SYSTEM	ANALYSIS	DESIGN	INFRA- STRUCTURE	INSTALLATION	EQUIPMENT	PROGRAMMING	CONNECTION TO THE NETWORK	OPERATION	MAINTENANCE	LIFE CYCLE REPLACEMENT	FINANCE
PC Workstations	EC	EC	PCo	EC	EC	EC	EC	EC	EC	EC	EC
10G Edge Network Switches	EC/PCo	EC/PCo	PCo	PCo	PCo	EC	PCo	EC	EC	EC	PCo*
Core Network Switches	EC/PCo	EC/PCo	PCo	PCo	PCo	EC	PCo	EC	EC	EC	PCo*
Passive GPON	PCo	PCo	PCo	PCo	PCo	PCo/EC**	PCo	PCo	PCo	PCo	PCo
Active GPON	PCo	PCo	PCo	PCo	PCo	PCo/EC**	PCo	EC	EC	EC	PCo*
Building Systems Network Servers	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo
CCTV Storage Area Network (SAN)	PCo	PCo	PCo	PCo	PCo	PCo/EC**	PCo	PCo	PCo	PCo	PCo
Telephone Handset	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	EC	EC	PCo
Telephone Switchboard Console	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	EC	EC	PCo
Conference Console	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	EC	EC	PCo
VoIP Telephone System and Voicemail	PCo	PCo	PCo	PCo	PCo	PCo	PCo	PCo	EC	EC	PCo
Active RFID/RTLS	PCo	PCo	PCo	PCo	PCo	PCo	PCo	EC	EC	EC	PCo*
Passive RFID	PCo/EC	PCo/EC	PCo	EC Vend	EC Vend	EC	EC	EC	EC	EC	EC
Wireless Access Points	PCo	PCo	PCo	PCo	PCo	EC	PCo	PCo	PCo	PCo	PCo
Wireless Controller	PCo	PCo	PCo	PCo	PCo	EC	PCo	PCo	PCo	PCo	PCo

PCo - Project Co **EC** – Emily Carr IT

PCo* - Design/Construction by PCo, Life Cycle by EC [the Authority]

PCo/EC** - Programming by PCo in consultation with EC [the Authority]

For clarity:

Passive GPON includes, without limitation, all the fibre optic cabling and remaining copper, and the passive splitters, etc. **Active GPON** includes all the "Active GPON" components such as OLTs (optical line terminals) and ONTs (optical network terminals).

The following is to be read in conjunction with Schedule 3 Design and Construction Specification (refer to section 5.11.1.3(6)) and Appendix 3E Communications Specification.

A. Wireless LAN

- 1) The Wireless LAN Equipment & Infrastructure is provided by Project Co.
- 2) The following itemized list provides further clarity as to the performance specifications and design criteria of the Wireless LAN.
 - I. Create a Wireless LAN capable of delivering both 802.11n & IEEE 802.11ac applications while supporting it with a backhaul network that can handle current and future capacity.
 - II. Cabling is based on the EIA TSB-162 standard using a grid layout and 2 x Cat6A outlets per grid.
- III. Access Point Deployment is based on the TIA-4966 Standard for Educational Facilities. (Standard addresses AP density) using optimally sized cells.
- IV. Coverage for the entire facility, including stairwells and mechanical/storage rooms
- V. <u>Minimum</u> signal level of -67dbm at the perimeter of the Facility indoors and -67dbm at the perimeter of the specific outdoor areas identified in Schedule 3.
- VI. Ongoing Site Analysis (using an RF Management Program) of the RF environment including interference, throughput and security issues.
- VII. RTLS System using Active RFID c/w Servers and active Tags to be installed on equipment. Include dedicated Server & Workstation.
- 3) The programming and configuration of the Wireless Network System/Equipment including Network Security Policy and Network Access is provided by Project Co in consultation with Emily Carr.

B. <u>Network Equipment (Refer to the Appendix 3G – System Responsibility MATRIX)</u>

- 1) The following is a list of Equipment to be provided by Project Co.
 - I. Edge Network Switches
 - II. Core Network Switches
- III. Building Systems Network Servers
- IV. CCTV Storage Area Network (SAN)

Appendix 3G System Responsibility Matrix

- 2) In addition to providing the above noted equipment, Project Co. shall also secure on behalf of the Authority five years of Maintenance Support/Service Level Agreements for the equipment at the Authority's cost. The Authority retains responsibility for the operation, maintenance and life cycle replacement for items I. and II. of the above-noted equipment, and Project Co retains responsibility for the operation, maintenance and life cycle for items III. and IV. of the above-noted equipment, as set out in the preceding System Responsibility Matrix.
 - a. The purpose of this maintenance Support Service Level Agreement (SLA) is to specify the level of maintenance and support service expected from the Supplier under the Contract.
 - b. The maintenance is aimed at keeping the technical equipment and software updated and in prime condition as well as ensuring a reasonable response time in case of technical issues or errors.
 - c. Support level requirement is Next Business Day.

The following is provided by Emily Carr:

Passive RFID equipment for site specific areas, such as the library, incorporating Self Check-in & Check-out Kiosks including:

RFID readers placed at the exits and around the library to decipher these RFID signals