RECAPP Facility Evaluation Report

Calgary Health Region

Rockyview General Hospital - Fisher Building

B1069C

Calgary

Report run on: April 4, 2012 3:30 PM

Facility Details

Building Name: Rockyview General Hospital
Address: 7007 - 14 Street S. W.
Location: Calgary

Building Id: B1069C
Gross Area (sq. m): 17,654.00
Replacement Cost: $0
Construction Year: 1966

Evaluation Details

Evaluation Company: DC Stewart Architect Limited
Evaluation Date: September 12 2011
Evaluator Name: Don Stewart

Total Maintenance Events Next 5 years: **$7,131,500**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The Fisher Building at the Rockyview General Hospital was developed in 1966 as a two storey building, with a partial basement and a gross area of approximately 16,000 square metres. The north wing was expanded to the west in 1997, adding a further 1000 square metres. Originally this was an acute care hospital, but now it is an ancillary and day clinic facility, supporting the main Highwood Building on the Rockyview site. The exterior is a combination of brick, precast concrete and anodized aluminum windows. There is a small internal courtyard that was created as a result of the expansion in 1997. The roof is an inverted / protected membrane which was installed in 2010. The facility underwent a total interior renovation in 1988, and later in 2000, some specific areas were renovated again. The Fisher Building contains diagnostic and testing facilities, as well as therapy and treatment areas.

Structural Summary:

Foundations for the Fisher Building are concrete spread footings and pads, and concrete grade beams. The basement walls are reinforced cast in place concrete. The structure consists of a bolted steel column and beam system, supporting a reinforced concrete waffle slab above. The roof is a bolted structural steel system, with open web steel joists and ribbed steel roof decking. No major upgrading work, associated with the existing structural systems, was identified with this building. There is no cracking or settlement evident with the structure. Overall, the structure of this building is in acceptable condition.

Envelope Summary:

Exterior cladding for this facility consists of brick masonry veneer and precast concrete accent panels. There are also precast concrete trim pieces applied to the windows. The flat roof has been upgraded to an inverted / protected membrane, with a rock ballast. There is one small aluminum framed skylight. Entrance doors are anodized aluminum framed with safety glazing. Service doors are flush steel in pressed steel frames, and the overhead doors are insulated wood panels. Windows are fixed anodized aluminum frames, with sealed double glazing, and have been upgraded. The envelope of this building is in acceptable condition.

Interior Summary:

Interior division in this facility is mostly gypsum board and metal stud partitions, with some concrete block masonry walls, both of which are painted. The majority of flooring in the building is sheet vinyl, with welded seams. There is some carpet flooring, and ceramic tile walls and floor in wet areas and in therapy rooms and tub rooms. Ceilings are a suspended t-bar system, with lay-in acoustic tiles. There are also some gypsum board ceilings and bulkheads, which are painted. Doors are solid core wood in pressed steel frames, paint finish. There is a considerable amount of plywood millwork throughout, finished with plastic laminate and paint. The building is provided with three passenger elevators, which access all three levels. Overall, the interiors of this facility are in acceptable condition.

Mechanical Summary:

The Fisher Building has mechanical services provided from the main building including steam, chilled water, domestic cold water, domestic hot water and fire protection. Two heat exchangers in the basement provide hot water heating; Two heat exchangers provide glycol heating. The receiving ramp requires heating loop repairs. The building is heated with finned tube radiation, the 1997 addition is heated with perimeter ceiling radiant panels. There are 8 air handling units. The basement AHU requires replacement. There is a VAV system in this building. The elevator machine room requires cooling. The isolation room exhaust requires HEPA filtering. Controls are mix of digital and pneumatic. Overall, the mechanical systems are in acceptable condition.

Electrical Summary:

All the major electrical systems in this facility are fed from the equipment installed in the Highwood Building. The main service consists of two 1200 amp normal power 347/600 volt 3 phase 4 wire services. The emergency power is fed from the Highwood Building. The emergency distribution is a 1200 amp 347/600 volt 3 phase 4 wire service. All the distribution equipment appears to be Federal Pioneer. The fire alarm system in the Fisher Building has been upgraded in 2008 to a fully addressable Edwards EST3 system. The fire alarm system is also networked to the Highwood fire

alarm system. The nurse call system is a Rauland Responder 4 system, and was installed in 2008. The majority of the lighting in the Fisher Building is in the form of T12 fluorescent fixtures complete with magnetic ballasts. The fixtures installed in Unit 49 are T8 fluorescents complete with electronic ballasts. These fixtures were installed in 1996. The data and communication cabling appears to be in the form of CAT5 cabling.The security system and CCTV system are both connected to the Highwood Building. The Fisher Building also has Essential Building power. This system is also fed from the Highwood Building.

