

RECAPP Facility Evaluation Report

Aspen Regional Health Authority



Seton Jasper Healthcare Centre

B1102A

Jasper

Facility Details

Building Name: Seton Jasper Healthcare Ce
Address: 518 Robson Street
Location: Jasper

Building Id: B1102A
Gross Area (sq. m): 3,981.00
Replacement Cost: \$26,158,386
Construction Year: 0

Evaluation Details

Evaluation Company: Grant Moore Architect Ltd.
Evaluation Date: October 2 2009
Evaluator Name: Grant Moore

Total Maintenance Events Next 5 years: \$2,974,200
5 year Facility Condition Index (FCI): 11.37%

General Summary:

The Seton Jasper Healthcare Centre consists of an original building constructed in 1973 and a Physio-Therapy Treatment Centre added in 1993. Total building area is 3981 m2. The Healthcare Centre is connected via enclosed links to a Seniors Housing Facility opened in 2008 and a Doctor's clinic. The vacated Long Term Care Wing of the Healthcare Centre has been converted into offices for Health service agencies in the community.

A nurse's residence and maintenance equipment garage are located on the well maintained site.

Structural Summary:

The building is set on concrete spread footings and perimeter grade beams. There is a partial crawl space under the patient wings the remainder of the building has a concrete basement. The main floor structure is precast concrete tees set on poured concrete beams and columns. The roof structure and mechanical mezzanine is OWSJ, metal deck supported by steel beams and columns.

The building's structure is in acceptable condition.

Envelope Summary:

Building envelope consists of a brick veneer or diagonal wood siding on insulated stud framing. The windows are anodized aluminum with a SBS roof membrane. The SBS roofing membrane was installed in 2000 replacing the original four ply built-up membrane.

The building envelope is in acceptable condition.

Interior Summary:

Interior finishes are as follows:

Flooring: Main Floor is mainly resilient sheet goods, most of the original flooring replaced in 2001. In the basement, the flooring is a combination of original VCT and epoxy flooring. In the service and storage rooms it is painted concrete.
Walls generally consist of painted drywall or concrete block/poured concrete.
Ceilings are suspended t-bar and acoustic tile with exposed painted structure in the 1993 Addition and in mechanical and storage rooms.

Interior finishes are generally in good condition.

Mechanical Summary:

Ventilation is provided by variety of air handling units located in Penthouses. Total of five air handling units. Air distribution system is via low velocity constant volume ductwork to grilles and diffusers. Air conditioning is provided by three air cooled condenser complete with refrigerant piping to DX cooling coils serving air systems. Three natural gas fired boilers provide hot water for perimeter radiation, unit heaters and heat exchanger. Hot water is circulated via base mounted pumps. One steam boiler serves humidification. Domestic hot water is generated by three gas fired boilers and hot water storage tanks. Controls are pneumatic and electric. Medical gas systems include the piping, fittings, valves, air compressor and vacuum pumps. Medical oxygen, nitrous oxide, medical air and vacuum system are provided throughout. Alarms monitor system installed in Nurses Stations. Valved shut-off stations provided. Fire protection system for the facility consists of automatic sprinkler system serving basement only, standpipe system and hand held fire extinguishers. Sanitary and storm services to Town's mains.

Domestic water supplied from the municipal systems.
Municipal natural gas service to gas fired appliances.

Overall mechanical system is in acceptable condition.

Electrical Summary:

The facility is an active treatment centre, built in 1973, and has been provided with a 1600 Amp, 120/208V, 3 phase 4 wire service, obtained from an on-site pad mounted transformer. Renovations have been undertaken over the years when various parts of the electrical system have been upgraded. A main distribution centre is provided in the electrical room. An emergency power distribution system, fed from a 150 kW diesel engine-generator set has been provided to provide power via an automatic transfer switch, in the event of utility power failure. Lighting was upgraded in 2004, and is primarily fluorescent with energy efficient fixtures utilizing T8 lamps and electronic ballasts. A nurse call system has been provided that was installed in 2008. The fire alarm system is obsolete and parts are no longer available; replacement of the system is recommended. The electrical systems are well maintained and overall, the electrical systems are in good condition.

Rating Guide

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

S1 STRUCTURAL

A1010 Standard Foundations*

Reinforced concrete pad footings and grade beams typical where there is no basement. 1993 Addition is similar construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

A1030 Slab on Grade*

Original building is a reinforced concrete slab. The 1993 Addition is a 130 mm reinforced concrete slab with a 6 mil poly vapour barrier on a sub-base as specified in the soils report.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

A2020 Basement Walls (& Crawl Space)*

300 mm reinforced concrete basement perimeter wall on spread footing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

B1010.01 Floor Structural Frame (Building Frame)*

Main floor structure consists of precast concrete tees supported on concrete beams and columns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

B1010.03 Floor Decks, Slabs, and Toppings*

Main floor construction consists of 50 mm concrete topping on precast concrete tees.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

B1010.05 Mezzanine Construction*

Mechanical mezzanine construction consists of a concrete topping on metal deck on OWSJ and steel columns and beams.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1974	100	MAR-10

Event: Repair Mezzanine Floor

Concern:

Leaking at drains under AC units with water dripping onto hospital records.

