

Facility Condition Assessment

Toronto Public Libraries



**Pleasant View
575 Van Horne Ave
Toronto, ON**

Contact:

4tellTM Innovation for the
Built EnvironmentTM

Date of Report: August 17, 2020

On-Site Date: October 03, 2019

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Project Detail

Items	Description
Project Name	Pleasant View
Property Type	Freehold Standalone
Full Address	575 Van Horne Ave Toronto, ON
Year Built	1975
Number of Levels	1
Gross Building Area (GSF)	7,000
Current Replacement Value (CRV)	\$3,450,860
CRV/GSF (\$/Sq Ft)	\$493
Onsite Date	2019-10-03

Building Description

Property Executive Summary

Architectural Structural Executive Summary

The building is likely constructed with concrete masonry load bearing walls and open web steel joists that support a metal roof deck . According to the provided roof report, the roof assembly system is a covered by multi-ply asphaltic built-up roof membrane, which was replaced in approximately 1998. The rainwater is drained through an internal drainage system. No active roof leaks were reported or observed at the time of the assessment.

The exterior wall system of the building is constructed as a cavity wall with brick veneer. The windows of are insulating glass units (IGUs) set in metal frames.

The main entrance, which is on the west elevation, is equipped with a two-leaf glass hinged door set in hollow metal frames. The entrance door is provided with a door open device (including a push-button) to facilitate barrier-free accessibility. The sidelites provided at the main entrance are also IGUs in metal frames. The exterior door opens into a foyer, where entrance into the Library is allowed by double-leaf glass doors. The door provided at the east emergency exit from the Library is a glazed door with IGU. Service doors are constructed of hollow metal.

The floor finishes within the Library include primarily of vinyl tiles and carpet. Painted wall covering decorates the interior walls, which are concrete masonry or gypsum board. The ceilings in the Library consist of suspended acoustic ceiling panels. Library amenities include lounge chairs, stacking chairs, and reading tables, which are in various locations of the library. The library is also equipped with metal framed bookshelves and a service counter.

Mechanical, Electrical and Plumbing Executive Summary

Building comfort is provided by two packaged heating, ventilation and air condition (HVAC) units that are located on the roof. The HVAC units were manufactured in 2004.

Supplementary heating is provided by a wall-mounted unit heater and baseboard heaters. The heaters are considered to be under the \$2,500 cost threshold and thus are not included in the assessment of this report .

Three washrooms are provided for the library; two are standard

washrooms and one is a universal/unisex washroom. Plumbing fixtures in the building generally consist of water closets with flush valves and automatic faucets on lavatories.

A domestic water heater provides heated water to the plumbing fixtures in the building.

The domestic water heater is electric-powered and manufactured by Rheem.

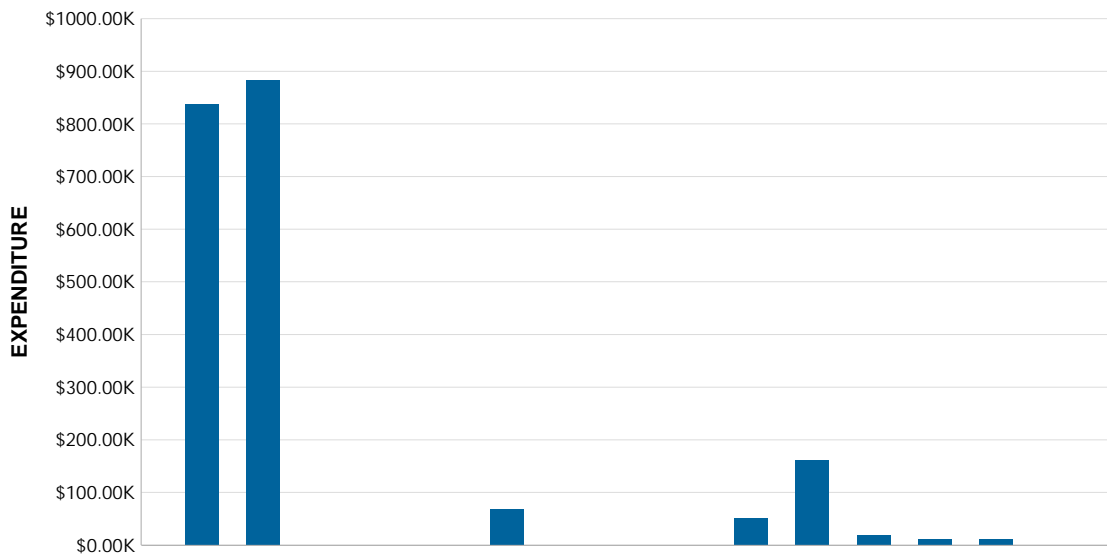
Site Executive Summary

Summary Of Findings

Key Findings	Metric
Current Year Facility Condition Needs Index	24.26 %
Immediate Capital Needs (Year 0) (Included In FCNI)	\$837,250
Future Capital Needs (Year 1 to Year 14)	\$1,199,230

\$2,036,480.

Expenditure Forecast Over Study Period



2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
\$837.25K	\$883.03K	\$0.00K	\$0.00K	\$0.00K	\$66.70K	\$0.00K	\$0.00K	\$0.00K	\$50.00K	\$160.50K

2031	2032	2033	2034
\$17.50K	\$10.50K	\$11.00K	\$0.00K

Key Findings

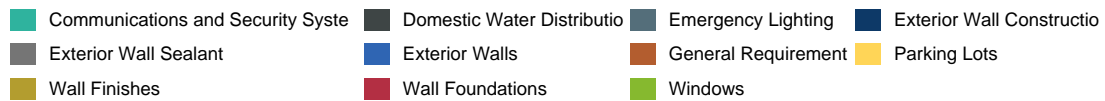
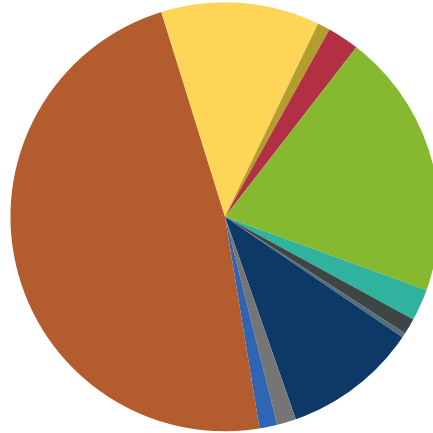
- A SubStructure: Repair damaged foundations at an estimated cost of \$20,000 in year 2020
- A SubStructure: Replace Foundations at an estimated cost of \$100,000 in year 2030
- B Shell: Replace Windows at an estimated cost of \$168,000 in year 2020
- B Shell: Replace Brick Masonry at an estimated cost of \$85,000 in year 2020
- B Shell: Replace Exterior Sealant at an estimated cost of \$12,000 in year 2020
- B Shell: Replace Flashing & Metal Panels at an estimated cost of \$11,250 in year 2020
- B Shell: Replace SuperStructure at an estimated cost of \$50,000 in year 2030
- C Interiors: Replace Folding Wood Partition at an estimated cost of \$8,000 in year 2020
- C Interiors: Replace Carpet at an estimated cost of \$91,000 in year 2021
- C Interiors: Replace Suspended Acoustic Panels at an estimated cost of \$30,000 in year 2021
- C Interiors: Replace Vinyl Floor Tiles at an estimated cost of \$28,200 in year 2021
- C Interiors: Replace Wood panel at an estimated cost of \$24,750 in year 2021
- C Interiors: Replace Paint at an estimated cost of \$17,500 in year 2021
- C Interiors: Replace Ceramic Tiles at an estimated cost of \$7,980 in year 2021
- C Interiors: Replace Wood Paneling at an estimated cost of \$10,500 in year 2030
- C Interiors: Replace Paint at an estimated cost of \$17,500 in year 2031
- D Services: Replace Fire Alarm System at an estimated cost of \$20,000 in year 2020
- D Services: Replace Domestic Hot Water Heater at an estimated cost of \$10,000 in year 2020
- D Services: Replace Interior & Exterior Lighting at an estimated cost of \$140,000 in year 2021
- D Services: Replace Water Closets, Urinals, Lavatories, etc. at an estimated cost of \$13,600 in year 2021
- D Services: Replace Disconnects & Distribution Panels at an estimated cost of \$40,000 in year 2025
- D Services: Replace Heat Transfer Terminal and Packaged Units at an estimated cost of \$8,000 in year 2025
- D Services: Replace Transformers at an estimated cost of \$7,000 in year 2025
- D Services: Replace HVAC Packaged Units at an estimated cost of \$50,000 in year 2029

