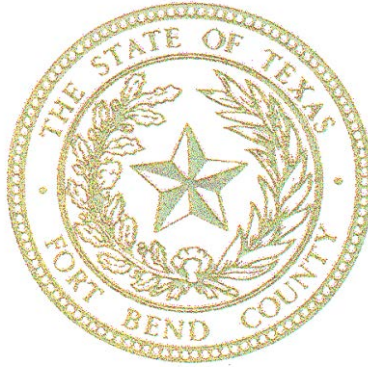


*Fort Bend County, Texas*



*CCTV System and Burglar Alarm System for Jones Creek Ranch Park  
Quote 2018-15*

**SUBMIT QUOTES BY EMAIL TO:**

Fort Bend County Purchasing Department  
Christina Torres – Buyer III  
[christina.torres@fortbendcountytexas.gov](mailto:christina.torres@fortbendcountytexas.gov)

**SUBMIT NO LATER THAN:**

Monday, March 26, 2018  
10:00 AM (Central)

**TO INCLUDE WITH QUOTE RETURN:**

1. Vendor Information page (page 2)
2. Pricing Forms
3. Required Forms
4. Required Insurance

**ALL QUOTES MUST BE RECEIVED  
IN THE COUNTY PURCHASING OFFICE AS STATED HEREIN.  
QUOTE RECEIVED AS STATED HEREIN  
WILL THEN BE OPENED AND EVALUATED.**

Results will not be given by phone.  
Results will be provided to vendors in writing  
by email and posted to [www.fortbendcountytexas.gov](http://www.fortbendcountytexas.gov).

Fort Bend County is always conscious and  
extremely appreciative of your effort in the  
preparation of this quote.

Requests for information must be in writing  
and directed to:  
Christina Torres  
Buyer III  
[Christina.torres@fortbendcountytexas.gov](mailto:Christina.torres@fortbendcountytexas.gov)

## Vendor Information Form

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Legal Name of Contracting Company

---

Federal ID Number (Company or Corporation) or Social Security Number (Individual)

---

Telephone Number

Facsimile Number

---

Complete Mailing Address (for Correspondence)

---

City, State and Zip Code

---

Complete Remittance Address (if different from above)

---

City, State and Zip Code

---

Authorized Representative and Title (printed)

---

Authorized Representative's Email Address

---

Signature of Authorized Representative

Date

## **1.0 GENERAL REQUIREMENTS:**

- 1.1 Read this entire Quote document carefully. Follow all instructions. You are responsible for fulfilling all requirements and specifications. Be sure you understand them.
- 1.2 General Requirements apply to all advertised Quotes, however, these may be superseded, whole or in part, by the scope, special requirements, specifications, special specifications or other data contained herein.
- 1.3 Governing Law: Vendor is advised that these requirements shall be fully governed by the laws of the State of Texas and that Fort Bend County may request and rely on advice, decisions and opinions of the Attorney General of Texas and the County Attorney concerning any portion of these requirements.
- 1.4 Quote Document Completion: Fill out and return to the Fort Bend County Purchasing Department as stated herein.
- 1.5 Quote Returns: Vendors must return all completed Quotes to the Fort Bend County Purchasing Department as stated herein, no later than the date and time specified. Late Quotes will not be accepted.
- 1.6 Governing Documents: In the event of any conflict between the terms and provisions of these requirements and the specifications, the specifications shall govern. In the event of any conflict of interpretation of any part of this overall document, Fort Bend County's interpretation shall govern.
- 1.7 Addendums: No interpretation of the meaning of the specifications, drawings, or other Quote documents will be made to any vendor orally. All requests for such interpretations must be made in writing addressed to: [Christina.Torres@fortbendcountytexas.gov](mailto:Christina.Torres@fortbendcountytexas.gov). Any and all interpretations and any supplemental instructions will be in the form of written addenda to the contract documents which will be posted on Fort Bend County's website. Addenda will **ONLY** be issued by the Fort Bend County Purchasing Agent. It is the sole responsibility of each Vendor to insure receipt of any and all addenda. All addendum issued will become part of the contract documents. Vendors must sign the addendum form and include it in the returned Quote package. Deadline for submission of questions and/or clarification is **Wednesday, March 21, 2018 at 5:00 PM (CST)**. Requests received after the deadline will not be responded to due to the time constraints of this Quote process.
- 1.8 Hold Harmless Agreement: Contractor shall indemnify and hold Fort Bend County harmless from all claims for personal injury, death and/or property damage arising from any cause whatsoever, resulting directly or indirectly from contractor's performance. Contractor shall procure and maintain, with respect to the subject matter of this Quote, appropriate insurance coverage including, as a

minimum, public liability and property damage with adequate limits to cover contractor's liability as may arise directly or indirectly from work performed under terms of this Quote. Certification of such coverage must be provided to the County upon request.

- 1.9 Waiver of Subrogation: Vendor and Vendor's insurance carrier waive any and all rights whatsoever with regard to subrogation against Fort Bend County as an indirect party to any suit arising out of personal or property damages resulting from Vendor's performance under this agreement.
- 1.10 Severability: If any section, subsection, paragraph, sentence, clause, phrase or word of these requirements or the specifications shall be held invalid, such holding shall not affect the remaining portions of these requirements and the specifications and it is hereby declared that such remaining portions would have been included in these requirements and the specifications as though the invalid portion had been omitted.
- 1.11 Bonds: If this Quote requires submission of Quote guarantee and performance bond, there will be a separate page explaining those requirements. Quotes submitted without the required Quote bond or cashier's check/s are not acceptable.
- 1.12 Taxes: Fort Bend County is exempt from all federal excise, state and local taxes unless otherwise stated in this document. Fort Bend County claims exemption from all sales and/or use taxes under Chapter 20, Title 122a, Vernon's Texas Civil Statutes, as amended. Texas Limited Sales Tax Exemption Certificates will be furnished upon written request to the Fort Bend County Purchasing Department.
- 1.13 Fiscal Funding: A multi-year lease or lease/purchase arrangement (if requested by the specifications), or any contract continuing as a result of an extension option, must include fiscal funding out. If, for any reason, funds are not appropriated to continue the lease or contract, said lease or contract shall become null and void. After expiration of the lease, leased equipment shall be removed by the Vendor from the using department without penalty of any kind or form to Fort Bend County. All charges and physical activity related to delivery, installation, removal and redelivery shall be the responsibility of the Vendor.
- 1.14 Pricing: Prices for all goods and/or services shall be firm for the duration of this Contract and shall be stated on the Quote sheet. Prices shall be all inclusive. No price changes, additions, or subsequent qualifications will be honored during the course of the Contract. All prices must be written in ink or typewritten. Pricing on all transportation, freight, and other charges are to be prepaid by the contractor and included in the Quote prices. If there are any additional charges of any kind, other than those mentioned above, specified or unspecified, Vendor MUST indicate the items required and attendant costs or forfeit the right to payment for such items.

- 1.15 **Silence of Specifications:** The apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of specifications shall be made on the basis of this statement. The items furnished under this contract shall be new, unused of the latest product in production to commercial trade and shall be of the highest quality as to materials used and workmanship. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item Quote.
- 1.16 **Supplemental Materials:** Vendors are responsible for including all pertinent product data in the returned Quote package. Literature, brochures, data sheets, specification information, completed forms requested as part of the Quote package and any other facts which may affect the evaluation and subsequent contract award should be included. Materials such as legal documents and contractual agreements, which the Vendor wishes to include as a condition of the Quote, must also be in the returned Quote package. Failure to include all necessary and proper supplemental materials may be cause to reject the entire Quote.
- 1.17 **Material Safety Data Sheets:** Under the "Hazardous Communication Act", commonly known as the "Texas Right To Know Act", a Vendor must provide to County and using departments, with each delivery, material safety data sheets, which are, applicable to hazardous substances defined in the Act. Vendors are obligated to maintain a current, updated file in the Fort Bend County Purchasing Department. Failure of the Vendor to maintain such a file will be cause to reject any Quote applying thereto.
- 1.18 **Name Brands:** Specifications may reference name brands and model numbers. It is not the intent of Fort Bend County to restrict these Quotes in such cases, but to establish a desired quality level of merchandise or to meet a pre-established standard due to like existing items. Vendors may offer items of equal stature and the burden of proof of such stature rests with them. Fort Bend County shall act as sole judge in determining equality and acceptability of products offered.
- 1.19 **Color Selection:** Determination of colors of materials is a right reserved by the using department unless otherwise specified in the Quote. Unspecified colors shall be quoted as standard colors, not colors, which require up charges or special handling. Unspecified fabrics or vinyl should be construed as medium grade. If Vendor fails to get color/material approvals prior to delivery of merchandise, the using department may refuse to accept the items and demand correct shipment without penalty, subject to other legal remedies.
- 1.20 **Evaluation:** Evaluation shall be used as a determinant as to which Quote items or services are the most efficient and/or most economical for the County. It shall be

based on all factors, which have a bearing on price and performance of the items in the user environment. All Quotes are subject to tabulation by the Fort Bend County Purchasing Department. Compliance with all Quote requirements, delivery and needs of the using department are considerations in evaluating Quotes. Pricing is NOT the only criteria for making a recommendation. The Fort Bend County Purchasing Department reserves the right to contact any Vendor, at any time, to clarify, verify or request information with regard to any Quote.

- 1.21 Inspections: Fort Bend County reserves the right to inspect any item(s) or service location for compliance with specifications and requirements and needs of the using department. If a Vendor cannot furnish a sample of a Quote item, where applicable, for review, or fails to satisfactorily show an ability to perform, the County can reject the Quote as inadequate.
- 1.22 Testing: Fort Bend County reserves the right to test equipment, supplies, material and goods Quote for quality, compliance with specifications and ability to meet the needs of the user. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, the Quote is subject to rejection.
- 1.23 Disqualification of Vendor: Upon signing this Quote document, a Vendor offering to sell supplies, materials, services, or equipment to Fort Bend County certifies that the Vendor has not violated the antitrust laws of this state codified in section 15.01, et seq., Business & Commerce Code, or the federal antitrust laws, and has not communicated directly or indirectly the Quote made to any competitor or any other person engaged in such line of business. Any or all Quotes may be rejected if the County believes that collusion exists among the Vendors. Quotes in which the prices are obviously unbalanced may be rejected. If multiple Quotes are submitted by a Vendor and after the Quotes are opened, one of the Quotes is withdrawn, the result will be that all of the Quotes submitted by that Vendor will be withdrawn; however, nothing herein prohibits a vendor from submitting multiple Quotes for different products or services.
- 1.24 Awards: Fort Bend County reserves the right to award this contract on the basis of lowest and best Quote in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one Vendor, to reject any or all Quotes. In the event the lowest dollar Vendor meeting specifications is not awarded a contract, the Vendor may contact the Purchasing Agent and present evidence concerning his responsibility. An award is final only upon execution by the Fort Bend County Purchasing Agent. Fort Bend County reserves the right to withdraw any award until execution by the proper authority.
- 1.25 Assignment: The successful vendor may not assign, sell or otherwise transfer this contract without written permission of Fort Bend County Commissioners Court.
- 1.26 Term Contracts: If the contract is intended to cover a specific time period, said time will be given in the specifications under scope.

- 1.27 Maintenance: Maintenance required for equipment Quote should be available in Fort Bend County by a manufacturer authorized maintenance facility. Costs for this service shall be shown on the Quote sheet as requested or on a separate sheet, as required. If Fort Bend County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.
- 1.28 Contract Obligation: Fort Bend County Purchasing Agent must award the contract before it becomes binding on Fort Bend County or the Vendors. Department heads are not authorized to sign agreements for Fort Bend County. Binding agreements shall remain in effect until all products and/or services covered by this contract have been satisfactorily delivered and accepted.
- 1.29 Title Transfer: Title and Risk of Loss of goods shall not pass to Fort Bend County until Fort Bend County actually receives and takes possession of the goods at the point or points of delivery. Receiving times may vary with the using department. Generally, deliveries may be made between 8:30 a.m. and 4:00 p.m., Monday through Friday. Vendors are advised to consult the using department for instructions. The place of delivery shall be shown under the "Special Requirement" section of this Quote document and/or on the Purchase Order as a "Ship To:" address.
- 1.30 Purchase Order and Delivery: The successful Vendor shall not deliver products or provide services without a Fort Bend County Purchase Order, signed by an authorized agent of the Fort Bend County Purchasing Department. The fastest, most reasonable delivery time shall be indicated by the Vendor in the proper place on the Quote sheet. Any special information concerning delivery should also be included, on a separate sheet, if necessary. All items shall be shipped F.O.B. inside delivery unless otherwise stated in the specifications. This shall be understood to include bringing merchandise to the appropriate room or place designated by the using department. Every tender or delivery of goods must fully comply with all provisions of these requirements and the specifications including time, delivery and quality. Nonconformance shall constitute a breach, which must be rectified prior to expiration of the time for performance. Failure to rectify within the performance period will be considered cause to reject future deliveries and cancellation of the contract by Fort Bend County without prejudice to other remedies provided by law. Where delivery times are critical, Fort Bend County reserves the right to award accordingly.
- 1.31 Contract Extension: Extensions may be made only by written agreement between Fort Bend County and the Vendor. Any price escalations are limited to those stated by the Vendor in the original Quote.
- 1.32 Termination: Fort Bend County reserves the right to terminate the contract for default if Seller breaches any of the terms therein, including warranties of Vendor or if the Vendor becomes insolvent or commits acts of bankruptcy. Such right of

termination is in addition to and not in lieu of any other remedies, which Fort Bend County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all services required to Fort Bend County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days written notice to either party unless otherwise specified.

- 1.33 Recycled Materials: Fort Bend County encourages the use of products made of recycled materials and shall give preference in purchasing to products made of recycled materials if the products meet applicable specifications as to quantity and quality. Fort Bend County will be the sole judge in determining product preference application.
- 1.34 Interlocal Participation: Additional governmental entities may purchase from this Quote. Vendor agrees to accept purchase orders from those participating entities and to invoice each entity separately.
- 1.35 Escalation Clause: Successful Vendor may apply for a price increase to the Fort Bend County Purchasing Agent. Price increase will be the amount increased to the vendor from his supplier. Written documentation of the increase must be provided to the Purchasing Agent. No application for a price increase may be submitted within the first four (4) months of this contract. Increases of more than 25% of the original Quote price will not be considered.

## **2.0 TERMS AND CONDITIONS:**

- 2.1 Seller to Package Goods: Seller will package goods in accordance with good commercial practice. Each delivery container shall be clearly and permanently marked as follows (a) Seller's name and address;(b) Consignee's name, address and purchase order number and the Quote number if applicable; (c) Container number and total number of containers (e.g. box 1 of 4 boxes); and (d) the number of the container bearing the packing slip. Seller shall bear cost of packaging unless otherwise provided. Goods shall be suitably packed to secure lowest transportation costs and to conform to requirements of common carriers and any applicable specifications. Fort Bend County's count or weight shall be final and conclusive on shipments not accompanied by packing list.
- 2.2 Shipment Under Reservation Prohibited: Seller is not authorized to ship goods under reservation and no tender of a bill of lading will operate as a tender of goods.
- 2.3 Title and Risk of Loss: The title and risk of loss of the goods shall not pass to the County until a County employee actually receives and takes possession of the goods at the point or points of delivery.



