RECAPP Facility Evaluation Report

Edmonton School District No. 7



Riverbend Junior High School B3262A Edmonton

Edmonton - Riverbend Junior High School (B3262A)

Facility Details

Building Name: Riverbend Junior High School

Address: 14820 - 53 Avenue

Location: Edmonton

Building Id: B3262A

Gross Area (sq. m): 5,415.30

Replacement Cost: \$11,802,498

Construction Year: 1974

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: \$2,991,040 5 year Facility Condition Index (FCI): 25.34%

General Summary:

Riverbend Junior High School is a single story facility with a total area of 5415.30 sq. M. The original 1974 school contains 4128.00 sq. M with an attached Pod unit constructed in 1992 housing 692.90 sq. M and an attached Pod unit of 594.40 sq. M constructed in 1994.

There are two stand alone classroom units on site with a total area of 67 sq. M. No information as to when these structures were constructed or set on site.

The school contains 20 classrooms, a library, an industrial arts area, a drama room, 2 computer rooms, a home economics area, an art room, 2 science rooms, a gymnasium with stage, administration and ancillary support spaces. There were 645 enrolled students at time of the site visit.

Structural Summary:

Precast concrete 'T' roof members are supported by load bearing concrete block walls on concrete foundations with concrete slab on grade floors located throughout to original facility.

Floor slabs in numerous locations have settlement cracks accompanied by cracks in interior concrete block walls.

With exception to the settlement cracks the structure appears to be in acceptable condition.

Envelope Summary:

Roofing consists of original built-up asphalt with walls constructed of split-face concrete block and face brick. Metal framed sealed fixed and opening window units contain integral blinds. Exterior doors are painted metal in metal frames with access doors containing sealed glazing units with glazed transoms over. Soffits are textured stucco.

Overall the envelope components appear to be in acceptable condition.

Interior Summary:

Flooring consist of vinyl composite tile (VCT) located in corridors, classrooms and ancillary support spaces. Carpet flooring is located in the library, computer room, music room, drama room, isolated classroom areas and administration spaces. Terrazzo floors are located in washrooms and change rooms with wood strip floors located in the gymnasium and exposed concrete floors located in the industrial arts area and support spaces. Quarry tile is located in the entry area of the general office space.

Walls are painted concrete block and gypsum wallboard with glazed units located in the library/computer room area and the general office area.

Ceilings are suspended acoustical tile with painted gypsum wallboard located in support spaces.

Millwork is composed of plastic laminated counter tops and stained and painted storage shelving and cupboard units. Prefinished metal lockers are located in corridor spaces and change rooms. Prefinished metal toilet partitions are located in washroom areas.

In general the interior elements appear to be in acceptable condition.

Mechanical Summary:

The school is heated by two (2) hot water boilers. There are four (4) glycol water air handling units serving the school. One (1) air handling unit is used to ventilate and heat the core of the school, one (1) is used to ventilate and heat the gymnasium and two (2) are used to ventilate the attached pods. The core of the school is complete with heating coils throughout with each classroom having control of the temperature with individual thermostats. The pod classrooms are heated by finned tube radiation. The exhaust fans on the school have reached the end of their useable life as is shown by the failure of five (5) of the seventeen (17) exhaust fans present in the school. The school is in acceptable condition with some of the mechanical equipment showing signs of reaching the end of their useable life expectancy.

Electrical Summary:

The originally school facility was built in 1974 and the 1st added addition classroom in 1992 with the 2nd added addition classroom in 1994. The electrical service to the school is underground with pad mounted transformer in the north side of the school. The main electrical distribution is 120/208V, 3 phase, 4 wire, 1200A installed in 1974.

Electrical Modifications:

- 1991 Installation of gym sound system
- 1993 addition of electrical outlets and network cabling
- 1996 Installation of electrical outlets in room eight (8)
- 1997 Replacement of security system
- 1998 Convert room ten (10) into computer lab
- 2001 Additional data lines in gym
- 2003 Additional outlets in Home Ec Room
- 2004 Lighting upgrade
- 2005 Re-pull data lines and test
- 2005 Classroom projectors

Overall electrical system in building is in "Marginal" 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

A1010.01 Wall Foundations (Continuous Footing)

Cast in place concrete.with strip footings.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

A1030 Slab on Grade - 1974 Section*

Cast in place concrete throughout.

RatingInstalledDesign LifeUpdated3 - Marginal19740MAR-09

Event: Repair Concrete Slab

Concern:

Significant settlement in various areas causing wall cracking and separation between walls and floor with significant slope in floors of south classrooms.

Recommendation:

Review areas of differential concrete slab movement and 'mudjack affected areas.

