coliseum Complex along with revised assessment of other buildings, the Storm Water Management, Beanfield Centre, Food Building, and Heritage Structures.

2020 Project Details

All budgets include estimated costs for engineering, construction, in-house work, project management, disbursements, and administrative charges where applicable but exclude the H.S.T.

1. Pre-Engineering (\$0.175M)

This program is vital to the success of planning and executing the annual Capital Works Program. It provides funds for studies and investigations to determine project schedules and to establish costs for present and future required work.

2. Parks, Parking Lots and Roads (\$2.220M)

a) Festival Plaza Development - Storm Water Management (\$1.525M)

During significant rainfall there is flooding on Lakeshore Blvd due to water runoff from Exhibition Place parking lots, especially lots CP581, CP582 and CP583 that has a combined area of over 20 acres. In 2017, Exhibition Place completed a Storm Water Management (SWM) Study that investigated the feasibility of implementing sustainable storm water management solutions. Solutions proposed included rainwater harvesting tank, permeable sidewalk and pavement paving parking stalls, bio-swales and bio-retention rain garden.

In 2019, the first measure will start to be implemented. A bio-swale bordered by permeable sidewalks will be constructed in the middle of and across lot CP852 from east to west (New Brunswick Way to Ontario Drive) with a length of approximately 770 feet and average 40 feet wide. This work will be tendered out in fall of 2019 and construction will commence in the spring of 2020 in phases.

b) Sidewalks, Pathways Road & Lots (\$0.300M)

This program is aimed at preventing deterioration of various sidewalks, pathways, and road sections on the grounds to avoid and reduce public liability and to comply with the AODA regulations for the safety of all visitors. Aside from the replacement of the damaged section of road surfaces for the Indy track, Exhibition Place will also be starting to implement the repair recommendations of the 2015 Parking Study. These recommendations include resurface and overlay of deteriorated parking lots based on priority.

c) Street & Parking Lots Lighting Retrofit (\$0.050M)

This project aims to replace existing end-of-life light standards with upgraded energy efficient LED lighting to locations where necessary. Exhibition Place has 140 cobra pole street lights which were installed over 25 years ago. These poles and the lighting fixtures are past their rated life span and require retrofit on an ongoing basis. Providing adequate and moral lighting in public areas and parking lots is required by the AODA. This budget allows only for the upgrades as outlined based on priority needs.

d) Fountains Retrofit - Various Locations (\$0.095M)

Exhibition Place has numerous exterior fountains, some which are listed in the Ontario Heritage Structures list, including the Princes' Gate Lion Fountains, McGillivray Fountain, Peace Fountain, Princess Margaret Fountain, and the Rose Garden east and west fountains. These fountains were built from early 1920 to 1960's. As exterior fountains are subject to outdoor elements, most require retrofitting or even re-built. Restoration to these fountains is a must for Exhibition Place to not only maintain the historical fixtures but also for public safety.

Princes Margaret Fountain retrofit is the priority and the 2020 budget will allow for the project design and costing with construction proposed for 2021. Structurally this fountain is showing many cracks and pieces of concrete have decayed and fallen off. The pool surfaces are worn/pitted enhancing the growth of algae and accumulating dirt resulting in water quality issues. The mechanical pit hatch is cumbersome with broken supports resulting in entry safety concerns. The mechanical system is original to the fountain and the filtration system is 26 years old and needs replacement. All electrics, control panel, starters, lighting and controls require upgrading. It is the intention to reduce potable water requirements by utilizing non potable water in the retrofitted fountain.

e) Parking Technology (LRP) Upgrade (\$0.100M)

Parking Technology upgrades include the installation of license plate recognition technology with support from the Toronto Parking Authority to allow Exhibition Place to move away from parking passes, increase enforcement, service efficiencies to reduce costs and ensure revenues are maximized. Additional car counting technology will be added to the surface lots to improve vehicle wayfinding and parking availability across the grounds. Adding additional parking gates and loops to surface lot exits will assist with traffic management and vehicle flow. Upgrading parking attendant kiosks equipment replacement and upgrade will also be part of the work.

f) Flag Pole Replacement (\$0.150M)

The 110 foot flag pole of Exhibition Place located at the south east corner of Horse Palace / Heritage Court entrance was taken down due to safety concern. The bottom of the flag pole, the main base steel plate support of the pole to the concrete foundation, was rusting and deteriorating to a serious condition that threatened the safety of the public. This budget is to retrofit and restore it to a better location.

