

**APPENDIX 4C**  
**PLANT SERVICES**

**1. INTERPRETATION**

In this Appendix, in addition to the definitions set out in Schedule 1 of this Agreement:

**“Building Systems”** means the mechanical, electrical and other systems in or servicing the Facility described in Attachment 1 to this Appendix and, if such systems are connected or integrated with the Authority’s systems servicing SMH, to the point of connection of such systems with the Authority’s systems;

**“Demand Maintenance”** means ad hoc and responsive unscheduled Maintenance;

**“Elevator Availability”** means, in respect of each elevator and escalator in the Facility, the amount of time that such elevator was available during a measured period expressed as a percentage and calculated as follows:

$$\text{(Total Time – Down Time) x100 / Total Time}$$

Where:

**Down Time** is the number of hours that such elevator or escalator was unavailable for normal use other than times during which Scheduled Maintenance was performed on such elevator or escalator in accordance with the Annual Service Plan in effect; and

**Total Time** is the total number of hours during the measured period;

**“Maintained Elements”** means all elements of the Facility and Site constructed or installed pursuant to this Agreement including:

- (a) the Building Systems;
- (b) improvements to the Site, including the external areas described in Table 4 to Attachment 1 of this Appendix, but does not include soft landscaping, planted areas, lawns or gardens;
- (c) underground parking facilities;
- (d) the Helipad; and
- (e) the Maintained Equipment,

but does not include Category A1 Equipment, Category B1 Equipment, Category B3 Equipment, Category C Equipment, Category D Equipment, Category E Equipment and Category F2 Equipment;

**“Maintained Equipment”** means Category A2 Equipment, Category B2 Equipment and Category F1 Equipment;

**“Maintenance”** means commissioning, testing, servicing, maintenance, repair, renewal or replacement of the Maintained Elements, other than renewal or replacement of Category A2 Equipment and Category B2 Equipment;

**“Maintenance Access Times”** means the times set out in the Annual Service Plan during which Project Co may perform Maintenance Services;

**“Maintenance Services”** means Demand Maintenance and Scheduled Maintenance;

**“Miscellaneous Maintenance”** has the meaning given in Section 3.9 of this Appendix;

**“Plant Services”** means all of the services and requirements described in this Appendix, including Demand Maintenance and Scheduled Maintenance; and

**“Scheduled Maintenance”** means planned and preventive Maintenance.

## **2. SERVICES**

### **2.1 General Requirements**

In addition to the standards and specifications set out in Schedule 4 [Services Protocols and Specifications], Project Co will deliver the Plant Services:

- (a) 24 hours per day, 365(6) days per year;
- (b) in a manner which:
  - (1) is efficient, comprehensive and responsive to the needs of Facility Users;
  - (2) ensures a collaborative working relationship with the Authority, its employees and contractors;
  - (3) minimizes, to the extent reasonably possible, any interruption to the use and operation of the Facility by Facility Users;
  - (4) is integrated and co-ordinated with the delivery of all:
    - (A) other Services provided by Project Co; and
    - (B) services delivered by the Authority at the Facility;
  - (5) is safe for all Facility Users; and
  - (6) does not create any environmental hazards;
- (c) in a safe, compliant, functional, working and barrier-free healing environment applying safe working practices including:
  - (1) using recognized risk assessment and management systems; and

- (2) placing, maintaining and keeping records of all hazard notices and safety signage which are consistent with those used by the Authority;
- (d) in accordance with principles consistent with the LEED™ Gold certification points:
  - (1) identified in the LEED™ score sheet contained in the Proposal Extracts; and
  - (2) achieved in respect of the Facility;
- (e) having regard for and without limiting the requirements set out in Section 3.2 of Schedule 4 [Services Protocols and Specifications]:
  - (1) CAN/CSA-Z317.1 Special Requirements for Plumbing Installations in Health Care Facilities;
  - (2) CAN/CSA-Z317.10 Handling of Waste Materials in Health Care Facilities;
  - (3) CAN/CSA-Z317.11 Area Measurement for Health Care Facilities;
  - (4) CAN/CSA Z317.2-10 Special Requirements for Heating, Ventilation, and Air Conditioning (HVAC) Systems in Health Care Facilities;
  - (5) CAN/CSA-Z317.5 Illumination Systems in Health Care Facilities;
  - (6) CAN/CSA-Z317.13 Infection Control during Construction or Renovation of Health Care Facilities;
  - (7) CAN/CSA-Z318.0 Commissioning of Health Care Facilities;
  - (8) CAN/CSA-Z323.5 Mechanical/Electromechanical Lifting Devices for Persons;
  - (9) CAN/CSA-Z7396.1 Medical Gas Pipeline Systems;
  - (10) CAN/CSA-B44 Safety code for Elevators and Escalators;
  - (11) CAN/CSA-C282-00 Emergency Electrical Supply for Buildings;
  - (12) CAN/CSA-Z32 Electrical Safety and Essential Electrical Systems in Health Care Facilities;
  - (13) Canadian Counsel of Health Services Accreditation, Environmental Standards, 2007;

