

RECAPP Facility Evaluation Report

Alberta Health Services-Edmonton



RAH - Short Stay Surgery

B1029Q
Edmonton

Facility Details

Building Name: RAH - Short Stay Surgery
Address: 10240 Kingsway Avenue
Location: Edmonton

Building Id: B1029Q
Gross Area (sq. m): 2,534.00
Replacement Cost: \$0
Construction Year: 2004

Evaluation Details

Evaluation Company: Bacz Engineering Ltd.
Evaluation Date: November 19 2013
Evaluator Name: Eric Lumley

Total Maintenance Events Next 5 years:
5 year Facility Condition Index (FCI): 0%

General Summary:

The floors that make up the Short Stay Surgery are the basement and sub-basement levels of a larger building and well fully renovated in 2004 with new configuration of partitions, ceilings, flooring, signage and built-in fixtures.

The facility is generally in good condition.

Structural Summary:

The original building has a concrete structure with concrete floors and concrete slab-on-grade at the lowest level.

The structure is generally in acceptable condition.

Envelope Summary:

The envelope of the short stay surgery department is limited to waterproofing on the exterior of basement and sub-basement walls. There is no roof a part of this facility as it is housed in the basements of a larger building

Generally the envelope is in acceptable condition.

Interior Summary:**Mechanical Summary:**

Low pressure steam distribution from pressure reducing stations to heat exchangers located in mechanical room and to air handling units.

Plate steam to glycol heat exchangers are provided within a building to serve heating systems. Secondary circulation pumps are provided inside mechanical room to distribute hot water and glycol.

Air distribution system is via medium and low velocity ductwork to vav boxes, grilles and diffusers.

Air conditioning is provided via chilled water distributed from central chiller to cooling coils serving air handling units.

Hot water / glycol distribution to radiant panels, re-heat coils serving VAV boxes, unit heaters and force flow heaters.

Steam grid humidification systems provided in air handling units and designated ductwork.

Domestic cold water, hot water and hot water recirculation from ATC.

Copper piping distribution to plumbing fixtures complete with domestic hot water recirculation systems.

Medical gas piping distribution system throughout facility (oxygen, N2O, vacuum, medical air).

Direct digital controls are provided to monitor and control functions for the main building HVAC equipment and systems.

Fire protection system for the facility consists of sprinkler system, pre-action systems and held fire extinguishers.

Overall mechanical systems are in acceptable condition.

Electrical Summary:

The Normal Power service for the building is two 13.8KV lines from hospital main electrical room and the emergency power is 5KV from the one of the emergency Buses, The few transformers are used to transformer the power from 13.8KV and 5KV to 347/600V and from 600V to 120/208V.

The T-12 lamp fluorescent fixtures are used throughout most part of the building except some metal halide high bay lights are used in Shipping/Receiving areas.

The fire alarm, security access, video surveillance and telephone/data systems meet current building operation requirements.

The overall rating for electrical system is "Good"

Rating Guide

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

S1 STRUCTURAL

A1010 Standard Foundations*

Concrete pad footings and strip footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

A1030 Slab on Grade*

Concrete slab-on-grade and sub-basement level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

A2020 Basement Walls (& Crawl Space)*

Concrete foundation walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

B1010.01 Floor Structural Frame (Building Frame)*

Concrete columns supporting structural concrete floor slabs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

B1010.03 Floor Decks, Slabs, and Toppings*

Concrete topping to structural concrete floor slabs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

B1010.09 Floor Construction Fireproofing*

Cast-in-place concrete floor slabs provide fireproofing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

B1010.10 Floor Construction Firestopping*

Firestopping provided to floor penetrations during 2004 renovation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

S2 ENVELOPE**B2010.02.01 Cast-in-place Concrete: Ext. Wall Const***

Original building has cast-in-place concrete retaining walls to the basement and sub-basement levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

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

Similar to the underground concrete tunnel system, it is assumed the concrete basement and sub-basement walls are waterproofed with several layers of waterproof membrane.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

B2030.01.01 Aluminum-Framed Storefronts: Doors**

The main entrances to the facility are glazed aluminum doors in aluminum storefronts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace aluminum storefront doors.- B.O.E. 4 doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$13,500	Unassigned

Updated: MAR-14

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

Steel stud partitions with painted gypsum board .

