

Invitation for Bid: JAIL CAMERA EXPANSION 2012 Date Issued: 2-10-12

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, MARCH 20, 2012, AT 2:00 P.M. LOCAL TIME.

**Specification Contact:** 

LT. DAVE MARSHAK

Department of the Sheriff

636-797-5318

**Contract Contact**:

**VICKIE PRATT** 

Department of Administrative Services

636-797-5382

### SAMPLE ENVELOPE

Mail (3) Three Complete Copies With Vendor And Bid Information As Shown In Sample: VENDOR NAME VENDOR ADDRESS

CONTACT NUMBER DEPARTMENT OF THE COUNTY CLERK

JEFFERSON COUNTY MISSOURI
729 MAPLE ST / PO BOX 100

HILLSBORO MO 63050-0100

SEALED BID: (BID NAME)

**Contract Term:** 

To be determined upon Approval by the County Council and the County Executive.

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Vendor Information:

Company Name

Authorized Agent (Print)

Address

Signature

City/State/Zip Code

Title

Telephone #

Date

Tax ID #

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### 1.0 BID REOUIREMENTS

Bidder shall initial all pages and return where the Bid Document denotes

"BIDDER"S INITIALS:

### 1.1 BID SUBMISSION:

Submit bid form in triplicate (three copies) with specification pages, if applicable. No facsimile bids shall be accepted and shall be rejected. The Vendor prior to the submission dead line as stated on page 1 must submit all bids. Late bids will not be accepted and returned to the vendor unopened. The County reserves the right to request additional written or oral information from Respondents in order to obtain clarification. A fully executed Affidavit is required by Section 285.530 RSMo and shall be submitted with the bid form. A copy of the Affidavit is attached hereto. Failure to execute the Affidavit shall result in the bid being rejected.

### **1.2** BASIS OF BID AWARD:

Award may be made on an item-by-item basis to the lowest and best bidder(s) or award may be made to the lowest and best bid total, whichever provides the greatest value to the County from the standpoint of suitability to purpose, quality, service, previous experience, price, ability to deliver, or any other reason deemed to be in the best interest of the County. Quantities stated herein represent an estimate for the period stated. Orders shall be placed for actual requirements as needed. The County may reject any or all bids for any reason and may waive any informality. Bids submitted from a Missouri State Contract shall include a copy of the State Contract with the bid. Bid award does not constitute an order or obligation to order by the County. The issuance of a Purchase Order Number shall be construed as acceptance of a Contract with all terms, conditions, and prices firm during the length of the agreement terms.

### 1.3 BID AWARD:

It is further agreed that the Contract shall not be valid and binding upon the County until approved by the County Counselor, as to legal form and is subject to the Ordinances, Resolutions and Orders of Jefferson County, Missouri, and State and Federal Law. If no Bid or Bids have been awarded by the County Council within thirty (30) days following the opening of the bids then all bids will be deemed Rejected.

### 1.4 BID PREPARATION:

- 1. Bidders are responsible for examination of drawings, specifications, schedules and instructions. Failure to do so will be at the bidder's risk.
- 2. Each bidder shall furnish the information required by the invitation. The bidder shall sign all required documents. All deletions and erasures shall be initialed
- 3. Alternate bids for supplies or services other than specified shall not be considered unless authorized by invitation.
- 4. Bidder shall state a definite time for delivery of goods or for performance of services unless otherwise specified in the invitation for bid.
- 5. When specified, samples must be timely submitted and at no expense to the County.
- 6. Failure to adhere to all requirements may result in the response being disqualified as non-responsive.

### 1.5 MODIFICATION OR WITHDRAWAL OF BIDS:

Bids may be modified or withdrawn prior to the exact hour and date specified for receipt of bids, provided the modification or withdrawal is in writing and is delivered in the same manner as a bid submission.

## 1.6 LATE BIDS:

It is the responsibility of the bidder to deliver his bid or bid modification on or before the date and time of the bid closing to the Department of the County Clerk. Bids received late will be rejected and returned unopened to the bidder.

### 1.7 BID DEPOSITS:

Bid Deposits are not required unless specified in the specifications.

### 1.8 MATERIAL AVAILABILITY:

Bidders must accept responsibility for verification of material availability, product schedules and other pertinent data prior to submission of bid and delivery time. It is the responsibility of the bidder to notify the County immediately if the materials specified are discontinued, replaced, or not available for an extended period of time. All materials ordered by the County, shall be as needed. A sample of materials may be requested.

### 1.9 ALTERNATE BIDS:

Alternate Bids for items will be accepted except when stated "NO SUBSTITUTIONS". Bidders must submit complete specifications on all alternate bids with the bid form. Alternate bids without complete specifications may be rejected. Alternate bids and exceptions to bid clauses must be clearly noted on the bid form. The County may accept or reject alternate bids; whatever is most advantageous to the County.

### 1.10 INCORPORATION OF DOCUMENTS:

The terms of the Bid Invitation, Bid Specifications, Bid Form are incorporated into the contract as if fully setout therein.

### 1.11 ADDENDA:

Addenda to bid specifications are incorporated by reference as if fully setout herein. It is the responsibility of the vendor to insure and verify that they are in receipt of and completed all attached addenda's prior to submission of bid forms. Verification is made by contacting the Office of Contracts and Grants at (636) 797-5382, or by reviewing the County Web Site. (<a href="www.jeffcomo.org">www.jeffcomo.org</a>).

### 1.12 INSURANCE:

The Vendor/Contractor shall purchase and maintain insurance with an insurance company licensed to do business in the State of Missouri or in the state where the vendor is incorporated or otherwise licensed to do business and which shall remain, at all times during the term of any contract with the County, in full force and effect. Preference will be given to a Vendor/Contractor who provides insurance with an insurance company licensed to do business in the State of Missouri, but in any event said Vendor/Contractor shall provide said insurance at it's own expense. Such insurance shall be provided as will protect the Vendor/Contractor from claims which may arise out of or result from the Vendor/Contractor's execution of the work, whether such execution be by himself, his employees, agents, or by anyone for whose acts any of them may be liable. If any such work covered by the Contract is to be performed on County owned or leased premises, the Vendor agrees to carry liability and workman's compensation insurance, satisfactory to the County, and to indemnify the County against all liability, loss, and damage arising out of any injuries to persons and property caused by the Vendor, his sub-contractors, employees or agents. The insurance coverage shall be such as to fully protect the County and the general public from any and all claims for injury and damage resulting by any actions on the part of the Vendor/Contractor or its' forces as enumerated above. All policies must name the County as an additional insured and provide for thirty (30) days written prior to any material changes or cancellation. Any disputes regarding a breach, insurance amounts, liability, coverage, lapse or otherwise shall be litigated in the Circuit Court of Jefferson County, Missouri and the same shall be incorporated into any Contract agreed to by the parties.

