# **RECAPP Facility Evaluation Report**

The Board of Trustees of Chinook's Edge School Division No. 73



**Westglen School** 

B3005A Didsbury

# **Didsbury - Westglen School (B3005A)**

### **Facility Details**

Building Name: Westglen School Address: P. O. Bag 200

Location: Didsbury

Building Id: B3005A
Gross Area (sq. m): 4,145.60
Replacement Cost: \$12,799,000

Construction Year: 1986

### **Evaluation Details**

**Evaluation Company:** Berry Architecture + Associates

Evaluation Date: August 25 2011
Evaluator Name: Angela Flinn

Total Maintenance Events Next 5 years: \$1,823,309
5 year Facility Condition Index (FCI): 14.25%

#### **General Summary:**

This single storey 4145.6 s.m. building was constructed in 1986. It is in good condition.

The school capacity is 335 students in grades 5 to 8

### **Structural Summary:**

The roof structure is steel deck on open web steel joists, supported by concrete and brick masonry. The floor structure is concrete slab on metal deck on open web steel joists over a crawl space. Foundations are concrete grade beams and piles. The structure is in good condition.

#### **Envelope Summary:**

The roof is the original BUR roofing. The exterior walls are giant brick with pre-finished metal fascia. Windows are double-glazed aluminum frame and exterior doors are aluminum with double glazed panels and transom. The envelope is in good condition.

#### **Interior Summary:**

Floors: VCT, carpet, mosaic ceramic tile, carpet, and plastic gymnasium flooring.

Walls: Paint and vinyl wall covering on concrete block and gypsum board partitions. Ceilings: SAP, painted gypsum board/concrete, and linear metal in the gymnasium.

Doors: Birch faced plywood in steel frames and hollow metal in steel frames.

Windows: Wired glass in steel frames.

The interior is in acceptable condition. Upgrades are required for barrier free access to current code.

#### **Mechanical Summary:**

Heating system consists of two heating boilers located in mechanical room complete with pumps and piping distribution to high temperature and low temperature heating loops serving perimeter heating units and heat pump loop

Ventilation is provided by two central gas fired air handling units serving heat pumps system and Industrial Arts.

Domestic hot water is generated by three indoor tank type water heaters complete with piping distribution to conventional plumbing fixtures.

Direct digital control system is in place.

Fire protection system is provided in form of standpipe system and hand held fire extinguishers.

Items that require replacement:

- 1) Domestic water heaters
- 2) I.A. Make-up air unit.

Overall mechanical system is acceptable.

#### **Electrical Summary:**

The facility was originally built in 1986 and there has been no major upgrading since then. The main service is 120/208V, 3-phase, 4-wire and rated 1600A; The service is underground fed from pad mounted transformer.

The fluorescent fixtures are T-8 lamp fluorescent with electronics ballasts.

All fire alarm, intrusion, telephone and Public address and Music systems meet current facility requirements.

The overall rating for the facility electrical system shall be "Good"

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\*

Reinforced concrete grade beam and pile foundations.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

#### A1030 Slab on Grade\*

Main floor is 125mm concrete on metal liner panel on open web steel joists with crawl space below.

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

### A2020 Basement Walls (& Crawl Space)\*

Reinforced concrete walls for lower level change rooms.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

200mm and 250mm concrete block with bond beams.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

#### **B1010.05 Mezzanine Construction\***

All mezzanines are structural reinforced concrete slabs on concrete block walls with bond beams.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

### B1010.09 Floor Construction Fireproofing\*

Fireproofing is presumably applied on suspended floor structure. Concealed ceiling spaces were not reviewed during the assessment.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

#### **B1010.10 Floor Construction Firestopping\***

Voids and gaps around mechanical and electrical rough-ins through floor penetrations are with a fire rated sealant.

### B1020.01 Roof Structural Frame\*

Metal deck on open web steel joists on exterior concrete block and giant brick walls.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

# B1020.06 Roof Construction Fireproofing\*

Spray fire-proofing on underside of deck and joists.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	1986	0	NOV-06

### **S2 ENVELOPE**

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

Red jumbo brick, running bond with soldier courses below windows and walls above 2m.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

#### B2010.01.06.03 Metal Siding\*\*

Horizontal ribbed pre-finished metal siding for fascia from 2.6m above grade to top of parapets. Repair flashing top of curved walls, under \$1,000.

