

RECAPP Facility Evaluation Report

Alberta Health Services-Edmonton



Alberta Hospital Edmonton MacPherson Building 10

B1022E
Edmonton

Facility Details	
Building Name:	Alberta Hospital Edmonton M
Address:	17480 Fort Road, P. O. Box
Location:	Edmonton
Building Id:	B1022E
Gross Area (sq. m):	9,570.00
Replacement Cost:	\$38,613,019
Construction Year:	1968

Evaluation Details	
Evaluation Company:	Bacz Engineering Ltd.
Evaluation Date:	November 6 2013
Evaluator Name:	Eric Lumley

Total Maintenance Events Next 5 years: \$8,975,300
5 year Facility Condition Index (FCI): 23.24%

General Summary:

Building 10 was built in 1968 with several interior renovations conducted over the years. The building is a two storey structure with a penthouse and a partial basement below the south end of the building and an accessible crawl space below the north end. The building is linked at the basement via an underground walkway to the Food Services building to the west and to Building #9 to the East. The building has a gross area of approximately 9570 Square metres. The building has Adult Psychiatry (acute) Patient Care Units located on the 1st and 2nd floor. A kitchen with a servery is located on the main floor level. Day rooms, recreational rooms, isolation rooms, offices, labs and medical rooms are located throughout the building. Central bathing tub/shower rooms are located on both floor levels. The majority of the patient rooms have access to a semi-private washroom. Secured outdoor courtyards are provided along the west end of the building.

Structural Summary:

The foundation and substructure is a combination of reinforced concrete foundation walls, reinforced concrete pad and strip foundations and bell piles. Reinforced concrete slabs on grade throughout the basement area. The basement walls consist of a poured in place walls. Infill concrete block walls are located in the basement corridors & utility rooms. The main floor is a cast-in-place reinforced concrete one-way floor slab. The upper floors have a concrete topping on steel deck. Structural reinforced concrete block walls, concrete column & concrete beams. The roof structure has a concrete topping on steel deck on open web steel joists, positively sloped to drains.

Overall the structural elements are in acceptable condition

Envelope Summary:

The exterior walls have a brick veneer finish with a plastered interior finish to a Dual block inner wythe.. The windows are aluminum framed double glazed fixed units. Aluminum framed doors with full glazed panels & commercial grade hardware are located at the main entrances. The secondary entrances have insulated hollow metal exterior doors in pressed steel frames are single leaf. The roof which includes the penthouse has an inverted membrane roof system. The main entrance canopy and the clearstory sloped section have a SBS roof assembly.

Overall, the building envelope is in acceptable condition.

Interior Summary:

Sheet vinyl flooring is located throughout the majority of the corridors, administration areas and patient rooms. VCT flooring is located in the cafeteria, several office areas, lounges & recreational spaces on the second floor. The main north entrance, kitchen area, all washrooms and tub rooms have a ceramic and/or quarry tile floor finish. The exit stairwells have either a vinyl or rubber floor finish. The interior walls are either painted concrete block, plaster or gypsum board walls. The majority of the ceilings in the corridors, lounge areas & patient rooms consist of a sprayed textured plaster finish. The structure was exposed in the storage and utility areas throughout the basement. The patient rooms & office areas have solid core wood doors, single and double leaf, clear stained, in pressed steel frames, painted. The utility areas, including the basement have painted steel doors & frames. Doors are labeled at fire separation locations.

Overall, the interior finishes are in acceptable condition.

Mechanical Summary:

Heating system for the building is provided by high pressure steam distribution to pressure reducing station in basement mechanical room. Low pressure steam is supplied to shell and tube type heat exchangers which provide hot water to the building hydronic terminal units (finned tube radiation cabinets, unit heaters, convectors, and terminal reheat coils), and to provide hot glycol for the air handling unit heating coils. A separate glycol system is used to provide courtyard snow melting.

Cooling for the building is provided by a centrifugal type water chiller. Heat rejection for the chiller is via a roof

mounted evaporative cooling tower. Additional cooling is provided by a split ductless direct expansion type air conditioning unit serving room 291 (clinical lab). Chilled water produced in this building is also used for air conditioning in Buildings 12 and 9.

Building ventilation is provided by two indoor air handling units (AS1 and AS2). The main air handling unit AS1 provides ventilation for most building areas. Air handling unit AS2 serves the kitchen area.

Plumbing fixtures in the building include janitor sinks, general purpose sinks, shower stalls, bathtubs, lavatories, toilets, and urinals.

Domestic hot water is supplied by designated storage tank with an internal heat exchanger which is supplied with low pressure steam. The storage tank system provides domestic hot water at 60 degrees C to most of the building, and an external steam to hot water heat exchanger provides 82 degree C domestic hot water for the building dishwashers.

Fire protection is provided by automatic sprinklers in the building basement, and the building sprinkler/standpipe system also feeds standard fire hose cabinets located on all building levels. Wall mounted fire extinguishers are provided throughout the building and the fire hose cabinets also contain fire extinguishers.

Controls are combination of pneumatics and direct digital control systems.

Overall mechanical systems and components are in acceptable condition.

Electrical Summary:

The A. D. Macpherson Building (building No. 10) has an incoming 4160V service from the power plant. 4160V switchgear and a 750kVA, 4160V-120/208V transformer are located in the main electrical room. The main switchboard is rated 2000A, 120/208V and has molded case branch breakers.

The mechanical loads within the building are fed from two Motor Control Centres and individual motor starters.

Emergency lighting is fed from the emergency panels. The emergency feed for the building comes from building #12. A UPS system is located in the main electrical room.

The lighting is typically fluorescent lighting fixtures with T12 lamps and electromagnetic ballasts.

