RECAPP Facility Evaluation Report

Calgary School District #19

Colonel Walker Community School

B2587A

Calgary

Report run on: February 23, 2010 10:24 AM

Facility Details

Building Name: Colonel Walker Community S
Address: 1921 - 9 Avenue S. E.
Location: Calgary

Building Id: B2587A
Gross Area (sq. m): 6,008.90
Replacement Cost: $17,045,005
Construction Year: 1912

Evaluation Details

Evaluation Company: Golder Associates Ltd.
Evaluation Date: May 27 2009
Evaluator Name: Peter Tattersall

Total Maintenance Events Next 5 years: **$5,725,560**
5 year Facility Condition Index (FCI): **33.59%**

General Summary:

The original Colonel Walker Community School building houses two grades K-6 elementary schools: the Colonel Walker Community School occupies the eastern part of the building complex and had 120 students registered in 2008-2009; and, the Piitoyas Family School occupies the original part of the building with 96 students in 2008-2009.
For the purpose of this report, the front of the building is considered to be facing north.
The original 3130 m2, 3 storey (plus penthouse) sandstone building was completed in 1912.
A 1804 m2 one-storey addition was constructed to the east and south of the original building in 1952.
A 986 m2 one-storey addition was constructed to the east of the original building in 1965.
A 89 m2 one-storey addition was constructed between the original building and the 1965 addition in 1982.
One relocatable classroom with independent heating and ventilation was added in about 2007.
The total gross floor area of the combined school is about 6009 m2 and has a total design capacity of about 515 students.

Structural Summary:

The foundations consists of cast-in-place concrete with concrete slab on grade.
The superstructure is a combination of load bearing masonry walls and wood framing supporting wood decking.

Apparent movement was observed in the load-bearing concrete block walls near the roofline in the 1952 Addition. Further investigation and repairs as needed are recommended.

The building structure is generally in acceptable overall condition.

Envelope Summary:

The exterior of the 1912 school consists of sandstone; the exterior of the 1952 addition consists of painted concrete block; and, the exterior of the 1965 and 1982 additions consist of brick veneer. In general the sandstone and the painted concrete blocks appeared to be in marginal condition. Repairs to the cladding is recommended within the evaluation period after a study has been conducted on the integrity of the structural block of the 1952 addition.

There are 13 identifiable roof sections which are protected by SBS modified bitumen, conventional asphalt and gravel Built-Up Roof (BUR) membranes and metal roofing. The SBS sections were last replaced in 1998 and 2007. The BUR sections were last replaced in 1966 and will require replacing within the 5-year tactical planning window. The metal roofs appear to be in acceptable condition.

Wood exterior doors were observed around the perimeter of the building. Damaged and deteriorated exterior doors were identified and replacements are recommended within the 5-year evaluation period.

The windows in the original 1912 building, and a majority of the windows in the 1952 addition are original wooden framed single glazed window units with operable hoppers that were showing signs of age and deterioration. Replacement and upgrades to more efficient windows is recommended.
The windows on the west elevation of the 1952 addition were replaced in 1992 with aluminum framed sealed insulated glazing units with fixed and operable awning windows. The window openings at the basement level of the 1952 addition are filled with glass block. Evidence of air and water infiltration around the wood framed windows was identified in several locations.

The building envelope appeared to be in acceptable overall condition.

Interior Summary:

The interior finishes consist of the following components:

Flooring: 8" x 8" original vinyl tile in main corridors of the 1952 Addition. 12" x 12" vinyl tile in the 1952 Addition classrooms and throughout the 1982 Addition. Sheet vinyl throughout the 1912 classrooms, corridors and offices and the Library section of the 1965 Addition. Original Terrazzo in the 1912 main floor washrooms. Ceramic and quarry tile in the 1912 second floor washrooms and washrooms/shower rooms in the 1952 Addition. Original hardwood in the 1912 main floor lunch room and penthouse corridor and classrooms, and in the 1965 gymnasium and stage area.

Walls: Predominately painted plaster with wood wainscot or wood panels, and painted concrete block. Repair and refinishing of the natural woodwork and plaster walls throughout the school is recommended.

Ceilings: Painted plaster on lathe; and suspended concealed grid or T-bar acoustic tile systems.

Floor finishes include, painted concrete (service rooms), 9" x 9" VAT flooring (main corridor 1952 addition), 12" x 12" vinyl tile in the 1952 addition and in the 1982 addition, sheet vinyl (classrooms and 1912 corridor), hardwood flooring (gymnasium and top level of the 1912 building) , carpeting (library, offices), terrazzo tile (washrooms 1912 building), ceramic tile (showers 1952 addition) and quarry tile (main washrooms in the lower level of the 1952 addition). Carpet replacement, partial sheet vinyl and VCT tile flooring replacement, and repainting of the concrete floors is recommended.

Replacement of the flooring and ceiling systems throughout most of the 1912 main, second and third floors, the 1965 Library and the 1982 Addition was completed in 2005 due to water damage reportedly sustained from a frozen and broken plumbing line.

Interior double swing fire doors are not rated and held open by door stops or retaining hooks. Replacement with rated assemblies accessorized with automated door hold open devices is required.

The interior finishes are in acceptable overall condition.

Mechanical Summary:

Heating for the building is supplied two low pressure steam, natural gas-fired fire tube boilers, installed in 2006. Both are manufactured by RITE ENGINEERING & MANUFACTURING CORPORATION, rated at 3.5 MBH. Upgrades include the total mechanical heating system components, including the condensate tank, condensate pumps, Blowdown tank, Boiler Feed tank, Boiler Feed pumps, water treatment, water softener, venting and chimney. The steam is provided to perimeter radiators, unit ventilators, and heat exchangers

Domestic water is supplied to the building via the municipal supply system and the waste water is discharged to the municipal sewer system. Domestic hot water is provided by two John Wood Pro Series domestic hot water heaters. One tank was installed in 1998 and the other in 2001. The heaters are rated at 38,000 BTU/hr. and 150 L.

Ventilation for the original (1912) section of the school is provided by a central system consisting of a heating coil, supply air fan, filter section, and mixing room. The ventilation system is original to the section and requires replacement.

Ventilation for the 1952 and 1965 sections are provided by unit ventilators ("Univents"). All of the Univents are original and are in marginal to poor condition.

Fire protection is provided by a standpipe and hose system in combination with wall mounted fire extinguishers located throughout the building.

The mechanical systems are in acceptable overall condition.

Electrical Summary:

The electrical supply is fed underground from an outdoor pad mounted transformer to the main distribution switchboard manufactured by Federal Pioneer and rated at 800A, 120/208 V, 3 phase, 4 wires. The switchboard was installed in 1952 but upgraded from single phase to 3-phase in about 1970. The main distribution panel provides power to other sub-panels that serve the various sections of the building.

The lighting in the building consists mainly of fluorescent T-12 fixtures with eggcrate lenses. Upgrading to energy-saving T8 fixtures during next lifecycle replacement event is recommended.
The exterior lighting is provided by surface mounted HID wall-pack fixtures located around the perimeter of the building.

The fire alarm system is a Simplex 4002, 21-zone system consisting of pull stations, alarm bells, smoke detectors, and

heat detectors. This system was installed in 1993 and integrated with the Silent Knight intrusion detection and alarms.

The electrical system is in acceptable overall condition.

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

S1 STRUCTURAL

A1010 Standard Foundations* - 1912 Section

Structural drawings were not available for review during the site visit. Foundations in the original 1912 building likely consists of cast in place reinforced concrete. Four exterior exposed reinforced concrete lateral braces were added at the rear (south) of the original building sometime following original construction but the year of construction was not confirmed at the time of writing this report.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

Event: Repair Lateral Braces

Concern:
The exposed concrete lateral braces are spalling.

Recommendation:
Repair the concrete and provide flashing to prevent further deterioration from moisture ingress and cyclical freeze/thaw action.

Type	Year	Cost	Priority
Repair	2010	$6,000	Low

Updated: FEB-10

A1010 Standard Foundations* - 1952, 1965 and 1982 Additions

Likely reinforced cast in place concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

A1030 Slab on Grade*

The main floor of the Original (1912) building is concrete slab on grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

A2020 Basement Walls (& Crawl Space)*

Perimeter walls in the service tunnels in the 1952, 1965 and 1982 Sections, and the main floor of the Original (1912) building are cast in place reinforced concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

B1010.01 Floor Structural Frame (Building Frame)* - 1912 Section

The exterior walls of the 1912 building has load-bearing sandstone (also see B2010.01.03). Previous repairs to stabilize movement detected at upper floors at the rear (south) of the building were observed. It was reported that the repairs are satisfactory with no further evidence of movement in the facade detected or reported. No further action warranted at this time.

The original coal storage room at the rear of the 1912 building extends beyond the footprint of the building and has a structural reinforced concrete slab ceiling (refer to B1010.03 for further comments) supported on cast in place concrete foundations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

South facade. Arrow points to stabilizer anchors at penthouse floor.