RatingInstalledDesign LifeUpdated5 - Good198640MAR-12

Event: Replace metal flashing (280m2)

TypeYearCostPriorityLifecycle Replacement2026\$89,600Unassigned

Updated: MAR-12

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

Expansion is controlled with vertical joints in brick coursing and break in coursing pattern at windows.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

Control joints are caulked.

RatingInstalledDesign LifeUpdated5 - Good198620MAR-12

Event: Replace joint sealers (313m2)

TypeYearCostPriorityLifecycle Replacement2015\$10,019Unassigned

**Updated:** MAR-12

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

Concrete block masonry walls have an air space, 75mm rigid insulation and adhesive vapour barrier. Steel stud walls behind brick masonry exterior walls have R20 batt insulation with poly vapour barrier on the interior.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

#### B2010.09 Exterior Soffits\*

Pre-finished ribbed metal siding, gypsum board, metal studs, insulation, vapour barrier, gypsum board, suspended metal studs at exterior doors.

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

Bronze aluminum frame double glazed sealed windows with some double-hung operating windows on the upper level.

RatingInstalledDesign LifeUpdated5 - Good198640MAR-12

Event: Replace windows (62m2)

TypeYearCostPriorityLifecycle Replacement2026\$843,293Unassigned

Updated: MAR-12

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

Exterior doors and interior vestibule doors are bronze aluminum with top and bottom double-glazed panels complete with sidelights and transoms.

RatingInstalledDesign LifeUpdated5 - Good198630MAR-12

**Event: Replace steel-framed storefronts 98)** 

TypeYearCostPriorityLifecycle Replacement2016\$113,936Unassigned

Updated: MAR-12

#### B2030.02 Exterior Utility Doors\*\*

Double steel doors for industrial arts classroom.

RatingInstalledDesign LifeUpdated5 - Good198640MAR-12

**Event:** Replace 2 doors

TypeYearCostPriorityLifecycle Replacement2026\$1,760Unassigned

**Updated:** MAR-12

#### B3010.01 Deck Vapour Retarder and Insulation\*

127mm rigid insulation and vapour barrier.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

Built-up roofing, typical.

RatingInstalledDesign LifeUpdated4 - Acceptable198625MAR-12

**Event:** Replace roof (4145.6m2)

TypeYearCostPriorityLifecycle Replacement2015\$762,914Unassigned

**Updated:** MAR-12

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

Insulated steel roof access hatch in mechanical room.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

### S3 INTERIOR

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

Concrete block partitions and steel stud partitions.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

Vinyl-faced operable partitions: 1987 in classroom (formerly stage)

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event: Replace folding panel partitions (28m2)** 

TypeYearCostPriorityLifecycle Replacement2016\$33,605Unassigned

Updated: MAR-12

### C1010.04 Interior Balustrades and Screens, Interior Railings\*

Vertical HSS posts with tempered glass panels and birch top rail.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

#### C1010.05 Interior Windows\*

Wired glass in steel frames - IA mezzanine

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

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

Interior metal storefronts in administration area and library mezzanines.

Rating Installed Design Life Updated
5 - Good 1986 0 MAR-12

# C1010.07 Interior Partition Firestopping\*

Firestopping is provided by masonry block partitions, at visible penetration locations fire stopping was found.

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

Birch faced plywood solid core wood doors in steel frames in classroom and administration. Round knob hardware.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

Hollow metal doors and steel frames for storage, janitor and mechanical room doors.

Rating 5 - Good 1986 Design Life Updated NOV-06

### C1020.04 Interior Sliding and Folding Doors\*

3 aluminum rolling shutters: library office, and 2 in kitchen 122.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

Tack boards and white boards. Some minor damage to tack boards.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

**Event:** Replace white boards and tack boards (40 white

boards and 75 tack boards)

TypeYearCostPriorityLifecycle Replacement2015\$110,887Unassigned

**Updated: MAR-12** 

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

Floor braced pre-finished metal toilet partitions. Laminate shower partitions.

RatingInstalledDesign LifeUpdated5 - Good198630MAR-12

Event: Replace toilets/showers compartemnts (24)

TypeYearCostPriorityLifecycle Replacement2016\$30,533Unassigned

#### C1030.08 Interior Identifying Devices\*

Laminated plastic plaques, screw fastened.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

### C1030.10 Lockers\*\*

Pre-finished metal lockers.

