RECAPP Facility Evaluation Report

Edmonton School District No. 7



Riverdale Elementary School

B3263A Edmonton

Edmonton - Riverdale Elementary School (B3263A)

Facility Details

Building Name: Riverdale Elementary Schoo

Address: 8901 - 101 Avenue

Location: Edmonton

Building Id: B3263A

Gross Area (sq. m): 1,633.90

Replacement Cost: \$3,561,040

Construction Year: 1923

Evaluation Details

Evaluation Company: A&E Architectural & Engineering Group

Inc.

Evaluation Date: June 25 2008 **Evaluator Name:** Vic Maybroda

Total Maintenance Events Next 5 years: \$550,550 5 year Facility Condition Index (FCI): 15.46%

General Summary:

Riverdale Elementary School is a two story facility constructed in 1923 housing 1317 sq. M in area. In 1971 an attached single story gymnasium containing 316.1 sq. M was added.

The school contains 4 classrooms, a kindergarten, a before and after school daycare area, a library, a computer room, a science room, a music room, a gymnasium, administration and ancillary support spaces.

An asbestos building material survey report was submitted on 15 December 2000.

At the time of the site visit there were 87 enrolled students.

Structural Summary:

The 1923 section consists of wood roof trusses, concrete floor slabs and load bearing concrete block walls with isolated metal columns providing support for the second floor in the corridor adjacent administration spaces.

The 1971 section consists of pre-cast concrete roof, walls and mezzanine floor with a concrete slab on grade floor.

Overall the structural elements appear to be in acceptable condition.

Envelope Summary:

The 1923 section consists of modified bitumen roofing with a rectangular skylight, face brick finished walls with sealed fixed and opening windows in vinyl frames and painted wood doors containing sealed glazing units in steel frames. The 1971 section is composed of the original built-up asphalt roof, painted pre-cast concrete walls with painted wood fascia panels and painted wood exterior doors containing sealed glazing units in metal frames.

Overall the exterior elements are in acceptable condition.

Interior Summary:

The 1923 section consist of sheet vinyl and carpeting flooring located in classrooms library, computer room, corridors and administration spaces, terrazzo in washrooms with rubber tile located in entry vestibules and stairways and painted concrete flooring in the mechanical room spaces.

Walls are painted plaster and gypsum wallboard with painted wood dados and baseboards. Ceilings are finished with suspended acoustical tile and painted gypsum wallboard. Wood doors containing glazed panels are painted in wood frames

Millwork consists of plastic laminated counter tops and painted storage shelving and cabinetry.

The 1971 section consist of wood strip gymnasium flooring, terrazzo in washrooms, sheet vinyl in support spaces with exposed concrete in the main floor level mechanical space and plywood flooring in the mezzanine area.

Walls and ceilings are painted with stained wood strip panels located on gymnasium walls. Painted wood doors are housed in metal frames.

Overall the interior elements appear to be in acceptable condition.

Mechanical Summary:

The school is heated by two (2) Raypak hot water boilers. The hot water is used to provide heat with the use of finned tube perimeter heating. A glycol/water heat exchanger is utilized to provide the school with glycol water for the air handling unit. The core of the school is ventilated by a glycol water air handling unit. The gymnasium is heated and ventilated by a gas fired furnace. The school has two (2) domestic water heaters. The school is complete with an electronic control system that is complete with thermal sensors in each individual classroom and is coupled to the DDC system for remote monitoring and operation of the school. Due to the 1998 modernization of the school, the mechanical system of the school is in acceptable to good condition.

Electrical Summary:

The originally school facility was built in 1923 and the 1st added addition classroom in 1971. The electrical service to the school is underground with pad mounted transformer in the south west corner of the school. The main electrical distribution is 120/208V, 3 phase, 4 wire, 400A installed in 1923 with a electrical panel upgrade in 1993 and 1998. Electrical Modifications:

- 1981 Fire code upgrading
- 1983 Provide electrical outlet in kitchen
- 1993 Upgrade electrical
- 1998 Electrical Systems Modernization
- 2004 Fire code upgrade
- 2005 Replacement of corridor ballasts
- 2007 Repaired telephone

Overall the electrical system in the building is in "Good" condition.

