

# **RECAPP Facility Evaluation Report**

**Calgary School District #19**



**Rosscarrock Elementary School**

B2765A

Calgary

<b>Facility Details</b>	
<b>Building Name:</b>	Rosscarrock Elementary Sch
<b>Address:</b>	1406 - 40 Street S. W.
<b>Location:</b>	Calgary
<b>Building Id:</b>	B2765A
<b>Gross Area (sq. m):</b>	3,330.10
<b>Replacement Cost:</b>	\$9,346,000
<b>Construction Year:</b>	1960

<b>Evaluation Details</b>	
<b>Evaluation Company:</b>	ARUP DATTA ARCHITECT LTD.
<b>Evaluation Date:</b>	October 17 2011
<b>Evaluator Name:</b>	Paul Mowat

**Total Maintenance Events Next 5 years:           \$2,657,712**  
**5 year Facility Condition Index (FCI):               28.44%**

**General Summary:**

The Rosscarrock Elementary School is a split level concrete, masonry block and wood-framed structure with a partial basement, originally constructed in 1960. The original building has a total floor area of approximately 2,148 square metres.

A concrete and masonry block, two-storey addition was constructed in 1965 on the east side of the original building, which has a total floor area of approximately 1,182 square metres. Minor renovations to the building have performed. The total gross floor area is 3330 m<sup>2</sup>.

The school is primarily used for educational purposes; however the southeast wing of the building is used by the Chinook Learning Centre.

**Structural Summary:**

Structural drawings were not available for review during the assessment, however the building's foundations likely consist of a poured concrete assembly with concrete foundation walls and strip footings. The structure consists of wood-framed and reinforced, poured concrete floors with wood-framed and load-bearing concrete/masonry block walls. The suspended second level in the 1965 addition of the building appears to have wood beams supported by wood columns and load-bearing masonry block walls. The suspended main floor slab above the basement level is wood-framed construction and reinforced concrete (above the tunnels).

The roof structural frame for the majority of the building is likely comprised of wood decking supported by wood beams and load-bearing masonry block walls.

No major work associated with the building structure was identified during the assessment.

Overall, the building's structural elements are in acceptable condition.

**Envelope Summary:**

Exterior cladding consists of a combination of clay brick, stucco and wood siding. All flat and sloped roof sections of the building consist of a modified bitumen membrane assembly. Main entrance doors are solid wood set in wood frames. Windows are fixed and operable with double-glazed (not sealed) units set in wood frames.

Major work recommended includes replacement of deficient sealant in construction joints. All other items identified can be handled under lifecycle replacement.

Overall, the building's envelope and exterior components are in acceptable condition.

**Interior Summary:**

Classrooms and corridors typically have resilient tile and sheet flooring. Carpeting is provided in the library principal and vice principal office and the Chinook Learning Centre offices, while the main boiler room has a painted/sealed concrete floor. Wood flooring is provided in the main gymnasium. The majority of the interior walls consist of painted gypsum board or painted masonry block. Acoustic ceiling tiles are provided throughout the building.

Major work recommended includes repainting of the concrete floor of the boiler room, as well as barrier-free upgrades throughout the building. All other items identified can be handled as a lifecycle replacement.

Overall, the building's interior finishes are in acceptable condition.

**Mechanical Summary:**

Rosscarrock Elementary School was originally constructed in 1960, with an addition in 1965. The majority of the

domestic water, sanitary, and storm water drainage piping is original to the construction of the building. There are backflow prevention devices installed on the boiler feed water, fire suppression, hot water heating and domestic water lines. The building has two domestic hot water heaters.

The building has a Liberty steam boiler. Steam is distributed to the original building for heating. The 1965 addition of the school is heated using a steam to water heat exchanger and hot water distribution system.

Bathrooms and kitchen areas throughout the building are equipped with independently operated roof-mounted exhaust fans. There is no air conditioning in the building. The boiler controls are pneumatic.

The building has a standpipe system complete with fire hoses for life safety.

The following are recommended actions for the next five years:

- Replace Drinking fountains
- Replace steam boiler with two hot water boilers
- Replace steam distribution system with a hot water distribution system
- Replace domestic hot water heater
- Install Steam humidifier
- Install BMCS to overlay onto pneumatic system.

With the above exceptions the building is in acceptable condition.

**Electrical Summary:**

Main distribution service is 400 Amp fused at 300 Amp. Sub panels located as required. Fire alarm system, emergency lighting and exit signage are 2009 install. Intrusion detection is functional. Communication equipment are operational.

Recommend the following:

- 1- Replace main distribution system.
- 2- Replace main panels.
- 3- Replace lighting system with T8 technology.
- 4- Install strobes in wash rooms.

