

RECAPP Facility Evaluation Report

Alberta Health Services-North



Whitecourt Healthcare Centre

B1187A
Whitecourt

Facility Details	
Building Name:	Whitecourt Healthcare Centr
Address:	20 Sunset Boulevard
Location:	Whitecourt
Building Id:	B1187A
Gross Area (sq. m):	3,592.00
Replacement Cost:	\$18,472,980
Construction Year:	1967

Evaluation Details	
Evaluation Company:	Wade Engineering
Evaluation Date:	October 10 2013
Evaluator Name:	Ron Shannon/Ryan Vanberg

Total Maintenance Events Next 5 years: \$646,373
5 year Facility Condition Index (FCI): 3.50%

General Summary:

The single storey Whitecourt hospital was constructed in 1967 and was expanded in 1997 with an addition to the northwest for material management, an addition to the southwest for a new laboratory and X-ray department, a south expansion of the ambulance bay and a new health unit to the northeast.

1997 is considered to be the base year for the finishes. The nurses residence has been converted to administration/records, doctor's offices and lounge and meeting rooms. The health care centre is a 24 bed accredited facility including 2 special care beds, and one palliative care bed. Other programs and services currently provided in the health care centre are: administration, admitting, cardiac stress testing, central supply, continuing care, emergency, food services, health records, housekeeping, lab, laundry, maintenance, materiel management, nursing, nutrition, operating room, outpatients, pharmacy, renal dialysis, rehabilitation, ultrasound and X-ray.

Structural Summary:

The 1967 and 1997 sections have perimeter foundation walls on strip footings and steel columns on concrete pads internally with a steel frame superstructure with open web steel roof joists. The health unit and the former nurses' residence also have concrete foundation walls and strip footings. The nurses' residence has a wood superstructure. The health unit has a wood joist roof spanning steel beams internally and perimeter wood stud walls.

The overall condition of the structure is good.

Envelope Summary:

Building exterior was upgraded in 1997. The 1967 nurses residence still has original aluminum windows with asbestos spandrel panels. All other areas have PVC windows and painted steel entry doors. There is limited information on the roofing but it appears that the roofs were installed in 1997. Roof maintenance is required to repair minor deficiencies. Exterior finishes are a combination of steel cladding, painted concrete block, EIFS acrylic stucco and veneer face brick. Repairs are recommended to the EIFS to repair damage at grade. The overall condition of the envelope components is acceptable.

Interior Summary:

There is a mix of floor finishes throughout the health care centre from carpet in the health unit offices, sheet vinyl the lab/X-ray wing, linoleum in the inpatient areas to an engineered wood floor in the solarium and waiting areas. Ceilings are typically gypsum board or suspended T-bar. Wall finishes are a combination of painted block or GWB. Replacement of carpet finishes is scheduled for 2014.

Overall the condition of the interior is acceptable.

Mechanical Summary:

The majority of the original mechanical systems were replaced or refurbished in the 1997 addition to the facility. The plumbing systems of the building consists of domestic water distribution, natural gas, storm and sanitary piping, and plumbing fixtures are mostly original. Domestic hot water is supplied by three domestic hot water heaters. The washrooms fixtures have wall hung and counter mounted lavatories, and floor mounted flush valve type water closets. The shower rooms are equipped with wall mounted shower heads with hand valve operation. Custodial mop sinks are present in custodial rooms throughout the building. Stainless steel sinks are located in the several rooms. Heating of the building is provided by two low pressure steam boilers rebuilt in 1997 which are connected to two heat exchangers (steam to hot water and steam to glycol). Heating water is circulated through perimeter finned radiation, convectors and unit heaters in the facility. Heating glycol is circulated through the air handling unit coils. There are two ventilation units located in the Penthouse to provide tempered air to the general areas and the special care areas of the older portion of the building via a ceiling distribution system. Cooling is provide by DX coils, with the condensing units located on the roof adjacent to the Penthouse area. Humidification is provided by steam grid humidifiers.

Package roof top unit are located on the roof to provide tempered air to the other portions of the facility via ceiling distribution systems .A small natural gas fired high pressure steam boiler is located in the mechanical room to provide service to the central sterilization room.

A combination of pneumatic and electric controls are used to control the mechanical equipment. Fire extinguishers are located throughout the building.

Other building systems include:

Oxygen and medical air are provided via a manifold system of bottles in the gas storage room at the west end of the building. Medical vacuum and Medical air is provided by a vacuum pumps located in the compressor room.

Items requiring attention within the next 5 years are:

Recommendation to do a management plan for the remaining heating pipe Asbestos insulation.

Overall the facility appears to be in acceptable condition.

Electrical Summary:

The building is fed from an underground Utility'pad mounted transformer, north of the building. Electrical service is a, 120/208V 3 phase 4 wire unit manufactured by Square "D". main service is made-up of a 1600 amp main breaker and breaker distribution section which feeds electrical panelboards throughout the building. Emergency power is provided to the building by a 80 kW diesel engine emergency generator through an automatic transfer switch which supplies emergency panelboards within the facility.

The primary interior lighting is by fluorescent fixtures which utilize T8 lamps and energy efficient ballasts. Architectural fixtures in the building utilize compact fluorescent lamps. Emergency lighting is provided by the emergency generator power supply to selected building fixtures and exit signage throughout the building. Addition emergency lighting is provided by remote battery packs in critical areas of the centre. Exterior lighting around the perimeter of the building are HID fixtures all with high pressure sodium lamps. Interior lighting is controlled by line and low voltage control, exterior lighting is controlled by photo cells and timers.

The building fire alarm detection system is a two stage addressable system throughout the building.The buildings main telephone system is integrated with the Public Address System for building communication. The building has internet service which is distributed by Cat 5 and Cat 6 data network cabling throughout the building. The building has a CCTV camera system monitors interior and exterior areas of the facility. Cable television is distributed through wiring closets to patient rooms and common area TV monitors throughout the facility. The building has Nurse call system which has audio and visual signals and two-way communications to patient areas and A patient wander guard system, which activates electric door locks in certain wings of the health centre to contain patients to certain areas of the health center.

The following upgrades and repairs should be considered over the next 5 years:

Conduct a power study on the building.

Overall, the electrical systems are in good condition.

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

S1 STRUCTURAL

A1010 Standard Foundations* - 1967 Section - Hospital

Typically foundations consist of 250mm wide reinforced poured concrete foundation walls carried on 300mm deep X 500mm wide poured reinforced concrete strip footings at the building perimeter. The strip footings are 1500mm below finished floor level.

