

RECAPP Facility Evaluation Report

Edmonton School District No. 7



M. E. Lazerte Composite High School

B3201A
Edmonton

Facility Details

Building Name: M. E. Lazerte Composite High School
Address: 6804 - 144 Avenue
Location: Edmonton

Building Id: B3201A
Gross Area (sq. m): 24,239.00
Replacement Cost: \$55,355,902
Construction Year: 1968

Evaluation Details

Evaluation Company: Asset Evolution Incorporated (AEI)
Evaluation Date: May 10 2007
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **\$14,644,361**
5 year Facility Condition Index (FCI): **26.45%**

General Summary:

M.E. Composite High School is 24,239 m2 in size. The school is a two storey structure constructed in 1968. In 1997 & 1999 the school went through an extensive architectural modernization. The school is divided into three blocks. Block A primarily houses two gymnasiums including the change rooms and office areas located on the second level. Block B is a two storey block housing the majority of the classrooms, science labs, theater, library, computer rooms, music room, an auditorium, a cafeteria and several administrative areas. Block C occupies the majority of the industrial shops

Approximately 2000 students are currently enrolled at M.E. Composite High School.

Structural Summary:

The foundations consist of cast-in-place concrete grade beams and spread footings. The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement. Structural reinforced concrete block walls, column & beams. The roof structure consists of a one-way ribbed concrete slabs 'T' structure & a two way waffle slab supported by exterior & interior concrete block walls, typical throughout the majority of the school. An OWSJ assembly with a metal deck is located throughout the gymnasiums.

Overall the structural elements are in good condition.

Envelope Summary:

The upper portion of the exterior walls have of precast concrete panels. Painted brick and/or concrete block cladding is located throughout the majority of the lower portion of the exterior wall assembly.

Aluminum double glazed windows are located throughout the school. Windows are also located at the link between Block B and Block C. The windows appear original, but in acceptable condition, however need ongoing repairs and maintenance service. A small greenhouse is located on the second level of block B.

The majority of the roofs above Block A and B have been replaced throughout the 1990's with an SBS assembly. The roof areas above block C have the original BUR assembly, however replacement is scheduled for the summer of 2007.

Several of the main entrances have of painted steel doors with a glazed panels & sidelights. A majority of the door were replaced in 1992. The majority of the exit doors have a painted steel door & frame assembly with GWG panels. Several sectional overhead metal & wood doors are located primarily in the automotive, wood and building construction shops & storage area.

Overall, the building envelope is in acceptable condition.

Interior Summary:

Sheet Vinyl is located throughout the majority of the classrooms & labs. The music room, exercise room, some classrooms, staff room, administration area, parts of the auditorium, and library have a carpet floor finish. Vinyl tile is located in secondary corridors, change-rooms, some washrooms, cafeteria and ancillary areas. The gymnasiums & auditorium stage have a hardwood floor finish. Several washrooms have an epoxy floor finish. The main corridors and central gathering area have a quarry tile floor finish. Quarry tile is also located in the kitchen & servery . The majority of the utility areas, mechanical rooms and shops have a paint finish on the concrete slab. Original VCT is located in the stairwells and ancillary areas. The ramp linking Block B and C has a rubber floor finish.

The majority of the interior walls are glazed block partitions in the administration area, painted masonry block walls and gypsum board with a vinyl wall covering. A ceramic wall tile finish is located in several washroom areas. Stained wood panels are located in the auditorium.

The interior swing doors generally consist of solid core doors with a plastic laminate finish in painted steel frames. Painted steel fire doors are located throughout the corridors & stairwells. The majority of the doors are rated and labeled.

The school has several ceiling types, including a suspended 2'x4' acoustical tile ceiling. The structure is painted and exposed in the gymnasium & shop area. Painted plaster & gypsum board ceilings are located in the theatre, cafeteria kitchen, washrooms and change rooms. The main vestibule between Block A & B, cafeteria, auditorium and some teaching areas have a textured stucco finish on the concrete structure.

Overall, the interior finishes are in acceptable condition.

Mechanical Summary:

Building heating is provided by two glycol boilers located in the penthouse mechanical room. The glycol heating loops supply air handling unit heating coils as well as various hydronic heating terminal units including convectors, fan coil units, finned tube radiation cabinets, unit heaters, radiant ceiling heating panels, and reheat coils. A chilled water system provides cooling in the main building (block B) via chilled water cooling coils in the east and west air handling units. The chilled water system includes a single centrifugal type chiller and a roof mounted cooling tower.

Ventilation in the building is provided by a total of 18 air handling units including two heating, cooling and ventilation units, 15 heating and ventilating units, and one gas fired make-up air unit. Numerous local and general exhaust systems provide exhaust to balance the fresh air supply provided by the air handling units. Building HVAC controls and actuators are pneumatic, and upgraded DDC (direct digital control) controls are used for control and monitoring of major HVAC equipment.

The building domestic water supply provides water for use in the fixtures in the washroom and locker facilities in the building, as well as for use in the fixtures in the various lab and shop areas. Domestic hot water is provided by a gas fired domestic hot water boiler and two associated storage tanks located in the mechanical penthouse.

Fire protection consists of a standpipe system feeding standard fire hose cabinets. Fire extinguishers are located in the fire hose cabinets and in other areas throughout the building, and automatic fire suppression systems protect the kitchen cooking hoods.

With some exceptions, including the chiller and cooling tower, the mechanical systems in this building are generally in acceptable condition. However, the age of the building is such that there is likely to be significant deterioration of the building mechanical systems over the next five to ten years, as most of the major systems reach and surpass their normal life spans.

Electrical Summary:

M. E. Lazerte School is fed with a 13.8kV feed. The main switchboard is rated at 3500A, 347/600V. Five MCC's and individual motor starters provide power for the major mechanical equipment. A 40kW natural gas emergency generator is located in the penthouse mechanical room.

The wiring in the building is typically standard wiring in conduit.

The interior fluorescent lighting fixtures typically have T-8 lamps and electronic ballasts in Block B and T-12 lamps and magnetic ballasts in Block C. The exit lighting in the building consists of metal units with LED lamps. The emergency lighting is fed from standard fluorescent fixtures fed from 347V emergency panels. The exterior lighting consists of wall mounted H.I.D wallpack fixtures, globe style fixtures and floodlighting fixtures.

The building is equipped with a Simplex 4020 fire alarm system. Detection and end devices include, smoke and heat detectors, bells, strobes and pull stations.

The various communications and security systems within the school include; a Magnum Alert security system that monitors motion detectors, a Bogen Multicom 2000 P.A. system and a Nortel/Norstar telephone system. Exterior and interior video surveillance cameras and data network systems are installed within the school.

It is recommended, as routine maintenance, that a program for annual examination of major electrical components be instituted. Maintenance should include thermographic scans for hot spots and power shut down to allow examination of interior components for accumulated debris and signs of corrosion.

The main concerns for the school are the aging electrical distribution equipment, exit signs and the exterior lighting. Consideration should be given to upgrading the T12 fluorescent lamps and ballasts to energy efficient T8 lamps and electronic ballasts.

Overall the electrical components for M. E. Lazerte School are in marginal to acceptable condition.