Overall, the electrical systems in the building 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\*

Structural drawings were not available for review during the assessment. The building foundations presumably consist of cast-in-place concrete foundation walls and strip footings with conventional steel reinforcement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

### A1030 Slab on Grade\*

The main floor of the Rosscarrock Elementary School is comprised of a cast-in-place concrete slab-on-grade which is presumed to have conventional steel reinforcement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

### A2020 Basement Walls (& Crawl Space)\*

A partial basement includes the main boiler room and tunnels that run beneath the building. The basement walls are comprised of cast-in-place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

### B1010.01 Floor Structural Frame (Building Frame)\*

The structural frame of the original school building consists of wood and load-bearing masonry block walls. The 1965 addition has load-bearing masonry block or cast-in-place concrete walls which support roof and suspended floor structures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

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

Interior walls throughout the building are comprised of wood partitions or load-bearing masonry block.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

### B1010.03 Floor Decks, Slabs, and Toppings\*

The suspended floor areas above the basement and heating system tunnels have a combination of both reinforced concrete slabs and wood frame floor construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

**B1010.07 Exterior Stairs\***

Exterior stairs located at the main entrance and gymnasium exit are reinforced concrete.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1960	0	MAR-12

**Event: Install handrails to gym exit stair BOE 4 Im**

**Concern:**

Handrails missing from gymnasium exit stairs

**Recommendation:**

Install metal handrails

**Consequences of Deferral:**

Potential life safety issue

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Code Upgrade	2012	\$2,000	Medium

**Updated:** MAR-12

**B1010.09 Floor Construction Fireproofing\***

Gypsum board to underside of second floor structure.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**B1010.10 Floor Construction Firestopping\***

Voids and gaps around mechanical and electrical through-slab conduit penetrations are sealed with a fire rated sealant.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**B1020.01 Roof Structural Frame\***

The roof structural frame for the original and 1965 addition to the building is reported to be wood decking supported by wood beams and load bearing interior and exterior walls.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**B1020.04 Canopies\***

An exterior canopy located at the west entrance of the building is comprised of wood decking and wood joists. The canopy is supported by the load-bearing masonry block walls where it abuts the school structure.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-07

**B1020.06 Roof Construction Fireproofing\***

Gypsum board to underside of structure.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

## S2 ENVELOPE

### B2010.01.02.01 Brick Masonry: Ext. Wall Skin\*

Clay brick veneer is provided on all sides of the building, making up approximately 40 per cent of the cladding.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

### B2010.01.06.04 Wood Siding\*\*

Wood siding is generally provided on the lower portions of all sides of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1960	40	MAR-12

**Event:** Replace wood siding with metal siding BOE 600 m2

**Concern:**

The majority of the wood siding was exhibiting peeling of the painted surface, and general weather related deterioration.

**Recommendation:**

Replace the wood siding around the perimeter of the building with metal siding

**Consequences of Deferral:**

Further deterioration of the substrate, which could impact the integrity of the building envelope; loss of aesthetic appeal.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$198,000	Medium

**Updated:** MAR-12

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

The majority of the building exterior is clad with a cementitious stucco finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	0	MAR-12

**Event:** Repair Gaps in Stucco BOE 20 m2

**Concern:**

Localized gaps between stucco and flashing and other cladding materials were observed.

**Recommendation:**

Repair gaps in the building envelope.

**Consequences of Deferral:**

Reduced integrity of the building envelope, leading to possible moisture ingress.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$7,000	Low

**Updated:** MAR-12



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

Caulking (approximately 1,500 l. M.) is provided in control joints and between cladding and interfaces between cladding and doors/windows. The caulking is estimated to be at least 20 years old.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	20	MAR-12

**Event: Replace Exterior Caulking BOE 1500 Im**

**Concern:**

Exterior caulking is failing around windows, doors and cladding

**Recommendation:**

Replace exterior caulking

**Consequences of Deferral:**

Continued deterioration and potential of moisture penetration and damage to building envelope

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$35,000	Medium

**Updated:** MAR-12

**B2010.01.13 Paints (& Stains): Ext. Wall\*\***

Wood siding, infill plywood to windows, soffits and doors are painted. Wood siding and plywood infill to windows is in poor condition. Refer to B2020.01.01.05 for window panel replacement and B2010.01.06.04 for replacement of wood siding.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	15	MAR-12

**Event: Paint exterior soffits, lower wall, and doors BOE 276 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$9,000	Unassigned

**Updated:** MAR-12

**B2010.02.01 Cast-in-place Concrete: Ext. Wall Const\***

Lower portion of building exterior walls are cast-in-place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Exterior back-up walls are generally comprised of load-bearing masonry block walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07



