

RECAPP Facility Evaluation Report

East Central Health



Hardisty Health Centre

B1094A

Hardisty

Facility Details

Building Name: Hardisty Health Centre
Address: 4351 - 47 Avenue
Location: Hardisty

Building Id: B1094A
Gross Area (sq. m): 0.00
Replacement Cost: \$27,790,403
Construction Year: 0

Evaluation Details

Evaluation Company: A&E Architectural & Engineering Group Inc.
Evaluation Date: August 27 2009
Evaluator Name: Vic Maybroda

Total Maintenance Events Next 5 years: **\$3,156,140**
5 year Facility Condition Index (FCI): **11.36%**

General Summary:

This single storey facility was constructed in 1984 containing 4148.0 sq. M as a prototypical expandable hospital containing one wing. In 2000 the operating theatre was converted into a doctor's clinic and in 2003 an area of the roof was upgraded.

In addition to the patient care wing the facility contains a mental health clinic, an emergency admitting area with ambulance bay, a diagnostic area, radiology, laboratory, administration and support spaces.

Structural Summary:

Roof framing consists of metal deck on metal joists supported by metal beams and columns with structural concrete main floor slab of the central core above the basement area on concrete beams and columns. The hospital care module and basement of the central core consists of concrete slab on grade. Foundation walls are cast in place concrete on strip footings.

Structural elements appear to be in good condition.

Envelope Summary:

Roofing consists of built-up asphalt and SBS membrane. Roof penthouse structure is housed in prefinished metal cladding. Walls are composed of face brick housing sealed fixed and opening aluminum framed window units, aluminum framed curtain wall, aluminum framed storefronts and painted metal clad man and overhead doors in metal frames.

Observed elements appear to be in acceptable condition.

Interior Summary:

Flooring is composed of ceramic tile, sheet vinyl, carpeting, epoxy and painted concrete. Walls are painted concrete block and gypsum wallboard and ceramic tile. Ceilings consist of suspended acoustical tile, suspended lineal metal, and painted gypsum wall board. Doors are painted wood and metal clad fire doors in metal frames with sealed glazing units in metal frames located in administration areas.

Millwork consists of plastic laminated counter tops and stained wood and plastic laminated cabinetry and stained wood corridor railings.

Exterior window are covered with vertical louvered blinds and fabric curtains.

Overall the interior elements appear to be in good condition.

Mechanical Summary:

Ventilation is provided by four air handling units located in Penthouse and Mechanical Room.

Air distribution system is via medium and low velocity single ductwork to VAV and constant volume boxes, grilles and diffusers.

Air conditioning is provided by indoor centrifugal water chiller and cooling tower.

Heating system includes two natural gas fired boilers and one steam boiler.

Domestic hot water is generated by two hot water tanks fed from the main boilers, which provide 40, 60 and 80 deg.C water. Copper piping distribution to plumbing fixtures complete with domestic hot water recirculation systems.

Controls are pneumatic.

Medical gas systems include the piping, fittings, valves, air compressor and vacuum pumps. Medical oxygen, 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, hand held fire extinguishers and chemical suppression system for kitchen exhaust canopy.

Sanitary and storm services to Town's mains.

Domestic water supplied from Town's main.

Natural gas service to gas fired appliances.

Control system require replacement with new DDC system.

Overall mechanical system is in good condition.

Electrical Summary:

The facility was originally built in 1984 and there is no major renovation was done since then. The main service is 347/600V, 3 phase, 4 wire and rated 1600A. The service is underground fed from pad mounted transformer. Central and localized dry type transformers further covert to 120/208V for use with lighting, receptacles and other single and three phase equipment. Emergency power was provided by one 500KVA diesel generators.

The Motor control equipment was centralized in 600V 3 phase MCC, located in mechanical room and some small mechanical loads were controlled by individual load switches or magnetic starters

The interior fluorescent light fixtures were mixed with T-5, T-8 and T-12 lamp fixtures. The replacing and retrofitting T-12 fixtures have been in progress as per funding availability. The exterior lighting system is combined wall packs around building perimeter and pole mounted lights in the parking lot.

