RECAPP Facility Evaluation Report

Peace River School Div #10



E. E. Oliver Elementary School

B3391A Fairview

Fairview - E. E. Oliver Elementary School (B3391A)

Facility Details

Building Name: E. E. Oliver Elementary Scho

Address: P. O. Bag 2525

Location: Fairview

Building Id: B3391A

Gross Area (sq. m): 4,388.90

Replacement Cost: \$12,435,133

Construction Year: 1960

Evaluation Details

Evaluation Company: Manasc Isaac Architects

Evaluation Date: January 30 2008

Evaluator Name: Roland Hoath

Total Maintenance Events Next 5 years: \$2,151,980 5 year Facility Condition Index (FCI): 17.31%

General Summary:

Elementary school with a current student capacity of 350 students. Contains classrooms, science rooms, staff/administration areas, washrooms, full industrial kitchen, stage. (Used for community events)

Original building (1960)- wood frame construction - modernized in 1992- 1,036 sqm

(1980) Addition- wood frame construction- modernized in 1991- 1,358 sqm

(1981) Addition- wood frame construction- modernized in 1991- 440 sqm

(1991) Addition- masonry and steel roof- 1,555 sqm

Total area: 4,389 sqm

Structural Summary:

Grade beams and piles throughout. Crawl space under whole building, including additions. Stick frame construction throughout original building and 1980/1981 additions. Masonry (concrete block) in 1991 addition. Combustible roof structure in original building, and open webbed steel joists in additions. Mezzanine in the 1991 addition housing the mechanical room. Building at grade from the north and has exterior concrete stairs from the south.

Crawl space is humid and has large accumulations of water (water lines show accumulations up to 8'). Significant mould growth has been identified in the crawl space. Drainage issues at the north portion of the original building are probably contributing factors (see S7 Site). Exterior stairs are badly chipped and two have no railing.

Overall condition is Poor.

Envelope Summary:

Exterior cladding throughout all portions of the building is made up of brick (lower portion) and metal siding (upper portion). Accents below the windows are in stucco. Windows are aluminum, double glazed and have an operable portion. Entrance doors throughout the school are fully glazed, double steel doors, with side lights. Skylights are located in the main entrance (pyramidal) and in the library (raked). The roof was originally built up bituminous roofing, however, has been replaced over the north portion of the 1981 addition and north of the library with SBS. Roof access is through a storage room in the mezzanine (1991 addition) and through the custodial room in the 1981 addition. External ladders link the various roof heights.

According to the 2007 roofing report, maintenance is needed on the roof above the gym, the southern portion of the 1981 addition and above the main entrance. Some door hardware is worn and sticks.

Overall condition is Acceptable.

Interior Summary:

Interior wall finishes are predominantly painted drywall in classrooms, except in the 1981 addition which is finished with vinyl panels. Ventilated ceiling tile is found throughout the building. Classrooms are 1/3 linoleum and 2/3 carpet. Library, administration areas and staff room have carpet flooring. Corridors and multipurpose area are linoleum. Stage and gymnasium have maple flooring. Stage separation from the gym is by operable panels. Several bathrooms received cosmetic upgrades in 2000.

Ventilated ceiling tile can not be found when repairs are needed, and causes large amounts of dust accumulation. Blinds and drapes are faded and worn. Bathroom casework is coming apart. Vinyl finish on the operable panels is torn. Some carpet needs to be replaced. Asbestos wall panels are in one of the girls' bathrooms.

Overall condition is Acceptable.

Mechanical Summary:

Heating and ventilation is provided by gas fired indoor furnaces. Air is distributed through low velocity ductwork in crawl space and ceiling space to designated areas.

Domestic hot water is generated by one gas fired domestic water heater located in mechanical room 207. System complete with hot water recirculation pumps.

Conventional plumbing fixtures throughout.

A wet standpipe system has been incorporated within the building to provide fire protection to all occupied spaces.

Overall mechanical system is in acceptable condition.

The following items require attention:

- Poor ventilation in crawl space.
- Obsolete furnaces serving 1981 addition.
- No make-up air to Commercial kitchen.
- No air conditioning in Computer lab and Server Room.

Electrical Summary:

The building is supplied from an O/H power line to a 120/208V 600Amp main distribution which was installed in 1991 during a major addition and renovation. At that time most of the system from the original building where updated. In 2002 the data system was updated to a Cisco brand system. There is very little that need to be done to the building at present. A few suggested renovations would be that the T12 lighting throughout the building be changed to a combination of T8's and T5HO in larger open spaced instead of HPS fixtures.

In general this buildings electrical systems are in acceptable 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*

Grade beams and piles throughout the original building and all additions.

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

A2020 Crawl Space*

Crawl space under whole building. Dirt flooring. Height ~5'

Mould can be found in significant quantities in the crawl space- up to 1" deep growth. Mould was found along the base of the walls redone from the 1981 addition. Mould events are addressed in the S7 Site.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
2 - Poor	1960	0	MAR-09

Event: Repair mould growth (affected area 25sqm)

Concern:

Mould growth is assumed to be hazardous.

