RECAPP Facility Evaluation Report

Edmonton School District No. 7

Minchau School

B3225A

Edmonton

Report run on: July 17, 2008 3:09 PM

Facility Details

Building Name: Minchau School
Address: 3615 Millwoods Road E.
Location: Edmonton

Building Id: B3225A
Gross Area (sq. m): 3,782.29
Replacement Cost: $8,243,397
Construction Year: 1983

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: December 5 2007
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **$942,614**
5 year Facility Condition Index (FCI): **11.43%**

General Summary:

The brick clad 3782 square metre Minchau School was constructed in 1984 and currently accommodates 301 students and 30 staff. There are two pods of four portable classrooms each one installed on the north east corner of the school (1992) and on the south east corner of the school (1988).

Structural Summary:

The substructure consists of perimeter reinforced concrete foundation walls carried on spread footings. Interior point loads from hollow section steel columns are carried on concrete columns on pad footings.

The building frame is a system of steel beams carried on hollow section steel columns. Open web steel joists span the steel beams. There is a second floor over the central area of the school where the floor and roof are carried on open web steel joists spanning steel beams carried on hollow section steel columns. There are sloped roofs over class rooms which are formed with sloping open web steel joists.

The overall condition of the structure is good.

Envelope Summary:

The exterior wall system consists of brick skin with an air space, building paper over rigid insulation on steel studs with batt insulation and a gypsum board and poly vapour barrier interior finish. The gym wall system consists of a concrete block exterior skin, air space, rigid insulation on a vapour barrier on a back wall of concrete block. There is a mix of flat built up roofs and sloped asphalt shingle roofs both with rigid insulation and vapour barriers. The built up roofs have deteriorated and replacement is recommended. The windows are thermally broken aluminum frames with opening lights and sealed units.

Overall the building envelope is in a marginal condition.

Interior Summary:

Carpet is the dominant floor finish with sections of vinyl tiles in classrooms, quarry tiles in vestibules, ceramic tiles on floors and walls in student wash rooms and change areas. Walls are vinyl covered gypsum board in class rooms and corridors. Corridor walls are also have a dado of plastic laminate on ply. There are vaulted ceilings with a textured finish and clerestorey windows over classrooms and the learning resources area. There are also acoustic tiles in T-bar suspension grid throughout the school.

Overall the condition of the interior is good.

Mechanical Summary:

The heating and cooling systems consist of a direct fired glycol boiler system, a glycol based hydronic heating system for forceflows, unit heaters and radiation, and a heat pump system for zone heating and cooling. Water is either heated by the boilers (winter) or cooled by the cooling tower (summer) for the heat pump piping loop. The heat pump water is returned via the sprinkler system header lines. A self- contained heat pump is provided for heating or cooling of each building zone. Tempered 100% outside air is distributed to each heat pump via a ceiling air supply system. This air is mixed with ceiling return air by the individual heat pumps and distributed to each building zone.

A separate heating and ventilation unit with mix air control is provided for the gymnasium area, and a separate ventilation unit has been installed for the four classroom 1992 addition. The 4 classroom portable pod on the north side of the school has individual furnaces for each classroom. All distribution piping and ducting is located above the ceiling space, with exception to the gymnasium and music rooms which have exposed supply air ducting.

The heat pump system is getting old and is in need of continuing minor repairs. These units are scheduled for life cycle replacement in two years. Each zone should also be air balanced at that time. Also, the domestic hot water tank is still operative, but is also near the end of its life cycle.

The overall condition of the mechanical systems is acceptable.

Electrical Summary:

The Minchau School is fed with 120/208 volt, three phase, four wire from an Epcor pad-mounted transformer, located on school grounds. The main switchboard is 800 amp, 120/208 volt. There are individual motor starters for major mechanical equipment.

The building is standard wiring in conduit. The interior fluorescent lighting fixtures are T-8 lamps and electronic ballasts. The exit lighting in the original building are incandescent lamps. The emergency power is fed from the emergency 120/208 volt panel. The exterior lighting consists of some incandescent fixtures and wall mount high pressure sodium fixtures, as well as, parking lot pole with 400 watt and 250 watt fixtures.

The fire alarm is a Simplex 2001 equipped with smoke and heat detectors, bells and pull stations.

The various communications and security systems within the school are Magnum Alert Security System, a Bogen Public Announcement System and Norstar Telephone System.

The condition of the electrical systems is acceptable.

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 - 1984 Section*

The foundation system consists of 260mm wide perimeter reinforced concrete foundation walls carried on 300mm deep spread footings at 1800mm below floor level. There are 450mm wide foundation walls for the gym carried on 1000mm wide spread footings. Interior point loads from hollow section steel columns are carried on 450mm diameter concrete columns on pad footings also at 1800mm below floor level.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

A1030 Slab on Grade - 1984 Section*

There is a 125mm structural slab on grade throughout on a poly vapour barrier on 150mm compacted granular fill.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B1010.01 Floor Structural Frame (Building Frame) - 1984 Section*

The building frame is a system of steel H beams carried on hollow section steel columns which vary in size from 89imm x 89mm to 150mm x 150mm. Open web steel joists vary in depth from 310mm to 1060mm over the gym and span the steel beams. There is a second floor over the central area of the school where the floor is carried on 610mm deep open web steel joists and the roof on 410mm open web steel joists spanning steel beams carried on hollow section steel columns. There are sloped roofs over class rooms which are formed with sloping open web steel joists.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1984 Section*

The interior 200mm concrete block gym wall has reinforced pilasters cast in to carry the steel floor and roof beams

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings - 1984 Section*

The second floor deck consists of 100mm concrete slab on metal deck with 150mm x150mm mesh reinforcing. The first floor slab is a structural slab on grade. The roof deck is 12mm gypsum board on metal deck to receive the roof assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B1010.10 Floor Construction Firestopping - 1984 Section*

Floor construction fire stopping is installed throughout the school.