Internally steel columns are carried on 900mm X 900mm X 300mm deep reinforced concrete pads. There are also internal 250mm reinforced poured concrete walls on 500mm wide X 300mm deep strip footings. All footings are 1500mm below finished floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	FEB-09

A1010 Standard Foundations* - 1967 Section - Nurses Residence

The foundations for the residence consist of 200mm poured concrete walls on poured concrete strip footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	FEB-09

A1010 Standard Foundations* - 1997 Section

The foundations are typically 200mm reinforced poured concrete foundation walls on 300mm deep poured concrete strip footings at a minimum of 1200mm below the floor slab at the perimeter. Internal hollow steel section columns in the health unit are carried 900mm square X 300mm deep concrete pads located 300mm below the floor slab.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

A1030 Slab on Grade* - 1967 Nurses' Residence

There is a 125mm poured concrete slab on grade throughout the residence.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

A1030 Slab on Grade* - 1967 Section

There is a 125mm concrete slab on grade throughout with reinforcing bars at 150mm centres each way.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	FEB-09

A1030 Slab on Grade* - 1997 Section

There is a 225mm poured concrete slab on grade with steel reinforcing 450mm each way.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B1010.01 Floor Structural Frame (Building Frame)* - 1967 Nurses Residence

The single storey building frame consists of 50mm X 150mm wood studs at 400mm centres carrying 50mm X 300mm fir joists also at 400mm centres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	MAR-14

B1010.01 Floor Structural Frame (Building Frame)* - 1967 Section

The single storey building frame consists of open web steel joists at 1500mm and 1650mm centres (1150mm for the penthouse floor) spanning perimeter glulam beams and concrete block walls with a reinforced lintel course top and bottom. The glulam beams span 75mm diameter steel pipe columns. Internally the open web steel joists span steel beams carried on HSS steel columns. Open web steel joist vary in depth from 600mm to 550mm.

The penthouse on the roof consists of exterior walls of 50mm X 100mm wood studs at 400mm centres. 50mm X 300mm wood joists at 300mm centres span from outside wall to outside wall

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	MAR-14

B1010.01 Floor Structural Frame (Building Frame)* - 1997 Section

The building frame of the 1997 materiel management addition consists of 600mm deep open web steel joists at 1500mm centres spanning between 200mm concrete block walls.

The building frame for the 1997 lab/X-ray addition consists of 550mm deep open web steel joists spanning from a perimeter steel beam and an interior 200mm concrete block wall.

The building frame for the 1997 health unit consists of 50mm X 300mm wood joists spanning steel beams carried on hollow section steel columns internally and perimeter stud walls of 50mm X 150mm wood studs at 450mm centres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1967 Section

There are 250mm and 200mm concrete block walls in the northwest service wing and the northeast section of the hospital carrying the roof open web steel joist.

An interior 50mm X 150mm wood stud wall in the nurses residence carries the wood joist roof structure.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	FEB-09

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1997 Section

Interior concrete block walls have been constructed adjacent to existing exterior block and masonry walls to carry the new roof structure for the 1997 additions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B1010.03 Floor Decks, Slabs, and Toppings* - 1967 Section

The floor deck throughout is trowelled concrete slab on grade.
 The roof deck consists of 50mm thick spruce deck spanning open web steel joists.
 The roof penthouse has a 100mm thick T & G wood deck.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

B1010.03 Floor Decks, Slabs, and Toppings* - 1997 Section

Floor decks are trowelled concrete slab on grade throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B1010.09 Floor Construction Fireproofing*

Combination of non-combustible and combustible construction meeting the code of the day.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

B1010.10 Floor Construction Firestopping*

No unsealed penetrations observed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

B1020.01 Roof Structural Frame* - 1967 Section

The roof structure consists of open web steel joists spanning glulam beams and steel beams carried on concrete block walls and steel pipe columns.
 The roof to the penthouse and nurses residence consist of wood joists spanning wood stud walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	FEB-09

B1020.01 Roof Structural Frame* - 1997 Section

The roof frame of the 1997 material management addition consists of 600mm deep open web steel joists at 1500mm centres spanning between 200mm concrete block walls.
 The roof frame for the 1997 lab/X-ray addition consists of 550mm deep open web steel joists spanning from a perimeter steel beam and an interior 200mm concrete block wall.
 The roof frame for the health unit consists of 50mm X 300mm wood joists spanning steel internal beams and wood stud exterior walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

B1020.03 Roof Decks, Slabs, and Sheathing* - 1967 Section

The roof deck to the hospital and penthouse is 50mm thick spruce. The residence has 20mm spruce T & G decking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

B1020.03 Roof Decks, Slabs, and Sheathing* - 1997 Section

The roofs are galvanized steel decking throughout.

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

B1020.04 Canopies* - 1997 Section

There is a free standing canopy over the main entrance constructed of 215mm X 215mm octagonal glulam columns on poured reinforced concrete posts on poured reinforced 300mm deep concrete pad footings. The framing is glulam beams with open roof areas on each side of a steel clad pyramidal roof. The roof is drained by means of metal gutters and rain water leaders to concrete splash pads at grade.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

B1020.06 Roof Construction Fireproofing* - 1967 Section

Roof fire proofing in the original hospital is provided by gypsum lath and gypsum plaster ceilings in patient areas. 14mm fireguard gypsum board ceilings in the nurses residence provide fire proofing to the roof.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

S2 ENVELOPE**B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1967 Section**

The brick skin consists of 6" SCR brick veneer with a backing of 50mm X 75mm wood strapping with batt insulation, poly vapour barrier and gypsum board lath and plaster interior finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

B2010.01.02.02 Concrete Block: Ext. Wall Skin* - 1967 Section

The north and south elevations of the west service wing are painted concrete load bearing block.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

B2010.01.05 Exterior Insulation and Finish Systems (EIFS)* - 1997 Section

EIFS Acrylic stucco finish on rigid insulation applied between brick veneer finishes and along entire south elevation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1997	0	MAR-14

Event: Repair EIFS Finishes.- (266m)**Concern:**

Damage to the EIFS finish in random locations and at grade from landscaping crews.

Recommendation:

Repair EIFS finish (approximately 300 mm high) around perimeter of building with reinforcing mesh and new top coat to prevent moisture entry through the exterior cladding.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2015	\$24,000	Low

Updated: MAR-14

B2010.01.06.03 Metal Siding**

Prefinished channel wall siding 1.3 m high around perimeter building and cladding on mechanical room penthouse.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	40	MAR-14

Event: Replace exterior metal siding.- (665 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$249,600	Unassigned

Updated: MAR-14

B2010.01.06.05 Vinyl Siding**

Double 4.5 lap siding on link to nurses residence.

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

Event: Replace vinyl siding.- (40 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$3,200	Unassigned

Updated: MAR-14

B2010.01.09 Expansion Control: Ext. Wall* - 1997 Section

Some of the V-grooves in the acrylic stucco provide have joint sealers to allow for movement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1997 Section**

There is caulking to the vinyl windows and steel door frames in the 1997 additions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1997	20	MAR-14

Event: Replace exterior sealants - all sections (366 m)

Concern:

Sealant joints between windows and surrounding claddings have failed and are open to water entry.