### **3. PLANT SERVICES REQUIREMENTS**

#### **3.1 Annual Service Plan**

Project Co will develop in accordance with Sections 4.1 and 4.3 of Schedule 4 [Services Protocols and Specifications] and implement as part of the Annual Service Plan appropriate policies, procedures, practices, schedules and a self-monitoring inspection and reporting system in respect of the delivery of the Plant Services to the Authority.

#### **3.2 Maintenance Services**

Project Co will provide the Plant Services in accordance with this Appendix so that:

- (a) each of the Maintained Elements:
  - (1) is properly and safely maintained in accordance with all Plans;
  - (2) remains functional, safe, operationally sound and of good appearance;
  - (3) performs in accordance with their respective design criteria as set out in Schedule 3 [Design and Construction Specifications]; and
  - (4) achieves the requirements set out in Attachment 1 to this Appendix;
- (b) the Building Systems, including heating, air conditioning, lighting, humidity and mechanical ventilation systems, function in accordance with the requirements set out in Table 6 of Attachment 1 to this Appendix; and
- (c) the exterior areas of the Facility are maintained in accordance with Table 4 of Attachment 1 to this Appendix;
- (d) all other Maintained Elements operate as designed and intended.

#### **3.3 First Response Maintenance for Equipment**

Project Co will respond to Demand Requisitions in respect of all Equipment. If the Equipment which is the subject of the Demand Requisition is not Maintained Equipment, Project Co will determine whether the problem relates to the Equipment itself or a Maintained Element supporting the Equipment. If:

- (a) the problem relates to a Maintained Element, Project Co will rectify the problem in accordance with this Appendix; or
- (b) the problem does not relate to a Maintained Element, Project Co will promptly give notice of the problem to the Authority together with a summary of the results of the investigation into the problem conducted by Project Co.

### **3.4 First Response Maintenance for Nurse Call**

Project Co will respond to Demand Requisitions in respect of the nurse call system described in Section 7.8.10 of Schedule 3 [Design and Construction Specifications]. Project Co will determine whether the problem relates to the nurse call system itself or a Maintained Element supporting that system. If:

- (a) the problem relates to a Maintained Element, Project Co will rectify the problem in accordance with this Appendix; or
- (b) the problem does not relate to a Maintained Element, Project Co will promptly give notice of the problem to the Authority together with a summary of the results of the investigation into the problem conducted by Project Co.

### **3.5 Maintenance Times**

Subject to Section 3.6 of this Appendix, Project Co will perform the Maintenance Services during the relevant Maintenance Access Times and will:

- (a) perform Scheduled Maintenance during the periods agreed in the Annual Service Plan then in effect and will give the Authority 10 days' notice before commencing any such Maintenance; and
- (b) undertake and complete Demand Maintenance within the relevant Response Time and Rectification Period set out in Section 4 of this Appendix and Schedule 8 [Payments].

### **3.6 Re-Scheduling of Maintenance**

Notwithstanding any notice delivered by Project Co pursuant to Section 3.5 of this Appendix, if the Authority, acting reasonably, determines that the times at which Project Co proposes to perform Maintenance will cause material disruption to the operations of the Authority or other Facility Users, the Authority may give notice to Project Co not to carry out such Maintenance until such time as the Authority and Project Co, each acting reasonably, agree on an alternate time. Upon such agreement, the Response Time and Rectification Period for such Maintenance will be adjusted accordingly.

### **3.7 Elevators**

Project Co will:

- (a) operate and maintain all elevators, escalators, elevating devices and related equipment at the speeds and in accordance with the elevator design specifications set out in Schedule 3 [Design and Construction Specifications];
- (b) dispatch its on-Site personnel promptly to respond to all elevator alarms or telephone calls from an elevator and initiate the required action to rectify faults and release occupants;
- (c) undertake Scheduled Maintenance of elevators, escalators, elevating devices and related equipment such that at no time will any Functional Area be without elevator or escalator

service and ensure that not more than one elevator in a bank of two or more elevators is out of service for Scheduled Maintenance;

- (d) include in each Performance Monitoring Report for the relevant period:
  - (1) the calculation of Elevator Availability; and
  - (2) a summary of any elevator, escalator or elevating device failures and corrective actions.