The fire alarm system is in progress to be replaced in next half year; the Nurse call, cable TV System and PA systems meet current facility requirements. The telephone system was upgraded recently, but the master clock system has been deteriorating steadily, as a result the slave clocks were replaced by commercial electric and battery clocks. A local area network provides the hospital with computer services for the operation of the facility and ties to Alberta Health Services through Supernet.

The overall rating for the facility shall be "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*

Cast in place concrete foundation walls with strip footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	100	MAR-10

A1030 Slab on Grade*

Located in the basement area and main floor of the patient wing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	100	MAR-10

A2020 Basement Walls (& Crawl Space)*

Cast in place concrete with strip footings and concrete piers on concrete pads located in the crawl space area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	100	MAR-10

B1010.01 Floor Structural Frame (Building Frame)*

Structural concrete slab over basement area supported by concrete columns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	100	MAR-10

B1010.03 Floor Decks, Slabs, and Toppings*

Floor deck is provided by the structural concrete floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	100	MAR-10

B1010.09 Floor Construction Fireproofing*

Concrete structure provides fire proofing between basement and main floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

B1010.10 Floor Construction Firestopping*

Fire stopping appears to have been addressed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

B1020.01 Roof Structural Frame*

Metal joists on metal beams.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	100	MAR-10

B1020.03 Roof Decks, Slabs, and Sheathing*

Metal decking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

B1020.04 Canopies*

Metal framed canopy over the basement service entry with face brick cladding.
Sloped glazed curtain framing canopy over the main entry.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

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

Face brick cladding.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1984	75	MAR-10

Event: Building Envelope Study**Concern:**

Face brick exhibiting effervescence in numerous areas of the patient care wing.

Recommendation:

Undertake a Building Envelope study to determine air leakage of exterior walls.

Consequences of Deferral:

Deterioration of face brick cladding and possible energy inefficiencies.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2010	\$7,500	High

Updated: MAR-10**Event: Reinsulate 2,000 sq. M Exterior Walls****Concern:**

There does not appear to be any air barrier in effected areas of the patient care wing exterior walls.

Recommendation:

Remove face brick cladding and insulation below window head line install approved air barrier material, insulation and suitable cladding material.

Consequences of Deferral:

Further deterioration of face brick and energy inefficiencies.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2010	\$900,000	Medium

Updated: MAR-10**B2010.01.06.03 Metal Siding****

Prefinished horizontal metal siding applied to mechanical roof top penthouse.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace 362 sq. M Metal Siding

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$123,080	Unassigned

Updated: MAR-10

B2010.01.09 Expansion Control: Exterior Wall Skin* -

Caulked control joints in face brick cladding.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	75	MAR-10

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

Caulked joints around all exterior openings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

Event: Replace 1800 M Joint Sealers (caulking): Ext. Wall

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$63,000	Unassigned

Updated: MAR-10

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

Concrete block to all exterior walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	100	MAR-10

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

Not viewable. Refer to Item B2010.01.02.01 for concerns and applied costs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1984	100	MAR-10

B2010.05 Parapets*

Insulated masonry with prefinished metal flashing over.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal louvres to penthouse and ambulance bay.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

B2010.09 Exterior Soffits*

Prefinished metal.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	50	MAR-10

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

Standard sealed glazing units in aluminum frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace 52 Aluminum Windows (Glass & Frame)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$78,000	Unassigned

Updated: MAR-10

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

Sloped glazing units extending out from exterior wall face located in administration and basement dining area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1984	40	MAR-10

Event: Replace 15 Aluminum Windows (Glass & Frame)

Concern:

Glazing units exhibiting condensation when relative humidity increased above 25% in interior areas.

Recommendation:

Replace glazing units with units of insulated inert gas and non-metallic spacer bars between glazing.

