RECAPP Facility Evaluation Report

Alberta Health Services-Central

Wainwright Health Centre

B1183A

Wainwright

Report run on: March 22, 2013 10:12 AM

Facility Details

Building Name: Wainwright Health Centre
Address: 536 - 6 Avenue
Location: Wainwright

Building Id: B1183A
Gross Area (sq. m): 8,639.00
Replacement Cost: $53,682,420
Construction Year: 0

Evaluation Details

Evaluation Company: PBK Architects/GENIVAR
Evaluation Date: January 31 2013
Evaluator Name: Allan Suddards, PBK Architects

Total Maintenance Events Next 5 years: **$8,064,730**
5 year Facility Condition Index (FCI): **15.02%**

General Summary:

The two storey 1971 section of the Wainwright Health Centre (1400 Sqm main floor & 1488 Sqm upper floor) consists of an acute care general hospital providing 25 acute care beds supported by a surgical program, medical laboratory, X-ray and ultrasound services, emergency department, offices, staff change rooms & records storage.
In 1984 a 70 bed 4060m2 single storey continuing care facility was added along with renovations to the original building. The basement (1427 m2) was developed for support services: laundry, kitchen, cafeteria, materiel management and housekeeping. A 263m2 mechanical penthouse is located over the central core.
The overall gross floor area is 8639 Sqm.
Interior renovations, mainly within the 1971 section, were undertaken from 1995 to 2006 to upgrade the second floor patient room washrooms, central service spaces and mechanical upgrades.

Structural Summary:

The 1971 section foundation system consists of poured reinforced concrete piles carrying grade beams. The building frame consists of open web steel joists spanning concrete bond beams in load bearing block walls or steel beams. Second floor is mesh reinforced 75mm concrete slab on metal deck. Roof consists of metal deck.

The 1984 section foundation system consists of poured reinforced concrete piles carrying grade beams. The west section of the 1984 wing has a basement of poured concrete foundation walls on footings and a floor over which consists of a system of 110mm concrete floor slab and 450mm deep concrete ribs. The building frame consists of steel beam, column and joists with metal roof deck in flat and sloped applications.

The structure of both sections are in acceptable condition.

Envelope Summary:

The 1971 wall system consists of a brick skin with a concrete block back wall which has metal strapping and rigid insulation and vapour barrier. The windows are aluminum and were replaced in 1984. The 1984 section roof is concrete tiles over the resident room and SBS over the support areas. The walls are brick skin, rigid insulation on gypsum board on steel studs with batt insulation, poly vapour and drywall interior finish. The windows and doors are aluminum.

The building envelope is acceptable condition.

There are issues with sealing at doors and windows throughout.

Interior Summary:

The finishes are categorized mainly into 3 area by year of build or renovation: The second floor finishes are mainly from 1971 with subsequent renovations from 1995-2006. The main floor finishes are mainly from 1984 for both the original hospital and the continuing care facility as the original hospital main floor was renovated along with the 1984 addition. The basement finishes are mainly from 1984.
The interior of the building has mainly durable sheet vinyl finishes throughout. There are sections of terrazzo floors in the main entrance lobby and in the continuing care corridors, tile in the washrooms and carpet in the offices. Walls are painted drywall and/or painted block. There are some architectural spaces in the form of clerestorey lighting to the basement cafeteria and in the continuing care dining and recreation areas. The majority of ceilings are acoustic tiles in a T-bar grid with the rest painted gypsum board or exposed joists. Patching of the flooring and replacing of damaged ceiling tiles has continuously progressed through the entire hospital but more so in the 1971 section.

Generally the interior is in an acceptable condition.

Mechanical Summary:

Both the 1971 and 1984 Sections are air conditioned. Heating is provided with two separate heating plants. The 1971

Section is heated with the original main floor heating plant and the 1984 Section is heated with the 1984 heating plant at basement level. Plumbing fixtures are good quality institutional type. Two temperatures of domestic hot water are provided. Eighty-two degree Celsius water for the kitchen and laundry is produced with natural gas fired heaters. Sixty degree Celsius hot water is produced with a water to water heat exchanger using heating water from the 1984 Section heating plant. The facility has a Several DDC system which was installed in 2004. A standpipe and fire hose system provides fire protection for the 1971 section and the 1984 Section has a wet sprinkler system.

The mechanical systems are in acceptable condition.

Electrical Summary:

Electrical service for the Hospital is 2000A, 347/600V, 3 phase, 4 wire. A 450 kVA secondary transformer provides for 120/208V normal power; two 75 kVA secondary transformers provide for emergency power distribution. Two 175 kW diesel generators provide the emergency power.
Receptacles used in the Hospital are all hospital grade. Patient care outlets are 120V grounded except in the Operating Room, Recovery Room and Trauma Room where Isolated Power System (IPS) are used.
Majority of lighting is fluorescent (T12 lamps with magnetic ballasts - approximately 15% has been replaced/retrofit with T8 lamps & electronic ballasts). Incandescent (pot lights, track lights, pendant fixture) lighting is installed in staff areas, living areas, and meeting rooms. Interior lighting control is a combination of low voltage switching and line voltage switching. Exterior lighting is mostly HID high pressure sodium fixtures consisting of high mast lighting standards in the parking lot, bollards on walkways and wall packs on walls. Exterior lighting is controlled by photoelectric cell and time clock.
Fire alarm system is a two-stage, addressable system with Emergency Visual and Audio Communications (EVAC). The Fire Command Centre at the main entrance consists of EVAC controls for Firemen's paging and two-way communications.
Nurse call system is a Rauland Responder III.
Security assess control system consists of fob readers at each entrance; closed circuit television system consists of four cameras and two monitors; patient wander system (wanderguard) is installed in the Geriatric wing.
Telephone system is a NEC PBX telephone system.

Overall, the electrical systems in the Hospital 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* - 1971 Section

The foundation system consists of poured reinforced concrete piles with diameters of 400mm, 500mm and 600mm and bell diameters varying from 900mm to 1650mm carrying grade beams which are 200mm to 330mm wide and 900mm to 1200mm deep.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	MAR-08

A1010 Standard Foundations* - 1984 Section

The foundation system consists of poured reinforced concrete piles with diameters of 460mm and 660mm and bell diameters varying from 760mm to 1575mm carrying grade beams.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

A1030 Slab on Grade* - 1971 Section

There is 100mm concrete slab on grade throughout the hospital with 150mm x 150mm wire mesh reinforcing, 6 mil poly vapour barrier on 150mm compacted gravel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

A1030 Slab on Grade* - 1984 Section

There is a 150mm concrete slab on grade with reinforcing bars at 300mm on centres each way for main floor and basement levels.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	0	MAR-13

Event: Level Slab & Relace Floor FInish (50 Sqm)

Concern:

Slab level has dropped at exterior wall in rooms 1315-1317 of the south wing. It is assume drop in slab is due to inadequate compaction of base adjacent to exterior grade beam, if that is the case it has probably settled as much as it is going to settle.

Recommendation:

Remove Flooring, install levelling compound and add new floor finish.

Type	Year	Cost	Priority
Repair	2015	$14,700	Low

Updated: MAR-13

A2020 Basement Walls (& Crawl Space)* - 1984 Section

Basement walls are 300mm wide reinforced poured concrete carried on 1200mm wide x 300mm deep reinforced poured concrete footings. Previous reported water leaks were from piping in adjacent pit at loading area which has been corrected.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B1010.01 Floor Structural Frame (Building Frame)* - 1971 Section

The second floor structural frame consists of open web steel joists spanning concrete bond beams in load bearing block walls or steel beams.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	MAR-13

B1010.01 Floor Structural Frame (Building Frame)* - 1984 Section

The west section of this wing has a basement the floor over consists of a system of 110mm concrete floor slab and 450mm deep concrete ribs supported on exterior walls and concrete columns.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1971 Section

There are 200mm wide concrete block interior walls supporting the second floor.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	MAR-13

B1010.03 Floor Decks, Slabs, and Toppings* - 1971 Section

The second floor deck consists of a mesh reinforced 75mm concrete slab on metal deck.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings* - 1984 Section

The floor over the basement consists of 110mm concrete floor slab and 450mm deep concrete ribs.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

B1010.09 Floor Construction Fireproofing* - 1971 Section

There is no fire proofing to the second level floor structure of concrete slab on metal deck spanning open web steel joists. It is assumed that the hospital complied with the Code of the day.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B1010.09 Floor Construction Fireproofing* - 1984 Section

The main floor structure is poured concrete slab and concrete ribs spanning poured concrete beams and therefore fire proof.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

B1010.10 Floor Construction Firestopping* - 1971 Section

There is fire stopping between floors. Missing fire stopping was neither reported nor observed during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B1010.10 Floor Construction Firestopping* - 1984 Section

There is fire stopping between floors. Missing fire stopping was neither reported nor observed during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

B1020.01 Roof Structural Frame* - 1971 Section

The roof structure consists of 650mm deep open web steel joists spanning bond beams cast into 200mm block walls or steel beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B1020.01 Roof Structural Frame* - 1984 Section

The roof structure consists of open web steel joists or steel channels spanning steel beams and columns.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

B1020.03 Roof Decks, Slabs, and Sheathing* - 1971 Section

38mm steel deck spanning over joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B1020.03 Roof Decks, Slabs, and Sheathing* - 1984 Section

38mm steel deck spanning over joists/channels.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

B1020.04 Canopies* - 1984 Section

The main entrance canopy consists of built up roof on exterior quality gypsum board on metal deck spanning steel beams carried on painted hollow section steel columns.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B1020.06 Roof Construction Fireproofing* - 1971 Section

The roof structure is noncombustible metal deck on open web steel joists with no fire proofing. It is assumed that the hospital complied with the Code of the day.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B1020.06 Roof Construction Fireproofing* - 1984 Section

The roof structure is noncombustible metal deck on open web steel joists or steel channels with no fire proofing. It is assumed that the hospital complied with the Code of the day.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1971 Section

There is an exterior brick skin all around on the upper level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1984 Section

All elevations of this single storey building have an exterior brick skin with a soldier course at sill height.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

B2010.01.02.02 Concrete Block: Ext. Wall Skin* - 1984 Section

There are sections exterior skin in service areas which are split rib concrete block veneer.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

B2010.01.06.03 Metal Siding** - 1984 Section

Gable ends of roof are clad with flat rib pre-finished metal cladding (115 Sqm)

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace Metal Siding (115 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$18,100	Unassigned

Updated: MAR-13

B2010.01.08 Cement Plaster (Stucco): Ext. Wall* - 1971 Section

There is a painted stucco fascia around the roof line and a stucco band at first floor level over the concrete block construction. There are also stucco soffits & column build outs on the front elevation elevation and around the entrance canopy.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B2010.01.09 Expansion Control: Ext. Wall* - 1971 Section

The band of stucco delineating the first floor and the stucco fascia have metal control joints.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B2010.01.09 Expansion Control: Ext. Wall* - 1984 Section

There is a control joint in the west brick wall of the north resident pod.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1971 Section

There are caulked joints between door and window frames on the adjoining brick & block work.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	20	MAR-13

Event: Replace all caulking (450m)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$15,800	Unassigned

Updated: MAR-13

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1984 Section

There are caulked joints between door and window frames on the adjoining brick work.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Event: Replace all caulking (1200m)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$41,900	Unassigned

Updated: MAR-13

B2010.01.13 Paints (& Stains): Ext. Wall** - 1971 Section

The stucco band at the first floor and the stucco fascia are painted. Concrete block is painted.