THE COUNTY REQUIRES **ORIGINAL** CERTIFICATES OF INSURANCE **BEFORE** THE CONTRACT IS AWARDED. ANY LAPSE IN INSURANCE COVERAGE OR CANCELLATION THEREOF BY THE CONTRACTOR OR SUBCONTRACTORS DURING THE TERMS OF THE CONTRACT SHALL IMMEDIATELY BE DEEMED A MATERIAL BREACH UNDER THE TERMS OF ANY CONTRACT.

A. (X) Required ( ) Not Required Comprehensive General Liability Insurance

The Vendor/Contractor shall maintain and keep in full force and effect during the terms of this Contract such comprehensive general liability insurance as shall protect them from claims which may arise from operations under this Contract, whether such operations be by themselves or by anyone directly or indirectly employed by them. The amounts of insurance shall be not less than \$1,000,000.00 combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death.

B. (X) Required ( ) Not Required Professional Liability Insurance

The Vendor/Contractor shall provide the County with proof of Professional Liability Insurance, which shall protect the County against any and all claims, which might arise as a result of the operation of the Vendor/Contractor in fulfilling the terms of this Contract during the life of the Contract. The minimum amounts of such insurance will be \$1,000,000.00. Should any work be subcontracted, these limits will also apply.

C. (X) Required () Not Required Worker's Compensation Insurance: per Missouri Revised Statutes Chapter 287

The Vendor/Contractor or his sub-contractor or contractors, shall maintain and keep in force of this Contract such worker's compensation insurance limits as required by the statues of the State of Missouri and Employer's Liability with limits no less than \$500,000.00.

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### 1.13 BID SUBMISSIONS

Bids submitted on separate forms are NOT acceptable unless specified in the Bid Document. Failure to complete bid forms to the satisfaction of the County may result in rejection of your bid. It is the responsibility of each bidder before submitting a bid to examine ALL documents thoroughly, and request written or oral interpretation of clarifications soon after discovering any conflicts, ambiguities, errors, or omissions in the bidding documents. Request for clarification must be received prior to bid openings.

### 1.14 BID OPENINGS

Bids will be publicly opened and read aloud at the time indicated on page 1. The bidders and the public are invited but not required to attend the formal opening of the bids. No decisions relating to the award of a contract or agreement will be made at the opening.

### 1.15 BID TABULATIONS

Bid Tabulations are not available for 5 to 7 business days following the Bid Opening. Bid submissions are open for public review at the time of the Bid Opening. Bid tabulations are posted on the County's web-site address, <a href="www.jeffcomo.org">www.jeffcomo.org</a>. **NO COPIES** of bid tabulations are sent to vendors.

### 2.0 BID RESPONSE AND CONTRACT

### **2.1** BIDDER REPRESENTATIONS:

The Bidder, by executing the Bid form certifies that:

- A. The bid complies with Invitation for Bid form and Bid Specifications.
- B. Bidder is not debarred or suspended from participation in Federal Assistance programs.

### 2.2 TAXES:

No bid or proposal shall be awarded by Jefferson County unless the prospective bidder provides proof that the bidder does not owe delinquent real or personal property taxes to Jefferson County. The prospective bidder may be required to provide proof in the form of an original paid tax receipt issued by the Jefferson County Collector or a statement obtained from the Jefferson County Assessor that the applicant does not own any real or personal property in Jefferson County.

### 2.3 CERTIFICATION OF INDEPENDENT PRICE DETERMINATION:

- A. The prices in the bid shall be independently determined, without consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to price with any bidder or other person.
- B. Unless otherwise required by law, the prices shall not have been knowingly disclosed by the bidder prior to opening.
- C. No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid.

### **2.4 PRICE:**

The price(s) specified in this bid shall be firm and not subject to contingency or reservation. If the Vendor fails to honor stated prices as submitted in the Bid Form or Contract, the County reserves the right to obtain the same items from the next lower vendor who submitted a bid price for the item. The original vendor shall be responsible for the difference in price and required to make restitution to the County for the difference in price. The bidder represents prices specified in the bid do not exceed current selling price for the same or substantially similar good or service, and are the same as or lower than other prices charged to the bidder's most favored customer. In the event the stated prices are determined to be higher than the prices for which Supplier has sold the items, or services, to others, this contract price shall be reduced accordingly. Bid prices are ALL INCLUSIVE: (Shipping, Handling, Delivery, and Assembly to locations specified by the County). Prices shall be firm for ALL County departments and locations for term of the agreement.

### 2.5 MISSOURI DOMESTIC PRODUCT PROCUREMENTACT:

Bidder represents that the goods provided comply with Sections 34.350 to 34.359, RSMo, known as the Domestic Product Procurement Act. The Act encourages the purchase of products manufactured or produced in the United States, State of Missouri, and Jefferson County, Missouri. Bidder shall include proof of compliance with the Act with the bid when requested.

### 2.6 NON-EXCLUSIVE AGREEMENT:

The contractor shall understand and agree that the contract shall not be construed as an exclusive agreement and further agrees that the County may secure identical and/or similar services or products from other sources at anytime in conjunction with or in replacement of the contractor's services.

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### 2.7 **DEFINITIONS:**

- A. The term "County" means the Jefferson County, Missouri and its designated representatives.
- B. The term "Vendor" means Supplier, Contractor, and Seller and includes designated representatives.
- C. The term "IFB" means Invitation for Bid.
- D. The term "Agreement/Contract means Binding Agreement, Contract, Request for Purchase, Order.

### 2.8 INSPECTION, ACCEPTANCE AND APPROVALS:

Goods shall at all times and places, including the period of manufacture, are subject to inspection and test by County. County will accept or give notice of rejection of goods delivered within a reasonable time after receipt. Acceptance shall not waive any warranty. All goods supplied are subject to final inspection and acceptance by County notwithstanding payment, prior inspections or approvals. County may require prompt replacement or correction of rejected goods at Supplier's expense, including a reduction in price for rejected goods. Supplier shall not resubmit rejected goods to County without prior written approval and instructions from County. In addition, Supplier shall identify resubmitted goods as previously rejected. Supplier shall provide and maintain a quality assurance and control system acceptable to County.