### **3.8 Building Management System (BMS)**

Project Co will:

- (a) operate the BMS to allow for monitoring of the operation of the Facility and the Services from a single location within the Facility and remotely through internet connections accessible to the Authority;
- (b) monitor, control, indicate alarms and provide trending information for all BMS connected sensors and control points;
- (c) provide for the BMS to automatically initiate an alarm and immediately page or otherwise notify staff designated by the Authority of particulars related to any alarmed equipment specified in Schedule 2 [Design and Construction Protocols] or Schedule 3 [Design and Construction Specifications]; and
- (d) include with each Performance Monitoring Report and provide the Authority with continuous direct access (other than during such reasonable periods as the BMS may be undergoing Scheduled Maintenance or emergency Maintenance) to the following information generated by the BMS during the relevant period:
  - (1) critical incident failures;
  - (2) daily, weekly and periodic status reports;
  - (3) exception reports by element status;
  - (4) trend log data;
  - (5) time of occurrence, Response and Rectification; and
  - (6) such other information as the Authority may reasonably require.

### **3.9 Medical Gases**

Project Co will perform all maintenance required to maintain a continuous flow of medical gases in the Building, including:

- (a) monitoring and controlling the centralized duplex bottle manifold medical gas supply system;

- (b) responding to all alarms related to the centralized duplex manifold medical gas supply system and the medical gas bottle storage room;
- (c) metering and trending the consumption of medical gases in the Building;
- (d) monitoring the available inventory of bottled medical gases and notify the Authority if replacement inventory is required; and
- (e) swapping out empty medical gas bottles as necessary.

### **3.10 Miscellaneous Maintenance Services**

Project Co will:

- (a) within 24 hours notice from the Authority (not counting days that are not Business Days) , Respond to Demand Requisitions for general labour services including:
  - (1) the installation and hanging of white boards, pictures, art work shelving and other items of a similar nature affixed to the walls of the Facility; and
  - (2) other similar services typically performed by the physical plant department of a similar health care facility,

(“**Miscellaneous Maintenance**”); and
- (b) complete such Miscellaneous Maintenance within two weeks of the Demand Requisition.

### **3.11 Maintenance of Key Energy Consuming Building Systems**

Project Co will:

- (a) maintain all key energy consuming Building Systems, including all boilers, so that each such system operates efficiently; and
- (b) conduct regular efficiency testing of all such systems in accordance with Good Industry Practice, and without limitation no less than once per month for the boilers, and will include the results of such testing in each Performance Monitoring Report.

### **3.12 Maintenance Equipment and Supplies**

Project Co will provide, maintain, clean and replace as required all equipment, supplies, apparatus and consumable items (including any consumable required for the operation of Maintained Elements) required to deliver the Plant Services, including scaffolding, crantage, tackle, machinery, tools or other equipment.

#### 4. PERFORMANCE INDICATORS

	Indicator	Service Failure Level <sup>1</sup>	Response Time	Rectification Period	Recording Frequency	Monitoring Method
	<b>Maintenance</b>					
4.1	Demand Maintenance (other than Miscellaneous Maintenance) carried out in accordance with this Appendix.	Emergency –High Urgent – Medium Routine - Low	Emergency – 15 minutes Urgent – 30 minutes Routine – 24 hours	Emergency – 2 hour Urgent – 6-8 hours Routine – 168 hours	Per Occurrence	Performance Monitoring Report
4.2	Miscellaneous Maintenance (other than Demand Maintenance) carried out in accordance with this Appendix.	Low	24 hours	2 weeks	Per Occurrence	Performance Monitoring Report
4.3	Maintained Elements that are not the subject of Demand Maintenance are maintained in accordance with this Appendix.	Medium	Routine – 24 hours	Routine – 168 hours	Per Occurrence	Performance Monitoring Report
4.4	Project Co performs Maintenance at the times permitted in Sections 3.5 and 3.6 of this Appendix.	High	N/A	N/A	Per Occurrence	Performance Monitoring Report
4.5 4	Project Co carries out 100% of Scheduled Maintenance on life safety, emergency systems and statutory/regulatory requirements within the times scheduled in the Annual Service Plan.	High	N/A	N/A	Per occurrence	Performance Monitoring Report

<sup>1</sup> **Emergency** - Any matter threatening to life or limb or which may cause material health and safety risks (see Table 1 of Attachment 1).

**Urgent** - Any matter that will may cause material operational problems, physical or environmental damage or health and safety risks if not attended to or remedied quickly (see Table 1 of Attachment 1).

