# **RECAPP Facility Evaluation Report**

**Calgary School District #19** 



**Annie Foote Elementary School** 

B2523A Calgary

# Calgary - Annie Foote Elementary School (B2523A)

# **Facility Details**

Building Name: Annie Foote Elementary Sch

Address: 6320 Temple Drive N. E.

Location: Calgary

Building Id: B2523A

Gross Area (sq. m): 3,904.35

Replacement Cost: \$11,209,000

Construction Year: 1980

# **Evaluation Details**

Evaluation Company: Williams Engineering Canada Inc.

Evaluation Date: September 19 2012

Evaluator Name: WEC - Jennifer Lavier Jankovic

Total Maintenance Events Next 5 years: \$1,226,015 5 year Facility Condition Index (FCI): 10.94%

#### **General Summary:**

Annie Foote Elementary School is a single storey brick building constructed in 1980 with a total gross floor area of 3904 m2. It has a total enrollment of 342, pre-school through grade 6. There are 9 relocatable classrooms with a total area of 841.5 m2, located on the northwest side of the original building. Eight of those classrooms were installed in 1980, with the 2 blocks of 4 separated by an outdoor courtyard. The final relocatable classroom was attached to the north of the east wing later.

# **Structural Summary:**

The perimeter of the building is concrete frost wall and strip footing. Interior columns are on concrete piers on pad footings. The roof is steel deck on open web steel joists supported by steel beams and HSS columns or concrete block bearing walls.

The building structure is generally in acceptable overall condition.

#### **Envelope Summary:**

Exterior walls are brick cavity. There is a T&G wood soffit at the entrance. Windows are double single pane, fixed, in anodized aluminum frames. Exterior doors are painted steel storefront with insulated steel doors at the main entrance. Other exterior doors are insulated steel or solid core wood. The windows are aluminium units consisting of single exterior pane and single interior pane. The original flat roof was being replaced with an SBS membrane at the time of observation. There is a small area of sloped roof at the library clerestory windows, which had previously been replaced with SBS membrane.

The building envelope is generally in good overall condition.

#### **Interior Summary:**

Interior walls are painted concrete block in corridors, gypsum board at fire separations, and demountable at the remainder of the partitions. Interior doors are solid core wood with sidelights in steel frames to classrooms and offices, and hollow steel at service and storage areas. The building has a firewall at the corridor outside the ECS area, and to the 2 relocatable classroom wings with automatic fire doors in the corridors at those locations. Interior flooring is sheet and vinyl tile flooring, with maple sports floor in the gymnasium, quarry tile in entrances and washrooms, and sealed slab on grade concrete in the mechanical room. Celings are generally acoustic tile, replaced in 2008 because of the asbestos content. Other ceilings are painted drywall in washrooms and service rooms, and exposed roof structure in the gymnasium and mechanical room. Millwork typically consists of stained plywood carcass, stained plywood doors and drawer fronts with plastic laminate tops.

The interior finishes are in good condition.

#### **Mechanical Summary:**

Heating system consists of two hot water boilers with perimeter radiation. Ventilation systems: Main system serving classroom and office spaces consists of R/A fan, S/A fan, mixing section, filtration and DX cooling.

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Gymnasium is supplied by two outdoor air handlers and stage area is handled by one. All units have reheat coils inside building.

Overall, the mechanical systems are in acceptable condition.

# **Electrical Summary:**

The main service is rated at 1600A, 120/208V 3-phase, 4-wire. Fluorescent lighting throughout is T-12 with magnetic ballasts. Exit lighting is incandescent. Emergency lighting is fed from battery packs distributed throughout the school. The fire alarm panel is a Simplex 2001. Cat 5 data cabling and wireless is run throughout the school. Most systems, apart from the data and phone switch date to the construction of the school, and will be due for life cycle replacement in the next few years.

Suggestions for upgrade include replacing exit light lamping with LEDs, replacing existing T12 fluorescents with T8 lamping at life cycle replacement, and replacing bells with horn/strobes at life cycle replacement.

Overall, the electrical systems are acceptable.