RatingInstalledDesign LifeUpdated5 - Good198630MAR-12

**Event: Replace lockers (300)** 

TypeYearCostPriorityLifecycle Replacement2016\$156,020Unassigned

**Updated: MAR-12** 

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

Surface mounted paper towel, soap and toilet paper dispensers, mirrors and napkin receptacles, grab bars.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

**Event:** Completed - Replace mirrors

Concern:

Some mirrors are failing.

Recommendation:

Replace 12 mirrors as necessary.

TypeYearCostPriorityFailure Replacement2011\$2,634Low

**Updated: MAR-12** 

#### C1030.17 Other Fittings\*

Fold-up metal boot racks.

RatingInstalledDesign LifeUpdated4 - Acceptable19860NOV-06

#### C2010 Stair Construction\*

Cast in place concrete stairs down to gymnasium level and change rooms and up to mezzanines, home economic room, library, Industrial Arts room, and music room. Steel ladder to roof access hatch.

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

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

Rubber treads, risers and stringers in the home economics room, and gym mezzanine.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

**Event:** Replace vinyl stair finish (23m2)

TypeYearCostPriorityLifecycle Replacement2015\$1,980Unassigned

Updated: MAR-12

#### C2020.06 Carpet Stair Finishes\*\*

Carpet treads and risers to music room mezzanine.

RatingInstalledDesign LifeUpdated6 - Excellent200710MAR-12

Event: Completed - Replace carpet treads and risers

<u>(39m2)</u>

Concern:

Carpet warn out.

Recommendation:

Replace carpet treads and risers at Music Room

TypeYearCostPriorityFailure Replacement2007\$1,317Medium

**Updated:** MAR-12

**Event:** Replace carpet on stairs (39 m2)

TypeYearCostPriorityLifecycle Replacement2017\$3,745Unassigned

#### C2020.08 Stair Railings and Balustrades\*

Painted round HSS steel handrail fastened to wall and on round steel pickets.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

### C2030 Interior Ramps\*

Cast in place concrete ramp to gymnasium complete with VCT and rubber base finish. Painted round HSS steel handrail fastened to wall.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

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

100mm X 100mm glazed ceramic tile in washrooms, around janitor sinks.

RatingInstalledDesign LifeUpdated5 - Good198640MAR-12

Event: Replace tile (400m2)

TypeYearCostPriorityLifecycle Replacement2026\$105,613Unassigned

Updated: MAR-12

#### C3010.09 Acoustical Wall Treatment\*\*

Music room has fabric wrapped panels. Gymnasium has slotted acoustic concrete blocks.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

Event: Replace acoustic panels in music room (65m2)

TypeYearCostPriorityLifecycle Replacement2015\$15,602Unassigned

Updated: MAR-12

### C3010.11 Interior Wall Painting\*

Painted gypsum board with metal studs and concrete block partitions. Ongoing painting schedule.

RatingInstalledDesign LifeUpdated5 - Good20050MAR-12

#### C3010.12 Wall Coverings\*

Vinyl wall covering on some gypsum board partitions.

RatingInstalledDesign LifeUpdated4 - Acceptable19860NOV-06

### C3020.01.02 Painted Concrete Floor Finishes\*

Mechanical room floor.

RatingInstalledDesign LifeUpdated4 - Acceptable20050NOV-06

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

70mm x 70mm mosaic tile floor and base in washrooms, change rooms and janitor's room. 200mm x 200mm tile entrance washrooms.

RatingInstalledDesign LifeUpdated5 - Good198650MAR-12

**Event:** Replace ceramic tile flooring (160 m2)

TypeYearCostPriorityLifecycle Replacement2036\$28,163Unassigned

**Updated:** MAR-12

### C3020.07 Resilient Flooring\*\* - 1986

VCT with rubber base typical to corridor and classrooms. Plastic flooring in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

**Event: Replace vinyl flooring (2400 m2)** 

Recommendation:

~3,000 sm

TypeYearCostPriorityLifecycle Replacement2015\$211,200Unassigned

### C3020.07 Resilient Flooring\*\* - 2007

Sheet good flooring installed in the administration area, and a couple of classrooms.

RatingInstalledDesign LifeUpdated6 - Excellent200720MAR-12

**Event:** Replace sheet good flooring (240 m2)

TypeYearCostPriorityLifecycle Replacement2027\$21,120Unassigned

**Updated:** MAR-12

# C3020.08 Carpet Flooring\*\*

Carpet in administration areas, stage, music room and library.