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

The school wall assemblies are presumably equipped with a vapor retarder and insulation. It is unlikely that an air barrier would have been provided for a school of this vintage. The type and extent of materials used in the wall cavities is unknown.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**B2010.06 Exterior Louvers, Grilles, and Screens\***

Exterior metal louvers on the west facade of the 1965 addition, wire mesh to some exterior windows for impact protection, wire mesh screen to the entrance canopy to deter climbing.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1965	0	MAR-12

**B2010.09 Exterior Soffits\***

The soffits around the roof perimeters consist of painted, cementitious stucco finish to match the exterior walls.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-07

**B2020.01.01.05 Wood Windows (Glass & Frame)\*\***

The majority of the exterior windows on the school perimeter are comprised of fixed and operable, single-glazed units set in painted wood frames and portions of the windows have plywood infill panels.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1960	35	MAR-12

**Event: Replace the exterior windows including frames  
BOE 180 m2 plus assumed lead paint removal**

**Concern:**

Window frames and infill panels rotted, delaminated and paint peeled and faded

**Recommendation:**

Replace windows and panels with sealed glazing and insulated panels in aluminum frames

**Consequences of Deferral:**

Continued deterioration of window systems

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2013	\$396,000	Medium

**Updated:** MAR-12

**B2030.01.10 Wood Entrance Door\*\***

Exterior doors are painted wood set in wood frames with glazed sidelight and transoms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event:** Replace Exterior Wood Doors, frames and glazing  
BOE 6 doors, 48 m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$72,600	Unassigned

**Updated:** MAR-12

**B2030.02 Exterior Utility Doors\*\* - 1960 Section**

Wood door and frame exit door from gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	40	MAR-12

**Event:** Replace Utility Door BOE 1 door

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,500	Unassigned

**Updated:** MAR-12

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

The building's flat roof assemblies are presumably equipped with a deck vapor retarder and insulation with roof membrane replacement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 2008**

All roof sections of the original building replaced with a SBS membrane assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	25	MAR-12

**Event:** Replace SBS roofing membrane BOE 2450 m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$416,500	Unassigned

**Updated:** MAR-12

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 1991**

Roof of the 1965 addition re-roofed with SBS.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	25	MAR-12

**Event: Replace SBS Roofing BOE 755 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$129,000	Unassigned

**Updated:** MAR-12

**B3010.08.02 Metal Gutters and Downspouts\*\***

Metal gutter to the entrance canopy.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace gutter and RWL BOE 50 lm**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,000	Unassigned

**Updated:** MAR-12

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

Roof hatch and painted metal ladders.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

### S3 INTERIOR

#### C1010.01 Interior Fixed Partitions\*

Interior fixed partitions in the building are comprised of load-bearing masonry block walls and gypsum board on metal-stud partitions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

#### C1010.02 Interior Demountable Partitions\*

Demountable panel partitions divide several classrooms located on the main floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

#### C1010.03 Interior Operable Folding Panel Partitions\*\*

Folding panel partition in arts room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

#### Event: Replace Interior Operable Folding Panel Partition BOE 35 m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$38,500	Unassigned

**Updated:** MAR-12

#### C1010.05 Interior Windows\*

Interior window in administration area and in one room in the Chinook Learning area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

#### C1010.06 Interior Glazed Partitions and Storefronts\*

Glazed transoms and sidelight to interior vestibule doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

#### C1010.07 Interior Partition Firestopping\*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

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

Interior doors on classrooms and other areas within the original 1960 building and the 1965 addition (approximately 70) generally consist of solid core wood doors set in painted wood frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

**C1020.03 Interior Fire Doors\***

Interior fire doors consist of the original painted wood doors set in painted wood frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

**C1030.01 Visual Display Boards\*\***

A combination of blackboards and whiteboards are generally provided in each classroom. Fixed blackboards are assumed to be original to the construction of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	20	MAR-12

**Event: Replace visual display boards BOE 20 black, 15 white and 66 tackboards**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$62,000	Unassigned

**Updated:** MAR-12

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

Pre-finished metal toilet partitions are provided in each student washroom in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace Washroom Partitions BOE 18 stalls**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$21,600	Unassigned

**Updated:** MAR-12

**C1030.08 Interior Identifying Devices\***

Metal room numbers are mounted on the doors of the classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

**C1030.12 Storage Shelving\***

Metal shelving in some classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Typical to washrooms, wall mounted soap dispensers, wall mounted paper towel dispensers, individual mirrors, roll toilet paper dispensers, garbage cans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

**C2010 Stair Construction\* - Concrete**

Staircases leading to the lower level of the building are constructed of cast-in-place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1965	0	MAR-12

**C2010 Stair Construction\* - wood**

Staircases in the gymnasium are wood.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Staircases leading to the lower level of the school are finished with rubber treads and sheet vinyl risers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	20	MAR-12

