

# RECAPP Facility Evaluation Report

Alberta Health Services-Edmonton



**Alberta Hospital Edmonton Helen Hunley Building 3**

B1022B  
Edmonton

**Facility Details**

**Building Name:** Alberta Hospital Edmonton F  
**Address:** 17480 Fort Road, P. O. Box  
**Location:** Edmonton

**Building Id:** B1022B  
**Gross Area (sq. m):** 17,499.00  
**Replacement Cost:** \$74,958,383  
**Construction Year:** 1981

**Evaluation Details**

**Evaluation Company:** Bacz Engineering Ltd.  
**Evaluation Date:** November 5 2013  
**Evaluator Name:** Eric Lumley

**Total Maintenance Events Next 5 years:** **\$11,919,200**  
**5 year Facility Condition Index (FCI):** **15.90%**

**General Summary:**

The Helen Hunley Forensic Pavilion was built in 1981 and is a two storey structure with a partial basement and a large accessible crawl space. The building has a gross area of approximately 17499 Square metres. Each unit has a central ward station, visiting rooms, multi-purpose rooms, shared washroom and shower facilities and shared living areas. A kitchen and dining area is provided in the between the secured living units. The building has two maximum security enclosed courtyard areas with a high concrete wall enclosure. The building includes central security control rooms, a general office area, a gymnasium, an indoor swimming pool, an auditorium, a medical clinic area, therapy rooms, classrooms, shop areas, a chapel, recreational & lounge areas. A sally port with a holding area and offices was added in 1999 and is located opposite the main entrance. The building is generally in acceptable condition.

**Structural Summary:**

The building is supported on cast-in-place drilled concrete piles and grade beams with interior concrete columns and beams. The building is constructed entirely of cast-in-place reinforced concrete slabs beams and columns with concrete block masonry bearing walls. The floors & roof have a two-way waffle slabs and flat slab assembly. OWSJ with steel roof deck and concrete topping throughout in non-secure areas with masonry bearing walls. The Living Units have cast in place concrete.

Structural elements are in acceptable condition.

**Envelope Summary:**

The exterior walls have a masonry cavity wall system, comprising of a face brick, air space, 65mm rigid insulation, load bearing poured concrete, air space and interior brick finish. Windows are insulated, thermally broken aluminum frames with hermetically sealed tinted glazed units located at the ground floor entrance and outdoor recreation areas. Glazing for inmate cell windows are laminated security glass in thermally broken aluminum frames. The main entrance has aluminum doors in aluminum frames. The exit doors are insulated hollow metal doors in pressed steel frames. The roofs have a combination of a conventional 4 ply built up roofing system with gravel ballast in most areas and a single-ply EPDM on the sloped sections. Two Security armoured slider doors with heavy duty track and motor operation remote control and door status hardware are located in the outdoor courtyard areas. The Vehicle Sally-port has an insulated steel overhead door.

Overall the building envelope elements are in marginal condition because of the roofing age and polycarbonate inner glazing to the secure areas..

**Interior Summary:**

Sheet vinyl flooring is located in the maximum security living units and main circulation corridor. Quarry tile flooring is located throughout the entrances, passage ways, inner lobbies, kitchen servery, stairs and ramps. Ceramic tile flooring is located in the washrooms, showers, locker/change rooms and indoor pool area. Vinyl tile is located in the living unit bedrooms & dining areas, auditorium, shop areas, classrooms, medical area and secondary corridors. Carpeting is located throughout the administration area, several classrooms, chapel and lounges. The control rooms have a raised floor assembly. Hardwood flooring is located in the gymnasium and stage area in the auditorium. . All the utility areas & sally-port area have a painted concrete floor finish.

Stipple finish plaster ceilings are located throughout the living units and lounge/dining areas. The main entrance and vestibule area, corridors, gymnasium and auditorium have a suspended linear metal ceiling. The indoor swimming pool has a suspended cedar ceiling. The office areas, medical areas, classrooms and locker rooms have a suspended acoustical tile ceiling. The waffle slab concrete structure is exposed and painted in most utility areas.

The majority of the walls throughout the building are painted textured concrete block. The majority of the interior walls in the office areas have either a painted gypsum board wall or de-mountable wall assembly. The majority of the interior windows have a painted secured steel framed with either tempered glass or GWG. The majority of the interior doors

throughout the building have secured metal framed doors with GWG vision panels.

Overall the interior elements are in acceptable condition.

**Mechanical Summary:**

Heating is provided by high pressure steam (150psi) distribution system from central power plant. 2 stage pressure reducing station is provided to reduce steam pressure to 5 psi. Low pressure steam is used to heat hot ater system, glycol system and to provide humidification. Steam to water and steam to glycol heat exchangers complete with associated circulation pumps are used for perimeter heating systems and air handling units.

A separate glycol system is used to provide courtyard snow melting.

Cooling system is served by indoor absorption chiller located in Basement mechanical room. Unit provides chilled water distribution to central air handling units. Condenser water is circulated from the chiller to the cooling tower. Additional cooling is provided by a packaged computer room air conditioning unit. Chilled water produced in this building is also used for air conditioning in Building 17.

Building ventilation is provided by eleven air handling units. Air handling units are constant and variable volume type complete with glycol heating coils, cooling coils, humidifiers, mixing section and filter section.

Exhaust air is provided by 26 building exhaust fans located on the roof and in designated mechanical rooms.

Plumbing fixtures in the building include janitor sinks, general purpose sinks, shower stalls, bathtubs, lavatories, toilets, urinals, and combination lavatory/toilet units.

There are three domestic hot water storage tanks with internal heat exchangers which are supplied with low pressure steam. There is a 40 degree C domestic hot water system for the building sinks and lavatories, a 60 degree C domestic hot water system for the building showers, and a 91 degree C domestic hot water system for the building dishwashers.

Fire protection is provided by automatic sprinklers in most building areas, and by a standpipe system and fire extinguishers. The fire protection systems include a fire pump. Automatic fire suppression systems are used for some building areas such as computer rooms, CAT scanner etc.

Overall, the building mechanical systems and components are in acceptable condition, although a number of upgrades are required to bring the building mechanical systems up to current standards.

**Electrical Summary:**

The Helen Hunley building (building No. 3) has two incoming 4160V feeders from the power plant. There are two 5kV loadbreak switches and two 750kVA, 4160V-347/600V transformers in the main electrical room. The main switchboard is a 1600A, 347/600V switchboard with FPE air circuit breakers for the main and branch breakers.

The fluorescent fixtures are originally T-12 with electromagnetic ballast. A low voltage lighting control system has been installed. Exterior building mounted lighting consists of HID wallpack and surface mounted HID fixtures.

All fire alarm, telephone and Public address systems meet current facility requirements. The fire alarm system was replaced in 2013.

