RECAPP Facility Evaluation Report

Christ The Redeemer Cs Reg Div #3

Good Shepherd School

B3835A Okotoks

Okotoks - Good Shepherd School (B3835A)

Facility Details

Building Name: Good Shepherd School

Address: 52 Robinson Drive

Location: Okotoks

Building Id: B3835A **Gross Area (sq. m):** 5,344.90

Replacement Cost: \$14,914,409

Construction Year: 1990

Evaluation Details

Evaluation Company: DIALOG

Evaluation Date: December 15 2010 **Evaluator Name:** Ms. Katherine Roy

Total Maintenance Events Next 5 years: \$743,700 5 year Facility Condition Index (FCI): 4.99%

General Summary:

The original 3,657 sq.m. building was constructed in 1990 with partially buried classroom additions added in 1990, 1991 and 1992 (referred to on site and floor plans as "portables". A link addition was constructed in 1992, a Gymnasium storage room addition in 2000 and portables added in 2002 and 2003. The portables, which were added in 1991 on the north end of the building, were removed in 2007. The remaining 1990, 1991 and 1992 portions of the building referred to as "integrated portables" are not functionally portable units. Their exterior cladding is brick veneer and stucco, the roofs are sloped/peaked to match the main building, the floors are slab-on-grade and their interior elements also match those in the main building. Therefore, comments made in the report regarding the main building are also intended to address these "built-in" portables.

The building is a single level structure with the exception of a sunken library and 3 upper level mechanical rooms. The present gross building area is 5,426 sq.m. with a student capacity of approximately 630 students.

Structural Summary:

The original building is slab on grade with wood framed walls and roof. The additions consist of partially buried wood frame foundation walls/exterior walls and roofs. The gymnasium is constructed of CMU walls and sloped wood roof trusses. The building structure is considered to be in acceptable condition.

Envelope Summary:

The exterior walls are clad with clay masonry units to door head height and cement stucco elsewhere. Windows are sealed aluminum units with operable vents and doors and frames are painted metal. Sloped roofs are asphalt shingles and flat roofs are asphalt and gravel. Cap flashings are prefinished metal.

With the exception of the items noted below the building envelope is in acceptable condition.

Recommended work noted in the report includes:

- -Installing painted wood soffits to prevent vandalism.
- -Painting rooftop mechanical room doors.
- -Extending or adding splashpads to direct storm water away from the building.
- -Providing barrier-free ramps in lieu of stairs at two entrances/exits.

Interior Summary:

Flooring throughout is both carpet and sheet vinyl. The majority of walls are painted gypsum board with some painted CMU. Ceilings are generally stippled with T-Bar in a few locations. With the exception of the items noted below, the interior of the building is generally in acceptable condition.

Recommended work noted in the report includes:

- -Replacing the wood door to the attic with a fire-rated access door.
- -Replacing the carpet in the Staff Room, Computer Room, one Storage Room, one Office, two Classrooms and at the enclosed stair to the Stage/Classroom.
- -Replacing the vertical window blinds with roller shades.
- -Removing the rough wood stair to the attic and replacing it with a steel access ladder.
- -Adding missing handrails at stairs and ramps.
- -Improving maintenance and fire fighting access to Mechanical Rooms.

Mechanical Summary:

Copper piping distributes domestic water to washroom fixtures, showers, and drinking fountains throughout the building. Backflow preventors are found on boiler and irrigation lines, but not on the domestic water supply. Recirculated hot water is provided by two domestic water heaters. Internal leaders discharge rainwater from roof drains. Ventilation is provided by 3 main air handling units with hot water coils that serve the east, west & gym areas. A smaller gas fired roof top unit serves the 2nd floor. Heating is provided by two gas-fired hot water boilers that supply AHU heating coils, perimeter radiation, fan coil units and unit heaters in the main building. The 1990, 1991 and 1992 portables are provided with individual gas furnaces to meet ventilation and heating requirements. The 2002 and 2004 portable employ rooftop AC units. Crawlspace ventilation/exhaust units were added in 2005 to keep the spaces below the portables dry. Exhaust fans serve various areas of the main building, including the washrooms, administration, and electrical rooms. Electric and pneumatic heating controls are employed and mechanical systems are controlled through a BMS. A dry sprinkler system that runs through unconditioned attic space provides fire protection and fire extinguishers are provided throughout. It was noted that maintenance access to mechanical rooms was poor.

Recommended work includes:

- Provide a backflow preventer on the potable water supply
- Provide a high level alarm on the storm water sump
- Repair the dryer exhaust ductwork
- Repair or remove the humidifier media in the AHUs.

Overall, the condition of the mechanical systems are acceptable.

Electrical Summary:

Main service is 800 Amp, 3 phase with good capacity and is original 1990 equipment. Sub-distribution panels have sufficient capacity for growth and 4 receptacles are provided per classroom with extra receptacles added for computing needs. The majority of lighting is provided by T8 fluorescent fixtures with metal halide lighting employed in the gym. Battery packs with remote heads provide emergency lighting and points of egress are identified with LED exit signs. Exterior lighting consists of incandescent, metal halide and H. P. Sodium fixtures controlled by a photocell and time clock. A fire alarm system with bells and strobes as well as an intrusion detection and video surveillance system is provided. Telephone handsets are provided in each classroom and are used for paging purposes. The data network includes a server with Cat 5e network cabling and the school is connected to the SuperNet.

School operations staff have indicated that they are planning to upgrade the security system and noted that the PA system head end unit is failing.

The electrical system is in good condition overall.

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*

1990 building: Concrete foundation walls and strip footings

1990, 91 and 92 additions: Concrete strip footings

2000 addition: Concrete foundation walls and strip footings

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

A1030 Slab on Grade*

1990 building: Concrete slab on grade throughout

2000 addition: Concrete slab on grade

1990 addition: Concrete slab on grade in crawlspace

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

A2020 Basement Walls (& Crawl Space)*

1990, 91 and 92 additions: Crawlspace walls are framed wood

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

Event: Completed - Repair damaged crawlspace walls and waterproof

Concern:

Some classroom walls and all classroom crawlspace walls are below grade and are constructed of wood framing. Rotting of structure has been reported by the user. Crawlspaces occasionally require pumping out of water.

Recommendation:

Machine and hand excavate buried walls and make necessary structural repairs. Install new waterproofing membrane over the walls and footings. Install weeping tile as required and connect to plumbing system. This repair has occurred at a portion of the 92 addition in the summer of 2005.

Consequences of Deferral:

Rot, foundation failure, contamination, health hazard

TypeYearCostPriorityFailure Replacement2010\$630,000High

Updated: APR-11

B1010.01 Floor Structural Frame (Building Frame)*

1990 building: Wood floor trusses on framed wood walls/beams at special education rooms over library 1990, 91 and 92 additions: Wood floor joists/trusses on wood framed crawlspace walls

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

1990 building: Framed wood walls/beams supporting special education rooms over library. Concrete masonry walls in NE classroom wing and south circulation area supporting mechanical rooms above

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B1010.03 Floor Decks, Slabs, and Toppings*

1990 building: Suspended concrete slabs at 3 separate upper level mechanical rooms

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B1010.07 Exterior Stairs*

Cast-in-place concrete stair to below grade north building entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B1020.01 Roof Structural Frame*

Sloped roof trusses over gymnasium and classroom wings and flat roof trusses over circulation spaces

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B1020.03 Roof Decks, Slabs, and Sheathing*

Roof decks are sheathed with wood.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Clay brick cladding to door/window head height throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

Cement stucco exterior wall finish throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B2010.01.09 Expansion Control: Exterior Wall Skin*

Metal edge expansion control joints at stucco finishes

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

Joints of dissimilar materials and penetrations on exterior walls throughout are caulked

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace joint sealants (1600m)

TypeYearCostPriorityLifecycle Replacement2014\$50,000Unassigned

Updated: APR-11

B2010.01.13 Paints (& Stains): Exterior Wall**

Exterior metal doors/frames and semi-circular wall motifs (some with grilles) are painted throughout. The paint is peeling on a few side light bases which is to be addressed as a part of routine maintenance.