Consequences of Deferral:

Lower humidity levels deterrent to health conditions.
Condensation damaging adjacent interior wall finishes.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2010	\$27,000	Medium

Updated: MAR-10

B2020.02 Storefronts: Windows**

Sealed fixed units in aluminum frames located in patient care lounge areas and at exterior lower level door opening.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace 8 Storefronts: Windows

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$12,000	Unassigned

Updated: MAR-10

B2020.03 Glazed Curtain Wall**

Sloped curtain wall over entry area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace 25 sq. M Glazed Curtain Wall

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$43,750	Unassigned

Updated: MAR-10

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Doors with upper and lower sealed glazing units located at patient care lounges and lower level entry area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 2 Aluminum-Framed Storefronts: Doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$8,000	Unassigned

Updated: MAR-10

B2030.01.06 Automatic Entrance Doors**

Biparting glazed aluminum entry doors with movement sensors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 1 Automatic Entrance Doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$23,000	Unassigned

Updated: MAR-10

B2030.02 Exterior Utility Doors**

Painted metal clad doors and frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	40	MAR-10

Event: Replace 5 Exterior Utility Doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$5,500	Unassigned

Updated: MAR-10

B2030.03 Large Exterior Special Doors (Overhead)*

Prefinished metal clad doors located in ambulance bay and loading dock area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

Not viewable. No concerns observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2003	25	MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

Not viewable. No concerns reported or observed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

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

Located over service core area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace 1520 sq. M Built-up Bituminous Roofing (Asphalt & Gravel)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$327,015	Unassigned

Updated: MAR-10

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

Located over patient care area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	MAR-10

Event: Replace 960 sq. M Modified Bituminous Membrane Roofing (SBS)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$201,600	Unassigned

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts**

Prefinished metal rain water leader connected to scupper in loading dock area canopy.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Rain Water Leader

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$1,000	Unassigned

Updated: MAR-10

B3020.02 Other Roofing Openings (Hatch,Vent, etc)* - 1984 & 2003 Areas

Exhaust housings, plumbing vents and roof drains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	MAR-10

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

Concrete block and metal stud.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

C1010.05 Interior Windows*

Sealed units in painted metal frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	80	MAR-10

C1010.06 Interior Glazed Partitions and Storefronts*

Glazed storefront units located in various areas on the main floor of the service core area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	80	MAR-10

C1010.07 Interior Partition Firestopping*

No concerns observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

C1020.01 Interior Swinging Doors (& Hardware)*

Stained door doors in painted metal frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

C1020.03 Interior Fire Doors*

Rated doors and frames provided to service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

C1030.01 Visual Display Boards**

There are various white and tack boards in the administrative and patient care area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

Event: Replace 32 Visual Display Boards

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$28,800	Unassigned

Updated: MAR-10

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

Prefinished metal toilet partitions located in lower level staff areas of the service core area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replae 2 Fabricated Compartments(Toilets/Showers)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$3,200	Unassigned

Updated: MAR-10

C1030.06 Handrails*

Stained wood wall mounted handrails located in patient care and service core areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

C1030.08 Interior Identifying Devices*

All rooms doors have applied room names and numbers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	20	MAR-10

C1030.10 Lockers**

Prefinished metal lockers located in staff change rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 62 Lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$55,800	Unassigned

Updated: MAR-10

C1030.12 Storage Shelving*

Stained and plastic laminated finished wood shelving units in administrative and service storage areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

C1030.14 Toilet, Bath, and Laundry Accessories*

Public, staff and patient wash rooms equipped with mirrors, toilet paper, soap and paper towel dispensers, waste containers and grab bars.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

C2010 Stair Construction*

Metal pan stairs between lower level and main floor of service core unit and metal stairs to roof penthouse complete with painted metal railings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	100	MAR-10

C2020.08 Stair Railings and Balustrades*

Painted metal.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	40	MAR-10

C3010.06 Tile Wall Finishes**

Located in shower areas of patient rooms and staff rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace 182 sq. M Tile Wall Finishes

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$48,600	Unassigned

Updated: MAR-10

C3010.11 Interior Wall Painting*

Painted gypsum wallboard and concrete block.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	10	MAR-10

C3020.01.01 Epoxy Concrete Floor Finishes*

Located throughout the lower floor level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