Recommendation:

Install new concrete topping with positive slopes to drains and replace drains. Area approx. 25 m2.

Consequences of Deferral:

Continual water dripping and potentially damaging hospital files and records.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$25,000	Low

Updated: MAR-10

B1010.06 Ramps: Exterior*

Exterior concrete vehicle ramp providing access to basement mechanical and service rooms. Ramp reconstructed in 2001 with heated glycol system and new concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	40	MAR-10

B1010.10 Floor Construction Firestopping*

Fire stopping located at penetration through fire separations, observed in mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

B1020.01 Roof Structural Frame*

Roof structure is OWSJ supported on steel beams and columns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

B1020.04 Canopies*

Canopy over emergency entrance is a painted steel structure with a sloped glazed unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

S2 ENVELOPE

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

Caulking around window units and door frames typical around the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

Event: Replace Joint Sealers (caulking): Ext. Wall**

Recommendation:

Replace approx. 315 lineal meters of caulking.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$12,700	Unassigned

Updated: MAR-10

B2010.01.13 Paints (& Stains): Exterior Wall**

Exterior cedar siding finish is stained. Exterior utility doors and frames are painted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	15	MAR-10

Event: Replace Paints (& Stains): Exterior Wall**

Recommendation:

Repaint approx. 375 m2 of exterior wall surface.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$10,300	Unassigned

Updated: MAR-10

B2010.02.03.01 Clay Masonry: Ext. Wall Const.*

Exterior Wall Construction:

- 90 mm Brick Veneer
- Air space
- 38 mm rigid insulation
- Vapour barrier as specified
- 12.7 mm sheathing
- 92 mm steel stud framing
- drywall interior surface

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

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

Wood framed exterior wall construction consists of the following:

- Diagonal cedar siding
- 12.7 mm sheathing
- 38 x 89 mm wood studs @ 400mm oc
- 89 mm batt insulation
- Vapour barrier as specified
- 12.7 mm drywall interior ace

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

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

Exterior wall insulation consists of 38 mm rigid insulation for brick veneer and 89 mm batt insulation where wood siding is installed. Vapour as originally specified throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal louvers and grilles used throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

B2010.09 Exterior Soffits*

Exterior soffit construction:

- 19 mm cedar siding
- 12.7 mm sheathing
- 89 mm batt insulation
- 38 x 89 mm studs @ 400 mm oc
- Vapour barrier as specified

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

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

Anodized aluminum windows used throughout the building

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Aluminum Windows (Glass & Frame)**

Recommendation:

Replace approx. 140 m2 of anodized aluminum windows.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$222,800	Unassigned

Updated: MAR-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)-1993 Addition**

Anodized aluminum windows.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	40	MAR-10

Event: Replace Aluminum Windows (Glass & Frame)**

Recommendation:

Replace approx. 6 m2 of anodized aluminum window.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$9,600	Unassigned

Updated: MAR-10

B2020.03.06 Sloped Glazing Assemblies**

Anodized sloped windows over basement cafeteria and emergency entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

Event: Replace Sloped Glazing Assemblies**

Recommendation:

Replace approx. 60 m2 of sloped glazing.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$102,100	Unassigned

Updated: MAR-10

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Aluminum framed doors located at the ends of corridors throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Aluminum-Framed Doors**

Recommendation:
Replace 3 doors.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$13,700	Unassigned

Updated: MAR-10

B2030.01.06 Automatic Entrance Doors**

Automatic entrance doors with overhead sensors are located at the main building entrance and at the Emergency Entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-10

Event: Replace Automatic Entrance Doors**

Recommendation:
Replace four automatic entrance doors - two exterior and two interior.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$72,900	Unassigned

Updated: MAR-10

B2030.02 Exterior Utility Doors**

Painted metal and wood doors in painted metal frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Exterior Utility Doors**

Recommendation:
Replace 10 exterior utility doors.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$12,300	Unassigned

Updated: MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

Roof deck insulation 50 mm rigid insulation with vapour barrier as specified.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	25	MAR-10

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

Modified Bituminous Membrane Roofing (SBS) on all roof areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	25	MAR-10

Event: Replace SBS Roofing **

Recommendation:

Replace approx. 2605 m2 of roofing membrane.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$639,500	Unassigned

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts**

Prefinished metal downspout on east wall from lower roof section by main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

Event: Replacement Metal Gutters and Downspouts**

Recommendation:

Replace 4 lineal meters of prefinished metal downspout.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$200	Unassigned

Updated: MAR-10

B3020.01 Skylights**

Glazed bubble skylight located above a waiting area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10



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Event: Replace Skylight**

Recommendation:

Replace one glazed bubble skylight, approx. 5 m2.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$16,400	Unassigned

Updated: MAR-10

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

Prefinished metal vents used throughout the buliding.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	25	MAR-10