RatingInstalledDesign LifeUpdated4 - Acceptable199015APR-11

Event: Paint exterior doors/frames and wall motifs (12

sets of doors, 3 motifs)

TypeYearCostPriorityLifecycle Replacement2014\$20,000Unassigned

Updated: APR-11

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

Gymnasium wall of concrete masonry units

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B2010.02.05 Wood Framing: Ext. Wall Const.*

Wood framed exterior walls throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

Not available for review, however no evidence of significant air leakage was observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal louvres throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B2010.09 Exterior Soffits*

Prefinished metal vented soffits and painted plywood soffits throughout.

The plywood has been added to some of the lower soffits (at partially buried building components) to prevent vandalism.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

Event: Install painted wood soffits

Concern:

The remaining prefinished metal soffits are prone to vandalism.

Recommendation:

Add painted plywood soffits to the remaining low metal soffited locations.

Consequences of Deferral:

Increased maintenance costs. Possible injury/cuts from damaged soffits close to grade.

TypeYearCostPriorityPreventative Maintenance2011\$10,000Medium

Updated: APR-11

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

Prefinished aluminum window units throughout with operable vents.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace aluminum windows (550sq.m)

TypeYearCostPriorityLifecycle Replacement2030\$665,000Unassigned

Updated: APR-11

B2030.01.02 Steel-Framed Storefronts: Doors**

Painted pressed steel frame entrances with lights in doors and sidelights at most building entrances except at the exit from the 1992/2002 portables link.

Hardware on west main entrance doors being replaced at present.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace Steel-Framed Storefronts (13 doors and

associated sidelights)

TypeYearCostPriorityLifecycle Replacement2020\$75,000Unassigned

Updated: APR-11

B2030.01.06 Automatic Entrance Doors**

Automatic door operators on west side main entrance doors at grade.

Automatic door operators at north entrance - doors below grade accessed by exterior concrete stair.

Automatic door operator at east entrance door to 2003 portables - stairs from grade up to door.

RatingInstalledDesign LifeUpdated4 - Acceptable200830APR-11

Event: Replace automatic entrance doors (3 single doors)

TypeYearCostPriorityLifecycle Replacement2038\$43,000Unassigned

Updated: APR-11

B2030.02 Exterior Utility Doors**

Painted single hollow metal doors in pressed steel frames at Gymnasium and roof top Mechanical Rooms. Painted double hollow metal doors in a pressed steel frame at south entrance to the 1992/2002 portable link.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Paint utility doors (3)

Concern:

Paint is peeling from rooftop utility doors.

Recommendation:
Repaint doors. 3 doors.
Consequences of Deferral:

Further deterioration of painted finish and substrate, increased

maintenance costs.

TypeYearCostPriorityPreventative Maintenance2012\$1,000Low

Updated: APR-11

Event: Replace hollow metal utility doors (5 single, 1

double)

TypeYearCostPriorityLifecycle Replacement2030\$6,600Unassigned

Updated: APR-11

B3010.01 Deck Vapor Retarder and Insulation*

Not available for review, however no evidence of significant air leakage was observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

B3010.02.01.01 Asphalt Shingles**

Asphalt shingles on sloped roofs replaced in 2008.

RatingInstalledDesign LifeUpdated5 - Good200825APR-11

Event: Completed 2008 - Repair leaking roofs (3800sq.m.)

Concern:

Several leaks evidenced on interior ceilings have been attributed to roofing failures.

The shingle roofing on the sloped roofs was replaced in 2008.

Recommendation:

Repair faulty asphalt shingle roofing

 Type
 Year
 Cost
 Priority

 Repair
 2008
 \$185,000
 Medium

Updated: APR-11

Event: Replace sloped asphalt shingle roof (3800sq.m.)

TypeYearCostPriorityLifecycle Replacement2033\$185,000Unassigned

Updated: APR-11

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

Asphalt and gravel built-up roofing on flat roof areas over circulation spaces was replaced in 2005.

RatingInstalledDesign LifeUpdated5 - Good200525APR-11

Event: Completed 2005 - Repair failed asphalt roofing

Concern:

Several leaks evidenced on interior ceilings have been attributed to roofing failures.

The flat built-up roofing assembly was replaced in 2005.

Recommendation:

Repair/replace faulty B/U roof areas

TypeYearCostPriorityRepair2005\$125,000Medium

Updated: APR-11

Event: Replace Built-up Roof (850sq.m.)

TypeYearCostPriorityLifecycle Replacement2030\$125,000Unassigned

Updated: APR-11

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)**

Sloped asphalt roofs spill into an integral framed roof gutter/parapet at the eaves which is protected with a membrane barrier. These roof areas were not available for review but are presumed to have been upgraded with the 2005 sloped roof replacement.

RatingInstalledDesign LifeUpdated4 - Acceptable200525APR-11

Event: Replace membrane roofing at base of sloped roofs

(360sq.m.)

TypeYearCostPriorityLifecycle Replacement2030\$75,000Unassigned

Updated: APR-11

B3010.08.02 Metal Gutters and Downspouts**

Prefinished metal downpipes from integrated roof gutters spill onto precast concrete splash pads at grade throughout. Building operator advised that problems exist with site drainage, grading is challenging (refer to item G3030.01 Storm Water Collection).

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Add or extend splashpads (30 locations)

Concern:

Some downspout splashpads terminate too close to the exterior wall allowing for erosion next to the building and ice buildup at pedestrian walkways.

Recommendation:

Add or extend splashpads to direct water away from the building. (30 locations)

Consequences of Deferral:

Water infiltration. Fall hazard at ice formations.

TypeYearCostPriorityPreventative Maintenance2011\$1,500High

Updated: APR-11



Downspout at Main Building

Event: Replace prefinished metal downspouts (approx.

260m)

TypeYearCostPriorityLifecycle Replacement2020\$5,200Unassigned

Updated: APR-11

B3020.01 Skylights**

Two wood framed light wells located over circulation spaces are fitted with fixed prefinished aluminum clerestory sealed windows.

RatingInstalledDesign LifeUpdated4 - Acceptable199025APR-11

Event: Replace clerestory fixed windows (50sq.m.)

TypeYearCostPriorityLifecycle Replacement2015\$60,000Unassigned

Updated: APR-11

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

One painted metal roof access hatch is accessed through the SE custodial room.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Painted gypsum board on wood stud framed partitions throughout. CMU partitions at interior cores (washrooms and service rooms) and at Gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1010.03 Interior Operable Folding Panel Partitions**

Folding panel partition separating stage opening from gymnasium

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace folding acoustic partition (20sq.m.)