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\*

Perimeter concrete frost wall on strip footings. Interior pad footings with concrete columns to underside slab on grade base.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# A1030 Slab on Grade\*

Same level slab on grade throughout on compacted gravel base. Moderate cracking where visible in mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Load bearing concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

#### B1010.07 Exterior Stairs\*

Exterior doors are at main entry, northwest and southwest.

RatingInstalledDesign LifeUpdated2 - Poor19800APR-13

# **Event:** Raise landing at north-west exit (1)

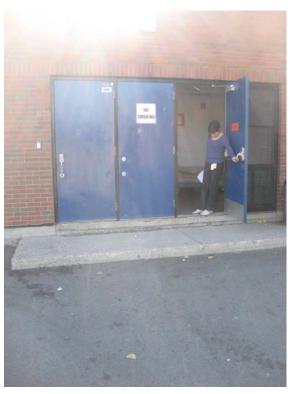
#### Concern:

Northwest doors have step at entry. By Code 3.4.6.10, step may not exceed 150 mm. Grade has evidently settled since installation.

#### **Recommendation:**

Raise landing and asphalt.

TypeYearCostPriorityCode Repair2013\$7,000Low



Landing at northwest entry.

# B1020.01 Roof Structural Frame\*

Steel beams supported by concrete block pilasters or HSS columns supporting open web steel joists supporting metal deck.

Rating	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	0	APR-13

# **S2 ENVELOPE**

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

Brick cavity wall throughout. Some mechanical damage, notably Staff Room window on SE elevation (\$1,000).

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

#### B2010.01.09 Expansion Control: Ext. Wall\*

Brick control joints.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# B2010.01.11 Joint Sealers (caulking): Ext. Wall\*\* - Doors and control joints

Caulking of door frames and brick control joints

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-13

**Event:** Caulk doors and control joints (600 m)

TypeYearCostPriorityLifecycle Replacement2016\$18,000Unassigned

Updated: APR-13

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

Sealants at windows.

RatingInstalledDesign LifeUpdated5 - Good201220APR-13

**Event:** Replace window sealants (160 m)

TypeYearCostPriorityLifecycle Replacement2032\$5,000Unassigned

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

Exterior doors and frames painted. Soffits at main entrance stained.

RatingInstalledDesign LifeUpdated4 - Acceptable198015APR-13

**Event:** Repaint exterior doors, re-finish soffits (10 doors)

TypeYearCostPriorityLifecycle Replacement2016\$4,000Unassigned

Updated: APR-13

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

100 face brick20 air space50 rigid insulation on mastic vapour barrier concrete block

Rating Installed Design Life Updated 1980 0 APR-13

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

Pre-finished metal mechanical louvers. Expanded metal mesh screens at window locations facing recreational play surfaces.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# B2010.09 Exterior Soffits\*

T&G wood soffit at main entrance and 2 others on southeast elevation.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Two single panes of fixed glass with approx. 75 mm air space in anodized aluminum frames.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-13

**Event: Replace windows (29)** 

Concern:

Evidence of bugs, dust and debris between inner and outer panes in a number of locations. Windows are thermally inefficient.

Recommendation: Replace windows.

Consequences of Deferral:

Thermally inefficient building envelope.

TypeYearCostPriorityEnergy Efficiency Upgrade2013\$70,000Medium

**Updated:** APR-13

**Event:** Replace windows (29)

TypeYearCostPriorityLifecycle Replacement2020\$70,000Unassigned

**Updated:** APR-13

#### B2030.01.02 Steel-Framed Storefronts: Doors\*\*

Painted insulated steel doors in steel frames. Sidelights and transoms at main entrance hollow metal insulated doors in generally acceptable condition.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event:** Provide removable astragal to entry (1)

Concern:

Cannot load wide cargo into school.

Recommendation:

Provide removable astragal to front entrance doors.

Type Year Cost Priority
Operating Efficiency Upgrade 2013 \$3,000 Low

**Updated:** APR-13

**Event: Replace Entrance Doors (2)** 

TypeYearCostPriorityLifecycle Replacement2016\$53,897Unassigned

**Updated:** APR-13

# B3010.01 Deck Vapour Retarder and Insulation\*

Original built-up roofing being replaced by SBS roof with 100 mm rigid insulation.