The second floor is noncombustible being constructed from steel and concrete filled metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B1020.01 Roof Structural Frame - 1984 Section*

The roof structural frame consists of open web steel joists spanning steel beams carried on hollow section steel columns.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B1020.04 Canopies - 1984 Section*

The open web steel joists from the sloping roof are continued outside the school to form a canopy over the main entrance. The canopy is has an un-insulated asphalt shingle roof on 12mm ply sheathing. The soffit is cedar boards on ply sheathing on a steel stud frame.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

B1020.06 Roof Construction Fireproofing - 1984 Section*

The roof construction is noncombustible metal deck with a gypsum board sheathing on open web steel joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1984 Section*

There is a brick skin on all elevations except the gym which has concrete block exterior wall skin. The assembly behind the brick skin consists of 16mm air space, building paper on 35mm rigid insulation on 150mm steel studs with batt insulation with a poly vapour barrier and drywall interior finish.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	75	MAR-08

Event: Repair brick corners in 6 locations

Concern:
There are straight vertical brick joints at corners which are separating and require repair.

Recommendation:
Remove, reset and re-point bricks at corners.

Consequences of Deferral:
Brick will deteriorate further with potential damage to interior of school.

Type	Year	Cost	Priority
Repair	2008	$2,288	Medium

Updated: MAR-08

B2010.01.02.02 Concrete Block: Ext. Wall Skin - 1984 Section*

The gym has a concrete block exterior wall skin consisting of 90mm stack bond block. Behind the block skin there is a 14mm air space, 76mm rigid insulation, vapour barrier on 200mm or 290mm concrete block structural wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	75	MAR-08

B2010.01.06.04 Wood Siding - 1984 Section**

There is horizontal t & g cedar siding on all elevations forming fascias and sloping roof gables. There is also cedar siding surrounding clerestorey windows to the class rooms and the second floor class rooms.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	40	MAR-08

Event: Repair 500m2 cedar siding

Concern:
There are sections of the south facing cedar siding and the gym gable which have deteriorated and require repair.
Recommendation:
Refinish and restain cedar siding.
Consequences of Deferral:
Siding will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$11,440	Low

Updated: MAR-08

Event: Replace 1000m2 cedar siding

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$68,640	Unassigned

Updated: MAR-08

B2010.01.09 Expansion Control: Exterior Wall Skin - 1984 Section*

There are control joints in the brick skin with flexible caulking and foam rod. The concrete block skin has a similar control joint and the concrete block back wall has a foam rod and caulking on both the inside and outside face with a rubber gasket in the centre of the block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1984 Section**

There is flexible caulking at all window and door openings as well as expansion joints.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	20	MAR-08

Event: Replace 300m caulking

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,720	Unassigned

Updated: MAR-08

Event: Replace 60m caulking

Concern:
There are sections of missing or damaged caulking in the expansion joints in the exterior brick and block skins.
Recommendation:
Re-caulk damaged sections.
Consequences of Deferral:
Caulking will deteriorate further with potential damage to interior of school.

Type	Year	Cost	Priority
Repair	2008	$1,144	Medium

Updated: APR-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1984 Section*

There is 35mm rigid insulation and a vapour barrier behind the exterior brick skin and batt insulation between the steel studs. The exterior block faced walls have 76mm rigid insulation on a vapour barrier on the concrete block back wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - 1984 Section*

There is an exterior louvre to the second floor mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B2010.09 Exterior Soffits - 1984 Section*

Exterior soffits at the eaves of the sloped roofs over class rooms are cedar t & g on building paper on 12mm ply sheathing on a steel stud frame.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1984 Section**

Exterior windows are prefinished thermally broken aluminum frames with sealed units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace 300m2 aluminum windows

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$171,600	Unassigned

Updated: APR-08

B2030.01.02 Steel-Framed Storefronts: Doors - 1984 Section**

Main exterior entrance doors are painted steel with full height side lights with wired glass with panic hardware in a pressed steel frame. Other entrance doors are painted metal with wired glass slot windows in painted pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 3 sets double entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$4,805	Unassigned

Updated: MAR-08

B2030.02 Exterior Utility Doors - 1984 Section**

Exterior utility doors for egress from class rooms and gym as well as doors to grounds storage and generator room are painted steel in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace 12 exterior steel utility doors

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$9,610	Unassigned

Updated: APR-08

B3010.01 Deck Vapor Retarder and Insulation - 1984 Section*

Both the flat and sloping roof decks have 100m rigid insulation on a vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

B3010.02.01.01 Asphalt Shingles - 1984 Section**

There are sloped areas of roof with asphalt shingles over the central core of the school, the gym and the class rooms. The shingles are laid on ply sheathing with a 38mm air space, wood strapping, two layers of rigid insulation (25mm and 75mm) on vapour barrier on gypsum board on steel deck on open web steel joists.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-08

Event: Repair 40m2 asphalt shingles

Concern:
There are sections of asphalt shingles which are damaged and require repair.
Recommendation:
Replace damaged shingles.
Consequences of Deferral:
Shingles will continue to deteriorate with potential damage to interior.

Type	Year	Cost	Priority
Repair	2008	$1,144	Medium

Updated: MAR-08

Event: Replace 1775m2 asphalt shingles

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$85,800	Unassigned

Updated: MAR-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1984 Section**

There is a membrane roof on the flat sections of roof between the sloped roof of the second floor/gym areas and the sloped roofs over classrooms. This is the original built up roof with a gravel finish.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-08

Event: Replace 1150m2 BUR with SBS

Concern:
The original built up roof has deteriorated, is ponding, has bleeding and migration of gravel.
Recommendation:
Replacement with SBS is recommended.
Consequences of Deferral:
Roof with fail resulting in damage to interior finishes and fittings.