The building has an EST, zoned fire alarm system. Detection and end devices include, heat detectors, bells and pull stations. The fire alarm system was replaced in 2013.

All clock, video surveillance, duress, card access, patient monitoring, nurse call and intercom systems meet current facility requirements.

The overall rating for the A. D. Macpherson Building shall be "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*

The foundation and substructure is a combination of reinforced concrete foundation walls, reinforced concrete pad and strip foundations and bell piles..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

A1030 Slab on Grade*

Reinforced concrete slabs on grade throughout the basement area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

A2020 Basement Walls (& Crawl Space)*

The basement walls are cast in place concrete walls. Infill concrete block walls are located in the basement corridors & utility rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1010.01 Floor Structural Frame (Building Frame)*

Cast-in-place reinforced concrete floor slab on the first floor. The upper floors have concrete topping on steel deck on OWSJ..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1010.06 Ramps: Exterior*

The main entrance has a poured in place concrete ramp.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1010.07 Exterior Stairs*

Poured in place concrete stairs are located at the two main entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1010.09 Floor Construction Fireproofing*

The cast in place concrete topping and floor slabs provide fireproofing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1010.10 Floor Construction Firestopping*

Fire-stopping appears to have been provided in the original construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1020.01 Roof Structural Frame*

Roof structure has a concrete topping slab on steel deck & open web steel joists.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B1020.04 Canopies*

The main entrance has a steel framed canopy with a cedar soffit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

S2 ENVELOPE**B2010.01.02.01 Brick Masonry: Ext. Wall Skin***

Exterior walls have a brick veneer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

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

The exterior walls at the penthouse have a rough textured plaster stucco finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

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

Caulking is located around all windows and doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	MAR-14

Event: Replace caulking to windows and doors.- (B.O.E. 507 m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$15,000	Unassigned

Updated: MAR-14

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

The inside face of the exterior walls have a plastered Dual block inner wythe.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B2010.05 Parapets*

The parapets have prefinished galvanized cap flashings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	MAR-14

B2010.06 Exterior Louvers, Grilles, and Screens*

Metal louvers and grilles on exterior walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B2010.09 Exterior Soffits*

The exterior soffit at the main entrance has a stained cedar slats on plywood sheathing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

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

The windows are bronze anodized aluminum framed double glazed fixed units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace Aluminum Windows.- (B.O.E. 150 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$150,000	Unassigned

Updated: MAR-14

B2020.04 Other Exterior Windows* - Glass Block

Glass block is located at the main entrance in room 138A.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Aluminum framed doors with full glazed panels & commercial grade hardware are located at each main entrance. There are 3 main entrances, with full glazed window sections.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace aluminum-framed storefronts - B.O.E. 5 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$46,000	Unassigned

Updated: MAR-14

B2030.02 Exterior Utility Doors**

The secondary entrances have insulated hollow metal exterior doors in pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace exterior utility doors.- (B.O.E. 5 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$5,000	Unassigned

Updated: MAR-14

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)**

The main entrance canopy and the clerestory sloped section have an SBS roof membrane.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	25	MAR-14

Event: Replace SBS roofing.- (B.O.E. 40m2.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$8,000	Unassigned

Updated: MAR-14

B3010.04.08 Membrane Roofing (Inverted/Protected)**

The roofing was replaced with an inverted EPDM roof system in 2006. Rubber pavers are located at the entrance to the main roof. A chain link fence is located around the paved area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	30	MAR-14

Event: Replace inverted roofing system.- (B.O.E. 4260 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2036	\$867,000	Unassigned

Updated: MAR-14

S3 INTERIOR**C1010.01 Interior Fixed Partitions***

Poured concrete walls are located on elevator shafts, basement, crawl space, corridors, penthouse and stairwells. Concrete block walls are located throughout the utility area, patient rooms, mechanical rooms, large storage areas, labs, locker rooms and washrooms. Brick accent walls are located in the patient rooms and day rooms. Framed stud (truss stud) walls are located in the the patient areas, administration areas and ancillary spaces.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1010.05 Interior Windows*

Interior metal framed windows are located throughout various corridors and viewing areas in the building. The windows have either a tempered or GWG insert.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1010.06 Interior Glazed Partitions and Storefronts*

The day rooms, security & nurse stations have glazed partitions and screens.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1010.07 Interior Partition Firestopping*

Firestopping appears to be provided at service penetrations through rated walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1020.01 Interior Swinging Doors (& Hardware)*

The patient rooms & office areas have solid core wood doors, single and double leaf, clear stained, in pressed steel frames, painted. The utility areas, including the basement have painted steel doors & frames. Doors are labeled at fire separation locations

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1020.03 Interior Fire Doors*

Hollow metal rated doors, painted, single leaf in rated pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1020.04 Interior Sliding and Folding Doors*

Aluminum folding doors are located in the store area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

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

The main washrooms & shower located throughout the corridors have prefinished steel cubicles, floor mounted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace Toilet/Shower Partitions.- (B.O.E. 62 cubicles)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$75,000	Unassigned

Updated: MAR-14

C1030.05 Wall and Corner Guards*

Vinyl corner guards, 1200mm high, are located throughout the service and public circulation areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1030.06 Handrails*

Rubber wall mounted guard rails / hand rails are located throughout the main circulation corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1030.08 Interior Identifying Devices*

Signage panels are located above & on the interior doors & attached to the corridor walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1030.10 Lockers**

Full height steel lockers, complete with fixed wooden benches are provided in the men's & women's locker rooms and change rooms.