- D Services: Replace Exhaust Fans at an estimated cost of \$10,500 in year 2032
- D Services: Replace Security System at an estimated cost of \$11,000 in year 2033
- E Equipment & Furnishing: Replace Library Shelving at an estimated cost of \$450,000 in year 2021
- E Equipment & Furnishing: Replace Millwork at an estimated cost of \$80,000 in year 2021
- G Building Sitework: Replace Parking Lots & Roadways at an estimated cost of \$100,000 in year 2020
- G Building Sitework: Replace Concrete Walkway at an estimated cost of \$11,700 in year 2025
- Z General: Replace AODA Universal Washroom at an estimated cost of \$200,000 in year 2020
- Z General: Replace AODA Service counter at an estimated cost of \$125,000 in year 2020
- Z General: Replace AODA Front Entrance Doors at an estimated cost of \$50,000 in year 2020
- Z General: Replace AODA Parking at an estimated cost of \$10,000 in year 2020
- Z General: Replace AODA Exterior Walkways at an estimated cost of \$10,000 in year 2020

* All costs presented in present day values

Distribution of Immediate (Year 0) Needs by Building System

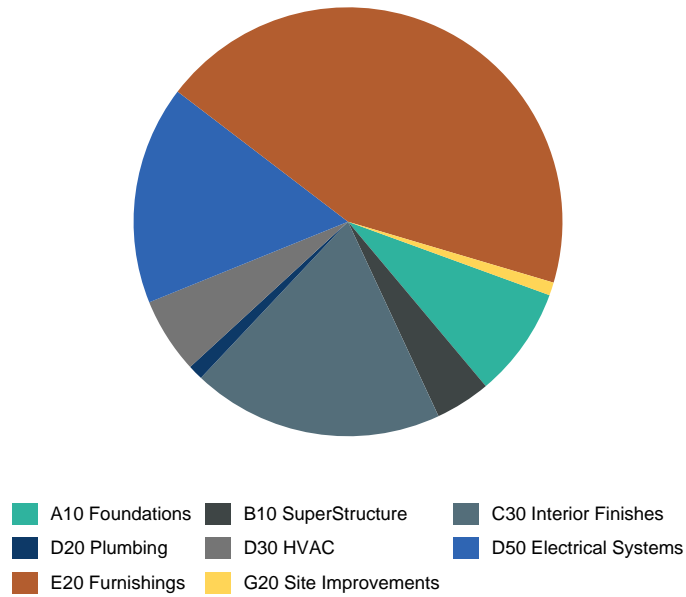
Distribution of Immediate Needs by Building System



Building System	Estimated Cost	Percentage of Total Cost
Communications and Security Systems	\$20,000	2.39 %
Domestic Water Distribution	\$10,000	1.19 %
Emergency Lighting	\$3,000	0.36 %
Exterior Wall Construction	\$85,000	10.15 %
Exterior Wall Sealant	\$12,000	1.43 %
Exterior Walls	\$11,250	1.34 %
General Requirements	\$400,000	47.78 %
Parking Lots	\$100,000	11.94 %
Wall Finishes	\$8,000	0.96 %
Wall Foundations	\$20,000	2.39 %
Windows	\$168,000	20.07 %
Total	\$837,250	100 %

Distribution of Future (Year 1-Year 14) Needs by Building System

Distribution of Capital Needs by Building System



Building System	Estimated Cost	Percentage of Total Cost
A10 Foundations	\$100,000	8.34 %
B10 SuperStructure	\$50,000	4.17 %
C30 Interior Finishes	\$227,430	18.96 %
D20 Plumbing	\$13,600	1.13 %
D30 HVAC	\$68,500	5.71 %
D50 Electrical Systems	\$198,000	16.51 %
E20 Furnishings	\$530,000	44.20 %
G20 Site Improvements	\$11,700	0.98 %
Total	\$1,199,230	100 %

Asset Observed

All assets observed are provided in this Section sorted by the Uniformat II coding, indexed is as follows:

A - SubStructure

A10 - Foundations

A20 - Basement Construction

B - Shell

B10 - SuperStructure

B20 - Exterior Enclosure

B30 - Roofing

C - Interiors

C10 - Interior Construction

C20 - Stairs

C30 - Interior Finishes

D - Services

D10 - Conveying Systems

D20 - Plumbing

D30 - HVAC

D40 - Fire Protection Systems

D50 - Electrical Systems

E - Equipment & Furnishing

E10 - Equipment

E20 - Furnishings

F - Special Construction And Demolition

F10 - Special Construction

F20 - Selective Demolition

G - Building Sitework

G10 - Site Preparation

G20 - Site Improvements

G30 - Site Civil/Mechanical Utilities

G40 - Site Electrical Utilities

G50 - Exterior Steps & Ramps

G90 - Other Site Construction

Z - General

Z10 - General Requirements

Z20 - Bidding Requirements, Contract Forms, Conditions

Z90 - Project Cost Estimate

Item	Description
A1011 Wall Foundations	Foundations
Condition	Fair
Quantity	1 SF
Unit Cost	\$100,000
Remaining Useful Life (RUL)	10 Year(s)

Condition:

Damaged concrete was observed at the building corners. The site representative reported that the damage was caused by the lawn mower operators on site. Although the concrete foundation walls have been damaged at the corners of the building, it does not appear to have significantly affected the building at this time.

Preventative Maintenance Tasks:

The building foundation walls were observed on the exterior to be concrete masonry units.

Site Notes:

Further deterioration of the foundation walls, particularly at the building corners, may occur. Repair of the foundation wall is recommended to maintain longevity and minimize the potential for unwanted building movement. Construction of bollards at the building corners may also be considered as a guard from additional damage.





**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
A1011	Repair damaged foundations	1 SF	\$20,000.00	MREP	3	2020	\$20,000
A1011	Replace Foundations	1 SF	\$100,000.00	MREP	4	2030	\$100,000

Item	Description
B10 SuperStructure	SuperStructure
Condition	Fair
Quantity	1 SF
Unit Cost	\$50,000
Remaining Useful Life (RUL)	10 Year(s)

Condition:

The building structure performing as intended. Deficiencies that indicate structural movement, such as cracks in the exterior wall system or floor finishes, were not observed.

Preventative Maintenance Tasks:

The superstructure was mostly concealed by interior finishes. Based on observation at the roof hatch, the superstructure is likely load bearing concrete masonry units supporting the metal roof deck. Construction drawings were not made available to verify the type of building structure.

Site Notes:

It is reasonable to expect that major repairs will be required in the future. As such an allowance has been included in the long term.



Superstructure observed at the roof hatch

Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
B10	Replace SuperStructure	1 SF	\$50,000.00	MREP	4	2030	\$50,000

Item	Description
B2010 Exterior Walls	Flashing & Metal Panels
Condition	Fair
Quantity	250 SF
Unit Cost	\$45
Remaining Useful Life (RUL)	0 Year(s)

Condition:

the metal flashing was observed to have damaged corners. the overall condition is fair.

Preventative Maintenance Tasks:

there are metal panels/flashing where the windows are present.

Site Notes:

replacement of the damaged flashing in the next year.



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
B2010	Replace Flashing & Metal Panels	250 SF	\$45.00	LCR	2	2020	\$11,250

Item	Description
B2011 Exterior Wall Construction	Brick Masonry
Condition	Fair
Quantity	1,000 SF
Unit Cost	\$85
Remaining Useful Life (RUL)	0 Year(s)

Condition:

In general the exterior wall system is in good condition overall, with the exception of the spalling brick and efflorescence observed near the main entrance door.

