RECAPP Facility Evaluation Report

Edmonton School Dist #7

John A. McDougall Elementary / Junior High School

B3210A
Edmonton

Report run on: January 26, 2005 3:37 PM

Facility Details

Building Name: John A. McDougall Element
Address: 10930 - 107 Street
Location: Edmonton

Building Id: B3210A
Gross Area (sq. m): 5,182.30
Replacement Cost: $7,721,331
Construction Year: 0

Evaluation Details

Evaluation Company: Koliger Schmidt Architect - Engineer
Evaluation Date: May 1 2004
Evaluator Name: Mr. Mario Macchione
Evaluator Phone: (780) 484-7447

Total Maintenance Events Next 5 years: **$152,200**
5 year Facility Condition Index (FCI): **1.97%**

General Summary:

The main building at McDougall was built in 1913 and was rebuilt after a fire in 1930. This building is a four storey structure with split level entrances. A standalone building was constructed in 1955 for Home Ec and IA studies, this building now houses a daycare centre (Duck Inn). A gymnasium was added to the 1913 building in 1972.
The 2002 upgrade for the (1913/30) building focused mainly on interior renovations. These upgrades included a new elevator (accessable to all levels of building) , a proper exiting corridor for the basement, replacement of mechanical and electrical systems, and most existing interior surfaces were replaced and/or repainted. The exterior work focused on building exterior skin, envelope issues and the construction of a roof top observation deck
1972 building (gymnasium) has been unrenovated according to the 2002/03 construction plans and scope of work.
1955 building (Duck Inn) was renovated in 2000. Some minor interior repairs need to be completed.

Structural Summary:

The 1913/30 building is constructed of loadbearing masonry, cast-in place concrete floors, and a steel trussed roof and wood deck. The 2002 roof top science observatory is constructed of steel stud framing, metal decking with concrete topping, and open web steel joists with a metal decking.
The 1955 standalone building was constructed of loadbearing concrete block walls, steel roof joists and wood roof decking.
The 1972 gym addition is constructed with precast concrete load bearing wall panels and roof.
Structurally all buildings are in good condition.

Envelope Summary:

The 1913/30 and 1972 buildings have upgraded all exterior windows from wood framed units to PCV aluminum windows. Exterior brick masonry has been power washed and joints repointed. New modified bituminous membrane roofing installed.
The 1955 building had upgraded it's windows in 2000 along with new roofing in 2001.
The 1913/30 building observatory deck and new link building connecting the 1913/30 with the 1972 building is missing required roof flashing.
The building envelopes of all three structures are in good condition, only minor renovations are required.

Interior Summary:

The 1913/30 building interior has new flooring in all areas, new suspended ceilings, new wood and metal doors, and all paintable surfaces were painted. An elevator was installed to provide barrier free access and freight transportation to all floors. A new roof top science observatory was constructed (2002) for the school's special studies program. The main floor renovations to administration and staff areas have been made to allow for better central access and use of space.
1913/30 building -Firestopping is required in some of the basement rooms at electrical conduit and pipe penetrations.
1972 building (gymnasium) -Only the lavatories have been replaced the rest is all existing.
1955 building (Duck Inn) -The painted wood ceiling is peeling and bubbling, remedial treatment and repairs are needed.
Besides the problems listed above, both the 1913/30 and 1955 building are in good condition. However the 1972 building is in poor condition and requires a study for further investigation.

Mechanical Summary:

Almost all of the mechanical system for the 1913/30 building was replaced in 2002; This heating system consists of two hot water boilers which feed the perimeter fin heating system, entrance force flows, unit heaters, and a glycol heat exchanger which feeds the supply air fan heating coil. Ventilation is provided through new ductwork from a main supply fan in the basement, which is then relieved to the top floor ceiling space to roof exhaust hoods. There is also a new rooftop unit for cooling the computer room on the second floor.

All plumbing fixture and trim are new, including water closets, urinals, sinks, and lavatories.
The 1913/30 building has a new sprinkler system with hose cabinets on each end of each floor.
The 1972 addition (Gym) is heated and ventilated by 3 parallel duct furnaces and a supply fan. The lavatories and trim in the washrooms were replaced in the 2002 upgrade, but the toilets, urinals, and showers are existing. The shower spaces are currently being used as storage.
The 1955 annex has two furnaces to heat and ventilate the building, with some electrical force flows at the entrances, and some supplemental heaters in various areas. Plumbing fixtures are in good condition.
The overall mechanical system is in good condition.