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 - 1968 Section***

The foundations consist of cast-in-place concrete grade beams and spread footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

A1030 Slab on Grade - 1968 Section*

The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B1010.01 Floor Structural Frame (Building Frame) - 1968 Section*

Concrete slab on grade floors supported by structural reinforced concrete block walls, poured in place concrete beams and columns. The second floor cantilevers around the perimeter of Block B.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1968 Section*

Structural reinforced concrete block walls, column & beams.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B1010.05 Mezzanine Construction - 1968 Section*

Several mezzanines are located in the shop areas of Block C . The mezzanines are poured in place concrete slabs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B1010.09 Floor Construction Fireproofing - 1968 Section*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

B1010.10 Floor Construction Firestopping - 1968 Section*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

B1020.01 Roof Structural Frame - 1968 Section*

The roof structure consists of one-way ribbed concrete slabs 'T' structure & a two way waffle slab supported by exterior & interior concrete block walls is typical throughout the majority of the school. The roof above the gymnasiums have OWSJ's with a metal deck.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B1020.06 Roof Construction Fireproofing - 1968 Section*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

S2 ENVELOPE**B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1968 Section***

The lower portion of the exterior walls have a brick wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	75	JUL-07

B2010.01.02.02 Concrete Block: Ext. Wall Skin - 1968 Section*

The lower portion of the exterior walls of Block A and C have a painted block wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	75	JUL-07

B2010.01.08 Cement Plaster (Stucco): Ext. Wall - 1968 Section*

The stair towers, link, gymnasiums & the upper portion of the exterior walls have of prefinished textured stucco finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	75	JUL-07

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1968 Section**

Sealant is located around all window, door and exterior cladding assemblies.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	JUL-07

Event: Recaulk exterior joint - 1968 Section]

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$102,960	Unassigned

Updated: APR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1968 Section**

The exterior block walls around Block A and C have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	15	JUL-07

Event: Repair exterior walls - 1968 Section

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$97,240	Unassigned

Updated: APR-08

B2010.02.03 Masonry Units: Ext. Wall Const. - 1968 Section*

The interior face of the exterior brick walls have a concrete block wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1968 Section*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

B2010.06 Exterior Louvers, Grilles, and Screens - 1968 Section*

Exterior louvers are located on the roof level and on the upper portion of the exterior walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

B2010.09 Exterior Soffits - 1968 Section*

The second floor cantilevers around the perimeter of Block B. The exterior soffits are exposed with a cement finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	50	JUL-07

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

Original fixed aluminum double glazed windows are located on the upper floor around the perimeter of Block B. Sliders are located on the main floor of Block B. Large fixed units are located at the link, stair towers and at the main entrances. The majority of the windows have internal blinds.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace Exterior Windows - 1968 Section] 600SM of glazing

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$686,400	Unassigned

Updated: APR-08

B2030.01 Exterior Entrance Doors - 1968 Section

Entrance Doors - Painted steel doors & frames with glazed insert panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1992	0	JUL-07

Event: Replace [B2030.01 Exterior Entrance Doors - 1968 Section] - 12 doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$27,456	Unassigned

Updated: APR-08

B2030.02 Exterior Utility Doors - 1968 Section**

The majority of the exit doors are steel doors & frames with a paint finish. Three sets of oversized steel doors are located in the mechanical penthouse.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1992	40	JUL-07

Event: Replace [B2030.02 Exterior Utility Doors - 1968 Section] - 60 doors**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$171,600	Unassigned

Updated: APR-08

B2030.03 Large Exterior Special Doors (Overhead)*

Eight sectional overhead metal & wood doors are located in the automotive, wood and building construction shops & storage area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace Overhead doors) - 8 doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$45,760	Unassigned

Updated: MAR-08

B3010.01 Deck Vapor Retarder and Insulation - 1968 Section*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

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

Block C - Shop Wing - The roof has a built-up roof assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	25	JUL-07

Event: Replace BUR Roof - Block C -1968 Section] - 5000SM**Concern:**

The roof has significant deterioration. The roof is scheduled for replacement in the summer of 2007.

Recommendation:

Replace roof assembly above Block C - Shop wing

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2008	\$892,320	Medium

Updated: APR-08

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)**

Block A - The majority of the roof (area 1) has a modified bituminous membrane roof assembly (SBS) replaced in 1993.
Block B - The majority of the roof (area 2, 3 & 4) has a modified bituminous membrane roof assembly (SBS) replaced in 1998-99.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1996	25	JUL-07

Event: Replace SBS roof Blk.A & Blk.B 12,000SM

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$2,230,800	Unassigned

Updated: APR-08

B3020.01 Skylights - Gathering area**

Sloped glazing is located above the central gathering area. The area was modified in 1999.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	25	JUL-07

Event: Replace Skylights - Gathering area 100M

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$286,000	Unassigned

Updated: OCT-07

B3020.01 Skylights - Greenhouse**

A greenhouse on the second floor is located along the west elevation of Block B.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

Event: Replace Skylights - Greenhouse

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$137,280	Unassigned

Updated: OCT-07

S3 INTERIOR**C1010.01.01 Cast-in-place Concrete: Partitions -**

Cast in place concrete walls are located throughout several utility rooms, such as the mechanical penthouse.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	100	JUL-07

C1010.01.03 Unit Masonry Assemblies: Partitions -

Interior partitions typically consist painted masonry block walls in several corridors, shop areas and gymnasiums.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	100	JUL-07

C1010.01.07 Framed Partitions (Stud) -

Interior partitions typically consist of gypsum board metal partitions throughout several office areas, corridors & classrooms. Over the years, painted plywood panels have been added to several gypsum board partitions throughout the corridors to minimize damage to the walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

C1010.04 Interior Balustrades and Screens, Interior Railings - *

The ramp & stairs have a wall mounted painted wood handrail. On the second floor overlooking the gathering area, tempered glass panels with painted steel posts & railings are located throughout the perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	40	JUL-07

C1010.05 Interior Windows - *

Interior glazed windows are located throughout the majority of the classrooms on the second floor, on the upper portion of the gymnasium and in the administrative areas. Glass block is located in isolated areas of the general office.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	80	JUL-07

C1010.07 Interior Partition Firestopping - *

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

C1020.01 Interior Swinging Doors (& Hardware) - *

The interior swing doors generally consist of solid core doors with a paint finish in a painted steel frames. Several of the original doors & frames do not have a fire rated label.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

C1020.03 Interior Fire Doors - *

Painted steel fire doors are located in the corridors, stairs and in the shop areas. The majority of the doors are rated and labeled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

C1030.01 Visual Display Boards - **

Tackboards and whiteboards are located in each teaching area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	20	JUL-07

Event: Replace Visual Display Boards

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$195,321	Unassigned

Updated: APR-08

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

Prefinished metal washroom partitions are located in all men's & women's washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	JUL-07

Event: Replace [C1030.02 Fabricated Compartments(Toilets/Showers) -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$96,925	Unassigned

Updated: APR-08

C1030.08 Interior Identifying Devices - *

Signage panels with room number or room name are located above & on the interior doors

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	JUL-07

C1030.10 Lockers - **

Prefinished metal lockers are located throughout the corridors and in the change rooms. 200 lockers were replaced in 2006.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	JUL-07

Event: Replace Lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$343,200	Unassigned

Updated: APR-08

C1030.14 Toilet, Bath, and Laundry Accessories - *

The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	20	JUL-07

C2010 Stair Construction - *

The 7 stair towers in block B, typically have a poured in place concrete assembly. Several stairs to the mezzanine levels in the shops, auditorium and gym have a either a steel and/or wood stair assembly. The stairs in the utility areas have an exposed concrete assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	100	JUL-07