RatingInstalledDesign LifeUpdated6 - Excellent200715MAR-12

**Event: Completed - Replace carpet** 

Concern:

Carpet is worn and stained.

**Recommendation:** 

Replace carpet in administration, library and music room.

Approximately 700 square metres.

TypeYearCostPriorityFailure Replacement2007\$65,862Medium

Updated: MAR-12

**Event:** Replace carpet in the school (400 m2)

TypeYearCostPriorityLifecycle Replacement2022\$28,804Unassigned

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

610mm x 1220mm square lay-in acoustic tiles in standard white suspension grid, typical.

RatingInstalledDesign LifeUpdated3 - Marginal198625MAR-12

**Event:** Replace acoustic ceiling treatment (3110m2)

Concern:

Many of the tiles have curled from previous humidity problems in the crawls space and some are stained. Humidity levels have been corrected.

Recommendation:

Replace most/all of the acoustic tiles.

TypeYearCostPriorityFailure Replacement2013\$149,280Medium

**Updated: MAR-12** 

### C3030.07 Interior Ceiling Painting\*

Suspended gypsum board in janitor closet, mechanical spaces, change rooms and washrooms.

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

# **S4 MECHANICAL**

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

Stainless steel kitchen and utility sinks in staff room, infirmary and miscellaneous classrooms. Porcelain steel mop sinks in janitors areas.

Stainless steel single compartment sinks with gooseneck faucets in Science Labs.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event: Replace 28 Sinks** 

TypeYearCostPriorityLifecycle Replacement2016\$42,000Unassigned

Updated: MAR-12

### D2010.05 Showers\*\*

Individual cubicle showers for both male and female, with floor drains to Code. Single head and mixing valve controls per cubicle.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event:** Replace 4 Showers

TypeYearCostPriorityLifecycle Replacement2016\$12,000Unassigned

**Updated: MAR-12** 

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

Crane, wall mounted, vitreous china, non-refrigerated drinking fountains.

RatingInstalledDesign LifeUpdated4 - Acceptable198635MAR-12

**Event: Replace 8 Drinking Fountains** 

TypeYearCostPriorityLifecycle Replacement2021\$16,000Unassigned

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

WC - Crane, floor mounted, vitreous china flush valved toilets.

UR - Floor mounted, vitreous china tanked control urinals in primary washrooms. Wall mounted, flush valve control vitreous china urinals in locker washroom.

LV - Crane, vitreous china, countertop drop in lavatories. Bradley 3-station molded stone wash fountains.

RatingInstalledDesign LifeUpdated4 - Acceptable198635MAR-12

**Event: Replace 36 Washroom Fixtures** 

TypeYearCostPriorityLifecycle Replacement2021\$65,000Unassigned

Updated: MAR-12

D2020.01.01 Pipes and Tubes: Domestic Water\*

Type L hard drawn copper tube and related fittings.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

D2020.01.02 Valves: Domestic Water\*\*

Gate and ball valves.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-12

Event: Replace 160 Valves: Domestic Water

TypeYearCostPriorityLifecycle Replacement2026\$32,000Unassigned

**Updated:** MAR-12

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

Double check valve backflow prevention assembly at main water service feed.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

Event: Replace backflow preventor.

TypeYearCostPriorityLifecycle Replacement2015\$5,000Unassigned

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

Small bronze domestic hot water circulation pumps, by Grundfos.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

Event: Replace domestic hot water re-circulation pump.

TypeYearCostPriorityLifecycle Replacement2015\$2,000Unassigned

**Updated:** MAR-12

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

Three Rheem, model GL85-250A gas fired hot water heaters, set up in parallel configuration, storage volume: 300 l, heating capacity: 65 kW.

RatingInstalledDesign LifeUpdated2 - Poor198620MAR-12

#### **Event: Replace 3 water heaters**

Concern:

Older units with low thermal efficiencies and high maintenance costs. No replacement parts.

Recommendation:
Replace units with new.
Consequences of Deferral:

Higher operational and maintenance costs.

TypeYearCostPriorityFailure Replacement2014\$20,000Low

**Updated:** MAR-12

#### D2020.03 Water Supply Insulation: Domestic\*

Fibreglas jacket piping insulation throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

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

Cast iron, copper (DWV grade), ABS and PVC waste piping noted. Vent piping is DWV grade copper.