**Event: Replace the Resilient Stair finishes BOE 20 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,000	Unassigned

**Updated:** MAR-12

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

Stair handrails are typically comprised of base-mounted, painted metal.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

**C2030 Interior Ramps\***

A wood-framed ramp provides access between the floor levels in the 1965 addition of the building. The ramp is finished with a sheet vinyl type floor. The ramp railing is a base mounted, painted metal railing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1965	100	MAR-12

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

Ceramic wall tile at the urinals.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	40	MAR-12

**Event: Replace wall tiles at urinals BOE 2 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,000	Unassigned

**Updated:** MAR-12

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

Acoustical wall panels in the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	20	MAR-12

**Event: Replace Acoustical Wall panels BOE 30 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$7,000	Unassigned

**Updated:** MAR-12

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

Masonry block and gypsum board walls (approximately 7,300 sq.m.) throughout the school have a painted finish. Painted gypsum board walls are generally provided in the main administration areas, as well as in a number of classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	MAR-12

**C3010.12 Wall Coverings\***

The original south corridor of the building has polished wood fibreboard wainscotting, approximately 75 sq.m. In area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12



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

Painted concrete floors are provided in the main mechanical room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1990	0	MAR-12

**Event: Replace Mechanical Room Floor Paint BOE 17 m2**

**Concern:**

Painted concrete floors in the boiler room were observed have peeling and deteriorated finishes.

**Recommendation:**

Repaint concrete floors in the boiler room as necessary.

**Consequences of Deferral:**

Loss of aesthetic appeal.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2013	\$2,000	Low

**Updated:** MAR-12

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

Mosaic tile in washrooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	50	MAR-12

**Event: Replace mosaic tile BOE 4 m2**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$2,000	Unassigned

**Updated:** MAR-12

**C3020.02 Tile Floor Finishes\*\* - Quarry tile**

Quarry tile flooring is provided in washrooms and the entrance vestibules.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	50	MAR-12

**Event: Replace Tile Flooring BOE 86 m2**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$22,000	Unassigned

**Updated:** MAR-12

**C3020.03 Terrazzo Floor Finishes\***

Terrazzo flooring is generally provided in the science room and adjacent corridor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

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

Hardwood flooring is provided in the main gymnasium which is approximately 262 sq.m. In area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace the Gymnasium Hardwood Flooring BOE 262**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$66,000	Unassigned

**Updated:** MAR-12

**C3020.04 Wood Flooring\*\* - Stage**

The stage, which adjacent to the Gymnasium is finished with approximately 57 sq.m. Of hardwood flooring.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	30	MAR-12

**Event: Refinish the Stage's Hardwood Flooring 57 m2**

**Concern:**

The exposed hardwood surfaces were observed to be heavily scuffed and scratched. No lifting or separation of the hardwood flooring was noted during the assessment.

**Recommendation:**

Refinish the exposed hardwood on the edge of the gymnasium stage.

**Consequences of Deferral:**

Loss of aesthetic appeal and ongoing deterioration from continued use.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2013	\$9,000	Low

**Updated:** MAR-12

**Event: Replace Stage Flooring BOE 57 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$15,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - 1960**

Corridors, music room, staff washrooms in the original portion of the building, are generally finished with 9 x 9 vinyl tile flooring. Refer to K4030.01 Asbestos\*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	20	MAR-12

**Event:** Replace 9 X 9 Floor Tile BOE 560 m2 allow for haz mat removal

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$56,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - 1980**

Approximately 400 sq. M. of sheet vinyl flooring is provided in the main administration area and corridors of the 1965 addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	20	MAR-12

**Event:** Replace the Sheet Vinyl Flooring BOE 400 m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$35,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - 1990**

Classrooms and the 1965 addition corridors,are generally finished with 12 x 12 vinyl floor tiles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	20	MAR-12

**Event:** Replace 12 X 12 Vinyl Floor Tile BOE 395 m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$22,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - 2007**

Resilient sheet flooring in some classroom in 1965 addition and one in original building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	20	MAR-12

**Event: Replace sheet flooring BOE 525 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$46,200	Unassigned

**Updated:** MAR-12

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

Carpet flooring is provided in the library, rooms 1038 and 1039, and in the Chinook College offices. Carpet in Chinook College offices is worn.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	15	MAR-12

**Event: Replace Carpet Flooring BOE 695 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$69,500	Unassigned

**Updated:** MAR-12

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

Acoustic tile in corridor and stair in 1965 addition and one room in the Chinook College area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	25	MAR-12

**Event: Replace Acoustic Ceiling tile BOE 370 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$17,000	Unassigned

**Updated:** MAR-12

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

Painted gypsum board ceilings are provided in the student washrooms and storage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