B1010.01 Floor Structural Frame (Building Frame)* - All 1952, 1965 and 1982 Additions

Suspended floors in all Addition sections consist of conventional stud (wood) framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1912 Section

Load-bearing wood frame interior walls support floors and the roof of the 1912 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1952, 1965 & 1982 Additions

Load bearing concrete block throughout the 1952, 1965 and 1982 Additions.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

B1010.03 Floor Decks, Slabs, and Toppings* - 1912 Incinerator Room

The former incinerator room at the rear of the 1912 building extends beyond the footprint of the building and has a structural reinforced concrete slab ceiling. The room is currently used for storage and the incinerator and equipment has been removed from this facility.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	100	FEB-10

Event: Repair Suspended Concrete Slab Ceiling

Concern:

The soffit of the structural suspended concrete ceiling is spalled with exposed and corroded steel reinforcing, efflorescence and water staining. It is not known if a waterproofing membrane covers the slab and it is concealed with asphalt paving.

Recommendation:

Expose the concrete surface, repair the concrete slab and apply an appropriate waterproofing membrane prior to restoring the asphalt pavement.

Type	Year	Cost	Priority
Repair	2010	$12,500	Low

Updated: FEB-10

B1010.03 Floor Decks, Slabs, and Toppings* - All Sections

Floor decks consist of wood plank sub-flooring.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

B1010.07 Exterior Stairs* - 1912 Fire Escape

There is a metal fire exit stair located on the northeast corner of the 1912 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	FEB-10

B1010.07 Exterior Stairs* - 1912 Section

The exterior stair at the main entrance to the 1912 building is comprised of cast-in-place concrete with sandstone side walls. The enclosed exterior stairs to the boiler room at the rear of the 1912 Section is comprised of cast in place concrete with concrete sidewalls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	FEB-10

B1010.09 Floor Construction Fireproofing*

Concealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	FEB-10

B1010.10 Floor Construction Firestopping*

Appropriate firestop caulking was observed at penetrations through suspended floors (i.,e heating hot water pipe penetrations).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	FEB-10

B1020.01 Roof Structural Frame*

Structural drawings were not available for review during the site visit. Building roof structures likely consist of wood framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

B1020.06 Roof Construction Fireproofing*

Concealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	FEB-10

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1965 and 1982 Additions

The 1965 and the 1982 additions are clad with brick veneer.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	FEB-10

B2010.01.02.02 Concrete Block: Ext. Wall Skin* - 1952 Addition

The 1952 Addition is clad primarily with painted concrete block. The exposed foundations have trowelled-on cement parging on reinforced concrete.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	75	FEB-10

Event: Repair Apparent Movement In Concreet Block Walls

Concern:

Step cracking in mortar joints was observed with some evidence of movement in the portions above windows near the roof line. Evidence of past repairs that remain intact was also observed.

Recommendation:

Repair movement within the concrete block wall system as determined by the outcome of the study. The cost estimate provided herein is a contingency allowance only and requires the results of the study to better define repair costs.

Type	Year	Cost	Priority
Repair	2011	$250,000	Low

Updated: FEB-10

Event: Study Movement in 1952 Addition Exterior Concrete Block Walls

Concern:

Step cracking in mortar joints and evidence of movement in the concrete block walls of the 1952 Addition were observed. Movement appears to be primarily in the upper wall sections near the roof line but also above lintels on some windows.

Recommendation:

Investigate movement issues in order to determine the most appropriate repair option.

Type	Year	Cost	Priority
Study	2010	$3,500	Low

Updated: FEB-10

B2010.01.03 Stone Assemblies: Exterior Wall Skin*

The Original 1912 building is clad with original sandstone.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	75	FEB-10

Event: Repair sandstone on the 1912 building.

Concern:

Spalling, eroded and weathered sandstone was observed around the four elevations of the 1912 building. Deficient mortar joints were also identified between the sandstone units.

Recommendation:

Repair/replace damaged sandstone units where necessary and repoint.

Repair cost estimate is based on costing provided in an earlier report from 2001 with allowances for inflation (3% per year).

Consequences of Deferral:

Water infiltration and further deterioration.

Type	Year	Cost	Priority
Repair	2010	$356,200	Low

Updated: FEB-10

B2010.01.06.03 Metal Siding**

Pre-finished corrugated metal siding is located above the 1992 windows on the west elevation of the 1952 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	40	FEB-10

Event: Replace Metal Siding

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$1,200	Unassigned

Updated: FEB-10

B2010.01.06.04 Wood Siding**

Painted wood siding clads the enclosure at the exterior boiler room stairs on at the rear (south) of the Original building.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	40	FEB-10

Event: Replace wood siding.

Concern:
Paint on the wood siding on the upper half of the stair enclosure is weathered and peeling. Deteriorated and damaged wood boards were identified.

Recommendation:
Replace damaged boards and re-paint siding.

Type	Year	Cost	Priority
Failure Replacement	2011	$3,500	Low

Updated: FEB-10

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

The exposed foundation walls of the 1952 addition have been parged with cement and then been painted.
The front (north) facade of the 1982 addition has painted cement plaster above and below the second floor windows at the Library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	75	FEB-10

B2010.01.09 Expansion Control: Exterior Wall Skin*

Expansion joints between various building sections appear to have been caulked (see B2010.01.11)

Rating	Installed	Design Life	Updated
3 - Marginal	0	75	FEB-10

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

Joint sealant is located at the interface between the different cladding materials, including around doors and windows on all building sections.
The sealant generally appears to be old and likely date to the 1985 renovations and addition.

Rating	Installed	Design Life	Updated
3 - Marginal	1985	20	FEB-10

Event: Replace exterior sealant.

Concern:
The exterior sealant was cracked and failing both adhesively and cohesively.
Recommendation:
Replace exterior sealant.

Type	Year	Cost	Priority
Failure Replacement	2010	$145,200	Low

Updated: FEB-10

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1992 Windows

Windows in the 1952 Addition were reportedly replaced in 1992.

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	20	FEB-10

Event: Replace joint sealers around 1992 windows.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$6,000	Unassigned

Updated: FEB-10

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

Paint on cement plaster components (refer to B2010.01.08) was likely last performed when widows of the 1952 Addition were replaced in 1992.
Re-painting likely requires use of moveable scaffolding and has been included in the cost estimation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	15	FEB-10

Event: Painted Exterior Cement Plaster Components

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$12,500	Unassigned

Updated: FEB-10

B2010.01.13 Paints (& Stains): Exterior Wall** - 1912 Section

Wood siding on the enclosure above the rear (south) exterior stairs to the boiler room is painted.
Ornamental soffits near the roofline on all elevations of the 1912 section are also painted. Year of last exterior painting is not known and presumed to be at the time of the 1982 Addition and renovations.

Rating	Installed	Design Life	Updated
3 - Marginal	1982	15	FEB-10

Event: Paint exterior stair enclosure.

Concern:
Paint on the exterior stair enclosure at the rear of the 1912 Section is severely weather, peeling and deteriorated.

Recommendation:
Paint new wood siding when failure replacement of the siding is completed (see B2010.01.06.04).
Paint ornamental metal soffit following repairs (see B2010.09). Painting by use of bosun's chair is included in cost estimates.

Type	Year	Cost	Priority
Failure Replacement	2010	$9,500	Low

Updated: FEB-10

B2010.01.13 Paints (& Stains): Exterior Wall** - 1952 Addition

Cement block and wood window frames above exposed foundations on the 1952 Addition are painted.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	15	FEB-10

Event: Paint 1952 Section Window Frames and Block Walls

Concern:
Paint on the cement block potion above the exposed foundations of the 1952 Addition, including window frames and in-fill panels, is weathered and peeling.

Recommendation:
Paint wall sections and window frames / in-fill panels above the foundations of the 1952 Addition (approximately 300 m2).

Type	Year	Cost	Priority
Failure Replacement	2010	$9,500	Low

Updated: FEB-10

B2010.02.03 Masonry Units: Ext. Wall Const.* - 1965 and 1982 Additions

Exterior walls of the 1965 and 1982 Additions contain concealed concrete block back-up walls. No evidence of movement or distressed was observed on visible interior and exterior finishes.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

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

Concealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

B2010.06 Exterior Louvers, Grilles, and Screens*

Metal security screens have been installed on all at grade windows and some of the second floor windows on the south elevation of the 1912 building. Screens were also identified on the front doors to the 1912 building.
Original painted and un-finished louvers and grills at combustion air intake and walls vents.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	FEB-10

B2010.09 Exterior Soffits*

Painted ornamental metal soffits were observed around the 1912 building.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	50	FEB-10

Event: Repair ornamental metal soffits.

Concern:
Sections of damaged and deteriorated metal soffits were identified when inspecting the ornamental metal soffits. The paint finish protecting the metal work was peeling.

Recommendation:
Repair damaged ornamental metal work. Painting is not included herein but is included in B2010.01.13 - 1912 Section.

Type	Year	Cost	Priority
Repair	2010	$65,000	Low

Updated: FEB-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1952 Section (West Elevation)

Windows on the west elevation of the 1952 Addition are aluminum frame double glazed units with awning type operable sections inserted into the original wood frames.
Upper panels of the original 2 panel windows on the west elevation have been in-filled with prefinished corrugated metal siding (see B2010.01.06.03).

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	40	FEB-10

Event: Replace Aluminum Windows.