RatingInstalledDesign LifeUpdated5 - Good20120APR-13

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

To be deleted. BUR replaced with SBS in 2012.

RatingInstalledDesign LifeUpdatedN/A198025APR-13

**Event:** Completed - Replace existing Built-up-roof

Concern:

Roofing has exceeded theoretical design life and appears to

be in marginal condition.

Recommendation:

Replace roofing.

**Consequences of Deferral:** 

Risk of moisture infiltration and damage to other school

building materials.

TypeYearCostPriorityFailure Replacement2012\$371,781High

Updated: APR-13

# B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 1994

SBS roof on pop-up element with clerestory providing natural light to Library.

RatingInstalledDesign LifeUpdated4 - Acceptable199425APR-13

Event: Replace SBS roof at Library Pop-Up (120 m2)

TypeYearCostPriorityLifecycle Replacement2019\$21,600Unassigned

Updated: APR-13

## B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 2012

The original flat roof (built-up bituminous roofing) was being replaced with an SBS membrane at the time of observation.

Rating Installed Design Life Updated 5 - Good 2012 25 APR-13

Event: Replace 2012 SBS roof (2,900 m2)

TypeYearCostPriorityLifecycle Replacement2037\$520,000Unassigned

Updated: APR-13

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

Ladder and roof hatch in storage room.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1980	0	APR-13

# S3 INTERIOR

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

Steel stud and rated gypsum board at interior partitions requiring fire-resistance rating.

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

# C1010.01 Interior Fixed Partitions\* - Unit Masonry Assemblies

Painted concrete block corridor walls.

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

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

Vinyl clad demountable partitions throughout where no fire separations required.

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

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

Folding partition between Ancillary Art Room (formerly stage) and gymnasium is standard panel folding door. Masonite has been added on Gymnasium side to provide additional durability.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event: Replace folding door between Gymnasium and** 

Ancillary Art Room (27 m2)

TypeYearCostPriorityLifecycle Replacement2016\$33,000Unassigned

Updated: APR-13

#### C1010.05 Interior Windows\*

Interior windows can be found in demountable partitions in Library area and General Office area, in display case elements in corridor, as sidelights at door locations.

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

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

Steel storefront type section at North End of Library area overlooking corridor.

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

# C1010.07 Interior Partition Firestopping\*

Firestopping at vertical fire separations.

RatingInstalledDesign LifeUpdated3 - Marginal19800APR-13

# **Event:** Review fire-stopping requirements for penetrations through concrete block wall at Mechanical Room

#### Concern:

Penetrations not sealed between mechanical room and corridor ceiling space.

## **Recommendation:**

Provide fire rated sealant and backing for penetrations.



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TypeYearCostPriorityRepair2012\$1,500High

**Updated:** APR-13

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

Clear finish solid core wood in steel frames. Sidelights at classrooms. Steel fire-rated doors at service and storage rooms.

RatingInstalledDesign LifeUpdated3 - Marginal19800APR-13

# **Event:** Repair damaged door surfaces and refinish (8)

#### Concern:

Door surfaces damaged in some locations.

# Recommendation:

Repair and re-finish doors.

TypeYearCostPriorityRepair2013\$3,200Low

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

Pairs of corridor fire doors at firewalls with alarm-activated closers at three locations: each corridor to relocatable classrooms; corridor at ECS.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# C1020.04 Interior Sliding and Folding Doors\*

A number of accordion doors can be found in the school; ECS classroom, 3 pairs of classrooms elsewhere, the gymnasium, staff room, and at a pass through from kitchen to classroom which was once was a lunchroom. Gymnasium door is in the worst condition, patched at several locations.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# **Event:** Replace gymnasium divider (120 m2)

#### Concern:

Existing door is in poor condition, difficult to operate.

#### Recommendation:

A lightweight vinyl/mesh partition will be easier to position when division of gymnasium is desirable.

Type Year Cost Priority
Operating Efficiency Upgrade 2013 \$7,500 Low

Updated: APR-13

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

Whiteboards, tack boards and chalkboards in classrooms.

