



REQUEST FOR PROPOSAL

RFP #16-1008

Video Surveillance System for Justice Center/Public Safety Expansion

Bids Due: March 1, 2016

1. GENERAL INFORMATION

- 1.1 The Catawba County Justice Center is currently being expanded with the addition of a new South, North, and Center sections to the facility called the Justice Center/Public Safety Expansion (JSPS). The County currently has the OnSSI Ocularis 5.1 system with Axis Communication cameras installed for the video surveillance system. This specification is for the procurement of additional CCTV cameras, associated cabling, power supplies or POE injectors, camera accessories and mounts, installation, integration and test. These materials shall become part of the existing Catawba County video surveillance system. The vendor provided materials shall be fully functional with the currently installed OnSSI Ocularis video management system and Axis Communications CCTV cameras. Vendors are hereby advised that each camera supplied under this specification must also have the license provided for the Ocularis system.
- 1.2 The Vendors submitting a proposal agree to install equipment according to the building construction schedule and to hold pricing firm included in the proposal until equipment is installed and accepted.

Construction of the JCPS Expansion is expected to be completed February 2017.

- 1.3 The proposals are due by 3:00 p.m., March 2, 2016. Proposals should be delivered to:

Debbie Anderson, Purchasing Manager
Catawba County
PO Box 389 (mailing address)
100A South West Blvd., (physical address)
Newton, NC 28658

One (1) hard copy and (1) electronic version (cd or flashdrive) of the RFP response must be submitted.

- 1.4 Questions concerning this proposal should be directed in writing to Debbie

Anderson via email at danderson@catawbacountync.gov. Questions are due by February 24, 2016. All addenda will be posted on the County's WEB site at www.catawbacountync.gov - Services – Purchasing – Bid Notices.

- 1.5 Catawba County reserves the right to reject any and all proposals and to waive any informalities as may be permitted by law.
- 1.6 This solicitation is for the purchase of information technology goods and services and shall be awarded as per North Carolina General Statute 143-129.8. The proposals received shall remain confidential until the contract is awarded; therefore there will not be a public bid opening. The contract shall be awarded to the company that submits the best overall proposal.
- 1.7 No vendor which has submitted a proposal pursuant to this RFP shall have the right to assign its submitted proposal or, if selected, the contract without the prior written consent of the County. The County's refusal to consent to an assignment shall not entitle the assigning vendor to cancel the submitted proposal and/or contract if fully executed, or give rise to any claim for damages against the County.
- 1.8 The successful vendor shall provide proof of insurance and name Catawba County as additionally insured.
- 1.9 Catawba County is a smoke free campus.

SPECIFICATIONS

2.1 DEFINITIONS

AGC: Automatic gain control.

BNC: Bayonet Neill-Concelman - type of connector.

B/W: Black and white.

CCD: Charge-coupled device.

FTP: File transfer protocol.

IP: Internet protocol.

LAN: Local area network.

MPEG: Moving picture experts group.

NTSC: National Television System Committee.

ONVIF: Open Network Video Interface Forum

PC: Personal computer.

PSIA: Physical Security Interoperability Alliance

PTZ: Pan-tilt-zoom.

RAID: Redundant array of independent disks.

SIA: Security Industry Association

TCP: Transmission control protocol - connects hosts on the Internet.

TVAC: SIA CCTV Access Control Standard

UPS: Uninterruptible power supply.

WAN: Wide area network.

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- 2.2 The term “Provided By Others (PBO)” shall refer to material and work which is not in the contract and for which the Contractor is not responsible except as otherwise detailed in the specifications, plans or contract documents
- 2.3 The term “Owner Furnished Equipment (OFE)” shall refer to material or equipment that shall be provided by the “Owner” of the facility. The Contractor shall be responsible for installation and integration of this equipment as detailed herein
- 2.4 The term “Customer” or “Owner” shall refer to the owner of the facility for which the work and materials are being provided.
- 2.5 The term “shall” is mandatory; the term “will” is informative; the term “should” is advisory; and the term “provide” means to furnish and install.
- 2.6 The term “Installer or Security or Video Surveillance Contractor” refers to the successful vendor/installer or subcontractor if under the General Contractors contract vehicle.
- 2.7 The term “Consultant” refers to the agency or firm that is contracted with the Owner to provide engineering design and contract inspection services for all security video equipment and materials to be utilized or specified in these contract documents.
- 2.8 The term “Bidder” refers to a qualified Contractor or firm intending to tender a bid on the systems described herein.
- 2.9 The term “Construction Manager” or “GC” refers to the representative responsible for the general building construction and on-site coordination and management of all subcontractors.