TypeYearCostPriorityLifecycle Replacement2020\$29,000Unassigned

Updated: APR-11

C1010.04 Interior Balustrades and Screens, Interior Railings*

Low wood stud framed wall with clear finished wood wall cap to separate circulation space from sunken Library area.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1010.05 Interior Windows*

Painted pressed steel frames with single safety glass at classroom door sidelights throughout and vision panels at staff/administration areas.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1010.06 Interior Glazed Partitions and Storefronts*

Sliding aluminum partition with single safety glass to separate stage/music room from interior circulation space

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1010.07 Interior Partition Firestopping*

All observed penetrations through fire seperations were fire-stopped.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1020.01 Interior Swinging Doors (& Hardware)*

Clear finished wood doors, with lever hardware, in painted pressed steel frames throughout.

Panic hardware was replaced in 2000.

Wood gym doors are presently being replaced with hollow metal doors and new hardware.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1020.03 Interior Fire Doors*

Storage and service rooms have fire-rated labeled painted hollow metal doors in pressed steel frames with the exception of the attic door.

RatingInstalledDesign LifeUpdated3 - Marginal19900APR-11

Event: Replace non-rated door with fire-rated assembly.

(1 door)

Concern:

The door from Storage Room 104 to the attic space above is a non-rated wood sliding door, which compromises the integrity of the required fire separation around the Storage Room.

Recommendation:

Replace the wood door with a fire-rated access door assembly. Refer also to item K4020.03.

Consequences of Deferral:

Not presently code compliant. Life safety.

TypeYearCostPriorityCode Repair2011\$1,500Low

Updated: APR-11

C1020.05 Interior Large Doors*

Clear anodized aluminum grilles are located at corridor intersections and used to secure corridors during evening events.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1020.07 Other Interior Doors*

Two manual vertical lift coiling aluminum counter shutters at Kitchen Servery - one to the adjacent Corridor and one to the Gymnasium.

RatingInstalledDesign LifeUpdated5 - Good19900APR-11

C1030.01 Visual Display Boards**

Various tack, chalk and white boards located throughout the school in classrooms and corridors. Smartboards in some classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace viusal display boards (160 boards)

TypeYearCostPriorityLifecycle Replacement2014\$115,000Unassigned

Updated: APR-11

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

Prefinished metal toilet & shower stall compartments in student washrooms and change rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace toilet & shower partitions (28 stalls)

TypeYearCostPriorityLifecycle Replacement2020\$40,000Unassigned

Updated: APR-11

C1030.08 Interior Identifying Devices*

Plastic room identification signage mounted to doors throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1030.10 Lockers**

Prefinished double tier metal lockers in 1990/1991 "portables" corridor.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace lockers (36 double tier)

TypeYearCostPriorityLifecycle Replacement2020\$25,000Unassigned

Updated: APR-11

C1030.12 Storage Shelving*

Painted wood shelving units in storage rooms throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

Commercial grade soap, toilet paper and paper towel dispensers and stainless steel framed mirrors in student and staff washrooms throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C1030.17 Other Fittings*

Clear finished wood shelf units with coat hooks and prefinished metal boot racks mounted to walls in corridors and vestibules.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C2010 Stair Construction*

Two sets of concrete stairs and one ramp up to Classroom/Stage.

Three sets of concrete stairs down to sunken Library.

Wood framed stair up to special education area over library.

Wood framed stair beside the interior ramp at 1992/2002 portable link.

Raw wood framed stair in Storage Room 104 to access roof attic. Refer to item K4020.03 for recommendations regarding this stair.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C2020.05 Resilient Stair Finishes**

Rubber stair treads and nosings at stairs in the 1992/2002 portable link.

Only 2 risers at this location. Therefore lifecycle costs are minor and have been included with resilient flooring lifecycle replacement costs in item C3020.07.

RatingInstalledDesign LifeUpdated4 - Acceptable200220APR-11

C2020.06 Carpet Stair Finishes**

Carpet to treads and risers

- -on the open stairs up to the Stage/Classroom
- -on multiple sets of open stairs down to the Library
- -on the stairs up to the Special Education area over Library

was replaced in 2006.

Carpet on the treads and risers at the enclosed stair up to the he Stage/Classroom appears to be original and is in poor condition.

RatingInstalledDesign LifeUpdated4 - Acceptable200610APR-11

Event: Replace carpet on stage/classroom stairs with

vinyl flooring (10sq.m.)

Concern:

Aged carpet at the enclosed stairs to Classroom/Stage.

Recommendation:

Replace carpet with sheet vinyl or rubber treads and risers.

Consequences of Deferral:

Increased maintenance and possible tripping hazard as carpet continues to age.

TypeYearCostPriorityFailure Replacement2011\$1,000Low

Updated: APR-11

Event: Replace carpet on stairs (135sq.m)

TypeYearCostPriorityLifecycle Replacement2016\$12,000Unassigned

Updated: APR-11

C2020.08 Stair Railings and Balustrades*

Painted steel handrails are installed at the stair up to the special education area over the Library.

Painted steel railing on one side of ramp up to Classroom/Stage. Railing is not full length.

No railing at enclosed stair to Classroom/Stage. No railing at open stair to Classroom /Stage.

Rudimentary wood railing on stair in Storage Room 104 to access roof attic (refer to item K4020.03 for recommendations regarding this stair).

Stainless steel railings have been installed at east stairs down to Library. No railings at north and west stairs to Library. A clear finished wood handrail is fitted to one side of the ramp at 1992/2002 portable link..

Refer to item K4020.03 for recommended code upgrades for stair/ramp railings.

Rating <u>Installed</u> <u>Design Life</u> <u>Updated</u>

4 - Acceptable 1990 0 APR-11

C2020.11 Other Stair Finishes*

Raw wood framed stair in Storage Room 104 to access roof attic (refer to item K4020.03 for recommendations regarding this stair).

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C2030 Interior Ramps*

A ramp finished with a non-slip resilient surface serves the classroom/stage.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

Gypsum board wall finishes throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C3010.06 Tile Wall Finishes**

Ceramic tile wall finish backing water closets and urinals in Student Washrooms.

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RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace ceramic wall tile at toilet and urinals

(30sq.m.)

TypeYearCostPriorityLifecycle Replacement2030\$8,500Unassigned

Updated: APR-11

C3010.09 Acoustical Wall Treatment**

Acoustic fabric wall panels at higher level in Stage/Classroom and Band Room 117. Wood framed fabric acoustic panels on gymnasium walls.

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace acoustic wall treatment (500sq.m.)

TypeYearCostPriorityLifecycle Replacement2014\$105,000Unassigned

Updated: APR-11

C3010.11 Interior Wall Painting*

Interior walls are painted throughout. All Classrooms were repainted in 2010. Corridors and Washrooms were repainted in 2007.

RatingInstalledDesign LifeUpdated5 - Good19900APR-11

C3020.01.02 Paint Concrete Floor Finishes*

Concrete floors in gym storage, and the electrical and custodial rooms are painted, as well as those in the three mechanical rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C3020.04 Wood Flooring**

Clear finished strip hardwood floor in gymnasium

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace wood Gymnasium floor (489 sq.m.)

TypeYearCostPriorityLifecycle Replacement2020\$135,000Unassigned

Updated: APR-11

C3020.07 Resilient Flooring**

Sheet vinyl flooring throughout circulation spaces, washrooms, corridors and portions of classrooms. Flooring on ramp to classroom/stage and in some washrooms was replaced with slip resistant sheet flooring in 2007 (approx 20 sq. m).

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace Resilient Sheet Flooring (3000 sq. m.)

TypeYearCostPriorityLifecycle Replacement2014\$265,000Unassigned

Updated: APR-11

C3020.08 Carpet Flooring**

Carpet flooring in the library, the staff/administration areas and portions of classrooms.

Much of the carpet has been replaced and is in good condition, however the remaining original carpet is in marginal condition..