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$13,500	Unassigned

Updated: FEB-10

B2020.01.01.05 Wood Windows (Glass & Frame)** - 1912 Section

Exterior windows in the 1912 section consist of original single-pane wood frame windows with wood frame storms at the exterior surface. Each window section contains 5 fixed (non-operable) sections with a hopper type operable unit at the top portion of each section.
Windows at grade level on the west elevation have been replaced with painted hardboard.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	40	FEB-10

Event: Repair Storm Window Frames

Concern:
Exterior exposed surfaces exhibit weathering with peeling paint, localized rot and weathered/cracked wood frames on storms.
Recommendation:
Repair damaged wood frames to prolong serviceability (approx. 70 pieces at $250/window).

Type	Year	Cost	Priority
Repair	2010	$17,500	Low

Updated: FEB-10

Event: Replace Wood Frame Windows and Storms

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$224,500	Unassigned

Updated: FEB-10

B2020.01.01.05 Wood Windows (Glass & Frame)** - 1952 Addition (East Elevation)

Wood frames single pane windows with exterior mounted wood framed storms and bug screens.
The upper panel of the original 3 panel windows on the east elevation has been in-filled with painted exterior grade hardboard or plywood (see B2010.01.13 Paints & Stains): Ext. Wall - 1952 Addition).

Rating	Installed	Design Life	Updated
3 - Marginal	1952	35	FEB-10

Event: Lifecycle Replacement

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$25,000	Unassigned

Updated: FEB-10

B2020.01.01.05 Wood Windows (Glass & Frame)** - 1982 Addition

The window units of the 1982 Addition contain sealed insulated glazing units (IGUs) in wood frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	FEB-10

Event: Replace Wood Framed Double Glazed Windows

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$25,000	Unassigned

Updated: FEB-10

B2020.04 Other Exterior Windows* - Glass Block

Exterior windows in the student washrooms and change/locker rooms in the 1912 Building and 1952 Addition are glass block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	FEB-10

B2030.01.02 Steel-Framed Storefronts: Doors** - 1982 Addition

The main (north) entrance doors to the 1982 Addition are solid wood double doors in painted steel frames with single pane Georgian Wire security glass inserts and side lights.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	FEB-10

Event: Replace Steel Frame Storefront Entrance Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$3,500	Unassigned

Updated: FEB-10

B2030.01.10 Wood Entrance Door** - 1912 Section

The main entrance of the north side, and "boys" entrance doors on the south side of the Original Building consist of double painted solid wood doors, with and without vision glass inserts, set in wood frames. Hardware includes toggle type exterior handsets and interior panic bars and hydraulic door closers. Vision panels have exterior painted metal screens for security.
Window panels above the entrance doors are non-operable single pane wood (see B2020.01.05 Wood Windows (glass & Frames): - 1952 Section).

Rating	Installed	Design Life	Updated
3 - Marginal	1912	30	FEB-10

Event: Replace Wood Entrance Doors

Concern:
Wood doors exhibit varying degrees of exposure damage with cracked and delaminating surfaces and cracked or damaged wood framing.
Recommendation:
Replace wood entrance doors on the 1912 Section.

Type	Year	Cost	Priority
Failure Replacement	2012	$13,300	Low

Updated: FEB-10

B2030.01.10 Wood Entrance Door** - 1952 Addition

Entrance doors in the 1952 Addition consist of solid wood double doors, without vision lazing, set in wood frames. includes toggle type exterior handsets and interior panic bars and hydraulic door closers.
Past windows above the 1952 entrance doors have been filled in by prefinished corrugated metal siding.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	30	FEB-10

Event: Replace Wood Framed Entrance Doors

Concern:
Wood doors exhibit varying degrees of exposure damage with cracked and delaminating surfaces and cracked or damaged wood framing.
Recommendation:
Replace wood framed entrance doors.

Type	Year	Cost	Priority
Failure Replacement	2012	$22,200	Low

Updated: FEB-10

B2030.02 Exterior Utility Doors** - 1912 Section

Exterior fire doors from the third floor are solid wood in wood frames. Doors have single pane Georgian Wire security vision glazing. Hardware includes interior panic bars and hydraulic door closers.
The utility door from the boiler room exit enclosure on the south side has a single solid wood door in wood framing. Hardware includes exterior aluminum pull handle and interior panic bar and chain door closer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	FEB-10

Event: Replace Exterior Utility Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$12,500	Unassigned

Updated: FEB-10

B2030.02 Exterior Utility Doors** - 1965 Section

Fire exit doors from the 1965 Gymnasium are solid wood (without vision glazing) in wood framing. Hardware includes interior panic bar and hydraulic door closer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	40	FEB-10

Event: Replace Exterior Utility Door

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$2,500	Unassigned

Updated: FEB-10

B3010.01 Deck Vapor Retarder and Insulation*

Concealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	FEB-10

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)** - 1912 Section

Conventional asphalt and gravel built-up bituminous roofing (BUR) on the upper most roof above the centre core and the third floor roof on the east wing of the Original Roof area identification and roof area (approximately 571 m2) are based on areas (m2) provided by CBE personnel.

Rating	Installed	Design Life	Updated
2 - Poor	1966	25	FEB-10

Event: Replace BUR on Roof Areas D and E

Concern:
BUR roofing on roof areas D and E, as identified by CBE personnel, is aged and weathered with numerous blisters and exposed, deteriorated felts. Membrane flashing at perimeter parapets exhibit cracking and distress.

Recommendation:
Replace BUR roofing. Roofing areas (m2) are based on areas provided by CBE personnel.

Type	Year	Cost	Priority
Failure Replacement	2010	$91,200	Medium

Updated: FEB-10

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 1912 Section

The west wing roof of the 1912 Building (roof area F) contains a 2-ply modified bituminous membrane assembly with granular surfaced capsheet and flashing. Roof area (approximately 238 m2) is based on areas (m2) provided by CBE personnel

Rating	Installed	Design Life	Updated
5 - Good	2007	25	FEB-10

Event: Replace SBS Rooofing on Roof Area F

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$49,100	Unassigned

Updated: FEB-10

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 1952, 1965 and 1982 Additions

Roofing on the 1952, 1965 and 1982 Additions were reportedly replaced in 1998 using 2-ply modified bituminous membrane systems with granular surfaced capsheet and flashing. Total roof area (approximately 1665 m2) is based on areas (m2) provided by CBE personnel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	25	FEB-10

Event: Replace SBS Roofing on 1952, 1965 and 1982 Additions

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$343,400	Unassigned

Updated: FEB-10

B3010.07 Sheet Metal Roofing**

The boys entrance and exterior boiler room stairs enclosures on the south side of the 1912 building have sheet metal roofing. Based on the theoretical design life of 40 years for sheet metal roofing, and on the observed condition, these roofs likely date to the 1952 or 1965 additions. Total roof area (approximately 27 m2) is based on roof areas (m2) provided by CBE personnel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	40	FEB-10

Event: Replace Sheet Metal Roofing

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$7,300	Unassigned

Updated: FEB-10

B3010.08.02 Metal Gutters and Downspouts**

Prefinished gutters and downspouts were observed at roof section E. The downspouts direct roof water from roof section E to roof sections F & D. Painted metal gutters, roof section F & D, were also incorporated as part of the ornamental metal work at the 1912 building's soffit. The gutters drain via piping through the parapet wall to the roof drains on roof sections F & D.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	30	FEB-10

Event: Replace the gutters and downspouts.

Concern:
The gutters were filled with gravel and appeared to be damaged and bent with some corrosion and perforation.
Recommendation:
Replace the gutters in conjunction with the roof replacement.
Consequences of Deferral:
Uncontrolled water drainage.

Type	Year	Cost	Priority
Failure Replacement	2010	$2,500	Low

Updated: FEB-10

B3020.01 Skylights**

There are nine domed, opaque plexiglas skylights over the library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	FEB-10

Event: Replace Skylights

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$12,400	Unassigned

Updated: FEB-10

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

There is one metal roof hatch that provides access to the roof. The roof hatch is located in a custodial closet in the 1952 addition. The 1965 and 1982 roof areas can be accessed from this point by external ladders mounted at parapets.

Roof access to the 1912 roof areas is provide by utility doors from the third floor to roof areas D and F, and an external ladder from roof areas D to E.

Other openings include roof vents, soil vents and rooftop mechanical curbs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	25	FEB-10

S3 INTERIOR

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

Painted cast in place concrete partitions between some areas on the main floor of the Original Building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

C1010.01.03 Unit Masonry Assemblies: Partitions*

Painted unit masonry partitions between some areas on the main floor of the Original Building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

C1010.01.07 Framed Partitions (Stud)*

Predominantly painted plaster on metal lathe and stud frame interior partitions throughout all sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

C1010.05 Interior Windows*

Glass block side lights at interior fire doors at stairways in the 1952 Addition.
Glass block at upper portions of interior partitions between hallway and classrooms in the 1952 Addition.
Interior single pane glazing in painted steel frames at the administration office in the 1982 Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	FEB-10

C1010.06 Interior Glazed Partitions and Storefronts*

There is a metal framed glass partition wall between the office area and the main corridor in the 1982 Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	80	FEB-10

C1010.07 Interior Partition Firestopping*

Fire retardant sealant and fire dampers, where visible.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	FEB-10

Event: Provide Firestopping Between 1912 and 1952 Sections

Concern:

Fire stops are missing at mechanical piping / conduit passage in the 1952 lower level storage room from the 1912 Section.