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

S1 STRUCTURAL

A1010 Standard Foundations - 1923 Section*

Cast in place concrete walls and strip footings.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

A1010 Standard Foundations - 1971 Section*

Cast in place concrete with strip footings.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

A1030 Slab on Grade - 1923 Section*

Cast in place concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

A1030 Slab on Grade - 1971 Section*

Cast in place concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

B1010.01 Floor Structural Frame (Building Frame) - 1923 Section*

Cast in place concrete 2nd floor beams and steel columns.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1923 Section*

Brick masonry and concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1971 Section*

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

B1010.03 Floor Decks, Slabs, and Toppings - 1923 Section*

Cast in place 2nd floor slab.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

B1010.05 Mezzanine Construction - 1971 Section*

Plywood floor on wood joists.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

B1010.07 Exterior Stairs - 1923 Section*

Cast in place concrete at main entry.

RatingInstalledDesign LifeUpdated4 - Acceptable192340MAR-09

B1020.01 Roof Structural Frame - 1923 Section*

Wood sheathing and wood trusses.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

B1020.01 Roof Structural Frame - 1971 Section*

Precast concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

S2 ENVELOPE

B2010.01.01 Precast Concrete: Exterior Wall Skin - 1971 Section*

All elevations.

RatingInstalledDesign LifeUpdated4 - Acceptable197175MAR-09

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1923 Section*

All elevations.

RatingInstalledDesign LifeUpdated4 - Acceptable192375MAR-09

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1923 Section**

Located around all exterior openings.

RatingInstalledDesign LifeUpdated4 - Acceptable192320MAR-09

Event: Replace 360 M Joint Sealers (caulking): Ext. Wall**

- 1923 Section]

TypeYearCostPriorityLifecycle Replacement2012\$10,100Unassigned

Updated: MAR-09

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1971 Section**

Located around all exterior wall openings.

RatingInstalledDesign LifeUpdated4 - Acceptable197120MAR-09

Event: Replace 180M Joint Sealers (caulking): Ext. Wall**

- 1971 Section]

TypeYearCostPriorityLifecycle Replacement2012\$5,000Unassigned

Updated: MAR-09

B2010.02.02 Precast Concrete: Ext. Wall Const. - 1971 Section*

Located on all elevations.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

B2010.02.03 Masonry Units: Ext. Wall Const. - 1923 Section*

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1923 Section*

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1971 Section*

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

B2010.06 Exterior Louvers, Grilles, and Screens - 1923 Section*

Prefinished metal louvres and painted metal screens over windows adjacent outdoor play spaces.

RatingInstalledDesign LifeUpdated5 - Good19230MAR-09

B2020.01.01.06 Vinyl, Fibreglass & Plastic Windows** -1923 Section

Sealed fixed and opening units in prefinished vinyl frames.

RatingInstalledDesign LifeUpdated5 - Good199840MAR-09

Event: Replace 39 Window Units

TypeYearCostPriorityLifecycle Replacement2038\$58,500Unassigned

Updated: MAR-09

B2030.01.10 Wood Entrance Door - 1923 Section**

Painted wood with plywood covered glazing units in painted metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable192330MAR-09

Event: Replace 2 Entry Doors

TypeYearCostPriorityLifecycle Replacement2012\$4,000Unassigned

Updated: MAR-09

B2030.01.10 Wood Entrance Door - 1971 Section**

Painted wood with sealed glazing units in painted metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable197130MAR-09

Event: Replace 4 Entry Doors

TypeYearCostPriorityLifecycle Replacement2012\$6,000Unassigned

Updated: MAR-09

B2030.02 Exterior Utility Doors - 1923 Section**

Painted wood containing sealed glazing units in metal frame.