3.1 PERFORMANCE REQUIREMENTS

A. Design Standards

The customer's goal is to have available the most commonly used Video Surveillance equipment as a cohesive system. Therefore, part of the integration efforts for successfully implementing the Video Surveillance systems shall include:

Installing the system in a manner that will comply with B1CSI, IEEE, PSIA, SIA and routing all video and control cabling elements of the final design in a subtle, unobtrusive manner to maintain the architectural and visual integrity of the building.

It is the responsibility of the contractor to identify plenum and riser conditions for correct cable selection. The County shall not be responsible for any price changes or increases due to the inability of the Respondent to take plenum or riser areas into account.

Except where plenum cable is used above finished ceilings, it is required that cabling for video line inputs, wideband RGBHV video, and other A/V-related cabling be routed inside the comprehensive system of conduit and ladder rack/cable tray indicated on Drawings and installed by the "GC". Floor and wall boxes shall serve as the primary interface points to the A/V and Video Surveillance systems.

Provide and install security covers on any electronics with front panel controls that should not need to be adjusted after initial set-up. All components permanently mounted to rack rail systems shall be installed with industry accepted security screws.

No "box" type cameras and associated mounts are to be bid/used for this procurement.

B. Performance Standards

All cameras provided shall be digital IP cameras and shall use either CAT5E or CAT 6 cable for data transmission and/or control signals

Performance Test Signal Paths: The signal paths for the above Performance Standards shall be as follows:

Video: From all source inputs (for cameras, computers, video tape units, DVD Players, etc.) through all distribution amplifiers (VDA), processors, switchers, routers, etc., to all signal destinations.

Remote Control Standards: As a minimum, the remote control system for each area shall be programmed to include the following:

- PTZ Presets - Activate a minimum of three (3) presets for each installed remote controllable video camera.
- Full function control of all source components, display units, processing and switch-

ing electronic devices.

- Automatic System Shutdown
- Camera or electronic device IP Address
- Per function status feedback indicating active/passive modes of operation and current settings.

4.1 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include dimensions and data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For video surveillance components and cameras, include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 2. Functional Block Diagram: Show single-line interconnections between components for signal transmission and control. Show cable types and sizes.
 - 3. UPS: Sizing calculations.
 - 4. Wiring Diagrams: For power, signal, and control wiring.
- C. Equipment List: Include every piece of equipment by model number, manufacturer, serial number, location, and date of original installation. Add pretesting record of each piece of equipment, date of test, set points of adjustments, name and description of the view of preset positions, description of alarms, and description of unit output responses to an alarm.

5.1 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.
- B. Warranty: Sample of special warranty.

6.1 QUALITY ASSURANCE

Demonstrate at least three (3) years of experience in the fabrication, programming, assembly, installation, integration and testing cameras and control systems of similar magnitude and quality as specified for this contract. The Contractor shall submit documentation to the effect with the bid return, including three (3) references (below).

References: Furnish no less than three (3) references for installations of similar size (dollar amount and quantity of floor space receiving integrated technology) and scope, performed throughout the Continental United States within the last three years. At a

minimum, reference data shall include the reference company, institute or agency name, contact person's name and title, telephone number, address, email address and detail project description. Additionally, the reference data shall provide the name of the person that is in charge of the day-to-day operation of the audio-visual installation, with phone number.

