

RECAPP Facility Evaluation Report

Grande Prairie S Dist #2357



Swanavon School

B3513A

Grande Prairie

Facility Details

Building Name: Swanavon School
Address: 8908 - 100 Street
Location: Grande Prairie

Building Id: B3513A
Gross Area (sq. m): 3,200.20
Replacement Cost: \$8,718,435
Construction Year: 1957

Evaluation Details

Evaluation Company: Jacques Whitford AXYS Ltd.
Evaluation Date: October 27 2008
Evaluator Name: Aaron Klenke

Total Maintenance Events Next 5 years: **\$533,000**
5 year Facility Condition Index (FCI): **6.11%**

General Summary:

The Swanavon School is located at 8908 - 100 Street in Grande Prairie, AB. The school houses offices, classrooms, a library and a gymnasium. The facility was originally constructed in 1957. The school is a one storey structure with a roof penthouse containing electrical and mechanical equipment. The building encompasses a reported total gross floor area of 3,311.7 m². The building's structural framework is believed to generally consist of load-bearing concrete block walls, as well as steel beams supporting the roof structure. Major modernizations/renovations were undertaken in the facility in 1997. A Relocatable Classroom Unit was also added in 1997.

Structural Summary:

Structural drawings were not available for review during the assessment, however, the foundation is believed to consist of cast-in-place concrete strip footings under load-bearing frost walls and concrete pad footings. Crawl spaces with cast-in-place concrete walls are provided under portions of the floors on the north and central areas of the building. It is believed load-bearing interior walls are comprised of concrete block. The roof framing of the facility reportedly consists of metal decking supported by steel beams.

Major work recommended includes the following:

- Investigate and repair corroded steel decking and supporting elements below a portion of the school's main floor.

The building's structural elements were observed to be in acceptable condition.

Envelope Summary:

The exterior walls are finished with clay brick veneer, painted concrete blocks, painted metal siding, painted concrete stucco and painted wood trim. Exterior windows of the building consist of insulating glazing units set in pre-finished metal frames, some with operable portions. The exterior entrance doors of the facility consist of painted metal units with single glazing set in painted metal frames. Exterior utility doors consist of painted metal set in painted metal frames. The building roof sections are protected with a modified bituminous membrane assembly.

Major work recommended includes the following:

- Repainting the wood and concrete trim located adjacent to the windows of the building
- Repairing a blister on the SBS roofing system

The facility's building envelope appears to be in acceptable condition.

Interior Summary:

General interior areas consist of offices, classrooms, a library and a gymnasium. The majority of the interior partitions consist of load-bearing and non load-bearing concrete block walls, with some interior partitions consisting of non load-bearing brick, and metal stud and gypsum board walls. Interior windows are generally located in the administration areas. The windows consist of single-pane glass set in painted metal frames. The majority of the interior swinging doors throughout the school generally consist of stained wood core doors set in pre-finished metal frames. The remainder of the doors are painted steel doors set in pre-finished metal frames with inset glazing. The majority of the building is finished with vinyl sheet flooring and suspended T-bar ceilings and inlaid acoustic tiles.

Recommended work includes the following:

- Install missing firestopping in fire wall separations
- Repaint the concrete floors of the east side mechanical room and the south entrance vestibule
- Replace water-stained ceiling panels
- Replace the water-stained gypsum board ceiling in the relocatable classroom unit

The building's interior finishes are in acceptable condition, overall.

Mechanical Summary:

Swanavon School was built in 1957 and underwent a major renovation in 1997.

The building is heated by two natural gas fired boilers. Heating water is supplied to heating coils in the air handling units, perimeter radiant heating panels, and entrance heaters. The computer room is the only area of the school that is air conditioned and is served by a packaged rooftop unit.

Ventilation is provided by two central air handling units.

Various exhaust fans serve areas such as washrooms, kitchens, and common areas.

The water service entering the building is not equipped with a backflow preventor. Domestic hot water is generated by two gas-fired water heaters.

Only a small portion of the library is sprinklered. There are fire hose cabinets located in the corridors throughout the school.

Fire extinguishers are located throughout the building and appear to be regularly checked for correct operation.

The following Program Functional Upgrades are suggested:

- Install a backflow prevention device on the domestic water service
- Upgrade the building automation system

Additionally, an Air Quality Upgrade is also recommended to humidify the building by installing humidifiers to serve the ventilation systems.

The mechanical systems in this facility are in acceptable condition overall.

