

VIDEO SURVEILLANCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Section "Electronic Access" for interface security access system devices.

1.2 SUMMARY

- A. The Video Surveillance System (VSS) shall comprise color IP surveillance cameras and cable to network patch panels with patches to assigned switches and ports. New cameras shall be connected locally on an Ethernet switch provided by PSU/ENCS.
- B. The security contractor/vendor shall be responsible for providing an all-inclusive price for equipment and labor.
- C. Interior ceiling mounted cameras approved on ceilings at or below 12ft. Ceiling mounted cameras above 12ft require approval from Physical Security Office. Exterior cameras shall be surface/pendant mounted except when mounted under cover or on a soffit.
- D. Provide and install patch cords, which shall be orange in color, plugs should include no-snag hoods, and proper length cabling should be used (no excess length looped in wire management). Cat 6 cabling to camera shall be pink in color.
- E. Only PSU authorized security integrators shall be employed to provide security equipment and complete final terminations and programming. A list of pre-approved vendors can be found on the Physical Security Website. <https://www.police.psu.edu/security-vendors>

PART 2 - VMS GENERAL

2.1 SUMMARY

- A. Section includes an expansion of the existing IP-Video Surveillance System (VSS).
- B. The security integrator is responsible for providing, installing, and terminating all cameras and providing necessary licenses. The security contractor shall also configure cameras to operate on the network and record on Physical Security NVSs with standard configuration.

PART 3 - PRODUCTS

3.2 NETWORK VIDEO SERVER (NVS)

We are not currently requiring Network Video Recorder purchases on projects.

3.3 CAMERAS

- A. Current acceptable camera models shall be obtained from the Physical Security website at time of camera purchase. <https://www.police.psu.edu/design-standards>
- B. Each camera shall be labeled with an asset tag.
- C. Clear dome lens only. No tinted lenses.
- D. Confirm the intended target with the Physical Security Office before installation. Field conditions must be verified, and each camera location, mount, and lens must be measured, calculated, and approved before installation.
- E. All cameras shall be powered via Ethernet (PoE) and shall not draw more than 25 watts. The Physical Security Office must approve exceptions to this.
- F. Equipment List
 - 1 Current application-specific camera models can be found on the Physical Security webpage. <https://www.police.psu.edu/design-standards>
- G. Each camera shall be provided with a camera license for operation on the American Dynamics VideoEdge NVR and Victor centralized license platform.

3.4 ELEVATOR CAMERAS

- A. The contractor shall provide an elevator camera, and coordinate installation with a University-approved elevator sub-contractor.
- B. Security Contractor shall be responsible for the following:
 - 1. Furnish camera for each elevator car. Current models can be found on the Physical Security Website. <https://www.police.psu.edu/design-standards>
 - 2. Furnish and install Cat 6 cable from the basement floor telecom room to the elevator room.
 - 3. Connect car cameras via Drake Cat5 traveling cable.
- C. Elevator sub-contractor shall be responsible for the following:

1. Install the camera in the elevator car. See elevator standards for elevator car camera installation.
- D. Acquire needed inspections and permits with the L&I elevator division (including elevator permits and variances for cameras)

PART 4 – EXECUTION

4.1 EXAMINATION

- A. Examine pathway elements intended for cables. Check raceways and other elements for compliance with space allocations, installation tolerance, hazards to camera installation, and other conditions affecting the installation.
- B. Determine necessary Security Network infrastructure is in place for security appliances.
- C. Request network switch and port /IP assignment through Physical Security Website prior to installation. <https://www.police.psu.edu/report-issue-or-make-request>.

4.2 WIRING

- A. Wiring Method: Install cables in conduit where exposed.

4.3 VIDEO SURVEILLANCE SYSTEM INSTALLATION

A. Cameras:

1. Exterior wall-mounted camera heights shall be between 8 and 12 feet unless approved by The Physical Security Office.
2. Interior camera heights shall be installed at 8 feet where possible and at no more than 12 feet unless approved by The Physical Security Office.
3. Cameras for exterior doors shall be tasked as follows: All cameras shall be installed to view approaches to doors to capture persons approaching from as long a distance as possible.
4. Cameras shall not be installed in vestibules unless approved by Physical Security Office.
5. **All cameras that are installed but not yet operational will need to be covered. This will indicate that the camera is out of service.**
 - a. A complete camera installation must have the following requirements met:
 - i. The camera brought online with the correct IP address provided by the Physical Security Office.
 - ii. Camera views added within proper facility site folder within the Victor Application.

- iii. Camera snapshot views are sent to Physical Security for approval for final commissioning.
- 6. Existing Cameras that are removed during a project and requested to be re-used will require approval from the Physical Security Office.
- 7. Cameras will be programmed using naming conventions obtained from Physical Security Office.

B. Network Video Servers:

- 1. Cameras are recorded on existing NVSs operated by the Physical Security Office.
- 2. NVS Licenses are not required to be purchased unless required by Physical Security Office

C. Camera recording programming

- 1. Security vendor is to obtain camera recording parameters from Physical Security Office

4.4 **FIELD QUALITY CONTROL**

A. **Manufacturer's Field Service:** A factory-trained service technician is required to inspect, test, and adjust components, assemblies, and equipment installations, including making final connections and programming.

B. **Warranty:** Security integrators shall provide a minimum one-year warranty from the time of project completion. This does not include manufacturer warranties.

C. Tests and Inspections:

- 1. **Inspection:** Verify with the Physical Security Office that camera views are acceptable.
- 2. **Pretesting:**
 - a. Set zoom to full wide angle and aim camera at an object 50 to 75 feet (17 to 23 m) away. Adjust until image is in focus from full wide angle to full telephoto, with the filter in place.
 - b. Set sensitivity of motion detection.
 - c. Current camera recording standards are available on the Physical Security Website. <https://www.police.psu.edu/design-standards>

Commented [SK1]: I don't know if this is fitting here or not, but where do we call out what settings we want them to apply to the cameras in Victor?

4.5 **CLEANING**

A. Clean installed items using methods and materials recommended in writing by manufacturer.

B. Immediately prior to project completion, clean video-surveillance-system components, including camera-housing windows, and lenses.