The overall rating for the facility shall be "Acceptable"

<b>Rating Guide</b>	
<b>Condition Rating</b>	<b>Performance</b>
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\***

Concrete piles, pile caps, concrete grade beams. Basement area on concrete spread footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**A1030 Slab on Grade\***

Concrete slab-on-grade for the main floor and partial basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**A2020 Basement Walls (& Crawl Space)\***

Cast-in-place concrete on perimeter walls, stairwells, ramps and elevators. All columns in crawl space and basement area are reinforced poured in place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1010.01 Floor Structural Frame (Building Frame)\***

The floors are a waffle slab concrete assembly (two-way joist without beams).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Load bearing concrete blocks with cores concrete filled and reinforced.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1010.06 Ramps: Exterior\***

All the exterior concrete ramps located are poured in place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1010.07 Exterior Stairs\***

Poured in place concrete stairs are located throughout the main courtyards. The stairs have painted steel handrails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1010.09 Floor Construction Fireproofing\***

Cast in place concrete floors provide fireproofing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1010.10 Floor Construction Firestopping\***

Where visible, firestopping has been provided in the original construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1020.01 Roof Structural Frame\***

The roof has a combination of a waffle slab concrete assembly and a concrete slab on the sloped sections in the open atrium areas. Roof structure in the large open areas, such as the auditorium have a metal deck on open web steel joists.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1020.02 Structural Interior Walls Supporting Roofs\***

Load bearing concrete blocks with cores concrete filled and reinforced.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B1020.03 Roof Decks, Slabs, and Sheathing\***

Light-weight concrete topping (sloped to drainage).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**S2 ENVELOPE****B2010.01.01 Precast Concrete: Exterior Wall Skin\***

The exterior precast concrete walls (to enclose secure courtyard) have a sandblast finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B2010.01.02.01 Brick Masonry: Ext. Wall Skin\***

The exterior walls are face brick veneer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1981	0	MAR-14

**Event: Repair brick planter wall - (B.O.E. 360 m.)****Concern:**

The brick planter wall and cap is deteriorating in isolated areas along the perimeter edge of the building. The original brick cap has been replaced in several areas with precast concrete. The parge finish on the foundation wall has also failed in isolated locations. Localized spalling of brick face.

**Recommendation:**

Repair brick planter wall and cap along the perimeter edge of the building. Repair the concrete finish on the foundation wall below the brick assembly. Replace spalled bricks.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2014	\$54,000	Medium

**Updated:** MAR-14

**B2010.01.09 Expansion Control: Ext. Wall\***

Vertical expansion/control joints are located throughout the face brick veneer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Sealant is located around all window frames, doors and cladding assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	20	MAR-14

**Event: Replace exterior sealant.- (B.O.E. 4650m.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$136,000	Unassigned

**Updated:** MAR-14

**B2010.02.01 Cast-in-place Concrete: Ext. Wall Const\***

Load bearing cast in place reinforced concrete with 65 mm rigid insulation for secured & non secured areas. The basement walls have a poured in place concrete assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B2010.02.02 Precast Concrete: Ext. Wall Const.\***

A precast concrete security wall is located in the two exterior courtyards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Load bearing standard concrete block back-up whythe with 50 rigid insulation for non-secure areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B2010.05 Parapets\***

Prefinished metal parapet cap flashings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B2010.06 Exterior Louvers, Grilles, and Screens\***

Metal louvers and grilles on exterior walls around mechanical rooms and cooling tower.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**B2010.09 Exterior Soffits\***

Prefinished metal linear panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Custom fabricated security window pressed steel interior frame and exterior aluminum pressure plate and mullion cap. Glazed with tempered outside glass and inside security glass (polycarbonate) as a double glazed system. All steel frames and sections are painted. Standard aluminum framed double glazed units are used at all non-secure exterior glazed walls (main floor and roof level). Glazed with standard 25mm sealed units in non-secure areas. Aluminum windows are caulked around the perimeter.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Aluminum Windows.- (B.O.E. 890 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$888,000	Unassigned

**Updated:** MAR-14

**B2020.04 Other Exterior Windows\***

Polycarbonate inner glazing to exterior windows to provide security.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1981	0	MAR-14

**Event: Replace High Security Windows/Glazing. - (B.O.E. 782 sq. m.)**

**Concern:**

The exterior windows are of custom design to meet the maximum security operational requirements. Windows show deterioration of the inner polycarbonate material causing security issues.

**Recommendation:**

Replace interior polycarbonate glazing to all external windows, with exception of the Administration area/pod.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2014	\$98,000	Medium

**Updated:** MAR-14



**B2030.01.01 Aluminum-Framed Storefronts: Doors\*\***

Aluminum and/or steel framed doors with full glazed panels & commercial grade hardware are located at the main floor entrance, secondary vestibules & staff/lounge.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace Aluminum-Framed Storefronts: - (B.O.E. 9 Doors)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$34,000	Unassigned

**Updated:** MAR-14

**B2030.02 Exterior Utility Doors\*\***

Security exit doors, insulated hollow metal doors steel frames, with remote control security locks and door status hardware, with paint finish and caulking around perimeter of frame and exterior substrate.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Exterior Utility Doors:- (B.O.E. 6 Doors)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$6,000	Unassigned

**Updated:** MAR-14

**B2030.03 Large Exterior Special Doors (Overhead)\***

Two Security armoured slider doors with heavy duty track and motor operation remote control and door status hardware at Outdoor courtyard areas. The Vehicle Sally-port has an insulated steel overhead doors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

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

The majority of the roofs have the original 4-ply built up roofing system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1981	25	MAR-14

**Event: Replace Built Up Roofing: - (B.O.E. 8065 sq.m.)**

**Concern:**

The existing roofing is significantly beyond it's design life. Roof patching continues to be necessary.

**Recommendation:**

Replace roof of Helen Hunley Pavilion Building #3.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$1,468,000	Medium

**Updated:** MAR-14

**B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)\*\***

The sloped sections of the roof have a single ply EPDM roofing system over a steel deck and a perimeter section of roofing approximately 3m wide has been reroofed with EPDM.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	25	MAR-14

**Event: Replace single-ply EPDM roof: - (B.O.E. 1845m2.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$336,000	Unassigned

**Updated:** MAR-14

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

Poured concrete walls in the living units, gymnasium, elevator shafts, ramps and stairwells. Concrete block walls are located throughout the utility areas, mechanical rooms, storage areas, workshops, locker rooms, kitchens, washrooms and several corridors. Interior brick walls are located in the main corridors, chapel, lounge area, cafeteria & games room. Steel stud partition walls are located throughout the upper level corridors, medical area, administration areas and small storage spaces.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1010.05 Interior Windows\***

Secure windows pressed steel frames with fixed security glazing. Frames painted. Non-secure windows - pressed painted steel frames with fixed wired glass, tempered glass, or float glass.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1010.06 Interior Glazed Partitions and Storefronts\***

Glazed partitions are located throughout the ward stations.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1010.07 Interior Partition Firestopping\***

During the original construction firestopping was provided for all pipe and conduit penetrations through fire rated walls.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1020.01 Interior Swinging Doors (& Hardware)\***

Pressed steel security doors in steel frames. Hardware is all security hardware. Hollow metal and solid core wood doors set in pressed steel frames throughout. Doors are showing signs of deterioration due to wear.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1020.03 Interior Fire Doors\***

All fire rated doors and frames have appropriate ULC Labels.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1020.04 Interior Sliding and Folding Doors\***

Metal screen folding doors are located in the kitchen servery, main floor concession area. An accordion folding door is located in the chapel and in two classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C1030.01 Visual Display Boards\*\***

Combination of chalkboards, whiteboards & tackboards are provided in office and classroom areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	20	MAR-14

**Event: Replace whiteboards & tackboards in office and classroom areas.- (B.O.E. 45 units)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$35,000	Unassigned

**Updated:** MAR-14

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

The public washrooms & locker room showers on the main and basement have prefinished steel cubicles, floor mounted with top rails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace Toilets/Showers Partitions. - (B.O.E. 25 cubicles.)**

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

**Updated:** MAR-14

**C1030.05 Wall and Corner Guards\***

Rubber laminated corner & wall guards are provided throughout the living units and service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C1030.08 Interior Identifying Devices\***

Painted door numbers at head of frame, and painted room names on doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C1030.10 Lockers\*\***

Full height steel lockers, complete with fixed wooden benches are provided in the men's & women's locker rooms and change rooms. Locker are also located in staff area and main entrance vestibule .