Type	Year	Cost	Priority
Failure Replacement	2008	$148,720	High

Updated: APR-08

B3010.08.02 Metal Gutters and Downspouts - 1984 Section**

The sloped asphalt shingle roofs have prefinished metal gutters and down spouts. The down spouts at the perimeter of the school bend into the fascia and discharge internally. The down spouts from the higher level roofs over the gym and second floor discharge onto the flat roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 300m gutters & 35m downspouts

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,720	Unassigned

Updated: MAR-08

B3020.02 Other Roofing Openings (Hatch,Vent, etc) - 1984 Section*

The roof is accessed from a painted steel door in the second floor mechanical room. There are roof penetrations for drains, pipe vents and exhausts with prefinished metal cappings and flashings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

S3 INTERIOR

C1010.01.07 Framed Partitions (Stud)

Walls in office areas are 90mm steel studs with 16mm gypsum board both sides and batt insulation fill. Partitions between class rooms consist of 150mm steel studs with 16mm gypsum board both sides and batt insulation fill. There are also fire rated walls with 90mm steel studs and 16mm Type X gypsum board both sides.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C1010.04 Interior Balustrades and Screens, Interior Railings*

There are painted steel pipe rails on the stair landing over looking the library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C1010.05 Interior Windows*

There are both aluminum and pressed steel framed interior windows with a mix of sealed units and single glass in the library looking into class rooms and the Vice Principal's office looking into the main lobby. Doors into classrooms also have side windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C1010.07 Interior Partition Firestopping*

Interior partition fire stopping is installed throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C1020.01 Interior Swinging Doors (& Hardware)*

interior swinging doors are typically solid core with veneer finish in pressed steel frames with side windows. Interior doors to service rooms and stores are painted steel in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

C1020.03 Interior Fire Doors*

Interior fire doors are steel with wired glass windows and magnetic hold open devices tied into the fire alarm system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C1030.01 Visual Display Boards**

There are white boards and chalkboards throughout the school in classrooms, the library, and staff rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

Event: Replace 150m2 visual display boards

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,880	Unassigned

Updated: APR-08

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

There are fabricated cubicle partitions in student and staff wash rooms and student showers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 14 fabricated compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$11,440	Unassigned

Updated: MAR-08

C1030.08 Interior Identifying Devices*

Classroom signs are improvised by teachers using computer graphics.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C1030.10 Lockers**

There are open wood lockers in classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace Lockers [180 m]

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,880	Unassigned

Updated: MAR-08

C1030.14 Toilet, Bath, and Laundry Accessories*

There are mirrors, paper and cloth towel dispensers and soap dispensers in student and staff washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

C2010 Stair Construction*

There are two flights of steel stairs with concrete filled pans and carpet finish to the second floor from corridors. The north stairs have stair lift support tubes which also act as a handrail on one side and painted steel pipe handrail on the other. There is also a poured concrete stair with semi-circular landings from the learning resources/library area to the second floor with steel pipe hand rails and a quarry tile capping to the side walls.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-08

C3010.02 Wall Paneling**

There is a 900mm high plastic laminate dado on corridor and learning resources/library walls fixed with steel cups and screws. The laminate is laid on 19mm ply.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace laminated dado [100m]

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$17,160	Unassigned

Updated: MAR-08

C3010.06 Tile Wall Finishes**

There are glazed ceramic wall tile splash backs in janitors' rooms, 45mm x 45mm ceramic and glazed ceramic tiles in wash rooms, change rooms and showers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace 150m2 ceramic wall tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$40,040	Unassigned

Updated: MAR-08

C3010.09 Acoustical Wall Treatment**

There is an acoustic treatment on the upper part of the gym walls consisting of 38mm x 64mm wood battens at 128mm centres on acoustic board applied to the concrete wall.

Rating	Installed	Design Life	Updated
5 - Good	1983	20	MAR-08

Event: Replace Acoustical Wall Treatment [300 m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$62,866	Unassigned

Updated: MAR-08

C3010.11 Interior Wall Painting*

Gypsum board partitions and walls throughout the school are painted.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	10	MAR-08

Event: Repaint 200m2 walls

Concern:
There are sections of gypsum board walls in service rooms, electrical and mechanical rooms which are marked and require repainting.
Recommendation:
Repaint walls.
Consequences of Deferral:
Walls will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2009	$3,432	Unassigned

Updated: APR-08

C3010.12 Wall Coverings*

Gypsum board walls are covered with vinyl in class rooms and circulation areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	15	MAR-08

C3020.01.02 Paint Concrete Floor Finishes*

There is a painted concrete floor in the mechanical room.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	10	MAR-08

Event: Repaint 60m2 concrete floors

Concern:
The painted concrete floor is marked and unsightly.
Recommendation:
Re-paint concrete floor.
Consequences of Deferral:
Floor will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$1,144	Low

Updated: MAR-08

C3020.02 Tile Floor Finishes**

There are ceramic tile floors finishes in wash rooms and quarry tile floors in vestibules.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	50	MAR-08

Event: Replace 160m2 ceramic tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$18,304	Unassigned

Updated: MAR-08

C3020.07 Resilient Flooring**

There are sections of vinyl tiles in classrooms. There are also vinyl tiles in corridors, store rooms, service rooms and main lobby.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	20	MAR-08

Event: Replace 700 m2 vinyl tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$40,040	Unassigned

Updated: MAR-08

C3020.08 Carpet Flooring**

Carpet is used throughout the school in class rooms, corridors, learning resources/library, staff lounge, office areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	15	MAR-08

Event: Replace 2000m2 carpet

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$171,600	Unassigned

Updated: MAR-08

C3030.02 Ceiling Paneling (Wood)*

There are wood strip ceilings in the school including the learning resources area and the music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	60	MAR-08

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

Ceilings are predominantly acoustic tiles in a T-bar suspension grid.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-08

Event: Replace 2000m2 acoustic tile ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$51,480	Unassigned