Recommendation:

Provide appropriate ULC-approved fire stops and fire dampers.

Type	Year	Cost	Priority
Repair	2010	$4,500	Low

Updated: FEB-10

C1020.01 Interior Swinging Doors (& Hardware)*

Interior swinging doors are predominately original painted/varethaned panel wood doors or wood slab doors with original door hardware. Newer steel doors were installed in the first floor corridor.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	40	FEB-10

Event: Repair interior swing doors and replace hardware

Concern:

The paint and varethane finishes on the interior swing doors were deteriorated. The interior door hardware is aged, deteriorated and require increased maintenance.

Recommendation:

Refinish interior swing doors (96) and replace defective door hardware. Provide kick plates at base of interior, both sides, to prevent further damage. Cost estimate does not include BFA upgrades (see K4010.04 Barrie Free Interior Circulation).

Consequences of Deferral:

Diminished aesthetics and poor operation.

Type	Year	Cost	Priority
Repair	2011	$55,400	Low

Updated: FEB-10

C1020.02 Interior Entrance Doors*

Interior entrance doors are located at most of the main entrances doors and are typically similar in construction to the adjoining exterior door assembly.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	FEB-10

Event: Repair interior entrance doors.

Concern:
The finish on the interior entrance doors are deteriorated.
Recommendation:
Refinish interior entrance doors and provide kick plates at base of doors, both sides, to prevent further damage.
Consequences of Deferral:
Diminished aesthetics and poor operation.

Type	Year	Cost	Priority
Repair	2011	$9,320	Low

Updated: FEB-10

C1020.03 Interior Fire Doors*

Metal skinned solid wood doors at the boiler room and fan room entries from the hallway in the 1912 Section.
Solid wood with vision glass, Georgina Wire security glazing, at ends of hallways in the 1912 and 1952 Sections. These are double swing-type doors.

Rating	Installed	Design Life	Updated
2 - Poor	0	50	FEB-10

Event: Replace interior fire doors.

Concern:
The interior single and double swinging fire doors are not rated assemblies and do not close properly. Interior double fire doors have signage to keep doors closed but doors are held open with door stops or retaining hooks.
Recommendation:
Replace all interior fire doors with rated assemblies as required. Provide automated and electrically supervised door hold open devices for double doors in hallways if doors are kept open. The supervised doors should be linked to the fire alarm control panel and close when the alarm is activated.
Consequences of Deferral:
Inadequate fire protection.

Type	Year	Cost	Priority
Code Repair	2010	$97,500	Medium

Updated: FEB-10

C1020.04 Interior Sliding and Folding Doors*

Wood bifold panel doors are provided for the Principal's office coat closet in the 1952 Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	25	FEB-10

C1030.01 Visual Display Boards**

Whiteboards and pull-down projector screens are provided in classrooms. In the 1912 Section, original chalkboards have been converted/overlaid with whiteboards and/or tackboards with the original finished wood frames remaining in place. Tackboards are also provided in offices and hallways.

Whiteboards are or various ages depending on room, with an average age of about 5 years and replacement commencing in about 1999/2000. For lifecycle costing we have presumed an overall install year of 2004.

Cost estimate is based on 20 classrooms with an average cost per room of $5500, plus allowance for corridor display boards.

Rating	Installed	Design Life	Updated
4 - Acceptable	2004	20	FEB-10

Event: Replace Visual Display Boards

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$117,500	Unassigned

Updated: FEB-10

C1030.02 Fabricated Compartments(Toilets/Showers)** - 1912 Section

Prefinished metal washroom stalls are located in basement washrooms in the 1912 building. According to CBE personnel, these washrooms were renovated / remodeled during the 1982 renovations and addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	FEB-10

Event: Replace Fabricated Compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$19,900	Unassigned

Updated: FEB-10

C1030.02 Fabricated Compartments(Toilets/Showers)** - 1952 Addition

Original painted metal washroom stall partitions are located in the student washrooms in the 1952 addition.
Original painted metal shower partitions are provided in the girls shower room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

Event: Replace Fabricated Compartments(Toilets/Showers)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$33,700	Unassigned

Updated: FEB-10

C1030.08 Interior Identifying Devices*

Signs (engraved wood, engraved plastic, laminated cardstock, etc.) are fastened above or on some of the doors in the corridors denoting the corresponding room number or room use.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	FEB-10

C1030.10 Lockers** - Clothing Lockers

2 banks containing a total of 44 half-height lockers or painted metal construction are provided in the girls shower room in the 1952 Addition. No lockers are provided for the boys shower room.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	30	FEB-10

Event: Provide Clothes Lockers for Boys

Concern:
Although student showers are not used at this facility, lockers in the girls shower room are used by students. There are no lockers for boys.
Recommendation:
Provide an equal number of lockers for boys.

Type	Year	Cost	Priority
Repair	2010	$17,200	Low

Updated: FEB-10

Event: Replace Girls Clothes Lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$17,200	Unassigned

Updated: FEB-10

C1030.10 Lockers** - Tote/Shoe Lockers

84 tote / shoe lockers are provided in the 1952 girls shower room. Lockers are original painted metal units.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	30	FEB-10

Event: Provide Tote/Shoe Lockers for Boys

Concern:
No tote / shoe lockers are provided for boys.
Recommendation:
Provide an equal number of tote lockers for boys as for girls.

Type	Year	Cost	Priority
Repair	2010	$17,200	Low

Updated: FEB-10

Event: ReplaceTote/Shoe Lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$17,200	Unassigned

Updated: FEB-10

C1030.12 Storage Shelving*

Original general storage painted wood shelving units and cabinets are located throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	30	FEB-10

C1030.14 Toilet, Bath, and Laundry Accessories*

The washrooms are equipped with standard washroom accessories including paper towel and toilet paper dispensers, liquid soap dispensers and wall mounted mirrors.
Some toilet stalls in girls washrooms have added wall-mounted sanitary disposal bins.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	FEB-10

C2010 Stair Construction*

The stairs consist of wood framed construction (1912 Section and 1982 Addition) and cast-in place concrete (1952 addition). The main interior stairs at either end of the 1912 corridors have metal stringers.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	FEB-10

C2020.01 Tile Stair Finishes*

Stairs at the south end of the 1952 corridor have 8" x 8" vinyl tiles and non-slip nosing (refer to F2020.01 Asbestos for further comments.)

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	60	FEB-10

C2020.05 Resilient Stair Finishes**

The stair treads are generally covered with rubber no-slip treads and the risers are finished with sheet vinyl (also refer to F2020.01 Asbestos).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	FEB-10

Event: Replace Resilient Stair Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$15,000	Unassigned

Updated: FEB-10

C2020.08 Stair Railings and Balustrades*

The main stairs railings in the 1912 building are base mounted painted or stained wood balusters with a wood handrail. Base mounted metal railings with rubber handgrip are located in the Library. Base mounted painted metal balustrade and handrail at the stairs to the 1912 sunken boiler room. Wood base mounted railings are located at the stairs leading to the top level of the 1912 building. Painted wall mounted handrails in the stairways in the remainder of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	FEB-10

C2020.10 Stair Painting*

Painted concrete stairs lead from the 1912 main floor to the sunken boiler.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	0	FEB-10

C2020.11 Other Stair Finishes*

The stairs leading to the top level of the 1912 building have wood treads and risers.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	0	FEB-10

Event: Repair Wood Stairs at Upper Level of 1912 Building

Concern:
The wood treads of the stairs leading to the top level of the 1912 building were worn.

Recommendation:
Repair wood stairs by replacing wood treads.

Consequences of Deferral:
Potential trip hazard.

Type	Year	Cost	Priority
Repair	2011	$6,500	Medium

Updated: FEB-10

C3010.01 Concrete Wall Finishes*

Concrete wall in the boiler room and basement service rooms are painted.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	100	FEB-10

Event: Paint Boiler Room Walls

Concern:
Painted on boiler room walls is peeling, likely due to humidity and heat. Repair cost estimate does not include provisions for lead abatement, if required (see F2020.09 Other Hazardous Materials).

Recommendation:
Remove loose paint then prime and paint boiler room walls.

Type	Year	Cost	Priority
Repair	2011	$2,500	Low

Updated: FEB-10

C3010.02 Wall Paneling** - 1912 Section

Painted and stained wood wainscoting and chair rail are provided in the corridors and outside walls of stairs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	30	FEB-10

Event: Replace Wainscot and Chair Rail

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$80,340	Unassigned

Updated: FEB-10

C3010.02 Wall Paneling** - 1952 Addition

Stained wood panels are installed on the lower half of the hallways in the 1952 Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

Event: Replace Wood Paneling

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$27,000	Unassigned

Updated: FEB-10

C3010.02 Wall Paneling** - 1965 Addition

Natural wood plank wall paneling is located in the Gymnasium adjacent the stage area, and at the stage stair area from the common corridor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	30	FEB-10

Event: Replace Natural Wood Wall Paneling

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$12,500	Unassigned

Updated: FEB-10

C3010.03 Plaster Wall Finishes*

Partitions in the 1912 Section and the 1952, 1965 Additions are primarily painted plaster (excepting areas in hallways having wood panels).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	FEB-10

C3010.06 Tile Wall Finishes**

4" x 4" ceramic wall tile was identified in the unused shower rooms (staff and student) on the lower floor of the 1952 Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	FEB-10

Event: Replace Tile Wall Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$39,800	Unassigned

Updated: FEB-10

C3010.09 Acoustical Wall Treatment**

Painted sound baffling sheathing is installed on the upper portion of the Gymnasium walls and around the stage area (approximately 295 m2 in total).