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace Prefinished Metal Lockers:- (B.O.E. 303 lockers.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$148,000	Unassigned

**Updated:** MAR-14

**C1030.12 Storage Shelving\***

Heavy duty large steel storage shelving is located in the storage and workshop areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1030.14 Toilet, Bath, and Laundry Accessories\***

Secure areas provided with security type washroom accessories. Non-secure areas provided with paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C1030.17 Other Fittings\***

Security type mop & broom holders in all Janitor Rooms in Living Units. Pistol Locker provided in Vehicle Sally-port.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C2010 Stair Construction\***

The exit stairwells have poured in place concrete stairs.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C2020.01 Tile Stair Finishes\***

The exit stairwells in public areas, treads and landings are finished with quarry tiles.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**C2020.05 Resilient Stair Finishes\*\***

The stairs in the auditorium to the stage area are finished with vinyl tiles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	20	MAR-14

**Event:** Replace vinyl tiles to stage in auditorium.- (B.O.E. 10 treads.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$1,000	Unassigned

**Updated:** MAR-14

**C2020.08 Stair Railings and Balustrades\***

Pipe railings and balustrades (painted).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C2020.11 Other Stair Finishes\***

The stairwells in the utility are are poured in place concrete stairs with a paint and/or sealed finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C2030 Interior Ramps\***

All interior circulation ramps, swimming pool ramp are poured in place concrete. A wood framed ramp is located in the auditorium to the stage area.

All circulation ramps have a quarry tile floor finish. The ramp within the pool has a ceramic tile finish.

The ramps in the pool areas have stainless steel railings. The circulation ramps have wall mounted rubber and/or wood rails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	100	MAR-14

**C3010.01 Concrete Wall Finishes (Unpainted)\***

The exposed poured concrete walls in the gymnasium are unfinished.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1981	0	MAR-14

**Event: Repair Concrete Wall in Gymnasium.- (B.O.E. 100 sq. m.)**

**Concern:**

There is deterioration of the NE corner of the gymnasium wall, apparently due to moisture penetration.

**Recommendation:**

Excavate the exterior of the gymnasium wall to determine the source of the moisture penetration. Repair as necessary.

**Consequences of Deferral:**

Moisture penetration will continue and wall will deteriorate further.

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

**Updated:** MAR-14

**C3010.06 Tile Wall Finishes\*\***

Glazed ceramic wall tiles are located throughout the patient shower/tub areas, kitchen servery, change rooms & washrooms and in the pool area.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	40	MAR-14

**Event: Replace ceramic tile wall finish.- (B.O.E. 3500 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$892,500	Unassigned

**Updated:** MAR-14

**C3010.09 Acoustical Wall Treatment\*\***

Fabric panels stretched over acoustic sound absorption panels in indoor pool area and auditorium.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	20	MAR-14

**Event: Replace acoustical wall panels.- (B.O.E. 130 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$31,000	Unassigned

**Updated:** MAR-14

**C3010.11 Interior Wall Painting\***

Paint finish to concrete block, plaster wall surfaces and gypsum board walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C3020.01.02 Painted Concrete Floor Finishes\***

Paint finish to mechanical rooms and shop area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C3020.02 Tile Floor Finishes\*\* - Ceramic tile**

Ceramic floor tile is located in all washroom areas, locker/change rooms, laundry rooms and pool area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	50	MAR-14

**Event: Replace ceramic tile.- (B.O.E. 2500 sq.m.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$437,500	Unassigned

**Updated:** MAR-14

**C3020.02 Tile Floor Finishes\*\* - Quarry tile**

Quarry tile c/w coved quarry tile base is located throughout the main vestibule, inner lobby passage ways, pool walkway and kitchen servery area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	50	MAR-14

**Event: Replace Quarry tile flooring.- (B.O.E. 3000 sq.m.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2031	\$828,000	Unassigned

**Updated:** MAR-14



**C3020.04 Wood Flooring\*\***

Sprung wood flooring is located in the gymnasium and stage area in the gymnasium. The hardwood floors were refinished in 1993.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event:** **Replace hardwood floors in gym and auditorium stage area.- (B.O.E. 700 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$184,000	Unassigned

**Updated:** MAR-14

**C3020.07 Resilient Flooring\*\***

VCT flooring is located throughout the classrooms, shops, clinical area, auditorium, dining rooms in the living units, isolated corridors and in all the bedrooms located in the minimum and medium security living units.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	20	MAR-14

**Event:** **Replace VCT Flooring.- (B.O.E. 4000 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$204,000	Unassigned

**Updated:** MAR-14

**C3020.07 Resilient Flooring\*\* - Sheet Vinyl**

Sheet vinyl flooring is located throughout the main corridors and living units (including bedrooms) in the maximum security area. The renovated areas in the Medical area have sheet vinyl flooring.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2005	20	MAR-14

**Event:** **Replace sheet vinyl flooring.- (B.O.E. 4000 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2025	\$321,000	Unassigned

**Updated:** MAR-14

**C3020.08 Carpet Flooring\*\***

Direct glue down carpet tile with applied rubber base used in general office areas, corridors, classrooms, chapel and lounge areas

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2003	15	MAR-14

**Event:** Replace carpet.- (B.O.E. 772 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$57,000	Unassigned

**Updated:** MAR-14

**C3020.09 Access Flooring\*\***

Access flooring is provided in the medical computer room, central control rooms and ward stations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	25	MAR-14

**Event:** Replace access floors in the security control rooms.- (B.O.E. 236 sq.m.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$127,000	Unassigned

**Updated:** MAR-14

**C3030.01 Concrete Ceiling Finishes (Unpainted)\***

The concrete structure is exposed and unpainted throughout the crawl space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C3030.02 Ceiling Paneling (Wood)\***

A suspended linear wood (cedar) ceiling is located throughout the indoor swimming pool and in the living unit alcove areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C3030.05 Veneer Plaster Finishes (Stipple)\***

Veneer plaster ceilings are located throughout the corridors, stairwells, ramps and living units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Lay-in acoustic panels in suspended T-bar system is located throughout the administration areas, classrooms and medical area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	25	MAR-14

**Event: Replace Acoustic T-bar Ceilings.- (B.O.E. 5000 sq.m.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$233,000	Unassigned

**Updated:** MAR-14

**C3030.07 Interior Ceiling Painting\***

The concrete structure is painted & exposed throughout the utility area and shop area. There are painted drywall ceilings in the living units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**C3030.09 Other Ceiling Finishes\***

Linear metal ceilings to vestibule, corridors, gymnasium and auditorium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1981	0	MAR-14

**Event: Replace Linear Metal Ceilings.- (B.O.E. 2400 sq.m.)**

**Concern:**

Linear metal ceilings are obsolete and damaged.

**Recommendation:**

Replace linear metal ceilings with stipple finish suspended drywall.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$317,000	Low

**Updated:** MAR-14

**D1010.01.02 Hydraulic Passenger Elevators\*\***

Two Dover hydraulic passenger elevators 1,814 kg (4,000 lb) or 25 persons capacity, three stops (B-M-2).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1981	30	MAR-14

**Event: Refurbish elevators. - (B.O.E. 2 elevators)**

**Concern:**

Elevators are becoming unreliable due to heavy usage.

**Recommendation:**

Refurbish elevators.

**Consequences of Deferral:**

Continued unreliability of elevators will cause significant operational problems.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$175,000	Medium

**Updated:** MAR-14

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

Single and double compartment stainless steel sinks located throughout.  
Molded stone mop sinks in Janitor Rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 55 Sinks.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$85,000	Unassigned

**Updated:** MAR-14**D2010.05 Showers\*\***

Shower stalls located throughout the building. Shower stalls generally have architectural finishes for the walls and floors (ceramic tiles).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 28 Shower Trims (shower controls and shower heads) in the building shower stalls (28)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$45,000	Unassigned

**Updated:** MAR-14**D2010.06 Bathtubs\*\***

Acrylic bathtubs located in the patient wards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 9 Bathtubs.**

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

**Updated:** MAR-14

**D2010.08 Drinking Fountains/Coolers\*\***

Wall mounted refrigerated stainless steel drinking fountains are located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	35	MAR-14

**Event: Replace 32 Drinking Fountains.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$96,000	Unassigned

**Updated:** MAR-14

**D2010.09 Other Plumbing Fixtures\***

Emergency eyewash stations located in some areas of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

WC - floor mounted, vitreous china, elongated seat, flush valve water closets.

