

RECAPP Facility Evaluation Report

Capital Health



Leduc Community Hospital

B1109B

Leduc

Facility Details

Building Name: Leduc Community Hospital
Address: 4210 - 48 Street
Location: Leduc

Building Id: B1109B
Gross Area (sq. m): 10,458.00
Replacement Cost: \$72,034,704
Construction Year: 0

Evaluation Details

Evaluation Company: Alberta Health Services
Evaluation Date: March 19 2010
Evaluator Name: E.Larry Schmidt,C.E.T

Total Maintenance Events Next 5 years: **\$7,369,700**
5 year Facility Condition Index (FCI): **10.23%**

General Summary:

The original hospital building was completed in 1961. The building consists of a partial lower level 0 of 672 m² and a main floor level 1 of 1428 m². The mechanical penthouse is 48 m², for a total of 2148 (+/-) m². This building c/w 2 unused crawl space areas.

The multi-story hospital addition was completed in 1985, including a 2 level corridor link to the original building. The multi-story building consists of a lower level 0 of covered parking of 841 m², maintenance shops of 277 m², mechanical room of 313 m², mechanical mezzanine of 217 m², and a hospital building (including link) of 752 m². The main floor level 1 is 2461 m² (including a 2-bay ambulance garage of 88 m²). The second floor level 2 is 2008 m². The third floor level 3 is 1764 m². The mechanical penthouse is 284 m², for a total of 8917 (+/-) m².

The original hospital building was extensively renovated in 1985 at the time of the multi-story hospital building addition. This building has been renovated to become hospital administration, complex building services, and public health offices.

There have been only a few minor, interior renovations to the multi-story hospital building conducted in random locations.

Both buildings are located in Leduc, Alberta, between 48 and 50 Street and 42 and 43 Avenue.

Structural Summary:

The original hospital building is constructed with reinforced concrete foundation walls on concrete strip footings. Level 1 floor are slab-on-grade with the suspended portion of the level 1 floor being concrete topping on concrete pre-cast double tees. Roof and penthouse roof construction is also concrete pre-cast double tees. Structural floor support components are concrete columns. Walls c/w concrete spandrel support beams for perimeter double tee bearings. The entrance canopy is suspended concrete framing on a concrete foundation piers and pad footings.

The multi-story hospital addition is constructed with reinforced concrete foundation piles and pilecaps. The mechanical room is constructed with reinforced concrete foundation walls on concrete strip and pad footings, The mechanical room, covered parking, and maintenance shop floors are slab-on-grade. The balance of the level 0 floor is structural slab on concrete support beams and piles. The mechanical mezzanine floor is structural slab on concrete support beams. Level 1,2, and 3 floors and roof slab mats c/w reinforced column capitals, concrete beams, and slab mats. The mechanical penthouse is steel HSS columns, steel w-beams, and metal roof deck construction (c/w 200 concrete block walls around the incinerator room). The loading dock canopy is steel framing on a concrete foundation pier and pad footings.

The structural elements of both buildings are in acceptable condition.

Envelope Summary:

For the original hospital building, renovated in 1985, all below grade walls are concrete reinforced walls. All above grade walls are either 200 concrete block, 150 or 100 clay tile block c/w 100 face brick. The penthouse walls are steel studs, gypsum board, and cement stucco (2 walls faced with 100 face brick).

The multi-story hospital addition is constructed with reinforced concrete walls below grade. All above grade walls are gypsum board each side, steel studs, 100 face brick (lower levels) and pre-cast forms (upper levels) c/w 100 face brick. The penthouse and link walls are steel studs and insulated aluminum curtain wall system. There is minor spalding of some face brick elements noticed on the west and south sides only.

The roof construction of both buildings is rock ballast on rigid insulation on gypsum board on concrete or metal deck.

Windows for both buildings are anodized aluminum frames with Low-E glazing glass.

The main entrance doors are anodized aluminum frames with automatic sliding doors leading into a vestibule, also with automatic sliding doors, giving access to the main lobby.

The envelope and exterior components of both buildings are in acceptable condition.

Interior Summary:

Work areas, patient rooms, and corridors typically have vinyl flooring. Carpeting is provided in offices, waiting areas/rooms, and public/staff lounges. Maintenance areas and ambulance garage have sealed concrete floors.

The majority of the interior walls are metal studs with painted gypsum board either sides or painted concrete block. Interior windows are single glazing with painted pressed steel frames throughout. Kitchen and in-patient therapeutic washroom walls are layered with ceramic tile.

The majority of the building has either a suspended T-bar acoustic panel system or painted gypsum board ceilings.

Minor damage was noted to millwork (i.e. Cabinet doors or door kick plates require remounting). Minor wall and floor damage was noted in a few locations, and, damage to the wall horizontal rail near the elevator on level 3 was also noted.

The interior finishes of both buildings are in acceptable condition.

Mechanical Summary:

The Leduc Community Hospital was originally constructed in 1961 with a building addition and upgrade in 1985.

The plumbing systems, domestic water distribution and sanitary and storm sewer drainage were all upgraded in 1985. Backflow prevention devices are installed on both the domestic water and fire protection systems. The building is sprinklered with a standpipe system. A fire pump is provided. Domestic hot water is generated with storage tanks by means of heat exchangers, heating water provided by three central heating boilers. Heating for the building is generated by the referenced boilers with hot water pumped and circulated to terminal heat transfer units throughout the building and central air handling units. Humidification is provided by a central steam boiler. Cooling for the facility is provided by a central R11 centrifugal chiller inter-connected to a roof top cooling tower. Chilled water is pumped and circulated to coils within central and roof top air handling units. There are 6 central air handling units and 3 rooftop built up air handling units (dual duct and variable air volume) for ventilation air throughout the hospital. Exhaust air is provided by various ducted fan systems. All air systems are ducted. A central building automation system controls the major mechanical equipment.

The following is a summary of major recommended events for the next five years.

chiller/ Cooling tower replacement

boiler replacement.

Domestic hot water tank replacement.

In general the mechanical systems are in acceptable condition.

Electrical Summary:

The main switchboard is a 1600A, 347/600V free-standing Service and Distribution Switchboard of Air Circuit Breakers distributing to 347/600V Distribution Panelboards and 600V MCC"s. Through central and localized dry type transformers the 120/208V service is realized. 120/208V Distribution and Branch Circuit Panelboards are located throughout the building. The emergency power system is provided by a 500kW diesel generator located in the Penthouse. There is a small UPS system provided for critical treatment services.

Interior lighting is predominantly fluorescent of the standard magnetic ballasts and T12 lamp type except in the Emergency Department where the energy efficient electronic ballasts and T8 lamp type is utilized. Exterior lights are high pressure sodium, photoelectric cell and time clock controlled.

The integrated fire alarm and EVAC system is state-of-the-art while the central clock system has seen better days. The nurse call system and patient television systems operate as intended. Security systems include card access, pharmacy alarm and video surveillance. Communication systems include the public address and an extensive local area network for computer services.