#### D2030.02.04 Floor Drains\*

General purpose floor drains located throughout. Hub drains in mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

### D2030.03 Waste Piping Equipment\*

Clean outs and access plates where required. Force main piping tied into main drainage system.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

### D2030.03 Waste Piping Equipment\*

Lower level changeroom facilities drainage system is served via dual pump lift station and forcemain.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

# D2040.01 Rain Water Drainage Piping Systems\*

Cast iron rain water leaders and spouts leading to surface mounted splashpads.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

#### D2040.02.04 Roof Drains\*

Cast iron open flow roof drains and protective cover.

### D3010.02 Gas Supply Systems\*

Schedule 40, black iron distribution piping, from central meter station.

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

Two, Weil-McLain, ALGB-10-W model, sectional cast iron, two stage heating gas fired hot water boilers. Heating output: 350 kW.

RatingInstalledDesign LifeUpdated4 - Acceptable200035MAR-12

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

TypeYearCostPriorityLifecycle Replacement2035\$165,000Unassigned

**Updated:** MAR-12

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

Boiler chimneys up through the roof. Two insulated combustion air ducts from wall caps.

RatingInstalledDesign LifeUpdated5 - Good200035MAR-12

**Event:** Replace Chimneys &Comb. Air: H.W. Boiler. BOE:

12m length.

TypeYearCostPriorityLifecycle Replacement2035\$20,000Unassigned

Updated: MAR-12

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

Chemical pot feeder system and auto feed equipment for scale inhibiters. Batch feed with bromine used on annual basis.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

# D3030.05 Cooling Towers\*\*

Baltimore Aircoil of Canada, model VXI363 cooling tower. Older (original) unit, but working quite well with limited ongoing maintenance costs incurred.

RatingInstalledDesign LifeUpdated4 - Acceptable198625MAR-12

**Event: Replace Cooling Tower** 

TypeYearCostPriorityLifecycle Replacement2015\$85,000Unassigned

#### D3030.07 Heat Pumps\*\* - 1986

Hydronic fed heat pump, zoned control heating and cooling units. R22 refrigerant.

RatingInstalledDesign LifeUpdated4 - Acceptable198615MAR-12

**Event: Replace 38 Heat Pumps** 

TypeYearCostPriorityLifecycle Replacement2015\$190,000Unassigned

**Updated:** MAR-12

### D3030.07 Heat Pumps\*\* - 2010

Hydronic, vertical heat pumps serving Gymnasium. Carrier model 50PCV048. 4t cooling capacities. R410A refrigerant.

RatingInstalledDesign LifeUpdated5 - Good201015MAR-12

**Event:** Replace 5 Heat Pumps

TypeYearCostPriorityLifecycle Replacement2025\$25,000Unassigned

Updated: MAR-12

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

Eng-Air DGL-95-CITN model, indirect gas fired make-up air unit complete with stainless steel heat exchanger delivers a nominal 3650 lps to the local heat pumps for distribution. 280kW heating capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event: Replace Air Handling Unit: Air Distribution** 

TypeYearCostPriorityLifecycle Replacement2016\$120,000Unassigned

### D3040.01.01 Air Handling Units: Air Distribution\*\* - IA Shop

Industrial arts area serviced by a rooftop mounted, Eng-Air model DGL-95-HOTN make up air unit.

RatingInstalledDesign LifeUpdated2 - Poor198630MAR-12

**Event:** Replace make-up air unit serving IA shop.

Concern:

Older, inefficient unit that requires frequent maintenance.

Recommendation:

Replace IA make-up air unit. Consequences of Deferral:

High maintenance and operational costs, with possible loss of

use.

TypeYearCostPriorityFailure Replacement2013\$75,000Medium

Updated: MAR-12

### D3040.01.03 Air Cleaning Devices: Air Distribution\*

Local replaceable media filters at heat pumps and main air handlers. General maintenance work replacement routine is acceptable.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

#### D3040.01.04 Ducts: Air Distribution\*

General ductwork consists of galvanized sheet metal units, to accepted SMACNA standards.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

**Event: Clean ducts** 

Concern:

General duct cleaning required, especially on the return side.

Recommendation:

Provide general duct cleaning to primary air handling ductwork and related grilles.

**Consequences of Deferral:** 

Poor air quality, and loss of proper use.

Type Year Cost Priority
Preventative Maintenance 2013 \$17,000 Medium

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

Typically noted as enameled steel supply air diffusers and return air grilles. Some return units in gym are heavy duty aluminum.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

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

Schedule 40 black iron distribution piping. Two TACO 15hp circulation pumps for parallel, low temperature (heat pumps) distribution and two 5hp circulation pumps for parallel, high temperature (finned tube and fan coil unit) distribution.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-12

**Event: Replace Hot Water Distribution Systems. BOE:** 

4,145 sq.m. GFA.