Overall, the Fisher Building electrical systems appear to be in acceptable 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*

Standard concrete footings and pads, and reinforced concrete grade beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

A1030 Slab on Grade*

The basement floor is a reinforced concrete slab on grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

A2020 Basement Walls (& Crawl Space)*

Basement walls are reinforced concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

B1010.01 Floor Structural Frame (Building Frame)*

Floors are supported on steel columns and beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

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

Some interior walls are concrete block, especially in service areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

B1010.03 Floor Decks, Slabs, and Toppings*

Main floor is a reinforced concrete slab and beam (waffle slab) construction. Upper floor is concrete topping on steel decking and open web steel joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

B1010.06 Ramps: Exterior*

There is a reinforced concrete vehicle ramp located at the original ambulance arrival area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

B1010.10 Floor Construction Firestopping*

Where visible, penetrations of the floor slabs appears to be fire sealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

B1010.11 Other Floor Construction*

There is a reinforced concrete bridge spanning across the original ambulance ramp, connecting to the north building exit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	0	MAR-12

B1020.01 Roof Structural Frame*

The sixth level structure is a continuation of the reinforced concrete columns and beams below. The mechanical penthouse is framed with structural steel and open web steel joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

B1020.03 Roof Decks, Slabs, and Sheathing*

The main roof area is a ribbed steel deck supported on concrete columns and open web steel joists. The mechanical penthouse roof is also ribbed steel decking, supported on a structural steel frame.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	0	MAR-12

B1020.06 Roof Construction Fireproofing*

The main building roof, of structural steel beams and open web steel joists, has a sprayed fireproofing applied.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

S2 ENVELOPE

B2010.01.01 Precast Concrete: Exterior Wall Skin*

There are accent panels and an upper fascia band that is constructed of precast concrete. Also, there are vertical window mullion accents of precast concrete, which are being removed as the windows are upgraded.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	75	MAR-12

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

The majority of this building is clad in modular clay brick masonry. There is minimal efflorescence and no step cracking noted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	75	MAR-12

B2010.01.06.03 Metal Siding**

The mechanical penthouse enclosures, and the clerestory window structure, are clad with prefinished metal siding.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace 400 sm metal siding

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$116,000	Unassigned

Updated: MAR-12

B2010.01.09 Expansion Control: Ext. Wall*

Brick masonry walls are provided with expansion / control joints at appropriate locations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	75	MAR-12

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

Caulking is provided around windows, door frames, at dissimilar materials and in control joints.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	20	MAR-12

Event: Replace 1400 metres of caulking

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$42,000	Unassigned

Updated: MAR-12

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

Exterior cavity walls are backed up by reinforced concrete block masonry.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

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

Exterior masonry cavity walls are supported on metal studs and exterior sheathing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

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

We are advised that a vapour barrier is in place at exterior walls, but not an air barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

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

Clear anodized aluminum frames, sealed double glazing, fixed window panels. Windows were upgraded by installing sealed glazing units, new mullion caps and aluminum sills.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	40	MAR-12

Event: Replace 240 aluminum framed windows

Type	Year	Cost	Priority
Lifecycle Replacement	2045	$525,000	Unassigned

Updated: MAR-12

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Safety glazed doors, anodized aluminum frames, glazed sidelites. Most doors into the connecting links are controlled by magnetic hold-open devices, connected to the fire alarm.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	30	MAR-12

Event: Replace 16 glazed aluminum doors

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$52,000	Unassigned

Updated: MAR-12

B2030.01.06 Automatic Entrance Doors**

One set of automatic exit doors into south garden. Safety glazed doors, anodized aluminum frames, glazed sidelites.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	30	MAR-12

Event: Replace 1 pair of automatic entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$38,000	Unassigned

Updated: MAR-12

B2030.02 Exterior Utility Doors**

Flush steel doors in pressed steel frames, painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace 7 steel exterior doors

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$6,000	Unassigned

Updated: MAR-12

B2030.03 Large Exterior Special Doors (Overhead)*

Two insulated wood panel overhead doors, at original ambulance entrance, motor operated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-12

B3010.04.08 Membrane Roofing (Inverted/Protected)**

Entire roof replaced with an inverted / protected membrane, with rock ballast. One area of the roof (F-25) uses precast concrete panels for ballast.

Rating	Installed	Design Life	Updated
5 - Good	2010	30	MAR-12

Event: Replace 6500 sm inverted roofing

Type	Year	Cost	Priority
Lifecycle Replacement	2040	$1,200,000	Unassigned

Updated: MAR-12

B3020.01 Skylights**

One small skylight is located above the main floor Geriatric Health Unit; constructed of aluminum framing and sealed double glazing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	20	MAR-12

Event: Replace 15 sm skylight

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$16,000	Unassigned

Updated: MAR-12

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior partitions are gypsum board on metal studs, painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	0	MAR-12

C1010.05 Interior Windows*

Interior windows are single glazed in pressed steel frames, painted. Some windows have wired glass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	80	MAR-12

C1010.06 Interior Glazed Partitions and Storefronts*

There are a number of high security observation rooms in Unit 48, constructed of aluminum frames, single security glazing, and magnetic locks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	80	MAR-12

C1010.07 Interior Partition Firestopping*

Where visible, penetrations of rated partitions appear to be fire sealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	50	MAR-12

C1020.01 Interior Swinging Doors (& Hardware)*

Interior doors are solid core wood, in pressed steel frames, painted. Some doors have a clear, natural finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	MAR-12

C1020.03 Interior Fire Doors*

Fire doors are flush steel in pressed steel frames, painted. Some fire doors have wired glass panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	50	MAR-12

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

Prefinished steel toilet compartments, floor mounted, overhead braced; provided in all large washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace 12 steel toilet compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$14,000	Unassigned

Updated: MAR-12

C1030.05 Wall and Corner Guards*

In some high traffic areas, corners are protected with extruded plastic corner guards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	15	MAR-12

C1030.06 Handrails*

Continuous wood handrails, and some plastic handrails, are provided in patient areas and in most public corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	MAR-12