Electrical Summary:

Swanavon School was built in 1957 and was significantly renovated in 1997. Recent upgrades to the electrical systems include:

- Replacement of the main and secondary distribution panels;
- Replacement of the interior fluorescent lighting and the lighting controls;
- Replacement of many of the emergency lighting fixtures;
- Installation of LED lamps in the exit lighting fixtures;
- Replacement of the fire alarm system;
- Replacement of the security system;
- Replacement of the telephone system;
- Upgrades to the LAN system; and,
- Replacement of the PA system.

Power is fed to the main electrical equipment that is located in the boiler room at 347/600V from an exterior utility owned pad mount transformer. The main distribution panel is rated at 800A. The majority of interior lighting is T8 fluorescent fixtures that were upgraded in the 1997 building renovations. The school is not equipped with an emergency generator.

The electrical systems in this facility are in acceptable to good condition overall.

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***

Structural drawings were not available for review during the assessment, however, the foundation is believed to consist of cast-in-place concrete strip footings under load-bearing frost walls and concrete pad footings.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

A1030 Slab on Grade*

The majority of the floors consist of concrete slabs-on-grade.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

A2020 Basement Walls (& Crawl Space)*

Crawl spaces with cast-in-place concrete walls are provided under portions of the floors on the north and central areas of the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

B1010.01 Floor Structural Frame (Building Frame)*

Structural drawings were not available for review during the assessment, however, the building's structural framework is believed to consist of load-bearing concrete block walls, as well as steel beams supporting the roof structure.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

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

Structural drawings were not available for review during the site assessment, however it is believed load-bearing interior walls are comprised of concrete block.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

B1010.03 Floor Decks, Slabs, and Toppings*

The facility floors mainly consist of concrete slabs-on-grade, with some floor sections consisting of steel decking supported by steel framing (open-web steel joists).

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1957 | 0 | MAR-09 |

Event: Investigate Metal Decking**Concern:**

A review of observable areas where metal floor decking is present revealed considerable corrosion and staining of soffit surfaces and supporting elements.

Recommendation:

Conduct a study to confirm the structural integrity of the corroded metal decking and supporting elements, or whether repairs are required. The extent of the concern should also be confirmed.

Consequences of Deferral:

Further deterioration of the metal decking and supporting elements, and a potential loss in structural capacity.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-------------|-------------|-------------|-----------------|
| Study | 2009 | \$7,000 | Medium |

Updated: MAR-09

Event: Repair Corroded Metal Decking (approx. 50 Sq. M.)**Concern:**

A review of observable areas where metal floor decking is present revealed considerable corrosion and staining of soffit surfaces and supporting elements.

Recommendation:

Repair or reconstruct the corroded portions of the metal decking and supporting elements, based on the results of the initial study. A cost allowance for repairs is included herein, however, actual costs depend on the results of the investigation.

Consequences of Deferral:

Further deterioration of the metal decking and supporting elements, and a potential loss in structural capacity.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-------------|-------------|-------------|-----------------|
| Repair | 2010 | \$100,000 | Medium |

Updated: MAR-09

B1020.01 Roof Structural Frame*

The roof framing of the facility reportedly consists of metal decking supported by steel beams.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

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

Portions of the east and west exterior walls are finished with clay brick veneer.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 75 | MAR-09 |

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

The majority of the exterior walls are finished with concrete block and associated concrete trim.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 75 | MAR-09 |

B2010.01.06.03 Metal Siding**

Metal siding is present on the exterior walls above the majority of the windows on the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 40 | MAR-09 |

Event: Replace approx. 150 m² of metal siding

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$55,000 | Unassigned |

Updated: MAR-09

B2010.01.06.04 Wood Siding**

Wood trim is present adjacent to the windows located within the concrete block walls.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 40 | MAR-09 |

Event: Replace approx. 10 m² of wood trim

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$5,000 | Unassigned |

Updated: MAR-09

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

Concrete stucco is present at the upper portions of the north and east exterior walls, and on the majority of the south and west exterior walls.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 75 | MAR-09 |

B2010.01.09 Expansion Control: Exterior Wall Skin*

Construction joints are provided at periodic intervals within the face brick, concrete block and concrete stucco cladding systems for expansion control.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

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

A sealant/caulking is installed in the control joints of the exterior brick veneer, concrete block and stucco finishes.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

Event: Replace approx. 320 m of joint sealants

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$12,000 | Unassigned |

Updated: MAR-09

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

The concrete block and associated concrete trim, metal siding, wood trim and concrete stucco wall finishes are painted.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1997 | 15 | MAR-09 |

Event: Repaint Exterior Walls (approx. 1,700 m²)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$47,000 | Unassigned |

Updated: MAR-09

Event: Repaint approx. 200 m of Wood and Concrete Trim

Concern:

Deteriorated paint was observed on the wood and concrete trim located adjacent to the windows of the building, and appeared to be caused by typical weathering.