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior fixed partitions consist of concrete block mostly in the basement or steel stud framed wall with drywall throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

C1010.05 Interior Windows*

Painted metal framed glazing units used throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	80	MAR-10

C1010.07 Interior Partition Firestopping*

Firestopping at fire separations throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

C1020.01 Interior Swinging Doors (& Hardware)*

Wood finished (paint or clear finish) doors in painted metal frames throughout the building. Institutional quality hardware used throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

C1020.03 Interior Fire Doors*

Rated doors in rated metal frames with appropriate exit hardware used throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

C1030.01 Visual Display Boards**

White boards and tackboards used in meeting rooms and various location throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-10

Event: Replace Visual Display Boards**

Recommendation:

Replace approx. 15 whiteboards and tackboards.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$14,100	Unassigned

Updated: MAR-10

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

Prefinished metal shower and toilet partitions used in staff locker rooms and doctor areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Fabricated Compartments(Toilets/Showers)**

Recommendation:

Replace approx. 6 prefinished metal shower and toilet partitions.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$19,100	Unassigned

Updated: MAR-10

C1030.05 Wall and Corner Guards*

Plastic corner and wall guards used throughout the main floor care wings at door entrance and wall corners.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	15	MAR-10

C1030.06 Handrails*

Plastic handrails located in main floor public and patient corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-10

C1030.08 Interior Identifying Devices*

Plastic embossed door and wayfinding signage used throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-10

C1030.10 Lockers**

Prefinished metal lockers in staff rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Lockers**

Recommendation:
Replace 46 lockers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$37,700	Unassigned

Updated: MAR-10

C1030.12 Storage Shelving*

Metal and wood shelving units used in storage rooms throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

C1030.14 Toilet, Bath, and Laundry Accessories*

Institutional quality fixtures used throughout the the facility. Fixtures in the Acute Care and Long Term Care wings upgraded in 1997.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

C2010 Stair Construction*

Two sets stairs from the basement to the main floor. One is of concrete construction the other is painted steel with concrete pan. Both have painted metal handrails. The mechanical mezzanine access stair is steel construction with steel mesh treads and metal handrail.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

C2020.05 Resilient Stair Finishes**

Resilient stair treads, nosing and risers on the two stairs from basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

Event: Replace Resilient Stair Finishes**

Recommendation:

Replace approx. 15 m2 of resilient stair finishes.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$1,700	Unassigned

Updated: MAR-10

C2020.08 Stair Railings and Balustrades*

Painted metal handrails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

C3010.01 Concrete Wall Finishes (Unpainted)*

Concrete walls in mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

C3010.02 Wall Paneling**

T & G cedar wall paneling in Staff Cafeteria, Skylight in main floor waiting area and at main entrance waiting area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Wall Paneling**

Recommendation:

Replace approx. 170 m2 of cedar wall paneling.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$20,100	Unassigned

Updated: MAR-10

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

Gypsum board wall finishes typical throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	60	MAR-10

C3010.06 Tile Wall Finishes**

Tile wall finishes in Acute Care and Long Term Care Bath areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	40	MAR-10

Event: Replace Tile Wall Finishes**

Recommendation:

Replace approx. 100 m2 of ceramic wall tile.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$36,400	Unassigned

Updated: MAR-10

C3010.11 Interior Wall Painting*

Painted drywall, concrete block and concrete wall surfaces throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	10	MAR-10

C3020.01.01 Epoxy Concrete Floor Finishes*

Epoxy floor finish with integral cove base in kitchen, laundry, cart cleaning, dishwashing and operating room suite.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

C3020.01.02 Paint Concrete Floor Finishes*

Painted concrete floor in the mechanical room and basement storage rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	10	MAR-10

C3020.02 Tile Floor Finishes**

Ceramic floor tile in Acute Care Wing bathrooms, Acute Care and Long Term Care Bath Areas and at the main entrance vestibule.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	50	MAR-10

Event: Replace Tile Floor Finishes**

Recommendation:

Replace approx. 85 m2 of ceramic floor tile finish.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2047	\$20,100	Unassigned

Updated: MAR-10

C3020.07.01 Resilient Tile Flooring**

Resilient tile flooring used in the basement corridors and staff lunch room and storage and service rooms

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

Event: Replace Resilient Tile Flooring*

Recommendation:

Replace approx. 495 m2 of resilient tile flooring.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$36,000	Unassigned

Updated: MAR-10

C3020.07.02 Resilient Sheet Flooring**

Resilient sheet flooring used throughout the main floor patient rooms, corridors and treatment areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	20	MAR-10

Event: Replace Resilient Flooring**

Recommendation:

Replace approx. 1650 m2 of resilient sheet flooring.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$195,100	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring**

Carpet used throughout the administration area of the Healthcare Centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	15	MAR-10

Event: Replace Carpet Flooring**

Recommendation:

Replace approx. 170 m2 of carpet flooring.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$15,500	Unassigned

Updated: MAR-10

C3030.01 Concrete Ceiling Finishes (Unpainted)*

Exposed unpainted concrete tees in basement storage rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	100	MAR-10

