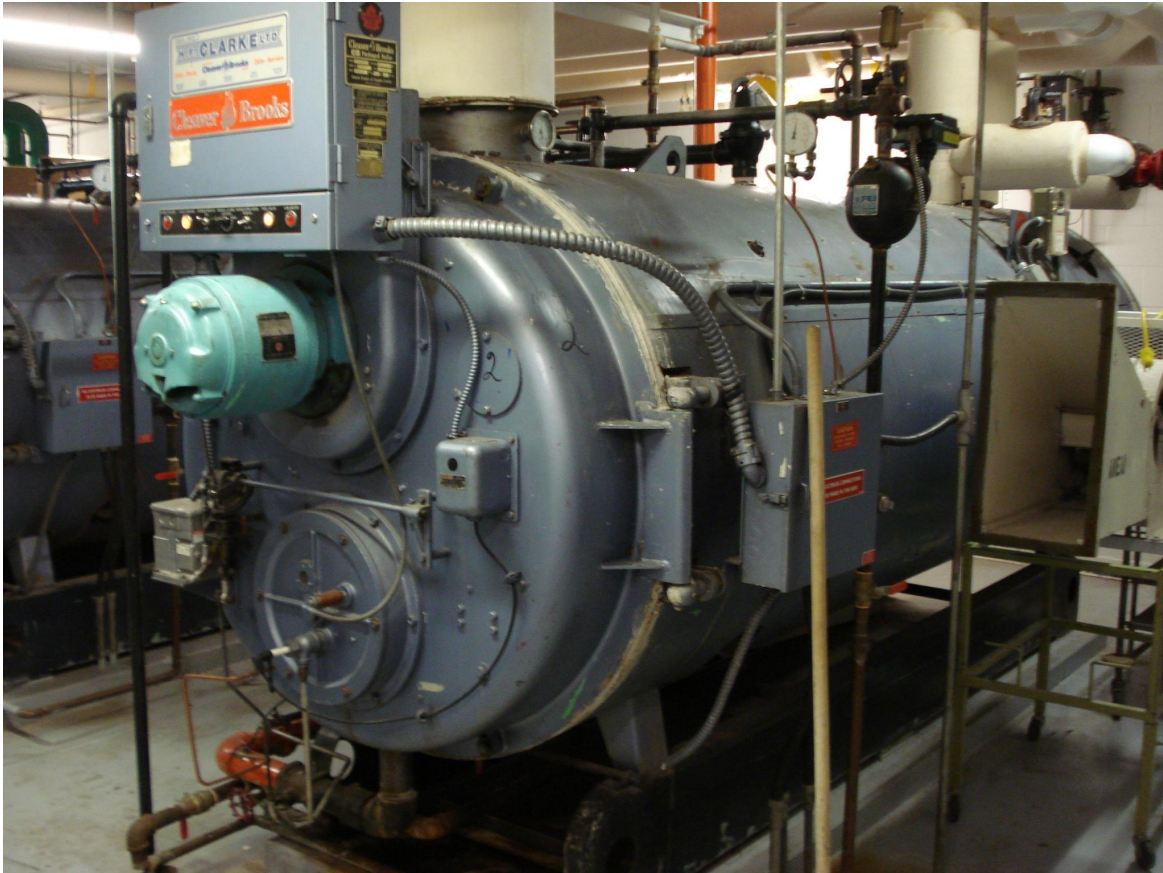


RECAPP Facility Evaluation Report

Edmonton RCSSD #7



Louis St. Laurent Catholic Junior / Senior High School

B3198A
Edmonton

Facility Details

Building Name: Louis St. Laurent Catholic Ju
Address: 11230 - 43 Avenue
Location: Edmonton

Building Id: B3198A
Gross Area (sq. m): 13,555.80
Replacement Cost: \$39,183,040
Construction Year: 1966

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: September 21 2010
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **\$9,298,000**
5 year Facility Condition Index (FCI): **23.73%**

General Summary:

The two storey 13,555m² school was constructed as two separate schools: the 3900m² Cartier McGee Junior High constructed in 1966 and the 9650m² Louis St. Laurent High School constructed in 1968. There was a single storey corridor link constructed between the two buildings in 1974. In 1993 an ancillary class room was added to the link which was also refurbished and the gym in the 1966 section was expanded. Renovations were also carried out in the 1966 section at that time.

The school currently has a student compliment of 1100 students in grades 7 through 12 and a staff of 71.

Structural Summary:

The 1968 section foundations consist of reinforced concrete foundation walls on strip footings. There are also concrete posts on reinforced concrete pad footings internally carrying steel pipe columns with concrete and block surround.

The 1966 section foundations consist of reinforced concrete foundation walls strip footings.

The foundations of the 1993 addition to the 1968 gym consist of belled piles carrying grade beams.

The foundations of the 1974 link consist of grade beams on strip footings.

The building frame of the 1966 section consists of load bearing concrete block walls with bond beams carrying precast concrete double Tees with concrete topping for the second floor and roof slabs.

The building frame for the 1968 section consists of load bearing block walls and steel pipe columns and reinforced columns cast into block walls carrying precast concrete double Tees with a concrete topping.

The 1993 gym addition and single storey class room addition building frames consists of open web steel joists spanning reinforced concrete block walls.

The building frame of the 1974 corridor connection consists of load bearing block walls and a wood joist roof.

The structural condition of the school is acceptable.

Envelope Summary:

The building envelope is typically a brick skin with a concrete block back wall. Roofs are built up membrane with insulation and vapour barrier and are recommended for replacement. Windows are aluminum with bottom openers and integral blinds. The windows are also recommended for replacement.

Overall the building envelope is acceptable.

Interior Summary:

The building interiors typically consists of painted concrete block walls throughout the school with acoustic T-bar tiles as well as fissured acoustic tiles on the soffits of the concrete structure in the gymnasias. Floors ate predominantly vinyl

tiles. There is also epoxy finish to stairs and some wash rooms. Overall the interior condition of the school is acceptable.

Mechanical Summary:

A branch water main from the municipal service under 114 Street enters the 1966 section of the facility at the north face and is metered in the Mechanical Room. The buried branch line also extends east to the 1968 section where it enters the east face of the Mechanical Room and is metered. From the respective Mechanical Rooms, services extend throughout the facility via the above the ceiling spaces to service the domestic and process loads.

Plumbing fixtures are floor mounted flush valve and tank type water closets, floor-mounted urinals, countertop and wall-hung lavatories, and stainless steel sinks.

Waste from the various plumbing fixtures drains to cast iron piping under the concrete floor slab. For the 1966 section the line exits the south east corner of the building and connects to a municipal main. For the 1968 section the sanitary waste exits the southwest corner of the building and connects to the municipal service.

Storm drainage from the various roof hoppers drain via a cast iron storm drainage main located under the floor slab. For the 1966 section the line exits the south east corner of the building and connects to a municipal main. For the 1968 section the line exits the southwest corner of the building and connects to the municipal service.

There are municipal fire hydrants located adjacent to the school.

A branch natural gas main from the municipal service under 114 Street enters the 1966 section of the facility at the north face and is metered in the Mechanical Room. The buried branch line also extends east to the 1968 section where it enters the east face of the Mechanical Room and is metered. From the respective Mechanical Rooms, services extend throughout the facility via the above the ceiling spaces to serve the various natural gas fired equipment, Science Room gas outlets, and the Kitchen.

The 1966 section and the 1968 section are each served with separate hot water perimeter radiation heating systems and each have separate boiler systems.

Both phases are each served with separate ventilation systems for both the Classroom areas and the Gymnasiums. Reheat coils are provided in each Wing to temper the air to the individual zone requirements.

Fire protection consists of a hose and standpipe system. Fire extinguishers are also provided throughout.

Overall, the school is well maintained, and the mechanical systems are currently in an acceptable condition. Exceptions are the old Andover DDC control system which needs replacement as spare parts are no longer manufactured, portions of the duct systems and reheat coils are in need of cleaning, rebalancing is recommended for the air systems.

Electrical Summary:

There are two electrical services to the School: a 1200A, 120/208V, 3 phase, 4 wire, from a padmount, for the 1966 section and a 4000A, 120/208V, 3 phase, 4 wire, from an electrical vault, for the 1968 section. Both switchboards are service and distribution type; the 1200A Switchboard (1966) uses thermal magnetic circuit breakers, the 4000A (1968), industrial type air circuit breakers. Branch circuit panelboards from the two original construction periods are still in service plus some newer boards from subsequent additions and renovations. Each section of the school also has its own emergency generator, both natural gas, 15 and 30 kW respectively.

The interior lighting system is mostly fluorescent, more than half of which have been replaced or converted to the energy efficient type of electronic ballasts and T8 lamps. Emergency lighting is provided by the power supply from the generators to occasional fixtures along the corridors and stairwells; emergency battery packs are provided in the Link where no emergency power is available. Exit lights are connected to emergency circuits and have mostly been converted to LED lamps. Exterior lights are a mixture of metal halide and high pressure sodium, photoelectric cell controlled.