RatingInstalledDesign LifeUpdated4 - Acceptable192340MAR-09

Event: Replace 2 Exterior Utility Doors** - 1923 Section

TypeYearCostPriorityLifecycle Replacement2012\$4,000Unassigned

Updated: MAR-09

B3010.01 Deck Vapor Retarder and Insulation - 1923 Section*

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19880MAR-09

B3010.01 Deck Vapor Retarder and Insulation - 1971 Section*

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)** - 1971 Section

Built-up asphalt roofing over gymnasium and vestibule connector.

RatingInstalledDesign LifeUpdated4 - Acceptable197125MAR-09

Event: Replace 315 sq. M Built-up Asphalt Roofing

TypeYearCostPriorityLifecycle Replacement2012\$67,700Unassigned

Updated: MAR-09

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 1923 Section

SBS membrane roofing with exposed felts.

RatingInstalledDesign LifeUpdated3 - Marginal198825MAR-09

Event: Replace 725 sq. M SBS Roofing

Concern:

Granular surface worn to expose roof felts leading to potential for roof failure.

Recommendation:

Replace SBS membrane roofing.

TypeYearCostPriorityFailure Replacement2009\$137,500Medium

Updated: MAR-09



View of SBS roof.

B3020.01 Skylights**

Rectangular doomed skylight over library/computer room.

RatingInstalledDesign LifeUpdated5 - Good199825MAR-09

Event: Replace One Doomed Skylight

TypeYearCostPriorityLifecycle Replacement2013\$2,500Unassigned

Updated: MAR-09

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

Roof drains and plumbing and exhaust vents.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1923	0	MAR-09

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions - Both sections

Concrete block

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

C1010.01.07 Framed Partitions (Stud) -

Located in administration area and in classroom storage spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

C1010.05 Interior Windows - *

1200mm x 1200mm glazing units in painted metal frames to general office from adjacent corridor.

RatingInstalledDesign LifeUpdated5 - Good19230MAR-09

C1020.01 Interior Swinging Doors (& Hardware) - * Both sections

Painted wood doors in metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable192340MAR-09

C1020.03 Interior Fire Doors*

8 fire rated doors in metal frames separating 1923 section and 1971 section.

RatingInstalledDesign LifeUpdated4 - Acceptable199850MAR-09

C1030.01 Visual Display Boards - **

White boards and tack boards in teaching and administration spaces.

RatingInstalledDesign LifeUpdated5 - Good199820MAR-09

Event: Replace 32 Visual Display Boards**

TypeYearCostPriorityLifecycle Replacement2012\$25,600Unassigned

Updated: MAR-09

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

Located in washroom spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable192330MAR-09

Event: Replace 11 Fabricated

Compartments(Toilets/Showers)** -]

TypeYearCostPriorityLifecycle Replacement2012\$15,500Unassigned

Updated: MAR-09

C1030.06 Handrails - *

Painted metal.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

C1030.08 Interior Identifying Devices - * Both Sections

Room names and accompanying door numbers.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

Event: Install 20 Room Names and Door Numbers

Concern:

Wayfinding and door maintenance compromised.

Recommendation:

Install room names and accompanying door numbers.

Type Year Cost Priority
Operating Efficiency Upgrade 2009 \$2,000 Low

Updated: MAR-09

C1030.12 Storage Shelving - *

Painted wood.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

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

Toilet paper and waste paper dispensers, mirrors and waste containers.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

C2010 Stair Construction*

Cast in place concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable1923100MAR-09

C2020 Stair Finishes

Rubber floor tile.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

C3010.02 Wall Paneling - ** - 1923 Section

Painted wood dado in vestibule adjacent to general office.