- 2.4 Delivery Terms: F.O.B. Destination Freight Prepaid, Inside Delivery, unless delivery terms are specified otherwise on Purchase Order.
- 2.5 No Replacement of Defective Tender: Every tender or delivery of goods must fully comply with all provisions of the Purchase Order as to time of delivery, quality and the like. If a tender is made which does not fully conform, this shall constitute a breach and Seller shall not have the right to substitute a conforming tender.
- 2.6 Place of Delivery: The place of delivery shall be that set forth in the block of the purchase order entitled "Ship To". Any change thereto shall be effective by modification as provided for in Clause number 2.20 "Modifications", hereof. The terms of this agreement are "no arrival, no sale", at the discretion of Fort Bend County.
- 2.7 Invoices and Payments:
  - 2.7.1 Seller shall submit separate invoices, in duplicate. Invoices shall indicate the purchase order number and the Quote number if applicable. Invoices shall be itemized and transportation charges, if any, shall be listed separately. A copy of the bill of lading, and the freight waybill when applicable should be attached to the invoice.
  - 2.7.2 Fort Bend County's obligation is payable only and solely from funds available for the purpose of this purchase. Lack of funds shall render the order null and void to the extent funds are not available and any delivered but unpaid goods will be returned to Seller by the County.
  - 2.7.3 Do not include Federal Excise, State, or City Sales Tax. Fort Bend County is a tax-exempt governmental entity.
- 2.8 Gratuities: Fort Bend County may, by written notice to the Seller, cancel any order without liability, if it is determined by the County that gratuities, in the form of entertainment, gifts, or otherwise were offered or given by the Seller, or any agent or representative of the Seller to any officer or employee of Fort Bend County with a view toward securing an order. In the event an order is canceled by the County pursuant to this provision, the County shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by Seller in providing such gratuities.
- 2.9 Special Tools and Test Equipment: If the price stated on the face of an order includes the cost of any special tooling or special test equipment fabricated or required by Seller for the purpose of filing this order, such special tooling equipment and any process sheets related thereto shall become the property of the County and to the extent feasible shall be identified by the Seller as such.

2.10 Warranty/Price:

2.10.1 The price to be paid by the County shall be that contained in Seller's quote or Quote which Seller warrants to be no higher than Seller's current prices on orders by others for products of the kind and specification covered by an order for similar quantities under similar or like conditions and methods of purchase. In the event Seller breaches this warranty the prices of the items shall be reduced to the Seller's current prices on orders by others. Fort Bend County may cancel this contract without liability.

2.10.2 The Seller warrants that no person or selling agency has been employed or retained to solicit or secure any County order based upon any agreement or understanding for commission, percentage, brokerage, or contingent fee excepting bona fide employees of bona fide established commercial or selling agencies maintained by the Seller for the purpose of securing business. A breach or violation of this warranty gives the County the right, in addition to any other right or rights, to cancel this contract without liability.

2.11 Warranty Product: Seller shall not limit or exclude any implied warranties and any attempt to do so shall render an order voidable at the option of the County. Seller warrants that the goods furnished will conform to the specifications, drawings, and description listed in the Quote invitation and purchase order as applicable, and to the sample(s) furnished by Seller if any. In the event of a conflict between the specifications, drawings, and descriptions, the specifications shall govern.

2.12 Safety Warranty: Seller warrants that the product sold to Fort Bend County shall conform to the standards promulgated by the U.S. Department of Labor under the Occupational Safety and Health Act of 1970. In the event the product does not conform to OSHA standards, the County may return the product for correction or replacement at the Seller's expense. In the event Seller fails to make the appropriate correction within 10 days, correction made by the County will be at Seller's expense.

2.13 No Warranty by Fort Bend County Against Infringements: As part of a contract for sale Seller agrees to ascertain whether goods manufactured in accordance with the specifications will give rise to the rightful claim of any third person by way of infringement. Fort Bend County makes no warranty that the production of goods according to the specification will not give rise to such a claim and in no event shall Fort Bend County be liable to Seller for indemnification in the event the Seller is sued on the grounds of infringement or the like. If Seller is of the opinion that an infringement will result, he will notify Fort Bend County to this effect in writing within two days after the receiving Purchase Order. If the County does not receive notice and is subsequently held liable for the infringement, Seller will defend and save the County harmless. If Seller in good faith ascertains that

production of the goods in accordance with the specifications will result in infringement, this contract shall be null and void except that the County will pay Seller the reasonable cost of his search as to infringements.

- 2.14 Right of Inspection: The County shall have the right to inspect the goods at delivery before accepting them.
- 2.15 Cancellation: Fort Bend County shall have the right to cancel for default all or any part of the undelivered portion of an order if Seller breaches any of the terms hereof including warranties of Seller, or if the Seller becomes insolvent or files for protection under the bankruptcy laws. Such rights of cancellation are in addition to and not in lieu of any other remedies, which Fort Bend County may have in law or equity.
- 2.16 Termination: The performance of work under a Purchase Order may be terminated in whole or in part by the County in accordance with this provision. Termination of work there under shall be effected by the delivery to the Seller of a "Notice of Termination" specifying the extent to which performance of work under the order is terminated and the date upon which such termination becomes effective. Such right of termination is in addition to and not in lieu of rights of Fort Bend County set forth in Clause 15 herein.
- 2.17 Force Majeure: Force Majeure means a delay encountered by a party in the performance of its obligations under this Agreement, which is caused by an event beyond the reasonable control of that party. Without limiting the generality of the foregoing, "Force Majeure" shall include but not be restricted to the following types of events: acts of God or public enemy; acts of governmental or regulatory authorities; fires, floods, epidemics or serious accidents; unusually severe weather conditions; strikes, lockouts, or other labor disputes; and defaults by subcontractors. In the event of a Force Majeure, the affected party shall not be deemed to have violated its obligations under this Agreement, and the time for performance of any obligations of that party shall be extended by a period of time necessary to overcome the effects of the Force Majeure, provided that the foregoing shall not prevent this Agreement from terminating in accordance with the termination provisions. If any event constituting a Force Majeure occurs, the affected party shall notify the other parties in writing, within twenty-four (24) hours, and disclose the estimated length of delay, and cause of the delay.
- 2.18 Assignment-Delegation: No right or interest in an order shall be assigned or delegation of any obligation made by Seller without the written permission of Fort Bend County. Any attempted assignment or delegation by Seller shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.
- 2.19 Waiver: No claim or right arising out of a breach of any contract can be discharged in whole or in part by a waiver or renunciation of the claim or right

unless the waived or renunciation is supported by consideration and is in writing signed by the aggrieved party.

- 2.20 Modification: A Purchase Order can be modified or rescinded only by a writing signed by both of the parties or their duly authorized agents.
- 2.21 Parol Evidence: This writing is intended by the parties as a final expression of their agreement and is intended also as a complete and exclusive statement of the terms of this agreement. No course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any terms rendered under this agreement and shall not be relevant to determine the meaning of this agreement even though the accepting or acquiescing party has knowledge of the performance and opportunity for objection. Whenever a term defined by the Uniform Commercial Code is used in this agreement, the definition contained in the Code is to control.
- 2.22 Applicable Law: This agreement shall be governed by the Uniform Commercial Code. Whenever the term "Uniform Commercial Code" is used it shall be construed as meaning the Uniform Commercial Code as adopted in the State of Texas and in effect on the date of the purchase order.
- 2.23 Advertising: Seller shall not advertise or publish, without the County's prior consent the fact that Fort Bend County has entered into any contract, except to the extent necessary to comply with proper requests for information from an authorized representative of the federal, state, or local government.
- 2.24 Right to Assurance: Whenever the County in good faith has reason to question the other party's intent to perform. The County may demand that the other party give written assurance of his intent to perform. In the event that a demand is made and no assurance is given within five (5) days, the County may treat this failure as an anticipatory repudiation of the contract.
- 2.25 Venue: Both parties agree that venue for any litigation arising from this contract shall lie in Richmond, Fort Bend County, Texas.
- 2.26 Prohibition Against Personal Interest in Contracts: No officer or employee of the County shall have a financial interest, direct or indirect, in any contract with the County, or shall be financially interested, directly or indirectly, in the sale to the County of any land, materials, supplies, or service, except on behalf of the County as an officer or employee. Any willful violation of this section shall constitute malfeasance in office, and any officer or employee guilty thereof shall be subject to disciplinary action under applicable laws, statutes and codes of the State of Texas. Any violation of this section, with the knowledge, expressed or implied of the person or corporation contracting with the County shall render the contract involved voidable by the County Commissioners Court.

### **3.0 SCOPE:**

It is the intent of Fort Bend County to contract with one (1) vendor to furnish all labor, materials, chemicals, equipment and PPE (personal protective equipment) to install CCTV and Burglar Alarm at Fort Bend County Jones Creek Ranch Park as specified herein.

### **4.0 AWARD:**

This contract will be awarded to the vendor providing the overall lowest quote.

### **5.0 PRE-QUOTE MEETING:**

A Pre-Quote meeting will be held, **Monday, March 19, 2018 at 10:00 AM** at Fort Bend County Jones Creek Ranch Park, 7714 FM 359, Richmond, 77469. Interested vendors are encouraged to attend as this is the **only** date and time available to conduct a site visit. Vendors are responsible for obtaining their own field measurements.

### **6.0 LIMIT OF APPROPRIATION:**

Prior to the execution of this Contract, Contractor has been advised by County, and Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence to this Contract, that County shall have available only those funds specifically allocated in this Contract to fully discharge any and all liabilities which may be incurred by County in bringing this Project to an absolute conclusion, and that the total of any and all basic construction costs, costs of providing the required materials, labor and equipment, all fees and compensation of any sort to the Contractor, and any and all costs for any and all things or purposes ensuing under or out of this Contract, irrespective of the nature thereof, shall not exceed said specifically allocated sum, notwithstanding any word, statement or thing contained in or inferred from the preceding provision of this Contract which might in any light by any person be interpreted to the contrary.

### **7.0 RIGHT TO ASSURANCE:**

Whenever Fort Bend County in good faith has reason to question the Contractor's intent to perform, Fort Bend County may demand that the Contractor give written assurance of its intent to perform. In the event that a demand is made and no assurance is given within five (5) days, Fort Bend County may treat this failure as an anticipatory repudiation of the Contract.

### **8.0 PERFORMANCE AND PAYMENT BONDS:**

In the event the total accepted bid price exceeds \$25,000, the Contractor must provide to the Office of the County Purchasing Agent, a performance bond and a payment bond, each in the amount of 100% of the total contract sum within ten (10) calendar days after receipt of notification of bid award. Such bonds shall be executed by a corporate surety duly authorized and admitted to do business in the State of Texas and licensed in the State of Texas to issue surety bonds with a Best Rating of "A" or better. Fort Bend County reserves the right to accept or reject any surety company proposed by the Contractor. In the event Fort Bend County rejects the proposed surety company, the Contractor will be afforded five (5) additional days to submit the required bonds issued by a surety company acceptable to Fort Bend County.

## **9.0 INSURANCE:**

- 9.1 All vendors must submit, with Quote, a current certificate of insurance indicating coverage in the amounts stated below. In lieu of submitting a current certificate of insurance, vendors may submit, with Quote, a notarized statement from an Insurance company, authorized to conduct business in the State of Texas, and acceptable to Fort Bend County, guaranteeing the issuance of an insurance policy, with the coverage stated below, to the contractor named therein, if successful, upon award of this Contract. Failure to provide current insurance certificate or notarized statement will result in disqualification of request for quote.
- 9.2 The certificates of insurance to be satisfactory to Fort Bend County, naming the Contractor and its employees as insured:
  - 9.2.1 Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
  - 9.2.2 Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
  - 9.2.3 Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
  - 9.2.4 Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
- 9.3 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability. All Liability policies written on behalf of Contractor shall contain a waiver of subrogation in favor of County and members of Commissioners Court.
- 9.4 If required coverage is written on a claims-made basis, Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the Contract and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time the work under this Contract is completed.
- 9.5 Contractor shall not commence any portion of the work under this Contract until it has obtained the insurance required herein and certificates of such insurance

have been filed with and approved by Fort Bend County.

- 9.6 No cancellation of or material change to the policies may be made without sixty (60) days prior, written notification to Fort Bend County.
- 9.7 Approval of the insurance by Fort Bend County shall not relieve or decrease the liability of the Contractor.
- 9.8 All insurance companies must maintain A.M.Best's rating of A-VII or higher.

#### **10.0 INDEMNIFICATION:**

Contractor agrees to indemnify, defend and hold the County harmless from each and every claim, demand, suit, action, proceeding, lien or judgment caused by or arising out of, directly or indirectly, or in connection with the acts and omissions of Contractor pursuant to this Agreement.

- 10.1 Contractor shall timely report all such matters to the County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month; provide the County with a written report on each such matter covered by this paragraph and by paragraph 2. below, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of the County required by Contractor in the defense of each matter.
- 10.2 The County shall timely forward to Contractor copies of any and all claims, demands, suits, actions, proceedings or judgments which it may receive and which it may contend is covered by this section. Thereafter, the County shall fully cooperate with Contractor in its defense of each such matter.
- 10.3 Contractor's duty to defend indemnifies and hold the County harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of this Agreement unless otherwise agreed by the County in writing. The provisions of this section shall survive the termination of the Agreement and shall remain in full force and effect with respect to all such matters no matter when they arise.
- 10.4 In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Contractor, Contractor shall never-the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Contractor are not at issue in the matter. In such event, the County shall promptly reimburse Contractor for its costs of defense.
- 10.5 In the event that any such matter being so defended by Contractor also involves any claim of negligence or wrongful action by the County, the County shall have

the obligation to participate in the defense of the matter through separate counsel.

- 10.6 Contractor shall have full authority to resolve all matters being defended by it providing such settlement(s) shall not involve any findings adverse to the County or and shall not involve or require any payments or contributions by the County.
- 10.7 In the event of any final judicial determination or award of any matter covered by this section the County shall be responsible to third parties, pro rata, for any negligence determined to have been caused by the County.
- 10.8 Contractor's indemnification shall cover, and Contractor agrees to indemnify the County, in the manner provided for and to the extend described above, in the event the County is found to have been negligent for having selected Contractor to perform the work described in this Agreement.
- 10.9 The provision by Contractor of insurance shall not limit the liability of Contractor under this Agreement.
- 10.10 Contractor shall cause all Trade Contractors and any other Contractor who may have a contract to perform construction or installation work in the area where work will be performed under this Agreement, to agree to indemnify the County and to hold it harmless from all claims for bodily injury and property damage that arise may from said Contractor's operations. Such provisions shall be in form satisfactory to the County.
- 10.11 Loss Deduction Clause - The County shall be exempt from, and in no way liable, for, any sums of money, which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Contractor and/or Trade Contractor providing such insurance.