Recommendation:

Remove mould and dirt floor surrounding mould growth. Remove/dig out 3" depth of dirt from beneath mould growth. Remove/dig out minimum 1'-0" surrounding area of dirt from current mould growth. Replace with clean dirt/gravel.

Removed dirt and mould requires treatment.

Type	<u>Year</u>	Cost	Priority
Repair	2009	\$100,000	High

Updated: MAR-09

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Event: Study causes of humidity and mould growth

Concern:

High humidity. Significant mould growth. Water infiltration into crawl space due to poor drainage. Water lines on foundation show pooling water up to 8"-9". Although concrete work had been done on the north end of the original building, the crawl space continues to have poor conditions. Shaling and puddling problems on said concrete work.

Recommendation:

Perform testing on mould and implement measures to ensure adequate drainage of crawl space.

Consequences of Deferral:

Continued growth of mould and potential health risk to children.

<u>Type</u>	<u>Year</u>	Cost	<u>Priority</u>
Study	2009	\$5,000	High

B1010.01 Building Frame*

Wood and metal stud. Corridors are interior load bearing walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

B1010.03 Floor Decks, Slabs, and Toppings* 1960

1960 building- wood decks

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

B1010.03 Floor Decks, Slabs, and Toppings* 1980

1980 addition- concrete

RatingInstalledDesign LifeUpdated4 - Acceptable19800MAR-09

B1010.03 Floor Decks, Slabs, and Toppings* 1981

1981 addition- plywood glued on concrete

RatingInstalledDesign LifeUpdated4 - Acceptable19810MAR-09

B1010.03 Floor Decks, Slabs, and Toppings* 1990

1990 addition- concrete slab and topping

RatingInstalledDesign LifeUpdated4 - Acceptable19900MAR-09

B1010.05 Mezzanine Construction*

Located in the 1991 addition (gym). Concrete block load bearing walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

B1010.07 Exterior Stairs*

Concrete stairs at southern exits

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
2 - Poor	1960	40	MAR-09



DSC01252-edited.jpg

Event: Replace concrete exterior 5 stair tread and landing.

Provide painted metal handrail

Concern:

Stairs are lacking handrails and are badly chipped.

Mud room #160, 162

Recommendation:

Repair concrete stairs and add rails.

4 Steps. 10'-0" width.

TypeYearCostPriorityFailure Replacement2009\$8,000High

Updated: MAR-09

B1020.01 Roof Structural Frame*

Roof decking over corridors.

1960- stick frame construction OWSJ in remainder of the building.

Rating	<u>Installed</u>	Design Life	Updated
4 - Acceptable	1960	0	MAR-09

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Brick exterior throughout. Original. Redone partially in 1981 and completed in 1991.

RatingInstalledDesign LifeUpdated5 - Good198175MAR-09

B2010.01.06.03 Metal Siding**

Throughout exterior of building- top half. Original. 1.3m height at classroom walls and 3.7m height at multipurpose room walls (1980 addition) and 4m height at gymnasium. (~600m2)

RatingInstalledDesign LifeUpdated4 - Acceptable199140MAR-09

Event: Replace Metal Siding

TypeYearCostPriorityLifecycle Replacement2031\$80,000Unassigned

Updated: MAR-09

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

Exterior. Under windows, strip between brick and siding. Original.

RatingInstalledDesign LifeUpdated4 - Acceptable199175MAR-09

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

Exterior seals on windows and doors

RatingInstalledDesign LifeUpdated4 - Acceptable196020MAR-09

Event: Re-caulk all door and window joints.

Concern:

All door and window seals broken. Caulking has failed.

Recommendation:

Re-caulk all doors and windows. (approximately 400 linear metres of sealant).

42 windows, 20 doors.

TypeYearCostPriorityFailure Replacement2012\$20,000Low

B2010.09 Exterior Soffits*

At exits, metal siding.

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

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

Aluminum, double glazed.

(~42 window areas at 4 sqm)

RatingInstalledDesign LifeUpdated4 - Acceptable196040MAR-09

Event: Replace Exterior Windows- 170m2

TypeYearCostPriorityLifecycle Replacement2012\$200,000Unassigned

Updated: MAR-09

B2030.01.02 Steel-Framed Storefronts: Doors**

Galvanized steel-fully glazed (~8)

RatingInstalledDesign LifeUpdated4 - Acceptable196030MAR-09

Event: Replace Exterior Entrance Doors - 1960 Section

TypeYearCostPriorityLifecycle Replacement2012\$23,500Unassigned

B2030.02 Exterior Utility Doors**

Galvanized steel- fully glazed, with sidelights. Double doors. (~13 sets of doors)

RatingInstalledDesign LifeUpdated4 - Acceptable198040MAR-09

Event: Repair Exterior Door Hardware

Concern:

Hardware is worn and beginning to stick on several doors.

(~ 6 sets)

Recommendation:

Replace worn hardware.