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Gypsum wall board ceilings in storage areas, washrooms and bathrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	60	MAR-10

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

610 x 610 mm suspended t-bar ceiling typically used throughout the building in corridors, office areas and patient rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	25	MAR-10

Event: Replace Acoustic Ceiling Treatment (Susp.T-Bar)**

Recommendation:

Replace approx. 2100 m2 of acoustic ceiling system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$132,600	Unassigned

Updated: MAR-10

C3030.07 Interior Ceiling Painting*

Painted drywall and concrete ceiling surface throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

D1010.01.02 Hydraulic Passenger Elevators**

One passenger elevator connecting the basement with the main floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Hydraulic Passenger Elevators**

Recommendation:

Refurbish one passenger elevator.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$112,800	Unassigned

Updated: MAR-10

D1010.01.04 Hydraulic Freight Elevators**

One freight elevator connecting the basement with the main floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Hydraulic Freight Elevators**

Recommendation:

Refurbish one freight elevator.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$100,100	Unassigned

Updated: MAR-10

S4 MECHANICAL

D2010.04 Sinks**

600X600 mop sinks, molded stone, floor mounted.
 Single and double compartment stainless steel sinks complete with lever handles.
 316 Gauge stainless steel sinks serving Labs.
 Stainless steel commercial sinks serving Kitchen.
 Shampoo sinks.
 Laundry tub sinks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Approx. 50 Sinks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$125,000	Unassigned

Updated: MAR-10

D2010.05 Showers**

Handicap shower stalls, acrylic tub with chrome grab bars and folding seat. Thermostatic mixing valve, pressure balanced.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace Approx 18 Showers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$55,000	Unassigned

Updated: MAR-10

D2010.06 Bathtubs**

Assisted bath tub Bowl complete with automatic lift system, disinfections system, locking door, thermoscopic mixing valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace 2 Assisted Bathtubs

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$40,000	Unassigned

Updated: MAR-10

D2010.08 Drinking Fountains / Coolers**

Stainless steel and vitreous china wall hung drinking fountains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	35	MAR-10

Event: Replace Approx. 4 Drinking Fountains / Coolers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$20,000	Unassigned

Updated: MAR-10

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

WC - Floor mounted, vitreous china, open front seat, flush valve.

LV - Vitreous china, wall hung or enameled steel countertop lavatories c/w two handle faucets or infrared faucets.

UR - wall mounted, vitreous china with flush valve.

Some fixtures upgraded over the years, no dates available.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	35	MAR-10

Event: Replace Approx. 60 Washroom Fixtures (WC, Lav, Urnl)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$120,000	Unassigned

Updated: MAR-10

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	1974	40	MAR-10

D2020.01.02 Valves: Domestic Water**

Domestic water distributed to commercial flush valve fixtures installed throughout the building.

Ball and globe type isolation valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Valves Domestic Water. B.O.E. \$2,500.00 / 50mm isolation valve, \$500.00 per washroom isoation set.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$200,000	Unassigned

Updated: MAR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Reduced pressure backflow preventors serving incoming domestic water line.
 Double check valve assembly on fire line from siamese connection.
 Backflow prevention installed on boiler make-up water, AC system, sanitary lift station.
 Vacuum breakers serving NFHB.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-10

Event: Replace Backflow Preventors. B.O.E. - 200mm BFP
= \$25,000.00, 150mm BCP = 18,000.00, 100mm BFP
= \$10,000.00, 50mm BFP = \$4,000.00, below 50mm
= \$ 2,000.00

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$155,000	Unassigned

Updated: MAR-10

D2020.02.02 Plumbing Pumps: Domestic Water**

Four in-line domestic hot water recirculation pumps serving domestic hot water systems (60 and 80 deg.C).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

Event: Replace 4 Plumbing Pumps: Domestic Water

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$18,000	Unassigned

Updated: MAR-10

D2020.02.04 Domestic Water Conditioning Equipment**

Duplex water softener package complete with brine tank and two resin tanks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

Event: Replace Domestic Water Conditioning Equipment

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$16,000	Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters**

There are two domestic hot water system serving facility, 60deg.C serving suites and 80deg.C serving Laundry and Kitchen.

60deg.C system is served by two package gas fired Raypak 587 boilers operating in parallel, 172kW heating capacity.

80 deg.C system is served by one gas fired Raypak 750 boiler, 220kW heating capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

Event: Replace 3 Domestic Water Heaters and 2 Storage Tanks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$150,000	Unassigned

Updated: MAR-10

D2020.03 Water Supply Insulation: Domestic*

Water piping insulated throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

D2030.01 Waste and Vent Piping*

Cast iron and PVC sanitary lines.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

D2030.03 Waste Piping Equipment*

Grease trap serving Kitchen sinks.

Sump pit complete with duplex pump serving sanitary lift station system.

Sump pit complete with single pump serving weeping tile system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

D2040.01 Rain Water Drainage Piping Systems*

Rain water collection via roof drains and storm water lift station to storm mains.

Cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

D2040.02.04 Roof Drains*

Large dome, sump roof drains with flashing flange and integral gravel stop. Open flow roof drains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

D2040.02.06 Area Drains*

Trench drain serving ramp.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

D2090.10 Nitrous Oxide Gas Systems**

NO and nitrogen gas supply manifolds and tanks are located on NO Room. Unit consists of two banks of high pressure cylinders, pressure relief valve, high pressure header valves and cylinder connection coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace Nitrous Oxide Gas Systems. B.O.E. \$ 3,000.00 per alarm panel, \$700 per outlet, \$17.00 / sq.m for piping distribution and storage bottles.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$200,000	Unassigned

Updated: MAR-10

D2090.11 Oxygen Gas Systems**

The medical supply manifold and tanks are located in basement Oxygen Room. Manifold consists of header connections and pigtailed for oxygen cylinders.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace Oxygen Gas Systems. B.O.E. \$ 3,000.00 per alarm panel, \$700 per outlet, \$17.00 / sq.m for piping distribution and storage bottles.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$200,000	Unassigned

Updated: MAR-10

D2090.13 Vacuum Systems (Medical)**

Vacuum drawn by duplex vacuum pump complete with piping and exhaust mufflers , located in Mechanical Room. Pumps are equipped with guards, automatic water valves, strainer and regulating valves, vacuum gauge, water-air outlet separator, receiver and isolation valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace Vacuum Systems (Medical). B.O.E. \$700 per outlet, \$17.00 / sq.m for piping distribution and \$ 25,000.00 per duplex compressor and accessories.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$200,000	Unassigned

Updated: MAR-10

D2090.16 Medical Air System*

Medical air provided from duplex compressor located in mechanical room. System consists of packaged compressor with low water pressure alarm sensor, fresh air intake filters, aftercooler, refrigerated air dryers, line pressure regulator and main shut-off valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-10

D3010.01 Oil Supply Systems (Fuel, Diesel)*

Supply oil to emergency generator system consists of a main tank, auxiliary tank, transfer pump and level alarm switches. Main fuel oil tank is an underground type, located outside, one auxiliary tank is located in mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	60	MAR-10

D3010.02 Gas Supply Systems*

Pressure gas service for all gas fired appliances. Regulator at each fixture. Steel schedule 40 piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	60	MAR-10

D3020.01.01 Heating Boilers & Accessories: Steam**

One gas fired Holiday K-610-S, 266 kW serving low pressure steam system for humidification. Return water from condensate receiver pump.

B.O.E.:

- Steam Boiler - \$65,000.00
- PRV - \$5,000.0
- Condensate Receiver, steam traps - \$ 45,000.00
- Pumps - \$ 15,000.00
- Valves, gauges and sensors - \$ 25,000.00
- Boiler controllers - \$10,000.00

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	35	MAR-10

Event: Replace Heating Boilers & Accessories: Steam

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$165,000	Unassigned

Updated: MAR-10

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

Total of three gas fired boilers located in Mechanical Room serve hot water heating system. Heating boilers are manufactured by Raypak 329, 965 kW heating input, 772 kW heating output, natural gas. Two base mounted primary heating pumps circulate water via closed loop to heat exchanger and perimeter heating units. Radiation heating and glycol heat exchanger secondary loops are complete with individual base mounted circulation pumps. Each pump is sized for 60% of demand load.

B.O.E.:

- Boilers: \$225,000.00
- Pumps: \$ 35,000.00
- Tanks: \$ 20,000.00
- Valves, strainers, filters, air separators, vents, sensors etc. \$ 45,000.00
- Controllers: \$ 25,000.00

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	35	MAR-10

Event: Replace Heating Boilers Plant and accessories.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$350,000	Unassigned

Updated: MAR-10

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

Insulated boilers vent up through the roof. Combustion air up to code. Common breeching serving all boilers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace Chimneys (&Comb. Air): H.W. Boiler. BOE \$1,200.0 per meter of flue. \$1,500.00 per meter of combustion air duct wit insulation.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$50,000	Unassigned

Updated: MAR-10

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

Chemical pot feeder, by-pass filter, by-pass filter cartridge, in-line flow restrictor device.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

D3030.06.02 Refrigerant Condensing Units - 1974**

Two air cooled condensing units serving DX cooling coils in central ventilation system.

CU-1: Dunham Bush RCU-060T, 214kW, 20,000 l/s. Cooling capacity 61 tons.

CU-2: Dunham Bush RCU-060T, 204kW, 20,000 l/s. Cooling capacity 58 tons.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1974	25	MAR-10

Event: Replace 2 Condensers B.O.E \$1,300 per ton of cooling.

Concern:

Both units deteriorate and show signs of wear. Units require frequent repairs and can fail anytime.