C2020.05 Resilient Stair Finishes - Vinyl Tile**

The seven stair towers typically have the original vinyl floor tile with rubber treads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	20	JUL-07

Event: Replace [C2020.05 Resilient Stair Finishes -]**

Concern:

The tiles in several of the stairwells is are aged and damaged in isolated locations

Recommendation:

Replace all vinyl tile in the stair towers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2010	\$205,920	Low

Updated: APR-08

C2020.08 Stair Railings and Balustrades - *

The ramp & stairs have a wall mounted painted wood handrail.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

C2030.01 Ramp Construction*

The ramp connecting block B and C has a poured in place concrete assembly

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	100	JUL-07

C2030.02 Ramp Finishes - Rubber*

The ramp connecting block B and C has a rubber floor finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	30	JUL-07

C3010.02 Wall Paneling - **

Stained wood wall panels are located in the auditorium and in the main staff room

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	30	JUL-07

Event: Replace [C3010.02 Wall Paneling -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$457,600	Unassigned

Updated: APR-08

C3010.06 Tile Wall Finishes - Ceramic**

Ceramic wall tile is located throughout several washrooms and change room showers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	40	JUL-07

Event: Replace [C3010.06 Tile Wall Finishes -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$171,600	Unassigned

Updated: APR-08

C3010.09 Acoustical Wall Treatment - **

Acoustical wood wall panels are located in the auditorium, music rooms and gymnasiums.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	20	JUL-07

Event: Replace [C3010.09 Acoustical Wall Treatment -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$171,600	Unassigned

Updated: APR-08

C3010.11 Interior Wall Painting - *

The interior gypsum wall board and concrete block wall partitions throughout the school have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	15	JUL-07

C3010.14 Other Wall Finishes*

Several of the corridor walls in the school have gypsum board wall assembly. The majority of the gypsum board wall surfaces have been covered with 1/2" painted plywood. The plywood has been installed to eliminate damage to the gypsum board.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

C3020.01.01 Epoxy Concrete Floor Finishes - *

An epoxy floor finish is located throughout several washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

C3020.01.02 Paint Concrete Floor Finishes*

Painted/sealed concrete floors are located in the shop areas, industrial arts room, mechanical room and custodial rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	10	JUL-07

C3020.02 Tile Floor Finishes - Ceramic tile**

Ceramic tile floors are located throughout several renovated washrooms and in the change room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	50	JUL-07

Event: Lifecycle Replacement [C3020.02 Tile Floor Finishes - Ceramic tile] - 3% floor area**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$125,840	Unassigned

Updated: OCT-07

C3020.02 Tile Floor Finishes - Quarry tile**

Quarry tile flooring is located throughout the main entrance, main floor corridor and cafeteria kitchen.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

Event: Replace [C3020.02 Tile Floor Finishes -] 5% floor area**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$200,200	Unassigned

Updated: APR-08

C3020.04 Wood Flooring - Gymnasiums**

Hardwood flooring is located in the gymnasiums.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace [C3020.04 Wood Flooring -] - 10% Total floor area**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$183,040	Unassigned

Updated: APR-08

C3020.07 Resilient Flooring - Original VCT**

Original vinyl floor tiles are located throughout cafeteria, second floor corridors, some shop areas and theatre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	20	JUL-07

Event: Replace VCT flooring- 10% floor area.

Concern:

The floors are aged and deteriorated in several locations.

Recommendation:

Replace all original vinyl tiles.



Vinyl floor tile on the second floor corridors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2010	\$171,600	Low

Updated: SEP-07

C3020.07 Resilient Flooring - Sheet Vinyl**

Sheet vinyl is located throughout most classrooms and in several corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	20	JUL-07

Event: Replace [C3020.07 Resilient Flooring** -] - 60% floor area

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$915,200	Unassigned

Updated: APR-08

C3020.08 Carpet Flooring - **

Carpeting is located in the staff dining area, library, exercise room, music rooms, auditorium aisles, some classrooms and some administrative areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	15	JUL-07

Event: Replace [C3020.08 Carpet Flooring** -] - 10% floor area

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$137,280	Unassigned

Updated: APR-08

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

The majority of the ceilings in the corridors & classroom area have a 2'-0"x4'x0" suspended acoustical tile assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	25	JUL-07

Event: Replace [C3030.06 Acoustic Ceiling Treatment (Susp.T-Bar) -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$382,055	Unassigned

Updated: APR-08

C3030.07 Interior Ceiling Painting - *

All the interior gypsum board ceilings and exposed concrete structures have a paint finish. The waffle slab & concrete 'T' structure is exposed in most of the shop areas, mezzanines and main utility rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	JUL-07

C3030.09 Other Ceiling Finishes - SprayTextured Ceiling*

Sprayed textured plaster ceilings are located in auditorium, isolated corridors and in the cafeteria.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	0	JUL-07

Event: Respray textured ceiling in cafeteria only

Concern:

The texture finish is deteriorating in the cafeteria.

Recommendation:

Remove all the texture surface in the cafeteria and refinish.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2008	\$171,600	Medium

Updated: APR-08



Sprayed textured ceiling in the cafeteria.

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

There are approximately 140 sinks in the building. Typical sinks include single and double bowl stainless steel general purpose sinks and enameled steel janitor sinks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace the remaining original sinks (approx. 137 fixtures)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$188,760	Unassigned

Updated: APR-08

Event: Replace three sinks in rooms 41 and 240**Concern:**

There are three sinks which have been identified as being in poor condition due to excessive wear, corrosion, water leakage, or significantly deteriorated mechanical components.

Recommendation:

Replace three sinks in rooms 41 and 240).

Consequences of Deferral:

Accelerated wear and deterioration of the components.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2008	\$4,576	Low

Updated: SEP-07

D2010.05 Showers - **

There are showers in the dressing rooms, in some washrooms, and in one science lab preparation area. There are approximately 30 shower stalls in total.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace the shower stalls (approx. 30)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$68,640	Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers - **

There are approximately 18 drinking fountains in the school. The drinking fountains are typically wall mounted stainless steel units or vitreous china units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	JUL-07

Event: Replace drinking fountains (approx. 18)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$30,888	Unassigned

Updated: APR-08

D2010.09 Other Plumbing Fixtures - *

There are approximately six terrazzo half Bradley type wash fountains located in the shop areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

Event: Replace half Bradley type wash fountains in the shop areas (approx. 6)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$18,304	Unassigned

Updated: OCT-07

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

Washroom plumbing fixtures include toilets, lavatories and urinals. Toilets are typically floor mounted vitreous china flush valve type units, and there are also some floor mounted vitreous china tank type units. Original lavatories are typically wall mounted vitreous china units and newer lavatories are typically counter mounted stainless steel units. Original urinals are floor mounted tank type vitreous china units and there are some newer urinals which are wall mounted flush valve type urinals. There are approximately 64 lavatories in the building (including approximately 22 original units and 44 stainless steel units), approximately 68 toilets, and approximately 30 urinals (including approximately 20 original units and 10 wall mounted units).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	JUL-07

Event: **Replace the remaining original c.1968 washroom plumbing fixtures (including 4 urinals, 66 toilets and 16 lavatories)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$154,440	Unassigned

Updated: APR-08

Event: **Replace washroom plumbing fixtures in poor condition (16 urinals in rooms 22, 45, 46 and 225, 2 toilets in rooms 212 and 220, and 4 lavatories in rooms 20 and 40)**

Concern:

There are 22 washroom plumbing fixtures (including 16 urinals, two toilets and four lavatories) which have been identified as being in poor condition due to cracked or damaged vitreous china components, water leakage, or significantly deteriorated mechanical components.