C1030.08 Interior Identifying Devices*

Signage is extensive at entrance to units and to individual doors, engraved lamacoid type.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

C1030.10 Lockers**

Prefinished steel lockers, full height, located in the basement staff areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace 250 steel lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$118,000	Unassigned

Updated: MAR-12

C1030.12 Storage Shelving*

There is a variety of wood and steel shelving systems throughout, painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

C1030.14 Toilet, Bath, and Laundry Accessories*

Standard institutional quality bath fixtures, stainless steel finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

C2010 Stair Construction*

Service stairs from basement are cast in place concrete. The other six stairs are welded steel frame with cantilevered, open, treads. Each tread is covered with a precast concrete slab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	100	MAR-12

C2020.05 Resilient Stair Finishes**

Stairs have a full width vinyl tread, with non-slip nosing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

Event: Replace 18 flights of vinyl stair treads

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$11,000	Unassigned

Updated: MAR-12

C2020.08 Stair Railings and Balustrades*

Stair railings and guards are solid wood with a natural finish; mounted on a welded steel frame and steel pickets, painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	MAR-12

C3010.02 Wall Paneling**

Sheet fibreglass protection is provided to the lower half of the walls in the main floor activity area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace 80 sm fiberglass sheet wall paneling

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$8,000	Unassigned

Updated: MAR-12

C3010.06 Tile Wall Finishes**

Barrier free washrooms, tub rooms, shower rooms, therapy rooms, and some service rooms are finished with ceramic wall tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	MAR-12

Event: Replace 650 sm ceramic wall tile

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$156,000	Unassigned

Updated: MAR-12

C3010.11 Interior Wall Painting*

All interior walls, including gypsum board and concrete block, are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	10	MAR-12

C3020.01.02 Painted Concrete Floor Finishes*

Some concrete floors, in service areas, are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	MAR-12

C3020.02 Tile Floor Finishes**

Barrier free washrooms, tub rooms, shower rooms, therapy rooms, and some service rooms are finished with ceramic floor tile or ceramic mosaic floor tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	50	MAR-12

Event: Replace 500 sm ceramic floor tile

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$80,000	Unassigned

Updated: MAR-12

C3020.03 Terrazzo Floor Finishes*

There is some terrazzo flooring, mostly used as cove bases in corridors, still in use from the original building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	75	MAR-12

C3020.07 Resilient Flooring**

The majority of this Hospital is finished in resilient sheet flooring, with welded seams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

Event: Replace 8500 sm sheet vinyl flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$680,000	Unassigned

Updated: MAR-12

C3020.08 Carpet Flooring**

Some corridors, offices, lounges, and special areas are finished with a level loop carpet. There are also some minor areas of carpet tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	15	MAR-12

Event: Replace 2500 sm carpet flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$160,000	Unassigned

Updated: MAR-12

C3020.09 Access Flooring**

Specialized ventilated access flooring is provided in the basement computer server room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

Event: Replace 100 sm computer access flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$54,000	Unassigned

Updated: MAR-12

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

Ceilings throughout this building are suspended t-bar with acoustic tiles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

Event: Replace 12,500 sm acoustic ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$550,000	Unassigned

Updated: MAR-12

C3030.07 Interior Ceiling Painting*

Gypsum board ceilings and bulkheads, located in washrooms, storage rooms, work rooms, some corridors and offices, have a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

C3030.09 Other Ceiling Finishes*

There is a very small portion of prefinished paraline metal ceiling in one unit location.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

D1010.01.02 Hydraulic Passenger Elevators**

Three hydraulic passenger elevators are provided, connecting all three levels, 4000 pound capacity.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-12

Event: Replace 3 passenger elevators

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$250,000	Unassigned

Updated: MAR-12

D1090 Other Conveying Systems*

The original building had a "televeyor" material handling system, which we are advised is no longer in use, although some of the shafts are still evident.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	0	MAR-12

S4 MECHANICAL

D2010.04 Sinks**

Level '3'
Janitor sink - 5 Units
SS sink - 5 Units

Level '4'
Janitor sink - 6 Units
SS sink - 85 Units
Hair sink - 1 Unit
Bed pan washer - 3 Units

Level '5'
Janitor sink - 4 Units
SS sink - 87 Units
Bed pan washer - 4 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Sinks - 200 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$300,000	Unassigned

Updated: MAR-12

D2010.05 Showers**

Level '3'
Fiberglass shower - 7 Units

Level '4'
Fiberglass shower - 50 Units
Barrier free roll in shower - 2 Units

Level '5'
Fiberglass shower - 24 Units
Barrier free roll in shower - 2 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Showers - 85 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$250,000	Unassigned

Updated: MAR-12

D2010.06 Bathtubs** - Standard

Standard Bathtubs - 5 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Standard Bathtubs - 5 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$15,000	Unassigned

Updated: MAR-12

D2010.06 Bathtubs** - Therapeutic

Therapeutic tubs - 6 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace 6 therapeutic tubs

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$90,000	Unassigned

Updated: MAR-12

D2010.08 Drinking Fountains/Coolers**

Stainless steel refrigerated drinking fountains - 9 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	MAR-12

Event: Replace Drinking Fountains/Coolers - 9 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$32,000	Unassigned

Updated: MAR-12

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

Level '3'
Wall mount lav - 5 Units
Drop in lav - 3 Units
Flush valve WC - 7 Units
Urinal - 1 Unit