Recommendation:

Replace two condensing units with new. New units to be installed outside on the roof.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$155,000	Medium

Updated: MAR-10

D3030.06.02 Refrigerant Condensing Units - 1997**

Outdoor condensing unit serving Physiotherapy Addition complete with refrigerant piping to air handling unit located in newer Penthouse above the addition.
Trane TTA120, 34.9kW cooling capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	25	MAR-10

Event: Replacement Condensing Unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$75,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution - 1974**

Ventilation system consist of four indoor air handling units located in Penthouse.
All units are manufactured by Mark Hot, complete with supply and return air fans, pre-heat and re-heat coils, summer and winter filters, steam grid humidifier and cooling coils.
AS-1 is 100% fresh air, multizone (8) unit serving operating suites, Labour, Delivery, Recovery Rooms, Nursery, Clean Linen, X-ray on the main floor. Airflow: 2870 l/s.
AS-2 serves main floor treatment and examination rooms, offices and administration areas. Airflow: 4870 l/s.
AS-3 serves Wards, Corridors and rooms in NW wings of main floor. Airflow: 4900 l/s.
AS-4 is 100% fresh air serving Basement. Airflow: 6940 l/s.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace 4 Air Handling Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$750,000	Unassigned

Updated: MAR-10

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

One air handling units serving Physiotherapy Addition manufactured by Trane, complete with supply and return air fans, pre-heat and re-heat coils, summer and winter filters, steam grid humidifier and cooling coils. Airflow capacity 1370 l/s.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace Air Handling Unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$150,000	Unassigned

Updated: MAR-10

D3040.01.03 Air Cleaning Devices:Air Distribution*

Replaceable media filters serving air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

D3040.01.04 Ducts: Air Distribution*

Majority of air distribution systems are insulated galvanized steel ducts installed in the ceiling spaces and distributed via ceiling diffusers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

The majority of air outlets throughout the various wings of the facility are square cone ceiling diffusers or wall mounted louver face grilles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

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

Steam generator complete with feed lines, receiver tank with pumps, blow down tank, high pressure steam lines distribution, storage tank, still, cold water supply etc.
 Steam supply to humidifiers serving air handling units.
 Return water from condensate receiver pumped via Skidmore 10M-62 pump.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Steam Distribution Systems: Piping/Pumps

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$150,000	Unassigned

Updated: MAR-10

D3040.03.01 Hot Water Distribution Systems**

Steel and copper piping distribution from mechanical room to secondary loops .
100mm diameter HWS and HWR loop to perimeter radiation and unit heaters.
All piping in ceiling space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Hot Water Distribution Systems B.O.E.
\$93/ sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$400,000	Unassigned

Updated: MAR-10

D3040.04.01 Fans: Exhaust**

Axial tube central exhaust system consisting of five exhaust fans located in Penthouse mechanical room. Exhaust fans serve Kitchen, Washrooms, Morgue, Elevator Machine Room, Workshop, Patient Rooms, Operating Room and other related areas. All exhaust fans are manufactured by Chicago Blower and have capacities from 1700 l/s to 3,600 l/s.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace 5 Central Exhaust Fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$35,000	Unassigned

Updated: MAR-10

D3040.04.03 Ducts: Exhaust*

Galvanized exhaust ducts are located throughout the ceiling spaces as required from the washrooms, other special areas and general exhaust.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	50	MAR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Metal exhaust grilles of various types and sizes are located throughout the ceiling areas of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

D3040.05 Heat Exchangers - 1974**

Taco 12220-12L shell tube heat exchanger serving boiler plant, complete with 150mm diameter water/glycol connections. Glycol side served by two base mounted circulation pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace 1 Heat Exchanger

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$20,000	Unassigned

Updated: MAR-10

D3040.05 Heat Exchangers - 2000**

Taco G84 shell tube heat exchanger serving ramp snow melt system served by one circulation pump Taco V12006.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	30	MAR-10

Event: Replace 1 Heat Exchanger

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$20,000	Unassigned

Updated: MAR-10

D3050.03 Humidifiers**

Steam grid humidifiers serving Air Handling Units. Dryomatic HC-2.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	25	MAR-10

Event: Replace 3 Humidifiers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$60,000	Unassigned

Updated: MAR-10

D3050.05.02 Fan Coil Units**

Ceiling and wall mounted, recessed force flow heaters serving vestibules complete with hot water heating coils and control valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace 8 Fan Coil Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$32,000	Unassigned

Updated: MAR-10

D3050.05.03 Finned Tube Radiation**

Perimeter wall fin radiation complete with various type enclosure cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Finned Tube Radiation B.O.E. \$50.00 / sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$200,000	Unassigned

Updated: MAR-10

D3050.05.06 Unit Heaters**

Cabinet horizontal and vertical discharge, propeller, hot water unit heaters serving Mechanical Room, Stairway, Entrances, Kitchen and Laundry Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	30	MAR-10

Event: Replace 6 Unit Heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$24,000	Unassigned

Updated: MAR-10

D3050.05.08 Radiant Heating (Floor)**

Ramp snow melt system complete with two zone manifolds and heating loops distribution. One circulation pump Taco model V12006, 3.22 l/s at 66 kPa.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	35	MAR-10

