

# **RECAPP Facility Evaluation Report**

**Edmonton RCSSD #7**



**St. Kevin Catholic Junior High School**

B3309A  
Edmonton

**Facility Details**

**Building Name:** St. Kevin Catholic Junior Hig  
**Address:** 10005 - 84 Street  
**Location:** Edmonton

**Building Id:** B3309A  
**Gross Area (sq. m):** 6,444.60  
**Replacement Cost:** \$17,280,550  
**Construction Year:** 1954

**Evaluation Details**

**Evaluation Company:** Asset Evolution Inc.  
**Evaluation Date:** October 15 2010  
**Evaluator Name:** Mario Plastina

**Total Maintenance Events Next 5 years:** **\$7,378,300**  
**5 year Facility Condition Index (FCI):** **42.70%**

**General Summary:**

St. Kevin Catholic Junior High School, originally built in 1954 is a one-storey structure with a partial second floor. The original school has a building area of 1625 m2. A one-storey addition of 1038m2 was added in 1956 to the west end of the original school. A second addition of 452 m2 was added in 1960 to the north-west end of the 1956 Addition. A third, two-storey addition of 2843 m2 was added in 1966 to the west elevation of the original 1952 section and to the south-west corner of the 1956 addition. A final, one-storey addition of 484m2 was added along the south elevation of the original school. The school has a total building area of 6445m2. The west wing, including the entire 1960 Section and a portion of the 1956 Section is leased to Capital Health and a Daycare facility. St. Kevin Catholic Junior High School includes 11 classrooms, two science rooms, a library, two music room, an industrial arts room, a computer room, two gymnasiums, a fitness room, a home economic room, work rooms and an administration area. The site is approximately 1.96 hectares in area. Several isolated areas have been renovated, such as the music room, home economics room and portions of the site. The school installed a barrier free washroom and elevator in 2006.

The 2010 student enrollment - 257children.

**Structural Summary:**

The foundations consist of a reinforced cast-in-place grade beam, concrete columns, concrete footings and concrete pile assembly. The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement. The second floor in the 1954 and 1966 Sections have either a lightweight concrete or wood frame construction supported with steel beams and columns. Structural reinforced concrete load bearing block partitions, wood frame construction, steel columns and beams are located throughout the building. Poured in place concrete stairs are located at most of the elevated entrances. The handrails are constructed of steel with a paint finish. The 1954 Section has wood joists and wood trusses on exterior load-bearing brick cavity wall and load-bearing corridor wood framed walls. The 1956 Section has a wood deck on glulam beams supported by load-bearing exterior brick cavity walls & interior steel columns & wood framed walls. The 1960 Section has a wood deck on glulam beams supported by load-bearing exterior brick cavity walls & interior wood framed wall assembly. The 1966 Section has a wood deck & wood joists construction supported by exterior brick cavity wall and a steel frame assembly. The 1974 Section has a standing seam metal roofing on steel purlins with a pre-engineered steel frame assembly. Wood framed canopies are located at most entrances.

Overall the structural elements are in acceptable condition

**Envelope Summary:**

The majority of the 1954, 1956, 1960 and 1966 Sections have an exterior brick wall assembly. Precast concrete pilasters and coping are located throughout the 1966 Section. The 1975 Section has pre-finished vertical metal siding. Pre-finished corrugated vertical metal siding is located above all window elevations and on the upper roof elevations. The 1975 Section has pre-finished vertical metal siding. Pre-finished corrugated vertical metal siding is located above all window elevations and on the upper roof elevations. Decorative wood panels are located in the 1974 Section. A painted cement stucco finish is located above and below the windows of the 1966 Section. Expansion/control joints are located throughout the brick cladding assembly. Sealant is located around all window, door and exterior cladding assemblies. The exterior stucco accents above and below the windows in the 1966 Section have a paint finish. All wood panels and metal siding has a paint finish. The plywood fascias at the entrances and along the perimeter have a paint finish. The interior portion of the 1954, 1956, 1960 and 1966 Section comprises primarily of the concrete block or brick wall assembly. The 1974 Section (gymnasium) has a metal channels with sub-girts and a wood framed assembly. Portion of the exterior walls in the 1954, 1956 and 1960 Sections are framed in wood construction. Exterior metal louvres are located on the exterior walls opposite the mechanical rooms. The exterior soffit at the main entrances have a painted wood finish. The 1954 Section has pre-finished perforated metal soffit along the roof overhang, east elevation. The soffits were replaced in 2001. The windows in the 1954, 1956 & 1960 Sections are a combination of fixed aluminum frame double glazed units with operable slider units. The window opening were resized and replaced in 1991. A majority of the windows on the lower levels painted metal security screens. The windows in the 1966 Section are a combination of fixed aluminum frame double glazed units with operable awning units. A majority of the windows on the lower levels painted metal security screens. The exterior entrances typically

have painted wood doors with wire glass panels in painted wood frames; mostly original hardware. The majority of the secondary exit / entrances have a wood door with glass panels and metal frames assembly. The central portion of the 1954 section was replaced in 1984 and has a conventional built-up bituminous roof assembly. The 1956 section was replaced in 1988 and has a conventional built-up bituminous roof assembly. The 1960 section was replaced in 1988 and has a conventional built-up bituminous roof assembly. The 1966 section above the main administration offices was replaced in 1988 and has a conventional built-up bituminous roof assembly. The roof above the original 1954 east wing and 1966 east wing have a 2-ply modified bitumen roof membrane assembly. The roofs were replaced in 1995. Some minor blisters were observed. The 1974 Section has a standing seam pre-finished metal roofing assembly. Prefinished metal gutters and downspouts are located on the entrance canopies and 1974 Section and discharge on grade. A wood framed door to the roof is located on the 2nd floor teachers lounge Room - 217.

Overall, the envelope of the building is in acceptable condition.

Recommendations:

- Repair brick and mortar as required
- Repair damage wood panels on 1974 Section
- Replace sealant located around all window & exterior doors - All Sections. (Based per 3000 LM of sealant)
- Replace windows in 1966 sections - 81 Window Units
- Replace all wood entrance doors, hardware and frame assembly - 22 Doors
- Replace wood doors, frames and hardware (7 doors)

**Interior Summary:**

The majority of the interior walls in the 1954, 1956 and 1960 Sections have either a gypsum lath and plaster finish on wood framed walls. All interior partitions in the 1966 & 1974 Sections have typically concrete block wall assembly. Several washrooms have a spectra-glaze block wall finish. De-mountable type partitions are located in the leased areas between the Capital Health offices and the school area. Operable folding partition are located between the lunch room 109 & 111, classrooms 202& 204 and 206 & 208 on the second floor of the 1966 Section. Fixed interior glazed windows with GWG are located in the general office area and several isolated offices. Interior glazed partitions with GWG are located in several entrance vestibules. The interior swing doors generally consist of solid core doors with a paint finish in a painted steel frames. The majority of the interior doors in the corridors, stairwells and utility rooms are painted wood and/or steel doors in a painted steel frame and GWG panel inserts. Steel fire rated pocket doors are located between the original 1954 and 1966 Addition. The doors are on a fuseable link. The vestibule doors have GWG transom and sidelight panels. Several utility rooms, stairwells & corridors do not have labeled indicating fire rated doors. Whiteboards, chalkboard and tackboards are located throughout the teaching areas. The washroom in the 1954 Section have terrazzo panel partitions with painted wood doors. The majority of the washroom & change rooms have pre-finished metal partitions. The room number or room name is mounted on or above the interior doors. Prefinished metal lockers are located throughout the corridors and boy's & girl's change rooms. Most of the lockers are not occupied, therefore replaced in not recommended. Metal and wood storage shelving throughout the vestibules, custodial utility rooms and staff supply rooms. The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors

The stairs to the second floor in the 1966 Section have a poured in place concrete assembly. The stairs to the Lounge in the 1954 Section and stairs to the original stage area in the small gym are framed in wood construction. The two main stairwells to the 1966 second floor have a rubber finish. The wood stairs to the lounge and stage have a vinyl finish to wood stairs. The stair railings are steel with a vinyl capped steel handrail.

Gypsum lath and plaster is the typical wall finish in the 1954, 1956, and 1960 Additions. Gypsum board and metal stud framed partitions in renovated areas, such as the music room, computer room and home economics room. Glazed ceramic wall tile is located in the washrooms areas. Acoustical wall panels are located throughout the music room and perforated wall panels are located in the gymnasiums. The interior concrete block, gypsum board & plaster wall partitions throughout the school have a paint finish. The corridors and offices of the Capital Health area in the 1960 Section have a vinyl wall covering. Painted/sealed concrete floors are located in the industrial shop, gym storage room, utility rooms and mechanical rooms. Ceramic mosaic floor tiles are located in several entrance vestibules, stairwell landings and washrooms. The gymnasium has a hardwood strip floor assembly. The Industrial Arts Shop has the original wood strip flooring. The majority of the corridors and classrooms on the second floor of the 1966 Section, including the lounge in the 1954 Section have a sheet vinyl floor finish. The majority of the corridors, original gym and classrooms in the 1954, 1956 and 1966 Section have a vinyl asbestos floor tile finish. VCT flooring is located in rooms 107, 109, 110 and 207. The general office area, staff room, library, storage, music room and several of the lease Capital Health offices have a carpet floor finish. The ceilings in the 1954 washrooms, change rooms & storage areas typically have a gypsum plaster and lath finish. Several washrooms and renovated areas have a gypsum board ceiling finish. The ceilings in the renovated areas including the Capital health offices, office corridors, 2nd floor corridors, isolated washrooms, entrance vestibules, stairwells and classrooms (110, 112, 114, 116, 120, 124, 203 & 207) have either a 610mm x 610mm or 610mm x 1220mm suspended acoustical tile assembly. See K4030.01 Asbestos\* for

details. The majority of the ceiling have been replaced with the exception of the washrooms and isolated corridors. All the 300 x 300 acoustical ceiling tiles, gypsum and plaster ceiling have a paint finish. See K4030.01 Asbestos\* for details. The majority of the ceilings throughout the corridors and classrooms, including the original small gym have a 300mm x 300mm perforated ceiling tile glued to substrate.

Overall, the interior finishes are in marginal condition.