# **2.9** WARRANTY:

Unless otherwise agreed to in writing by the parties, Supplier warrants that items ordered to specifications will conform thereto and to any drawings, samples or other descriptions furnished or adopted by County, or, if not ordered to specifications will be fit and sufficient for the purpose intended, and that all items will be new, merchantable, of good material and workmanship, and free from defect. Such warranties, together with Supplier's service warranties and guarantees, if any, shall survive inspection, test, acceptance of, and payment for the items and shall run to County and its assigns. Except for latent defects, the County shall give notice of any nonconformity to the Supplier within one (1) year after acceptance. County may return for credit or require prompt correction or replacement of the defective or non-conforming goods or have the defective good corrected or replaced at Supplier's expense. Return to Supplier of any defective or non-conforming goods and delivery to County of any corrected or replaced goods shall be at Supplier's expense. Defective or non-conforming items shall not be corrected or replaced without written authorization by County. Goods required to be corrected or replaced shall be subject to the provisions of this clause and the clause hereof entitled "Inspection, Acceptance and Approvals" in the same manner and to the same extent as goods originally delivered under this contract.

### **2.10 PAYMENT:**

County will pay Supplier for goods upon delivery to, submission of certified invoices with attached tipping fee receipts and acceptance. The County will not be responsible for articles or services furnished without a purchase order. Price is tax-exempt.

### 2.11 CHANGE ORDER:

County may make changes within the general scope of this contract. If any such changes cause an increase or decrease in the cost of or the time required for the performance of any part of the work, whether changed or not changed by any such order, an equitable adjustment shall be made in the price or delivery schedule or both, and any change order shall be in writing. Any claim by a Supplier for adjustment under this clause shall be asserted within fifteen (15) days from the date of receipt of this written order directing the change, provided, however, County, if it decides that the facts justify such action, may receive and act upon such claim asserted at any time prior to final payment.

### 2.12 DELIVERIES:

Deliveries shall be made in strict accordance with any delivery schedule contained in the bid specification or contract and in the exact quantity ordered. Failure to adhere to delivery schedule is reason for termination in accordance with the "termination" clause. Deliveries are to be made at locations specified by the County at time of Order.

### 2.13 RESPONSIBILITY FOR SUPPLIES:

Pursuant to Section 290.560 RSMo, Supplier/Contractor shall employ only Missouri laborers and laborers from nonrestrictive states except that other laborers may be used when Missouri laborers or laborers from nonrestrictive states are not available, or are incapable of performing the particular type of work involved, if so certified by the contractor and approved by the County. Except as otherwise provided, Supplier shall be responsible and bear all risks for loss and damage to goods until delivery at County's facilities, regardless of F.O.B. point, point of inspection or acceptance; and if the goods are rejected.

### 2.14 SUBCONTRACTS:

Supplier shall not enter into any subcontract(s) in excess of \$25,000 or 20% of this contract price; whichever is less, for any goods without County's prior written approval.

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### 2.15 CHOICE OF LAW:

This bid and contract shall be governed and interpreted according to the laws of the State of Missouri. Venue for any court action shall be in Jefferson County, Missouri.

#### 2.16 TERMINATION:

- A. General: Performance of work may be terminated by the County in whole, or from time to time in part, whenever County shall determine that such termination is in the best interests of County with a thirty (30) day written notice. The Vendor may terminate the Agreement/Contract upon a sixty (60) day prior notice in writing. In the event of any termination of the Agreement/Contract by the Vendor, the County may purchase such supplies and/or services similar to those terminated and for the duration of the Agreement/Contract period the Vendor will be liable for all costs in excess of the established contract pricing.
- B. Bankruptcy or Insolvency: In the event bankruptcy proceedings are commenced by or against Supplier or under any provisions of the United States Bankruptcy Act or for the appointment of a receiver or trustee or a general assignment for the benefit of creditors of either party, County shall be entitled to terminate without further cost or liability. The County may cancel the Agreement/Contract or affirm the Contract and hold the Vendor responsible for damages.
- C. Default: County may terminate the whole Contract or any part in either of the following circumstances:
  - C-1. If supplier fails to deliver the items required by the contract within the time specified; or
  - C-2. If supplier fails to perform any of the other provisions of the contract, or so fails to make progress as to endanger performance of the contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of ten (10) days after notice from County specifying such failure. In the event of termination under subparagraph 1, County shall have the right to procure, on such terms and in such manner as it may deem appropriate, items similar to those terminated, and to recover from Supplier the excess cost for such similar items provided, however, Supplier shall not be liable for such excess costs where the failure upon which the termination is based has arisen out of causes beyond the control of Supplier and without the fault or negligence of Supplier. Such causes shall be deemed to include fires, floods, earthquakes, strikes, and acts of the public enemy. The rights of County provided in subparagraph 1 shall be in addition to any other rights provided by law or the contract.
  - C-3. In the event of the Supplier's non-compliance with the provisions as set forth, this Contract may be cancelled, terminated or suspended in whole or in part and the supplier may be declared ineligible for further County contracts. The rights and remedies of the County provided in this paragraph shall not be exclusive but are in addition to any remedies provided in this Contract or as provided for by law.

### 2.17 NOTICE AND SERVICE THEREOF:

Any notice from the County shall be in writing and considered delivered and the service thereof completed when said notice is posted, by certified or regular mail, to the Supplier, at the address stated on the bid form.

### 2.18 CONTRACT TERM:

Performance shall be governed solely by the terms and conditions as set forth in the Invitation for Bid, Bid Specifications, Bid Form and the Contract notwithstanding any language contained on any invoice, shipping order, bill of lading or other document furnished the Seller at any time and the acceptance by the County for any goods furnished.

### 2.19 COMPLIANCE WITH APPLICABLE LAWS:

Supplier warrants it has complied with all applicable laws, rules and ordinances of the United States, Missouri or any other Governmental authority or agency in the manufacture or sale of the goods, including but not limited to all provisions of the Fair Labor Standards Act of 1938, as amended, including provisions of the Home Rule Charter of Jefferson County, Missouri requiring all workers performing work under any contract with Jefferson County be paid a wage that is at least the prevailing hourly rate of wages for work of a similar character in Jefferson County.

### 2.20 ACTS OF GOD:

No party shall be liable for delays, nor defaults due to Acts of God or the public enemy, riots, strikes, fires, explosions, accidents, governmental actions of any kind or any other causes of a similar character beyond its control and without its fault or negligence.