Event: Replace Ramp Snow Melt System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$30,000	Unassigned

Updated: MAR-10

D3060.02.02 Pneumatic Controls**

Pneumatic thermostats and control valves.
Duplex air compressors complete with refrigerated dryers. Honeywell NLBK-5550.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Install DDC building control system

Concern:
Improve building control and efficiency with respect to mechanical systems
Recommendation:
Install a building control system and service building pneumatic controls

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2012	\$155,000	Medium

Updated: MAR-10

Event: Replace Pneumatic Controls

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$90,000	Unassigned

Updated: MAR-10

D4010 Sprinklers: Fire Protection*

Basement area sprinklered as per NFPA13. Automatic sprinkler system consists of wet pipes. Automatic wet pipe sprinkler alarm valve.
Fire department connection at the front entrance. Fire line to two sprinkler tree located in Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	60	MAR-10

D4020 Standpipes*

Wet standpipe system complete with 50mm main and fire hose cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	60	MAR-10

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	1974	30	MAR-10

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

Kidde kitchen fire suppression system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-10

Event: Replace Dry Chemical Fire Extinguishing Systems (Kitchen Hood)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$45,000	Unassigned

Updated: MAR-10

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)**

Dry type step up transformer has been provided in the electrical room. The transformer is rated at 150 kVA, 208V to 480V. The transformer is used for the X-ray machine.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2007	40	MAR-10

Event: Replace Secondary Electrical Transformers (Interior)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2047	\$50,000	Unassigned

Updated: MAR-10

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

A Federal Pioneer main distribution centre has been provided in the electrical room in the basement. It is fed underground from an on-site pad mounted transformer located on the west side of the building. The distribution centre is rated at 1600 Amps, 120/208V, 3 phase, 4 wire, and is complete with a 1600 Amp main breaker and a feeder breaker distribution section. Feeder breakers feed various loads in the building including CDPs, breaker panels and mechanical equipment. Feeders breakers are adequately identified and there is spare capacity for the addition of future breakers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	40	MAR-10

Event: Replace Main Electrical Switchboards (Main Distribution)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$150,000	Unassigned

Updated: MAR-10

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

Approximately 12 branch circuit panel boards have been provided throughout the facility. Panels generally have spare breaker capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

Event: Replace Electrical Branch Circuit Panelboards (Secondary Distribution)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$25,000	Unassigned

Updated: MAR-10

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

120/208V central distribution panels, (CDPs) have been provided for sub distribution. The CDPs feed the various 120/208V breaker panels that are located throughout the facility. A Cutler Hammer 2100 motor control centre, (MCC) has been provided for motor control. The MCC is located the penthouse. MCC is complete with combination type magnetic motor starters, pilot lights and selector switches. MCC has spare starter capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

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

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$35,000	Unassigned

Updated: MAR-10

D5020.01 Electrical Branch Wiring*

All wiring is copper and is installed in conduit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	50	MAR-10

D5020.02.01 Lighting Accessories (Lighting Controls)*

Line voltage switches have been provided for lighting control. Each area is locally controlled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

D5020.02.02.02 Interior Florescent Fixtures**

Lighting is provided by fluorescent fixtures. Depending on the ceiling type and system, fixtures are either of the recessed type, surface mounted or suspended mounted. Fixtures are complete with energy efficient T8 lamps and electronic ballasts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	30	MAR-10

Event: Replace Interior Florescent Fixtures

Recommendation:

Basis of Estimate: Quantity of fixtures based on building area.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$175,000	Unassigned

Updated: MAR-10

D5020.02.03.01 Emergency Lighting Built-in*

Emergency lighting is provided by feeding selected light fixtures with emergency power. These include fixtures in the hall ways, corridors, common areas, etc.. All paths and points of egress are well illuminated.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	35	MAR-10

D5020.02.03.03 Exit Signs*

Exit signs have been provided at each required exit. Exit lights are with LED lamps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

D5020.02.11 Operating Room Lighting*

Operating rooms have been provided with operating lights. Lights utilize incandescent lamps and wall mounted controls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	0	MAR-10

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Exterior lighting is provided by wall mounted fixtures rated at 70 Watts. Fixtures are controlled by the exterior lighting control system (photo-cell).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

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

Exterior lighting is controlled by photo-cell. The control system is located in the electrical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1974	30	MAR-10

D5030.01 Detection and Fire Alarm**

A hard-wired 2 stage system has been provided, consisting of heat detectors, smoke detectors, manual pull stations, and bells, all inter-connected to form a complete and operating system. Main control panel is located in the mechanical room, with a remote annunciator in the main entrance vestibule and one at the 2nd floor reception. . The system is the product of Edwards 6500. The system is tested annually and externally monitored.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1974	25	MAR-10

Event: Replace Detection and Fire Alarm

Concern:

Fire alarm system is no longer manufactured or supported. Parts are no longer available and becoming increasingly difficult to obtain.

Recommendation:

Replace the fire alarm system with a new addressable system, complete with horn/strobe units, etc...