Recommendation:

Replace 22 washroom plumbing fixtures (including 16 urinals in rooms 22, 45, 46 and 225, two toilets in rooms 212 and 220, and four lavatories in rooms 20 and 40).

Consequences of Deferral:

Accelerated wear and deterioration of the components.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2008	\$40,040	Low

Updated: SEP-07

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - c.1999 Fixtures**

Washroom plumbing fixtures include toilets, lavatories and urinals. The c.1999 washroom plumbing fixtures include approximately 44 stainless steel lavatories and 10 wall mounted flush valve type urinals.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	35	JUL-07

Event: Replace the c.1999 washroom plumbing fixtures (including 44 lavatories and 10 urinals)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$80,080	Unassigned

Updated: OCT-07

D2020.01.01 Pipes and Tubes: Domestic Water - *

There is one domestic water supply to the building located in room 106 at the bottom of stairwell no. 6. The water supply feeds the fire protection equipment (standpipe system) through a backflow prevention device, the domestic water system through a meter and a second backflow prevention device, and the lawn irrigation system through a meter and a third backflow prevention device. Water piping is generally galvanized steel in larger diameters and copper in smaller diameters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

D2020.01.02 Valves: Domestic Water - **

Domestic water system valves include zone isolating valves and fixture isolating valves. The domestic water system valves are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	40	JUL-07

Event: Replace the domestic water distribution system valves

Concern:

The domestic water distribution system isolation valves are reported to be in poor condition. The valves no longer provide adequate isolation, due to leakage through the valves.

Recommendation:

Replace the domestic water distribution system valves.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$268,840	Medium

Updated: JUL-07

D2020.01.03 Piping Specialties (Backflow Preventors) - **

There are three backflow prevention devices in room 106 at the bottom of stairwell no. 6. One is for the domestic water supply to the building, one is for the water supply to the standpipe system, and one is for the water supply to the lawn irrigation system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	20	JUL-07

Event: Replace three backflow prevention devices

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$43,472	Unassigned

Updated: APR-08

D2020.02.02 Plumbing Pumps: Domestic Water - **

Domestic water pumps include the domestic hot water circulation pump (P15) associated with the domestic hot water boiler located in the mechanical penthouse, and a smaller domestic hot water circulation pump for the building domestic hot water loop.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	20	JUL-07

Event: Replace the domestic hot water boiler circulation pump P15 and the domestic hot water loop circulation pump

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$5,720	Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters - **

Domestic hot water is provided by a Lochinvar model CWN0986 hot water boiler with an input heating capacity of 986,000 Btu/h, located in the penthouse mechanical room. There are two associated storage tanks with a total capacity of 900 L.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	20	JUL-07

Event: Replace the domestic hot water boiler and associated storage tanks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$51,480	Unassigned

Updated: APR-08

D2020.03 Water Supply Insulation: Domestic - *

The domestic hot water lines are insulated to prevent heat loss and the domestic cold water lines are insulated to prevent condensation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

D2030.01 Waste and Vent Piping - *

Waste and vent piping in the building is generally cast iron in larger diameters and copper in smaller diameters. The waste and vent piping is generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

D2040.01 Rain Water Drainage Piping Systems - *

The building flat roof areas are drained by standard roof drains which discharge to the municipal storm sewer system via internal storm drainage piping. The storm drainage piping is generally cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

D2040.02.04 Roof Drains - *

The flat roof areas of the building are drained by standard flow control roof drains equipped with strainers. The roof drains are original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

D2090.01 Compressed Air Systems (Non Controls)**

The shop compressed air supply system is located on the mezzanine above room 182 and consists of four compressors and a receiver tank.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace the shop area compressed air supply system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$85,800	Unassigned

Updated: OCT-07

D3010.02 Gas Supply Systems - *

Natural gas is the primary energy source for space heating (glycol heating boilers and make-up air units, etc.) and domestic hot water heating. The natural gas piping is steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	60	JUL-07

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

Two Cleaver Brooks hot water boilers (model CB.760.500 with an input heating capacity of 20,922,000 Btu/h each) provide primary heating for the building. The hot water boilers heat glycol which is used in the building heating system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	JUL-07

Event: Replace the two primary heating boilers (glycol)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$709,280	Unassigned

Updated: APR-08

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

The hot water (glycol) boilers have discharge stacks for combustion gases. The stacks appear to be original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	JUL-07

Event: Replace the hot water (glycol) boiler discharge stacks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$74,360	Unassigned

Updated: APR-08

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

Chemical inhibitors are manually added to the closed glycol heating loop via a pot feeder.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

D3030.02 Centrifugal Water Chillers**

A Trane 540 ton chiller provides cooling for block B of the building (classrooms). Block A (gymnasia) and block C (vocational shops) are not air conditioned. Cooling is provided by chilled water coils in the main air handling units (east and west). The chiller is a Trane Centravac PCV-5F-C1-D1 using R11 refrigerant.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	25	JUL-07

Event: Replace the chiller**Concern:**

The chiller is in poor condition and has exceeded its life expectancy. The chiller reliability is also poor and the unit is charged with R11 refrigerant.

Recommendation:

Replace the chiller.

Consequences of Deferral:

Potential failure in service resulting in loss of building cooling during warm weather.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$429,000	Medium

Updated: SEP-07

D3030.05 Cooling Towers**

The roof mounted cooling tower provides heat rejection for the chiller.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1968	25	JUL-07

Event: Replace the cooling tower**Concern:**

The cooling tower is in poor condition and has exceeded its life expectancy. The cooling tower reliability is also poor. The wood components of the cooling tower exhibit significant deterioration.

Recommendation:

Replace the cooling tower.

Consequences of Deferral:

Potential failure in service resulting in loss of building cooling during warm weather.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$171,600	Medium

Updated: SEP-07

D3030.06.01 Refrigeration Compressors - **

There are three water cooled refrigerant compressors in room 62 which provide cooling for the kitchen meat cooler, vegetable cooler and walk-in freezer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	25	JUL-07

Event: Replace three refrigeration compressors in room 62

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$41,184	Unassigned

Updated: APR-08

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

There are a total of 18 air handling units for the building. For the main building (block B), there are two air handling units in the mechanical penthouse (east and west units). These units are equipped with roll filters, chilled water cooling coils, glycol heating coils, and spray humidification. A heating and ventilating unit in the mechanical penthouse equipped with a glycol heating coil provides heating and ventilation for the mechanical room.

For the gymnasias (building block A), there are four heating and ventilating units equipped with glycol coils for heating. Units HV1, HV2 and HV3 are located in the block A mechanical room, and unit HV4 is located on the roof above the main entrance lobby.

For the vocational wing (building block C), there are ten heating and ventilating units (HV5 through HV14) and one rooftop gas fired make-up air unit. The heating and ventilating units are located in rooms 144 (2 units), 146, 154, 164, 172, 173, 174, 182 and 198. Each unit is equipped with an integral glycol heating coil or associated duct mounted glycol heating coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Provide adequate ventilation in the woodworking shop in room 150

Concern:

There is inadequate ventilation in the woodworking shop in room 150. Heating is provided by unit heaters and there is no ventilation unit.