WC - stainless steel water closets, elongated seat, flush valve.

Lv/WC - one combination water closet/ lavatory fixture.

LV - wall mounted, vitreous china and counter top enameled steel lavatories.

UR - Wall mounted, vitreous china, flush valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1981	35	MAR-14

**Event: Replace 222 Washroom Fixtures**

**Concern:**

Existing flushometers are 26 years old and are no longer serviceable.

Washroom fixtures deteriorate, some are cracked and leak.

**Recommendation:**

Replace existing washroom fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$365,000	Medium

**Updated:** MAR-14

**D2020.01.01 Pipes and Tubes: Domestic Water\***

Domestic hot and cold water lines are copper throughout the building. Steel main water feed line to the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D2020.01.02 Valves: Domestic Water\*\***

Domestic water distribution system valves include zone isolation valves and fixture isolation valves on the hot and cold domestic water pressure piping. The water distribution system isolation valves are generally ball valves or gate valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	40	MAR-14

**Event: Replace 750 Valves**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$150,000	Unassigned

**Updated:** MAR-14

**D2020.01.03 Piping Specialties (Backflow Preventers)\*\***

There is one domestic water distribution system for the building which supplies all building plumbing fixtures. The domestic water supply to the building is not protected from potential backflow from the building. There is no backflow prevention device on the fire protection systems water supply. There are two backflow prevention devices for water supplies to the mechanical HVAC equipment (one at 50 mm diameter and one at 19 mm diameter).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	20	MAR-14

**Event: Install 2 Backflow Protection Devices.**

**Concern:**

There is only one domestic water distribution system for the building, and contamination of the domestic water distribution system could result from backflow from sinks located in high hazard areas (the second floor lab area). In addition, the domestic water supply to the building is not protected from backflow from the building, and the building domestic water distribution system is not protected from cross contamination from the fire protection systems.

**Recommendation:**

Install backflow protection on the domestic water supply to the building and on the fire protection water supply to the building.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2014	\$35,000	Low

**Updated:** MAR-14

**Event: Replace 2 Backflow Prevention Devices serving HVAC System.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$12,000	Unassigned

**Updated:** MAR-14

**D2020.02.02 Plumbing Pumps: Domestic Water\*\***

Plumbing pumps include the circulation pumps for the three domestic hot water systems (40 degree C system, 60 degree C system, and 91 degree C system), all located in the basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	20	MAR-14

**Event: Replace 3 DHWR Pumps.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$9,000	Unassigned

**Updated:** MAR-14

**D2020.02.06 Domestic Water Heaters\*\***

Three domestic hot water heating systems for the building located in basement mechanical room. Each system consists of a storage tank with an internal steam heat exchanger and a domestic hot water circulation pump. There is a 40 degree C domestic hot water system for the building sinks and lavatories (domestic hot water storage tank, steam to hot water heat exchanger and circulation pump), a 60 degree C domestic hot water system for the building showers (domestic hot water storage tank, steam to hot water heat exchanger and circulation pump), and a 91 degree C domestic hot water system for the building dishwashers (domestic hot water storage tank, steam to hot water heat exchanger and circulation pump).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	20	MAR-14

**Event: Replace 3 Domestic Hot Water Systems.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$250,000	Unassigned

**Updated:** MAR-14

**D2020.03 Water Supply Insulation: Domestic\***

Domestic cold and hot water lines are insulated with 25mm fiberglass thermal insulation inside a general insulation jacket.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D2030.01 Waste and Vent Piping\***

Building sanitary drainage and vent systems serve the building floor drains and plumbing fixtures. Sanitary drainage and vent piping is generally copper in smaller diameters and cast iron in larger diameters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14



**D2030.02.04 Floor Drains\***

Cast iron general purpose floor drains located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D2030.03 Waste Piping Equipment\***

Waste piping equipment includes three sets of duplex sump pumps. Duplex sump pumps are located in mechanical rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D2040.01 Rain Water Drainage Piping Systems\***

Storm water drainage is via roof drains and internal drainage piping (generally cast iron and transite).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D2040.02.04 Roof Drains\***

Storm water drainage is via roof drains and internal drainage piping. Roof drains are equipped with metal strainers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D2090.01 Compressed Air Systems (Non Controls)\*\* - Door Lock Compressed Air System**

Door lock system operates on compressed air. The door lock compressed air supply system includes two air compressors, two air dryers and an air receiver tank located in basement mechanical room. This element also includes the compressed air distribution system which includes all distribution system components (compressed air piping, fittings, manifolds, valves, piping specialties, pressure reducing valves, filters, etc.).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2006	30	MAR-14

**Event: Replace Door Lock Compressed Air System. - (BOE: 17499 sq.m. GFA.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2036	\$280,000	Unassigned

**Updated:** MAR-14

**D2090.15 Pool & Fountain Equipment\*\* - 1981**

Pool equipment includes the two pool filters, two pool circulation pumps, pool steam to water heat exchanger, pool water pH adjustment system (chemical feed system and controller), and the pool water chlorination system. This element covers the 1981 pool equipment (all equipment except the filters), including the pool water circulation system piping.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	20	MAR-14

**Event:** **Replace 2 Pumps, Heat Exchanger, pH system, Chlorination System and associated equipment.**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$185,000	Unassigned

**Updated:** MAR-14

**D2090.15 Pool & Fountain Equipment\*\* - 1998**

Pool filters.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1998	20	MAR-14

**Event:** **Replace 2 pool water filters.**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2018	\$20,000	Unassigned

**Updated:** MAR-14

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

Diesel fuel supply system for the standby generator. System includes an above grade exterior concrete storage tank, two diesel fuel transfer pumps, and a day tank in the generator room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**D3030.01 Absorption Water Chillers\*\***

Chilled water for the building cooling is provided by a Trane absorption type chiller which operates on low pressure steam. The chiller is located in basement mechanical room. Chiller provides chilled water for Building 3 and for Building 17. Heat rejection from the chiller is provided through the rooftop cooling tower.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	25	MAR-14

**Event:** **Replace 1 Chiller**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$475,000	Unassigned

**Updated:** MAR-14

**D3030.05 Cooling Towers\*\***

Baltimore Air Coil (BAC) two cell cooling tower.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1981	25	MAR-14

**Event: Replace 1 Cooling Tower.**

**Concern:**

Cooling tower is corroded and worn out.

**Recommendation:**

Replace cooling tower.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$175,000	Medium

**Updated:** MAR-14

**D3040.01.01 Air Handling Units: Air Distribution\*\***

There are variety of air handling units providing ventilation for the building. Air handling units AS1 through AS5 provide ventilation for most of the building areas excluding the basement mechanical room, the pool area and the gymnasium. Air handling unit AS6 serves the pool area, air handling unit AS7 serves the gymnasium, and air handling unit AS8 serves the basement mechanical room.

Air handling unit AS1 is a mixed air variable volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, supply air fan equipped with variable inlet vanes, steam humidification, and an associated return air fan.

Air handling unit AS1 (serves east ward 1st and 2nd floor) is a mixed air variable volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, supply air fan equipped with variable inlet vanes, steam humidification, and an associated return air fan.

Air handling unit AS2 (serves south wards) is a mixed air variable volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, supply air fan equipped with variable inlet vanes, steam humidification, and an associated return air fan.

Air handling unit AS3 (serves clinic 2nd floor and administration area) is a mixed air variable volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, supply air fan equipped with variable inlet vanes, steam humidification, and an associated return air fan.