Electrical Summary:

The electrcial systems for the entire facility was upgraded in 2002. Interior lighting is energy efficient and meets current IES requirements. Fire Alarm System is in compliance with current ABC 1997 code. Main electrical service size has 45% spare capacity. All electrical systems are in excellent condition.

Rating Guide	
Condition Rating	**Performance**
1 - Critical	Unsafe, high risk of injury or critical system failure.
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.
5 - Good	Meets all present requirements. No deficiencies.
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.

S1 STRUCTURAL

A2020.01.01 Cast-in-place Concrete: Basement Wall

1930 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

A2020.01.02 Masonry Units: Basement Wall

1930 building -Conrete block

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1010.02.02 Precast Concrete:Structual Wall

1972 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1010.02.03 Masonry Units:Structural Wall

1930 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1010.02.05 Concrete Masonry Units:Structural Wall

1930 and 1955 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1010.02.07 Load Bearing Metal Studs: Wall

2002- 1930 building -Observatory roof deck

Rating	Installed	Design Life	Updated
6	0	0	October 2004

B1010.03.01 Cast-in-place Concrete:Slab

1930 building

Rating	Installed	Design Life	Updated
4	0	0	October 2004

B1010.03.05 Metal Deck

2002- 1930 building -Obervatory roof deck

Rating	Installed	Design Life	Updated
6	0	0	October 2004

B1010.10 Floor Construction Firestopping*

1913/30 building -unsealed penetrations (conduit, pipe, raceway) through floors / walls / ceilings in the electrical room 008, custodian room 013, music room 015, storage room 031 and 1972 gymnasium building.

Rating	Installed	Design Life	Updated
2	0	50	October 2004

Event: Fill and seal the floor/wall/ceiling penetrations with firestopping material.

Concern:
Unsealed penetrations (conduit, pipe, raceway) through the floors, walls and ceilings compromise the buildings fire separations.

Recommendation:
Fill and seal the floor/wall/ceiling penetrations with firestopping material to meet code.

Type	Year	Cost	Priority
Code Repair	2004	$10,000	High

Updated: October 5 2004

B1020.01.02.02 Precast Concrete:Roof Beams

1972 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1020.01.03.02 Structural Steel:Roof Trusses

1930 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1020.01.04.02 Steel Joists

2002- 1930 building -Observatory deck, open web steel joists
1955 building -Existing

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1020.03.05 Metal Deck

2002- 1930 building -Observatory roof deck

Rating	Installed	Design Life	Updated
6	0	0	October 2004

B1020.03.07 Wood Decking

1930 and 1955 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B1020.04 Canopies*

No canopy over North entrance, but structural ties are located over doors for its installation.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

S2 ENVELOPE

B2010.01.01 Precast Concrete: Exterior Wall Skin*

1972 building

Rating	Installed	Design Life	Updated
4	0	75	October 2004

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

2002- Power wash to 1930 building completed 2002/03.

Rating	Installed	Design Life	Updated
5	0	75	October 2004

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

1955 building

Rating	Installed	Design Life	Updated
5	0	75	October 2004

B2010.01.06.03 Metal Siding*

2002- 1930 building -Observatory siding installed.

Rating	Installed	Design Life	Updated
6	0	40	October 2004

B2010.02 Exterior Wall Construction

Rating	Installed	Design Life	Updated
5	0	100	October 2004

B2010.06 Exterior Louvers, Grilles, and Screens*

2002 -1930 building

Rating	Installed	Design Life	Updated
6	0	30	October 2004

B2020.01.01.06 Vinyl, Fibreglass &Plastic Windows*

2002- 1930 building
2000- 1955 standalone building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

B2030.01.06 Automatic Entrance Doors*

2002 -New link between 1930 and 1972 building.

Rating	Installed	Design Life	Updated
6	0	15	October 2004

B2030.01.10 Wood Entrance Door*

Existing front entrance doors to 1930 building.

Rating	Installed	Design Life	Updated
4	0	20	October 2004

B2030.02.01 Metal Doors and Frames

2002- 1930 building -Exiting from basement mechanical room to back driveway.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

B3010.01 Deck Vapor Retarder and Insulation*

2002- Wood observatory deck on roof of 1930 building.

Rating	Installed	Design Life	Updated
3	0	22	October 2004

Event: Seal exposed natural wood.

Concern:
Wood deck has untreated wood connections and ends.

Recommendation:
Seal exposed natural wood as appropriate (eg. stain, perservation, paint)

Type	Year	Cost	Priority
Preventative Maintenance	2004	$1,000	Medium

Updated: October 5 2004

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

2002- 1930, 1972 building
2001- 1955 building

Rating	Installed	Design Life	Updated
5	0	25	October 2004

B3010.07 Sheet Metal Roofing*

2002- 1930 building, Observatory deck.