Recommendation:

Cut out and replace exterior sealants.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$17,280	High

Updated: MAR-14

B2010.01.13 Paints (& Stains): Ext. Wall - 1967 Section**

The north and south elevations of the west service wing are painted concrete load bearing block.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	15	MAR-14

Event: Repaint concrete block wall.- (100m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$2,700	Unassigned

Updated: MAR-14

B2010.01.99 Other Exterior Wall Skin* - 1967 Nurses Residence

The nurses residence has asbestos cement panels under the windows.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1997	0	MAR-14

Event: Replace 1m x .5m asbestos panels.- (17)

Concern:

The asbestos cement panels under windows in the nurses residence have deteriorated and require replacement.

Recommendation:

Replace panels with prefinished insulated metal panels.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2015	\$5,000	Low

Updated: MAR-14

B2010.02.05 Wood Framing: Ext. Wall Const.* - 1967 Section

The wood frame walls in this section of the health centre are 50mm X 100mm wood studs at 400mm centres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	MAR-14

B2010.02.05 Wood Framing: Ext. Wall Const.* - 1997 Section

The wood frame walls in this section of the health centre are 50mm X 150mm wood studs at 400mm centres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1967 Section

Exterior walls have 89mm batt insulation and a poly vapour barrier.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1997 Section

Exterior stud walls have a poly vapour barrier over 150mm batt insulation and 12mm rigid insulation on exterior wood sheathing in the material management addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1997 Section

Exterior concrete block walls have 50mm rigid insulation in the material management addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

B2010.05 Parapets* - 1967 Section

Parapets have a pre-finished metal capping and vertical flashing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	FEB-09

B2010.05 Parapets* - 1997 Section

Parapets have a pre-finished metal capping and vertical flashing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B2010.06 Exterior Louvers, Grilles, and Screens* - 1967 Section

There are pre-finished metal grilles on the west and east side of the penthouse, on the north and west elevations of the health centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B2010.06 Exterior Louvers, Grilles, and Screens* - 1997 Section

There is a pre-finished metal grille on the wall of the emergency generator room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B2010.09 Exterior Soffits*

There are pre-finished metal soffits throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1967 Nurses Residence**

Aluminum windows with dual glazed insulated glass. Spandrel panel is finished with painted asbestos cladding.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	MAR-14

Event: Replace aluminum windows.- (27 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$20,400	Unassigned

Updated: MAR-14

B2020.01.01.06 Vinyl, Fibreglass & Plastic Windows -1997 Sections**

Windows (all sections excluding the nurses residence) are PVC frames with dual pane insulated glass units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14

Event: Replace PVC windows.- (89 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$132,100	Unassigned

Updated: MAR-14

B2020.03 Glazed Curtain Wall**

White aluminum curtain wall with sloped glass in atrium off the cafeteria.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14

Event: Replace atrium curtain wall.- (66 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$92,200	Unassigned

Updated: MAR-14

B2030.01.02 Steel-Framed Storefronts: Doors**

The main entrance doors to the health centre are painted steel with glazed panels top and bottom and equipped with paddle activated electric opener.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-14

Event: Replace main entrance doors.- (2 panels)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$6,100	Unassigned

Updated: MAR-14

B2030.02 Exterior Utility Doors - 1967 Nurses' Residence**

There are two solid core utility doors with aluminum frames into the old nurses residence.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	MAR-14

Event: Replace 2 utility entrance doors

Concern:

Entry doors into nurses residence have deteriorated and require replacement.

Recommendation:

Replace doors.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$2,500	Medium

Updated: MAR-14

B2030.02 Exterior Utility Doors - 1997 Section**

Utility doors are painted steel in pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14

Event: Replace 13 steel doors (incl 2 double doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$15,700	Unassigned

Updated: MAR-14

B2030.03 Large Exterior Special Doors (Overhead)* - 1997 Section

There is a prefinished motorized insulated metal overhead door to the ambulance bay.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1997	0	MAR-14

Event: Replace ambulance bay door.- (1)

Concern:

Ambulance door has been damaged and is no longer functioning and ambulance bay has been closed.

Recommendation:

Replace rolling door and motor. Door has been ordered and is expected to be installed in 2013.

Consequences of Deferral:

Ambulance cannot enter bay for patient drop off.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$16,000	High

Updated: MAR-14

B3010.01 Deck Vapour Retarder and Insulation* - 1967 Section

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

B3010.01 Deck Vapour Retarder and Insulation* - 1997 Section

There is sloped rigid insulation and a vapour barrier in the roof of this section of the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1967 Nurses Residence and Link**

A&G built up roof over the 1967 nurses residence and link section of the hospital.

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

Event: Replace built up roof.- (361m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$78,800	Unassigned

Updated: MAR-14

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1997 Section**

There is a built up roof over the 1997 sections of the hospital.

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

Event: Complete localized repairs and maintenance.- (10 m2)

Concern:

Minor leaks reported on various roof sections, blisters in several locations and general maintenance.

Recommendation:

Complete target repairs (approximately 10 m²), repair blisters and caulk all chimney collars.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2014	\$5,000	Medium

Updated: MAR-14

Event: Replace built up roof.- (3231 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$705,100	Unassigned

Updated: MAR-14

B3010.07 Sheet Metal Roofing**

Standing seam metal roof on canopy over main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14

Event: Replace standing seam roof.- (32 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$9,800	Unassigned

Updated: MAR-14

B3020.01 Skylights**

There are four acrylic skylights on the facility.

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

Event: Replace 4 skylights.- (1m² each)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$5,600	Unassigned

Updated: MAR-14

B3020.02 Other Roofing Openings (Hatch, Vent, etc)* - 1967 Section

There are roof penetrations throughout including steel pitch pockets and lead flashings over vent pipe penetrations. The roof hatch is located in the penthouse which has an exterior door onto the roof.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

B3020.02 Other Roofing Openings (Hatch, Vent, etc)* - 1997 Section

There are prefabricated roof hatches in the roofs to the health unit and the materiel management additions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

S3 INTERIOR

C1010.01 Interior Fixed Partitions* - 1967 Section

Interior fixed partitions in this section are concrete block in the physical plants section, 150mm steel studs with gypsum board both sides in other areas including gypsum board on resilient clips in the inpatient unit, administration, diagnostic and treatment areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

C1010.01 Interior Fixed Partitions* - 1997 East and South Additions

Interior partitions consist of gypsum board with resilient clips both sides of 150mm wood studs in the health unit which is separated from the original hospital by a concrete block wall with gypsum board on metal strapping both sides.

Interior fixed partitions in the south lab/X-ray addition consist of gypsum board both sides of 150mm wood studs with acoustic batts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

C1010.01 Interior Fixed Partitions* - 1997 West Addition

Interior fixed partitions consist of 200mm concrete block and 150mm concrete block.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

C1010.03 Interior Operable Folding Panel Partitions**

There is a vinyl folding partition in the health unit meeting room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-14

Event: Replace folding partition.- (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$15,289	Unassigned

Updated: MAR-14

C1010.05 Interior Windows*

The interior windows consist of clear glass in a painted pressed steel frames .