Updated: MAR-08

C3030.07 Interior Ceiling Painting*

There are painted ceilings throughout the school including metal deck and open web steel joists in the gym, textured ceilings in the learning resources, music and class rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

S4 MECHANICAL

D2010.04 Sinks**

There are stainless steel sinks in the classrooms with bubblers, double compartment kitchen sinks for the kitchen and staff areas, single compartment stainless sinks with drainage pans for the Arts Prep room and the Science prep room, and janitor mop service basins.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 18 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,880	Unassigned

Updated: APR-08

D2010.05 Showers**

The showers in each of the Boy's and Girl's Change rooms in the original design that have been removed and the areas used for storage. There is 1 shower in the Infirmary.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 1 Shower

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$1,144	Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers**

There is one vitreous china drinking fountain in the corridor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-08

Event: Replace 1 Drinking Fountain

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$1,716	Unassigned

Updated: MAR-08

D2010.09 Other Plumbing Fixtures - Hose Bibs*

There are 6 exterior non-freeze hose bibs along the perimeter of the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-08

D2010.09 Other Plumbing Fixtures - Sediment Interceptors*

There are 2 sediment traps, 1 located in the Arts Prep Room and 1 in the Science Prep Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

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

There are 20 enameled steel lavatory sinks, 25 tank type and flush valve water closets, and one urinal in the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace Washroom Fixtures (25 WC, 20 Lav, 1 Urnl)]

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$66,352	Unassigned

Updated: APR-08

D2020.01.01 Pipes and Tubes: Domestic Water*

Insulated copper hot and cold water lines in the ceiling space serve the various plumbing fixtures throughout the faciity.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D2020.01.02 Valves: Domestic Water**

13mm to 75mm bronze domestic water valves are located in the ceiling space to isolate each washroom or group of washrooms, plus shutoff valves for the domestic hot water and make-up water in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace 54 Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$27,456	Unassigned

Updated: APR-08

D2020.01.03 Piping Specialties (Backflow Preventors)**

There is a backflow preventor provided for the process make-up water lines in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

Event: Replace Backflow Preventor

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$3,661	Unassigned

Updated: APR-08

D2020.02.02 Plumbing Pumps: Domestic Water**

There is one small domestic hot water recirculation pump adjacent to the domestic hot water heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

Event: Replace Domestic Water Pump

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,373	Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters**

There is one natural gas fired domestic hot water heater. It is an AO Smith BT365H-7705, rated for 328,500 btuh (96 KW) output, 275.9 Usgph recovery, 75 US gallon storage capacity.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

Event: Replace Domestic Water Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,491	Unassigned

Updated: MAR-08

D2020.03 Water Supply Insulation: Domestic*

Insulation appears to be fiberglass with a painted canvas jacket where exposed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D2030.01 Waste and Vent Piping*

The various plumbing fixtures throughout the facility connect to a 150mm underslab sanitary waste system that exits the west face of the building and connects to an existing municipal sanitary manhole located in Millwoods Road East. Vent piping is not exposed and assumed to be copper with roof vents located throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D2040.02.04 Roof Drains*

100mm caste iron storm drains are located throughout the roof area and connect to the underslab storm drainage system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

D3010.02 Gas Supply Systems*

A 75mm buried natural gas main located north of the building from the municipal distribution line in Millwoods Road East connects to the metering room at the northeast corner of the building. This line then connects to the upper level mechanical room via the ceiling space. A line from the mechanical room connects to the adjacent 4 portable classroom furnaces. The total natural gas load shown on the 1983 drawings is 4495 mbh (1317 KW) which includes a future load of 1365 mbh (400 KW)

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	60	MAR-08

D3020.01.01 Humidificaton Boiler: Steam**

A Hydrotherm Model VGA-4005 steam boiler has been provided for the humidifiers on the two air handling units. The boiler is rated at 400,000 btuh input (117 KW), and 320,000 btuh output (94 KW). This boiler has been placed out of service by school facilities personnel as the school board does not humidify their schools.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-08

Event: Replace Humidificaton Boiler

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$13,728	Unassigned

Updated: APR-08

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

Heating boilers are Hydrotherm Multitemp Modular Boilers at 5 modules each. Each bank of five modules is model MR1500B rated at 1,500,000 btuh input (440 KW), 1,350,000 btuh output (396 KW).

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-08

Event: Replace 2 Heating Boilers and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$105,248	Unassigned

Updated: MAR-08

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

There are two 450mm Type 'B' gas vents through the roof, one from each bank of Hydrotherm boilers.

There is a 700mm x 800mm sidewall intake louvre down to a 400mm x 500 mm combustion air duct adjacent to the boilers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 2 Type 'B' Gas Vents

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$11,440	Unassigned

Updated: MAR-08

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

A chemical feeder is provided on the hydronic heating system. School Board personnel advise that the have 3 FTE's dedicated to perform water treatment to the various schools in their jurisdiction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

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

Each portable furnace has a Type 'B' gas vent through the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D3030.05 Cooling Towers**

There is a Baltimore Air Coil BXT-55C Cooling Tower located in the mechanical room and exhausted through the roof for the heat pump system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-08

Event: Replace Cooling Towers

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$102,960	Unassigned

Updated: MAR-08

D3030.07 Heat Pumps**

There are 21 water source heat pumps located in the ceiling space to provide heating, cooling and ventilation air to the various zones of the facility. Two units are rated at 2.3 KW cooling and 2.5 KW heating, 3 units are rated at 9.2 KW cooling and 9.0 KW heating, 3 units are rated at 11.2 KW cooling and 11.2 KW heating, and 13 units are rated at 13.2 KW cooling and 12.0 KW heating.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	15	MAR-08

Event: Replace 21 Water Source Heat Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2010	$137,280	Unassigned