Rating	Installed	Design Life	Updated
6	0	40	October 2004

B3010.08 Flashing and Sheet Metal

New building link between the 1913/30 and 1972 buildings as well as the roof top observatory.

Rating	Installed	Design Life	Updated
2	0	30	October 2004

Event: Install flashing.

Concern:
Both areas are without required flashing; wall and roof construction exposed to elements.

Recommendation:
Install flashing.

Type	Year	Cost	Priority
Preventative Maintenance	2004	$3,000	Medium

Updated: October 5 2004

B3010.09 Roof Specialties and Accessories*

2002- 1930 building

Rating	Installed	Design Life	Updated
6	0	25	October 2004

S3 INTERIOR

C10 Interior Construction

1972 building -Storage room, girls' and boys' washrooms, office no. 1 and office no. 2.

Rating	Installed	Design Life	Updated
3	0	0	October 2004

Event: Study required.

Concern:
Renovations needed include installation of new flooring (except gym area), washroom partitions, lockers, acoustical panels, repairing and repainting of walls and ceilings.

Recommendation:
Gynamsium area should be reaccessed to understand functionality and use of space.

Type	Year	Cost	Priority
Study	2004	$5,000	Medium

Updated: October 5 2004

C1010.01 Interior Fixed Partitions*

2002- 1930 building framed walls (steel studs)

Rating	Installed	Design Life	Updated
6	0	50	October 2004

C1010.01.03 Unit Masonry Assemblies

2002- 1913 building -Concrete block, repaired existing.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

C1010.04 Interior Balustrades and Screens, Interior Railings*

1930 building has existing raliings.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

C1010.06.03 Steel-Framed Storefronts

2002 -1913 building

Rating	Installed	Design Life	Updated
6	0	0	October 2004

C1020.01.01 Metal Doors and Frames

2002- 1913 building -Hollow metal doors with pressed steel frames.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

C1020.01.07 Wood Doors

2002- 1913 building

Rating	Installed	Design Life	Updated
5	0	0	October 2004

C1020.02.02 Steel-Framed Storefronts

2002- 1913 building

Rating	Installed	Design Life	Updated
6	0	0	October 2004

C1020.07.01 Access Doors and Panels

The 1972 building's storage room 039 and mechanical space 046 (mech space in mezzanine above storage room 039) both have plywood access doors.

Rating	Installed	Design Life	Updated
2	0	0	October 2004

Event: Replace both plywood doors with ULC labeled hatch doors.

Concern:
Access doors are both single sheet plywood doors, which compromise the integrity of the fire separations.

Recommendation:
Install fire rated hatch doors.

Type	Year	Cost	Priority
Code Repair	2004	$6,500	Medium

Updated: October 5 2004

C1030.01.02 Markerboards

2002- 1930 building

Rating	Installed	Design Life	Updated
6	0	0	October 2004

C1030.02 Fabricated Compartments(Toilets/Showers)*

2002- 1930 building

Rating	Installed	Design Life	Updated
5	0	20	October 2004

C1030.06 Handrails*

Wood handrails throughout the facility

Rating	Installed	Design Life	Updated
5	0	50	October 2004

C1030.10 Lockers*

2002- 1930 building

Rating	Installed	Design Life	Updated
5	0	30	October 2004

C1030.12 Storage Shelving*

1930 building -Basement Art storage room 021.

Rating	Installed	Design Life	Updated
1	0	20	October 2004

Event: Repair shelves and wall.

Concern:
Shelves are binding and pulling out the wall supports due to overloading.

Recommendation:
Remove weight, repair shelves and wall, remount supports and display warning signs about weight restrictions.

Type	Year	Cost	Priority
Repair	2004	$200	High

Updated: October 5 2004

C1030.14 Toilet, Bath, and Laundry Accessories*

2002- 1930 building

Rating	Installed	Design Life	Updated
5	0	20	October 2004

C2010 Stair Construction*

2002- 1930 building -Stair to roof top observatory, metal pan filled with concrete.