### 2.21 SELLER'S INVOICES:

Invoices shall contain the following information. Contract number (if any), Purchase Order Number, Item number, contract description of goods or services, sizes, quantities, unit prices and extended totals. Invoices for and inquiries regarding payment should be addressed to the County Accounts Payable Clerk.

### 2.22 APPROVAL:

It is agreed the acceptance of a Bid shall not be valid and binding upon the County until approved by the County Purchasing Agent, County Council, and the County Counselor.

### 2.23 RENEWAL OPTION:

The County reserves the right to negotiate the contract for one (1) additional one-year term with the written consent of the awarded vendor. If the contractor/vendor request an increase in compensation for any renewal period, the vendor shall notify the Office of Contracts and Grants no less than 60 days prior to the end of the contract period. The County shall notify the Vendor of the intent to exercise the renewal option. However, failure to notify the Vendor does not waive the County's right to exercise the renewal option.

2.24	INDIVIDUAL, PARTNERSHIPS, CORPORATIONS: Indicate: [ ] Individual: [ ] Partnership: [ ] Corporation.	
	Incorporated in the State of	

### 2.25 LITIGATION:

This agreement shall be interpreted under the laws of the State of Missouri. Any disagreements, questions, controversies, litigation or other causes of action whatsoever arising from or under the terms of this agreement shall be resolved in the trial courts of 23rd Judicial Circuit Court of the State of Missouri-Hillsboro, Missouri.

# **AFFIDAVIT OF WORK AUTHORIZATION**

The grantee, sub grantee, contractor or subcontractor who meets the section 285.525, RSMo definition of a business entity must complete and return the following Affidavit of Work Authorization.

Comes now	(Name of Business Entity Authorized Representative) as	
	( Position/Title) first being duly sworn on my oath, affirm	
	(Business Entity Name) is enrolled and will continue to particip	oate in the
E-Verify federal work author	rization program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with respect to employees hired after enrollment in the program with the program wit	rogram
	connection with the services related to	
(Bid/Grant/Subgrant/Contract	ct/Subcontract) for the duration of the grant, subgrant, contractor, or subco	ntractor,
	th subsection 2 of section 285.530, RSMo. I also affirm that	
	(Business Entity Name) does not and will not knowingly employ a	person
who is an unauthorized alien	in connection with the contracted services related to	
	(Bid/Grant/Subgrant/Contract/Subcontract) for the dur	ation of
the grant, subgrant, contract,	or subcontract, if awarded.	
In Affirmation thereof, the fa	acts stated above are true and correct. (The undersigned understands that	false
	g are subject to the penalties provided under section 575.040, RSMo.)	v
, and the second	, , , , , , , , , , , , , , , , , , ,	
Authorized Representative's	Signature Printed Name	
1		
Title	Date	
Subscribed and sworn to bef	ore me this of I am (DAY) (MONTH, YEAR)	
	(DAY) (MONTH, YEAR)	
commissioned as a notary pu	ablic within the County of, State of	
	(NAME OF COUNTY)	
	, and my commission expires on	
(NAME OF STATE)	(DATE)	
Signature of Notary	Date	

# AFFIDAVIT OF WORK AUTHORIZATION (Continued)

# **CURRENT BUSINESS ENTITY STATUS**

	(Business Entity Name) <u>MEETS</u> the definition of a business ning to section 285.530, RSMo as stated above.	
Authorized Business Entity Representative's Name (Please Print)	Authorized Business Entity Representative's Signature	
Business Entity Name	Date	
	tractor, or subcontractor must perform/provide the following. ctor shall check each to verify completion/submission:	
Enroll and participate in the E-Verify federal work authorization program (Website: <a href="http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm">http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm</a> ; Phone: 888-464-4218: Email: <a href="mailto:e-verify@dhs.gov">e-verify@dhs.gov</a> ) with respect to the employees hired after enrollment the program who are proposed to work in connection with the services required herein;		
AND		
Provide documentation affirming said company's/individual's enrollment and participation in the E-Verify federal work authorization program. Documentation shall include a page from the E-Verify Memorandum of Understanding (MOU) listing the grantee's, subgrantee's, contractor's, or subcontractor's name and the MOU signature page completed and signed, at minimum, by the grantee, subgrantee, contractor, or subcontractor and the Department of Homeland Security – Verification Division; (if the signature page of the MOU lists the grantee's, subgrantee's, contractor's, or subcontrator's name, then no additional pages of the MOU must be submitted).		

### **SPECIFICATIONS**

# JEFFERSON COUNTY SHERIFF'S OFFICE JAIL VIDEO SURVEILLANCE SYSTEM

### HILLSBORO MO

### PART 1 – GENERAL

# 1.1 DESCRIPTION

The Jefferson County Sheriff's Office (Jail) is requesting bids for the purchase, installation, and programming of a surveillance system to be integrated into the current system at 510 First Street in Hillsboro, Missouri. The Jefferson County Sheriff's Office reserves the right to accept or reject any or all bids in part or in whole as deemed in the best interest of the Jefferson County Sheriff's Office. In determining the most advantageous bid, the Jefferson County Sheriff's Office reserves the right to consider quantity, workmanship, service, dependability of the product, manufacturer and dealer accountability and if company is a prior vendor in good standing, all independent of price.

Video Surveillance System, which is identified as the Closed Circuit Television System hereinafter referred to as the CCTV System as specified in this section. This system shall also include expansion of the existing Bosch Allegiant 8800 Video Matrix System and updates to the existing Wonderware Software to accommodate new cameras. The system shall add 2 new Bosch KBD-Universal Keyboard with remote hook-up kit, new Bosch Recording Station (BRS) Network Video Recorder, BRS Remote Client(s), 16 channel IP encoders, new Bosch Minidome Color and Day Night Cameras, and new Bosch Corner Mount Security Cameras. Audio will be added to key camera locations. Exterior & sally port cameras shall include wall mount hardware.

The Contractor shall calculate the necessary hard drive space required to record all of the cameras for 30 days. Each camera shall be programmed for continuous and motion recording. The recording time shall be set for 3.75 ips continuous at 2 cif and 15 seconds pre and 15 seconds post at 15 frames per second at 4 cif.