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

C1010.06 Interior Glazed Partitions and Storefronts*

There are pre-finished steel storefronts with a chair rail enclosing the acute care waiting area and the rehabilitation department.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

C1010.07 Interior Partition Firestopping*

Interior partition fire stopping appeared to be complete at the time of inspection.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

C1020.01 Interior Swinging Doors (& Hardware)*

There is a mix of interior swinging doors. Solid core doors with painted pressed steel frames with side lights or solid core glazed doors are located in the health unit. Solid core doors in painted pressed steel frames are located in the lab/X-ray section and the inpatient area. There are also hollow core wood doors in some locations such as the lab/X-ray area and nurses residence.

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

C1020.02 Interior Entrance Doors*

Steel framed vestibule doors at main entrance.

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

C1020.03 Interior Fire Doors*

There are solid core fire doors separating the service wing and the health unit from the acute care section. There are also metal fire doors to the mechanical room and materiel management.

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

C1020.04 Interior Sliding and Folding Doors*

There is a glazed aluminum framed sliding door into the emergency department.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	FEB-09

C1030.01 Visual Display Boards**

There are white boards and tack boards located in the cafeteria, exam rooms and other rooms throughout the health centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14

Event: Replace 12 visual display boards.- (12m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$10,193	Unassigned

Updated: MAR-14

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

There are fabricated steel toilet partitions in the womens' change area.

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

Event: Replace 2 cubicle partitions

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$2,900	Unassigned

Updated: MAR-14

C1030.05 Wall and Corner Guards*

There are vinyl corner guards throughout the facility in the patient areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

C1030.06 Handrails*

There are vinyl clad hand rails in patient areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

C1030.08 Interior Identifying Devices*

All rooms have plastic signage with room numbers and function.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

C1030.10 Lockers**

There are prefinished steel lockers in the doctors' and staff change rooms. 35 full and 36 half lockers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-14

Event: Replace 53 lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$31,000	Unassigned

Updated: MAR-14

C1030.12 Storage Shelving*

There is a variety of shelving throughout the health centre including wood and steel wire shelving in materiel management, plastic laminate shelving in the sterile supply and pharmacy, wood shelving in the doctors' library, wood and plastic laminate throughout in offices and work areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

C1030.14 Toilet, Bath, and Laundry Accessories*

There are paper towel, toilet roll and soap dispensers as well as mirrors and waste receptacles in staff and public wash rooms.

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

C3010.06 Tile Wall Finishes**

There are glazed tile wall finishes in the on call doctors' bathroom, patient bathing room, labour delivery area and the operating theatres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14

Event: Replace glazed wall tile.- (360 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$110,000	Unassigned

Updated: MAR-14

C3010.11 Interior Wall Painting*

Concrete and gypsum board wall finishes are painted throughout the health centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

C3020.01.02 Painted Concrete Floor Finishes*

There are painted concrete floor finishes in the physical plant areas including the mechanical room, materiel management, medical gas storage and grounds storage.

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

C3020.02 Tile Floor Finishes**

There are quarry tiles in the main health centre kitchen.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	50	MAR-14

Event: Replace quarry tile.- (50m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2047	\$16,600	Unassigned

Updated: MAR-14

C3020.02 Tile Floor Finishes - 1967 Nurses Residence**

Mosaic tile in the washroom/shower room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	50	MAR-14

Event: Replace ceramic floor tile.- (40 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$8,400	Unassigned

Updated: MAR-14

C3020.04 Wood Flooring**

Engineered composite wood flooring in cafeteria and atrium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2011	30	MAR-14

Event: Replace wood flooring.- (146 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2041	\$39,600	Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring**

There is a mix of sheet vinyl and linoleum (Marmoleum) throughout the health centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14

Event: Replace resilient flooring.- (2434 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$233,700	Unassigned

Updated: MAR-14

C3020.08 Carpet Flooring**

There is carpet flooring in the health unit, the doctors' on-call accommodation in the old nurses' residence, the corridor link to the old nurses' residence and patient lounge.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1997	15	MAR-14

Event: Replace carpet.- (581 m²)

Concern:

Carpet is exhibiting significant wear and has reached the end of it's serviceable life.

Recommendation:

Replace with medium wear high density carpet.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$142,000	Low

Updated: MAR-14

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

There are T-bar acoustic tile ceilings throughout the health centre in corridors, offices and other areas.

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

Event: Replace acoustic tile.- (2500 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$139,700	Unassigned

Updated: MAR-14

C3030.07 Interior Ceiling Painting*

Gypsum board ceilings in patient rooms, waiting area, diagnostic and treatment areas are painted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

S4 MECHANICAL

D2010.04 Sinks**

There are (18) single compartment stainless steel sinks, (5) double compartment stainless steel sinks, (2) floor mounted composite mop service basins, (1) large double compartment operating room scrub sink,(1), three compartment stainless steel laundry sink, and (1), three compartment commercial kitchen sink installed in the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (23) stainless steel sinks, (1) Scrub sink, (2) stainless steel compartement sinks, (2) Mop sinks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$65,500	Unassigned

Updated: MAR-14

D2010.04 Sinks** - Specialty

There are two (2) specialty bedpan wash sinks in the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (2) Bedpan wash Sinks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$5,000	Unassigned

Updated: MAR-14

D2010.05 Showers** - Specialty

There are two (2) wheel chair shower rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (2) Showers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$9,000	Unassigned

Updated: MAR-14

D2010.06 Bathtubs**

There is one (1) combination bathtub and shower in the doctors' lounge.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) Bathtub

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$4,600	Unassigned

Updated: MAR-14

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

There are approximately (1) vitreous china wall-hung tank type water closets in room 307, (29) vitreous china floor mounted tank type, water closets, (2) floor mount vitreous china flush valve water closets, (31) wall-hung vitreous china lavatories and (5) stainless steel and vitreous china countertop lavatories located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	35	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Washroom Fixtures (32- WCs & 36-lav)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$140,500	Unassigned

Updated: MAR-14

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic hot and cold water are distributed via a ceiling and corridor domestic water piping is mainly copper insulated distribution system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D2020.01.02 Valves: Domestic Water**

There are Isolation valves installed on the domestic cold and hot water systems throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (80) Valves: Domestic water

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$30,000	Unassigned

Updated: MAR-14

D2020.01.03 Piping Specialties (Backflow Preventers)**

The building has two (2) backflow prevention devices, one (1) 100mm is installed for the domestic cold water and one (1) 50 mm is installed on the wet standpipe system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) 100mm and (1) 50 mm Back Flow Preventors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$10,000	Unassigned

Updated: MAR-14

D2020.02.02 Plumbing Pumps: Domestic Water**

The building has three (3) fractional horse power domestic hot water recirculation pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (3) Circulation pumps

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

Updated: MAR-14

D2020.02.04 Domestic Water Conditioning Equipment**

An ATEK water softener is installed in the mechanical room with two 50mm x 1500mm tanks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) Water softening system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$3,000	Unassigned

Updated: MAR-14

D2020.02.06 Domestic Water Heaters**

There are 3 natural gas fired domestic hot water heaters with 250 gallon storage tanks. DWH-1 and DWH-2 are 120 F supply to the building, and DWH-3 provides 180 F water to the kitchen and laundry. Units are manufactured by Maxim model 250A-MX units with 399,000 btuh input and 500 gph recovery. All three 93) units wer replaced in 2012.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2012	20	MAR-14

Event: Replace (1) water heater - completed

Concern:

DWH-1 is not functioning as the burner has failed and it was taken out of service in 2006. Service to the facility is provided by the two remaining heaters.