Rating	Installed	Design Life	Updated
6	0	100	October 2004

C2010.01 Cast-In-Place Concrete Stair Construction

1930 building

Rating	Installed	Design Life	Updated
4	0	0	October 2004

C2020.02 Terrazzo Stair Finishes*

1930 building

Rating	Installed	Design Life	Updated
5	0	50	October 2004

C2020.05 Resilient Stair Finishes*

2002- 1930 building

Rating	Installed	Design Life	Updated
5	0	20	October 2004

C2020.08 Stair Railings and Balustrades*

2002- 1930 building -Metal railings on staircase to observatory deck, all other existing metal railings in the school were repainted.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

C3010.01 Concrete Wall Finishes*

Rating	Installed	Design Life	Updated
5	0	100	October 2004

C3010.03 Plaster Wall Finishes*

Rating	Installed	Design Life	Updated
5	0	40	October 2004

C3010.04 Gypsum Board Wall Finishes*

Rating	Installed	Design Life	Updated
5	0	40	October 2004

C3010.11 Interior Wall Painting*

2002

Rating	Installed	Design Life	Updated
6	0	5	October 2004

C3020.03 Terrazzo Floor Finishes*

1930 building corridors.

Rating	Installed	Design Life	Updated
5	0	75	October 2004

C3020.07.02 Resilient Sheet Flooring

1930 building -Classrooms are lino on the main, 2nd floor and observatory.
1955 building -lino through corridor and main areas.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

C3020.08 Carpet Flooring*

2002 -1930 building -New carpet in music room 015, reception, staff areas, meeting room, classroom 211, 219, library, and computer room 205.
2002- 1955 building -nap areas and reading areas.

Rating	Installed	Design Life	Updated
5	0	10	October 2004

C3030.01 Concrete Ceiling Finishes*

1930 building -Located in the basement mechanical rooms.

Rating	Installed	Design Life	Updated
5	0	100	October 2004

C3030.02 Ceiling Paneling (Wood)*

1955 building -Painted wood ceiling.

Rating	Installed	Design Life	Updated
5	0	25	October 2004

C3030.03 Plaster Ceiling Finishes*

2002- 1930 building -Patched and repainted.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

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

2002- 1930 building

Rating	Installed	Design Life	Updated
6	0	15	October 2004

C3030.07 Interior Ceiling Painting*

2000- 1955 building

Rating	Installed	Design Life	Updated
3	0	10	October 2004

Event: **Further investigation is required**

Concern:
Paint is peeling and bubbling badly.

Recommendation:
Futher investigation to determine the reason for the paint problems.

Type	Year	Cost	Priority
Study	2004	$1,000	Medium

Updated: October 5 2004

D1010.01.02 Hydraulic Passenger Elevators*

1930 building -Passenger Elevator for Barrier free and freight transportation. Elevator opens from both sides.

Rating	Installed	Design Life	Updated
1	0	30	October 2004

Event: Repair elevator door sensor.

Concern:
Sensor problem; elevator doors didn't retrack from closing while person was in path of travel.

Recommendation:
Repair elevator door sensors.

Type	Year	Cost	Priority
Repair	2004	$2,500	High

Updated: October 5 2004

S4 MECHANICAL

D2010.01 Water Closets*

2002 - Flush valve and flush tank water closets.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D2010.02 Urinals*

2002 - Urinals and flush valves.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D2010.03 Lavatories*

1972 - Few remaining vitreous china lavatories located in gym should be replaced when gym is renovated.

Rating	Installed	Design Life	Updated
4	0	30	October 2004

D2010.03 Lavatories*

2002 - Stainless steel lavatories in all three buildings.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D2010.04 Sinks*

2002 - Stainless steel sinks and trim in 1930 building in every classroom and in 1955 building. A water fountain bubbler is installed on each classroom sink. Lunchroom kitchen sink also has dish sprayer. Molded stone janitor sinks.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D2010.05 Showers*

1972 - Showers are unused. Space in Gym is used as storage.

Rating	Installed	Design Life	Updated
4	0	30	October 2004

D2010.08 Drinking Fountains / Coolers*

1972 - Vitreous china water fountains installed in gym. Should be replaced with stainless steel water fountains when gym renovated.

Rating	Installed	Design Life	Updated
4	0	30	October 2004

D2020.01.01 Pipes and Tubes: Domestic Water*

The domestic hot water system in the 1955 building has a thermostatic mixing valve on it, presumably to limit the hot water to a set temperature.

Rating	Installed	Design Life	Updated
3	0	40	October 2004

Event: Study hot water requirements in building.

Concern:
The domestic hot water system has a thermostatic mixing valve on it, presumably to set the hot water at a low enough temperature to prevent the small children from scalding themselves. However, on site the cold water side to the mixing valve was shut off, possibly because some services, such as washing and cooking, require hot water.

Recommendation:
Study hot water requirements and safety concerns in building.

Type	Year	Cost	Priority
Study	2004	$7,000	High

Updated: October 5 2004

D2020.01.01 Pipes and Tubes: Domestic Water*

Piping and fittings in some parts of 1955 and 1972 buildings original.

Rating	Installed	Design Life	Updated
3	0	40	October 2004

Event: Replace piping and tubes.