3. Mechanical/ Electrical & Communication Infrastructure - (\$0.955M)

a) Building Automation System (\$0.100M)

Maintaining energy efficient systems in good working order translates to a lower utilities cost and less impact on the environment. Efficient equipment, proper programming, lighting power on or off, directional input to HVAC systems and equipment including AHU, cooling and heating are all part of the program and are best practices being promoted by the City and Province.

b) Transformers, Switchgears and Circuit Breakers (61 Sets in 38 Locations)
Replacement in all Substations (\$0.450M)

This program will maintain all building and voltage power equipment some of which are over 70 years old. Unplanned outages or failure of the substation equipment could cause shows or events to be shut down for days as replacements are sought. As importantly, this program is to maintain safety standards for staff working in this high risk area.

c) Replace Fibre Optic Cable Grounds Wide (\$0.200M)

Fibre optic cable system installed in early 1990s was sized to meet the needs at that time and since then our existing fibre optic cables have been maximized and do not meet our needs in many areas. This project is to replace the fibre optic cable system in a systematic priority way for full replacement and upgrade over the next 6 years. There will be new fibre optic cables, terminations, associated switches, equipment, and trenching as required.

d) Fluorescent Light Fixtures - Various (\$0.205M)

Fluorescent lights (T10 technology) was installed in the Enercare Galleria when the building was opened in April 1997 and is beginning to fail. It is inefficient; the existing

fixtures are obsolete, the ceiling connections failing, as well as being extremely difficult to service. This project will replace these T10 fluorescent fixtures in the arched ceiling of the Galleria with efficient and maintenance free LED strip lighting which has the dimming and colour changing capabilities to match the lighting of the four existing Galleria towers. This project fulfills our objectives of grid supply electricity reduction (Fluorescent to LED) and public safety concerns.

4. Enercare Centre (\$2.000M)

a) Replace Various Loading Dock Ramps & Platforms (\$0.100M)

All the existing ramps in and out of the Enercare Centre show floor facility are kept clear of snow and ice during the winter season with electric heating cables buried in the concrete structure. These ramp cables suffered numerous breaks due to water leaking from surface into the slab causing a significant portion of the ramp to have surface damage and pot holes. This deterioration renders it non-usable and Exhibition Place can no longer ensure its functionality for safety. This project will replace hydraulic lines, mechanical springs, hydraulic motors and pumps along with any damaged electrical components. Enercare Centre has approximately 35 docks and the priority at this point is: west garage in & out ramps; east garage in & out ramps; north east AODA ramp; roll up door # 1; RU roll up # 20; and roll up door # 40.

b) Retrofit Overhead Doors (\$0.075M)

Enercare Centre has over 30 roll up doors around the building that have continuous and extensive daily use and are subject to the exterior element 24/7. The guides and curtain have dissolved beyond maintenance and general repair and must be replaced with the current rapid roll up, minimizing damages and returning the use of this main roll up entrance/exit. This budget is set aside for the priority interior overhead door #40.

c) Replace Windows & Doors (0.075M)

Enercare Centre has numerous exterior doors on the south side entrances, Galleria Beacon entrance doors as well as the west entrance near the Heritage Court. They are subject to the exterior elements and in particular, salting action in the winter which has rusted and corroded the frames at the bottom, rendering them inoperable or broken. Retrofitting or replacing or reframing them is the focus of this project.

d) Replace & Retrofit Chillers (\$1.375M)

The chiller is integral to the HVAC system for the Enercare Centre and there are 3 existing 1,250-ton chillers in the Enercare Centre which are 20 years old and need to be overhauled or replaced. Chiller no. 2 is a priority to be replaced since it is deteriorating quickly. In 2017, one new 1,250-ton chiller was added and commissioned.

e) Elevators Retrofit (\$0.100M)