Rating Installed Design Life Updated
5 - Good 1980 20 APR-13

#### **Event:** Replace visual display boards (10 classrooms)

TypeYearCostPriorityLifecycle Replacement2016\$50,873Unassigned

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

Prefinished steel with aluminium head reinforcement channel. Two sets of boys/girls.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event:** Replace toilet partitions (16)

TypeYearCostPriorityLifecycle Replacement2016\$20,800Unassigned

**Updated:** APR-13

# C1030.08 Interior Identifying Devices\*

Plastic room number and teacher name.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# C1030.12 Storage Shelving\*

Clear finished wood shelving in library, classrooms, administration, and service rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Soap dispensers, paper towel dispensers, toilet tissue dispensers, wall hung mirrors.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

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

2 stairs to ancillary art room (former stage) at gymnasium. Vinyl with rubber nosings.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-13

Event: Replace stair finishes (5 m2)

TypeYearCostPriorityLifecycle Replacement2016\$1,000Unassigned

**Updated:** APR-13

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

A mosaic tile can be found in what was originally built as a shower area across from the Gymnasium. This space is now used as storage. A quarry tile is used as a wall finish around the urinals in the boys washroom areas.

RatingInstalledDesign LifeUpdated5 - Good198040APR-13

Event: Replace tile surround at urinals and in shower area

(80 m2)

TypeYearCostPriorityLifecycle Replacement2020\$22,533Unassigned

Updated: APR-13

## C3010.11 Interior Wall Painting\*

Painted concrete block and gypsum board. Some of the vinyl clad demountable partitions have been painted over.

RatingInstalledDesign LifeUpdated5 - Good19800APR-13

# C3010.12 Wall Coverings\*

Vinyl coated fabric on demountable partitions can be found throughout the school. Some of the vinyl has been painted over while some is original finish.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

# C3020.01.01 Epoxy Concrete Floor Finishes\*

Sealed concrete floor in Mechanical Room.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Quarry tile at entrances, washrooms, high traffic corridor, and former locker rooms now workrooms/classrooms.

RatingInstalledDesign LifeUpdated5 - Good198050APR-13

Event: Replace quarry tile (280 m2)

TypeYearCostPriorityLifecycle Replacement2030\$78,862Unassigned

**Updated:** APR-13

# C3020.04 Wood Flooring\*\*

Maple sports flooring in gymnasium. Re-sanded 2010.

RatingInstalledDesign LifeUpdated5 - Good198030APR-13

**Event:** Replace gymnasium floor (425 m2)

TypeYearCostPriorityLifecycle Replacement2016\$106,000Unassigned

**Updated:** APR-13

# C3020.07 Resilient Flooring\*\* - Classrooms and administration

Vinyl tile in classrooms and administration.

RatingInstalledDesign LifeUpdated5 - Good200220APR-13

Event: Replace vinyl tile - classroooms and

administration (1200 m2)

TypeYearCostPriorityLifecycle Replacement2022\$66,000Unassigned

# C3020.07 Resilient Flooring\*\* - Corridors, etc.

Vinyl composite tile in corridors. Sheet vinyl in ancillary art room.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-13

**Event: Replace resilient sheet flooring at Ancillary Art** 

Room (72 m2)

Concern:

Patches, lifting in areas, and generally overall marginal

condition.

Recommendation:

Replace existing sheet flooring.

TypeYearCostPriorityFailure Replacement2013\$5,800Low

**Updated:** APR-13

Event: Replace resilient tile flooring in corridors (290 m2)

TypeYearCostPriorityLifecycle Replacement2016\$17,400Unassigned

Updated: APR-13

C3020.07 Resilient Flooring\*\* - Library and science

Vinyl tile in library and science classroom.

RatingInstalledDesign LifeUpdated5 - Good201120APR-13

Event: Replace vinyl tile in library and science (260 m2)

TypeYearCostPriorityLifecycle Replacement2031\$14,300Unassigned

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

Carpet in Conference and Counseling.

RatingInstalledDesign LifeUpdated3 - Marginal198015APR-13

**Event:** Replace carpet in conference and counselling

rooms (25 m2)

Concern:

Carpet is pulling apart at the seams and showing wear.

Recommendation:

Carpet should be replaced in both the conference and

counselling rooms.