Rating	Installed	Design Life	Updated
5 - Good	2011	15	MAR-13

Event: Repaint 190m2 stucco

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$4,700	Unassigned

Updated: MAR-13

B2010.01.13 Paints (& Stains): Ext. Wall** - 1984 Section

Split rib concrete block in service areas has painted exterior (130Sqm).

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	15	MAR-13

Event: Repaint Concrete Block (130 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$3,200	Unassigned

Updated: MAR-13

B2010.02.03 Masonry Units: Ext. Wall Const.* - 1971 Section

The exterior wall construction is concrete block all around, the lower level has exposed painted split rib units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B2010.02.03 Masonry Units: Ext. Wall Const.* - 1984 Section

Service areas are 200mm concrete block exterior wall construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B2010.02.04 Load-Bearing-Metal Studs: Ext. Wall* - 1984 Section

Exterior walls are framed 150mm steel studs with exterior gypsum sheathing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1971 Section

The upper level of the exterior walls consists of 45mm air space between brick & block, with 50mm insulation and 2 mil poly vapour barrier in 50mm strapping inside of block.
The lower level exterior walls consist of 250mm concrete block with loose fill insulation, 50mm metal strapping with 50mm insulation and 2 mil poly vapour barrier finished on the inside of the block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1984 Section

The typical exterior wall consists of air space & 38mm rigid insulation between brick and exterior sheathing, 152mm steel studs are filled with 152mm batt insulation, vapour barrier finished on the inside.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B2010.04 Exterior Wall Interior Skin* - All Sections

Where block is not left exposed on the interior, the strapping or framed walls are finished with painted gypsum board. (average 1977)

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-13

B2010.05 Parapets* - 1971 Section

The parapet consists of 2 courses of concrete blocks which close off the air space in the exterior wall below. The capping is sloping precast concrete with a flashing over the upturned roof membrane.

Rating	Installed	Design Life	Updated
4 - Acceptable	2011	0	MAR-13

B2010.05 Parapets* - 1984 Section

There are parapets where the sloping tiled roof areas meet the flat roofs. They are constructed of a framing of 38mm x 89mm studs with a galvanized metal flashing over the roof membrane on plywood. The parapet is capped with a half round concrete ridge tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	0	MAR-13

B2010.06 Exterior Louvers, Grilles, and Screens* - 1971 Section

There are exterior prefinished metal louvres on the first floor level to storage rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens* - 1984 Section

There are prefinished exterior louvres on all sides of the mechanical penthouse.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B2010.09 Exterior Soffits* - 1971 Section

There are painted stucco soffits above window recesses on the south side of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B2010.09 Exterior Soffits* - 1984 Section

There are exterior soffits around the building where the resident rooms are located. Soffits are constructed as follows: prefinished aluminum soffit on 100mm rigid insulation on 12mm exterior quality gypsum board with a vapour barrier backing fixed to metal furring channels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1971 Section

Pre-finished aluminum window frames with sealed units installed with 1984 addition in existing openings on upper floor (23 - 1.2m x 1.8m) and as multi-pane windows (19m x 2m) on the south (front) of the main floor.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	40	MAR-13

Event: Replace 10 sealed units (21.6m2)

Concern:
There are sealed units which have failed, ice up in winter and require replacement.
Recommendation:
Replace 6 sealed units which have failed.
Consequences of Deferral:
Failed units will continue to ice up and deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2013	$24,900	Medium

Updated: MAR-13

Event: Replace 16 windows (66.08m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$76,200	Unassigned

Updated: MAR-13

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1984 Section

Pre-finished aluminum window frames with sealed units, fixed pane with 'hopper' pane in most rooms (1.8m/1.4m x 1.8m ht).

Rating	Installed	Design Life	Updated
3 - Marginal	1984	40	MAR-13

Event: Replace 1/3 Windows (95 Sqm)

Concern:
About a third of the windows have had their seals fail.
Recommendation:
Replace windows

Type	Year	Cost	Priority
Failure Replacement	2013	$109,500	Medium

Updated: MAR-13

Event: Replace 65 windows (221 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$254,700	Unassigned

Updated: MAR-13

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

Clearstory windows are provide at the ridge in the patient dining room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace Clearstory Windows (42 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$48,100	Unassigned

Updated: MAR-13

B2020.03 Glazed Curtain Wall** - 1971 Section

Multi-pane clad wood curtain wall on second level of south upper floor with glass and aluminum panels (4.8m x 3.5m ht). Covered with sunscreens in 2003.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	40	MAR-13

Event: Replace Curtain Wall (16.8 Sqm)

Concern:
Exterior finish of curtain wall window frame and spandrel panels have deteriorated and lost their finish and window already has exterior sun shade screens attached.

Recommendation:
Replace with new tinted curtain wall.

Type	Year	Cost	Priority
Failure Replacement	2013	$23,100	Medium

Updated: MAR-13

B2020.03 Glazed Curtain Wall** - 1984 Section

Full height pre-finished alum glazed curtain wall in dining room (12.8m 2.4m ht) c/w one sliding panel for access to patio, patient lounges (8.4m x 2.4m ht) in the south and east wings and rehabilitation & activity room (9 - 2.7m x 2.4m ht).

Rating	Installed	Design Life	Updated
3 - Marginal	1984	40	MAR-13

Event: Replace 1/2 Curtain wall windows (55m2)

Concern:
About half the windows have had their seals fail.

Recommendation:
Replace curtain wall windows.

Type	Year	Cost	Priority
Failure Replacement	2013	$75,400	Medium

Updated: MAR-13

Event: Replace Curtain Wall Windows (55 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$75,400	Unassigned

Updated: MAR-13

B2020.03 Glazed Curtain Wall** - Sloped

On the south side of the building there are aluminum windows at grade with sloping glass (10m2)which provide top lighting to the cafeteria below. There is also sloping glass in aluminum frames over (11 m2), and for the walls (12m2) of, the green house on the south elevation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace Sloping Glazing (33 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$45,300	Unassigned

Updated: MAR-13

B2030.01.01 Aluminum-Framed Storefronts: Doors** - 1971 Section

The staff entrance on the west side is a glazed store front door in a prefinished aluminum frame with a store front window either side (2.0m x 2.2m ht.).

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace Entrance Storefront (4.4m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$11,000	Unassigned

Updated: MAR-13

B2030.01.01 Aluminum-Framed Storefronts: Doors** - 1984 Section

There are aluminum storefronts in the main lobby and vestibule (6.0m x 2.8m ht), at the end of corridors in resident wings (7-1.2m x 2.1m ht) and some exit corridors/stairs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace Weatherstripping (7 doors)

Concern:
Felt door seals have failed allowing cold and wind to penetrate door.

Recommendation:
Replace door weatherstripping seals.

Type	Year	Cost	Priority
Repair	2013	$3,500	Medium

Updated: MAR-13

Event: Replace storefront doors & sidelights (34.5 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$39,500	Unassigned

Updated: MAR-13

B2030.01.06 Automatic Entrance Doors** - 1971 Section

The entrance doors into the emergency department are double glass bi-fold doors in an aluminum frame both ends of vestibule (2-1.8m x 2.1m ht).

Rating	Installed	Design Life	Updated
5 - Good	2007	30	MAR-13

Event: Replace automatic doors (7.56m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$32,600	Unassigned

Updated: MAR-13

B2030.01.06 Automatic Entrance Doors** - 1984 Section

The main entrance door to the complex (2-3.0m x 2.8m ht) and auxiliary entrance (2-2.5m x 2.1m ht) to extended care area are glass slider in an aluminum frame.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace Automatic Sliding doors (27.3 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$99,000	Unassigned

Updated: MAR-13

B2030.02 Exterior Utility Doors** - Metal

Exterior utility doors are painted metal in pressed steel frames (10 doors).

Rating	Installed	Design Life	Updated
3 - Marginal	1984	40	MAR-13

Event: Replace 3 utility doors

Concern:
Utility doors are damaged, appear unsightly and require replacement.
Recommendation:
Replace 3 utility doors.
Consequences of Deferral:
Doors will continue to deteriorate.

Type	Year	Cost	Priority
Failure Replacement	2013	$3,100	Low

Updated: MAR-13

Event: Replace 7 utility doors

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$7,100	Unassigned

Updated: MAR-13

B2030.03 Large Exterior Special Doors (Overhead)* - 1971 Section

The ambulance bay drop off has two steel operable overhead entrance doors and one operable overhead door for the exit. There is also a wood operable overhead door into a grounds equipment store adjacent to the ambulance garage.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	0	MAR-13

B2030.03 Large Exterior Special Doors (Overhead)* - 1984 Section

There is a motorized roller shutter door at the loading dock. The manufacturer is Wayne Dalton.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

B3010.01 Deck Vapour Retarder and Insulation* - 1971 Section

There is 38mm rigid insulation and a vapour barrier under this roofing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

B3010.01 Deck Vapour Retarder and Insulation* - 1984 Section

The flat roof area and the sloping tiled roofs have 138mm rigid insulation and a vapour barrier.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

B3010.02.02 Roofing Tiles** - 1984 Section

The roof tiles are precast concrete with a 75mm minimum overlap on furring channels screwed to metal studs on a roofing membrane.

Rating	Installed	Design Life	Updated
5 - Good	1984	30	MAR-13

Event: **Replace all roof tiles (2650m2)**

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$624,600	Unassigned

Updated: MAR-13

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

Roofing over main entrance canopy is original built-up tar and gravel.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	25	MAR-13

Event: Replace BUR with SBS (45 Sqm)

Concern:
Built up roof is original to 1984 and vertical to horizontal joints are failing allowing blowing snow to get behind.

Recommendation:
Replace Built up roof with new SBS roofing.

Type	Year	Cost	Priority
Failure Replacement	2013	$9,500	Medium

Updated: MAR-13

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 1971 Section

Original built up asphalt roof on this part of the facility replaced in 2011 with SBS membrane.

Rating	Installed	Design Life	Updated
5 - Good	2011	25	MAR-13

Event: Replace SBS Roofing (1488m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$311,800	Unassigned

Updated: MAR-13

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 1984 Section

There are flat roofs with SBS membrane at the top of the sloped tile roof areas (790 Sqm), for the service areas at the north side (360 Sqm), entrance area to the south (167 Sqm), and on the penthouse (243 Sqm).

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	25	MAR-13

Event: Replace SBS roofing (1560m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2034	$326,800	Unassigned

Updated: MAR-13

B3010.08.02 Metal Gutters and Downspouts** - 1984 Section

There are site-built prefinished metal gutters/fascias (325 lineal metres) complete with down spouts (35) draining the sloping tiles roofs and discharging onto concrete splash pads all around the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Extend downspouts (35 locations)

Concern:
Downspouts discharge between sidewalks and buildings, on colder days this causes icing up of sidewalks and saturated soil adjacent to foundation is causing heaving problems.

Recommendation:
Extend downspouts to discharge beyond sidewalks by installing leaders underside or through walkway trenches.

Type	Year	Cost	Priority
Preventative Maintenance	2014	$6,600	High

Updated: MAR-13

Event: Replace gutter and down spouts (325m)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$30,700	Unassigned

Updated: MAR-13

B3010.09 Roof Specialties and Accessories* - All areas

Standard Sidewalk blocks installed in main pathways to roof top units for both sections.

Rating	Installed	Design Life	Updated
5 - Good	2011	0	MAR-13

B3020.01 Skylights** - 1984 Section

There are three acrylic skylights over the link to the 1971 section and one exterior skylight above the auxiliary entrance. Pulled off and resealed in 2011.