TypeYearCostPriorityRepair2009\$25,000High

Updated: MAR-09



Separation crack located in changes rooms. Similar condition in west side washrroms along exterior wall.

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1974 Section*

Load bearing concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

B1010.05 Mezzanine Construction - 1974 Section*

Concrete slab on metal deck to mechanical space above stage area.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

B1020.01 Roof Structural Frame - 1974 Section*

Precast concrete 'T's.

B1020.04 Canopies - 1974 Section*

Metal deck on metal joists and metal stud framing.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1974	0	MAR-09

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1974 Section*

Face brick to lower wall sections all around.

RatingInstalledDesign LifeUpdated5 - Good197475MAR-09

B2010.01.02.02 Concrete Block: Ext. Wall Skin - 1974 Section*

Split faced concrete block to upper wall sections all around.

RatingInstalledDesign LifeUpdated5 - Good197475MAR-09

B2010.01.06 Siding Panels - 1974 Section

Prefinished fibreglass panels to soffit over main entry.

RatingInstalledDesign LifeUpdated4 - Acceptable197440MAR-09

Event: Replace 16 sq. M Fibreglass Siding Panels.

TypeYearCostPriorityLifecycle Replacement2014\$3,200Unassigned

Updated: MAR-09

B2010.01.09 Expansion Control: Exterior Wall Skin - 1974 Section*

Caulked control joints at appropriate intervals.

RatingInstalledDesign LifeUpdated5 - Good19740MAR-09

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1974 Section**

Caulking around all exterior wall openings.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace 1020M Joint Sealers (caulking): Ext. Wall**

- 1974 Section]

TypeYearCostPriorityLifecycle Replacement2012\$28,560Unassigned

B2010.02.03 Masonry Units: Ext. Wall Const. - 1974 Section*

Concrete block exhibiting isolated wall cracks.

RatingInstalledDesign LifeUpdated3 - Marginal19740MAR-09

Event: Repair Wall Cracks

Concern:

Walls cracks present concern to structural integrity of wall system.

Recommendation:

Remove effected mortar, install backing rod, caulk with appropriate paintable material and monitor results.

TypeYearCostPriorityRepair2009\$2,500High

Updated: MAR-09



Located in exterior wall of west wing classrooms. Adjacent washrooms present similar condition.

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1974 Section*

Not viewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

B2010.06 Exterior Louvers, Grilles, and Screens - 1974 Section*

Painted metal louvres to mechanical spaces

RatingInstalledDesign LifeUpdated5 - Good19740MAR-09

B2010.09 Exterior Soffits - 1974 Section*

Textured stucco located at school access areas.

RatingInstalledDesign LifeUpdated5 - Good19740MAR-09

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

Sealed fixed and opening units in prefinished metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable197440MAR-09

Event: Replace 20 Window Units

TypeYearCostPriorityLifecycle Replacement2014\$30,000Unassigned

Updated: MAR-09

B2030.01 Exterior Entrance Doors - 1974 Section

Painted metal with sealed fixed glazing units in metal frames with glazed transoms over. Main entry doors contain sealed glazed side lights.

RatingInstalledDesign LifeUpdated5 - Good197430MAR-09

Event: Replace 12 Exterior Entrance Doors - 1974 Section]

TypeYearCostPriorityLifecycle Replacement2012\$24,000Unassigned

Updated: MAR-09

B2030.02 Exterior Utility Doors - 1974 Section**

Painted metal in metal frames.

RatingInstalledDesign LifeUpdated5 - Good197440MAR-09

Event: Replace 8 Exterior Utility Doors** - 1974 Section

TypeYearCostPriorityLifecycle Replacement2014\$8,000Unassigned

Updated: MAR-09

B3010.01 Deck Vapor Retarder and Insulation - 1974 Section*

Not viewable. No concerns reported.

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

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-09

Event: Replace Built-up Asphalt Roofing

TypeYearCostPriorityLifecycle Replacement2012\$885,800Unassigned

Updated: MAR-09

B3020.02 Other Roofing Openings (Hatch, Vent, etc) - 1974 Section*

Roof hatch, roof drains, plumbing and exhaust vents.

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions -

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C1010.01.07 Framed Partitions (Stud) -

Located in library and industrial arts areas.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C1010.05.02 Steel Windows

Fixed glazing in painted metal frames located in administration offices, library and industrial arts offices.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C1010.06.03 Steel-Framed Storefronts

Glazed painted metal storefront in general office/entry corridor area.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

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

Painted wood doors in metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable197440MAR-09

C1020.03 Interior Fire Doors - *

6 painted fire rated doors and frames separating corridor and gymnasium spaces.