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1020.01 Interior Swinging Doors (& Hardware)*

Generally solid core wood veneer doors in pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1020.03 Interior Fire Doors*

Fire rated metal doors in pressed steel frames to corridors and stairwells.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1020.04 Interior Sliding and Folding Doors*

Sliding aluminum glazed doors and side panels in sub-basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1030.01 Visual Display Boards**

Tackboards and whiteboards in nursing stations and administrative areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	20	MAR-14

Event: Replace whiteboards and tackboards.- B.O.E. 30 units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$4,500	Unassigned

Updated: MAR-14

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

Prefinished metal toilet cubicles in staff locker rooms in sub-basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace washroom cubicles.- B.O.E.4 cubicles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$4,800	Unassigned

Updated: MAR-14

C1030.05 Wall and Corner Guards*

PVC continuous wall horizontal guards throughout facility where wheelchairs and trolleys are likely.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1030.08 Interior Identifying Devices*

Wall mounted engraved plastic signage provided throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1030.10 Lockers**

Prefinished full height single tier lockers in sub-basement locker rooms and other storage and office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace lockers.- B.O.E. 136 lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$66,250	Unassigned

Updated: MAR-14

C1030.12 Storage Shelving*

Metal and wooden storage shelving in storage and supply rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C1030.14 Toilet, Bath, and Laundry Accessories*

Toilet roll holders, mirrors, soap dispensers, waste bins, grab bars in washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C2010 Stair Construction*

Cast-in-place concrete stairs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C2020.01 Tile Stair Finishes*

Quarry tile stair nosings to treads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C2020.02 Terrazzo Stair Finishes*

Terrazzo finish to treads and landings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C2020.08 Stair Railings and Balustrades*

Painted pipe rail handrails and supports.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C3010.11 Interior Wall Painting*

Painted gypsum board throughout all areas. Highly washable surface in operating theatres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C3020.01.02 Painted Concrete Floor Finishes*

Painted concrete floor finish in utility areas of sub-basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C3020.03 Terrazzo Floor Finishes*

Portion of corridor has original terrazzo finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

C3020.07 Resilient Flooring**

Sheet vinyl flooring throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	20	MAR-14

Event: Replace sheet vinyl flooring.- B.O.E. 2344 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$187,500	Unassigned

Updated: MAR-14

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

T-bar ceiling and lay-in tile throughout office and consulting areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	25	MAR-14

Event: Replace T-bar lay-in tiles.- B.O.E. 1380 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$64,250	Unassigned

Updated: MAR-14

C3030.07 Interior Ceiling Painting*

Painted drywall ceilings in theatre areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

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

Corner mop sinks, molded stone, floor mounted , SS strainer.

Single and double compartment stainless steel sinks complete with chrome plated swing spout, aerator, indexed lever handles.

Wall hung vitreous china sinks with wall mounted faucet.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace 42 Sinks.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$65,000	Unassigned

Updated: MAR-14

D2010.05 Showers**

Fiberglass showers with thermostatic mixing valve, pressure balanced serving staff changerooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace 2 Showers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$7,000	Unassigned

Updated: MAR-14

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

WC - vitreous china, open front seat, flush valve and flush tank.

LV - Stainless steel and vitreous china countertop lavatories c/w two handle faucets. Wall hung barrier free, vitreous china lavatories with gooseneck faucets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	35	MAR-14

Event: Replace 44 Washroom Fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$66,000	Unassigned

Updated: MAR-14

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper piping distribution throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D2020.01.02 Valves: Domestic Water**

Plumbing fixtures complete with isolation valves.

Main branches isolated.

Ball, gate and globe valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	40	MAR-14

Event: Replace 176 Water Valves.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$40,000	Unassigned

Updated: MAR-14

D2020.01.03 Piping Specialties (Backflow Preventers)**

Reduced pressure backflow preventors serving fire line.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	20	MAR-14

Event: Replace 1 Backflow Preventor.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$15,000	Unassigned

Updated: MAR-14

D2020.03 Water Supply Insulation: Domestic*

Domestic cold and hot water lines are insulated with 25mm fiberglass thermal insulation inside a general insulation jacket.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D2030.01 Waste and Vent Piping*

Copper and PVC piping throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D2030.02.04 Floor Drains*

General purpose floor drains are located in all mechanical rooms, large washrooms and service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D2030.03 Waste Piping Equipment*

Weeping tile sump complete with two pumps. Barnes model SGV-205, 1.26 lps capacity.
Elevator sump complete two pumps. Barnes model SGV-205, 1.26 lps capacity.
Plaster trap.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D2040.01 Rain Water Drainage Piping Systems*

Rain water is collected internally to underslab storm main. PVC piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D2090.10 Nitrous Oxide Gas Systems**

Nitrogen and nitrous oxide are supplied via high pressure cylinders to specialized areas of the hospital.
Supplied from a banks of high pressure cylinders located in Emergency Building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace Nitrous Oxide Gas Systems.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$65,000	Unassigned