Concern:
Piping and tubes are original.

Recommendation:
Original - requires replacement.

Type	Year	Cost	Priority
Lifecycle Replacement	2005	$15,000	Low

Updated: October 5 2004

D2020.01.01 Pipes and Tubes: Domestic Water*

2002 - Piping and fittings in 1930 building

Rating	Installed	Design Life	Updated
6	0	40	October 2004

D2020.01.02 Valves: Domestic Water

Domestic water valves.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

D2020.01.03 Piping Specialties (Backflow Preventors)*

Backflow preventor requires replacement in 1955 building
.

Rating	Installed	Design Life	Updated
2	0	0	October 2004

Event: Replace backflow preventer in 1955 building.

Concern:
Backflow preventor at end of service life.

Recommendation:
Replace backflow preventor.

Type	Year	Cost	Priority
Lifecycle Replacement	2004	$5,000	Medium

Updated: October 5 2004

D2020.01.03 Piping Specialties (Backflow Preventors)*

2002 - New backflow preventers installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D2020.02.06 Domestic Water Heaters*

1994(est.) - John Wood JWC 50204, 52,000 BTU/h, 36 gal. Rec. 41 gal. Tank in 1955 building.
1984(est.) - A. O. Smith BT199-680, 179,800 BTU/h, 150 GPH rec. 80 gal. Tank in 1972 building.

Rating	Installed	Design Life	Updated
3	0	20	October 2004

Event: Replace domestic hot water heaters.

Concern:
Hot water tanks are at the end of their life cycle.

Recommendation:
Replace hot water tanks in 1955 and 1972 building.

Type	Year	Cost	Priority
Lifecycle Replacement	2004	$22,000	Low

Updated: October 5 2004

D2020.02.06 Domestic Water Heaters*

2002 - Two Bradford White domestic hot water heater, each with 40 US gallon capacity, installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	20	October 2004

D2020.03 Water Supply Insulation*: Domestic

2002 - Insulation installed in 1930 building on domestic water piping.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D2020.03.01 Piping Insulation: Domestic Water

Domestic water lines are missing portions or insulation and has some damage in both 1955 and 1972 building.

Rating	Installed	Design Life	Updated
3	0	0	October 2004

Event: Repair domestic water piping insulation in 1955 and 1972 building.

Concern:
Some insulation missing on parts of the pipe and the insulation is in poor condition.

Recommendation:
Repair domestic water insulation in 1955 and 1972 building.

Type	Year	Cost	Priority
Repair	2004	$2,000	Low

Updated: October 5 2004

D2030.01 Waste and Vent Piping*

Waste and Vent Piping.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

D2040.01 Rain Water Drainage Piping Systems*

Cast iron piping in all buildings.

Rating	Installed	Design Life	Updated
4	0	50	October 2004

D2040.02.04 Roof Drains*

Roof Drains on all buildings.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

D2090.15 Pool & Fountain Equipment*

2002 - Fountain installed in library in 1930 building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D3010.02 Gas Supply Systems*

Standard natural gas system.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

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

2002 - Two Raypack boilers installed in 1930 building. 2952 MBH output each.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

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

2002 - Boiler chimney and combustion air duct installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3020.03.01 Furnaces*

2002 - Two Lennox furnaces installed in 1955 building.

Rating	Installed	Design Life	Updated
5	0	25	October 2004

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

2002 - Chimney and combustion air installed in 1955 building.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D3020.04.01 Fuel-Fired Duct Heaters*

1972 - Three in-line gas fired duct heaters serve the gym.

Rating	Installed	Design Life	Updated
3	0	30	October 2004

Event: Replace duct furnaces in gym.

Concern:
Duct furnaces and air system have reach the end of their service life, and are inefficient.

Recommendation:
Replace (3) furnaces with air handling unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2005	$80,000	Low

Updated: October 5 2004

D3020.06 Other Heat Generation Systems*

2002 - Electrical force flows at entrances of 1955 building.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

D3040.01 Air Distribution Systems

One room in basement of 1930 building doesnt have return air path.

Rating	Installed	Design Life	Updated
3	0	30	October 2004

Event: Install return air grill and ducting.

Concern:
Room 014 in 1930 building did not have a return air grill.

Recommendation:
Install return air grill and ductwork.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2004	$3,000	Low

Updated: October 5 2004

D3040.01 Air Distribution Systems

Sheet metal air distribution in 1955 and 1972 building.