Recommendation:

Repaint the wood and concrete trim located adjacent to the windows of the building.

Consequences of Deferral:

Unpainted wood may lead to wood rot and detracts from building aesthetics. Unpainted concrete also detracts from building aesthetics.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|--------------------------|-------------|-------------|-----------------|
| Preventative Maintenance | 2009 | \$6,000 | Low |

Updated: MAR-09

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

It is believed that the exterior walls of the school building consist of load-bearing concrete block.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

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

Architectural drawings were not available for review during the site assessment, however, it is unlikely that the concrete block walls of the building include an air barrier or a vapor retarder.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

B2010.06 Exterior Louvers, Grilles, and Screens*

Pre-finished metal louvers are positioned along the walls of the roof levels to support air flow and ventilation within the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

B2010.09 Exterior Soffits*

Wood soffits are present at the building entrances.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1977 Windows**

The windows consist of insulating glazing units (IGUs) set in pre-finished metal frames, some with operable portions.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1977 | 40 | MAR-09 |

Event: Replace approx. 178 exterior windows

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$316,000 | Unassigned |

Updated: MAR-09

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1997 Windows**

The windows consist of IGUs set in pre-finished metal frames.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

Event: Replace approx. 61 exterior windows

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2037 | \$109,000 | Unassigned |

Updated: MAR-09

B2020.03 Glazed Curtain Wall**

Two aluminum-framed, glazed curtain walls are located at the north entrance to the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

Event: Replace approx. 13 m² of aluminum-framed curtain walls

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2037 | \$30,000 | Unassigned |

Updated: MAR-09

B2030.01.01 Aluminum-Framed Storefronts: Doors**

The exterior entrance doors of the facility consist of painted metal units with single glazing set in painted metal frames.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace approx. 10 exterior entrance doors

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$41,000 | Unassigned |

Updated: MAR-09

B2030.02 Exterior Utility Doors**

One exterior utility door is present at the southwest side of the building and one exterior utility door is present at the roof penthouse. Both doors consist of metal units set in metal frames.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

Event: Replace two utility doors

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2037 | \$3,000 | Unassigned |

Updated: MAR-09

B3010.01 Deck Vapor Retarder and Insulation*

All roofing on the facility was reportedly replaced in 1997. It is assumed that the deck vapor retarder was replaced at that time as well as replacement and/or upgrading of the insulation.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

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

All sections of the roof are protected with a modified bituminous membrane assembly (SBS). The roof sections are bordered with curbs finished with metal flashings and pre-finished metal copings.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1997 | 25 | MAR-09 |

Event: Repair Blister on SBS Roofing System

Concern:

A portion of the SBS roofing system (approx. 0.5 meter in diameter) was observed to be blistered adjacent to the southeast of the gymnasium wall. The membrane did not appear to be adhering to the substrate in this area.

Recommendation:

Repair the blister on the SBS roofing system.

Consequences of Deferral:

Accelerated and premature failure of the roofing membrane leading to leaks.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-------------|-------------|-------------|-----------------|
| Repair | 2009 | \$1,000 | Low |

Updated: MAR-09

Event: Replace approx. 3,500 m² of SBS roofing

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2022 | \$847,000 | Unassigned |

Updated: MAR-09

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

The main roof area is accessed by a painted metal door set in a painted metal frame which is located at the roof penthouse.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

S3 INTERIOR**C1010.01 Interior Fixed Partitions***

The majority of the interior partitions consist of load-bearing and non load-bearing concrete block walls, with some interior partitions consisting of non load-bearing brick, and metal stud and gypsum board walls.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

C1010.05 Interior Windows*

Interior windows are generally located in the administration areas. The windows consist of single-pane with tempered or wired glass set in painted metal frames.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 80 | MAR-09 |

C1010.07 Interior Partition Firestopping*

Interior partitions that are fire walls or fire separations are generally constructed with masonry block.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1957 | 0 | MAR-09 |

Event: Install Missing Firestopping**Concern:**

Penetrations through service/utility room walls for piping, ducts, electrical conduit, etc. did not appear to be properly sealed.

Recommendation:

Seal or repair the voids and gaps as necessary in service/utility rooms to provide a proper firestopping barrier.