In general, 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* - 1961 Building

Combined, the foundations are concrete reinforced strip footings, walls, cast-in-place piles, and pilecaps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-11

A1010 Standard Foundations* - 1985 Building

Combined, the foundations are concrete reinforced strip footings, walls, cast-in-place piles, and pilecaps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

A1030 Slab on Grade* - 1961 Building

Combined the slabs are concrete slab-on-grade.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-11

A1030 Slab on Grade* - 1985 Building

Combined the slabs are concrete slab-on-grade with partial areas (in 1985 building) of structural slab on concrete support beams.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

A2020 Basement Walls (& Crawl Space)* - 1961 Building

The concrete foundation walls are cast-in-place concrete with conventional steel reinforcing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1961	0	APR-12

Event: Repair basement wall at 4 pipe locations

Concern:

There is water penetration into the basement where mechanical services enter the basement.

Recommendation:

Excavate to expose mechanical services entering basement and repair leaks. Make good surface finishes.

Consequences of Deferral:

Surrounding ground fill will continue washing through with surface water and could cause external slab to settle or collapse.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2013	\$10,000	Medium

Updated: APR-12

A2020 Basement Walls (& Crawl Space)* - 1985 Building

The concrete foundation walls are cast-in-place concrete with conventional steel reinforcing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

B1010.01 Floor Structural Frame (Building Frame)* - 1961 Building

Floor support framing is concrete columns, beams, column cartals and slab mats

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-11

B1010.01 Floor Structural Frame (Building Frame)* - 1985 Building

Floor support framing is concrete columns, beams, column cartals, and slab mats. Building penthouse is steel column and framing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1961 Building

Masonry block walls provide interior support of some suspended floor structural slabs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-11

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1985 Building

Masonry block walls provide interior support of some suspended floor structural slabs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

B1010.03 Floor Decks, Slabs, and Toppings* - 1961 Building

Flooring is slab-on-grade, structural slab, concrete topping on pre-cast double tees.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-11

B1010.03 Floor Decks, Slabs, and Toppings* - 1985 Building

Flooring is slab-on-grade, structural slab, concrete topping on pre-cast double tees.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

B1010.05 Mezzanine Construction* - 1985 Building

Mezzanine floor is structural slab on concrete support beams

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

B1010.09 Floor Construction Fireproofing*

Floors in both sections of the hospital are noncombustible poured concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B1010.10 Floor Construction Firestopping*

There was no missing floor construction fire stopping observed or reported at the time of the building audit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B1020.01 Roof Structural Frame* - 1961 Building

Concrete pre-cast double tees with structural slab mats.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B1020.01 Roof Structural Frame* - 1985 Building

Roof structural frame is poured concrete columns and beams with concrete roof slab.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

B1020.03 Roof Decks, Slabs, and Sheathing*

The penthouse roof deck consists of 38mm deep metal roof deck in the 1985 building. The roof deck in the 1961 building consists of concrete topping over precast double Tees.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

B1020.04 Canopies* - 1961 Building

There is a concrete framed canopy to the entrance to the 1962 section of the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B1020.04 Canopies* - 1985 Building

The canopy to the 1985 section of the hospital consists of steel HSS framing with clear plastic roofing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

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

All exterior walls are clad in brick veneer in both sections of the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B2010.01.06.03 Metal Siding - 1985 Building**

The penthouse and link are clad in metal pre-finished insulated panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 500m2 metal siding

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$150,000	Unassigned

Updated: APR-12

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

Two faces of the 1961 building penthouse walls are covered with stucco.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B2010.01.09 Expansion Control: Ext. Wall* - 1985 Building

There are vertical expansion joints with flexible caulking in the brick skin in the 1985 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

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

There is flexible caulking to the frames of doors, windows and louvres where they abut the exterior brick skin in both sections of the building installed in 1985.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	20	APR-12

Event: Replace 250m caulking

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$7,500	Unassigned

Updated: APR-12

B2010.02.02 Precast Concrete: Ext. Wall Const.* - 1985 Building

Exterior brick veneer is supported on pre-cast concrete spandrel panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1961 Building

Exterior walls in this section consist of brick skin with a back wall of metal studs with vapour barrier and insulation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation* - 1985 Building

Exterior walls typically are constructed with a vapour barrier, rigid insulation, air space between the wall substrate and brick veneer or pre-cast support panel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

B2010.05 Parapets*

Parapets are extensions of the pre-cast brick veneer support panels and brick skin with pre-finished metal copings in both sections of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	61	0	APR-12

B2010.06 Exterior Louvers, Grilles, and Screens* - 1985 Building

Pre-finished metal louvers are provided on penthouse walls to support air exchange systems in the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

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

Exterior windows are comprised of sealed, insulating glazed units set in pre-finished aluminum frames. There are some sloped units on the north side. Aluminum windows in the 1961 section were replaced in 1986.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 500m2 aluminum windows

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$500,000	Unassigned

Updated: APR-12

B2030.01.06 Automatic Entrance Doors - 1985 Building**

Two sets of sliding doors located at the main east entrance both c/w sensors leading into vestibule and into front entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 2 sets automatic entrance doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$25,000	Unassigned

Updated: APR-12

B2030.02 Exterior Utility Doors - 1961 Building**

Hollow metal doors with pressed steel frame, hardware is commercial grade throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	40	APR-12

Event: Replace 3 metal utility doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,000	Unassigned

Updated: APR-12

B2030.02 Exterior Utility Doors - 1985 Building**

Hollow metal doors with pressed steel frame, hardware is commercial grade throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 6 utility doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$5,000	Unassigned

Updated: APR-12

B2030.03 Large Exterior Special Doors (Overhead)* - 1985 Building

Four grade-level overhead doors are located at the ambulance garage. Doors are built of insulated sectional metal.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

B3010.01 Deck Vapour Retarder and Insulation*

Typical roof construction is comprised of insulation and vapour barrier (penthouse and line roofs c/w 16 gypsum board layer)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

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

Both roofs installed in 1985 are comprised of a built up roof membrane assembly with asphalt and gravel cover c/w concrete pavers at perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	25	APR-12

Event: Replace 4000m2 built up roofing with SBS

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$680,000	Unassigned

Updated: APR-12

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

There are roof penetrations in both sections of the hospital for exhausts and vents with prefinished metal flashings and cappings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

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

Lower level and penthouse walls are reinforced concrete or masonry block, respectively all other partitions are metal studs c/w gypsum board each side throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

C1010.04 Interior Balustrades and Screens, Interior Railings*

Acrylic Railing in Hallways

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1987	0	APR-12

C1010.05 Interior Windows*

There are interior windows in the 1985 section consisting of single panes with painted pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

C1010.07 Interior Partition Firestopping*

Mechanical and electrical conduit penetrations throughout fire separations are fire stopped in both sections of the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

C1020.01 Interior Swinging Doors (& Hardware)*

Wood veneer solid core doors c/w glazed view panels in pressed steel frames throughout both sections of the hospital. Hardware is commercial grade.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