Rating	Installed	Design Life	Updated
5 - Good	1984	25	MAR-13

Event: Replace 4 skylights (10 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$27,500	Unassigned

Updated: MAR-13

B3020.02 Other Roofing Openings (Hatch, Vent, etc)* - 1971 Section

The roof hatch is prefinished metal with integral curb and spring hold open hardware.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

B3020.02 Other Roofing Openings (Hatch, Vent, etc)* - 1984 Section

Access to the flat roof is via door from mechanical penthouse.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

S3 INTERIOR

C1010.01 Interior Fixed Partitions* - Block

Concrete block partitions throughout basement and main floor maintenance area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C1010.01 Interior Fixed Partitions* - Studs - 2nd Floor

There are metal stud partitions throughout the hospital with 150mm x 50mm and 89mm x 50mm steel studs with gypsum board both sides. Fire rated gypsum board is used for fire compartments.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	100	MAR-13

C1010.01 Interior Fixed Partitions* - Studs - Main Floor

The typical interior partition consists of 16mm gypsum board both sides of 152mm x 50mm steel studs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	100	MAR-13

C1010.03 Interior Operable Folding Panel Partitions**

There is a folding acoustic vinyl partition to divide the main floor in-service training classroom into two parts (6.5m x 2.4m ht). There is also a vinyl folding partition in the board room to screen off a/v equipment (4.0m x 2.4m ht).
The clean linen store room on the upper floor patient unit has folding screens on the two corridor sides (2-2.4m x 2.4m ht).

Rating	Installed	Design Life	Updated
5 - Good	1984	30	MAR-13

Event: Replace folding partitions (37 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$50,800	Unassigned

Updated: MAR-13

C1010.05 Interior Windows*

There are interior windows with wired or clear glass in pressed steel frames throughout including medical records, doctors' dictation, reception areas to laboratory and X-ray, maintenance office, and administration offices (1984). Second floor windows (clear glass in pressed steel frame) in surgery room (1984), to day surgery recovery and nursery (1995). Basement floor windows (clear glass in pressed steel frame) in foop-prep office, laundry office

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C1010.06 Interior Glazed Partitions and Storefronts* - 2nd Floor

Alum framed glazed partitions are mounted on the counter top for 3 sides of the second floor nurses station (1995).

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	0	MAR-13

C1010.06 Interior Glazed Partitions and Storefronts* - Main Floor

Alum framed glazed partitions are mounted on the counter top as partitions between lab stations (1984). Alum framed glazed partitions are used as walls around rehabilitation office, beauty shop, interior of green house, and nurses station medication office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C1010.07 Interior Partition Firestopping* - 1971 Section

Fire stopping is installed in interior partitions. Some areas still do not have fire stopping installed. Maintenance is fixing areas as they are exposed or adjacent to ongoing work areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C1010.07 Interior Partition Firestopping* - 1984 Section

Fire stopping is installed in interior partitions.The was no missing fire stopping observed or reported during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

C1020.01 Interior Swinging Doors (& Hardware)* - 1971 Section

The typical swing doors are lacquered or painted solid core wood in painted pressed steel frames. Some non-public access rooms still have knob hardware. All public access and required barrier-free access areas are level type.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	MAR-13

C1020.01 Interior Swinging Doors (& Hardware)* - 1984 Section

The typical swing doors are plastic laminated solid core in painted pressed steel frames. Hardware is paddle or level type.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C1020.03 Interior Fire Doors* - 1971 Section

Interior fire doors are lacquered or painted solid core wood and closers tied into the fire alarm system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C1020.03 Interior Fire Doors* - 1984 Section

Interior fire doors are solid core with a plastic laminate finish and closers tied into the fire alarm system. There are painted steel fire doors in pressed steel frames separating the long term care from the acute care sections of the facility and as exit stairwell doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C1020.04 Interior Sliding and Folding Doors* - 1971 Section

Closets in patient rooms are folding plastic accordion door (20-0.9m x 2.1m).

Rating	Installed	Design Life	Updated
3 - Marginal	1971	0	MAR-13

Event: Replace Closet Doors (38 Sqm)

Concern:
Partitions are flimsy, damaged or falling of the tracks, also difficult to operate.

Recommendation:
Replace partitions with millwork doors.

Type	Year	Cost	Priority
Failure Replacement	2015	$19,300	Low

Updated: MAR-13

C1020.05 Interior Large Doors* - 1971 Section

Metal roll up counter shutter installed on emergency admitting counter (2003) and main admitting counter (1984).

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C1030.01 Visual Display Boards**

Tackboards are provided throughout the hospital in staff areas, public corridors, acute care patient rooms, offices, meeting rooms, housekeeping, patient dining, and patient lounges .
Whiteboards are provided in select areas including; kitchen, cafeteria servery, patient lounge, main corridor and patient dining,
There is a green board in the in-service room on the main floor.

Rating	Installed	Design Life	Updated
5 - Good	1984	20	MAR-13

Event: Replace Display Boards (50)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$19,700	Unassigned

Updated: MAR-13

C1030.02 Fabricated Compartments (Toilets/Showers)** - 2nd Floor

There are fabricated prefinished steel toilet compartments in the O.R. change/washrooms on the second floor (1995).

Rating	Installed	Design Life	Updated
5 - Good	1995	30	MAR-13

Event: Replace 2 toilet compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$2,900	Unassigned

Updated: MAR-13

C1030.02 Fabricated Compartments (Toilets/Showers)** - Main Floor

There are fabricated prefinished steel toilet compartments in the staff change rooms on the main floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 4 toilet compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$5,700	Unassigned

Updated: MAR-13

C1030.05 Wall and Corner Guards* - 2nd Floor

Upstairs: Vinyl bumper rails each side of corridors. 1.2m height stainless steel corner guards at exposed corners.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C1030.05 Wall and Corner Guards* - Main Floor

Vinyl bumper rails each side of corridors in continuing care wings.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

C1030.08 Interior Identifying Devices* - 1971 Section

All rooms are numbered with plastic signs. There are also directional plastic signs to the hospital departments.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

C1030.08 Interior Identifying Devices* - 1984 Section

There are plastic signs for each room to denote use.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

C1030.10 Lockers** - 2nd Floor

There are steel lockers in the doctors' change area adjacent to the surgical suite (10) on the upper floor and the day surgery recovery room (5).

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	30	MAR-13

Event: **Replace 15 lockers**

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$8,700	Unassigned

Updated: MAR-13

C1030.10 Lockers** - Main Floor

There are plastic laminated lockers in continuing care resident rooms. There are steel lockers in the male (12) and female (87) staff change rooms on the main floor, one x-ray change room (3), and the basement cleaning staff room (7).

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: **Replace 109 lockers**

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$62,800	Unassigned

Updated: MAR-13

C1030.12 Storage Shelving* - 1971 Section

There are prefinished steel storage shelves in the X-ray department and manually operated steel shelving on tracks in medical records and emergency reception room. There is also a mix of painted wood shelves in store rooms and support areas of the hospital.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C1030.12 Storage Shelving* - 1984 Section

There are prefinished steel wire shelves in the medical supply rooms and plastic laminate shelving in the medication room behind the nursing station.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

C1030.14 Toilet, Bath, and Laundry Accessories* - 1971 Section

Patient room wash rooms have a mirror, soap and paper towel dispenser and waste receptacle and chrome plated grab bars. Staff and public wash rooms also have these accessories. About 1/3 of the rooms had washrooms converted and upgraded in 2003.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C1030.14 Toilet, Bath, and Laundry Accessories* - 1984 Section

Each resident washroom has a mirror, dispensers for paper towel and soap, waste receptacle and grab bars. Staff and public wash rooms also have these accessories.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C2010 Stair Construction* - Basement

The service stairs to the basement (north & east) consist of poured concrete with a painted finish. The front public stairs to the basement (south) consist of poured concrete with terrazzo finish. There are steel stairs connecting the basement mechanical room with the main level mechanical room with steel grate treads and steel handrails and similar stairs for roof access.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

C2010 Stair Construction* - Upper Floor

The stairs to the upper level are poured concrete. There is also a short flight of painted concrete stairs in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C2020.02 Terrazzo Stair Finishes* - Basement

The front public stairs to the basement (south) have a terrazzo finish for central section with painted concrete for 150mm each side on treads and risers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C2020.05 Resilient Stair Finishes** - Upper Floor

Resilient vinyl treads and risers on stairs to second floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Event: Replace Resilient Stair Finish (10m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$2,000	Unassigned

Updated: MAR-13

C2020.08 Stair Railings and Balustrades* - Basement

The railings are 25mm x 50mm painted hollow steel sections with a 50mm x 50mm hollow section bottom rail and a 50mm x 100mm hollow section handrail.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

C2020.08 Stair Railings and Balustrades* - Upper Floor

The stairs railings and balustrade are painted steel with uprights set in the poured concrete treads at half flight. The steel handrail has a vinyl capping.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

C3010.06 Tile Wall Finishes** - 2nd Floor

There are glazed ceramic wall tiles in the staff & public wash rooms (44m2), second floor staff kitchen (23m2), patient room showers (29m2) and around vanities (6m2)

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	MAR-13

Event: Replace ceramic wall tile (102m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$30,300	Unassigned

Updated: MAR-13

C3010.06 Tile Wall Finishes** - 2nd Floor Renovations

Doctor's wash room and shower adjacent to the surgical suite (50m2), surgical suite case room, operating rooms (125m2), and clean-up area (6m2). Day Surgery Recovery shower (12m2)

Rating	Installed	Design Life	Updated
5 - Good	1995	40	MAR-13

Event: Replace Ceramic Wall Tile (193m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$57,300	Unassigned

Updated: MAR-13

C3010.06 Tile Wall Finishes** - Main Floor & Bsmt

Original hospital areas with ceramic wall tile include; treatment rooms in the emergency department (170m2), main floor change rooms (105m2), main floor public washrooms (260m2) and janitor's rooms (50m2).
Basement areas with ceramic wall tile include; kitchen (175m2), and cafeteria servery (26m2).
There are ceramic wall tiles in the continuing care resident central bathing areas (180m2), clean and dirty utility rooms in the resident wings (100m2), and long term care entrance to dining area (20m2) and servery (15m2). Also each resident bathrooms (912m2).

Rating	Installed	Design Life	Updated
5 - Good	1984	40	MAR-13

Event: Replace ceramic wall tile (2013m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$597,400	Unassigned

Updated: MAR-13

C3010.08 Stone Facing Wall Finishes: Interior*

There is a granite donor wall the main public corridor.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	MAR-13

C3010.11 Interior Wall Painting*

The interior walls throughout are typically painted gypsum board partitions or concrete block partitions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C3010.12 Wall Coverings*

The walls in the ultrasound exam room and cafeteria have a vinyl wall paper finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C3010.14 Other Wall Finishes* - Brick

Brick veneer facing is used adjacent to auxilary entrance and to create 2 fireplaces in resident lounge area.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

C3020.01.01 Epoxy Concrete Floor Finishes*

There are epoxy finishes to concrete floors in janitor's rooms (1971), staff change rooms and public wash rooms (1984), central sterile supply areas and surgical suite (1995) areas located in the original building. There is an epoxy border and base in the resident wing corridors (1984 - 750m2) and an epoxy floor finish in resident washrooms (1984 - 250m2) and the basement laundry and housekeeping storage (1984) also have epoxy floors.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	0	MAR-13

Event: Refinish 150m2 of epoxy floor.

Concern:

There are sections of epoxy finish which have deteriorated and require replacement including public washrooms (50m2). There are sections of epoxy floor in resident washrooms and the basement laundry which have deteriorated, are stained or damaged and require replacement (100m2)

Recommendation:

Refinish deteriorated epoxy floor finish.