RatingInstalledDesign LifeUpdated5 - Good192330MAR-09

Event: Replace 25 sq. M Wall Paneling**

TypeYearCostPriorityLifecycle Replacement2012\$3,200Unassigned

Updated: MAR-09

C3010.02 Wall Paneling** - 1971 Section

Stained wood strip panels located in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable197130MAR-09

Event: Replace 110 sq M Wood Strip Wall Paneling

TypeYearCostPriorityLifecycle Replacement2012\$13,750Unassigned

Updated: MAR-09

C3010.11 Interior Wall Painting - * Both Sections

Painted gypsum wallboard and concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable199810MAR-09

C3020.01.02 Paint Concrete Floor Finishes - * Both Sections

Located in mechanical room spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable199810MAR-09

C3020.03 Terrazzo Floor Finishes - *

Located in main and 2nd floor washroom areas containing minor cracks.

RatingInstalledDesign LifeUpdated4 - Acceptable192375MAR-09

C3020.04 Wood Flooring**

Wood strip floor located in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable199230MAR-09

Event: Replace 223 sq. M Wood Strip Flooring

TypeYearCostPriorityLifecycle Replacement2023\$64,500Unassigned

Updated: MAR-09

C3020.07 Resilient Flooring - ** - Both Sections

Sheet vinyl flooring located in classrooms, corridors and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable199820MAR-09

Event: Replace 458 sq. M Resilient Flooring**

TypeYearCostPriorityLifecycle Replacement2012\$43,000Unassigned

Updated: MAR-09

C3020.08 Carpet Flooring - **

Located in classrooms, library, computer room and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable199815MAR-09

Event: Replace 550 sq. M Carpet Flooring**

TypeYearCostPriorityLifecycle Replacement2012\$34,000Unassigned

Updated: MAR-09

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

Located in computer room, main entry corridor and administration spaces.

RatingInstalledDesign LifeUpdated5 - Good199825MAR-09

Event: Replace 168 sq. M Acoustic Ceiling Treatment

(Susp.T-Bar)** -]

TypeYearCostPriorityLifecycle Replacement2023\$7,500Unassigned

Updated: MAR-09

C3030.07 Interior Ceiling Painting - * Both Sections

Painted gypsum wallboard located in classrooms, library, washrooms and ancillary spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable199820MAR-09

D1010 Elevators and Lifts

Powered chair lift to west stairway between main and 2nd floor.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

S4 MECHANICAL

D2010.04 Sinks - **

The school is equipped with the following sinks:

Seven (7) single compartment, stainless steel sinks complete with bubbler and metering faucet.

One (1) double compartment, stainless steel sink complete with swing spout and metering faucet.

One (1) triple compartment, stainless steel sink complete with swing spout and metering faucet.

Four (4) stainless steel laboratory sinks, complete with goosneck spout, metering faucet and vacuum breakers.

Two (2) Molded Stone 610mm x 610mm (24"x24"), floor mounted mop sinks complete with valve set.

One (1) Molded Stone 914mm x 610mm (36"x24"), floor mounted mop sink complete with valve set.

RatingInstalledDesign LifeUpdated5 - Good199830MAR-09

Event: Replace Sixteen (16) Sinks

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2028\$27,000Unassigned

Updated: MAR-09

D2010.08 Drinking Fountains / Coolers - **

Three (3) wall mounted, vitreous china, single bubbler water fountains. One (1) water chiller.

RatingInstalledDesign LifeUpdated4 - Acceptable198835MAR-09

Event: Replace Four (4) Drinking Fountains/Chillers

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2023\$9,000Unassigned

Updated: MAR-09

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - 1988**

Two (2) enameled steel, oval lavatories complete with metering faucets.

One (1) vitreous china, floor mounted, stall type urinal complete with Teck flush valve.

RatingInstalledDesign LifeUpdated4 - Acceptable198835MAR-09

Event: Replace Washroom Fixtures 1988

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2023\$4,500Unassigned

Updated: MAR-09

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - 1998**

The school is equipped with the following washroom fixtures:

Seven (7) Waltec, stainless steel, oval, vanity top mounted, lavatories complete with battery powered infrared automatic Sloan faucets.