Recommendations:

- Seal the openings in the fire separation with a listed fire stop material.
- Replace hardware & door assembly as required (25 doors)
- Study - Conduct a building code study
- Upgrade interior as per the findings in the building code study
- Replace toilet and shower partitions - 30 Stalls
- Upgrade handrails & railings to comply with current code requirements
- Glazed ceramic wall tile is located in the washrooms areas.
- Repaint all interior walls throughout the school (Based on 6445m2 of Area)
- Replace Sheet vinyl- 1966 Section (Area - 900m2)
- Replace original VAT flooring - (Area - 2500m2)
- Replace all damaged ceiling tiles in the washroom areas ( 200 tiles)
- Replace missing and stained ceiling tiles - ( 200 tiles)
- Provide a HC parking space and complete signage
- Provided power operators for barrier free access at the main west entrance
- Hazardous Materials Abatement - Based on study

**Mechanical Summary:**

MECHAICAL SUMMARY (October 2010)

The building is heated by two natural gas fired hot water boilers (located in Boiler Room of 1966 building addition) and twenty three natural gas fired furnaces (located in six mechanical rooms). The boilers supply hot water distribution system includes finned type cabinet radiators and convectors. Heated forced air is distributed by the furnaces via overhead and underground air distribution system. A natural gas fired makeup air unit is located in Industrial Arts Room to compensate the exhaust air from the saw dust collector. The furnace serving the leased area 100 is equipped with DX coil and air cooled condensing unit on roof to provide air conditioning. Window type air conditioners in the leased areas 101 and 101A also provide air conditioning. The rest of the building has no air conditioning.

Fresh air supplied to the building by the furnaces is balanced by the exhaust air flow from the sanitary and general exhaust fans. Building HVAC controls in the building are electric and electronic except 1966 building addition which is pneumatic system. The control air supply system includes one air compressor mounted on a receiver tank and a refrigerated air dryer. There is a Building Management and Control System (BMCS) providing HVAC system control and monitoring functions (Andover).

There are five sets of boy's and girl's washrooms in the building, including one set on second floor of 1966 building addition, one set on ground floor of 1966 building addition, one set on ground floor of 1954 building addition, one set in Boys and Girls Locker Rooms, one set on ground floor of 1956 building addition. There are six unisex washrooms, including one set in Classroom 122, one set in Custodian Room, one set in Teachers Room, one set in Infirmary Room and two sets on ground floor beside leased area 104. There are one set of Men's and Women's washrooms in the General Office. There are two group showers in the Boys and Girls Locker Rooms. Plumbing fixtures include floor mounted vitreous china flush valve type toilets (23), floor mounted vitreous china tank type toilets (10), wall mounted flush valve type toilets (17), wall mounted vitreous china lavatories (5), counter mounted vitreous china lavatories (15), wall mounted vitreous china flush valve type urinals (17), stainless steel single compartment sinks (9) and stainless steel double compartment sink (8). Special plumbing fixtures include stainless steel counter mounted laboratory sinks (11) and stainless steel sink in Industrial Arts Room (1).

Fire protection for the building includes a standpipe system feeding standard fire hose cabinets, as well as wall mounted fire extinguishers located throughout the building.

Recommendation:

- Replace main domestic water pipes (based on 6445 sq-m GFA)
- Install one backflow prevention device for the building domestic water supply (50 mm diameter)
- Replace domestic hot water heater and storage tank
- Install insulation to exposed domestic hot and cold water pipes in Boiler Room (approximate 20M)

- Inspect underground sewer pipe by video camera
- Replace 2 hot water heating boilers (based on 4,200 MBH heating capacity)
- Replace 23 furnaces with new air handling units (based on 3602 sq-m GFA)
- Replace 3 gas flue vents on roof and provide proper support
- Replace air cooled condensing unit
- Replace the Building Management and Control System (BMCS) (based on 6445 sq-m GFA)

Overall, the building mechanical equipment and systems are in marginal condition.

**Electrical Summary:**

St. Kevin School is fed from an EPCOR padmounted transformer on the north side of the school. The main distribution switchboard is rated at 1200A, 120/208V. The mechanical loads within the building are typically fed from individual starters or manual starter switches.

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

The interior fluorescent lighting fixtures typically have T12 lamps and 120V magnetic ballasts. The majority of exit signs have incandescent lamps. The emergency lighting is fed from emergency lighting battery packs. The exterior lighting consists primarily of wall mounted H.P.S. wallpack fixtures or incandescent fixtures.

The fire alarm system is a conventional zoned system equipped with an Edwards 6500 fire alarm control panel. Detection and end devices include, smoke and heat detectors, bells, and pull stations.

The various communications systems within the building include structured wiring systems for the telephone and data systems. There are intrusion detection, clock and surveillance systems in the building.

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 St. Kevin School are:

- The original branch circuit panels are aged single phase panels - replacement parts are not available.
- The motor starter switches are aged - contacts will wear out.
- The original building wiring is 56 years old and should be inspected.
- The original lighting switches are aged - contacts will wear out.
- Interior and exterior incandescent lighting is not energy efficient. Fixtures are in poor condition.
- The original fluorescent lighting is dated and in poor condition. Replacement lenses are not available.
- Emergency lighting battery units are aged. Reliability is questionable.
- Exit signs typically have inefficient incandescent lamps. Some exit signs are not code compliant.
- The fire alarm system is aged - replacement parts are not available. Upgrades are required to meet current code requirements.
- Clocks are not synchronized - mix of plug-in and battery operated clocks.
- P.A. System is obsolete - replacement parts are not available.

The following are recommendations for the electrical systems:

- Inspect and test branch circuit wiring.

Overall the electrical systems for St. Kevin School are in marginal condition.

<b>Rating Guide</b>	
<b>Condition Rating</b>	<b>Performance</b>
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\* - All Sections

The foundations consist of a reinforced cast-in-place grade beam, concrete columns, concrete footings and concrete pile assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

### A1030 Slab on Grade\* - All Sections

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	1954	0	APR-11

### B1010.01 Floor Structural Frame (Building Frame)\* - 1954 & 1966 Sections

The second floor in the 1954 and 1966 Sections have either a lightweight concrete or wood frame construction supported with steel beams and columns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

### B1010.02 Structural Interior Walls Supporting Floors (or Roof)\* - All Sections

Structural reinforced concrete load bearing block partitions, wood frame construction, columns and beams are located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

### B1010.03 Floor Decks, Slabs, and Toppings\* - 1954 & 1966 Sections

Plywood flooring on wood frame construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

### B1010.07 Exterior Stairs\* - All Sections

Poured in place concrete stairs are located at most of the elevated entrances. The handrails are constructed of steel with a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B1010.09 Floor Construction Fireproofing\* - All Sections**

Floor Construction Fireproofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B1010.10 Floor Construction Firestopping\* - All Sections**

Floor Construction Firestopping - Observed only in the mechanical and electrical utility areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B1020.01 Roof Structural Frame\* - 1954 Section**

The 1954 Section has wood joists and wood trusses on exterior load-bearing brick cavity wall and load-bearing corridor wood framed walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B1020.01 Roof Structural Frame\* - 1956 Section**

The 1956 Section has a wood deck on glulam beams supported by load-bearing exterior brick cavity walls & interior steel columns & wood framed walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1956	0	APR-11

**B1020.01 Roof Structural Frame\* - 1960 Section**

The 1960 Section has a wood deck on glulam beams supported by load-bearing exterior brick cavity walls & interior wood framed wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	APR-11

**B1020.01 Roof Structural Frame\* - 1966 Section**

The 1966 Section has a wood deck & wood joists construction supported by exterior brick cavity wall and a steel frame assembly.

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

**B1020.01 Roof Structural Frame\* - 1974 Section (Gym)**

The 1974 Section has a standing seam metal roofing on steel purlins with a pre-engineered steel frame assembly.

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

**B1020.04 Canopies\* - All Sections**

Wood framed canopies are located at most entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B1020.06 Roof Construction Fireproofing\* - All Sections**

Roof Construction Fireproofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11



**S2 ENVELOPE****B2010.01.01 Precast Concrete: Exterior Wall Skin\* - 1966 Section**

Precast concrete pilasters and coping are located throughout the 1966 Section.

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

**B2010.01.02.01 Brick Masonry: Ext. Wall Skin\* - 1954,56,60 & 66 Sections**

The majority of the 1954, 1956, 1960 and 1966 Sections have an exterior brick wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Repair brick and mortar as required****Concern:**

The mortar has deteriorated in several sections throughout the elevations and chimneys.

**Recommendation:**

Repair brick and mortar as required

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$12,000	Low

**Updated:** APR-11



Deteriorated mortar on chimney - 1956 Section

**B2010.01.06.03 Metal Siding\*\* - 1954, 56 & 1960 Sections**

The 1975 Section has pre-finished vertical metal siding. Pre-finished corrugated vertical metal siding is located above all window elevations and on the upper roof elevations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	APR-11

**Event: Replace pre-finished corrugated vertical metal siding (1800m2 wall surface)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$375,000	Unassigned

**Updated:** APR-11

**B2010.01.06.04 Wood Siding\*\* - 1974 Section**

Decorative wood panels are located in the 1974 Section

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1974	40	APR-11

**Event: Repair damage wood panels on 1974 Section**

**Concern:**

Several sections of the wood panels are rotted and deteriorated.

**Recommendation:**

Repair and/or replace damage wood panels on 1974 Section

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$2,500	Low

**Updated:** APR-11



Deteriorated wood panels on 1974 Section - West elevation exit.

**Event: Replace decorative wood panels on the 1974 Section - 4 panels**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$16,000	Unassigned

**Updated:** APR-11

**B2010.01.08 Cement Plaster (Stucco): Ext. Wall\* - 1966 Section**

A painted cement stucco finish is located above and below the windows of the 1966 Section.