Metal lockers have exceeded their design life.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace Metal Lockers.- (B.O.E. 121 lockers)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$60,000	Unassigned

Updated: MAR-14

C1030.12 Storage Shelving*

Heavy duty steel storage shelving is located in the storage and house keeping area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C1030.14 Toilet, Bath, and Laundry Accessories*

The washrooms are equipped with paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors. Stainless steel grab bars are located throughout most of the washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C2010 Stair Construction*

The stairs are cast in place concrete. The stairs to the crawl space are steel framed with open treads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C2020.05 Resilient Stair Finishes**

The stairs have either rubber or vinyl floor finish on the treads and landings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	MAR-14

Event: Replace rubber or vinyl floor finish on stairs.- (B.O.E. 160 treads)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$14,000	Unassigned

Updated: MAR-14

C2020.08 Stair Railings and Balustrades*

All stairwells have wall mounted steel railings and balustrades (painted).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C3010.01 Concrete Wall Finishes (Unpainted)*

The poured concrete walls throughout several utility rooms and crawl space are unfinished.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C3010.02 Wall Paneling**

Wood paneling are located on the walls in room 262.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace wood paneling in room 262.- (B.O.E. 70 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$8,000	Unassigned

Updated: MAR-14

C3010.06 Tile Wall Finishes**

Glazed ceramic tiles are located throughout the patient room washrooms, tub rooms, public washrooms and all kitchen areas including back-splashes.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace glazed ceramic wall tile.- (B.O.E. 1733 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$442,000	Unassigned

Updated: MAR-14

C3010.11 Interior Wall Painting*

All concrete block, plaster wall surfaces and gypsum board walls are painted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C3010.12 Wall Coverings*

Wallpaper is located on several corridor and patient room walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C3020.01.02 Painted Concrete Floor Finishes*

Concrete floors throughout the tunnel, mechanical penthouse, basement storage areas and mechanical rooms are painted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	0	MAR-14

Event: **Repaint all concrete floor surfaces.- (B.O.E. 500 sq.m.)**

Concern:

The paint finish is worn and cracks were observed in isolated areas.

Recommendation:

Repaint all concrete surfaces throughout the basement and penthouse levels.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$11,000	Low

Updated: MAR-14

C3020.02 Tile Floor Finishes**

The main north entrance, kitchen area, all washrooms and tub rooms have a ceramic and/or quarry tile floor finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	MAR-14

Event: **Replace all ceramic and/or quarry tile floor finish.- (B.O.E.855 sq.m.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$236,000	Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring - Sheet Vinyl**

Sheet vinyl Corlon flooring is located throughout the majority of the corridors, administration areas and patient rooms. Several sections have been replaced over the years.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	MAR-14

Event: Replace sheet vinyl flooring.- (B.O.E. 6715 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$538,000	Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring - VCT**

VCT flooring is located in the cafeteria, several office areas, lounges & recreational spaces on the second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	20	MAR-14

Event: Replace VCT flooring.- (B.O.E. 1500 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$77,000	Unassigned

Updated: MAR-14

C3020.08 Carpet Flooring**

Carpeting is located in a few offices.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	15	MAR-14

Event: Replace Carpet.- (B.O.E. 75 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$6,000	Unassigned

Updated: MAR-14

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

Suspended ceilings are located throughout the north entrance area and main floor recreational area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	MAR-14

Event: Replace T-bar ceilings.- (B.O.E. 400 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$19,000	Unassigned

Updated: MAR-14

C3030.07 Interior Ceiling Painting*

Painted plaster and/or gypsum ceilings with a sprayed textured finish are located throughout the corridors, patient rooms, patient lounge areas and in the main entrances. All exposed concrete structures in the service and utility areas have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

C3030.09 Other Ceiling Finishes*

A stained wood ceiling is located in the main north entrance admitting area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D1010.01.02 Hydraulic Passenger Elevators - No. 2**

Dover hydraulic passenger elevator, 25 hp, two stops (M-2) 1814 Kg 24 persons.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	MAR-14

Event: Refurbish elevator no. 2 (hydraulic elevator)

Concern:

Elevator 2 is unreliable.

Recommendation:

Replace and/or refurbish elevator no.2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$88,000	Low

Updated: MAR-14

D1010.01.02 Hydraulic Passenger Elevators - No.1**

Dover hydraulic passenger elevator, 40 hp, three stops (B-M-2) ,upgraded in c.2005

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	30	MAR-14

Event: Refurbish Hydraulic Passenger Elevators - No.1-
(1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$88,000	Unassigned

Updated: MAR-14

S4 MECHANICAL**D2010.04 Sinks****

There are a variety of sinks in the building, including porcelain on cast, a stainless steel single and double compartment, janitor mop sinks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 36 Sinks.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$55,000	Unassigned

Updated: MAR-14

D2010.05 Showers - 2000**

Handicap accessible fiberglass shower stalls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	30	MAR-14

Event: Replace 4 Showers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$16,000	Unassigned

Updated: MAR-14

D2010.05 Showers -1968**

Shower stalls are fiberglass units as well as shower stalls with architectural finishes (ceramic tile finishes).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 18 Showers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$36,000	Unassigned

Updated: MAR-14

D2010.06 Bathtubs**

Fiberglass bathtubs in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 13 bathtubs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$45,000	Unassigned

Updated: MAR-14

D2010.08 Drinking Fountains/Coolers**

Wall mounted refrigerated drinking fountains in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	MAR-14

Event: Replace 6 drinking fountains.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$20,000	Unassigned

Updated: MAR-14

D2010.09 Other Plumbing Fixtures*

Emergency shower and eyewash station in the basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - 2003**

UR - urinals are wall mounted vitreous china flush valve type.