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	20	FEB-10

Event: Replace Acoustical Wall Treatment

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$74,400	Unassigned

Updated: FEB-10

C3010.11 Interior Wall Painting*

All interior walls (excepting stained or clear finished wood panels) are painted. Also see C3010.01 Concrete Wall Finishes.
Graphic art paint has also been added at the Piitoyas Family School office in the corridor in the 1912 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	10	FEB-10

C3010.13 Wall Trim and Decoration*

Stained and urethane wood wainscoting tongue and groove and wood sheathing was identified in the interior stairwells and corridors of the 1912 building and in the main corridor of the 1952 addition respectively (refer to C3010.02 Wall Paneling).

Doors at entries to classrooms and offices, etc., have painted wood trim. Windows in the 1912 Section and 1982 Addition have stained wood sills and trim at the interior.
Original chalk boards in the 1912 Classrooms have stained and urethane-finished wood trim.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	FEB-10

C3020.01.02 Paint Concrete Floor Finishes*

Painted/sealed concrete floors are situated in the mechanical room and service rooms in the 1912 Section and 1952 and 1965 Additions.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	FEB-10

Event: Paint Concrete Floors

Concern:
The painted concrete floor finishes were worn in high traffic areas.
Recommendation:
Paint as required.
Consequences of Deferral:
Diminished aesthetics and increased maintenance.

Type	Year	Cost	Priority
Repair	2011	$4,500	Low

Updated: FEB-10

C3020.02 Tile Floor Finishes** - 1952 Addition Showers

1" X 1" ceramic tile flooring was noted in the shower areas in the basement level of the 1952 addition (approx. 36 m2 in total).

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	50	FEB-10

Event: Replace Ceramic Floor Tile

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$7,200	Unassigned

Updated: FEB-10

C3020.02 Tile Floor Finishes** - 1952 Addition Student Changerooms and Washrooms

Quarry tile was identified in the boys and girls washrooms in the1952 building (about 290 m2 total).

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	50	FEB-10

Event: Replace Quarry Tile Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$93,200	Unassigned

Updated: FEB-10

C3020.03 Terrazzo Floor Finishes*

Terrazzo flooring in the basement washrooms, 1912 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	75	FEB-10

C3020.04 Wood Flooring** - 1912 Section

Wood strip flooring in the 1912 Building is located on the penthouse level and part of the northwest classroom on the main floor (approx. 310 m2 total)

Rating	Installed	Design Life	Updated
3 - Marginal	1912	30	FEB-10

Event: Refinish Wood Flooring in 3rd Floor Classrooms

Concern:
Original wood flooring in the top floor (penthouse) classrooms is worn and the finish is faded. Separation of some side laps was observed.

Recommendation:
Repair/replace hardwood flooring as needed and refinish.

Consequences of Deferral:
Potential trip hazard and diminished aesthetics.

Type	Year	Cost	Priority
Repair	2009	$15,900	Medium

Updated: FEB-10

Event: Replace Wood Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$92,600	Unassigned

Updated: FEB-10

C3020.04 Wood Flooring** - 1965 Addition

Original hardwood strip flooring in the Gymnasium and Stage of the 1965 Addition (approx. 468 m2 total).

Rating	Installed	Design Life	Updated
3 - Marginal	1965	30	FEB-10

Event: Refinish Wood Flooring in Stage Area

Concern:
Wood flooring in the Stage/Drama area is worn and side seams between some boards have opened.

Recommendation:
Replace damaged floor boards and refinish the Stage/Drama area.

Type	Year	Cost	Priority
Repair	2010	$5,200	Low

Updated: FEB-10

Event: Replace Hardwood Flooring on Stage and Gymnasium Floors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$139,400	Unassigned

Updated: FEB-10

C3020.07 Resilient Flooring** - 1912 Section (1982 Renovations)

Sheet vinyl dating to the 1982 renovations is located in some classrooms on the second and third floors of the 1912 Section (approx. 425 m2 total) (also refer to F2020.01 Asbestos)

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	FEB-10

Event: Replace Sheet Vinyl Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$42,200	Unassigned

Updated: FEB-10

C3020.07 Resilient Flooring** - 1912 Section (2005 Renovations)

Sheet vinyl in the Main, 2nd and 3rd floor corridors and some classrooms / offices of the 1912 Building were replaced in 2005 due to water damage from frozen plumbing pipes (approx. 1220 m2 total).

Rating	Installed	Design Life	Updated
5 - Good	2005	20	FEB-10

Event: Replace Sheet Vinyl Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$121,200	Unassigned

Updated: FEB-10

C3020.07 Resilient Flooring** - 1952 Addition Classrooms

The 1952 Addition has sheet vinyl flooring in the lower floor art room and lunch room, and main floor classrooms (approx. 660 m2 total) (also refer to F2020.01 Asbestos)

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	FEB-10

Event: Replace Sheet Vinyl Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$65,600	Unassigned

Updated: FEB-10

C3020.07 Resilient Flooring** - 1952 Addition Corridors

Original 8" x 8" vinyl tile flooring is provided in the corridors of the 1952 Addition (approx. 215 m2) (also refer to F2020.01 Asbestos).

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	20	FEB-10

Event: Replace Vinyl Tile Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$21,400	Unassigned

Updated: FEB-10

C3020.07 Resilient Flooring** - 1982 Addition

Sheet vinyl flooring in the Library in the 1965 Addition was replaced in 2005 (approx. 271 m2).

Rating	Installed	Design Life	Updated
5 - Good	2005	20	FEB-10

Event: Replace Sheet Vinyl Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$27,700	Unassigned

Updated: FEB-10

C3020.08 Carpet Flooring**

Area carpets are provided in the offices, Library Resource Centre work room and some of the classrooms in the 1912 Section and in the Library Resource work room in the 1982 Addition (approx. 300 m2 total)

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	15	FEB-10

Event: Replace Area Carpets

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$22,900	Unassigned

Updated: FEB-10

C3030.01 Concrete Ceiling Finishes (Unpainted)*

The below grade boiler and storage areas have concrete ceiling finishes (refer to B1010.03).

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	FEB-10

C3030.03 Plaster Ceiling Finishes*

Plaster and lath ceilings are located throughout the building but have generally been covered by suspended T-Bar ceilings. Plaster ceilings are visible in various areas including the stair cases.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	FEB-10

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Concealed above suspended acoustic tile ceilings in areas within the 1912 building that were water damaged and repaired in 2005.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	60	FEB-10

C3030.06 Acoustic Ceiling Treatment (Susp.T-Bar)** - 1912 Section

A majority of the suspended T-bar acoustic tile ceilings in the 1912 Section were replaced during water damage repairs that occurred in 2005. What remains of the older acoustic tile ceilings in some classrooms was reportedly installed during the 1982 Addition and Renovations (approx. 425 m2 total).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	FEB-10

Event: Replace Acoustic Tile Ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,600	Unassigned

Updated: FEB-10

C3030.06 Acoustic Ceiling Treatment (Susp.T-Bar)** - 1952 Addition

Concealed grid suspended acoustic tile in classrooms and corridors of the 1952 Addition (approx. 875 m2 total) (also see F2020.01 Asbestos)

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	25	FEB-10

Event: Replace Acoustic Tile Ceilings.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$46,500	Unassigned

Updated: FEB-10

C3030.06 Acoustic Ceiling Treatment (Susp.T-Bar)** - 1965 Addition

Ceilings in the 1965 Addition, with the exception of the Library, have original concealed grid suspended acoustic tile treatment (approx. 590 m2 total) (also see F2020.01 Asbestos)

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	25	FEB-10

Event: Replace Acoustic Tile Ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$31,300	Unassigned

Updated: FEB-10

C3030.06 Acoustic Ceiling Treatment (Susp.T-Bar)** - 2005 Renovations

The majority of classroom, offices and corridors in the 1912 Section and the Library in the 1965 and 1982 Additions have suspended T-bar acoustic tile ceilings that was replaced due to water damage in 2005 (approx. 1762 m2 total) .