Consequences of Deferral:

Epoxy floors will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2015	$29,400	Medium

Updated: MAR-13

C3020.01.02 Painted Concrete Floor Finishes*

There are several locations from the 1971 portion with painted concrete floors including the ambulance bay, grounds storage room, generator room, main floor mechanical room and electrical room. From the 1984 addition areas include maintenance shops, patient storage room, basement mechanical room and dietary storage room. All areas repainted in 2009.

Rating	Installed	Design Life	Updated
3 - Marginal	2009	0	MAR-13

Event: Repaint concrete floors (300m2)

Concern:
There are sections of painted concrete floor in the mechanical room (120m2), ambulance bay (150m2), grounds storage (30m2) which have deteriorated and require repainting.
Recommendation:
Repainting the floors is recommended.
Consequences of Deferral:
Floors will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2015	$7,900	Medium

Updated: MAR-13

C3020.02 Tile Floor Finishes** - 1971

Ceramic tile flooring in original patient room washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	50	MAR-13

Event: Replace Floor Tile (215m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$43,200	Unassigned

Updated: MAR-13

C3020.02 Tile Floor Finishes** - 1995

Ceramic tile flooring in day-surgery recovery washroom.

Rating	Installed	Design Life	Updated
5 - Good	1995	50	MAR-13

Event: Replace Floor Tile (50m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2045	$10,100	Unassigned

Updated: MAR-13

C3020.03 Terrazzo Floor Finishes*

There are terrazzo floors around nursing stations in the continuing care area. There are terrazzo floor finishes to the main lobby floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

C3020.07 Resilient Flooring** - 1971

There is sheet vinyl in corridors and patient rooms original to 1971.
Maintenance patches and repairs any failures as they occur.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	20	MAR-13

Event: Replace Resileint Flooring (1185m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$113,800	Unassigned

Updated: MAR-13

C3020.07 Resilient Flooring** - 1984

Hospital departments in the original building have sheet vinyl, those include; emergency, laboratory, records storage and X-ray. (650m2)
There is sheet vinyl in corridors, physiotherapy, recreation room, day support area, green house, dining room, common bathing rooms and linoleum in resident rooms of the continuing care areas. (2400m2)
Sheet vinyl in basement corridors & cafeteria. (285m2)
Maintenance patches and repairs any failures as they occur.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Event: Replace resilient flooring (3335 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$320,300	Unassigned

Updated: MAR-13

C3020.07 Resilient Flooring** - 1995

There are also non-slip sheet vinyl floors in the operating rooms and case room on the second floor (200m2). As well as the day-surgery recovery room (40m2) and renovated washrooms and patient rooms (60m2).

Rating	Installed	Design Life	Updated
5 - Good	1995	20	MAR-13

Event: Replace Resilient Flooring (300 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$28,900	Unassigned

Updated: MAR-13

C3020.08 Carpet Flooring**

There is carpet in the main floor administration offices, in-service training and meeting rooms and the adjacent corridor (310m2), second floor administration offices (50m2), and doctor's lounge (22m2).

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	15	MAR-13

Event: Replace carpet (382 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$33,400	Unassigned

Updated: MAR-13

C3030.02 Ceiling Paneling (Wood)*

Stained wood valances in in-service training and meeting rooms, main floor waiting lounge, main check-in counter and adjacent corridor, patient lounges, main corridor adjacent to patient dining, patient dining area and continuing care reception hub.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-13

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 1971

The ceilings typically are acoustic tiles in a T-bar grid in corridors and renovated patient rooms for the second floor of the original hospital. Repaired and replaced tiles have been done throughout as part of ongoing maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	25	MAR-13

Event: Replace acoustic ceiling tiles (600Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$33,600	Unassigned

Updated: MAR-13

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 1984

There are T-bar ceilings in the continuing care wing in patient wash rooms, corridors, ultrasound exam room, and physiotherapy (1495m2). Also main floor areas of hospital departments such as administration offices, laboratory, emergency, record storage, change rooms, and X-ray offices (1125m2). Also basement (890Sqm) corridors, cafeteria, and laundry. Kitchen has t-bar with vinyl coated ceiling tiles. Repaired and replaced tiles have been done throughout as ongoing maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	25	MAR-13

Event: Replace acoustic ceiling tiles (3500 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$195,600	Unassigned

Updated: MAR-13

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 1995

Suspended t-bar with lay-in panels in surgical suite circulation areas and day-surgery recovery room.

Rating	Installed	Design Life	Updated
5 - Good	1995	25	MAR-13

Event: Replace acoustic ceiling tiles (200 Sqm)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$11,200	Unassigned

Updated: MAR-13

C3030.07 Interior Ceiling Painting* - 1971 Section

Interior ceilings of gypsum board and underside of concrete slabs are painted throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	2010	0	MAR-13

C3030.07 Interior Ceiling Painting* - 1984 Section

Drywall ceilings and concrete soffits are painted throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

D1010.01.02 Hydraulic Passenger Elevators** - 1971 Section

There is passenger elevator traveling between main and second floors.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	30	MAR-13

Event: Refurbish hydraulic elevator

Concern:
Facility staff report problems with door operation requiring service call backs.
Recommendation:
Refurbishing the elevator is recommended.
Consequences of Deferral:
Door operation problems will persist.

Type	Year	Cost	Priority
Repair	2013	$56,330	Medium

Updated: MAR-13

Event: Replace Hydraulic Passenger Elevator (One)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$90,800	Unassigned

Updated: MAR-13

D1010.01.02 Hydraulic Passenger Elevators** - 1984 Section

There are three hydraulic elevators in this section of the hospital:
Elevator #1: freight elevator traveling from basement to main level rated at 2270 Kgs (manufactured by Peele)
Elevator #2: traveling between main floor and basement to service the long term care component, rated at 1810 Kgs or 25 persons (manufactured by Armor)
Elevator #3: passenger elevator traveling between basement, main and second floors

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 3 elevators

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$283,300	Unassigned

Updated: MAR-13

S4 MECHANICAL

D2010.04 Sinks** - 1971 Section

Counter sinks are made of stainless steel in utility rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 3 stainless steel sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$5,400	Unassigned

Updated: MAR-13

D2010.04 Sinks** - 1984 Section

Typical sinks in utility rooms are counter mounted and are made of stainless steel & four stainless steel sinks in the laboratory. There are also two china wall mounted shampoo sinks are located in the beauty saloon.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 14 sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$24,600	Unassigned

Updated: MAR-13

D2010.05 Showers** - 1971 Section

Shower stalls have ceramic tiled walls and floors with institutional shower heads and temperature controlled mixing valves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 5 shower fittings

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$9,000	Unassigned

Updated: MAR-13

D2010.05 Showers** - 1984 Section

There is one fabricated shower stall located in a tub room but it is not used because it requires walking up two steps and is considered to be unsafe.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 1 shower fitting

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$2,000	Unassigned

Updated: MAR-13

D2010.06 Bathtubs** - 1971 Section

Baths are enameled steel in the bathing area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 2 bathtubs

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$3,900	Unassigned

Updated: MAR-13

D2010.06 Bathtubs** - 1984 Section

There are free standing whirlpool tubs manufactured by Argo with mobile person lifts in the three central bathing areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 6 Argo tubs

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$46,000	Unassigned

Updated: MAR-13

D2010.08 Drinking Fountains/Coolers** - 1971 Section

The drinking fountain is a refrigerated cooler which is located in the main entrance. Drinking fountain has been disconnected and there are plans to remove it.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Event: Replace 1 refrigerated drinking fountain

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$4,200	Unassigned

Updated: MAR-13

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1971 Section

Lavatories are china and are mounted in the counters in patient wash rooms. The urinal in the mens' locker room is wall hung and flush valve operated. There is a handicapped china wall hung lavatory in the palliative care wash room. Water closets are floor mounted and are flush valve operated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	35	MAR-13

Event: Replace 21 Lav, 1 Urnl, 25 WC

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$82,600	Unassigned

Updated: MAR-13

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1984 Section

The lavatories in resident rooms are integral with the Corian counter top. Water closets are floor mounted and flush valve operated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Event: Replace 65 Lav, 65 WC

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$217,000	Unassigned

Updated: MAR-13

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

Floor mounted china bidets are located in the three tub rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Event: Replace 3 Bidets

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$4,600	Unassigned

Updated: MAR-13

D2020.01.01 Pipes and Tubes: Domestic Water* - 1971 & 1984 Section

Domestic water piping is made of copper.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D2020.01.02 Valves: Domestic Water** - 1971 Section

The domestic water equipment was replaced in 1999. Valves are made of bronze.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	40	MAR-13

Event: Replace 95 valves

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$130,000	Unassigned

Updated: MAR-13

D2020.01.02 Valves: Domestic Water** - 1984 Section

Domestic water valves are made of bronze.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace 50 valves

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$19,000	Unassigned

Updated: MAR-13

D2020.01.03 Piping Specialties (Backflow Preventers)** - 1971 Section

A reduced pressure back flow prevention device is installed on the domestic water service and a double check valve is installed in the waterline for the fire hose cabinets. Backflow prevention devices are also installed in the feed water lines for the Cleaver Brooks and Weil McLain boilers. It is estimated that these backflow prevention devices were installed in 1989. There is no backflow prevention protection in the feed water line for the HydroTherm and AMSCO boilers and in the water lines for the laboratory sinks..

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	20	MAR-13

Event: Replace 8 backflow preventors.

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$52,500	Unassigned

Updated: MAR-13

D2020.02.02 Plumbing Pumps: Domestic Water** - 1984 Section

A B&G packaged domestic water booster system is located in the basement mechanical room to boost the domestic water pressure. The system has two pumps which are sequenced with a control panel. Each pump is driven with a 2.24 kW motor.

For the 82C domestic hot water system, two S.A.Armstrong model 8E-4300 pumps supply 82C water to the laundry and kitchen. These pumps each have a capacity of 17.1 liters/sec with a discharge head of 150 kPa and are driven with a 5.6 kW motor.

There are three domestic hot water recirculation pumps. For the building 60C water system a Grundfos model UP 26-99-BF is used. For the laundry 82C system a Grundfos model UP 26-96-F is used and for the kitchen 82C system a Grundfos model UP 26-99-BF is used. The pump bodies are constructed of bronze.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Capacity Size	Capacity Unit
2.24	kW

Event: Replace 7 pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$43,200	Unassigned

Updated: MAR-13

D2020.02.06 Domestic Water Heaters** - 1971 Section

There are two domestic water heaters both installed in 2012. They are both gas fired AO Smith (Model BTRC500A 110) with a capacity of 85 gallons.