**C3030.09 Other Ceiling Finishes\* - Acoustic ceiling tiles**

The majority of the classrooms, corridors and administration areas have a acoustic ceiling tiles.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**C3030.09 Other Ceiling Finishes\* - Textured ceilings**

Textured ceilings are provided in the Girls Shelter and science room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

## S4 MECHANICAL

### D2010.04 Sinks\*\* - 1960

There are 10 enameled steel sinks and 4 janitor sinks located throughout the building..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

#### **Event: Replace sinks BOE (14)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$13,800	Unassigned

**Updated:** MAR-12

### D2010.04 Sinks\*\* - 1990

There are 9 stainless steel sinks located throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	30	MAR-12

#### **Event: Replace Sinks (9)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$13,500	Unassigned

**Updated:** MAR-12

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

There are 9 non-refrigerated vitreous china drinking fountains throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	35	MAR-12

**Event: Replace drinking fountains BOE (2)**

**Concern:**

Two drinking fountains are not in use.

**Recommendation:**

Replace two drinking fountains.

**Consequences of Deferral:**

Further inconvenience for users.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$3,293	Medium

**Updated:** MAR-12

**Event: Replace drinking fountains BOE (9)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$14,500	Unassigned

**Updated:** MAR-12

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

There are vitreous china water closets, lavatories and urinals located throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	35	MAR-12

**Event: Replace washroom fixtures BOE (19) WC, (17) Lav, (9) Urnl**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$73,200	Unassigned

**Updated:** MAR-12

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

Domestic piping is copper throughout the building, and original to construction or added as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07



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

Hot and Cold isolation valves located throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	40	MAR-12

**Event: Replace Valves BOE (15)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$18,900	Unassigned

**Updated:** MAR-12

**D2020.01.03 Piping Specialties (Backflow Preventers)\*\* - 1996**

Backflow prevention devices are installed on main water and boiler feed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1996	20	MAR-12

**Event: Replace Backflow Preventors BOE (3)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$10,100	Unassigned

**Updated:** MAR-12

**D2020.01.03 Piping Specialties (Backflow Preventers)\*\* - 2002**

Backflow prevention devices are installed on fire suppression and hot water heating lines.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2002	20	MAR-12

**Event: Replace backflow preventers BOE (2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$6,700	Unassigned

**Updated:** MAR-12

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

Recirculation pump on hot water system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	20	MAR-12

**Event: Replace Pumps BOE (1)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$1,300	Unassigned

**Updated:** MAR-12

**D2020.02.06 Domestic Water Heaters\*\* - 1991**

Domestic hot water is provided by natural gas fired water heater. The Giant has a 40 gallon capacity with an input of 36,000 Btuh.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1991	20	MAR-12

**Event: Replace Domestic Water heater (1)**

**Concern:**

Unit is overdue for replacement and highly likely to leak.

**Recommendation:**

Replace hot water heater.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$2,000	Low

**Updated:** MAR-12

**D2020.02.06 Domestic Water Heaters\*\* - 2008**

Domestic hot water is provided by 2 natural gas fired water heaters. The John Wood has a capacity of 151L with an input of 36,000 Btuh.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2008	20	MAR-12

**Event: Replace Domestic Water Heaters BOE (1)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2028	\$2,000	Unassigned

**Updated:** MAR-12

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

Insulation on hot and cold water.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

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

Waste and vent piping is cast iron and original to construction.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**D2030.02.04 Floor Drains\***

Brass floor drains located in washrooms and other service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Rain water piping is reportedly cast iron and original to construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

**D2040.02.04 Roof Drains\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	MAR-12

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

Natural gas is supplied to the north side of the building to feed the boiler, and hot water heaters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

**D3020.01.01 Heating Boilers & Accessories: Steam\*\***

Primary heating for the building is provided by a Liberty steam boiler with an approximate rated heating capacity of 3,500 MBH.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	35	MAR-12

**Event: Replace boiler BOE (2)**

**Concern:**

Boiler has far exceeded life expectancy and failure will be very costly.

**Recommendation:**

Replace with two hot water boilers and convert all system to hot water.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$99,600	Medium

**Updated:** MAR-12

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

The boilers have an original brick chimney.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	35	MAR-12

**Event: Install new vent BOE (12m)**

**Concern:**

Venting will need to conform to new boilers.