Rating	Installed	Design Life	Updated
5 - Good	2005	25	FEB-10

Event: Replace Acoustic Tile Ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$93,500	Unassigned

Updated: FEB-10

S4 MECHANICAL

D2010.05 Showers**

Showers are located on the lower level of the building. There are two open shower rooms and two private shower stalls. Presently not used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	30	FEB-10

Event: Replace Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$7,100	Unassigned

Updated: FEB-10

D2010.08 Drinking Fountains / Coolers**

The drinking fountains are located in the corridors of the school and are made of vitreous china.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	35	FEB-10

Event: Replace Drinking Fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,100	Unassigned

Updated: FEB-10

D2010.09 Other Plumbing Fixtures*

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	0	FEB-10

D2010.10 Washroom Fixtures (WC, Lav, Urnl)**1912

Water Closets, Lavatories and Urinals fixtures installed in 1912

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	35	FEB-10

Event: Replace Washroom Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$20,000	Unassigned

Updated: FEB-10

D2010.10 Washroom Fixtures (WC, Lav, Urnl)**1965

Water Closets and Lavatories fixtures installed in 1965

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	35	FEB-10

Event: Replace Washroom Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$31,800	Unassigned

Updated: FEB-10

D2010.10 Washroom Fixtures (WC, Lav, Urnl)**1982

Water Closets and Lavatories fixtures installed in 1982

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	FEB-10

Event: Replace Washroom Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$44,600	Unassigned

Updated: FEB-10

D2020.01.01 Pipes and Tubes: Domestic Water*

The domestic water piping is copper throughout the building and was reportedly replaced circa 1978.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	FEB-10

D2020.01.02 Valves: Domestic Water** (1965)

16 Service sinks, counter mounted steel enamel service sinks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	40	FEB-10

Event: Replace Domestic Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,900	Unassigned

Updated: FEB-10

D2020.01.02 Valves: Domestic Water** (1982)

Stainless Steel Service Sinks

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	FEB-10

Event: Replace Domestic Valves

Concern:
8 Stainless Steel Service sinks, 1982

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$10,600	Unassigned

Updated: FEB-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	FEB-10

Event: Replace Backflow Preventors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$10,800	Unassigned

Updated: FEB-10

D2020.02.02 Plumbing Pumps: Domestic Water**

Hot water recirculation pumps are installed on the domestic hot water system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	FEB-10

Event: Replace Domestic Water Plumbing Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,800	Unassigned

Updated: FEB-10

D2020.02.06 Domestic Water Heaters** (1998)

Domestic hot water is supplied by one John Wood Pro Series domestic hot water heater. One tank was installed in 1998. The heater is rated at 38,000 BTU/hr. and 150 L.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	20	FEB-10

Event: Replace Domestic Water Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$2,100	Unassigned

Updated: FEB-10

D2020.02.06 Domestic Water Heaters**(2001)

Domestic hot water is supplied by one John Wood Pro Series domestic hot water heater. One tank was installed in 2001 The heater is rated at 38,000 BTU/hr. and 150 L.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	FEB-10

Event: Replace Domestic Water Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$2,100	Unassigned

Updated: FEB-10

D2020.03 Water Supply Insulation: Domestic*

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	FEB-10

D2030.01 Waste and Vent Piping*

The waste piping is connected to the municipal system. The vent piping is through the roof of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	FEB-10

D2040.01 Rain Water Drainage Piping Systems*

The rain water drainage piping system consists of surface roof drains connected to internal rainwater leaders that connect to the municipal storm sewer system. Downspouts and gutters are used on the 1912 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	FEB-10

D2040.02.04 Roof Drains*

The roof drains are cast iron dome type drains.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	FEB-10

D3010.02 Gas Supply Systems*

The natural gas supply enters the building through the mechanical room on the south side of the original (1912) section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	60	FEB-10

D3020.01.01 Heating Boilers & Accessories: Steam**

The boiler plant comprised of two Rite 3500 MBH input steam boilers.

Rating	Installed	Design Life	Updated
5 - Good	2007	35	FEB-10

Capacity Size	Capacity Unit
1025	kWh

Event: Replace Heating Boilers & Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$560,000	Unassigned

Updated: FEB-10

D3020.01.03 Chimneys (&Comb. Air) : Steam Boilers**

The boiler breeching has been replaced in 2007. The combustion air enters the boiler room through a gravity duct.

Rating	Installed	Design Life	Updated
5 - Good	2007	35	FEB-10

Event: Replace Chimneys (&Comb. Air)

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$36,700	Unassigned

Updated: FEB-10

D3020.01.04 Water Treatment: Steam Boilers*

The boiler water is treated using an automated chemical pot feeder system.

Rating	Installed	Design Life	Updated
5 - Good	2007	35	FEB-10

D3040.01.01 Air Handling Units: Air Distribution** -1965 Addition

Two air handling units serving the office area and gymnasium are located in the gymansium storage room and in the upper mechanical room respectively. The units were installed in approximately 1982.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	FEB-10

Event: Replace Air Handling Units

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$271,800	Unassigned

Updated: FEB-10

D3040.01.01 Air Handling Units: Air Distribution**- 1912 Section

A central system serves the original (1912) section of the school and consists of a heating coil, supply air fan, filter section, and mixing room. The unit is original to the building.

Rating	Installed	Design Life	Updated
2 - Poor	1912	30	FEB-10

Event: Replace original (1912) air handling unit/system.

Concern:
The air handling system used to ventilate the original (1912) section of the building provides poor ventilation and was observed to have corroded coils. The system is operating inefficiently and requires regular maintenance.

Recommendation:
Replace the original (1912) air handling unit/system.

Type	Year	Cost	Priority
Failure Replacement	2010	$335,600	Medium

Updated: FEB-10

D3040.01.03 Air Cleaning Devices:Air Distribution*

Disposable air filters are installed on all air handling units, pre-filters replaced quarterly.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	30	FEB-10

D3040.01.04 Ducts: Air Distribution*

Rating	Installed	Design Life	Updated
3 - Marginal	1912	50	FEB-10

Event: Repair original (1912) ductwork associated with original air handling unit/system.

Concern:
The ductwork in the original (1912) section of the building should be cleaned and repaired with the replacement of the air handling units.

Recommendation:
Repair original (1912) ductwork.

Type	Year	Cost	Priority
Repair	2010	$15,000	Low

Updated: FEB-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

The air outlets and inlets are of varying type and include supply air diffusers and supply and return air grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	FEB-10

D3040.02 Steam Distribution Systems: Piping/Pumps**- 2007 pumps

Rating	Installed	Design Life	Updated
5 - Good	2007	40	FEB-10

Event: Replace Steam Distribution Systems:Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2047	$671,500	Unassigned

Updated: FEB-10

D3040.02 Steam Distribution Systems: Piping/Pumps**- Original Piping

The steam and condensate piping are conventional black iron.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	FEB-10

Event: Replace heating piping and steam traps.

Concern:
The heating piping and steam traps are corroded and should be replaced with the replacement of the boilers.
Recommendation:
Replace all heating piping.

Type	Year	Cost	Priority
Failure Replacement	2010	$80,200	Medium

Updated: FEB-10

D3040.03.01 Hot Water Distribution Systems**

Hot water system utilized in the air handling unit in the upper mechanical room beside library

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	FEB-10

Event: Replace Hot Water Distribution Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$558,900	Unassigned

Updated: FEB-10

D3040.04.01 Fans: Exhaust**

There are exhaust fans for the washrooms, kitchen stove, and shop area.

Rating	Installed	Design Life	Updated
3 - Marginal	1965	30	FEB-10

Event: Replace all exhaust fans.

Concern:
The exhaust fans do not provide adequate ventilation and require higher than normal maintenance.
Recommendation:
Replace all exhaust fans.

Type	Year	Cost	Priority
Failure Replacement	2010	$37,500	Low

Updated: FEB-10

D3040.04.03 Ducts: Exhaust*

Exhaust duct system servicing the shop area, kitchen stove and washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	50	FEB-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust duct system servicing the shop area, kitchen stove and washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	30	FEB-10

D3040.05 Heat Exchangers**

Steam-hot water and steam-glycol heat exchangers are located in the upper mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	30	FEB-10

Event: Replace Heat Exchangers

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$16,600	Unassigned

Updated: FEB-10

D3050.03 Humidifiers**

No functioning humidification.

Rating	Installed	Design Life	Updated
2 - Poor	1912	25	FEB-10

Event: Provide Humidifiers

Concern:
To minimize health risks associated with low humidity.
Recommendation:
Install humidification system.

Type	Year	Cost	Priority
Code Upgrade	2010	$38,700	Low

Updated: FEB-10

D3050.05.01 Convectors**

Steam convectors are located at the entrances to the building and are controlled by line voltage switches.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

Event: Replacement Convectors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$6,500	Unassigned

Updated: FEB-10

D3050.05.02 Fan Coil Units**

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	30	FEB-10

Event: Replace Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$44,800	Unassigned

Updated: FEB-10

D3050.05.03 Finned Tube Radiation**-1912

Finned tube radiators are located in all classrooms areas throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	FEB-10

Event: Replace Finned Tube Radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$186,600	Unassigned

Updated: FEB-10

D3050.05.03 Finned Tube Radiation**-1952

Finned tube radiators are located in all common areas throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	FEB-10

Event: Replace Finned Tube Radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$6,500	Unassigned

Updated: FEB-10

D3050.05.07 Unit Ventilators**-1952

Unit ventilators are present in the 1952 additions and are used in conjunction with a central exhaust system for ventilation.

Rating	Installed	Design Life	Updated
2 - Poor	1952	0	FEB-10

Event: Replace all classroom unit ventilators.

Concern:
The unit ventilators are constantly breaking down, are noisy, and operate inefficiently.

Recommendation:
Replace all classroom unit ventilators.