TypeYearCostPriorityRepair2009\$3,000Medium

Updated: MAR-09

Event: Replace Exterior Utility Doors

TypeYearCostPriorityLifecycle Replacement2020\$76,000Unassigned

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

Original building, 1980 addition, South portion of 1981 addition, 1991 addition. (~3700 m2)

(2007) Portions G, J reroofed in SBS (G: northern portion of 1981 addition and area north of library; J: thin sliver of roof south of library glazing) Sections identified in most recent Roofing Report from Northern Lights (not dated)

RatingInstalledDesign LifeUpdated3 - Marginal196025MAR-09

Event: Replace Roof sections for area A,F,H

Concern:

Maintenance and repairs required at this time to extend the lifespan of the roof for 2-4 additional years. (~3000m2)

Areas identified as A, F and H on Northern Lights Roofing Report.

A: Gymnasium

F: Main Entrance

H: Southern portion of 1981 addition

Recommendation:

Replace roofing with SBS (~3000m2)

TypeYearCostPriorityFailure Replacement2012\$500,000Medium

Updated: MAR-09

Event: Replace Roofing for sections B,C,D,E,I, K

Recommendation:

~2000m2

TypeYearCostPriorityLifecycle Replacement2012\$350,000Unassigned

Updated: MAR-09

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)**

Portions G, J: ~700m2

(2007) Portions G, J reroofed in SBS (G: northern portion of 1981 addition and area north of library; J: thin sliver of roof south of library glazing)

RatingInstalledDesign LifeUpdated5 - Good200725MAR-09

Event: Replace roofing [G]

TypeYearCostPriorityLifecycle Replacement2032\$100,000Unassigned

Updated: MAR-09

B3010.08.02 Metal Gutters and Downspouts**

Gutters and downspouts located around perimeter of building. (downspouts ~5 locations) Concrete swale at southern end of building between the 1981 addition and the original building in order to encourage drainage away from the construction. Concrete work on northern end of original building to move water around building. See Site S7 for drainage problems.

(2004) Added concrete swale to southern end of building between the 1981 addition and the original building in order to encourage drainage away from the construction.

(2006) Concrete work on north end of the original building in order to aid drainage, prevent water accumulation in crawl space-- insufficient.

RatingInstalledDesign LifeUpdated4 - Acceptable196030MAR-09

Event: Replace all gutters and downspouts

Concern:

Water drainage issues.

Recommendation:

Replace all gutters and downspouts.

5 downspouts

All perimeter gutters (2000 linear m)

TypeYearCostPriorityLifecycle Replacement2012\$33,000Unassigned

B3020.01 Skylights**

Main entrance - pyramidal Library- long U shape, sloped, ~ 1.5m wide. (~85 m2)

RatingInstalledDesign LifeUpdated4 - Acceptable199125MAR-09

Event: Replace Skylights

TypeYearCostPriorityLifecycle Replacement2016\$100,000Unassigned

Updated: MAR-09

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

Roof hatches located in custodial room in 1981 addition and storage room in the mezzanine of the 1991 addition.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1981	25	MAR-09

S3 INTERIOR

C1010.01.07 Framed Partitions (Stud)* -

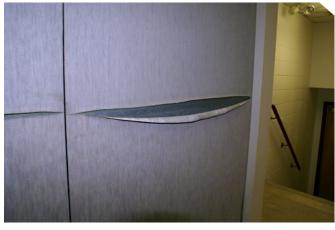
Located throughout building. Wood and metal stud.

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

C1010.03 Interior Operable Folding Panel Partitions** -

Separating stage from gymnasium. Folding panel partitions with vinyl cover finish. (~50m2)

RatingInstalledDesign LifeUpdated3 - Marginal199130MAR-09



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Event: Repair vinyl finish on folding partition

Concern:

Vinyl finish torn on majority of the folding panels

Recommendation: Replace vinyl finish.

TypeYearCostPriorityRepair2009\$5,500Medium

Updated: MAR-09

Event: Replace stage partitions

TypeYearCostPriorityLifecycle Replacement2021\$100,000Unassigned

Updated: MAR-09

C1010.04 Interior Balustrades and Screens, Interior Railings* -

Original, metal. Located throughout building at interior stairs.

RatingInstalledDesign LifeUpdated5 - Good19600MAR-09

C1010.05 Interior Windows* -

Located in the administration area and 2 windows in the library (Al exterior window--> interior window when addition was built)

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

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

Lever type hardware installed throughout- original. Wooden interior doors- original.

RatingInstalledDesign LifeUpdated4 - Acceptable196040MAR-09

C1020.03 Interior Fire Doors* -

1- Entrance into 1960 original building along corridor 177

2- At firewall separation between gym addition (1991) and 1980 addition, corridor 178 and MUD 160.

RatingInstalledDesign LifeUpdated5 - Good19910MAR-09

C1020.07 Other Interior Doors* -

Metal roll-up doors:

Kitchen (1), Wet bar (1)- 1991 addition Multi-purpose room (1)- 1980 addition

Security partition:

At ramp into multipurpose space in 1980 addition.