Consequences of Deferral:

Potential accelerated migration of smoke or flame in the event of a fire emergency.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-------------|-------------|-------------|-----------------|
| Repair | 2009 | \$3,000 | Medium |

Updated: MAR-09

C1020.01 Interior Swinging Doors (& Hardware)*

The majority of the interior swinging doors throughout the school generally consist of stained wood core doors set in pre-finished metal frames. The remainder of the doors are painted steel doors set in pre-finished metal frames with inset glazing.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

C1020.03 Interior Fire Doors*

Interior fire doors are pre-finished metal set in pre-finished metal frames.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

C1030.01 Visual Display Boards**

Classrooms are equipped with wall-mounted tack boards, white boards and Smart Boards.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

Event: Replace approx. 180 visual display boards

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$180,000 | Unassigned |

Updated: MAR-09

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

Pre-finished metal partitions separate the toilet stalls in multi-user washrooms.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace approx. eight toilet partitions

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$15,000 | Unassigned |

Updated: MAR-09

C1030.08 Interior Identifying Devices*

The signage system in the school consists primarily of door-mounted lamicaid signage.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

C1030.10 Lockers**

Pre-finished metal lockers are located in the classrooms.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace approx. 360 lockers

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$490,000 | Unassigned |

Updated: MAR-09

C1030.12 Storage Shelving*

Painted metal boot racks are located in entrance vestibules. Miscellaneous storage rooms are equipped with wood and metal storage shelving.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

C1030.14 Toilet, Bath, and Laundry Accessories*

Standard commercial quality washroom hardware is located in the washrooms.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

C2010 Stair Construction*

Steel stairs access the mechanical penthouse.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 100 | MAR-09 |

C2020.08 Stair Railings and Balustrades*

Painted steel railings are associated with the penthouse staircase.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 40 | MAR-09 |

C3010.06 Tile Wall Finishes**

The walls of the washrooms are finished with ceramic tile.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

Event: Replace approx. 260 m² of ceramic wall tile

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2037 | \$95,000 | Unassigned |

Updated: MAR-09

C3010.11 Interior Wall Painting*

A paint finish is applied to the gypsum board and concrete block partitions in the facility.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 10 | MAR-09 |

C3020.01.02 Paint Concrete Floor Finishes*

The concrete floors of the vestibules and mechanical rooms are painted.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1997 | 10 | MAR-09 |

Event: Repaint approx. 67 m² of concrete floor**Concern:**

Deteriorated paint was observed on the concrete floors of the east side mechanical room and the south entrance vestibule and appeared to be caused by typical pedestrian traffic.

Recommendation:

Repaint the concrete floors of the east side mechanical room and the south entrance vestibule.

Consequences of Deferral:

Increased paint deterioration may compromise building aesthetics.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|---------------------|-------------|-------------|-----------------|
| Failure Replacement | 2009 | \$2,000 | Low |

Updated: MAR-09

C3020.02 Tile Floor Finishes**

The floors of the north and east washrooms are finished with ceramic tile.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 50 | MAR-09 |

Event: Replace approx. 70 m² of ceramic floor tile

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2047 | \$17,000 | Unassigned |

Updated: MAR-09

C3020.04 Wood Flooring**

The floor in the gymnasium is finished with maple wood strip flooring.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace approx. 390 m² of hardwood flooring

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$137,000 | Unassigned |

Updated: MAR-09

C3020.07 Resilient Flooring - Sheet Vinyl Flooring**

Vinyl sheet flooring is generally present in the corridors, some classrooms, kitchen, storage and mechanical rooms.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1997 | 20 | MAR-09 |

Event: Replace approx. 2,045 m² of vinyl sheet flooring

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$242,000 | Unassigned |

Updated: MAR-09

C3020.07 Resilient Flooring - Vinyl Floor Tile**

Vinyl floor tile is present in the corridors adjacent to the classroom entrances at the south side of the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

Event: Replace approx. 30 m² of vinyl floor tile

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$3,000 | Unassigned |

Updated: MAR-09

C3020.08 Carpet Flooring**

The administrative areas, music room, library and some classrooms and portions of classrooms are finished with carpet.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 15 | MAR-09 |

Event: Replace approx. 1,125 m² of carpet flooring

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$88,000 | Unassigned |

Updated: MAR-09

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

The ceilings of the library, gymnasium, classrooms, corridors, and office/administrative areas are finished with suspended T-bar ceilings and inlaid acoustic tiles.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1997 | 25 | MAR-09 |

Event: Replace approx. 2,625 m² of T-bar ceilings

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2022 | \$148,000 | Unassigned |

Updated: MAR-09

Event: Replace water-stained ceiling panels

Concern:

Several water-stained, discolored ceiling panels due to previous plumbing leaks were observed in the computer room and in other locations of the facility.