Recommendation:

Install a heating and ventilating unit, an associated exhaust fan, ductwork and controls in room 150.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Program Functional Upgrade	2008	\$85,800	Low

Updated: OCT-07

Event: Replace 18 air handling units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$1,887,600	Unassigned

Updated: APR-08

D3040.01.02 Fans: Air Distribution (Remote from AHU) - *

Air distribution fans include the return air fans associated with most of the air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace return air fans (approx. 14)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$200,200	Unassigned

Updated: OCT-07

D3040.01.04 Ducts: Air Distribution - *

The supply and return air duct systems are original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

Event: Clean duct systems**Concern:**

Dirt accumulation around some supply air diffusers and return air grilles indicates that the air distribution duct systems may require cleaning.

Recommendation:

Clean the supply and return air duct systems.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2008	\$45,760	Low

Updated: OCT-07

D3040.01.07 Air Outlets & Inlets:Air Distribution - *

Air outlets and inlets include supply air diffusers and return air grilles. The diffusers and grilles are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

D3040.03.01 Hot Water Distribution Systems - Glycol**

Primary building heating is provided by a glycol heating system supplying air handling unit heating coils and various terminal units including fan coil units, fin tube radiation cabinets, radiant heating panels, unit heaters and convectors. Glycol system pumps include P7 and P8 supplying block A (gymnasium), P9 and P10 supplying block C (vocational wing), P11 and P12 supplying block B (main building), and pump P6. The glycol distribution system is original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace the glycol distribution system including pumps**Recommendation:**

When replacing the glycol distribution system piping and pumps, separate the existing glycol system into a hot water system for the building hydronic terminal units and a glycol system for the air handling unit heating coils.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$2,402,400	Unassigned

Updated: APR-08

D3040.03.02 Chilled Water Distribution Systems**

The chilled water distribution system includes the chilled water pump P4 and the chilled water distribution system piping in the mechanical penthouse (from the chiller to the east and west air handling unit cooling coils via pump P4 and back to the chiller).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace the chilled water distribution system including pump P4

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$257,400	Unassigned

Updated: OCT-07

D3040.03.03 Condenser Water Distribution Systems Pumps*

The condenser water distribution system includes condenser pump P5 and the condenser water distribution system piping in the mechanical penthouse (from the cooling tower to the chiller via pump P5 and back to the cooling tower).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

D3040.04.01 Fans: Exhaust - **

There are numerous exhaust fans providing ventilation for all areas of the building. A few of the exhaust fans are new but most of the exhaust fans are original. There are approximately 50 exhaust fans in the building including 33 roof mounted fans and three wall mounted fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Install exhaust fans in rooms 49 and 158

Concern:

There is inadequate ventilation for room 49 (paint storage) and for room 158 (janitor's closet).

Recommendation:

Install exhaust fans in rooms 49 and 158.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2008	\$5,720	Low

Updated: OCT-07

Event: Replace the building exhaust fans (approx. 50)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$240,240	Unassigned

Updated: APR-08

D3040.04.02 Air Cleaning Devices: Exhaust*

There are two dust collection systems in room 174 (woodworking shop).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	0	JUL-07

D3040.04.03 Ducts: Exhaust - *

Most of the building exhaust fans have associated duct systems for the collection of air from single or multiple source locations and for the discharge of the air to the exterior of the building. The exhaust fan duct systems are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

D3040.04.05 Air Outlets and Inlets: Exhaust - *

Exhaust outlets and inlets include collection grilles and diffusers (including hoods), as well as stacks or discharge ducts where applicable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

D3050.02 Air Coils - **

Air coils include glycol reheat coils for terminal reheat.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace the reheat coils (approx. 250)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$429,000	Unassigned

Updated: APR-08

D3050.03 Humidifiers - **

The east and west air handling units for the main building (block B) are equipped with spray type humidification systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

Event: Replace spray humidifiers for the block B east and west air handling units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$70,928	Unassigned

Updated: APR-08

D3050.05.01 Convectors**

Glycol heating system terminal units include hydronic convectors. The terminal units are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace convectors (approx. 15)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$51,480	Unassigned

Updated: OCT-07

D3050.05.02 Fan Coil Units - **

Glycol heating system terminal units include hydronic fan coil units in the corridors. The terminal units are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace the fan coil units (approx. 20)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$57,200	Unassigned

Updated: APR-08

D3050.05.03 Finned Tube Radiation - **

Glycol heating system terminal units include hydronic fin tube radiation cabinets. The terminal units are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Install finned tube radiation cabinets at southeast corner of block B on second floor (approx. 35 m)

Concern:

At the southeast corner of the main building on the second floor, there are no perimeter radiation cabinets to provide heat. This may result in excessive condensation on the windows at that corner of the building during cold weather.

Recommendation:

Install finned tube radiation cabinets at the southeast corner of the main building (block B) on the second floor (approximately 35 m).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2009	\$27,456	Low

Updated: OCT-07

Event: Replace finned tube radiation cabinets (approx. 450 m)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$343,200	Unassigned

Updated: APR-08

D3050.05.06 Unit Heaters**

Glycol heating system terminal units include hydronic unit heaters. The terminal units are generally original.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace unit heaters (approx. 12)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$34,320	Unassigned

Updated: OCT-07

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Glycol heating system terminal units include radiant ceiling panels. The radiant panels are generally new and were installed during recent (c.1999) renovations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1999	35	JUL-07

Event: Replace radiant ceiling panels in rooms 165, 171 and 187 (approx. 60 m)².

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$68,640	Unassigned

Updated: OCT-07

D3060.02.02 Pneumatic Controls**

The original building HVAC equipment controls are pneumatic, including pneumatic thermostats for space temperature control and pneumatic actuation for control valve and damper operation. Control air compressors with an air dryer provide control air (located in the penthouse mechanical room).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Correct temperature control problem in classroom 84

Concern:

Temperature control in classroom 84 is poor because there is no thermostat located in the room.

Recommendation:

Investigate the temperature control problem in room 84 and repair.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2008	\$17,160	Low

Updated: OCT-07

Event: Replace pneumatic controls

Recommendation:

Replace pneumatic controls including the control air supply systems.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$446,160	Unassigned

Updated: OCT-07

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

A Barber-Colman building management and control system (BMCS) has been installed to provide digital monitoring and control of the building major mechanical equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	20	JUL-07

Event: Replace the building management and control system (BMCS)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$526,240	Unassigned

Updated: OCT-07

D4020 Standpipes - *

All areas of the building are served by a standpipe system and fire hose cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	100	JUL-07

Event: Install siamese connection to the standpipe system**Concern:**

There is no fire department siamese connection to the standpipe system.

Recommendation:

Install a fire department siamese connection to the standpipe system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2008	\$5,720	Low

Updated: OCT-07

D4030.01 Fire Extinguisher, Cabinets and Accessories - *

Fire extinguishers are located in the fire hose cabinets and at other locations throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	30	JUL-07

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

The kitchen cooking hoods are protected with automatic fire suppression systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace kitchen cooking hood fire suppression systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$32,032	Unassigned

Updated: OCT-07

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

There is one 13.8kV-347/600V primary transformer for power distribution within the school. The primary transformer located in the main electrical room is a 3000kVA dry type Federal Pioneer transformer. The transformer is an integral part of the main switchboard. The main electrical room is located in the mechanical room mezzanine above the second floor - Block B.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace 3000kVA Main Transformer

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$188,760	Unassigned

Updated: JUL-07

D5010.02 Secondary Electrical Transformers (Interior)**

There are two main distribution transformers for the school. A 600kVA, 600-120/208V, Federal Pioneer transformer is integrated with the main switchboard in the mechanical penthouse. A 500kVA, 600-120/208V, transformer fed from distribution panel 3D2 supplies power to 120/208V distribution panel 1D3. There is a 15kVA, 600-120/208V, Westinghouse transformer in the upper level gymnasium mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace Secondary Transformers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$74,360	Unassigned

Updated: JUL-07

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

The main electrical switchboard for the school is located in the block B mechanical penthouse. The main switchboard consists of a 13.8kV main air circuit breaker, a 3000kVA, 13.8kV-347/600V transformer, a 347/600V distribution section, a 600kVA, 600V-120/208V transformer and a 120/208V distribution section. Power Factor correction capacitors by GE and Westinghouse have been installed.