#### **11.0 PREVAILING WAGES:**

This project is subject to the prevailing wage rate requirements of Chapter 2258 of the Government Code. The Contractor shall pay Fort Bend County sixty dollars (\$60.00) for each worker employed by the Contractor for the provision of services described herein for each calendar day or part of the day that the worker is paid less than the below stated rates. Contractors may also visit [www.wdol.gov/dba.aspx](http://www.wdol.gov/dba.aspx).

General Decision Number: TX180297 01/12/2018 TX297

Superseded General Decision Number: TX20170297

State: Texas

Construction Type: Building

County: Fort Bend County in Texas.

**BUILDING CONSTRUCTION PROJECTS** (does not include single family homes or apartments up to and including 4 stories).



Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

| Modification Number | Publication Date |
|---------------------|------------------|
| 0                   | 01/05/2018       |
| 1                   | 01/12/2018       |

ASBE0022-009 06/01/2017

|  | Rates    | Fringes |
|--|----------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation) | \$ 23.26 | 12.92   |

BOIL0074-003 01/01/2017

|             |          |       |
|-------------|----------|-------|
| BOILERMAKER | \$ 28.00 | 22.35 |
|-------------|----------|-------|

CARP0551-008 04/01/2016

|  |          |      |
|--|----------|------|
| CARPENTER (Excludes Acoustical Ceiling Installation, Drywall Hanging, Form Work and Metal Stud Installation) | \$ 23.05 | 8.78 |
|--|----------|------|

ELEC0716-005 08/28/2017

|  |          |      |
|--|----------|------|
| ELECTRICIAN (Excludes Low Voltage Wiring and Installation of Alarms) | \$ 32.25 | 9.14 |
|--|----------|------|

\* ELEV0031-003 01/01/2018

|                   |         |            |
|-------------------|---------|------------|
| ELEVATOR MECHANIC | \$41.28 | 32.645+a+b |
|-------------------|---------|------------|

#### FOOTNOTES:

A. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.

B. Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Friday after Thanksgiving Day; Christmas Day; and Veterans Day.

ENGI0450-002 04/01/2014

POWER EQUIPMENT OPERATOR

Cranes

\$ 34.85

9.85

IRON0084-002 06/01/2017

IRONWORKER (ORNAMENTAL AND STRUCTURAL)

\$ 23.27

7.12

PLAS0079-004 01/01/2015

PLASTERER

\$ 19.92

1.00

PLUM0068-002 10/01/2017

PLUMBER

\$ 34.90

10.54

PLUM0211-010 10/01/2017

PIPEFITTER (Including HVAC Pipe Installation)

\$ 34.10

11.71

SHEE0054-003 07/01/2017

SHEET METAL WORKER (Excludes HVAC Duct and Unit Installation)

\$ 27.72

13.70

SUTX2014-023 07/21/2014

ACOUSTICAL CEILING MECHANIC

\$ 16.41

3.98

BRICKLAYER

\$ 19.86

0.00

CAULKER

\$ 15.36

0.00

CEMENT MASON/CONCRETE FINISHER

\$ 13.82

0.00

DRYWALL FINISHER/TAPER

\$ 16.30

3.71

DRYWALL HANGER AND METAL STUD INSTALLER

\$ 17.45

3.96

ELECTRICIAN (Alarm Installation Only)

\$ 17.97

3.37

ELECTRICIAN (Low Voltage Wiring Only)

\$ 18.00

1.68

FLOOR LAYER: Carpet

\$ 20.00

0.00

|   |          |      |
|---|----------|------|
| FORM WORKER   | \$ 11.87 | 0.00 |
| GLAZIER   | \$ 19.12 | 4.41 |
| INSULATOR – BATT  | \$ 14.87 | 0.73 |
| IRONWORKER, REINFORCING   | \$ 12.10 | 0.00 |
| LABORER: Common or General  | \$ 10.79 | 0.00 |
| LABORER: Mason Tender – Brick   | \$ 13.37 | 0.00 |
| LABORER: Mason Tender -Cement/Concrete                                  | \$ 10.50 | 0.00 |
| LABORER: Pipe layer   | \$ 12.94 | 0.00 |
| LABORER: Roof Tear off  | \$ 11.28 | 0.00 |
| LABORER: Landscape and Irrigation                                       | \$ 9.49  | 0.00 |
| LATHER  | \$ 19.73 | 0.00 |
| OPERATOR: Backhoe/Excavator/Track hoe                                   | \$ 14.10 | 0.00 |
| OPERATOR: Bobcat/Skid Steer/Skid Loader                                 | \$ 13.93 | 0.00 |
| OPERATOR: Bulldozer   | \$ 20.77 | 0.00 |
| OPERATOR: Drill   | \$ 16.22 | 0.34 |
| OPERATOR: Forklift  | \$ 15.64 | 0.00 |
| OPERATOR: Grader/Blade  | \$ 13.37 | 0.00 |
| OPERATOR: Loader  | \$ 13.55 | 0.94 |
| OPERATOR: Mechanic  | \$ 17.52 | 3.33 |
| OPERATOR: Paver (Asphalt, Aggregate, and Concrete)                      | \$ 16.03 | 0.00 |
| OPERATOR: Roller  | \$ 16.00 | 0.00 |
| PAINTER (Brush, Roller and Spray), Excludes Drywall<br>Finishing/Taping | \$ 16.77 | 4.51 |
| ROOFER  | \$ 15.40 | 0.00 |

|  |          |      |
|--|----------|------|
| SHEET METAL WORKER (HVAC Duct Installation Only) | \$ 17.81 | 2.64 |
| SHEET METAL WORKER (HVAC Unit Installation Only) | \$ 16.00 | 1.61 |
| SPRINKLER FITTER (Fire Sprinklers)               | \$ 22.17 | 9.70 |
| TILE FINISHER                                    | \$ 12.00 | 0.00 |
| TILE SETTER                                      | \$ 16.17 | 0.00 |
| TRUCK DRIVER: 1/Single Axle Truck                | \$ 14.95 | 5.23 |
| TRUCK DRIVER: Dump Truck                         | \$ 12.39 | 1.18 |
| TRUCK DRIVER: Flatbed Truck                      | \$ 19.65 | 8.57 |
| TRUCK DRIVER: Semi-Trailer Truck                 | \$ 12.50 | 0.00 |
| TRUCK DRIVER: Water Truck                        | \$ 12.00 | 4.11 |
| WATERPROOFER                                     | \$ 14.39 | 0.00 |

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate

(weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

\* an existing published wage determination

- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

## **12.0 INDEPENDENT CONTRACTOR:**

The Contractor shall be an independent contractor and any provisions of this Contract that may appear to give Fort Bend County the right to direct the Contractor as to the details of the manner

of doing the Project shall be deemed to mean that the Contractor shall follow the desires of Fort Bend County in the results of the Project only and not in the means whereby the Project is to be accomplished. The Contractor shall be responsible as to the details of completing the Project. Neither the agents, representatives, nor employees of the Contractor, shall be deemed to be the agents, representatives, or employees of Fort Bend County. The Contractor further represents that it accepts a fiduciary role and responsibility with respect to Fort Bend County and will, to its best abilities, act in the best interests of Fort Bend County and the timely completion of the Project. The Contractor agrees and understands that neither it nor any of its agents or employees may act in the name of Fort Bend County except and unless specifically authorized in writing by Fort Bend County to do so. The Contractor shall furnish construction administration and management services and use the Contractor's best efforts to complete the Project in an expeditious and economical manner consistent with the interests of Fort Bend County.

### **13.0 PUBLIC CONTACT:**

Contact with the news media, citizens of Fort Bend County or governmental agencies shall be the sole responsibility of Fort Bend County. Under no circumstances, whatsoever, shall Contractor release any material or information developed in the performance of its services hereunder without the express written permission of Fort Bend County, except where required to do so by law.

### **14.0 MODIFICATIONS:**

This instrument contains the entire Contract between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force and effect excepting a subsequent written modification signed by both parties hereto.

### **15.0 SILENCE OF SPECIFICATIONS:**

The apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of specifications shall be made on the basis of this statement. The items furnished under this contract shall be new, unused of the latest product in production to commercial trade and shall be of the highest quality as to materials used and workmanship. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item bid.

### **16.0 SEVERABILITY:**

In the event one or more of the provisions contained in these requirements or the specifications shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision hereof and these requirements or the specifications shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

## **17.0 GOVERNING FORMS:**

In the event of any conflict between the terms and provisions of these requirements and the specifications, the specifications shall govern. In the event of any conflict of interpretation of any part of this overall document, Fort Bend County's interpretation shall govern.

## **18.0 TAX EXEMPT:**

Fort Bend County is exempt from state and local sales and use taxes under Section 151.309 of the Texas Tax Code. This Contract is deemed to be a separate contract for Texas tax purposes, and as such, Fort Bend County hereby issues its Texas Exemption for the purchase of any items qualifying for exemption under this Contract. Contractor is to issue its Texas Resale Certificate to vendors and subcontractors for such items qualifying for this exemption, and further, contractor should state these items at cost.

## **19.0 ENTIRE AGREEMENT:**

The Parties agree that this Contract contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Contract. By entering into this Contract, the parties do not intend to create any obligations, express or implied, other than those specifically set out in this Contract.

## **20.0 APPLICABLE LAW AND VENUE**

This Contract shall be construed under and in accord with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Fort Bend County, Texas, and that venue for any litigation arising out of or related to this Contract shall lie solely in the court of appropriate jurisdiction located in Fort Bend County, Texas.

## **21.0 PERMITS:**

It shall be the sole responsibility of the successful bidder to obtain all required permits in the name of Fort Bend County.

## **22.0 STATE LAW REQUIREMENTS FOR CONTRACTS:**

The contents of this section are required by Texas Law and are included by County regardless of content.

22.1 Agreement to Not Boycott Israel Chapter 2270 Texas Government Code: By signature on vendor form, Contractor verifies Contractor does not boycott Israel and will not boycott Israel during the term of this Contract.

22.2 Texas Government Code Section 22.51.152 Acknowledgment: By signature on vendor form, Contractor represents pursuant to Section 2252.152 of the Texas



Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

### **23.0 SPECIFICATIONS AND PRICING:**

Vendor is to complete pricing below to include all costs associated with the below services as stated herein including labor, materials, preparation, equipment, chemicals and PPE to provide and install CCTV System and Burglar Alarm System.

23.1 See Exhibit A  
CCTV System

Total Cost \$\_\_\_\_\_

23.2 See Exhibit B  
Burglar Alarm System

Total Cost \$\_\_\_\_\_

### **24.0 REFERENCES:**

Bidders must submit, with this response a list of three (3) references of similar projects performed as stated herein by their firm within the last five (5) years. Fort Bend County reserves the right to contact the references provided. The reference information shall include name of firm address telephone number, name of representative, type of services provided, date of services and the quantity of carriers completed.

### **25.0 REQUIRED FORMS:**

All vendors submitting are required to complete the attached and return with submission:

25.1 Vendor Form

25.2 W9 Form

25.3 Tax Form/Debt/Residence Certification

25.4 Contractor Acknowledgement of Stormwater Management Program

## Fort Bend County Facilities Electronics

### Fort Bend County Jones Creek Ranch CCTV RFP

Rev 12/28/2017 Kevin Bulman

#### OVERVIEW

The purpose of this document is intended to be used as the base specification by Fort Bend County in relation to the IP video surveillance system design located at 7714 FM 359 Rd. Richmond Texas. Listed in this document herein are the specifications of components FBC requests be met for the IP video surveillance system in addition to contractor design submittals.

Submittals from bidding contractors shall include a detailed narrative of their proposed implementation based on the specifications listed in this document showing an understanding of the Video Surveillance system requirements and notate any missing dependencies needed for the Video Surveillance system implementation prior to acceptance.

Awarded contractor shall represent that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Work and shall furnish and maintain, at its own expense, adequate and sufficient personnel to perform the scope of services when and as required without delays of the equipment listed.

The Scope of Work shall include being a turnkey installation of all components listed in this document in the manner and locations specified by owner on provided prints with their references adhered to as listed in this document meeting all manufacturer recommendations, requirements, and regulatory guidelines.

The system shall be compatible with the County's existing Pelco VideoXpert VMS

All camera network communication cabling infrastructure to include fiber optic, and Category 6 UTP network shall be provided by owner for the Video Surveillance installing contractor, and properly terminated at camera locations shown on print except for cameras identified to communicate to the video recording device (NVR) via wireless communication technology where awarded contractor will include all low voltage, and communication wiring to and from the camera(s) and Wireless transmission equipment included as part of this Scope Of Work.

A total of (5) new IP cameras are to be installed per location shown on provided print with each cameras designated specification requirements.

There are (4) existing analogue cameras located in the Lodge building connected to an existing DVR that shall be connected to the new specified recording device by means of an encoder specified in this document.

One of the (4) cameras (Pole 270 degree) panoramic is designated on the provided print to utilize wireless technology for communication to the Lodge building. (2 outlet 120VAC power is provided by owner at this location).

All cameras shall be installed **with** a mount designed to support the camera with a 90 degree angle fixed to the appropriate vertical mounting surface as listed by the cameras manufacturer.

All required licenses for the VMS system specified for the (9) cameras shall be included in the scope of work as the awarded contractors responsibility to provide and implement.

A complete set of as built documents to include but not limited to all manufacturers packaged or otherwise available documentation of the installed equipment shall be turned over to the Fort Bend County Facilities Electronics personnel located at 301 Jackson Street Suite #301 Richmond, TX. prior to final acceptance of completion.

## **PART 1 GENERAL REQUIREMENTS**

- A. Equipment and materials used shall be standard components that are manufactured and available for purchase as standard replacement parts as long as the product is commercially available from the manufacturer.
- B. All manufactured products shall be thoroughly tested and proven in actual use.
- C. All manufactured products shall include, at no additional cost, online support services and availability of a toll-free (U.S. and Canada), 24-hour technical assistance program for emergencies.
- D. The manufacturer shall repair or replace without charge, manufactured products proven defective in material or workmanship for the stated warranty period from the date of shipment.