**Routine** - All other matters that are not immediately detrimental to health or safety and which will not cause material operational problems, physical or environmental damage or health and safety risks if not attended or remedied to quickly (see Table 1 of Attachment 1).



	<b>Indicator</b>	<b>Service Failure Level<sup>1</sup></b>	<b>Response Time</b>	<b>Rectification Period</b>	<b>Recording Frequency</b>	<b>Monitoring Method</b>
4.6	Project Co carries out 85% of all other Scheduled Maintenance within the times scheduled in the Annual Service Plan. All Deferred Maintenance to be completed within 30 days of its scheduled date.	High	N/A	N/A	Per occurrence	Performance Monitoring Report
	<b>Elevators</b>					
4.7	Elevator Availability of not less than 96.5% for each elevator within the Facility during each Payment Period.	High – per elevator	N/A	N/A	Monthly	Performance Monitoring Report
4.8	If an elevator is out of service and occupants are trapped, maintenance staff respond and safely release occupants.	High	20 minutes	(a) 30 minutes between the hours of 7am and 7pm on Business Days; and  (b) 60 minutes at all other times.	Per Occurrence	Performance Monitoring Report
	<b>Medical Gas</b>					
4.9	Project Co performs maintenance in accordance with Section 3.9 of this Appendix.	High	N/A	N/A	Per Occurrence	Performance Monitoring Report

	Indicator	Service Failure Level <sup>1</sup>	Response Time	Rectification Period	Recording Frequency	Monitoring Method
	<b>Boiler Efficiencies</b>					
4.10	<p>All gas boilers to be maintained at a combustion efficiency rating level from base level (to be determined in accordance with Good Industry Practice from commissioning data):</p> <p>a) 98% or greater during years 1 to 5 of the Operating Period and years 1 to 5 following replacement or major refurbishment of the boilers</p> <p>(b) 96% or greater during years 6 to 10 of the Operating Period and years 6 to 10 following replacement or major refurbishment of the boilers</p> <p>(c) 93% or greater after year 10 of the Operating Period or after year 10 following replacement or major refurbishment of the boilers</p>	High	N/A	N/A	Monthly, but if the efficiency rating is below the applicable efficiency level, then measured weekly (with weekly High Service Failures) until the efficiency rating meets or exceeds the applicable efficiency level	Performance Monitoring Report
	<b>Other</b>					
4.11	Project Co complies with all testing and reporting requirements under all applicable Authority policies, policies of insurance and all applicable Laws.	Medium	N/A/	N/A	Per occurrence	Performance Monitoring Report
4.12	External areas of the Facility maintained in accordance with this Appendix	Low for the first week of failure and Medium for each week thereafter until rectified	N/A	N/A	Weekly	Performance Monitoring Report
4.13	Snow and Ice removal from external areas of the Facility in accordance with Table 4 of this Appendix	Low for the first hour of failure, Medium for the second hour and High for each hour thereafter until rectified	1 hour	1 hour	Per Occurrence	Performance Monitoring Report

	<b>Indicator</b>	<b>Service Failure Level<sup>1</sup></b>	<b>Response Time</b>	<b>Rectification Period</b>	<b>Recording Frequency</b>	<b>Monitoring Method</b>
4.14	Records and information obtained and accessible to the Authority, in accordance with Schedule 14, including access to the Performance Monitoring Program, the BMS, the CMMS and all Help Desk records.	Medium	24 hours	48 hours	Per occurrence	Annual Report
4.15	All hazard notices and safety signs are maintained, recorded, located and displayed correctly, and fully serviceable.	Medium	NA	NA	Per Occurrence	Performance Monitoring Report
4.16	The Helipad is maintained in accordance with the Annual Service Plan and this Appendix.	High	NA	NA	Per Occurrence	Performance Monitoring Report
4.17	Project Co implementing and adhering to all other elements of the Annual Service Plan related to Plant Services and not otherwise addressed in this Section 4.	Low	N/A	N/A	Per occurrence	

Note: N/A means “not applicable” and that the table does not indicate or specify a Response Time or Rectification Period for the specified Performance Indicator.