C1020.03 Interior Fire Doors*

Hollow metal doors c/w glazed view panels in pressed steel frames are located at mechanical rooms and store rooms. Fire doors in corridors are solid core wood doors in pressed steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

C1030.01 Visual Display Boards**

Wall mounted white boards and tack boards are situated throughout the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	20	APR-12

Event: Replace 20 display boards

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$10,000	Unassigned

Updated: APR-12

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

There are pre-finished, floor mounted toilet partitions located in wash rooms in the 1985 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 10 fabricated toilet compartments

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$10,000	Unassigned

Updated: APR-12

C1030.05 Wall and Corner Guards* - 1985 Building

Plastic assembly with spring loaded vertical portion, to allow some play.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

C1030.06 Handrails* - 1985 Building

Wall mounted timber top rail and vertical laminate strip in corridors and common rooms throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

C1030.08 Interior Identifying Devices*

Wall and ceiling-mounted signage is used throughout the facility to identify specialized areas, room numbers and provide directory assistance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

C1030.10 Lockers**

4 Lockers are located in staff change area in the 1985 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 4 lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$4,000	Unassigned

Updated: APR-12

C1030.12 Storage Shelving* - 1985 Building

In-unit shelving consists of wall mounted units c/w roll shutter doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

Accessories include vanities, garbage wall-mounted receptacles, mirrors, paper towel, soap, and toilet paper dispenser, all are stainless steel in both sections of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

C2010 Stair Construction* - Concrete

All stairs are cast-in-place concrete with conventional steel reinforcing in both sections of the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

C2010 Stair Construction*- Metal

Stairs to mechanical room mezzanine is steel construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

C2020.05 Resilient Stair Finishes**

Stair finishes in both sections are resilient with rubber nosing throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	20	APR-12

Event: Replace 300m2 resilient stair finishes

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$25,000	Unassigned

Updated: APR-12

C2020.08 Stair Railings and Balustrades*

Handrails are painted steel pipe mounted on walls and stair framing members and are located in the 1985 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

There are gypsum board wall finishes in both sections of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

C3010.06 Tile Wall Finishes**

Walls are finished with 100X100 ceramic tiles in bath washrooms, kitchen, at house keeping sink/ drain locations in the 1985 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 300m2 ceramic wall tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$70,000	Unassigned

Updated: APR-12

C3010.11 Interior Wall Painting*

All interior walls have a painted finish in both sections of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-12

C3020.01.01 Epoxy Concrete Floor Finishes* - 1985 Building

Epoxy resin used in O.R. Suites and unit bath washrooms. As noted in IMP Report.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	0	APR-12

Event: Resurface 1000m2 epoxy floor

Concern:

Cracked, Chipped and broken flooring causing concern with Infection Control. Additional trip/slip hazard.

Recommendation:

Re-surface flooring in 3 Operating Rooms and kitchen area.

Consequences of Deferral:

Infection Control issues as well as trip hazards in high traffic areas with high probability of occurrence create and urgent need for repair.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2013	\$150,000	Medium

Updated: APR-12

C3020.01.02 Painted Concrete Floor Finishes*

Mechanical rooms and penthouse floors are painted are painted in both sections of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

C3020.07 Resilient Flooring**

Sheet vinyl c/w welded joints throughout both section of the facility installed in 1985. Noted in IMP report.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	20	APR-12

Event: Replace 7000m2 resilient flooring

Concern:

The original linoleum requires replacement.

Recommendation:

Replace worn flooring.

Consequences of Deferral:

Infection Control issues as well as trip hazards and general appearance for facility.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$560,000	Low

Updated: APR-12

C3020.08 Carpet Flooring**

Carpet is used in offices and meeting rooms in both sections of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	15	APR-12

Event: Replace 100m2 carpet

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$10,000	Unassigned

Updated: APR-12

C3020.09 Access Flooring - 1985 Building**

There is only a single, small room with access flooring.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	25	APR-12

Event: Replace 10m2 access flooring

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$5,000	Unassigned

Updated: APR-12

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

Suspended T-bar ceiling system with acoustic tiles were installed in 1985 in both sections of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	25	APR-12

Event: Replace 10000m2 acoustic ceiling tiles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$430,000	Unassigned

Updated: APR-12

C3030.07 Interior Ceiling Painting*

Painted gypsum ceilings in O.R suites, kitchen, and ambulance garage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D1010.01.01 Electric Traction Passenger Elevators - 1961 Building**

1 elevator in building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	30	APR-12

Event: Refurbish one elevator

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$130,000	Unassigned

Updated: APR-12

D1010.01.01 Electric Traction Passenger Elevators - 1985 Building**

Total of 3 elevators

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Refurbish 3 elevators

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$390,000	Unassigned

Updated: APR-12

D1090 Other Conveying Systems* - 1985 Building

2 electric, dumb waiters service the O.R suites from level 1 down to level 0.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

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

There are stainless steel sinks located throughout the building in patient rooms and treatment areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 30 Stainless Steel Sinks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$45,000	Unassigned

Updated: APR-12

D2010.05 Showers**

There are shower stalls located throughout the building in patient areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 20 Showers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$30,000	Unassigned

Updated: APR-12

D2010.06 Bathtubs - General**

There are bathtubs located in patient areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	30	APR-12

Event: Replace 20 Bathtubs

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$40,000	Unassigned

Updated: APR-12

D2010.06 Bathtubs - Jetted**

There are jetted bathtubs located in the facility in patient areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	30	APR-12

Event: Replace 2 Jetted Bathtubs

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$24,000	Unassigned

Updated: APR-12

D2010.08 Drinking Fountains/Coolers**

There are stainless steel refrigerated drinking fountains located through the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	35	APR-12

Event: Replace 5 Drinking Fountains

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$15,000	Unassigned

Updated: APR-12

D2010.09 Other Plumbing Fixtures*

There are two sets of mixing valves which reduce the hot water supply 82C for use in the kitchen and to 60C for standard domestic water.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

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

The washrooms typically consist of a tankless water closet and vitreous china lavatory.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 90 WCs & 90 Lavs

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$315,000	Unassigned

Updated: APR-12

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic hot water piping was found to be predominantly copper.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D2020.01.02 Valves: Domestic Water**

Facilities Management staff report that there are sufficient domestic water valves installed to service the various plumbing fixtures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 250 1/2" to 2" Valves

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$65,000	Unassigned

Updated: APR-12

D2020.01.03 Piping Specialties (Backflow Preventers)**

There are backflow preventors on the main building supply and between non potable systems. Backflow preventors have been inspected annually.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	20	APR-12

Event: Replace 2 Backflow Preventors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$16,300	Unassigned

Updated: APR-12

D2020.02.02 Plumbing Pumps: Domestic Water**

There are two pumps which supply the building with domestic hot water. Primary pump includes VFD drive.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	20	APR-12

Event: Replace 2 Domestic Water Pumps

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$6,500	Unassigned

Updated: APR-12

D2020.02.03 Water Storage Tanks**

There are four hydraulically heated domestic hot water tanks in the boiler room, (3.37M3 each) c/w integrated heat exchangers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Condition Assessment of All Storage Tanks

Concern:

Condition of tanks is unknown. Tanks are nearing end of life cycle.