**Recommendation:**

Install new venting.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$8,600	Medium

**Updated:** MAR-12

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

Pot feeders to add chemicals to system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1965	0	MAR-12

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

The air handling system is compartmental and includes swamp coolers, supply and return fans, heating coils, a mixing chamber and make-up air.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace air handling system BOE (1)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$97,900	Unassigned

**Updated:** MAR-12

**D3040.01.03 Air Cleaning Devices: Air Distribution\***

Filters located in air handler.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Air is distributed through ceiling-mounted sheet metal supply ducts and in floor ductwork.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

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

Ceiling or wall mounted grilles and floor mounted grilles.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**D3040.02 Steam Distribution Systems: Piping/Pumps\*\***

Steam is distributed through steel piping to terminal devices (radiators, unit ventilators and unit heaters to heat the original sections of the building.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1960	40	MAR-12

**Event: Replace steam distribution system BOE (2148m2)**

**Concern:**

If boiler is replaced with hot water boiler, steam distribution will need to be removed.

**Recommendation:**

Replace steam components with hot water.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$199,800	Medium

**Updated:** MAR-12

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

Hot water from the boilers is distributed through steel piping to convectors, fan coils and unit heaters throughout the addition 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	1965	40	MAR-12

**Event: Replace hot water distribution system BOE (1182m2)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$110,000	Unassigned

**Updated:** MAR-12

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

General building exhaust (including washroom and kitchen areas) is provided by a variety of roof mounted exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace exhaust fans BOE (3)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$36,000	Unassigned

**Updated:** MAR-12

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

Ductwork to washrooms and other service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Grilles located in washrooms and other service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

**D3040.05 Heat Exchangers\*\***

A shell and tube heat exchanger is located in the boiler room to convert heat from steam to hot water for the 1965 addition of the building. This unit could not be removed if system is converted to hot water.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1965	30	MAR-12

**Event: Replace heat exchanger BOE (1)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$15,900	Unassigned

**Updated:** MAR-12

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

Swamp coolers are the only means of humidification.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1960	25	MAR-12

**Event: Install Steam Humidifiers BOE (1)**

**Concern:**

Swamp coolers are not effective at humidifying.

**Recommendation:**

Install steam humidifiers.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$12,500	Low

**Updated:** MAR-12

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

Primary heating for classrooms (addition), and offices is provided by wall mounted convection heaters connected to the hot water distribution system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1965	40	MAR-12

**Event: Replace convectors BOE (1,182m2)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$55,100	Unassigned

**Updated:** MAR-12

**D3050.05.02 Fan Coil Units\*\***

Fan coil units connected to the heat distribution system provide heating to building entrances (original).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	30	MAR-12

**Event: Replace fan coil units BOE (1)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$5,800	Unassigned

**Updated:** MAR-12



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

Fin tube radiation is located in entrances and portions of the 1965 installation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1965	40	MAR-12

**Event: Replace Finned Tube Radiation BOE (500m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$23,300	Unassigned

**Updated:** MAR-12

**D3050.05.07 Unit Ventilators\*\***

Primary heating for classrooms (original building), and the gymnasium is provided by wall mounted unit ventilators connected to the steam system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace unit ventilators BOE (14)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$138,200	Unassigned

**Updated:** MAR-12

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

To operate unit ventilators and other similar equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

**Event: Replace Electric and Electronic Controls BOE (3,300m2/gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$5,600	Unassigned

**Updated:** MAR-12

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

Building controls are pneumatic and control air is supplied by a Quincy compressor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	40	MAR-12

**Event: Install BMCS BOE (3,300m2/gfa)**

**Concern:**

Facility has no provision for energy management or monitoring.

**Recommendation:**

Install BMCS.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2012	\$83,600	Low

**Updated:** MAR-12

**Event: Replace pneumatic controls system BOE (3,300m2/gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$19,400	Unassigned

**Updated:** MAR-12

**D4020 Standpipes\***

Standpipes are blackened steel and are original to the construction of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Fire extinguishers and hoses are housed in cabinets in some locations, and are exposed in other locations throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1965	0	MAR-12

## S5 ELECTRICAL

### D5010.01.02 Main Electrical Transformers (Utility Owned)\*

Pad mounted transformer located on south side of school. Owned by ENMAX.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

400 Amp FPE MDP fused at 300 Amp 120 / 208 volt three phase. MDP is 100% full.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	40	MAR-12

**Event: Replace 400 Amp mai switch gear**

**Concern:**

Equipment have exceeded it theoretical life. Spare parts not available.

**Recommendation:**

Replace 400 Amp three phase MDP and main breaker.

**Consequences of Deferral:**

Possible loss of power due to equipment failure.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$26,344	Medium

**Updated:** MAR-12

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

Six FPE sub panels located throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	30	MAR-12

**Event: Replace six panels and related breakers.**

**Concern:**

Equipment have exceeded its theoretical life. Spare parts not available.

**Recommendation:**

Replace six panels and related breakers.