LAV - counter mounted enameled steel type.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	35	MAR-14

Event: Replace 26 Washroom Fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$40,000	Unassigned

Updated: MAR-14

D2010.10 Washroom Fixtures (WC, Lav, Urnl) -1968**

WC - wall mounted water closets, vitreous china flush, valve.

LAV - wall mounted vitreous china and counter mounted enameled steel type.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	MAR-14

Event: Replace 161 Washroom Fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$260,000	Unassigned

Updated: MAR-14

D2020.01.01 Pipes and Tubes: Domestic Water*

Water distribution piping in the building is steel in larger diameters and copper in smaller diameters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D2020.01.02 Valves: Domestic ater**

The domestic water distribution system piping includes isolation valves for fixtures and piping branches. Valves include steel gate type valves (in larger diameters) and brass or bronze gate type valves in smaller diameters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace 560 domestic water distribution system valves.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$120,000	Unassigned

Updated: MAR-14

D2020.01.03 Piping Specialties (Backflow Preventers)**

There are pressure reducing valves on the make-up water supplies to the building HVAC equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	MAR-14

Event: Replace 3 BFP.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$35,000	Unassigned

Updated: MAR-14

Event: Replace 3 backflow preventors.

Concern:

Pressure reducing valves are not rated backflow prevention devices. There is no backflow protection on the building domestic water supply or the building fire protection systems water supply.

Recommendation:

Replace the HVAC system make-up water supply pressure reducing valves with backflow prevention devices. Install backflow prevention devices on the building domestic water supply branch and the building fire protection systems water supply branch.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2014	\$35,000	Low

Updated: MAR-14

D2020.02.02 Plumbing Pumps: Domestic Water**

Grundfoss UP15-42 in-line domestic water plumbing pumps located in the basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1992	20	MAR-14

Event: Replace 2 domestic hot water pumps.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$5,000	Unassigned

Updated: MAR-14

D2020.02.06 Domestic Water Heaters**

Domestic hot water is supplied to the building from a domestic hot water storage tank in basement mechanical room. The storage tank is equipped with an internal steam heat exchanger. This tank provides domestic hot water at 60 degrees C. An external steam heat exchanger (shell and tube type heat exchanger HX2) provides domestic hot water at 82 degrees C for the dishwashers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	20	MAR-14

Event: Replace 1 domestic hot water tank.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$60,000	Unassigned

Updated: MAR-14

D2020.03 Water Supply Insulation: Domestic*

The water lines have fiberglass insulation with canvas covering in exposed areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D2030.01 Waste and Vent Piping*

Cast iron and copper piping is used. Some of the cast iron sanitary drainage piping in the basement has been replaced with PVC drainage piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D2030.02.04 Floor Drains*

Floor drains are used at various locations throughout the building, including the washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D2030.03 Waste Piping Equipment*

Sump pit equipped with two submersible sump pumps located in the basement mechanical room. Sump pit collects sanitary drainage from the basement level floor drains and also collects ground water drainage from the building weeping tile system from the adjacent sump pit. Grease interceptor serving commercial Kitchen.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D2040.01 Rain Water Drainage Piping Systems*

Storm water drainage is via roof drains and internal drainage piping (cast iron). The building storm water drainage system discharges to the site storm sewer system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D2040.02.04 Roof Drains*

Storm water drainage is via roof drains and internal drainage piping. Roof drains are equipped with plastic strainers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D3030.02 Centrifugal Water Chillers**

A centrifugal water chiller is located in basement mechanical room. Trane model PCV-4K, 1759 kW cooling capacity. This chiller provides chilled water for Buildings 10, 12 and 9.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	25	MAR-14

Event: Replace 1 chiller.

Concern:

Existing chiller is worn out. Due to the age of the existing chiller replacement parts have become obsolete and availability has decreased. Fabrication of replacement parts isn't cost or time effective for staff or not possible. The cost to maintain has increased as problems are occurring more frequently due to leaks that can't be repaired immediately or leaking within the coils due to age that can't be seen are creating health concerns for some staff.

There is no standby capacity for this chiller and a failure of the chiller would result in a loss of cooling for buildings 10, 12 and 9.

Recommendation:

Replace chiller. The potential exists for installing a new chiller and keeping the existing chiller for standby capacity.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$600,000	Medium

Updated: MAR-14

D3030.05 Cooling Towers**

Marley cooling tower for rejecting the waste heat from the chiller is located in the penthouse mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	25	MAR-14

Event: Replace 1 cooling tower.

Concern:

Cooling tower is corroded and worn out.

Recommendation:

Replace cooling tower.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$150,000	Medium

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution - 1968**

The main air handling unit AS1 is located in the basement mechanical room. Air handling unit AS1 is equipped with dampers (exhaust air, return air and fresh air), filters, a glycol heating coil, a chilled water cooling coil, steam humidification, two supply air fans and an associated return air fan.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	30	MAR-14

Event: Replace 1 Central Air Handling Unit.

Concern:

The air handling unit relies on a "Ventura" design cone which is in a deteriorated state and can no longer be repaired or replaced.

Air handling unit AS1 is functional but has some deteriorating components including worn dampers and corroding coils.

Air handling unit AS1 does not provide adequate amount of fresh air supply nor sufficient air exchange.

Recommendation:

Replace main air handling unit.