7.1.1 PROJECT CONDITIONS

- A. Environmental Conditions: Capable of withstanding the following environmental conditions without mechanical or electrical damage or degradation of operating capability:
1. Control Station: Rated for continuous operation in ambient temperatures of 25 to 110 deg F and a relative humidity of 20 to 90 percent, non-condensing.
 2. Interior, Controlled Environment: System components, except central-station control unit, installed in air-conditioned interior environments shall be rated for continuous operation in ambient temperatures of 32 to 120 deg F dry bulb and 20 to 90 percent relative humidity, non-condensing.
 3. Interior, Uncontrolled Environment: System components installed in non-temperature-controlled interior environments shall be rated for continuous operation in ambient temperatures of 0 to 120 deg F dry bulb and 10 to 90 percent relative humidity, non-condensing. Use NEMA 250, or Type 3R enclosures.
 4. Exterior Environment: System components installed in locations exposed to weather shall be rated for continuous operation in ambient temperatures of -4 to plus 140 deg F dry bulb and 10 to 95 percent relative humidity, condensing. Rate for continuous operation when exposed to rain as specified in NEMA 250, winds up to 85 mph and snow cover up to 14 inches thick. Use NEMA 250, Type 3, Type 3R, Type 4 or Type 4X enclosures.
 5. Hazardous Environment: System components located in areas where fire or explosion hazards may exist because of flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers shall be rated, listed, and installed according to NFPA 70.
 6. Security Environment: Camera housing for use in high-risk areas where surveillance equipment may be subject to physical violence.

8.1 DELIVERY, STORAGE, AND HANDLING

The Contractor shall supply, transport, deliver, unload, move to the installation location, unpack, place, assemble, secure or mount, connect and install all equipment required to complete the installation of the audio-visual system. The Contractor shall be responsible for transportation, delivery, and on-site stage of the system's equipment and materials. The Contractor shall be responsible for all transportation of personnel, tools, and all required support or test equipment to and from the site.

The Customer/Owner's acknowledgement of delivery of goods or materials shall not constitute

Acceptance (partial or otherwise) and shall not diminish the Contractor's obligations as specified in the contract documents.

9.1 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of cameras, equipment related to camera operation, and control-station equipment that fail in materials or workmanship within specified warranty period.

1. Warranty Period: One year from date of Substantial Completion.

10.0 SYSTEM REQUIREMENTS

A. The complete Security CCTV Video Surveillance system shall be IP based. Any device that only outputs an analog signal and makes use of an encoder that provides H.264 IP output to the network is not acceptable for this project. All equipment supplied to satisfy the requirements of this section shall be capable of interfacing and working with the OFE existing system OCULARIS CS, Version 5.1, manufactured by OnSSI. If any equipment and/or materials herein are not compatible with the OnSSI system, the equipment shall be replaced with a similar equivalent product that is compatible with the OnSSI system. Each camera provided for this procurement shall also provide a license for the Ocularis system.

System shall provide high-quality delivery and processing of IP-based video, audio, and control data using standard Ethernet-based networks. The System shall have seamless integration of all video surveillance and control functions. Graphical user interface software shall manage all IP-based video matrix switching and camera control functions, two-way audio communication, alarm monitoring and control, and recording and archive/retrieval management. IP system shall also be capable of integrating into larger system environments.

System design shall include all necessary compression software for high-performance, dual-stream, H.264, MPEG-2, MPEG-4 video. Units shall provide connections for all video cameras, camera PTZ control data, bidirectional audio, discreet sensor inputs, and control system outputs.

All camera signals shall be compressed, encoded, and delivered onto the network for processing and control by the IP video-management software.

Encoder/decoder combinations shall place video, audio, and data network stream that can be managed from multiple workstations on the user's LAN or WAN.

All system interconnect cables, workstation PCs, PTZ joysticks, and network intermediate devices shall be provided for full performance of specified system.

All bidders should refer to the list of locations and camera models at the end of this specification.

- B. Video-signal format shall comply with NTSC standard, composite interlaced video. Composite video-signal termination shall be 75 ohms.

- C. Tamper Protection: Tamper switches on enclosures, control units, pull boxes, junction boxes, cabinets, and other system components shall initiate a tamper-alarm signal when unit is opened or partially disassembled. Control-station, control-unit alarm display shall identify tamper alarms and indicate locations.

- D. All cameras, equipment and materials shall be connected and shall function as specified here-in with the customer's current CCTV video recording and network system.

11.1 STANDARD IP CAMERAS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following manufacturer offering products that shall be incorporated into the Work include, but are not limited to, the following:

- B. Basis-of-Design Product: Subject to compliance with requirements, provide Axis Communications or equivalent IP cameras as described below.