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

**B2010.01.09 Expansion Control: Exterior Wall Skin\* - All Sections**

Expansion/control joints are located throughout the brick cladding assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B2010.01.11 Joint Sealers (caulking): Ext. Wall\*\* - All Sections**

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1991	20	APR-11

**Event:** **Replace sealant located around all window & exterior doors - All Sections. (Based per 3000 LM of sealant)**

**Concern:**

The sealant is brittle and deteriorated along the windows of the 1954, 1956, 1960 and 1966 Sections

**Recommendation:**

Replace sealant located around all window & exterior doors - All Sections. (Based per 3000 LM of sealant)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$125,000	Medium

**Updated:** APR-11

**B2010.01.13 Paints (& Stains): Exterior Wall\*\* - All Sections**

The exterior stucco accents above and below the windows in the 1966 Section have a paint finish. All wood panels and metal siding has a paint finish. The plywood fascias at the entrances and along the perimeter have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	15	APR-11

**Event:** **Repaint exterior stucco, metal & wood fascia - (Area - 1800m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$90,000	Unassigned

**Updated:** APR-11

**B2010.02.03 Masonry Units: Ext. Wall Const.\* - All Sections**

The interior portion of the 1954, 1956, 1960 and 1966 Section comprises primarily of the concrete block or brick wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B2010.02.05 Wood Framing: Ext. Wall Const.\* - - All Sections**

The 1974 Section (gymnasium) has a metal channels with sub-girts and a wood framed assembly. Portion of the exterior walls in the 1954, 1956 and 1960 Sections are framed in wood construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation\* - All Sections**

Exterior Wall Vapor Retarders, Air Barriers, and Insulation - Not visible.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B2010.06 Exterior Louvers, Grilles, and Screens\* - All Sections**

Exterior metal louvres are located on the exterior walls opposite the mechanical rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B2010.09 Exterior Soffits\* - All Sections**

The exterior soffit at the main entrances have a painted wood finish. The 1954 Section has pre-finished perforated metal soffit along the roof overhang, east elevation. The soffits were replaced in 2001.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

**B2020.01.01.02 Aluminum Windows (Glass & Frame)\*\* - 1954, 1956 & 1960 Section**

The windows in the 1954, 1956 & 1960 Sections are a combination of fixed aluminum frame double glazed units with operable slider units. The window opening were resized and replaced in 1991. A majority of the windows on the lower levels painted metal security screens.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	40	APR-11

**Event: Replace windows in 1954, 1956 and 1960 Section ( 175 Window Sections)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$300,000	Unassigned

**Updated:** APR-11

**B2020.01.01.02 Aluminum Windows (Glass & Frame)\*\* - 1966 Section**

The windows in the 1966 Section are a combination of fixed aluminum frame double glazed units with operable awning units. A majority of the windows on the lower levels painted metal security screens.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	40	APR-11

**Event: Replace windows in 1966 sections - 81 Window Units**

**Concern:**

The original aluminum windows are functioning poorly, air and water penetrations were apparent in several locations.

**Recommendation:**

Replace windows in 1966 sections - 81 Window Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$210,000	Medium

**Updated:** APR-11



Original windows in 1966 Section.

**B2030.01.10 Wood Entrance Door\*\* - All Sections**

The exterior entrances typically have painted wood doors with wire glass panels in painted wood frames; mostly original hardware.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1954	30	APR-11

**Event: Replace all wood entrance doors, hardware and frame assembly - 22 Doors**

**Concern:**

The doors are worn, deteriorated and no longer close properly. The hardware is original at most entrances.

**Recommendation:**

Replace all wood entrance doors, hardware and frame assembly - 22 Doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$88,000	Medium

**Updated:** APR-11



Typical condition of wood framed entrance doors & assembly.

**B2030.02 Exterior Utility Doors\*\* - All Section**

The majority of the secondary exit / entrances have a wood door with glass panels and metal frames assembly

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	40	APR-11

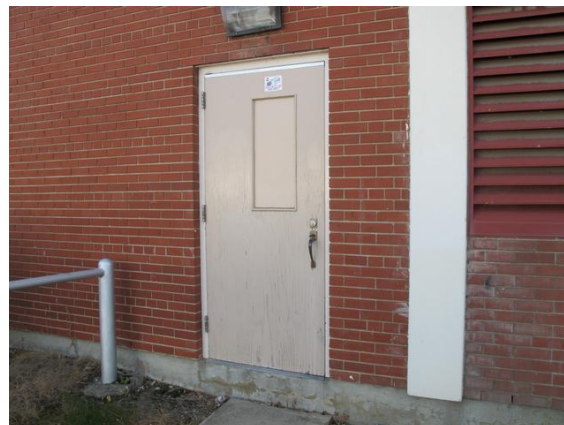
**Event:** Replace wood doors, frames and hardware (7 doors)

**Concern:**

The existing wood door surfaces are worn and damaged. A majority of the hardware is original.

**Recommendation:**

Replace wood doors, frames and hardware (7 doors)



Deteriorated wood door and assembly.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$21,000	Medium

**Updated:** APR-11

**B3010.01 Deck Vapor Retarder and Insulation\***

Deck Vapor Retarder and Insulation - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)\*\* - 1954 Section**

The central portion of the 1954 section was replaced in 1984 and has a conventional built-up bituminous roof assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	APR-11

**Event:** Replace BUR - 1954 Section - (Area - 1310m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$210,000	Unassigned

**Updated:** APR-11

**B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)\*\* - 1956 Section**

The 1956 section was replaced in 1988 and has a conventional built-up bituminous roof assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1988	25	APR-11

**Event: Replace BUR - 1954 Section - (Area - 1100m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$175,000	Unassigned

**Updated:** APR-11

**B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)\*\* - 1960 Section**

The 1960 section was replaced in 1988 and has a conventional built-up bituminous roof assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1988	25	APR-11

**Event: Replace BUR - 1960 Section - (Area - 460m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$75,000	Unassigned

**Updated:** APR-11

**B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)\*\* - 1966 Section - Administration Area**

The 1966 section above the main administration offices was replaced in 1988 and has a conventional built-up bituminous roof assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1988	25	APR-11

**Event: Replace BUR - 1966 Section (Administration Area Only) - (Area - 460m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$75,000	Unassigned

**Updated:** APR-11

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - East Wing - 1954 & 1966 Section**

The roof above the original 1954 east wing and 1966 east wing have a 2-ply modified bitumen roof membrane assembly. The roofs were replaced in 1995. Some minor blisters were observed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	25	APR-11

**Event: Replace all SBS Roof Section - (Area - 2000m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$325,000	Unassigned

**Updated:** APR-11

**B3010.07 Sheet Metal Roofing\*\* - 1974 Section**

The 1974 Section has a standing seam pre-finished metal roofing assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	APR-11

**Event: Replace sloped metal roof - 1974 Section - (Area - 500m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$80,000	Unassigned

**Updated:** APR-11

**B3010.08.02 Metal Gutters and Downspouts\*\* - All Sections**

Prefinished metal gutters and downspouts are located on the entrance canopies and 1974 Section and discharge on grade.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	30	APR-11

**Event: Replace Metal Gutters and Downspouts - 1000LM**

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

**Updated:** APR-11

**B3020.02 Other Roofing Openings (Hatch, Vent, etc)\* - 1954 Section**

A wood framed door to the roof is located on the 2nd floor teachers lounge Room - 217. See B2030.02 Exterior Utility Doors\*\* for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11



**S3 INTERIOR****C1010.01 Interior Fixed Partitions\* - All Sections**

The majority of the interior walls in the 1954, 1956 and 1960 Sections have either a gypsum lath and plaster finish on wood framed walls. All interior partitions in the 1966 & 1974 Sections have typically concrete block wall assembly. Several washrooms have a spectra-glaze block wall finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**C1010.02 Interior Demountable Partitions\* - 1956 & 1960 Section**

De-mountable type partitions are located in the leased areas between the Capital Health offices and the school area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	0	APR-11

**C1010.03 Interior Operable Folding Panel Partitions\*\* -1966 Section**

Operable folding partition are located between the lunch room 109 & 111, classrooms 202& 204 and 206 & 208 on the second floor of the 1966 Section.

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

**Event: Replace 3 operable folding panel partitions**

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

**Updated:** APR-11

**C1010.05 Interior Windows\* - All Sections**

Fixed interior glazed windows with GWG are located in the general office area and several isolated offices.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**C1010.06 Interior Glazed Partitions and Storefronts\* - All Sections**

Interior glazed partitions with GWG are located in several entrance vestibules.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**C1010.07 Interior Partition Firestopping\* - All Sections**

Firestopping observed only in the janitor closets, mechanical and electrical utility areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	0	APR-11

**Event:** **Seal the openings in the fire separation with a listed fire stop material.**

**Concern:**

Through slab service (piping, cabling and conduit) penetrations in the utility closets do not have the appropriate fire stopping to maintain the continuity of the required fire separation.

**Recommendation:**

Seal the openings in the fire separation with a listed fire stop material.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Code Repair	2011	\$7,500	Medium

**Updated:** APR-11

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

The interior swing doors generally consist of solid core doors with a paint finish in a painted steel frames.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	0	APR-11

**Event:** **Replace hardware & door assembly as required (40 doors)**

**Concern:**

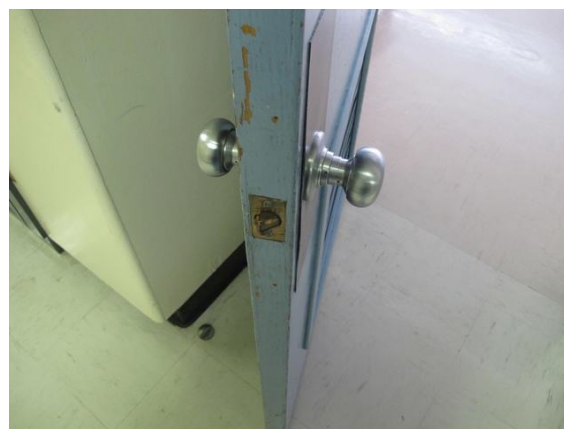
Several frames and doors are deteriorated throughout the school. Original hardware at interior doors difficult to operate, requiring frequent adjustment.

**Recommendation:**

Replace hardware & door assembly as required (40 doors)

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Preventative Maintenance	2012	\$80,000	Low

**Updated:** APR-11



Typical hardware and original door assembly.

**C1020.03 Interior Fire Doors\* - All Sections**

The majority of the interior doors in the corridors, stairwells and utility rooms are painted wood and/or steel doors in a painted steel frame and GWG panel inserts. Steel fire rated pocket doors are located between the original 1954 and 1966 Addition. The doors are on a fuseable link. The vestibule doors have GWG transom and sidelight panels. Several utility rooms, stairwells & corridors do not have labeled indicating fire rated doors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	0	APR-11

**Event:** **-Upgrade interior as per the findings in the building code study**

**Concern:**

Several interior areas of the school have been modified and may compromise exiting from corridors and teaching areas. The pocket fire doors in the corridor between the original 1954 & 1966 Additions may not conform.

**Recommendation:**

-Upgrade interior as per the findings in the building code study

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Code Repair	2012	\$75,000	Medium

**Updated:** APR-11

**Event:** **Study - Conduct a building code study**

**Concern:**

Several interior areas of the school have been modified and may compromise exiting from corridors and teaching areas.