Level '4'
Wall mount lav - 53 Units
Drop in lav - 29 Units
Flush valve WC - 74 Units
Urinal - 2 Units

Level '5'
Wall mount lav - 34 Units
Drop in lav - 31 Units
Flush valve WC - 63 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	MAR-12

Event: Replace Washroom Fixtures (WC, Lav, Urnl) - 302 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$475,000	Unassigned

Updated: MAR-12

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water piping is constructed of copper.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

D2020.01.02 Valves: Domestic Water**

Domestic water valves are provided to isolate washroom groups and patient rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace Domestic Water Valves - 500 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$375,000	Unassigned

Updated: MAR-12

D2020.01.03 Piping Specialties (Backflow Preventers)**

Backflow preventers are provided for the hot water heating and glycol heating systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	20	MAR-12

Event: Replace Backflow Preventers - 2 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$6,000	Unassigned

Updated: MAR-12

D2020.01.08 Hose Bibbs*

Exterior non-freeze hose bibbs are provided - 8 Units

Rating	Installed	Design Life	Updated
2 - Poor	1966	0	MAR-12

Event: Replace Non freeze Hose Bibbs - 8 Units

Concern:
Hose bibbs are not operable, valves will not open.
Recommendation:
Replace hose bibbs with new.

Type	Year	Cost	Priority
Failure Replacement	2013	$2,500	Medium

Updated: MAR-12

D2020.03 Water Supply Insulation: Domestic*

Domestic water piping is insulated with fiberglass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

D2030.01 Waste and Vent Piping*

Waste and vent piping is constructed of copper and cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

D2030.02.04 Floor Drains*

Floor drains are provided in the mechanical room and service rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

D2030.03 Waste Piping Equipment*

A basement sanitary sump with duplex pumps is provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

D2040.01 Rain Water Drainage Piping Systems*

Rain water is collected internally, with cast iron piping.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

D2040.02.04 Roof Drains*

Roof drains are control flow type.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

D2040.02.06 Area Drains*

An area drain is provided in the courtyard.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

D2090.11 Oxygen Gas Systems**

Oxygen gas is piped to all wards on level 4 and level 5. Oxygen supply is located in the main building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Oxygen Gas Systems - Level 4 & 5

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$200,000	Unassigned

Updated: MAR-12

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

Vacuum is piped to all wards on level 4 and level 5. Vacuum equipment is located in the main building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Vacuum Systems (Medical and Lab) Level 4 & Level 5

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$200,000	Unassigned

Updated: MAR-12

D2090.16 Medical Air System*

Medical air is piped to all wards on level 4 and level 5. Medical air equipment is located in the main building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

D3010.02 Gas Supply Systems*

Gas piping is supplied to the gas fired MUA serving the receiving area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	60	MAR-12

D3040.01.01 Air Handling Units: Air Distribution** - 1966

Air handling unit is original. Trane Climate Master 17MP-HDT FVU c/w chilled water coil, glycol heating coil, supply and return fan.

Rating	Installed	Design Life	Updated
3 - Marginal	1966	30	MAR-12

Event: Replace AHU - 1 Unit

Concern:
Unit has passed its life expectancy, parts are not readily available. Reliability is a concern.
Recommendation:
Replace unit with new unit.

Type	Year	Cost	Priority
Failure Replacement	2013	$40,000	Medium

Updated: MAR-12

D3040.01.01 Air Handling Units: Air Distribution** - 1988

Air handling units are c/w multiple filter banks, glycol heating coils, chilled water coils, steam grid humidification and VFD fans.
SF-1; 23,600 l/s
SF-2; 12,790 l/s (R/A fan is separate)
SF-3; 11,420 l/s (R/A fan is separate)

AH-1; Engineered Air; LM-8-W; Glycol htg; Chilled water coil; 3,915l/s
AH-2; Engineered Air; LM-8-W; Glycol htg; Chilled water coil; 2,360 l/s
AH-3; Engineered Air; LM-4; Glycol htg; 2,125 l/s

F4-1; Engineered Air; HE-20; gas fired MUA; 755 l/s

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Air Handling Units - 7 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$600,000	Unassigned

Updated: MAR-12

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

Unit is located on the 1997 addition, System Aire Unit is c/w multiple filter banks, glycol heating coils, chilled water coils, steam grid humidification and VFD fans

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-12

Event: Replace AHU - 1 Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$150,000	Unassigned

Updated: MAR-12

D3040.01.03 Air Cleaning Devices: Air Distribution*

All air handling equipment is provided with disposable filter media.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-12

D3040.01.04 Ducts: Air Distribution*

Ductwork is constructed of galvanized sheet metal. Ductwork is externally insulated, where exposed insulation is covered with canvas jacket.

Rating	Installed	Design Life	Updated
3 - Marginal	1966	50	MAR-12

Event: Provide Ducted Air to Elevator Machine Room (200 m2)

Concern:
Elevator machine room temperatures reach high levels.
Recommendation:
Provide cooling to elevator machine room to prevent equipment damage.