- 1. Mini Fixed Dome HD (1080p) Camera: Assembled and tested as a manufactured unit, containing dome assembly and camera.

- a. Comply with UL, FCC and CE approvals.
 - b. Pickup Device: 1/2.7 inch progressive scan RGB CMOS, 1920 x 1080 @ 30fps.
 - c. Lens: 2.8mm, F2.8 Fixed with an angle of view of 118 (Horizontal) degrees
 - d. Video Compression: H.264, Mpeg4, Mjpeg
 - e. Ingress Protection: IP42 Water & Dust resistant.
 - f. Vandal Proof: IEC/EN 62262 IK08
 - g. Three-way Axis adjustment and digital PTZ.
 - h. Video motion detection, Active tampering alarm, intelligent video and edge storage events.
 - i. Input Voltage: PoE, 2.7 Watt Maximum, Class 1
 - j. Memory capacity (not included with camera): 256Mb Ram, 128Mb Flash
 - k. Enclosure shall be IK08 impact-resistant, polycarbonate/ABS casing and not exceed 0.44 pound
 - l. Size: 4" diameter with a maximum height of 2".
 - m. Communications over RJ-45 Ethernet
 - n. Axis Communications: M3005-V or equal

2. IP PTZ Dome Color Camera: Assembled and tested as a manufactured unit, containing dome assembly, color camera, motorized pan and tilt, zoom lens, and receiver/driver.
- a. Comply with UL, FCC and CE approvals
 - b. Pickup Device: CCD, 1/4 inch, 704(H) by 480(V) resolution
 - c. Lens: f=3.8 - 46mm f1.6 - 2.7
 - d. Frames per second: 30 FPS (60Hz)
 - e. Optical zoom - 12x and 4x digital zoom, total 48x zoom
 - f. Minimum Illumination: color - 1 lux @ 30 IRE F1.6 // B/W - 0.03lux @ 30 IRE F1.6
 - g. Autofocus, automatic day/night, horizontal angle of view 51.6degrees - 4.4degrees
 - h. Compression Type: H.264 (MPEG4 Part 10) & Motion JPEG
 - i. Protocol supported: TCP/IP, HTTP, DHCP, DNC, RPT/RTCP, IPv4/v6
 - j. The IP PTZ camera shall provide video motion detection, Audio detection, alarm input/outputs, PTZ, and SD card local storage (128Mb Flash).
 - k. Pan and Tilt: Direct-drive motor, 360-degree rotation angle, and 180-degree tilt angle. Pan-and-tilt speed shall be controlled by operator.
 - l. Image settings: Manual shutter time, compression, brightness, sharpness, white balance, exposure control,, backlight compensation, fine tuning of behavior at low light, rotation, aspect ratio correction, text and image overlay, image freeze on PTZ.
 - m. The unit shall have IP rated protection against dust and water ingress.
 - n. Power shall be 20-24VAC @ max 23.4 VA, 24-34 VDC @ max 15.6W and/or PoE IEEE802.3af Class 3 and weight no more than 2.6 pounds.
 - o. Axis Communications: P5512-E or equal
3. Standard Definition PTZ Color Dome Camera: Assembled and tested as a manufactured unit, containing dome assembly, color camera, motorized pan and tilt, zoom lens, and receiver/driver.
- a. Comply with UL, FCC and CE approvals.
 - b. Pickup Device: 1/3inch Progressive scan CCD, 1280(H) by 720(V) resolution.
 - c. True day/night with built-in automatically removable Infrared-cut filter
 - d. H.264 Main and baseline profiles (MPEG 4 Part 10) and Motion JPEG
 - e. Lens: f=4.4 - 132mm, F1.4 - 4.6, autofocus, Horizontal angle of view: 62.9 degrees - 2.2 degrees
 - f. Frames per second: 30 FPS @ 60Hz all resolutions
 - g. Casing: IP52 rated metal (aluminum), acrylic (PMMA) clear dome.
 - h. Focal Length: 4.7 ~ 84.6mm, Varifocal 18X zoom.
 - i. Aperture: f1.6 with Auto Iris
 - j. Pan and Tilt: Direct-drive motor, 360-degree rotation angle, and 180-degree tilt angle. 256 preset positions.
 - k. Zoom: 30x Optical zoom and 12x digital zoom, total of 360x zoom.
 - l. Image settings: Wide dynamic range (WDR), Electronic image stabilization, Automatic defog, Manual shutter time, Color, compression, brightness, sharpness, white balance, exposure control,, backlight compensation, fine