The 600V breakers have frame ratings and loads as follows:

- 1200/600A - Distribution Centre 3D1
- 1200/600A - MCC #3
- 600/400A - Spare
- 1200/800A - Refrigeration Compressor
- 1200/800A - 600kVA, 600-120/208V transformer
- 1200/600A - MCC #4
- 1200/1000A - Distribution Centre 3D2

The 120/208V distribution section has breakers with frame ratings and loads as follows:

- 600/400A - Distribution Centre 1D1
- 1200A - Distribution Centre 1D2

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	JUL-07

Event: Replace Main Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$629,200	Unassigned

Updated: APR-08

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

The majority of the electrical branch circuit panelboards within the school are original Westinghouse panels. There are two main 347/600V distribution panels (3D1 and 3D2) that feed approximately 6-347/600V panels. There are three main 120/208V distribution centres (1D1, 1D2 and 1D3) that feed approximately 33-120/208V panels (1968) and 12-120/208V panels (1997). Distribution panels 3D2 and 1D3 are located in Block C - Shop Wing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	JUL-07

Event: Replace Original Branch Circuit Panels

Concern:

Over the life of the panel, breaker contacts become worn and the breakers will no longer operate correctly and may trip unnecessarily. Older panels do not readily accept newer style breakers.

Recommendation:

Replace aged panelboards and reconnect branch circuit wiring.

Consequences of Deferral:

Deferring replacement could lead to partial power outages and intermittent tripping of breakers as well as increased maintenance costs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$274,560	Low

Updated: JUL-07



Aged electrical branch circuit panels.

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1997 Panels**

New Siemens panels were installed in the 1997 and 1999 modernization projects. There are approximately 12-120/208V Siemens panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	JUL-07

Event: Replace 1997 Panels

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$68,640	Unassigned

Updated: APR-08

D5010.07.01 Switchboards, Panelboards, and Motor Control Centers**

There are five original Canadian Controller MCC's within the school. MCC #1 is a 600V MCC located in Block C. MCC #2 is a 120V MCC located in Block C. MCC #3 and MCC #4 are 600V MCC's located in the mechanical penthouse of Block B. There is a 600V MCC located in the gymnasium upper level mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	APR-08

Event: Replace CCL Motor Control Centres

Concern:

The Motor Control Centres have exceeded their theoretical life expectancy. Starter replacement parts are not readily available

Recommendation:

Replace the existing five CCL Motor Control Centres.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$114,400	Low

Updated: JUL-07



Aged MCC #3 and MCC #4

D5010.07.02 Motor Starters and Accessories**

There are some individual motor starters (Telemechanique, Allen Bradley and Canadian Controller) within the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	JUL-07

Event: Replace Individual Motor Starters

Concern:

The individual motor starters have exceeded their theoretical life expectancy. Replacement parts are not readily available.

Recommendation:

Replace aged individual motor starters.

Consequences of Deferral:

Loss of power to mechanical system fed from motor starter.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$11,440	Low

Updated: JUL-07



Aged individual motor starters

D5010.07.03 Variable Frequency Drives**

There are four Telemecanique variable frequency drives located in the mechanical penthouse of Block B. The drives control fans F1, F2, F3 and F4.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	JUL-07

Event: Replace Variable Frequency Drives

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$22,880	Unassigned

Updated: JUL-07

D5020.01 Electrical Branch Wiring*

The majority of the cabling is standard building wire in EMT conduit. Armoured cable has been provided, in selected locations, for final connections to mechanical and miscellaneous equipment. A Westinghouse low impedance bus duct has been provided from the main switchboard to distribution centre 3D2.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

D5020.02.01 Lighting Accessories (Lighting Controls)*

There are low voltage switches within the school used for lighting control. The low voltage relay cabinets are located adjacent to the 347/600V lighting panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	JUL-07

Event: Replace Interior Lighting Controls

Concern:

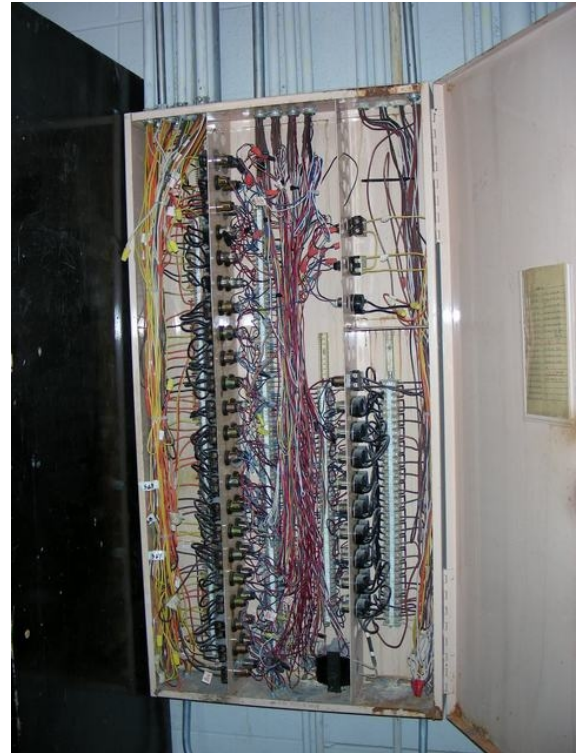
The relays for control of the interior lighting are aged. Components for the system are not readily available. System does not have control features of newer systems.

Recommendation:

Replace existing low voltage relay panels with new low voltage lighting control system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2010	\$40,040	Low

Updated: JUL-07



Low voltage relay cabinet

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent lighting fixtures have been installed in several service rooms. Stage lighting fixtures are located within the school for productions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	JUL-07

Event: Replace Incandescent Fixtures

Concern:

The incandescent fixtures are inefficient and the lamp life is relatively short when compared with fluorescent fixtures. Some of the incandescent fixtures including the stage lighting fixtures are in poor condition.

Recommendation:

Replace the incandescent fixtures in the service rooms with new fluorescent fixtures. Replace the stage lighting fixture with new fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$28,600	Low

Updated: JUL-07

D5020.02.02.02 Interior Florescent Fixtures - T12 Fixtures**

The fluorescent fixtures in Block C were not retrofitted during the modernization projects. The typical fixtures in the shop areas are industrial fluorescent fixtures with T12 lamps and magnetic ballasts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Energy Efficiency Upgrade

Concern:

The T12 lamps and ballasts are not energy efficient. T12 lamp production could be discontinued in the future.

Recommendation:

Replace existing T12 lamps and ballasts with energy efficient T8 lamps and electronic ballasts.