There are two fire alarm systems, both single stage, hard wired and by the same manufacturer, but are not quite interconnected to perform as one. The intrusion alarm system of motion detectors covers the whole school with keypads at 3 locations. The video surveillance system with cameras at both sections of the school has monitors centrally located in the General Office. Other communication systems include a master clock system, telephone, local area network with wireless internet connections, video messaging and a brand new public address system.

The overall condition of the electrical systems is good.

Rating Guide

Condition Rating	Performance
1 - Critical	Unsafe, high risk of injury or critical system failure.
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.
5 - Good	Meets all present requirements. No deficiencies.
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.

S1 STRUCTURAL**A1010 Standard Foundations***

The 1968 section foundations consist of reinforced concrete foundation walls typically 300mm wide on strip footings typically 400mm wide x 300mm deep at a depth 1500mm from top of floor slab to top of footing. There are also concrete posts on reinforced concrete pad footings internally carrying steel pipe columns with concrete and block surround.

The 1966 section foundations consist of reinforced concrete foundation walls typically 300mm wide x 1500mm and 1300mm deep on 300mm deep strip footings which vary in width from 400mm to 1200mm wide.

The foundations of the 1993 addition to the 1968 gym consist of bored and belled piles with a 400mm diameter and 1200mm to 600mm diameter bells at a minimum depth of 6 metres. The piles carry reinforced concrete grade beams.

The foundations of the 1974 link consist of 200mm wide x 1830mm deep grade beams on 225mm wide x 100mm deep strip footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

Event: Structural Study**Concern:**

There is cracking in block partitions in the 1966 section including the boys dressing room, music room and a stair case wall.

Recommendation:

It is recommended that the School Division hire a firm of structural engineers to monitor the cracking, determine the cause and make recommendations for remedial work.

Consequences of Deferral:

Cracking of block will persist without a plan of action for remediation.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2012	\$5,000	Medium

Updated: APR-11

Event: Underpin 20m concrete foundation walls**Concern:**

There is cracking in block partitions in the 1966 section including the boys dressing room, music room and a stair case wall.

Recommendation:

The concrete block walls are carried on concrete foundation wall on concrete strip footings which have settled and require underpinning to prevent further settlement.

Consequences of Deferral:

Cracking of block will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$20,000	Low

Updated: APR-11

A1030 Slab on Grade*

There is a 125mm reinforced concrete slab on grade in the 1993 addition on 150mm compacted granular fill and poly vapour barrier.

There is a 100mm slab on grade with 150mm x 150mm wire mesh on gravel fill in the 1968 section.

There is a 125mm slab in the 1966 section with 150mm x 150mm wire mesh on poly vapour barrier on 225mm compacted pit run gravel on compacted fill.

The slab in the 1974 link is 125mm with 150mm x 150mm mesh on compacted gravel and clay fill. The slab in this link was mud jacked in 2009 to level it. School staff report that the slab is now stable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11

B1010.01 Floor Structural Frame (Building Frame)*

The 2 storey building frame of the 1966 section consists of 300mm load bearing concrete block walls with bond beams carrying 500mm deep precast concrete double Tees with a 38mm concrete topping for the second floor and roof slabs.

The 2 storey building frame for the 1968 section consists of 300mm load bearing block walls and steel pipe columns and reinforced columns cast into block walls carrying precast 500mm deep concrete double Tees with a concrete topping.

The 1993 gym addition and single storey class room addition building frames consists of open web steel joists (1065mm deep for the gym and 700mm deep for the link) spanning 300mm reinforced concrete block walls.

The building frame of the 1974 corridor connection consists of load bearing 200mm concrete block walls and a wood joist roof.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B1010.02 Structural Interior Walls Supporting Floors (or Roof)*

In the 1968 section there are 300mm thick interior structural concrete block walls with bond beams and columns of poured concrete in the block work.

In the 1966 section there are 200mm and 220mm thick interior structural concrete block walls with bond beams and columns of poured concrete in the block work.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B1010.03 Floor Decks, Slabs, and Toppings*

Floor decks in the 1960s sections are concrete topping on precast concrete double Tees.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B1010.05 Mezzanine Construction*

There is a mezzanine at the back of the 1968 stage with concrete floor on concrete block walls and vertical steel ladder access. There is also a mezzanine floor at the side of the 1966 stage with a vertical steel ladder access and a gypsum board on wood stud guard rail.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

B1010.09 Floor Construction Fireproofing*

Floors are concrete and fire proof.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B1010.10 Floor Construction Firestopping*

There were several locations with missing fire stopping including Foods area store and class room 244.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	0	APR-11

Event: Install fire stopping in 10 locations

Concern:

There are several locations with missing fire stopping.

Recommendation:

Install fire stopping where missing.

Consequences of Deferral:

Spread of fire risk in a fire event will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2011	\$1,000	Low

Updated: APR-11

B1020.01 Roof Structural Frame* - 1960s Sections

The roof frame for the 1966 section consists of load bearing concrete block walls with bond beams carrying 500mm deep precast concrete double Tees with a 38mm concrete topping.

The roof frame for the 1968 section consists of load bearing block walls, steel pipe columns and reinforced columns cast into block walls carrying precast 500mm deep concrete double Tees with a concrete topping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B1020.01 Roof Structural Frame* - 1993 Section

The roof frame for the 1993 addition consists of open web steel joist spanning concrete block walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	APR-11

B1020.06 Roof Construction Fireproofing*

All roofs are noncombustible construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

S2 ENVELOPE**B2010.01.01 Precast Concrete: Exterior Wall Skin***

There are precast terrazzo panels above and below windows with 25mm air space and a concrete block back wall in the 1966 section which also has precast concrete fascias along the single storey classroom wing and the gym with a concrete block back wall with loose fill insulation.

There are also precast concrete spandrel panels in the 1968 section above and below windows and over the south east entrance with rigid insulation and a concrete block back wall.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

All sections of the school have a brick skin. The 1966 section has 100mm brick, 25mm air space and a concrete block back wall with loose fill insulation.

The 1968 section has a 100mm brick skin, 50mm rigid insulation and a 300mm concrete back wall.

The 1993 additions have 100mm brick, air space, 75mm rigid insulation and a concrete block back wall.

The 1974 link has 100mm brick, air space and 150mm concrete block wall with loose fill insulation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B2010.01.09 Expansion Control: Exterior Wall Skin*

There are vertical control panels in the brick skin throughout the school with a flexible caulking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B2010.01.11 Joint Sealers (caulking): Ext. Wall**

Door and window frames and other openings are caulked at junctions with brick skin and other materials.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	20	APR-11

Event: Replace 600m caulking

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$17,000	Unassigned

Updated: APR-11

B2010.02.03 Masonry Units: Ext. Wall Const.*

The north wall of the link is painted concrete block with loose fill insulation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	APR-11

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation*

The 1966 section has 100mm brick, 25mm air space and a concrete block back wall with loose fill insulation.
 The 1968 section has a 100mm brick skin, 50mm rigid insulation and a 300mm concrete back wall.
 The 1993 additions have 100mm brick, air space, 75mm rigid insulation and a concrete block back wall.
 The 1974 link has 100mm brick, air space and 150mm concrete block wall with loose fill insulation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

Exterior louvers are aluminum in aluminum frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B2010.09 Exterior Soffits*

Exterior soffits in the 1968 section consist of cement plaster on metal lath suspended from the concrete Tees with furring channels and runners.
 Exterior soffits in the 1966 section consist of 20mm cement plaster on metal lath on 50mm rigid insulation suspended from the concrete Tees with furring channels and runners.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1960s Sections**

Windows in the 1960s sections of the school are aluminum frames with integral Venetian blinds and bottom hopper opening lights.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	40	APR-11

Event: Replace 1000m2 aluminum windows

Concern:

The hopper openers do not operate properly and windows are subject to icing and condensation.

Recommendation:

Replace aluminum windows.

Consequences of Deferral:

Windows will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$100,000	High

Updated: APR-11



Window has loose weather stripping between window panes.

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1993**

Windows in the 1993 section are aluminum frames with integral Venetian blinds in the ancillary class room and sealed units in corridors with insulated prefinished metal panels and terrazzo panels below sills.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	APR-11

Event: Replace 50m2 windows

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$50,000	Unassigned

Updated: APR-11

B2030.01.02 Steel-Framed Storefronts: Doors - 1960s Sections**

Exterior entrance doors are hollow metal with upper wired glass panels in pressed steel store front frames with transom and side lights. Some side lights have been blanked off with metal or wood panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	30	APR-11

Event: Replace 6 double metal doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$24,000	Unassigned

Updated: APR-11

Event: Replace 6 double metal entrance doors

Concern:

Doors are damaged, dented and appear unsightly.

Recommendation:

Replace damaged doors.

Consequences of Deferral:

Doors will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$24,000	Medium

Updated: APR-11

B2030.01.02 Steel-Framed Storefronts: Doors - 1993 Sections**

The two sets of entrance doors to the 1993 section link are double hollow metal with sealed units in upper and lower panels in pressed steel store front frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1993	30	APR-11

Event: Replace 1 set double metal doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$4,000	Unassigned

Updated: APR-11

Event: Replace 1 set double metal entrance doors

Concern:

One set of the 1993 entrance doors are damaged and dented and require replacement.