### 1.2 RELATED WORK

- A. All new network infrastructures shall be supplied by Contractor. This includes Cat 5e wiring to new Network Video Recorder, new 16ch IP encoders and 10\100\1000 network switch(es).
- B. Contractor shall supply Wonderware integration for 3<sup>rd</sup> and 4<sup>th</sup> viewing stations.
- C. Contractor shall supply and install all cameras and necessary mounting hardware.

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- D. Contractor shall supply and install all necessary network video recorders.
- E. Contractor shall supply and install all camera power supplies.
- F. Contractor shall confirm existing remote video PC specifications meet or exceed Bosch BRS client specifications. Contractor then will configure remote PC with BRS client.
- G. Contractor shall program and configure all CCTV devices.
- H. Contractor shall be responsible for the NVR HDD calculations.

## 1.3 QUALITY ASSURANCE

- A. The Contractor shall be responsible for providing, installing, and the initial operation of the CCTV System as shown. The Contractor shall provide Bosch Allegiant Matrix System and Bosch BRS certified technicians on the job site.
- B. Contractor shall have a minimum of 2 years experience installing Bosch Allegiant Matrix, Flexidome Cameras and Bosch BRS or Dibos Video Recorders.
- C. The CCTV system shall be installed and tested to ensure all components are fully compatible as a system and can be integrated with all associated CCTV subsystems to include Wonderware Software.
- C. The Contractor or CCTV sub-contractor shall be a Missouri licensed Security Contractor as required by the Missouri Department of Professional Regulation.

# 1.4 SUBMITTALS

- A. Submit Shop Drawings, Product Data Sheets.
- B. Provide certificates of compliance with Bosch BRS Appliance and Bosch Allegiant Matrix.
- C. Provide a pre-installation and as-built design package in both electronic format and on paper, minimum size 48 x 48 inches (1220 x 1220 millimeters); drawing submittals shall be per the established project schedule.
- D. Pre-installation design and as-built packages shall include, but not be limited to:
  - 1. Index Sheet that shall:
    - a. Define each page of the design package to include facility name, building name, floor, and sheet number.
    - b. Provide a list of all CCTV abbreviations and symbols.
    - c. Reference all general notes that are utilized within the design package.
    - d. Specification and scope of work pages for all CCTV systems that are applicable to the design package that will:

- 1) Outline all general and job specific work required within the design package.
- 2) Provide a device identification table outlining Device Identification (ID) and use for all CCTV systems equipment utilized in the design package.
- 2. Drawing sheets that will be plotted on the individual floor plans or site plans shall:
  - a. Include a title block as defined above.
  - b. Define the drawings scale in both standard and metric measurements.
  - c. Provide device identification and location.
- 4. A system drawing for each applicable CCTV system shall:
  - a. Identify how all equipment within the system, from camera to recording device to remote view stations, shall be laid out and connected.
  - b. Provide full detail of all system components wiring from point-to-point.
  - c. Identify wire types utilized for connection, interconnection with associate CCTV subsystems.
  - d. Show device locations that correspond to the floor plans.
  - e. All general and drawing specific notes shall be included with the system drawings.
- 5. A schedule for all of the applicable CCTV subsystems shall be included. All schedules shall provide the following information:
  - a. Device ID.
  - b. Device Location (e.g. site, building, floor, room number, location, and description).
  - c. Mounting type (e.g. flush, wall, surface, wall, corner, etc.).
  - d. Power supply or circuit breaker and power panel number.
  - e. In addition, provide the camera ID, camera type (color or day/night).
- 6. Detail and elevation drawings for all devices that define how they were installed and mounted.
- E. Pre-installation design packages shall be reviewed by the Contractor along with a Jefferson County representative to ensure all work has been clearly defined and completed. All reviews shall be conducted in accordance with the project schedule. There shall be four (4) stages to the review process:
  - 1. 35 percent
  - 2. 65 percent
  - 3. 90 percent
  - 4. 100 percent
- F. Provide manufacturer CCTV system product data-sheets. Submit for approval at least 14 days prior to commencement of formal testing, a CCTV System Operational Test Plan. Include procedures for

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operational testing of each component and CCTV subsystem, to include performance of an integrated system test.

G. Provide all maintenance and operating manuals.

### 1.5 APPLICABLE PUBLICATIONS

- A. The publications listed below (including amendments, addenda, revisions, supplement, and errata) form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA):

330......Electrical Performance Standards for CCTV Cameras

375A.....Electrical Performance Standards for CCTV Monitors

C. Institute of Electrical and Electronics Engineers (IEEE):

C62.41 .....IEEE Recommended Practice on Surge Voltages in Low-Voltage AC

**Power Circuits** 

802.3af .....Power over Ethernet Standard

D. National Electrical Contractors Association (NECA):

303-2005 ......Installing Closed Circuit Television (CCTV) Systems

E. National Fire Protection Association (NFPA):

70-05 ......Article 780-National Electrical Code

F. Federal Information Processing Standard (FIPS):

140-2 ......CCTV Requirements for Cryptographic Modules

G. Underwriters Laboratories, Inc. (UL):

983-06 ......Standard for Surveillance Camera Units

3044-01 ......Standard for Surveillance Closed Circuit Television Equipment

### 1.6 WARRANTY OF INSTALLATION.

Warrant the CCTV System for workmanship and installation for one (1) year. Equipment shall have the three (3) year manufacturer's warranty.

1.7 Maintenance and ongoing software support.

Show the price for one, two and three year, for additional maintenance and support agreement. Maintenance and ongoing software support shall include the existing cameras.

Describe the response for Emergency Maintenance Requests, and estimated response time for complete system failure.

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Is there twenty-four (24) notification and response?

# 1.8 Pricing Structure

Show one price for total material cost and show one price for total labor cost.

### PART 2 – PRODUCTS

### 2.1 EQUIPMENT AND MATERIALS

- A. All equipment associated within the CCTV System shall be UL 3004 compliant and rated for continuous operation. Environmental conditions (i.e. temperature, humidity, wind, and seismic activity) shall be taken under consideration at each facility and site location prior to installation of the equipment.
- B. The system shall be installed, and programmed in a manner that will allow for easy of operation, programming, servicing, maintenance, testing, and upgrading of the system.
- C. All CCTV System components located in designated "HAZARDOUS ENVIRONMENT" areas where fire or explosion could occur due to the presence of natural gases or vapors, flammable liquids, combustible residue, or ignitable fibers or debris, shall be rated Class II, Division I, Group F, and installed in accordance with NFPA 70, Chapter 5.
- D. All equipment and materials for the system shall be compatible to ensure correct operation.