- tuning of behavior at low light, rotation, aspect ratio correction, text and image overlay, 32 individual 3D privacy masks, Image freeze on PTZ.
 - m. The unit shall provide two way audio and audio compression.
 - n. Protocol supported: TCP/IP, HTTP, DHCP, DNC, RPT/RTCP, IPv4/v6, HTTPS, CIFS/SMB, SMTP, etc.
 - o. The IP PTZ camera shall provide video motion detection, Audio detection, alarm input/outputs, PTZ, and SD/SDHC/SDXC card local storage. In addition the camera shall provide Autotracking, Active Gatekeeper, shock detection, Fan and external input.
 - p. Power shall be 100-120VAC max 37W, 20-24VAC max 27VA, 24-34VDC max 19Watts, and/or PoE IEEE 803.3at max 30W w high PoEMidspan, and shall weight no more than 5.7 pounds.
 - q. Axis Communications: Q6044-E or equal.
4. Standard Definition, Varifocal, Color Fixed Dome Camera: Assembled and tested as a manufactured unit, containing dome assembly, color camera, zoom lens, mounting bracket, and receiver/driver.
- a. Pickup device: 1/2.8inch Progressive Scan RGB CMOS 1.3 Megapixel 1280(H) X 960(V) resolution.
 - b. True Day/Night with automatically removable IR cut filter
 - c. H.264 Main and baseline profile (MPEG4 Part 10/AVC) and Motion JPEG
 - d. ONVIF compliant and IK10 vandal resistant, exterior use IP-52 rated (dust/water).
 - e. Digital PTZ, 30FPS @ 60Hz
 - f. Camera angle adjustment: Pan $\pm 180^\circ$, Tilt 90° , Rotation $\pm 95^\circ$
 - g. Image settings: Color, compression, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, WDR - dynamic contrast, text and image overlay, privacy masks, Mirroring of images.
 - h. Edge storage: microSD/microSDHC/microSDXC slot supporting up to 64Gb card.
 - i. Lens: Varifocal, remote focus and zoom, P-IRIS control
 - j. Audio support (2-way).
 - k. The IP fixed camera shall provide video motion detection, audio detection, alarm input/outputs, SD card local storage (up to 32 GB).
 - l. Protocol Support: TCP/IP, HTTP, DHCP, DNC, RPT/RTCP, IPv4/v6, HTTPS, CIFS/SMB, SMTP, etc.
 - m. Camera Housing: Weatherproof and IP66, with internal heater/blower for 24VAC operation @ 500mA.
 - n. Power shall be Power over Ethernet (PoE) Class 3, max 8.4Watt
 - o. Camera weight shall not exceed 1.7 pounds.
 - p. Axis Communications: P3214-VE or equal.
5. Standard Definition, 2-way Audio, Remote Focus and Zoom, Color Fixed Dome Camera
- a. Pickup device: 1/4 inch Progressive scan RGB CMOS

- b. Lens: Varifocal remote zoom and focus, DC-iris, IR Corrected, 3.3-12mm, 70°-20° view
- c. Day/Night: automatically removable IR cut filter
- d. Camera angle adjustment: Pan 360°, tilt 170°, rotation 340°
- e. Video Compression: H.264 baseline (MPEG 4 Part 10), Motion JPEG
- f. Image Settings: Color, compression, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, WDR - dynamic contrast, fine tuning of behavior at low light, text and image overlay, privacy masks, Mirroring of images.
- g. Audio streaming: Two way
- h. Audio input/output: External microphone input or line input, line level output, and built-in microphone that can be disabled.
- i. Protocol Supported: TCP/IP, HTTP, DHCP, DNC, RPT/RTCP, IPv4/v6, HTTPS, CIFS/SMB, SMTP, RTP, RTCP, NTP, ICMP, etc.
- j. Intelligent Video: Video motion detection, active tampering alarm, audio detection, video and audio recording to edge storage.
- k. Edge storage: SD/SDHC memory card slot.
- l. Camera housing: Aluminum inner camera module w/encapsulated electronics, Tamper resistant polycarbonate casig and polycarbonate transparent cover. IP-66 impact resistant aluminum casing.
- m. Power: Power over Ethernet IEEE 802.3af, class 3
- n. Weight: 3.1 pounds - Diameter 7 inches, height of 4.7 inches.
- o. Axis Communications: P3344-VE or equal