Air handling unit AS4 (serves Vocational 1st floor and basement change areas) is a mixed air variable volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, supply air fan equipped with variable inlet vanes, steam humidification, and an associated return air fan.

Air handling unit AS5 (serves Auditorium) is a mixed air variable volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, a supply air fan equipped with variable inlet vanes, steam humidification, and an associated return air fan.

Air handling unit AS6 (serves Pool) is a mixed air constant volume type system equipped with dampers (exhaust air, return air and fresh air dampers), filters (fresh air and mixed air filters), a glycol preheating coil, a glycol heating coil, supply air fan and associated return air fan.

Air handling unit AS7 (serves Gymnasium) is a mixed air constant volume type system equipped with dampers (exhaust air to the exterior, exhaust air to the fan room, return air and fresh air dampers), filters (mixed air filters), a glycol heating coil, chilled water cooling coil, supply air fan, steam humidification, and an associated return air fan.

Air handling unit AS8 (serves Mechanical Room) is a mixed air constant volume type system equipped with dampers (return air and fresh air dampers), a filter (mixed air filter), a glycol heating coil and supply air fan.

Air handling unit AS9 serves Metal Shop.

Air handling unit AS10 serves Building Operations.

Air handling unit AS11 serves Automotives.

Air handling units AS1 through AS5 are located in the second floor mechanical room (fan rooms 2166 and 2167), air handling units AS6 and AS7 are located in the main floor mechanical room (room 1210), and air handling unit AS8 is located in the basement mechanical room (room B12).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 11 Air Handling Units.**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$1,885,000	Unassigned

**Updated:** MAR-14

**Event: Upgrade Ventilation Systems - ( BOE: 174990sq.m GFA.)**

**Concern:**

Ventilation systems do not provide adequate fresh air supply.

**Recommendation:**

Upgrade ventilation systems to provide increased quantities of

fresh air.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2014	\$1,885,000	Medium

**Updated:** MAR-14

**D3040.01.03 Air Cleaning Devices: Air Distribution\* - Dust Collector**

Dust collection system for the wood shop area. The dust collection system includes the collection ducts and the dust collector (manufactured by N.R. Murphy Ltd.).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-14

**D3040.01.04 Ducts: Air Distribution\***

Air distribution ducts include the fresh air, supply air, return air and exhaust air duct systems, as applicable, for the various air handling units (see D3040.01.01 Air Handling Units: Air Distribution\*\*). In addition to the air distribution ducts, the duct systems include components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc., as applicable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**Event: Replace Ceiling Return Air System. - (BOE: 174990sq.m GFA.)**

**Concern:**

Return air for most of the conditioned spaces is via ceiling plenums which are difficult to clean and do not allow for isolation of return air flows from specific building areas.

**Recommendation:**

Replace the ceiling return air plenums with return air ducts where required.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2014	\$810,000	Medium

**Updated:** MAR-14

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

Variable volume air distribution systems associated with air handling units AS1 through AS5 include VAV terminals (VAV boxes).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 120 VAV Boxes.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$610,000	Unassigned

**Updated:** MAR-14

**D3040.01.07 Air Outlets & Inlets: Air Distribution\***

Air outlets and inlets include supply air diffusers and return air grilles. Supply air diffusers include standard square ceiling grid mounted diffusers and perforated metal plates. Return air grilles include standard ceiling mounted grilles and perforated metal plates.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Steam is supplied to the building from the central steam plant on the site. The steam pressure reducing station is located in the basement mechanical room. Steam is used in the building to provide hot water and hot glycol via shell and tube heat exchangers, to provide domestic hot water via internal heat exchangers in the domestic hot water storage tanks, for pool heating via shell and tube heat exchanger, to provide chilled water for cooling via the absorption chiller, and for humidification. This element includes the steam distribution piping, condensate collection piping, piping insulation, traps, valves, piping specialties, and condensate tanks and pumps. Steam condensate return systems include the main return system in basement mechanical room (tank and pumps), the pool heat exchanger return system, and the return system in the crawl space for the exterior slab heating system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Steam Distribution System.- (BOE: 17499 sq.m GFA.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$1,350,000	Unassigned

**Updated:** MAR-14

**D3040.03.01 Hot Water Distribution Systems\*\* - Glycol Distribution Systems -1981**

Glycol / hot water mixture distribution system provides hot glycol for the air handling unit heating coils. The hot glycol distribution system includes two steam to hot glycol shell and tube type heat exchangers, two hot glycol circulation pumps, and an expansion tank. Glycol heating system also includes the glycol distribution piping, piping insulation, valves, and piping specialties.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Glycol Distribution System.- (BOE: 17499 sq.m GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$900,000	Unassigned

**Updated:** MAR-14

**D3040.03.01 Hot Water Distribution Systems\*\* -1981**

Building heating hot water loop provides hot water to the building hydronic terminal units (finned tube radiation cabinets, unit heaters, fan coils, force flow units, etc.). The hot water loop includes two steam to hot water shell and tube type heat exchangers, two hot water circulation pumps and an expansion tank. Hot water heating loop also includes the hot water distribution piping, piping insulation, valves, and piping specialties.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1981	40	MAR-14

**Event: Replace Heating Lines Couplings.- (BOE: 17499 sq.m GFA.)**

**Concern:**

Dissimilar materials were used in the original construction causing deterioration of the couplings.

**Recommendation:**

Replacement couplings on all heating lines within the building.

**Consequences of Deferral:**

Scalding liquid can rain down on staff/patient. Health & Safety Issue.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2014	\$235,000	Medium

**Updated:** MAR-14

**Event: Replace hot water distribution system.- (BOE: 17499 sq.m GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$1,850,000	Unassigned

**Updated:** MAR-14

**D3040.03.02 Chilled Water Distribution Systems\*\***

Chilled water for the building cooling is supplied from the absorption chiller in the basement mechanical room to the air handling unit chilled water cooling coils. Chilled water is also supplied to Building 17 for building cooling. Chilled water system includes the chilled water distribution piping, piping insulation, valves, piping specialties, expansion tank and circulation pumps. Steel piping distribution.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Chilled Water Distribution System.- (BOE: 17499 sq.m. GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$1,000,000	Unassigned

**Updated:** MAR-14

**D3040.03.03 Condenser Water Distribution Systems Pumps\***

Condenser water system circulates water from the condenser side of the chiller to the cooling tower. The condenser water system includes the condenser water distribution piping, piping insulation, valves, piping specialties, and circulation pumps. The condenser pumps are located in basement mechanical room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14



**D3040.04.01 Fans: Exhaust\*\***

Variety of the exhaust fans provided throughout the building. Most of the original exhaust fans are roof mounted fans providing local sanitary or general exhaust. A number of exhaust fans have been added since the original building construction, but most of these were for smoking area exhaust and are not currently used since smoking is no longer permitted in the building.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Provide Additional Exhaust Fans for Shower Rooms and Servery Areas.**

**Concern:**

The shower rooms and servery areas do not have adequate ventilation to control humidity under all conditions.

**Recommendation:**

Provide additional exhaust air capacity for the shower rooms and servery areas.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Indoor Air Quality Upgrade	2015	\$85,000	Low

**Updated:** MAR-14

**Event: Provide Designated Exhaust Fans for Isolation Rooms.**

**Concern:**

Existing isolation rooms do not provide isolation for infectious disease control because the ventilation systems are not isolated.