C1030.01 Visual Display Boards - **

White boards and tack boards located in teaching and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace 92 Visual Display Boards**

TypeYearCostPriorityLifecycle Replacement2012\$73,600Unassigned

Updated: MAR-09

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

Prefinished metal partitions located in student washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

Event: Replace 11 Fabricated

Compartments(Toilets/Showers)** -]

TypeYearCostPriorityLifecycle Replacement2012\$15,400Unassigned

Updated: MAR-09

C1030.06 Handrails - *

Painted metal to stage area stairs.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C1030.08 Interior Identifying Devices - *

Room names and accompanying door numbers.

RatingInstalledDesign LifeUpdated3 - Marginal19740MAR-09

Event: Install Room Names and Door Numbers

Concern:

Wayfinding and door maintenance compromised.

Recommendation:

Install door numbers and room numbers to appropriate areas.

Type Year Cost Priority
Operating Efficiency Upgrade 2009 \$10,000 Medium

Updated: MAR-09

C1030.10 Lockers - **

Prefinished metal lockers located in corridors.

RatingInstalledDesign LifeUpdated5 - Good200730MAR-09

Event: Replace 453 Lockers**

TypeYearCostPriorityLifecycle Replacement2037\$498,000Unassigned

Updated: MAR-09

C1030.12 Storage Shelving - *

Painted wood.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

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

Toilet and waste paper dispensers, mirrors and waste containers.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C2010 Stair Construction - *

Wood framed stage access.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C2020.05 Resilient Stair Finishes - **

Resilient tile applied to stage access stairs.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace Resilient Stair Finishes**

TypeYearCostPriorityLifecycle Replacement2012\$1,500Unassigned

Updated: MAR-09

C3010.09 Acoustical Wall Treatment - **

Fabric covered panels located in music room.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace 22 sq. M Acoustical Wall Treatment**

TypeYearCostPriorityLifecycle Replacement2012\$3,300Unassigned

Updated: MAR-09

C3010.11 Interior Wall Painting - *

Painted concrete block and gypsum wallboard.

RatingInstalledDesign LifeUpdated4 - Acceptable197410MAR-09

C3020.01.01 Epoxy Concrete Floor Finishes - *

Located in student wash and change rooms.

Refer to floor settlement concerns and repairs in item A1030.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

C3020.01.02 Paint Concrete Floor Finishes - *

Located in electrical, mechanical and industrial arts areas.

RatingInstalledDesign LifeUpdated4 - Acceptable197410MAR-09

C3020.04 Wood Flooring - **

Located in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

Event: Replace 446 sq. MWood Flooring**

TypeYearCostPriorityLifecycle Replacement2012\$120,400Unassigned

Updated: MAR-09

C3020.07 Resilient Flooring - **

VCT flooring located in classrooms, science room, home economics room, art room, corridors and ancillary spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace 2000 sq. M Resilient Flooring**

TypeYearCostPriorityLifecycle Replacement2012\$122,000Unassigned

Updated: MAR-09

C3020.08 Carpet Flooring - **

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

RatingInstalledDesign LifeUpdated4 - Acceptable197415MAR-09

Event: Replace 752 sq. M Carpet Flooring**

TypeYearCostPriorityLifecycle Replacement2012\$46,500Unassigned

Updated: MAR-09

C3030.01 Concrete Ceiling Finishes (Unpainted) - *

Located in electrical and mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable1974100MAR-09

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

Located in teaching areas, library/computer room, music room, corridors and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable197425MAR-09

Event: Replace 2700 sq. M Acoustic Ceiling Treatment

(Susp.T-Bar)** -]

TypeYearCostPriorityLifecycle Replacement2012\$121,500Unassigned

C3030.07 Interior Ceiling Painting - *

Located in wash and change rooms, gymnasium and industrial arts area.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

C3030.09 Other Ceiling Finishes*

300mm x 300mm acoustical tile applied to concrete substrate in industrial arts area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-09

S4 MECHANICAL

D2010.04 Sinks - **

The school is equipped with the following sinks:

Five (5) single compartment, stainless steel, vanity top mounted sinks complete with swing spouts and metering faucets. Three (3) single compartment, stainless steel, vanity top mounted sinks complete with swing spouts, metering faucets and oil interceptors.

Four (4) double compartment, stainless steel, vanity top mounted kitchen sinks complete with swing spouts and metering faucets.

One (1) Aristaline vanity to mounted, stainless steel, single compartment 457mm x 914mm (18"x36") sink complete with goosneck spout and metering faucet.

One (1) 457mm x 914mm (18"x36") fiberglass sink serving the photo dark room complete with swing spout and metering faucet.