## **1.02 REFERENCES**

### **A. Abbreviations**

1. API – Applications Programming Interface
2. DSSRV – Digital Sentry Server
3. DHCP – Dynamic Host Client Protocol
4. GUI – Graphical User Interface
5. IP - Internet Protocol
6. JPEG - Joint Photographic Experts Group
7. LDAP – Lightweight Directory Access Protocol
8. MJPEG - Motion JPEG
9. MPEG - Moving Pictures Experts Group
10. NTP – Network Time Protocol
11. SNMP - Simple Network Management Protocol
12. UPS - Uninterruptible Power Supply
13. VMS - Video Management System
14. FBC - Fort Bend County

## **1.03 SUBMITTALS**

### **A. Product Data**

1. Manufacturer's printed or electronic data sheets
2. Manufacturer's installation and operation manuals
3. Warranty documentation

### **1.03 QUALIFICATIONS**

- A. Manufacturer shall have a minimum of five years' experience in producing IP video application software.
- B. Installers shall be trained and authorized by the Manufacturer to install, integrate, test, and commission the system.
- C. Submittal of work plan and equipment shall be approved in writing by FBC Facilities Lead Electronics Technician prior to acceptance.

### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Deliver the cameras(s) and system equipment in the manufacturer's original, unopened, undamaged container with identification labels intact.
- B. Store the camera(s) and equipment in a temperature controlled environment protected from mechanical and environmental conditions as designated by the manufacturer.

### **1.06 WARRANTY, SUPPORT AND LICENSING**

- A. Manufacturer shall provide a limited 3 year warranty for Manufacturer supplied hardware to be free of defects in material and workmanship.
- B. Manufacturer shall provide software support and update for a period of 36 months. Extended support options shall be available.

## **2 PRODUCTS**

### **2.01 EQUIPMENT**

- A. **Manufacturer: Pelco**
- B. **Model: DSSRV2-120RD-US**
- C. **Alternates: Equal Manufacturer specified approved by FBC Facilities Lead Electronics Technician.**  
**Note: (Must be compatible with existing County Pelco VideoXpert VMS system aggregation).**

### **2.02 General Specifications:**

- A. The IP video management system shall consist of Digital Sentry<sup>®</sup> NVs version 7 software operating on an optimized Pelco-supplied hardware platform. The NVs software shall consist of base software with individual, non-expiring licenses in the required quantity.
- B. The IP video management system software updates shall be downloadable from a publicly available website.
- C. The IP video management system shall support up to 128 combined IP and analog video streams, with up to 64 direct-attached analog cameras. Analog streams shall be supported using Pelco and/or third-party encoders.
- D. The IP video management system shall provide 350 Mbps for RAID5, 300 Mbps for JBOD systems throughput for recording of analog and IP video streams, playback and export.
- E. The IP video management system shall have a SSD system drive to increase responsiveness.
- F. The IP video management system shall support recording of JPEG, MPEG-4 and H.264 IP streams.
- G. The IP video management system shall support Pelco and third-party H.264 Megapixel video streams up to 10 Megapixel resolution with quantities based on a total system of 300 Mbps throughput for recording of analog and IP video streams, playback and export.
- H. The IP video management system shall have a fully open architecture with support for both IP-specific camera as well as cameras with ONVIF compliance.
- I. The IP video management system shall support automatic detection of Pelco IP cameras. Third-party IP cameras shall be automatically detected dependent on IP driver versions and manufacturers specifications.
- J. The IP video management system shall support up to 64 looping analog camera inputs with direct-attached 16-channel encoders; up to four direct-attached units. The direct-attached

16-channel encoders shall support H.264 compression, CIF, 2CIF, and D1 resolutions at maximum 30ips, 16 audio inputs and RS422/485 PTZ control with Pelco P and D protocols and Coaxitron.

- K. The IP video management system shall support an unlimited number of systems connected over a network. Each system shall contain two 1GB network ports; one for IP camera/encoder data, and one to connect to a network for client computer access.
- L. The IP video management system shall be viewed, managed, and played back through a single user interface simultaneously with other Digital Sentry digital video management systems through supplied DS Admin or DS ControlPoint Client software.
- M. The IP video management system shall operate on a 4<sup>th</sup> Generation Intel® Xeon processor and 8 GB of RAM.
- N. The IP video management system shall contain two DVI-D ports.
- O. The IP video management system shall utilize a Windows® 7 Ultimate 64-bit operating system or later approved by manufacturer and Fort Bend County Facilities Electronic Lead.
- P. The IP video management system shall support and have an option for an internal DVD+/-RW.
- Q. The IP video management system shall allow expansion of IP video channel capacity through a licensing without any hardware modification.
- R. The IP video management system shall be capable of continuous scheduled alarm/event and motion recording. Pre- and post- alarm recording shall also be available and shall be fully programmable on a per channel basis.
- S. The IP video management system shall allow archival of video data to computers or SAN storage devices over a network connection with the optional DS Archive Utility. The archival schedule shall be either automatic at user-defined intervals or manual and shall be configurable per connected camera.

- T. The IP video management system shall support network health and monitoring utilizing third-party SNMP monitoring tools.
- U. The IP video management system shall indicate system performance and operation status utilizing a variety of HTML reports.
- V. The IP video management system shall optionally support on-board video analytics in quantities of two or four channels with Active Alert software and the DS DataPoint interface. The DS DataPoint interface shall provide video analytics monitoring including tracking and counting objects and people.
- W. The IP video management system shall support Lightweight Directory Access Protocol (LDAP).

X. System Specifications

- |                                      |  |
|--------------------------------------|--|
| 1. Processor                         | Intel® Xeon E3-1275 v3   |
| 2. Operating System                  | Windows 7 Ultimate 64-bit  |
| 3. Internal Memory                   | 8 GB DDR3 non-ECC RAM; 16GB DDR ECC<br>RAM for DSSRV2-RD models                    |
| 4. Network Interface                 | Gigabit Ethernet (1000Base-T) ports (2x)   |
| 5. User Interface                    | DS Control Point   |
| 6. Internal Storage (JBOD or RAID 5) |  |
| a. DSSRV2-RD                         | 12 TB  |
| 7. Raid Level                        | Internal RAID 5 (requires DSSRV2-RAID<br>controller card for hot swappable drives) |
| 8. External Storage                  | Pelco's DX8100HDDI or third-party SCSI<br>targets (requires optional DSSRV-SCSI)   |
| 9. System Drive                      | SSD  |
| a. DSSRV2                            | 6, 3.5-inch hard drive bays  |
| b. DSSRV2-DVD                        | 4, 3.5-inch hard drive bays  |
| c. Optical Drive                     | DVD±RW with DSSRV2-DVD   |



|                                      |   |                |              |
|--------------------------------------|---|----------------|--------------|
| d. USB Ports                         | 3 USB 2.0 (1 front, 2 rear), 2 USB 3.0 (rear) |                |              |
| 10. Power Input                      | 100 to 240 VAC, 50/60 Hz, autoranging         |                |              |
| 11. Power Supply                     | Internal                                      |                |              |
| 12. Power Consumption                | Operating Max                                 |                |              |
|                                      | <u>Watts</u>                                  | <u>Amperes</u> | <u>BTU/H</u> |
| a. 100 VAC / 50 Hz                   | 222.0   | 2.22           | 758.0        |
| b. 110 VAC / 50 Hz                   | 224.0   | 2.02           | 759.4        |
| c. 110 VAC / 60 Hz                   | 223.0   | 2.03           | 761.4        |
| d. 115 VAC / 50 Hz                   | 217.0   | 1.89           | 740.8        |
| e. 115 VAC / 60 Hz                   | 215.5   | 1.87           | 735.7        |
| f. 220 VAC / 50 Hz                   | 213.0   | 0.97           | 727.2        |
| g. 220 VAC / 60 Hz                   | 204.1   | 0.93           | 696.8        |
| h. 240 VAC / 50 Hz                   | 211.9   | 0.88           | 723.4        |
| i. 240 VAC / 60 Hz                   | 207.6   | 0.86           | 708.8        |
| 13. Front Panel Indicators/Functions |   |                |              |
| a. Buttons                           | Power   |                |              |
| b. Indicators                        |   |                |              |
| 1. Unit Status                       | Green, amber, red                             |                |              |
| 2. Primary Network                   | Green, amber, red                             |                |              |
| 3. Secondary Network                 | Green, amber, red                             |                |              |
| 4. Software Status                   | Green, amber, red (based on diagnostics)      |                |              |
| 5. Hard Disk Status                  | Green, red, off (behind bezel)                |                |              |

## Y. Video Specifications

|                       |   |
|-----------------------|---|
| 1. Video System       | Intel HD Graphics P4700 (shared memory)   |
| a. Maximum Resolution | 3840 x 2160 per DisplayPort output (2x)<br>1920 x 1200 @ 60 hz on DVI-D output<br>1920 x 1200 @ 60 hz on VGA output |

- |    |  |   |
|----|--|---|
| 2. | Video Outputs                          | Supports up to 3 simultaneous displays using any combination of the four outputs  |
| 3. | Video Standards                        | 60 Hz capable for NTSC; 75 Hz capable for PAL   |
| 4. | Video Decoding Supported High profiles | MPEG-4 ASP; H.264 Baseline, Main, and   |
| 5. | Decoding Performance                   | 16X real-time MPEG-4 streams at 704 x 480;<br>12X real-time H.264 Baseline profile streams at 704 x 480;<br>4X H.264 Baseline profile streams at 720p;<br>time H.264 Baseline profile streams |
|    |  | 2X real-<br>at 1080p  |

## Z. Audio Specifications

- |    |                     |  |
|----|---------------------|--|
| 1. | Audio Decoding      | G.711 speech codec                               |
| 2. | Audio bit-rate      | 64 kbps  |
| 3. | Audio Levels        |  |
|    | a. Input            | Electret microphone                              |
|    | b. Output           | Up to 3 Vp-p, adjustable, minimum load of 8 ohms |
| 4. | Audio Connectors    | 2, 3.5 mm stereo jacks                           |
|    | a. Connector Tip    | Signal left (input and output)                   |
|    | b. Connector Ring   | Signal right (input and output)                  |
|    | c. Connector Sleeve | Common   |
| 5. | Audio Inputs        | Microphone                                       |
| 6. | Audio Outputs       | Speaker or in line                               |

## AA. Environmental Specifications

- |    |                           |                                   |
|----|---------------------------|-----------------------------------|
| 1. | Operating Temperature     | 10° to 35°C (50° to 95°F)         |
| 2. | Operating Humidity        | 20% to 80%, noncondensing         |
| 3. | Maximum Humidity Gradient | 10% per hour                      |
| 4. | Operating Altitude        | –15 to 3,048 m (–50 to 10,000 ft) |

5. Operating Vibration 0.25 G at 3 Hz to 200 Hz at a rate of 0.5 octave/minute

BB. Supplied Accessories

- |    |                        |  |
|----|------------------------|--|
| 1. | Power Cord             | 1 USA standard, 1 based on country designation;<br>all cables are 3 prong, molded connector,<br>1.8 m (6 ft) |
| 2. | USB Keyboard and Mouse | 1  |
| 3. | Bezel Key              | 2  |
| 4. | Rack Mount Kit         | Brackets, rails, and hardware for mounting in a<br>2 RU rack   |
| 5. | DSSRV-LIT              | Documentation  |
| 6. | USB-DS                 | Imaged with DS NVs and includes resource<br>documentation  |

CC. Certifications

1. CE, Class A; meets EN50130-4 standard requirements
2. FCC, Class A
3. UL/cUL Listed
4. C-Tick
5. CCC
6. KCC
7. S-Mark

DD. Standards/Organizations

1. Pelco is a member of the MPEG-4 Industry Forum
2. Pelco is a member of the Universal Plug and Play (UPnP) Forum, Steering Committee
3. Pelco is a member of the Universal Serial Bus (USB) Implementers Forum

4. Pelco is a contributor to the International Standards for Organization/Electrotechnical Commission (ISO/IEC) Joint Technical Committee 1 (JTC1). "Information Technology", Subcommittee 29, Working Group 11
5. Compliance, ISO/IEC 14496 standard (also known as MPEG-4)
6. Compliance, International Telecommunication Union (ITU), Recommendations G.711, "Pulse Code Modulation (PCM) of Voice Frequencies"
7. Pelco is a member of the ONVIF Open Industry Forum

EE. IP Video Management Client Software requirements

1. The IP video management system shall provide the capability of running a client application in addition to the video management system.
2. A client computer with system compatible software shall be the user interface for viewing one or more systems. Live and recorded video and current event video shall be displayed on any client computer using a proper login and password. The client computer shall be able to connect to an unlimited number of recorders simultaneously to display live and recorded video.
3. Client Software shall be unlicensed and available to be installed on as many clients as required by the user.
4. Client Software shall be compatible with multiple DVR and NVR platforms to include all Pelco Digital Sentry®, Pelco DX8000/8100, DX4500/4600/4700/4800 and DX4700/4800HD.
5. Client Software shall be password controlled such that password functionality set at each connected system will be recognized at the client. Password shall limit the ability to access live or recorded video as well as the ability to export video.
6. Client Software shall allow multiple monitor support for up to four displays per client workstation, providing virtual matrix functionality.
7. Client Software shall allow the connection of Pelco KBD5000 keyboard controllers to the client workstation to control PTZ operations and camera call-up.

8. Client Software shall allow video streams to be selectable from a system tree on an individual camera, individual system, client defined local groups, or from predefined recorder based groups.
9. Client Software shall be a tab based work environment with the ability to undock the tabs creating a virtual workspace on single or multiple monitor clients.
10. Client tabs shall include system management, live, and search options. Tabs can be displayed simultaneously on the client.
11. Systems Tab shall display and sort available systems, connection status, system names, system IP addresses, and custom categories. This tab shall additionally allow:
  - a. Manual connect and disconnect of systems to the client
  - b. Virtual systems naming
  - c. Auto Connecting
  - d. Adding, deleting, and editing available systems
  - e. Live video tab shall have the ability to be created up to four times on a single client workstation providing for video display combinations and simultaneous video streams from as many different systems with consideration for maximum client bandwidth.
12. Live video tab shall provide the following functionalities:
  - a. Quick Review which shall display recorded video from the last 1, 5, 15, 30, 60 or 90 minutes, providing near instantaneous review of recent events
  - b. One week graphical display of recorded video
  - c. Borderless display option
  - d. Screen layout selection
  - e. On the fly on-screen display changes including time, date, camera name, frame rate, frame size, alarm display, and border indicators
  - f. Digital zoom
  - g. User selectable in-video PTZ control or dashboard style control

- h. Drag and drop audio support associating any audio with any video
  - i. Search video tab shall allow for the search of one or multiple cameras from one or multiple systems simultaneously. Search tab shall provide the following functionalities:
    - j. Time and date search
    - k. Advanced data search with DataPoint interfaced software to Active Alert Intelligent Video and POS
    - l. Drag and drop audio support to associate audio with any video
13. Video export to any system accessible media including locally to HDD, CD/DVD, Flash USB device or to network storage.
14. Video authentication of exported video via check sum verification.
15. Alarm video tab shall allow for alarm pop-up and playback of active alarms. Alarms may be based on motion activity, an external software trigger from Active Alert analytics or a preset data alarm from DS DataPoint. An alarm list pane shall be displayed for playback of queued alarms.
16. The Client shall incorporate virtual matrix functionality whereby camera sequences may be created on the monitoring workstation with the following functionalities:
17. Each sequence shall have a maximum of 500 cameras.
18. Each camera in the sequence shall have its own individual dwell time, from 1 to 60 seconds.
19. Each entry in a sequence shall have the capacity to trigger PTZ camera presets, patterns, or auxiliaries.
20. The Client shall have the capability to display recorded video with full VCR controls. This feature shall display video from multiple cameras simultaneously. The user shall be able to play video as fast as possible (all images), in real time, or by skipping a selectable number of seconds.