Recommendation:

Replace the water-stained ceiling panels.

Consequences of Deferral:

Water-stained ceiling panels have a potential to support microbial growth and also detract from aesthetics.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-------------|-------------|-------------|-----------------|
| Repair | 2009 | \$1,000 | Medium |

Updated: MAR-09

C3030.07 Interior Ceiling Painting*

The washroom, storage room, mechanical room and vestibule ceilings are finished with painted gypsum board.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

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

Counter mounted stainless steel sinks located in the classrooms and kitchenettes and floor mounted PVC utility sinks in custodial closets.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 30 | MAR-09 |

Event: Replace the classroom, kitchenette and custodial sinks (approximately 20 classroom and kitchen sinks and 3 custodial sinks)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$48,000 | Unassigned |

Updated: MAR-09

D2010.08 Drinking Fountains / Coolers**

There are drinking fountains installed in the main corridor and bubblers located at each of the classroom sinks.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 35 | MAR-09 |

Event: Replace the drinking fountains (approximately 4 hallway units and 14 classroom bubblers)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$16,000 | Unassigned |

Updated: MAR-09

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

Washroom plumbing fixtures that appear to have been replaced recently include approximately 4 floor mounted tank type water closets, 8 counter mounted stainless steel lavatories, and 2 wall mounted waterless urinals.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 2000 | 35 | MAR-09 |

Event: Replace the washroom plumbing fixtures (approximately 4 water closets, 8 lavatories, and 2 urinals)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2030 | \$31,000 | Unassigned |

Updated: MAR-09

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

Plumbing fixtures in the building that appear to be original consist of approximately 12 floor mounted tank type water closets, 8 counter mounted and wall hung vitreous china lavatories, and 7 full length floor mount manual flush urinals.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 30 | MAR-09 |

Event: Replace the original washroom plumbing fixtures (approximately 12 water closets, 12 lavatories, and 7 urinals)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$71,000 | Unassigned |

Updated: MAR-09

D2020.01.01 Pipes and Tubes: Domestic Water*

The domestic water piping system consists of copper piping. It appears that a significant portion of the piping was replaced in the building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

D2020.01.02 Valves: Domestic Water**

Standard isolation valves on the domestic water system. Valves appear to vary in age throughout the school.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 40 | MAR-09 |

Event: Replace the domestic water system isolation valves (approximately 110 units)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$30,000 | Unassigned |

Updated: MAR-09

D2020.01.03 Piping Specialties (Backflow Preventors)**

The domestic water service is not equipped with a backflow prevention device.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 20 | MAR-09 |

Event: Install a backflow prevention device on the domestic water service

Concern:

There is no backflow prevention device installed on the domestic water system. The municipal domestic water system could potentially become contaminated.

Recommendation:

Install a backflow prevention device on the domestic water system.

Consequences of Deferral:

Possible contamination of the domestic water system.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|----------------------------|-------------|-------------|-----------------|
| Program Functional Upgrade | 2010 | \$4,000 | Low |

Updated: MAR-09

D2020.02.06 Domestic Water Heaters**

Domestic hot water is generated by two Bradford White natural gas fired domestic water heaters. The water heaters have a storage capacity of 100 US gal. each and heating capacity of 88 MBH each. The domestic water heaters were installed in approximately 1997.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

Event: Replace the two domestic water heaters

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$8,000 | Unassigned |

Updated: MAR-09

D2020.03 Water Supply Insulation: Domestic*

The domestic water piping is typically insulated.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

D2030.01 Waste and Vent Piping*

Generally waste and vent piping is ABS, copper and cast iron piping. Observed piping appeared to have been replaced in the building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

D2040.01 Rain Water Drainage Piping Systems*

The roofs are equipped with roof drains. The system drains by gravity and is connected to the municipal storm water system.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

D2040.02.04 Roof Drains*

The roof incorporates roof drains which are each fitted with gravel/debris strainers.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 40 | MAR-09 |

D3010.02 Gas Supply Systems*

Originally natural gas was supplied to unit ventilators located in each classroom. The heating systems were centralized in the 1997 renovations and the original gas piping to the classrooms has been abandoned in place. A new service was installed to supply the boilers and the domestic water heaters.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 60 | MAR-09 |