Recommendation:

This unit would be required for backup should one of the other two units fail.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$6,625	Medium

Updated: MAR-14

Event: Replace(3) Water heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$40,000	Unassigned

Updated: MAR-14

D2020.03 Water Supply Insulation: Domestic*

Insulation on the water supply piping is canvas jacketed fiberglass installed in 1997. There remains some areas where original pipe insulation remains and could contain asbestos. This asbestos is contained at this time, but special testing and removal procedures will be required if there are any alterations in the future.

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

Event: Hazardous Material Management Upgrade on Water Supply Insulation

Concern:

Due to the original age of the facility there will be asbestos in pipe insulation which requires documenting and managing.

Recommendation:

Development of an asbestos management plan is recommended to determine locations and extent of asbestos in pipe insulation throughout the facility and to ensure proper encapsulation and maintenance of the insulation.

Consequences of Deferral:

Asbestos will persist as a health risk in the facility.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Hazardous Material Management Upgrade	2014	\$11,000	Medium

Updated: MAR-14

D2030.01 Waste and Vent Piping*

Where observed waste and vent piping is cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

<u>Capacity Size</u>	<u>Capacity Unit</u>
N/A	N/A

D2040.01 Rain Water Drainage Piping Systems*

Cast iron piping drains the rain water from the roof drains and through the exterior walls to splash pads located around the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

<u>Capacity Size</u>	<u>Capacity Unit</u>
N/A	N/A

D2040.02.04 Roof Drains*

There are roof drains located throughout the roof area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

<u>Capacity Size</u>	<u>Capacity Unit</u>
N/A	N/A

D2040.02.06 Area Drains*

Area drains are located in the Ambulance Bay and mechanical rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D2090.11 Oxygen Gas Systems**

Medical oxygen is supplied to the facility from the medical air and oxygen supply room in the south west corner of the building with exterior access to the room. Medical oxygen is supplied via two size K cryogenic cylinders and 5 type K cryogenic cylinders on a reserve manifold. Oxygen is delivered via a dual line pressure regulator to a supply main.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) Oxygen supply system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$90,000	Unassigned

Updated: MAR-14

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

Medical vacuum is provided from the compressor room in the north side of the west portion of the facility. The vacuum unit is manufactured by Busch Vacuum Technologies Model RA-0063 duplex pumping unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) Vacuum system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$82,000	Unassigned

Updated: MAR-14

D2090.16 Medical Air System*

There is a medical air compressor manufactured by Bush that provides compressed air to the medical systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3010.02 Gas Supply Systems*

Buried natural gas service enters the gas meter room at the northwest corner of the building. It is then distributed to the adjacent boiler room, and up to the roof to service the various gas fired rooftop equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3020.01.01 Heating Boilers & Accessories: Steam**

There are three steam boilers for the facility, one high Pressure steam boiler that provides steem to the sterilization area via a small gas-fired Bryan boiler, Model F850-S-150-GI, 150 psig steam rated, maximum input 765,000 btuh on natural gas.

The other two boilers are, low pressure steam heating boilers manufactured by Dominion Bridge Marathon Models MG-1005 rated 930 KW each on natural gas. In the 1997 renovations, both boilers were modified to include new chimneys, new burners, new condensate pumps, and control modifications.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	35	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (3) Steam boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$158,000	Unassigned

Updated: MAR-14

D3020.01.02 Feedwater Equipment*

The condensate unit is a Model 303CS 36 gallon rectangular receiver with (2) 1 HP circulation pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

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

300mm type B vent chimneys is installed for each steam boiler.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	35	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (24m) Chimneys (& Comb. Air) Steam Boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$17,000	Unassigned

Updated: MAR-14

D3020.01.04 Water Treatment: Steam Boilers*

An ATEK water softener is installed in the mechanical room to provide soft water to the steam boilers. Steam system complete with chemical treatment program.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3020.04.03 Fuel-Fired Unit Heaters**

There are two (2) gas-fired unit heaters manufactured by Reznor FT-60 located in the Ambulance Bay, each unit is rated 48600 btuh output.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (2) Gas-fired unit heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$7,000	Unassigned

Updated: MAR-14

D3020.04.04 Chimney (& Comb. Air): Fuel-Fired Heater*

Type B vent chimney serving unit heaters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3030.06.02 Refrigerant Condensing Units**

There is a rooftop condensing unit serving AHU-1, manufactured by York. Rooftop condensing unit for AHU-2 provides cooling to the Operating room (O.R.) and special areas. Unit is manufactured by York. MUA-1 provides cooling to the kitchen area manufactured by York.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (3) AHU-1 condensing unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$65,000	Unassigned

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution**

Air handling Unit AHU-1 provides 100% outside air to the wards and general areas. The unit is manufactured by Trane Model 15 AFDW rated at 6500 cfm. Unit is complete with a prefilter, heat recovery coil, filter, heating coil, DX cooling coil and a steam grid humidifier. MUA-1 is a rooftop make-up air unit for the kitchen area. It is manufactured by Engineered Air Model HE-70-CO rated at 4800 cfm. The unit is direct-fired on natural gas with a maximum input of 528,000 btuh and is complete with a filter section and DX cooling coil.

Air handling Unit AHU-2 provides outside air to the operating room and special areas. Unit is manufactured by Trane Model 1225 FC rated at 3500 cfm. Unit is complete with a prefilter, heat recovery coil, filter, heating coil, DX cooling coil and a steam grid humidifier.

A makeup air unit (MUA-2) is a direct-fired natural gas rooftop unit serving the ambulance bay area. Unit is manufactured by Engineered Air Model HE-20-0 rated at 1200 cfm.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (3) Air handling unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$230,000	Unassigned

Updated: MAR-14

D3040.01.04 Ducts: Air Distribution*

The duct distribution system consists of sheet metal insulated supply air ducts, ceiling return air plenums and sheet metal return air ducts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

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

The building has seven (7) reheat coils on the ventilaiton zones from AHU-1.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (7) Reheat coils

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$14,000	Unassigned

Updated: MAR-14

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

High pressure steam is provided to the kitchen/laundry areas of the building via a ceiling piping system. Low pressure steam is delivered to the hot water converters for the perimeter heating systems and to the steam coils in the main air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Steam Distribution.- (based on 637m)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$51,000	Unassigned