21. The Client shall support simultaneous playback of up to sixteen cameras all synchronized with each other. Non-synchronous playback of multiple cameras shall not be acceptable.

22. The Client shall support tours of multi-camera displays.

FF. Warranty

1. 3 year parts and labor

GG. FBC Facilities Electronics Recommended Pelco Model Numbers:

1. DSSRV2-120RD NVR with RAID configuration, 12 TB storage

HH. Accessories

1. DS-SW-CAM DSSRV2 models include eight IP licenses for Pelco and third party IP cameras; additional DS-SW-CAM licenses can be purchased separately
2. ENC5516 Direct-attached analog encoder
3. ENC5400-4PORT 4-port host card; connects ENC5416 or ENC5516 encoders
4. DSSRV-RAID LSI 3Ware 9750-8i RAID controller card
5. DSSRV-SCSI Adaptec® SCSI Card 29320LPE
6. DSHDD-005 500 GB upgrade/replacement drive
7. DS-EN-HDD-TB 4 TB upgrade/replacement drive

Highlighted Accessories required for system design intent of Fort Bend County.

**2 GENERAL CAMERA SECTION TYPE PELCO OPTERA IP CAMERA (Administration Bldg & Exterior & Light pole by the pool as shown on print.**

**3 PRODUCTS**

**INDOOR / OUTDOOR PANOMERSIVE IP NETWORK CAMERAS**

- A. The IP Panoramic indoor/outdoor multi-sensor camera system shall transparently integrate video across all sensor's in the camera presenting a seamless fully stitched and blended total resolution of 12 megapixel (MPx), 2048 x 1536 x 4.
- B. The IP Panoramic indoor/outdoor multi-sensor camera system technology shall include options for 180°, 270° and 360° camera functionality as well as provide pan and tilt adjustment of the camera module for 180° degree models and pan for 270° and 360° modules.
- C. In conjunction with a Video Management System "VMS" that integrates the Panomersive Toolkit, the camera shall be able to support seamless panoramic views and simultaneous Immersive Views that allow for the pan, tilt and zoom in, across the entire field of view.
- D. The IP Panoramic indoor/outdoor multi-sensor camera system housing technology shall meet the IK10 impact specification as well as standard mounting hardware capabilities that would include but not be limited to Pendant, Surface, and Ceiling mount hardware.
- E. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide SureVision™ 2.0 technology that seamlessly delivers extended True Wide Dynamic Range (WDR), low-light performance, and anti-bloom technology, operating in a simultaneous mode of operation.
- F. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide a slot for a removable, local storage medium (not provided by camera manufacturer) (Micro SD) to capture video clips of varying lengths in accordance with the ONVIF G Profile. Any Video Management System "VMS" that is conformant to this standard can initiate storage and retrieval of video, for instance to safeguard against network failure.



- G. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide a service video stream in addition to and independent of the video streams.
- H. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide advanced low-light capabilities for day/night models with sensitivity down to 0.03 lux for the 180° and 0.05 lux in the 270° and 360° models respectively while in night mode.
- I. The IP Panoramic indoor/outdoor multi-sensor camera system shall support industry standard Power over Ethernet Plus (PoE+) IEEE 802.3at, Class4 to supply power to the camera over the network.
- J. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide options for clear and smoked lower domes.
- K. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide Wide Dynamic Range (WDR) up to 120 dB with dynamic adjustments through the User Interface across the cameras field of view.
- L. The IP Panoramic indoor/outdoor multi-sensor camera system shall have a mechanical IR cut filter mechanism for increased sensitivity in low-light installations. Set points for the IR cut filter feature shall be configurable through an embedded Web browser.
- M. The IP Panoramic indoor/outdoor multi-sensor camera system shall support H.264 High, Main or Base profiles, using constrained variable bit rate (CVBR) as the default, variable bit rate (VBR), or constant bit rate (CBR) with target range.
- N. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide 802.1x port security to establish point-to-point access through a wired or wireless port using Extensible Authentication Protocol (EAP).
- O. The IP Panoramic indoor/outdoor multi-sensor camera system shall conform to the ONVIF Profile S and Profile G, and support open architecture best practices with a published API available to third-party network video recording and management systems. A “Panomersive” SDK that would enable

Video Management Systems to d-warp the streams from this camera into panoramic and Immersive Views shall be made available.

- P. The IP Panoramic indoor/outdoor multi-sensor camera system shall support SNMP v2c and v3.
- Q. The IP Panoramic indoor/outdoor multi-sensor camera system shall support IPv6 configurations in conjunction with IPv4.
- R. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide Auto or Manual exposure settings for adjusting the amount of light detected by the camera sensor.
- S. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide user-selectable configurations for day/night auto mode. Transitional levels shall be used to set the desired light level for transitioning to night mode. Transition detect time shall control the length of time that the camera is exposed to a light level before changing to color or monochrome mode.
- T. The IP Panoramic indoor/outdoor multi-sensor camera system shall be factory focused, requiring no manual adjustment of focus in the field.
- U. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide User and Group settings to assign permissions and access levels to the camera.
- V. The IP Panoramic indoor/outdoor multi-sensor camera system shall be based on a 1/3.2-inch high resolution CMOS sensor and includes four of them in the cameras standard configuration.
- W. The IP Panoramic indoor / outdoor network camera system shall include a camera module, back box, and lower dome.
- X. The IP Panoramic indoor/outdoor multi-sensor camera system shall support standard IT protocols.

- Y. The IP Panoramic indoor/outdoor multi-sensor camera dome system shall provide a 1000Base-T network interface.
- Z. The IP Panoramic indoor/outdoor multi-sensor camera system shall be plenum-rated per 2008 NEC article 300.22(C)(2).
- AA. The IP Panoramic indoor/outdoor multi-sensor camera system shall be vandal and tamper resistant with an impact resistance of IK10 (20 Joules).
- BB. The IP Panoramic indoor/outdoor multi-sensor camera system shall be NEMA-4X, IP66 rated.
- CC. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide a 3/4-inch NPT conduit attachment on the side and top of the back box for in-ceiling and surface mounted applications.
- DD. The IP Panoramic indoor/outdoor multi-sensor camera system shall attach to a standard (1900) 4-inch square box or standard 2-gang electrical box for surface mounted applications.
- EE. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide a 1.5-inch NPT conduit attachment for pendant mounted applications.
- FF. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide for a standards based HTML interface.
- GG. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide Window Blanking Technology for user defined privacy areas.
- HH. The IP Panoramic indoor/outdoor multi-sensor camera system shall feature open architecture connectivity for third-party software recording solutions allowing integration into virtually any IP-based system.

- II. The IP Panoramic indoor/outdoor multi-sensor camera system shall provide integrated video analytics with the ability to provide hardware and software alarms based on the analytic behaviors presented.
- JJ. Analytics for the IP Panoramic indoor/outdoor multi-sensor camera system shall include:
- a. Abandoned Object: Detects objects placed in a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows. An airport terminal is a typical installation for this behavior. This behavior can also detect objects left behind at an ATM, signaling possible card skimming.
  - b. Adaptive Motion: Detects and tracks objects that enter a scene and then triggers an alarm when the objects enter a user-defined zone. This behavior is primarily used in outdoor environments with light traffic to reduce the number of false alarms caused by environmental changes.
  - c. Camera Sabotage: Detects contrast changes in the field of view. An alarm is triggered if the lens is obstructed with spray paint, a cloth, or a lens cap. Any unauthorized repositioning of the camera also triggers an alarm.
  - d. Directional Motion: Generates an alarm in a high traffic area when a person or object moves in a specified direction. Typical installations for this behavior include an airport gate or tunnel where cameras can detect objects moving in the opposite direction of the normal flow of traffic or an individual entering through an exit door.
  - e. Loitering Detection: Identifies when people or vehicles remain in a defined zone longer than the user-defined time allows. This behavior is effective in real-time notification of suspicious behavior around ATMs, stairwells, and school grounds.
  - f. Object Counting: Counts the number of objects that enter a defined zone or cross a tripwire. This behavior might be used to count the number of people at a store entrance/exit or inside a store where the traffic is light. This behavior is based on tracking and does not count people in a crowded setting.

- g. Object Removal: Triggers an alarm if an object is removed from a defined zone. This behavior is ideal for customers who want to detect the removal of high value objects, such as a painting from a wall or a statue from a pedestal.
- h. Stopped Vehicle: Detects vehicles stopped near a sensitive area longer than the user-defined time allows. This behavior is ideal for airport curbside drop-offs, parking enforcement, suspicious parking, traffic lane breakdowns, and vehicles waiting at gates.

KK. The IP Panoramic indoor/outdoor multi-sensor camera system shall meet or exceed the following design and performance specifications.

#### 1. Camera Specifications

- a. Imaging Device 1/3.2-inch
- b. Imager Type CMOS
- c. Imager Readout Progressive scan
- d. Highest Resolution 12 MP, 2048 x 1536 x 4
- e. Signal-to-Noise Ratio >50 db
- f. Sensitivity
  - 1. 180° Model f/2.0, 0.3 lux color (33 ms),  
0.14 lux mono (33 ms)
  - 2. 270° Model f/2.5, 0.5 lux color (33 ms),  
0.2 lux mono (33 ms)
- g. Day/Night Capabilities Yes
- h. Mechanical IR Cut Filter Yes, (ON/OFF/AUTO selectable) with different set points
- i. Wide Dynamic Range 120 dB

#### 2. Lens Specifications

- a. Length
  - 1. 180° Model f/2.0 ~ 4.8 mm

- 2. 270° Model                      f/2.5 ~ 2.7 mm
- b. Field of View
  - 1. 180° Model                      180° horizontal, 41° vertical
  - 2. 270° Model                      270° horizontal, 73° vertical
- 3. Video Specifications
  - a. Video Streams                      Set of streams to deliver full resolution views;  
secondary stream that comprises a lower  
resolution mosaic of above streams
  - b. Frame Rate(s)                      User selectable up to 12.5 frames per second  
(fps)
  - c. Video Encoding                      H.264 High, Main, or Base profiles;  
MJPEG (mosaic stream only)
  - d. Bit Rate Control                      Default maximum for Constrained Variable Rate  
(CVBR) at maximum resolution and frame rate
    - 1. 180° Model                      28 Mbps  
Note: Actual bit rates are lower depending on  
scene complexity
  - e. Network
    - 1. Supported Protocols                      TCP/IP, UDP/IP (Unicast, Multicast IGMP),  
UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4,  
IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH,  
SSL, SMTP, FTP, ARP, ICMP, and+  
802.1x(EAP)  
Note: IPv6 supports mixed IPv4 and IPv6  
installations, but not IPv6-only deployments
    - 2. Users
      - i. Unicast                      Up to 20 simultaneous depending on the  
resolution settings, and frame rate
      - ii. Multicast                      Unlimited H.264
  - f. Security Access                      Password protected
  - g. Software Interface                      Web browser view and setup

- h. Open API Integration Pelco API, Panomersive SDK,  
ONVIF Profile S and G
  - i. Minimum System Requirements
    - 1. Processor Intel® Core™ i3 processor, 2.4 GHz
    - 2. Operating System Microsoft Windows® 10, Windows® 7 (32- and 64-bit), or Windows Vista®; or Mac® OS X 10.9 (or later)
    - 3. Memory 4 GB RAM
    - 4. Network Interface 100 Mbit (or greater)
    - 5. Monitor Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution
    - 6. Web Browser Internet Explorer® 8.0 (or later); Mozilla® Firefox® 35 (or later); Google® Chrome 40 (or later)
  - j. Analytics
    - 1. Open API Can transmit behavior alarm data to third-party applications.
4. Electrical Specifications
- a. Network Port RJ-45 connector for 1000Base-T  
1 Gigabit/sec Auto MDI/MDI-X PoE+; Class 4
  - b. Cabling Type Category 5 or better
  - c. Input Power PoE+ (IEEE 802.3at, Class 4)
  - d. Power Consumption
    - 1. Without Heater 17 watts
    - 2. With Heater 23 watts
  - e. Local Storage Micro SD, SDHC
  - f. Alarm
    - 1. Unsupervised Detects open or closed alarm state
    - 2. Supervised Detects open and short alarm state with external 1-kohm resistor to detect alarm tampering

- |                 |   |  |
|-----------------|---|--|
| 3. Input        | 3.5 VDC maximum, 3.5 mA maximum               |  |
| g. Relay Output | ±32 VDC maximum, 150 mA maximum               |  |
| h. Audio        |   |  |
| 1. Streaming    | Bidirectional: full or half duplex            |  |
| 2. Input/Output | 600 ohm differential, 1Vp-p max. signal level |  |
| 3. Compression  | G.711 PCM 8 bit, 8 kHz mono at 64 kbit/s      |  |
5. Back box and lower dome specifications
- a. Indoor Vandal, In-Ceiling
- |                           |   |             |
|---------------------------|---|-------------|
| 1. Installation           | Single back box for suspended or hard ceiling applications                        |             |
| 2. Back Box               | Plenum rated  |             |
| 3. Cable Entry on         | 0.75-inch NPT or 25 mm conduit side and top of back box                           | attachments |
| 4. Operating Temperatures | –10° to 50°C (14° to 122°F)   |             |
| 5. Operating Humidity     | 15 to 85%, RH non-condensing  |             |
| 6. Impact Resistance      | IK10  |             |
| 7. Shock and Vibration    | EN50155 Category 1, Class B; IEC 60068:2-6 and 2-27, ISTA-2A, Sequence 5, MIL810G |             |
| 8. Construction           | Alodine aluminum  |             |
- b. Indoor Vandal, Surface Mount
- |                           |   |  |
|---------------------------|---|--|
| 1. Installation           | Attaches to standard 4-inch square outlet box and 2-gang electrical box; 0.75-inch NTP or 25 mm conduit attachments on side back box; wire entry through grommet on top of back box |  |
| 2. Operating Temperatures | –10° to 50°C (14° to 122°F)   |  |
| 3. Operating Humidity     | 15 to 85%, RH non-condensing  |  |
| 4. Impact Resistance      | IK10  |  |