C3020.01.02 Paint Concrete Floor Finishes*

Located in mechanical/electrical and workshop room areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	10	MAR-10

C3020.02 Tile Floor Finishes**

Located in patient and staff shower rooms and assisted bath area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

Event: Replace 120 sq. M Tile Floor Finishes

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$24,000	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring**

Sheet vinyl located in all areas of main floor and kitchen/cafeteria/pantry, staff and wash rooms of basement area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

Event: Replace 2840 sq. M Resilient Flooring

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$284,000	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring**

Located in administration areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	15	MAR-10

Event: Replace 85 sq. M Carpet Flooring

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$5,525	Unassigned

Updated: MAR-10

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

Located in all areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace 3160 sq. M Acoustic Ceiling Treatment (Susp.T-Bar)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$173,800	Unassigned

Updated: MAR-10

C3030.07 Interior Ceiling Painting*

Located in wash and service rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

C3030.09 Other Ceiling Finishes*

Lineal metal ceilings located in main entry waiting room area and reception area of radiology section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	50	MAR-10

D1010.01.02 Hydraulic Passenger Elevators**

Hydraulic elevator serving basement and main floors rated at 4000lbs with front and rear door openings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 1 Hydraulic Passenger Elevators

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$100,000	Unassigned

Updated: MAR-10

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

600X600 mop sinks, molded stone, floor mounted , SS strainer.
Single and double compartment stainless steel sinks complete with chrome plated swing spout, aerator, lever handles.
Stainless steel commercial sinks serving Kitchen.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Approx. 44 Sinks

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

Updated: MAR-10**D2010.05 Showers****

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Approx. 16 Showers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$64,000	Unassigned

Updated: MAR-10**D2010.06 Bathtubs****

Fiberglass bathtubs, holders, mixing valves and removable shower heads.
Assisted bath tub Bowl complete with automatic disinfections system, locking door, thermoscopic mixing valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Approx. 40 Bathtubs and 3 Assisted tubs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$128,000	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	1984	35	MAR-10

Event: Replace Approx. 10 Drinking Fountains / Coolers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$40,000	Unassigned

Updated: MAR-10

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

WC - Wall hung, vitreous china, open front seat, flush valve.

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

UR - Wall mounted vitreous china with flush valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	35	MAR-10

Event: Replace Approx. 110 Washroom Fixtures (WC, Lav, Urnl)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$220,000	Unassigned

Updated: MAR-10

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper piping distribution throughout.

Main building shut-off located beside water meter. By-pass complete with sealed valve provided.

Domestic water booster pump station installed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

D2020.01.02 Valves: Domestic Water**

All plumbing fixtures isolated. Shut off valves provided at each fixture. Other isolation valves installed on water mains throughout the building.

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace Domestic Water Valves

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$220,000	Unassigned

Updated: MAR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Reduced pressure backflow preventors serving incoming 150mm diameter domestic water line and fire line.
 Double check valve assembly on 150mm diameter fire line from siamese connection.
 Backflow prevention installed on boiler make-up water.
 Double check valve arrangement serving chilled water system.
 Vacuum breakers serving NFHB.
 Backwater valves installed on 75mm diameter scupper drains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	20	MAR-10

Event: Replace Backflow Preventors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$150,000	Unassigned

Updated: MAR-10

D2020.02.02 Plumbing Pumps: Domestic Water**

Five in-line domestic hot water recirculation pumps serving domestic hot water systems (82, 60&40 deg.C). laundry, kitchen and domestic water pre-heat system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

Event: Replace 5 DHWR Pumps

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$15,000	Unassigned

Updated: MAR-10

D2020.02.04 Domestic Water Conditioning Equipment**

Duplex water softener package complete with brine tank.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2008	20	MAR-10

Event: Replace Domestic Water Conditioning Equipment

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$24,000	Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters**

Domestic hot water heating system consist of two hot water tanks complete with heating coils and 3-way mixing valves. Both tanks have capacity of 1,600l.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