# 2.2 EQUIPMENT ITEMS

### A. BOSCH ALLEGIANT MATRIX ADDITIONS:

The Jefferson County Sheriff's Jail has 26 existing analog cameras connected to the existing Allegiant 8800 Series matrix. The Allegiant is currently configured for 32 analog cameras by 8 monitors. The existing cameras are looped to an existing Bosch Dibos DVR. There is also a WonderWare GUI Control Software Package integrated to the Allegiant Matrix. Jefferson County Sheriff's Jail currently is using two remote Video Monitor locations each with 1 Allegiant Keyboard and two monitors. These will continue to be used in addition to a third and fourth location with 1 Allegiant Keyboard and two monitors each.

Contractor shall provide, install, and configure the following devices:

- QTY (2) LTC 8821/00 ALLEGIANT 32 CHANNEL VIDEO INPUT CARDS
- QTY (2) LTC 8808/00 32 CHANNEL VIDEO INTERCONNECT PANEL, INCLUDE TWO LTC 8809/00 3' 16 CONDUCTION RIBBON CABLES.
- Option (4) LTC 8809/02 16 CONDUCTOR RIBBON CABLE, FOR ALLEGIANT SYSTEMS, 10.5 FT
- QTY (1) LTC 8059/00 ALLEGIANT MASTER CONTROL SOFTWARE PACKAGE
- QTY (2) KBD-UNIVERSAL INTUIKEY UNIVERSAL DIGITAL KEYBOARD W/ LCD
- QTY (2) LTC 8557/60 HOOK-UP KIT FOR REMOTE KEYBOARD UP TO 5000 FT.

# QTY – (4) UML-262-90 - 26-INCH COLOR LCD MONITOR, 600 TVL, VGA, CVBS

# B. BOSCH Recording Station (BRS) NVR

The Jefferson County Sheriff's Jail is currently using one Bosch Dibos 30 CH DVR mounted in a wall mount equipment rack location with the Bosch Allegiant Matrix System. This Bosch Dibos DVR will continue to be used for recording up to 30 cameras. Up to 4 of the new cameras can be connected to the Bosch Dibos Recorder and configured for recording and remote viewing. The decision to keep this DVR in its current Rack location or move this DVR to the new Lowell Wall mount rack is the Contractor's decision. High quality RG59 or RG6 CCTV coax "jumpers" will be used to connect video signals to the new Lowell equipment rack via the Bosch Allegiant LTC 8808/00 video interconnect panels. The BRS remote software will be configured to remotely view live and recorded video from the BRS and the Dibos.

QTY – (1) BRS-RAC2-8200A – 2 RU 16TB Rack Mount NVR 8TB (8 X 2TB) HOT-SWAPPABLE HDD; INCLUDES 8 CHANNEL LICENSE (EXPANDABLE TO 64)

QTY - (1) BRS-XCAM-32A - BRS EXPANSION LICENSE, 32 IP CHANNELS

OTY - (3) BRS-XCAM-04A - BRS EXPANSION LICENSE, 4 IP CHANNELS

QTY – (1) PS2 Mouse

QTY – (1) PC Monitor

### C. RACK MOUNT 16 CH. IP ENCODER

QTY - (4) VIP-X1600-B - CHASSIS

QTY – (13) VIP-X1600-XFM4A - 4CH ENCODER MODULE, H.264, W/ AUDIO

QTY – (4) VIP-X1600-PS – POWER SUPPLY UNIT

### D. INDOOR SURFACE MOUNT FLEXIDOME CAMERAS:

QTY – (27) VDC-455V03-20S - FLEXIDOME-XT+, COLOR, W/2.6-6MM, WHITE, SMB

Option-(27) VDN-498V03-21S - FLEXIDOME 2X, D/N, WDR, 2.8-10MM, WHITE, SMB

# C. Outdoor Wall Mount FlexiDome Day Night Cameras

QTY - (3) VDN-498V03-21S - FLEXIDOME 2X, D/N, WDR, 2.8-10MM, WHITE, SMB

QTY – (3) VDA-WMT-DOME - WALL MOUNT FOR FLEXIDOME

- D. Sally Port Wall Mount FlexiDome Day Night Cameras
  - QTY (4) VDN-498V03-21S FLEXIDOME 2X, D/N, WDR, 2.8-10MM, WHITE, SMB
  - QTY (4) VDA-WMT-DOME WALL MOUNT FOR FLEXIDOME
- E. BOSCH EX36 CORNER MOUNT CAMERA
  - QTY (16) EX36MNX902W-N IR CORNER MOUNT D/N, 940NM 2.5MM
- D. BOSCH EX36 CORNER MOUNT CAMERA WITH MICROPHONE
  - QTY (3) EX36MNX902WM-N IR CORNER MOUNT D/N, 940NM 2.5MM W/MICROPHONE
  - E. BOSCH BRS NVR
    - QTY (1) BRS-RAC2-8100A 2 RU 8TB Rack Mount NVR 8TB (8 X 1TB) HOT-SWAPPABLE HDD; INCLUDES 8 CHANNEL LICENSE (EXPANDABLE TO 64)
    - QTY (1) BRS-XCAM-32A BRS EXPANSION LICENSE, 32 IP CHANNELS
    - QTY (3) BRS-XCAM-04A BRS EXPANSION LICENSE, 4 IP CHANNELS
  - F. RACK MOUNT 16 CH. IP ENCODER
    - QTY (4) VIP-X1600-B CHASSIS
    - QTY (13) VIP-X1600-XFM4A 4CH ENCODER MODULE, H.264, W/ AUDIO
    - QTY (4) VIP-X1600-PS POWER SUPPLY UNIT
  - G. RACK MOUNT POWER SUPPLY
    - QTY (2) R2432600ULCB CCTV 24VAC Rack Mount 32 Output Power Supply
  - H. Lightning protection and Power Conditioning

QTY-5 (MINUTEMAN LINE GUARD MMS-CAT6-POE, SURGE SUPPRESSSORS).