RatingInstalledDesign LifeUpdated5 - Good19800MAR-09

C1030.01 Visual Display Boards** -

On average 2 chalkboards per classrooms. Several cork-boards and white-boards in corridors, gym area and administration areas. (~50)

RatingInstalledDesign LifeUpdated4 - Acceptable196020MAR-09

Event: Replace display boards

TypeYearCostPriorityLifecycle Replacement2012\$80,000Unassigned

Updated: MAR-09

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

WC (~20)

RM#: 127, 128, 107,108, 151, 152

Showers (~8) RM#: 148, 150

(1991) Modernization in WCs: 127, 128 (2000) New partitions in Wcs: 107, 108, 127

RatingInstalledDesign LifeUpdated4 - Acceptable196030MAR-09

Event: Replace Toilet partitions (28)

TypeYearCostPriorityLifecycle Replacement2012\$52,000Unassigned

Updated: MAR-09

C1030.08 Interior Identifying Devices* -

Room numbers on classrooms, WC

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

C1030.10 Lockers** -

Metal lockers in corridors (~200)

RatingInstalledDesign LifeUpdated4 - Acceptable196030MAR-09

Event: Replace lockers

TypeYearCostPriorityLifecycle Replacement2012\$173,000Unassigned

C1030.12 Storage Shelving* -

Metal shoe racks in mud rooms.

RatingInstalledDesign LifeUpdated3 - Marginal19600MAR-09

Event: Repaint shoe racks

Concern:

Rusted shoe racks in mud rooms.

Recommendation: Repaint shoe racks.

TypeYearCostPriorityRepair2011\$1,000Medium

Updated: MAR-09

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

Original WC fixtures. Two thirds of bathrooms cosmetic changes.

(2000) New sinks put in WC #107,108 (had rotted out)

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

C2010 Interior Stair Construction*

Leading to mezzanine in the 1991 addition.

RatingInstalledDesign LifeUpdated5 - Good1991100MAR-09

C2030.01 Ramp Construction*

Concrete ramp construction. Leads to the multi purpose area in the 1980 addition.

RatingInstalledDesign LifeUpdated5 - Good1980100MAR-09

C2030.02 Ramp Finishes* -

Marmoleum floor finish.

RatingInstalledDesign LifeUpdated5 - Good199130MAR-09

C2030.03 Ramp Railings* -

Baked enamel on metal handrail.

RatingInstalledDesign LifeUpdated5 - Good199150MAR-09

C3010.02 Wall Paneling**-

1980 addition- classrooms and halls- vinyl panel board. (~500m2)

RatingInstalledDesign LifeUpdated4 - Acceptable198030MAR-09

Event: Replace Vinyl Paneling

TypeYearCostPriorityLifecycle Replacement2012\$45,000Unassigned

Updated: MAR-09

C3010.06 Tile Wall Finishes**-

Bathrooms- modernized in older wings and new bathrooms can be found in the 1991 addition (~120m2)

RatingInstalledDesign LifeUpdated4 - Acceptable199140MAR-09

Event: Replace Tile Wall Finishes

TypeYearCostPriorityLifecycle Replacement2031\$37,000Unassigned

Updated: MAR-09

C3010.11 Interior Wall Painting* -

Throughout building, except 1981 addition

(2005) Staff room repainted.

RatingInstalledDesign LifeUpdated4 - Acceptable196010MAR-09

C3020.01.02 Paint Concrete Finishes*

Mechanical rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable199010MAR-09

C3020.02 Tile Floor Finishes**-

Locker rooms, kitchen, bathrooms, entrance. (~90m2)

RatingInstalledDesign LifeUpdated4 - Acceptable199150MAR-09

Event: Replace Tile Floor Finishes

TypeYearCostPriorityLifecycle Replacement2041\$25,000Unassigned

Updated: MAR-09

C3020.04.01 Wood Strip Flooring**

Maple floor- gymnasium, stage. Gymnasium resurfaced every year, Stage every 5 years. (~630m2)

RatingInstalledDesign LifeUpdated4 - Acceptable199175MAR-09

Event: Replace Gym and Stage floorng

TypeYearCostPriorityLifecycle Replacement2066\$230,000Unassigned

Updated: MAR-09

C3020.07 Resilient Flooring** -

Linoleum in all corridors. 1/3 of classroom floor in original building is linoleum (remainder carpet). Multi-purpose area in 1980 addition is linoleum. Bathrooms. (~1000m2)

Rating Installed Design Life Updated
5 - Good 1960 20 MAR-09

Event: Replace linoleum

TypeYearCostPriorityLifecycle Replacement2012\$115,000Unassigned

C3020.08 Carpet Flooring - **

Classrooms, library, administration area. (~2000m2)

(2007) Carpet replaced in Room # 116, 102, 103, 104, 105, staff room (2004) Carpet replaced in Administration area, Classrooms in 1981 addition

RatingInstalledDesign LifeUpdated3 - Marginal196015MAR-09

Event: Replace Original carpet

Concern:

Library, 1/3 classrooms (~900m2 remaining)

TypeYearCostPriorityLifecycle Replacement2012\$100,000Medium

Updated: MAR-09

Event: Replace carpet

Concern:

~2/3 of classroom carpets replaced during 2004, 2007 staff and admin areas replaced (~1000m2)

TypeYearCostPriorityLifecycle Replacement2020\$115,000Unassigned

Updated: MAR-09

Event: Replace classroom carpet (75sqm)

Concern:

Carpet torn in classroom and heavily worn. Traffic patterns throughout.