Rating	Installed	Design Life	Updated
4 - Acceptable	2012	20	MAR-13

Capacity Size	Capacity Unit
321	litre

Event: Replace 2 water heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$12,400	Unassigned

Updated: MAR-13

D2020.03 Water Supply Insulation: Domestic* - 1971 & 1984 Section

Domestic hot and cold water pipe insulation is fibreglass. The hot water insulation is covered with a canvas jacket and the cold water has a vapour barrier in addition to the canvas jacket.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D2030.01 Waste and Vent Piping* - 1971 & 1984 Section

Waste and vent piping is made of cast iron below ground and copper above ground.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D2030.02.04 Floor Drains* - 1971 & 1984 Section

Floor drains in staff wash rooms, maintenance shops and laundry are made of cast iron and have nickel bronze strainers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D2030.03 Waste Piping Equipment*

There are two sewage pumps which pump the sewage from the basement sewerage system. The pumps are Hydromatic Aurora, model no.: 30MP-1997. Each pump is driven with a 2.24 kW electric motor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	0	MAR-08

D2040.01 Rain Water Drainage Piping Systems* - 1971 Section

Internal rain water piping is cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

D2040.01 Rain Water Drainage Piping Systems* - 1984 Section

Rain water piping is prefinished metal down spouts directing rain from the tiled roofs to concrete splash pads. The flat roof in this section has internal rain water piping of cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

D2040.02.04 Roof Drains* - 1971 & 1984 Section

Roof drains have a cast iron body and dome strainer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D2090.01 Compressed Air Systems (Non Controls)** - 1971 Section

A simplex horizontal tank mounted air compressor provides compressed air to the maintenance workshop.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Capacity Size	Capacity Unit
5.6	kWh

Event: Replace compressed air system to maintenance

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$8,200	Unassigned

Updated: MAR-13

D2090.10 Nitrous Oxide Gas Systems** - 1984 Section

A nitrous oxide system consisting of storage bottles, manifold, alarm panels, isolation valves, distribution piping and outlets are provided for the operating and case rooms and in the emergency. The source equipment was upgraded in 1997 but the piping distribution is the original 1971 system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-13

Event: Replace NO2 system: 4 outlets & 25m piping

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$15,200	Unassigned

Updated: MAR-13

D2090.11 Oxygen Gas Systems** - 1971 Section

The bulk oxygen system equipment was installed in 1997 but the distribution piping is the original 1971 system with manifold, alarm panels, isolation valves. Distribution piping and outlets are provided throughout the acute care wing. There is also a mini-bulk system to fill bottles of oxygen for residents.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-13

Event: Replace bulk O2 system (45 outlets & 150m pipes)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$80,000	Unassigned

Updated: MAR-13

D2090.11 Oxygen Gas Systems** - 1984 Section

The medical oxygen system is extended from the acute care wing into the Continuing Care Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace O2 system (32 outlets & 50m pipes)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$30,000	Unassigned

Updated: MAR-13

D2090.13 Vacuum Systems (Medical and Lab)** - 1971 Section

A medical vacuum system consisting of duplex Bush vacuum pumps each driven with a 2.24 kW motor provides vacuum throughout the Acute Care Wing and in the Continuing Care Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-13

Event: Replace med. vacuum (35 outlets & 85m pipes)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$62,000	Unassigned

Updated: MAR-13

D2090.13 Vacuum Systems (Medical and Lab)** - 1984 Section

Medical vacuum piping is extended from the acute care wing into the continuing care west wing west end.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace Med. vacuum (30 outlest & 50m pipes)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$29,000	Unassigned

Updated: MAR-13

D2090.16 Medical Air System* - 1971 Section

Medical air is provided with duplex of air compressors and a storage receiver. The equipment is manufactured by Lifeline Medical Air Systems. Each compressor is driven with a 2.24 kW motor. A series of storage cylinders are provided as a standby source. The medical air system supplies medical air throughout the acute care wing and into the west end of Area 3 in the Continuing care facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	0	MAR-08

D2090.16 Medical Air System* - 1984 Section

Medical air is extended from the Acute Care Wing into the Continuing Care Addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	0	MAR-08

D3010.01 Oil Supply Systems (Fuel, Diesel)* - 1971 Section

A duplex set of Viking pumps recirculate diesel fuel from the outdoor above ground fuel tank. Two sets of two Viking pumps supply diesel fuel into a designated day tank for each of the two emergency generator diesel prime movers. The prime movers draw diesel fuel from their designated day tank.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

D3010.02 Gas Supply Systems* - 1971 Section

Natural gas fuel is provided from the gas utility. Gas is distributed in carbon steel piping to gas burning appliances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

D3010.02 Gas Supply Systems* - 1984 Section

Natural gas piping of carbon steel is extended from the 1971 system into the 1984 addition for the laundry and kitchen equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

D3020.01.01 Heating Boilers & Accessories: Steam** - Humidity - 1971 Section

A low pressure steam boiler operating at 103 kPa supplies steam to the air handling units humidifiers. The boiler is a cast iron Weil Mclean model no.: ALGB-5. Natural gas is the fuel source with an input is 343 kW at a maximum elevation of 610 meters above sea level.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	35	MAR-13

Event: Replace 1 steam boiler & fittings

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$110,000	Unassigned

Updated: MAR-13

D3020.01.03 Chimneys (& Comb. Air): Steam Boilers** - 1971 Section

A combined combustion air duct from the outdoor provides combustion air for the gas fired appliances in the boiler room. The boiler is vented to the outdoor with a class "B" vent.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	35	MAR-13

Event: Replace 4m chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$9,000	Unassigned

Updated: MAR-13

D3020.01.04 Water Treatment: Steam Boilers* - 1971 Section

An oxygen scavenger chemical water treatment system is used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

D3020.02.01 Heating Boilers and Accessories: H.W.** - HydroTherm -1971 Section

There are two HydroTherm sectional hot water heating boilers. One boiler has three sections. It is a model no.: MR-750 ME1768. Each section has an input of 198 kW and an out put of 153 kW. The total output output for this boiler is 459 kw.The other boiler does not have a name plate. It has four sections of the same size as the three section boiler. It is assumed that the total output of the four section boiler is 612 kW.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	35	MAR-13

Event: Replace 2 Hydrotherm boilers (3 & 4 section)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$119,100	Unassigned

Updated: MAR-13

D3020.02.01 Heating Boilers and Accessories: H.W.** - Shared CB - 1971 Section

Two Cleaver Brooks, water tube hot water heating boilers provide heating for the 1984 addition. The boilers are identical, model M4W-6000. Natural gas energy input to each boiler is 1714 kW and the output rating is 1430 kW. The boilers are equipped with low water and fuel cut off, relief valve and backflow prevention on the boiler makeup water.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	35	MAR-13

Capacity Size	Capacity Unit
1430	kW

Event: Replace 2 Cleaver Brooks H.W. Boilers

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$220,000	Unassigned

Updated: MAR-13

D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler** - HydroTherm - 1971 Section

There is a common combustion air duct for the gas fired equipment in the boiler room. The two HydroTherm boilers have a combined chimney.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	35	MAR-13

Event: Replace 4m combustion air duct

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$3,200	Unassigned

Updated: MAR-13

D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler** - Shared CB - 1971 Section

A combustion air duct from the out doors provides combustion air for all gas fired equipment in the boiler room. The two Cleaver Brooks boilers have a combined chimney.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	35	MAR-13

Event: Replace 4m of chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$3,200	Unassigned

Updated: MAR-13

D3020.02.03 Water Treatment: H. W. Boiler* - 1971 Section

The Cleaver Brooks heating boilers have a pot feeder for adding chemical water treatment. The two Hydrotherm boilers have a similar method of adding chemical water treatment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

D3030.03 Reciprocating Water Chillers** - 1984 Section

The water chiller is an air cooled Trane CGABC602ACO2. It has a cooling capacity of approximately 210 kW and operates with R22.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	25	MAR-13

Event: Replace 1 water chiller

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$210,800	Unassigned

Updated: MAR-13

D3030.06.01 Refrigeration Compressors** - 1971 Section

Air cooled refrigeration compressors are used for cooling the walk-in freezer, produce cooler and dairy cooler.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	25	MAR-13

Capacity Size	Capacity Unit
15	kW

Event: Replace 3 kitchen compressors

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$21,500	Unassigned

Updated: MAR-13

D3040.01.01 Air Handling Units: Air Distribution** - 1971 Section

There are three air handling units on the roof of the 1971 Section. All three HVAC units are ENG AIR units. They are: AC-1 model no.: FW-6-151; AC-2 model no.: FW-8-251; and AC-3 FW-3-82.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 3 air units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$160,900	Unassigned

Updated: MAR-13

D3040.01.01 Air Handling Units: Air Distribution** - 1984 Section

Seven air handling units were installed in the 1984 addition. Air Processing Units API-1, APU-2 and APU-3 are located in the Penthouse. APU1 and APU-2 are HVAC units. APU-3 is a heating and ventilation. Four HVAC units on the Lower Roof of the 1984 section serve the following spaces: Unit AC-4 (ENG AIR FW-12-301) serves the Lower Floor of the 1971 section. ENG AIR unit IM-9 serves the Maintenance Shop. A Lennox unit serves the Boiler Room and an ENG AIR unit (no information)serves the Generator Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 7 air handling units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$1,268,000	Unassigned

Updated: MAR-13

D3040.01.04 Ducts: Air Distribution* - 1971 & 1984 Section

Air is distributed with galvanized sheet metal ductwork.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D3040.01.06 Air Terminal Units: Air Distribution (VAV/CV Box)** - 1971 Section

There are approximately thirty-seven variable air volume boxes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 37 VAV boxes

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$69,500	Unassigned

Updated: MAR-13

D3040.01.07 Air Outlets & Inlets: Air Distribution* - 1971 Section

Air outlets are predominantly ceiling diffusers

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

D3040.01.07 Air Outlets & Inlets: Air Distribution* - 1984 Section

Air outlets are a combination of ceiling grilles, linear ceiling diffusers and ceiling diffusers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

D3040.02 Steam Distribution Systems: Piping/Pumps** - 1971 Section

Steam piping extends from the Weil Mclain humidification boiler to the steam humidifier grids in the air handling units. Steam piping is made of carbon steel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	MAR-13

Event: Replace 225m steam piping.

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$21,700	Unassigned

Updated: MAR-13

D3040.03.01 Hot Water Distribution Systems** - 1971 Section

Hot water distribution piping is made of carbon steel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	MAR-13

Event: Replace hot water distribution system (4482.5 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$508,650	Unassigned

Updated: MAR-13

D3040.03.01 Hot Water Distribution Systems** - 1984 Section

Hot water heating piping is made of carbon steel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace hot water distribution system (4482.5 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$508,650	Unassigned

Updated: MAR-13

D3040.03.02 Chilled Water Distribution Systems** - 1971 Section

Chilled water piping is made of carbon steel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	MAR-13

Event: Replace chilled water distribution system (4482.5 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$273,900	Unassigned

Updated: MAR-13

D3040.03.02 Chilled Water Distribution Systems** - 1984 Section

Chilled water piping is made of carbon steel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace chilled water distribution system (4482.5 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$273,900	Unassigned

Updated: MAR-13

D3040.04.01 Fans: Exhaust** - 1971 in 1971 Section

There are three original exhaust fans on the roof of the 1971 section. They are: (1) Greenheck CBE-189; (2) Greenheck GB-21-10 and (3) Penn Domex DX11B.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 3 exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$18,100	Unassigned

Updated: MAR-13

D3040.04.01 Fans: Exhaust** - 1984 Section

There are seven exhaust fans on the roof of the 1984 Section. They are: (1) Two (2) Greenheck GB-18-15-180-6A are on the roof of the Continuing Care Wing.; (2) Greenheck CBE 14-7 also on the roof of the Continuing Care Wing.; (2) Greenheck CUBE-101-LHDG-QD; (3) Greenheck CBG 30-50-HP; (4) Greenheck GB-14-7; (5) Greenheck GB141-LMDX-QD and (6) Greenheck CUBE-101-LMDG-QD.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 7 exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$42,100	Unassigned

Updated: MAR-13

D3040.04.01 Fans: Exhaust** - 2006 in 1971 Section

Three exhaust fans were replaced in 2006. They are: (1) Greenheck CUBE-240-LMDG-QD; (2) Greenheck CBE-10-3 and (3) Greenheck GB-180-LMDX-QD.