Recommendation:

Conduct eddie current testing to determine tank condition and support which tanks require replacement. Assessment should be complete on all storage tanks which include Vacuum, Medical Air, Glycol, Hot Water Heating including motor and pump head assessment.

Consequences of Deferral:

Tank failure would impact facility and possibly patient services. Could result in injury.

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

Updated: APR-12

Event: Replace 1 Hot Water Storage Tank

Concern:

One of the existing hot water storage tanks has failed and is out of service.

Recommendation:

Replace tank.

Consequences of Deferral:

Reduction in storage capacity for 180 F water.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$15,000	High

Updated: APR-12

Event: Replace 3 Hot Water Tanks & Heat Exchangers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$45,000	Unassigned

Updated: APR-12

D2020.02.04 Domestic Water Conditioning Equipment**

There is a water softening system with 2 tanks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	20	APR-12

Event: Replace Water Softner & Tanks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$11,000	Unassigned

Updated: APR-12

D2020.03 Water Supply Insulation: Domestic*

Domestic water lines where observed are fiberglass insulated and canvas jacketed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D2030.01 Waste and Vent Piping*

The waste water and vent piping was observed to be cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D2030.02.04 Floor Drains*

Floor drains with brass trim have been provided throughout the facility in mechanical rooms and wash rooms as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D2040.01 Rain Water Drainage Piping Systems*

Where observed, rain water leaders are cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D2040.02.04 Roof Drains*

The roof incorporates roof drains which are each fitted with strainers and internal rain water leaders, roof drains are connected to the municipal town water system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D2090.10 Nitrous Oxide Gas Systems**

The building is equipped with nitrous oxide gas system located at the lower level and fitted with a medical gas alarm system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace Nitrous Oxide Gas Distribution System (2140m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$120,000	Unassigned

Updated: APR-12

D2090.11 Oxygen Gas Systems**

The building is equipped to a medical oxygen gas system including an exterior tank and alarm system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace Oxygen Distribution System (2140m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$390,000	Unassigned

Updated: APR-12

D2090.12 Reverse Osmosis Systems**

A reverse osmosis system is installed in the basement Central Sterile Supply area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	30	APR-12

Event: Replace Reverse Osmosis System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$20,000	Unassigned

Updated: APR-12

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

The building medical vacuum system is powered by a Siemens & Hirsch Model 2-86D-2402 medical vacuum pump with 2 @ 20 HP motors is installed in the Mechanical Room..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace Medical Vacuum Distribution System (2410m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$425,000	Unassigned

Updated: APR-12

D2090.16 Medical Air System*

A Siemens & Hirsch Model 2-86-D-2400 medical air compressor with duplex 30 HP motors is installed in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	0	APR-12

Event: Replace Air Dryers

Concern:

Dryers require replacement as they do not meet Code.

Recommendation:

Replace dryers for medical air compressors.

Consequences of Deferral:

Code non-compliance will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2013	\$20,000	Medium

Updated: APR-12

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

There is a 500 Litre diesel day tank located in the penthouse which can fuel the emergency generator and the heating boilers. There is a fuel leak containment system in place. A main above grade diesel tank is located at the south face of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3010.02 Gas Supply Systems*

Natural gas is provided to building. Meters and PRV is situated on the south side of the building. Natural gas is distributed to the gas fired equipment in the Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3020.01.01 Heating Boilers & Accessories: Steam - Central Sterilization**

A Hurst Model HVT-G-80-150 high pressure steam boiler rated for 4,405,000 btuh input on natural gas is provided in the Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2010	35	APR-12

Event: Replace 1 Gas-Fired Steam Boiler

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2045	\$90,000	Unassigned

Updated: APR-12

D3020.01.01 Heating Boilers & Accessories: Steam - Electric Boilers**

There are two standby electric high pressure steam boilers, each rated for 100 KW input installed in the Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 2 Electric Steam Boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$55,000	Unassigned

Updated: APR-12

D3020.01.01 Heating Boilers & Accessories: Steam - Humidification Boiler**

A Cleaver Brooks Model M5S-4000 low pressure steam boiler rated for 3,200,000 btuh input on natural gas is installed in the boiler room for humidification purposes.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2010	35	APR-12

Event: Replace 1 Humidification Steam Boiler

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2045	\$65,000	Unassigned

Updated: APR-12

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

All fuel fired boilers are provided with chimney's and combustion air ducts. 16" breeching from the two steam boilers combined with the breeching from the heating boilers to a common chimney. See heating boiler section for cost estimate to replace the chimney.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 6m Breeching from Steam Boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$5,000	Unassigned

Updated: APR-12

D3020.01.04 Water Treatment: Steam Boilers*

Steam boilers in boiler room are provided with pot feeder.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3020.02.01 Heating Boilers and Accessories: H.W. - 1985**

There are 2 Volcano Model 156139 hot water boilers, each rated for 5,780,000 btuh input on natural gas located in the Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 2 Hydronic Heating Boilers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$250,000	Unassigned

Updated: APR-12

D3020.02.01 Heating Boilers and Accessories: H.W. - 2007**

There is a Cleaver Brooks Model M5W-6000 hot water boiler rated for 4,800,000 btuh input on natural gas located in the Mechanical Room. This boiler is a replacement installed in 2007.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	35	APR-12

Event: Replace hot water boiler

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2042	\$100,000	Unassigned

Updated: APR-12

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

Each heating boiler is provided with 20" breeching to a common header that connects to a 36" Type 'B' gas vent up through the roof of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 10m Breeching Header, 25m Type 'B' Gas Vent & Associated Fittings and Insulation

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$220,000	Unassigned

Updated: APR-12

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

Hot water heating boilers are provided with chemical treatment feeders.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3030.02 Centrifugal Water Chillers**

A Trane centrifugal chiller is located in the Mechanical Room. This chiller operates on R-11 which is phased out.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	25	APR-12

Event: Replace Chiller

Concern:

Chiller and Cooling Tower have reached end of life cycle. Federal regulation will not permit addition of R-11 refrigerate after year 2015. This unit contains R-11.

Recommendation:

Replace Chiller and Cooling Tower

Consequences of Deferral:

Chiller could become inoperable by 2015 resulting in no cooling capacity for entire site.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2013	\$550,000	High

Updated: APR-12

D3030.05 Cooling Towers**

A Baltimore Aircoil cooling tower is installed on the roof with condenser water piping connected to the chiller. Two base mounted condenser water pumps are located in the Upper Level Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	25	APR-12

Event: Replace Cooling Tower and Associated Piping/Pumps/Fittings

Concern:

The cooling tower has reached the end of its life cycle and needs to be replaced along with the Chiller.