Rating	Installed	Design Life	Updated
4	0	30	October 2004

D3040.01 Air Distribution Systems

2002 - Ventilation distribution through sheet metal ductwork in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3040.01.02.01 Centrifugal Fans: Air Distribution

2002 - Centrifugal supply fan installed for 1930 building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Grills and diffusers installed in 1955 and 1972 building.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

D3040.01.07 Air Outlets & Inlets:Air Distribution*

2002 Supply diffuser and return grills installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D3040.03.01 Hot Water Distribution Systems*

2002 - Hot water and glycol distribution system, including air scoop, expansion tank, plate heat exchanger and pumps in 1930 building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D3040.04 Special Exhaust Systems

2000 - Washroom and kitchen exhaust fans in 1955 building.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D3040.04 Special Exhaust Systems

1972 - Washroom exhaust system original and should be replaced in 1972 building.

Rating	Installed	Design Life	Updated
3	0	30	October 2004

Event: Replace washroom exhaust fans.

Concern:
Washroom exhaust fans are at the end of their service life.

Recommendation:
Replace (2) washroom exhaust fans.

Type	Year	Cost	Priority
Lifecycle Replacement	2004	$5,000	N/A

Updated: October 5 2004

D3040.04 Special Exhaust Systems

2002 - Exhaust fans for kitchen, staff room, art room hood, janitor closets, and washrooms installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3040.04.03 Ducts*: Exhaust

Exhaust ducts for all buildings.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

D3040.04.05 Air Outlets and Inlets*: Exhaust

2002 - New exhaust grills and louvres installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D3040.04.05 Air Outlets and Inlets*: Exhaust

Exhaust inlets and outlets in 1955 and 1972 building.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

D3040.05 Heat Exchangers*

2002 - Water to glycol plate heat exchanger installed in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

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

2002 - Packaged rooftop unit (Carrier) for computer room installed on roof of 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3050.02 Air Coils*

2002 - Glycol heating coil installed in suction of supply fan in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3050.05.02 Fan Coil Units*

2002 - Fan coil units installed at entrance ways in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3050.05.03 Finned Tube Radiation*

2002 - Fin tube radiation installed around perimeter of the building on every floor.

Rating	Installed	Design Life	Updated
6	0	35	October 2004

D3050.05.06 Unit Heaters*

2002 - Unit heater installed in boiler room in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3060.02.01 Electric and Electronic Controls*

1955 and 1972 buildings - Electronic controls for duct furnaces and furnaces.

Rating	Installed	Design Life	Updated
4	0	30	October 2004

D3060.02.01 Electric and Electronic Controls*

2002 - Line voltage controls for entrance way fan coil units in 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

D3060.02.02 Pneumatic Controls*

2002 - Pneumatic compressor and tank for field controls.

Rating	Installed	Design Life	Updated
6	0	40	October 2004

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

2002 - Control system installed in 1930 building. Combination electronic with pneumatics for field devices.

Rating	Installed	Design Life	Updated
6	0	25	October 2004

D4010 Sprinklers: Fire Protection*

2002 - 1930 Building fully sprinklered with concealed, recessed heads. Each floor has zone alarm.

Rating	Installed	Design Life	Updated
6	0	50	October 2004

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers in 1955 building.

Rating	Installed	Design Life	Updated
4	0	30	October 2004

D4030.01 Fire Extinguisher, Cabinets and Accessories*

2002 - Hose cabinets and fire extinguishers are located on each floor at each end of the 1930 building.

Rating	Installed	Design Life	Updated
6	0	30	October 2004

S5 ELECTRICAL

D5010.03 Main Electrical Switchboards (Main Distribution)*

FPL main distribution panel located in the basement main electrical room. Maximum demand 288 Amps). Adequate capacity and spaces available. 600 Amps - 120/208 Volt - 3 phase - 4 wire. No surge protection.
Underground secondary service from pad mounted transformer located on the west side of the school.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

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

1996 - 120/208 volt - 3 phase - 4 wire branch circuit panels throughout school. Spaces and capacity adequate.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

D5010.07 Motor Control Centers (Motor Control)*

2002 - Motor Control Centers are Square D.

Rating	Installed	Design Life	Updated
5	0	25	October 2004

D5020.01 Electrical Branch Wiring*

2002 - Wiring tested and upgraded.

Rating	Installed	Design Life	Updated
6	0	50	October 2004

D5020.02.01 Lighting Accessories (Lighting Controls)*

Light switching uses low voltage relays. Relays are located in electrical room.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

D5020.02.02 Interior Luminaries

2002 - Interior lighting is Fluorescent light fixtures with T8 lamps and electronic ballasts. Hallways have suspended fluorescent chandeliers. Light levels were in compliance with current IES light levels.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D5020.02.03 Emergency Lighting*

2002 - Exit signs are connected to emergency lighting battery packs. Emergency Lighting battery packs were installed.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Perimeter lighting is achived using HPS wall pack light fixtures. Light levels are within the IES standards.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

D5030.01 Detection and Alarm Fire Alarm*

2002 - Fire Alarm panel located in main office with Annunciator panel located at North exit. Horns and Strobe lights were added as part of the system upgrade. Fire Alarm Control Panel is Notifier AFP-400.