Type	Year	Cost	Priority
Failure Replacement	2010	$186,600	Medium

Updated: FEB-10

D3050.05.07 Unit Ventilators**-1965

Unit ventilators are present in the 1965 additions and are used in conjunction with a central exhaust system for ventilation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	30	FEB-10

Event: Replace Unit Ventilators

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$8,200	Unassigned

Updated: FEB-10

D3060.02.01 Electric and Electronic Controls**

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

Event: Replace Electric and Electronic Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$9,700	Unassigned

Updated: FEB-10

D3060.02.02 Pneumatic Controls**

The pneumatic controls are used throughout the building. The air compressor is a Quincy Climate Control model 0C00503S00071 powered by a GE 1 hp. motor. The air is dried by a DeVilbiss-Hankison air dryer. The air compressor and air dryer are approximately 10 years old.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	40	FEB-10

Event: Replace Pneumatic Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$46,100	Unassigned

Updated: FEB-10

D3090 Other Special HVAC Systems and Equipment*

There is a dust collector manufactured by N.R. Murphy Ltd. located in the basement of the original building. It is not in service.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	0	FEB-10

D4020 Standpipes*

A 2" standpipe system exists throughout the school. The standpipe is complete with hoses on every floor and is original to each section of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	FEB-10

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Wall mounted fire extinguishers are located next to hoses on reels and throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	FEB-10

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

An exterior pad mounted 300 kva transformer supplies power to the school. It is not the property of the school. The transformer is estimated to be installed circa 1970.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	40	FEB-10

Capacity Size	Capacity Unit
300	kVA

Event: Replace Main Electrical Transformer

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$48,900	Unassigned

Updated: FEB-10

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

The electrical service was upgraded circa 1970 and was converted from 1 phase power to 3 phase power. The main switchboard is manufactured by Federal Pioneer and is rated at 800 A, 120/208 V, 3 phase, 4 wires. The switchboard was installed in 1952.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	FEB-10

Event: Conduct an infrared scan of main switchboard.

Concern:
Main switchboard is old and should be scanned in order to identify potential problems.
Recommendation:
Conduct an infrared scan of main switchboard.

Type	Year	Cost	Priority
Study	2009	$4,000	Medium

Updated: FEB-10

Event: Replace Main Electrical Switchboards

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$51,000	Unassigned

Updated: FEB-10

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1912 & 1965 Sections

The 800 Amp switchboard distributes power to panelboards located throughout the school. The panelboards are generally original to each part of the building except for the original, 1912 building which was replaced in 1965, thus being about 44 years old.

Rating	Installed	Design Life	Updated
3 - Marginal	1965	30	FEB-10

Event: Replace and Expand Branch Circuit Panelboards

Concern:
Panelboards in the 1912 Section and 1965 Addition are 44 years old and well beyond the Theoretical Design Life (TDL) of 30 years.

Recommendation:
Replace all panel boards in the 1912 and 1965 sections. Expansion is recommended as approximately half of the boards are at full capacity.

Type	Year	Cost	Priority
Failure Replacement	2011	$65,100	Medium

Updated: FEB-10

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1952 Addition

The 800 Amp switchboard distributes power to panelboards located throughout the school. The panelboards in the 1952 Addition appear to be original, thus being 57 years old.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	30	FEB-10

Event: Replace and Expand Branch Circuit Panelboards

Concern:
Panelboards in the 1952 Addition are 57 years old and well beyond the TDL of 30 years.

Recommendation:
Replace all panel boards in the 1952 Addition. Expansion is recommended as approximately half of the boards are at full capacity.

Type	Year	Cost	Priority
Failure Replacement	2011	$32,600	Medium

Updated: FEB-10

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1982 Addition

The 800 Amp switchboard distributes power to panelboards located throughout the school. The panelboards in the 1982 Addition are original, thus being 27 years old.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	FEB-10

Event: Replace and Expand Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$10,900	Unassigned

Updated: FEB-10

D5010.07.02 Motor Starters and Accessories**

Motor starters are manufactured by Taylor Electric and are located in the mechanical rooms of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

Event: Replace Older Motor Starters and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$60,000	Unassigned

Updated: FEB-10

D5010.07.02 Motor Starters and Accessories** - 2008 Boiler Starters

Motor starters for the 2008 Boilers were replaced in 2008.

Rating	Installed	Design Life	Updated
5 - Good	2008	30	FEB-10

Event: Replace Boiler Pump Starters

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$30,000	Unassigned

Updated: FEB-10

D5020.01 Electrical Branch Wiring*

The electrical wiring in the building is standard wire in conduit (armoured cable). All wiring in the building is original to each part of the building with the exception of wiring in the 1912 section having been replaced in about 1965.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	50	FEB-10

Event: Inspect Building Wiring.

Concern:
The 1952 additions wiring is aged and has surpassed its theoretical useful life of 50 years. The wiring insulation becomes deteriorated with time and should be inspected regularly.

Recommendation:
Inspect building wiring.

Type	Year	Cost	Priority
Study	2010	$9,500	Medium

Updated: FEB-10

Event: Replace building wiring

Concern:
Wiring in the 1912 Section and 1952 and 1965 Additions is aged and has surpassed its theoretical useful life of 50 years. The wiring insulation becomes deteriorated with time and should be based on the study findings.

Recommendation:
Replace the building wiring based on the outcome of the study.

Type	Year	Cost	Priority
Failure Replacement	2012	$809,300	Low

Updated: FEB-10

D5020.02.01 Lighting Accessories (Lighting Controls)*

Lighting in the school is controlled by line voltage switches.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent fixtures are located in the mechanical rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1960	30	FEB-10

D5020.02.02.02 Interior Florescent Fixtures**

Fluorescent fixtures are used throughout the school and generally consists of pendant and surface mounted 4 ft. T-12 fixtures with eggcrate lenses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	FEB-10

Event: Replace T12 Fixtures With T8 or T5.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$777,000	Unassigned

Updated: FEB-10

D5020.02.02.02 Interior Fluorescent Fixtures** - 2005 Repairs

Interior fluorescent fixtures in the northeast corner classrooms on the main and second floor of the 1912 Section were replaced using T-8 fixtures due to flood damage in 2008 from a broken plumbing line.

Rating	Installed	Design Life	Updated
5 - Good	2005	30	FEB-10

Event: Replace T-8 Fluorescent Light Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$15,600	Unassigned

Updated: FEB-10

D5020.02.03.02 Emergency Lighting Battery Packs**

Battery packs throughout the school appear be have been replaced on an on-going basis as needed. As such, an average installation year of 1982 has been used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	FEB-10

Event: Replace Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$26,000	Unassigned

Updated: FEB-10

D5020.02.03.03 Exit Signs*

Exit signage is of mixed age dependant on the year of addition. All appear to be incandescent currently.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	FEB-10

Event: Replace Incandescent Exit Lights with LED Fixtures

Concern:
Exit lights are in use 24 hours per day 365 day a year.
Recommendation:
Purchase LED incandescent replacements fittings for all exit signs.
Consequences of Deferral:
Higher energy costs then necessary

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2010	$4,000	Low

Updated: FEB-10

D5020.03.01.03 Exterior Metal Halide Fixtures*

6 metal halide light fixtures currently provide exterior lighting around the school perimeter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	FEB-10

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

The exterior lighting is controlled by a timer in the original school building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	30	FEB-10

Event: Install Sensors

Concern:
Lighting is currently controlled by a timer which is manually set by the building operator
Recommendation:
Install a lighting sensor to reduce operator maintenance and lighting periods.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2010	$1,000	Low

Updated: FEB-10

D5030.01 Detection and Fire Alarm**

The fire protection system is a Simplex 4002 21-zone system. Terminal devices include manual pull stations, alarm bells, smoke detectors, and heat detectors. The system was reportedly installed in 1993.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	FEB-10

Event: Replace Detection and Fire Alarm

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$184,000	Unassigned

Updated: FEB-10

D5030.02.02 Intrusion Detection**

The intrusion detection system consists of a Silent Knight burglary/fire control/communicator system located in the gymnasium storage room and motion sensors located throughout the building. The installation date was not confirmed but is presumed to be similar to the 1993 fire detection system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	FEB-10

Event: Replace Intrusion Detections System

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$184,000	Unassigned

Updated: FEB-10

D5030.04.01 Telephone Systems*

Telephones are provided in all classrooms and are used for intercom, paging, and external calling. A Public address module is also attached.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	25	FEB-10

D5030.04.04 Data Systems*

A single PC type server appears to provide backup for the school in a old office turned storage room on the top floor of the original school.

Rating	Installed	Design Life	Updated
5 - Good	2000	0	FEB-10

D5030.04.05 Local Area Network Systems*

Both wired and wireless schools networks and the Supernet system were installed circa 2000 providing internet access.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	15	FEB-10

D5030.05 Public Address and Music Systems**

The public address is part of the meridian telephone system. A redundant Bogen model public address amplifier is also attached.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	25	FEB-10

Event: Replace Public Address and Music Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$30,000	Unassigned

Updated: FEB-10

D5090.01 Uninterruptible Power Supply Systems**

Small UPS for the single server providing service for the school (lifecycle replacement in 2035 is estimated to be less than the $1,000 threshold for this study and has not bee included herein).