Recommendation:

Replace cooling tower and associated condenser water system.

Consequences of Deferral:

Unit will fail and mechanical cooling will not be available for the building.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$700,000	Unassigned

Updated: APR-12

D3030.06.01 Refrigeration Compressors**

A Liebert Process fluid chiller is installed on site with piping for a future CAT scanner (10 ton capacity I).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2009	25	APR-12

Event: Replace Fluid Cooler

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$10,000	Unassigned

Updated: APR-12

D3030.06.02 Refrigerant Condensing Units**

An air cooled condensing unit is located outside adjacent to the process fluid chiller unit is installed for future use and has never been operated.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2009	25	APR-12

Event: Replace 1 Condensing Unit

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$10,000	Unassigned

Updated: APR-12

D3040.01.01 Air Handling Units: Air Distribution - Penthouse/Boiler Room**

There are 6 built up air handling units manufactured by Trane/ Haakon located in the mechanical penthouse and in the boiler room. The air handling units have glycol heating coils, cooling coils, 2" disposable filters and steam humidification which are all original. Of the 6 air handling units, air handling unit AHU-4 is controlled by VFD's on the supply and return fans.

Air handling unit AHU-1 is a Trane Haakon Pentpak Model 300 rated for 4725 lps of 100% outdoor air. This unit serves Operating Rooms.

Air handling unit AHU-2 is a Trane Haakon Pentpak Model SE-420 rated for 8105 lps of supply air. This unit serves Nursing Stations 22 and 32.

Air handling unit AHU-3 is a Trane Haakon Pentpak Model SE-420 rated for 9015 lps of supply air. This unit serves Level 0 Zone 1 and Nursing Stations 21 and 31.

Air handling unit AHU-4 is a Trane Haakon Pentpak Model SE-230 rated for 5345 lps of supply air. This unit serves Nursing Station 23, Level 3 Clinics and Emergency.

Air handling unit AHU-5 is a Trane Haakon Pentpak Model SE-280 rated for 5965 lps of supply air. This unit serves the Lab, Admitting, and Radiology.

Air handling unit AHU-9 is a Trane Haakon Pentpak (model unknown) rated for 4720 lps of supply air. This unit serves the Boiler Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Provide variable frequency drives to the supply and return fans of 5 air handling units in the Mechanical Room and Penthouse.

Concern:

Air Handling Unit motors currently using two speed control, frequency drive would allow better climate control, reducing wear on equipment and would be more cost efficient to operate.

Recommendation:

Install frequency drives on all Air Handling Units

Consequences of Deferral:

Better climate conditions for staff, reduced wear and a reduction in premature failures on associated parts and cost efficiencies would result.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2013	\$100,000	Medium

Updated: APR-12

Event: Replace 6 Air Handling Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$360,000	Unassigned

Updated: APR-12

Event: Seal Ducting and Replace 27 Dampers on Air Handling Units

Concern:

Loss of internal duct pressure causing insufficient heating and ventilation of building interior. Lack of damper control contributing to above as well as energy efficiency.

Recommendation:

Reseal all exterior ductwork and upgrade dampers in 9 Air Handling Units

Consequences of Deferral:

Lack of building control and energy utilization.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2013	\$150,000	High

Updated: APR-12

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

There are three rooftop air handling units manufactured by Trane/Haakon located on the roof of the North wing.

Air handling unit AHU-6 is a Trane Haakon Pentpak Model SE-480 rated for 10730 lps of supply air. This unit serves Administration and Health Records.

Air handling unit AHU-7 (model unknown) is rated for 2830 lps of supply air and serves the Kitchen area of the building.

Air handling unit AHU-8 is a Trane Haakon Pentpak Model 300 rated for 2630 lps of supply air. This unit serves the Laundry Area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 3 Air Handling Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$180,000	Unassigned

Updated: APR-12

D3040.01.04 Ducts: Air Distribution*

Galvanized sheet metal air ducts are thermally insulated.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

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

VAV and dual duct boxes are located throughout the building. The VAV boxes are equipped with reheat coils and are functioning as intended. Some are controlled with digital t'stats and some by pneumatic t'stats.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 132 Constant Volume Dual Duct Boxes and 46 VAV Boxes

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$215,000	Unassigned

Updated: APR-12

D3040.01.07 Air Outlets & Inlets: Air Distribution*

There are inlet and outlet grills on all openings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3040.02 Steam Distribution Systems: Piping/Pumps - H.P. Sterilizers**

The high pressure steam steel piping system is rated and appears insulated throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 30m of 100mm Steel High Pressure Steam Piping Plus Fittings and Insulation

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$30,000	Unassigned

Updated: APR-12

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

The low pressure steam piping system is insulated and where visible, the piping appeared to be steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 200m Of 50mm Low Pressure Steam Piping Plus Fittings Plus Insulation

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$105,000	Unassigned

Updated: APR-12

D3040.03.01 Hot Water Distribution Systems**

The hot water distribution system consists of steel and copper piping and two mixing valves. There are five primary and secondary base mounted heating pumps provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace Hydronic Distribution Piping (11000m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$975,000	Unassigned

Updated: APR-12

D3040.03.02 Chilled Water Distribution Systems**

The insulated steel piped chilled water distribution system is equipped with 2 base mounted chilled water supply pumps, valves, piping etc. for the building air handling unit cooling coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace 250m of 100mm Chilled Water Piping Plus Fittings Plus Insulation

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$210,000	Unassigned

Updated: APR-12

D3040.03.03 Condenser Water Distribution Systems Pumps*

A steel piped condenser water circuit is provided between the chiller and cooling tower complete with two base mounted pumps and valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3040.03.04 Glycol Systems*

A steel piped secondary glycol heating loop is provided to the heating coils in the air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3040.04.01 Fans: Exhaust**

There are rooftop exhaust fans of varying sizes and capacities.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 6 Roof Mounted Exhaust Fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$18,000	Unassigned

Updated: APR-12

D3040.04.03 Ducts: Exhaust*

Dedicated galvanized sheet metal ductwork is provided for building exhaust systems. Ductwork is located in ceiling spaces.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3040.04.05 Air Outlets and Inlets: Exhaust*

Ceiling grilles are installed throughout the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D3040.05 Heat Exchangers**

There is one shell and tube type hot water to glycol heat exchanger located in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 1 Heat Exchanger

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$20,000	Unassigned

Updated: APR-12

D3050.01.03 Packaged Terminal Air Conditioning Units*

A (5 ton +/-) wall mounted refrigerant A/C unit is installed in the telephone equipment room. The remote air cooled condensing unit is installed in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

D3050.03 Humidifiers**

Steam grid type humidifiers are installed in Air handling units c/w traps, controls and condensate return.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	25	APR-12

Event: Replace 12 Steam Grid Humidifiers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$35,000	Unassigned

Updated: APR-12

D3050.05.02 Fan Coil Units**

There are force flow units at entrances to the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 4 Fan Coil Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$20,000	Unassigned