**Consequences of Deferral:** 

Further deterioration could lead to condition where carpet is a

tripping hazard.

TypeYearCostPriorityFailure Replacement2013\$1,800Medium

Updated: APR-13

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

Original ceiling tiles were removed due to asbestos content. Re-roofing in progress at time of observations, which has caused staining from leaks in localized areas.

RatingInstalledDesign LifeUpdated5 - Good200825APR-13

Event: Replace suspended T-bar ceilings (1400 m2)

TypeYearCostPriorityLifecycle Replacement2033\$56,387Unassigned

Updated: APR-13

# C3030.07 Interior Ceiling Painting\*

Painted gypsum board ceilings in washrooms and storage.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# S4 MECHANICAL

#### D2010.04 Sinks\*\*

20 stainless steel general purpose sinks and 1 wall hung cast iron Janitor Service Sink.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event:** Replace Sinks (15 Stainless, 1 Cast Iron)

TypeYearCostPriorityLifecycle Replacement2016\$25,700Unassigned

Updated: APR-13

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

3 wall hung Vitreous China drinking fountains.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-13

**Event:** Replace Drinking Fountains (4)

TypeYearCostPriorityLifecycle Replacement2016\$6,600Unassigned

Updated: APR-13

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

21 wall hung Vitreous China Lav's.

21 exposed flush valve Vitreous China WC's.

7 floor mounted Vitreous China recessed Urinals.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-13

Event: Replace Washroom Fixtures (21 WC, 21 Lav, 7

Urnl)

TypeYearCostPriorityLifecycle Replacement2016\$85,400Unassigned

Updated: APR-13

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

100mm incoming water supply, 50mm water meter

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

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

Gate and globe vales on domestic water lines.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-13

**Event:** Replace Valves (20)

TypeYearCostPriorityLifecycle Replacement2020\$3,800Unassigned

**Updated:** APR-13

# D2020.01.03 Piping Specialties (Backflow Preventers)\*\*

There is a 4" main water line from the city that leads to 2, 2" backflow preventers.

RatingInstalledDesign LifeUpdated4 - Acceptable200020APR-13

**Event:** Replace backflow preventors (2)

TypeYearCostPriorityLifecycle Replacement2020\$6,500Unassigned

**Updated:** APR-13

## D2020.01.08 Hose Bibbs\*

2 exterior, key operated hose bibbs.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

The system is fitted with 2 Armstrong 25D 4030 pumps, rated at 3hp. Pump 1 has a newer GE motor and pump 2 has an older Leeson motor.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-13

**Event: Replace Plumbing Pumps (2)** 

TypeYearCostPriorityLifecycle Replacement2016\$1,600Unassigned

Updated: APR-13

#### D2020.02.06 Domestic Water Heaters\*\*

The school has 1 John Wood, JWJ0S36FV-04, 50USG, 30 MBTU self contained hot water heater, gas fired.

RatingInstalledDesign LifeUpdated4 - Acceptable200620APR-13

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

TypeYearCostPriorityLifecycle Replacement2026\$2,000Unassigned

**Updated:** APR-13

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

Sanitary sewers to municipal system.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# D2030.02.04 Floor Drains\*

Typical cast iron drains with iron strainers. Located throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Storm sewers to municipal system.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

## D2040.02.04 Roof Drains\*

Typical cast iron body roof drains with strainers.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

## D3010.02 Gas Supply Systems\*

Iron piping from meter to boilers and water heater.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Two hot water boilers, both are Bryan CL-150W 1350 BTUH with three heating pumps, all 3Hp. One to circulate boiler and two to handle perimeter radiation system.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-13

**Event: Replace 2 Boilers and 3 Pumps** 

TypeYearCostPriorityLifecycle Replacement2016\$116,500Unassigned

**Updated:** APR-13

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

The chimneys are galvanized steel, with fiberglass insulation. The 2 separate chimneys from the boilers and the 1 chimney from the hot water heater combine into 1 before exiting through the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-13

Event: Replace Chimneys (30m)

TypeYearCostPriorityLifecycle Replacement2016\$20,700Unassigned

Updated: APR-13

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

Water treatment program in place. The school is using MD4102 chemical treatment through a feeder.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Roof mounted air cooled condenser/compressor unit. The unit is a Carrier 38AE054510, filled with R22.