Updated: MAR-14

D3040.03.01 Hot Water Distribution Systems**

Hydronic heating is provided throughout the facility via a ceiling and corridor distribution system to radiation and radiant panels along the perimeter of the facility. Heating of ventilation air is provided by coils in the primary air supply units. Steam to water or glycol heat exchangers are used as the primary heat source. Several circulation pumps are located in the main mechanical room and include the primary heating hot water pumps, glycol heating pumps and the radiation pumps. All piping is insulated and labeled. The building has (2) glycol heat pumps to the primary air handling units in the penthouse manufactured by Bell & Gossett model 227-80sc, (1) glycol heat recovery pump, Bell & Gossett, model 80SCBF, and (2) primary heat pumps for perimeter radiation system, Bell & Gossett, model BF80SC

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace hot water distribution system.- (based on GFA 3592 sq m)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$403,000	Unassigned

Updated: MAR-14

D3040.04.01 Fans: Exhaust**

The building has (2) exhaust fans serving the Ambulance Bay, (1) Kitchen exhaust, (4) serve bathroom exhaust, (1) serves Film exhaust, (3) service heat recovery loop in penthouse, (1) serving CSR AREA, (1) Patient Area, (1) General building exhaust, and (2) serving rooms 65 and 73. Roof mounted exhaust fans are located throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (16) exhaust fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$45,000	Unassigned

Updated: MAR-14

D3040.04.03 Ducts: Exhaust*

Exhaust air is collected from the rooms throughout the facility and ducted through galvanized ducts to roof mounted exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3040.04.05 Air Outlets and Inlets: Exhaust*

Ceiling grilles are used throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3040.05 Heat Exchangers**

The building has a primary Heat Exchanger HE-1: located in the boiler room, manufactured by Bell & Gossett SU-144-2, rated at 1141 KW. The second Heat Exchanger HE-2: is located in the Penthouse to serve AHU-1 and AHU-2, manufactured by Bell & Gossett SU-86-2 rated at 435 KW.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (2) steam to hot water heat exchangers

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

Updated: MAR-14

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

The building has the following roof top units:

RT-1 is manufactured by Carrier it is a gas fired unit, Model 48TJF007-5 serving Rooms 200-207,60,61,67,69. It is rated at 2400 cfm , and 150,000 btuh input on natural gas and 81,200 btuh total cooling.

RT-2 is located on the roof and is a Carrier gas fired Model 48TJF009-5 serving the Cafeteria. It is rated at 3400 cfm at .50" ESP with a 2.5 HP 208/3/60 motor, 224,000 btuh input on natural gas, and 113,300 btuh total cooling at 85F condensing temperature.

RT-3 is manufactured by Carrier it is a gas fired unit, Model 48TJF008-5 serving the Laboratory and X-Ray areas. Unit is rated at 3000 cfm , and 225,000 btuh input on natural gas, and 101,300 btuh total cooling.

RT-4 is manufactured by Carrier it is a gas fired unit, Model 48TJF012-5-11GA serving rooms 524,525,526,527,531,533 in the 1996 addition. Unit is rated at 4000 cfm, and 250,000 btuh input on natural gas, and 132,800 btuh total cooling.

RT-5 is manufactured by Carrier, unit is gas fired, Model 48TJE014-511GA serving the physiotherapy area. Unit is rated at 5000 cfm , 250,000 btuh input on natural gas, and 159,200 btuh total cooling.

RT-6 is manufactured by Carrier it is a gas fired unit, Model 48TJF009-5 serving the offices of the 1997 addition. Unit is rated at 3400 cfm, 224,000 btuh input on natural gas, and 113,300 btuh total cooling.

RT-7 is manufactured by Carrier, unit is gas fired, Model 48TJE004-511GA serving the meeting room. Unit is It is rated at 1200 cfm , 74,000 btuh input on natural gas, and 36,600 btuh total cooling.

RT-8 is manufactured by Carrier Model 50SS-024-301AA cooling only unit serving the OR/CSR Area. Unit is rated at 900 cfm ,and 25,600 btuh total cooling.

RT-9 is manufactured by Carrier, unit is gas fired, Model 48TJF006-5-GA serving the laundry area. Unit It is rated at 2000 cfm ,150,000 btuh input on natural gas, and 60,900 btuh total cooling.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (9) Roof Top Unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$276,000	Medium

Updated: MAR-14

D3050.03 Humidifiers**

There are six (6) Hurricane CS Series steam humidifiers located on air handling systems and zones throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (6) Steam Humidifiers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$66,000	Unassigned

Updated: MAR-14

D3050.05.03 Finned Tube Radiation**

Perimeter heating is provided by finned tube radiation in the 1967 portion of the building and in the 1996 portion at the west end of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (265m) of finned tube radiation

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$135,000	Unassigned

Updated: MAR-14

D3050.05.06 Unit Heaters**

Hydronic unit heaters serve mechanical rooms and other areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (5) unit heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$20,000	Unassigned

Updated: MAR-14

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

Perimeter radiant ceiling heating panels were installed in the 1997 addition to the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	35	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (175m) of radiant panels

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$163,000	Unassigned

Updated: MAR-14

D3050.06 Energy Recovery Units*

A heat reclaim system has been installed to reclaim exhaust air heat from exhaust fans EF-11, EF-12, and EF-13 and supply heat to coils in AHU-1 and AHU-2 in the penthouse via pump P-3. The system is glycol based..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D3060.02.01 Electric and Electronic Controls**

Electric thermostats serving some devices throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: **Replace electronic controls.- (based on GFA 3592 sq m)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$25,000	Unassigned

Updated: MAR-14

D3060.02.02 Pneumatic Controls**

A pneumatic control system serves the building systems including the air handling units and control valves. Pneumatic thermostats in rooms control finned tube radiation and reheat coil control valves. The system includes an air compressor and air dryer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: **Replace Pneumatic controls.- (based on GFA 3592 sq m)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$86,200	Unassigned

Updated: MAR-14

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

A BMCS was installed in 1997 with terminal equipment controllers on all new equipment and supports specific controllers for HVAC reheat coils, baseboard radiation and radiant panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: **Replace building systems controls.- (based on GFA 3592 sq m)**

Recommendation:

Replacement costs based on \$20 per gross square meter of floor area (3085 m2 total)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$104,200	Unassigned

Updated: MAR-14

D4020 Standpipes*

The building has a standpipe system and hose cabinets throughout.

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

D4030.01 Fire Extinguisher, Cabinets and Accessories*

There are fire extinguishers located throughout the building. Extinguishers included carbon dioxide type, Dry Chemical, and pressurized water.