Recommendation:

Replace carpet.

TypeYearCostPriorityFailure Replacement2009\$20,000Medium

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

Ventilated ceiling tile throughout all classroom areas. (difficult to find when maintenance is required)

(~3,500m2)

RatingInstalledDesign LifeUpdated4 - Acceptable196025MAR-09

Event: Replace Acoustic Ceiling Treatment (Susp.T-Bar)

TypeYearCostPriorityLifecycle Replacement2012\$200,000Unassigned

S4 MECHANICAL

D2010.04 Sinks**

Stainless steel, single and double compartment bowls, countertop. Deck mounted chrome faucet.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-08

Event: Replace 20 Sinks

TypeYearCostPriorityLifecycle Replacement2021\$29,744Unassigned

Updated: APR-08

D2010.05 Showers**

Tiled shower complete with Powers mixing valves at each point of use.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-08

Event: Replace 6 Showers

TypeYearCostPriorityLifecycle Replacement2021\$12,584Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers**

Wall hung, stainless steel, refrigerated drinking fountains. Dual station non-refrigerated

RatingInstalledDesign LifeUpdated4 - Acceptable199135MAR-08

Event: Replace 10 DF

TypeYearCostPriorityLifecycle Replacement2026\$27,456Unassigned

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

- 1) Water Closets Floor mounted, flush valves, elongated bowls, vitreous china toilets with open front seats.
- 2) Urinals Combination of floor floor mounted and wall hung, flush valve operation, vitreous china.
- 3) Lavatories Combination of stainless steel, countertop / wall hung porcelain lavatories complete with lever handle faucets.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-08

Event: Replace 10 Urinals, 22 LAV, 16 WC

TypeYearCostPriorityLifecycle Replacement2021\$93,808Unassigned

Updated: APR-08

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper domestic piping distribution to plumbing fixtures.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D2020.01.02 Valves: Domestic Water**

All plumbing fixtures isolated individually.

RatingInstalledDesign LifeUpdated4 - Acceptable199140MAR-08

Event: Replace Domestic Water Valves

TypeYearCostPriorityLifecycle Replacement2031\$45,760Unassigned

Updated: APR-08

D2020.01.03 Piping Specialties (Backflow Preventors)**

Vacuum breakers installed for hose bibbs, flush tanks, flush valves, water closets, urinals, mop sinks and lab sinks.

RatingInstalledDesign LifeUpdated4 - Acceptable199120MAR-08

Event: Replace All Vacuum Breakers

TypeYearCostPriorityLifecycle Replacement2012\$25,168Unassigned

Updated: APR-08

D2020.02.02 Plumbing Pumps: Domestic Water**

One Grundfoss in-line domestic hot water recirculation pump.

RatingInstalledDesign LifeUpdated4 - Acceptable199120MAR-08

Event: Replace DHWR Pump

TypeYearCostPriorityLifecycle Replacement2012\$2,288Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters**

One gas fired domestic water heater located in mechanical room equal to A.O.Smith BTRC 400A, 350 MBH heating capacity, 100 gal storage.

RatingInstalledDesign LifeUpdated4 - Acceptable199120MAR-08

Event: Install Additional Domestic Water Heater

Concern:

There is no back up heating and storage capacity for domestic hot water system.

Recommendation:

Install additional gas fired domestic hot water heater.

TypeYearCostPriorityOperating Efficiency Upgrade 2010\$4,576Low

Updated: APR-08

Event: Replace One Domestic Water Heater

TypeYearCostPriorityLifecycle Replacement2012\$10,296Unassigned

Updated: APR-08

D2020.03 Water Supply Insulation: Domestic*

All water lines insulated.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D2030.01 Waste and Vent Piping*

All plumbing fixtures and floor drains are connected into 100mm diameter sanitary line to Town municipal sewer line. All traps vented up through the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D2040.01 Rain Water Drainage Piping Systems*

Rain water leaders piped down to crawlspace and discharge to municipal service.

Some portion of the roof discharge via rain water leaders to surface run-off. All water leaders complete with electric heat trace.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D2040.02.04 Roof Drains*

Deep sump - open flow roof drains provided throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable199140MAR-08

D3010.02 Gas Supply Systems*

Low pressure gas line enters from the north east and run in crawl space to all appliances and equipment. The gas lines are fitted with shut off valves & pressure regulator at each point of use.

Science Labs with gas turrets. Solenoid valve installed downstream from isolation valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	60	MAR-08

D3020.03.01 Furnaces - 1981**

Combination Heating and Ventilation system. Natural gas fired forced air heating system. Three original Lennox furnaces serving 1981 addition. Model and capacity - unknown.

RatingInstalledDesign LifeUpdated3 - Marginal199125MAR-08

Event: Replace 3 Original Furnaces

Concern:

Original furnaces from 1981 deteriorates, parts are not available. One furnace appears to have back drafting problem.

Recommendation:

Replace 1981 furnaces. Typical of 3.