Twelve (12) science laboratory sinks complete with goosneck spouts with metering faucets and vacuum breakers.

Three (3) Molded Stone 305mm x 914mm (24"x36") floor mounted mop sinks complete with valve set.

One (1) Bradley style, semi-circular sink complete with foot activated mixing valve.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1974	30	MAR-09

Event: Replace Thirty (30) Sinks

Recommendation:

Basis of estimate: number of technicals.

<u>Type</u>	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2012	\$50,000	Unassigned

Updated: MAR-09

D2010.05 Showers - **

One (1) fiberglass shower with mixing valve and shower head.

Twelve (12) shower heads with mixing valve serving the boys' and girls' shower stalls.

Rating	<u>Installed</u>	Design Life	Updated
4 - Acceptable	1974	30	MAR-09

Event: Replace Thirteen (13) Showers

Consequences of Deferral:

TypeYearCostPriorityLifecycle Replacement2012\$23,000Unassigned

Updated: MAR-09

D2010.08 Drinking Fountains / Coolers - **

Two (2) wall mounted, vitreous china water fountains with bubbler.

Two (2) wall mounted water chillers.

RatingInstalledDesign LifeUpdated4 - Acceptable197435MAR-09

Event: Replace Four (4) Drinking Fountains / Coolers

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$11,000Unassigned

Updated: MAR-09

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

The school is equipped with the following washroom fixtures:

Eleven (11) Aristaline stainless steel, vanity top mounted, oval lavatories complete with push valve faucets.

One (1) wall hung vitreous china, lavatory complete with metering faucet.

Eleven (11) American Standard, floor mounted, round rim, vitreous china water closet complete with Cambridge flush valves and open front seat.

Two (2) vitreous china, floor mounted, close coupled water closets complete with open front seat.

Three (3) American Standard, vitreous china, floor mounted, stall type urinals complete with Teck flush valves.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

Event: Replace Washroom Fixtures (WC, Lav, Urnl)

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$44,000Unassigned

Updated: MAR-09

D2020.01.01 Pipes and Tubes: Domestic Water - *

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

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D2020.01.02 Valves: Domestic Water - **

All fixtures are complete with isolation valves.

RatingInstalledDesign LifeUpdated4 - Acceptable197440MAR-09

Event: Replace Valves: Domestic Water

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2014\$25,000Unassigned

Updated: MAR-09

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

One (1) 19mm (3/4") double check valve backflow preventor on the boiler make-up feed line.

One (1) 102mm (4") double check valve backflow preventor by Ames, model 3484 on the wet standpipe system.

RatingInstalledDesign LifeUpdated4 - Acceptable199620MAR-09

Event: Replace Piping Specialties (Backflow Preventors)

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2016\$10,000Unassigned

Updated: MAR-09

D2020.02.02 Plumbing Pumps: Domestic Water - **

One (1) Bell & Gossett model 3J275EX12 0.17hp (0.22 kW) recirculation pump.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace Plumbing Pumps: Domestic Water

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$3,000Unassigned

Updated: MAR-09

D2020.02.06 Domestic Water Heaters - **

School has two (2) domestic water heaters and backup capacity in case of failure. One (1) A.O Smith model BT 65200 with an input capacity of 65,00 BTUH (19 kW), 240 liter storage capacity and 240 liter per hour heat recovery at 55 degrees celcius.

RatingInstalledDesign LifeUpdated4 - Acceptable200820MAR-09

Event: Replace One (1) Domestic Water Heaters

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2028\$4,000Unassigned

Updated: MAR-09

D2020.02.06 Domestic Water Heaters - 1974**

School has two (2) domestic water heaters and backup capacity in case of failure. One (1) Jet Glass model 65T 3703N with an input capacity of 370,000 BTUH (110 kW), 240 liter storage capacity and 1,000 liter per hour heat recovery at 55 degrees celcius.

RatingInstalledDesign LifeUpdated4 - Acceptable197420MAR-09

Event: Replace One (1) Domestic Water Heater

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$8,000Unassigned

Updated: MAR-09

D2020.03 Water Supply Insulation: Domestic - *

Domestic cold and hot water lines are insulated with 1" fiberglass insulation throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D2030.01 Waste and Vent Piping - *

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

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D2040.01 Rain Water Drainage Piping Systems - *

Roof drains are connected to storm line serving the school's storm drainage.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D2040.02.04 Roof Drains - *

Zurn 102mm (4") roof drains.

RatingInstalledDesign LifeUpdated4 - Acceptable197440MAR-09

D3010.02 Gas Supply Systems - *

A medium pressure gas line enters the mechanical room from the west.