Recommendation:

Replace damaged doors.

Consequences of Deferral:

Doors will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$4,000	Low

Updated: APR-11

B2030.02 Exterior Utility Doors - 1960s Sections**

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	APR-11

Event: Replace 3 sets double metal utility doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$6,000	Unassigned

Updated: APR-11

B2030.02 Exterior Utility Doors - 1993 Section**

Utility doors in this section are hollow metal in pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	APR-11

Event: Replace 1 double & 1 single metal door

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$3,000	Unassigned

Updated: APR-11

B3010.01 Deck Vapor Retarder and Insulation*

There is rigid insulation and a vapour barrier on all roofs. The 1960s sections have 37mm rigid insulation on a vapour barrier. The 1993 section has a built up membrane on fibre board on sloped rigid insulation on a vapour barrier on 12mm gypsum board on metal deck.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)**

The roofs of the 1960s sections have are built up membrane with 37mm rigid insulation on a vapour barrier. The 1993 section has a built up membrane on fibre board on sloped rigid insulation on a vapour barrier on 12mm gypsum board on metal deck.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	25	APR-11

Event: Replace 8500m2 built up roof with SBS

Concern:

All the roofs have deteriorated with ponding, bleeding of bitumen and debris with ongoing leaks and repairs. The roofs should be replaced at the same time.

Recommendation:

Replace roofs.

Consequences of Deferral:

Roofs will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$1,500,000	High

Updated: APR-11

B3020.01 Skylights**

There are skylights over interior class rooms 212 and 214. The skylights consist of sloped glazing in an aluminum frame with prefinished aluminum side and back walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	25	APR-11

B3020.02 Other Roofing Openings (Hatch, Vent, etc)*

There is a fabricated metal roof hatch in the 1966 section. Access to the roofs in the 1968 section is through a corridor window on the second floor. Upper roofs are accessed by steel cat ladders. There are roof penetrations for exhausts and vent pipes which have prefinished metal flashings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

S3 INTERIOR**C1010.02 Interior Demountable Partitions***

Offices in the Student Services area of the 1966 section have demountable partitions with opaque interior windows.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1970	0	APR-11

C1010.03 Interior Operable Folding Panel Partitions**

There is a dividing sliding folding partition between class rooms 221 & 223 with a ceiling track and floor guides. There is also a sliding folding partition between the library and cafeteria with ceiling tracks and insulated metal panels. These partitions should be replaced at the same time.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	APR-11

Event: Replace 60m2 operable partitions

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$60,000	Unassigned

Updated: APR-11

C1010.05 Interior Windows*

There are interior windows throughout the school including decorative glass in a pressed steel frame in the general office, clear glass in a pressed steel frame in the AV Centre, wired glass in a pressed steel frame in the Phys. Ed. Office, clear glass in a pressed steel frame in the exercise room, wired glass in a pressed steel frame in the Production Area and other locations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

C1010.06 Interior Glazed Partitions and Storefronts*

There are interior glazed pressed steel store fronts to the student Services area and principal's office. Inner doors to vestibules are set in store fronts. There is also an aluminum interior store front partition in the 1993 ancillary class room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

C1010.07 Interior Partition Firestopping*

There is missing fire stopping in mechanical rooms and service rooms throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	0	APR-11

Event: Install fire stopping in 10 locations

Concern:

There is missing fire stopping in mechanical rooms and service rooms throughout the school.

Recommendation:

Install fire stopping in partitions.

Consequences of Deferral:

Risk of spread of fire in a fire event will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2011	\$1,000	Medium

Updated: APR-11



Cartier mechanical room, unsealed pipe penetrations

C1020.01 Interior Swinging Doors (& Hardware)*

Interior doors throughout the school are solid core wood doors with wired glass view slots in pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	0	APR-11

Event: Replace 60 doors & 100 sets hardware

Concern:

There are damaged doors throughout the school and the majority of lock sets require replacement.

Recommendation:

Replace damaged doors and hardware.

Consequences of Deferral:

Doors and hardware will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$70,000	Medium

Updated: APR-11

C1020.03 Interior Fire Doors*

Doors to mechanical rooms are hollow metal in pressed steel frames. Doors in corridors and stairs in the 1966 section are solid core with wired glass with magnetic hold open devices and pressed steel frame. Doors in corridors in the 1968 section are metal with wired glass panel and magnetic hold open device in pressed steel frame store fronts with wired glass. Doors to stairs in the 1966 section are metal with wired glass upper panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11

C1030.01 Visual Display Boards**

There are white boards and tack boards as well as electronic Smart boards in class rooms and other areas throughout the school which should be replaced at the same time.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	20	APR-11

Event: Replace 400 visual display boards

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$200,000	Unassigned

Updated: APR-11

C1030.02 Fabricated Compartments (Toilets/Showers)**

There are fabricated metal toilet compartments in student and staff wash rooms in both 1960s sections of the school as wells as fabricated shower compartments in the girls dressing room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	30	APR-11

Event: Replace 2 fabricated toilet compartments

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$2,500	Unassigned

Updated: APR-11

Event: Replace 27 toilet & 8 shower compartments

Concern:

Fabricated compartments are damaged and unable to be locked.

Recommendation:

Replace toilet and shower compartments.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$45,000	Medium

Updated: APR-11

C1030.08 Interior Identifying Devices*

Doors have metal and plastic room numbers and room designations throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

C1030.10 Lockers - 2000**

There are replacement lockers in both the 1960s sections of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	30	APR-11

Event: Replace 200 lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$100,000	Unassigned

Updated: APR-11

C1030.10 Lockers - General**

There are lockers in corridors and staff areas throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	30	APR-11

Event: Replace 300 lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$150,000	Unassigned

Updated: APR-11

Event: Replace 500 lockers

Concern:

Lockers throughout the school are damaged and unlockable.

Recommendation:

Replace damaged lockers.

Consequences of Deferral:

Lockers will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$250,000	Medium

Updated: APR-11



Lockers old and badly dented.

C1030.12 Storage Shelving*

There is wood storage in class rooms and store rooms throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

Student and staff wash rooms are furnished with mirrors, paper towel and soap dispensers, waste receptacles and electric hand dryers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

C2010 Stair Construction*

The main circulation stairs are reinforced poured concrete with an epoxy finish, non slip nosings and steel rails with vinyl cap. Stairs to the stage are wood and stairs to the Drama room are concrete with carpet finish and steel hand rails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

Event: Install Code compliant hand rails (6 stairs)

Concern:

The height of guard rails on landings and the spacing of vertical rails on stairs do not comply with Code.

Recommendation:

Replace guard rails and hand rails to comply with Code.

Consequences of Deferral:

Code non-compliance will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2011	\$50,000	Medium

Updated: APR-11

Event: Refinish 60m2 epoxy

Concern:

Epoxy finish to stairs in the 1966 section is worn and damaged and requires refinishing.

Recommendation:

Refinish epoxy stairs.

Consequences of Deferral:

Epoxy will continue to deteriorate.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$10,000	Low

Updated: APR-11

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

There are gypsum board wall finishes on metal studs throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

C3010.06 Tile Wall Finishes**

There are glazed ceramic wall tiles behind urinals in boys wash rooms and in shower areas in dressing rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	APR-11

Event: Replace 50m2 ceramic wall tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$12,000	Unassigned

Updated: APR-11

C3010.09 Acoustical Wall Treatment**

There are acoustic wall panels consisting of fabric covered rigid fibre glass in the music rooms and auditorium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	20	APR-11

Event: Replace 150m2 Acoustical Wall Treatment

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2026	\$30,000	Unassigned

Updated: APR-11

C3010.11 Interior Wall Painting*

Interior walls of concrete block and gypsum board are painted throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

C3020.01.01 Epoxy Concrete Floor Finishes*

There are epoxy floor finishes in a janitor room and student and staff wash rooms in the 1968 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

C3020.01.02 Paint Concrete Floor Finishes*

Floors in mechanical and electrical rooms are painted concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1990	0	APR-11

Event: Repaint 550m2 concrete floor

Concern:

Paint on floors is damaged and worn.

Recommendation:

Repaint concrete floors.

Consequences of Deferral:

Floors will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$10,000	Low

Updated: APR-11

C3020.02 Tile Floor Finishes**

There are ceramic mosaic floor tile finishes in the lobbies to link and the floors in the 1968 south east entrance and the 1966 west entrance. There are also ceramic tiles in student wash rooms in the 1966 section. These tiles should be replaced at the same time.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	50	APR-11

Event: Replace 250m2 ceramic tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$40,000	Unassigned

Updated: APR-11

C3020.04 Wood Flooring 1966 Section**

The gym floor in this section was installed in 1993 including the new expansion and the existing gym. The floor consists of maple strip on wood sleepers on resilient cushions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	APR-11

Event: Replace 525m2 wood sports floor

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$130,000	Unassigned

Updated: APR-11

C3020.04 Wood Flooring 1968 Section**

There is maple strip cushioned floor in the 2 gymnasium with wood strips on sleepers on resilient cushions. The 1968 stage floor is also maple strip.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 100m2 wood stage floor

Concern:

The wood floor on the 1968 stage is damaged and requires replacing.