Four (4) American Standard, vitreous china, floor mounted, stall type urinals complete with battery powered infrared automatic Sloan flush valves.

Nine (9) American Standard, vitreous china, floor mounted, elongated water closets complete with battery powered infrared automatic Sloan flush valves.

Three (3) American Standard, vitreous china, floor mounted water closets complete with battery powered infrared automatic Sloan flush valves.

RatingInstalledDesign LifeUpdated5 - Good199830MAR-09

Event: Replace Washroom Fixtures 1998

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2033\$37,000Unassigned

Updated: MAR-09

D2020.01.01 Pipes and Tubes: Domestic Water - *

Domestic hot and cold water lines are copper throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

D2020.01.02 Valves: Domestic Water - **

All fixtures are complete with isolation valves.

RatingInstalledDesign LifeUpdated5 - Good199540MAR-09

Event: Replace Valves: Domestic Water

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2035\$16,000Unassigned

Updated: MAR-09

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

Boiler is complete with a double check valve, backflow preventor serving the feed line to the boiler make up.

RatingInstalledDesign LifeUpdated4 - Acceptable199620MAR-09

Event: Replace Backflow Preventor

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2016\$7,000Unassigned

Updated: MAR-09

D2020.02.02 Plumbing Pumps: Domestic Water - **

One (1) Bell & Gossett circulating pump model PL0-50B with fraction horsepower motor and 115V single phase power supply circulates hot water through school.

RatingInstalledDesign LifeUpdated4 - Acceptable199820MAR-09

Event: Replace One (1) Recirculating Pump

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2018\$2,000Unassigned

Updated: MAR-09

D2020.02.06 Domestic Water Heaters - **

One (1) John Wood domestic water heater serves the 1923 school, model JW50S36FV-04 with an input capacity of 36,000 BTUH (10.5 kW), a recovery of 110 liters per hour at 55 degrees celcius and a 180 liter storage capacity. One (1) Bradford White domestic water heater serves the 1970 addition, model MI4-03S6ENH12-220 with an input capacity of 36,000 BTUH (10.5 kW), a recovery of 110 liters per hour at 55 degrees celcius and a 145 liter storage capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable199820MAR-09

Event: Replace Two (2) Domestic Water Heaters

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2018\$7,500Unassigned

Updated: MAR-09

D2020.03 Water Supply Insulation: Domestic - *

25mm (1") fiberglass insulation throughout school on cold, hot and recirculated water lines.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D2030.01 Waste and Vent Piping - *

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D2030.03 Waste Piping Equipment - *

Cast iron sanitary piping throughout the school. All fixtures are vented through the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D2040.01 Rain Water Drainage Piping Systems - *

Roof drains are connected to storm line serving the school's storm drainage. A rain water recovery system was installed in 2006 to reduce volume of domestic water used for watering property during warm months.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D2040.02.04 Roof Drains - *

102mm (4") roof drains connected to school's storm lines and rain water recovery system.

RatingInstalledDesign LifeUpdated4 - Acceptable198840MAR-09

D3010.02 Gas Supply Systems - *

A medium pressure gas line enters the school's property from the north.

RatingInstalledDesign LifeUpdated4 - Acceptable199860MAR-09

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

Two (2) Raypak model E 1125 WTD-N-2P boilers with an input capacity of 1,012,230 BTUH (297 kW) provide the school with heating water. Boilers are complete with a chemical feeder, low water cut off, expansion tank and electronic controls. The hot water is circulated by two (2) Bell & Gossett size 2/6.25 BF pumps powered by a 1.5 hp (2 kW) motor to perimeter radiation heating throughout the school and a De Jagher water/glycol heat exchanger model B10K50 that provides glycol water to the air handling unit. The glycol system is complete with a 16 liter expansion tank Jet Rite model JR-15-052, glycol fill tank complete with manual injection pump by monarch, a Bell & Gossett circulating pump for the glycol, and a glycol chemical feeder.