**Recommendation:**

Provide dedicated exhaust fans and filters for the isolation rooms.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Indoor Air Quality Upgrade	2015	\$85,000	Medium

**Updated:** MAR-14

**Event: Replace 26 Exhaust Fans.**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$134,000	Unassigned

**Updated:** MAR-14

**D3040.04.03 Ducts: Exhaust\***

Building exhaust fans have associated duct systems for the collection of air from single or multiple source locations and/or for the conveyance of air to the discharge point (most of the exhaust fans are roof mounted and have only suction side duct systems). Galvanized steel ductwork distribution.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**D3040.04.05 Air Outlets and Inlets: Exhaust\***

Exhaust outlets and inlets include collection grilles and diffusers (including hoods), as well as stacks or discharge ducts where applicable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D3040.05 Heat Exchangers\*\* - 1981**

Steam to hot water shell and tube type heat exchangers for the building hot water heating loop and two steam to hot glycol shell and tube type heat exchangers for the building hot glycol heating loop.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 4 Heat Exchangers.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$85,000	Unassigned

**Updated:** MAR-14

**D3040.05 Heat Exchangers\*\* - 2002**

Steam to hot glycol shell and tube type heat exchanger for the glycol heating system which provides snow melting for the exterior slab. The heat exchanger is located in the crawl space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2002	30	MAR-14

**Event: Replace 1 Heat Exchanger.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$20,000	Unassigned

**Updated:** MAR-14

**D3050.01.01 Computer Room Air Conditioning Units\*\***

There is a Liebert computer room air conditioning unit which serves rooms 2160 and 2161. The unit has a supply fan, direct expansion type cooling coil, humidifier, and electric reheat coil. There is an associated rooftop condenser for the direct expansion type cooling coil.

Cooling capacity: 31.4kW at airflow of 2785 lps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-14

**Event: Replace 1 AC Unit.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$50,000	Unassigned

**Updated:** MAR-14

**D3050.02 Air Coils\*\***

Duct mounted hot water reheat coils manufactured by Trane, 5.9 and 11.8 kW heating capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	30	MAR-14

**Event: Replace 2 Reheat Coils.**

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

**Updated:** MAR-14

**D3050.03 Humidifiers\*\***

Air handling units AS1 through AS5 and AS7 are equipped with steam grid humidification systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	25	MAR-14

**Event: Replace 15 Humidifiers**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$160,000	Unassigned

**Updated:** MAR-14

**D3050.05.02 Fan Coil Units\*\***

Hydronic force flow heaters serving entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 9 Force Flow Heaters.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$45,000	Unassigned

**Updated:** MAR-14

**D3050.05.03 Finned Tube Radiation\*\***

Perimeter hot water heating is provided by finned tube radiation cabinets.  
Maximum security hydronic convection cabinets in Patient Bedrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Cabinets in Patient Bedrooms.- (BOE: 7900 sq.m. GFA.)**

**Concern:**

The perimeter heating cabinets in the patient bedrooms are damaged by the patients since they are not of adequately heavy construction.

**Recommendation:**

Replace perimeter heating cabinets in the patient bedrooms to a heavier construction to reduce damage to the cabinets caused by patients.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Program Functional Upgrade	2015	\$100,000	Low

**Updated:** MAR-14

**Event: Replace Finned Tube Radiation. BOE: 17499 sq.m. GFA.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$970,000	Unassigned

**Updated:** MAR-14

**D3050.05.06 Unit Heaters\*\***

Hot water unit heaters provide heating in the service and utility areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 6 Unit Heaters.**

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

**Updated:** MAR-14

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

Glycol heating system located in the crawl space provides exterior slab heating. The hot glycol distribution system includes one steam to hot glycol shell and tube type heat exchangers, two hot glycol circulation pumps, expansion tank and a glycol storage/fill tank. The glycol heating system also includes the glycol distribution piping, piping insulation, valves, and piping specialties.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2002	40	MAR-14

**Event: Replace Snow Melt Systems Serving West and East Entrances.**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2042	\$150,000	Unassigned

**Updated:** MAR-14

**D3060.02.02 Pneumatic Controls\*\***

Pneumatic controls throughout the building (thermostats, control valves, damper actuators, etc.). The control air supply system is located in the basement mechanical room and consists of a control air compressor, two air receiver tanks and refrigerated air dryer.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	40	MAR-14

**Event: Replace Pneumatic Controls.- (BOE: 17499 sq.m GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2021	\$400,000	Unassigned

**Updated:** MAR-14

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

The building is equipped with a Honeywell building management and control system (BMCS) which provides monitoring and control functions for the main building HVAC equipment and systems.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1992	20	MAR-14

**Event: Replace BMS.- (BOE: 17499 sq.m. GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$612,000	Unassigned

**Updated:** MAR-14

**D4010 Sprinklers: Fire Protection\***

Most areas of the building are protected by automatic sprinklers. The sprinkler system is a wet type system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**Event: Extend Sprinkler System - (C-PAT, Elec. & Computer Rooms)**

**Concern:**

These areas never had sprinklers due to the Halon system. Addition of a sprinkler system to these select areas will allow for the elimination of the antiquated Halon system. In order to meet fire/safety code requirements the sprinkler system needs to be expanded to cover Centre for Psychiatric Assessment and Therapeutics, elec. and computer rooms in the building.

**Recommendation:**

Addition to sprinkler system to cover Centre for Psychiatric Assessment and Therapeutics, Electrical and Computer Rooms.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2017	\$100,000	Medium

**Updated:** MAR-14

**D4020 Standpipes\***

Standpipe system feeding fire hose cabinets. Fire hose cabinet doors are operated by magnetic locks tied into the fire alarm system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D4030.01 Fire Extinguisher, Cabinets and Accessories\***

ABC fire extinguishers are located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D4090.05 Halon Extinguishing Systems\*\***

Halon 1301 fire extinguishing systems are used to provide fire suppression in rooms 1019, 2150, 2140/2140A, and 2160/2161.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	40	MAR-14

**Event: Replace 4 Halon Fire Suppression Systems.**

**Concern:**

Halon fire suppression systems are no longer permitted by code.

**Recommendation:**

Remove and replace existing Halon system in Building #3.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2014	\$95,000	Low

**Updated:** MAR-14

**Event: Replace 4 Halon Fire Suppression Systems.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$95,000	Unassigned

**Updated:** MAR-14

**D4090.07 Fire Pumps & Water Storage Tanks\***

Fire protection systems include fire pump located in the basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**S5 ELECTRICAL****D5010.01.01 Main Electrical Transformers (Facility Owned)\*\***

The main electrical service transformer fed from the power plant (from cells #8 & #12) building with newly replaced two under ground feeder via tunnel. The main transformers are Federal Pioneer 4160V-347/600V dry type completed with medium voltage switch cubicles. Transformers are located in the main electrical room (Basement Rm. B10). The transformers were tested in 2006 by EPCOR.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	40	MAR-14

**Event: Replace 2 Main Electrical Transformers (Facility Owned)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$225,000	Unassigned

**Updated:** MAR-14**D5010.02 Secondary Electrical Transformers (Interior)\*\* - 1981**

The original secondary transformers are two of them 300kVA, 600V-120/208V that feeding distribution panels SDP #1 and SDP #2 and a 45kVA, 600V-120/208V that feeds emergency panel SDP #EM1. The original transformers are Federal Pioneer and are located in basement electrical room B11.

BOE:

300kVA : \$40,000

45kVA : \$10,000

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	40	MAR-14

**Event: Replace 3 Secondary Electrical Transformers (Interior)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$90,000	Unassigned

**Updated:** MAR-14



**D5010.02 Secondary Electrical Transformers (Interior)\*\* - 2000**

A Bemag 150kVA, 600V-277/480V transformer has been installed for the X-Ray equipment and a Delta EVI, 75kVA, 600V-277/480V transformer has been installed for the CT Scanner. The Bemag and Delta transformers are located in equipment room 2140A.