Recommendation:

Replace stage floor.

Consequences of Deferral:

Stage floor will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$25,000	Low

Updated: APR-11

Event: Replace 1200m2 wood sports floor

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$300,000	Unassigned

Updated: APR-11

C3020.07 Resilient Flooring - 1993 Section**

There is sheet linoleum in corridors and class rooms in this renovation and expansion.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1993	20	APR-11

Event: Replace 1000m2 resilient flooring

Concern:

Linoleum floors are damaged and marked.

Recommendation:

Replace damaged floors.

Consequences of Deferral:

Floors will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$60,000	Low

Updated: APR-11

C3020.07 Resilient Flooring - 2000**

Resilient vinyl tiles have been replaced throughout the school including the general office area, auditorium and corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

Event: Replace 1000m2 resilient flooring

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$60,000	Unassigned

Updated: APR-11

C3020.07 Resilient Flooring - General**

There is resilient flooring throughout the school with predominantly vinyl tiles in class rooms and corridors. There is also sheet linoleum in corridors and class rooms in the 1966 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	20	APR-11

Event: Replace 5000m2 resilient flooring

Concern:

Resilient floor tiles and sheet flooring is damaged and marked and appears unsightly.

Recommendation:

Replace damaged flooring.

Consequences of Deferral:

Flooring will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$300,000	Low

Updated: APR-11

C3020.08 Carpet Flooring**

There is carpet in offices, music rooms, staff room, library and adjacent computer room, business offices and resource room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	2005	15	APR-11

Event: Replace 200m2 carpet

Concern:

Carpet in the staff room, class room 136, business office and music store is worn and damaged.

Recommendation:

Replace damaged carpet.

Consequences of Deferral:

Carpet will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$20,000	Medium

Updated: APR-11

Event: Replace 550m2 carpet

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$55,000	Unassigned

Updated: APR-11

C3020.14 Other Floor Finishes*

Class rooms 155 and 153 are used as a dance studio with laminate and resilient cushioned floors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	0	APR-11

C3030.01 Concrete Ceiling Finishes (Unpainted)*

The soffits of precast concrete double Tees are painted where visible in gymnasium and mechanical rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

There are gypsum board ceiling finishes in wash rooms, store rooms, janitor rooms and dressings areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	APR-11

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar) - 1993**

The class room and corridors in this section are acoustic tiles in a Tee bar grid.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	25	APR-11

Event: Replace 250m2 acoustic tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$11,000	Unassigned

Updated: APR-11

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar) - 2000**

Acoustic ceilings have been replaced in class rooms and corridors and office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	25	APR-11

Event: Replace 1000m2 ceiling tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$45,000	Unassigned

Updated: APR-11

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar) - General**

There are acoustic tiles in Tee bar grid throughout the school including corridors, library, offices, auditorium, cafeteria, music rooms and class rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	25	APR-11

Event: Replace 3000 m2 ceiling tiles

Concern:

There are areas throughout the school with damaged and marked ceiling tiles.

Recommendation:

Replace damaged ceiling tiles.

Consequences of Deferral:

Ceiling tiles will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$130,000	Low

Updated: APR-11



Dirty ceiling tiles.

Event: Replace 3000m2 ceiling tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$130,000	Unassigned

Updated: APR-11

C3030.07 Interior Ceiling Painting*

Gypsum board ceilings are painted in wash rooms, store rooms and janitor rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

D1010.01.01 Electric Traction Passenger Elevators**

There are wheelchair lifts in the 1966 and the 1968 sections of the school manufactured by Ram. The lift in the 1966 section was installed in 1993 and is rated at 1500lbs or two persons and a wheelchair. The lift in the 1968 section was installed in 1996 and is rated at 1500lbs or two persons and a wheelchair.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1995	30	APR-11

Event: Replace 2 elevators

Concern:

School maintenance staff advise that the lifts require continual maintenance and are unreliable.

Recommendation:

Replace lifts with hydraulic wheel chair lifts.

Consequences of Deferral:

Lifts will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$50,000	Medium

Updated: APR-11



Single passenger elevator

S4 MECHANICAL**D2010.04 Sinks****

There are 66 single compartment stainless steel sinks, 9 double compartment stainless steel sinks, 7 mop service basins (3 without vacuum breaker faucets), 1 stainless steel art room sink with sediment interceptor, 1 stainless steel photography sink, 1 double compartment deep stainless steel Kitchen sink, and 1 deep compartment stainless steel Kitchen rinse sink.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Install 3 Mop Basin Faucets with Vacuum Breakers**Concern:**

The Code requires vacuum breakers on faucets to service sinks to prevent back flow contamination.

Recommendation:

Install vacuum breakers on service sink faucets.

Consequences of Deferral:

Code non-compliance will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2011	\$1,500	Medium

Updated: APR-11

Event: Replace 86 Sinks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$135,000	Unassigned

Updated: APR-11

D2010.05 Showers**

There are 20 institutional type showers in the Boys and Girls Change Rooms and 2 cabinet type showers in the Instructors Offices.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 22 Showers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$33,000	Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

There are 12 drinking fountains installed in the various corridors of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	APR-11

Event: Replace 12 Drinking Fountains

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$41,000	Unassigned

Updated: APR-11

D2010.09 Other Plumbing Fixtures*

There is 1 Science Room emergency shower and 2 Science Room eyewash stations installed in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2010	0	APR-11

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - 1968**

There are 47 floor mounted flush valve waterclosets, 4 floor mounted tank type water closets, 18 floor mounted urinals, 10 porcelain wall hung lavatories, 11 stainless steel countertop lavatories and 24 porcelain steel countertop lavatories installed in the various washrooms of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	APR-11

Event: Replace 114 Washroom Fixtures

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$206,000	Unassigned

Updated: APR-11

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - 2006**

There is one tank type water closet and one porcelain steel counter top lavatory installed in the Handicapped Wash room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	35	APR-11

Event: Replace 2 wash room fixtures

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2041	\$3,500	Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

Where exposed domestic hot water, cold water, and domestic hot water recirculation piping is copper.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D2020.01.02 Valves: Domestic Water**

Domestic hot and cold water isolation and shut off valves are provided throughout as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	APR-11

Event: Replace 250 1/2" to 2" Valves

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$65,000	Unassigned

Updated: APR-11

D2020.01.03 Piping Specialties (Backflow Preventors)**

Double check valves are installed on the fire standpipe systems, backflow preventors are installed on the boiler make-up water, and screw-in type connectors are installed on the exterior hose bibs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	APR-11

Event: Replace 2 Backflow Preventors & 2 Double Check Valves

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$12,000	Unassigned

Updated: APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

An Armstrong In-line domestic hot water recirculation pump is installed in the 1968 section Mechanical Room and a Taco domestic hot water recirculation pump is installed in the 1966 section Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	20	APR-11

Event: Replace 2 DHW Recirculation Pumps

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$2,500	Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters - 1999**

There is a Rheem Model: GL75-360A-4 domestic hot water heater with 75 gallons of storage, and 272.4 gph recovery with 324,000 btuh input on natural gas installed in the 1966 section Mechanical Room.

There is a State Sandblaster Model SVT-75-120-NE8 domestic hot water heater with 75 gallons storage, and 90.76 gph recovery with 108,000 btuh input on natural gas installed in the 1968 section Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	20	APR-11

Event: Replace 2 Domestic Hot Water Heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$23,000	Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters - 2009**

There is an A.O. Smith Model BTRC-120 domestic hot water heater with 71 gallons storage, and 116.36 gph recovery with 120,000 btuh input on natural gas installed in the 1968 section Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2009	20	APR-11

Event: Replace 1 DHW Heater

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$12,000	Unassigned

Updated: APR-11

D2020.03 Water Supply Insulation: Domestic*

The domestic hot, cold and recirculation lines where exposed are insulated with fiberglass insulation with canvas jacketing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D2030.01 Waste and Vent Piping*

Where exposed waste piping is cast iron, and vent piping is copper.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

Event: Replace 7 "Cheater Vents" on Science Sinks

Concern:

The "cheater vent" for the double compartment sink in the Science Prep Room does not function properly and the sink drains slowly and sucks air. It was also reported that this problem also exists in the Biology Lab 266.

Recommendation:

Replace "Cheater Vents" on Science Sinks.

Consequences of Deferral:

Sinks will continue to empty slowly.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$5,000	Low

Updated: APR-11

D2030.02.04 Floor Drains*

Floor drains have been provided throughout as required in mechanical rooms and shower areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D2030.03 Waste Piping Equipment* - Sediment Trap

There is a sediment trap installed on the Art Room Sink.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D2040.01 Rain Water Drainage Piping Systems*

3", 4", and 6" cast iron rain water leaders from the roof drains connect to a 6" cast iron underslab storm main for the 1966 portion and a 8" cast iron underslab storm main for the 1968 portion of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D2040.02.04 Roof Drains*

Open flow roof drains with gravel guards are provided throughout as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D3010.02 Gas Supply Systems*

A buried steel natural gas main from the municipal service under 114th Street enters the north face of the 1966 portion of the school where it is metered and provides service to the boilers and domestic hot water heaters. This service extends via the roof to serve the rooftop unit for the link between 1966 and 1968 sections. The service from the Mechanical Room also extends via an above corridor distribution system to serve the natural gas outlets in the Science Room areas.