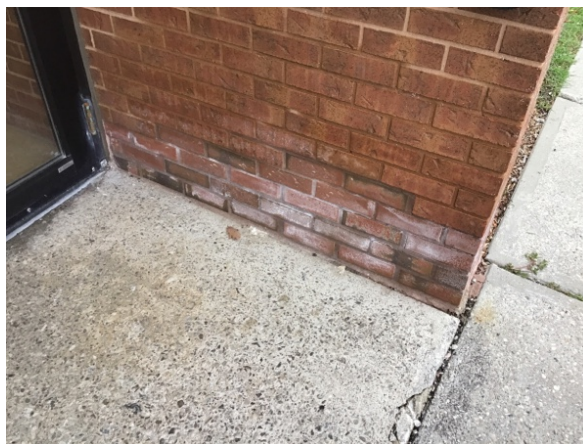
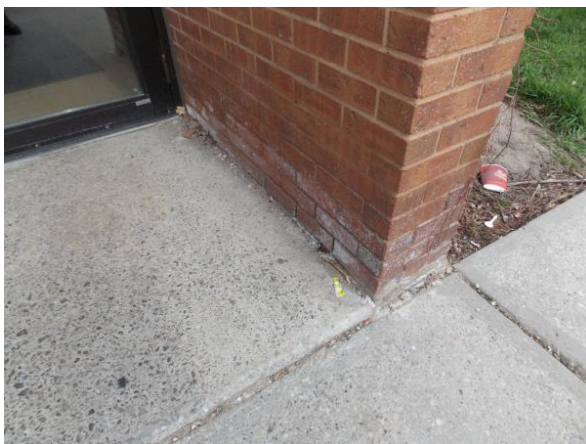
Preventative Maintenance Tasks:

The exterior wall system of the building appears to be cavity walls with weeps and through-wall flashing provided at the grade beam. Weeps were also noted at the window lintels and at the roofline.

Site Notes:

An allowance has been included for replacement of the spalled masonry in the short term.

Further, it is reasonable to expect that major repairs will be required in the future. As such an allowance has been included in the long term.



Efflorescence near the main entrance



Close-up of spalling brick and efflorescence

**Cost Recommendations:**

Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
B2011	Replace Brick Masonry	1,000 SF	\$85.00	MREP	2	2020	\$85,000

Item	Description
B2011.1 Exterior Wall Sealant	Exterior Sealant
Condition	Fair
Quantity	1,000 SF
Unit Cost	\$12
Remaining Useful Life (RUL)	0 Year(s)

Condition:

The exterior wall sealant was generally in fair condition. Craziing has begun to form on the sealant, particularly at the window perimeters. Sealants around the metal cap flashings are completely deteriorated.

Preventative Maintenance Tasks:

Sealant is provided on exterior walls at the building expansion joints and window openings along the perimeter of the building.

Site Notes:

An allowance is included to replace the sealants in the short term.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
B2011.1	Replace Exterior Sealant	1,000 SF	\$12.00	LCR	2	2020	\$12,000

Item	Description
B2021 Windows	Windows
Condition	Fair
Quantity	1 LS
Unit Cost	\$168,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

The windows generally are performing as intended. No air/water infiltration was reported by the site representative.

Preventative Maintenance Tasks:

The building windows are generally fixed insulating glass units (IGUs) installed in anodized metal frames. Based on the date of manufacture stamped on the window spacers, the windows were installed in 1975, 1983, and 1995. The majority of the windows are original to building construction (1975).

Site Notes:

Windows are constructed to provide a life cycle of approximately 32 years, which is consistent with the observed condition. Further deterioration of the windows is anticipated with continued exposure to the elements. A proactive replacement of the 1975 and 1983 windows is recommended to minimize the potential of air/water infiltration, which could cause damage to interior finishes.



Typical windows



Close-up of typical window metal spacer and glazing seal



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
B2021	Replace Windows	1 LS	\$168,000.00	LCR	2	2020	\$168,000

Item	Description
B2031 Glazed Doors & Entrances	Front Entrance Doors
Condition	Fair
Quantity	1 EA
Unit Cost	\$15,000
Remaining Useful Life (RUL)	18 Year(s)

Condition:

The doors are currently functioning as intended. No major deficiencies were observed or reported.

Preventative Maintenance Tasks:

The main entrance doors are a set of fully-glazed, swing-type units with insulated glass (IGUs) set in hollow metal frame. The interior side of the main entrance vestibule is also provided with similar doors. The emergency exit on the east elevation is a hollow metal door with an IGU vision panel. Hollow metal doors are provided for the exit from Receiving and the emergency exit at the southwest corner.

It was reported that the main entrance doors were replaced in 2013. The replacement year of the other doors could not be determined.

The doors of the main entrance vestibule are equipped with automatic door devices. Push buttons activate the devices.

Site Notes:

An allowance has been included for replacement of the doors at the end of their expected service life.



Item	Description
B3011 Roof Finishes	Built Up Roof
Condition	Good
Quantity	7,000 SF
Unit Cost	\$25
Remaining Useful Life (RUL)	18 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review.

Preventative Maintenance Tasks:

The roof is a multi-ply built-up roof with a gravel topping. Metal flashings are present around the building perimeter and at mechanical curbs. The roof appears to have been replaced within the past 2-3 years.

Site Notes:

An allowance has been included for replacement of the roof at the end of its expected service life.



Overview of roof



Some asphalt migration on the roof

Item	Description
C3010 Wall Finishes	Wood Paneling
Condition	Fair
Quantity	300 SF
Unit Cost	\$35
Remaining Useful Life (RUL)	10 Year(s)

Condition:

the wood panels were noted to be in good condition

Preventative Maintenance Tasks:

in the auditorium there is a wall clad in wood paneling.

Site Notes:

replacement of the wood panels at end of service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3010	Replace Wood Paneling	300 SF	\$35.00	LCR	4	2030	\$10,500

Item	Description
C3010 Wall Finishes	Folding Wood Partition
Condition	Poor
Quantity	1 LS
Unit Cost	\$8,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

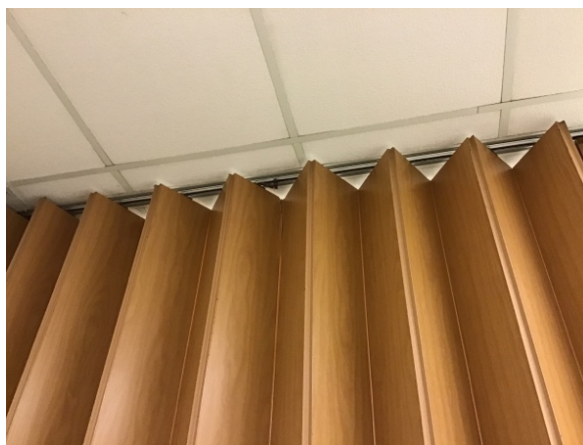
the wood panel divider is functioning as intended.

Preventative Maintenance Tasks:

a wood panel divider is installed in the auditorium to split the room.

Site Notes:

replace the room divider at end of service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3010	Replace Folding Wood Partition	1 LS	\$8,000.00	LCR	3	2020	\$8,000

Item	Description
Paint Wall Covering	Paint
Condition	Fair
Quantity	7,000 SF
Unit Cost	\$2.50
Remaining Useful Life (RUL)	1 Year(s)

Condition:

Some damaged paint and gypsum was observed.

Preventative Maintenance Tasks:

In general, the interior drywall and concrete masonry partitions, as well as the interior face of the exterior walls are completed with paint finish. Beams and columns in the Library's open space are also painted. It was reported that the Library was partially repainted within the past few years. The repainting was conducted mainly for the ductwork and columns.

Site Notes:

Paint covering continues to deteriorate from oxidation and exposure to impurities in the air, and in time the deterioration may progress and could possibly affect the building interior aesthetics. A provision has been allocated for repainting the interior walls and other architectural features (e.g. columns) in the building.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3012	Replace Paint	7,000 SF	\$2.50	LCR	3	2021	\$17,500
C3012	Replace Paint	7,000 SF	\$2.50	LCR	3	2031	\$17,500

Item	Description
Ceramic Floor Tiles	Ceramic Tiles
Condition	Fair
Quantity	380 SF
Unit Cost	\$21
Remaining Useful Life (RUL)	1 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review.

Preventative Maintenance Tasks:

Ceramic floor tiles are installed in the washrooms and near the front entrance.