The science rooms are complete with twenty-four (24) gas outlets complete with a master gas shut off in the common science prep room.

RatingInstalledDesign LifeUpdated4 - Acceptable197460MAR-09

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

Two (2) Raypak hot water boilers model 3656-T with an input capacity of 3,656,250 BTUH (1,070 kW) complete with fluid power gas valve, low water shut off, chemical feeders, thermostat on supply and return, Westeel expansion tank. The water is pumped by two (2) Armstrong model 21/2E 1030 circulating pumps with a 1,000 liter per minute capacity and a 5hp (6.7 kW) motor, and one (1) Bell & Gossett pump model 189163 circulating the water throughout the gymnasium air handling unit. The heating water is circulated through reheat coils located throughout the school, two (2) air handling units and two (2) glycol/water heat exchangers serving the pod classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable197435MAR-09

Event: Replace Heating Boilers and Accessories: H.W.

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$375,000Unassigned

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

Two (2) boilers and two (2) domestic water heaters are connected to a common vent. The combustion air terminates at the spillbox.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

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

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$20,000Unassigned

Updated: MAR-09

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

Chemical feeder is provided for the heating water.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

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

The school's main air handling unit is complete with two (2) axial fans one (1) return air fan with a 7.5hp (10 kW) motor and one (1) supply air fan motorized mixing dampers and a heating coil. The second air handling unit is a Mark Hot model B77362 unit wit ha heating coil, mixing damper and a 2hp (2.7kW) supply air motor.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

Event: Replace Air Handling Units: Air Distribution

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$430,000Unassigned

Updated: MAR-09

D3040.01.03 Air Cleaning Devices: Air Distribution - *

25mm replaceable medium filters used on all air handling units.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D3040.01.04 Ducts: Air Distribution - *

Galvanized steel ducts are used for supply and return air throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

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

Square diffusers and egg crate grilles are used for supply and return air.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D3040.03.01 Hot Water Distribution Systems - **

Insulated copper piping distribution to force flow heaters, air handling units, two (2) heat exchangers and combustion air unit heater.

RatingInstalledDesign LifeUpdated4 - Acceptable197440MAR-09

Event: Replace Hot Water Distribution Systems

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2014\$430,000Unassigned

D3040.04.01 Fans: Exhaust - **

The school is complete with the following exhaust fans:

Eight (8) Jenn-Air model 70 CRA roof mounted upblast fans. One (1) of the fans is not working and one (1) is vibrating excessively and is very noisy.

One (1) Jenn-Air model 101 CRA roof mounted upblast fan.

One (1) Jenn-Air model 182BCRE-A roof mounted upblast fan, it is not working.

One (1) Jenn-Air model 142 BCRA roof mounted upblast fan.

One (1) Jenn-Air model 142 BCREA roof mounted upblast fan, it is not working.

Three (3) Jenn-Air model 108 CRA roof mounted upblast fans, it is not working.

One (1) Loren Cook model 12CV11D inline exhaust fan.

One (1) Penn Zephyr model DX11R roof mounted exhaust fan serving the art room kiln.

RatingInstalledDesign LifeUpdated3 - Marginal197430MAR-09

Event: Replace Five (5) Fans

Concern:

Five of the roof top mounted exhaust fans are not functioning.

Recommendation:

Replace five (5) of the broken exhaust fans.

TypeYearCostPriorityFailure Replacement2009\$10,000Unassigned

Updated: MAR-09

Event: Replace Twelve (12) Fans: Exhaust

Recommendation:

Basis of estimate: number of technicals

TypeYearCostPriorityLifecycle Replacement2012\$24,000Unassigned

Updated: MAR-09

D3040.04.03 Ducts: Exhaust - *

Galvanized steel ducts complete with 1" (25mm) thermal insulation are provided throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D3040.04.05 Air Outlets and Inlets: Exhaust - *

Egg crate grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D3050.03 Humidifiers - **

Nortec model NHMC-200 Air humidifier connected to 208V, 3 phase power.

RatingInstalledDesign LifeUpdated4 - Acceptable197425MAR-09

Event: Replace One (1) Humidifier

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$13,000Unassigned

Updated: MAR-09

D3050.05.02 Fan Coil Units - **

Six (6) force flow heaters are present at the entrances to the school.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

Event: Replace Force Flow Heaters

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$35,000Unassigned

Updated: MAR-09

D3060.02 HVAC Instrumentation and Controls -

Pneumatic controls are used throughout the school. All controls are connected to a Barber & Coleman Network 8000 DDC system. The compressed air for the controls is generated by a Honeywell Air compressor model ADA-515 AE 3414-AA complete with an air dryer by Pneutech.