Updated: APR-12

D3050.05.03 Finned Tube Radiation**

Perimeter radiation heating is provided by finned tubes in convective cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace Finned Tube Radiation (11000m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$485,000	Unassigned

Updated: APR-12

D3050.05.06 Unit Heaters**

There are unit heaters serving the garage and service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 14 Unit Heaters

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$50,000	Unassigned

Updated: APR-12

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

Ceiling mounted radiant heating panels are installed in patient rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 350m Radiant Ceiling Panel

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$90,000	Unassigned

Updated: APR-12

D3060.02.01 Electric and Electronic Controls**

Electric controllers have been provided for the unit heaters and the entranceway fan-coil units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 18 Electric Controllers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$8,000	Unassigned

Updated: APR-12

D3060.02.02 Pneumatic Controls**

The building has an original MCC Powers pneumatic controls system installed throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace Pneumatic Controls (11000m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$60,000	Unassigned

Updated: APR-12

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

The BMCS automation system is a MCC Powers DDC-600 Which interacts with the pneumatic components through I/P transducers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	20	APR-12

Event: Replace Building Management Controls (11000m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$230,000	Unassigned

Updated: APR-12

D4010 Sprinklers: Fire Protection*

The building is fully protected by a wet pipe sprinkler system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

D4020 Standpipes*

The building is equipped with standpipes and fire hose cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D4030.01 Fire Extinguisher, Cabinets and Accessories*

The building has cabinets which each contain a standpipe outlet with fire hose and a fire extinguisher.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

D4090.03 Clean Agent Extinguishing Systems**

The computer room is equipped with FM200 fire suppression system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	40	APR-12

Event: Replace extinguishing system for computer room

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2040	\$12,000	Unassigned

Updated: APR-12

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

The kitchen is equipped with a Range Guard chemical fire suppression system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	40	APR-12

Event: Replace Kitchen Rangehood Fire Suppression System

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$12,000	Unassigned

Updated: APR-12

D4090.07 Fire Pumps & Water Storage Tanks*

A rated pump is installed and located in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

S5 ELECTRICAL**D5010.01.02 Main Electrical Transformers (Utility Owned)***

The Utility owned pad mounted transformer is located on the east side of the property in close proximity to the Ambulance entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5010.02 Secondary Electrical Transformers (Interior)**

The secondary transformers are 600V - 120/208V, delta-wye connected, 3 phase, 4 wire, naturally ventilated, dry type transformers manufactured by FPE, varying in sizes 112.5kVA - 300kVA.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	40	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace 600V - 120/208V Dry Type Transformers (2 - 300kVA, 1 - 225kVA, 4 - 150kVA & 2 - 112.5kVA)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$132,500	Unassigned

Updated: APR-12

D5010.02 Secondary Electrical Transformers (Interior) - Specialty Transformers**

These transformers are naturally ventilated, dry type transformers:

1. 25kVA, 208V - 208/115V, single phase, 3 wire isolation transformer (by Delta Group) for the UPS, and
2. 63kVA, 600V, 3 phase, phase shifting transformer (by Hammond) for use with the Reliance VFDs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1990	40	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace Dry Type Specialty Transformers (2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$10,000	Unassigned

Updated: APR-12

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

The main switchboard is a 1600A, 347/600V, 3 phase, 4 wire, free-standing, Service and Distribution Switchboard, manufactured by Federal Pioneer, consisting of 3 sections of industrial type air circuit breakers with a 1600A main and 6 distribution breakers ranging 400A - 800A.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	40	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	1600A, 347/600V	N/A	

Event: Add Service Entrance Type Surge Suppressor to Switchboard

Concern:

Voltage Fluctuations from Utility

Recommendation:

Provide Transient Voltage Surge Suppressor (TVSS) at service entrance.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2012	\$15,000	Medium

Updated: APR-12

Event: Replace ACB Type Service and Distribution Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$250,000	Unassigned

Updated: APR-12

D5010.03.02 Power Factor Controllers

There is a capacitor bank with automatic controller originally designed to correct the power factor of the building (inline digital)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	150kVAR	N/A	

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

The 347/600V, 3 phase, 4 wire panelboards (by FPE) include:

- Distribution panelboards with ratings ranging 225A - 1200A, including "6D2" attached to main switchboard
- Branch circuit panelboard with 225A rating and 42 circuits.

The 120/208V, 3 phase, 4 wire panelboards (by FPE) include:

- Distribution panelboards with ratings ranging 400A - 1200A
- Branch circuit panelboards with 225A rating and 24, 30 or 42 circuit capacities, including car park panels in weatherproof enclosures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	Varies	N/A	

Event: Replace Distribution Panelboards (5 - 347/600V & 7 - 120/208V) and Branch Circuit Panelboards (1 - 347/600V and 27 - 120/208V)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$226,000	Unassigned

Updated: APR-12

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

The motor control centers are floor mounted, custom designed, MCCs, manufactured by Siemens, with 4 or 5 sections including a control terminal section and combination magnetic starters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Motor Control Centers (1 - 5 section MCC with Starters & 4 - 4 section MCCs with Starters)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$166,500	Unassigned

Updated: APR-12

D5010.07.02 Motor Starters and Accessories**

Stand alone magnetic starters are used sparingly for 3 phase motors and toggle type manual starters with overload protection are used for 120V single phase motors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace 3 Phase Magnetic Starters (4) and Single Phase Manual Starters (12)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$8,400	Unassigned

Updated: APR-12

D5010.07.03 Variable Frequency Drives - 1985**

Variable Frequency Drives (by Reliance) are used for the control of the supply and return fans in the Penthouse Mechanical Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Variable Frequency Drives (2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$20,000	Unassigned

Updated: APR-12

D5010.07.03 Variable Frequency Drives - 2006**

The Variable Frequency Drives are the solid state PWM technology type manufactured by MGI Technologies.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	2006	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replacement Variable Frequency Drives (2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2036	\$18,000	Unassigned

Updated: APR-12

D5020.01 Electrical Branch Wiring*

The wiring method is cables in conduits, concealed in finished areas and surface mounted in utility areas. In patient care areas, wiring method follows CSA Z32.2 recommendations. Copper conductors are used.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

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

The interior lighting system is mainly controlled locally by line voltage switches and group controlled by low voltage switching. Low voltage switching is also utilized in sensitive locations such as intensive care and operating rooms. Recent installations (2006) have seen the use of motion activated switching in areas such as public washrooms and seldom used areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.02.01 Interior Incandescent Fixtures*

There are incandescent fixtures randomly located for accent lighting - some dimmable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.02.02 Interior Fluorescent Fixtures**

The fluorescent lighting system is the standard magnetic ballasts and T12 lamps type consisting of surface and recessed lighting fixtures and valance lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Fluorescent Fixtures (2500)

Recommendation:

Replace with energy efficient type.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$600,000	Unassigned

