



Alvin C. York Agricultural Institute Surveillance System Specifications

Statement of Procurement Need

York Institute is seeking a vendor to provide and install an internet protocol (“IP”) surveillance system at the York Institute campus. The IP surveillance system will be used to monitor and record the interior and exterior of the facilities. This will be a five (5) year contract.

York Institute currently has a mixture of analog cameras and DVRs. The existing thirteen cameras will need to be removed and replaced by the vendor selected through this ITB. The new system will need to be scalable to allow future growth and additions as needed.

Project Scope

1. Provide, install, and configure a fully functional IP surveillance system including all software, hardware, cameras, licenses, and accessories.
2. If software licenses are required, five years shall be included in proposal.
3. Conduct an in-person walkthrough and consult with the York Institute director of facilities management for exact camera placement and angles prior to installation. The awarded vendor shall contact Derwin Wright, director of facilities management, via email at dwright@yaidragons.com or via phone at (931) 200-9605 to schedule the walkthrough.
4. Provide basic system training to York Institute employees upon completion of installation. Training shall include in-person or virtual overview of equipment and written training manual.
5. The system shall utilize a network of CAT6 Ethernet cabling to be installed by the vendor. The vendor shall use plenum rated cable. Pathways will be established by the York Institute IT department, if needed.

6. All cables and terminations shall be labeled as machine-printed labels. All patch panels and faceplates shall be labeled with a York Institute-approved labeling scheme.
7. All cables and terminations shall be tied back to the server in the main building and labeled at all locations by the vendor. All labels shall be machine printed.
8. All cables shall terminate in an alphanumeric sequence at all termination locations. Random termination is not acceptable.
9. Wiring color codes shall be strictly observed, and terminations shall be uniform throughout. Identification markings and systems shall be uniform, and machine printed.
10. York Institute shall provide rack and patch panel space in the server room in an existing server cabinet and wiring distribution rack. Suitable rack mount hardware for the server and patch panels must be provided by the vendor.
11. Install in accordance with federal and local standards and manufacturers design and installation guidelines. The vendor shall submit complete parts list and part numbers along with bid and include cut sheets for hardware in the proposal.
12. Install cameras in the locations specified and connect to pre-installed CAT6 cabling. Cameras shall be adjusted for required field of view, lighting, and motion conditions.
13. Install the video management software ("VMS") on York Institute provided workstation or server. Center and perform all needed initial configuration of VMS and camera software including connection and licensing.
14. Install specified VMS client computers and monitors. Monitors shall be wall mounted with new hardware and existing hardware and equipment removed when new equipment is fully functional. Existing television display in control room shall be moved as required to provide ample space for new 50" displays.
15. Provide any necessary screws, anchors, clamps, tie wraps, distribution rings, wire molding, miscellaneous grounding and support hardware, etc., necessary to facilitate the installation.
16. All cameras and recorders must be Trade Agreements Act ("TAA") compliant.
17. A separate network shall be set up by the vendor to support cameras.
18. Configure the cameras and network video recorder ("NVR") upon completion of hardware installation.
19. Configure hardware so there is a sensor-based recording on the central monitoring display panel.
20. Configure motion-based recording on outdoor cameras.
21. Configure daytime/nighttime recording sensitivity.
22. Configure audio recording volume levels on indoor cameras.

23. Configure archival requirements to store for a minimum of fourteen (14) days.
24. Configure motion alert emails on selected cameras. The school's director of facilities management shall identify the specific cameras to be configured during the walkthrough that will be conducted prior to installation (see #3 of these specifications).
25. Configure 10 named user accounts, as determined by York Institute.
26. The vendor must be certified by product manufacturer. Certifications must be included in ITB response.
27. Three-year, on-site labor warranty for all the hardware and software repairs.
28. Five-year warranty on all parts and equipment.
29. The vendor shall be responsible for damage to any surfaces or work disrupted as a result of work, including the cost of repairing and painting.
30. Upon completion of installation, provide a spreadsheet to include location, description, camera model, camera IP, camera MAC address, patch panel location and switch port.

Equipment

Vivotek, Axis Communications, or equal. All cameras must be IP-POE, ONVIF.