Site Notes:

An allowance has been included for replacement of the ceramic tiles at the end of their expected service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3024	Replace Ceramic Tiles	380 SF	\$21.00	LCR	3	2021	\$7,980

Item	Description
Vinyl Floor Tiles	Vinyl Floor Tiles
Condition	Fair
Quantity	2,350 SF
Unit Cost	\$12
Remaining Useful Life (RUL)	1 Year(s)

Condition:

The vinyl floor tiles are in poor condition overall. Chip damage, stains, and cracks were observed on the tiles, particularly those in the Mechanical Room.

It is understood from the plaque located in the Mechanical Room, the only components that contain designated substances are the water meter and its associated piping. Therefore, the vinyl floor tiles are believed to not contain any designated substances.

Preventative Maintenance Tasks:

Vinyl floor tiles are installed in the floor space of the Auditorium, Kitchen, Storage, Receiving, Work, and Mechanical rooms. The installation year of the vinyl floor tiles could not be determined, but the majority of the tiles appear to be original to building construction in 1975.

Site Notes:

Based on observation, replacement of the vinyl floor tiles is recommended to maintain aesthetics and minimize tripping hazards.



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3024	Replace Vinyl Floor Tiles	2,350 SF	\$12.00	LCR	3	2021	\$28,200

Item	Description
Carpet/Carpet Tiles	Carpet
Condition	Fair
Quantity	3,500 SF
Unit Cost	\$26
Remaining Useful Life (RUL)	1 Year(s)

Condition:

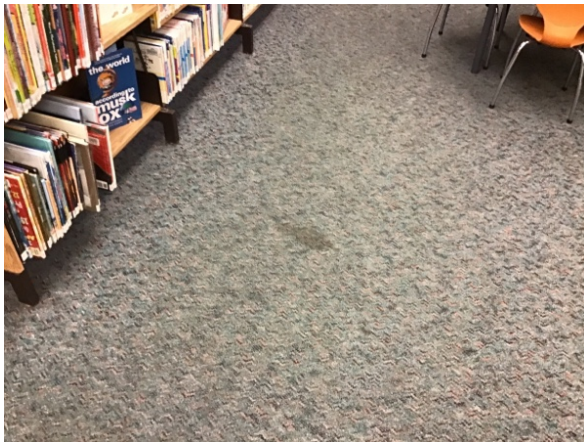
No major deficiencies were observed or reported at the time of the site review. The carpet is worn and stained in localized areas.

Preventative Maintenance Tasks:

Carpet is located in the open space in the Library and in the Staff Room. The last replacement year of the carpet could not be determined, but it was estimated by the site representative to be at least ten years old, with the exception of the sitting area by the main entrance, which was replaced in 2012.

Site Notes:

Increased foot traffic may eventually cause premature deterioration of the carpet. Torn seams or damaged carpet may arise as a result of deterioration. A proactive replacement of the high traffic carpet is recommended to minimize tripping hazards caused by torn or damaged carpet.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3025	Replace Carpet	3,500 SF	\$26.00	LCR	3	2021	\$91,000

Item	Description
Suspended Acoustic Panel Ceiling	Suspended Acoustic Panels
Condition	Fair
Quantity	1 LS
Unit Cost	\$30,000
Remaining Useful Life (RUL)	1 Year(s)

Condition:

The suspended acoustic ceiling panels are in fair condition overall. Discolouration, broken panels, missing panels, and stains at isolated locations were observed on the ceiling panels.

Preventative Maintenance Tasks:

Suspended acoustic ceiling panels are provided for the entire ceiling space in the Library. The ceiling panels are estimated to be original to building construction (1975).

Site Notes:

As the suspended acoustic ceiling panels continue to age, deterioration, which may detract from the overall aesthetics, is anticipated to increase. Provisions have been made for suspended acoustic ceiling panel lifecycle replacement.



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3031	Replace Suspended Acoustic Panels	1 LS	\$30,000.00	LCR	3	2021	\$30,000

Item	Description
Wood Ceiling	Wood panel
Condition	Fair
Quantity	2,250 SF
Unit Cost	\$11
Remaining Useful Life (RUL)	1 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review.

Preventative Maintenance Tasks:

Decorative wood ceilings

Site Notes:

An allowance has been included for refinishing of the wood ceiling at the end of its expected service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
C3031	Replace Wood panel	2,250 SF	\$11.00	MREP	3	2021	\$24,750

Item	Description
D2010 Plumbing Fixtures	Water Closets, Urinals, Lavatories, etc.
Condition	Fair
Quantity	2 per washroom
Unit Cost	\$6,800
Remaining Useful Life (RUL)	1 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review.

Preventative Maintenance Tasks:

There are a total of two washrooms in the building, which are at the centre of the building, and are unisex washrooms. One of the washrooms serves the public, whereas the other serves the staff. All the washrooms contain one lavatory and one water closet. The water closets are equipped with flush valves. The lavatory faucets are manually operated by a central lever.

Site Notes:

An allowance has been included for replacement of the plumbing fixtures at the end of their expected service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D2010	Replace Water Closets, Urinals, Lavatories, etc.	2 per washroom	\$6,800.00	LCR	3	2021	\$13,600

Item	Description
D2020 Domestic Water Distribution	Domestic Hot Water Heater
Condition	Fair
Quantity	1 EA
Unit Cost	\$10,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review, however the tank heater by Rheem has exceeded its expected service life and it is reasonable to expect that it will require replacement in the near future.

Preventative Maintenance Tasks:

Hot water is provided by two electric domestic water tank heaters. The older tank heater is located in the Mechanical Room, manufactured by Rheem, has a storage capacity of 175L and has a model number of NY TE420 and a serial number of 0290J11985. Based on the serial number, it is estimated that the DHW heater was installed in 1990.

The second DHW heater is manufactured by GSW. According to the affixed label on the DHW heater, it is a rental unit owned by Direct Energy.

Site Notes:

An allowance has been included for replacement of the domestic water tank heater by Rheem in the short term. The tank heater by GSW is a rental unit and as such no replacement allowance has been included.



Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D2020	Replace Domestic Hot Water Heater	1 EA	\$10,000.00	LCR	3	2020	\$10,000

Item	Description
D30 HVAC	Exhaust Fans
Condition	Fair
Quantity	3 EA
Unit Cost	\$3,500
Remaining Useful Life (RUL)	12 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review.

Preventative Maintenance Tasks:

3 mushroom type exhaust fans on the roof.

Site Notes:

An allowance has been included for replacement of the exhaust fans at the end of their expected service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D30	Replace Exhaust Fans	3 EA	\$3,500.00	LCR	4	2032	\$10,500

Item	Description
D3040 Heat HVAC Distribution Systems	HVAC Packaged Units
Condition	Fair
Quantity	1 LS
Unit Cost	\$50,000
Remaining Useful Life (RUL)	9 Year(s)

Condition:

The rooftop units (RTUs) are functioning as intended. No issues were reported in regards to the thermal comfort in the building. However, the fins were observed to be damaged.!

Preventative Maintenance Tasks:

Heating and cooling is provided by approximately two packaged natural gas-fired units. The HVAC units are installed on the roof. All the units were manufactured by Lennox.

The model number, serial number, and specifications are listed below:

Unit #1

Model Number: TGA090S2BM1J

Serial Number: 5604D11291

Heating Capacity: 180 MBH

Cooling Capacity: 7.5 tons

Unit #2

Model Number: GCS16-240-375-1J

Serial Number: 5604F07120

Heating Capacity: 375 MBH

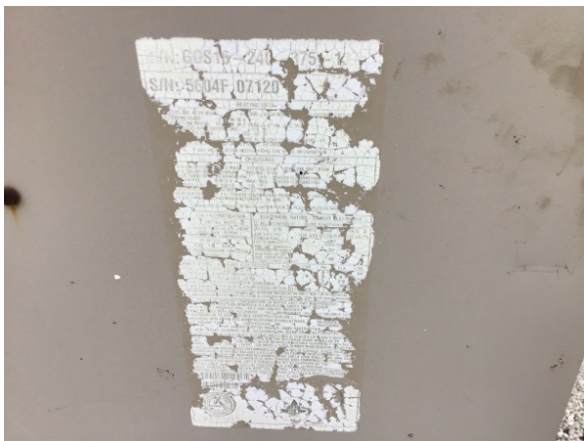
Cooling Capacity: 20 tons

R-22 refrigerant is utilized by both units. According to the noted serial numbers, it is estimated that the units were manufactured and installed in approximately 2004.