TypeYearCostPriorityLifecycle Replacement2026\$235,000Unassigned

**Updated: MAR-12** 

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

Roof mounted dome exhaust fans for washroom areas. Industrial arts are outfitted with BI centrifugal exhaust fans. Area also has an N R Murphy dust collector.

School includes a crawlspace exhaust fan, noted as a nominal 3000cfm belt driven fan, mounted on the roof, and interlocked with a makeup air connection from the IA rooftop unit.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event: Replace 16 Exhaust Fans** 

TypeYearCostPriorityLifecycle Replacement2016\$40,000Unassigned

**Updated:** MAR-12

#### D3040.04.03 Ducts: Exhaust\*

Galvanized sheet metal exhaust ducts, to SMACNA standards.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

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

Enameled steel and heavy duty aluminum grilles and registers.

#### D3040.05 Heat Exchangers\*\*

Single centrifual configured hyrdonic heat exchanger, located adjacent to primary heating boilers, providing heat to glycol loops.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event: Replace Heat Exchanger** 

TypeYearCostPriorityLifecycle Replacement2016\$15,000Unassigned

**Updated:** MAR-12

#### D3050.05.02 Fan Coil Units\*\*

Hydronic fed fan coil units, typically noted as Trane models, located in general mechanical rooms and at all entrances.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event:** Replace 5 Force Flow Heaters

TypeYearCostPriorityLifecycle Replacement2016\$25,000Unassigned

**Updated:** MAR-12

#### D3050.05.03 Finned Tube Radiation\*\*

Limited quantities of finned tube radiation equipment in specific areas throughout the school, typically in mechanical spaces and stairwells.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-12

**Event:** Replace Finned Tube Radiation. BOE: 650 sq.m.

TypeYearCostPriorityLifecycle Replacement2026\$36,000Unassigned

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

First generation METASYS digital building management controls.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

**Event:** Replace BMCS. BOE: 4145 sq.m.

TypeYearCostPriorityLifecycle Replacement2015\$100,000Unassigned

**Updated:** MAR-12

### D4020 Standpipes\*

Fire fighting standpipe system and hose cabinets throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

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

Type ABC portable extinguishers noted both in cabinets and wall mounted in mechanical areas.

### S5 ELECTRICAL

#### D5010.01.02 Main Electrical Transformers (Utility Owned)\*

There is a pad mounted transformer on east side of school site, and serviced by a utility company.

RatingInstalledDesign LifeUpdated5 - Good198640MAR-12

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

The main service is fed from a pad mounted transformer. The Federal Pioneer main distribution panel is rated at 1600A, 120/208 Volts, 3-phase, 4-wire, and is complete with an 1600A incoming breaker. The distribution section is complete with feeder breakers that are adequately identified and there are two spaces for future addition.

Rating Installed Design Life Updated
5 - Good 1986 40 MAR-12

Capacity Size 1600 Capacity Unit amps

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

**Distribution**)

TypeYearCostPriorityLifecycle Replacement2026\$45,000Unassigned

Updated: MAR-12

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

The facility has 120/208V secondary distribution panels, and are located throughout the school. There are enough number of spare circuits are available.

RatingInstalledDesign LifeUpdated5 - Good198630MAR-12

**Event:** Replace 19 Electrical Branch Circuit Panelboards

(Secondary Distribution)

TypeYearCostPriorityLifecycle Replacement2016\$95,000Unassigned

#### D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers\*\*

Two Klockner-Moeller MCC units are located in main mechanical rooms with spare capacities

RatingInstalledDesign LifeUpdated5 - Good198630MAR-12

**Event:** Replace two Switchboards, Panelboards, and

(Motor) Control Centers

TypeYearCostPriorityLifecycle Replacement2016\$30,000Unassigned

Updated: MAR-12

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

Allen-Bradley models individual motor starters and load switches are used major mechanical ventilation units and some small water pumps

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

### **Event:** Replace 12 Motor Starters and Accessories

TypeYearCostPriorityLifecycle Replacement2016\$7,200Unassigned

Updated: MAR-12

#### D5020.01 Electrical Branch Wiring\*

Most branch wirings are originally installed with building; the wires are either installed in conduits or the BX wires are used.