Enercare Centre had 5 elevators installed in 1996 and purchasing parts from external suppliers has become difficult and there have been a growing number of failures and

entrapments. Based on the age and current condition of the equipment a major control modernization must be done for all units within the next 10 years. Since 2018, elevators #3 and #4 were retrofitted and elevator #5 will be retrofitted in late 2019. Elevator #2 is scheduled to be replaced in 2021 and the design and costing is part of the 2020 budget. The scope of work will be replacement of controllers; the door operator; the leveling valves, and the hydraulic pumps and motors. In addition, we are seeking costing to extend this elevator to the basement garage level to increase our AODA compliance.

f) Lighting Retrofit in Garage (\$0.275M)

It is proposed to upgrade the existing fluorescent lighting system in the Enercare Centre parking garage to LED illumination. The new LED lighting will be programmed to be fully controlled by activity in the individual lighting fixture versus lighting zone. This would greatly improve the overall safety allowing lighting levels to remain at pre-determined percentages of intensity when the garage is either fully or partially occupied or any combination which is not possible with the existing system. This change would also allow Exhibition Place to meet the standard lighting requirements used by the Toronto Parking Authority in all their parking structures which are industry best practices and reduce operating costs.

5. Coliseum Complex – (\$3.400M)

a) Sanitation Area Restoration (\$0.400M)

There is an existing animal wash area at the north west corner of the Industry building. The project is to rehabilitate the existing hot water supply system of the animal sanitation washing area. The existing system is old and its natural gas hot water boiler and stand alone storage system is at the end of life. The new system proposed is using the energy efficient, District Energy System, utilizing the Back Pressure Steam Turbine, which is located right next door. The new system will allow for increased electricity production from the Turbine and cost effective hot water production for the animal wash operation, particularly during the RAWF.

b) Roof Replacement in Phases (\$3.000M)

The Industry Building roof is over 25 years old and staff must continually monitor and dealing with leaks with signs of deterioration increasing. Building assessment study in 2006 recommended its replacement in 2012. This is a flat roof constructed in a 3-step structure of a built up asphalt roofing system with a fine gravel ballast covering. The gravel stops and other flashings were originally copper although some of these flashings have been repaired with less expensive metals.

The 2019 budget is for the design and costing of the roof replacement to be ready for construction in 2020. The option for a photovoltaic installation on the highest middle section roof with 28,000 sq. ft. will also be studied. However, a new white roof in this middle high section, will be installed prior to the PV system being implemented. The two step low roofs on two sides, the east and west sides, will be reinstalled as low green roof system with an approximate total area over 65,000 sq. ft.

6. Queen Elizabeth Building – (\$0.200M)

a) Replace Roof at Theatre (\$0.050M)

The budget is for the design and costing for replacement of the QE Theatre roof of the QE complex. The Executive Offices / Fountain Dining Room roof were replaced 5 years ago and the Exhibit Hall in 2019. This is the last roof in the QE complex and proposed for completion in 2021. It will be a white roof replacement consistent with the other two finished roof sections.

b) Replace Rooftop Heating & Cooling Units at Exhibit Hall (\$0.150M)

A rooftop unit (RTU) is the part of a heating, ventilating, and air-conditioning (HVAC) system for the QE Exhibit Hall and is made up of a blower, heating and/or cooling elements, filter racks, dampers and controls, a humidifier, heat recovery device, and vibration isolators. The RTU connects to the ductwork ventilation system to distribute the conditioned air through the building. There are 6 RTUs on the QE Exhibit Hall: 4 units for heating and cooling and 2 units for cooling only. These existing Carrier RTU's were manufactured in 1988 and replacement parts are difficult to find. In 2015, one RTU (heating and cooling) was replaced with a high efficient Carrier RTU. The proposed budget is to replace 2 more units.

7. Other Buildings (\$0.690M)

a) Carillon Tower Retrofit (\$0.475M)

The Carillon, installed at Exhibition Place in 1974, was manufactured in the Netherlands by the Royal Eijsbouts Bell Foundry, a company world-renowned for its carillons, bells, belfries, tower clocks and bronze art work. The structure consists of an 80 foot steel tower with an open framework containing 50 bells ranging from 8 to 60 inches in size and 30 to 4800 pounds in weight. The Carillon is one of only 11 such instruments in Canada, 9 of them currently playable.