Updated: APR-08

D3040.01.01 Air Handling Units: Air Distribution - AS-1**

Air Handling Unit #1 is a 100% outside air Markhot packaged unit c/w preheat coil, filter section, reheat coil, humidifier and supply fan. The model is a Markhot Order # 73-300-I54 with a 12 degree FC blower. The humidifier section has been shut down by the school facilities personnel. Unit size listed on drawings is 1675 lps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace School Air Handling Unit AS-1

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$34,320	Unassigned

Updated: MAR-08

D3040.01.01 Air Handling Units: Air Distribution - AS-2 Gymnasium**

Air Handling Unit #2 is a Markhot packaged unit c/w mixing box, filter section, heating coil, humidifier and supply fan. The model is a Markhot Order # 73-300-I54 with an 18 degree FC blower. The return fan is also an 18 degree FC blower. The humidifier section has been shut down by the school facilities personnel. Unit size listed on drawings is 3540 lps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace Gymnasium Air Handling Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$43,472	Unassigned

Updated: APR-08

D3040.01.04 Ducts: Air Distribution*

Treated outside air is ducted from the school ventilation unit via a ceiling distribution system to the various ceiling mounted heat pumps throughout the facility. The heat pump fans mix the supply air with ceiling space return air and distribute tempered heating or cooling air to each area to meet zone requirements via ceiling mounted diffusers.

For the second floor music room area and the gymnasium, exposed ducting with linear diffusers distribute air from the ceiling level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Cone type ceiling diffusers throughout distribute heating or cooling air to each zone as required.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D3040.03.01 Hydronic Distribution System Pumps**

There are five pumps on the heat pump system. Pumps P-1 and P-2 are heating glycol circulation pumps located in the mechanical room. Each pump is an Armstrong 2D1060BF rated at 142 Usgpm at 30 feet of head with a 2.0 HP 208/3P/60 motor. Each pump operates alone as each one is designed to circulate 100% of the heating glycol for the heating system loop.

Heat pump water circulation is handled by pumps P-3 and P-4. These are Leitch pumps, size unknown (possibly 2 HP) as there are no nameplates available. Each pump is sized to operate individually as each one is designed for 100% of the design load.

Cooling tower circulation is provided by pump P-5. This pump circulates cooling water from the cooling tower sump tank through the plate heat exchanger, and back to to cooling tower spray headers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace 5 Hydronic Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$37,752	Unassigned

Updated: MAR-08

D3040.03.01 Hydronic Distribution Systems**

Via a heat exchanger in the mechanical room, glycol based hot water is supplied to the ventilation unit heating coils in the mechanical room, and via a ceiling distribution system to the unit heaters and vestibule forceflows in the facility. Water supply for the heat pumps is provided from a plate heat exchanger in the mechanical room and distributed the the various heat pump zones via a ceiling distribution system. The return loop for the heat pump circuit is provided by the sprinkler system piping system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace Hydronic Distribution Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$343,200	Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust**

There are 8 ceiling mounted exhaust fans and two range hoods sized from 42 lps to 1274 lps to serve the various washrooms, change rooms and the staff and kitchen areas. Exhaust fans #1,#3,#4,#5,#6 and #11 are washroom exhausts. Exhaust fan #2 serves the conference room. Exhaust fans #7 and #8 are range hoods for the kitchen and staff room areas. Exhaust fan #9 is for the science room. Exhaust fan #10 is located in the emergency generator room and is intended to ventilate the room when the generator is running.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 10 Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$13,728	Unassigned

Updated: APR-08

D3040.04.03 Ducts: Exhaust*

Each exhaust fan is ducted via the ceiling space to a gooseneck located at the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Prefinished metal ceiling exhaust grilles are located in each washroom, janitor room, storage room and change room area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D3040.05 Heat Exchangers - Glycol**

The glycol to water shell and tube heat exchanger is located in the mechanical room and provides heat to the heat pump system. The unit is an Armstrong Catalogue #W-103-25

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 1 Glycol Heat Exchanger

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$9,152	Unassigned

Updated: MAR-08

D3040.05 Heat Exchangers - Plate Heat**

A water to water plate type heat exchanger is located in the mechanical room. This heat exchanger removes heat from the heat pump system as required to maintain the system at design temperature levels. It is a Supercharger UX-216-SP-74 with 293 ft2 of face area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace Plate Heat Exchanger

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$6,864	Unassigned

Updated: MAR-08

D3050.03 Humidifiers**

There is a steam grid humidifier provided for each of the two air handling units. These humidifiers have been shut down by facilities personnel as the school board does not humidify the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-08

Event: Replace 2 Humidifiers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$6,864	Unassigned

Updated: APR-08

D3050.05.02 Fan Coil Units**

There are 5 ceiling mounted fan coil units to provide heated air to the vestibule entranceways. There are additional 4 fan coil unit heaters: two in storage areas, one in the electrical room and one in the metering room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 9 Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,880	Unassigned

Updated: APR-08

D3050.05.08 Radiant Ceiling Panels**

Radiant ceiling panels have been installed in each of the three exterior teaching areas adjacent to the classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	35	MAR-08

Event: Replace 9 Radiant Ceiling Panels

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$14,872	Unassigned

Updated: MAR-08

D3060.02.02 Pneumatic Controls**

Automatic control is provided by a Barber Coleman network 8000 control panel. Current to pneumatic transducers provide control air to each controller as required by the system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace HVAC Instrumentation and Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$45,760	Unassigned

Updated: MAR-08

D3090 Other Special HVAC Systems and Equipment - Pottery Kiln*

A 125mm round Type 'A' stainless steel vent is provided for connection to a future pottery kiln ventilation unit in the Art Prep room. This vent extends through the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D4010 Sprinklers: Fire Protection*

The building is fully sprinklered with the exception to the southeast portable pod.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	60	MAR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories*

A mixture of water canister and chemical fire extinguishers are located throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