Consequences of Deferral:

Failure of this unit will cause the evacuation of patients and staff (unless winter conditions present).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$875,000	Medium

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution - 1997**

Air handling unit AS2 (Carrier 39LC-06-A) provides kitchen ventilation. The air handling unit is equipped with dampers (fresh air and return air), filters, a glycol heating coil, a chilled water cooling coil, and a supply fan. The air handling unit has an associated kitchen exhaust fan.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14

Event: Replace 1 air handling unit.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$65,000	Unassigned

Updated: MAR-14

D3040.01.03 Air Cleaning Devices: Air Distribution*

Building is equipped with a dust mop central vacuum system. The dust mop system includes a vacuum pump (blower) and a tubular bag separator located in basement mechanical. This element also includes the vacuum distribution systems components including piping, fittings, piping specialties, etc. System is currently not in use.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D3040.01.04 Ducts: Air Distribution*

Air distribution ducts include the fresh air, supply air, return air and exhaust air duct systems, as applicable, for the two air handling units. In addition to the air distribution ducts, the duct systems include components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc., as applicable. The air distribution systems are galvanized steel constant volume type.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Air outlets and inlets include supply air diffusers and return air grilles. Supply air diffusers include round recessed and surface mounted ceiling air diffusers as well as some linear air diffusers. Return air grilles include wall and ceiling mounted grilles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

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

High pressure steam (150 psi) is supplied to the building from the central power plant on the site. Pressure reducing station located in Basement mechanical room. 8 psi steam service to heat exchangers serving heating system, domestic hot water system and for humidification purpose. Condensate collection piping, piping insulation, traps, valves, piping specialties, and condensate tanks and pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1968	40	MAR-14

Event: Replace Steam and Condensate distribution systems. BOE: 9570 sq.m. GFA.

Concern:

Some components of the steam and condensate distribution systems are worn out and corroded, including the steam supply and condensate return lines to the mechanical room, the steam traps, and the condensate collection tank.

Recommendation:

Replace the steam and condensate distribution systems.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$250,000	Low

Updated: MAR-14

D3040.03.01 Hot Water Distribution Systems**

Hot water heating loop which provides hot water to the building hydronic terminal units (terminal reheat coils, finned tube radiation cabinets, convectors and unit heaters). The hot water loop includes one steam to hot water shell and tube type heat exchanger (HX1), two hot water circulation pumps (duty pump HP3 and shared standby pump HP4), and an expansion tank (all located in basement mechanical). The hot water heating loop also includes the hot water distribution piping, piping insulation, valves, and piping specialties. Steel schedule 40 and copper piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace hot water distribution system.- (BOE: 9570 sq.m. GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$1,000,000	Unassigned

Updated: MAR-14

D3040.03.01 Hot Water Distribution Systems - Glycol - Air Handling Units**

Designated glycol heating loop is provided to serve heating coils for air handling units AS1 and AS2. The glycol loop includes one steam to glycol shell and tube type heat exchanger (HX5), two glycol circulation pumps (duty pump HP5 and shared standby pump HP4), and an expansion tank (all located in basement mechanical room). The glycol heating loop also includes the glycol distribution piping, piping insulation, valves, and piping specialties. Steel schedule 40 and copper piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace 100m of glycol supply and return lines, 2 glycol distribution system pumps and accessories.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$200,000	Unassigned

Updated: MAR-14

D3040.03.01 Hot Water Distribution Systems - Glycol - Slab Heating**

Designated closed loop glycol heating system for the exterior concrete slab (courtyard). The glycol loop includes a small hot water to glycol heat exchanger (HX6), a circulation pump, an expansion tank, and related components including distribution piping, piping insulation, valves, and piping specialties. Steel schedule 40 and copper piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	40	MAR-14

Event: Replace glycol heating system for the exterior concrete slab.- (BOE: 500 sq.m. GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$60,000	Unassigned

Updated: MAR-14

D3040.03.02 Chilled Water Distribution Systems**

Chilled water is used for building cooling via the chilled water cooling coils in the two air handling units (AS1 and AS2). The chilled water system includes the chilled water distribution piping, piping insulation, valves, piping specialties, expansion tank, and circulation pumps. The chilled water system in this building also supplies chilled water to Buildings 12 and 9, and the chilled water distribution system includes the pumps and distribution piping for these buildings (the portion of the distribution piping which is contained in Building 10). Chilled water circulation pumps include CP3 for Building 9, CP4 for Building 10, and CP5 for Building 12.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace chilled water distribution system.- (BOE: 9570 sq.m. GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$570,000	Unassigned

Updated: MAR-14

D3040.03.03 Condenser Water Distribution Systems Pumps*

Condenser water system circulates water from the condenser side of the chiller to the cooling tower. The condenser water system includes water distribution piping, piping insulation, valves, piping specialties, and circulation pumps. Condenser water pumps (CP1 and CP2) are located in basement mechanical room. System includes a bypass heating loop which consists of a circulation pump and a steam to water heat exchanger HX3 (located in basement mechanical room).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D3040.04.01 Fans: Exhaust -1968**

Variety of exhaust fans provided throughout the building, including an electrical room exhaust fan, mechanical room exhaust fan, laundry chute exhaust fans, general exhaust fans, and kitchen exhaust fan.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Install 5 Exhaust Fans and associated ductwork.

Concern:

To meet infection control requirements for MRSA, HIV, Hepatitis AB&C, TB, etc. Existing seclusion rooms are used for isolation purposes, however these rooms are in high demand and are not designed for this purpose.

