RECAPP Facility Evaluation Report

Calgary School District #19

Emily Follensbee Centre

B9120A
Calgary

Report run on: June 28, 2007 12:42 PM

Facility Details

Building Name: Emily Follensbee Centre
Address: 5139 - 14 Street S. W.
Location: Calgary

Building Id: B9120A
Gross Area (sq. m): 3,629.74
Replacement Cost: $8,703,903
Construction Year: 0

Evaluation Details

Evaluation Company: Jacques Whitford Limited
Evaluation Date: June 21 2006
Evaluator Name: Lauren Skalicky

Total Maintenance Events Next 5 years: **$751,161**
5 year Facility Condition Index (FCI): **8.63%**

General Summary:

The Emily Follensbee School is a single-storey concrete and wood-framed structure with a partial basement, originally constructed in 1964. The original building has a total floor area of approximately 1,373 square metres.

A steel-framed, single-storey addition was constructed in 1982 on the southeast side of the original building, which has a total floor area of approximately 2,257 square metres. The majority of the addition is comprised of classrooms and an indoor pool area.

The school is primarily used for assisting children with disabilities.

Structural Summary:

Structural drawings were not available for review during the assessment, however the building's foundations likely consist of a poured concrete assembly with concrete grade beams and pad footings. The structure consists of reinforced, poured concrete floors and load-bearing wood-framed walls. The 1982 addition has structural steel columns supporting the roof structure. The suspended main floor slab above the basement level is cast-in-place reinforced concrete.

The roof structural frame for the original portion of the building is comprised of wood decking supported by glulam beams. The 1982 addition has steel roof decking supported by open-webbed steel joists and beams. The indoor play atrium area in the 1982 addition has steel trusses supporting metal decking.

No major work associated with the building structure was identified during the assessment.

The building's structural elements are in acceptable condition overall.

Envelope Summary:

Exterior cladding consists of a combination of clay brick and vertical metal siding. All flat roof sections of the original building consist of a built-up (tar and gravel) roofing assembly. The sloped roof sections of the 1982 addition are pre-finished metal with metal gutters and downspouts. Main entrance doors are metal with insulating glazing units and are set in aluminum frames. Windows are fixed and operable with double-glazed units set in aluminum frames.

No major repair work associated with the building envelope, other than lifecycle replacements and the proposed roofing replacement, was identified during the assessment.

The building's envelope and exterior components are in acceptable condition.

Interior Summary:

Corridors typically have vinyl sheet flooring. Carpeting is provided in a majority of the classrooms, offices and administration areas, with a few rooms having of vinyl floor tiles. The basement level of the building has painted/sealed concrete floors. Wood parquet flooring is provided in the gymnasium. The majority of the interior walls consist of painted gypsum board or ceramic tiles. The building has either painted gypsum board ceilings or a suspended acoustic panel ceiling system.

No major work associated with the interior finishes of the building were identified during the site assessment.

The building's interior finishes are in acceptable condition overall.

Mechanical Summary:

Emily Follensbee School was originally constructed in 1964 with a major renovation and expansion in 1982. The

majority of the domestic water, sanitary, and rain water drainage piping was replaced during the 1982 renovation. There are backflow prevention devices (BFPs) present on the domestic water supply, boiler feed water supply, fire protection riser, and the pool and whirlpool supply lines. The auxiliary electric domestic water heaters were also installed in 1982.

The building is heated by two steam boilers. Steam is converted to heating hot water and glycol via six converters located in the main boiler room. Heating distribution is through piping to convectors, reheat coils, fan coils, and unit heaters. The hot water heating distribution system is original to the 1982 renovation.

Bathrooms, kitchens, and the main pool area are equipped with independently operated roof-mounted exhaust fans. Air conditioning is provided by the integral cooling components in the rooftop air conditioner. Start-stop control of the primary heating, ventilation, and air conditioning equipment in the building is provided by a Johnson Controls DSC-8500 control system.

The building has a standpipe system which feeds a sprinkler system which covers the entire building.

The following are recommended actions for the next five years, including scheduled replacements:

- Recertify the backflow prevention device on the fire protection standpipe system
- Test and repair the backflow prevention devices on the boiler feed water, pool supply, and whirlpool supplies
- Re-duct the boiler room air handling unit to provide effective air delivery to the space

Overall the mechanical systems in the building are in good condition.

Electrical Summary:

The building has an original 1200 Amps, 120/208 Volts service which feeds lighting, power receptacles, and fans and pumps in the building. The electrical sub-panels and wiring are original to the major renovation of the building in 1982. Observed panels had adequate additional capacity. All observed wiring was in conduit.