Event: Replace 2 Domestic Water Heaters and Associated Equipment

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

Updated: MAR-10

D2020.03 Water Supply Insulation: Domestic*

All water lines insulated.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

D2030.01 Waste and Vent Piping*

ABS and copper.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

D2030.03 Waste Piping Equipment*

Grease trap serving Kitchen sinks.
Receiver sump complete with pump serving weeping tile system.
Oil interceptor.
Elevator sump pit complete with duplex pump.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

D2040.01 Rain Water Drainage Piping Systems*

Rain water collection via roof drains and storm water piping to splash pads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

D2040.02.04 Roof Drains*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

D2090.11 Oxygen Gas Systems**

24 cylinder bank system located in gas bottle storage room. Oxygen reserve by one of 2, 12 cylinder tanks. System consists of manifold, valves, pressure reducing valves, gas outlets and alarms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Oxygen Gas System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$185,000	Unassigned

Updated: MAR-10

D2090.13 Vacuum Systems (Medical)**

Duplex vacuum pump, receiver tank, valves, vacuum outlets, alarms, controls. System is located in Mechanical Room - lower level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	30	MAR-10

Event: Replace Vacuum Systems (Medical)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$185,000	Unassigned

Updated: MAR-10

D2090.16 Medical Air System*

Water seal rotary type air compressor (triplex), air receiver, refrigerated air dryer, PRV, valves, gas outlets, alarms and controls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

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

Fuel oil supply system from outdoor tank to Boiler Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	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	1984	60	MAR-10

D3020.01.01 Heating Boilers & Accessories: Steam**

One Cleaver Brooks M4W-6000 boiler (1,500 kW heating output) serving low pressure (103kPa) steam system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	35	MAR-10

Event: Replace 1 Heating Boiler & Accessories: Steam

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$160,000	Unassigned

Updated: MAR-10

D3020.01.03 Chimneys (&Comb. Air) : Steam Boilers**

Individual vent up through the roof.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	35	MAR-10

Event: Replace Chimneys : Steam Boiler

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$10,000	Unassigned

Updated: MAR-10

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

Two Cleaver Brooks M4W-6000 Water Tube Boilers, Natural gas, 140 psi, 1290kW heating output each.
 Two base mounted primary heating pumps circulate water via closed loop to heat exchanger and perimeter heating units.
 Radiation heating, ceiling radiant panels and glycol heat exchanger secondary loops are complete with individual bass
 mounted circulation pumps. Each pump is sized for 60% of demand load.

Pumps 1&2 - Paco 4095 - serving primary heating loop.
 Pumps 3&4 - Paco 3095 - serving glycol heating loop.
 Pumps 5&6 - Paco 1570 - serving radiation and re-heat loop.
 Pumps 7&8 - Paco 1595 - serving radiant panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	35	MAR-10

Event: Replace Heating Boiler Plant and Accesories.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$485,000	Unassigned

Updated: MAR-10

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

Insulated boiler vents up through the roof. Combustion air supplied by designated make-up air unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Chimneys H.W. Boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$25,000	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	1984	30	MAR-10

D3030.02 Centrifugal Water Chillers**

One centrifugal liquid chiller complete with three stage compressor and carbon steel plate evaporator. 750 tons cooling capacity.
Multistack MS50Z6C2W.

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

Event: Replace 1 Centrifugal Water Chiller

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$800,000	Unassigned

Updated: MAR-10

D3030.05 Cooling Towers**

Baltimore Air Coil cooling tower, 27,6 l/s water flow, served by two base mounted Paco 3095 circulation pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace Cooling Tower

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$345,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution**

Ventilation system consist of four indoor air handling units located in Mechanical Room and Penthouse. All units are 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 capacities vary from 2,500l/s to 4,000l/s.
AS-1: 24 hr Nursing Module, VAV system.
AS-2: Operating suites - multizone (7 zones) constant volume unit.
AS-3: Mechanical Room combustion air.
AS-4: Patients suites - module 3B.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 4 Air Handling Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$1,500,000	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	1984	30	MAR-10

D3040.01.04 Ducts: Air Distribution*

Overhead ductwork distribution in ceiling space up to SMACNA standards. Constant and variable volume air distribution to terminal units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

Event: Ductwork Cleaning

Concern:

Due to age of ductwork distribution and no ductwork cleaning records available on site a complete throughout ductwork cleaning is recommended.