Type	Year	Cost	Priority
Preventative Maintenance	2013	$50,000	High

Updated: MAR-12

D3040.01.06 Air Terminal Units: Air Distribution (VAV/CV Box)** - 1988

VAV boxes are provided throughout original building. Boxes are pneumatically controlled.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace VAV Boxes - 300 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$500,000	Unassigned

Updated: MAR-12

D3040.01.06 Air Terminal Units: Air Distribution (VAV/CV Box)** - 1997

VAV boxes are provided in 1997 addition. Boxes are digitally controlled.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-12

Event: Replace VAV Boxes - 15 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$25,000	Unassigned

Updated: MAR-12

D3040.01.07 Air Outlets & Inlets: Air Distribution*

A mix of supply grilles, diffusers and slot diffusers are provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

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

The only steam located in the building is the main line from the Highwood Building to the mechanical room, and steam lines to the humidifiers in the air handling units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace Steam Distribution System (100m of 150mm steam main and steam humidification lines)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$75,000	Unassigned

Updated: MAR-12

D3040.03.01 Hot Water Distribution Systems**

Hot water is distributed to all parts of the building to serve reheat coils and radiation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace Hot Water Distribution System (17,654 m2 GFA)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$1,800,000	Unassigned

Updated: MAR-12

D3040.03.02 Chilled Water Distribution Systems**

Chilled water is provided from the main building, chilled water is piped to all chilled water coils located in the air handling units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace Chilled Water Distribution System (17,654 m2 GFA)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$750,000	Unassigned

Updated: MAR-12

D3040.03.04 Glycol Systems*

Glycol is piped to all air handling unit heating coils.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	0	MAR-12

D3040.04.01 Fans: Exhaust**

Exhaust fans consist of centrifugal utility type - 8 Units
Torit dust collector unit for carpentry shop - 1 Unit
Inline centrifugal exhaust fan for morgue exhaust - 1 Unit
Roof mounted domex exhaust fans - 6 Units
Propeller exhaust fan for elevator machine room - 1 Unit
Isolation room exhaust fans - 3 Units

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	MAR-12

Event: Provide HEPA filtering on Isolation Room Exhaust - 3 Units

Concern:
Isolation room requires HEPA filtering prior to the air leaving the building.

Recommendation:
Provide HEPA filtration units for the isolation room exhaust.

Type	Year	Cost	Priority
Code Upgrade	2013	$50,000	High

Updated: MAR-12

Event: Replace Exhaust Fans - 20 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$250,000	Unassigned

Updated: MAR-12

D3040.04.03 Ducts: Exhaust*

Exhaust ducts are constructed of galvanized sheet metal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust grilles are located in patient washrooms, public washrooms and utility areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-12

D3040.05 Heat Exchangers**

Heat exchangers are located in the basement mechanical room. All heat exchangers are Armstrong shell & tube design.
(2) Steam to glycol - serves air handling unit coils; (2) base mounted Armstrong pumps 6x4x10
(1) Steam to glycol - serves ramp heating; (1) Taco 3 HP pump
(2) Steam to hot water - serves radiation and reheat; (6) base mounted Armstrong pumps 3x2x8

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace 5 Heat Exchangers and 9 HE Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$125,000	Unassigned

Updated: MAR-12

D3050.01.01 Computer Room Air Conditioning Units**

Basement server room is cooled with Liebert air conditioning unit. Domestic cold water is used as a cooling medium.

Rating	Installed	Design Life	Updated
3 - Marginal	1996	30	MAR-12

Event: Install Alternative Computer Room Air Conditioning System (1 unit)

Concern:
Domestic cold water is used as cooling, all water continuously goes to drain.
Recommendation:
Utilize DX cooling and/or chilled water for cooling as an alternative to domestic water.

Type	Year	Cost	Priority
Code Repair	2013	$25,000	Low

Updated: MAR-12

D3050.05.03 Finned Tube Radiation**

Finned tube radiation is used throughout on all exterior heating zones with exception of the 1997 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace Finned Tube Radiation (16,000 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$700,000	Unassigned

Updated: MAR-12

D3050.05.06 Unit Heaters**

Unit heaters are provided in the receiving shop and elevator machine room - 4 Units
Cabinet heaters are located at all exits - 4 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace Unit Heaters and Cabinet Heaters - 8 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$30,000	Unassigned

Updated: MAR-12

D3050.05.08 Radiant Heating (Ceiling & Floor)** - Level 4, 1997 Addition

The 1997 addition on Level 4 utilizes radiant ceiling panels for perimeter heating.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	35	MAR-12

Event: Replace Ceiling Radiant Panels (1000 m2 floor area)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$50,000	Unassigned

Updated: MAR-12

D3050.05.08 Radiant Heating (Ceiling & Floor)** - Receiving Area Ramp

Ramp to receiving area is heated to prevent snow and ice build up.

Rating	Installed	Design Life	Updated
2 - Poor	2002	35	MAR-12

Event: Replace Ramp Heating (100 m2)

Concern:
Section of ramping heating does not work.
Recommendation:
Portion of concrete slab requires removal. New heating loops and concrete poured.

Type	Year	Cost	Priority
Failure Replacement	2013	$50,000	Medium

Updated: MAR-12

D3060.02.01 Electric and Electronic Controls**

Electronic controls provided for 1997 Addition (ceiling radiation and 15 VAV boxes).