**Recommendation:**

Study - Conduct a building code study

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Study	2011	\$15,000	Medium

**Updated:** APR-11



Pocket fire rated doors between the 1956 & 1966 Sections

**C1030.01 Visual Display Boards\*\* - All Sections**

Whiteboards, chalkboard and tackboards are located throughout the teaching areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1994	20	APR-11

**Event:** **Replace Visual Display Boards - (Based on the 60 teaching rooms)**

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

**Updated:** APR-11

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

The washroom in the 1954 Section have terrazzo panel partitions with painted wood doors. The majority of the washroom & change rooms have pre-finished metal partitions.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	30	APR-11

**Event: Replace toilet and shower partitions - 30 Stalls**

**Concern:**

Several of the original toilet partitions are dented and scratched panels. The hinges are broken and loose fittings.

**Recommendation:**

Replace toilet and shower partitions - 30 Stalls

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$45,000	Low

**Updated:** APR-11



Damaged washroom partitions

**C1030.08 Interior Identifying Devices\* - All Sections**

The room number or room name is mounted on or above the interior doors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**C1030.10 Lockers\*\* - All Sections**

Prefinished metal lockers are located throughout the corridors and boy's & girl's change rooms. Most of the lockers are not occupied, therefore replaced in not recommended.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	30	APR-11

**Event: Replace all lockers in corridors and change rooms ( 600 Units)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2014	\$180,000	Unassigned

**Updated:** APR-11

**C1030.12 Storage Shelving\* - All Sections**

Metal and wood storage shelving throughout the vestibules, custodial utility rooms and staff supply rooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**C1030.14 Toilet, Bath, and Laundry Accessories\* - All Sections**

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	1954	0	APR-11

**C2010 Stair Construction\***

The stairs to the second floor in the 1966 Section have a poured in place concrete assembly. The stairs to the Lounge in the 1954 Section and stairs to the original stage area in the small gym are framed in wood construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**C2020.05 Resilient Stair Finishes\*\***

The two main stairwells to the 1966 second floor have a rubber finish. The wood stairs to the lounge and stage have a vinyl finish to wood stairs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	20	APR-11

**Event: Replace rubber finish and vinyl finish on stairs - 3 stairwells and stage**

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

**Updated:** APR-11

**C2020.08 Stair Railings and Balustrades\***

The stair railings are steel with a vinyl capped steel handrail.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**Event: Upgrade handrails & railings to comply with current code requirements**

**Concern:**

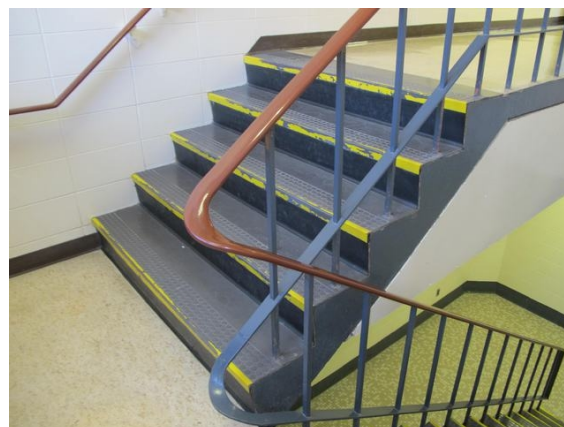
Railings and balustrades do not conform to the current code requirements.

**Recommendation:**

Upgrade handrails & railings to comply with current code requirements.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2011	\$18,000	Medium

**Updated:** APR-11



The height and width between the handrails do not conform to the current ABC code.

**C3010.03 Plaster Wall Finishes (Unpainted)\***

Gypsum lath and plaster is the typical wall finish in the 1954, 1956, and 1960 Additions.

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

**C3010.04 Gypsum Board Wall Finishes (Unpainted)\***

Gypsum board and metal stud framed partitions in renovated areas, such as the music room, computer room and home economics room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2006	0	APR-11

**C3010.06 Tile Wall Finishes\*\***

Glazed ceramic wall tile is located in the washrooms areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	40	APR-11

**Event: Clean ceramic wall tiles and grout in 1954 & 1956 Section - 4 washrooms**

**Concern:**

The grout is aged and stained. A few isolated tiles are broken.

**Recommendation:**

Clean tiles and grout on ceramic wall tiles in washrooms

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Preventative Maintenance	2011	\$4,000	Low

**Updated:** APR-11



Stained grout between the ceramic tiles in the 1956 washrooms.

**Event: Replace ceramic wall tile in the 1954 & 1956 washrooms ( Area - 120m2)**

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

**Updated:** APR-11

**C3010.09 Acoustical Wall Treatment\*\***

Acoustical wall panels are located throughout the music room and perforated wall panels are located in the gymnasiums.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2001	20	APR-11

**Event:** **Replace acoustical wall panels in Gym & Music room - 500m2**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$100,000	Unassigned

**Updated:** APR-11

**C3010.11 Interior Wall Painting\***

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

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	0	APR-11

**Event:** **Repaint all interior walls throughout the school (Based on 6445m2 of Area)**

**Concern:**

The paint finish is worn, stained and peeling in several areas throughout the school.

**Recommendation:**

Repaint all interior walls throughout the school (Based on 6445m2 of Area)

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$130,000	Low

**Updated:** APR-11



Deteriorated paint finish in the stair to the lounge area.

**C3010.12 Wall Coverings\***

The corridors and offices of the Capital Health area in the 1960 Section have a vinyl wall covering.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1995	0	APR-11

**C3020.01.02 Paint Concrete Floor Finishes\***

Painted/sealed concrete floors are located in the industrial shop, gym storage room, utility rooms and mechanical rooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**C3020.02 Tile Floor Finishes\*\***

Ceramic mosaic floor tiles are located in several entrance vestibules, stairwell landings and washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	50	APR-11

**Event: Replace ceramic floor tiles in vestibules, stair landings and washrooms - Area - 250m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$40,000	Unassigned

**Updated:** APR-11

**C3020.04 Wood Flooring\*\* - 1974 Section - Gymnasium**

The gymnasium has a hardwood strip floor assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	APR-11

**Event: Replace Hardwood Floor in Main Gymnasium (Area - 450m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$58,000	Unassigned

**Updated:** APR-11

**C3020.04 Wood Flooring\*\* - Industrial Arts**

The Industrial Arts Shop has the original wood strip flooring.

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

**Event: Replace wood flooring in Industrial Arts Shop - (Area 200m2)**

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

**Updated:** APR-11



**C3020.07 Resilient Flooring\*\* - Sheet Vinyl**

The majority of the corridors and classrooms on the second floor of the 1966 Section, including the lounge in the 1954 Section have a sheet vinyl floor finish. See K4030.01 Asbestos\* for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	20	APR-11

**Event: Replace Sheet vinyl- 1966 Section (Area - 900m2)**

**Concern:**

The floor is deteriorated and failing at the seams.

**Recommendation:**

Replace Sheet vinyl- 1966 Section (Area - 900m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$120,000	Medium

**Updated:** APR-11



Deteriorated sheet vinyl in the 2nd floor lounge area.

**C3020.07 Resilient Flooring\*\* - VAT**

The majority of the corridors, original gym and classrooms in the 1954, 1956 and 1966 Section have a vinyl asbestos floor tile finish. See K4030.01 Asbestos\* for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	20	APR-11

**Event: Replace original VAT flooring - (Area - 2500m2)**

**Concern:**

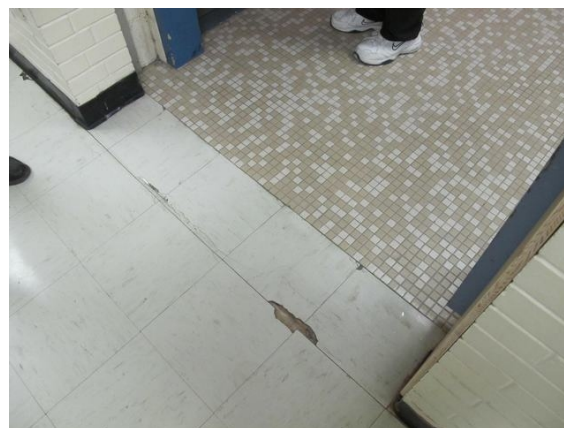
Several of the tiles are missing and are loose and lifting from the floor.

**Recommendation:**

Replace original VAT flooring - (Area - 2500m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$270,000	Medium

**Updated:** APR-11



Broken and loose VAT tiles in the corridor.

**C3020.07 Resilient Flooring\*\* - VCT**

VCT flooring is located in rooms 107, 109, 110 and 207.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	20	APR-11

**Event:** **Replace VCT flooring in rooms 107,109, 110 & 207 (Area - 420m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2026	\$26,000	Unassigned

**Updated:** APR-11

**C3020.08 Carpet Flooring\*\***

The general office area, staff room, library, storage, music room and several of the lease Capital Health offices have a carpet floor finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	15	APR-11

**Event:** **Replace carpet flooring (Area - 1000m2)**

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

**Updated:** APR-11

**C3030.03 Plaster Ceiling Finishes (Unpainted)\***

The ceilings in the 1954 washrooms, change rooms & storage areas typically have a gypsum plaster and lath finish. See K4030.01 Asbestos\* for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**C3030.04 Gypsum Board Ceiling Finishes (Unpainted)\***

Several washrooms and renovated areas have a gypsum board ceiling finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	0	APR-11

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

The ceilings in the renovated areas including the Capital health offices, office corridors, 2nd floor corridors, isolated washrooms, entrance vestibules, stairwells and classrooms (110, 112, 114, 116, 120, 124, 203 & 207) have either a 610mm x 610mm or 610mm x 1220mm suspended acoustical tile assembly. See K4030.01 Asbestos\* for details. The majority of the ceiling have been replaced with the exception of the washrooms and isolated corridors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	2000	25	APR-11

**Event:** **Replace acoustical tile ceiling - (Approx Area - 1100m2)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2025	\$90,000	Unassigned

**Updated:** APR-11

**Event:** **Replace all damaged ceiling tiles in the washroom areas ( 200 tiles)**

**Concern:**

Several of the ceiling tiles in the washrooms are stained, dislodged and broken ceiling tiles.

**Recommendation:**

Replace all damaged ceiling tiles in the washroom areas ( 200 tiles)

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Preventative Maintenance	2012	\$20,000	Low

**Updated:** APR-11



Stained and missing ceiling tiles in the washrooms.