RatingInstalledDesign LifeUpdated4 - Acceptable199835MAR-09

Event: Replace Heating Boilers and Accessories: H.W

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$140,000Unassigned

Updated: MAR-09

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

The boilers are connected to a common flue. The combustion air is adequately sized and terminates at the spillbox.

RatingInstalledDesign LifeUpdated4 - Acceptable199830MAR-09

Event: Replace Chimneys (&Comb. Air): H.W. Boilers

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$20,000Unassigned

Updated: MAR-09

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

Hot water and glycol systems are complete with chemical feeders.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D3020.03.01 Furnaces - **

One (1) Lennox model LD24-300A-2 furnace with an input capacity of 270,000 BTUH (79 kW) and an output capacity of 210,600 BTUH (62 kW) complete with return air and supply air fan and a electrical mixing damper is used to provide heat and ventilation to the gymnasium.

Rating Installed Design Life Updated
4 - Acceptable 1998 25 MAR-09

Event: Replace One (1) Furnaces

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2023\$20,000Unassigned

Updated: MAR-09

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

Type-B vent serves the gymnasium furnace.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

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

The school has one (1) Engineered Air model LM-10-C air handling unit with a glycol heating coil. The unit has a 11,150 CFM (5,300 liters per second) supply capacity a 10hp (13.4 kW) supply air motor, and a 5hp (6.7 kW) return air motor with a 8,650 CFM (4,100 liter per second) capacity, both motors are connected to 208V, 3 phase power.

RatingInstalledDesign LifeUpdated4 - Acceptable199830MAR-09

Event: Replace One (1) Air Handling Unit

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2028\$140,000Unassigned

Updated: MAR-09

D3040.01.03 Air Cleaning Devices: Air Distribution - *

25mm (1") replaceable medium filters are used in air handling unit.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D3040.01.04 Ducts: Air Distribution - *

Galvanized steel exposed ductwork is used throughout the school to provide ventilation.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

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

Diffusers, egg crate grilles and linear grilles are used throughout the school to provide supply and return air.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D3040.03.01 Hot Water Distribution Systems - **

Insulated copper piping distribution to perimeter radiation in the classrooms, force flow heaters, air handling unit and combustion air unit heater.

RatingInstalledDesign LifeUpdated4 - Acceptable199840MAR-09

Event: Replace Hot Water Distribution System

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2038\$150,000Unassigned

Updated: MAR-09

D3040.04.01 Fans: Exhaust - **

Three (3) Amen roof top mounted exhaust fans and two (2) general upblast fans.

RatingInstalledDesign LifeUpdated4 - Acceptable199830MAR-09

Event: Replace Five (5) Exhaust Fans

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$9,500Unassigned

Updated: MAR-09

D3040.04.03 Ducts: Exhaust - *

Galvanized steel exhaust ducts with 25mm thermal insulation are used for exhaust ventilation.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D3040.04.05 Air Outlets and Inlets: Exhaust - *

Egg crate grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

D3050.05.02 Fan Coil Units - **

Two (2) force flow heaters heat the entrances to the school.

RatingInstalledDesign LifeUpdated4 - Acceptable199830MAR-09

Event: Replace Fan Coil Units

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2028\$10,000Unassigned

Updated: MAR-09

D3050.05.03 Finned Tube Radiation - **

Perimeter finned tube radiation provides heat throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable199840MAR-09

Event: Replace Finned Tube Radiation

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2038\$75,000Unassigned

Updated: MAR-09

D3060.02 HVAC Instrumentation and Controls -

Controls in the school are electronic complete with thermostat sensors in individual classrooms. The electronic control system is connected to the DDC system to allow for remote monitoring and control of the school.