- |                        |  |
|------------------------|--|
| 5. Shock and Vibration | EN50155 Category 1, Class B; IEC 60068:2-6<br>and 2-27, ISTA-2A, Sequence 5, MIL810G |
| 6. Construction        | Alodine aluminum   |

c. Indoor Vandal, Pendant

- |                           |  |
|---------------------------|--|
| 1. Installation           | 1.5-inch NPT conduit/pipe attachment   |
| 2. Operating Temperatures | −10° to 50°C (14° to 122°F)  |
| 3. Operating Humidity     | 15 to 85%, RH non-condensing   |
| 4. Impact Resistance      | IK10   |
| 5. Shock and Vibration    | EN50155 Category 1, Class B; IEC 60068:2-6<br>and 2-27, ISTA-2A, Sequence 5, MIL810G |
| 6. Construction           | Alodine aluminum   |

a. Environmental Vandal, In-Ceiling

- |                            |  |             |
|----------------------------|--|-------------|
| 7. Installation            | Single back box for suspended or hard ceiling<br>applications                        |             |
| 8. Back Box                | Plenum rated   |             |
| 9. Cable Entry<br>on       | 0.75-inch NPT or 25 mm conduit<br>side and top of back box                           | attachments |
| 10. Operating Temperatures | −40° to 50°C (−40° to 122°F)   |             |
| 11. Operating Humidity     | 10 to 95%, RH non-condensing   |             |
| 12. Impact Resistance      | IK10   |             |
| 13. Shock and Vibration    | EN50155 Category 1, Class B; IEC 60068:2-6<br>and 2-27, ISTA-2A, Sequence 5, MIL810G |             |
| 14. Construction           | Alodine aluminum   |             |
| 15. Ingress protection     | IP66   |             |

b. Environmental Vandal, Surface Mount

- |                           |   |
|---------------------------|---|
| 1. Installation           | Attaches to standard 4-inch square outlet box and 2-gang electrical box   |
| 2. Cable Entry            | 0.75-inch NPT or 25 mm conduit attachments on side and top of back box. Wire entry through grommet on top of back box |
| 3. Operating Temperatures | –40° to 50°C (–40° to 122°F)  |
| 4. Operating Humidity     | 10 to 95%, RH condensing  |
| 5. Impact Resistance      | IK10  |
| 6. Shock and Vibration    | EN50155 Category 1, Class B; IEC 60068:2-6 and 2-27, ISTA-2A, Sequence 5, MIL810G                                     |
| 7. Construction           | Alodine aluminum  |
| 8. Ingress protection     | IP66  |

c. Environmental Vandal, Pendant

- |                           |   |
|---------------------------|---|
| 1. Installation           | 1.5-inch NPT thread for use with Pelco wall mounts                                |
| 2. Operating Temperatures | –40° to 50°C (–40° to 122°F)  |
| 3. Operating Humidity     | 10 to 95%, RH condensing  |
| 4. Impact Resistance      | IK10  |
| 5. Shock and Vibration    | EN50155 Category 1, Class B; IEC 60068:2-6 and 2-27, ISTA-2A, Sequence 5, MIL810G |
| 6. Construction           | Alodine aluminum  |
| 7. Ingress protection     | IP66  |

2. Dome System Specifications

- |                                 |  |
|---------------------------------|--|
| a. Indoor Vandal, In-Ceiling    | 5.90 cm (2.32 in) above ceiling, lower dome<br>9.85 cm (3.88 in) below ceiling, 16.15 cm<br>(6.36 in) diameter |
| b. Indoor Vandal, Surface Mount | 14.65 cm (5.76 in) overall length (including dome) by 15.93 cm (6.27 in) diameter                              |

- c. Indoor Vandal, Pendant                      17.80 cm (7.00 in) overall length (including dome) by 15.75 cm (6.20 in) diameter
- d. Environmental Vandal, In-Ceiling      5.90 cm (2.32 in) above ceiling, lower dome  
9.85 cm (3.88 in) below ceiling, 16.15 cm  
(6.36 in) diameter
- e. Environmental Vandal, Surface          14.65 cm (5.76 in) overall length (including dome) by 15.93 cm (6.27 in) diameter
- f. Environmental Vandal, Pendant          17.80 cm (7.00 in) overall length (including dome) by 15.75 cm (6.20 in) diameter

### 3. Mechanical Specifications

- a. Dome Attenuation
  - 1. Clear                                      f/0.0 light loss
  - 2. Smoked                                      f/1.0 light loss
- b. Pan Adjustable (All Models)              370°
- c. Tilt Adjustable (180 Model)              0° - 180°

### 4. General Specifications

- a. Unit Weight
  - 1. In-Ceiling                                      1.5 kg (3.3 lb)
  - 2. Surface Mount                                      1.7 kg (3.9 lb)
  - 3. Pendant Mount                                      1.7 kg (3.9 lb)

### 5. Warranty

- a. 36-months, parts and labor

## B. Certifications/Ratings

- 1. CE, Class A
- 2. FCC, Class A

3. UL/cUL Listed
4. ICES, Class A
5. KCC
6. C-Tick
7. CB Scheme ITE
8. NEMA Type 4X, and IP66 rating (Environmental Vandal)
9. RoHS, Lead Free, REACH
10. MTBF  $\geq$  200,000 POH (Reporting standard is RELEX Modeling)

C. Recommended Model Is Pelco

1. IMM12018-xxx Series 180° indoor/outdoor panoramic IP camera, 12 MPx
2. IMM12027-xxx Series 270° indoor/outdoor panoramic IP camera, 12 MPx

**GENERAL CAMERA SPECIFICATION STANDARD DOME TYPE PELCO (IMP IR) AS SHOWN ON PRINT**

**2.01 RECOMMENDED EQUIPMENT TYPE:**

**EQUIPMENT**

**A. Sarix Pro Outdoor Environmental Mini Domes Cameras with IR Illumination:**

| MPx   | Model #    |
|-------|------------|
| 5 MPx | IMP521-1RS |
| 3 MPx | IMP321-1RS |
| 2 MPx | IMP221-1RS |
| 1 MPx | IMP121-1RS |

**2.02 GENERAL DESCRIPTION**

- A. The network camera system shall offer two simultaneous video streams with up to 5 MPx, 2592 x 1944 resolution, auto iris, and varifocal lens capabilities.**

**B. The network camera system shall possess the following primary characteristics:**

1. H.264 High or Main profiles; and MJPEG compression
2. up to 5 megapixels
3. dual streaming (two independent IP video streams)
4. day/night operation with IR cut filter
5. Wide Dynamic Range (WDR): 75 dB minimum
6. PoE+ Class 4, 24 VAC and PoE+
7. Pelco Smart Compression Technology
8. multicast or unicast capable with unlimited H.264 viewers
9. unicast capable with up to 20 simultaneous viewers
10. local storage via SD card
11. audio input and output
12. alarm input and output
13. IP66 rated housing

**2.03 VIDEO/CAMERA**

**A. Imaging Device:**

| Model | Sensor     | Maximum Resolution    |
|-------|------------|-----------------------|
| 5 MPx | 1/1.8-inch | 2592 x 1944 (5.0 MPx) |
| 3 MPx | 1/2.8-inch | 2048 x 1536 (3.1 MPx) |
| 2 MPx | 1/2.8-inch | 1920 x 1080 (2.1 MPx) |
| 1 MPx | 1/3-inch   | 1280 x 960 (1.3 MPx)  |

**B. Imager Type: CMOS**

**C. Electronic Shutter Range:**

| Model | Range              |
|-------|--------------------|
| 5 MPx | 1/5 – 1/30,000 sec |
| 3 MPx | 1/5 – 1/45,000 sec |
| 2 MPx | 1/5 – 1/25,000 sec |

1 MPx                    1/5 – 1/30,000 sec

**D. Minimum illumination:**

1. Color mode:

| Model | Sensitivity                                     |
|-------|---|
| 5 MPx | 0.30 lux (33 ms, F1.2), 0.03 lux (200 ms, F1.2) |
| 3 MPx | 0.25 lux (33 ms, F1.2), 0.03 lux (200 ms, F1.2) |
| 2 MPx | 0.25 lux (33 ms, F1.2), 0.03 lux (200 ms, F1.2) |
| 1 MPx | 0.05 lux (33 ms, F1.4), 0.03 lux (200 ms, F1.4) |

2. Black & white mode:

| Model | Sensitivity                                     |
|-------|---|
| 5 MPx | 0.10 lux (33 ms, F1.2), 0.02 lux (200 ms, F1.2) |
| 3 MPx | 0.10 lux (33 ms, F1.2), 0.02 lux (200 ms, F1.2) |
| 2 MPx | 0.10 lux (33 ms, F1.2), 0.02 lux (200 ms, F1.2) |
| 1 MPx | 0.10 lux (33 ms, F1.4), 0.02 lux (200 ms, F1.4) |

**E. Scanning:**            Progressive

**F. Image Control Settings**

1. White balance range:    2,000° to 10,000°K
2. Adaptive IR Illumination
3. Day and night settings
4. Privacy zone definition: up to 8 zones of window blanking
5. 3D noise reduction

**G. Lens:**

1. Built-in, varifocal
2. Focal Length:    F1.4, 3 ~ 10.5 mm
3. Zoom:                Remote
4. Auto Iris:            DC drive lens
5. Auto Focus:        Automatically focuses during runtime operation

**G. Field of view:**

|            | 1 MPx      | 2 MPx      | 3 MPx      | 5 MPx      |
|------------|------------|------------|------------|------------|
| Diagonal   | 110° ~ 33° | 116° ~ 35° | 115° ~ 34° | 110° ~ 46° |
| Horizontal | 85° ~ 27°  | 100° ~ 31° | 88° ~ 30°  | 88° ~ 37°  |
| Vertical   | 62° ~ 19°  | 54° ~ 17°  | 52° ~ 16°  | 64° ~ 27°  |

**H. Video:**

1. The network camera system shall support up to 2 simultaneous streams; the secondary stream is variable based on the setup of the primary stream.
2. Compression type: H.264 High or Main profiles; and MJPEG
3. Corridor Mode: Electronic image flip and mirror: 180°, 90° 270° (H.264 only)
4. Service Stream: 640 x 480 or 640 x 352; 2 ips, JPEG
5. Available resolutions:

| MPx | Width x Height | Aspect Ratio |
|-----|----------------|--------------|
| 5.0 | 2592 x 1944    | 4:3          |
| 3.1 | 2048 x 1536    | 4:3          |
| 2.1 | 1920 x 1080    | 16:9         |
| 1.2 | 1280 x 960     | 4:3          |
| 0.9 | 1280 x 720     | 16:9         |
| 0.5 | 800 x 600      | 4:3          |
| 0.3 | 640 x 480      | 4:3          |
| 0.1 | 320 x 240      | 4:3          |
| 0.1 | 320 x 180      | 16:9         |

6. Constant bit rate (CBR), constrained variable bit rate (CVBR) with configurable maximum value.

7. Frame rate:

| MPx | Images per Second (ips)    |
|-----|----------------------------|
| 5   | 15, 12.5, 10, 7.5, 5, 3, 1 |

3 30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

2 30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

1 30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

8. Video streams shall support ONVIF profile S.

9. Pelco's Smart Compression Technology lowers bandwidth and storage requirements by up to 70%. Our technology allows the user to make intelligent decisions regarding storage savings and image quality.

10. Low resolution JPEG stream for configuration of camera settings.

#### **I. Storage and Recording**

1. The network camera system control shall have onboard SD card storage.

a. Card type: Micro SD

b. Capacity: up to 64 GB

c. The local SD storage shall have the ability to be backed up to alternate media without removal of the SD card from the camera.

d. Local recording on the SD card shall commence upon loss of network connectivity, based on a pre-programmed schedule.

e. The network camera system shall record video continuously in the case of network outage.

f. Alarm recording: The network camera system shall capture selectable 1, 5, or 10 second video clips on camera sabotage, motion detection, or alarm input.

g. Video recording and storage shall support ONVIF profile G.

#### **J. Manual Pan Tilt**

1. Pan Range: 370o

2. Tilt Range: +1o - 90o



3. Rotate Range: 355°

**K. Simple motion and sabotage analytics.**

## **2.04 ADDITIONAL FEATURES**

**A. Alarm** – The network camera system shall have one alarm/sensor inputs and a relay output for alarm or control.

1. The alarm input shall be able to detect an open or closed alarm state function in unsupervised or supervised modes.
2. Relay Output: ±30 VDC maximum, 1 A maximum

**B. Audio** – The network camera system shall have bi-directional audio capability.

1. Input/Output
2. Encoding: G.711 - Alaw / Ulaw

**C. Discovery** - Manufacturer shall offer a discovery program to identify all devices of his manufacture on the network.

**D. System Information**

1. The system settings of the network camera system shall be exportable as a separate file.
2. The network camera system shall maintain an accessible log of system and motion-triggered events.
  - a. The log shall be exportable to an Excel spreadsheet file.

## **2.05 NETWORK**

**A. Connectivity:** 100 BASE-TX Ethernet with RJ-45 connector

**B. Protocols supported:**

1. Transmission Control Protocol (TCP), Internet Protocol (IP) v4 and v6, User Datagram Protocol (UDP)
2. Configuration: Dynamic Host Configuration Protocol (DHCP)
3. Web services: Hypertext Transfer Protocol (HTTP), Secure HTTP (HTTPS)
4. Network services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP) v2c/v3, Universal Plug and Play (UPnP)
5. Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP)
6. Multicast: Internet Group Management Protocol (IGMP)
7. Notifications: File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP)
8. Remote Access: Secure Shell (SSH)

9. Security: Secure Sockets Layer (SSL), IEEE 802.1x (EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP and EAP-FAST)
10. Quality of Service: IEEE 802.1p Layer 3 Differentiated Services Code Point (DSCP)
11. DDNS – The network camera system shall support DDNS services offered by the Manufacturer and other publicly available service offerings.

### **C. Security**

1. The network camera system shall support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
2. The network camera system shall provide three levels of user access with password protection.
3. User authentication shall be available through a Lightweight Directory Access Protocol (LDAP) server.