Cameras

1. Thirty-seven (37), 4MP interior dome with dual exposure wide dynamic range ("WDR")
 - Minimum 4MP sensor
 - Built-in infrared LED illumination 30M with removable IR cut filter
 - Smart IR technology to avoid overexposure
 - True dual exposure - WDR PRO
 - Dynamic I frame for greater bandwidth savings
 - 3DNR
 - Defog
 - 114° horizontal field of view
2. Eight (8), 3MP indoor/outdoor rated panoramic 180°
 - Wall mount 180° panoramic view
 - Indoor/Outdoor rated
 - Day/Night
 - Must have min 3MP resolution
 - Must have dual exposure WDR PRO technology
 - Vandal-resistant IK10-rated

- Anti-ligature design
 - Built-in microphone
 - Preferred cybersecurity anti-virus on camera
3. Three (3), 12MP fisheye panoramic
 - Minimum 12MP sensor
 - Must have H.265 compression
 - Dynamic I frame for additional bandwidth savings
 - Dynamic frames per second for additional bandwidth savings
 - 360° panomorph view
 - Preferred cybersecurity anti-virus on camera
 4. Twenty (20), 4MP outdoor IP66 rated bullet with dual exposure WDR
 - Minimum 4MP sensor
 - Built-in IR LED illumination 30M with removable IR cut filter
 - Smart IR technology to avoid overexposure
 - True Dual Exposure - WDR PRO
 - Dynamic I frame for greater bandwidth savings
 - 3DNR
 - Defog
 5. Seven (7), 8MP outdoor IP66 rated bullet with dual exposure WDR
 - Minimum 8MP sensor
 - Outdoor IP66 rated housing
 - Built-in IR illuminators with distance of 50M
 - Day/Night
 - True Dual Exposure - WDR PRO
 - Dynamic I frame for greater bandwidth savings
 - Dynamic frames per second for additional bandwidth savings
 - Preferred cybersecurity anti-virus on camera
 6. Three (3), 2MP outdoor IP66 bullet with 94 MM lens and dual exposure WDR
 - Minimum 2MP sensor
 - Must have H.265 compression
 - Dynamic I frame for additional bandwidth savings
 - Must have 150M of IR
 - Dual exposure or WDR PRO technology
 - Electronic image stabilization
 - Focal length of 4.7-94 MM

1. Three (3), NVR/VMS server
 - Minimum of 32 channels on each
 - Preferred Linux operation for recording.
 - Viewable on Windows 10
 - Software to link all cameras together from workstation
 - Ability to have cell phone IOS and Android Apps
 - MAC client
 - Active directory integration capability
 - RAID 5 capability
 - Must include all license fees for 5 years and state additional fees for updates if required
 - Minimum of 16TB storage per 32 cameras on site.
2. VMS Client
 - Live monitoring, search, and playback of video
 - Support unlimited cameras from multiple NVRs
 - Support 10 simultaneous client connections to NVR
 - Windows 10 Professional Native OS support
 - Live view display of up to 64 channels per monitor
 - Ability to support four monitors on single workstation
 - Floor plan map with camera displayed
 - Motion based alarm management capability
 - Ability to search on time of day, day of week, motion detection or alarm condition
 - Ability to export recorded video in H.265, H.264 formats
 - Ability to limit user access based on individual camera
 - Ability to limit ability to export recorded video based on user account
 - Ability to live stream video & record at same time
 - Ability to customize camera display selection on monitors
 - Ability to limit user access to live feed based
 - Ability to automatically log into client application
 - Ability to automatically scroll through selected camera views
 - Ability to manually record based on hardware sensor input (door open/close)
3. Network and Switches (Vivotek, Trendnet, or equal)
 - Network must have gig backbone connecting all intermediate distribution frames (“IDFs”) to main distribution frames (“MDFs”)
 - IDF locations to be approved by York Institute
 - Must have managed switches layer two at head end

- Minimum 16TB memory per 32 cameras

Equipment Locations

Outdoor Locations

Location	Camera
Football Field Parking Lot	Four (4), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
Football Field	One (1), 3MP indoor/outdoor rated panoramic 180° Model CC8371-HV or equivalent
Football Field Grandstand	Three (3), 2MP outdoor IP66 bullet with 94 MM lens and dual exposure WDR Model IZ9361-EH or equivalent
Main Entry	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
North Drive	One (1), 8MP outdoor IP66 rated bullet with dual exposure WDR Model IB9391-EHT or equivalent
South Drive	One (1), 8MP outdoor IP66 rated bullet with dual exposure WDR Model IB9391-EHT or equivalent
Vocational Parking, Front	One (1), 8MP outdoor IP66 rated bullet with dual exposure WDR Model IB9391-EHT or equivalent
Cafeteria Courtyard	Three (3), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent

Location	Camera
Cafeteria Rear Door	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
Student Parking	Three (3), 8MP outdoor IP66 rated bullet with dual exposure WDR Model IB9391-EHT or equivalent
Senior Parking	One (1), 8MP outdoor IP66 rated bullet with dual exposure WDR Model IB9391-EHT or equivalent
Guidance Parking	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
Vocational Shop South	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8277-H or equivalent
Vocational Rear South	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
Vocational Rear Hole	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
ROTC/Mobiles	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
ROTC Rear West	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent

Location	Camera
ROTC Rear North	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB 8377-H or equivalent
Special Education/Science Canopy	One (1), 3MP indoor/outdoor rated panoramic 180° Model CC8371-HV or equivalent
Science/English Canopy	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
Science Front	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
English Drive East	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent
English Drive West	One (1), 4MP outdoor IP66 rated bullet with dual exposure WDR Model IB8377-H or equivalent

Indoor Locations

Location	Camera
Vocational Building, side entry hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, front entry hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent

Location	Camera
Vocational Building, shop entry hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, welding shop	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, auto mechanic shop	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, AG shop	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, trades shop	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, auto/wood hall 1	One (1), 4MP interior dome with dual exposure WDR Model IB8377-H or equivalent
Vocational Building, auto/wood hall 2	One (1), 4MP interior dome with dual exposure WDR Model IB8377-H or equivalent
Vocational Building, east stairwell	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Vocational Building, west stairwell	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent

Location	Camera
Vocational Building, welding hall	One (1), 4MP interior dome with dual exposure WDR Model IB8377-H or equivalent
Vocational Building, east welding hall	One (1), 4MP interior dome with dual exposure WDR Model IB8377-H or equivalent
Vocational Building, west restroom hall	One (1), 4MP interior dome with dual exposure WDR Model IB8377-H or equivalent
Main Entrance, reception	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Main Entrance, lobby	One (1), 12MP fisheye panoramic Model FE9191 or equivalent
Admin Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Assistant Principal/Director of Operations' Office	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Cafeteria	Two (2), 12MP fisheye panoramic Model FE9191 or equivalent
Gym Lobby	Two (2), 4MP interior dome with dual exposure WDR FD8179-H or equivalent

Location	Camera
Gym	Four (4), 3MP indoor/outdoor rated panoramic 180° Model CC8371-HV or equivalent
ROTC Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
ROTC Drill Room	Two (2), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
ROTC Yoga Room	Two (2), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Cafeteria/Library Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Library	Two (2), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Boiler/Band Hall	One (1), 3MP indoor/outdoor rated panoramic 180° Model CC8371-HV or equivalent
Boiler Room Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
English Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent

Location	Camera
Guidance Room	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Math Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Math/Admin Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Auditorium	One (1), 3MP indoor/outdoor rated panoramic 180° Model CC8371-HV or equivalent
Special Education Room	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Science Building Entry	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
Science Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
English Building Entry	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent
English Hall	One (1), 4MP interior dome with dual exposure WDR Model FD8179-H or equivalent

Vendor Qualifications

These requirements are provided as a minimum level of qualification. Any additional or more stringent requirements by the specified manufacturer chosen must be met.

1. Demonstrate sufficient capacity, resources, and experience to install, maintain, and service the IP surveillance systems.
2. Employ staff that have been trained by the camera and network video recorder manufacturers.
3. Minimum of five years of experience working with surveillance systems of similar type and size.
4. Utilize qualified personnel for all drawings, testing verifications, and quality control.
5. Before commencing work, the successful bidder shall be required, at their own expense, to furnish the school within ten (10) days of notification of award with certificates of insurance policies of commercial general liability or comprehensive and personal liability insurance. Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent. All required insurance shall be in force throughout the term of this Contract. Failure to provide or any lapse in required insurance may be cause for immediate cancellation of award of this contract.
6. The vendor must ensure that all individuals providing on-site work under the Contract have a satisfactory background check prior to being assigned for service at York Institute. This includes an FBI and TBI check, in accordance with T.C.A. § 49-5-413(d) (1) (A). A satisfactory background check for the purposes of this Contract means the check has no indications for offenses as outlined in T.C.A. § 49-5-413(d)(3). Clearance letters from the TBI for each driver shall be required prior to the first date of service, and York Institute reserves the right to request documentation of background checks at any time. The vendor shall be solely responsible for all costs associated with the background check.