Rating	Installed	Design Life	Updated
5 - Good	2005	30	FEB-10

Capacity Size	Capacity Unit
1	kVA

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

Wooden fixed and moveable shelving; Librarian desk; Check-out desk; computers and printers, overhead projectors and stands; LCD flatscreen TVs, DVD/VHS players, etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	FEB-10

E1020.07 Laboratory Equipment*

Laboratory countertops and stainless steel service sinks with gooseneck faucets in some classrooms in the 1912 Section. Age unknown and presumed to be installed during the 1982 expansion and renovations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	FEB-10

E1090.04 Residential Equipment*

There are residential stoves, fridges and a freezer in the staff room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	FEB-10

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Moveable and fixed basketball hoops, digital scoreboard, climber, athletic pads, etc. In the Gymnasium in the 1965 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	FEB-10

E2010.02 Fixed Casework** - 1912 Section

Painted and clear finish fixed cabinets, chalkboard casing, etc. (approx. 281 m2/gfa).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	FEB-10

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$30,100	Unassigned

Updated: FEB-10

E2010.02 Fixed Casework** - 1912 Section (2005 Renovations)

Clear finished birch casework in classrooms (approx. 540 m2/gfa).

Rating	Installed	Design Life	Updated
5 - Good	2005	35	FEB-10

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2040	$57,800	Unassigned

Updated: FEB-10

E2010.02 Fixed Casework** - 1952 Addition

Original painted wood counters, cabinetry and window casing in classrooms, art room and lunch room and lunch room kitchen (approx. 689 m2/gfa).

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	35	FEB-10

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$73,700	Unassigned

Updated: FEB-10

E2010.02 Fixed Casework** - 1952 Addition Staff Room

Clear finished birch counters and cabinets in the Staff Room in the 1952 Addition were replaced in 2005 due to water damage from frozen plumbing pipes (approx. 57 m2/gfa).

Rating	Installed	Design Life	Updated
5 - Good	2005	35	FEB-10

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2040	$6,100	Unassigned

Updated: FEB-10

E2010.02 Fixed Casework** - 1965 and 1982 Additions

Clear finished birch counters and cabinets in the Library and Library Resource Centre work room in the 1965 and 1982 additions, respectively, were replaced in 2005 due to water damage from frozen plumbing pipes (approx. 270 m2/gfa).

Rating	Installed	Design Life	Updated
5 - Good	2005	35	FEB-10

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2040	$28,900	Unassigned

Updated: FEB-10

E2010.03.01 Blinds** - All Sections

Venetian blinds in classrooms and office spaces are not original and presumed to date to the 1982 renovations and addition (approx. 350 m2 total).

Rating	Installed	Design Life	Updated
3 - Marginal	1982	30	FEB-10

Event: Replace Venetian blinds.

Concern:
Discoloured, stained and damaged Venetian blinds were observed in some of the classrooms (approx. 153 m2 total impacted).
Recommendation:
Replace damaged blinds where applicable.
Consequences of Deferral:
Lack of use and diminished aesthetics.

Type	Year	Cost	Priority
Failure Replacement	2010	$19,900	Low

Updated: FEB-10

E2010.03.06 Curtains and Drapes**

Manually operated fabric curtains are provided on the stage (approx. 80 m2 total).

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	30	FEB-10

Event: Replace Stage Curtains

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$25,000	Unassigned

Updated: FEB-10

E2020.02.03 Furniture*

Desks, chairs and lunchroom tables.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-10

F1010.02.04 Portable and Mobile Buildings**

A single relocatable classroom exists to the north of the 1952 Addition. According to CBE personnel, the portable classrooms was added to the Colonel Walker School in about 2007 but was originally manufactured in about 1965.

Building Envelope: Exterior cladding consists of prefinished aluminum vertical siding above painted horizontal clapboard siding. The roof assembly consists of low sloping modified bituminous membrane (SBS) roofing. Windows consist of 2 rows or original aluminum single pane horizontally sliding windows with bugs screens and locking hardware. The entry door and fire exit door are painted solid wood in steel frames. A painted wood-framed ramp provides wheelchair accessibility to the portable classroom.

The building envelope of the portable classroom is in acceptable overall condition

Interiors: Flooring consists of original resilient sheet linoleum. Walls are painted wood paneling. The ceilings has painted timber framing and original concealed grid acoustic ceiling tiles.

Flooring has lifted along seams and tacked in place using nails and staples to prevent further curling. Failure replacement is required to prevent trip hazards. The remainder of the interior finishes are in acceptable overall condition.

Mechanical: Heating, ventilation and air conditioning in the relocatable classroom is conducted by a new (2002) Change Air model CAG 1200NA unit ventilator (output rated at 73,9000 BTUH. Controls consists of a programmable digital thermostat of the same age. There is no humidification provided and there is no plumbing to/from the relocatable classrooms. Wall-mounted ABC-type dry chemical fire extinguishers beside doorway.

Electrical: Power is fed from the main building into 60 Amp, 120/208 Volt, 3-phase, 4-wire 120/208 distribution panelboard in the portable classroom. each unit. Data, telephone, intercom and fire alarm systems are integrated with the main building systems. Fluorescent T-12 strip lighting, battery-pack emergency lights with halogen lamps and illuminated exit signs in each unit.

The electrical systems in the portable classroom are in acceptable overall condition.

In general, the portable building is in acceptable overall condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1964	30	FEB-10

Event: Replace Building Envelope

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$36,300	Unassigned

Updated: FEB-10

Event: Replace Electrical Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$11,500	Unassigned

Updated: FEB-10

Event: Replace Interior Finishes (Excluding Flooring)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$4,500	Unassigned

Updated: FEB-10

Event: Replace Mechanical Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,200	Unassigned

Updated: FEB-10

Event: Replace Sheet Flooring

Concern:
Resilient flooring has lifted at side seams and tacked in place using nails and staples. The flooring is old, soiled and marred with cuts and scratches observed.

Recommendation:
Replace sheet flooring (approx. 60 m2).

Type	Year	Cost	Priority
Failure Replacement	2010	$6,000	Low

Updated: FEB-10

F2020.01 Asbestos*

An asbestos survey report dated July 2008 confirms asbestos is present in the following building materials: heating hot water distribution pipe insulation; mudding on pipe elbows and fittings; ceiling plaster; and, asbestos cement board (transite). Review of the report revealed vinyl tile and sheet vinyl flooring had not been sampled and are presumed to contain asbestos fibres (non-friable).
No damaged suspect or confirmed friable asbestos containing materials were identified under the current study.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-10

Event: Continue Asbestos management Program

Concern:
Asbestos building materials are confirmed as being present in this school.

Recommendation:
Continue asbestos management plan with regular condition survey updates every 3 to 5 years, and as warranted.

Type	Year	Cost	Priority
Preventative Maintenance	2012	$4,500	Medium

Updated: FEB-10

F2020.02 PCBs*

Based on the age of the building, sources of potential PCBs include ballasts in fluorescent light fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-10

F2020.03 Mercury*

Potentially in the fluorescent lamps throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-10

F2020.04 Mould*

No known or reported mould-impacted building materials were identified.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-10

F2020.09 Other Hazardous Materials*

Old vinyl Venetian blinds and interior wall, ceiling and floor paint may contain lead. Suspect finishes were generally observed to be in acceptable overall condition and dust free.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-10

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Roadside barrier free parking is not provided along 9th Avenue SE. No designated barrier free parking spaces were identified on site. The main entrance to the 1982 Addition is at grade level and is therefore barrier free.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	0	FEB-10

K4010.02 Barrier Free Entrances*

No automated entry devices provided at this school.
Furthermore, there are no barrier free at grade entrances to the Original School (1912 Section) housing the Piitoyas Family School.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	FEB-10

Event: Provide automated entry at the main entrance.

Concern:

There are no automated entry devices for either the Colonel Walker School section (1952, 1965 and 1982 Additions) nor the Piitoyas Family School (original 1912 Building).
Furthermore, although there is 1 at-grade entry to Colonel Walker School, there are no at-grade entrances to the Piitoyas Family School.

Recommendation:

Equip the main entrance to each independant school with automated door openers and provide a wheelchair lift or ramp for barrier-free access to the Piitoyas Family School.

Consequences of Deferral:

Non-compliance with current barrier free standards and inaccessibility for handicapped or wheelchair users.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$14,500	Low

Updated: FEB-10

K4010.03 Barrier Free Interior Circulation*

No elevating devices or lifts are present to access upper or lower levels of the building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	FEB-10

Event: Add 3 Lifts and 2 BFA Elevators

Concern:

The school is not equipped with wheelchair lifts or elevators, rendering certain portions of the school inaccessible to wheelchair users.

Recommendation:

Provide wheelchair lifts for the stage in the 1965 Addition; the interior stair between the 1952 and 1965 additions; and, the interior stairs between the 1912 Section and 1965 Addition. Provide an elevator with stops at all levels of the 1912 Section and a second elevator with stops on the lower and upper level of the 1952 Addition.

Consequences of Deferral:

Non-compliance with current barrier free standards and inaccessibility for handicapped or wheelchair users.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$445,000	Medium

Updated: FEB-10

K4010.04 Barrier Free Washrooms*

There are no barrier-free accessible washrooms provided in either of the independant schools.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	FEB-10

Event: Add 2 Universal BFA Washrooms.

Concern:

There are no barrier free accessible washrooms at this facility.

Recommendation:

Provide two single universal barrier free washrooms, one in each independent school (colonel Walker and Piitoyas).

Consequences of Deferral:

Non-compliance with current barrier free standards and inaccessibility for handicapped or wheelchair users.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$17,000	Medium

Updated: FEB-10