S5 ELECTRICAL

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

The main electrical service is 120/208 volt 3 phase 4 wire. The main electrical switchboard is Sylvania 800 amp 120/208 volt, 3 phase, 4 wire. The distribution is feeding 19 branch circuit panels and emergency lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-08

Event: Replace Main Electrical Switchboard

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$51,480	Unassigned

Updated: APR-08

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

The majority of the electrical branch circuit panel boards are Sylvania, 225 amp, 120/208 volts and the balance are Nova, located throughout the school. There are 19 panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Capacity Size	Capacity Unit
42cct 100.200.	amps

Event: Replace 19 Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$74,360	Unassigned

Updated: APR-08

D5010.07.02 Motor Starters and Accessories**

The motor starters are Klockner Moeller, located in the mechanical room, on the second floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 8 Motor Starters

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$8,580	Unassigned

Updated: APR-08

D5020.01 Electrical Branch Wiring*

The electrical branch wiring consists of armored cable, electrical metallic tubing, seal tight flex and tech cable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D5020.02.01 Lighting Accessories (Lighting Controls)*

Low voltage relays have been provided for the lighting. The cabinet is located in the electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D5020.02.02.01 Interior Incandescent Fixtures*

The incandescent lights are located in the library. They are track lights and pot lights. There are incandescent lights in the principal's office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

D5020.02.02.02 Interior Florescent Fixtures**

The fluorescent fixtures are a mix of 2 x 4 recessed, 1 x 4 surface mount, 1 x 4 strip, 2 x 4 W/T (water-tight), 1 x 4 wrap around fixtures located throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	30	MAR-08

Event: Replace 756 fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$165,880	Unassigned

Updated: APR-08

D5020.02.03.01 Emergency Lighting Built-in*

The emergency lighting is located throughout the school and is activated by an emergency generator system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-08

D5020.02.03.02 Emergency Lighting Battery Packs**

There is an emergency lighting panel for fixtures located throughout the school and a supplementary battery pack for lighting located in electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

Event: Replace Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$12,367	Unassigned

Updated: APR-08

D5020.02.03.03 Exit Signs*

The exit signs have incandescent lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D5020.02.10 Theatrical Lighting*

The second floor drama room has stage lighting consisting of spot lights on ceiling bars.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-08

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

There are wall mounted high pressure sodium fixtures on exterior walls and parking lot poles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

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

A photo cell and contactor have been provided for exterior lighting in the electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D5030.01 Detection and Fire Alarm**

The fire alarm is a Simplex 2001. The panel is in the main office and the remote annunciator is at the main entrance. The audible devices are 10" bells.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-08

Event: Replace Fire Alarm

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$57,200	Unassigned

Updated: MAR-08

D5030.02.02 Intrusion Detection**

The security system is a Magnum Alert located in the custodian room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-08

Event: Replace Intrusion Detection

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,600	Unassigned

Updated: APR-08

D5030.03 Clock and Program Systems*

The clock and program system is a Simplex 2350 master time system, which is acceptable, but not in use.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	25	MAR-08

D5030.04.01 Telephone Systems*

The telephone system is a Norstar Nortel UPS 500 APC. There are only handsets in the classroom. The telephone system is located in photocopy room in the general office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-08

D5030.04.05 Local Area Network Systems*

There is a data server in the computer room which is using Cat 5 cable for networking.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

D5030.05 Public Address and Music Systems**

The public address is a Bogen Multicom 2000, located in the photocopy room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-08

Event: Replace Public Address Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,440	Unassigned

Updated: APR-08

D5030.06 Television Systems*

The TV cable is located in the library area only.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

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

The emergency generator is a Simpower 60 kw natural gas powered unit with 225 amp Westinghouse 250 D.C. disconnect switch. The Schmidtec transfer switch is rated at 400 amp 120/208 volt 3 phase 4 wire, located in the main electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-08

Event: Replace Packaged Generator

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$115,269	Unassigned

Updated: MAR-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The library/learning resources area is equipped with adjustable wood book shelves, plastic laminate tables with steel legs, chairs with plastic seats and steel leg frames and book displays.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

E1020.03 Theater and Stage Equipment*

The second floor music and drama room has a one riser stage along the east wall and stage lighting on ceiling bars.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

E1090.03 Food Service Equipment*

The kitchen adjacent to the gym change areas is equipped with a range and hood, fridge, microwave. There are plastic laminated counters with a stainless steel sink with wood veneer cupboards above and below. The kitchen also has a metal roller shutter covering a pass through to art class room 10.
The staff lounge has a kitchenette with range and hood, fridge, coffee maker and toaster oven on a plastic laminated counter with stainless steel sink and cupboards above and below.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

The gym has wall bars, markings for floor games, brass housing for volley ball and badminton net posts. There are also basket ball hoops and back boards on the gym walls which also has a dividing curtain suspended from a ceiling track.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

E2010.02 Fixed Casework**

There is fixed casework throughout the school in class rooms, store rooms, teachers work room for book, coat and supplies storage and counters in work areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-08

Event: Replace 500m casework/cupboards

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$171,600	Unassigned

Updated: APR-08

E2010.03.01 Blinds**

There are Venetian blinds on class room and staff room windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-08

Event: Replace 50 m2 Venetian blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,880	Unassigned

Updated: MAR-08

E2010.06 Fixed Interior Landscaping*

There is a planter on the second floor balcony with a quarry tile capping and a galvanized steel lining. It is currently filled with gravel.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

F1010.02.04 Portable and Mobile Buildings - 1988*

The 1988 pod has four portable class rooms and is wood construction: wood studs with fibre glass fibre insulation, metal siding exterior finish on ply sheathing with a vinyl covered gypsum board and poly vapour barrier interior finish. The ceilings are acoustic tiles in a T-bar suspension grid. The floor finish is predominantly carpet. The windows are aluminum sliders with an external screen of expanded metal. The interior doors are solid core in a pressed steel frames. The exterior doors are painted steel in a pressed steel frames. The substructure consists of concrete posts supporting wood floor joists. The exterior doors lead onto wood egress stairs with steel pipe rails.
The roof is the original built up roof with a gravel finish.