Consequences of Deferral:

Increased energy costs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2008	\$554,840	Unassigned

Updated: JUL-07

D5020.02.02.02 Interior Florescent Fixtures - T8 Fixtures**

The standard lighting fixture used throughout the school is a 2 ft. x 4 ft. recessed, fluorescent fixture. In some areas a deep cell parabolic lens has been provided for the fixture. Surface mounted fluorescent wrap-around fixtures have been used in the corridors. The typical fluorescent lighting fixtures in Block B of the school are either new T8 fixtures or fixtures that were retrofitted with T8 lamps and electronic ballasts during the modernization projects in 1997 and 1999. Recessed compact fluorescent downlights have been provided in selected areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	JUL-07

Event: Replace Block B Fluorescent Fixtures

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$835,120	Unassigned

Updated: JUL-07

D5020.02.02.03 Interior Metal Halide Fixture*

Metal Halide lowbay fixtures are utilised in both of the gymnasiums - Block A.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	JUL-07

D5020.02.03.01 Emergency Lighting Built-in*

Existing building fluorescent lighting fixtures, fed from emergency panels, are utilised for emergency lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	35	JUL-07

D5020.02.03.03 Exit Signs*

The exit signs are typically LED type, that were installed or retrofitted in 1997, throughout the school. Additional exit signs are required in some areas to identify egress routes. In Block C there are non-illuminated exit signs in many of the shops.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	JUL-07

Event: Install Additional Exit Signs

Concern:

Additional exit signs are required to meet current code requirements.

Recommendation:

Provide additional LED exit signs to clearly indicate egress routes.

Consequences of Deferral:

Life safety concern if exit routes are not clearly indicated.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2008	\$11,440	High

Updated: APR-08

Event: Study

Concern:

There are several non-illuminated exit signs within the building. Egress routes from the building are not clearly identified.

Recommendation:

Provide a study to determine where additional exit signs are required.

Consequences of Deferral:

Life safety concern.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2008	\$5,720	Unassigned

Updated: APR-08

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The exterior lighting for the school consists of HID globe type fixtures, wallpacks and floodlights. Surface mounted square fixtures with acrylic lenses are provided under the canopies between Block B and Block A.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	JUL-07

Event: Replace Exterior Lighting

Concern:

The exterior lighting is aged. Many fixtures are damaged or inefficient.

Recommendation:

Replace existing exterior lighting with new HPS wallpack fixtures and floodlights.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2009	\$57,200	Low

Updated: JUL-07



Damaged globe type fixture

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

Timers, contactors and photocell controls have been provided for the exterior lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace Exterior Lighting Controls

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$8,580	Unassigned

Updated: JUL-07

D5030.01 Detection and Fire Alarm**

The fire alarm system is a Simplex 4020 addressable system that was installed in 1997. The main fire alarm control panel is located in room 107 - Block B, main floor. There is a remote annunciator at the main entrance (c/w active graphic). Fire alarm bells and strobes are located throughout the school. Duct mounted smoke detection has been provided for air handling systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	JUL-07

Event: Replace Fire Alarm System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$887,380	Unassigned

Updated: APR-08

D5030.02.02 Intrusion Detection**

The security system is a Magnum Alert system with the main panel located in room 235 - Block B, second floor. Security system keypads have been provided at entrances and for computer rooms. PIR motion detectors have been provided throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	JUL-07

Event: Replace Intrusion Detection System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$91,348	Unassigned

Updated: APR-08

D5030.02.04 Video Surveillance**

8 exterior cameras with weatherproof housings have been installed for the school and there are approximately 8 interior cameras. The cameras are monitored via authorized network access. Digital recorders have been installed for the video surveillance system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	JUL-07

Event: Replace Video Surveillance System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$40,308	Unassigned

Updated: APR-08

D5030.03 Clock and Program Systems*

The majority of the clocks within the school are 120V or battery operated. Wall mounted clocks in the school are manufactured by Edwards and Westclox.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	JUL-07

D5030.04.01 Telephone Systems*

The telephone system is a Nortel system. Norstar telephone handsets are located in the classrooms and selected areas such as the general office. The main telephone equipment is located in room 235 - Block B, second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	JUL-07

D5030.04.05 Local Area Network Systems*

Data system servers are located throughout the school. Cat. 5 cables are used for the network wiring within the school. Supernet has been installed in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	15	JUL-07

D5030.05 Public Address and Music Systems**

The public address system is a Bogen Multicom 2000 system. Speakers are typically round, recessed mounted units in the corridors and surface mounted units in the classrooms. The main system components are located in room 235 - Block B, second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	20	JUL-07

Event: Replace P.A. System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$107,341	Unassigned

Updated: APR-08

D5030.06 Television Systems*

The cable television equipment is located in room 235 - Block B, second floor. Cable TV outlets are located in selected rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	JUL-07

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

A natural gas Kohler emergency generator is located in the mechanical penthouse in Block B. The generator is rated 40kW, 50kVA at 347/600V. The transfer switch is a Westinghouse transfer switch.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	JUL-07

Event: Replace Emergency Generator

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$87,533	Unassigned

Updated: OCT-07

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1020.03 Theater and Stage Equipment - ***

Curtains & lighting equipment are located in the theatre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

E1090.03 Food Service Equipment - *

The cafeteria has a complete kitchen facility with a servery area, wood & stainless steel tables, built in ovens, refrigerators, deep fryers, fume-hoods and several smaller appliances. The kitchen facility is leased and maintained by an independent caterer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

E1090.04 Residential Equipment - *

The cooking labs are equipped with refrigerator, stoves, microwaves and several small kitchen appliances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	10	JUL-07

E1090.07 Athletic, Recreational, and Therapeutic Equipment - *

Electronic scoreboard, movable basketball hoops are located in the gymnasiums. Exercise equipment is located in the fitness room (block C)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	15	JUL-07

E2010.02 Fixed Casework - **

Most classrooms are equipped with custom wood open faced and/or painted cabinet units. Each science laboratory is equipped with upper wood cabinets, lower cupboards c/w counter-top, open fixed shelving. Most of the other labs, such as; art, communications and music all have fixed storage wood cabinets throughout the room. The library has fixed and moveable wood shelving casework. Glass display cabinets are located in the corridors & entrance area. The change rooms & washrooms have fixed vanities.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	35	JUL-07

Event: Replace Fixed Casework

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$1,716,000	Unassigned

Updated: APR-08

E2010.03.01 Blinds - **

Horizontal blinds are between the sealed glazed units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

Event: Replace Blinds

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$114,400	Unassigned

Updated: APR-08

E2010.05 Fixed Multiple Seating - **

Fixed seating is located in the auditorium. Desks with plastic laminate tops are located throughout the classrooms. Labs & shops have metal base stools.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	JUL-07

Event: Replace [E2010.05 Fixed Multiple Seating -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$915,200	Unassigned

Updated: APR-08

F1010.02.05 Grandstands and Bleachers - **

Bleachers on re-tractable metal frames are located in the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	30	JUL-07

Event: Replace [F1010.02.05 Grandstands and Bleachers -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$286,000	Unassigned

Updated: APR-08

F2020.01 Asbestos - *

Suspected asbestos-containing materials observed in the building include vinyl tile flooring in the school corridors and classrooms, counter-tops, texture coated ceilings, gymnasium wallboard and piping insulation. An asbestos report was conducted in June, 2000 and provided by EPSB. An asbestos abatement was last conducted in 2005.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

F2020.04 Mould - *

No mould known or reported

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

F2020.09 Other Hazardous Materials - *

No hazardous material known or reported

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

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

Barrier free access from the south-east parking area to the south building entrance is available. Signage for a designated handicap parking space is provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

K4010.02 Barrier Free Entrances - *

No automatic door entrances are provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	0	JUL-07

Event: **Provided power operators for barrier free access at the main entrance of the building.**

Concern:

Provided power operators for barrier free access at the north-east entrance of the building.