RatingInstalledDesign LifeUpdated3 - Marginal200815APR-11

Event: Completed 2008 - Replace worn carpet flooring

(approx. 720 sq. m)

Concern:

Carpet in high traffic areas is wrinkled in several areas and is worn thin or completely through.

The carpet in many areas was replaced in 2008.

Recommendation:

Replace carpet flooring with a sheet vinyl product.

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Consequences of Deferral:

Increased maintenance costs. Tripping hazards.

TypeYearCostPriorityFailure Replacement2008\$52,000Low

Updated: APR-11

Event: Replace carpet flooring throughout (1000 sq. m)

TypeYearCostPriorityLifecycle Replacement2023\$72,000Unassigned

Updated: APR-11

Event: Replace original worn carpet (280 sq.m.)

Concern:

Carpet is frayed, and worn in the Staff Room 133, Computer Lab 111, Storage Room 119, Classrooms 162 and 163, and in the un-numbered Office north of the Main Entrance.

Recommendation:

Replace carpet with sheet vinyl flooring. 280 sq. m.

Consequences of Deferral:

Increased maintenance costs. Tripping hazard.

TypeYearCostPriorityFailure Replacement2011\$20,000Low

Updated: APR-11

C3020.11 Floor Painting*

The wood gym floor is painted with game lines

Concrete floors in gym storage, electrical and custodial rooms are painted.

The three mechanical room concrete floors are painted.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

There are gypsum board ceilings in the washrooms, mechanical and storage rooms, and the gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C3030.05 Veneer Plaster Finishes (Stipple)*

Spray textured (stipple) finish on gypsum board ceilings and stepped bulkheads throughout circulation spaces. Spray textured (stipple) finish on gypsum board ceilings and sloped/vaulted bulkheads in classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

Event: Completed 2010 - Repair water damaged ceilings

Concern:

Damaged stippled ceilings have been repaired, cleaned and sterilized in 2010.

TypeYearCostPriorityRepair2010\$11,000Medium

Updated: APR-11

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

Suspended lay-in tile t-bar ceiling in some circulation areas, the stage/classroom and administration/staff areas.

RatingInstalledDesign LifeUpdated4 - Acceptable199025APR-11

Event: Replace Acoustic T-Bar Ceilings (400 sq.m.)

TypeYearCostPriorityLifecycle Replacement2015\$20,000Unassigned

Updated: APR-11

C3030.07 Interior Ceiling Painting*

Painted gypsum board ceilings and bulkheads; also in combination with stippled finishes.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

C3030.09 Other Ceiling Finishes*

Acoustic panels mounted to the sloped gypsum board ceiling in the Gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D1010.02 Lifts**

Accessible lift in main circulation corridor to access the sunken library.

RatingInstalledDesign LifeUpdated4 - Acceptable199025APR-11

Event: Replace single seat wheelchair lift (1 lift)

TypeYearCostPriorityLifecycle Replacement2015\$27,500Unassigned

Updated: APR-11

S4 MECHANICAL

D2010.04 Sinks**

Single SS sinks with two handle taps in classrooms & science room Double SS sink in kitchen, staff room,.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace Sinks (2 dbl SS, 4 sgl SS)

TypeYearCostPriorityLifecycle Replacement2020\$9,600Unassigned

Updated: APR-11

D2010.05 Showers**

One piece molded fibreglass shower stalls with Symmons push button and mixing valve.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace showers (7 fibreglass)

TypeYearCostPriorityLifecycle Replacement2020\$26,600Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

China recessed drinking fountains (not refrigerated). Stainless steel drinking fountain (not refrigerated) by kitchen.

RatingInstalledDesign LifeUpdated4 - Acceptable199035APR-11

Event: Replace drinking fountains (4 china, 1 SS)

TypeYearCostPriorityLifecycle Replacement2025\$10,800Unassigned

Updated: APR-11

D2010.09 Other Plumbing Fixtures*

Janitors room. 900 x 600mm floor mounted plastic mop sink with two handle vacuum breaker taps

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

Steel enamel vanity basins with two handle taps; some leaking faucets noted.

China wall hung with two handle taps.

SS vanity with two handle taps.

Crane, Stall urinal with flush valve Wall hung urinals with flush valves

Floor mounted WCs with flush tank.

RatingInstalledDesign LifeUpdated4 - Acceptable199035APR-11

Event: Replace fixtures (20 WC, 22 lav, 5 urinal)

TypeYearCostPriorityLifecycle Replacement2025\$88,800Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

150mm domestic water from town supply. feeding sprinkler tree, 100mm branch to school and 75mm branch to irrigation both with meter.

Copper water pipe distribution.

RatingInstalledDesign LifeUpdated4 - Acceptable19900FEB-06

D2020.01.02 Valves: Domestic Water**

Isolation valves are provided throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace domestic water valves (approx. 6 valves)

TypeYearCostPriorityLifecycle Replacement2030\$7,500Unassigned

Updated: APR-11

D2020.01.03 Piping Specialties (Backflow Preventors)**

Backflow devices on boilers and irrigation.

School water supply does not have a backflow preventor.

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Provide backflow on School domestic supply

Concern:

The domestic water supply lacks a backflow preventor which increases the risk of contamination.

Recommendation:

Add backflow prevention device to domestic water supply.

TypeYearCostPriorityCode Upgrade2012\$7,400Medium

Updated: APR-11

Event: Replace backflow preventers (3)

TypeYearCostPriorityLifecycle Replacement2014\$17,700Unassigned

Updated: APR-11

D2020.01.08 Hose Bibbs*

Frost free hose bibbs located around the exterior of the building

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

Taco fractional horse power pump on the domestic hot water recirc.

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace DHW recirc pumps (1 frac.)

TypeYearCostPriorityLifecycle Replacement2014\$1,500Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters**

Two, State SBT-70-360 gas fired hot water tanks, operating lead/lag; service/replacement access to water heaters is limited.

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace DWHs (2 50gph, gas)

TypeYearCostPriorityLifecycle Replacement2014\$4,000Unassigned

Updated: APR-11

D2020.03 Water Supply Insulation: Domestic*

25mm fibreglass

RatingInstalledDesign LifeUpdated4 - Acceptable19900FEB-06

D2030.01 Waste and Vent Piping*

Cast iron and copper

RatingInstalledDesign LifeUpdated4 - Acceptable19900FEB-06

D2030.02.04 Floor Drains*

Ancon floor drains and cleanouts.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D2040.01 Rain Water Drainage Piping Systems*

Internal cast iron rainwater leaders connect to a storm water system that includes a sump and sump pump in Room 306. Rainwater leaders also discharge onto splash pads.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

Event: Provide high level alarm on sump and install back-

up pump

Concern:

There is no high level alarm on the sump to warn of a potential overflow condition.

Recommendation:

Add a high level alarm and install a back-up pump.

Consequences of Deferral:

Possible flooding and site contamination.

TypeYearCostPriorityPreventative Maintenance2012\$2,000Low

Updated: APR-11

D2040.02.04 Roof Drains*

Cast iron roof drains with domes

RatingInstalledDesign LifeUpdated4 - Acceptable19900FEB-06

D3010.02 Gas Supply Systems*

Internal gas meter room, 7000 cfh meter, Steel pipe distribution to boilers, hot water tank, science room turrets and 75mm gas line on the roof.