RatingInstalledDesign LifeUpdated4 - Acceptable197430MAR-09

Event: Replace HVAC Instrumentation and Controls

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$200,000Unassigned

Updated: MAR-09

D3090 Other Special HVAC Systems and Equipment - *

One (1) dust seperator, Murphy model CM-T serving wood shop complete with galvanized steel ductwork and flexible ductwork to wood cutting equipment.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

D4020 Standpipes - *

School has four (4) fire hose cabinets located throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable197460MAR-09

D4030.01 Fire Extinguisher, Cabinets and Accessories - *

5 lbs ABC extinguishers located throughout the school.

Rating	<u>Installed</u>	Design Life	Updated
4 - Acceptable	1974	30	MAR-09

S5 ELECTRICAL

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

F P E 1200 amp, 3 ph, 4w 120/208 Volts

Rating Installed Design Life Updated MAR-09 4 - Acceptable 1974 40

Event: Replace Main Electrical Distribution Board

> **Priority Type** Year Cost Lifecycle Replacement 2014 \$15,000 Unassigned

Updated: MAR-09

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

Area Panelboards are Federal Pioneer (FPE) and all have ample circuit space

Rating Installed Design Life Updated 4 - Acceptable MAR-09 1974 30

Event: Replace Electrical Branch Circuit Panelboards

> **Type** Year Cost **Priority** Lifecycle Replacement Unassigned 2012 \$15,000

D5010.07.02 Motor Starters and Accessories - **

Klockner Moeller MCC is 34 Years old, and 50% of the space is used .

RatingInstalledDesign LifeUpdated3 - Marginal197430MAR-09

Event: Replace 10 Motor Starters and Accessories**

TypeYearCostPriorityLifecycle Replacement2039\$5,000Unassigned

Updated: MAR-09

Event: Replace 10 Motor Starters

Concern:

Klockner Moeller MCC is 34 Years old, and 50% of the space

is used

Recommendation:

Replace ten existing starters with new

Consequences of Deferral:

Motor starters and equipments will not function properly as

long as the existing ones remain

TypeYearCostPriorityFailure Replacement2009\$5,000High

D5020.01 Electrical Branch Wiring - *

The wiring in this building is now 32 years old. It consists of R90, xl in conduit with final lengths of AC90 to mechanical equipment and Luminaires.

RatingInstalledDesign LifeUpdated3 - Marginal19760MAR-09

Event: Add 100 duplex receptacles

Concern:

There is a shortage of duplex receptacles in a number of areas. Proper school operation is hampered with the shortage

Recommendation:

Installation of duplex receptacles in the following areas

- 1) Staff room
- 2) Industrial Arts
- 3) Typical Classrooms
- 4) Home Econoics Library

Approximately 100 receptacles are required to be installed along with related circuitry

Consequences of Deferral:

At the present state, classroom, Library and Industrial Arts operation is hampered by the severe shortage of receptacles.

TypeYearCostPriorityProgram Functional Upgrade2009\$10,000Medium

Updated: MAR-09

D5020.02.01 Lighting Accessories (Lighting Controls) - *

Lighting control is by toggle switches overall

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1974	0	MAR-09

D5020.02.02.02 Interior Florescent Fixtures - **

Fluorescent lighting has been upgraded to T8s.

RatingInstalledDesign LifeUpdated4 - Acceptable200430MAR-09

Event: Add 70 Interior Florescent Fixtures

Concern:

Proper Gymnasium, Library and Staff room acitvity cannot take place due to low level lighting

Recommendation:

Additional Luminaires are needed in the following areas:

- 1) Staffroom lighting needs to be upgraded from 15 to 50 footcandles
- 2) Library lighting needs to be upgraded from 15 to 50 footcandles
- 3) General Office needs to upgraded to 50 footcandles from 40
- 4) Portables lighting needs to be upgraded to 60 footcandles from 30footcandles

Overall about 70 1 x 4 fluorescent luminaires are required

Consequences of Deferral:

Student's and teacher's will not receive proper lighting levels for learning or activities.

Type	<u>Year</u>	Cost	Priority
Program Functional Upgrade	2009	\$10,000	High

Updated: MAR-09

Event: Replace 1400 Interior Florescent Fixtures

<u>Type</u>	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2039	\$200,000	Unassigned

Updated: MAR-09

D5020.02.03.02 Emergency Lighting Battery Packs - **

Some of the emergency lighting was upgraded in 1994. Emergency Lighting is Emergi-lite.