TypeYearCostPriorityFailure Replacement2009\$13,728Low



1981 Furnace

D3020.03.01 Furnaces - 1991**

Combination Heating and Ventilation system. Natural gas fired forced air heating system.

Total of 28 Lennox downflow furnaces, located in three mechanical rooms. All units complete with fresh air and filter section.

Furnaces are three different types:

Lennox GSR14Q3-80, 1,440cfm, 76MBH heating output.

Lennox GSR14Q4-80, 1,875cfm, 76MBH heating output

Lennox GSR14Q4-100, 1,930cfm, 91MBH heating output.

Furnaces are banked into six separate return air / fresh air mixing sections.

RatingInstalledDesign LifeUpdated4 - Acceptable201625MAR-08

Event: Replace 28 Furnaces

TypeYearCostPriorityLifecycle Replacement2016\$211,640Unassigned

Updated: APR-08

D3020.03.01 Furnaces - 2003**

Combination Heating and Ventilation system. Natural gas fired forced air heating system. Lennox G-50, 1600 cfm of S/A, 125MBH heating capacity.

RatingInstalledDesign LifeUpdated5 - Good200325MAR-08

Event: Replace Two Furnaces

TypeYearCostPriorityLifecycle Replacement2028\$16,016Unassigned

Updated: APR-08

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

1991 section: combustion air is provided directly to each furnace via PVC piping. Each furnace complete with 2" diameter vent up through the roof.

1981 section: combustion air is provided from wall louver via C/A duct terminated 18" above finish floor. Common breeching up through the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D3040.01.03 Air Cleaning Devices:Air Distribution*

Disposable media filters.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D3040.01.04 Ducts: Air Distribution*

Low velocity supply and return air ducts located in crawl space and ceiling space.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Floor mounted linear grilles. Ceiling mounted square diffusers.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D3040.04.01 Fans: Exhaust**

Centrifugal roof exhausters, belt driven side wall, upblast roof exhausters, cabinet ceiling mounted exhaust fans manufactured by Greenheck.

RatingInstalledDesign LifeUpdated3 - Marginal199130MAR-08

Event: Crawl space ventilation upgrade.

Concern:

Poor ventilation in Crawl space resulting high moisture level.

Recommendation:

Install two new exhaust fans serving crawl space. Re-use existing relief air ducts.

Consequences of Deferral:

Possible microbiological growth.

TypeYearCostPriorityIndoor Air Quality Upgrade2010\$5,720Low

Updated: APR-08



Crawl space.

Event: Replace 18 Exhaust Fans

TypeYearCostPriorityLifecycle Replacement2021\$41,184Unassigned

Updated: APR-08

D3040.04.03 Ducts: Exhaust*

Low velocity galvanized steel ductwork in ceiling space.

Exhaust air ducts in Kitchen area are black steel (where concealed) and stainless steel (where exposed).

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate and louver face return.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

D3040.06 Other HVAC Distribution Systems*

Commercial Kitchen does not have designated make-up air system. Air is drawn from the adjacent spaces. Computer Room and Server Room do not have designated AC unit.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-08

Event: Install 2 AC Units

Concern:

Computer Lab and Server Rooms are overheated.

Recommendation:

Install two split AC systems serving Computer Lab and Server

Room.

TypeYearCostPriorityIndoor Air Quality Upgrade2010\$8,008Medium

Updated: APR-08

Event: Install Kitchen Make-Up Air Unit

Concern:

Commercial kitchen do not have designated make-up air system. Air is drawn from the adjacent spaces.

Recommendation:

Install kitchen make-up air unit interlock with kitchen exhaust fan.

TypeYearCostPriorityCode Upgrade2009\$10,296High



Commercial Kitchen Hood.

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)**

One roof top unit serving Library and Workroom equal to Lennox GCS16-511-125, complete with single stage heating/cooling and economizer.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

Event: Replace One Rooftop Unit (4T)

TypeYearCostPriorityLifecycle Replacement2016\$29,744Unassigned

Updated: MAR-08

D3060.02 HVAC Instrumentation and Controls

Programmable thermostats with night set-back. Remote sensors on classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-08

D4020 Standpipes*

Wet standpipe system throughout the building. Fire hose cabinets located in corridors. Fire department connection is located on the south / east side of the building.

RatingInstalledDesign LifeUpdated4 - Acceptable199160MAR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers provided throughout. Fire extinguishers inspected yearly.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-08

D4090 Other Fire Protection Systems

Kitchen hood fire suppression system.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-08

S5 ELECTRICAL

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

800Amp Bus 120/240V (Westinghouse) main distribution panelboard, utility metered with 600Amp main breaker.