The same natural gas service from 114 street extends underground from the north side of 1966 section east to the 1968 section and is metered in the east Mechanical Room and extends to service the Mechanical Room boiler and hot water heaters, and extends via an above corridor distribution system to serve the Kitchen natural gas fired equipment and the Science Room natural gas outlets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D3020.02.01 Heating Boilers and Accessories: H.W.**

For the 1966 portion of the school there are 2 Asmor Model 600W20ND hot water heating boilers installed in 1966 and rated for 3,325,000 btuh input each on natural gas.

For the 1968 portion of the school there are 2 Cleaver Brooks Model CB760.100.A firetube hot water heating boilers installed in 1968 and rated for 4,185,000 btuh each on natural gas. One of the boilers was partially retubed circa 2006.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	35	APR-11

Event: Replace 4 HWH Boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$300,000	Unassigned

Updated: APR-11

D3020.02.01 Heating Boilers and Accessories: H.W. - HWH Pumps**

For the 1966 wing of the school:

- Pump P-1 is an Armstrong base mounted pump rated for 46 USgpm @ 30' with a 3/4 HP motor. This pump is the primary coil heating pump.
- Pump P-2 is an Armstrong base mounted pump rated for 160 USgpm @ 45' with a 3 HP motor. This pump is the heating standby pump.
- Pump P-3 is an Armstrong base mounted pump rated for 160 USgpm @ 45' with a 3 HP motor. This pump is the primary heating and reheat coil pump.

For the 1968 wing of the school pumps P-1 and P-2 are the primary hot water heating supply pumps. Each is a base mounted Armstrong pump. Pumps P-5 and P-5A are Armstrong in-line circulation pumps, one for primary circulation for each boiler. Pump sizing is could not be determined.

For the 1993 upgrade to the 1966 wing of the school, a Grundfos Model CBH50-50 in line circulation pump was installed to circulate glycol to the new heating coil installed in the ventilation unit to serve Classrooms 116, 117, and 118.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	APR-11

Event: Replace 8 HWH Pumps

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$36,000	Unassigned

Updated: APR-11

D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler**

For the 1966 Mechanical Room boilers 24" breeching from each boiler combines into a common 30" Type 'B' gas vent up through the roof.

For the 1968 Mechanical Room boilers 16" breeching from each boiler combines into a common 24" Type 'B' gas vent up through the roof.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	35	APR-11

Event: Replace 20m of Breeching and Type 'B' Gas Vent

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$15,000	Unassigned

Updated: APR-11

D3020.02.03 Water Treatment: H. W. Boiler*

Chemical pot feeders are provided for each of the 2 heating systems. Facilities Management maintains an internal program of monitoring boiler water and providing the necessary chemical treatment on a scheduled basis.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D3030.04 Rotary-Screw Water Chillers - 1968 Section**

For the 1968 portion of the school, there is a Dunham-Bush Model DBX 204/105 chiller to provide cooling to this portion of the school. The chiller operates on R-22.

Changes in the "Ozone-Depleting Substances Regulations, SOR/99-7 1998 as amended December 14, 2010" state that a manufacturer can no longer distribute equipment manufactured for use with HCFC-22 as of January 1, 2010. However, HCFC-22 is still available until 2020 for existing equipment with some restrictions.

The 2005 Alberta Infrastructure published guidelines for CFC's do not appear to address the recent changes. It is therefore proposed to replace the chiller in 2014 at the time of life cycle replacement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	APR-11

Event: Replace Chiller

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$170,000	Unassigned

Updated: APR-11

D3030.05.04 Liquid Coolers and Evaporative Condensers - 1968 Phase

A Baltimore Air Coil Model FXT-160 evaporative condenser rated for 160 Tons with a 7-1/2 HP motor. The unit is installed on the roof of the 1968 portion of the school to serve that section of the building. The date on the unit is listed as 1992-11-01. During inspection, it was noted that water was overflowing from the top of the unit, indicating a faulty water level control for the unit.

An evaporative condenser (model unknown) is installed in the 1966 Mechanical room with the fan air ducted to and from the outside. This condenser serves the 1966 portion of the building and is assumed to be original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1992	0	APR-11

Event: Replace Roof-Mounted Evaporative Cooling Unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$160,000	Unassigned

Updated: APR-11

D3030.06.01 Refrigeration Compressors - 1966 Phase**

For the 1966 portion of the school, there is a Trane Model 3E5E20 reciprocating DX compressor to provide cooling to the school. The refrigerant used in this chiller is unknown and assumed to be R-22.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	25	APR-11

Event: Replace Trane Compressor

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$120,000	Unassigned

Updated: APR-11

D3040.01.01 Air Handling Units: Air Distribution**

For the 1966 wing of the school:

Air handling unit AHU-1 supplies 22,500 cfm of conditioned air to the classroom and administration areas. The unit consists of a 7-1/2HP axial return air fan, a mixing box section, automatic roll filter section, spray coil humidification system, DX cooling coil and a 20 HP centrifugal supply air fan.

Air handling unit AHU-2 supplies 7,250 cfm of conditioned air to the gymnasium area. The unit consists of a 5 HP return air fan, a mixing box section, 2" disposable filter section, heating coil, and a 5 HP centrifugal supply air fan.

For the 1968 wing of the school:

The main school air handling unit is located in the 2nd floor Mechanical Room. The unit consists of a main return air fan, a mixing box section, a 2" disposable filter section, preheat coil, spray section, cooling coil and two primary supply air fans (1 for the main floor and 1 for the second floor).

For the Gymnasium portion of the wing, the air handling unit is located in a 2nd floor Mechanical Room adjacent to the Gymnasium. The unit consists of an axial flow return air fan, a mixing box section, 2" disposable filters, a preheat coil, a main supply air fan, and a reheat coil section.

For the CTS portion of the wing, the air handling unit is located in a 2nd floor Mechanical Room adjacent to the Gymnasium. The unit consists of an axial flow return air fan, a mixing box section, 2" disposable filters, a preheat coil and a main supply air fan.

The humidification systems installed on the air handling units is not used. Facilities Management advises that they do not humidify their schools.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	APR-11

Event: Replace 5 Air Handling Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$190,000	Unassigned

Updated: APR-11

D3040.01.01 Air Handling Units: Air Distribution 1993**

For the 1993 modernization of the 1966 wing:

A new ventilation unit was installed in the Janitor Room adjacent to the main floor Mechanical Room. This unit provides ventilation air to Classrooms 116, 117, and 118 and consists of a mix air box, a 2" disposable filter section, a heating coil, a DX cooling coil and a supply air fan.

A new gas fired roof mounted air supply unit was installed on the roof of the link portion of the building to serve the Ancillary and Student Lunch Room. The unit consists of a mixing box section, a 2" disposable filter section, a gas fired heating section and a supply air fan.

A new gas-fired make-up air unit was installed on the roof of the Gymnasium addition to provide fresh air to this portion of the building. The unit consists of a fresh air intake, a 2" disposable filter section, a gas fired burner section and a supply air fan.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	APR-11

Event: Replace 3 Air Handling Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$60,000	Unassigned

Updated: APR-11

D3040.01.03 Air Cleaning Devices: Air Distribution*

A Donaldson Torit 2 canister sawdust collection system was installed in the CTS Area in 2007. In addition, a Donaldson Torit secondary recirculation filter was also installed in the CTS Lab.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	0	APR-11

D3040.01.04 Ducts: Air Distribution*

A galvanized steel above corridor ceiling distribution system is provided throughout the school. The initial portion of ducting from the Mechanical Room in the 11966 wing to the Gymnasium and also to the Classroom areas is galvanized steel underslab, rising to the ceiling spaces and the Gymnasium at the south Stage area.

For the 1968 portion of the school there are dust rings on some of the Classroom diffusers indicating previous dust build-up in the ducting system. There are also some areas of the school where complaints of poor ventilation and insufficient cooling are occurring, possibly due to reheat coils being clogged and improper air balance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

Event: Clean Ductwork & Rebalance Air System

Concern:

Dust rings can be seen on some supply air diffusers in the Louie St. Laurent Wing of the school. Reheat coils to some rooms may be clogged resulting in insufficient air flow. The airside system may need rebalancing to eliminate areas of insufficient airflow and insufficient cooling.

Recommendation:

Clean duct system and reheat coils. Rebalance air system.

Consequences of Deferral:

Dust will persist and reheat coils will clog limiting the supply air to the various rooms.