Rating	Installed	Design Life	Updated
6	0	25	October 2004

D5030.02.02 Intrusion Detection*

2002 - Magan Alert Panel installed and motion detectors and door contacts installed throughout facility.

Rating	Installed	Design Life	Updated
6	0	25	October 2004

D5030.02.04 Video Surveillance*

2002 - CCTV surveillance installed.

Rating	Installed	Design Life	Updated
6	0	25	October 2004

D5030.04 Voice and Data Systems

2002 - Bogin System used for communication and public address. Patch panels located in the basement electrical room and 2nd floor library.

Rating	Installed	Design Life	Updated
6	0	15	October 2004

D5030.04.01 Telephone Systems*

Norstar Meridian System. Head-end equipment located in the basement electrical room.

Rating	Installed	Design Life	Updated
4	0	15	October 2004

D5030.04.04 Data Systems*

2002 - Category 5, FT4 data cabling provided throughout school. Dedicated circuits are provided for computers. Data cabling installed in surface conduit and free air.

Rating	Installed	Design Life	Updated
5	0	15	October 2004

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

2002- New shelving and casework.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

E1090.03 Food Service Equipment*

2002

Rating	Installed	Design Life	Updated
5	0	0	October 2004

E2010.02.05 Educational Facility Casework*

2002- Millwork replaced, classroom 114 still has some old fixed casework.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

E2010.02.07 Kitchen Casework*

2002

Rating	Installed	Design Life	Updated
6	0	0	October 2004

E2010.02.09 Library Casework*

2002

Rating	Installed	Design Life	Updated
6	0	0	October 2004

E2010.03.01 Blinds*

2002- 1930 building

Rating	Installed	Design Life	Updated
5	0	10	October 2004

E2020 Moveable Furnishings*

Rating	Installed	Design Life	Updated
5	0	20	October 2004

F1020.02 Special Purpose Rooms*

2002- Roof science observatory room.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

F2020 Hazardous Components Abatement

Rating	Installed	Design Life	Updated
4	0	0	October 2004

S8 FUNCTIONAL ASSESSMENT

K3020 Indoor Environment

1930 building -Door from fan room leading to music room 015.

Rating	Installed	Design Life	Updated
2	0	0	October 2004

Event: Sound seal, weatherstrip existing door.

Concern:
Door from fan room leading into music room is permitting significant noise and air flow into teaching space.

Recommendation:
Sound seal, weatherstrip existing door.

Type	Year	Cost	Priority
Program Functional Upgrade	2004	$1,000	Medium

Updated: October 5 2004

K40 Current Code Issues

Rating	Installed	Design Life	Updated
5	0	0	October 2004

K4010.01 Barrier Free Route: Parking to Entrance

Handicap stalls located in parking lot closest to building but far from barrier free entrance, have allowed a driveway access directly to front of barrier free doors.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

K4010.02 Barrier Free Entrances

2002 -Westside of 1913 building ground level entrance with automatic doors.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

K4010.03 Barrier Free Interior Circulation

1930 building -There are little to no restrictions for barrier free travel within the building. Some interior doors may need to be assisted open for barrier free entrance. (library doors)

Rating	Installed	Design Life	Updated
5	0	0	October 2004

K4010.04 Barrier Free Washrooms

2002- 1930 building -All levels of building.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

Facility Details

Building Name: Mcdougall Elementary / Juni
Address:
Location: Edmonton

Building Id: S3210
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Koliger Schmidt Architect - Engineer
Evaluation Date: May 1 2004
Evaluator Name: Mr. Mario Macchione
Evaluator Phone: (780) 484-7447

Total Maintenance Events Next 5 years: **$23,400**
5 year Facility Condition Index (FCI): **0%**

General Summary:

2002 upgraded staff parking, site roadways and some minor landscaping. Repairs are required to some of the existing sidewalks and stairs. Finish landscaping in and around parking lot area and near new link building (westside). Upgrading of Eastside planters, and building perimeter sod required.