## ATTACHMENT 1

### TABLES TO APPENDIX 4C

**Table 1: Failure or Request for Service Categories**

Service Category	Definition
Emergency	<p>Service required immediately and is considered a serious emergency, including:</p> <ul style="list-style-type: none"> <li>• issues having an immediate negative impact on patient care;</li> <li>• safety problems exposing Facility Users to danger;</li> <li>• emergency repairs to prevent further damage (i.e. burst pipe); and</li> <li>• equipment failure or operating difficulties which could result in the loss of critical utilities including heat, water, electricity, emergency power and medical gases.</li> </ul>
Urgent	<p>Service required as soon as possible:</p> <ul style="list-style-type: none"> <li>• to address problems not presenting an immediate danger; and</li> <li>• to address problems having the potential to have a negative impact on patient care.</li> </ul>
Routine	<p>Maintenance and repairs required for non-emergencies not having an immediate effect on patient care such as leaking taps, faulty doors and windows or equipment breakdowns or work not requiring immediate attention such as repairs to damaged walls, furniture or fixture installations.</p>

**Table 2: Service Standards, Building**

Element	Standard
<p><b>Building Fabric External</b> Including:</p> <ul style="list-style-type: none"> <li>• External walls</li> <li>• Roof</li> <li>• Fire escapes</li> <li>• Walkways</li> <li>• Safety barriers</li> <li>• Balconies</li> <li>• Eaves</li> <li>• Rendering</li> <li>• Chimneys/flues</li> </ul>	<ul style="list-style-type: none"> <li>• Sound secure and weatherproof where appropriate.</li> <li>• Free from damp penetration or spalling.</li> <li>• Claddings, copings and parapets are structurally sound and secure.</li> <li>• Chimney stacks/flues are structurally sound and secure and flue is free from blockages/excess soot.</li> <li>• Free from debris, moss growth and animal droppings.</li> </ul>

Element	Standard
<p><b>Building Fabric Internal</b> Including:</p> <ul style="list-style-type: none"> <li>• Internal walls</li> <li>• Partitions</li> <li>• Ceilings</li> <li>• Elevators, escalators, dumbwaiters</li> <li>• Pneumatic tube</li> </ul>	<ul style="list-style-type: none"> <li>• Free from structural cracks and/or deflection.</li> <li>• Free from damp and vermin.</li> <li>• Free from undue damage and of reasonable appearance.</li> <li>• Compliant with the requirements set out in CIBSE guidelines.</li> <li>• Free from asbestos and other hazardous materials.</li> </ul>
<p><b>Fixtures and Fittings</b> Including:</p> <ul style="list-style-type: none"> <li>• Doors (external, internal and fire)</li> <li>• Windows and sills</li> <li>• Hatches</li> <li>• Vents</li> <li>• Ironmongery</li> <li>• Millwork</li> <li>• Shelving</li> <li>• Cupboards</li> <li>• Railings</li> <li>• Racking</li> <li>• Notice boards</li> <li>• Mirrors</li> <li>• Balustrades</li> <li>• Magnetic door holders</li> </ul>	<ul style="list-style-type: none"> <li>• Operate safely and as intended, without making undue noise and without including observable stains on hinges, locks, catches and handles, and without binding, rubbing or catching in any way.</li> <li>• Free from all but minor surface blemishes and wear and tear.</li> <li>• Luminescent strips, signs, notices, warning signs where appropriate are intact, legible and illuminated where appropriate.</li> <li>• Free from corrosion.</li> </ul>
<p><b>Floor and Floor Coverings</b></p>	<ul style="list-style-type: none"> <li>• The floor coverings are complete, according to their specification.</li> <li>• The floor coverings are fully fixed to the floor so as not to cause a health or safety hazard.</li> <li>• The floor/floor covering is free from tears, scoring, cracks or any other damage that is unsightly and/or could cause a health and safety hazard.</li> <li>• Floor coverings/surfaces are maintained in such a way as to provide a suitable uniform surface (taking into account the pre-existing sub-surface), with minimal resistance, for wheeled beds trolleys, wheel chairs and any other wheeled vehicle in use in the Facilities.</li> <li>• Allow adequate drainage where necessary.</li> </ul>

Element	Standard
<p><b>Decorative Finishes</b> Including:</p> <ul style="list-style-type: none"> <li>• Paintwork</li> <li>• Fabric</li> <li>• Special finishes applied to walls, ceilings, woodwork, metalwork, pipework and other visible elements)</li> </ul>	<ul style="list-style-type: none"> <li>• Decorative finishes are complete according to their specification.</li> <li>• Free from all but minor surface blemishes or undue wear and tear.</li> <li>• Free from cracks, or any other surface degradation inconsistent with a building maintained in accordance with Good Industry Practice.</li> </ul>
<p><b>Furniture &amp; Equipment</b> Including:</p> <ul style="list-style-type: none"> <li>• Chairs</li> <li>• Tables, desks</li> <li>• Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Free from splits, cracks, and other defects (including squeaks) and free from all but minor surface blemishes or undue wear and tear.</li> <li>• Maintained in accordance with Occupational Health and Safety requirements of the WCB.</li> <li>• Maintained in accordance with manufacturer's requirements.</li> </ul>