Recommendation:

Clean air ducts

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2012	\$20,000	Low

Updated: MAR-10

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

Variable volume, single duct boxes, fan powered terminal boxes provide cooling and ventilation with 100% primary air shut-off. Airflow varies from 45 to 500 l/s.

All boxes are manufactured by Titus complete with volume control dampers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace Approx. 100 Air Terminal Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$450,000	Unassigned

Updated: MAR-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Combination of wall mounted grilles, troughers and ceiling square diffusers for supply air application.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

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

Steam generator complete with feed lines, receiver tank with pumps, blow down tank, low pressure steam lines distribution.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace Steam Distribution System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$155,000	Unassigned

Updated: MAR-10

D3040.03.01 Hot Water Distribution Systems**

Steel and copper piping distribution from boilers primary heating loop to secondary loops.
 100mm diameter HWS and HWR loop to perimeter radiation and unit heaters.
 75mm diameter HWS and HWR loop to ceiling radiant panels.
 150mm diameter HWS and HWR loop to hot water/ glycol heat exchanger.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace Hot Water Distribution System B.O.E. \$93.00 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$620,000	Unassigned

Updated: MAR-10

D3040.03.02 Chilled Water Distribution Systems**

CWS and CWR lines serving chiller and cooling tower. 150mm diameter chilled water loop to cooling coils serving air handling units.
 Two base mounted circulation pumps.
 Copper pipes.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace Chilled Water Distribution System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$160,000	Unassigned

Updated: MAR-10

D3040.04.01 Fans: Exhaust**

Various exhaust fans provided within the building to remove air from areas that produce objectionable odors like kitchen, washrooms, garbage rooms, janitor room etc. Total of 14 exhaust fans located on the roof or cabinet exhaust fans inside mechanical rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 14 Exhaust Fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$100,000	Unassigned

Updated: MAR-10

D3040.04.03 Ducts: Exhaust*

Low velocity galvanized steel exhaust ducts up to SMACNA standards. Stainless steel exhaust air ducts serving special exhaust, fume hoods etc.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	50	MAR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate and louver face return grilles are used for exhaust air application.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

D3040.05 Heat Exchangers**

Armstrong shell tube heat exchangers serving domestic hot water and glycol system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 3 Heat Exchangers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$60,000	Unassigned

Updated: MAR-10

D3050.03 Humidifiers**

Sarco steam grid humidifiers serving air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace Humidifiers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$45,000	Unassigned

Updated: MAR-10

D3050.05.02 Fan Coil Units**

Ceiling mounted, recessed force flow heaters serving vestibules.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 10 Fan Coil Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$40,000	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	1984	40	MAR-10

Event: Replace Finned Tube Radiation. B.O.E. \$52/sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$160,000	Unassigned

Updated: MAR-10

D3050.05.06 Unit Heaters**

Trane cabinet horizontal and vertical discharge hot water unit heaters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 10 Unit Heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$40,000	Unassigned

Updated: MAR-10

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

Radiant ceiling panels serving Patients Rooms, 610mm width aluminum linear type, mounted in the T-bar, or GWB ceiling along the perimeter wall.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	35	MAR-10

Event: Replace Ceiling Radiant Panels. B.O.E. \$960/0.5kW.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$265,000	Unassigned

Updated: MAR-10

D3060.02.02 Pneumatic Controls**

Pneumatic thermostats and control valves.
Duplex air compressor complete with refrigerated dryer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1984	40	MAR-10

Event: Replace Control System with New DDC

Concern:

Existing control system is obsolete and can perform only basic functions.

