

1.0 **GENERAL**

1.1 **Related UBC Guidelines**

- .1 Section 28 05 00 Access Services: General Standards

1.2 **Related UBC Policy**

- .1 Policy No.: SC16 - Safety and Security Cameras

1.3 **Coordination Requirements**

- .1 UBC Electronic Systems and Campus Security and Secure Access.

1.4 **Description**

- .1 All Safety and Security Camera installations shall comply with UBC Policy No. SC16: <https://universitycounsel.ubc.ca/policies/video-cameras-policy/>
- .2 This section covers requirements for Safety and Security Cameras. Cameras are installed by Campus Security and Secure Access. General Requirements for this system for Consultants and Contractors are provided in Section 28 05 00 Electronic Security Systems: General Standards.
- .3 These guidelines provide reference to particular types, grades and models of products. In general, the references include both generic descriptions and specific product details. These references shall not be construed as a directive to sole-source products from any particular vendor except where this is specifically stated.
- .4 Safety and Security Camera system that monitors both live and recorded events may include the following:
 - .1 IP camera.
 - .2 Video Encoder
 - .3 Mid-span Injector
 - .4 Video Management System (VMS) software.
 - .5 VMS server and storage.
 - .6 Desk top computer.

2.0 **MATERIALS**

2.1 **IP Camera**

- .1 Device Location
 - .1 Wall or ceiling mountable. Whenever possible, camera should be faced away from available light source. Exact location and viewing angle shall be confirmed by Campus Security and Secure Access.
- .2 Wiring
 - .1 Demark for IP Cameras. Reference to Communications Standard Drawings ITSTD-23, ITSTD-24, and ITSTD-25
- .3 Device Feature
 - .1 PoE Class 3 or better.

- .2 Minimum resolution 1920 x 1080 (2MP), capable of 30+ IPS, minimum 2 streams at full resolution.
- .3 Minimum illumination 0.16 lux (Colour), 0.08 lux (Black & White).
- .4 RJ45 connector.
- .5 Video Compression supported includes H.264, H.265, MJPG.
- .6 Support for optional onboard memory card (microSD) for backup storage, minimum Class 10, sized for minimum 72 hours video retention at full stream quality (i.e. 2MP, 30+ IPS).
- .7 Where directed, IK10 vandal resistant rating.
- .8 Unless otherwise directed for a specific application, all cameras shall be indoor/outdoor rated, IP66/67 rated for outdoor applications, complete with IP66/67 connectors in all outdoor applications.
- .9 New cameras shall support minimum 120dB Wide Dynamic Range, unless directed or approved otherwise.
- .10 All supplied devices shall be CSA/ULC listed, unless approved otherwise.

2.2 Mid-span Power over Ethernet (PoE) Injector

- .1 Device Location
 - .1 Should be installed in the Telecom Room or closet rack mounted, subject to input from Div. 27, else a mechanically secured and alarmed room. Shelf, bracket, or rack mountable.
- .2 Wiring
 - .1 Dedicated power 120Vac. RJ45 Ethernet connectors.
- .3 Device Features
 - .1 120VAC, 60hz operation. Provides PoE/PoE+, 30/60W full power per port, 100m data extension. IEEE 802.3af compliant. Operating temperature -20° C to +40° C.
 - .2 Minimum eight (8) POE/POE+ ports.
 - .3 Include a network port for remote connection and management.
- .4 Application
 - .1 Where a small quantity (one or two) cameras are fed from a network switch, they shall be connected to and powered from that PoE/PoE+ switch, without a separate PoE midspan.
 - .2 Where three or more (3+) cameras are connected to the same switch, a multi-channel PoE/PoE+ midspan shall be installed in a mutually approved space, and cameras shall be fed from that midspan.
 - .3 Any cameras which have an integral heater, and most PTZ cameras, will generally require PoE+ power supply.

END OF SECTION