**Table 3: Service Standards, Systems**

Element	Standard
<b>General</b>	<ul style="list-style-type: none"> <li>• In general, all Maintained Elements including the elements outlined below will at all times be functional, operational and satisfy the same performance requirements as required for Service Commencement.</li> </ul>
<p><b>MV Distribution System</b> Including:</p> <ul style="list-style-type: none"> <li>• Distribution equipment and protective devices fuse switches</li> <li>• Isolators</li> <li>• Distribution boards</li> <li>• Fuses</li> <li>• MCB's, ACB, ELCB's and RCE's</li> <li>• Exposed distribution cables</li> </ul>	<ul style="list-style-type: none"> <li>• Ratings will be clearly marked.</li> <li>• Fuse elements or circuit breaker mechanisms in working order.</li> <li>• Contacts and connections clean and mechanically tight.</li> <li>• No overheating during normal operating loads.</li> <li>• Secure to authorized access only. Recording instruments operational where necessary.</li> <li>• Torque all bus connectors to manufacturer recommendations.</li> <li>• Provide lock out procedure.</li> <li>• Mega test all cables.</li> <li>• Balance all loads on each phase.</li> <li>• Coordinate all protective relaying to ensure lower-rated breakers trip first.</li> <li>• Regularly test all breakers and transformers.</li> <li>• Regularly clean all switchgear and transformers.</li> <li>• Do injection testing at least every two years.</li> <li>• Test all alarm functions.</li> <li>• Identification notices where necessary.</li> </ul>
<p><b>HV Distribution Systems</b> Including:</p> <ul style="list-style-type: none"> <li>• Distribution equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Ratings will be clearly marked.</li> <li>• Fuse elements or circuit breaker mechanisms in working order.</li> <li>• Contacts and connections clean and mechanically tight.</li> </ul>

Element	Standard
<ul style="list-style-type: none"> <li>• Isolators</li> <li>• Distribution units</li> <li>• OCBs, ACBs and ELCBs</li> </ul>	<ul style="list-style-type: none"> <li>• No overheating during normal operating loads.</li> <li>• Secure to authorized access only.</li> <li>• Recording instruments operational where necessary.</li> <li>• Transformers are maintained as per manufacturer's recommendations at least every two years.</li> <li>• Protective coatings are intact.</li> <li>• No signs of excessive heating.</li> <li>• Provide lock out procedure.</li> <li>• Balance loads.</li> <li>• Test all protective relaying including injection testing at least every two years.</li> <li>• Provide coordination study after initial installation and after every significant change or at minimum every 10 years.</li> <li>• Indicate fault levels.</li> <li>• Check electronic operation of all breakers and that power source is battery operated.</li> <li>• Provide DC Hipot test after initial installation.</li> <li>• Torque all bolted connections.</li> <li>• Identify all current transformer and potential transformer ratios.</li> <li>• Provide ground fault relaying as needed.</li> <li>• Marker and covering notices where necessary.</li> </ul>
<p><b>Hot &amp; Cold Water Systems</b> Including:</p> <ul style="list-style-type: none"> <li>• all infrastructure for hot and cold water systems, plumbing and sewer systems constructed or supplied by Project Co pursuant to Schedule 3, including all pipework to and connections in the South Building Connection Room</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver water at the temperatures (43°C in patient areas and 60 ° C in all other areas) and flow rates as required to serve the facility needs without undue noise and vibration.</li> <li>• Taps, valves and other related fittings and fixtures function as intended.</li> <li>• Pipework and fittings will be fastened securely to their intended points of anchorage.</li> <li>• There will be no persistent drips or leaks of water from pipework, taps, valves and/or fittings.</li> </ul>
<p><b>Heating, Ventilation and Air Conditioning Systems</b> Including:</p> <ul style="list-style-type: none"> <li>• heating plant, including boilers</li> <li>• heat exchanger systems</li> <li>• Fume hoods</li> <li>• Humidifiers</li> <li>• Heaters</li> <li>• Ductwork</li> <li>• Mixing boxes and dampers</li> </ul>	<ul style="list-style-type: none"> <li>• All ventilation systems will function as intended without undue noise or vibration.</li> <li>• Air changes and ventilation levels as required to achieve CSA and ASHRAE Standards.</li> <li>• Ductwork, fittings and pipework will be securely fastened to their intended points of anchorage.</li> <li>• There will be no persistent or unreasonable leakages of water (or other heating/cooling medium) or air from ventilation systems.</li> <li>• Secure to authorized access only.</li> <li>• Free from corrosion, erosion and organic growth;</li> </ul>