Electrical:
There are 4 Nova panel boards in the class rooms (120/240/100 amp).

Mechanical:
Each class room has a furnace, l Carrier Model 58CTA070. Three of these furnaces were replaced in October 2004, and one was replaced in April 2005.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	0	MAR-08

1998 Portable Classroom Pod

Event: Replace 450m2 roof with SBS

Concern:
The roof has deteriorated, is pooling and bleeding asphalt.
Recommendation:
Replace roof.
Consequences of Deferral:
The roof will deteriorate further with potential damage to interior of school.

Type	Year	Cost	Priority
Repair	2008	$57,200	Medium

Updated: APR-08

F1010.02.04 Portable and Mobile Buildings 1992*

The 1992 pod of four portable class rooms is wood construction: wood studs with fibre glass fibre insulation, stucco exterior finish on building paper on ply sheathing with a vinyl covered gypsum board and poly vapour barrier interior finish. The ceilings are acoustic tiles in a T-bar suspension grid between exposed glulam beams. The floor finish is a mix of carpet and vinyl tiles with a raised area with a ramp in one corner. The windows are aluminum with opening lights and integral Venetian blinds. The interior doors are solid core in a pressed steel frames. The exterior doors are painted steel in a pressed steel frames. The substructure consists of poured concrete posts on spread footings supporting glulam beams which in turn carry wood floor joists.
The roof is built up with a gravel finish.

Electrical:
There are 4 Nova panel boards in the class rooms (120/240/100 amp).

Mechanical:
There is a separate air handling unit is for all four class rooms. It is a Scott Springfield AHU-4000-H-M rated for 4000 cfm, 2.5" TSP. 208/3P/60. The heating coil is a SWQ0601H, 33" x 36". The humidifier is a Celldeck 28.5 by 44 rated for 2.10 gpm.
There is perimeter finned tube radiation installed in the four class rooms.

Rating	Installed	Design Life	Updated
3 - Marginal	1990	30	MAR-08

1992 portable classroom pod

Event: Repair 700m2 stucco exterior

Concern:
There is damage and cracking in the exterior stucco.
Recommendation:
Repair and make good damaged and cracked stucco.
Consequences of Deferral:
Stucco will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$11,440	Medium

Updated: APR-08

F1040.06 Other Special Facilities*

The gym is equipped with a portable stage.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

F2020.01 Asbestos*

A May, 2000, consultant's report concluded that of sixteen samples of building materials tested for asbestos content, 300mm x 300mm floor tiles throughout the school were found to contain asbestos. The report also concluded that the "ACM [asbestos containing material] was found to be in good condition and represents little risk to occupant health if properly managed".

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

F2020.04 Mould*

There was no evidence of mould during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

F2020.09 Other Hazardous Materials*

There was no evidence of other hazardous materials during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

The route from the parking lot to the main entrance is barrier free.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

K4010.02 Barrier Free Entrances*

The entrances are barrier free with the sidewalk ramped up to meet the thresholds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

K4010.03 Barrier Free Interior Circulation*

There is access to the second floor music room by means of a stair lift for wheel chairs.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

K4010.04 Barrier Free Washrooms*

There are barrier free wash rooms with grab bars off the north/south corridor.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

RECAPP Facility Evaluation Report

Minchau School

S3225

Edmonton

Report run on: July 18, 2008 12:30 PM

Facility Details

Building Name: Minchau School
Address:
Location: Edmonton

Building Id: S3225
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: November 11 2007
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **$244,473**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The main entrance to the school is on the north side and oriented towards the car park rather than the street. There is ground molding with shrubs at the front of the school which has been intensively landscaped with a wood retaining wall enclosing a concourse of concrete pavers and a flag pole in a small section of pavers. There is also ground molding on the west and south sides of the school. The portables on the south side of the school are surrounded by asphalt recreational surfaces. There are also steel bike racks on the south side of the school. There are concrete sidewalks on the north, south and west sides of the school and the asphalt car park in on the north side of the school adjacent to the main entrance. Mature trees are planted on the west, south and north sides of the site in grassed areas.

Overall the site is in an acceptable condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

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.

S7 SITE

G2010.02.02 Flexible Pavement Roadway (Asphalt)**

There is a short length of asphalt roadway accessing the car park on the north side of the school

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-08

Event: Repair 100m2 asphalt road

Concern:
The asphalt road is cracked and has deteriorated.
Recommendation:
Resurface road.
Consequences of Deferral:
Road will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$2,860	Medium

Updated: APR-08

Event: Replace Asphalt [250 m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,440	Unassigned

Updated: MAR-08

G2010.05 Roadway Curbs and Gutters*

The road has poured curbs and gutters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G2020.02.02 Flexible Paving Parking Lots(Asphalt)**

There is an asphalt parking lot on the north side of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-08

Event: Repair 800m2 asphalt parking

Concern:
There is cracking and general deterioration of the parking lot asphalt surface.
Recommendation:
Resurface asphalt.
Consequences of Deferral:
Parking lot will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$6,864	Medium

Updated: APR-08

Event: Replace 800m2 asphalt parking

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,600	Unassigned

Updated: APR-08

G2020.05 Parking Lot Curbs and Gutters*

The parking lot has poured concrete curbs and gutters.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	0	MAR-08

Event: Repair 20m concrete curb

Concern:
There are several damaged sections of concrete curbs which require repair.
Recommendation:
Cut out and recast damaged sections of curb.
Consequences of Deferral:
Curbs will deteriorate further