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

<u>Capacity Size</u>	<u>Capacity Unit</u>
N/A	N/A

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

An Amerex wet chemical suppression system is installed in the kitchen exhaust hood

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	40	MAR-14

<u>Capacity Size</u>	<u>Capacity Unit</u>
N/A	N/A

Event: Replace (1) Wet Fire extinguishing system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$16,300	Unassigned

Updated: MAR-14

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

The building is fed from an underground Utility pad mounted transformer, north of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

D5010.02 Secondary Electrical Transformers (Interior)**

There is a step-up transformer utilized for X-ray equipment. It is a dry type, 112.5 kVA, 208V - 480V, 3 phase, 4 wire naturally ventilated transformer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	40	MAR-14

<u>Capacity Size</u>	<u>Capacity Unit</u>
112.5 kVA	N/A

Event: Replace Transformer for X-ray equipment.- (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$14,700	Unassigned

Updated: MAR-14

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

The free standing Service and Distribution Switchboard by Cutler Hammer/Westinghouse is rated 1600A, 120/208V, 3 phase, 4 wire. The main breaker is a fixed mounted industrial type Air Circuit Breaker, rated 1600A, with solid state over current relays set at .8 (1280A) for overload. The main switch gear is made up of a main breaker section and main breaker distribution section. The Distribution breakers are 3 pole thermal magnetic circuit breakers ranging from 70A to 400A (300A emergency feeder breaker). The Switchboard is utility metered but has its own customer meter and is protected by a Transient Voltage Surge Suppressor (TVSS).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	40	MAR-14

<u>Capacity Size</u>	<u>Capacity Unit</u>
1280A, 120/208V	N/A

Event: Replace Main switchboard.- (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2037	\$102,000	Unassigned

Updated: MAR-14

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

The building has (16) sub-distribution panel boards which are 120/208V, 3 phase, 4 wire. Panel boards are flush and surface mounted, located throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Branch Circuit Panelboards.- (16)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$76,800	Unassigned

Updated: MAR-14

Event: Study of electrical demand on Panelboards

Concern:

It was reported that electrical panel boards within the facility are near capacity.

Recommendation:

Conduct electrical study of building electrical loads within the facility.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2014	\$10,000	Medium

Updated: MAR-14

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

Motor Control Centre (MCC) #1 is a 6 section 800 Amp 208V 3 phase Motor Control Centre manufactured by Cutler Hammer with 11 combination magnetic starters and (11) circuit breaker disconnects. MCC #E1 is a 3 section 400 Amp 208V 3 phase emergency power motor control centre manufactured by Cutler Hammer with 7 combination magnetic starters and 3 circuit breaker disconnects.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace 400 Amp Motor Control Center and 800 Amp Motor Control Centre

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$60,000	Unassigned

Updated: MAR-14

D5010.07.02 Motor Starters and Accessories**

The building has individual combination magnetic starters, for 3 phase, 208V motors for the air handling equipment and other motor loads throughout

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Motor Starters.- (8)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$16,000	Unassigned

Updated: MAR-14

D5020.01 Electrical Branch Wiring* - 1967

Electrical branch wiring is (observed to be copper) throughout and is either run in EMT conduit ORBX armored cable, concealed in finished area and surface mounted in utility areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.01 Electrical Branch Wiring* - 1997 Renov

Electrical branch wiring is (observed to be copper) throughout and is either run in EMT conduit or BX armored cable. Patient care receptacles, are hospital grade receptacles. and wiring consistent with CSA standard. Separate grounding conductors are used in these circuits.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

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

The building lighting is locally controlled by line voltage switches located throughout the facility and some low voltage switch control at the nurse station.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.02.01 Interior Incandescent Fixtures*

The building has Incandescent lighting in the food service lounge which utilizes track lights in the atrium area and recessed pot lighting in the main seating area. Other areas include dark room safety lights and warning lights.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.02.02 Interior Fluorescent Fixtures**

The building primary lighting system is fluorescent. Fixtures utilize electronic ballasts and T 8 lamps. Patient wing corridors have fluorescent fixtures behind hall valances, supplemented by ceiling lights. Patient rooms have compact fluorescent ceiling lights and special patient room up/down bed head lights, which double as examination lights. Surface and recessed ceiling mounted fixtures are used throughout the facility including offices, rehab and other areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	30	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Fluorescent lighting based on GFA 3592 sq. m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$315,000	Unassigned

Updated: MAR-14

D5020.02.03.02 Emergency Lighting Battery Packs**

The building has emergency lighting battery packs with dual heads and remote lighting heads. Units are located in electrical & generator rooms, operating rooms, labour delivery and recovery rooms. Emergency battery packs supplement the dedicated building fixtures connected to emergency electrical panels connected to emergency generator.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Emergency Lighting Battery Packs.- (5)

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

Updated: MAR-14

D5020.02.03.03 Exit Signs*

The building exit signs utilize LED lamps and are connected to emergency lighting circuits in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.11 Operating Room Lighting*

The operating room lighting has fluorescent lights around the operating table and the dual swivel arm examination lights in the centre. Examination lights are high intensity halogen and dimmable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The exterior perimeter of the building is illuminated by wall mounted HID fixtures high pressure sodium lamps. Street light fixtures on wooden poles are used at the back (north) parking area. The main parking area has 9 meter poles with architectural round fixtures with high pressure sodium lamps. The main entrance canopy area has cylinder mounted fixtures which provide up-lighting to the canopy area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

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

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.01 Detection and Fire Alarm**

The fire alarm system is an addressable fire alarm system manufactured by Notifier. The system is zoned and annunciated, using manual stations, heat and smoke detectors and audio/visual signaling devices. Smoke detectors are provided in corridors and patient rooms which are individually annunciated at the nurses station. The control panel is located in the corridor of the service wing with remote annunciators at the front entrance (beside a colour coded graphic) and nurses station.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1998	25	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) Fire Alarm System based on GFA 3592 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$131,000	Unassigned

Updated: MAR-14

D5030.02.01 Door Answering*

An intercom system is provided with the master station at the nurses station and the sub-station at the emergency entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.02.04 Video Surveillance**

The building has is a closed circuit television (CCTV) security system with 4 cameras. A split screen monitor is located at the Nurses' Station.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	25	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (4) Camera CCTV system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$12,000	Unassigned

Updated: MAR-14

D5030.03 Clock and Program Systems*

There are electric and battery operated clocks of various manufacturers throughout the health care centre. There is no central clock system within the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.04.01 Telephone Systems*

The building telephone system is manufactured by Nortel Meridian, PBS system is distributed throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.04.03 Call Systems**

The building has a nurse call system, which is a Responder III system manufactured by Rauland. It is a solid state system that provides audio and visual nurse calling indications and two-way communication responses between the master station and bedside stations and staff stations. Push button and call cords are used at bedside stations with two-way speakers while pull cord type call stations without speakers are used in washrooms. Room indicator lights with multiple coloured lights are provided outside room door. All calls are answered at the master station.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	25	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) Nurse Call System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$100,000	Unassigned

Updated: MAR-14

D5030.04.04 Data Systems*

The building has data wiring closets which distribute computer cabling throughout the building. The Building network is also connected to the SuperNet. The horizontal cabling distribution utilizes Cat. 5 and 5e data cabling with some Cat6 cabling in the last few years.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.05 Public Address and Music Systems**

The public address system is provided by the Nortel telephone system, where a dedicated amplifier is used. Paging through the telephone, the public address is broadcast via ceiling mounted speakers located throughout the facility in main hall areas, except patient rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	20	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) public address system

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

Updated: MAR-14

D5030.06 Television Systems*

Building wiring closets distribute Cable TV to patient rooms. Each bed location is provided with a cable television outlet.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.07 Other Communications and Security Systems* - Patient wander guard system

The building has a patient wander guard system, ceiling mounted sensors monitor patient wrist bands and lock facility doors to contain patients to certain areas of the building and prevent leaving by exterior doors of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

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

The emergency generator is a 80kW (100kVA),120/208V 3 phase alternator by Kohler with a turbo-charged diesel engine with direct connected radiator. The Automatic Transfer Switch is a 400A, 3 pole transfer switch with bypass facility by Thomson Technology.