## **2.06 CAMERA SOFTWARE**

- A. The network camera system shall have a built in web server which supports browser-based configuration.
- B. The camera's web server shall allow access to camera information and all primary software functions.
- C. The Manufacturer shall offer video viewer and configuration to implement the following actions:
  1. Camera discovery
  2. Live Video
    - a. Video stream selection
    - b. Video stream configuration
      - 1) Use preset video setting configurations
      - 2) Configure custom video setting configurations
        - a) compression type
        - b) resolution
        - c) image rate
        - d) I-frame interval
        - e) H.264 profile
        - f) Quality of Service (QoS)
        - g) Bit rate control
    - 3) Multicast
    - 4) Unicast

- 5) JPEG frame rate
- c. Maximize view area of video to full size of browser
- 1) Revert to normal view
- d. Open stream in new window
- e. Capture and save image as .jpg file
- f. Resize viewing area
- 3. Image Settings
  - a. image quality
  - b. exposure
  - c. focus
  - d. white balance
  - e. window blanking
  - f. digital zoom
  - g. lighting mode
  - h. video noise reduction
  - i. digital processing (color and detail adjustment)
    - 1) image enhancement
    - 2) quick setup preset modes
    - 3) sharpness
    - 4) saturation
    - 5) contrast
    - 6) brightness
  - j. exposure modes
- 4. Recording
  - a. Initiate instant record and playback
  - b. Manage SD card storage
- 5. Events
  - a. configure event sources:
    - 1) external alarm events

- 2) analytic events
- b. e-mail setup
- c. define web addresses for notifications
- 6. Camera network settings
- 7. System
  - a. firmware upgrade
  - b. reset to factory default
  - c. set date, time, and NTP server synchronization
  - d. user access control
  - e. view and export camera settings
  - f. view system logs
- D. Acceptable Web Browsers:
  - a. Microsoft® Internet Explorer® 9.0
  - b. Apple® Safari® 7.0.6
  - c. Mozilla® Firefox® 31.0
  - d. Google® Chrome™ 37.0.2032.124 m and later
- E. The Manufacturer shall offer a mobile application with the capability to access live video from up to 500 cameras.
- F. The Manufacturer shall support integrations as follows:
  - 1. Video Management: VideoXpert™; Endura® 2.0 (or later); Digital Sentry® 7.3 (or later); Third-party system through Pelco API/SDK, ONVIF Profile S, Profile G, and Profile Q
  - 2. Mobile Application Pelco Mobile
  - 3. Camera Discovery and Firmware: Discover cameras upgrade firmware upgrade using Pelco Device Utility 2 (version 2.2 or later) or Pelco Utilities

## **2.07 ELECTRICAL**

- A. Power
  - 1. Source Options
    - a. 24 VAC and PoE+
    - b. PoE+ Class 4
    - c. 18 to 32 VAC range, 12 VDC
  - 2. Power Consumption: <16 W (with heater ring)
- B. Connectors:
  - 1. Ethernet: RJ-45 connector
  - 2. External power: 2-conductor power to terminal block

## **2.08 MECHANICAL AND ENVIRONMENTAL**

- A. Construction Material: Aluminum body and trim ring, polycarbonate bubble
- B. Finish: RAL 7047
- C. Impact Resistance: IK10 (20J)
- D. Dimensions (D x H): 13.7 cm (5.39 in) x 13.97 cm (5.50 in)
- E. Temperature:
  - 1. Operating: -40°C to 55°C (-40°F to 131°F)
  - 2. Storage: -40°C to 60°C (-40°F to 140°F)
- F. Ingress Protection: IP66
- G. NEMA Type 4X

## **2.09 CERTIFICATIONS**

- A. CE – EN 55022 (Class A), EN 50130-4, EN 60950-1
- B. FCC (Class A) – 47 CFR Part 15
- C. UL and cUL Listed – UL 60950-1, CAN/CSA-C22.2 No. 60950-1-07
- D. ICES-003 (Class A)
- E. RCM
- F. KC

- G. ONVIF Profile S, Profile G, and Profile Q conformant

**END OF SECTION**

**PART 3 EXECUTION**

**3.01 INSTALLERS**

- A. Contractor personnel shall comply with all applicable state and local licensing requirements.

**3.02 PREPARATION**

- A. The network design and configuration shall be verified for compatibility and performance with the camera(s).
- B. Network configuration shall be tested and qualified by the Contractor prior to camera installation.

**3.03 INSTALLATION**

- A. Before permanent installation of the system, the Contractor shall test the system in conditions simulating the final installed environment
1. A report indicating successful test results shall be produced.
- B. Contractor shall follow all Manufacturer-published guidance on proper installation and configuration of the camera.

**3.04 STORAGE**

- A. The dome camera hardware shall be stored in an environment where temperature and humidity are in the range specified by the Manufacturer.

**END OF SECTION**

**2.01 EQUIPMENT**

- A. Manufacturer: Pelco  
3500 Pelco Way  
Clovis, CA 93612 USA  
Phone: +1 813 888-9555  
Web: [www.pelco.com](http://www.pelco.com)  
E-mail: [sales@pelco.com](mailto:sales@pelco.com)

B. Sarix Pro Indoor Mini Dome Cameras:

| MPx   | Model #    |
|-------|------------|
| 5 MPx | IMP521-1IS |
| 3 MPx | IMP321-1IS |
| 2 MPx | IMP221-1IS |
| 1 MPx | IMP121-1IS |

2.02 GENERAL DESCRIPTION

A. The network camera system shall offer two simultaneous video streams with up to 5 MPx,

2592 x 1944 resolution, auto iris, and varifocal lens capabilities.

B. The network camera system shall possess the following primary characteristics:

1. H.264 High or Main profiles; and MJPEG compression
2. up to 5 megapixels
3. dual streaming (two independent IP video streams)
4. day/night operation with IR cut filter
5. Wide Dynamic Range (WDR): 75 dB minimum
6. PoE Class 2, 24 VAC, 12 VDC
7. Pelco Smart Compression Technology
8. multicast or unicast capable with unlimited H.264 viewers
9. unicast capable with up to 20 simultaneous viewers
10. local storage via SD card
11. audio input and output
12. alarm input and output

2.03 VIDEO/CAMERA

A. Imaging Device:

| MPx   | Sensor     | Maximum Resolution    |
|-------|------------|-----------------------|
| 5 MPx | 1/1.8-inch | 2592 x 1944 (5.0 MPx) |
| 3 MPx | 1/2.8-inch | 2048 x 1536 (3.1 MPx) |
| 2 MPx | 1/2.8-inch | 1920 x 1080 (2.1 MPx) |
| 1 MPx | 1/3-inch   | 1280 x 960 (1.3 MPx)  |

B. Imager Type: CMOS

C. Electronic Shutter Range:

| MPx   | Range              |
|-------|--------------------|
| 5 MPx | 1/5 – 1/30,000 sec |
| 3 MPx | 1/5 – 1/45,000 sec |
| 2 MPx | 1/5 – 1/25,000 sec |
| 1 MPx | 1/5 – 1/30,000 sec |

D. Minimum illumination:

1. Color mode:

| MPx   | Sensitivity                                     |
|-------|---|
| 5 MPx | 0.30 lux (33 ms, F1.2), 0.03 lux (200 ms, F1.2) |
| 3 MPx | 0.25 lux (33 ms, F1.2), 0.03 lux (200 ms, F1.2) |
| 2 MPx | 0.25 lux (33 ms, F1.2), 0.03 lux (200 ms, F1.2) |
| 1 MPx | 0.05 lux (33 ms, F1.4), 0.03 lux (200 ms, F1.4) |

2. Black & white mode:

| MPx   | Sensitivity                                     |
|-------|---|
| 5 MPx | 0.10 lux (33 ms, F1.2), 0.02 lux (200 ms, F1.2) |
| 3 MPx | 0.10 lux (33 ms, F1.2), 0.02 lux (200 ms, F1.2) |
| 2 MPx | 0.10 lux (33 ms, F1.2), 0.02 lux (200 ms, F1.2) |

1 MPx                    0.10 lux (33 ms, F1.4), 0.02 lux (200 ms, F1.4)

E.        Scanning:            Progressive

F.        Image Control Settings

1.        White balance range:    2,000° to 10,000°K

2.        Day and night settings

3.        Privacy zone definition: up to 8 zones of window blanking

4.        3D noise reduction

G.        Lens:

1.        Built-in, varifocal

2.        Focal Length:    F1.4, 3 ~ 10.5 mm

3.        Zoom:                Remote

4.        Auto Iris:          DC drive lens

5.        Auto Focus:        Automatically focuses during runtime operation

6.        Field of view:

|            | 1 MPx      | 2 MPx      | 3 MPx      | 5 MPx      |
|------------|------------|------------|------------|------------|
| Diagonal   | 110° ~ 33° | 116° ~ 35° | 115° ~ 34° | 110° ~ 46° |
| Horizontal | 85° ~ 27°  | 100° ~ 31° | 88° ~ 30°  | 88° ~ 37°  |
| Vertical   | 62° ~ 19°  | 54° ~ 17°  | 52° ~ 16°  | 64° ~ 27°  |

H.        Video:

1.        The network camera system shall support up to 2 simultaneous streams; the secondary stream is variable based on the setup of the primary stream.

2.        Compression type:        H.264 High or Main profiles; and MJPEG

3.        Corridor Mode:            Electronic image flip and mirror: 180°, 90° 270° (H.264 only)

4.        Service Stream:            640 x 480 or 640 x 352; 2 ips, JPEG

5.        Available resolutions:

| MPx | Width x Height | Aspect Ratio |
|-----|----------------|--------------|
| 5.0 | 2592 x 1944    | 4:3          |
| 3.1 | 2048 x 1536    | 4:3          |
| 2.1 | 1920 x 1080    | 16:9         |
| 1.2 | 1280 x 960     | 4:3          |
| 0.9 | 1280 x 720     | 16:9         |
| 0.5 | 800 x 600      | 4:3          |
| 0.3 | 640 x 480      | 4:3          |
| 0.1 | 320 x 240      | 4:3          |
| 0.1 | 320 x 180      | 16:9         |

6.        Constant bit rate (CBR), constrained variable bit rate (CVBR) with configurable maximum value.

7.        Frame rate:

MPx                    Images per Second (ips)

5                      15, 12.5, 10, 7.5, 3, 2, 1

3                      30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

2                      30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

1                      30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

8.        Video streams shall support ONVIF profile S.

9.        Pelco's Smart Compression Technology lowers bandwidth and storage requirements by up to 70%. Our technology allows the user to make intelligent decisions regarding storage savings and image quality.

10.      Low resolution JPEG stream for configuration of camera settings.

I.        Storage and Recording



1. The network camera system control shall have onboard SD card storage.
  - a. Card type: Micro SD
  - b. Capacity: up to 64 GB
2. The local SD storage shall have the ability to be backed up to alternate media without removal of the SD card from the camera.
3. Local recording on the SD card shall commence upon loss of network connectivity, based on a pre-programmed schedule.
4. The network camera system shall record video continuously in the case of network outage.
5. Alarm recording: The network camera system shall capture selectable 1, 5, or 10 second video clips on camera sabotage, motion detection, or alarm input.
6. Video recording and storage shall support ONVIF profile G.

J. Manual Pan Tilt

1. Pan Range: 370°
2. Tilt Range: +10° - 90°
3. Rotate Range: 355°

K. Simple motion and sabotage analytics.

2.04 ADDITIONAL FEATURES

- A. Alarm – The network camera system shall have one alarm/sensor inputs and a relay output for alarm or control.
    1. The alarm input shall be able to detect an open or closed alarm state function in unsupervised or supervised modes.
    2. Relay Output: ±30 VDC maximum, 1 A maximum
  - B. Audio – The network camera system shall have bi-directional audio capability.
    1. Input/Output
    2. Encoding: G.711 - Alaw / Ulaw
  - C. Discovery - Manufacturer shall offer a discovery program to identify all devices of his manufacture on the network.
  - D. System Information
    1. The system settings of the network camera system shall be exportable as a separate file.
    2. The network camera system shall maintain an accessible log of system and motion-triggered events.
      - a. The log shall be exportable to an Excel spreadsheet file.
- 2.05 NETWORK
- A. Connectivity: 100 BASE-TX Ethernet with RJ-45 connector
  - B. Protocols supported
    1. Transmission Control Protocol (TCP), Internet Protocol (IP) v4 and v6, User Datagram Protocol (UDP)
    2. Configuration: Dynamic Host Configuration Protocol (DHCP)
    3. Web services: Hypertext Transfer Protocol (HTTP), Secure HTTP (HTTPS)
    4. Network services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP) v2c/v3, Universal Plug and Play (UPnP)
    5. Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP)
    6. Multicast: Internet Group Management Protocol (IGMP)
    7. Notifications: File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP)
    8. Remote Access: Secure Shell (SSH)

9. Security: Secure Sockets Layer (SSL), IEEE 802.1x (EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP and EAP-FAST)
10. Quality of Service: IEEE 802.1p Layer 3 Differentiated Services Code Point (DSCP)
11. DDNS – The network camera system shall support DDNS services offered by the Manufacturer and other publicly available service offerings.

C. Security

1. The network camera system shall support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
2. The network camera system shall provide three levels of user access with password protection.
3. User authentication shall be available through a Lightweight Directory Access Protocol (LDAP) server.

2.06 CAMERA SOFTWARE

- A. The network camera system shall have a built in web server which supports browser-based configuration.
- B. The camera's web server shall allow access to camera information and all primary software functions.
- C. The Manufacturer shall offer video viewer and configuration to implement the following actions:

1. Camera discovery
2. Live Video
  - a. Video stream selection
  - b. Video stream configuration
    - 1) Use preset video setting configurations
    - 2) Configure custom video setting configurations
      - a) compression type
      - b) resolution
      - c) image rate
      - d) I-frame interval
      - e) H.264 profile
      - f) Quality of Service (QoS)
      - g) Bit rate control
  - 3) Multicast
  - 4) Unicast
  - 5) JPEG frame rate
- c. Maximize view area of video to full size of browser
  - 1) Revert to normal view
- d. Open stream in new window
- e. Capture and save image as .jpg file
- f. Resize viewing area
3. Image Settings
  - a. image quality
  - b. exposure
  - c. focus
  - d. white balance
  - e. window blanking
  - f. digital zoom
  - g. lighting mode
  - h. video noise reduction
  - i. digital processing (color and detail adjustment)

- 1) image enhancement
- 2) quick setup preset modes
- 3) sharpness
- 4) saturation
- 5) contrast
- 6) brightness
- j. exposure modes
4. Recording
  - a. Initiate instant record and playback
  - b. Manage SD card storage
5. Events
  - a. configure event sources:
    - 1) external alarm events
    - 2) analytic events
  - b. e-mail setup
  - c. define web addresses for notifications
6. Camera network settings
7. System
  - a. firmware upgrade
  - b. reset to factory default
  - c. set date, time, and NTP server synchronization
  - d. user access control
  - e. view and export camera settings
  - f. view system logs
- D. Acceptable Web Browsers:
  - a. Microsoft® Internet Explorer® 9.0
  - b. Apple® Safari® 7.0.6
  - c. Mozilla® Firefox® 31.0
  - d. Google® Chrome™ 37.0.2032.124 m and later
- E. The Manufacturer shall offer a mobile application with the capability to access live video from up to 500 cameras.
- F. The Manufacturer shall support integrations as follows:
  1. Video Management: VideoXpert™; Endura® 2.0 (or later); Digital Sentry® 7.3 (or later); Third-party system through Pelco API/SDK, ONVIF Profile S, Profile G, and Profile Q
  2. Mobile Application Pelco Mobile
  3. Camera Discovery and Firmware: Discover cameras upgrade firmware using Pelco Device Utility 2 (version 2.2 or later) or Pelco Utilities