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)*

Rating	Installed	Design Life	Updated
5	0	0	October 2004

G2010.05 Roadway Curbs and Gutters*

Rating	Installed	Design Life	Updated
5	0	0	October 2004

G2020.02.02 Flexible Paving Parking Lots(Asphalt)*

2002

Rating	Installed	Design Life	Updated
6	0	0	October 2004

G2020.05 Parking Lot Curbs and Gutters*

2002

Rating	Installed	Design Life	Updated
6	0	0	October 2004

G2020.06.02 Parking Bumpers*

2002

Rating	Installed	Design Life	Updated
6	0	0	October 2004

G2020.06.03 Parking Lot Signs*

2002

Rating	Installed	Design Life	Updated
6	0	0	October 2004

G2020.06.04 Pavement Markings*

2002

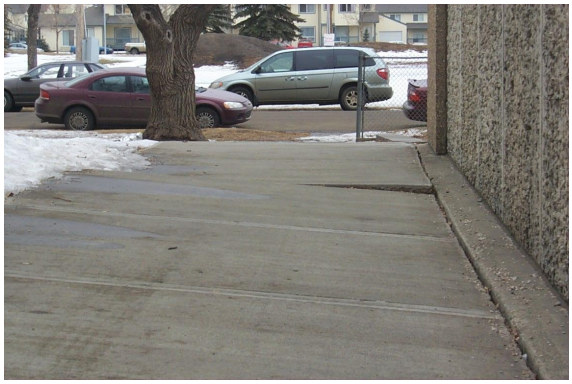
Rating	Installed	Design Life	Updated
6	0	0	October 2004

G2030.04 Rigid Pedestrian Pavement (Concrete)*

Concrete sidewalk at entrance to gymnasium settled.

Rating	Installed	Design Life	Updated
3	0	0	October 2004

Event: Re-level ground and replace existing sidewalk.



Concern:
Sidewalk (front entrance to gym) is sloping towards building creating water pooling problems; large cracks and settling/lifting of sidewalk.

Recommendation:
Re-level ground and replace existing sidewalk. (72 m²)

Type	Year	Cost	Priority
Failure Replacement	2004	$10,500	Medium

Updated: October 5 2004

G2030.06 Exterior Steps and Ramps*

Front entrance stairs to building

Rating	Installed	Design Life	Updated
3	0	0	October 2004

Event: Replace existing exterior steps.

Concern:
Sloping and uneven stairs, causing water to pool.

Recommendation:
Remove existing sloping stairs, relevel ground and replace with new concrete stairs.

Type	Year	Cost	Priority
Failure Replacement	2004	$12,900	Medium

Updated: October 5 2004

G2030.06.05 Metal Handrails and Railings

Exterior stairs in need of metal handrails.

Rating	Installed	Design Life	Updated
3	0	0	October 2004

Event: Install handrails to all exterior stairs

Concern:
None of the exterior stairs have any handrails.

Recommendation:
Install handrails to all exterior stairs

Type	Year	Cost	Priority
Code Upgrade	2004	$6,000	Medium

Updated: October 5 2004

G2040.02 Fences and Gates*

Rating	Installed	Design Life	Updated
5	0	0	October 2004

G2040.03 Athletic and Recreational Surfaces*

Asphalt pad with basketball hoops and painted games.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

G2040.06 Exterior Signs*

Rating	Installed	Design Life	Updated
5	0	0	October 2004

G2050.04 Lawns and Grasses*

Playing field and surounding grass areas are bare and muddy.

Rating	Installed	Design Life	Updated
3	0	0	October 2004

Event: Muddy areas surrounding school and in existing playing field.

Concern:
Little to no grass surrounding building and parking lot islands, excess of mud limiting children's play area.

Recommendation:
Re-level, to prevent ponding, and resod areas of dead grass as required (approx. 3,500 m2).

Type	Year	Cost	Priority
Program Functional Upgrade	2004	$20,000	Medium

Updated: October 5 2004

G3010 Water Supply

Domestic water supply - municipal source.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

G3010.02 Site Domestic Water Distribution*

2002 - Domestic water service fed from two mains.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

G3010.03 Site Fire Protection Water Distribution*

2002 - Fire hydrant installed on site. Siamese connections. Hydrants in adjacent streets.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

G3020.01 Sanitary Sewage Collection*

Municiple sanitary system.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

G3030.02 Storm Water Equipment*

One catch basin is located in west parking lot.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

G3060.01 Gas Distribution*

Natural gas is distributed to the each of the three buildings.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

G4010.04 Car Plugs-ins*

Car parking receptacles mounted on west side of school, and on the Annex Building. 36 energized stalls.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

G4020.01 Area Lighting*

High pressure sodium canopy lights and roof mounted flood lights.

Rating	Installed	Design Life	Updated
4	0	30	October 2004