Updated: MAR-14

D2090.11 Oxygen Gas Systems**

Oxygen supplied from a bulk liquid oxygen tank in Emergency Building.
Piping distribution to all areas of Short Stay Surgery.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace Oxygen Gas Systems.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$65,000	Unassigned

Updated: MAR-14

D2090.13 Vacuum Systems (Medical and Lab)**

Vacuum drawn from central vacuum room in Emergency Building. Three medical vacuum pumps are located in the basement mechanical room - act as a back-up. Pumps are equipped with guards, automatic water valves, strainer and regulating valves, vacuum gauge, and isolation valves.
Piping distribution to all areas of Short Stay Surgery.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace Medical Vacuum System.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$65,000	Unassigned

Updated: MAR-14

D2090.16 Medical Air System*

Medical air provided from central compressor located in Emergency Centre. Piping distribution to all areas of Short Stay Surgery.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D3040.01.01 Air Handling Units: Air Distribution**

There are two indoor Haakon model 24 air handling units located in designated mechanical rooms.
AHU-1 is a 100% OA unit serving Basement Area and Operating Rooms. Unit consists of twin supply air fans, pre-filters, final filters, hepa filters, pre-heat coil, reheat coil, cooling coil, steam humidifier and silencer. S/A c/w VFD = 11350 l/s.
AHU-2 is a 100% OA unit serving Sub-ment Area, East side of Rehab and ATC East basement. Unit consists of twin supply air fans, pre-filters, final filters, reheat coil, cooling coil, steam humidifier and silencer. S/A c/w VFD = 11350 l/s.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace 2 Air Handling Units.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$375,000	Unassigned

Updated: MAR-14

D3040.01.04 Ducts: Air Distribution*

Low and medium velocity ductwork distribution throughout the building. Single and dual ducts systems. Majority of ductwork concealed in ceiling space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D3040.01.06 Air Terminal Units: Air Distribution (VAV/CV Box)**

Single duct VAV boxes complete with actuators and with re-heat coils. All VAV boxes are manufactured by EH Price SDV series. Airflow capacities vary from 58 lps to 680 lps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace 42 VAV Boxes.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$210,000	Unassigned

Updated: MAR-14

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Various type of supply air grilles and diffusers located throughout. Round and square diffusers, linear and louver face grilles. Flush face radial flow and laminar flow specialty diffusers in operating rooms and lab areas complete with hepa filters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

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

860kPa steam from RAH high pressure system to pressure reducing station.
103 kPa steam piping distribution to humidifiers serving air handling units and duct mounted humidifiers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	40	MAR-14

Event: Replace Steam Distribution System.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$115,000	Unassigned

Updated: MAR-14

D3040.03.02 Chilled Water Distribution Systems**

150mm diameter insulated chilled water supply and chilled water return lines from main 250mm diameter chilled water loop to cooling coils serving air handling units.

Two chilled water pumps: in-line mounted centrifugal type. 17.01 lps @ 240 kPa head, each pump designed for 50% load.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	40	MAR-14

Event: Replace Chilled Water Distribution System.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$155,000	Unassigned

Updated: MAR-14

D3040.03.03 Condenser Water Distribution Systems Pumps*

Condensate water system includes the condenser water distribution piping, piping insulation, valves, piping specialties, and circulation pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D3040.03.04 Glycol Distribution Systems**

50/50 glycol solution is circulated to primary and secondary heating loops through 150mm diameter glycol supply and glycol return lines. Two vertical in-line pumps (Armstrong model 4360, 16.69 lps) serve primary heating loop.

Two vertical in-line pumps (Armstrong model 4360, 8.64 lps) serve secondary heating loop to air handling units heating coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	40	MAR-14

Event: Replace Glycol Distribution System.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$260,000	Unassigned

Updated: MAR-14

D3040.04.01 Fans: Exhaust**

Central exhaust fans provided in mechanical rooms.

Exhaust fans serve operating suites and general exhaust systems.

Two axial fans are interlock with AHU serving operating suites: Eng_A model 24, 5650 lps each.