Interior lighting is provided by T-12 fluorescent technology throughout the building. Exterior lighting is provided by high pressure sodium wall-mounted fixtures around the building. Emergency lighting is provided by nickel-cadmium battery packs. Exit lighting in the building is provided by incandescent Exit fixtures.

The building is protected by a Pyrotronics System 3 fire alarm panel. Detection in the building is by manual pull stations and heat detectors.

The building has a Silent Knight security system, which is externally monitored, a Norstar Meridian telephone system, a Bogen public address system, a Bell fibreoptic internet service, and a hardwired Local Area Network.

There are no recommended actions for the next five years, other than the continuation of current operation and maintenance practices.

Overall the electrical systems in the building are in good condition.

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

S1 STRUCTURAL

A1010 Standard Foundations*

Structural drawings were not available for review during the assessment. The building foundations presumably consist of cast-in-place concrete pad footings and perimeter grade beams with conventional steel reinforcement.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

A1030 Slab on Grade*

The main floor of the Emily Follensbee School is comprised of a cast-in-place concrete slab-on-grade which is presumed to have conventional steel reinforcement.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

A2020 Basement Walls (& Crawl Space)*

A basement level consisting of the mechanical room is situated below the pool room. The basement walls are comprised of cast-in-place concrete which are presumed to have conventional steel reinforcement.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

B1010.01 Floor Structural Frame (Building Frame)*

The structural frame of the original school building consists of load bearing wood framed walls. The 1982 addition consists of structural steel columns supporting the roof structure.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

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

Interior walls throughout the original school building are comprised of wood frame construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

B1010.03 Floor Decks, Slabs, and Toppings*

The suspended main floor slab above the basement level is cast-in-place and reinforced concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

B1010.06 Ramps: Exterior*

A concrete ramp provides access from the pool room on the east side of the building to the parking area on the east side of the property.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	JAN-07

B1010.07 Exterior Stairs*

Exterior cast-in-place concrete stairs on the east side of the building lead from the basement level to a wood deck and garden area on the ground floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	JAN-07

B1010.10 Floor Construction Firestopping*

Voids and gaps around mechanical and electrical conduit penetrations through the suspended floor slab above the basement are sealed with a fire rated sealant.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

B1020.01 Roof Structural Frame*

The original school is wood framed construction which supports the glulam beams. The 1982 addition at the southeast corner of the building is comprised of steel roof decking supported by structural steel columns and beams, with a steel truss roof assembly in the indoor play atrium area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

B1020.04 Canopies*

An exterior canopy located at the north portion of the building is comprised of a steel truss assembly with metal roofing. The canopy is supported by steel columns mounted on concrete pads.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

A clay brick veneer is provided on all sides of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	JAN-07

B2010.01.06.03 Metal Siding**

Pre-finished metal siding is provided on all sides of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	JAN-07

B2010.01.09 Expansion Control: Exterior Wall Skin*

Expansion joints are provided at periodic intervals between sections of brick cladding.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	JAN-07

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

Sealant is provided in construction joints and around window and door units on the building perimeter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace Sealant

Concern:
Sealant on the building perimeter has surpassed its theoretical design life (approximately 600 metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$9,840	Unassigned

Updated: JAN-07

B2010.02.04 Load-Bearing-Metal Studs: Ext. Wall*

Architectural drawings or exterior wall cavities were not reviewed as part of the assessment; however the 1982 addition presumably uses metal stud-framed walls on its exterior.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

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

Exterior walls on the original school building are of wood-frame construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

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

Architectural drawings and exterior wall cavities were not reviewed as part of the assessment; however the exterior wall assemblies in the original school building and 1982 addition are presumably equipped with a vapor retarder, air barrier and insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

B2010.06 Exterior Louvers, Grilles, and Screens*

Pre-finished metal louvers are provided on the building exterior to feed the building's ventilation system.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

B2010.09 Exterior Soffits*

Exterior soffits on the building consist of glulam beams and prefinished metal siding.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1982 building**

All exterior windows on the perimeter of the 1982 addition are fixed, insulating glazing units set in pre-finished aluminum frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	JAN-07

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

All exterior windows on the perimeter of the original school building are fixed, insulating glazing units set in aluminum frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1964	40	JAN-07

Event: Replace Exterior Windows

Concern:
Exterior windows on the original school building have surpassed their theoretical design life (approximately 30 units).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$18,450	Unassigned