12.1 CAMERA MOUNTS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following manufacturer offering products that shall be incorporated into the Work include, but are not limited to, the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide Axis Communications or equivalent camera mounts as described below.
 - 1. Mini Fixed Dome HD Camera mount - Provide either the Axis T94B01M/T94F01M J-Box/Gang Box plate and/or the Axis T94B01S White/Black Mounting bracket providing 1/4"-20 UNC thread as directed by owner for each location.
 - 2. IP PTZ Dome Color Camera mount - Provide either the Axis P5512 drop ceiling mount (ships at no charge with camera) or as directed by owner, the Axis P5512-E Wall mount (additional cost). If required, the Axis T91A Pendant Kit for other mounting types is available at additional cost.

3. Standard Definition PTZ Color Dome Camera mount - Standard exterior wall mount T91A and/or the T91B62 Parapet mount that includes the T94A01D pendant kit and T91A6 pipe seal.
4. Standard Definition, Varifocal, Color Fixed Dome Camera mount is part of the camera. Add required conduit adaptor if required for this unit.
5. Standard Definition, 2-way Audio, Remote Focus and Zoom, Color Fixed Dome Camera mount is part of the camera assembly.

13.1 SIGNAL TRANSMISSION COMPONENTS

- A. Cable: Coaxial cable elements have 75-ohm nominal impedance.
- B. Video Surveillance Coaxial Cable Connectors: BNC type, 75 ohms.
- C. Cable shall be plenum or riser rated and marked if any section is installed in a plenum or riser condition. It is the responsibility of the contractor to identify plenum and riser conditions for correct cable selection.
- D. Ethernet/IP cabling: CAT 6 UTP with standard RJ-45 connectors.

14.0 EXECUTION

14.1 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 installation.
- B. Examine roughing-in for LAN, WAN, and IP network before device installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

14.2 WIRING

- A. Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems."
- B. Wiring Method: Install cables in raceways unless otherwise indicated.
 1. Except raceways are not required in accessible indoor ceiling spaces and attics.
 2. Except raceways are not required in hollow gypsum board partitions.

3. Conceal raceways and wiring except in unfinished spaces.

C. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.

D. Splices, Taps, and Terminations: For power and control wiring, use numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

E For LAN connection (copper) communication wiring, no splicing shall be allowed. All LAN (IP) cabling shall be run point to point between the demarcation points. Fiber optic cabling shall be allowed to be spliced with the proper splice materials as specified by the cable manufacturer and approved prior to splicing by the owner. All documentation shall describe the exact location of all splice points in the fiber optic cable.

F. Grounding: Provide independent-signal circuit grounding recommended in writing by manufacturer.

15.0 VIDEO SURVEILLANCE SYSTEM INSTALLATION

A. Install cameras and infrared illuminators level and plumb.

B. Install cameras with 84-inch minimum clear space below cameras and their mountings. Change type of mounting to achieve required clearance.

C. Set pan unit and pan-and-tilt unit stops to suit final camera position and to obtain the field of view required for camera. Connect all controls and alarms, and adjust.

D. Install power supplies, PoE Injectors, and other auxiliary components at control points or stations unless otherwise indicated.

E. Install tamper switches on components indicated to receive tamper switches, arranged to detect unauthorized entry into system-component enclosures and mounted in self-protected, inconspicuous positions.

F. Avoid ground loops by making ground connections only at the control station.

1. For 12- and 24-V dc cameras, connect the coaxial cable shields only at the monitor end.

G. Identify system components, wiring, cabling, and terminals according to Section 260553 "Identification for Electrical Systems."

16.0 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Owner shall engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

B. Perform tests and inspections.

1. Manufacturer's Field Service: Owner shall engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

C. Tests and Inspections:

1. Inspection: Verify that units and controls are properly installed, connected, and labeled, and that interconnecting wires and terminals are identified.