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

Heating water in the building is generated by two Raypack - Raytherm natural gas fired boilers that were installed in 1997. The boilers are model E962WTD-N-2P and have a heating input capacity of 865 MBH each.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 35 | MAR-09 |

Event: Replace the two heating boilers

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2032 | \$75,000 | Unassigned |

Updated: MAR-09

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

Each of the boilers is equipped with an individual stack. There is a combustion air duct with a relief air vent serving the natural gas fired appliances in the Boiler Room.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the two stacks and the combustion air system

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$12,000 | Unassigned |

Updated: MAR-09

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

The heating water system is equipped with a standard pot feeder chemical treatment system.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D3040.01.01 Air Handling Units: Air Distribution**

Two Engineered Air air handling units serve the building and are located in the mechanical penthouse. The air handling units have capacities of 14,700 cfm and 5300 cfm. The air handling units were installed in the 1997 building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace Humidifiers

Concern:

It was reported that the building's two main air handling units had originally been equipped with evaporative media humidifiers that have been removed. There is currently no humidification system serving the building.

Recommendation:

Install two humidifiers to serve the main air handling units.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|--------------|-------------|-------------|-----------------|
| Code Upgrade | 2012 | \$18,000 | Low |

Updated: MAR-09

Event: Replace or refurbish the two air handling units

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$85,000 | Unassigned |

Updated: MAR-09

D3040.01.04 Ducts: Air Distribution*

The distribution ductwork is typically sheet metal ductwork. The duct systems were likely installed in the 1997 building renovation.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Return air grilles and supply air diffusers are located throughout the building. The air outlets and grilles were likely installed in the 1997 building renovation.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D3040.03.01 Hot Water Distribution Systems**

Hot water is generated by two heating boilers and is distributed to air handling unit heating coils, perimeter radiant heating panels, mechanical room unit heaters, and entrance cabinet heaters. The system also feeds a glycol heat exchanger that serves heating coils in the air handling units. The heating loop is served by two 1.5 HP heating water circulation pumps and two 1.5 HP glycol circulation pumps. The hot water distribution system was installed in the 1997 building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

Event: Replace the hot water distribution system

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2037 | \$400,000 | Unassigned |

Updated: MAR-09

D3040.04.01 Fans: Exhaust**

Approximately 6 exhaust fans, some internal and some roof mounted, serve the exhaust systems in the building. The majority of the fans appear to have been replaced in the 1997 renovation.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the exhaust fans (approximately 6 units)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$8,000 | Unassigned |

Updated: MAR-09

D3040.04.03 Ducts: Exhaust*

The exhaust ductwork is typically sheet metal ductwork that is likely original.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

D3040.04.05 Air Outlets and Inlets: Exhaust*

Original exhaust grilles throughout.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

D3040.05 Heat Exchangers**

A plate-and-fame heat exchanger serves the two glycol heating coils in the main air handling units. The heat exchanger is supplied by the hot water heating system and was installed in 1997.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the heat exchanger

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$6,000 | Unassigned |

Updated: MAR-09

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)**

A Lennox 3 ton rooftop air conditioning unit serves the library computer room. It was reported that the unit's compressor had recently been replaced. The unit appears to have been installed in approximately 2001.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 2001 | 30 | MAR-09 |

Event: Replace the computer room air conditioning unit

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2031 | \$6,000 | Unassigned |

Updated: MAR-09

D3050.05.06 Unit Heaters**

Forced flow entrance heaters are located in the building's main entrance foyers and ceiling suspended unit heaters serve the mechanical areas. The unit heaters appear to have been replaced in the 1997 building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the entrance heaters (approximately 10 units)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$33,000 | Unassigned |

Updated: MAR-09

D3050.05.08 Radiant Heating (Ceiling)**

There are perimeter radiant ceiling panels throughout the school. The radiant heating panels were installed in the 1997 building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 35 | MAR-09 |

Event: Replace the perimeter radiant heating panels

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2032 | \$675,000 | Unassigned |

Updated: MAR-09

D3060.02.01 Electric and Electronic Controls**

Terminal HVAC devices such as the radiant heating panels and entrance heaters are controlled by local electric thermostats. The thermostats were likely installed in 1997.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the individual thermostats (approximately 30 units)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$10,000 | Unassigned |

Updated: MAR-09

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

A Walker DDC building automation system controls the boilers and air handling units in the school. The system was installed in 1997.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

Event: Replace the building automation system

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$60,000 | Unassigned |

Updated: MAR-09

Event: Upgrade the building automation system

Concern:

It was reported that the existing building automation system has been problematic. The system is difficult to update and has limited capabilities.