RatingInstalledDesign LifeUpdated5 - Good199830MAR-09

Event: Replace HVAC Instrumentation and Controls

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2028\$90,000Unassigned

Updated: MAR-09

D4030.01 Fire Extinguisher, Cabinets and Accessories - *

5lbs ABC fire extinguishers are provided throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable199830MAR-09

S5 ELECTRICAL

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

Siemens 400 amp 120/208vac, 3ph, 4 wire . Threre are 3 spaces available

RatingInstalledDesign LifeUpdated5 - Good199840MAR-09

Event: Replace Main Electrical Distribution

TypeYearCostPriorityLifecycle Replacement2038\$5,000Unassigned

Updated: MAR-09

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

There is ample space on all area Panelboards A - E inclusive

RatingInstalledDesign LifeUpdated4 - Acceptable199330MAR-09

Event: Replace Five Electrical Branch Circuit Panelboards

TypeYearCostPriorityLifecycle Replacement2023\$7,500Unassigned

Updated: MAR-09

D5010.07.02 Motor Starters and Accessories - **

Starters for fans pumps and motors are satisfactory,

RatingInstalledDesign LifeUpdated4 - Acceptable199330MAR-09

Event: Replace 5 Motor Starters and Accessories** -]

TypeYearCostPriorityLifecycle Replacement2023\$2,500Unassigned

Updated: MAR-09

D5020.01 Electrical Branch Wiring - *

Branch Wiring consists of R90, xl cabling within conduit. AC90 calbing is utilzed for final footages to Mechaincal equipment and Luminaires.

RatingInstalledDesign LifeUpdated4 - Acceptable19930MAR-09

Event: Add 15 Receptacles

Concern:

Without enough receptacles to operate from Space activity is hampered and circuits are prone to be overloaded

Recommendation:

Further Receptacles are required in General Office and Library Area. Ground fault receptacles are needed in Art and Science Room

Consequences of Deferral:

Circuit Overloading can take place which may cause wires to overheat.

TypeYearCostPriorityProgram Functional Upgrade2009\$1,500Medium

Updated: MAR-09

D5020.02.01 Lighting Accessories (Lighting Controls) - *

Lighting control is by toggle switching

RatingInstalledDesign LifeUpdated4 - Acceptable19230MAR-09

D5020.02.02.02 Interior Florescent Fixtures - **

Lighting is T8 lamped.

RatingInstalledDesign LifeUpdated3 - Marginal199830MAR-09

Event: Add 50 luminaires to General Office, Circulation and Gymnasium Areas

Concern:

Poor Lighting leads students to experience injury while running around in Gymnasium and in stairwells

Recommendation:

Upgrade lighting level in Gymnasium to 60 footcandles and Stairwell Circulation areas to 30 footcandles

TypeYearCostPriorityProgram Functional Upgrade2009\$7,500High

Updated: MAR-09

Event: Replace 350 Interior Florescent Fixtures

TypeYearCostPriorityLifecycle Replacement2039\$50,000Unassigned

Updated: MAR-09

D5020.02.03.02 Emergency Lighting Battery Packs - **

Emergency lighting is Emergi-lite

RatingInstalledDesign LifeUpdated5 - Good199320MAR-09

Event: Replace 6 Emergency Battery Packs and six

remote heads

TypeYearCostPriorityLifecycle Replacement2013\$5,000Unassigned

Updated: MAR-09

D5020.02.03.03 Exit Signs - *

Exit lighting is Emergi-lite.

RatingInstalledDesign LifeUpdated5 - Good19930MAR-09

D5020.03.01.03 Exterior Metal Halide Fixtures - *

There are only eight (8) exterior wall packs about the building

RatingInstalledDesign LifeUpdated3 - Marginal19930MAR-09

Event: Add 10 wallpacks at exterior of building

Concern:

There is insufficient Exterior Lighting about the building. .5 footcandles are required by code for security and 1 footcandlle is required for walkways and parking lots

Recommendation:

250 watt Metal Hlalide Wallpacks at 20'-0" mounting height spaced every 60 feet around the building

TypeYearCostPriorityProgram Functional Upgrade2009\$5,000High

Updated: MAR-09

D5030.01 Detection and Fire Alarm - **

Edwards Quick start Fire Alarm Panel has 20 zones, 10 are utilized.