Updated: JAN-07

B2030.01.01 Aluminum-Framed Storefronts**

The majority of the exterior entrances on the school perimeter are comprised of fully-glazed pivot doors with single-pane glazing set in pre-finished aluminum frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	JAN-07

B2030.01.02 Steel-Framed Storefronts**

Several exterior entrances on the school perimeter are comprised of pre-finished, insulated metal doors set in painted pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	JAN-07

B3010.01 Deck Vapor Retarder and Insulation*

Architectural drawings and ceiling cavities were not reviewed as part of the assessment; however the roofing assembly for the school presumably consists of a deck vapor retarder and insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	JAN-07

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

The flat roof sections on the original building consist of a built-up (asphalt and gravel) roofing assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	JAN-07

Event: Replace built-up roof assembly

Concern:
The built-up roof assembly has exceeded its theoretical design life (approximately 1,100 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$86,100	Unassigned

Updated: JAN-07

B3010.07 Sheet Metal Roofing - 1982 addition**

Sloped roof sections of the building are provided with sheet metal roofing.

Rating	Installed	Design Life	Updated
2 - Poor	1982	40	JAN-07

Event: Failure Replacement

Concern:
Site personnel reported that the metal roof assembly has had ongoing problems with leaks and storm water drainage since its installation in 1982.

Recommendation:
Replace the sheet metal roofing assembly (approximately 2,200 square metres). Site personnel reported that the metal roofing is scheduled to be replaced within the year with a modified bitumen membrane roof assembly. An allowance for this work is included.

Consequences of Deferral:
Ongoing moisture ingress and increased maintenance and repair costs.

Type	Year	Cost	Priority
Failure Replacement	2007	$196,800	High

Updated: APR-07

B3010.08.02 Metal Gutters and Downspouts**

The sloped roofs of the building are drained via metal gutters and downspouts which discharge storm water to paved surfaces at ground level.

Rating	Installed	Design Life	Updated
2 - Poor	1982	30	JAN-07

Event: Replace Metal Gutters and Downspouts

Concern:
The design of the storm water drainage system is poor, as the downspouts are consistently plugged with leaves and other debris.

Recommendation:
Replace the metal gutter and downspout system currently in place (approximately 8 units). The metal gutters and downspouts are scheduled for replacement during the installation of the new roofing on the 1982 addition. An allowance for replacement of the metal gutters and downspouts is included.

Consequences of Deferral:
Potential storm water retention and moisture ingress due to clogged gutters.

Type	Year	Cost	Priority
Failure Replacement	2007	$19,680	Medium

Updated: APR-07

B3020.01 Skylights**

A domed skylight is situated above the corridor at the north end of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	JAN-07

Event: Replace skylight

Concern:
The skylight has surpassed its theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$12,300	Unassigned

Updated: JAN-07

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

A roof hatch provides access to all the roof sections of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	JAN-07

S3 INTERIOR

C1010.01 Interior Fixed Partitions

Interior fixed partitions in the school consist of painted gypsum board walls on wood and metal stud partitions.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

C1010.05 Interior Windows*

Interior windows are single-glazed and set in aluminum frames. The windows are provided around the main office administration area and rooms surrounding the indoor play atrium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	JAN-07

C1010.07 Interior Partition Firestopping*

Voids and gaps around electrical and mechanical conduit penetrations through fire separations are sealed with a fire rated sealant.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

C1020.01 Interior Swinging Doors*

Interior doors within the original building and 1982 addition consist of a combination of painted wood doors and painted steel doors set in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	JAN-07

C1020.03 Interior Fire Doors*

Interior fire doors in corridors consist of painted metal doors set in painted metal frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

C1030.01 Visual Display Boards**

Fixed blackboards are generally provided in each classroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace blackboards with whiteboards

Concern:
Original blackboards in classrooms have surpassed their theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$7,380	Unassigned

Updated: JAN-07

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

Pre-finished metal toilet partitions are provided in the washrooms on the north portion of the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

C1030.08 Interior Identifying Devices*

Metal room number tags are mounted on the doors of classrooms, offices and other miscellaneous rooms.

Rating	Installed	Design Life	Updated
5 - Good	0	20	JAN-07

C1030.10 Lockers**

Painted metal lockers are provided in the locker rooms at the north end of the school.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

C1030.14 Toilet, Bath, and Laundry Accessories*

Various hardware items including paper towel, soap and toiler paper dispensers, mirrors, etc. are provided in washrooms throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	JAN-07

C2010 Stair Construction*

Stairs leading to the basement level are constructed of cast-in-place concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

C2020.08 Stair Railings and Balustrades*

A painted metal railing is located in the stairwell leading to the basement level.