Rating Installed Design Life Updated 4 - Acceptable 1990 0 FEB-06

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

Boiler 1 and Boiler 2: Super Hot AAE 2280 with gas fired single gas valve, limits, flow switches, safety valves and low water cutoffs. Includes air scoop, boiler feed valve and horizontal expansion tank. There is a two way by-pass control valve between the boiler supply and return. A high temperature system.

RatingInstalledDesign LifeUpdated4 - Acceptable199035APR-11

Event: Replace boilers & accessories (2 gas boilers, 2500

MBH ea)

TypeYearCostPriorityLifecycle Replacement2025\$116,400Unassigned

Updated: APR-11

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

Insulated combustion air with arctic trap. The Mark Hot hot water unit heater is attached to the combustion air.

RatingInstalledDesign LifeUpdated4 - Acceptable199035APR-11

Event: Replace chimneys (2)

TypeYearCostPriorityLifecycle Replacement2025\$2,000Unassigned

Updated: APR-11

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

Pot feeder and by-pass filter. Chemical treatment plan in place.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D3020.03.01 Furnaces**

Individual downflow gas-fired furnaces serve "integrated portables" (1990-1992)

RatingInstalledDesign LifeUpdated4 - Acceptable200825APR-11

Event: Replace furnaces (10 X 25 MBH, gas)

TypeYearCostPriorityLifecycle Replacement2033\$25,000Unassigned

Updated: APR-11

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

RatingInstalledDesign LifeUpdated4 - Acceptable19910APR-11

D3040.01.01 Air Handling Units: Air Distribution**

AHU-1, Haakon Airpak, 6607 L/s, SA and RA fans, mixing, filter, humidity sections, pneumatic dampers; humidity section not in use. Hot water heating coil section with 3-way control valve. Serving West zone.

AHU-2, Haakon Airpak, 4719 L/s, SA & RA fans, mixing, filter, humidity sections, pneumatic dampers; humidity section not in use. Hot water heating coil with 3-way control valve. CO2 sensor on R/A at AHU. Serves the Gym, music room areas.

AHU-3, Haakon Airpak, 6607 L/s, SA & RA fans, mixing, filter, humidity sections, pneumatic dampers; humidity section not in use. Hot water heating coil with 3-way control valve. Serves the the east zone.

Storage area at east of stage (classroom) is not ventilated.

Rating Installed Design Life Updated
5 - Good 1990 30 APR-11

Event: Replace AHUs (3 single zone)

TypeYearCostPriorityLifecycle Replacement2020\$114,000Unassigned

Updated: APR-11

D3040.01.02 Fans: Air Distribution (Remote from AHU)*

Sidewall transfer fan added to classroom above library.

RatingInstalledDesign LifeUpdated4 - Acceptable20000APR-11

D3040.01.03 Air Cleaning Devices: Air Distribution*

50mm filters in the main air handling units.

RatingInstalledDesign LifeUpdated5 - Good19900APR-11

D3040.01.04 Ducts: Air Distribution*

Galvanized steel distribution

1990, 1991 & 1992 portables have underfloor air distribution

RatingInstalledDesign LifeUpdated5 - Good19900FEB-06

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Grilles & diffusers

RatingInstalledDesign LifeUpdated5 - Good19900FEB-06

D3040.03.01 Hot Water Distribution Systems**

Two primary pumps with strainers and check valves and butterfly valves. Steel piping distributes to hot water coils within the air handling units, perimeter radiation, and cabinet and unit heaters.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace Hot Water Distribution Systems (gfa)

TypeYearCostPriorityLifecycle Replacement2030\$550,000Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust**

Greenheck exhaust fans serving washrooms, admin area, electrical rooms.

No exhaust in the photocopy room. Staff room / lunch room ranges have recirculating residential style hoods.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace exhaust fans (gfa)

TypeYearCostPriorityLifecycle Replacement2020\$95,000Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust** - Portable Crawl Space Units

Five ventilation exhaust units added to ventilate the portable crawlspaces. Three Lifebreath 155-MAX and two 200-MAX units

D3040.04.03 Ducts: Exhaust*

Galvanized ducting, flex connections; dryer exhaust ductwork in need of repair.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

Event: Repair dryer exhaust ductwork ()

Concern:

Dryer exhaust ductwork in need of repair.

TypeYearCostPriorityRepair2011\$1,000Low

Updated: APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

Grilles

RatingInstalledDesign LifeUpdated4 - Acceptable19900FEB-06

D3050.03 Humidifiers**

300 mm thick wet cell, once through water system with solenoid valve control located in AHU-1, 2 & 3; media still in place, but humidification not in use.

RatingInstalledDesign LifeUpdated4 - Acceptable199025APR-11

Event: Remove AHU humidifier media (3 AHUs)

Concern:

Humidifier media in place but not in use.

Recommendation:

Either remove humidification media (unneccesary air pressure drop) or return humidification section to use.

Consequences of Deferral:

Continuing fan power wasted at media pressure drop.

 Type
 Year
 Cost
 Priority

 Repair
 2013
 \$4,500
 Low

Updated: APR-11

D3050.05.02 Fan Coil Units**

Fan coil units at entrance ways

RatingInstalledDesign LifeUpdated5 - Good199030APR-11

Event: Replace fan coil units (6)

TypeYearCostPriorityLifecycle Replacement2020\$34,200Unassigned

Updated: APR-11

D3050.05.03 Finned Tube Radiation**

Perimeter radiation, high level radiation at upper windows and gym.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace finned tube radiation (gfa)

TypeYearCostPriorityLifecycle Replacement2030\$274,000Unassigned

Updated: APR-11

D3050.05.06 Unit Heaters**

Mark Hot, Hot water unit heaters in mechanical rooms, gym storage.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace unit heaters (4)

TypeYearCostPriorityLifecycle Replacement2020\$14,200Unassigned

Updated: APR-11

D3060.02.01 Electric and Electronic Controls**

Line voltage thermostats control fan coil units. Boiler control and line voltage wired flow; low water switches. Fans in portable crawlspaces run 24/7.

Individual heating, ventilation systems, outdoor air dampers and exhaust fans are operated by manual switch. Rooftop unit control is provided in each portable classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace elec controls (gfa)

TypeYearCostPriorityLifecycle Replacement2020\$9,000Unassigned

Updated: APR-11

D3060.02.02 Pneumatic Controls**

Devilbiss JU-DJ5544A twin head compressor with dryer. Includes pneumatic damper motors and 2-way, 3-way heating valve control.

RatingInstalledDesign LifeUpdated5 - Good199040APR-11

Event: Replace pneumatic controls (non-portable gfa)

TypeYearCostPriorityLifecycle Replacement2030\$22,600Unassigned

Updated: APR-11

D3060.02.04 Self-Powered Controls*

Domestic hot water tanks.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

Full BMS to central office; Siemens control panel for air handlers, Johnson panel for boiler control.

RatingInstalledDesign LifeUpdated4 - Acceptable200020APR-11

Event: Replace BMS (based of gfa, excluding portables)

TypeYearCostPriorityLifecycle Replacement2020\$116,500Unassigned

Updated: APR-11

D4010 Sprinklers: Fire Protection*

Fully sprinklered building including crawlspace & attic. Sprinkler tree with 3 zones (portables, north & south). Dry sprinkler system. Siamese connection at the front entrance. Two unprotected exterior sprinkler heads at former corridor to portable classrooms have now been removed.