**Consequences of Deferral:**

Possible loss of power due to equipment failure.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$18,000	Medium

**Updated:** MAR-12

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

Four Cutler Hammer and Square D located as required. 80% full.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-12

**Event: Replace four panels and related breakers.**

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

**Updated:** MAR-12

**D5010.07.02 Motor Starters and Accessories\*\***

Five Allen Bradley and Siemens starters located as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-12

**Event: Replace five motor starters.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$2,500	Unassigned

**Updated:** MAR-12

**D5020.01 Electrical Branch Wiring\***

Wiring in EMT conduit. AC90 flex cabling used for final connection to motors and light fixtures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

Line voltage switching.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

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

T12 light fixtures of different styles located throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	30	MAR-12

**Event:** Replace T12 light fixtures with T8 technology in 3330 m2/ gfa

**Concern:**

Obsolete equipment. High maintenance and operating costs.

**Recommendation:**

Replace T12 light fixtures with T8 units throughout the school

**Consequences of Deferral:**

High operating and maintenance costs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$182,220	Medium

**Updated:** MAR-12

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

Lumacell and Emergi-lite battery packs and remote heads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	20	MAR-12

**Event:** Replace emergency lighting for 3330 m2/gfa.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$19,759	Unassigned

**Updated:** MAR-12

**D5020.02.03.03 Exit Signs\***

LED exit signs located as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	0	MAR-12

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

Wall packs located around perimeter of school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	MAR-12

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

Photo cell and time clock controlled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	MAR-12

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

Notifier 320C 14 zone fire alarm control panel. Horn strobes are installed. Detection and initiation devices located as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	25	MAR-12

**Event: Install six strobes in wash rooms**

**Concern:**

Wash rooms do not have signal notification.

**Recommendation:**

Install six strobes in wash rooms.

**Consequences of Deferral:**

Possible loss of signal notification in case of fire alarm.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2012	\$3,000	Medium

**Updated:** MAR-12

**Event: Replace fire alarm system for 3330 m2/gfa**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$96,570	Unassigned

**Updated:** MAR-12

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

The building is equipped with a Silent Knight remotely supervised security system, which is connected to motion detectors throughout the corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	25	MAR-12

**Event: Replace intrusion detection system in 3330 m2/gfa**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$33,448	Unassigned

**Updated:** MAR-12

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

The building is equipped with a Simplex master clock system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	0	MAR-12

**D5030.04.01 Telephone Systems\***

Nortel Network telephone system. Handsets in classrooms. Interlocked to public address system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	0	MAR-12

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

WIF and Supernet in school. Cat 5 cabling. 3 Amp hubs and 3 Cisco and Nortel switches.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2002	0	MAR-12

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

Bogen amplifier with 50 channels, radio, tape and CD players. Interlocked to telephone system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	20	MAR-12

**Event: Replace PA System for 3330 m2/gfa**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$10,855	Unassigned

**Updated:** MAR-12



## S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

### E1090.04 Residential Equipment\*

Residential type equipment in use in the building includes small fridges as well as stoves and dishwashers in the teachers lounge.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

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

A wall mounted climbing apparatus is located on the north side of the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-07

### E2010.02 Fixed Casework\*\*

Fixed wooden casework with laminated finishes are typically provided in each classroom in the school. Staff room cabinets, storage room shelving, wood dado to corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	35	MAR-12

#### Event: Replace Casework BOE 3000 m2/gfa

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$264,000	Unassigned

**Updated:** MAR-12

### E2010.03.01 Blinds\*\*

Frame-mounted operable blinds are provided in front of windows, typically in each classroom and office area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	30	MAR-12

#### Event: Replace Blinds BOE 90 m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$9,200	Unassigned

**Updated:** MAR-12

**E2010.03.06 Curtains and Drapes\*\* - stage curtains**

Manually-operated, curtains and drapes are provided on the gymnasium stage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

**Event: Replace Stage Curtains BOE 90 m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$40,000	Unassigned

**Updated:** MAR-12

**E2020.02.03 Furniture\***

Moveable desks, chairs and tables are typically provided in each classroom, including the main office.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1960	0	MAR-12

## S8 SPECIAL ASSESSMENT

### K4010.01 Barrier Free Route: Parking to Entrance\*

No handicapped parking stalls or signage is provided in front of the school or in the paved parking area north of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1960	0	MAR-12

**Event:** Provide Handicapped Parking BOE i BF stall and signage

**Concern:**

Only standard parking stalls are provided along the northeast corner of the property for staff usage. No curb cut-outs are provided along municipal sidewalks.

**Recommendation:**

Provide one barrier-free parking stalls complete with signage in the area closest to the northwest entrance of the school.