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-12

Event: Replace electronic controls - 1997 Addition (1000 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$10,000	Unassigned

Updated: MAR-12

D3060.02.02 Pneumatic Controls**

Mechanical controls serving terminal units with exception of the 1997 addition are pneumatic.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace Pneumatic Controls (16,000 m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$125,000	Unassigned

Updated: MAR-12

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

Air handling equipment is controlled by the central BMS system located in the main building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	25	MAR-12

Event: Replace Building Systems Controls (BMCS, EMCS, AHU's) - 17,654 m2 GFA

Type	Year	Cost	Priority
Lifecycle Replacement	2034	$50,000	Unassigned

Updated: MAR-12

D4010 Sprinklers: Fire Protection*

Fire protection sprinklers are provided to the entire building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	60	MAR-12

D4020 Standpipes*

Standpipe fire hose cabinets (no hose supplied) are located throughout building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	60	MAR-12

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishes are located in all areas of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-12

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)**

The facility has five step down transformers installed in the main electrical room. The facility has two 150 KVA 600:120/208 volt transformers, two 75 KVA 600:120/208 volt transformers and one 112.5 KVA 600:120/208 volt transformer. All the transformers appear to be original equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace two 150 KVA, two 75 KVA and one 112.5 KVA transformer (5 total)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$125,000	Unassigned

Updated: MAR-12

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

The main distribution switchboards in the main electrical room of the Fisher building consist of a 1200 amp 347/600 volt 3 phase wire panel fed from the Highwood building normal power. This panel appears to have two separate feeds interlocked together with a Kirk Key Interlock, to obtain the first line of redundancy. There is also two additional 600 amp 120/208 volt 3 phase 4 wire distribution panels on normal power.

The emergency power to the Fisher building is also fed from the Essential distribution panel in the Highwood building. This system also appears to have two separate feeds that are interlocked with a Kirk Key Interlock. The emergency power distribution panel appears to be a 1200 amp rated 347/600 volt panel. There is also two additional 120/208 volt 600 amp rated 3 phase 4 wire distribution panels fed from the emergency distribution panel. The facility also has five additional 120/208 volt distribution panels installed in the main riser rooms to pick up additional panels on the floors. These panels appear to be all 600 amp rated.

All the distribution appears to be original equipment installed in 1966.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	MAR-12

Event: Replace two 1200A 347/600V and nine 600A 120/208V distribution panels.

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$850,000	Unassigned

Updated: MAR-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1988

The facility has several 120/208 volt 3 phase 4 wire distribution panels flush mounted in corridors of the patient wings. There are also several 347/600 volt lighting panels installed in the main electrical riser rooms. All the branch circuit panels are Federal Pioneer, and with the exception of the branch circuit panels in Nursing unit 49, appear to have been installed in 1988.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace six 347/600V lighting panels and forty 120/208V branch circuit panels

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$275,500	Unassigned

Updated: MAR-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1996

There are additional 120/208V branch circuit panels installed in Nursing Unit 49. These were added during the expansion of 1996. All the panels appear to be Federal Pioneer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	30	MAR-12

Event: Replace approx. six 120/208V 3 phase 4 wire branch circuit panels.

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$16,000	Unassigned

Updated: MAR-12

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

The facility has four Siemens motor control centers (MCCs) that appear to have been installed in 1996. There are two in the basement mechanical room and two in the penthouse mechanical room. In the mechanical room, one MCC is fed from normal power and the other from emergency power. Each MCC is 347/600 volt 600 amp rated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	30	MAR-12

Event: Replace four 600V 600A 10 cell motor control centers

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$85,000	Unassigned

Updated: MAR-12

D5010.07.03 Variable Frequency Drives**

The Fisher Building appears to have two variable frequency drives installed on the large fans in the mechanical penthouse. The VFD's are Hitachi J300 series, and appear to have been installed in 1996.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	30	MAR-12

Event: Replace two Hitachi VFD's

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$10,000	Unassigned

Updated: MAR-12

D5020.01 Electrical Branch Wiring*

The branch circuit wiring in this facility is primarily single conductor cable in conduit. AC90 cable was noted for drops to fixtures and to equipment with the potential for vibration. Liquid tight flexible conduit is used where there is a potential risk of excessive moisture.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	50	MAR-12

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

The interior lighting is controlled with both low voltages switches and associated relays, as well as line voltage switches.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-12

D5020.02.02.01 Interior Incandescent Fixtures*

There are several incandescent fixtures installed, including recessed fixtures for shower lighting, and several recessed pot lights. There are also several ceiling mounted globe style fixtures that were installed as part of the original construction in 1966. All fixtures appear to be in working order.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

D5020.02.02.02 Interior Fluorescent Fixtures** - 1988

Fluorescent lighting in the Fisher Building is primarily T12 fluorescent complete with magnetic ballasts. As lamps and ballasts fail, they are upgraded to T8 with electronic ballasts. Recessed fixtures are provided in all offices and public corridors, cube style fixtures in washrooms and surface mounted fixtures are located at each patient bed. The mechanical rooms and service rooms have chain mounted strip fixtures. The nurses' stations also have some pendant mounted fluorescent fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace T12 fluorescant fixtures (based on 15,000 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$645,500	Unassigned

Updated: MAR-12

D5020.02.02.02 Interior Fluorescent Fixtures** - 1996

T8 fluorescent fixtures were installed as part of the expansion in 1996. They are primarily installed in Unit 49 and consist of wall mounted fixtures in the washrooms and at patient beds, and recessed 2x4 fixtures in the corridors and offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	30	MAR-12

Event: Replace T8 fluorescant fixtures (based on 1,580 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$68,000	Unassigned

Updated: MAR-12

D5020.02.02.04 Interior H.P. Sodium Fixtures*

There are square recessed, high pressure sodium fixtures in the main elevator lobby.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

D5020.02.03.01 Emergency Lighting Built-in*

Emergency lighting in this facility is provided by the standard lighting installed throughout the facility. The light fixtures are connected to branch circuits that are fed from the emergency power distribution panels. All the emergency power distribution systems are fed from the Highwood Building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	MAR-12

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting battery packs are installed in each stairwell. Although the lighting is already on emergency power, battery packs were added to supply emergency lighting power during the time between loss of power and generator load pick up.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

Event: Replace approx. 15 battery packs

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$15,000	Unassigned

Updated: MAR-12

D5020.02.03.03 Exit Signs*

The facility has incandescent style exit lights that were installed in 1988. Several of the fixtures did not appear to be operational due to lamp failure.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	MAR-12

Event: Replace failed lamps in all non-functional exit lights (approx. 15 fixtures)

Concern:

Several of the exit lights were not operational due to what appears to be failed lamps.