Sprinkler piping replacement underway with Victaulic; old dry system had excessive air leakage.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D4030.01 Fire Extinguisher, Cabinets and Accessories*

4.5 Kg fire extinguishers in cabinets located throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19900FEB-06

D4090.06 Smoke Protection & Exhaust Fans**

Smoke protection sensors in the ducting at AHUs.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace smoke detectors (3 at AHUs)

TypeYearCostPriorityLifecycle Replacement2030\$3,000Unassigned

Updated: APR-11

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

Mounted on the north side, pad mount 300KVA rating.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Event: Replace transfomer

TypeYearCostPriorityLifecycle Replacement2030\$25,000Unassigned

Updated: APR-11

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

The main service is a 120/208V 800A 3 phase 4wire U/G and has good capacity. The service was installed when the school was built in 1990.

RatingInstalledDesign LifeUpdated4 - Acceptable199040APR-11

Capacity Size Capacity Unit 800 amps

Event: Replace main switchboard

TypeYearCostPriorityLifecycle Replacement2030\$14,000Unassigned

Updated: APR-11

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

The panel boards are in good condition and have adequate capacity for future growth.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace 10 panels

TypeYearCostPriorityLifecycle Replacement2010\$46,000Unassigned

Updated: APR-11

D5010.07.02 Motor Starters and Accessories**

The motor starters are stand alone units. The boiler pump motor starters are tied into the BMS.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace 5 motor starters.

TypeYearCostPriorityLifecycle Replacement2020\$5,000Unassigned

Updated: APR-11

D5020.01 Electrical Branch Wiring*

Branch cct wiring has sufficient load capacity and meets current requirements. There are 4 receptacle in the classrooms and some extras have been added by use of wire mould to meet computer requirements. All the portables that have been added have 2 ccts for lights and one for 4 receptacles.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

Line voltage switching is used throughout with the exception of low voltage switching provided in the gym.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5020.02.02.02 Interior Fluorescent Fixtures**

The florescent lights have been upgraded to T-8 with reflectors with 2 lamps instead of 4 lamps in 2003 and are either 2x4 surface or lay-in style with standard lenses. Some entrances have 1x4 surface mount fixtures.

RatingInstalledDesign LifeUpdated5 - Good199030APR-11

Event: Replace 1200 light fixtures

TypeYearCostPriorityLifecycle Replacement2020\$315,000Unassigned

Updated: APR-11

D5020.02.02.03 Interior Metal Halide Fixtures*

The gymnasium has 400W M.H. fixtures.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5020.02.02.04 Interior H.P. Sodium Fixtures*

There are 2 - 70W pot lights located in the front entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5020.02.02.05 Other Interior Fixtures*

There are some surface mount compact fluorescent fixtures in the main vestibule installed during the light upgrade.

Rating Installed Design Life Updated 4 - Acceptable 1990 0 APR-11

D5020.02.03.02 Emergency Lighting Battery Packs**

The emergency lighting remote heads are original. There are remote heads in the change rooms, washrooms and corridors.

RatingInstalledDesign LifeUpdated4 - Acceptable199020APR-11

Event: Replace 5 battery packs

TypeYearCostPriorityLifecycle Replacement2014\$5,500Unassigned

Updated: APR-11

D5020.02.03.03 Exit Signs*

Exit lights have had led style lamps installed for energy efficiency.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5020.02.05 Special Purpose Lighting*

Gymnasium stage lighting includes a NSI dimming system with a controller at the back and the main board is behind the stage. The system is original.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5020.03.01.01 Exterior Incandescent Fixtures*

There are 3 pathway garden light poles at the main front entrance. Also there is a quartz halogen light controlled by a photocell which lights up the clock tower.

Rating Installed Design Life Updated
4 - Acceptable 1990 0 APR-11

D5020.03.01.03 Exterior Metal Halide Fixtures*

There are 70W M.H. fixtures with self contained photocells mounted outside each exit. Portables have metal halide exterior lights.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

There are 2 70W HPS soffit potlights at the main front entrance controlled by a key switch.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

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

The front lights and light poles are on photocell and time clock and the rest of the lights have self contained photocells.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5030.01 Detection and Fire Alarm**

The fire alarm panel is a Simplex 4002 non addressable system with at least 5 spare zones. There are 8" bells in the main school area. In the 1992 portables, there are 6" bells and in the 2002 and newer portables, there are 6" bells with strobes.

RatingInstalledDesign LifeUpdated4 - Acceptable199025APR-11

Event: Replace detection and fire alarm system (based on

5426sq.m. bldg area)

TypeYearCostPriorityLifecycle Replacement2015\$150,000Unassigned

Updated: APR-11

D5030.02.01 Door Answering*

There is a door tone button at the front entrance and rings throughout the paging speakers.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5030.02.02 Intrusion Detection**

There is an ADT D50 security system installed in the main electrical room. There is a keypad installed at the main staff entrance. There are motion sensors through out. No door contacts.

RatingInstalledDesign LifeUpdated3 - Marginal199025APR-11

Event: Replace Intrusion System Head End

Concern:

Existing intrusion system is original and due for upgrade.

Recommendation:

School plans to upgrade head end unit and reuse existing

devices.

Consequences of Deferral:

The system may fail to detect an intruder.

TypeYearCostPriorityFailure Replacement2011\$30,000High

Updated: APR-11

D5030.02.04 Video Surveillance**

4 Fixed position cameras installed on north and east entrances.

RatingInstalledDesign LifeUpdated6 - Excellent200925APR-11

Event: Completed 2009 - Install Video Surveillance system

Concern:

School does not have exterior video surveillance.

Recommendation:

Install cameras to cover North and East Entrances.

TypeYearCostPriorityOperating Efficiency Upgrade 2009\$6,000High

Updated: APR-11

Event: Replace video surveillance system (2 camera

<u>system)</u>

TypeYearCostPriorityLifecycle Replacement2034\$6,000Unassigned

Updated: APR-11

D5030.04.01 Telephone Systems*

There was a new Nortel phone system installed in 2004, with model 7208 hand sets in each class room and 7316's with cap modules at the main reception desk. There is a call pilot voice mail installed as well. The system is used for paging and morning announcements.

RatingInstalledDesign LifeUpdated5 - Good19900APR-11

D5030.04.02 Paging Systems*

The phone system is used for paging.

RatingInstalledDesign LifeUpdated5 - Good20040APR-11

D5030.04.05 Local Area Network Systems*

The network utilizes cat 5E cabling and meets current standards. The server is located in the custodian's office. There are 1 voice and 1 data outlet in each portable. A school network was connected recently to the SuperNet.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

D5030.05 Public Address and Music Systems**

There is a telcor amplifier and sound system with auxillary cd player and tape deck.

Rating 2 - Poor 1990 20 APR-11

Event: Replace PA Head End

Concern:

The existing paging head end unit is unreliable. System creates noise while being used or cuts out mid-broadcast.

Recommendation:

Replace head end unit while reusing existing devices throughout school.

Consequences of Deferral:

Poor functionality and technical difficulties preventing the staff from using the system on a regular basis.

TypeYearCostPriorityFailure Replacement2012\$15,500Low

Updated: APR-11

D5090.01 Uninterruptible Power Supply Systems**

There is a battery UPS on the main server only.