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

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

Lighting is locally controlled by low line voltage switches.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

#### D5020.02.02.01 Interior Incandescent Fixtures\*

Some incandescent fixtures were installed in unoccupied areas. Some of them were retrofit to compact fluorescent lamps.

#### D5020.02.02.02 Interior Fluorescent Fixtures\*\*

Light fixtures were upgraded to T8 lamps completed with electronic ballasts. Some of the fluorescent fixture were designated for emergency lighting system.

RatingInstalledDesign LifeUpdated5 - Good200130MAR-12

**Event: Replace 830 Interior Fluorescent Fixtures** 

TypeYearCostPriorityLifecycle Replacement2031\$166,000Unassigned

**Updated:** MAR-12

### D5020.02.03.03 Exit Signs\*

Exit signs are located at required locations and exits. Fixtures are incandescent lamp.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

#### D5020.02.12 Darkroom Lighting\*

Infrared dark room lighting is provided in photography lab.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-12

# D5020.03.01.03 Exterior Metal Halide Fixtures\*

Wall mounted metal halide light fixtures are installed along the building perimeter with good coverage.

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

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

Exterior lighting appears to be both time clock and photo-cell controlled. It is also integrated to building management system.

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

GE EST Quick Start fire alarm control panel completed were installed and with annunciation panel at the front, bell/strobe, pull station, detectors.

RatingInstalledDesign LifeUpdated6 - Excellent201025MAR-12

**Event: Replace Detection and Fire Alarm** 

TypeYearCostPriorityLifecycle Replacement2035\$83,000Unassigned

Updated: MAR-12

#### D5030.02.02 Intrusion Detection\*\*

security system panel is used for facility security system and has motion sensor installed in the hallways and door contactors installed at exterior doors. FOB access system were added in 2010.

RatingInstalledDesign LifeUpdated4 - Acceptable198625MAR-12

**Event: Replace Intrusion Detection** 

TypeYearCostPriorityLifecycle Replacement2015\$20,000Unassigned

**Updated:** MAR-12

#### D5030.03 Clock and Program Systems\*

Rauland TC2100 master clock and program control equipment.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

#### D5030.04.01 Telephone Systems\*

Cisco VOIP phone system were installed for telephone services.

RatingInstalledDesign LifeUpdated6 - Excellent20090MAR-12

#### D5030.04.04 Data Systems\*

Data outlets are installed through school classrooms and offices; and Cat 5 cables are installed either conduit or free air.

RatingInstalledDesign LifeUpdated5 - Good20030MAR-12

#### D5030.04.05 Local Area Network Systems\*

One server is installed in the facility and through supernet connected to regional school board. There is also wireless internet system has been added in 2008.

RatingInstalledDesign LifeUpdated5 - Good20030MAR-12

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

Rauland Telecentre main communications and public address equipment is used for the facility PA system.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-12

### **Event: Replacement Public Address and Music Systems**

TypeYearCostPriorityLifecycle Replacement2015\$41,500Unassigned

Updated: MAR-12

#### D5030.06 Television Systems\*

The facility has TV system available for use.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

# D5090.01 Uninterruptible Power Supply Systems\*\*

Total 30 KVA Powercom 9-150 UPS battery systems for emergency lighting.

RatingInstalledDesign LifeUpdated5 - Good199530MAR-12

#### **Event: Replace 3 Uninterruptible Power Supply Systems**

TypeYearCostPriorityLifecycle Replacement2025\$60,000Unassigned

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

#### E1020.03 Theatre and Stage Equipment\*

Velvet stage drapery including valance.

RatingInstalledDesign LifeUpdated4 - Acceptable19860NOV-06

#### E1090.04 Residential Equipment\*

Home Economics: 1 wall oven, 1 dishwasher, 5 ranges, 5 microwaves, 1 washer, 1 dryer, 2 refrigerators 1 upright

Staff Kitchen: dishwasher, microwave and coffee maker.

Food service kitchen: 5 microwaves,1 range, upright cooler and refrigerator.

RatingInstalledDesign LifeUpdated5 - Good19860NOV-06

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

Two glass and four wood basketball backstops, side swinging.

Rating 5 - Good 1986 Design Life Updated NOV-06

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

Birch faced plywood casework with plastic laminated tops. Vanities are plastic laminate on plywood.