Rating	Installed	Design Life	Updated
5 - Good	2006	30	MAR-13

Capacity Size	Capacity Unit
2360	L/s

Event: Replace 3 exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$18,100	Unassigned

Updated: MAR-13

D3040.04.03 Ducts: Exhaust* - 1971 & 1984 Section

Exhaust air ducts are made of galvanized sheet metal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D3040.04.05 Air Outlets and Inlets: Exhaust* - 1971 & 1984 Section

Exhaust outlets are made of steel frames with louvre bars.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

D3040.05 Heat Exchangers** - 1971 Section

An S.A. Armstrong WKG -106-410-1water to water shell and tube heat exchanger produces 60C domestic hot water. An A.S. Leitch water to an ethylene glycol/water mixture shell and tube heat exchanger provides the heating for the coils in the HVAC units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-13

Event: Replace 2 heat exchangers

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$36,500	Unassigned

Updated: MAR-13

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)** - 1971 Section

Three roof top packaged HVAC units located on the 1971 Section serve the second floor. All units are manufactured by ENG AIR. The unit located on the south end of the building is a model FW-8-251. The unit located in the centre is a model FW-6-151 and the unit on the north end is a FW-3-82.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 3 rooftop units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$233,700	Unassigned

Updated: MAR-13

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)** - 1984 Section

There are four HVAC units located on the low roof of the 1984 Section adjoining the 1971 Section. The unit models are: (1) ENG AIR FW-12-301; (2) ENG AIR IM-9; (3) ENG AIR. This unit does not have any information and (4) Lennox. This unit has no information.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 4 roof units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$549,800	Unassigned

Updated: MAR-13

D3050.03 Humidifiers** - 1971 Section

A central steam boiler provides low pressure to the steam grids in the HVAC units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	25	MAR-13

Event: Replace 3 humidifiers

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$40,800	Unassigned

Updated: MAR-13

D3050.03 Humidifiers** - 1984 Section

A low pressure steam boiler supplies steam to the steam grids in the HVAC units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	25	MAR-13

Event: Replace 4 humidifiers

Recommendation:

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$54,000	Unassigned

Updated: MAR-13

D3050.05.02 Fan Coil Units** - 1971 Section

Fan coil units are located in the ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 2 Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$12,700	Unassigned

Updated: MAR-13

D3050.05.02 Fan Coil Units** - 1984 Section

Fan coil units are located in the ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 18 Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$114,000	Unassigned

Updated: MAR-13

D3050.05.03 Finned Tube Radiation** - 1971 Section

Perimeter finned tube is enclosed in a metal cabinet.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	MAR-13

Event: Replace 160m finned tube cabinet radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$86,600	Unassigned

Updated: MAR-13

D3050.05.03 Finned Tube Radiation** - 1984 Section

Finned tube radiation is located above the ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace 200m finned tube radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$108,300	Unassigned

Updated: MAR-13

D3050.05.06 Unit Heaters** - 1971 Section

Horizontal unit heaters are located in non public spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace 4 unit heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$27,000	Unassigned

Updated: MAR-13

D3050.05.06 Unit Heaters** - 1984 Section

Horizontal unit heaters are located in non public spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace 4 Unit Heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$27,000	Unassigned

Updated: MAR-13

D3050.05.08 Radiant Heating (Ceiling & Floor)** - 1984 Section

Prefinished steel radiant ceiling panels are located in the continuing care resident rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Event: Replace 400m radiant heating panels

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$194,000	Unassigned

Updated: MAR-13

D3060.02.01 Electric and Electronic Controls** - 1971 & 1984 Sections

Electronic actuators are used to replace pneumatic controls. Line voltage electric controls are used for unit heater applications.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Event: Replace electric controls (8639 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$30,200	Unassigned

Updated: MAR-13

D3060.02.02 Pneumatic Controls** - 1971 Section

Pneumatic controls are used for operating bigger valve and damper actuators. A Devilbiss model no.: 44643 tank mounted duplex air compressor unit was installed in the 1984 addition and renovations. Compressed air is used for operating bigger controls and for the existing pneumatic controls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	MAR-13

Event: Replace pneumatic controls (4482 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$78,300	Unassigned

Updated: MAR-13

D3060.02.02 Pneumatic Controls** - 1984 Section

Pneumatic controls are used for operating bigger valve and damper actuators in air handling units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Event: Replace pneumatic controls (4482 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$78,300	Unassigned

Updated: MAR-13

D3060.02.05 Building Systems Controls (BMCS, EMCS)** - 1971 Section

A Serval BMCS and EMCS was upgraded in 2004 to current standards.

Rating	Installed	Design Life	Updated
4 - Acceptable	2004	20	MAR-13

Event: Replace BMCS controls (4482 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$140,900	Unassigned

Updated: MAR-13

D3060.02.05 Building Systems Controls (BMCS, EMCS)** - 1984 Section

The 1984 section is served from the Serval DDC system in the 1971 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Event: Replace pneumatic controls (4482 m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$140,900	Unassigned

Updated: MAR-13

D4010 Sprinklers: Fire Protection* - 1984 Section

The wet sprinkler system is provided in the 1984 Section. A siamese fire department connection is located outside the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

D4020 Standpipes* - 1971 Section

A standpipe and hose system with an exterior Siamese connection is provided in the 1971 Section only. Fire extinguisher cabinets have a 38mm valve and hose. A 100mm valve in the fire hose cabinet is provided for the fire department connection.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories* - 1971 Section

Carbon dioxide fire extinguishers are located in each of the fire hose cabinets in corridors and maintenance shop.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories* - 1984 Section

Carbon dioxide fire extinguishers are located in recessed cabinets throughout the 1984 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

Pad mounted transformer located outside the maintenance area provides 347/600V secondary service to the Service and Distribution Switchboard in the Main Electrical Room in the basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

Capacity Size	Capacity Unit
1500	kVA

D5010.02 Secondary Electrical Transformers (Interior)**

Secondary transformers (FPE) are 600V - 120/208V, 3 phase, 4 wire, dry type, mounted in ventilated enclosures.
Transformer T1 - 450 kVA for the normal power supply is located in the Main Switchboard.
Transformer T2 - 75 kVA for the emergency power supply (Generator #2) is located in the Main Switchboard.
Transformer T3 - 75 kVA for the emergency power supply (Generator #1) is located in the Generator Room, Upper Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Capacity Size	Capacity Unit
Varies	kVA

Event: Replace Dry Type Transformers (1- 300 kVA, 2 - 75 kVA)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$46,000	Unassigned

Updated: MAR-13

D5010.03 Main Electrical Switchboards (Main Distribution) - 1984**

The front accessible, free standing Service and Distribution Switchboard by FPE is rated at 2000A, 347/600V, 3 phase, 4 wire full capacity neutral. Switchboard contains:
- 2000A fixed mounted industrial Air Circuit Breaker with a solid state overcurrent protective relay.
- 2000A, 347/600V normal power distribution panel, CDP1, of thermal magnetic circuit breakers.
- Transfer Switch #1.
- Transformer T1, 450 kVA
- 1200A, 120/208V normal power secondary distribution panel, CDP 1, of thermal magnetic circuit breakers
- 225A, 347/600V emergency power distribution panel, CDPE1, of thermal magnetic circuit breakers
- Transformer T2, 75 kVA
- 225A, 120/208V emergency power distribution panel, CDP E1, of thermal magnetic circuit breakers.
- Transient Voltage Surge Suppressor (TVSS) of the service entrance type (Clipper Power System), located on top of the switchboard.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	40	MAR-13

Capacity Size	Capacity Unit
2000A, 347/600V	amps

Event: Replace Service and Distribution Switchboard (1)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$141,000	Unassigned

Updated: MAR-13

D5010.03 Main Electrical Switchboards (Main Distribution)** - 1971

Old Main Distribution Panel (now used as a CDP) is a Federal Pioneer MDP rated for 1200A 120/208V 3phase / 4W.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	40	MAR-13

Event: Replace (Old) Main Distribution Panel (1)

Concern:
This distribution equipment beyond its expected life expectancy. Replacement parts are expensive and difficult to source.

Recommendation:
Replace with new.

Consequences of Deferral:
Increased maintenance costs; failure would be catastrophic and would shut down majority of 1971 wing.

Type	Year	Cost	Priority
Failure Replacement	2014	$34,000	Medium

Updated: MAR-13

D5010.05 Electrical Branch Circuit Panelboards (208V Secondary Distribution) - 1971**

24 or 42 cct. 120/208V FPE panelboards.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	30	MAR-13

Capacity Size	Capacity Unit
varies	amps

Event: Replace nine (9) branch circuit panelboards

Concern:
FPE brand panelboards and breakers will be discontinued in 2013. Replacement parts will become increasingly expensive and difficult to source.

Recommendation:
Replace all branch circuit panelboards with new.

Consequences of Deferral:
Replacement parts will become increasingly expensive and difficult to source; component failure may cause a lengthy shutdown period.

Type	Year	Cost	Priority
Failure Replacement	2014	$43,000	Low

Updated: MAR-13

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 2003**

60 and 84 cct. 120/208V Square D panelboards for renovated CSR area.

Rating	Installed	Design Life	Updated
6 - Excellent	2003	30	MAR-13

Capacity Size	Capacity Unit
varies	amps

Event: Replace four (4) panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$31,300	Unassigned

Updated: MAR-13

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 120/208V - 1984

Branch circuit panelboards for the 120/208V secondary distribution are typically 42 circuits, 225A, 120/208V, 3 phase, 4 wire solid neutral, consisting of thermal magnetic circuit breakers with interrupting capacity of 10,000A rms symmetrical. Some are double panels with 84 circuits.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	30	MAR-13

Capacity Size	Capacity Unit
Varies	N/A

Event: Replace 120/208V Branch Circuit Panelboards (29)

Concern:
FPE brand panelboards and breakers will be discontinued in 2013. Replacement parts will become increasingly expensive and difficult to source.

Recommendation:
Replace all branch circuit panelboards with new.

Consequences of Deferral:
Replacement parts will become increasingly expensive and difficult to source; component failure may cause a lengthy shutdown period.

Type	Year	Cost	Priority
Failure Replacement	2014	$92,800	Low

Updated: MAR-13

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 347/600V - 1984

Branch circuit panelboards for the 347/600V main distribution are 42 circuit panelboards by FPE, rated 225A, 347/600V, 3 phase, 4 wire solid neutral consisting of thermal magnetic circuit breakers with interrupting capacity of 10,000A rms symmetrical. Panelboards used as distribution panelboards are rated 400A with three pole breakers of appropriate interrupting capacities.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	30	MAR-13

Capacity Size	Capacity Unit
Varies	amps

Event: Replace 347/600V Panelboards (6)

Concern:

FPE brand panelboards and breakers will be discontinued in 2013. Replacement parts will become increasingly expensive and difficult to source.

Recommendation:

Replace all branch circuit lighting panelboards with new.

Consequences of Deferral:

Replacement parts will become increasingly expensive and difficult to source; component failure may cause large areas of the Hospital to be without light.