Three axial exhaust fans are interlock with AHU serving short stay surgery sub-basement, east of Rehab and ATC east wing: Chicago model 34, 5100 lps, 2360 lps and 2360 lps exhaust air capacities.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace 5 Exhaust Fans.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$35,000	Unassigned

Updated: MAR-14

D3040.04.03 Ducts: Exhaust*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust outlets and inlets include collection grilles and diffusers, as well as stacks or discharge ducts where applicable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

D3040.05 Heat Exchangers**

Alfa Laval plate and frame heat exchangers, steam to 50/50 glycol.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-14

Event: Replace 2 Heat Exchangers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$50,000	Unassigned

Updated: MAR-14

D3050.03 Humidifiers**

Dristeam Ultra-Sorb steam grid humidifiers serving air handling units and supply air ductwork.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	25	MAR-14

Event: Replace 7 Humidifiers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$55,000	Unassigned

Updated: MAR-14

D3050.05.02 Fan Coil Units**

Vertical force flow heater serving vestibule, complete with hot water heating coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	30	MAR-14

Event: Replace 3 Force Flow Heaters.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$15,000	Unassigned

Updated: MAR-14

D3050.05.06 Unit Heaters**

Trane cabinet unit heaters serving mechanical rooms and service areas. All unit heaters are complete with glycol heating coils and have capacities of 10.0 to 15.8 kW.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-14

Event: Replace 4 Unit Heaters.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$20,000	Unassigned

Updated: MAR-14

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

Radiant ceiling panels serving perimeter rooms, 610mm width aluminum linear type, mounted in the T-bar and GWB ceiling.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	35	MAR-14

Event: **Replace Ceiling Radiant Panels.- BOE: 35m linear length.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$35,000	Unassigned

Updated: MAR-14

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

The building is equipped with Siemens building management and control system (BMCS) which provides monitoring and control functions for the main building HVAC equipment and systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	20	MAR-14

Event: **Replace BMS.- BOE: 2534 m2 GFA.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$95,000	Unassigned

Updated: MAR-14

D4010 Sprinklers: Fire Protection*

Hospital building is sprinkled as per NFPA13. Fire line to sprinkler tree located in Mechanical Room. Pre-action system is a part of the main sprinkler system restricted to the sprinklers within the critical care areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers provided throughout:- carbon dioxide, multi-purpose dry chemical. All units complete with up-to-date certification tags.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

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

The 667KVA transformer is used to transfer normal main incoming 13.8KV power to 347/600V power system; and 500 KVA transformer is used to transfer emergency 5KV power to 347/600V power system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	40	MAR-14

Event: Replace 2 Transformers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$100,000	Unassigned

Updated: MAR-14

D5010.02 Secondary Electrical Transformers (Interior)**

The 225KVA and 112.5KVA transformers are used for normal power to transfer 600V power to 120/208V system and 112.5KVA and 45KVA transformers are used for emergency power to transfer the 600V power to 120/208V system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	40	MAR-14

Event: Replace 4 Secondary Transformers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$30,000	Unassigned

Updated: MAR-14

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

The Normal Power service for the building is two 13.8KV lines from hospital main electrical room; the indoor 13.8KV switchboard consists main incoming circuit breaker sections, 13.8KV transformer and normal power distribution section fed from the transformer for large normal power loads and 600V CDP in the building,

The emergency power service for the building one 5kV line from emergency power distribution in MMC electrical room; the 600V transfer switch is installed to provide power for 600V emergency system; the standalone switchboard consists 5KV/600V transformer, transfer switch and 600V distribution section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	40	MAR-14

Event: Replace 1 Main Electrical Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2044	\$1,200,000	Unassigned

Updated: MAR-14

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

The 347/600V and 120/208V branch circuit panelboards are installed throughout entire building and most of them have 15% spare capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-14

Event: Replace 41 Branch Circuit Panelboards

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$205,000	Unassigned

Updated: MAR-14

D5010.07 Motor Control Centers

Both normal power MCC and emergency power MCC have 4 sections and is used mainly for mechanical AC units and Pump controls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-14

D5010.07.03 Variable Frequency Drives**

Three Drivers are used for large mechanical ventilation equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-14

Event: Replace 3 VFD Drivers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$42,000	Unassigned

Updated: MAR-14

D5020.01 Electrical Branch Wiring*

All the wires are copper and installed in the conduits.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

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

The low voltage switching is used for entire building lighting controls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5020.02.02.02 Interior Fluorescent Fixtures**

T-8 lamp fluorescent with electronics ballast fixtures are used throughout the space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-14

Event: Replace 380 Fluorescent Fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$152,000	Unassigned

Updated: MAR-14

D5020.02.03.01 Emergency Lighting Built-in*

The Halogen lamp fixtures with backup emergency battery packs are used in the surgery rooms

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5020.02.03.03 Exit Signs*

All the Exit signs are LED lamp type.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The wall packs are installed around building perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

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

The outdoor lighting is controlled by photo cell

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5030.01 Detection and Fire Alarm**

The fully addressable Cerberus Pyrotronics control panel is used for entire build fire alarm system and have the control panel installed in the mechanical room and annunciate panel installed at main entrance of the building