**C3030.07 Interior Ceiling Painting\***

All the 300 x 300 acoustical ceiling tiles, gypsum and plaster ceiling have a paint finish. See K4030.01 Asbestos\* for details.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**C3030.09 Other Ceiling Finishes\* - 1954,56, 60 Sections**

The majority of the ceilings throughout the corridors and classrooms, including the original small gym have a 300mm x 300mm perforated ceiling tile glued to substrate.

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

**Event: Replace missing and stained ceiling tiles - ( 200 tiles)**

**Concern:**

Several ceiling tiles are stained, dislodged and missing throughout the corridors, classrooms and gym area.

**Recommendation:**

Replace missing and stained ceiling tiles - ( 200 tiles)

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Preventative Maintenance	2011	\$20,000	Medium

**Updated:** APR-11



Missing ceiling tiles in the small gymnasium.

**D1010.01.02 Hydraulic Passenger Elevators\*\***

Concord Elevator Corporation hydraulic passenger elevator, two stops (main and second floors), 1400 pound capacity (or 635 kg or 2 persons). Elevator is serviced by Alberta Elevator Services Inc.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2006	30	APR-11

**Event: Replace Elevator No. 1**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2036	\$290,000	Unassigned

**Updated:** APR-11

**S4 MECHANICAL****D2010.04 Sinks\*\* - Home Economic & Science**

There are 16 sinks in the Home Economic and Science Room including four stainless steel double bowl kitchen sinks and twelve stainless steel single bowl laboratory sinks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	30	APR-11

**Event: Replace 4 stainless steel double bowl kitchen sinks and 12 stainless steel lab sinks**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$69,000	Unassigned

**Updated:** APR-11

**D2010.04 Sinks\*\* - whole building except Home Economic & Science**

There are 17 sinks in the building including four iron enamel janitor sinks located in janitor closets; one fiberglass mop sink in Mechanical room #5; seven general purpose single bowl stainless steel sinks in Classroom 101, Classroom 122, Music Room 110, Office inside Library, Staff Room and Gymnasium Storage; four general purpose double bowl stainless steel sink in Classrooms 109, 111 and 120; one stainless steel trough sink in Storage inside Industrial Arts Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1970	30	APR-11

**Event: Replace 5 janitor sinks, 8 single bowl stainless steel sinks and 4 double bowl stainless steel sinks**

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

**Updated:** APR-11

**D2010.05 Showers\*\***

There are two shower stalls in the two P.E.O. Rooms and two group showers in Boys and Girls Locker Rooms. The shower stalls include prefabricated acrylic wall and shower base. The group shower in Boy's Locker Room include four fixed shower heads, mixing valves, tiled wall and floor drains. The group shower in Girl's Locker Room include five fixed shower heads, mixing valves, tiled wall, divider partitions and floor drains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1970	30	APR-11

**Event: Replace 2 group showers and 2 shower stalls**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$98,000	Unassigned

**Updated:** APR-11

**D2010.08 Drinking Fountains/Coolers\*\***

There are seven drinking fountains in the building including five wall mounted vitreous china non-refrigerated units and two stainless steel refrigerated unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	35	APR-11

**Event: Replace 5 vitreous china non-refrigerated units and 2 stainless steel refrigerated units**

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

**Updated:** APR-11

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

There are five sets of boy's and girl's washrooms in the building, including one set on second floor of 1966 building addition, one set on ground floor of 1966 building addition, one set on ground floor of 1954 building addition, one set in Boys and Girls Locker Rooms, one set on ground floor of 1956 building addition. There are six unisex washrooms, including one set in Classroom 122, one set in Custodian Room, one set in Teachers Room, one set in Infirmary Room and two sets on ground floor beside leased area 104. There are one set of Men's and Women's washrooms in the General Office. There are two group showers in the Boys and Girls Locker Rooms. Plumbing fixtures include floor mounted vitreous china flush valve type toilets (23), floor mounted vitreous china tank type toilets (10), wall mounted flush valve type toilets (17), wall mounted vitreous china lavatories (5), counter mounted vitreous china lavatories (15) and wall mounted vitreous china flush valve type urinals (17)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	35	APR-11

**Event: Replace the washroom plumbing fixtures including 33 toilets, 17 urinals and 33 lavatories**

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

**Updated:** APR-11

**D2020.01.01 Pipes and Tubes: Domestic Water\***

The domestic water supply to the building enters the water meter room at the north end of the building (100 mm diameter supply line). The water supply is metered (50mm diameter water meter). Domestic water piping is generally copper with brass valves, and fiberglass insulation is used to prevent heat loss and condensation. Some galvanized steel water piping is used in the water meter room. There is pin hole leak problem with the copper domestic water pipes reported by the school maintenance staff.

Cost of asbestos removal is not included in this item. Refer to technical item K4030.01 for details.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1954	0	APR-11

**Event: Replace main domestic water pipes (based on 6445 sq-m GFA)**

**Concern:**

There is pin hole leak in the domestic water pipes reported. Potable water is wasted and water damage to the wall and ceiling will be result from the leak.

**Recommendation:**

Replace main domestic water pipes with new type L copper pipes.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2011	\$127,000	Medium

**Updated:** APR-11

**D2020.01.02 Valves: Domestic Water\*\***

Domestic water system valves include system isolation valves and fixture isolation valves. The domestic water system valves are generally brass.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	40	APR-11

**Event: Replace the domestic water distribution system isolation valves (based on floor area of 6445 square meter)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2014	\$85,000	Unassigned

**Updated:** APR-11

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

There is no backflow prevention device on the domestic water supply to the building. There is a backflow prevention device for the standpipe system water supply (50 mm diameter).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	2000	20	APR-11

**Event: Install a backflow prevention device for the building domestic water supply (50 mm diameter)**

**Concern:**

Potential contamination of the municipal water supply caused by backflow from the building.

**Recommendation:**

Install a backflow prevention device on the building domestic water supply (50 mm).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2011	\$7,500	Low

**Updated:** APR-11



Domestic water meter with backflow preventor for standpipe system only.

**Event: Replace the backflow prevention device for the standpipe system (50 mm diameter)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$7,500	Unassigned

**Updated:** APR-11

**D2020.02.02 Plumbing Pumps: Domestic Water\*\***

There are three domestic hot water system circulation pumps which maintain the domestic hot water loop at temperature. These pumps are located in Boiler Room of 1966 building addition, in Mechanical Room #7 of 1956 building addition and Mechanical Room #3 of 1954 building addition adjacent to the domestic hot water heaters.

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

**Event: Replace 3 domestic hot water pumps**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$9,000	Unassigned

**Updated:** APR-11



**D2020.02.06 Domestic Water Heaters\*\* - 1954 original building and 1956 addition**

There are three natural gas fired domestic hot water heaters located in different mechanical rooms. One domestic hot water heater is located in Mechanical Room#7 of 1956 building addition . It is manufactured by A.O. Smith (c. 2005) model BTRC365-118 with an input heating capacity of 328,500 Bth/h (96.3 kW) and a volume of 65 US gallons (245 L). Another domestic hot water heater is located in Mechanical Room#3 of 1954 original building. It is manufactured by Johnwood (c.2005) model B4074 with an input heating capacity of 38,000 Btu/h (11.1 kW) and a volume of 40 US gallons (151 L).

Cost of asbestos removal is not included in this item. Refer to technical item K4030.01 for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	20	APR-11

**Event: Replace 2 domestic hot water heaters**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$28,000	Unassigned

**Updated:** APR-11

**D2020.02.06 Domestic Water Heaters\*\* - 1966 Addition**

There are three natural gas fired domestic hot water heaters located in different mechanical rooms. One of the domestic hot water heater is located in Boiler Room of 1966 Building Addition. It is manufactured by Rudd (c. 1990) model CL100-200A with an input heating capacity of 216,000 Btu/h (63.3 kW) and a volume of 85 US gallons (320 L). A domestic hot water storage tank which is located beside the heater and is manufactured by Ferro Metal Ltd. (1966) stores the hot water from the heater.

Cost of asbestos removal is not included in this item. Refer to technical item K4030.01 for details.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1990	20	APR-11

**Event: Replace domestic hot water heater and storage tank with two domestic hot water heaters**

**Concern:**

The domestic hot water heater and the storage tank is old and reaches its useful life expectancy. The condition of the tank liner is unknown but expected to be deteriorating according to the age of the equipment. Replacement of the heater is recommended.

**Recommendation:**

Replace one natural gas fired domestic hot water heater and storage tank with two domestic hot water heaters.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$14,000	Medium

**Updated:** APR-11



Domestic hot water heater and storage tank in Boiler Room

**D2020.03 Water Supply Insulation: Domestic\***

In general, where visible, most of the domestic water piping is insulated with fiberglass insulation to prevent heat loss and condensation. The insulation is protected with a painted canvas outer cover.

Cost of asbestos removal is not included in this item. Refer to technical item K4030.01 for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Install insulation to exposed domestic hot and cold water pipes in Boiler Room (approximate 20M)**

**Concern:**

Heat loss from exposed domestic hot water pipes in Mechanical Room #7 will decrease the system efficiency and waste energy. Condensation from exposed domestic cold water pipes may cause water damage to other building components.

**Recommendation:**

Install insulation to exposed domestic hot and cold water pipes in Mechanical Room #7.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$3,000	Low

**Updated:** APR-11



Uninsulated domestic water pipes in Mechanical Room #7

**D2030.01 Waste and Vent Piping\***

Visible waste and vent piping is generally copper in smaller diameters and cast iron in larger diameters. The below grade sanitary sewer piping is probably cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Inspect underground sewer pipe by video camera**

**Concern:**

Some of the underground pipes are up to 53 years old. The condition of the pipe shall be verified by video camera equipment.

**Recommendation:**

Video underground sewer lines in older sections of school to determine condition of piping.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2011	\$15,000	Medium

**Updated:** APR-11

**D2040.01 Rain Water Drainage Piping Systems\***

Standard roof drains are used to provide storm water drainage of the flat roof areas. The storm water drainage piping is generally cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**D2040.02.04 Roof Drains\***

Standard roof drains are used to provide storm water drainage of the flat roof areas (15 total). The roof drains are 100 mm and 150mm diameter and are equipped with metal strainers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**D3010.02 Gas Supply Systems\***

The natural gas service to the building is underground to the gas meter and pressure reducing station in Mechanical Room #1 at northeast corner of the building. The medium pressure gas line branches and runs underground to feed other Mechanical Rooms. Natural gas is used for the building hot water heating boilers, furnaces and domestic hot water heaters. The natural gas piping is steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

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

There are two natural gas fired heating boilers (B-1 and B-2) providing hot water for building heating. Both boilers are located in Mechanical Room #10 of 1966 Building Addition. They are manufactured by Peerless (1966) model 210-11-W with an input capacity of 2,100,000 Btu/h (615.3kW).