Recommendation:

Upgrade the existing building automation system that can easily be expanded and altered.

Consequences of Deferral:

Continued issues with the existing system, less efficient operation of the HVAC systems.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|----------------------------|-------------|-------------|-----------------|
| Program Functional Upgrade | 2010 | \$60,000 | Low |

Updated: MAR-09

D4010 Sprinklers: Fire Protection*

A minimal sprinkler system with two sprinkler heads located in the library was installed in the 1997 building renovations to meet fire code.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 60 | MAR-09 |

D4020 Standpipes*

A standpipe system serves the school with fire hose cabinets in the corridors. The fire hoses appear to be routinely inspected and replaced as required.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 60 | MAR-09 |

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Hand held ABC dry chemical fire extinguishers are located throughout the building. The fire extinguishers appear to be routinely inspected and replaced as required.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------------|-------------------------|---------------------------|-----------------------|
| 4 - Acceptable | 1957 | 30 | MAR-09 |

S5 ELECTRICAL**D5010.03 Main Electrical Switchboards (Main Distribution)****

Electrical service to the school is fed to a Cutler Hammer 800 Amp, 347/600V, 3 phase, 4 wire distribution panel that is located in the mechanical room on the east side of the building. The main panel feeds approximately 7 distribution panels, one MCC, and has room for expansion. The distribution panel appears to have been replaced in the 1997 building renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 40 | MAR-09 |

Event: Replace the main distribution panel

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2037 | \$60,000 | Unassigned |

Updated: MAR-09

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

There are approximately seven secondary distribution panels throughout the school. The distribution panels were replaced in the 1997 building renovations and have capacities ranging from 100A to 225A.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the original distribution panels (approximately 7 units)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$45,000 | Unassigned |

Updated: MAR-09

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

There is a motor control centre located adjacent to the staircase that leads to the penthouse fan room. The motor starters serve the various HVAC fan and pump motors. The motor control centre appears to be original to the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 30 | MAR-09 |

Event: Replace the motor control centre

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2012 | \$47,000 | Unassigned |

Updated: MAR-09

D5020.01 Electrical Branch Wiring*

The electrical branch wiring in the school is typically the original copper wiring that is run in EMT conduit. It appears that some portions of the wiring systems were upgraded in the 1997 renovations but the extent of the upgrades is uncertain.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D5020.02.01 Lighting Accessories (Lighting Controls)*

The interior lighting system is controlled by a motion sensor control system throughout the majority of the building. The system was likely installed in the 1997 renovations.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D5020.02.02.02 Interior Florescent Fixtures**

The lighting throughout the facility was upgraded with energy efficient T8 florescent fixtures and electronic ballasts in the 1997 building renovations. Fixtures are typically ceiling recessed 3 and 2 lamp units.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace the interior florescent lighting fixtures (approximately 1250 fixtures)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$375,000 | Unassigned |

Updated: MAR-09

D5020.02.03.02 Emergency Lighting Battery Packs**

Battery pack emergency lighting fixtures are located throughout the school. The majority of the battery packs have been replaced in the 1997 building renovations. It was reported that emergency lighting fixtures are routinely tested and deficient units are either repaired or replaced.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 20 | MAR-09 |

Event: Replace the emergency lighting fixtures (approximately 15 fixtures)

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2017 | \$20,000 | Unassigned |

Updated: MAR-09

D5020.02.03.03 Exit Signs*

Illuminated exit signs indicate the paths of egress throughout the building. The fixtures appear to have been upgraded with LED lamps in approximately 1997.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

There are various high pressure sodium wall packs around the perimeter of the building and under some of the entrance canopies. The fixtures appear to be replaced as required.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D5030.01 Detection and Fire Alarm**

The building is equipped with an Edwards 6616 fire alarm system that was replaced in approximately 1997. The system has manual pull stations, smoke detectors and some heat detectors which are connected to the centralized fire alarm control panel. The system includes alarm bells and strobe devices.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 25 | MAR-09 |

Event: Replace the fire alarm system

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2022 | \$95,000 | Unassigned |

Updated: MAR-09

D5030.02.02 Intrusion Detection**

The school is equipped with a motion sensor security system with a Maxsys main control keypad. The system was likely replaced in the 1997 building renovations

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 25 | MAR-09 |

Event: Replace the security system

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2022 | \$51,000 | Unassigned |