In 2000 and 2001, the Carillon Tower was overhauled by C. Arthur Scott Co. and it has been operational since then. An assessment completed in 2017 identified signs of deterioration of the support system. Further investigation of the conditions of bolts inside the bell support beams was done in 2018, which guided the repairs now required in 2019 and 2020. The work includes: remove existing leaded paint and re-paint the whole structure; replace flooring at cabin; replace roof membrane; reinstall proper signage; replace all of the bell support bolts along with isolation pads between the bells (50 bells) and the beams including all of the fasteners and large steel washers to go on the topside of the beam; replace all transmission linkage with stainless steel wire, wire crimps and wire guides which to be re-bushed with new Teflon inserts for smooth operation; install a new keyboard; and add lightning protection system.

b) Various Buildings & Grounds Wide Security Surveillance System/Card Access/CCTV (\$0.100M)

This program will upgrade the security system throughout the grounds and includes the following:

- Video surveillance cameras located strategically throughout the grounds with a focus on parking areas, perimeter facilities, high security areas and high incident areas;
- Card access doors located throughout the grounds focused on electrical substations, employee work area access and leasable space access; and
- Crisis stations strategically placed in the parking garage, reception areas, main public travel routes and high security areas.

This Exhibition Place security program has focused on addressing three fundamental security elements:

- Addressing security concerns of employees working in environments with a high probability of work place violence;
- Securing critical infrastructure, high hazard/risk locations and the protection of assets; and
- Balancing the need for physical security and ease of access.

c) Public Art & Monument Collection Restoration & Conservation (\$0.050M)

Exhibition Place is the custodian of a large collection of public art and monuments, valued at approximately \$2.0M. Included in the collection are paintings on canvas, painted on wall murals, glass and mosaic murals, sculptures (limestone, bronze, metal), as well as granite and brick installations. A study of the collection was completed in 2016 and a 10-year SOGR program for this collection was established. All of the work will require the intervention of conservators with specialized training in various mediums of art. To date, 3 of the 8 Haines Murals have been restored as well as sculpture in the Queen Elizabeth Theatre in 2019.

d) Bandshell Fire Alarm Panel Upgrade (\$0.065M)

The Bandshell fire alarm panel controls the whole building structure including the restaurant, the dressing rooms and the Bandshell itself. In 2013, the Siemens System 3 fire alarm control panels had reached its full life expectancy and were replaced with a previously used Siemens MXL fire control panels that were redundant to another location on the grounds. In 2018 Siemens announced that it will no longer support the MXL fire systems and this project will upgrade this system to XLS fire alarm control panels and replace all of the outdated field devices (smoke, & heat detection, pull stations) and also change fire alarm bells to new horns with visual strobe signals to meet current industry standards.

8. Beanfield Centre – (\$0.980M)

a) Hotel X Bridge, Phase II (\$0.530M - 2020 Cash Flow)

This pre-approved project is the continuation of the approved second phase by Council in 2018. Funding is for the construction and installation of the bridge between Beanfield

Centre and Hotel X. It is anticipated that the construction of this bridge will commence in the fall of 2019 and be completed and operational in the summer of 2020.

b) Elevators Retrofit (\$0.250M)

During the 2008/9 major renovation of Beanfield Centre, budget constraint did not allow for the renovation of the elevator at the north-west corner of the building. With the new pedestrian bridge going to be completed by 2020, this existing but abandoned north-west elevator has to be made functional to allow for AODA movement of patrons from the bridge entrance to the main level. The work will replace the present controllers, the door operator, the cab, the leveling valves, the hydraulic pumps and motors, and modernization of security cameras.

c) Lutron Lighting System Retrofit (\$0.200M)

The existing Lutron Grafik 7000 lighting control system in the Beanfield Centre is past its rated life. Spare parts and control system components are no longer available and it is no longer supported by Lutron as it has moved to the next generation, Quantum. This project would retain the individual controls in each meeting room, but the touch screens have to be replaced to match the new Quantum system. This project includes the Quantum lighting control system infrastructure which is comprised of a central server with network Quantum Lighting Hubs (QLH) to be installed throughout the facility.