Site Notes:

Although the HVAC units are anticipated to remain functional within the evaluation period, they utilize R-22 type refrigerant as part of their cooling cycle. This refrigerant type is being phased out in accordance with the Montreal Protocol and will no longer be commercially available for purchase after 2020. Re-charging of the HVAC units during the future repair work (if necessary) may then become cost prohibitive or non-permissible.

as such the replacement of the packaged units are to be scheduled at end of service life. costing includes for both units.

**Cost Recommendations:**

Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D3040	Replace HVAC Packaged Units	1 LS	\$50,000.00	LCR	4	2029	\$50,000

Item	Description
D3050 Heat Transfer Terminal and Packaged Units	Heat Transfer Terminal and Packaged Units
Condition	Fair
Quantity	1 LS
Unit Cost	\$8,000
Remaining Useful Life (RUL)	5 Year(s)

Condition:

The baseboard heaters were observed to be damaged and aged. The forced flow heater was reportedly not in use because it activates the fire alarm. Even though it is not in use, heating appears to be sufficient within the building. No issues were reported by the staff.

Preventative Maintenance Tasks:

Supplementary heating is provided by baseboard heaters along the perimeter of the open space in the Library and in the Auditorium, as well as a forced flow heater in the entrance vestibule.

Site Notes:

Based on observed condition, replacement of the baseboard heaters is recommended to maintain thermal comfort for building occupants. The removal/decommissioning of the forced flow heater may be considered, as it does not appear to be necessary for heating.



Typical baseboard heater in the Auditorium



Close-up of aged baseboard heater



Impact damage on baseboard heater in the open space of the Library



Forced flow heater in the main entrance vestibule

Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D3050	Replace Heat Transfer Terminal and Packaged Units	1 LS	\$8,000.00	LCR	3	2025	\$8,000

Item	Description
D5010 Electrical Service and Distribution	Transformers
Condition	Fair
Quantity	1 LS
Unit Cost	\$7,000
Remaining Useful Life (RUL)	5 Year(s)

Condition:

The transformers appear to be original to building construction in 1975. It appears to be performing as intended.

Preventative Maintenance Tasks:

A suspended transformer is located in the Mechanical Room. The transformers stepdown the incoming 347/600 V electrical service down to 120/208 V prior to being distributed to branch disconnects. The transformer was manufactured by Marcus and is a dry type. The nameplate on the transformer indicates that the transformer is rated at 15 kVA.

Site Notes:

Given the estimated age of the transformer, the potential for failure increases as it continues to age. A proactive replacement is recommended to maintain electrical service to the building components.

**Cost Recommendations:**

Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D5010	Replace Transformers	1 LS	\$7,000.00	LCR	3	2025	\$7,000

Item	Description
D5010 Electrical Service and Distribution	Disconnects & Distribution Panels
Condition	Fair
Quantity	1 LS
Unit Cost	\$40,000
Remaining Useful Life (RUL)	5 Year(s)

Condition:

The electrical disconnect and distribution panel appear to be original to building construction and are functioning as intended. There have been no reported problems associated with the electrical systems.

Preventative Maintenance Tasks:

The main electrical disconnect switch, which was manufactured by ITE, is located in the Mechanical Room and is rated for 400A and 600V. The switch controls the electrical service that is delivered to adjoining distribution panels and disconnects for the rooftop mechanical units, lighting, step-down transformers, and electric heaters.

The distribution panel is also manufactured by ITE. It is rated at 400A and 347/600V.

Site Notes:

Although the electrical disconnect and distribution panel are currently functioning as intended, they are approaching the end of its expected useful life of 40 years, which is based on typical industry standards. The potential for failure may increase after the end of its expected useful life. Provisions have been allocated for electrical disconnect and distribution panel replacement to minimize the possibility of service disruption.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D5010	Replace Disconnects & Distribution Panels	1 LS	\$40,000.00	LCR	3	2025	\$40,000

Item	Description
D5020 Lighting and Branch Wiring	Interior & Exterior Lighting
Condition	Fair
Quantity	7,000 SF
Unit Cost	\$20
Remaining Useful Life (RUL)	1 Year(s)

Condition:

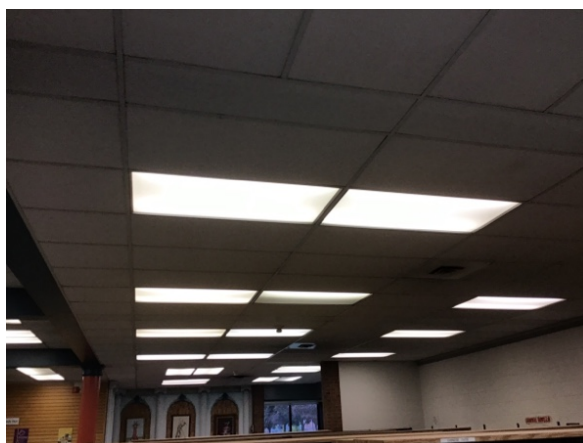
The interior and exterior lighting are functioning as intended.

Preventative Maintenance Tasks:

The interior lighting consists primarily of T8 fluorescent tube fixtures. The exterior lighting consists of approximately four light standards with metal halide lamps, one soffit-mounted metal halide lamp and one high-pressure sodium wall packs.

Site Notes:

An allowance has been included for replacement of the lighting at the end of its expected service life.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D5020	Replace Interior & Exterior Lighting	7,000 SF	\$20.00	LCR	3	2021	\$140,000

Item	Description
D5030 Communications and Security Systems	Fire Alarm System
Condition	Fair
Quantity	1 LS
Unit Cost	\$20,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review, however the fire alarm panel has exceeded its expected service life.

Preventative Maintenance Tasks:

The fire alarm system consists of a central fire alarm control panel, initiating devices including pull stations, smoke detectors and heat detectors, and notification devices including bells and strobes. The control panel and annunciators were manufactured by Edwards and are located in the main entrance vestibule. According to the labels on the main panel, it appears that the building is divided into 8 monitored zones.

Site Notes:

Based on current condition and age, the fire alarm panel may deteriorate beyond repair within the near future. A proactive replacement is recommended to maintain sufficient fire detection within the building.



General view of fire alarm control panel



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D5030	Replace Fire Alarm System	1 LS	\$20,000.00	LCR	2	2020	\$20,000

Item	Description
D5030 Communications and Security Systems	Security System
Condition	Fair
Quantity	1 LS
Unit Cost	\$11,000
Remaining Useful Life (RUL)	13 Year(s)

Condition:

The security system is performing as intended.

Preventative Maintenance Tasks:

The security system consists of a central alarm panel, access keypads, key fob readers, and motion detectors. The motion detectors are located strategically in the building. Reliance Protection appears to be the manufacturer and monitoring company of the security system.

Site Notes:

An allowance has been included for replacement of the security system at the end of its expected service life.



Security system control panel in the Staff Room



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D5030	Replace Security System	1 LS	\$11,000.00	LCR	4	2033	\$11,000

Item	Description
D5092.3 Emergency Lighting	Emergency Lighting and Exit Signs
Condition	Fair
Quantity	1 LS
Unit Cost	\$3,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

The emergency lighting and exit signs are reported to be routinely checked and are functioning as intended. However, the emergency lighting appears to be aged.

Preventative Maintenance Tasks:

Emergency lighting in the building is provided by wall-mounted, dual-head light fixtures that are fed through integral battery packs. The emergency lighting is mostly manufactured by Lumacell. Exit signs are strategically located within the building and typically at egress points. The exit signs are mainly lit by light emitting diode (LED) fixtures.

Based on the fire safety floor plans on site, there are 4 emergency light fixtures and 4 exit signs.