Diffuser Dust Rings.JPG

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2012	\$35,000	Medium

Updated: APR-11

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Square and round cone ceiling mounted diffusers and high sidewall and countertop linear grilles for the supply air, and eggcrate and linear grilles for the return air are provided throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D3040.03.01 Hot Water Distribution Systems**

Two above corridor steel piping distribution systems are provided throughout the school for hot water heating to the perimeter radiation and to the ventilation system reheat coils. One system serves the 1966 wing, and one system serves the 1968 wing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	APR-11

Event: Replace HWH Distribution Piping (13170 m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$1,225,000	Unassigned

Updated: APR-11

D3040.03.01 Hot Water Distribution Systems - 1993**

An above corridor steel piping distribution system was installed in the 1993 Link addition to provide hot water heating to the new perimeter radiation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	APR-11

Event: Replace HWH Distribution System (373 m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$35,000	Unassigned

Updated: APR-11

D3040.03.02 Chilled Water Distribution Systems**

A chilled water steel piping distribution system is provided from the chiller in the 1968 Mechanical Room to the school ventilation unit cooling coils in the same Mechanical Room

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	APR-11

Event: Replace 30m 5" Steel Chilled Water Line

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$5,000	Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust**

There are 18 rooftop exhaust fans serving the various washroom, administration and specialty areas of the school.

There is no exhaust fan installed over the Staff Room stove and a small residential type recirculating exhaust hood (under \$400 installed) would be beneficial to remove cooking odors for the few occasions when this stove is used.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 18 Rooftop Exhaust Fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$32,000	Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust - 1993**

There are 4 roof mounted exhaust fans over the Ancilliary & Student Lunch Room area of the 1993 Link addition to the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	APR-11

Event: Replace 4 Roof Mounted Exhaust Fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$7,000	Unassigned

Updated: APR-11

D3040.04.03 Ducts: Exhaust*

Galvanized sheet metal ductwork is installed from the various washroom, janitor room, administration and specialty areas to connect to the roof-mounted exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

Linear and eggcrate type exhaust grilles are installed throughout as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D3040.05 Heat Exchangers**

A hot water heating to glycol heating plate type heat exchanger is installed in the 1966 Mechanical Room to provide heating to the glycol coil in the Classroom 116, 117, and 118 ventilation unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	APR-11

Event: Replace 1 HWH to Glycol Heat Exchanger

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$4,000	Unassigned

Updated: APR-11

D3050.01.01 Computer Room Air Conditioning Units**

There are 5 stand alone split system Computer Lab air conditioning units installed in the 1968 Wing of the school with roof mounted condensing units and room mounted fan coil units. All were installed between 2007 and 2010.

- For Computer Labs 261, 263, and 265 units are 3 Carrier Model 38HDR060-511 roof mounted condensing units and high sidewall mounted Carrier fan-coil units in each room.
- For the Server Room there is a Fujitsu Halcyon Model A0936CX roof mounted condensing unit and a high sidewall mounted Fujitsu Halcyon fan coil unit in the room.
- For the Library Extension, there is a Mitsubishi Model PUYA36NA3 roof mounted condensing unit and a high sidewall Mitsubishi "Mr. Slim" fan coil unit in the room.

All units operate on R410-A.

The recently renovated CTS Instructor Area contains 44 computer stations. No air conditioning has been installed and the space is warm.

For the 1966 Wing of the school, there is no air conditioning installed for the 2nd floor Computer Lab which has 37 computer stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2008	30	APR-11

Event: Install 2 Stand Alone Computer Lab Air Conditioning Units

Concern:

The 1968 CTS Instructors area contains 44 computer stations and is warm and uncomfortable to the occupants. Also, the 2nd floor Computer Lab in the 1966 Wing contains 37 computer stations and is also warm and uncomfortable to the occupants.

Recommendation:

Install 2 stand alone split air conditioning systems.

Consequences of Deferral:

The Labs will remain warm and uncomfortable to the occupants.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2012	\$50,000	Medium

Updated: APR-11

Event: Replace 5 Split Air Conditioning Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$125,000	Unassigned

Updated: APR-11

D3050.02 Air Coils**

There are 30 reheat coils installed in the air supply systems to all Classroom and Administration zones in the 1966 Wing.

For the 1968 Wing, there are 28 reheat coils installed on the airside systems to all Classroom and Administration areas for the interior zones only. Dust rings are evident on some of the ceiling diffusers in this wing of the school. Although the dust rings appear on exterior classroom zones that do not contain reheat coils, this does indicate a previous dust build-up in the duct system and could indicate some clogged interior room coils which are supplied with air from the same main duct system. (Cleaning of the coils and ducts has been included as an Operational Efficiency under Element D3040.01.04 Ducts: Air Distribution.)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 58 Zone Reheat Coils

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$116,000	Unassigned

Updated: APR-11

D3050.03 Humidifiers**

Steam humidifiers are provided for the main air handling systems in the school. These humidification systems are not used as Facilities Management advise that they do not humidify their schools.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	APR-11

Event: Replace 2 Steam Grid Humidifiers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$22,000	Unassigned

Updated: APR-11

D3050.05.02 Fan Coil Units**

Forceflows are installed at all the entrances to the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 7 Cabinet Force Flow Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$36,000	Unassigned

Updated: APR-11

D3050.05.02 Fan Coil Units - 1993**

There are 3 above ceiling mounted fan coil units installed at the entrances to the 1993 Link Addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	APR-11

Event: Replace 3 Ceiling Mounted Fan Coil Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$15,000	Unassigned

Updated: APR-11

D3050.05.03 Finned Tube Radiation**

Separate perimeter radiation systems have been installed for the 1966 and 1968 sections of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	APR-11

Event: Replace Perimeter Radiation (13170 m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$615,000	Unassigned

Updated: APR-11

D3050.05.03 Finned Tube Radiation - 1993**

Finned tube perimeter radiation is provided to heat the 1993 Link Addition to the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	APR-11

Event: Replace Perimeter Radiation (373 m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$17,000	Unassigned

Updated: APR-11

D3050.05.06 Unit Heaters**

There are 3 unit heaters installed in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 3 Unit Heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$10,000	Unassigned

Updated: APR-11

D3060.02.01 Electric and Electronic Controls**

Line voltage electric space thermostats are provided to cycle the fan motors of the Entranceway force flows and the Mechanical Room unit heaters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11

Event: Replace 13 Electric Controllers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$6,500	Unassigned

Updated: APR-11

D3060.02.02 Pneumatic Controls**

There are pneumatic controls for perimeter radiation valves, reheat coil mixing valves, and ventilation unit heating and cooling valves, and ventilation unit damper motors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	APR-11

Event: Replace Pneumatic Controllers (13445 m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$78,000	Unassigned

Updated: APR-11

D3060.02.05 Building Systems Controls (BMCS, EMCS)**

An Andover DDC system is installed in the school with an I/P interface with the pneumatic control system. This system is obsolete and spare parts can only be salvaged from previous other installations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1980	20	APR-11

Event: Replace Andover DDC Control System

Concern:

Existing control panels obsolete and spare parts are no longer available.

Recommendation:

Replace the existing system with a new state of art system.

Consequences of Deferral:

System will eventually fail. Spare parts will no longer be available from other salvaged units.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$150,000	Medium

Updated: APR-11

D4020 Standpipes*

A hose and standpipe fire protection system is installed throughout as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Universal ABC chemical and pump tank fire extinguishers are installed throughout as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	APR-11

D4090.04 Dry Chemical Fire Extinguishing Systems (Kitchen Hood)**

A Protex II Model L3000 dry chemical fire extinguishing system is installed in the 1968 Wing Kitchen to serve the kitchen range hood.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	APR-11

Event: Replace Rangehood Fire Protection System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$12,000	Unassigned

Updated: APR-11

S5 ELECTRICAL**D5010.01 Main Electrical Transformers** - 1966**

The pad mounted transformer, owned by the Utility Authority, serving the 1966 section of the School, is located on the grassed area off the back lane, approximately 10m from the Boiler Room, north of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1966	40	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5010.01 Main Electrical Transformers - 1968**

The Utility owned transformer serving the 1968 section of the School, is an oil-filled transformer, located in an Electrical Vault, adjacent to the main Electrical Room, at the northwest corner of this section of the School..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	40	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5010.03 Main Electrical Switchboards (Main Distribution) - 1966**

The Service entrance and Distribution Switchboard for the 1966 section of the School is a free-standing, wall supported switchboard, manufactured by Canadian Westinghouse, rated 1200A, 120/208V, 3 phase, 4 wire with a main 1200A thermal magnetic Circuit Breaker, C/T section and a Distribution section of thermal magnetic circuit breakers ranging 70A to 400A, feeding branch circuit panelboards and power distribution centres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	1200A, 120/208V	N/A	

Event: Replace Service and Distribution Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$100,000	Unassigned

Updated: APR-11

D5010.03 Main Electrical Switchboards (Main Distribution) - 1968**

The Service entrance and Distribution Switchboard for the 1968 section of the School is a free-standing switchboard, manufactured by Federal Pioneer, rated 4000A, 120/208V, 3 phase, 4 wire with a main 4000A Industrial type Air Circuit Breaker. It has a metering equipment compartment and a distribution section consisting of 5 -1600A frame Air Circuit Breakers (4 - 800A & 1 - 1200A trips) feeding power distribution centres including the refrigeration unit and MCC's in the Mechanical Rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	40	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	4000A, 120/208V	N/A	

Event: Conduct Performance testing and Maintenance

Concern:

Condition of Switchboard is not immediately evident.