RatingInstalledDesign LifeUpdated4 - Acceptable198635MAR-12

#### Event: Replace casework (290m2)

TypeYearCostPriorityLifecycle Replacement2021\$230,344Unassigned

**Updated:** MAR-12

#### **Event: Replace vanities**

#### Concern:

Vanity tops are dented on the face panel. Plastic laminate is broken or de-laminated in many areas. Appears to be similar type damage throughout - possibly floor cleaning equipment.

**Recommendation:** 

Replace vanities, typical all locations, approximately 12-15

linear metres.

TypeYearCostPriorityRepair2013\$5,927Medium

Updated: MAR-12

#### E2010.03.01 Blinds\*\*

50mm vinyl horizontal blinds in administration. 100mm vertical fabric blinds in classrooms.

Rating Installed Design Life Updated 1986 30 MAR-12

**Event: Replace Blinds (62m2)** 

TypeYearCostPriorityLifecycle Replacement2016\$6,629Unassigned

**Updated:** MAR-12

### E2010.03.06 Curtains and Drapes\*\*

Privacy curtain in infirmary room.

RatingInstalledDesign LifeUpdated5 - Good198630MAR-12

**Event:** Lifecycle Replacement (8m2)

TypeYearCostPriorityLifecycle Replacement2016\$855Unassigned

**Updated:** MAR-12

### **E2020 Moveable Furnishings**

Student desks

RatingInstalledDesign LifeUpdated4 - Acceptable19860NOV-06

#### F1010.02.05 Grandstands and Bleachers\*\*

Retractable Hussey grandstand adjacent to gymnasium. Side guards installed later to prevent people from going underneath.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-12

**Event:** Replace grandstand

TypeYearCostPriorityLifecycle Replacement2016\$47,127Unassigned

**Updated:** MAR-12

### **S8 SPECIAL ASSESSMENT**

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

Concrete sloped at main entrance to the street for a barrier curb.

RatingInstalledDesign LifeUpdated5 - Good19860MAR-12

### **Event:** Completed - Provide handicap ramp

Concern:

There is no handicap ramp from the parking area.

**Recommendation:** 

Provide handicap ramp in sidewalk at main entrance.

Type Year Cost Priority
Barrier Free Access Upgrade 2011 \$2,634 Medium

**Updated: MAR-12** 

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

Entrance does not have an automatic door operator. Concrete reshaped at entrance to make the entrance from the parking area barrier free.

RatingInstalledDesign LifeUpdated3 - Marginal19860MAR-12

#### **Event: Provide door operator**

Concern:

There is not power door operator at the main entrance.

**Recommendation:** 

Provide a power operator on one exterior main entrance door and one interior vestibule door.

TypeYearCostPriorityBarrier Free Access Upgrade2014\$10,537Medium

**Updated:** MAR-12

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

Interior circulation is barrier free.

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

The washrooms at the northeast entrance are designed for barrier free although stalls are smaller than those required of the current code. All other washrooms need to be modified for barrier free access. Female staff shower off gymnasium is barrier free.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

### **Event:** Modify toilet partitions

#### Concern:

The washrooms at the south end of the school are not barrier free. The pair at the north end does not meet current standards/sizes but have considered barrier free access.

#### **Recommendation:**

Modify 4 washrooms to have a barrier free stall.

TypeYearCostPriorityBarrier Free Access Upgrade2014\$52,689Low

**Updated:** MAR-12

#### K4020.03 Other Codes\*

No code infractions noted.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

# K4030.01 Asbestos\*

Based on age of the building it is presumed that no asbestos containing materials are present within the building.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

### K4030.04 Mould\*

No mould was observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19860MAR-12

### K4030.09 Other Hazardous Materials\*

Standard cleaning solutions and chemicals for cleaning were found in Janitor rooms, properly labeled and stored. No other hazardous materials were found on site.

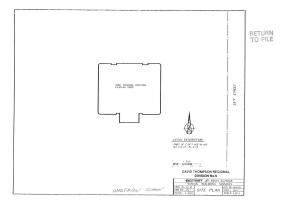
### K5010.01 Site Documentation\*

Westglen School Site Plan

Rating Installed **Design Life Updated** 4 - Acceptable 2011

MAR-12

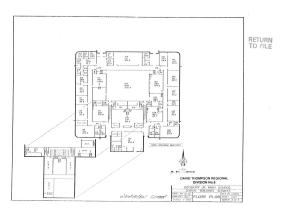
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# K5010.02 Building Documentation\*

Westglen School Floor Plan



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