RatingInstalledDesign LifeUpdated4 - Acceptable200430APR-11

Event: Replace UPS (15 kVA unit)

TypeYearCostPriorityLifecycle Replacement2034\$41,200Unassigned

Updated: APR-11

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.07 Vending Equipment*

Beverage and snack dispensing units are located in the corridor.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

E1020.02 Library Equipment*

Anti-theft book scanner

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

E1020.03 Theater and Stage Equipment*

Theatrical lighting and rail.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

E1090.03 Food Service Equipment*

Beverage and snack dispensing units in corridor. Commercial grade cooler and freezer in Kitchen Servery.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

E1090.04 Residential Equipment*

Residential range and microwave oven in Kitchen Servery 145.
Residential range, dishwasher, microwave and refrigerator in Staff Room Kitchen 133.
Stacking clothes washer and dryer in Custodial Room 109.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

4 side swing wood basketball backstops and 2 power upswing glass basketball backboards in gymnasium. Various volleyball and badminton nets, posts and equipment.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

E2010.01 Fixed Artwork*

Carved wood pictorial artwork mounted to corridor walls

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

E2010.02 Fixed Casework**

Clear finished birch plywood lower cabinet bookshelves with plastic laminate finished counters in Classrooms along exterior walls and some interior walls throughout.

Plastic laminate finished vanities in Washrooms throughout.

Wall mounted laminate finished counters/work stations in various locations around Library 120 and Computer Room 111. Plastic laminate finished control desk in centre of Library 120.

Clear finished birch plywood upper and lower cabinets with plastic laminate counters in Servery Kitchen 145 and Staff Room Kitchen and Lounge 133.

Clear finished birch plywood upper and lower cabinets with laminate counters in Science Classroom.

Clear finished hardwood plywood book shelving units in Library and some Classrooms.

Clear finished wood shelves with coat hooks at some entrances and in some Classrooms.

Paint finished wood shelving in Janitor Rooms.

Clear finished wood upper and lower cabinets with plastic laminate finished counters in Work Room adjacent to Meter Room 112.

Clear finished wood shelving in Storage Rooms and Gymnasium Storage.

RatingInstalledDesign LifeUpdated4 - Acceptable199035APR-11

Event: Replace fixed casework (based on 4573 m2 gfa -

excludes 2002/03 portables)

TypeYearCostPriorityLifecycle Replacement2025\$440,000Unassigned

Updated: APR-11

E2010.03.01 Blinds**

Vertical blinds throughout

RatingInstalledDesign LifeUpdated3 - Marginal199030APR-11

Event: Replace vertical blinds with roller shades

(230sq.m.)

Concern:

Vertical blinds are damaged, mechanisms and cords are broken.

Recommendation:

Replace with solar reflective roller shades.

Consequences of Deferral:

Continued damage and maintenance costs. Parts are no longer available.

TypeYearCostPriorityFailure Replacement2011\$26,000Low

Updated: APR-11

E2010.03.06 Curtains and Drapes**

Curtain across stage opening in Gymnasium

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace stage curtains (30sq.m.)

TypeYearCostPriorityLifecycle Replacement2020\$10,000Unassigned

Updated: APR-11

F1010.02.04 Portable and Mobile Buildings** - 2002 Portables

2002 Portable Classrooms 166, 167, 169 and 170

Architectural

Construction consists of wood frame floors, walls and flat roof with an SBS modified roofing membrane and stucco exterior finish. Windows (2) are white prefinished aluminum fixed sealed units. Interior finishes consist of partial sheet vinyl and carpet flooring, painted gypsum board walls, suspended acoustic lay-in tile T-Bar grid ceiling, vertical window blinds and solid core wood doors in pressed steel frames. Fitments include tackboards, whiteboards and Smartboards and a moveable clear finished wood teacher's cabinet.

Mechanical

Heating and ventilation is provided by a self contained gas-fired rooftop unit (review not possible, since no access to roof provided) distributed through under floor ductwork and vents and controlled by a wall-mounted programmable thermostat in the classroom. Fire protection is provided by pendant sprinkler heads and ABC fire extinguishers installed in cabinets in the interconnecting corridor.

Electrical

Power is fed from the Main Building into a three phase 120V/208V panel within the portable. Data, telephone, CATV, public address speakers, motion sensors and fire alarm devices connect to the Main Building systems. Smoke detector coverage includes the portable and interconnecting corridor. Lighting is T8 recessed fluorescent fixtures. Emergency lighting battery pack and exit lights are provided.

RatingInstalledDesign LifeUpdated4 - Acceptable200230APR-11

Event: Replace portable building envelope components (4

classrooms/400sq.m. total area)

TypeYearCostPriorityLifecycle Replacement2032\$115,000Unassigned

Updated: APR-11

Event: Replace portable electrical components (4)

classrooms/400sq.m. total area)

TypeYearCostPriorityLifecycle Replacement2032\$76,000Unassigned

Updated: APR-11

Event: Replace portable interior components (4)

classrooms/400sq.m. total area)

TypeYearCostPriorityLifecycle Replacement2022\$110,000Unassigned

Updated: APR-11

Event: Replace portable mechanical components (4

classrooms/400sq.m. total area)

Concern:

TypeYearCostPriorityLifecycle Replacement2027\$148,000Unassigned

Updated: APR-11

F1010.02.04 Portable and Mobile Buildings** - 2003 Portables

2003 Portable Classrooms 172 and 173

Architectural

Construction consists of wood frame floors, walls and flat roof with an SBS modified roofing membrane and cementitious wall panel exterior finish. Windows (3) are clear anodized aluminum sealed window units with an operable bottom vent. Interior finishes consist of partial sheet vinyl and carpet flooring, painted gypsum board walls, suspended acoustic lay-in tile T-Bar grid ceiling, roller shades at exterior windows and solid core wood doors in pressed steel frames. Fitments include tackboards, whiteboards and Smartboards and a moveable clear finished wood teacher's cabinet.

Mechanical

Heating and ventilation is provided in each portable by a 25MBH furnace distributed through under floor ductwork and vents and controlled by a wall-mounted thermostat. Fire protection is provided by pendant sprinkler heads and ABC fire extinguishers installed in cabinets in the interconnecting corridor.

Electrical

Power is fed from the Main Building into a three phase 120V/208V panel within the portable. Data, telephone, CATV, public address speakers, motion sensors and fire alarm devices connect to the Main Building systems. Smoke detector coverage includes the portable and interconnecting corridor. Lighting is T8 recessed fluorescent fixtures. Emergency lighting battery pack and exit lights are provided.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	2003	30	APR-11

Event: Replace portable building envelope components (2

classrooms/200sq.m. total area)

TypeYearCostPriorityLifecycle Replacement2033\$68,000Unassigned

Updated: APR-11

Event: Replace portable electrical components (2)

classrooms/200sq.m. total area)

TypeYearCostPriorityLifecycle Replacement2033\$38,000Unassigned

Updated: APR-11

Event: Replace portable interior components (2)

classrooms/200sq.m. total area)

TypeYearCostPriorityLifecycle Replacement2023\$55,000Unassigned

Updated: APR-11

Event: Replace portable mechanical components (2

classrooms/200sq.m. total area)

Concern:

TypeYearCostPriorityLifecycle Replacement2028\$8,000Unassigned

Updated: APR-11

F1020.03 Other Integrated Construction* - Integrated 1990 Portables

1990 Portables - Classrooms 147, 148, 149 and 150

These are not functionally portable units. The exterior cladding is brick veneer and stucco, the roofs are sloped/peaked to match the main building and the floors are slab-on-grade. The remaining elements also match those in the main building and comments made in the balance of the report apply to these "portables". Lifecycle replacement costs noted in the remainder of the report include these building portions.

These "built-in" portables have individual Lennox G24M downflow gas fired furnaces (new in 2008) feeding supply ductwork and grilles in perimeter millwork and ceiling; wall-mounted programmable thermostat in classroom. Fire protection is by pendant sprinkler heads; semi-recessed fire extinguisher cabinets located in corridors.