Element	Standard
<ul style="list-style-type: none"> <li>• Coolers</li> <li>• Inlet/outlet grilles</li> <li>• Refrigeration plant</li> <li>• Cooling towers (and other local ventilation systems);</li> <li>• Pneumatic tube system</li> <li>• all infrastructure for heating, ventilation and air condition systems constructed or supplied by Project Co pursuant to Schedule 3, including all pipework and ductwork to and connections in the South Building Connection Room.</li> </ul>	<ul style="list-style-type: none"> <li>• Pneumatic tube system operates to the manufactures specifications.</li> </ul>
<p><b>Sanitary and Other Drainage Systems</b> Including all sanitary ware and associated fittings</p>	<ul style="list-style-type: none"> <li>• Function as intended, without undue noise and vibration.</li> <li>• Provide a safe and comfortable environment.</li> <li>• All pipework and fittings fastened securely to their intended points of anchorage.</li> <li>• There will be no leakage of waste and/or foul water and/or rain water.</li> </ul>
<p><b>Fire Fighting Equipment</b></p>	<ul style="list-style-type: none"> <li>• Fire extinguishers and other fire fighting equipment will be maintained in accordance with relevant codes and standards (e.g., CSA Standards).</li> <li>• Sound, secure and fixed to their intended point of anchorage.</li> <li>• Fully operational within manufacturer's recommendations.</li> <li>• Hydrants, sprinklers &amp; hoses will be at correct operating pressure &amp; capacity.</li> <li>• Pipework will be free from corrosion, leaks and drips.</li> <li>• Be of suitable type and quantity for the hazards present within their vicinity.</li> </ul>
<p><b>Medical Gases</b></p> <ul style="list-style-type: none"> <li>○ Including all infrastructure for medical gases constructed or supplied by Project Co pursuant to Schedule 3 including all oxygen distribution piping from the Facility to and connections in the South Building Connection Room</li> </ul>	<ul style="list-style-type: none"> <li>• Medical gas systems will be maintained in accordance with all relevant codes and standards.</li> </ul>
<p><b>Communications Systems</b> Including:</p> <ul style="list-style-type: none"> <li>○ all cabling infrastructure supplied</li> </ul>	<ul style="list-style-type: none"> <li>• Communications system will be maintained in accordance with all relevant codes and standards.</li> <li>• All electrical communications and data transmission installations to</li> </ul>



Element	Standard
<p>by Project Co pursuant to Schedule 3 including all conduit and cabling from the Facility's main telecommunications room to the South Building Service Connection Room, and to the data core in the South Building;</p> <ul style="list-style-type: none"> <li>o the public address system;</li> <li>o the patient education / entertainment system;</li> <li>o RTLS system (the Authority will be responsible for replacement of RTLS tags);</li> <li>o intercom; and</li> <li>o all other communication and information technology equipment provided by Project Co pursuant to Schedule 3.</li> </ul>	<p>comply with relevant codes and standards (e.g., CSA Standards).</p> <ul style="list-style-type: none"> <li>• Fully operational within manufacturer's recommendations.</li> </ul>
<p><b>Electrical Systems</b> Including:</p> <ul style="list-style-type: none"> <li>• lighting</li> <li>• safety</li> <li>• alarm systems</li> <li>• all infrastructure and wiring supplied by Project Co pursuant to Schedule 3 including conduit and wiring from the main electrical room to the junction boxes located in the South Building Service Connection Room and to the South Building's main electrical room.</li> </ul>	<ul style="list-style-type: none"> <li>• Weatherproof where appropriate.</li> <li>• Function as intended without undue noise or vibration; wiring, fittings, fixtures, controls and safety devices will be properly housed and fastened securely to their intended point of anchorage<sup>2</sup> and labelled.</li> <li>• Lightning conductor should be complete, isolated and comply with CSA Standards.</li> <li>• MICC cable protective coatings intact.</li> <li>• Light emittance at the design Lux levels as specified in Schedule 3.</li> </ul>

<sup>2</sup> Safety devices will be deemed to include all Un-Interruptible Power Supplies (UPS) and power surge devices specified to protect personnel and equipment.