Rating	Installed	Design Life	Updated
5 - Good	0	40	JAN-07

C2020.11 Other Stair Finishes*

Concrete stairs leading from the basement level have a painted finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

C2030.01 Ramp Construction*

The pool ramp is constructed of reinforced, cast-in-place concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	JAN-07

C2030.02 Ramp Finishes*

The pool ramp is equipped with a ceramic tile finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	JAN-07

C2030.03 Ramp Railings*

Metal railings are provided on either side of the ramp in the swimming pool and around the hot tub.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

C3010.04 Gypsum Board Wall Finishes*

Gypsum board walls are generally provided in all classrooms, administrative and office areas in the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	JAN-07

C3010.06 Tile Wall Finishes**

Ceramic tile wall finishes are provided in the locker rooms, the indoor play atrium and washrooms throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	JAN-07

C3010.11 Interior Wall Painting*

Painted gypsum board walls are provided in classrooms, corridors and office and administrative areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	15	JAN-07

Event: Re-paint Walls

Concern:
Painted wall finishes have surpassed their theoretical design life (approximately 4,600 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$98,400	Unassigned

Updated: JAN-07

C3010.14 Other Wall Finishes*

The corridors of the building are finished with a canvas type wainscotting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	0	JAN-07

Event: Replace canvas wainscotting

Concern:
The canvas wall covering has exceeded its theoretical useful life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$8,610	Unassigned

Updated: JAN-07

C3020.01.02 Paint Concrete Floor Finishes*

Painted concrete floors are provided in the main mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	10	JAN-07

Event: Repaint the concrete floor

Concern:
The painted finish on the concrete floor has surpassed its theoretical design life (approximately 275 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$22,140	Unassigned

Updated: JAN-07

C3020.02 Tile Floor Finishes**

Ceramic, clay and quarry tile flooring is provided in washrooms, locker rooms, the indoor play atrium, pool area, the northeast entrance of the building, and all corresponding vestibules, respectively.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	JAN-07

C3020.04 Wood Flooring**

Wood parquet flooring is provided in the main gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	JAN-07

C3020.07 Resilient Flooring - Sheet Vinyl**

Sheet vinyl flooring is generally provided in the corridors of the building and in miscellaneous storage areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace Sheet Vinyl Flooring

Concern:
Sheet vinyl flooring has surpassed its theoretical design life (approximately 1,000 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$79,950	Unassigned

Updated: JAN-07

C3020.07 Resilient Flooring - Vinyl Tile**

A number of classrooms, offices and staffrooms are finished with vinyl tile flooring. Stairs leading to the basement level are also finished with vinyl floor tiles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace vinyl floor tiles

Concern:
The vinyl floor tiles have surpassed their theoretical design life (approximately 750 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$30,750	Unassigned

Updated: JAN-07

C3020.08 Carpet Flooring**

Classrooms and offices are generally finished with carpet.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	15	JAN-07

Event: Replace carpet

Concern:
All carpet flooring has generally surpassed its theoretical design life (approximately 1,000 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$71,340	Unassigned

Updated: JAN-07

C3030.04 Gypsum Board Ceiling Finishes*

Painted gypsum board ceilings are provided in the majority of the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	50	JAN-07

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

Some classrooms and office areas have a suspended T-bar grid ceiling with in-laid acoustic panels. A couple of panels observed in a south classroom were stained.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	JAN-07

C3030.07 Interior Ceiling Painting*

Gypsum board ceilings throughout the building have a painted finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Re-paint Ceilings

Concern:
The paint finish on gypsum board ceilings has surpassed its theoretical design life (approximately 2,500 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$18,450	Unassigned

Updated: JAN-07

S4 MECHANICAL

D2010.01 Water Closets

There are tankless vitreous china water closets throughout the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	35	JAN-07

D2010.03 Lavatories

There are vitreous china lavatories throughout the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	35	JAN-07

D2010.04 Sinks**

There are a variety of miscellaneous sinks in the building. Sinks in the classrooms and staff room are stainless steel or iron and enamel. The sinks in the janitor's rooms are iron and enamel. Pre-cast concrete slop sinks were also noted.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D2010.05 Showers**

Wall mounted showers are located in the change rooms.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D2010.06 Bathtubs**

A barrier-free bathtub is located in the apartment area of the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D2010.08 Drinking Fountains / Coolers**

There are stainless steel refrigerated drinking fountains throughout the building.