Site Notes:

Batteries of the emergency lighting typically have reduced power storage and charge capability with the passage of time. The lamp fixtures of the emergency lighting may also deteriorate. A proactive replacement of the emergency lighting is recommended to minimize safety hazards during emergency evacuations.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
D5092.3	Replace Emergency Lighting and Exit Signs	1 LS	\$3,000.00	LCR	2	2020	\$3,000

Item	Description
E2010 Fixed Furnishings	Millwork
Condition	Fair
Quantity	1 LS
Unit Cost	\$80,000
Remaining Useful Life (RUL)	1 Year(s)

Condition:

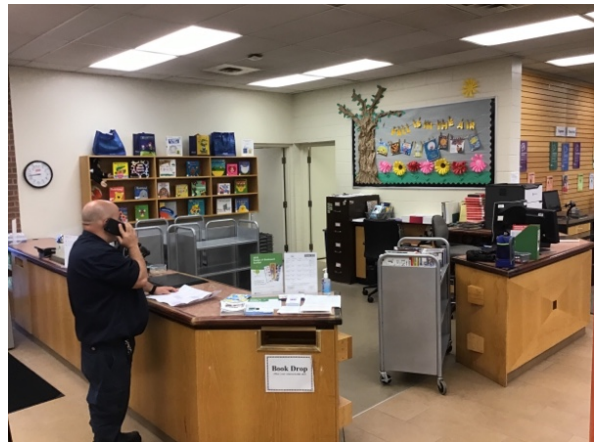
The millwork is worn with age. No major deficiencies were observed.

Preventative Maintenance Tasks:

Fixed millwork consists of cabinets, laminated countertops, and service counters. The millwork is located in the Kitchen and the Staff Room. The service counter is located near the main entrance.

Site Notes:

Based on its age an allowance has been included for replacement of the millwork in the short term.



Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
E2010	Replace Millwork	1 LS	\$80,000.00	LCR	3	2021	\$80,000

Item	Description
E2010 Fixed Furnishings	Library Shelving
Condition	Fair
Quantity	75 EA
Unit Cost	\$6,000
Remaining Useful Life (RUL)	1 Year(s)

Condition:

The shelving is worn with age. No major deficiencies were observed.

Preventative Maintenance Tasks:

Fixed furnishings primarily consist of book shelves, book display counter, etc. Book shelves are strategically located within the open space of the library. The book shelves are constructed of metal frame and wood boards.

Site Notes:

Deterioration of the library shelving is anticipated with repeated usage and accidental damage. A proactive replacement of the library shelving is recommended to maintain patron satisfaction and functionality of the library.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
E2010	Replace Library Shelving	75 EA	\$6,000.00	LCR	3	2021	\$450,000

Item	Description
E2020 Moveable Furnishings	Moveable Furnishings
Condition	Fair
Quantity	1 LS
Unit Cost	\$85,000
Remaining Useful Life (RUL)	16 Year(s)

Condition:

No major deficiencies were observed or reported at the time of the site review.

Preventative Maintenance Tasks:

The moveable furnishings in the Library consist of tables, stacking chairs, and lounge chairs.

Site Notes:

The moveable furnishings are anticipated to deteriorate with frequent usage. Proactive replacement of the furnishings is recommended to maintain patron satisfaction and minimize safety hazards caused by broken furnishings.



Item	Description
G2020 Parking Lots	Parking Lots & Roadways
Condition	Poor
Quantity	20,000 SF
Unit Cost	\$5
Remaining Useful Life (RUL)	0 Year(s)

Condition:

The asphalt pavement is in poor condition overall. Unsealed alligator cracks and potholes were observed.

Preventative Maintenance Tasks:

Parking spaces are provided adjacent to the west elevation of the building. The barrier-free parking stall is the southmost space on the east side of the parking lot.

The Library parking lot is accessed from Van Horne Avenue via an asphalt paved driveway and is connected to the parking lot of Pleasant View Community Centre. It was reported that the Library maintains the parking area that is east of the roadway.

Site Notes:

As the parking lot experiences weathering and repeated wheel loads, deficiencies such as raveling or cracks may occur. A proactive replacement of the parking lot is recommended to minimize vehicular damage.

**Cost Recommendations:**

Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
G2020	Replace Parking Lots & Roadways	20,000 SF	\$5.00	LCR	3	2020	\$100,000

Item	Description
G2030 Pedestrian Paving	Concrete Walkway
Condition	Fair
Quantity	1,300 SF
Unit Cost	\$9
Remaining Useful Life (RUL)	5 Year(s)

Condition:

The concrete walkways are considered to be in fair condition overall. Raveling was observed on the surface of the walkways. The walkways also exhibit cracks at various locations.

Preventative Maintenance Tasks:

Concrete walkways are constructed along the west and south elevations of the building. The concrete walkways provide access to the building from the parking lot and municipal sidewalks.

Site Notes:

With frequent foot traffic and the use of de-icing salts, further deterioration of the walkways is anticipated. Based on current condition, replacement is recommended.

**Cost Recommendations:**

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
G2030	Replace Concrete Walkway	1,300 SF	\$9.00	MREP	4	2025	\$11,700

Item	Description
Z10 General Requirements	AODA Universal Washroom
Condition	Poor
Quantity	1 LS
Unit Cost	\$200,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

Washroom does not meet minimum size requirements.

Preventative Maintenance Tasks:

One public unisex washroom, does not meet AODA guidelines.

Site Notes:

Provide a universal washroom that meets AODA guidelines.

Cost Recommendations:

Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Universal Washroom	1 LS	\$200,000.00	BFREE		2020	\$200,000

Item	Description
Z10 General Requirements	AODA Front Entrance Doors
Condition	Poor
Quantity	1 LS
Unit Cost	\$50,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

Door width is too narrow

Preventative Maintenance Tasks:

Front entrance doors do not meet AODA guidelines.

Site Notes:

Provide front entrance doors that meet AODA guidelines.

Cost Recommendations:

Unifomat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Front Entrance Doors	1 LS	\$50,000.00	BFREE		2020	\$50,000

Item	Description
Z10 General Requirements	AODA Security Gates
Condition	Poor
Quantity	1 1
Unit Cost	\$2,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

Security gates are placed too close together.

Preventative Maintenance Tasks:

Interior path of travel does not meet AODA guidelines.

Site Notes:

Adjust placement of security gates to allow minimum path of travel per AODA guidelines.

Cost Recommendations:

Unformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Security Gates	1 1	\$2,000.00	BFREE		2020	\$2,000

Item	Description
Z10 General Requirements	AODA Service counter
Condition	Poor
Quantity	1 1
Unit Cost	\$125,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

Service desk does not have an accessible counter section

Preventative Maintenance Tasks:

Service desk does not meet AODA guidelines.

Site Notes:

Provide service counter that meets AODA guidelines.

Cost Recommendations:

Unformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Service counter	1 1	\$125,000.00	BFREE		2020	\$125,000

Item	Description
Z10 General Requirements	AODA Signage
Condition	Poor
Quantity	1 LS
Unit Cost	\$3,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

Inadequate signage, no braille

Preventative Maintenance Tasks:

Interior and exterior signage does not meet AODA guidelines.

Site Notes:

Provide signage that meets AODA guidelines.

Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Signage	1 LS	\$3,000.00	BFREE		2020	\$3,000

Item	Description
Z10 General Requirements	AODA Parking
Condition	Poor
Quantity	1 LS
Unit Cost	\$10,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

No type A van accessible parking space

Preventative Maintenance Tasks:

Accessible parking does not meet AODA guidelines.

Site Notes:

Provide accessible parking that meets AODA guidelines.

Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Parking	1 LS	\$10,000.00	BFREE		2020	\$10,000

Item	Description
Z10 General Requirements	AODA Exterior Walkways
Condition	Poor
Quantity	1 LS
Unit Cost	\$10,000
Remaining Useful Life (RUL)	0 Year(s)

Condition:

Gaps between walkway sections exceed the minimum allowable dimension

Preventative Maintenance Tasks:

Exterior walkways do not fully meet AODA guidelines.

Site Notes:

Provide exterior walkways that meet AODA guidelines.