BOE:

150kVA : 20,000  
75kVA : 15,000

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2000	40	MAR-14

**Event: Replace 2 Secondary Electrical Transformers (Interior)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2040	\$35,000	Unassigned

**Updated:** MAR-14

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

The main 347/600V switchboard for Building No. 3 is located in basement electrical room B10. The main normal power switchboard is an FPE 1600A, 347/600V, 3 phase, 4 wire switchboard with breakers feeding loads as follows:

- Main Breaker #1 - 50H-2 ACB (1600AF/1600AT)
- Transfer Switch - 25H-2 ACB (600AF/600AT)
- MCC #3 - 25H-2 ACB (600AF/600AT)
- 300kVA transformer feeding SDP #2 - 25H-2 ACB (600AF/400AT)
- Tie Breaker - 50H-2 ACB (1600AF/1600AT)
- SDP #A - 25H-2 ACB (600AF/600AT)
- 300kVA transformer feeding SDP #1 - 25H-2 ACB (600AF/400AT)
- Main Breaker #2 - 50H-2 ACB (1600AF/1600AT)

All of the air circuit breakers within the main switchboard have been provided with FPE type TLR ground fault relays.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	40	MAR-14

**Event: Replace 1 Main Electrical Switchboards (Main Distribution)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$210,000	Unassigned

**Updated:** MAR-14

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

The majority of the distribution and branch circuit panels within the Building No. 3 are located in the electrical distribution rooms trough out the building. There are approximately 10 - 347/600V original branch circuit panels (6 Normal and 4 Emergency) and 32 - 120/208V original branch circuit panels (28 Normal and 4 Emergency). There are 4 - 120/208V normal power distribution panels (SDP #1, SDP #2, SDP #3 and SDP #4) and 1 - 347/600V normal power distribution panel (SDP #A). There is 1 - 120/208V emergency power distribution panels (SDP #EM1) and 1 - 347/600V emergency power distribution panel (MDP #EMA). The original distribution and branch circuit panels are Federal Pioneer panels. Power distribution panels SDP #1, SDP #2 and SDP #A have been provided with ground fault relays (Type TLR) for all of the branch breakers.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 49 Electrical Branch Circuit Panelboards (Secondary Distribution)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$588,000	Unassigned

**Updated:** MAR-14

**D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers\*\* - 1981**

Major mechanical equipments are fed from 600V MCC's (Motor Control Centers). There are four MCC stations as listed below:

- MCC #1 (Bsmt. Mech. Rm.) is a 3-section Siemens MCC with 11 starter units and 1 disconnect switch.
- MCC #2 (Mech. Rm. 1210) is a 2-section Siemens MCC with 4 starter units, 2 disconnect switches and 7 manual starter switches.
- MCC #3 (Mech. Rm. 2066) is a 4-section Siemens MCC with 12 starter units and 4 disconnect switches.
- MCC #EM1 (Bsmt. Mech. Rm.) is a 3-section Siemens emergency MCC with 11 starter units.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 12 Switchboards, Panelboards, and (Motor) Control Centers**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$180,000	Unassigned

**Updated:** MAR-14

**D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers\*\* - 1997**

MCC #1A (Bsmt. Mech. Rm.) is a 3-section Cutler Hammer Freedom 2100 MCC with 7 starter units.

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

**Event: Replace 3 Switchboards, Panelboards, and (Motor) Control Center**

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

**Updated:** MAR-14

**D5010.07.02 Motor Starters and Accessories\*\***

Individual motor starters and load switches are used major mechanical ventilation units and some small water pumps. Starters are complete pilot lights and hand-off-auto selector switches. There are Allen Bradley, Cutler Hammer and Telemechanique individual motor starters in the building. The starters are typically provided where the motor loads are located remotely from the MCC's.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 90 Motor Starters and Accessories**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$135,000	Unassigned

**Updated:** MAR-14

**D5020.01 Electrical Branch Wiring\***

The majority of the cabling is standard building wire installed in EMT or rigid conduit. BX cable has been used for some of the branch wiring. Bus duct has been run between the main 750kVA transformer and the main switchboard. Cabletrays have been provided for communications cabling in many areas, including the crawl space.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

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

Low voltage relay cabinets are located adjacent to the 347/600V lighting panels electro mechanical by GE rotary selector switches. The low voltage controls are 24V. Lighting control for individual rooms is provided at the wing stations. It is hard to find replacement parts. There is modern lighting control system in the market, and could increase energy saving.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**D5020.02.02.01 Interior Incandescent Fixtures\***

There are recessed incandescent down-lights in the auditorium area, and some in the crawl space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.02.02.02 Interior Fluorescent Fixtures\*\***

Lighting is predominantly fluorescent, 347 volt, surface and recessed mounted T12 fixtures (metric fixtures). All fluorescent luminaires within units are of the security type. All security luminaires are complete with lexan diffusers secured with tamperproof screws. Strip fluorescent T12 lighting fixtures have been provided in service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace 3500 Interior Fluorescent Fixtures**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$1,137,500	Unassigned

**Updated:** MAR-14

**D5020.02.02.03 Interior Metal Halide Fixtures\***

Suspended 400W MH fixtures have been installed in some corridors. The main corridor has wall mounted square HID cylinders on both sides of the corridor. The gymnasium has been provided with recessed HID fixtures. Remote ballasts for HID lighting fixtures are located in service spaces.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.02.02.05 Other Interior Fixtures\***

There are existing Mercury Vapour lighting fixtures within the facility. Some of the fixtures have been converted to metal halide fixtures. These fixtures are mostly obsolete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.02.03.01 Emergency Lighting Built-in\***

The facility has a back up generator for emergency lighting. The building is fed from this power generator for emergency power needs and lighting system. Some of the light fixtures are assigned as emergency lights with good coverage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.02.03.02 Emergency Lighting Battery Packs\*\***

Emergency lighting battery units have been provided in limited areas such as the main electrical rooms and generator room. Batteries are tested monthly and replaced within the units as part of the maintenance schedule.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	20	MAR-14

**Event: Replace 5 Emergency Lighting Battery Packs**

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

**Updated:** MAR-14

**D5020.02.03.03 Exit Signs\***

Exit signs have been installed at building exits and along egress routes. The majority of the exit signs have been retrofitted with LED lamps. Non-illuminated photo-luminescent exit signs have been provided in some areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.02.05 Special Purpose Lighting\***

Theatrical spot lights and floodlights have been provided in the auditorium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.03.01.02 Exterior Florescent Fixtures\***

Some exterior T-12 fluorescent cove lighting has been provided under canopy for the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5020.03.01.04 Exterior H.P. Sodium Fixtures\***

The exterior building mounted lighting consists of wallpack fixtures and wall mounted square cylinders around the building perimeter. Some HID floodlighting fixtures have been provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Exterior lighting is controlled from relays with input from a roof mounted photocell.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

**D5030.01 Detection and Fire Alarm\*\***

The fire alarm system is a two stage, addressable, hard wired, zoned, Edwards EST system. The main fire alarm panel is located in the main telephone room (Rm. 1019) and there are remote panels and annunciators in each of the wing stations (total of 7). A graphic annunciator has been provided in the main control room. System consists of manual pull stations, smoke detectors, heat detectors, horn/strobe and bells located throughout the facility. Chubb Pre-action systems have been installed for the electrical room, Cat scan and the CDRC.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2011	25	MAR-14

**Event: Replace Detection and Fire Alarm.- (BOE=17499 m2 GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2036	\$1,020,000	Unassigned

**Updated:** MAR-14

**D5030.02.03 Security Access\*\* - Door Control**

The door control system is an Axiom system with the main control equipment located in storage room 1128. Door controls and status indicators are provided at the wing stations. The existing Simplex 3400 panel functions have been incorporated into the Axiom system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2005	25	MAR-14

**Event: Replace Door Control System. - (BOE:17499 m2 GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2030	\$1,020,000	Unassigned

**Updated:** MAR-14

**D5030.02.03 Security Access\*\* - Duress System**

A Visonic SpiderAlert duress system utilizing RF signals, has been installed within the facility. Antenna loops have been provided for the duress system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2000	25	MAR-14