Recommendation:

Replace all lamps that have failed, and test emergency lighting for operation under emergency power.

Consequences of Deferral:

In the event of power failure, the exiting routes may not be clearly indicated because they will not be energized.

Type	Year	Cost	Priority
Repair	2012	$1,500	Medium

Updated: MAR-12

D5020.03.01.01 Exterior Incandescent Fixtures*

Incandescent wall mounted fixtures installed at some of the exterior man doors. There are also some incandescent spot lights in the courtyards. Post mounted incandescent fixtures are installed as decorative walkway lighting.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	MAR-12

Event: Re-install the landscape spot lights (5 fixtures)

Concern:
Several landscape lights have been removed during recent landscape maintenance and are no longer permanently installed.

Recommendation:
Reinstall the fixtures to their original position so they are no longer lying flat on the ground.

Consequences of Deferral:
Damaged fixtures.

Type	Year	Cost	Priority
Repair	2012	$1,500	Low

Updated: MAR-12

Event: Repair post mounted fixtures (Approx. 4 fixtures)

Concern:
The incandescent pole mounted decorative fixtures have broken lenses and the lamps are exposed to the elements.

Recommendation:
Repair or replace each damaged fixture.

Consequences of Deferral:
Lamps are exposed to the elements and could short out the circuit if exposed to water.

Type	Year	Cost	Priority
Repair	2012	$2,000	Low

Updated: MAR-12

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Several wall mounted high pressure sodium fixtures are installed on the exterior of the building, as well as pole mounted shoe box style fixtures installed along service roads and walkways. There are also recessed fixtures installed under some of the eaves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

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

All exterior lighting on the Fisher Building appears to be controlled with the use of photocells. There did not appear to be any low voltage controls for the exterior lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

D5030.01 Detection and Fire Alarm**

The fire alarm system in the Fisher Building was upgraded in 2008 to an Edwards EST 3 system. The system is connected to the Highwood Building through network panels installed in the electrical rooms. The system consists of remote annunicators in each elevator lobby and nurses' station, manual pull stations, smoke detectors, heat detectors, fire phones and speakers throughout. The system is completely addressable and is connected to the Fire Works program in the main firefighters' control room.

Rating	Installed	Design Life	Updated
5 - Good	2008	25	MAR-12

Event: Replace fire alarm system (based on 17,000 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$365,500	Unassigned

Updated: MAR-12

D5030.02.01 Door Answering*

The Fisher Building has intercoms located at the secure patient wings. They are connected directly to the associated nurses' stations for entry into the desired patient care wings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

D5030.02.02 Intrusion Detection**

The intrusion detection system in this facility is connected to the Highwood Building AMEG security system. The system includes door sensors to monitor all door status.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

Event: Replace AMEG intrusion detection system (based on 17,000 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$86,000	Unassigned

Updated: MAR-12

D5030.02.03 Security Access**

The security access system in the Fisher Building is connected to the Highwood Building's AMEG security system. There is card access as well as combination card/pin code access on all secure doors within the facility. Several of the patient wings utilize combination card/pin entry access control to gain access while leaving the wing secure. The access control is connected through the Altronix control cabinets located in the electrical rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

Event: Replace security access control system (based on 17,000 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$172,000	Unassigned

Updated: MAR-12

D5030.02.04 Video Surveillance**

The CCTV system in this facility is a combination of a hardwired system and an IP-based camera system. All the cameras are monitored by an offsite monitoring company. All images can be viewed in the security office located on the main floor of the Highwood Building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	25	MAR-12

Event: Replace CCTV system (based on 17,000 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$172,000	Unassigned

Updated: MAR-12

D5030.03 Clock and Program Systems*

Fisher Building has an Edwards 2470 clock system, consisting of the head end equipment and clocks installed throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

D5030.04.01 Telephone Systems*

The telephone has recently been upgraded to a Nortel Networks Meridian switch. This switch controls all the telephones with in this building, the Ambulatory Care Building and the Highwood Building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2010	25	MAR-12

D5030.04.03 Call Systems**

The nurse call system was upgraded in 2008 to a Rauland Responder 4 system. There are call stations by each patient bed, indicator lights outside each patient room and pull cords in each washroom.

Rating	Installed	Design Life	Updated
5 - Good	2008	25	MAR-12

Event: Replace the nurse call system (based on 12,000 SQM)

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$193,500	Unassigned

Updated: MAR-12

D5030.04.04 Data Systems*

The data system is managed by a sub-contracted IT group. The system consists of vertical cabling backbone of both copper and fiber cables. From each of the data racks, horizontal CAT5 cables are extended to each outlet.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	25	MAR-12

D5030.04.05 Local Area Network Systems*

A wireless network is installed throughout the facility. Each wireless access point is connected to the closest data rack with a CAT5 cable and appears to give adequate coverage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	15	MAR-12

D5030.05 Public Address and Music Systems**

The public address system in this facility is provided through the fire alarm system. The telephone system is connected to the fire alarm control panels with software, and all paging is achieved through the fire alarm speakers.