2. Pretesting: Align and adjust system and pretest components, wiring, and functions to verify that they comply with specified requirements. Conduct tests at varying lighting levels, including day and night scenes as applicable. Prepare video-surveillance equipment for acceptance and operational testing as follows:

- a. Prepare equipment list described in "Informational Submittals" Article.
- b. Verify operation of auto-iris lenses.
- c. Set back-focus of fixed focal length lenses. At focus set to infinity, simulate nighttime lighting conditions by using a dark glass filter of a density that produces a clear image. Adjust until image is in focus with and without the filter.
- d. Set back-focus of zoom lenses. At focus set to infinity, simulate nighttime lighting conditions by using a dark glass filter of a density that produces a clear image. Additionally, set zoom to full wide angle and aim camera at an object 50 to 75 feet away. Adjust until image is in focus from full wide angle to full telephoto, with the filter in place.
- e. Set and name all preset positions; consult Owner's personnel.
- f. Set sensitivity of motion detection.
- g. Connect and verify responses to alarms.
- h. Verify operation of control-station equipment.

3. Test Schedule: Schedule tests after pretesting has been successfully completed and system has been in normal functional operation for at least 14 days. Provide a minimum of 20 days' notice of test schedule.
 4. Operational Tests: Perform operational system tests to verify that system complies with Specifications. Include all modes of system operation. Test equipment for proper operation in all functional modes.
- D. Prepare test and inspection reports.

17.0 ADJUSTING

- A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to three visits to Project during other-than-normal occupancy hours for this purpose. Tasks shall include, but are not limited to, the following:
1. Check cable connections.
 2. Check proper operation of cameras and lenses. Verify operation of auto-iris lenses and adjust back-focus as needed.
 3. Adjust all preset positions; consult Owner's personnel.
 4. Recommend changes to cameras, lenses, and associated equipment to improve Owner's use of video surveillance system.
 5. Provide a written report of adjustments and recommendations.

18.0 CLEANING

- A. Clean installed items using methods and materials recommended in writing by manufacturer.
- B. Clean video-surveillance-system components, including camera-housing windows, lenses, and monitor screens.
- C. Clean debris and packaging upon completion of installation.

PROPOSAL FORM

RFP #16-1008

Video Surveillance

Proposal of _____, a corporation licensed to do business in the State of North Carolina is shown on the following cost summary sheets.

Vendor hereby attests by signature that he/she has read and will comply with all provisions of this entire document including Addenda Numbers _____.

Unit pricing is required and Catawba County reserves the right to add or delete quantities at the same pricing if needed.

All models are Axis Communications or equivalent.

<u>Model</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total</u>
P3124-VE	_____	5	_____
M3005-V	_____	49	_____
P3224-LVE	_____	3	_____
P3364-VE (12mm)	_____	4	_____
P3364-VE (6mm)	_____	4	_____
Total of all equipment			\$ _____
License cost per Unit			\$ _____
Total License Cost			\$ _____

Installation for all Equipment \$ _____

Other _____ \$ _____

Submitted by:

(Signature/Seal of Officer)

Company Name

CORPORATE SEAL

Address

Phone

Email

Signature/Title

Date

INTENT TO BID #16-1008

Please fax this form to ensure receipt of any addenda issued. **All addenda will be published on our WEB site under Bid Notices at www.catawbacountync.gov**

Please email the completed attached document to Debbie Anderson, Purchasing Manager two weeks before the bid due date (danderson@catawbacountync.gov)

Name: _____ Title _____

Organization: _____

Address: _____

E-Mail Address: _____

Phone Number: _____

Fax: _____

Authorized Signature: _____ Date: _____

Please check all that apply:

_____ We **do** intend to submit a proposal for Catawba County RFP #06-1008 Video Surveillance

_____ We **do not** intend to submit a proposal for Catawba County RFP #06-1008.

_____ I did not receive a notice from Catawba County, please add me to Catawba County's database.

_____ Please delete me from Catawba County's database.

Name: _____ Title _____

Plan	Level	Location	Reference	Model	Qty	Notes
TY001	Roof		TA500B-3	P3364-VE	4	12mm lens
TY001	Roof		TA500B-3	P3364-VE	3	6mm lens
TY001 Total						7
TY100A	Basement	Tunnel	TA500A-1c	P3214-VE	5	
TY100A	Basement	Inmate Elevator	TA500A-1c	M3005-V	2	
TY100A	Basement	B001	TA500A-1c	M3005-V	2	
TY100A	Basement	B003	TA500A-1c	P3224-LVE	2	
TY100A	Basement	B012	TA500A-1c	P3224-LVE	1	
TY100A	Basement	Wall	TA500B-3	P3364-VE	1	6mm lens
TY100A Total						13
TY101A-1	1 South		1202 TA500A-1c	M3005-V	2	
TY101A-1 Total						2
TY101C-1	1 Central		1002 TA500A-1c	M3005-V	5	
TY101C-1	1 Central		1007 TA500A-1c	M3005-V	3	Includes 2 in elevators
TY101C-1	1 Central	Breezway	TA500A-1c	M3005-V	1	
TY101C-1 Total						9
TY101B-1	1 North	Corridor 1070	TA500A-1c	M3005-V	1	
TY101B-1	1 North		1045 TA500A-1c	M3005-V	2	Secure elevator vestibule
TY101B-1	1 North		1072 TA500A-1c	M3005-V	2	
TY101B-1	1 North		1073 TA500A-1c	M3005-V	1	
TY101B-1	1 North		1048 TA500A-1c	M3005-V	1	
TY101B-1	1 North		1042 TA500A-1c	M3005-V	1	
TY101B-1	1 North		1092 TA500A-1c	M3005-V	2	
TY101B-1	1 North	Corridor 1060	TA500A-1c	M3005-V	1	
TY101B-1 Total						11
TY102A-1	2 South	Corridor 2001B	TA500A-1c	M3005-V	2	
TY102A-1	2 South		2140 TA500A-1c	M3005-V	1	
TY102A-1 Total						3
TY102C-1	2 Central		2001 TA500A-1c	M3005-V	2	
TY102C-1	2 Central		2007 TA500A-1c	M3005-V	1	
TY102C-1	2 Central	Corridor 2104	TA500A-1c	M3005-V	1	Outside DA door
TY102C-1 Total						4
TY102B-1	1 North		2014 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2017 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2015 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2018 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2013 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2064 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2065 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2067 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2069 TA500A-1c	M3005-V	1	
TY102B-1	1 North		2068 TA500A-1c	M3005-V	1	
TY102B-1	1 North	Corridor	TA500A-1c	M3005-V	1	Near 2029
TY102B-1	1 North	Corridor	TA500A-1c	M3005-V	1	Near rear stairs
TY102B-1	1 North	2061B	TA500A-1c	M3005-V	1	Near old JC
TY102B-1	1 North	2061A	TA500A-1c	M3005-V	1	
TY102B-1	1 North		2027 TA500A-1c	M3005-V	1	
TY102B-1	1 North	Outside 2042	TA500A-1c	M3005-V	1	
TY102B-1 Total						16

Total

65

65



Project
Catawba County Justice
Center + Public Safety
Center Expansion

Prepared For
Catawba County

Contract No: 111.6473.02

LITTLE
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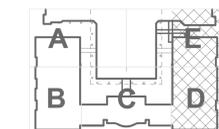


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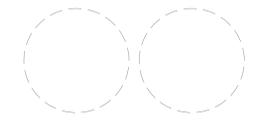
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CONSULTING, LLC

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Key Plan



Professional Seals



No. Issue Description YYYY-MM-DD

01	SD COST ESTIMATE	02-15-2012
02	DD CODE REVIEW	2012-08-09
03	DD ESTIMATE	2012-08-31
04	50% CD SET	2012-12-18
05	95% CD PROGRESS SET	2013-22-02
06	CONSTRUCTION DOCUMENTS	2013-03-15
07	BID DOCUMENTS	2013-08-12

No. Revision Description YYYY-MM-DD

29	OWNER TECHNOLOGY REVISION	2015-06-29
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Drawn by CLC Reviewed by ALK

Project No 111.6473.02

Sheet Title
**SECURITY CCTV PLAN
LEVEL 1 NORTH.**

Sheet Number
TY101B-1