Recommendation:

Conduct performance testing of Switchboard by a professional company. Proper maintenance could prolong life expectancy.

Consequences of Deferral:

The actual condition of the switch board will remain unknown.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2011	\$15,000	Low

Updated: APR-11

Event: Replace Service and Distribution Switchboard

Recommendation:

Conduct performance testing of Switchboard. Positive results could delay replacement.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$250,000	Unassigned

Updated: APR-11

D5010.03 Main Electrical Switchboards (Sub Distribution)**

These are wall mounted Circuit Breaker type Distribution Panel boards (CDP), manufactured by FPE, rated 800A, 120/208V, 3 phase, 4 wire, consisting of mainly 3-pole distribution circuit breakers (70A - 125A) to branch circuit panel boards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	40	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	800A, 120/208V	N/A	

Event: Replace Distribution Panelboards (3)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$30,000	Unassigned

Updated: APR-11

D5010.03.09 Enclosed Bus Assemblies*

Two ventilated bus ducts with a steel enclosure and aluminum alloy conductors, rated 800A and 1200A respectively, are used as feeders from the 1968 Switchboard to the Boiler Room for the 2 - MCC's and the refrigeration unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1966**

Branch circuit panel boards are rated 90A or 140A, 120/208V, 3 phase, 4 wire, 30 or 42 circuits, manufactured by Westinghouse, flush mounted in the corridors or surface mounted in utility rooms. The "Emergency " Panel Z, however, is a single phase panel, rated 70A, 120/240V, single phase, 3 wire, 18 circuit capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace Branch Circuit Panelboards (11)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$45,000	Unassigned

Updated: APR-11

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1968**

Branch circuit panelboards are rated 225A, 120/208V, 3 phase, 4 wire, 42 circuits, manufactured by FPE, flush mounted in the corridors or surface mounted in utility rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace Branch Circuit Panelboards (23)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$100,000	Unassigned

Updated: APR-11

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1993**

These branch circuit panelboards are rated 225A, 120/208V, 3 phase, 4 wire, 42 circuits, manufactured by Siemens, flush mounted in the corridors or surface mounted in utility rooms. Included in here are a distribution panelboard, SDP, rated 400A, 120/208V, 3 phase, 4 wire and a single phase sub-panel for the Library, 100A, 120/240V, single phase, 3 wire, Stab-Lok.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace Branch Circuit Panelboards (6)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$25,000	Unassigned

Updated: APR-11

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 2008**

This branch circuit panelboard is rated 225A, 120/208V, 3 phase, 4 wire, 42 circuits, manufactured by Eaton/Cutler-Hammer, surface mounted in the Industrial Arts Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	225A, 120/208V	N/A	

Event: Replace Branch Circuit Panelboard (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$5,000	Unassigned

Updated: APR-11

D5010.07.01 Motor Control Centers - 1966**

Motor Control Centre (MCC) with 8 combination magnetic starters and 4 manual starters for the control of motors, manufactured by Klockner-Moeller, is provided in the Boiler Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Motor Control Center(4 - sections)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$20,000	Unassigned

Updated: APR-11

D5010.07.01 Motor Control Centers - 1968**

Three sectionalized Motor Control Centres (MCC), manufactured by Canadian Controller, are provided for this period of construction:

- 2 sections with 4 combination magnetic starters and 4 manual starters
 - 3 sections with 8 combination magnetic starters
 - 3 sections with 7 combination magnetic starters, 2 fused disconnect switches and 12 manual starters.
- Each MCC includes a control terminal section where the manual starters may be installed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Motor Control Centers (3)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$70,000	Unassigned

Updated: APR-11

D5010.07.02 Motor Starters and Accessories**

Individual magnetic starters and manual starters of various manufacturers are used for the control of motors for mechanical equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Motor Starters (6)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$4,000	Unassigned

Updated: APR-11

D5020.01 Electrical Branch Wiring*

The wiring method is typically cables in conduits, concealed in finished areas and surface mounted in utility areas. Renovations have resulted in surface mounted conduits in classrooms and corridors and pac poles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Install additional electrical circuits

Concern:

Too many computers on a circuit exceed standards.

Recommendation:

Add 10 additional circuits to the computer lab, new panelboard, conduit and wire. Add approx. 80 receptacles (2 per classroom).

Consequences of Deferral:

Potential overloading of circuits will remain.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2010	\$25,000	Medium

Updated: APR-11

D5020.02.01 Lighting Accessories: Interior (Lighting Controls)*

The interior lighting system is controlled locally using either line voltage switches or low voltage switching. Group switching is low voltage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent fixtures are mainly in the utility rooms either as porcelain holders or industrial type pendants. There are also decorative lights in the General Office as well as recessed down lights and track lights in the lobby.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.02.02 Interior Fluorescent Fixtures - 1993**

The fluorescent lighting system in the 1968 section was upgraded in 1993. Gymnasium lights and a few other surface mounted room lights are also original fluorescent lights. The fluorescent lights are the standard magnetic ballasts and T12 lamps. Fixtures include the 2 X 4 recessed with lay-in lenses, low brightness louvred lenses and surface mounts with wrap around lenses.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1993	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Fluorescents with T8 lamps (1200).

Concern:

Present fluorescent lighting system of magnetic ballasts and T12 lamps is inefficient

Recommendation:

Replace with electronic ballasts and T8 or T5 lamps. Pay back is estimated at 3 - 4 years.

Consequences of Deferral:

Energy inefficiencies will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$360,000	Medium

Updated: APR-11

D5020.02.02.02 Interior Fluorescent Fixtures - 2002**

The fluorescent lighting system in the 1968 section was upgraded in 2002 to the electronic ballasts and T8 lamps. The most common fixture is the surface mounted type with wrap around lenses in classrooms, corridors and offices. There are also 2 X 4 recessed fixtures with lay-in lenses or low brightness louvres. The CTS uses pendant mounted enclosed type with acrylic lenses while the strip lights with and without reflectors are used in utility rooms. The gymnasium lights are still the old metal enclosed fixture with wireguards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2002	30	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Fluorescent Fixtures (1800)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$500,000	Unassigned

Updated: APR-11

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting battery packs with integral lighting heads are provided in the Link area where there is no emergency power.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	20	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Emergency Lighting Battery Packs (5)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$2,000	Unassigned

Updated: APR-11

D5020.02.03.03 Exit Signs*

Exit signs are internally illuminated exit lights, metallic housing, stencil face. Most of the original incandescent lamps have been converted to LED lamps (1966 and 1968) - some in the 1966 section are incandescent. Exit lights from the 1993 renovation are polycarbonate housing with LED lamps. Exit light circuits are on emergency power supply.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.05 Special Purpose Lighting*

Stage lighting with patch panel and dimmer rack is provided in the Gymnasium Stage. Renovated in 2007, the Theatre has a brand new stage lighting and dimming system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.03.01.03 Exterior Metal Halide Fixtures*

Metal halide wall lights are located along the perimeter of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

High pressure sodium floodlights and wall lights were added to supplement the exterior lighting system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/a	N/A	

D5020.03.02 Lighting Accessories: Exterior (Lighting Controls)*

The exterior lighting system is photoelectric cell controlled with manual override.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.01 Detection and Fire Alarm**

There are two fire alarm systems - one for the 1968 section and another for the 1966 section. Both systems are hard-wired, single stage and zoned systems with Simplex 4002 control panels located at their respective entrances accompanied by their respective graphics. Both use manual stations, heat and smoke detectors as detection devices and bells (audio only) as signaling devices. The systems are nominally interconnected so that an alarm from the 1968 side will activate the system in the 1966 section but an alarm from the 1966 section only provides an alert signal at an auxiliary panel in the General Office.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	25	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Interconnect the two Systems to act as One.

Concern:

The fire alarm system from Senior High alarms the one in Junior High but an alarm from Junior High does not activate the system in Senior High.

Recommendation:

Interconnect the two systems so that when the system in the 1966 section is activated, it should cause the system in 1968 section to activate.