RatingInstalledDesign LifeUpdated2 - Poor199220MAR-09

Event: Add 5 Battery Packs, 15 remote heads and two exit

signs

Concern:

Certain areas require exit signs and emergency remote heads.

Recommendation:

92 Addition requires exit signs and emergency remote heads.

East face door needs exit sign

Consequences of Deferral:

Power outages with leave students and teachers in the dark, not sufficient lighting for egress of building.

TypeYearCostPriorityProgram Functional Upgrade2009\$5,000High

Updated: MAR-09

Event: Replace Emergency Lighting Battery Packs

TypeYearCostPriorityLifecycle Replacement2012\$7,500Unassigned

D5020.02.03.03 Exit Signs - *

Some exit signs has been upgraded, Exit signage is Emergi-lite.

RatingInstalledDesign LifeUpdated3 - Marginal19740MAR-09

Event: Add three Exit Signs

Concern:

Certain areas require exit signs and emergency remote heads.

Recommendation:

92 Addition requires exit signs East face door needs exit sign

Consequences of Deferral:

Power outages with leave students and teachers in the dark, not sufficient lighting for egress of building. Require exit signs to lead to exterior of building.

TypeYearCostPriorityProgram Functional Upgrade2009\$500High

Updated: MAR-09

D5020.03.01.03 ExteriorL Metal Halide Fixtures - *

There is a total absence of Building Exterior wall pack lighting

RatingInstalledDesign LifeUpdated2 - Poor19740MAR-09

Event: Install 15 Wallpacks about Buliding

Concern:

There is poor lighting at exterior of building.

Recommendation:

250 watt Metal Halide Wallpacks are required every 50 feet at the 15'0" above grade about the total building

Type Year Cost Priority
Program Functional Upgrade 2009 \$8,000 Medium

Updated: MAR-09

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

All exterior lighting is controlled by integral photocells

RatingInstalledDesign LifeUpdated3 - Marginal19740MAR-09

Event: Upgrade Exterior (Lighting Controls)

Concern:

All exterior lighting should should be on time clock or photo $\overset{\circ}{\text{...}}$

cell system

Recommendation:

Install exterior lighting controls. Consequences of Deferral:

Simplicity of controlling exterior lighting and cost effective.

TypeYearCostPriorityProgram Functional Upgrade2009\$2,500Medium

Updated: MAR-09

D5030.01 Detection and Fire Alarm -

Fire Alarm Simplex 4002 8 spare zones, (Bell & Strobe upgrade 1994)

RatingInstalledDesign LifeUpdated5 - Good199225MAR-09

Event: Replace Detection and Fire Alarm

TypeYearCostPriorityLifecycle Replacement2017\$25,000Unassigned

Updated: MAR-09

D5030.03 Clock and Program Systems - *

There is a Simplex System wiith System Console in the Staffroom

RatingInstalledDesign LifeUpdated5 - Good199225MAR-09

Event: Replace Clock and Program sysem

TypeYearCostPriorityLifecycle Replacement2017\$20,000Unassigned

Updated: MAR-09

D5030.04.01 Telephone Systems - *

Existing System is a Meridian System

RatingInstalledDesign LifeUpdated4 - Acceptable197425MAR-09

D5030.04.05 Local Area Network Systems - *

Data System was upgraded in 2001 and again in 2005

RatingInstalledDesign LifeUpdated5 - Good19740MAR-09

D5030.05 Public Address and Music Systems - **

Existing System is a Bogen Multicom 2000 100 watt RMS Amplifer

RatingInstalledDesign LifeUpdated3 - Marginal197420MAR-09

Event: Add 50 speakers and larger amplifier

Concern:

Properr message delivery cannot take place with the shortage of speakers

Recommendation:

Additional speakers required in science room, and circulation areas, speakers also required in portables. Approximately 50

Consequences of Deferral:

Important messages maybe missed.

TypeYearCostPriorityProgram Functional Upgrade2009\$7,500High

Updated: MAR-09

Event: Replace Public Address and Music Systems

TypeYearCostPriorityLifecycle Replacement2012\$18,280Unassigned

D5090.02 Packaged Engine Generator Systems (Emergency Power System) - **

Emergency generator is a 7. 5kw Simpson Maxwell

RatingInstalledDesign LifeUpdated3 - Marginal197435MAR-09

Event: Install a 110 kva generator.

Concern:

Emergency generator needs to be upgraded, to meet the capacity of this building, transfer switch is old and needs to be replaced.