Recommendation:

Install designated exhaust fans to create negative pressure to five (5) isolation rooms.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2014	\$45,000	Low

Updated: MAR-14

Event: Replace 11 Exhaust Fans.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$51,000	Unassigned

Updated: MAR-14

D3040.04.01 Fans: Exhaust -1997**

Exhaust fans were added in 1997 to provide improved ventilation of the shower rooms and some other areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14

Event: Replace 12 Exhaust Fans.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$50,000	Unassigned

Updated: MAR-14

D3040.04.03 Ducts: Exhaust*

Building exhaust fans have associated galvanized steel duct systems for the collection of air from single or multiple source locations and/or for the conveyance of air to the discharge point.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust outlets and inlets include collection grilles (including hoods), as well as stacks, discharge ducts, and exhaust grilles where applicable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D3040.05 Heat Exchangers -1968**

Steam to hot water shell and tube type heat exchangers for the building and steam to hot glycol shell and tube type heat exchanger for air handling unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 4 heat exchangers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$65,000	Unassigned

Updated: MAR-14

D3040.05 Heat Exchangers -1998**

Steam to glycol heat exchanger provides hot glycol for the exterior concrete slab heating system. Heat exchanger is a small plate type heat exchanger located in basement room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	30	MAR-14

Event: Replace 1 Heat Exchanger.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$5,000	Unassigned

Updated: MAR-14

D3050.01.01 Computer Room Air Conditioning Units**

Olsen CL35 split ductless direct expansion type air conditioning system provides supplementary cooling for lab room 291 (the compressor/condenser unit is located in the mechanical penthouse).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	30	MAR-14

Event: Replace 1 split ductless AC unit.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$15,000	Unassigned

Updated: MAR-14

D3050.02 Air Coils**

Duct mounted hot water reheat coils for the air distribution system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 180 reheat coils.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$600,000	Unassigned

Updated: MAR-14

D3050.03 Humidifiers**

Steam humidifier serving main air handling unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	MAR-14

Event: Replace 1 Humidifier.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$20,000	Unassigned

Updated: MAR-14

D3050.05.02 Fan Coil Units**

Hot water force flow heaters used at building entrances and stairwells.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace 10 Force Flow Heaters.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$50,000	Unassigned

Updated: MAR-14

D3050.05.03 Finned Tube Radiation**

Hot water terminal units include finned tube radiation cabinets which are used in various locations for heating.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace the finned tube radiation cabinets. 380m linear length.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$180,000	Unassigned

Updated: MAR-14

D3050.05.06 Unit Heaters**

Hot water unit heaters are used to provide heating in various utility areas including the penthouse mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 5 unit heaters.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$20,000	Unassigned

Updated: MAR-14

D3060.02.02 Pneumatic Controls**

Building HVAC system controls are primarily pneumatic (thermostats, control valves, damper actuators, etc.). The control air supply system is located in the basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace pneumatic controls. BOE: 9570 sq.m. GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$175,000	Unassigned

Updated: MAR-14

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

Building is equipped with a Honeywell building management and control system (BMCS) which provides monitoring and control functions for the main building HVAC equipment and systems. Building is monitored from the Central Plant. Monitored equipment includes the air handling units, the hot water and glycol heating loops, the domestic hot water heating system, the chilled water system, the condenser water system, some exhaust fans, and miscellaneous parameters including instrument air pressure, condensate tank level, etc.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1992	20	MAR-14

Event: Replace BMS.- (BOE: 9570 sq.m. GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$335,000	Unassigned

Updated: MAR-14

D4010 Sprinklers: Fire Protection*

Basement of the building is protected by a wet type fire sprinkler system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D4020 Standpipes*

Building is equipped with standard fire hose cabinets on all levels for building fire protection. There is an exterior fire department siamese connection for the integrated sprinkler/standpipe system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers are located throughout the building and include wall mounted fire extinguishers and fire extinguishers located in the fire hose cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D4090.04 Dry Chemical Fire Extinguishing Systems (Kitchen Hood)**

Fire suppression system serving kitchen hood.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	40	MAR-14

Event: Replace 1 fire suppression system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$25,000	Unassigned

Updated: MAR-14

S5 ELECTRICAL**D5010.01.01 Main Electrical Transformers (Facility Owned)****

The building No. 10 is fed from a 4.16kV loop feed originating in the power plant (6 and 11). A 750kVA, 4160V-120/208V Pioneer Electric transformer is located in the main electrical room (Room 008 - Basement level). 4160V load interrupter switches have been provided for the two incoming 4160V feeders. 4160V breakers are provided for the chiller and the main 750kVA transformer. The H.V. equipment is FPE and Allen Bradley.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace 1 Main Electrical Transformer (Facility Owned)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$225,000	Unassigned

Updated: MAR-14**D5010.03 Main Electrical Switchboards (Main Distribution)** - 120/208V**

The main 120/208V switchboard for Building No. 10 is located in the main electrical room (room 008 - Basement level). The main switchboard is an FPE, 2000A, 120/208V, 3 phase, 4 wire switchboard with moulded case branch breakers. The main switchboard feeds thirteen branch circuit panels, two X-Rays, MCC #1 and MCC #2, the transfer switch, and the convection and servery ovens. An FPE changematic transfer switch and emergency distribution section are incorporated into the main switchboard.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	40	MAR-14

Event: Replace 1-120/208V Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$45,000	Unassigned

Updated: MAR-14**D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1968**

The original 7 Federal Pioneer panelboards were installed in 1968.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 7 Electrical Branch Circuit Panelboards (Secondary Distribution)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$84,000	Unassigned

Updated: MAR-14

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1990**

6 of the original Federal Pioneer panels have been replaced with newer Federal Pioneer panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	30	MAR-14

Event: Replace 6 Electrical Branch Circuit Panelboards (Secondary Distribution)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$72,000	Unassigned

Updated: MAR-14

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

There are two Motor Control Centres fed from the main switchboard. Replacement parts are not readily available.

MCC #1 (basement mechanical room 007) is a 6-section Square D MCC with 17 starter units, 10 manual starter switches and two disconnect switches.