RatingInstalledDesign LifeUpdated4 - Acceptable198025APR-13

**Event:** Replace Condensing Units (1)

TypeYearCostPriorityLifecycle Replacement2016\$12,500Unassigned

Updated: APR-13

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

Main air handling system, a Trane climate changer, to serve the entire building except the Gym. System consists of R/A fan, S/A fan, mixing section, filtration and DX cooling.

Gym area handled by two outdoor air handlers and stage area handled by one outdoor unit(Lennox LCA036SN1Y). All units have reheat coils inside building. They gym units were caged off due to the roofers and could not be accessed.

Rating Installed Design Life Updated 4 - Acceptable 1980 30 APR-13

**Event:** Replace Air Handling Units (4)

TypeYearCostPriorityLifecycle Replacement2016\$152,700Unassigned

Updated: APR-13

## D3040.01.04 Ducts: Air Distribution\*

Air is distributed through the school through typical low velocity galvanized steel ductwork.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Exhaust grills are typical egg crate type.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Iron piping located throughout the building to deliver hot water to the baseboard heaters.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-13

**Event: Replace Hot Water Distribution Systems (3,063m2)** 

gfa)

TypeYearCostPriorityLifecycle Replacement2020\$304,200Unassigned

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

There are several roof top mounted exhaust fans servicing several different areas of the school.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event:** Replace exhaust fans (3,063 m2 gfa)

TypeYearCostPriorityLifecycle Replacement2016\$56,200Unassigned

Updated: APR-13

# D3040.04.03 Ducts: Exhaust\*

Typical low velocity galvanized steel ductwork.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Typical eggcrate style exhaust.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

#### D3050.02 Air Coils\*\*

Direct expansion coil.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event: Replace Air Coils (1)** 

TypeYearCostPriorityLifecycle Replacement2016\$7,000Unassigned

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

Spray coil in main air handling system.

RatingInstalledDesign LifeUpdated4 - Acceptable198025APR-13

**Event: Replace Humidifiers (1)** 

TypeYearCostPriorityLifecycle Replacement2016\$11,900Unassigned

**Updated:** APR-13

# D3050.05.03 Finned Tube Radiation\*\*

Baseboard heating for perimeter heating is located throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-13

**Event:** Replace Finned Tube Radiation (3,063m2 gfa)

TypeYearCostPriorityLifecycle Replacement2020\$149,800Unassigned

**Updated:** APR-13

#### D3050.05.06 Unit Heaters\*\*

Hot water unit heater used to heat combustion air in mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event: Replace Unit Heater (1)** 

TypeYearCostPriorityLifecycle Replacement2016\$3,500Unassigned

**Updated:** APR-13

# D3060.02.02 Pneumatic Controls\*\*

Barber Coleman pneumatic control system.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-13

Event: Repalce pneumatic controls (3,063m2 gfa)

TypeYearCostPriorityLifecycle Replacement2020\$46,800Unassigned

Updated: APR-13

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

DDC system consists of timer controls for HVAC equipment and basic on/off settings controlled via temperature sensors. Brand unknown.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event: Replace HVAC Instrumentation and Controls** 

(3,063m2 gfa)

TypeYearCostPriorityLifecycle Replacement2016\$84,300Unassigned

**Updated:** APR-13

D4010 Sprinklers: Fire Protection\*

Sprinklers only in gymnasium stage area. Street fire hydrant available. No siamese connection.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Hand held extinguishers throughout building.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# S5 ELECTRICAL

#### D5010.01 Main Electrical Transformer (Utility Owned)\*

The main Electrical transformer is owned by Enmax rated 1600A. Tag number:35E-418. Last tested on 08/2004

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-13

Capacity Size Capacity Unit amps

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

1600A, 120/208V, 3-phase, 4-wire FPE MDP Peak load at ~500A - plenty of capacity. Room for future additions.