**Consequences of Deferral:**

Non-compliance with current barrier-free standards and poor accessibility for handicapped persons.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$2,000	Low

**Updated:** MAR-12

### K4010.02 Barrier Free Entrances\*

Wheelchair accessibility into the building is provided by a wood-framed ramp at the west entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	0	MAR-12

**Event:** Install automatic door operators and ramp handrails BOE 2 doors, handrail 8 lm

**Concern:**

All entrances to the school are manually-operated and provide poor accessibility for handicapped users. The ramp at the main entrance of the school has no handrails

**Recommendation:**

Install automated door-opener at the west main entrance and corresponding vestibule entrance. Install handrails to the existing ramp at the main entrance of the school.

**Consequences of Deferral:**

Non-compliance with current barrier-free standards and poor accessibility for handicapped persons.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$29,000	Low

**Updated:** MAR-12

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

A ramp in the 1965 addition corridor provides wheelchair accessibility to the upper level of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1960	0	MAR-12

**Event: Provide Interior Lifts (2 lifts)**

**Concern:**

Access to the lower level of the school, or the gymnasium stage is not provided for wheelchair users or handicapped persons.

**Recommendation:**

Install barrier-free lifts on a staircase accessing the lower floor, and an additional lift to access the gymnasium stage.

**Consequences of Deferral:**

Non-compliance with current barrier-free standards and poor accessibility for handicapped persons.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$36,000	High

**Updated:** MAR-12

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

None of the washrooms in the building are equipped to accommodate barrier-free usage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1960	0	MAR-12

**Event: Modify Two Washrooms for Barrier Free Usage**

**Concern:**

Washrooms distributed throughout the building are not equipped with barrier-free stalls or accessories.

**Recommendation:**

Provide a uni-sex barrier-free washroom on each floor of the school, complete with appropriate signage, fixtures and accessories.

**Consequences of Deferral:**

Non-compliance with current barrier-free requirements and poor accessibility for handicapped persons.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$30,000	Medium

**Updated:** MAR-12

**K4030.01 Asbestos\***

Suspected asbestos-containing materials identified within the building include drywall joint compound, mechanical pipe insulation and pipe elbows, vinyl floor tiles and the acoustic ceiling tiles. Refer to C3020.07 Resilient Flooring\*\* - 1960

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**K4030.02 PCBs\***

Suspected PCB-containing equipment identified within the building include fluorescent light ballasts and other electrical/transformer equipment. Nothing observed or reported.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**K4030.04 Mould\***

None observed or reported.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)\***

None observed or reported.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1960	0	MAR-12

**K5010.01 Site Documentation\***

Prime Consultant; ARUP DATTA ARCHITECT LTD.

Year of Evaluation: 2011

Site description::

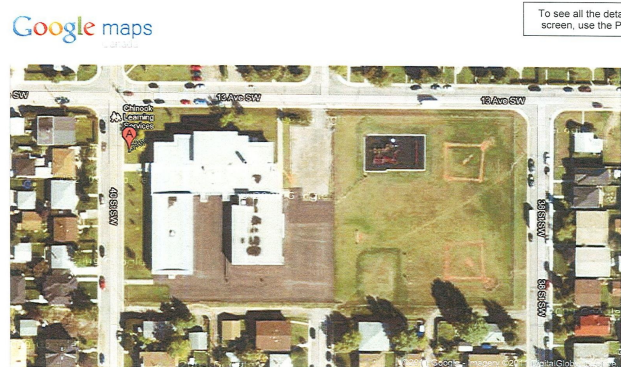
The school is located at the northwest corner of the property. The site features include a graveled parking lot to the northeast of the building and a grassed play field to the east and south of the building. There are concrete sidewalks to each building entrance. The landscaped areas are provided adjacent to the north and west sides of the building. Drainage on landscaped areas is provided by land infiltration and/or overland flow.

Storm water drains to the city from the parking lot and roof drains. Facility is connected to the city water and sewer system. All utilities enter the facility through underground lines The gas enters the facility at the north side meter room.

Power is underground fed from pad mounted transformer owned by the utility. Car receptacles are rail mounted. HPS light standards located over parking and play ground.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2011	0	MAR-12

Rosscarrock School, 40 Street Southwest, Calgary, Alberta - Google Maps



Google site view

**K5010.02 Building Documentation\***

Prime Consultant; ARUP DATTA ARCHITECT LTD.

Year of Evaluation: 2011

Building area evaluated: 3330.1 m2

Building /building sections not evaluated: all areas reviewed

Anomalies regarding evaluation environment, drawings or areas evaluated: - a portion of the southeast wing of the building is used by the Chinook Learning Centre. At time of review the space was not being used.

The Rosscarrock Elementary School is a split level concrete, masonry block and wood-framed structure with a partial basement, originally constructed in 1960 (floor area 2,148.4 m2)  
A concrete and masonry block, two-storey addition was constructed in 1965 on the east side of the original building (floor area 1,181.7 m2). Minor renovations to the building have been done.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2011	0	MAR-12



School front (north)