**Event: Replace Duress System.- (BOE=17499 m2 GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2025	\$100,000	Unassigned

**Updated:** MAR-14

**D5030.02.03 Security Access\*\* - Wander Comm.**

A patient monitoring Wander Comm system has been installed within the facility.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2010	25	MAR-14

**Event: Replace Patient Monitoring System (Wander Comm).- (BOE=17499 m2 GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2035	\$100,000	Unassigned

**Updated:** MAR-14

**D5030.02.04 Video Surveillance\*\***

The front end of the video surveillance system is a gentec omnicast. The system has 55 cameras for the entire site. The monitors and front end equipment for the surveillance system are located in the main control room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2012	25	MAR-14

**Event: Replacem Video Surveillance.- (BOE: 17499 m2. GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2037	\$250,000	Unassigned

**Updated:** MAR-14

**D5030.03 Clock and Program Systems\***

The clock system is a Dukane system with LED digital clocks trough out the facility. The master clock control unit is located in the telephone room (Rm. 1019). There are some battery and plug-in clocks within the facility.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**D5030.04.01 Telephone Systems\***

Meridian telephone backboards and termination blocks are located in the main telephone room (Rm. 1019) and electrical closets.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**D5030.04.03 Call Systems\*\* - Nurse Call**

A Nurse call system with consoles and call disable consoles have been provided for units 3-5, 3-6 and 3-7. Individual resident stations c/w pushbuttons and speakers have been provided as well as ceiling mounted dome lights. The nurse call system is a Rauland system.

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

**Event: Replace Call System.- (BOE: 17499 m2.GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2022	\$125,000	Unassigned

**Updated:** MAR-14

**D5030.04.04 Data Systems\***

Data outlets are installed through offices; and Copper wiring is typically CAT 5E balanced twisted pair with FT4 rated insulation. Bell supernet has been brought into the building (Rm. 1048).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2000	0	MAR-14

**D5030.04.05 Local Area Network Systems\***

Servers are located in several areas of the building including information management (Rm. 1048) and telephone room 1019. Equipment is installed in racks and cabinets and communications wiring including copper and optical fibre runs in conduit systems and cable tray systems.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2000	0	MAR-14

**D5030.04.09 Intercommunication Systems\***

Aiphone intercom systems are utilized within the facility.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1990	0	FEB-09



**D5030.05 Public Address and Music Systems\*\***

A Bogen system is provided for P.A. system with the main control unit located in telephone room 1019. The P.A. system is tied in with the sound systems in the auditorium, pool and gymnasium. Recessed speakers are installed in the corridor ceiling throughout the facility. It is hard to find replacement parts.

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

**Event: Replace Public Address and Music Systems.-**  
**(BOE: 17499 m2. GFA.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$505,000	Unassigned

**Updated:** MAR-14

**D5030.06 Television Systems\***

A system of coaxial cabling and splitters within the building provides TV signal to common areas. The main cable TV equipment is located in telephone room 1019.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**D5030.07 Other Communications and Security Systems\***

The Supernet is available for data system connected to Provincial health data system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2006	0	MAR-14

**D5090.01 Uninterruptible Power Supply Systems\*\***

A Toshiba 15 kVA UPS system is provided for the door control system in 2013, and there are approximately 12 small UPS systems (~500VA) within the building for computers. The UPS systems are located in each of the wings and in the main communications room (rm. 1048). The UPS in the main communications room is a Best unit.

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

**Event: Replace 13 Uninterruptible Power Supply Systems**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2027	\$78,000	Unassigned

**Updated:** MAR-14

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

The emergency generator is a 300kW/375kVA BBC diesel generator set, located in room B20 (Basement Level). It was rebuilt in 2010. The generator has a 347/600V output and provides power to the main emergency switchboard (MDP #EMA). A daytank is mounted adjacent to the unit. A Thomson Technology transfer and bypass isolation switch has been replaced for the emergency power distribution system in 2008.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2010	35	MAR-14

**Event: Replace 1 Packaged Engine Generator Systems (Emergency Power System)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2045	\$279,900	Unassigned

**Updated:** MAR-14

**S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION****E1020.03 Theatre and Stage Equipment\***

Full compliment of audio visual and lighting equipment in Auditorium.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**E1020.08 Medical Equipment\***

The medical clinic is equipped with typical examination equipment and two isolated sound chambers for audio testing.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**E1030.03 Loading Dock Equipment\***

A concrete loading dock with dock bumpers and dock seals are located at the entrance opposite the occupational therapy lab along the west elevation.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**E1090 Other Equipment**

Woodworking shop has table saws, drill press, sanders, etc.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	25	MAR-14

**E1090.03 Food Service Equipment\***

Kitchen equipment consists of stainless steel built-in and movable type; for food preparation, dishwashing, refrigerator/freezers and storage. All servery stations are located between the Secured Living units.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**E1090.04 Residential Equipment\***

The occupational therapy and arts and crafts labs are equipped with refrigerators, stoves and dishwashers. Refrigerators, stoves, washer and dryer are centrally located in each Living Unit.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**E1090.07 Athletic, Recreational, and Therapeutic Equipment\***

A score board and basketball hoops are located in the Gymnasium. The swimming pool is provided with all required equipment accessories. Universal gym equipment is located in the Weight Training Room. A controlled equipment room is located opposite the gym and swimming pool. Recreational equipment is provided on the main floor games room.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**E2010.02 Fixed Casework\*\***

Millwork consists of:

Unit Control desk constructed with natural wood trim and plastic laminate.

Resident room desk top constructed with natural wood edging

Resident room storage compartment constructed with natural wood veneer plywood with solid hardwood edging.

Interior wood benches constructed of natural solid wood members installed.

Dining rooms - Upper and lower cabinets & storage cupboard are constructed of clear and/or painted plywood veneered with hardwood edges

Laundry Rooms - Upper storage cupboard are constructed of clear and/or painted plywood veneered with hardwood edges.

Classroom and sitting room millwork.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	35	MAR-14

**Event: Replace Millwork. - (B.O.E. 310 m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$341,000	Unassigned

**Updated:** MAR-14

**E2010.03.01 Blinds\*\***

Venetian & horizontal blinds are located in staff and office areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	30	MAR-14

**Event: Replace horizontal & vertical blinds.- (B.O.E. 89 sq.m.)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2017	\$9,700	Unassigned

**Updated:** MAR-14

**E2010.03.06 Curtains and Drapes\*\***

Fabric curtains are located in the minimum and medium security living units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	30	MAR-14

**Event: Replace curtains.- (B.O.E. 495 m2.)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$54,000	Unassigned

**Updated:** MAR-14

**F1020.02 Special Purpose Rooms**

A centrally located main control room on the main floor for viewing of admission/discharge area and all areas throughout the centre. Isolation rooms are provided in the living units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	50	MAR-14

**F1040.01 Aquatic Facilities\***

An indoor swimming pool is provided in the basement area adjacent to the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1981	0	MAR-14

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

Adequate parking is provided in the parking area at the south end of the site. Designated handicap parking space are allocated for visitors.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**K4010.02 Barrier Free Entrances\***

Barrier free access is provided at the main south & north entrances. Security is provided at both locations.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**K4010.03 Barrier Free Interior Circulation\***

Barrier free access is provided throughout the building. Elevators and ramps are provided for residents, staff and visitors. Security is provided in all locations.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**K4010.04 Barrier Free Washrooms\***

Barrier free washrooms & showers are provided.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1981	0	MAR-14

**K4020.02 Fire Code\***

The existing Fire Code and Building Code requirements were met at the time of construction.

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

**K4030.01 Asbestos\***

No asbestos was noted or reported.

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

**K5010.01 Site Documentation\***

Prime Consultant: Bacz Engineering Ltd.  
 Year of Evaluation: 2013  
 Building Area Evaluated: 17499 m2

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2013	0	MAR-14