RatingInstalledDesign LifeUpdated4 - Acceptable198040FEB-08

Capacity Size Capacity Unit amps

**Event:** Replace Main Electrical Switchboards (Main

**Distribution**)

TypeYearCostPriorityLifecycle Replacement2020\$61,888Unassigned

Updated: APR-08

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

Typical FPE 42 cct, 225A panelboards (NBLP 42-4L) 0-15% spaces typical.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

# Event: Replace Electrical Branch Circuit Panelboards (11)

TypeYearCostPriorityLifecycle Replacement2016\$54,604Unassigned

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

Typical Westinghouse loose starters.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-13

**Event:** Replace motor starter mcc 4 sections

TypeYearCostPriorityLifecycle Replacement2016\$27,250Unassigned

**Updated:** APR-13

# D5020.01 Electrical Branch Wiring\*

Wire in conduit.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

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

Typical line voltage switching. 2-3 levels in classrooms. Low voltage switching in library.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

# D5020.02.02.02 Interior Fluorescent Fixtures\*\*

T8 lamping throughout.

Recessed, lensed 2x4s typical for classrooms, 1x4s in corridor.

RatingInstalledDesign LifeUpdated5 - Good201030APR-13

**Event:** Replace Interior Fluorescent Fixtures (450)

Fluorescent lamps)

TypeYearCostPriorityLifecycle Replacement2040\$112,500Unassigned

**Updated:** APR-13

## D5020.02.02.03 Interior Metal Halide Fixtures\* - Gymnasium

16 Pendants in gymnasium.

RatingInstalledDesign LifeUpdated5 - Good20100APR-13

#### D5020.02.02.03 Interior Metal Halide Fixtures\* - Library (2010)

The old incandescent fixtures in the library is upgraded to 6 new metal halide fixtures in the library

RatingInstalledDesign LifeUpdated4 - Acceptable20100APR-13

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

Battery packs distributed throughout school.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-13

**Event: Replace Emergency Lighting Battery Packs (10)** 

TypeYearCostPriorityLifecycle Replacement2016\$12,140Unassigned

Updated: APR-13

# D5020.02.03.03 Exit Signs\*

Exit sign lamps are upgraded to LED lamping.

RatingInstalledDesign LifeUpdated4 - Acceptable20100APR-13

# D5020.02.05 Special Purpose Lighting\*

Spotlights/stage lighting in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Wall packs around perimeter, recessed downlights at front entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

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

Time clock control.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

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

Fire alarm system has been replaced to Simplex 4006 panel. It has been inspected on April 2012. Pull stations at exit doors. Heat detectors in storage rooms. Smoke detectors and hold-opens at fire doors. The New Electronic bells with Flashing strobes are installed throughout the school.

RatingInstalledDesign LifeUpdated5 - Good201025APR-13

Event: Replace Detection and Fire Alarm (gfa 3,063 sqm)

TypeYearCostPriorityLifecycle Replacement2035\$103,000Unassigned

**Updated:** APR-13

# D5030.02.02 Intrusion Detection\*\*

Motion detectors throughout.

Regency panel with keyswitch at entrance for disarming.

Monitored off-hours.

RatingInstalledDesign LifeUpdated4 - Acceptable199525APR-13

**Event: Replace Intrusion Detection (gfa 3,063 sqm)** 

TypeYearCostPriorityLifecycle Replacement2020\$93,600Unassigned

Updated: APR-13

## D5030.03 Clock and Program Systems\*

Simplex Program/Timer for class signal.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

#### D5030.04.01 Telephone Systems\*

Meridian phone switch.

RatingInstalledDesign LifeUpdated4 - Acceptable19950FEB-08

# D5030.04.05 Local Area Network Systems\*

Cat 5 cabling in conduit.
Rack in poorly-ventilated space.
Wired and wireless data throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable19950APR-13

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

Bogen MCP 35A P/A amplifier. Tied in to phone switch, music.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-13

**Event: Replace Public Address (1) and Music Systems (1)** 

TypeYearCostPriorityLifecycle Replacement2016\$5,453Unassigned

**Updated:** APR-13

# D5030.06 Television Systems\*

TV drops in select locations. Not in use

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

# **S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**

# E1090.04 Residential Equipment\*

Residential quality refrigerators, ranges, microwave and dishwasher in the staff room and kitchen area (seldom used) located off classroom formerly used as lunchroom.