Rating	Installed	Design Life	Updated
4 - Acceptable	2008	25	MAR-12

Event: Replace paging software (Software only, as hardware is included with the Fire Alarm)

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$5,000	Unassigned

Updated: MAR-12

D5030.06 Television Systems*

The Fisher Building has a 24 volt television system. Each patient bed has a television monitor that is connected to the closest electrical room with a COAX cable. Each television is also powered from a small step down transformer also located in the electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-12

D5030.07 Other Communications and Security Systems*

The facility has a new antenna system from Powerwave Technologies that was just being commissioned at the time of this assessment. The system will be used to provide better VHF and cell phone coverage. The system consists of fiber cables connected to the closest data risers and antennas connected to the ductwork throughout. The system was installed in 2011 and will be operational in the very near future.

Rating	Installed	Design Life	Updated
5 - Good	2011	0	MAR-12

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.06 Commercial Laundry and Dry Cleaning Equipment*

A few localized laundry rooms are provided, for minor laundering requirements.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

E1020.02 Library Equipment*

A manual, rolling file shelving system is provided in the Patient Records area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

E1020.08 Medical Equipment*

Various minor diagnostic, therapeutic and treatment equipment is provided, suitable for a short term diagnostic and treatment facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

E1090.03 Food Service Equipment*

A few small, residential style, kitchens are installed to provide lunch and snack service.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	MAR-12

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

There are a number of specialized therapeutic bath tubs provided. There is some athletic / exercise equipment provided in the main floor Activity Centre.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	15	MAR-12

E2010.02 Fixed Casework**

Fixed casework provided in patient rooms, kitchens, serveries, washrooms, workrooms, offices, lounges, nurse stations - plywood construction, plastic laminate counters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	MAR-12

Event: Replace 1200 lm fixed casework

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$908,000	Unassigned

Updated: MAR-12

E2010.03.01 Blinds**

Exterior windows are provided with vertical louvre blinds. Some west and south-facing windows have rolling solar blinds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-12

Event: Replace 240 window blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$110,000	Unassigned

Updated: MAR-12

F1020.02 Special Purpose Rooms

There are four high security rooms provided on the main floor north wing, complete with secure doors, windows and walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	50	MAR-12

F1040.06 Other Special Facilities*

There is a roof top terrace, accessible from the second floor north wing dining room, complete with welded steel frame, safety glass walls, and precast concrete paver flooring.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

S8 SPECIAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

The parking lot is at grade, and is level with all entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

K4010.02 Barrier Free Entrances*

All exterior entrances are equipped with power operators. All entrance doors within connecting links are held open with magnetic locks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

K4010.03 Barrier Free Interior Circulation*

Corridors are wide and unobstructed. Elevators are provided to all levels of the building. Enclosed links connect to other buildings on site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

K4010.04 Barrier Free Washrooms*

Barrier free washrooms are provided in public areas and in patient areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

K4020.03 Other Codes*

Numerous fire doors propped open, presumably by cleaning or maintenance staff.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	MAR-12

Event: Instruct staff regarding fire doors and reinstall door closers

Concern:
Numerous fire doors are propped open. Some fire doors have had the closers detached.

Recommendation:
Staff to be instructed to not block open fire doors in any circumstances. Reinstall door closers.

Consequences of Deferral:
Danger of spread of fire.

Type	Year	Cost	Priority
Code Repair	2012	$1,000	Medium

Updated: MAR-12

K4030.01 Asbestos*

No asbestos was noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-12

K4030.02 PCBs*

No PCB's were noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-12

K4030.04 Mould*

No conditions supporting mould growth were noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-12

K4030.09 Other Hazardous Materials*

No other hazardous materials were noted or reported.

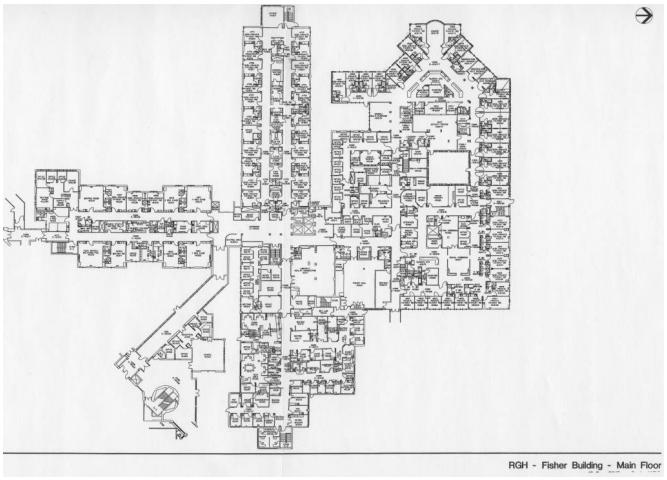
Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	MAR-12

K5010.02 Building Documentation*

Building floor plans provided by Alberta Health Services maintenance staff.

Prime Consultant: Don Stewart - DC Stewart Architect Limited.
Evaluation Date: Sept. 12, 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	2011	0	MAR-12



Fisher Building - Main Floor Plan