MCC #2 (penthouse level) is a 4-section Square D MCC with 6 starter units and a disconnect switch.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 10 Switchboards, Panelboards, and (Motor) Control Centers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$150,000	Unassigned

Updated: MAR-14

D5010.07.02 Motor Starters and Accessories**

Individual motor starters and load switches are used major mechanical ventilation units and some small water pumps. Starters are complete pilot lights and hand-off-auto selector switches. There are Allen Bradley and Telemecanique individual motor starters in the building. The starters are typically provided where the motor loads are located remotely from the MCC's.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	30	MAR-14

Event: Replace 32 Motor Starters and Accessories

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$48,000	Unassigned

Updated: MAR-14

D5020.01 Electrical Branch Wiring*

The majority of the cabling is standard building wire installed in EMT or rigid conduit. BX cable has been used for some of the branch wiring. Bus duct has been run between the main switchboard and MCC #1. The emergency feeder from building #12 was upgraded in 2001.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

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

Low voltage relays and switches have been used for interior lighting control. Rotary switches are located at the nurses station corridor lighting control. It is hard to find replacement parts. There is modern lighting control system in the market, and could increase energy saving.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D5020.02.02.01 Interior Incandescent Fixtures*

Recessed incandescent fixtures have been provided in some of the corridors. There are incandescent A-lamps in porcelain bases in the crawl space and some storage areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D5020.02.02.02 Interior Fluorescent Fixtures**

Lighting is predominantly surface and recessed mounted fluorescent T12 fixtures completed with electromagnetic ballasts. Surface mounted direct/indirect fluorescent lighting fixtures have been provided in the patient rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace 1920 Interior Fluorescent Fixtures

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$624,000	Unassigned

Updated: MAR-14

D5020.02.03.01 Emergency Lighting Built-in*

Emergency lighting is provided from building lighting fixtures that are connected to the emergency distribution system. The emergency power for building #10 is supplied from building #12. There is an FPE "Changematic" transfer switch integrated into the main switchboard.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D5020.02.03.03 Exit Signs*

Exit signs have been installed at building exits and along egress routes. The majority of the exit signs have incandescent lamps. Non-illuminated photo-luminescent exit signs have been provided in some areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

D5020.03.01.01 Exterior Incandescent Fixtures*

There are two recessed incandescent downlights provided in the canopy at the main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	MAR-14

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

HPS wallpack fixtures are located on the exterior walls of the building perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	MAR-14

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

Exterior lighting is controlled by photo-cell. Photo-cell is located at the roof level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	MAR-14

D5030.01 Detection and Fire Alarm**

The fire alarm system for the building No. 10) is an Edwards EST system. The main fire alarm panel is located in room 007A, outside the main electrical room. 5 remote annunciators have been provided at the main entrance and nurses stations. System consists of manual pull stations, detectors and bells located throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2013	25	MAR-14

Event: Replace Detection and Fire Alarm.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$312,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access - Card Access System**

A Simplex card access system has been installed within the facility with proximity card readers at selected locations. Lenel system will be install next year.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	MAR-14

Event: Replace Security Access.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$30,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access - Duress System**

A Simplex duress system has been installed within the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	MAR-14

Event: Replace Duress System.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$60,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access - Patient Monitoring System**

Patient monitoring systems (Wander Comm and Spider Alert) have been installed within the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	25	MAR-14

Event: Replace Patient Monitoring Systems.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$50,000	Unassigned

Updated: MAR-14

D5030.02.04 Video Surveillance**

The front end of the video surveillance system is a Burle switcher. Cameras are located in the tunnel and selected areas of the building. The monitor and front end equipment for the surveillance system are located in the main control room. Video conferencing equipment has been provided in room 288.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	MAR-14

Event: Replace Video Surveillance -(BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$60,000	Unassigned

Updated: MAR-14

D5030.03 Clock and Program Systems*

The clock system is a Dukane system with LED digital clocks. The master clock control unit is located in the basement (Rm. 007A). There are some battery and plug-in clocks within the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

D5030.04.01 Telephone Systems*

Telephone backboards and termination blocks are located in basement room 009B. Nortel Meridian telephone equipment has been provided for the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	MAR-14

D5030.04.03 Call Systems - Intercom**

An EXES Intercom system has been installed in the facility. Replacement parts are not available.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	MAR-14

Event: Replace Call Systems.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$30,000	Unassigned

Updated: MAR-14

D5030.04.03 Call Systems - Nurse Call**

The nurse call system is a Dukane system with call stations in the patient rooms and call indicator lights in the corridor. Annunciators are located at the nurses station. It is hard to keep it in operation, and hard to find parts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	25	MAR-14

Event: Replace Call Systems.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$156,000	Unassigned

Updated: MAR-14

D5030.04.04 Data Systems*

Data outlets are installed through offices; and Copper wiring is typically CAT 5E balanced twisted pair with FT4 rated insulation. Bell supernet has been brought into the building (Rm. 1048).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	0	MAR-14

D5030.04.05 Local Area Network Systems*

Network servers are located in the telephone equipment room (Room 009B - Basement) and room 007A. The equipment is typically rack mounted. Fibre has been brought into the building for high speed communications.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	0	MAR-14

D5030.06 Television Systems*

A system of coaxial cabling and splitters within the building provides TV signal to selected areas. The main cable TV equipment is located in the main electrical room (Rm. 008).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	0	MAR-14

D5090.01 Uninterruptible Power Supply Systems**

A 1500VA UPS has been provided in the telephone equipment room. An APC Symmetra UPS, c/w Square D bypass switches, is located in the main electrical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	30	MAR-14

Event: Replace UPS Systems.- (BOE: 9570 m2 GFA.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$46,000	Unassigned

Updated: MAR-14

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1010.05.01 Barber and Beauty Shop Equipment***

A hair salon complete with all equipment is located in the 2nd floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

E1020.07 Laboratory Equipment*

Laboratory workstations include sinks, fumehoods, refrigerators etc. are located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