Cost Recommendations:

Uniformat	Component Description	Quantity	Unit Cost	Plan Type	Priority	Year	Expenditures
Z10	Replace AODA Exterior Walkways	1 LS	\$10,000.00	BFREE		2020	\$10,000

Appendices

APPENDIX A: Capital Expenditures

APPENDIX B: Photographic Record

APPENDIX C: Document Review and Warranty Information

APPENDIX D: Equipment Tables

APPENDIX E: Glossary of Terms

APPENDIX A: Capital Expenditures

Toronto, Ontario



Element No.	Component Description	EUL (Yrs)	RUL (Yrs)	Quantity	Units	Unit Cost	Plan Type	Priority	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL	TOTAL	
						\$			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14			
									Deferred	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Deferred	Scheduled	
A SubStructure																										
A10	Foundations																									
A1011	Repair damaged foundations	25	0	1	SF	\$20,000.00	Major Repair	Priority 3	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$0	
	Replace Foundations	30	10	1	SF	\$100,000.00	Major Repair	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000	
A SubStructure SUB TOTALS									\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$20,000	\$100,000	
B Shell																										
B10	SuperStructure																									
B10	Replace SuperStructure	35	10	1	SF	\$50,000.00	Major Repair	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000	
B20	Exterior Enclosure																									
B2010	Replace Flashing & Metal Panels	30	0	250	SF	\$45.00	Lifecycle Replacement	Priority 2	\$11,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,250	\$0	
B2011	Replace Brick Masonry	25	0	1,000	SF	\$85.00	Major Repair	Priority 2	\$85,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85,000	\$0	
B2011.1	Replace Exterior Sealant	20	0	1,000	SF	\$12.00	Lifecycle Replacement	Priority 2	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000	\$0	
B2021	Replace Windows	32	0	1	LS	\$168,000.00	Lifecycle Replacement	Priority 2	\$168,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$168,000	\$0	
B Shell SUB TOTALS									\$276,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$276,250	\$50,000	
C Interiors																										
C30	Interior Finishes																									
C3010	Replace Wood Paneling	30	10	300	SF	\$35.00	Lifecycle Replacement	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,500	\$0	\$0	\$0	\$0	\$0	\$10,500	
C3010	Replace Folding Wood Partition	25	0	1	LS	\$8,000.00	Lifecycle Replacement	Priority 3	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$0	
C3012	Replace Paint	10	1	7,000	SF	\$2.50	Lifecycle Replacement	Priority 3	\$0	\$17,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,500	\$0	\$0	\$0	\$0	\$35,000	
C3024	Replace Vinyl Floor Tiles	20	1	2,350	SF	\$12.00	Lifecycle Replacement	Priority 3	\$0	\$28,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,200	
C3024	Replace Ceramic Tiles	30	1	380	SF	\$21.00	Lifecycle Replacement	Priority 3	\$0	\$7,980	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,980	
C3025	Replace Carpet	15	1	3,500	SF	\$26.00	Lifecycle Replacement	Priority 3	\$0	\$91,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$91,000	
C3031	Replace Suspended Acoustic Panels	20	1	1	LS	\$30,000.00	Lifecycle Replacement	Priority 3	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	
C3031	Replace Wood panel	25	1	2,250	SF	\$11.00	Major Repair	Priority 3	\$0	\$24,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,750	
C Interiors SUB TOTALS									\$8,000	\$199,430	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,500	\$17,500	\$0	\$0	\$0	\$8,000	\$227,430
D Services																										
D20	Plumbing																									

D2010	Replace Water Closets, Urinals, Lavatories, etc.	25	1	2	per washroom	\$6,800.00	Lifecycle Replacement	Priority 3	\$0	\$13,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,600	
D2020	Replace Domestic Hot Water Heater	20	0	1	EA	\$10,000.00	Lifecycle Replacement	Priority 3	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0	
D30	HVAC																								
D30	Replace Exhaust Fans	20	12	3	EA	\$3,500.00	Lifecycle Replacement	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,500	\$0	\$0	\$0	\$10,500
D3040	Replace HVAC Packaged Units	25	9	1	LS	\$50,000.00	Lifecycle Replacement	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000
D3050	Replace Heat Transfer Terminal and Packaged Units	30	5	1	LS	\$8,000.00	Lifecycle Replacement	Priority 3	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000
D50	Electrical Systems																								
D5010	Replace Transformers	40	5	1	LS	\$7,000.00	Lifecycle Replacement	Priority 3	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000
D5010	Replace Disconnects & Distribution Panels	40	5	1	LS	\$40,000.00	Lifecycle Replacement	Priority 3	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
D5020	Replace Interior & Exterior Lighting	20	1	7,000	SF	\$20.00	Lifecycle Replacement	Priority 3	\$0	\$140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$140,000
D5030	Replace Fire Alarm System	20	0	1	LS	\$20,000.00	Lifecycle Replacement	Priority 2	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$0
D5030	Replace Security System	20	13	1	LS	\$11,000.00	Lifecycle Replacement	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,000	\$0	\$11,000
D5092.3	Replace Emergency Lighting and Exit Signs	20	0	1	LS	\$3,000.00	Lifecycle Replacement	Priority 2	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$0
D Services SUB TOTALS									\$33,000	\$153,600	\$0	\$0	\$0	\$55,000	\$0	\$0	\$0	\$50,000	\$0	\$0	\$10,500	\$11,000	\$0	\$33,000	\$280,100
E Equipment & Furnishing																									
E20	Furnishings																								
E2010	Replace Millwork	20	1	1	LS	\$80,000.00	Lifecycle Replacement	Priority 3	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$80,000	\$80,000
E2010	Replace Library Shelving	20	1	75	EA	\$6,000.00	Lifecycle Replacement	Priority 3	\$0	\$450,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,000
E Equipment & Furnishing SUB TOTALS									\$0	\$530,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$530,000
F Special Construction And Demolition																									
F Special Construction And Demolition SUB TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G Building Sitework																									
G20	Site Improvements																								
G2020	Replace Parking Lots & Roadways	20	0	20,000	SF	\$5.00	Lifecycle Replacement	Priority 3	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	
G2030	Replace Concrete Walkway	30	5	1,300	SF	\$9.00	Major Repair	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$11,700	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,700	\$11,700
G Building Sitework SUB TOTALS									\$100,000	\$0	\$0	\$0	\$0	\$11,700	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$11,700
Z General																									
Z10	General Requirements																								
Z10	Replace AODA Service counter	30	0	1	1	\$125,000.00	Barrier Free Improvement		\$125,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000	\$0	

Z10	Replace AODA Security Gates	20	0	1	1	\$2,000.00	Barrier Free Improvement		\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	\$0
Z10	Replace AODA Universal Washroom	35	0	1	LS	\$200,000.00	Barrier Free Improvement		\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000	\$0
Z10	Replace AODA Parking	25	0	1	LS	\$10,000.00	Barrier Free Improvement		\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0
Z10	Replace AODA Exterior Walkways	25	0	1	LS	\$10,000.00	Barrier Free Improvement		\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0
Z10	Replace AODA Signage	20	0	1	LS	\$3,000.00	Barrier Free Improvement		\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$0
Z10	Replace AODA Front Entrance Doors	25	0	1	LS	\$50,000.00	Barrier Free Improvement		\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0

Z General SUB TOTALS									\$400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000	\$0
Expenditure Totals per Year									\$837,250	\$883,030	\$0	\$0	\$0	\$66,700	\$0	\$0	\$0	\$50,000	\$160,500	\$17,500	\$10,500	\$11,000	\$0	\$837,250	\$1,199,230
Total Cost (Inflated @ 4% per Yr.)									\$837,250	\$918,351	\$0	\$0	\$0	\$81,151	\$0	\$0	\$0	\$71,166	\$237,579	\$26,940	\$16,811	\$18,316	\$0	TOTAL*	\$2,036,480