Cost of asbestos removal is not included in this item. Refer to technical item K4030.01 for details.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1966	35	APR-11

**Event: Replace 2 hot water heating boilers (based on 4,200 MBH heating capacity)**

**Concern:**

The two hot water boilers are old and obsolete with sign of rusted burner tubes and fire spillage. Replacement parts for the boilers are becoming difficult to obtain.

**Recommendation:**

Replace two heating boilers with high efficiency type boilers

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$350,000	Medium

**Updated:** APR-11



Hot water boilers in Boiler Room

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

The combustion gases from the two hot water heating boilers (B-1 and B-2) discharge through the roof of the building in a common stack. The combustion gases from the domestic hot water heater discharge through the same stack.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	35	APR-11

**Event: Replace boiler stack**

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

**Updated:** APR-11

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

Water treatment for the closed loop hot water heating system consists of manual chemical addition via a chemical pot feeder and a sidestream cartridge filter in parallel with the circulation pumps.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**D3020.03.01 Furnaces\*\***

There are total of twenty three natural gas fired furnaces to provide heated forced air heating in the building. The furnaces are heating only units located in different Mechanical Rooms in the building. They are constant air system and equip with underground supply air duct and common return duct. All furnaces are connected with fresh air duct at the return air inlet.

- Mechanical Room #1: Total of one furnace which is manufactured by Lennox to serve 1954 building addition.
- Mechanical Room #2: Total of two furnaces which are manufactured by Lennox to serve 1954 building addition.
- Mechanical Room #3: Total of one furnace which is manufactured by Lennox to serve 1954 building addition.
- Mechanical Room #4: Total of three furnace which are manufactured by Lennox to serve 1954 building addition.
- Mechanical Room #5: Total of two furnaces which are manufactured by Flame Master to serve 1974 Gymnasium.
- Mechanical Room #6: Total of one furnace which are manufactured by Lennox and equips with DX coil and air condensing unit to serve 1960 building addition.
- Mechanical Room #7: Total of five furnaces which are manufactured by Lennox to serve 1956 building addition.
- Mechanical Room #8: Total of six furnaces which are manufactured by Lennox to serve 1956 building addition.
- Mechanical Room #9: Total of two furnaces which are manufactured by Lennox to serve 1966 building addition.

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

**Event: Replace 23 furnaces with new air handling units (based on 3602 sq-m GFA)**

**Concern:**

Furnaces are aged. Back draft of flue gases occurs. Furnace is not suitable for school applications because of the high usage, durability, high fresh air ratio, comfort level and control.

**Recommendation:**

Replace twenty three natural gas furnaces with new air handling units.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$350,000	Medium

**Updated:** APR-11



Typical gas fired furnace

**D3020.03.02 Chimneys (& Comb. Air): Furnace\***

The combustion gases from the furnaces discharge through the roof of the building either in a common stack or separate stack.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event:** Replace 3 gas flue vents on roof and provide proper support

**Concern:**

The exhaust flues for the three furnaces in Mechanical Room #4 are bent and improperly support on roof which may obstruct the flue gas exhaust. Replacement is recommended.

**Recommendation:**

Replace 3 gas flue vents on roof from the natural gas fired furnaces in Mechanical Room #4 and provide proper support.



Three flue gas vents on roof from the furnaces in Mechanical Room #4

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$9,000	High

**Updated:** APR-11

**D3030.06.02 Refrigerant Condensing Units\*\***

There is one air cooled condensing unit which is manufactured by Lennox and located on roof provide cooling to the furnace to serve Lease area 100.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1980	25	APR-11

**Event:** Replace air cooled condensing unit

**Concern:**

The air condensing unit is old with rusting housing and requires frequent maintenance. Replacement is recommended.

**Recommendation:**

Replace existing air cooled condensing unit with new.



Old air cooled condensing unit on roof

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$7,500	Low

**Updated:** APR-11

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

There is one air handling unit provides heating and ventilation to the 1966 building addition. This air handling unit is a mixed air system located in Mechanical Room #11. It is manufactured by Durham Bush model HAH-240 and equips with filters, motorized dampers, mixing plenum, supply air fan and remote return air fan, hot water coil, 3-way mixing valve, hot water circulating pump and steam humidifier.

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

**Event:** **Replace 1 air handling unit (based on 2843 sq-m GFA)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2014	\$230,000	Unassigned

**Updated:** APR-11

**D3040.01.01 Air Handling Units: Air Distribution\*\* - Makeup Air Unit**

A natural gas fired makeup air unit manufactured by Engineered Air (with estimated heating capacity of 100MBH) provides heated makeup air to compensate the exhaust air in wood dust extractor in Industrial Arts Room of 1966 building addition.

Cost of asbestos removal is not included in this item. Refer to technical item K4030.01 for details.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1995	30	APR-11

**Event:** **Replace makeup air unit (based on 100MBH heating input)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2025	\$35,000	Unassigned

**Updated:** APR-11

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

There is one inline axial type return air fan which is interlocked with the Durham Bush air handling unit in Mechanical Room #11.

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



**D3040.01.04 Ducts: Air Distribution\* - Air handling Unit**

The air distribution ducts include the overhead supply air, return air, exhaust air and fresh air duct systems for the air handling unit in 1966 building addition. The duct systems include associated components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc. The air distribution systems are constant volume type systems.

1968: Low velocity above ground ductwork from furnace located within Capital Care lease space. Underground ductwork from two furnaces in 1966 addition mechanical room. COST INCLUDED IN D3020.03.01.

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

**D3040.01.04 Ducts: Air Distribution\* - Furnaces**

The air distribution ducts include the supply air, return air, exhaust air and fresh air duct systems for the furnaces. The duct systems include associated components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc. The air distribution systems are constant volume type systems. The supply air ducts are all underground in the building except in the area of 1966 building addition.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

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

Air outlets and inlets include supply air diffusers and return air grilles. Supply air diffusers include square diffusers, linear slot diffusers, floor registers installed on top of millwork, bar grilles. The return air grilles are wall mounted return air grilles and linear bar grilles.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**D3040.03.01 Hot Water Distribution Systems\*\***

The hot water system provides hot water to the building hydronic heating system and air handling unit hot water coils in the 1966 building addition only. The hydronic distribution system includes all components of the closed loop heating system including piping, valves, piping insulation, piping specialties, circulation pumps, and expansion tank. There are three system circulation pumps (P1 to P3) in Boiler Room that circulate hot water to the boilers, hot water convectors, finned tube cabinet radiators and air handling unit heating coil.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	40	APR-11

**Event: Replace hot water distribution systems (based on 2843 sq-m GFA)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2014	\$530,000	Unassigned

**Updated:** APR-11

**D3040.04.01 Fans: Exhaust\*\***

There are 6 roof top exhaust fans, 2 sidewall mounted fans and 1 ceiling exhaust fan and for the building, including sanitary exhaust fans, kitchen exhaust fans and storage room exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	30	APR-11

**Event: Replace 6 roof mounted exhaust fans, 1 ceiling fan and 2 sidewall mounted fans**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$48,000	Unassigned

**Updated:** APR-11

**D3040.04.01 Fans: Exhaust\*\* - Industrial Arts**

There are four exhaust fans in Industrial Arts Room to exhaust hoods and saw dust. Two exhaust fans are inline type and connected to a paint spray booth and kiln hood. A saw dust collector which is manufactured by N.R. Murphy Ltd. model CS-1.5 is connected to spiral ducts and woodworking machines in Industrial Arts Room. A centrifugal exhaust fan provides general exhaust in the Industrial Arts Room. The air pressure is balanced by a makeup air unit within the space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	30	APR-11

**Event: Replace 2 inline fans, 1 centrifugal fan**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$17,000	Unassigned

**Updated:** APR-11

**D3040.04.03 Ducts: Exhaust\***

Exhaust duct systems include the collection ducts associated with the building exhaust fans (the six rooftop exhaust fans, two sidewall mounted fans, four exhaust fans in Industrial Arts Room). Most of the exhaust ducts are constructed of zinc coated steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**D3040.04.05 Air Outlets and Inlets: Exhaust\***

Exhaust air inlets include the inlet grilles associated with the exhaust system collection ducts. Most of the exhaust air inlets are framed wall mounted grilles. Exhaust air outlets include the exhaust fan discharge vents, louvres and goosenecks, where applicable (does not apply to the roof mounted exhaust fans).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**D3050.01.04 Unit Air Conditioners\*\***

There are three window mounted type air conditioners which are located in Leased Room 101 and 101A. The air conditioners are manufactured by Emerson.

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

**Event: Replace 3 window type air conditioners**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2030	\$6,000	Unassigned

**Updated:** APR-11

**D3050.03 Humidifiers\*\***

There is one steam type humidifier which is located in Mechanical Room #11 and interlocked with the air handling unit to serve 1966 building addition. The humidifier is manufactured by DriSteem (1991) with model CVPC-18-18-18-18.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1991	25	APR-11

**Event: Replace steam humidifier**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2016	\$30,000	Unassigned

**Updated:** APR-11

**D3050.05.01 Convectors\*\***

Forced flow convection cabinets (or cabinet unit heaters) are used at high heat load locations (entrance vestibules and staircases). There are about three forced flow convection cabinets in the building and four wall mounted convectors in corridors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1966	40	APR-11

**Event: Replace 7 convectors**

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

**Updated:** APR-11

**D3050.05.03 Finned Tube Radiation\*\***

Finned tube radiation cabinets are used to provide perimeter heating in the second floor and ground floor classrooms, washrooms, corridors and offices of 1966 building addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	APR-11

**Event: Replace finned tube radiation cabinets (based on 2843 sq-m GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$284,000	Unassigned

**Updated:** APR-11

**D3060.02.01 Electric and Electronic Controls\*\***

The building HVAC system controls and actuators in whole building except 1966 building addition are electric and electronic. Andover AC256M Building Management and Control System (BMCW) which provides some control and monitoring functions. The electric and electronic controls include thermostats, in-duct and room temperature sensors, actuators and contactors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	30	APR-11

**Event: Replace the HVAC system Electric/Electronic controls (based on 3602 sq-m GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$127,000	Unassigned

**Updated:** APR-11

**D3060.02.02 Pneumatic Controls\*\***

The building HVAC system controls and actuators in 1966 building addition are pneumatic. There is an Andover AC256M Building Management and Control System (BMCS) which provides some control and monitoring functions to the HVAC equipment actuators and room thermostats. The control air supply system is located in the Boiler Room of 1966 building addition and consists of one air compressor mounted on an air receiver tank with a wall mounted refrigerated air dryer. Pneumatic controls include control valves for most of the hydronic terminal units and control valves for the air handling unit heating coil. This element includes the pneumatic distribution system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	40	APR-11

**Event: Replace the HVAC system pneumatic controls (based on 2843 sq-m GFA)**

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

**Updated:** APR-11

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

The building is equipped with a central Building Management and Control System (Andover Controls model AC256M), which provides control and monitoring functions for the main HVAC equipment, as well as for the building space temperatures. Visible HVAC equipment actuators (control valves) are generally pneumatic.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1990	20	APR-11

**Event: Replace the Building Management and Control System (BMCS) (based on 6445 sq-m GFA)**

**Concern:**

The Building Management and Control System (BMCS) is obsolete and replacement parts for the Andover system are becoming difficult to obtain.