The electrical power feed is 120/208V 3 phase to local panels for these rooms. Data, telephone, CATV, paging and fire alarm systems are extended from the main building to serve the rooms. Emergency lighting is by low voltage remote heads, and general lighting is recessed and surface T8 fluorescent.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

F1020.03 Other Integrated Construction* - Integrated 1991 Portables

1991 Portables - Classrooms 151 and 152

These are not functionally portable units. The exterior cladding is brick veneer and stucco, the roofs are sloped/peaked to match the main building and the floors are slab-on-grade. The remaining elements also match those in the main building and comments made in the balance of the report apply to these "portables". Lifecycle replacement costs noted in the remainder of the report include these building portions.

These "built-in" portables have individual Lennox G24M downflow gas fired furnaces (new in 2008) feeding supply ductwork and grilles in perimeter millwork and ceiling; wall-mounted programmable thermostat in classroom. Fire protection is by pendant sprinkler heads; semi-recessed fire extinguisher cabinets located in corridors.

The electrical power feed is 120/208V 3 phase to local panels for these rooms. Data, telephone, CATV, paging and fire alarm systems are extended from the main building to serve the rooms. Emergency lighting is by low voltage remote heads, and general lighting is recessed and surface T8 fluorescent.

RatingInstalledDesign LifeUpdated4 - Acceptable199130APR-11

F1020.03 Other Integrated Construction* - Integrated 1992 Portables

1992 Portables - Classrooms 160, 161, 162 and 163

These are not functionally portable units. The exterior cladding is brick veneer and stucco, the roofs are sloped/peaked to match the main building and the floors are slab-on-grade. The remaining elements also match those in the main building and comments made in the balance of the report apply to these "portables". Lifecycle replacement costs noted in the remainder of the report include these building portions.

These "built-in" portables have individual Lennox G24M downflow gas fired furnaces (new in 2008) feeding supply ductwork and grilles in perimeter millwork and ceiling; wall-mounted programmable thermostat in classroom. Fire protection is by pendant sprinkler heads; semi-recessed fire extinguisher cabinets located in corridors.

The electrical power feed is 120/208V 3 phase to local panels for these rooms. Data, telephone, CATV, paging and fire alarm systems are extended from the main building to serve the rooms. Emergency lighting is by low voltage remote heads, and general lighting is recessed and surface T8 fluorescent.

RatingInstalledDesign LifeUpdated4 - Acceptable199230APR-11

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

A paved barrier free parking stall and concrete sidewalk with curb cut provides access to the main entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

K4010.02 Barrier Free Entrances*

Barrier free access is provided at all entrances except at the east entrance to the 2003 portables (exterior stair up to these doors) and at north entrance (exterior stair down to the below grade entrance). However, automatic door operators are provided at these two entrances with stairs. Automatic operators are also provided at the barrier-free main entrance doors on the west side of the building.

Rating Installed Design Life Updated 1990 0 APR-11

Event: Provide exterior ramps (2 ramps, 10m each)

Concern:

Barrier-free access to exit is not provided at the north entrance and at one east entrance due to the exterior stairs.

Recommendation:

Provide ramps adjacent to or in lieu of the stairs at these locations.

Consequences of Deferral:

Compromised life safety. Should a fire occur in these building portions there would be no escape route for the disabled.

TypeYearCostPriorityBarrier Free Access Upgrade2012\$80,000Low

Updated: APR-11

K4010.03 Barrier Free Interior Circulation*

The building generally incorporates barrier free circulation.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

Event: Completed - Replace door hardware with barrier free lever style latchsets

Concern:

Doors in public spaces and classrooms are currently fitted with round knob style latchsets.

Door hardware has been replaced with lever latchsets.

Recommendation:

Replace door knobs with lever style latchsets on approximately 52 doors.

Type Year Cost Priority
Barrier Free Access Upgrade 2010 \$24,000 Low

Updated: APR-11

K4010.04 Barrier Free Washrooms*

Barrier free washrooms are provided.

RatingInstalledDesign LifeUpdated4 - Acceptable19900APR-11

K4020.03 Other Codes*

Many of the stairs or ramps are not fitted with handrails or the rails are not code compliant.

Access to mechanical rooms is limited and circuitous.

A portion of the roof attic is being used as a storage space.

Rating Installed Design Life Updated 2 - Poor 1990 0 APR-11

Event: Install stair and ramp handrails

Concern:

Handrails have been added to the east stair to Library, however the remaining north and west Library stairs are not fitted with any handrails.

There are no railings at the open stair to the Stage/Classroom.

The enclosed stair accessing the Stage/Classroom is not fitted with any handrails.

There are no railings at the stairs in the 1992/2002 portable link.

The ramps at the Stage/Classroom and the 1992/2002 portable link have handrails on one side only.

Recommendation:

Install missing handrails at all ramps and stairs. (7 floor mounted, 4 wall mounted)

Consequences of Deferral:

Falling hazards and non-code compliance.

TypeYearCostPriorityCode Upgrade2011\$10,000High

Updated: APR-11

Event: Provide adequate access to mechanical rooms.

Concern:

Access to the 3 upper level mechanical rooms does not meet current codes or functional maintenance concerns. Proper access for fire fighting or for maintenance is not provided.

Access to the main mechanical room is either via a 1/2 size door off the roof where you must crawl over an AHU or via a stepladder to a 1/2 size door at the upper level of a storage room where you then have to crawl under a duct.

Access to the other 2 mechanical rooms is via a 1/2 size door off the roof and where you are then required to jump down to the floor slab 1m below.

Recommendation:

Provide full size roof access doors, stairs/ladders, platforms and possible layout revisions to facilitate access. (4-5 ladders & platforms, 3 doors, layout revisions)

Consequences of Deferral:

Fall hazards and compromised fire fighting access.

Type Year Cost Priority
Operating Efficiency Upgrade 2011 \$100,000 Medium

Updated: APR-11



Mechanical Room Access

Event: Remove wood stair and replace with access ladder (1 ladder)

Concern:

In Storage Room 104 the rough framed wood stair accessing the roof attic space is fitted with a rudimentary guard but does not have a code compliant handrail. This stair is facilitating the use of the attic as a storage space.

The existing door to the attic space, at the upper level of Storage Room 104, is a non-rated rough sliding wood door which compromises the integrity of the required fire separation around the Storage Room.

Recommendation:

Remove the wood stair assembly in its entirety and replace with a steel access ladder.

Refer to item C1020.03 for recommended door replacement.

Consequences of Deferral:

Fire hazard and lack of code compliance.

TypeYearCostPriorityCode Upgrade2011\$5,000Medium

Updated: APR-11

K4030.01 Asbestos*

No materials suspected of containing asbestos were observed or reported.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K4030.04 Mould*

No apparent signs of mould.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K4030.09 Other Hazardous Materials*

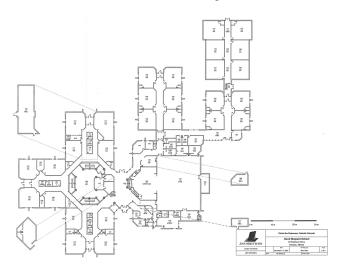
No other hazardous materials were observed.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	APR-11

K5010 Reports and Studies* - Floor Plans and Data Sheets

See attached photos for schematic Site Plan, Floor Plan and List of Building Areas. A second Floor Plan is also attached, illustrating the building footprint with the removal of the 1991 portables from the north end of the building.

Rating	<u>Installed</u>	Design Life	Updated
4 - Acceptable	0	0	APR-11



Good Shepherd School Floor Plan Updated 2010