Consequences of Deferral:

Upgrade may be delayed if the systems are to be replaced (and upgraded) in the near future, say, anytime before 2015.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2011	\$5,000	Medium

Updated: APR-11

Event: Replace Fire Alarm Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$150,000	Unassigned

Updated: APR-11

D5030.02.02 Intrusion Detection**

The intrusion alarm system is a DSC Security system using infrared motion detectors located throughout the school - mainly in the corridors. The control panel is located in the Electrical Room and the entry keypads are located at the north, east and west entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2002	25	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Intrusion Alarm System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$40,000	Unassigned

Updated: APR-11

D5030.02.04 Video Surveillance**

The video surveillance system consists of interior and exterior cameras with automatic Digital Video Recording (DVR) at different locations throughout the school with multiscreen monitors in the General Office.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2002	25	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Video Surveillance System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$50,000	Unassigned

Updated: APR-11

D5030.03 Clock and Program Systems*

A Simplex 2350 Master Time System is the master clock and school program system for the School with self-correcting digital clocks throughout the School.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2002	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.04.01 Telephone Systems*

Upgraded in 1993, the NEC telephone exchange satisfies the telephone needs of the school, reconnecting to telephone sets from different eras. Classrooms are provided with telephone sets for communications with the General Office and outside.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.04.05 Local Area Network Systems*

Located in the Communications Room on the second floor of the 1968 section, the primary and secondary servers, including CDD, provide the local area network for the extensive distribution of data in the facility, including wireless connections. 3 switchers are strategically located throughout the facility. The servers have their own UPS units. The facility has a wireless SuperNet entry.
Cat 5 and 5e cables are used for horizontal distribution and fibre optic cable for backbones.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	0	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.05 Public Address and Music Systems**

A new custom-designed public address system using essentially Telecor equipment, in the Communications Room, is replacing the Petcom 2200 school sound console, located in the General Office. It operates as before using existing loudspeakers in the classrooms and corridors and interfaces with the telephone system for public address announcements.
There are separate localized sound reinforcement systems in the Theatre and the Gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	2010	20	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Public Address System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$45,000	Unassigned

Updated: APR-11

D5030.06 Television Systems*

Television sets with DVD and VCR players are located in the classrooms although their use is diminishing, replaced by large retractable screens with projectors and Smart Boards, which are PC compatible. Television sets are located in corridors and public areas, tied to the video messaging system.
The original cable television distribution system, with outlets in classrooms, is still available.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	0	APR-11

D5090.02 Packaged Engine Generator Systems (Emergency Power System)**

There are two emergency power generating systems. A 15 kW, 120/208V, 3 phase, 4 wire, natural gas driven, air-cooled, engine generator by ONAN, with a Zenith transfer switch, is provided at the 1966 section; while a 30kW one, also natural gas and air-cooled by ONAN, with an ONAN transfer switch, is provided at the 1968 section. They are located at their respective Boiler Rooms. The emergency loads are essentially emergency and exit lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	35	APR-11
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace Emergency Generating Systems

Recommendation:

Consolidate into one power generating unit (saves maintenance) and change to diesel (Code requirement). A 30 kW unit should suffice if no additional load is contemplated.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$70,000	Unassigned

Updated: APR-11

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1020.02 Library Equipment***

The library is equipped with a scanner at the exit for book inventory control.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

E1020.03 Theater and Stage Equipment*

The 1966 gym stage has front and side curtains and theatre lighting rails at the front and rear.
The auditorium stage which is used as a drama class room, has front and side curtains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

E1020.07 Laboratory Equipment*

Science class rooms are equipped with laminate benches with stainless steel cup sinks with goose neck faucets, gas outlets and fume cupboards.

There are also ventilated metal chemical reagent storage cabinets in the science prep room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

E1090.03 Food Service Equipment*

The cafeteria kitchen is equipped with a Quest double range with griddle and hob, Milner fridge, Champion commercial dish washer, wand pot wash with stainless steel counter and sinks, display cooler, slurpy machine, hot tables for servery and stainless steel servery line counter.

The staff kitchenette is equipped with a Maytag fridge, Admiral range, dish washer, microwave ovens, laminate counter with double stainless steel sink and cupboards above and below.

The Home Economics rooms is planned around 6 work stations each equipped with Frigidaire ranges with exhaust hoods, laminate counter with double stainless steel sink and laminate cupboards above and below. There is also a demonstration bench with angles mirror.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1980	0	APR-11

Event: Replace range and dishwasher**Concern:**

Kitchen staff report that there are no spare parts for the dishwasher and that the range requires continual maintenance.

Recommendation:

Replace obsolete kitchen equipment.

Consequences of Deferral:

Dish washer and range will deteriorate further.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$25,000	Medium

Updated: APR-11

E1090.06 Darkroom Equipment*

There is a dark room in the 1968 section equipped with plastic sinks in laminate counter with laminate cupboards above and below and an enlarger.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

There is a motorized person sling lift in the infirmary for transfers from wheelchair to physiotherapy plinth. The gymnasias are equipped with 6 basket ball hoops and back boards each, markings for floor games and electronic score boards. The 1968 gym has a motorized plastic fabric dividing curtain.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	0	APR-11

E2010.02 Fixed Casework - 2006**

The Home Economics, Fashion class rooms and Fabrication areas are equipped with laminate counters with cupboards above and below.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	35	APR-11

Event: Replace 60m fixed casework

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2041	\$45,000	Unassigned

Updated: APR-11

E2010.02 Fixed Casework - General**

There is fixed case work throughout the school including wood shelves in class rooms, library and store rooms, laminate counters with cupboards above and below in Home Economics, science class rooms, science preparation rooms, staff kitchenette, cafeteria kitchen.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	35	APR-11

Event: Replace fixed casework (13500m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$1,100,000	Unassigned

Updated: APR-11

E2010.03.01 Blinds - 2000**

There are vertical blinds in offices and staff rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	30	APR-11

Event: Replace 20m2 blinds

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$2,000	Unassigned

Updated: APR-11

E2010.03.01 Blinds - General**

There are roller blinds in class rooms throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	APR-11

Event: Replace 1000m2 blinds

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$100,000	Unassigned

Updated: APR-11

E2010.05 Fixed Multiple Seating**

There is fixed upholstered theatre seating in the auditorium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	35	APR-11

Event: Replace 240 fixed seats

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2040	\$100,000	Unassigned

Updated: APR-11

F1020.02.01 Athletic Rooms*

There is an exercise room in the 1968 section equipped with 12 stationary bikes, 2 Magnum weight machines, 1 York weight machine, 1 Powertec weight machine, 2 treadmills, wall mirror and rubber cushioned floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	APR-11

F1040.06 Other Special Facilities*

There is a fabrication room in the 1968 section equipped for wood work with lathes, table saws, band saws, drill presses, wood benches with vises and laminate counters with cupboards below.

There is also an audio-visual room equipped with back drops and reflectors for photography and videography.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	0	APR-11

S8 FUNCTIONAL ASSESSMENT**K4010.01 Barrier Free Route: Parking to Entrance***

There is a dedicated barrier free parking stall in the south parking lot and curb cuts for barrier free route from the parking areas to entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

K4010.02 Barrier Free Entrances*

Entrances are free of barriers for wheel chair access. There are no automatic door openers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11

Event: Install automatic opener**Concern:**

There is no automatic door opener at an entrance.

Recommendation:

Install automatic opener with push plate.

Consequences of Deferral:

Barrier free access to the school will be compromised.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2011	\$10,000	Medium

Updated: APR-11

K4010.03 Barrier Free Interior Circulation*

There is barrier free access throughout the school with 2 lifts to connect the two stories. The stage area is the only location not wheel chair accessible.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K4010.04 Barrier Free Washrooms*

There are barrier free wash rooms for male and female students in both 1960s sections of the school with grab bars and undercut vanities.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	APR-11

K4030.01 Asbestos*

In April, 2007, a specialist consultant carried out a hazardous materials survey of the school and identified materials containing asbestos. The report made recommendations regarding the management and disposal of asbestos containing materials. The strategy adopted by the School Division is to abate asbestos and other hazardous materials as part of the ongoing upgrading projects in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K4030.04 Mould*

Mould was neither reported nor observed during the building audit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K4030.09 Other Hazardous Materials*

In April, 2007, a specialist consultant carried out a hazardous materials survey of the school and identified materials containing asbestos, mercury in electrical components and radioactive materials in smoke detectors. The report made recommendations regarding the management and disposal of hazardous materials. The strategy adopted by the School Division is to abate hazardous materials as part of the ongoing upgrading projects in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K5010 Reports and Studies*

The two storey 13,555m2 school was constructed as two separate schools: the 3900m2 Cartier McGee Junior High constructed in 1966 and the 9650m2 Louis St. Laurent High School constructed in 1968. There was a single storey corridor link constructed between the two buildings in 1974. In 1993 an ancillary class room was added to the link which was also refurbished and the gym in the 1966 section was expanded. Renovations were also carried out in the 1966 section at that time.

The school currently has a student compliment of 1100 students in grades 7 through 12 and a staff of 71.

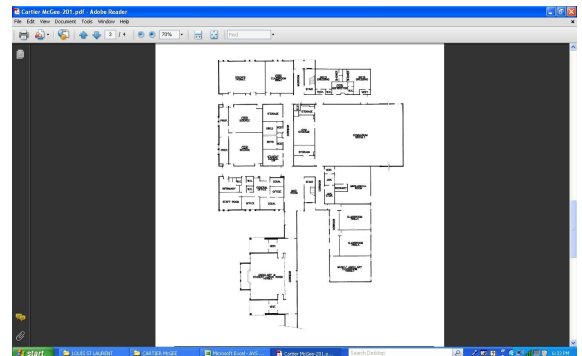
This facility evaluation was carried out by Robert Irlam Consulting Inc. on September 21, 2010.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1067	0	APR-11

Event: PLANS

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2010	\$0	Unassigned

Updated: APR-11



First floor - 1966 section.