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	25	MAR-14

Event: Replace Detection and Fire Alarm.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$50,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access**

The Lenel keypad control system is used for security system and have keypads installed at some secured rooms. The signals are sent to main Active Treatment Center

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	25	MAR-14

Event: Replace 1 Security Access System Panel.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$15,000	Unassigned

Updated: MAR-14

D5030.02.04 Video Surveillance**

One camera is installed at main entrance and the signals are sent to Omnicast system in Active Treatment Center.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	25	MAR-14

Event: Replace One Camera.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$3,500	Unassigned

Updated: MAR-14

D5030.03 Clock and Program Systems*

The GPS Primex clocks are installed throughout the building interior.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5030.04.01 Telephone Systems*

The telephone system is tied to main telephone system in Active Treatment Center and have telephone outlets installed in the offices.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5030.04.03 Call Systems**

The Rauland Responder 4000 control panel is installed at main floor surgery area for nurse call system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	25	MAR-14

Event: Replace Nurse Call System - (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$25,000	Unassigned

Updated: MAR-14

D5030.04.04 Data Systems*

One Switch Hub is installed for the building and is tied to hospital main server by fiber optic.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-14

D5030.05 Public Address and Music Systems**

The TOA amplifier is installed in the building and the paging signals are came from Active Treatment Center.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	20	MAR-14

Event: Replace PA Systems.- BOE: 2534 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$25,000	Unassigned

Updated: MAR-14

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1020.08 Medical Equipment***

Fully equipped operating rooms and examination rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

E2010.02 Fixed Casework**

Fixed storage shelving in store rooms. Reception counter millwork in entrance, administration areas and nursing stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	35	MAR-14

Event: Replace millwork.- B.O.E. 171m

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$188,100	Unassigned

Updated: MAR-14**F1020.02 Special Purpose Rooms**

Operating theatres and medical (eye) examination rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	50	MAR-14

S8 SPECIAL ASSESSMENT**K4010.01 Barrier Free Route: Parking to Entrance***

Elevator access from main floor level to these levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K4010.02 Barrier Free Entrances*

Internal doors provide barrier free access throughout these levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K4010.03 Barrier Free Interior Circulation*

Circulation throughout each floor is at one level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K4010.04 Barrier Free Washrooms*

Barrier free washrooms provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K4030.01 Asbestos*

No asbestos noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K4030.02 PCBs*

No PCBs noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K4030.04 Mould*

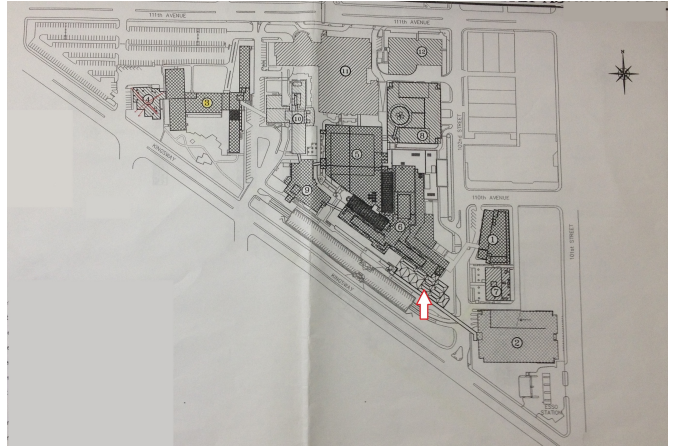
No mould noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-14

K5010.01 Site Documentation*

Prime Consultant: Bacz Engineering Ltd.
 Year of Evaluation: 2013
 Building Area Evaluated: 2534 m2

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

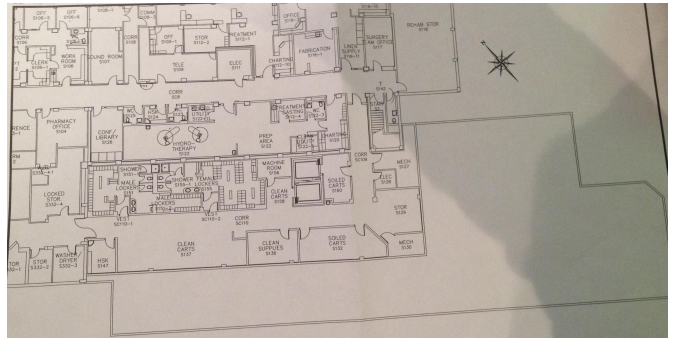


Site Plan

K5010.02 Building Documentation*

The floors that make up the Short Stay Surgery are the basement and sub-basement levels of a larger ATC building.

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



Sub-Basement