Recommendation:

Replace existing controls with new DDC building management system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$350,000	Medium

Updated: MAR-10

D4010 Sprinklers: Fire Protection*

The building is sprinklered as per NFPA13. Automatic sprinkler system consists of wet pipes. Automatic wet pipe sprinkler alarm valve.
Fire department connection at the front entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	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>
4 - Acceptable	1984	30	MAR-10

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

Range Guard kitchen fire suppression system interlock with kitchen exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

Event: Replace Kitchen Hood Fire Suppression System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$45,000	Unassigned

Updated: MAR-10

D4090.07 Fire Pumps & Water Storage Tanks*

Fire pump complete with jockey pump serving sprinkler system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-10

S5 ELECTRICAL**D5010.02 Secondary Electrical Transformers (Interior)****

There are 12 600V-120/208V, stepdown transformers rated various at 15KVA, 30KVA, 45KVA, 225KVA, 112.5KVA and 75KVA.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	40	MAR-10

Event: Replace 12 Secondary Electrical Transformers (Interior)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$104,000	Unassigned

Updated: MAR-10

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

The distribution panelboard was 347/600V, 3 phase, 4 wire and rated 1600A. The main distribution was underground fed from site padmounted transformer. The 500KVA emergency generator was used to provide emergency power to backup the normal power system

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	40	MAR-10

Event: Replace Main Electrical Switchboards (Main Distribution)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$125,000	Unassigned

Updated: MAR-10

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

The branch panels were mixed with 120/208V and 347/600V. Some panels have isolated grounding for medical equipment. Most panels have 15% space for future uses.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

Event: Replace 34 Electrical Branch Circuit Panelboards (Secondary Distribution)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$204,000	Unassigned

Updated: MAR-10

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

There were two MCC's: one was supplied by normal power and the other was supplied by emergency power; The MCC's were used for major mechanical pumps and ventilation equipment

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

Event: Replace Motor Control Centers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$120,000	Unassigned

Updated: MAR-10

D5010.07.02 Motor Starters and Accessories**

The load switches and magnetic starts were used for some small mechanical loads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

Event: Replace 12 Motor Starters and Accessories

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$6,000	Unassigned

Updated: MAR-10

D5020.01 Electrical Branch Wiring*

Most wirings are original. The wires were installed in the conduits for major runs from panel and junction boxes and Bix wires were used from junction boxes to power and lighting outlets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	50	MAR-10

D5020.02.01 Lighting Accessories (Lighting Controls)*

The line voltage switching was used in patient rooms and low voltage control for the rest of facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

D5020.02.02.01 Interior Incandescent Fixtures*

The pot lights in the common areas

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

D5020.02.02.02 Interior Florescent Fixtures**

The most of fixtures were still T-12 lamp fluorescent fixtures. The placing and retrofitting T-12 with T-8 and T-5 Lamp fluorescent lights were in progress.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

Event: Replace 2160 Interior Florescent Fixtures

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$432,000	Unassigned

Updated: MAR-10

D5020.02.03.03 Exit Signs*

All the fixtures were original. Some incandescent lamps were replaced with LED type lamps

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The wall packs were installed around building perimeter and pole mounted lights in the parking lot.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

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

The outdoor lighting was controlled by photocell

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	30	MAR-10

D5030.01 Detection and Fire Alarm**

The Simplex hard wired zoning panel was used for fire alarm system. The system will be replaced in next half year.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace Detection and Fire Alarm

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

Updated: MAR-10

D5030.02.02 Intrusion Detection**

The Simplex panel was used for intrusion detection system and has door contractors installed at all the exterior doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace Intrusion Detection

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$108,000	Unassigned

Updated: MAR-10

D5030.02.03 Security Access (Wandguard)**

The Wandguard system was installed for all the doors around long term care areas and has wrist bands available for all long term patients.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	MAR-10

Event: Replace Security Access (Wandguard)

Concern:

Obsolete

Recommendation:

Upgrade patient safety system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$35,000	Unassigned

Updated: MAR-10

D5030.02.04 Video Surveillance**

The EVERPLEX 4CQ was used for video surveillance system and 4 Cameras installed to monitor main entrance, long term care, staff entrance and ambulance access door.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	MAR-10