RatingInstalledDesign LifeUpdated5 - Good20100APR-13

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

Gymnasium. Six basketball backboards (retractable at stage), floor sockets and nets.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

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

Clear sealed plywood frames, drawer fronts and doors, with plastic laminate countertops.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-13

#### Event: Repair plastic laminate and wood finish (5% of gfa)

#### Concern:

There are a number of pieces where the clear seal finish is completely worn away. There are cases in the countertops where the plastic laminate is delaminating from substrate or where the backsplash is pulling away from base cabinet and/or block wall behind.

# Recommendation:

Repair and refinish select pieces of millwork.

TypeYearCostPriorityRepair2013\$11,266Low

**Updated:** APR-13

Event: Replace fixed casework (2115 m2 gfa)

TypeYearCostPriorityLifecycle Replacement2016\$206,432Unassigned

Updated: APR-13

## E2010.03.01 Blinds\*\*

Many windows in the school appear to have no blinds. There are vertical type blinds in the General Office area and metal venetian blinds can be found at a number of classroom window locations.

RatingInstalledDesign LifeUpdated5 - Good200730APR-13

**Event: Replace blinds (29 windows)** 

TypeYearCostPriorityLifecycle Replacement2037\$12,000Unassigned

**Updated:** APR-13

# F1040.06 Other Special Facilities\* - Kiln

A kiln for firing pottery was located in one of the storage rooms off the Ancillary Art Room on the former stage area.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1980	0	APR-13

# **S8 SPECIAL ASSESSMENT**

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

Parking area is paved.

No designated parking for disabled persons has been provided.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

**Event:** Provide designated barrier free parking stall and

<u>signage.</u>

Concern:

No barrier free parking stall was noted during the time of the evaluation.

Recommendation:

Provide for a barrier free parking stall including signage.

TypeYearCostPriorityBarrier Free Access Upgrade 2013\$5,633Low

Updated: APR-13

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

Main entrance doors south east side.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

Event: Install power door operators at main entrance

doors (2)

Concern:

Main Entrance doors are not equipped with power door operator.

Recommendation:

Install power door operators.

**Consequences of Deferral:** 

Physically challenged individuals may not be able to participate in activities within this school building.

Type Year Cost Priority
Barrier Free Access Upgrade 2013 \$14,251 High

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

School is accessible with the exception of the Ancillary Art Room (formerly Stage area) and rarely used, which has access by stairs only on either side. Classroom door latches are globe style.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

**Event: Provide lever latchsets (16 doors)** 

Concern:

Latch sets to classrooms and administration are globe design, requiring grasping.

Recommendation:

Replace door hardware on barrier-free route to lever handles.

TypeYearCostPriorityBarrier Free Access Upgrade2013\$4,800Low

Updated: APR-13

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

No barrier free washroom is provided in this facility.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

**Event:** Provide barrier-free washroom.

Concern:

No barrier free washroom exists within the school.

Recommendation:

Convert an existing space within the school into a barrier free washroom.

TypeYearCostPriorityBarrier Free Access Upgrade2013\$11,266Low

**Updated:** APR-13

## K4030.01 Asbestos\*

Calgary Board of Education (CBE) audited all facilities for asbestos. Acoustic tile ceilings were all removed and replaced in 2008. It is assumed that all materials containing hazardous levels of asbestos have been replaced.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-13

## K4030.04 Mould\*

None reported nor observed during the course of the evaluation.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

# K4030.09 Other Hazardous Materials\*

None observed nor reported during the course of the evaluation.

RatingInstalledDesign LifeUpdated4 - Acceptable19800FEB-08

# K5010.01 Site Documentation\*

Site plan attached.

Prime Consultant: Williams Engineering Canada Inc.

Site Review Date: September 19, 2012.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	2012	0	APR-13



Site plan

# K5010.02 Building Documentation\*

Floor plan attached.

Prime Consultant: Williams Engineering Canada Inc. Site Review Date: September 19, 2012.

<u>Rating</u>	<u>Installed</u>	<b>Design Life</b>	<b>Updated</b>
4 - Acceptable	2012	0	APR-13



Floor Plan