Type	Year	Cost	Priority
Repair	2008	$2,288	Low

Updated: APR-08

G2020.06.01 Traffic Barriers*

There is a painted steel swing barrier at the entrance to the car park and a chain barrier suspended between two steel posts which separates the school parking from the adjacent community centre parking. There are painted steel bollards with rails protecting the transformer on the north side of the school and steel guards over the wall where there is an exposed gas line. The are also painted steel bollards at east end of the car park.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G2020.06.03 Parking Lot Signs*

There are "reserved staff parking" signs and stall numbers painted on steel rails spanning steel posts which also accommodate plug ins along both sides of the car park. The are also painted metal signs "staff parking only" at the entrance to the car park.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G2020.06.04 Pavement Markings*

There are parking stall lines painted on the asphalt surface.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	0	MAR-08

Event: Repair 150m stall lines

Concern:
The stall lines in the car park and worn and have deteriorated.
Recommendation:
Repaint stall lines.
Consequences of Deferral:
Stall lines will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$1,373	Low

Updated: APR-08

G2030.03 Pedestrian Unit Pavers**

There are brick coloured concrete interlocking pavers in two sections at the front (north side) of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	20	MAR-08

Event: Repair 50m2 pavers

Concern:
There are sections of pavers which have settled and present a trip hazard.

Recommendation:
Re-set concrete pavers.

Consequences of Deferral:
Concrete pavers will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$2,288	Low

Updated: APR-08

Event: Replace 300m2 pavers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$57,200	Unassigned

Updated: APR-08

G2030.04 Rigid Pedestrian Pavement (Concrete)**

There are concrete side walks on the north, west and south sides of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-08

Event: Repair 50m2 concrete side walk

Concern:
There are sections of concrete sidewalk on the north side of the school which have cracked or settled.
Recommendation:
Remove and re-pour damaged sections of sidewalk.
Consequences of Deferral:
Side walks will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$5,720	Medium

Updated: APR-08

Event: Replace 300m2 concrete sidewalk

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$57,200	Unassigned

Updated: APR-08

G2030.06 Exterior Steps and Ramps*

The side walk up to the main entrance is ramped. There is also a wood ramp to access the gym on the east side of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	0	MAR-08

Event: Replace wood ramp with concrete ramp

Concern:
The wood ramp is water damaged and is deteriorating.
Recommendation:
Replace wood ramp with poured concrete ramp with painted steel rails.
Consequences of Deferral:
Ramp will deteriorate further and fail.

Type	Year	Cost	Priority
Repair	2008	$11,440	Medium

Updated: APR-08

G2040.03 Athletic and Recreational Surfaces**

There are asphalt recreational surfaces on the east and south sides of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-08

Event: Repair 200m2 asphalt

Concern:
There are sections of the asphalt surface which are cracked and have deteriorated including a pot hole at the south eats corner of the school.
Recommendation:
Re-surface deteriorated sections and fill pot hole.
Consequences of Deferral:
Asphalt will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$5,720	Medium

Updated: APR-08

Event: Replace 1000m2 asphalt

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,600	Unassigned

Updated: APR-08

G2040.05 Site and Street Furnishings*

There are painted metal boot scrapers at the school entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G2040.06 Exterior Signs*

There is a metal sign affixed to the wall over the main entrance on the north side of the school. There is also wood free standing sign in the grassed area on the west side of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G2040.08 Flagpoles*

There is an aluminum flag pole in a area of coloured pavers in front of the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G2040.11 Retaining Walls*

There is some ground molding at the front (north side) of the school which has a wood retaining wall.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	0	MAR-08

Event: Replace 20m wood retaining wall

Concern:
There wood retaining wall is water damaged and has deteriorated.
Recommendation:
Replace with pressure treated 150mm x 150mm wood.
Consequences of Deferral:
Wall will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2008	$17,160	Medium

Updated: APR-08

G2050.04 Lawns and Grasses*

There are grassed areas on all sides of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	0	MAR-08

Event: Repair 1000m2 grassed area

Concern:
There are sections of grassed area on all sides of the school which are worn and unsightly.
Recommendation:
Re-sod worn areas of grass.
Consequences of Deferral:
Grassed areas will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$5,720	Medium

Updated: APR-08

G2050.05 Trees, Plants and Ground Covers*

There are mature trees on the north, south and west sides of the school.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-08

G2050.07 Planting Accessories*

There are stained wood planters on either side of the pedestrian walk way from the city sidewalk to the main entrance planted with scrubs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G3010.02 Site Domestic Water Distribution*

A 200mm buried water main located north of the building from the municipal distribution line in Millwoods Road East connects to the metering room at the northeast corner of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G3020.01 Sanitary Sewage Collection*

The various plumbing fixtures throughout the facility connect to a 150mm underslab sanitary waste system that exits the west face of the building and connects to an existing municipal sanitary manhole located in Millwoods Road East.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G3030.01 Storm Water Collection*

A 380mm storm drainage system leaves the west portion of the north face of the building and connects to an on-site manhole north of the facility. A 380mm buried storm line also enters this manhole from the catch basin located in the parking lot to the north of the building. This line is also capped for a future connection further north of the existing catchbasin. A 450mm storm line exits the on-site manhole and connects west to the municipal main via a manhole located in Millwoods Road East.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G3060.01 Gas Distribution*

A 75mm buried natural gas main located north of the building from the municipal distribution line in Millwoods Road East connects to the metering room at the northeast corner of the building. The total natural gas load shown on the 1983 drawings is 4495 mbh (1317 KW) which includes a future load of 1365 mbh (400 KW)

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G4010.01 Electrical Substations*

An Epcor pad-mounted transformer is located on school grounds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G4010.02 Electrical Power Distribution Lines*

The underground feed from the transformer to the electrical room is a 800 amp service.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G4010.04 Car Plugs-ins*

For the 25 stalls, there are 14 duplex receptacles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08

G4020.01 Area Lighting*

There are 2 pole mounted high pressure sodium parking lot fixtures and 1 pedestrian walkway fixture.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	0	MAR-08