Event: Replace Video Surveillance

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$40,000	Unassigned

Updated: MAR-10

D5030.03 Clock and Program Systems*

The Simplex 2350 master clock control panel was installed and has slave clocks installed through entire facility hallways and common areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

D5030.04.01 Telephone Systems*

The NEC Univerge NEAX 2000IPS panel was used for telephone system and tied with nurse call system to perform facility paging functions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	MAR-10

D5030.04.03 Nurse Call Systems**

The Rauland-Borg nurse call system was installed and has two control station located at main nurse and emergency stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	MAR-10

Event: Replace Nurse Call Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$216,000	Unassigned

Updated: MAR-10

D5030.04.04 Data Systems*

One server was installed for the facility and tied to Alberta Health Services through Supernet.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	MAR-10

D5030.04.05 Local Area Network Systems*

Combine Cat 5e and Cat 6 wires were used for network system and has data outlets installed through entire offices and nurse stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	15	MAR-10

D5030.05 Public Address and Music Systems**

The Inter A-120 AMP was used for PA system and tied to phone system for building paging system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

Event: Replace Public Address and Music Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$54,000	Unassigned

Updated: MAR-10

D5030.06 Television Systems*

The TV outlets were installed in each patient rooms and common areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	20	MAR-10

D5030.07 Other Communications and Security Systems*

The Supernet was used for data system connection to Alberta Health Services

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	0	MAR-10

D5090.01 Uninterruptible Power Supply Systems**

The stand alone UPS unit was used for server computer only.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	30	MAR-10

Event: Replace Uninterruptible Power Supply Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$5,000	Unassigned

Updated: MAR-10

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

500 KVA diesel generator was installed for emergency power system

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	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	2019	\$320,000	Unassigned

Updated: MAR-10

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1010.06 Commercial Laundry and Dry Cleaning Equipment***

Located in the basement of service core area contains two commercial washing machines, two commercial clothes dryers, layout tables and storage cubicles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

E1020.07 Laboratory Equipment*

Fume hood located in diagnostic laboratory.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

E1030.03 Loading Dock Equipment*

Hydraulic operated load lever located in loading dock.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

E1090.03 Food Service Equipment*

Kitchen facility is located in the basement area of the service core and serves hospital staff through a cafeteria operation.

The kitchen is equipped with:

2 natural gas ranges with exhaust hood over
kettle steamer unit
refrigeration table
plate bowl dispenser
dishwasher
hot water booster
pot sink
work table with sink
coffee maker
waste disposal unit
work tables

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	25	MAR-10

E1090.04 Residential Equipment*

Lounge areas in patient area contain electric range, refrigerator, microwave, sink in plastic laminated counter with stained wood cabinetry.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	10	MAR-10

E2010.02 Fixed Casework**

Fixed casework contains plastic laminated counter tops and wood and plastic laminated cabinetry in patient rooms, laboratory areas, staff and administration areas.

Replacement cost @ \$125/sq. M = \$518,500.00

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	35	MAR-10

Event: Replace Fixed Casework**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$518,500	Unassigned

Updated: MAR-10

E2010.03.01 Blinds

Exterior windows covered with vertical louvered blinds and fabric curtains/valences and interior window in administration and similar space contain horizontal venetian blinds.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-10

Event: Replace 550 sq. M Blinds

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$82,500	Unassigned

Updated: MAR-10

E2010.04 Fixed Floor Grilles and Mats*

Floor grill located in main entry vestibule.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

F2020.01 Asbestos* -

No asbestos observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	0	MAR-10

F2020.04 Mould*

No mould conditions observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

F2020.09 Other Hazardous Materials*

No other hazardous materials observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-10

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Hard surfaced level surface to main entry.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	0	MAR-10

K4010.02 Barrier Free Entrances*

Power operated biparting main entry doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	0	MAR-10

K4010.03 Barrier Free Interior Circulation*

Wide internal corridors with wall mounted handrails and doors equipped with pulls and/or lever handles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	0	MAR-10

K4010.04 Barrier Free Washrooms*

There are BFA wash rooms in all areas of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1984	0	MAR-10