### QTY-1 APC UPS OR RACK MOUNT UPS

# QTY-1 (MINUTEMAN E1500RM2U ENTERPRISE PLUS LINE INTERACTIVE UPS WITH RACK MOUNTING HARDWARE).

# I. Lowell Wall Mount Equipment Rack

QTY-1 LWBR-3532 – WALL MOUNT RACK W/ BASE QTY-1 LFD-35 – FRONT DOOR QTY-1

### J. Wires and Cables

- 1. Shall meet or exceed the manufactures recommendation for 24vac power and CCTV video signals.
- 2. All cables shall be plenum rated cables.
- 3. All coaxial cables shall be constructed of solid copper center conductor and 95% bare copper braided shield.
- 4. RG59 coax shall be used for camera to encoder cable distances of 800' or less. RG-6u CCTV coax shall be used for camera to encoder cable distances of 1,500' or less.
- 5. At all locations where there is a wall penetration or core drilling is conducted to allow for cable to be installed, fire stopping materials shall be applied to that area
- 6. High voltage and signal cables shall not share the same cable run or conduit and shall be kept separate up to the point of connection. High voltage for the CCTV system shall be defined as any cable or sets of cables carrying 30 VDC/VAC or higher.
- 7. All cables and conductors, except fiber optic cables, that act as a control, communication, or signal lines shall include surge protection. Surge protection shall be furnished at the equipment end and additional triple electrode gas surge protectors rated for the application on each wire line circuit shall be installed within three (3) ft. (one (1) m.) of the building cable entrance. The inputs and outputs shall be tested in both normal and common mode using the following wave forms:
  - a. A 10 microsecond rise time by 1000 microsecond pulse width waveform with a peak voltage of 1500 watts and peak current of 60 amperes.
  - b. An 8 microsecond rise time by 20 microsecond pulse width wave form with a peak voltage of 1000 volts and peak current of 500 amperes.

8. The surge suppression device shall not attenuate or reduce the video or sync signal under normal conditions. Fuses and relays shall not be used as a means of surge protection.

### 9. Power Cables

- a. Will be sized accordingly and shall comply with the NEC. Low voltage cables will be a minimum of 18 AWG, stranded and non-conductive CMP (Plenum) jacket.
- b. Will be utilized for all components of the CCTV System that require either a 110 VAC 60 Hz or 220 VAC 50 Hz input. Each feed will be connected to a dedicated circuit breaker at a power panel that is primarily for the CCTV system.
- c. All equipment connected to AC power shall be protected from surges. Equipment protection shall withstand surge test waveforms described in IEEE C62.41. Fuses shall not be used as a means of surge protection.
- d. Shall be rated for either 110 or 220 VAC, 50 or 60 Hz, and shall comply with Bosch specifications and the NEC.
- e. Low Voltage Power Cables
  - 1) Shall be a minimum of 18 AWG, Stranded and have a CMP (Plenum) outer jacket.
  - 2) Cable size shall determined using a basic voltage over distance calculation and shall comply with the NEC's requirements for low voltage cables.

### K. Additional Monitors and Equipment

- QTY-1 60" Full HD 1080p Monitor for installation in the Commander's Office on the 2<sup>nd</sup> floor QTY-4 40" Full HD 1080p Monitor for installation in Level I, Level II, Level III, and Level IV Control Centers.
- QTY 2 Desk top computers (minimum 4 gig memory) with 26" Monitor, DVD Burn/copy capability, and suitable printer for remote viewing/evidence, and subpoena compliance.

# L. Camera Locations

- 1. Level 2 Entrance Waiting Room/Lobby
- 2. Level 2 Front Security Area
- 3. Level 2 Bonding Area
- 4. Level 2 Sally Port (Front/Interior)
- 5. Level 2 Sally Port (Rear/Interior)
- 6. Level 2 Searching Area
- 7. Level 2 Searching Area (Microphone)
- 8. Level 2 Booking Area Table

- 9. Level 2 Booking Fingerprint
- 10. Level 2 Booking Hallway
- 11. Level 2 Booking Hallway
- 12. Level 2 Nurse
- 13. Level 2 Nurse
- 14. Level 2 Visitation Entry Hallway
- 15. Level 2 Holdover 260 (Microphone)
- 16. Level 2 Holdover 260
- 17. Level 2 Holdover 260
- 18. Level 2 Suicide Cell # 215
- 19. Level 2 Suicide Cell # 214
- 20. Level 3 Hallway
- 21. Level 3 Sally Port
- 22. Level 3 Sally Port
- 23. Level 3 Pod 1
- 24. Level 3 Pod 1
- 25. Level 3 Pod 2
- 26. Level 3 Pod 2
- 27. Level 3 Pod 3
- 28. Level 3 Pod 3
- 29. Level 3 Pod 4
- 30. Level 3 Pod 4
- 31. Level 3 Pod 5
- 32. Level 3 Pod 5
- 33. Level 3 Pod 6
- 34. Level 3 Pod 6
- 35. Level Hallway
- 36. Level 1 Sally Port
- 37. Level 1 Sally Port
- 38. Level 1 Pod 1
- 39. Level 1 Pod 1
- 40. Level 1 Pod 2
- 41. Level 1 Pod 2
- 42. Level 1 Pod 3
- 43. Level 1 Pod 3
- 44. Level 1 Pod 4
- 45. Level 1 Pod 4 46. Level 1 Pod 5
- 47. Level 1 Pod 5
- 47. Level I Fou 3
- 48. Level 1 Recreation Yard
- 49. Level 1 Rear Exterior Entry into 216
- 50. Level 1 Rear Exterior Entry into 146
- 51. Level 2 Front Exterior Entrance
- 52. Level 2 Front Exterior Sally Port
- 53. Level 2 Rear Exterior Sally Port
- 54. Interview Room # 109 Upstairs (Microphone) This location must have an automatic audio function to allow for the audio to come on when individuals enter the room to conduct interviews.

### M. OPTIONS

- 1. Replace (27) VDC-455V03-20S FLEXIDOME-XT+, COLOR, W/2.6-6MM, WHITE, SMB with (27) VDN-498V03-21S FLEXIDOME 2X, D/N, WDR, 2.8-10MM, WHITE, SMB
  - 2. Allow full audio capabilities for maximum amount of cameras (37) utilizing Louroe ASK4KIT.
- 3. Expand Capabilities for recording of all cameras (including cameras currently installed from thirty (30) days to forty-five (45) days. List costs for additional terabytes and capabilities for extended recording.
  - 4. Expand full audio recording capabilities to three (3) Dorms on Level 4.