RatingInstalledDesign LifeUpdated5 - Good199140MAR-09

Event: Replace 800Amp 120/240V main panelboard

TypeYearCostPriorityLifecycle Replacement2031\$14,000Unassigned

Updated: MAR-09

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

The facility includes;

- 3- Westinghouse 42cct 225Amp 120/240V 100% full panelboards from 1965.
- 2- Square D 30cct 225Amp 120/240V 50-100% full panelboards from 1958.
- 5- Square D 42cct 225Amp 120/240V 60-100% full panelboards from 1958.
- 3- Federal Pioneer 24cct 225Amp 120/240V 100% full panelboard from 1991.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-09

Event: Replace 13-120/240V 24-42cct panelboards

TypeYearCostPriorityLifecycle Replacement2021\$36,000Unassigned

Updated: MAR-09

D5010.07.02 Motor Starters and Accessories**

Throughout the facility there are 9 Motor starters none of which had clear manufacture. There were also 21 simple switch disconnects.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-09

Event: Replacement of 9 starters and 21 disconnects

throughout facility

TypeYearCostPriorityLifecycle Replacement2021\$4,000Unassigned

D5020.01 Electrical Branch Wiring*

There is some wiring that is as old as the building (1960, but the majority was replaced in 1991 during the major renovation.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

D5020.02.01 Lighting Accessories (Lighting Controls)*

Lighting controls for the library, lunch room and gymnasium are centralized utilizing local General Electric Low Voltage Relay Panels.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent fixtures are utilized for instant on lighting in gym and during some evening events. They are not used as main gym source.

There are also two incandescent pot lights at the buildings entry.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-09

D5020.02.02.02 Interior Florescent Fixtures**

The building has T12 fixtures throughout. There are a few fixtures witch have been replace with T8's in the bathroom.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-09

Event: Replace 1200 2X4 fixtures with T8 lamps

Concern:

Cost and efficiency of T12 lamps are a great concern to the energy efficiency of the building.

Recommendation:

Replace all fixture with new T8 ballasted fixtures.

Consequences of Deferral:

Higher utility bills until retrofit is made. Installation cost is included in Lifecycle replacement.

TypeYearCostPriorityEnergy Efficiency Upgrade2011\$275,000High

Updated: MAR-09

Event: Replace florescent fixtures (1200 2X4 fixtures)

TypeYearCostPriorityLifecycle Replacement2021\$275,000Unassigned

Updated: MAR-09

D5020.02.02.04 Interior H.P. Sodium Fixture*

There are 16 HPS 175W fixtures in the gynmasium.

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-09

Event: Change out the HPS fixtures to 2X4 T5HO high bay fixtures.

Concern:

MH lights have high lumen output depreciation throughout the life of the fixture, as well as when a lamp goes out, the bulb requires replacement immediately.

Recommendation:

Replace all MH fixtures with T5HO lighting which have little lumen loss, as well as when a single fixture fails, the fixture still has light from other bulbs. Re-lamping can be better scheduled for better use of maintenance time.

Consequences of Deferral:

Excessive re-lamping, as well as inconsistent lighting levels.

Type Year Cost Priority
Operating Efficiency Upgrade 2010 \$5,200 Low

Updated: MAR-09

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting from battery packs and MR16 lights.

RatingInstalledDesign LifeUpdated4 - Acceptable199120MAR-09

Event: Replace 46 battery back including remote heads

TypeYearCostPriorityLifecycle Replacement2012\$23,000Unassigned

Updated: MAR-09

D5020.02.03.03 Exit Signs*

The school has Exits signs that are all functional. They have not had a LED retrofit, and therefore run on incandescent light.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

Event: Upgrade signs to LED

Concern:

Signs run off incandescent lights which require frequent replacement.

Recommendation:

Install new LED lit exit signs Consequences of Deferral:

Probability of having a sign not light during emergency do to not having been replaced is increased.

TypeYearCostPriorityEnergy Efficiency Upgrade2015\$10,000Medium

Updated: MAR-09

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

There are 12 wall mounted HPS 175W fixtures.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

D5030.01 Detection and Fire Alarm**

The school has an Edwards 6616 Fire Alarm system.

RatingInstalledDesign LifeUpdated4 - Acceptable199125MAR-09

Event: Replace Fire alarm system and devices

Concern:

There are no Strobes in the school which is of concern if the school has or will have in the future students with hearing conditions.

Recommendation:

Install strobes throughout the facility.

Consequences of Deferral:

There will be no visual alarm when the Fire alarm is activated.

TypeYearCostPriorityLifecycle Replacement2016\$85,000Unassigned

Updated: MAR-09

D5030.02.02 Intrusion Detection**

There is a Sub-Gard Partner P-16 security system with 2-DSC touch-panels. Each entrance has a motion sensor and door contact. There are additional motion sensors in the principle and vise principles office as well as in the library.

RatingInstalledDesign LifeUpdated4 - Acceptable199125MAR-09

Event: Replace security system

TypeYearCostPriorityLifecycle Replacement2016\$40,000Unassigned

Updated: MAR-09

D5030.03 Clock and Program Systems*

Clocks are battery powered and manually set.

RatingInstalledDesign LifeUpdated4 - Acceptable199125MAR-09

D5030.04.01 Telephone Systems*

Good AGT meridian system main telephone service, distribution throughout the school it from 6-bix blocks utilizing a combination of Cat 3 and Cat 5 cabling.