Recommendation:

Install a 110KVA electric generator along with a 400AAutomatic Transfer Switch transfer switch and Improved Emergency Panelboard system

TypeYearCostPriorityProgram Functional Upgrade2009\$50,000Medium

Updated: MAR-09

Event: Replace Packaged Engine Generator System

TypeYearCostPriorityLifecycle Replacement2034\$50,000Unassigned

Updated: MAR-09

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E2010.02 Fixed Casework - **

Plastic laminated counter tops and painted wood cabinetry showing wear in science rooms and home economics room. Replacement costs consist of:

\$3,500.00/classroom, computer rooms and art room (\$80,500.00)

\$20,000.00/science rooms and home economics room (\$80,000.00)

\$40,000.00/administration and ancillary spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable197435MAR-09

Event: Replace Fixed Casework**

TypeYearCostPriorityLifecycle Replacement2012\$200,500Unassigned

Updated: MAR-09

E2010.03.01 Blinds - **

Window units contain integral horizontal louvered window blinds.

RatingInstalledDesign LifeUpdated5 - Good197430MAR-09

E2010.06 Fixed Interior Landscaping - *

Located between school and Pod units.

F1010.02.04 Portable and Mobile Buildings*

2 stand alone portable units (assume constructed in 1997) of 69 sq. M total area of wood frame on concrete foundations with crawl space.

Units contain 2 classrooms and are constructed of SBS roofing, prefinished metal siding, sealed fixed and opening window units in vinyl frames, painted metal doors in metal frames and stained plywood crawl space skirting.

Interiors consist of carpet flooring, vinyl wall covering, acoustical tile ceilings, white boards and tack boards, plastic laminated counter tops, painted wood cabinetry and vertical louvered window blinds.

Mechanical items consist of 1 Lennox furnace with an input of 29kW and an output of 23kW and 1 Lennox furnace with an input of 31kW and an output of 23kW controlled by programmable thermostats.

Electrical elements consist of 1 60amp 120/240 panel board, 15 light fixtures, ceiling mounted speakers and wall mounted receptacles per classroom.

Replacement lifecycle costs are:

69 sq. M SBS Roofing in 2027 - \$13,300.00

24 Vinyl Window Units in 2037 - \$36,000.00

4 Exterior Metal Doors in 2027 - \$4,000.00

60 sq.M Carpeting in 2012 - \$4,000.00

65 Acoustical Tile in 2012 - \$3,000.00

Visual Display Boards in 2017 - \$6,000.00

Fixed Casework in 2012 - \$10,000.00

Louvered Blinds in 2012 - \$7,200.00

Replace 2 gas Fired Furnaces in 2022 - \$12,000.00

Replace 2 Electrical Panel Boards in 2017 - \$2,000.00

Replace 30 light fixtures in 2012 - \$4,500.00

RatingInstalledDesign LifeUpdated4 - Acceptable199730MAR-09

Event: Replace Identified Items Beyond 2012

TypeYearCostPriorityLifecycle Replacement2017\$73,300Unassigned

Updated: MAR-09

Event: Replace Identified Items in 2012

TypeYearCostPriorityLifecycle Replacement2012\$28,700Unassigned

Updated: MAR-09

F2020.01 Asbestos - *

Boiler room asbestos containing elements removed in 2002.

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

RatingInstalledDesign LifeUpdated5 - Good19740MAR-09

F2020.04 Mould - *

No mold viewed or reported.

RatingInstalledDesign LifeUpdated5 - Good19740MAR-09

F2020.09 Other Hazardous Materials - *

No hazardous materials reported or viewed.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	1974	0	MAR-09

S8 FUNCTIONAL ASSESSMENT

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

Level surface to concrete surfaced entry area.

RatingInstalledDesign LifeUpdated4 - Acceptable19740MAR-09

K4010.02 Barrier Free Entrances - *

Power operated access door hardware.

RatingInstalledDesign LifeUpdated2 - Poor19740MAR-09

Event: Install Power Operated Door Hardware

Concern:

Limited handicapped access without power operated door hardware.

Recommendation:

Install power operated entry door hardware to meet BFA requirements.

Type Year Cost Priority
Barrier Free Access Upgrade 2009 \$7,200 Medium

Updated: MAR-09

K4010.03 Barrier Free Interior Circulation - *

Doors contain round door knobs.

RatingInstalledDesign LifeUpdated3 - Marginal19740MAR-09

Event: Install Lever Handled Door Hardware

Concern:

Limited handicapped access to teaching and administration areas having round door knobs only.

Recommendation:

Install lever handled door hardware to designated doors to meet BFA requirements.

Type Year Cost Priority
Barrier Free Access Upgrade 2009 \$12,000 Medium

Updated: MAR-09

K4010.04 Barrier Free Washrooms - *

Toilet stalls and lavatories meet BFA requirements.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1974	0	MAR-09