**Recommendation:**

Replace the Building Management and Control System (BMCS).



Andover model AC256 main control panel

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2013	\$160,000	Low

**Updated:** APR-11

**D4020 Standpipes\***

The building is equipped with a standpipe system feeding standard fire hose cabinets located on both floors of the building.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**D4030.01 Fire Extinguisher, Cabinets and Accessories\***

Fire extinguishers are located throughout the building in the fire hose cabinets and on wall mount brackets.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

## S5 ELECTRICAL

### D5010.01 Main Electrical Transformers\*\*

Pad mounted utility-owned transformer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	40	APR-11

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

The incoming hydro service to St. Kevin School is from an Epcor pad mounted transformer, located on the north side of the school. The Epcor meter is located adjacent to the main distribution panel. The main electrical distribution panel is a Square D panel rated at 1200A, 120/208V, three phase, four wire. The main distribution panel feeds a total of 10 branch circuit panels, the existing distribution splitter in the 1954 section of the school (3 panels), a humidifier, the fire alarm and the exit lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	40	APR-11

**Event:** Replace and Relocate 1200A, 120/208V Main Switchboard

**Concern:**

Switchboard is located in a corridor accessible to students. The main switchboard is aged. Replacement breakers are not readily available.

**Recommendation:**

Replace main switchboard with new switchboard in a secure location. Provide TVSS for new switchboard.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$41,000	High

**Updated:** APR-11



1200A main switchboard, located in corridor.

**D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)\*\* - 1954 to 1960**

The original panels are 120/240V, single phase, 3 wire, panels. The panels were manufactured by Federal Electric (Panels A, B & C), Canadian Westinghouse (Panel D - feeds 2 - 8 cct. Federal Electric panels and a Stab-Lok panel) or Bulldog (Panel H - subfed from panel D).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1954	30	APR-11

**Event: Replace Single Phase 120/240V Branch Panels (Total of 8 panels)**

**Concern:**

The single phase 120/240V panels are well past their life expectancy. 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 existing single phase panels with new three phase 120/208V branch circuit panels c/w sufficient circuits to accommodate building loads. New 4 wire feeder from main switchboard to panel is required.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2011	\$41,000	Medium

**Updated:** APR-11



Federal Electric 120/240 branch circuit panel.

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

There are nine Square D branch circuit panels that were installed as part of the 1966 school addition. A Federal Pioneer panel was installed in the large gymnasium in 1974. The panels are all 120/208V, 3 phase, 4 wire panels.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1966	30	APR-11

**Event: Replace 120/208V Branch Circuit Panels (Total of 10 panels)**

**Concern:**

The 120/208V panels are well past their life expectancy. 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 existing panels with new branch circuit panels c/w sufficient circuits to accommodate all building loads.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2011	\$51,000	Medium

**Updated:** APR-11

**D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)\*\* - 2000**

Two Square D branch circuit panels (Boiler room panel A and industrial arts room panel LA) have been added to accommodate additional building loads. Panels A and LA are 120/208V, 3 phase, 4 wire panels.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2000	30	APR-11

**Event: Replace Branch Circuit Panels (Total of 2 panels)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2030	\$10,000	Unassigned

**Updated:** APR-11



**D5010.07.02 Motor Starters and Accessories\*\* - 1954 to 1966**

There are Allen Bradley and Square D motor starters within the mechanical rooms. Manual, motor rated starter switches have been provided for fractional horsepower motor loads.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1954	30	APR-11

**Event: Replace Motor Starters (Based on 3 starters and 30 manual starter switches)**

**Concern:**

The original motor starters in the building are aged. Replacement parts are no longer readily available.

**Recommendation:**

Replace motor starters and manual motor starter switches.

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

**Updated:** APR-11



Aged motor starters in mechanical room.

**D5020.01 Electrical Branch Wiring\* - 1954 to 1960**

The majority of the cabling is standard building wire in EMT conduit. Armoured cable has been provided, in selected locations, for connections to mechanical and miscellaneous equipment.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	0	APR-11

**Event: Electrical Wiring Study**

**Concern:**

The original branch wiring in the building has exceeded its theoretical life expectancy. With age the wiring insulation can break down, which can lead to short circuits and potential fire hazards.

**Recommendation:**

Inspect and test the wiring systems within the building to determine the condition of the wiring. Study should include costing for any proposed replacements.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Study	2011	\$10,000	Medium

**Updated:** APR-11

**Event: Replace Aged Branch Wiring (3117 sq. m. gfa)**

**Concern:**

The original branch wiring in the building has exceeded its theoretical life expectancy. With age the wiring insulation can break down, which can lead to short circuits and potential fire hazards.

**Recommendation:**

Replace aged branch circuit wiring as recommended by study.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2011	\$167,000	High

**Updated:** APR-11

**D5020.01 Electrical Branch Wiring\* - 1966 to 1974**

The majority of the cabling is standard building wire in EMT conduit. Armoured cable has been provided, in selected locations, for connections to mechanical and miscellaneous equipment.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

**Event: Provide New Receptacles (Based on 200 receptacles)**

**Concern:**

Staff and students are experiencing difficulties with the lack of an adequate quantity of receptacles and circuit capacity to plug-in equipment required as teaching aids.

**Recommendation:**

Add circuits and increase the number of receptacles in the affected areas.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Program Functional Upgrade	2011	\$50,000	Medium

**Updated:** APR-11

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

The lighting within the school is typically controlled by 120V line voltage switches. Original switches are still in use in many areas of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Replace Original Lighting Switches (6445 sq. m. gfa)**

**Concern:**

The original switches are aged. Contacts will wear over time making the switch inoperable. Potential electrical hazard.

**Recommendation:**

Replace original lighting switches.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$14,000	Low

**Updated:** APR-11



Aged light switch with bakelite coverplate.

**D5020.02.02.01 Interior Incandescent Fixtures\***

Incandescent fixtures have been installed in the furnace rooms and washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Replace Interior Incandescent Lighting (Based on 30 fixtures)**

**Concern:**

Incandescent light fixtures are very old, in poor shape. Incandescent lighting fixtures are not energy efficient.

**Recommendation:**

Replace incandescent light fixtures with new energy efficient lighting fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$9,000	Low

**Updated:** APR-11



Incandescent fixture missing lamp housing.

**D5020.02.02.02 Interior Fluorescent Fixtures\*\* - 1954 to 1960**

Surface mounted wrap-around fluorescent fixtures with T12 lamps and magnetic ballasts have been provided in classrooms and corridors. T12 louvered fluorescent fixtures have been provided in some areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	30	APR-11

**Event:** **Replace Interior T12 Fluorescent Lighting (5495 sq. m. gfa)**

**Concern:**

Existing fluorescent light fixtures are in poor condition, with yellowing and cracked lenses and energy inefficient T12 lamps.

**Recommendation:**

Replace T12 fluorescent fixtures with new energy efficient T5 or T8 fluorescent lighting fixtures. Incorporate lamp reduction where possible.



Louvered fluorescent T12 lighting.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$348,000	Medium

**Updated:** APR-11

**D5020.02.02.02 Interior Fluorescent Fixtures\*\* - 1990**

Newer fluorescent wrap around fixtures and recessed 2 ft. x 4 ft. fluorescents with T12 lamps and magnetic ballasts have been installed in selected rooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1990	30	APR-11

**Event:** **Energy Efficiency Upgrade for T12 Fluorescent Lighting (700 sq. m. gfa)**

**Concern:**

The T12 fluorescent lighting fixtures are not energy efficient. T12 lamps may be phased out by the manufacturers.

**Recommendation:**

Retrofit T12 fluorescent lighting fixtures. Provide new T8 lamps and electronic ballasts. Incorporate lamp reduction where possible.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Energy Efficiency Upgrade	2012	\$44,000	Medium

**Updated:** APR-11

**Event:** **Replace Interior T12 Fluorescent Lighting (700 sq. m. gfa)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2020	\$35,000	Unassigned

**Updated:** APR-11

**D5020.02.02.02 Interior Fluorescent Fixtures\*\* - 2000**

T8 fluorescent fixtures have been installed in the home economics room and music room (recessed 2 ft. x 4 ft. and suspended linear fluorescent fixtures).

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

**Event:** Replace Interior T8 Fluorescent Lighting (250 sq. m. gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$16,000	Unassigned

**Updated:** APR-11

**D5020.02.03.02 Emergency Lighting Battery Packs\*\***

Emergency lighting is provided from emergency lighting battery packs and remote emergency lighting heads. Many of the units were not operational.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1985	20	APR-11

**Event:** Replace Emergency Lighting Battery Packs (Based on 18 units)

**Concern:**

The emergency lighting battery packs are aged. Units may no longer be able to maintain the emergency lighting for the required 30 minute period.

**Recommendation:**

Replace emergency battery units with new units to current code requirements.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$19,800	High

**Updated:** APR-11



Aged emergency lighting battery unit.

**D5020.02.03.03 Exit Signs\***

The exit signs are typically installed at building exits and along egress routes. Older globe or wedge style exit signs have been installed in areas of the building. The exit signs typically have incandescent lamps. A few exit signs have been retrofitted with LED lamps.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1954	0	APR-11

**Event: Replace Exit Signs (Based on 18 exit signs)**

**Concern:**

The globe and wedge style exit signs do not meet current code requirements. The incandescent exit signs are not energy efficient. Some exit signs are in poor condition.