9. Better Living Centre - (0.915M)

a) Brick Replacement & Roof Tower Retrofit (\$0.250M)

The design of Better Living Centre includes a 46-foot-high black steel pylon with multi-coloured plexiglass panels sitting atop the roof. This tower has been described as “Mondrianesque” in that the blocks of coloured Plexiglas and their layout resemble a grid of vertical and horizontal black lines and blocks of primary colours. These steel structures are made up of hollow structural sections welded together and being exposed to the elements, the welds are corroding and the paint is peeling. Several panels need to be replaced and the paint on the steel is nearing the end of its service life and should be redone after any repairs are complete.

b) Replace Roof Top HVAC Units (\$0.415M)

A rooftop unit (RTU) is the part of a heating, ventilating, and air-conditioning (HVAC) system for the Better Living Centre and is made up of a blower, heating and/or cooling elements, filter racks, dampers and controls, a humidifier, heat recovery device, and vibration isolators. They connect to ductwork ventilation system to distribute the conditioned air through the building. There are two units on the east side of the BLC to provide cooling and they are over 20 years old, very inefficient and with compressors using R 22 refrigerant fluid which has now been prohibited for use. This project would replace both with high efficient units with heating and cooling using an environmental friendly refrigerant. The new unit with heating will also help with the heating in the east side of the building without relying on the under floor heating which is very inefficient.

c) Under Floor Heating (\$0.250M)

Under the BLC, there is a crawl space that houses the building domestic water pipes, floor drain lines and 27 under floor heating units. These units are at the end of their rated life. The existing system draws a huge amount of combustion air from their surroundings and large air makeup panels are required under the floor to supply this air. This greatly adds to the heat load required in the winter to prevent the suspended drains and water lines in the basement from freezing. New high efficiency units are required to reduce the gas consumption and reduce greenhouse gas emissions.

10. General Services Building - No project in 2020

11. Horse Palace - (\$0.175M)

a) Radiant Heat Plant Replacement (\$0.175M)

The radiant heating system was installed in the mid 1990s and consists of approximately 50 radiant unit heaters. They will be at least 25 years old, at the end of their life expectancy and in need of major repair or replacement. It is proposed to have the project divided into three 3 phases, to replace one section at a time.

12. Food Building - (\$0.220M)

a) Replace Boilers, Hot Water Tanks & Water Distribution & Sanitary Systems (\$0.220M) (CNEA funding of 50% of this project)

The project will replace the gas boiler which is at the end of its rated life, with a high efficiency hot water boiler. This system provides hot water for the vendors as well as supplement for use for the existing washrooms.

13. Press Building - No project in 2020

14. Special Projects - No project in 2020

15. Electrical Underground High Voltage Utilities (\$2.000M - 2020 Cash Flow)

a) Phase 1 - Replace Priority Feeders (\$1.500M - 2019, \$2.000M - 2020 & \$0.730M - 2021)

This is a pre-approved project for 2019 and 2020 with requested funding for 2021 to 2028 below the line subject to City approval.

There is a need to replace all underground high and low voltage electrical cables (13,800 volts to 600 volts) and their associated equipment for isolation such as switchgears & grounding. The underground cables are old, some over 50 years old and beginning to fail. These cables supply all the power and life safety services to the buildings on the grounds as well as all street lighting and parking lot lighting. The rate of ground fault failures, splice failures, and general cable failures are increasing.

A feasibility study for Exhibition Place high voltage power distribution system and substations was completed at the end of 2017 and approved by the Board. The 8 priorities/phases of the Study to be completed over a 10-year period are as follows:

- Replace frequently failed feeders A32T/A33T to TWX and A34T/A35T to TWX;
- Consolidate indoor mid-air substation of IEX, IWX and FAX;
- Replace poor equipment in various substations due to safety and aging;
- Consolidate BLC substations (BLX, NE, NW, SE, SW) to one 13.8KV substation;
- Upgrade transformer and switchgear at TOX, WANX, and WASX;
- Upgrade switchgears at Beanfield substation;
- Replace cables A81T/A82T/A83T to NTX; and
- Upgrade General Services and Horse Palace substations.

16. Green Energy Initiatives - No project in 2020

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SIGNATURE

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ATTACHMENTS

Appendix A - Proposed 2020-2029 Capital Works Program