### PART 3

### 3.1 INSTALLATION

- A. System installation shall be in accordance with NECA 303, manufacturer and related documents and references, for each type of CCTV subsystem designed, engineered and installed.
- B. Components shall be configured with appropriate "service points" to pinpoint system trouble in less than 30 minutes.
- C. The Contractor shall install all system components including Jefferson County furnished equipment, and appurtenances in accordance with the manufacturer's instructions and shall furnish all necessary connectors, terminators, interconnections, services, and adjustments required for a complete and operable system.
- D. The CCTV System will be designed, engineered, installed, and tested to ensure all components are fully compatible as a system and can be integrated with all associated CCTV subsystems, whether the system is a stand alone or a complete network.
- E. For integration purposes, the CCTV System shall be integrated where appropriate with the following associated CCTV subsystems:

Bosch Allegiant Matrix to WonderWare Graphic User Interface.
Bosch Allegiant Matrix Camera Video Signals Looped to Bosch IP Encoders
Bosch IP Encoders configured with Bosch Recording Station
Bosch Recording Station to Dibos Integration

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- F. Integration with these CCTV subsystems shall be achieved by computer software programming, firmware updates, and any required hardware upgrades to the systems.
- G. For programming purposes refer to the manufacturers requirements for correct system operations. Ensure computers being utilized for system integration meet or exceed the minimum system requirements outlined on the systems software packages.
- H. A complete CCTV System shall be comprised of, but not limited to, the following components:
  - 1. Cameras
  - 2. Lenses
  - 3. Video Display Equipment
  - 4. Camera Housings and Mounts
  - 5. Controlling Equipment
  - 6. Recording Devices
  - 7. Camera Power Supplies
  - 8. Wiring and Cables (with surge protection devices)
  - 9. System Configuration
- I. The Contractor shall visit the site and verify that site conditions are in agreement/compliance with this request for proposal. The Contractor shall report all changes to the site or conditions that will affect performance of the system to the Jefferson County Project Manager in the form of a report. The Contractor shall not take any corrective action without written permission received from the Jefferson County Project Manager.
  - 1. The Contractor shall make written requests and obtain approval prior to disconnecting any signal lines and equipment, and creating equipment downtime. Such work shall proceed only after receiving Jefferson County Project Manager approval of these requests. If any device fails after the Contractor has commenced work on that device, signal or control line, the Contractor shall diagnose the failure and perform any necessary corrections to the equipment.
  - 2. The Contractor shall be held responsible for repair costs due to Contractor negligence, abuse, or incorrect installation of equipment.
- J. Enclosure Penetrations:

All enclosure penetrations shall be from the bottom of the enclosure unless the system design requires penetrations from other directions. Penetrations of interior enclosures involving transitions of conduit from interior to exterior, and all penetrations on exterior enclosures shall be sealed with rubber silicone sealant to preclude the entry of water and will comply with NFPA, Firestopping. The conduit riser shall

terminate in a hot-dipped galvanized metal cable terminator. The terminator shall be filled with an approved sealant as recommended by the cable manufacturer and in such a manner that the cable is not damaged.

# K. Cold Galvanizing:

All field welds and brazing on factory galvanized boxes, enclosures, and conduits shall be coated with a cold galvanized paint containing at least 95 percent zinc by weight.

# L. Interconnection of Console Video Equipment:

The Contractor shall connect signal paths between video equipment as specified by the OEM. Cables shall be as short as practicable for each signal path without causing strain at the connectors. Rack mounted equipment on slide mounts shall have cables of sufficient length to allow full extension of the slide rails from the rack.

### M. Cameras:

- 1. Install the cameras with the focal length lens set for owner approval in each zone.
- 2. Connect power and signal lines to the camera.
- 3. Set cameras with fixed iris lenses to the f-stop to give full video level.
- 4. Aim camera to give field of view as needed to cover the zone.
- 5. Aim fixed mounted cameras installed outdoors facing the rising or setting sun sufficiently below the horizon to preclude the camera looking directly at the sun.
- 6. Focus the lens to give a sharp picture (to include checking for day and night focus and image quality) over the entire field of view; and synchronize all cameras so the picture does not roll on the monitor when cameras are selected.

### N. Monitors:

- 1. Install the video monitors as specified by the manufacturer.
- 2. Connect all signal inputs and outputs as shown and specified.
- 3. Terminate video input signals as required.
- 4. Connect the monitor to AC power.

# O. Video Recording Equipment:

- 1. Install the video recording equipment as specified by the manufacturer.
- 2. Connect video signal inputs and outputs as shown and specified.
- 3. Connect alarm signal inputs and outputs as shown and specified.
- 4. Connect video recording equipment to AC power.

# P. Video Signal Equipment:

1. Install the video signal equipment as specified by the manufacturer.

- 2. Connect video or signal inputs and outputs as shown and specified.
- 3. Terminate video inputs as required.
- 4. Connect alarm signal inputs and outputs as required.
- 5. Connect control signal inputs and outputs as required
- 6. Connect electrically powered equipment to AC power.

# Q. Camera Housings and Mounts:

- 1. Install the camera housings and mounts as specified by the manufacturer, provide mounting hardware sized appropriately to secure each camera, housing and mount with maximum wind and ice loading encountered at the site.
- 2. Connect signal lines and AC power to the housing interfaces.

# R. System Start-Up:

- 1. The Contractor shall not apply power to the CCTV System until the following items have been completed:
  - a. CCTV System equipment items and have been set up in accordance with manufacturer's instructions.
  - b. A visual inspection of the CCTV System has been conducted to ensure that defective equipment items have not been installed and that there are no loose connections.
  - c. System wiring has been tested and verified as correctly connected as indicated.
  - d. All system grounding and transient protection systems have been verified as installed and connected as indicated.
  - e. Power supplies to be connected to the CCTV System have been verified as the correct voltage, phasing, and frequency as indicated.
- 2. Satisfaction of the above requirements shall not relieve the Contractor of responsibility for incorrect installation, defective equipment items, or collateral damage as a result of Contractor work efforts.

# S. Supplemental Contractor Quality Control

- The Contractor shall provide the services of Bosch BVMS and Bosch Video Encoder certified
  technical representatives who are familiar with all components and installation procedures of the
  installed CCTV System; and are approved by the Jefferson County Project Manager.
- 2. The Contractor will be present on the job site during the preparatory and initial phases of quality control to provide technical assistance.
- 3. The Contractor shall also be available on an as needed basis to provide assistance with follow-up phases of quality control.

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4. The Contractor shall participate in the testing and validation of the system and shall provide certification that the system installed is fully operational as all construction document requirements have been fulfilled.

# 3.2 TESTING AND TRAINING

Contractor shall provide a total of 10 hours of on-site system operation training at the Jefferson County Sheriff's Jail. Contractor shall coordinate with Jefferson County Project Manager to arrange training times.

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