Recommendation:

Provided power operators for barrier free access at the main entrance of the building.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2008	\$4,576	Low

Updated: APR-08

K4010.03 Barrier Free Interior Circulation - *

Barrier free access is provided to most areas, excluding the auditorium stage area and several ancillary areas. A ramp is provided to the second floor level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	JUL-07

K4010.04 Barrier Free Washrooms - *

Several existing washroom has been modified with Barrier free stalls. Designated washrooms have been updated and modified to accommodate barrier free accessibility..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	0	JUL-07

RECAPP Facility Evaluation Report



M. E. Lazerte Composite High School

S3201
Edmonton

Facility Details	
Building Name:	M. E. Lazerte Composite High School
Address:	
Location:	Edmonton
Building Id:	S3201
Gross Area (sq. m):	0.00
Replacement Cost:	\$0
Construction Year:	0

Evaluation Details	
Evaluation Company:	Asset Evolution Incorporated (AEI)
Evaluation Date:	May 10 2007
Evaluator Name:	Mario Plastina

Total Maintenance Events Next 5 years: \$629,200
5 year Facility Condition Index (FCI): 0%

General Summary:

The site of M.E. Lazerte Composite High School includes asphalt paved roadways & parking areas accessible from the east at two locations off 66th Street. Grass, shrubs and trees are located primarily along the south elevation. A free standing school signage is located at the at the south & south-east corner of the site. Pedestrian concrete walkways are located at the main entrances and extend along the perimeter of the school.

Overall the site is in acceptable condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

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.

S7 SITE**G2010.02.02 Flexible Pavement Roadway (Asphalt) - ****

The asphalt paved roadway to the two main parking areas is located and accessible from 66th Street along the east end of the site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

Event: Replace asphalt paved roadway

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$205,920	Unassigned

Updated: APR-08

G2010.05 Roadway Curbs and Gutters - *

Poured in place concrete curbs are located along the roadway areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	25	JUL-07

Event: Repair Concrete Curbs**Concern:**

Several roadway concrete curbs are damaged primarily from snow removal equipment.

Recommendation:

Repair all isolated damaged concrete curbs

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2008	\$11,440	Low

Updated: APR-08



Damaged roadway curbs observed in several isolated areas.

G2020.02.02 Flexible Paving Parking Lots(Asphalt) - **

Two large asphalt paved parking areas are located on the property. The parking areas are located along the east and west ends of the site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

Event: Replace asphalt paved parking areas.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2012	\$343,200	Unassigned

Updated: APR-08

G2020.05 Parking Lot Curbs and Gutters - *

Poured in place concrete curbs are located along the asphalt paved parking areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

G2030.03 Pedestrian Unit Pavers**

Pedestrian unit pavers are located at the outdoor sitting area located along the west end of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	20	JUL-07

Event: Lifecycle Replacement [G2030.03 Pedestrian Unit Pavers]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$114,400	Unassigned

Updated: APR-08

G2030.04 Rigid Pedestrian Pavement (Concrete) - **

Poured in place concrete walkways lead to all the school entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	25	JUL-07

Event: Repair concrete sidewalks - 100 linear metres

Concern:

Several poured in place concrete walkways are damaged. The sub-structure appears to have been compromised.

Recommendation:

Remove all damaged walkways, repair substructure and install new concrete walkways.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2008	\$68,640	Unassigned

Updated: APR-08



Settlement of concrete observed in several locations around the school.

Event: Replace [G2030.04 Rigid Pedestrian Pavement (Concrete) -]**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$228,800	Unassigned

Updated: APR-08

G2040.03 Athletic and Recreational Surfaces - **

A sodded football / soccer field with goal posts is located at the west end of the property.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1968	25	JUL-07

G2040.05 Site and Street Furnishings - *

Bicycle racks are located in several locations along the school. Outdoor tables & park benches are located in several areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	15	JUL-07

G2040.06 Exterior Signs - *

Exterior wall-mounted signage is provided on several locations throughout the elevations of the buildings. A free-standing signage display panels are located at the south-east corner of the site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07

G2040.08 Flagpoles - *

A flagpole is located on the south elevation of the property adjacent to the main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	JUL-07

G2050.01 Irrigation Systems - *

The building has a lawn irrigation system for the grassed areas at the front of the building. The Toro model IC12 irrigation system controller is located in room 106 at the bottom of stairwell No. 6 where the building domestic water supply enters the building. The irrigation system is equipped with backflow prevention and water metering.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	10	JUL-07

G2050.04 Lawns and Grasses - *

Grassed areas are located in along the east & south ends of the site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	15	JUL-07

G2050.05 Trees, Plants and Ground Covers - *

Mature trees, plants and shrubs are located along the east, west and south ends of the site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	10	OCT-07

G3010.02 Site Domestic Water Distribution - *

There is one domestic water supply to the building located in room 106 at the bottom of stairwell No. 6. The four inch metered water supply feeds the building standpipe system (a three inch branch equipped with backflow prevention) and the lawn irrigation system (a two inch branch equipped with backflow prevention), as well as the building domestic water distribution system (a four inch feed equipped with backflow prevention). The building domestic water supply appears to be supplied from a water main on 144 Avenue.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

G3010.03 Site Fire Protection Water Distribution - *

Fire protection water for the building standpipe system is fed from the building domestic water supply. Around the site, there are six fire hydrants including three along 66 Street, two on the north side of the site and one on the west side of the site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

G3020.01 Sanitary Sewage Collection - *

The building sanitary sewer drainage discharges to the municipal sanitary sewer system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

G3030.01 Storm Water Collection - *

There are approximately eight storm sewer catch basins located around the site including two in the east parking area, three in the west parking area, one on the north driveway and two in the grassed areas on the east side.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

Event: **Install three additional catch basins between blocks B and C to eliminate storm water accumulation**

Concern:

Storm water can accumulate and pond on the grassed areas between blocks B and C.

Recommendation:

Install three additional catch basins north of block B and south of block C (one on the west side of the ramp and two on the east side of the ramp).

Consequences of Deferral:

Continued storm water ponding in the areas of poor drainage after significant rainfall.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2008	\$54,912	Low

Updated: APR-08

G3060.01 Gas Distribution - *

The natural gas feed to the building is underground. Natural gas is supplied to the penthouse mechanical room for the heating boilers and to rooftop make-up air units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	JUL-07

G3090 Other Site Mechanical Utilities - Underground Waste Oil Tank*

An underground waste oil tank is located on the west side of the shop wing (block C), adjacent to the automotive shop.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUL-07

G4010.04 Car Plugs-ins*

Car Plug-ins have been installed in the Northwest parking lot. The car plug-ins are rail mounted with duplex weatherproof receptacles provided for every two parking stalls. There are approximately 57 car plug-ins. The car plug-ins are fed from panels located in the parking area. The contactor controlled panels are housed within weatherproof enclosures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	25	JUL-07

G4020.01 Area Lighting*

There are three dual head and one single head cobra style pole mounted fixtures installed in the East parking lot along 66 Street.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	JUL-07