Rating	Installed	Design Life	Updated
5 - Good	1985	35	JAN-07

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water piping is copper throughout the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	40	JAN-07

D2020.01.03 Piping Specialties (Backflow Preventors)**

There are backflow prevention devices on the domestic water supply (2002), fire protection riser (2002), boiler feed water supply (unknown, estimated 1995), pool supply (unknown, estimated 1995), and whirlpool supply (unknown, estimated 1995).

Rating	Installed	Design Life	Updated
3 - Marginal	1995	20	JAN-07

Event: Recertify fire protection backflow prevention device

Concern:
Certification on the fire protection backflow prevention device is out of date.

Recommendation:
Recertify the fire protection backflow prevention device.

Consequences of Deferral:
Code requires annual certification of backflow prevention devices.

Type	Year	Cost	Priority
Code Repair	2007	$1,230	High

Updated: JAN-07

Event: Test and repair backflow prevention devices.

Concern:
Failure of backflow prevention devices can occur without warning signs.

Recommendation:
Test and repair boiler feed water, pool supply, and whirlpool supply backflow prevention device.

Consequences of Deferral:
A failed backflow prevention device could allow cross contamination of water systems, creating a safety hazard.

Type	Year	Cost	Priority
Preventative Maintenance	2007	$3,075	Low

Updated: JAN-07

D2020.02.06 Domestic Water Heaters**

Domestic hot water is supplied to the building during the summer months by two Rheem electric domestic hot water heater tanks located in the main boiler room. The domestic hot water system contains a Armstrong circulation pump.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace domestic hot water tanks

Concern:
Domestic hot water heater tanks have exceeded their theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$2,952	Unassigned

Updated: JAN-07

D2030.01 Waste and Vent Piping*

Waste and vent piping is generally cast iron and original to the 1982 renovation of the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	50	JAN-07

D2030.03 Waste Piping Equipment - Sanitary Sump Pumps*

Two sanitary sump pumps transport waste water to the external lift pump station located to the northwest of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	JAN-07

Event: Replace Sanitary Sump Pumps

Concern:
Sanitary sump pumps have exceeded their theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$12,300	Unassigned

Updated: JAN-07

D2030.03 Waste Piping Equipment - Sewage Lift Pumps*

Two underground sewage lift pumps transfer building waste water to the municipal sanitary waste lines. Sewage lift pumps are reportedly original to the construction of the building in 1964.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	30	JAN-07

Event: Replace sewage lift pumps

Concern:
Sewage lift pumps have exceeded their theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$17,220	Unassigned

Updated: JAN-07

D3010.02 Gas Supply Systems*

The natural gas supply is provided below grade on the east side of the building. The piping feeds the central steam boilers in the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	60	JAN-07

D3020.01.01 Heating Boilers & Accessories: Steam**

The central heating source for the building is two steam boilers that are original to the major renovations in the building (i.e. approximately 21 years old).

Rating	Installed	Design Life	Updated
5 - Good	1982	35	JAN-07

D3040.01.01 Air Handling Units: Air Distribution**

Two interior air handling units (heating only, glycol heating loop) provide conditioned air to the boiler room and the pool area.

Rating	Installed	Design Life	Updated
3 - Marginal	1982	30	JAN-07

Event: Re-duct boiler room air handling unit.

Concern:
The boiler room air handling unit is not properly ducted to supply adequate fresh air to the basement mechanical (boiler) room.

Recommendation:
Re-duct the boiler room air handling unit (AHU-3) to effectively distribute fresh air to all areas of the basement mechanical room.

Consequences of Deferral:
Inadequate air supply to the main mechanical room resulting in overheating of the space and acceleration deterioration of mechanical components within the space. Excessive wear of boiler room air conditioning unit.

Type	Year	Cost	Priority
Repair	2008	$4,920	Low

Updated: JAN-07

D3040.01.06 Air Terminal Units: Air Distribution (Reheat Coils)**

Supply air temperature is regulated by reheat coils, controlled by adjustable thermostats located in the space.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D3040.02 Steam Distribution Systems: Piping/Pumps**

The building contains a small amount of steam piping connecting the steam boilers to the hot water converters in the main boiler room.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D3040.03.01 Hot Water Distribution Systems**

Heating distribution is through copper piping to convectors, fan coils, reheat coils, and unit heaters.