Updated: APR-12

D5020.02.02.02 Interior Fluorescent Fixtures - Emergency Department**

The fluorescent lighting system in the Emergency Department is the energy efficient type of electronic ballasts and T8 lamps, consisting of direct/indirect lights, surface and recessed fixtures as well as valances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	2006	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Fluorescent Fixtures (800)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2036	\$200,000	Unassigned

Updated: APR-12

D5020.02.03.01 Emergency Lighting Built-in*

Selected lighting fixtures in corridors, utility and public area are connected to the emergency power. Intensive Care and Operating Room lights are completely on emergency power.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting battery packs with integral and remote lighting heads are used to supplement the built-in emergency lighting in public areas along the paths of egress and in the generator room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	20	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Emergency Lighting Battery Packs (13)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$6,500	Unassigned

Updated: APR-12

D5020.02.03.03 Exit Signs*

Exit signs are internally illuminated exit lights with metallic housing and stencil face, 2 - 7W fluorescent liamps. Exit lights are connected to emergency power.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.02.11 Operating Room Lighting*

Operating Room and Trauma Room lighting includes single and dual dimmable operating and examination lights, by various manufacturers, some with built-in battery backup.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The building exterior lighting consists of high pressure sodium wall and under canopy surface mounted fixtures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

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

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.01 Detection and Fire Alarm**

The integrated Fire Alarm and Emergency Visual and Audio Communication (EVAC) system is a state-of-the-art, addressable two-stage system by EST.

The fire alarm system is designed for a health care facility with smoke detectors in corridors and patient rooms. Detection devices include manual stations, heat and smoke detectors. Signaling devices are audio/visual.

The EVAC system includes firemen's communication system of zoned and all page announcements originating from the Fire Command Centre which also include an alphanumeric fire alarm annunciator with an active graphic and firemen's handsets at critical locations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	2006	25	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Fire Alarm and EVAC System (Control Panel, Fire Command Centre with Graphic and All Field Devices)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$230,000	Unassigned

Updated: APR-12

D5030.02.02 Intrusion Detection**

A localized intrusion alarm system is incorporated in the Pharmacy including the security alarm of the drug cabinet.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Pharmacy Intrusion Alarm System (Control Panel and door contacts)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$2,500	Unassigned

Updated: APR-12

D5030.02.03 Security Access**

A card access system (part of AXIOM) is provided in the facility with proximity card readers at the Staff entrance, O.R. entrances, Administration and Mental Health entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2003	25	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Card Access System (Control Panel and 6 card Readers)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$8,500	Unassigned

Updated: APR-12

Event: Replace Card Access System with Linel System (Control Panel and 5 card Readers)

Concern:

Card access system is not compatible with system of Region.

Recommendation:

Upgrade Card Access System to Linel system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2012	\$10,000	Medium

Updated: APR-12

D5030.02.04 Video Surveillance**

A 16 camera surveillance system by Panasonic, with 7 cameras in the Hospital and 7 in Ambulatory Care, is connected to a monitor located at the maintenance office. The system has 24hr record ability (hard drive)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	25	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: **Provide separate video camera and intercom at Door of Material Management.**

Concern:

Material Management usually only has one person on shift and usually out of department delivering supplies and completing top ups.

Recommendation:

Install video camera and intercom system at shipping and receiving door.

Consequences of Deferral:

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2012	\$12,000	Low

Updated: APR-12

Event: **Replace Video Surveillance (Headend Equipment, monitor & 7 cameras)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$20,000	Unassigned

Updated: APR-12

D5030.03 Clock and Program Systems*

A master clock controller (by Edwards) provides synchronized clock services throughout the Hospital,

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Integrated Clock System (Master Clock Controller & 65 Clocks)**Concern:**

The current master clock system is obsolete. Clock failures are frequent and cannot be replaced.

Recommendation:

Replace complete synchronized clock system including clocks.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$50,000	High

Updated: APR-12

D5030.04.01 Telephone Systems*

The telephone system is the Nortel, Meridian PBX system. All departments are connected to the system including the Ambulatory Care Centre.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.04.03 Call Systems**

The nurse call system is a micro-processor based, audio/visual nurse call system by Dukane using bedside pillow speakers, pull string call stations, nurses response stations and corridor indicating lights. Master stations are the telephone handset type with hands-free options.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	25	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Nurse Call System (Controller, 6 master stations & 450 Field Devices/Call Stations)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$200,000	Unassigned

Updated: APR-12

D5030.04.05 Local Area Network Systems*

Extensive data distribution network is present in the facility. Server Room is at the lower level with switchers distributed throughout the Hospital, extending to the Ambulatory Care Centre. Mostly category 6 cables are used for horizontal distribution but some cat.5 and 5e cables remain.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5030.05 Public Address and Music Systems**

The public address system is a custom-designed system, with Dukane headend equipment, which interfaces with the telephone system, using standard recessed ceiling loudspeakers throughout the Hospital (except patient rooms and O.R.'s) and industrial type horns in utility areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	20	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

Event: Replace Public Address System (Headend Equipment and loudspeakers)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$65,000	Unassigned

Updated: APR-12

D5030.06 Television Systems*

A patient TV system is provided for the facility. The service is provided by Shaw Cable, monitored by Hospitality Network.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	N/A	N/A	

D5090.01 Uninterruptible Power Supply Systems**

The Uninterruptible Power Supply System is a 11kVA, 115/208V, single phase system by MGE. The system is complemented by an isolation transformer installed on the supply side.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1990	30	APR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	11	kVA	

Event: Replace Uninterruptible Power Supply System (Controller and Batteries)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$27,000	Unassigned

Updated: APR-12

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

The emergency power system is provided by a radiator-cooled, diesel engine generator, manufactured by Simpower, rated 500kW (625kVA), 347/600V, 3 phase 4 wire. The transfer switch is an 800A, 3 pole, Thomsom Technology Automatic Transfer Switch, with bypass facility. Loads include all essential health provision services (such as patient care receptacles), heating and O.R.ventilation, life safety and communication equipment, and emergency and exit lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace 500kW Diesel Generator and Transfer Switch

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$350,000	Unassigned

Updated: APR-12

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1020.07 Laboratory Equipment* - 1985 Building**

There is an on-site laboratory with typical equipment for this type of facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

E1020.08 Medical Equipment* - 1985 Building

Typical equipment for this type of acute facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

E1030.03 Loading Dock Equipment* - 1985 Building

A hydraulic dock leveler is provided in the loading area at the north end of the 1961 building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

E1090.02.01 Packaged Incinerators* - 1985 Building

There is a steel fabricated packaged incinerator in the service area in the 1985 section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	0	APR-12

Event: Incinerator Removal**Concern:**

Incinerator was decommissioned in 1990. Large area in Penthouse is unusable due to incinerator storage.