**Recommendation:**

Replace existing exit signs with new LED exit signs (to current code requirements) with integral battery backup.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2011	\$9,000	High

**Updated:** APR-11



Exit sign is not code compliant.

**D5020.03.01.01 Exterior Incandescent Fixtures\***

Surface mounted incandescent fixtures have been installed at the main entrance of the school. There are motion sensor incandescent floodlights mounted on the gymnasium (1974).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1954	0	APR-11

**Event: Replace Exterior Incandescent Lighting (3 fixtures)**

**Concern:**

The exterior incandescent lighting is not energy efficient. Fixtures are in poor condition - lenses have deteriorated affecting light output.

**Recommendation:**

Replace incandescent exterior lighting with new energy efficient exterior lighting fixtures.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$3,000	Low

**Updated:** APR-11



Recessed incandescent lighting installed in entrance canopy.

**D5020.03.01.04 Exterior H.P. Sodium Fixtures\***

High Pressure Sodium surface mounted fixtures have been provided on the building exterior. Two HPS wallpack fixtures (2005) have been installed between the East and West wings.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1988	0	APR-11

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

The exterior lighting is photocell controlled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1988	0	APR-11

**D5030.01 Detection and Fire Alarm\*\***

The fire alarm system is a single stage, conventional, zoned system with an Edwards 6500, 36-zone panel (9 spares). The fire alarm control panel is located at the main entrance. The audible devices within the school are bells.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1982	25	APR-11

**Event: Replace Fire Alarm System (6445 sq. m. gfa)**

**Concern:**

Existing Edwards 6500 fire alarm panel is no longer manufactured and repair parts no longer available. Fire devices are aged, in poor condition, and may no longer be reliable. The strobe coverage does not meet current code requirements.

**Recommendation:**

Provide new addressable fire alarm system to current code requirements. Provide strobe coverage throughout.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$169,000	High

**Updated:** APR-11



Edwards 6500 fire alarm control panel at main entrance.



**D5030.02.02 Intrusion Detection\*\***

The DSC Maxsys PC4020 security system panel is located in the mechanical room opposite the general office. A security system keypad is installed at the main entrance. PIR motion detectors have been provided throughout the school.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2005	25	APR-11

**Event: Replace Intrusion Detection System (Panel, 37 motion detectors)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2030	\$25,000	Unassigned

**Updated:** APR-11

**D5030.02.04 Video Surveillance\*\***

A video surveillance system has been provided for the school. There are six cameras connected into the system (Digital Sentry System 30, located in the principal's office). The cameras are also monitored in the general office.

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

**Event: Replace Video Surveillance System (6 cameras + 2 monitors)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2025	\$17,000	Unassigned

**Updated:** APR-11

**D5030.03 Clock and Program Systems\***

The clocks within the school are typically battery or plug-in clocks.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1954	0	APR-11

**Event: Replace Clock System (Receiver and 40 clocks)**

**Concern:**

Clocks within the school are not synchronized. Inconsistent clock types.

**Recommendation:**

Provide new GPS receiver/transmitter and wireless clocks throughout.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$22,000	Low

**Updated:** APR-11

**D5030.04.01 Telephone Systems\***

The telephone system is an NEC system with two Nitsuko DX2NA-32 units. Telephone handsets are located in the general office and classrooms. The main telephone equipment is located in the mechanical room opposite the general office. A telephone backboard and BIX block have been provided for termination of telephone cabling.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1988	0	APR-11

**D5030.04.05 Local Area Network Systems\***

A hardwired network system has been provided throughout the school. Rack mounted server equipment is located in the communications rooms. Three data closets are located in the school; in the Capital health area - west wing, in the mechanical room - opposite the general office and in the east wing storage room - opposite computer lab 124. Data cabling is typically Cat. 5 or better. Supernet has been provided to the school.

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

**D5030.05 Public Address and Music Systems\*\***

The P.A. system is a Dukane Petcom 2200 with 50 zone selector switches. The main console is located in the main office. A hand held microphone has been provided for paging purposes. Console is complete with an AM/FM tuner and a cassette player. Speakers are typically surface mounted units or recessed speakers in the ceiling. Call switches have been provided in the classrooms.

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

**Event:** **Replace P.A. System (Based on head-end equipment and 35 classrooms)**

**Concern:**

The Dukane Petcom 2200 P.A. System is obsolete. Replacement parts are not readily available.

**Recommendation:**

Replace P.A. system with new system to school board standards.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$40,000	Medium

**Updated:** APR-11



Obsolete Petcom 2200 P.A. System in general office.

**D5030.06 Television Systems\***

A coaxial cable distribution system has been installed in the school. Outlets are located in classrooms.

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

**S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION****E1090.04 Residential Equipment\***

The home economics lab is equipped with refrigerator, stoves, microwaves and several small kitchen appliances. The staff kitchen area is equipped with a refrigerator, dishwasher and microwaves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

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

Electronic scoreboards, movable basketball hoops are located in the gymnasiums. Exercise equipment is located in the designated fitness room (rm 107 & 109).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**E2010.02 Fixed Casework\*\* - Home Economics**

The Home Economics Room is equipped upper wood cabinets, lower cupboards c/w plastic laminate counter-top, open fixed shelving. Computer room have plastic laminate tables with painted metal supports.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	35	APR-11

**Event: Replace millwork in home economics & computer lab only**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2041	\$150,000	Unassigned

**Updated:** APR-11

**E2010.02 Fixed Casework\*\* - Original**

Each classroom is equipped with custom wood open faced and/or painted cabinet units along the exterior wall. The staff kitchen room has painted wood upper and lower cabinet units. The art room and science rooms, including prep rooms have has stained wood upper and lower cabinet units, fixed tables & millwork around the perimeter of the room. The library has fixed and moveable wood shelving casework. Glass display cabinets are located in the main entrance area and in the corridors. CTS lab have fixed tables & millwork around the perimeter of the room. The washrooms have plastic laminate counter tops. Fixed wood benches are located in the change rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	35	APR-11

**Event: Replace all original millwork (Based on 6445 SM GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$550,000	Unassigned

**Updated:** APR-11

**E2010.03.01 Blinds\*\***

A variety of window blind are located on the windows. The windows have roller blinds, horizontal and plastic vertical blinds.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	30	APR-11

**Event:** **Replace all blinds throughout the school ( Approx 150 window sections)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2014	\$80,000	Unassigned

**Updated:** APR-11

**E2020.02.03 Furniture\***

All classroom, shops, labs and offices areas are equipped with movable desks and chairs.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1954	0	APR-11

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

There is no barrier free parking space allocated in the parking area along the west elevation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Provide a HC parking space and complete signage****Concern:**

A designated parking area is not provided in the main parking lot along the west elevation.

**Recommendation:**

Provide wheelchair ramped curb.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2011	\$3,000	Medium

**Updated:** APR-11

**K4010.02 Barrier Free Entrances\***

Power assist doors are not provided throughout the entire school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Provided power operators for barrier free access at the main west entrance****Concern:**

No automatic access is currently provided from any exterior entrance doors.

**Recommendation:**

Provided power operators for barrier free access at the main west entrance

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2011	\$5,000	Medium

**Updated:** APR-11

**K4010.03 Barrier Free Interior Circulation\***

Generally, barrier free access is provided throughout the public spaces of the school, including an elevator to the second floor installed in 2006, however the school does not have a lift to access the stage area.

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

**K4010.04 Barrier Free Washrooms\***

A barrier-free washroom is located opposite the infirmary at the south-west corner of the school. The main floor washroom was installed in 2006.

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

**K4030.01 Asbestos\***

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Nov, 2007 for details. Report indicates asbestos presence in vinyl floor tiles, sheet vinyl, ceiling tiles, ceiling stipple coating, drywall joint compound, window sealant, joint packing in bell, incandescent light fixture paper, spigot cast iron pipe, pipe-run insulation, boiler header insulation, tank insulation and duct insulation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1954	0	APR-11

**Event: Hazardous Materials Abatement - Based on study**

**Concern:**

For details refer to HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Nov,2007.

**Recommendation:**

Hazardous Materials Abatement - Based on study

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Hazardous Materials Abatement	2011	\$221,000	Medium

**Updated:** APR-11

**K4030.04 Mould\***

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Nov 2007. No mould issues know or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**K4030.09 Other Hazardous Materials\***

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Nov ,2007 for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1954	0	APR-11

**K5010 Reports and Studies\***

The evaluation was conducted on Oct 15, 2010, by Asset Evolution Inc.

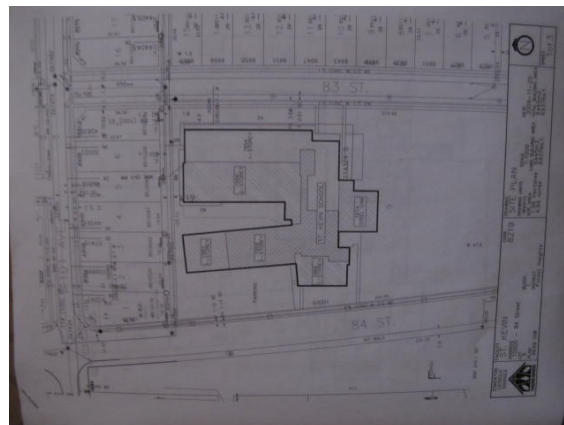
St. Kevin Catholic Junior High School, originally built in 1954 is a one-storey structure with a partial second floor. The original school has a building area of 1625 m<sup>2</sup>. A one-storey addition of 1038m<sup>2</sup> was added in 1956 to the west end of the original school. A second addition of 452 m<sup>2</sup> was added in 1960 to the north-west end of the 1956 Addition. A third, two-storey addition of 2843 m<sup>2</sup> was added in 1966 to the west elevation of the original 1952 section and to the south-west corner of the 1956 addition. A final, one-storey addition of 484m<sup>2</sup> was added along the south elevation of the original school. The school has a total building area of 6445m<sup>2</sup>. The west wing, including the entire 1960 Section and a portion of the 1956 Section is leased to Capital Health and a Daycare facility. St. Kevin Catholic Junior High School includes 11 classrooms, two science rooms, a library, two music room, an industrial arts room, a computer room, two gymnasiums, a fitness room, a home economic room, work rooms and an administration area. The site is approximately 1.96 hectares in area. Several isolated areas have been renovated, such as the music room, home economics room and portions of the site. The school installed a barrier free washroom and elevator in 2006.

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

**Event: Plans and Drawings**

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

**Updated:** APR-11



St. Kevin- Site Plan