Type	Year	Cost	Priority
Failure Replacement	2014	$33,800	Low

Updated: MAR-13

D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers - 1971**

The MCC in the mechanical room is a custom designed, 208V, 3 phase Motor Control Centre, by Canadian General Electric, consisting of combination magnetic starters with H-O-A switches and pilot lights for large three phase equipment and single phase magnetic and manual starters. Some of the starters are no longer in use.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace MCC (4 sections)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$21,450	Unassigned

Updated: MAR-13

D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers - 1984**

600V 600A Square D Canada MCC with six (6) sections, containing both standard power and emergency power sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Capacity Size	Capacity Unit
600	amps

Event: Replace MCC (6 sections)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$36,000	Unassigned

Updated: MAR-13

D5010.07.02 Motor Starters and Accessories**

Individual magnetic starters (with separate disconnect switches) from Square D are provided for mechanical equipment such as Boiler Fans. Single phase manual starters are for Force Flow Units are located throughout the hospital.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace magnetic starters (4) and single phase motor starters (14)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$5,100	Unassigned

Updated: MAR-13

D5020.01 Electrical Branch Wiring*

Wiring method is cables in conduits, concealed in finished areas and surface mounted in utility areas.
Isolated Power System (IPS) is used in the Operating Room, Recovery Room and the Trauma Room. Each has its own system. Using a 120V - 120V isolation transformer, the 5 kVA IPS is ungrounded and is constantly monitored for leakages. Furthermore, the O.R. uses Ground Integrity Monitors for all its outlets, which requires all equipment to have a separate ground connection to the system when plugged in.
Receptacles in the hospital are all hospital grade. Typically, each patient bed location is provided with two duplex receptacles - one on normal power and one on emergency power - and there usually is another convenience outlet for other uses, e.g., television set, floor lamp.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

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

The lighting system is controlled by low voltage switching with relay (relays by CGE) cabinets located adjacent to the lighting panels and pilot lighted low voltage switches controlling the room lighting or group controlling the corridors and public spaces. Exceptions are some incandescent lighting, where line voltage switches or dimmers are used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent lighting consists of recessed ceiling fixtures (pot lights) in the corridors, front foyer, board room and in the patient rooms. The patient room light, which serves as the room ambient lighting, uses a 75W R30 lamp and is dimmable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.02 Interior Fluorescent Fixtures**

The fluorescent lighting system in the hospital is comprised of magnetic ballasts and T12 40W lamps.
Ceiling lighting fixtures are standard 2 X 4 recessed and surface mounted fixtures, highlighted by louvred valance lights on both sides of the corridors. Nurses stations at LTC have low brightness louvre valances, supplemented by indirect lights in the interior. Industrial strip lights dominate the utility areas.
Patient lights are standard "hospital" bed lights with up and down components, locally switched using a cord. Those in the LTC are custom designed panels (simplified version of the patient service modules) with the up and down lights behind them - the up lights are 347V and switchable from a low voltage switch at the panel or one at the entrance of the room; the down lights are 120V and are cord switched (easily reached by the patient). The washroom has a 2-lamp, wall mounted fixture with a wrap around diffused acrylic lens.

Rating	Installed	Design Life	Updated
3 - Marginal	1984	30	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace / retrofit with T8 lamps and electronic fixtures (6,479 m2)

Concern:

T12 lamps are no longer manufactured and are quickly becoming obsolete.

Recommendation:

Replace T-12 lamps and magnetic ballasts with new energy efficient T8 or T5 lamps and electronic ballasts.

Consequences of Deferral:

Increased maintenance costs, higher than necessary energy costs, poor lighting levels.

Type	Year	Cost	Priority
Failure Replacement	2014	$600,000	Medium

Updated: MAR-13

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting battery packs with dual lighting heads are provided in the generator rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace 2 Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$2,600	Unassigned

Updated: MAR-13

D5020.02.03.03 Exit Signs*

Exit signs are internally illuminated, stencil face, exit lights with 1-15W incandescent lamp. All exit lights are on emergency power.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.05 Special Purpose Lighting* - Operating Room

Operating Room surgical lights are single head, single lamp indirect lights on tracks and swivel arms - dimmable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.01 Exterior Incandescent Fixtures*

The recessed incandescent downlights on the front entrance porch are still in operation, although they are being phased out - lamps burn out will not be replaced - after the addition of two HPS wall packs.
There is a decorative wall light at LTC - the only exterior light at the entrance.
The incandescent floodlights (on emergency power) at the emergency entrance supplements the HPS wall pack because these exterior lights are not on emergency power.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Exterior high pressure sodium lighting includes the high mast (10m) lighting standards (with twin 400W fixtures) in the parking lot, bollards on the sidewalks and large and medium size wall packs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

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

Exterior lighting is photoelectric cell and time clock controlled with manual override.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.01 Detection and Fire Alarm**

The Simplex 4100U Fire Alarm and Emergency Visual and Audio Communication (EVAC) System is a two stage, addressable and zoned system and includes:
- Detection devices including manual stations, heat and smoke detectors and duct smoke detectors.
- Visual and audio signaling devices including speakers and strobes.
- Patient rooms and corridors are provided with smoke detectors.
- Door hold open devices release upon fire alarm activation.
- EVAC controls include zoned paging and two-way communications with firemen's telephones as well as building fan control.

Rating	Installed	Design Life	Updated
5 - Good	2007	25	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fire Alarm System (8600 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$300,000	Unassigned

Updated: MAR-13

D5030.02.01 Door Answering*

A push button at the emergency entrance (for night access) rings a chime at the nurses station, similar to a residential system.
An intercom at the entrance to the Maintenance area communicates to Purchasing in the basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.02.03 Security Access**

This is a "Key Fob" security assess system, similar to the card assess system which it replaces, but uses a key-like device (instead of a card) and a proximity reader to gain assess. It is a PC based system (Magnavox), using regular security devices, that dispenses coded keys, communicates with readers for ID confirmations and records events. Readers are used at staff entrances to the building and special restricted assess locations, e.g., Laboratory, Pharmacy.

Rating	Installed	Design Life	Updated
3 - Marginal	2005	25	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Security Access System (45 Doors)

Concern:
Operator says that system is failing and needs repair or replacement.

Recommendation:
Replace access control system with new. Electric locks and magnetic locks should not require replacement.

Consequences of Deferral:
Compromised security, operational inefficiency.

Type	Year	Cost	Priority
Failure Replacement	2015	$90,000	Medium

Updated: MAR-13

D5030.02.04 Video Surveillance**

Video surveillance consists of wall mounted cameras, typically at entrances (emergency, general hospital, LTC) with monitors at emergency reception and second floor nurses station. Some "dummy" cameras from the 1984 addition are located in the long-term care area.

Rating	Installed	Design Life	Updated
5 - Good	2006	25	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace CCTV system (4 cameras, 2 monitors)

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$7,000	Unassigned

Updated: MAR-13

D5030.03 Clock and Program Systems*

Simplex master clock system has failed. Clocks are slowly being replaced with wireless atomic clocks.

Rating	Installed	Design Life	Updated
2 - Poor	1984	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Install Wireless Clocks (50)

Concern:
Old clock systems has failed and cannot be repaired.
Recommendation:
Complete installation of syncronized atomic clocks.
Consequences of Deferral:
Old abandoned clocks are unsightly, staff and patients cannot keep track of time.

Type	Year	Cost	Priority
Failure Replacement	2013	$37,500	Medium

Updated: MAR-13

D5030.04.01 Telephone Systems*

The telephone system is a NEC NEAX 2000 PBX system. Patients are not provided with telephones although telephone outlets are available in the room.

Rating	Installed	Design Life	Updated
5 - Good	2007	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.03 Call Systems**

The nurse call systems in both the Acute Care and LTC are Responder III systems by Rauland. The all solid state system provides basic visual and audio nurse call and response communications, including annunciation of calls and their priorities at the master station, lighting of corridor indicators when a call is activated and two way communications between patient room bed stations and the master station. Nurse call devices consist of push cord bedside stations, complete with loudspeaker and microphone, pull string emergency stations in the washroom, and corridor indicating lights.

Rating	Installed	Design Life	Updated
6 - Excellent	2009	25	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replacement Nurse Call System (95 Beds)

Type	Year	Cost	Priority
Lifecycle Replacement	2034	$285,000	Unassigned

Updated: MAR-13

D5030.04.04 Data Systems*

Data systems include:
- Patient Archival Computer System (PACS) for diagnostic imaging
- Personal computers for health care data (MediTech)

Rating	Installed	Design Life	Updated
5 - Good	1997	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.05 Local Area Network Systems*

Local Area Network (LAN) distribution for the data systems use category 5 cables. Server backed up by a 1000VA portable UPS by APC.
The LAN has Supernet entry.

Rating	Installed	Design Life	Updated
5 - Good	1997	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.05 Public Address and Music Systems**

The public address system has the Rauland SRX-145 Amplifier/Mixer as its head end equipment. It has cassette and radio input and is interfaced with the telephone system for paging. Ceiling loudspeakers are used in the finished areas in the Hospital.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	20	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Public Address System Head End Equipment (Amplifiers & Control Devices)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$22,500	Unassigned

Updated: MAR-13

D5030.06 Television Systems*

Cable television from Shaw is distributed to all patient rooms. Wall mounted television sets in the acute care rooms are provided by the hospital; patients have to bring their own sets in the LTC.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.07 Other Communications and Security Systems*

A Patient Wandering Protection System (Altronix) is provided in one of the LTC units for patients with dementia. The system components include FM signal wrist bands, receivers, magnetic door locks and overriding keypads. The signal from the wrist band will automatically lock the door on approach but can be overridden by the coded keypad. The locking device times itself out after the patient has moved away from the door.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	0	MAR-13

Capacity Size	Capacity Unit
N/A	N/A

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

The emergency power system consists of two 175 kW generators. Generator #1 is located at the Penthouse Mechanical Room and Generator #2 is located at the main level Maintenance area.
Each engine-generator is a turbo-charged diesel driven, radiator cooled, direct coupled unit - engine by John Deere and generator by Brown Boveri Corporation (BBC) - providing 175 kW (219 kVA @ 0.8 power factor), 347/600V, 3 phase, 4 wire emergency power supply. The floor mounted control panel, by Western Power system, includes a 225A line breaker. Battery powered starting system is constantly charged. Generator #1 has an attached radiator while Generator #2 has a remote radiator, located in the pad mount transformer enclosure.
Generator #1 is approximately 45% loaded; Generator #2, 35%. The generators do not automatically back up each other. Transfer switch #1 is located outside the generator room in the Upper Mechanical room (above the Emergency CDP E2); transfer switch #2 is located at the Service and Distribution Switchboard.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Capacity Size	Capacity Unit
2 x 175	kW

Event: Replace Emergency Generators (2x175kW)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$300,000	Unassigned

Updated: MAR-13

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.05.01 Barber and Beauty Shop Equipment*

There is a beauty salon off the corridor in the long term care wing. It is equipped with two vitreous enamel hair washing sinks, storage cupboards above and below a plastic laminate counter top with sink. The operator has provided three chair hair dryers and one free standing dryer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E1010.06 Commercial Laundry and Dry Cleaning Equipment*

The basement laundry has several components: clean linen store room, sewing room, cart wash, office, soiled linen holding room adjacent to linen chute, weigh scale and washing and drying area. It is equipped with:

Braun washer, three compartment, 270lbs (out of operation)
Wescomat stainless steel washer, 175lbs (out of operation)
2 Electrolux washers (2010)

2 Cissel dryers (~1995)
2 Speed Queen dryers (out of operation)
Braun ironing machine

There is also a domestic washer and dryer in the laundry for residents personal clothing.
Also an in-floor scale.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	0	MAR-13

E1020.07 Laboratory Equipment*

The laboratory is equipped with: CBC hematology test equipment, microbiology equipment, media fridge, extract hood, DNA testing equipment, blood chemistry analysis equipment and chairs for blood taking. Year uncertain (~1995)

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	0	MAR-13

E1030.03 Loading Dock Equipment*

There is a hydraulic scissor lift at the loading dock rated for 5500lbs manufactured by Argo. Repaired in 2009.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E1090.01.01 Vacuum Cleaning Systems*

Dry mop vacuum outlets are located in corridors. There are two 7.5 hp Spencer turbines in the basement mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

E1090.03 Food Service Equipment*

The basement hospital kitchen is equipped with:

Plating station with 4 hot steam tables and lowerator for plate storage
Stainless steel preparation table
2 Cleveland stainless steel soup kettles
2 Garland convection ovens
2 Garland conventional ovens
Garland deep fryer
2 convection steamers
Meat slicer
2 Hobart mixers
Ice maker by Hoshizaki
Potato peeler by Hobart
Tunnel dishwasher with 2 garburators (Insinkerator)

There are also a coffee station, pot wash area with high pressure wands and cart wash. The cooking area has exhaust hoods with an fire suppression. The food is stored in:

2 Foster walk in coolers
Foster walk in freezer

Servery area consists of refrigerated countertop display cases, coffee machine and till.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E1090.04 Residential Equipment* - 2nd Floor

The nourishment station on the second floor patient unit contains a fridge, ice machine, microwave oven, toaster in a kitchenette with plastic laminated counter with sink and cupboards above and below.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

E1090.04 Residential Equipment* - Continuing Care

The nourishment station on the resident unit is equipped with 2 fridges and kitchen counter with plastic laminate cupboards above and below.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E1090.07 Athletic, Recreational, and Therapeutic Equipment* - 1984

The rehabilitation department gym is equipped with parallel bars, steps, three treatment cubicles, a cubicle with overhead steel grid and stationary bicycles. There is a work room with equipment for preparing hot and cold packs. There is also a charting room for staff with interior windows overlooking the gym area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E1090.07 Athletic, Recreational, and Therapeutic Equipment* - 2000

There is a room on the second level for a cardiac rehabilitation program with three tread mills and heart monitoring equipment.