RatingInstalledDesign LifeUpdated4 - Acceptable199125MAR-09

D5030.04.05 Local Area Network Systems*

The data component of the building is updated and maintained regularly. The equipment consist of 1-Cisco supernet switch and 3-Cisco normal connection Cisco switches.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

Event: Add AC unit in the communication room

Concern:

The room in which the equipment is located does not have acceptable cooling.

Recommendation:

Add AC unit in the communication room.

Consequences of Deferral:

Equipment may fail before its designed life do to overheating.

TypeYearCostPriorityProgram Functional Upgrade2010\$3,000Low

Updated: MAR-09

D5030.05 Public Address and Music Systems**

There is a sound system cabinet outside the library in working order. The Public address is functional and located at the administration desk. The equipment and speakers are Rauland Borg corp. And are located within the ceiling spaces where Tee-Bar ceiling is and wall mounted at other locations.

RatingInstalledDesign LifeUpdated4 - Acceptable199120MAR-09

Event: Replace of PA system and speakers

TypeYearCostPriorityLifecycle Replacement2012\$17,000Unassigned

Updated: MAR-09

D5030.06 Television Systems*

There is a Television cabinet next to the library which appears to be in working order. The television system has never been connected to a local cable provider.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.07 Laboratory Equipment* -

Laboratory sinks in science room.

RatingInstalledDesign LifeUpdated4 - Acceptable19810MAR-09

E1090.03 Food Service Equipment* -

Full commercial kitchen and wet bar in 1991 addition.

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

E2010.02 Fixed Casework** Bathroom/ Kitchen

Millwork found in bathrooms and kitchen. (~40m)

RatingInstalledDesign LifeUpdated3 - Marginal198035MAR-09

Event: Repair Bathroom Casework

Concern:

Millwork coming apart in several bathrooms

Recommendation:
Repair/ replace millwork.

 Type
 Year
 Cost
 Priority

 Repair
 2009
 \$3,500
 Medium

Updated: MAR-09

Event: Replace bathroom/kitchen casework

Concern:

Laminate lifting off plywood surfaces where water present.

Recommendation:

Replace laminate on all millwork surfaces.

TypeYearCostPriorityLifecycle Replacement2015\$10,000Unassigned

E2010.02 Fixed Casework** Classrooms

In classrooms millwork is along exterior walls and corridor walls.\ (~420m)

RatingInstalledDesign LifeUpdated4 - Acceptable198035MAR-09

Event: Replace classroom casework

TypeYearCostPriorityLifecycle Replacement2015\$300,000Unassigned

Updated: MAR-09

E2010.03.01 Blinds** -

Majority of blinds very worn and faded. Maintenance done by canabilizing from newer wings. (170m2)

RatingInstalledDesign LifeUpdated3 - Marginal196030MAR-09

Event: Replace Blinds

Concern:

Blinds and window coverings failing.

Recommendation:

Replace all blinds and window coverings. (~55 blinds).

TypeYearCostPriorityFailure Replacement2009\$18,000Medium

Updated: MAR-09

Event: Replace blinds and window coverings

TypeYearCostPriorityLifecycle Replacement2015\$35,000Unassigned

E2010.03.06 Curtains and Drapes**

Stage. (~75m2)

RatingInstalledDesign LifeUpdated4 - Acceptable199130MAR-09

Event: Replace stage drapes

TypeYearCostPriorityLifecycle Replacement2021\$22,000Low

Updated: MAR-09

E2020.02.03 Furniture* - Desks and Chairs

Desks and chairs (~400)

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

F2020.01 Asbestos*

Asbestos still remains in panels in bathroom #128 and in mechanical room pipe corners.

(2000) Asbestos removed from bathroom #127

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

F2020.04 Mould*

Mould can be found in significant quantities in the crawl space- up to 1" deep growth. Mould was found along the base of the walls redone from the 1981 addition. Mould events are addressed in the S7 Site.

RatingInstalledDesign LifeUpdated3 - Marginal00MAR-09

Event: Remove mould and surrounding dirt

Concern:

Potential for mould to create health issues and allergies for students.

Recommendation:

Remove mould and surrounding dirt (minimum 4" deep, and 2'-0" out from perimeter from edge of mould)
Replace dirt with fresh dirt/gravel topping.

TypeYearCostPriorityRepair2009\$10,000Unassigned

Updated: MAR-09

F2020.09 Other Hazardous Materials* -

No other Hazardous Materials were noted at this time.

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

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

At grade main entrance. Access provided from parking to entrance.

RatingInstalledDesign LifeUpdated5 - Good19910MAR-09

K4010.02 Barrier Free Entrances* -

Northern entrances at grade. Installed automatic door openers.

RatingInstalledDesign LifeUpdated4 - Acceptable19600MAR-09

K4010.03 Barrier Free Interior Circulation*

Entire school on one storey. Access throughout (except Mezzanine in 1991 addition- special needs athletic equipment and storage rooms.)

RatingInstalledDesign LifeUpdated4 - Acceptable19910MAR-09

K4010.04 Barrier Free Washrooms* -

Barrier Free washrooms in gymnasium locker rooms and separate washroom in original building (rm # 111)

RatingInstalledDesign LifeUpdated5 - Good19910MAR-09