Consequences of Deferral:

System could fail and the facility would be without a fire alarm system,

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$150,000	High

Updated: MAR-10

D5030.02.04 Video Surveillance**

A CCTV system has been provided and it consists of 16 cameras, TV monitors located in the nurses stations. A digital recording system has been provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	25	MAR-10

Event: Replace Video Surveillance

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$45,000	Unassigned

Updated: MAR-10

D5030.04.01 Telephone Systems*

Telephone service has been provided and it is underground, with the terminal board located in the electrical room. Telephone cabling has been provided throughout the facility. A Meridian Nortel telephone system has been provided for the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1998	25	MAR-10

D5030.04.03 Call Systems**

The nurse call system is the product of Rauland Model RAKBK400, with the head end equipment located in the night pharmacy. The system has voice communication capabilities and is complete with bedside call stations, bathroom call stations, dome lights located outside the patient rooms, duty stations, staff stations, and desk consoles at the nurses stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	25	MAR-10

Event: Replace Call Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$200,000	Unassigned

Updated: MAR-10

D5030.04.04 Data Systems*

Cat 5 data cabling has been provided, with data outlets in the administration areas, patient rooms, and the nurses stations. The network is located in the electrical room and is provided with data racks containing patch panels, data switches and hubs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	25	MAR-10

D5030.05 Public Address and Music Systems**

A 120 Watt, paging amplifier has been provided in the administration area and is interfaced with the telephone system for paging purposes. Speakers have been provided throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	25	MAR-10

Event: Replace Public Address and Music Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$45,000	Unassigned

Updated: MAR-10

D5030.06 Television Systems*

TV service has been provided, with the terminal board located in the mechanical room . Sub TV terminal boards have been provided in the sub electrical rooms. From the sub room, TV service is distributed to each patient room and other common areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1988	20	MAR-10

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

A Cummins diesel fired engine-generator set has been provided to supply power to the facility in the event of utility power failure. The engine-generator set is rated at 150kW, 120/208V, 3 phase, 4 wire, and is complete with an automatic transfer switch, battery charger, and block heater. The system is located in the penthouse which also contains the 1200 litre fuel tank, with a containment dyke. An emergency power distribution system has been provided with breaker panels in strategic locations. Selected light fixtures and selected mechanical equipment are supplied with emergency power. The emergency power system is tested on a monthly basis.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1988	35	MAR-10

Event: Replace Packaged Engine Generator Systems (Emergency Power System)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$15,000	Unassigned

Updated: MAR-10

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.06 Commercial Laundry and Dry Cleaning Equipment*

Commercial washer and dryers located in the basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

E1020.07 Laboratory Equipment*

Medical lab equipment in laboratory.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	25	MAR-10

E1020.08 Medical Equipment*

Operating table and medical exam tables in Operating Room area of Healthcare Centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	25	MAR-10

E1090.03 Food Service Equipment*

Commercial quality kitchen and food prep equipment with walk-in freezers and fridge in the kitchen area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	25	MAR-10

E1090.04 Residential Equipment*

Residential quality appliances in the kitchen area of the large multi-purpose room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	10	MAR-10

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Weight machine and tread mill located in the Physio Treatment area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	15	MAR-10

E2010.02 Fixed Casework**

Main floor fixed casework consists of plastic laminated counter tops with painted wood bases or plastic laminated bases for reception and work desks. In the basement there is a combination of plastic laminated covered units with the kitchen and decontamination area having stainless steel counter tops.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	35	MAR-10

Event: Replace Fixed Casework**

Recommendation:

Replace approx. 150 lineal metres of fixed casework.
 Replace approx. 12 lineal metres of stainless steel casework.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$195,800	Unassigned

Updated: MAR-10

E2010.03.01 Blinds**

Vinyl vertical blinds in the 1993 Addition and administration area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-10

Event: Replace Blinds**

Recommendation:

Replace approx. 35 m2 of blinds.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$5,400	Unassigned

Updated: MAR-10

E2010.03.06 Curtains and Drapes**

Curtains located in the Acute Care Wing and former Long Term Care Wing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-10

Event: Replace Curtains and Drapes**

Recommendation:

Replace approx. 100 m2 of curtains.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$15,500	Unassigned

Updated: MAR-10

F1040.05 Liquid and Gas*: Storage Tanks*

Hospital gas storage tank located outside of building in a locked area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	20	MAR-10

F2020.01 Asbestos*

None reported or observed during review.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

F2020.02 PCBs*

None reported or observed during review.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

F2020.04 Mould*

None reported or observed during review.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

F2020.09 Other Hazardous Materials*

No Other Hazardous Materials reported or observed during site review.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Route from barrier free parking stall to main entrance meets current accessibility code requirements.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

K4010.02 Barrier Free Entrances*

Main entrance has automatic openers and meets current code requirements.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

K4010.03 Barrier Free Interior Circulation*

Interior circulation paths/corridors generally meet current accessibility code requirements and provide access to most area of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10

K4010.04 Barrier Free Washrooms*

Barrier free washrooms provided throughout the main floor of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1974	0	MAR-10