Rating	Installed	Design Life	Updated
5 - Good	1982	40	JAN-07

D3040.04.01 Fans: Exhaust**

General building exhaust (including washroom, changeroom, kitchen, and pool areas) is provided by a variety of roof mounted exhaust fans.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D3040.05 Heat Exchangers**

A total of six shell and tube heat exchangers provide heat energy to the following systems: perimeter building heating (convectors), reheat coils, air handling unit and rooftop unit heating coils (glycol loop), apartment area heating, swimming pool heating, and whirlpool heating.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

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

A total of seven rooftop air handling units (with glycol heating and integral cooling components) provide conditioned air to the majority of the building (with the exception of the main boiler room and the pool area).

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D3050.05.01 Convectors**

Primary heating is provided to classrooms, offices, the gymnasium, and other perimeter spaces by wall mounted convection heaters.

Rating	Installed	Design Life	Updated
5 - Good	1982	40	JAN-07

D3050.05.02 Fan Coil Units**

Auxiliary heating at building entrances is provided by recessed fan coil units.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D3050.05.06 Unit Heaters**

Primary heating in utility rooms is provided by hot water unit heaters.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Electric radiant heating ceiling panels are provided at the loading area outside the main entrance and in the main atrium. Electric radiant heating panels are not currently in use.

Rating	Installed	Design Life	Updated
5 - Good	1982	35	JAN-07

D3060.02.03 Pneumatic and Electric Controls

The majority of the building controls are pneumatic and provide no energy management functions. Control air is provided by a Johnson Controls compressor located in the basement mechanical area.

Rating	Installed	Design Life	Updated
5 - Good	1982	40	JAN-07

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

Start-stop control of the primary heating, air conditioning, and ventilation equipment in the building is provided by a Johnson Controls DSC-8500 controls system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace building control system

Concern:
Building control system has exceeded its theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$9,840	Unassigned

Updated: JAN-07

D4010 Sprinklers: Fire Protection*

The entire building is protected by a three-zone, wet-pipe sprinkler system connected to the fire protection system.

Rating	Installed	Design Life	Updated
5 - Good	1982	60	JAN-07

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers are located throughout the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

S5 ELECTRICAL

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

The main electrical service is 1200 Amps, 120/208 Volts, 3 Phase.

Rating	Installed	Design Life	Updated
5 - Good	1982	40	JAN-07

Capacity Size	Capacity Unit
1200 Amps, 120/208 Volts	N/A

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

Westinghouse electrical branch panels are installed throughout the building. The majority of panels observed have some space capacity.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5010.07 Motor Control Centers (Motor Control)**

A motor control centre located in the main boiler room serves a variety of pumps, air handling units, and other equipment.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5010.07.02 Motor Starters and Accessories**

A number of Westinghouse motor starters serving a variety of exhaust fans, pumps, and other equipment are present in the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5020.01 Electrical Branch Wiring*

The building wiring is generally original to the major renovation in 1982. All wiring observed was in conduit.

Rating	Installed	Design Life	Updated
5 - Good	1982	50	JAN-07

D5020.02.02.01 Interior Incandescent Fixtures*

Interior incandescent lights are present in the pool and the apartment areas of the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5020.02.02.02 Interior Florescent Fixtures**

The majority of the interior lighting in the building is provided by fluorescent uplight fixtures using T12 technology.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5020.02.02.03 Interior Metal Halide Fixture*

Interior lighting in the gym and main atrium is provided by remotely ballasted, metal halide uplight fixtures.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5020.02.03.01 Emergency Lighting Built-in*

A central built-in battery storage/inverter system provides emergency power to a number of emergency lighting fixtures in the building.

Rating	Installed	Design Life	Updated
5 - Good	1982	35	JAN-07

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting in some areas of the building is provided by incandescent fixtures powered by nickel-cadmium battery packs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace emergency lighting battery packs

Concern:
Emergency lighting battery packs have exceeded their theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$6,396	Unassigned

Updated: JAN-07

D5020.02.03.03 Exit Signs*

The building is equipped with incandescent exit signs.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Exterior lighting around the building perimeter is provided by wall-mounted high pressure sodium fixtures.

Rating	Installed	Design Life	Updated
5 - Good	1982	30	JAN-07

D5030.01 Detection and Fire Alarm**

The building has manual pull stations and smoke detectors connected to a Pyrotronics System 3 fire alarm panel which controls fire alarm bells and strobes throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	JAN-07

Event: Replace detection and fire alarm system

Concern:
Detection and fire alarm system has exceeded its theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$8,610	Unassigned

Updated: JAN-07

D5030.02.02 Intrusion Detection**

The building is equipped with a Silent Knight security system, complete with motion detectors throughout the building. The system is externally monitored.