* - Present Value Dollars

APPENDIX B: Photographic Record



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



A1011 Wall Foundations:- View of Foundations



B10 SuperStructure:- Superstructure observed at the roof hatch



B2010 Exterior Walls:- View of Flashing & Metal Panels



B2010 Exterior Walls:- View of Flashing & Metal Panels



B2010 Exterior Walls:- View of Flashing & Metal Panels



B2010 Exterior Walls:- View of Flashing & Metal Panels



B2010 Exterior Walls:- View of Flashing & Metal Panels



B2010 Exterior Walls:- View of Flashing & Metal Panels



B2011 Exterior Wall Construction:- Efflorescence near the main entrance



B2011 Exterior Wall Construction:- View of Brick Masonry



B2011 Exterior Wall Construction:- Close-up of spalling brick and efflorescence



B2011 Exterior Wall Construction:- View of Brick Masonry



B2011 Exterior Wall Construction:- View of Brick Masonry



B2011 Exterior Wall Construction:- View of Brick Masonry



B2011 Exterior Wall Construction:- View of Brick Masonry



B2011 Exterior Wall Construction:- View of Brick Masonry



B2011.1 Exterior Wall Sealant:- View of Exterior Sealant



B2011.1 Exterior Wall Sealant:- View of Exterior Sealant



B2011.1 Exterior Wall Sealant:- View of Exterior Sealant



B2011.1 Exterior Wall Sealant:- View of Exterior Sealant



B2021 Windows:- Typical windows



B2021 Windows:- View of Windows



B2021 Windows:- Close-up of typical window metal spacer and glazing seal



B2021 Windows:- View of Windows



B2021 Windows:- View of Windows



B2031 Glazed Doors & Entrances:- View of Front Entrance Doors



B2031 Glazed Doors & Entrances:- View of Front Entrance Doors



B3011 Roof Finishes:- Overview of roof



B3011 Roof Finishes:- Some asphalt migration on the roof



C3010 Wall Finishes:- View of Folding Wood Partition



C3010 Wall Finishes:- View of Wood Paneling



C3010 Wall Finishes:- View of Folding Wood Partition



C3012 Wall Finishes to Interior Walls:- View of Paint



C3012 Wall Finishes to Interior Walls:- View of Paint



C3012 Wall Finishes to Interior Walls:- View of Paint



C3024 Flooring:- View of Ceramic Tiles



C3024 Flooring:- View of Vinyl Floor Tiles



C3024 Flooring:- View of Vinyl Floor Tiles



C3024 Flooring:- View of Vinyl Floor Tiles



C3024 Flooring:- View of Vinyl Floor Tiles



C3024 Flooring:- View of Vinyl Floor Tiles



C3025 Carpeting:- View of Carpet



C3025 Carpeting:- View of Carpet



C3025 Carpeting:- View of Carpet



C3025 Carpeting:- View of Carpet



C3031 Ceiling Finishes:- View of Suspended Acoustic Panels



C3031 Ceiling Finishes:- View of Wood panel



C3031 Ceiling Finishes:- View of Suspended Acoustic Panels



C3031 Ceiling Finishes:- View of Suspended Acoustic Panels



C3031 Ceiling Finishes:- View of Suspended Acoustic Panels



C3031 Ceiling Finishes:- View of Suspended Acoustic Panels



C3031 Ceiling Finishes:- View of Suspended Acoustic Panels



D2010 Plumbing Fixtures:- View of Water Closets, Urinals, Lavatories, etc.



D2010 Plumbing Fixtures:- View of Water Closets, Urinals, Lavatories, etc.



D2020 Domestic Water Distribution:- View of Domestic Hot Water Heater



D2020 Domestic Water Distribution:- View of Domestic Hot Water Heater



D2020 Domestic Water Distribution:- View of Domestic Hot Water Heater



D2020 Domestic Water Distribution:- View of Domestic Hot Water Heater



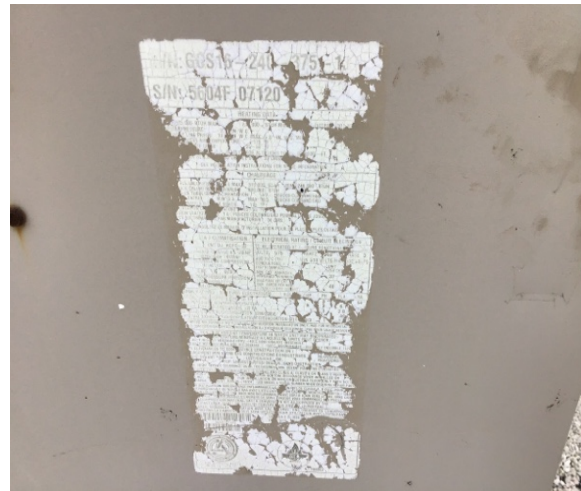
D30 HVAC:- View of Exhaust Fans



D3040 Heat HVAC Distribution Systems:- View of HVAC Packaged Units



D3040 Heat HVAC Distribution Systems:- View of HVAC Packaged Units



D3040 Heat HVAC Distribution Systems:- View of HVAC Packaged Units



D3040 Heat HVAC Distribution Systems:- View of HVAC Packaged Units



D3050 Heat Transfer Terminal and Packaged Units:- Typical baseboard heater in the Auditorium



D3050 Heat Transfer Terminal and Packaged Units:- Close-up of aged baseboard heater



D3050 Heat Transfer Terminal and Packaged Units:- Impact damage on baseboard heater in the open space of the Library



D3050 Heat Transfer Terminal and Packaged Units:- Forced flow heater in the main entrance vestibule



D5010 Electrical Service and Distribution:- View of Disconnects & Distribution Panels



D5010 Electrical Service and Distribution:- View of Transformers



D5010 Electrical Service and Distribution:- View of Disconnects & Distribution Panels



D5010 Electrical Service and Distribution:- View of Transformers



D5010 Electrical Service and Distribution:- View of Disconnects & Distribution Panels



D5010 Electrical Service and Distribution:- View of Transformers



D5010 Electrical Service and Distribution:- View of Disconnects & Distribution Panels



D5020 Lighting and Branch Wiring:- View of Interior & Exterior Lighting



D5020 Lighting and Branch Wiring:- View of Interior & Exterior Lighting



D5030 Communications and Security Systems:- General view of fire alarm control panel



D5030 Communications and Security Systems:- View of Fire Alarm System



D5030 Communications and Security Systems:- Security system control panel in the Staff Room



D5030 Communications and Security Systems:- View of Security System



D5030 Communications and Security Systems:- View of Fire Alarm System



D5030 Communications and Security Systems:- View of Security System



D5030 Communications and Security Systems:- View of Fire Alarm System



D5030 Communications and Security Systems:- View of Fire Alarm System



D5030 Communications and Security Systems:- View of Fire Alarm System



D5092.3 Emergency Lighting:- View of Emergency Lighting and Exit Signs



E2010 Fixed Furnishings:- View of Library Shelving



E2010 Fixed Furnishings:- View of Millwork



E2010 Fixed Furnishings:- View of Library Shelving



E2010 Fixed Furnishings:- View of Millwork



E2010 Fixed Furnishings:- View of Library Shelving



E2010 Fixed Furnishings:- View of Millwork



E2010 Fixed Furnishings:- View of Millwork



E2010 Fixed Furnishings:- View of Millwork



E2020 Moveable Furnishings:- View of Moveable Furnishings



E2020 Moveable Furnishings:- View of Moveable Furnishings



E2020 Moveable Furnishings:- View of Moveable Furnishings



E2020 Moveable Furnishings:- View of Moveable Furnishings



G2020 Parking Lots:- View of Parking Lots & Roadways



G2020 Parking Lots:- View of Parking Lots & Roadways



G2030 Pedestrian Paving:- View of Concrete Walkway



G2030 Pedestrian Paving:- View of Concrete Walkway



G2030 Pedestrian Paving:- View of Concrete Walkway

APPENDIX D: Equipment Tables

Equipment Table

Uniformat	Label	Qty	Tag	Location	Year In Service	Est. Replacement Year	Mfg	Model	Serial Number
D30	Exhaust Fans	3 EA			2012	2032			
D2010	Water Closets, Urinals, Lavatories, etc.	2 per washroom			2008	2021			
D2020	Domestic Hot Water Heater	1 EA			1995	2020			
D3040	HVAC Packaged Units	1 LS			2004	2029			
D3050	Heat Transfer Terminal and Packaged Units	1 LS			1995	2025			
D5010	Disconnects & Distribution Panels	1 LS			1975	2025			
D5010	Transformers	1 LS			1975	2025			
D5020	Interior & Exterior Lighting	7,000 SF			2005	2021			
D5030	Fire Alarm System	1 LS			1995	2020			
D5030	Security System	1 LS			2013	2033			
D5092.3	Emergency Lighting and Exit Signs	1 LS			2000	2020			