**Table 4: Service Standards, Grounds Maintenance**

Element	Standard
<p><b>Site Circulation Routes</b> Including:</p> <ul style="list-style-type: none"> <li>• Pavings</li> <li>• Paths</li> <li>• Driveways</li> <li>• Roads</li> <li>• Car Parking Areas</li> <li>• Hardstandings</li> <li>• Facility entrances</li> <li>• External staircases</li> <li>• External fire escapes</li> </ul>	<ul style="list-style-type: none"> <li>• Sound safe and even surface with no potholes or sinkings.</li> <li>• Substantially free from standing water, ice, snow.</li> <li>• Substantially free from fallen leaves, moss algae or interstitial weeds.</li> <li>• Free from fallen trees.</li> <li>• Curbs and edgings are sound.</li> <li>• No loose curbs or paving stones.</li> <li>• Road markings and parking stripings are clear and complete.</li> <li>• Free from graffiti and/or vandalism.</li> <li>• Provides for good disabled access such as the visually impaired and wheelchair users.</li> <li>• Protection of all vehicles from chemical sprays during any applications.</li> </ul>
<p><b>External Furniture and Structures</b> Including:</p> <ul style="list-style-type: none"> <li>• Street lights</li> <li>• Guard rails</li> <li>• Copings</li> <li>• Statues or ornamental objects</li> <li>• Bollards</li> <li>• Bus stops</li> <li>• Street lights</li> </ul>	<ul style="list-style-type: none"> <li>• Sound, secure, safe and free from damage.</li> <li>• Operating at their design performance where applicable.</li> <li>• Substantially free from moss algae and/or interstitial weeks.</li> <li>• Free from graffiti and/or vandalism.</li> <li>• Replacement of light elements.</li> </ul>
<p><b>Boundaries</b> Including:</p> <ul style="list-style-type: none"> <li>• Fences/walls</li> <li>• Gates</li> </ul>	<ul style="list-style-type: none"> <li>• Intact safe, sound and secure.</li> <li>• Free from graffiti and damage.</li> <li>• Locks are operational.</li> </ul>
<p><b>External Sign Posting (incl. lighting)</b></p>	<ul style="list-style-type: none"> <li>• Compliant with the “Signage &amp; Wayfinding” requirements in Schedule 3 [Design &amp; Construction Specifications].</li> <li>• Secure and sound.</li> <li>• Not hinder visibility to car and pedestrians at junctions.</li> <li>• Be in appropriate locations.</li> <li>• Highly visible, both day and night.</li> <li>• Offer clear and concise information.</li> <li>• Free from graffiti and/or vandalism.</li> <li>• Replacement of light elements.</li> </ul>

Element	Standard
<b>Gutters and Drains</b>	<ul style="list-style-type: none"> <li>• Swept.</li> <li>• Substantially free from litter, leaves, weeds and extraneous material.</li> </ul>
<b>Helipad (including related walkways)</b>	<ul style="list-style-type: none"> <li>• Sound safe and even surface with no potholes or sinkings.</li> <li>• Substantially free from standing water, ice, snow.</li> <li>• Substantially free from fallen leaves, moss algae or interstitial weeds.</li> <li>• Substantially free from debris and litter.</li> <li>• Free from fallen trees.</li> <li>• Ventilated such that aircraft fumes do not adversely effect the SMH or the Facility</li> <li>• Lightning and safety equipment functional in accordance with all applicable Laws and standards</li> <li>• All signage and painting visible and properly maintained.</li> <li>• Windssock maintained and functioning.</li> </ul>
<b>Facility</b>	<ul style="list-style-type: none"> <li>• Substantially free from litter, including cigarette ends and chewing gum residue.</li> <li>• Garbage bins will be less than 75% capacity and free from malodour.</li> </ul>

**Table 6: Service Standards, Heating, Ventilation, Air Conditioning, Noise and Lighting**

<b>HVAC</b>	<ul style="list-style-type: none"> <li>HVAC systems to be maintained in accordance with CAN/CSA Z317.2-10 (Special Requirements for Heating, Ventilation, and Air Conditioning (HVAC) Systems in Health Care Facilities)</li> </ul>
<b>Medical Gas</b>	<ul style="list-style-type: none"> <li>Medical gas systems to be maintained in accordance with Appendix 3C [Medical Gas Requirements].</li> </ul>
<b>Sound Transmission</b>	<ul style="list-style-type: none"> <li>Sound transmission levels for designated areas maintained within the design tolerances as per Appendix 3D [Sound Transmission Ratings].</li> </ul>
<b>Illumination Levels</b>	<ul style="list-style-type: none"> <li>All lighting systems must be fully functional, safe and remain within 15% of the lux levels specified in CSA Standard Z317.5-98 Illumination Systems in Health Care Facilities and in accordance the requirements of Schedule 3.</li> </ul>