Rating	Installed	Design Life	Updated
5 - Good	2000	25	JAN-07

D5030.03 Clock and Program Systems*

The building is equipped with a Simplex master clock system that controls the bells. Clocks observed in the classrooms were not part of the system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	JAN-07

D5030.04.01 Telephone Systems*

The building is equipped with a Nortel Meridian telephone system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	25	JAN-07

D5030.04.04 Data Systems*

The building is serviced by a Bell fiberoptic internet system.

Rating	Installed	Design Life	Updated
6 - Excellent	2002	25	JAN-07

D5030.05 Public Address and Music Systems**

The building is equipped with a Bogen PA system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	JAN-07

Event: Replace public address and music system

Concern:
The public address and music system has exceeded its theoretical design life.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$4,428	Unassigned

Updated: JAN-07

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

Residential type equipment in use in the building includes fridges, stoves, microwaves and dish washers in the kitchen areas, and residential type washing machines and dryers in the laundry room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	JAN-07

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Lifting and exercising equipment for handicapped occupants are located in the gymnasium and indoor play atrium.

Rating	Installed	Design Life	Updated
5 - Good	1995	15	JAN-07

E2010.02 Fixed Casework**

Fixed wooden casework with laminate finishes are typically provided in each classroom and office in the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	JAN-07

E2010.03.01 Blinds**

Frame-mounted operable blinds are provided between window glazing or mounted on walls in front of windows, typically in each classroom and office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	JAN-07

E2010.06 Fixed Interior Landscaping*

Interior landscaping, such as small trees, shrubs and plants are located along the north and west perimeters of the indoor play atrium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	JAN-07

E2020 Moveable Furnishings

Moveable desks, chairs and tables are typically provided in each classroom and office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

F1040.01 Aquatic Facilities*

An indoor pool and hot tub are located in the pool room at the east end of the building.

Rating	Installed	Design Life	Updated
5 - Good	0	40	JAN-07

F2020.01 Asbestos*

Although the building was renovated in 1982, suspected asbestos-containing materials identified within the building include drywall joint compound, mechanical pipe insulation and pipe elbows.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

F2020.02 PCBs*

Suspected PCB-containing equipment identified within the building include fluorescent light ballasts and other electrical/transformer equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

F2020.04 Mould*

No visible signs of suspected mould growth were observed in the building during the site visit.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

No handicapped parking stalls or signage is provided in front of the school or in the paved parking area north and east of the building.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	JAN-07

Event: Provide two barrier-free parking stalls

Concern:
Only standard parking stalls are provided in the north and east parking areas.

Recommendation:
Provide two barrier-free parking stalls closest to the northwest entrance of the school. The re-distribution of adjacent parking stall markings may be required to accommodate this installation.

Consequences of Deferral:
Non-compliance with current barrier-free standards and poor accessibility for handicapped persons.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2007	$2,460	Medium

Updated: JAN-07

K4010.02 Barrier Free Entrances*

The northwest entrance to the building is equipped with an automated door-opener.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

K4010.03 Barrier Free Interior Circulation*

All areas of the school interior are generally accessible to persons with disabilities.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

K4010.04 Barrier Free Washrooms*

The majority of the washrooms in the building are equipped to accommodate barrier-free usage.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	JAN-07

RECAPP Facility Evaluation Report

Emily Follensbee Centre

S9120

Calgary

Report run on: June 28, 2007 12:46 PM

Facility Details

Building Name: Emily Follensbee Centre
Address:
Location: Calgary

Building Id: S9120
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Jacques Whitford Limited
Evaluation Date: June 21 2006
Evaluator Name: Lauren Skalicky

Total Maintenance Events Next 5 years: **$81,180**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The site is occupied by the Emily Follensbee School, which is located near the southeast corner of the property. The site features include a paved parking lot to the northeast of the building, a courtyard with landscaped and concrete-paved surfaces to the southeast, and a play area to the south of the building. There are concrete sidewalks to each building entrance. The landscaped areas are provided adjacent to the south, east and west sides of the building. No irrigation systems are provided on-site. Drainage on landscaped areas is provided by land infiltration and/or overland flow.

Work recommended for the site includes repainting of the metal plug-in posts in the north portion of the parking lot, and reconstruction of the concrete sidewalk at the north side of the building.

Site components were observed to be in acceptable condition overall.