E1020.08 Medical Equipment*

The nurses stations & medical rooms on both floor levels are equipped with medical examination equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

E1090.03 Food Service Equipment*

Full compliment of kitchen equipment for preparation of daily hot meals. Kitchen equipment consists of built-in and movable type; for food preparation, cooking, baking, pot and dishwashing and storage. Walk-in freezer/cooler. Servery, tray and display counters, beverage dispensers, water heater booster, etc. The kitchen is located on the main floor at the south end of the building. Stainless Steel exhaust hoods are located throughout the food prep area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

E1090.04 Residential Equipment*

Refrigerators, stoves, washer and dryer are located in the common kitchen & lounge areas on the main & second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

A large recreational area including a general store and games room is located opposite the main cafeteria.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

E2010.02 Fixed Casework**

Fixed upper and lower storage cupboards are located throughout the administration office areas, security stations, nurses stations, storage rooms, staff room & common kitchen areas and washrooms. The units are constructed of clear and/or painted plywood veneered with hardwood edges & plastic laminate counter-tops. Each laboratory is equipped with upper metal and/or plastic laminate cabinets, lower cupboards c/w counter-top, open fixed shelving.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	35	MAR-14

Event: Replace millwork. - (B.O.E. 290 m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$319,000	Unassigned

Updated: MAR-14

E2010.03.01 Blinds**

The cafeteria & several interior window have vertical blinds located throughout the office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace vertical blinds in the cafeteria & offices.- (B.O.E. 35 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$3,800	Unassigned

Updated: MAR-14

E2010.03.06 Curtains and Drapes**

Curtains are located throughout the patient rooms and day rooms. They have exceeded their design life.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	30	MAR-14

Event: Replace curtains and drapes.- (B.O.E. 115 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$12,500	Unassigned

Updated: MAR-14

F1020.02 Special Purpose Rooms

Isolation/quiet rooms are provided in both floor levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	50	MAR-14

S8 SPECIAL ASSESSMENT**K4010.02 Barrier Free Entrances***

Power assist doors are provided at the main entrance. A ramp to the entrance is provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

K4010.03 Barrier Free Interior Circulation*

Barrier free access is provided throughout the public spaces of the building. Two elevators are centrally located in the building. The elevator extends to the basement level and allows access via the underground links to other buildings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

K4010.04 Barrier Free Washrooms*

Washrooms & tub rooms throughout the building accommodate barrier free accessibility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

K4030.01 Asbestos*

No asbestos was noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

K4030.04 Mould*

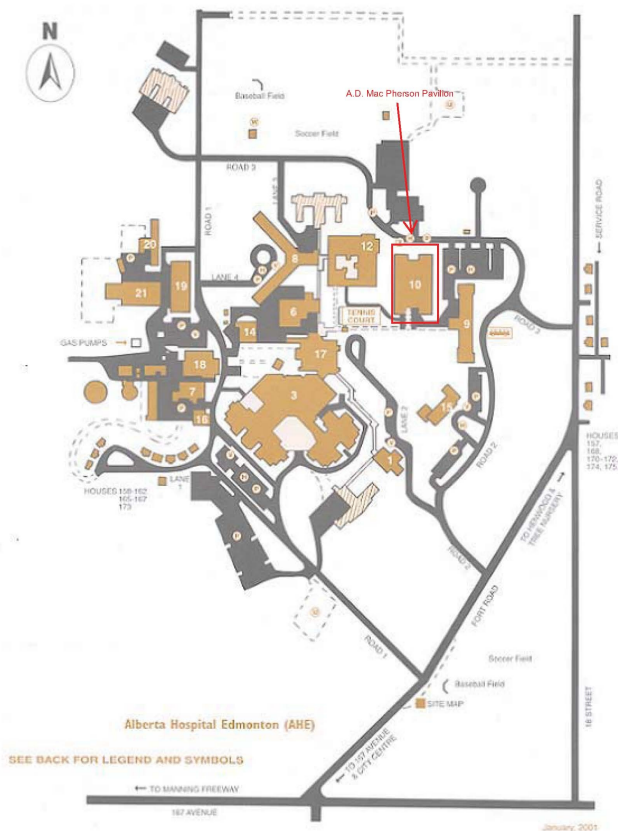
No mould was noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-14

K5010.01 Site Documentation*

Prime Consultant: Bacz Engineering Ltd.
 Year of Evaluation: 2013
 Building Area Evaluated: 9570 m2

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2013	0	MAR-14

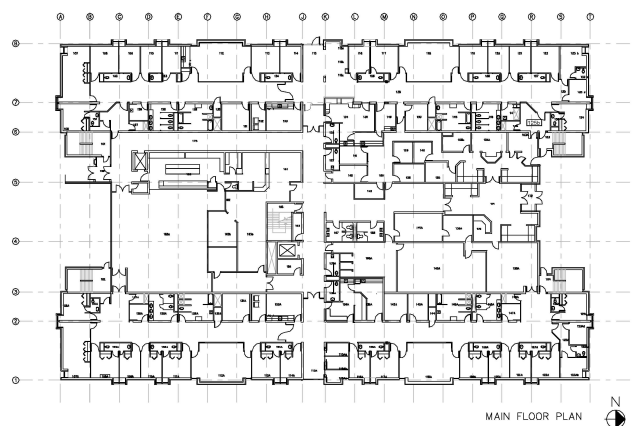


Site Plan

K5010.02 Building Documentation*

Two storey structure with a penthouse and a partial basement below the south end of the building and an accessible crawl space below the north end. The building is linked at the basement via an underground walkway to the Food Services building to the west and to Building #9 to the East.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2013	0	MAR-14



Main Floor.