Recommendation:

Incinerator Removal

Consequences of Deferral:

Large wasted space which could be utilized more efficiently.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2014	\$10,000	Low

Updated: APR-11

E1090.03 Food Service Equipment* - 1985 Building

Typical commercial grade kitchen equipment is provided in the kitchen on level 0, includes dishwasher, stove ranges, ovens, steamers, walk-in coolers, freezers and sinks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

E2010.02 Fixed Casework**

There is fixed casework throughout the facility consisting of laminate vanities, reception counters and nursing stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	35	APR-12

Event: Replace Fixed Casework (11000m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$1,000,000	Unassigned

Updated: APR-12

E2010.03.01 Blinds**

Exterior wall windows have pull-down vinyl blinds installed in 1985 in both sections of the facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 500m2 blinds

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$50,000	Unassigned

Updated: APR-12

E2010.03.06 Curtains and Drapes - 1985 Building**

Overhead track mounted curtains are provided in patient rooms, tub rooms, and other medical-related rooms in the hospital.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	APR-12

Event: Replace 100m2 curtains

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$10,000	Unassigned

Updated: APR-12

F1040.05 Liquid and Gas Storage Tanks* - 1985 Building

Oxygen storage in steel tank located outside on site concrete pad. Noted in IMP Report.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

S8 SPECIAL ASSESSMENT**K1010 Site Location & Access**

The location of the hospital has adjacent City roads and easy public access.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

K1020.01 Onsite Signage for Way Finding*

Signage is limited.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

K1020.02 Pedestrian Routes, Parking & Transit Access*

There are concrete sidewalks to entrances. The hospital is adjacent to a transit route.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

K2010.01 Building Entrance/Reception (Location)*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	0	APR-12

Event: Install snow wall & new signage at entrance**Concern:**

Patient drop-off zone needs better weather protection and signage needs upgrading.

Recommendation:

Install snow wall & new signage at entrance.

Consequences of Deferral:

Weather exposure and lack of signage will persist.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2013	\$10,000	Medium

Updated: APR-12

K2010.02 Major Corridors (Layout, Orientation)*

The 1961 building is an H-shaped with central corridors. The 1985 building corridors are planned around a central service core.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

K2020.02 Adjacency of Spaces (Interactions, Challenges)*

The adjacency of spaces are appropriate.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1985	0	APR-12

K2030.03 Adjacency of Spaces Within Program*

The adjacency of spaces within the program is appropriate.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

K3020.04 Air Quality (Exhaust, Ventilation & Humidity)*

Airflow metering stations are required in 3 Operating Rooms to comply with current Operating Room standards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

Event: Install 3 Operating Room Air Flow Metering Stations

Concern:

Airflow metering stations are required in 3 Operating Rooms to comply with current Operating Room standards.

Recommendation:

Install air flow metering in all 3 Operating Rooms in accordance with Operating Room Nurses Association of Canada standard , the American Operating Room Nurses Standard and the Canadian Standards Association recommendations.

Consequences of Deferral:

Deferral could have a negative impact on surgical procedures from an infection control standpoint as well as the possible liability issues.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2013	\$25,000	Medium

Updated: APR-12

K4010.01 Barrier Free Route: Parking to Entrance*

There is a barrier free route from the parking to entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

Event: Ramp Installation & Exterior Structural Repairs

Concern:

Sidewalk slabs have sunk causing trip hazards, concrete on main walk is crumbling causing uneven surface and trip hazard, brick walk supporting backfill next to main step is deteriorating and beginning to crumble.

Recommendation:

Engineering assessment and repair on external structural cement/asphalt replacement/decay Includes loading dock asphalt, barrier free ramps, crumbling brick, front walk, stairwells.

Consequences of Deferral:

Access to facility will be compromised. Brick wall could collapse on visitors or staff.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$650,000	High

Updated: APR-12

K4010.02 Barrier Free Entrances*

Entrances have automatic doors with motion sensor operators.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

K4010.03 Barrier Free Interior Circulation*

Interior circulation is barrier free with elevators in both sections.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-12

K4010.04 Barrier Free Washrooms*

There are barrier free patient, staff and public wash rooms with enlarged compartments and grab bars.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

K4020.03 Other Codes* - Barrier Free Patient Evacuation Provisions

There are no patient evacuation slides.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	0	APR-12

Event: Install 50m Patient Evacuation Slides**Concern:**

In order to safely remove patients from 2nd and 3rd floor of facility, a method such as slides mounted to the stairwell rails is required.

Recommendation:

Supply and install Patient Evacuation slides.

Consequences of Deferral:

Patients and staff could be injured or even trapped inside the facility in a fire or evacuation of the facility.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Program Functional Upgrade	2013	\$10,000	Medium

Updated: APR-12

K4030.01 Asbestos*

Asbestos was neither observed nor reported during the building audit. Facility staff advise they monitor the facility for asbestos containing building materials during upgrading projects and maintenance operations. If asbestos is identified it is disposed of in accordance with provincial regulations and guidelines.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

K4030.02 PCBs*

Fluorescent lighting in the hospital has ballasts which contain PCBs. There were no leaking ballasts observed or reported during the building audit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

K4030.04 Mould*

There were no mould observed or reported during the building audit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12

K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)* - 1985 Building

Chlorofluorocarbons are present, one chiller uses R11 refrigerant.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

K4030.08 Biohazardous Materials*

Biohazardous materials are stored at grade in a fabricated freezer until collection and transport to a recognized disposal facility.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	0	APR-12

K5010.01 Site Documentation*

There are parking areas on the north, west and south sides of the building accessed from the adjacent City road. There are concrete sidewalks to entrances and a concrete ramp to the emergency entrance. There are mature trees on all sides of the hospital. The site works were developed in 1985 at the time of construction of the 1985 building.

Overall the site is in an acceptable condition.

This facility evaluation was completed by Alberta Health Services on March 19, 2010.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12



Google Earth view of site

K5010.02 Building Documentation*

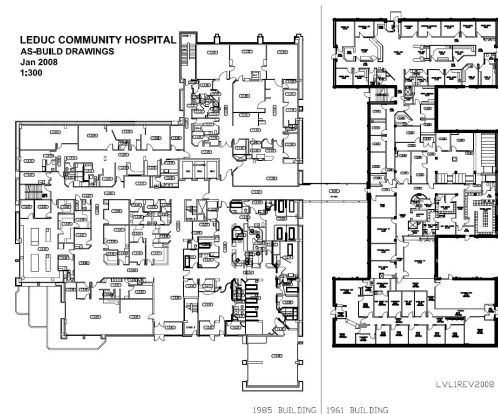
The original hospital building was completed in 1961 with a total of 2148 m2. The original hospital building was extensively renovated in 1985 at the time of the multi-story hospital building addition. The 1961 building has been renovated to become hospital administration, building services and public health offices.

The multi-story hospital addition was completed in 1985 with a total of 8917 m2.

Both buildings are located in Leduc, Alberta, between 48 and 50 Street and 42 and 43 Avenue.

This facility evaluation was completed by Alberta Health Services on March 19, 2010.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1961	0	APR-12



Main floor plan