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

G1030 Site Earthwork (Site Grading)*

The area of the site slopes gradually from the north to the south.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

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

An asphalt-paved parking lot is situated on the northeast end of the school, and extends south toward the property boundary. A handicap bus drop off loop is provided at the north end of the building. The parking lot is used by teaching staff and handicap buses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	JAN-07

Event: Repave Asphalt Parking Lot

Concern:
Asphalt pavement in the northeast parking lot has surpassed its theoretical design life (approximately 500 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$34,440	Unassigned

Updated: JAN-07

G2020.05 Parking Lot Curbs and Gutters*

Concrete curbs are generally provided along the north and east boundaries of the parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	JAN-07

G2020.06.02 Parking Bumpers*

Pre-cast concrete parking barriers are provided for each parking stall in the centre portion of the northeast parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	JAN-07

G2020.06.03 Parking Lot Signs*

Base-mounted signs provide parking information in the parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	JAN-07

G2030.03 Pedestrian Unit Pavers**

Concrete unit paver walkways and courtyards are provided on the south side and southeast corner of the building.

Rating	Installed	Design Life	Updated
5 - Good	2004	20	JAN-07

G2030.04 Rigid Pedestrian Pavement (Concrete)**

A concrete sidewalk and apron at the main entrance on the north side of the school provides access to the northeast parking lot.

Rating	Installed	Design Life	Updated
3 - Marginal	1982	25	JAN-07

Event: Reconstruct Concrete Sidewalks

Concern:
Concrete sidewalks have surpassed their theoretical design life (approximately 300 square metres).

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$43,050	Unassigned

Updated: JAN-07

Event: Reconstruct concrete at northwest steel column

Concern:
Moderate settlement and cracking of the concrete pavement around a steel column on the northwest corner of the concrete apron was observed.
Recommendation:
Reconstruct the concrete pavement around the steel column.
Consequences of Deferral:
Further deterioration and increased maintenance costs. Uneven surfaces could cause a tripping hazard, resulting in injury.

Type	Year	Cost	Priority
Repair	2008	$2,460	Low

Updated: JAN-07

G2030.06 Exterior Steps and Ramps*

Concrete staircases with base-mounted, painted metal handrails are provided on the southeast corner of the school. A concrete ramp on the east side of the building provides access to the northeast parking lot.

Rating	Installed	Design Life	Updated
5 - Good	0	15	JAN-07

G2040.02 Fences and Gates

Chainlink fencing generally encloses the south and east sides of the property.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-07

G2040.05 Site and Street Furnishings*

Painted metal picnic and play tables are provided in the courtyard area at the southeast corner of the building. A steel framed pergola and painted metal play equipment are situated at the southwest corner of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	JAN-07

G2040.08 Flagpoles*

A painted metal flagpole is located outside the main entrance to the school, at its north end.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	JAN-07

G2040.11 Retaining Walls*

A concrete block retaining wall is located adjacent to the concrete ramp at the east side of the school.

Rating	Installed	Design Life	Updated
5 - Good	0	50	JAN-07

G2050.04 Lawns and Grasses*

Grassed surfaces are provided around the southeast courtyard area, and along the east, south and west sides of the property.

Rating	Installed	Design Life	Updated
5 - Good	0	15	JAN-07

G2050.05 Trees, Plants and Ground Covers*

Trees, plants and bushes are distributed along the south and west sides of the school, including the southeast courtyard area.

Rating	Installed	Design Life	Updated
5 - Good	0	10	JAN-07

G3010.02 Site Domestic Water Distribution*

The building is provided with municipally-supplied domestic cold water

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

G3020.01 Sanitary Sewage Collection*

Sanitary sewage collected in the building is discharged to the municipal sanitary sewer system presumably located below adjacent municipal roadways.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

G3030.01 Storm Water Collection*

Storm water collected from the building is discharged to the municipal storm water sewer system which is presumably located below adjacent municipal roadways.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

G3060.01 Gas Distribution*

Natural gas supplied by local utility suppliers enters the building in the meter room located on the east side of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

G4010.02 Electrical Power Distribution Lines*

Electricity for the building is supplied to the main electrical panel in the basement via underground conduit from a utility-owned transformer located on the north side of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	JAN-07

G4010.04 Car Plugs-ins*

Vehicle plug-in receptacles mounted on painted metal posts are provided in the northeast parking lot of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	JAN-07

Event: Repaint car plug-ins

Concern:
The metal plug-in posts in the north parking lot were exhibiting preliminary signs of peeling and flaking of its painted surface.

Recommendation:
Repaint the metal plug-in posts.

Consequences of Deferral:
Loss of aesthetic appeal and potential exposure of metal surfaces to external elements.

Type	Year	Cost	Priority
Repair	2008	$1,230	Low

Updated: JAN-07