The emergency power supply serves essential patient care equipment, mechanical equipment, emergency lighting and patient care receptacles at the bedside.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	35	MAR-14
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace (1) 80kW Diesel Generator

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$135,000	Unassigned

Updated: MAR-14

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

The health centre has a laundry to process inpatient linens and is equipped with: 2 Continental washers, 1 Continental dryer, 2 Speed Queen dryers, folding and sorting tables and stainless steel sink.

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

E1020.07 Laboratory Equipment*

The clinical laboratory equipment includes a microscope, Sanyo medical coolers and freezers, Allegro centrifuge, Coulter counter, blood testing equipment, Philips ECG machine and venipuncture chair.

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

E1090.03 Food Service Equipment*

The health centre kitchen serves the inpatient unit and the cafeteria which is open to the public. It is equipped with: Quest range with fire suppression (alkaline solution with nitrogen propellant), Foster cooler, 4 Foster freezers, Hobart washer, Insinkerator waste disposal, meat slicer and mixing machine. The servery is equipped with a stainless steel tray counter, a cooled display, coffee machine and water and ice dispenser.

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

E1090.04 Residential Equipment*

Microwaves, refrigerator and small appliances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-14

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

There is a community rehabilitation department in the health unit which is equipped with: two treatment cubicles (one with plinth, one with stretcher) with privacy curtains, wood steps, parallel bars, 2 treadmills. There is also a separate hydrotherapy room with an extremity tank and two hydrocolators.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

E2010.02 Fixed Casework**

There is fixed casework throughout the health centre in treatment and diagnostic areas, offices and work areas. Casework in the diagnostic and treatment areas is plastic laminate.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	35	MAR-14

Event: Replace casework.- (GFA 3592 m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$439,000	Unassigned

Updated: MAR-14

E2010.03.01 Blinds**

There are vertical vinyl blinds and Venetian blinds in offices and meeting rooms.

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

Event: Replace 30 blinds.- (total 100m²)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$15,000	Unassigned

Updated: MAR-14

F1020.02.15 Other Special Purpose Rooms*

The special purpose rooms include: X-ray room with lead shielding in the walls and doors and the glass in the control room cubicle, prefabricated audiology sound booth, ultrasound room in the lab/X-ray area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	50	MAR-14

F1040.05 Liquid and Gas Storage Tanks*

Oxygen cylinders for the central supply are located in a concrete walled room accessible from the outside.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

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

There is a barrier free route to the main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

K4010.02 Barrier Free Entrances*

The main entrance has an automatic door.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

K4010.03 Barrier Free Interior Circulation*

Internal circulation is barrier free with no ramps, steps or changes in level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1997	0	MAR-14

K4010.04 Barrier Free Washrooms*

There are barrier free public wash rooms off the waiting area, in the lab/X-ray area, the inpatient unit and bathing area and the female staff change wash room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	FEB-09

K4030.01 Asbestos*

Alberta Infrastructure and Transportation have reviewed and tested this facility and advise of asbestos throughout in the following locations:

- Wall plaster throughout the hospital
- Stippled ceiling texture (room 136 only)
- Vermiculite insulation within exterior concrete block wall cavities
- Pipe elbow and fitting insulation throughout the hospital (except boiler room and penthouse)
- Exterior panels below windows in the old nurses residence
- 9" x 9" vinyl floor tiles (most patterns and colors) in the 1967 sections
- Asbestos has been entirely removed from the boiler room except for pipe end insulation on a 3 foot piece of insulated pipe below the old header which contains asbestos
- Built up roofing is suspected and will be cut tested at a later date to verify.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

Event: Ongoing monitoring of asbestos during building operations

Concern:

Building components containing asbestos identified by Alberta Infrastructure and Transportation require ongoing management during building upgrading and maintenance projects to ensure proper encapsulation and avoidance of air born fibres from friable materials. These include:

- Wall plaster throughout the hospital (1000m2)
- Stippled ceiling texture (room 136 only 20m2)
- Vermiculite insulation within exterior concrete block wall cavities (500m2)
- Pipe elbow and fitting insulation throughout the hospital except boiler room and penthouse (2 linear metres)
- Exterior panels below windows in the old nurses residence (8m2)
- 9" x 9" vinyl floor tiles (most patterns and colors) in the 1967 sections (1000m2)

Recommendation:

Ongoing monitoring of asbestos management during building operations and construction projects is recommended.

Consequences of Deferral:

Asbestos contamination of the facility will result if asbestos is not properly managed.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Hazardous Material Management Upgrade	2013	\$444,400	High

Updated: APR-12

K4030.02 PCBs*

No PCBs observed or reported.

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

K4030.04 Mould*

No mould was observed or reported at time of audit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	FEB-09

K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)*

There is R22 refrigerant in the air conditioning units.

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

K4030.08 Biohazardous Materials*

Biohazardous materials are stored in an outside biohazardous freezer prior to collection and transportation to Swanhills for proper disposal.

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

K4030.09 Other Hazardous Materials*

Other hazardous materials in the facility include lead encapsulated in the doors and gypsum board partitions of the X-ray room.

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

K5010.01 Site Documentation*

Prime Consultant: Wade Engineering
 Year of Evaluation: 2013
 Areas Evaluated: All

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2013	0	MAR-14

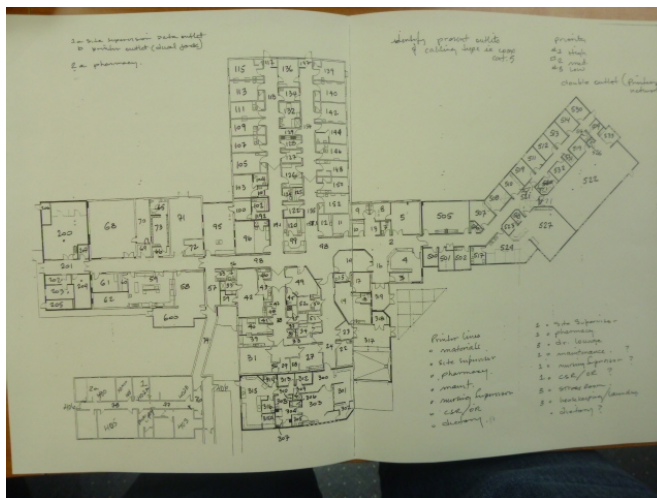


Whitecourt Health Centre Site

K5010.02 Building Documentation*

Prime Consultant: Wade Engineering
 Year of Evaluation: 2013
 Areas Evaluated: All

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2013	0	MAR-14



Whitecourt Health Centre Floor Plan