Updated: MAR-09

D5030.04.01 Telephone Systems*

The phone system in the building has been recently upgraded to a Cisco VOIP system.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 5 - Good | 2006 | 25 | MAR-09 |

D5030.04.05 Local Area Network Systems*

Portions of the building are equipped with Cat 5 cabling and hubs. The system is upgraded as required to meet the school's needs.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

D5030.05 Public Address and Music Systems**

The PA system was upgraded to a Rauland - Telecenter system in approximately 2005.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 5 - Good | 2005 | 20 | MAR-09 |

Event: Replace the PA system

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2025 | \$52,000 | Unassigned |

Updated: MAR-09

D5030.06 Television Systems*

Portions of the school are served with a cable TV distribution system.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

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

The library is supplied with standard library equipment.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

E1090.04 Residential Equipment*

The staff kitchen is equipped with a refrigerator, range, dishwasher and microwave oven.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

The gymnasium is equipped with six wood basketball backboards with hoops.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

E2010.02 Fixed Casework**

Fixed casework consists of painted and laminated wood units located in the majority of the classrooms.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 35 | MAR-09 |

Event: Replace approx. 250 lineal meters of fixed casework

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2032 | \$250,000 | Unassigned |

Updated: MAR-09

E2010.03.01 Blinds**

Manually-operated, vertical blinds are provided on the interior window units throughout the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 30 | MAR-09 |

Event: Replace approx. 239 blinds

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-----------------------|-------------|-------------|-----------------|
| Lifecycle Replacement | 2027 | \$35,000 | Unassigned |

Updated: MAR-09

E2020 Moveable Furnishings

Moveable furnishings in the school generally consist of desks and tables/chairs in classrooms, lounges and administrative areas.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 0 | 0 | MAR-09 |

F1010.02.04 Portable and Mobile Buildings*

One re-locatable classroom unit is located near the west side of the school building. The classroom unit is accessed via wood stairs located at the east side of the building. The foundation of the unit reportedly consists of a crawl-space with plywood floor decking and supports on isolated footings. The unit is of wood frame construction with horizontal wood beams supporting plywood roof decking.

The exterior cladding consists of painted, standing-seam metal panels at the top perimeters and middle sections of the unit, and painted plywood located at the bottom perimeters. The windows are operable with sealed glazing units set in metal frames. The roof of the unit is protected with a modified bituminous membrane system.

The interior partitions consist of painted, gypsum board walls, unpainted, gypsum board ceilings, lay-in ceiling panels and resilient flooring. There is moveable wood casework along various walls with visual display boards for teaching purposes.

HVAC for the classroom unit is provided by a roof-top packaged unit. Electrical service is provided from a sub-panel located in the classroom unit.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|---------------|------------------|--------------------|----------------|
| 3 - Marginal | 1997 | 0 | MAR-09 |

Event: Replace water-stained gypsum board ceiling

Concern:

The painted gypsum board ceiling in the relocatable classroom unit contains water staining from a previous roof leak.

Recommendation:

Remove the water-stained portion of the gypsum board ceiling.

Consequences of Deferral:

Water-stained ceiling detracts from aesthetics and has a potential to support microbial growth.

| <u>Type</u> | <u>Year</u> | <u>Cost</u> | <u>Priority</u> |
|-------------|-------------|-------------|-----------------|
| Repair | 2009 | \$1,000 | Medium |

Updated: MAR-09

F2020.01 Asbestos*

Construction materials suspected to contain asbestos in the building include gypsum board and joint compound, and pipe wrap insulation serving mechanical equipment.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1957 | 0 | MAR-09 |

F2020.04 Mould*

No suspected mould growth was noted on visible surfaces during the assessment. Wall cavities and the majority of the ceiling cavities were not reviewed during the site visit.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 0 | 0 | MAR-09 |

F2020.09 Other Hazardous Materials*

Hazardous material storage in the building appeared to be adequate.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 0 | 0 | MAR-09 |

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

A barrier-free route exists from the disabled-accessible parking stall to the south entrance of the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

K4010.02 Barrier Free Entrances*

The building has been fully adapted for the handicapped with push button-operated, storefront entry doors at the south entrance.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

K4010.03 Barrier Free Interior Circulation*

Interior circulation appeared to be barrier-free throughout the facility.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |

K4010.04 Barrier Free Washrooms*

There are male and female barrier-free washrooms provided at the east side of the building.

| <u>Rating</u> | <u>Installed</u> | <u>Design Life</u> | <u>Updated</u> |
|----------------|------------------|--------------------|----------------|
| 4 - Acceptable | 1997 | 0 | MAR-09 |