Rating	Installed	Design Life	Updated
5 - Good	2000	0	MAR-13

E2010.01 Fixed Artwork*

4 wall mural panels are located in the main reception lobby.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E2010.02 Fixed Casework** - 2nd Floor

Original casework includes Acute Care patient rooms casework; Room Vanities (9.0m). Pelative care waiting room kitchen counter (2.0m).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	35	MAR-13

Event: Replace original 2nd Floor Casework (11.0m)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$5,800	Unassigned

Updated: MAR-13

E2010.02 Fixed Casework** - 2nd Floor Renovations

Renovations included casework upgrades to nurses stations; counter with lower cupboards (13.0m), Cleanroom; counters with upper and lower cupboards (5.5m), medication storage; counter with cupboards (3.0m), palliative care lounge; kitchen counter (2.5m), ICU; counter with cupboards (2.4m), O.R. Washrooms; vanities (2.0m), O.R. Equipment cleanup; counter with cupboards (1.8m), and Renovated patient room washrooms; vanity (13m).

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	35	MAR-13

Event: Replace cabinets (25.0m)

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$24,785	Unassigned

Updated: MAR-13

E2010.02 Fixed Casework** - Main Floor & Bsmt

Main Floor of the original hospital has fixed casework located in the emergency reception; counter with cupboards, emergency treatment rooms; counter with upper and lower cupboards, emergency staff room; kitchen counter, public washrooms; vanities, in-service room; kitchen counter, medical records work area; counter, doctors' dictation room; counters, laboratory; counters with upper and lower cabinets, X-ray department; counter with upper and lower cabinets & bench in change rooms, nursing stations, office work room; counter with upper and lower cabinets, and admitting areas; counter with lower cabinets.
Basement areas have fixed casework location in the cafeteria; servery counter and condiment counter, and public washrooms; vanities,
The fixed casework in the continuing care patient rooms consists of vanity counters with extensions. There are fixed cabinets in the nursing stations; counters with upper and lower cupboards, rehabilitation; kitchen cabinets, patient recreation area; kitchenette, greenhouse; counter with lower cupboards, patient dining; servery counter with lower cupboards, continuing care wings lounges; kitchen counters, pharmacy; counter with upper and lower cupboards and maintenance area; counter with upper and lower cupboards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Event: Replace Main Floor & Bsmt Casework (6800m2/gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$771,600	Unassigned

Updated: MAR-13

E2010.03.01 Blinds** - Horizontal

There are roller blinds in the laboratory, recreation room, patient lounges, and recreation area kitchen. Horizontal blinds in the doctors lounge, meeting rooms, .

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace Horizontal Blinds (115m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$15,100	Unassigned

Updated: MAR-13

E2010.03.01 Blinds** - Vertical

There are vertical vinyl blinds covering windows in admin. Offices interior windows, resident rooms, patient dining and physiotherapy area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	30	MAR-13

Event: Replace Vertical Blinds (475m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$62,200	Unassigned

Updated: MAR-13

E2010.04 Fixed Floor Grilles and Mats*

Recessed floor grille at main entrance vestibule and delivery entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E2010.05 Fixed Multiple Seating**

Built-in couch seating located adjacent to lab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	35	MAR-13

Event: Replace Couch Seating (9.0m)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$7,900	Unassigned

Updated: MAR-13

E2010.06 Fixed Interior Landscaping*

There are planters with oak trim associated with the resident seating areas in the corridor and located behind public seating in the main internal corridor of the original hospital.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

E2020.02.04 Furnishings and Accessories* - Acute Care

The acute care unit operates 25 beds. Each patient is provided with hospital bed, night stand, arm chair and locker. Some rooms have en-suite wash rooms, other rooms share wash rooms with adjacent rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

E2020.02.04 Furnishings and Accessories* - Continuing Care

There are 69 continuing care resident beds in operation. Each resident is provided with bed, night stand, arm chair, locker and has access to resident lounges, recreation and dining areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

F1020.02.03 Clean Rooms*

The special purpose rooms are: case room and operating room on the second floor; sterilization room located off surgery wing. These are equipped with OR lights, operating table and cabinets for supplies. The operating room and case room have stainless steel storage cabinets. Sterilization room has all stainless steel equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	50	MAR-13

F1020.02.12 Vaults*

A small vault is located in the main reception work room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

F1020.03 Other Integrated Construction* - Ultrasound Room

There is an ultrasound room close to the link with the acute care section equipped with ultrasound machine and patient stretcher.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	50	MAR-13

F1040.05 Liquid and Gas Storage Tanks*

There is bulk oxygen storage tank on the north wall of the hospital with a chain link fence provided by Praxair. There are also smaller cylinders for topping up patient personal oxygen supplies in the ambulance garage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

Event: Relocate medical gas storage

Concern:

Oxygen cylinders are stored in the ambulance garage. The medical gas cylinder storage room is not vented and accessible from the ambulance garage in violation of the Code.

Recommendation:

Relocate medical gas cylinder storage to vented room accessible from the exterior.

Consequences of Deferral:

Medical gas storage will continue to be non-compliant with Code.

Type	Year	Cost	Priority
Code Upgrade	2013	$11,266	High

Updated: MAR-13

S8 SPECIAL ASSESSMENT

K3010.01 Plumbing for Program Equipment*

Original 1971 building is not equipped with automatic sprinkler system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

Event: Install sprinkler system in original building (2888m2)

Concern:
Upgrade to meet current code requirements
Recommendation:
Install sprinkler system

Type	Year	Cost	Priority
Code Upgrade	2013	$280,000	Low

Updated: MAR-13

K4010.01 Barrier Free Route: Parking to Entrance*

The route from the parking lot to the main entrance is barrier free with no steps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

K4010.02 Barrier Free Entrances*

All entrances are barrier free.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

K4010.03 Barrier Free Interior Circulation*

Interior circulation is barrier free with no steps and elevators accessing all floors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

K4010.04 Barrier Free Washrooms*

All continuing care resident wash rooms are barrier free. Barrier free wash rooms have been developed in the acute care patient wash rooms. There are also barrier free public wash rooms on the main floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

K4030.01 Asbestos*

Asbestos was not observed and staff reported all asbestos has been removed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-13

K4030.04 Mould*

Mould was neither observed nor reported during audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)*

CFCs were neither observed nor reported during audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

K4030.08 Biohazardous Materials*

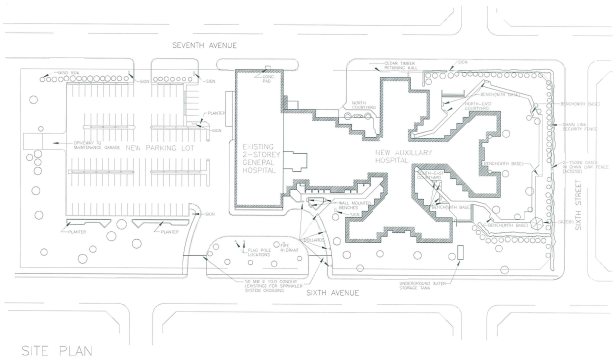
Biohazardous materials are stored frozen before shipment to Swanhills for disposal. The prefinished steel freezer is located close to the loading dock in the service yard at the north side of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

K5010.01 Site Documentation*

The Site was visited on Jan 31, 2014 by PBK Architects/GENIVAR for the building review.
At that time snow was present in the landscaping areas, but all driveways and walks had been cleared and were viewable. The maintenance staff was questioned thoroughly on the state of the grass and landscaping.
Of particular evidence was the frost heaving on the paving stone pathways and ice build-up from downspouts which is causing concern.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13

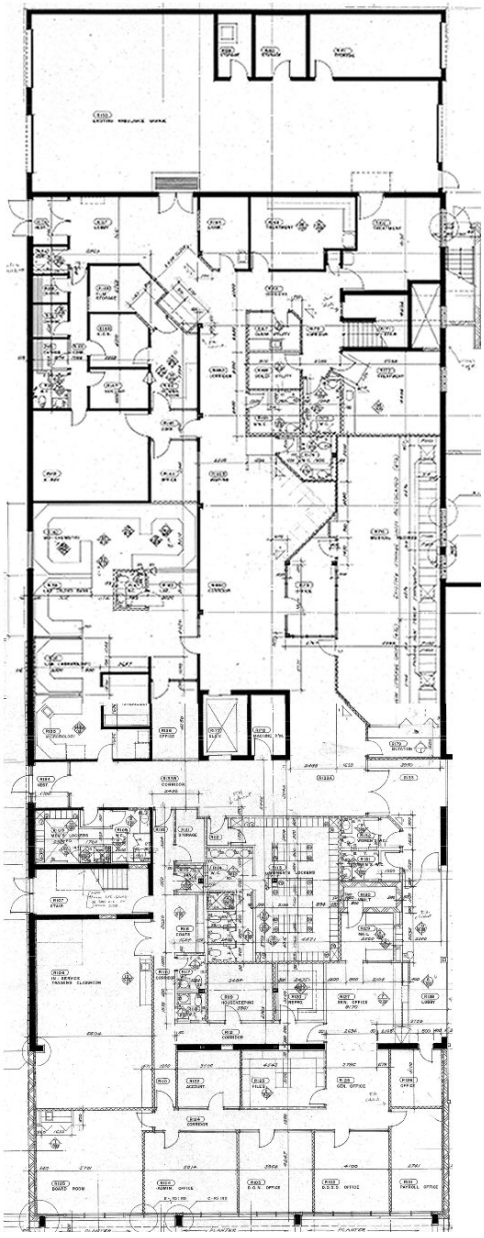


site.jpg

K5010.02 Building Documentation*

The Site was visited on Jan 31, 2014 by PBK Architects/GENIVAR for the building review.
At that time snow was present on the flat roof areas. The maintenance staff was questioned thoroughly on the state of the roofing, flashing and parapets which were all recently upgraded.
Currently the north wing of continuing care is vacant and 2 patient rooms have been converted to offices.
Not all patient rooms were viewed due to occupancy but at least one of each type of room in each wing was observed and it is assumed the other rooms were in the same condition. There were a few areas though typical were reviewed due to noted deficiencies by maintenance staff.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	MAR-13



HospitalMain.jpg