RatingInstalledDesign LifeUpdated5 - Good200425MAR-09

Event: Install 5 Heat Detectors

Concern:

Insufficient number of heat detectors.

Recommendation:

Add five (5) heat detector to washrooms and janitor room.

TypeYearCostPriorityCode Upgrade2009\$500Medium

Updated: MAR-09

Event: Replace Fire alarm System

TypeYearCostPriorityLifecycle Replacement2029\$10,000Unassigned

Updated: MAR-09

D5030.02.02 Intrusion Detection - **

Motion Detector System exists in the building

RatingInstalledDesign LifeUpdated5 - Good199825MAR-09

Event: Replace Intrusion System

TypeYearCostPriorityLifecycle Replacement2023\$5,000Unassigned

Updated: MAR-09

D5030.03 Clock and Program Systems - *

Existing System is a Bogen Multicom 2000 system

RatingInstalledDesign LifeUpdated5 - Good199825MAR-09

D5030.04.01 Telephone Systems - *

North star Nortel

RatingInstalledDesign LifeUpdated5 - Good199825MAR-09

D5030.04.05 Local Area Network Systems - *

Smart UPS 1500 System

RatingInstalledDesign LifeUpdated5 - Good19230MAR-09

D5030.05 Public Address and Music Systems - **

Existing system is a Bogen-TPU Sound system c/w 1000 watt Amplifier

RatingInstalledDesign LifeUpdated5 - Good199820MAR-09

Event: Replace Public Address and Music System

TypeYearCostPriorityLifecycle Replacement2018\$7,500Unassigned

Updated: MAR-09

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E2010.02 Fixed Casework - **

Plastic laminated counter tops and painted wood cabinetry.

Replacement costs consist of:

\$3,500.00/classroom and music room (\$17,500.00)

\$7,500.00/kindergarten and science room (\$15,000.00)

\$32,500.00/administration and ancillary spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable199835MAR-09

Event: Replace Fixed Casework**

TypeYearCostPriorityLifecycle Replacement2033\$65,000Unassigned

Updated: MAR-09

E2010.03.01 Blinds - **

Roller blinds over window units.

RatingInstalledDesign LifeUpdated4 - Acceptable192330MAR-09

Event: Replace 39 Window Blinds**

TypeYearCostPriorityLifecycle Replacement2012\$11,700Unassigned

Updated: MAR-09

F2020.01 Asbestos - *

Asbestos abatement undertaken in 1992.

Refer to Asbestos Building Material Survey Report of 15 December 2000.

RatingInstalledDesign LifeUpdated5 - Good19920MAR-09

F2020.04 Mould - *

No mould conditions viewed or reported.

RatingInstalledDesign LifeUpdated5 - Good19230MAR-09

F2020.09 Other Hazardous Materials - *

No hazardous materials viewed or reported.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	1923	0	MAR-09

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance - *

Level concrete surfaced walkway.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09

K4010.02 Barrier Free Entrances - *

Power operated door hardware of BFA requirements.

RatingInstalledDesign LifeUpdated2 - Poor19710MAR-09

Event: Install Power Actuated Door Hardware

Concern:

Limited BFA to school facilities.

Recommendation:

Install power actuated door hardware to BFA requirements.

TypeYearCostPriorityBarrier Free Access Upgrade2009\$3,500Medium

Updated: MAR-09

K4010.03 Barrier Free Interior Circulation - *

Power chair lift between main and 2nd floor levels.

RatingInstalledDesign LifeUpdated4 - Acceptable19980MAR-09

K4010.04 Barrier Free Washrooms - *

BFA toilet stall and lavatory units in 1971 section.

RatingInstalledDesign LifeUpdated4 - Acceptable19710MAR-09