## 2.07 ELECTRICAL

- A. Power
  1. Source Options
    - a. 24 VAC nominal, 18 to 32 VAC range, 12 VDC
    - b. PoE (Class 2)
  2. Power Consumption: <6 W
- B. Connectors:
  1. Ethernet: RJ-45 connector
  2. External power: 2-conductor power to terminal block

## 2.08 MECHANICAL AND ENVIRONMENTAL

- A. Construction Material: Plastic body and trim ring, polycarbonate bubble

- B. Finish: White, RAL 9003
- C. Impact Resistance: IK10 (20J)
- D. Dimensions (D x H): 13.7 cm (5.39 in) x 13.97 cm (5.50 in)
- E. Temperature:
  - 1. Operating: -10°C to 55°C (14°F to 131°F)
  - 2. Storage: -40°C to 60°C (-40°F to 140°F)

#### 2.09 CERTIFICATIONS

- A. CE – EN 55022 (Class A), EN 50130-4, EN 60950-1
- B. FCC (Class A) – 47 CFR Part 15
- C. UL and cUL Listed – UL 60950-1, CAN/CSA-C22.2 No. 60950-1-07
- D. ICES-003 (Class A)
- E. RCM
- F. KC
- G. ONVIF Profile S, Profile G, and Profile Q conformant

#### **4 PRODUCT NET5504 VIDEO ENCODER (Location to be inside the Lodge building in place of existing DVR thereby integrating the 4 existing cameras into the new recorder)**

##### **4.1 H.264 NETWORK VIDEO ENCODERS**

- A. The video encoder shall be standards-compliant and provide a fully supported API that shall integrate with multiple video management systems.
- B. The video encoder shall support 1, 2, or 4 camera inputs.
- C. The 1- input in-line video encoder shall support Power over Ethernet (PoE), 802.3af. The 1- input extended temperature, 8-, and 16- rack video encoders shall be powered by 12 VDC, 2.08 A. The 1- and 4-input rack video encoders shall be powered by 12 VDC, 1.25A.
- D. The video encoders shall generate compressed MJPEG and H.264 video streams in standards-compliant baseline profile, main profile, or high profile.
- E. The video encoder shall provide for two independently configurable streams for each camera input. Each stream shall be capable of 4CIF resolution, 30 or 25 images per second (ips), NTSC or PAL. The settings of one stream shall not interfere or limit the settings for the second stream.
- F. The video encoder shall be capable of generating 4CIF resolution, real-time video streams while also running intelligent video content analysis algorithms on each camera input. There shall be no need to degrade video resolution or frame rate to execute analytics algorithms.
- G. The video encoder shall support daisy chaining up to 4 encoders together to minimize the number of network ports utilized on a switch.
- H. The video encoder shall provide for 1 line level audio input per video input. The 1- and 2- input encoders shall also provide for a single, line level audio output.
- I. The 1-input extended temperature and rack video encoders shall provide for 1 alarm input per camera input. The -4,-8, and -16 input video encoders shall provide -4, -8, and -16 alarm input per camera input. The 1-input extended and rack video encoders shall provide a single relay output per unit. The -4, -8, and -16 video encoders shall provide -1, -2, and -4 single relay output per unit.
- J. The 1- and 2-input encoders shall support looping video outputs with software-controlled termination.
- K. The video encoders shall support PTZ cameras by way of Pelco D, Pelco P, Coaxitron, and Extended coaxitron protocol.
- L. When used with Endura, the video encoder shall be capable of digitally signing each frame of video to guarantee the authenticity of digital video all the way back to its source.
- M. The video encoders shall be conformant to ONVIF Profile S and support open standards-based architecture best practices with published API available to third-party network video recording and management systems.
- N. The video encoder shall use a standard web browser interface for remote administration and configuration of encoder and camera settings. The browser interface shall support multi-screen remote monitoring for cameras attached to other encoders or Pelco cameras with Sarix technology on the same network subnet.

- O. The video encoder shall provide analytic capabilities.
1. Adaptive Motion: Detects and tracks objects that enter a scene and then triggers an alarm when the objects enter a user-defined zone. This behavior is primarily used in outdoor environments with light traffic to reduce the number of false alarms caused by environmental changes.
  2. Camera Sabotage: Detects contrast changes in the field of view. An alarm is triggered if the lens is obstructed with spray paint, a cloth, or a lens cap. Any unauthorized repositioning of the camera also triggers an alarm.
- P. The video encoder shall meet or exceed the following design and performance specifications:
1. Video System Specifications
    - a. Video Standards NTSC/PAL
    - b. Video Encoding MJPEG and H.264 Baseline, Main, and High profiles
    - c. Interoperability Standard ONVIF Profile S
    - d. Video Streams 3 independently configurable per video channel
      1. Unicast streams Up to 2
      2. Multicast streams Unlimited
    - e. Video Frame Rates Up to 30 per second
    - f. Video Resolutions
 

|         | <u>NTSC</u> | <u>PAL</u> |
|---------|-------------|------------|
| 1. D1   | 720 x 480   | 720 x 576  |
| 2. 4CIF | 704 x 480   | 704 x 576  |
| 3. 2CIF | 704 x 240   | 704 x 288  |
| 4. CIF  | 352 x 240   | 352 x 288  |
    - g. Network Protocols TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, LDAP, DNS, DHCP, RTP, RTSP, NTP, IPv4, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, and 802.1x (EAP)
    - h. Video Input BNC, 1Vp-p  $\pm 10\%$ ; Hi-Z / 75 ohms
    - i. Video Looping
 

|                        |     |
|------------------------|-----|
| 1. NET5501-I, NET5516  | No  |
| 2. NET5501-XT, NET5501 | Yes |
| 3. NET5504, NET5508    | Yes |
    - j. Pelco System Integration
      1. Web Browser Microsoft<sup>®</sup> Internet Explorer<sup>®</sup> 8 or later, Firefox<sup>®</sup>, Chrome<sup>™</sup>, Safari<sup>™</sup>
      2. Video Management Digital Sentry 7.3 (or later); Endura 2.0 (or later); Third-party VMS through Pelco API and ONVIF Profile S
    - k. Audio
      1. Audio Encoding G.711 speech codec
      2. Audio Bit Rate 64 kbps
      3. Audio Input Connector Line-in 3.5 mm
      4. Audio Inputs
        - i. NET5501-XT, NET5501 1
        - ii. NET5504 4
        - iii. NET5508 8
        - iv. NET5516 16
    - l. System Specifications
      1. Operating System Linux<sup>®</sup>
      2. Media Player Pelco Media Player 1.9.5.1 or QuickTime<sup>®</sup>
      3. Network Interface

|      |                              |  |
|------|------------------------------|--|
| i.   | NET5501-I, NET5501-XT        | RJ-45 100 Mbps                                     |
| ii.  | NET5501, NET5504             | RJ-45 100 Mbps                                     |
| iii. | NET5508, NET5516             | RJ-45 1000 Mbps                                    |
| 4.   | Input Power                  |  |
| i.   | NET5501-I                    | PoE 802.3af, Class 0                               |
| ii.  | NET5501-XT                   | 12 VDC, 2.08 A adapter                             |
| iii. | NET5508, NET5516             | 12 VDC, 2.08 A adapter                             |
| iv.  | NET5501, NET 5504            | 12 VDC, 1.25 A adapter                             |
| 5.   | Alarm Inputs                 |  |
| i.   | NET5501-XT, NET5501          | 1  |
| ii.  | NET5504                      | 4  |
| iii. | NET5508                      | 8  |
| iv.  | NET5516                      | 16   |
| 6.   | Relay Outputs                |  |
| i.   | NET5501-XT, NET5501          | 1  |
| ii.  | NET5504                      | 1  |
| iii. | NET5508                      | 2  |
| iv.  | NET5516                      | 4  |
| 7.   | Analytics                    | Motion and Sabotage                                |
| 8.   | PTZ Interfaces               | Coaxitron, RS-422, RS-485                          |
| 9.   | PTZ Protocols                | Pelco D, Pelco P, Coaxitron,<br>Extended Coaxitron |
| 10.  | Indicators                   |  |
| i.   | Power                        | Green  |
| ii.  | Status                       | Green, amber, red                                  |
| iii. | Ethernet                     | Green, amber, red                                  |
| iv.  | Video                        | Green, red, off                                    |
| 2.   | Environmental Specifications |  |
| a.   | Operating Temperature        |  |
| 1.   | NET5501-I                    | 0° to 45°C (32° to 113°F)                          |
| 2.   | NET5501-XT                   | –20° to 74°C (–4° to 165°F)                        |
| 3.   | NET5501, NET5504             | 0° to 50°C (32° to 122°F)                          |
| 4.   | NET5508, NET5516             | 0° to 50°C (32° to 122°F)                          |
| b.   | Operating Humidity           | 0% to 80%, noncondensing                           |
| 3.   | Physical Specifications      |  |
| a.   | Construction                 |  |
| 1.   | NET5501-I                    | Plastic  |
| 2.   | NET5501-XT                   | Aluminum, plastic                                  |
| 3.   | NET5501, NET5504             | Metal, plastic                                     |
| 4.   | NET5508, NET5516             | Metal, plastic                                     |
| b.   | Finish                       | Gray polyester powder coat                         |
| c.   | Dimensions                   |  |
| 1.   | NET5501-I                    | 10.4 x 5.6 x 3.2 cm (4.10"D x 2.20"W x 1.26"H)     |
| 2.   | NET5501-XT                   | 13.9 x 12.2 x 4.4 cm (5.47"D x 4.80"W x 1.73"H)    |
| 3.   | NET5501, NET5504             | 16 x 24 x 4.4 cm (6.30"D x 9.45"W x 1.73"H)        |
| 4.   | NET5508, NET5516             | 23.6 x 43 x 4.4 cm (9.29"D x 16.93"W x 1.73"H)     |
| d.   | Unit Weight                  |  |
| 1.   | NET5501-I                    | 0.13 kg (0.29 lb)                                  |
| 2.   | NET5501-XT                   | 0.67 kg (1.48 lb)                                  |
| 3.   | NET5501                      | 1.02 kg (2.25 lb)                                  |
| 4.   | NET5504                      | 1.07 kg (2.36 lb)                                  |
| 5.   | NET5508                      | 2.35 kg (5.18 lb)                                  |
| 6.   | NET5516                      | 2.40 kg (5.29 lb)                                  |

4. Certifications
  - a. CE, Class A
  - b. UL/cUL Listed
  - c. FCC, Class A
  - d. C-Tick
  - e. CCC
  - f. KCC
  - g. KC
  - h. ONVIF Profile S Conformant
  
- Q. Warranty
  1. 36 months, parts and labor
  
- R. Pelco Model Number
 

|                   |   |
|-------------------|---|
| 1. NET5501-I      | 1-channel, in-line H.264 encoder  |
| 2. NET5501-XT     | 1-channel, extended temperature H.264 encoder   |
| 3. NET5501        | 1-channel, rack H.264 encoder   |
| 4. <b>NET5504</b> | <b>4-channel, rack H.264 encoder (Installed in Lodge in place of existing DVR for camera connection.)</b> |
| 5. NET5508        | 8-channel, rack H.264 encoder   |
| 6. NET5516        | 16-channel, rack H.264 encoder  |

End of Section

## Wireless communications for streaming video minimum requirements. (Must be equivalent or exceed with all functionality.)

**RADIO** Range Up to 3 miles Frequency Bands 4.9-5.9GHz Throughput\* Up to 50 Mbps Modulation Up to 300Mbps Transmission Power Up to 27 dBm, depending on configuration and regulations Receiving Sensitivity -96dB@6.5 Mbps; -75dB@300Mbps; Antenna Type Built in 2x2 MIMO Panel Antenna Gain 16.1 – 17.1 DBi Polarization Dual Linear Cross-pol Isolation 22dB minimum Max VSWR 2.0:1 Horizontal Beamwidth Coverage 33 deg Vertical Beamwidth Coverage 17 deg

**COMMUNICATION PROTOCOLS** Prodigy 2.0 Fluidmesh Intelligent Transmission Protocol

**ENVIRONMENTAL** Power Consumption Max 8W Operating Temperature -40C to 80C -40F to 176F Humidity 95% non condensing Weather Rating IP66 Wind Survivability 120 Mph 193 Km/h Shock & Vibration ETSI 300 – 019 - 1.4 Wind Loading @ 125Mph/200kmh <25lb/11kg

**SUPPLIED ACCESSORIES** POE injector 24VDC with US/EU/UK cord Yes Staging Kit Yes

**OPTIONAL SOFTWARE PLUGINS** AES – 128 bit Link Level Encryption Plugin Yes AES – 256 bit Link Level Encryption Plugin Yes

**ELECTRICAL** Power Input 2x Passive PoE from 12V DC to 24V DC Power Consumption Max 8W Power over Ethernet Injector 2x Included, 90 to 260V, 50/60 Hz AC Input



**PHYSICAL** Interfaces 2 Internal RJ45 Ports. Shielded CAT5/6 cables and connectors are recommended.  
Coupling NPT-1 threaded cable gland Dimensions (in) 2 x 13(h)x6.1(w)x3.1(d) Dimensions (mm) 2 x 330.5(h)x156.6(w)x79.9(d) Weight 2 x 18.34oz / 0.519Kg

**NETWORK** Protocols UDP, TCP, IP, RTP, RTCP, RTSP, HTTP, HTTPS, ICMP, ARP Web Based INTERFACE Yes  
Multicast Support Yes UPnP Yes SNMP Yes 802.1Q VLAN Yes

**SECURITY** VPN Yes AES – 128 bit Link Level Encryption Yes AES – 256 bit Link Level Encryption Yes Full compatibility with AES, 3DES, RSA, HTTPS, SSL Yes

**APPROVALS** FCC CFR 47 Part 15, class B Yes Industry Canada RSS 210 Yes CE Yes

**WARRANTY** 2 years Limited on parts and labor

See backup document for this Fluidmesh Ponte example included in this packet or use the following for direct manufacturers listed documentation.

Fluidmesh Networks products are installed locally by professional System Integrators and are available worldwide through a network of Authorized Dealers. For additional information please call +1.617.209.6080 or visit us at [fluidmesh.com](http://fluidmesh.com)

## **PART 4 GENERAL EXECUTION FBC FACILITIES ELECTRONICS STANDARDS**

### **4.01 INSTALLERS**

- A. Contractor personnel shall comply with all applicable state and local licensing requirements.

### **4.02 PREPARATION**

- A. The network design and configuration to include wireless communications shall be verified for compatibility and performance with the camera(s) and recording device.
- A. Equipment shall be tested and qualified by the contractor prior to camera installation.
- B. An equipment configuration list shall be created and submitted to FBC Facilities Electronics Lead prior to installation.
- C. All devices and equipment shall be updated to the manufacturers latest recommended published firmware version.

### **4.03 INSTALLATION**

- A. Before permanent installation of the system, the Contractor shall test the system in conditions simulating the final installed environment

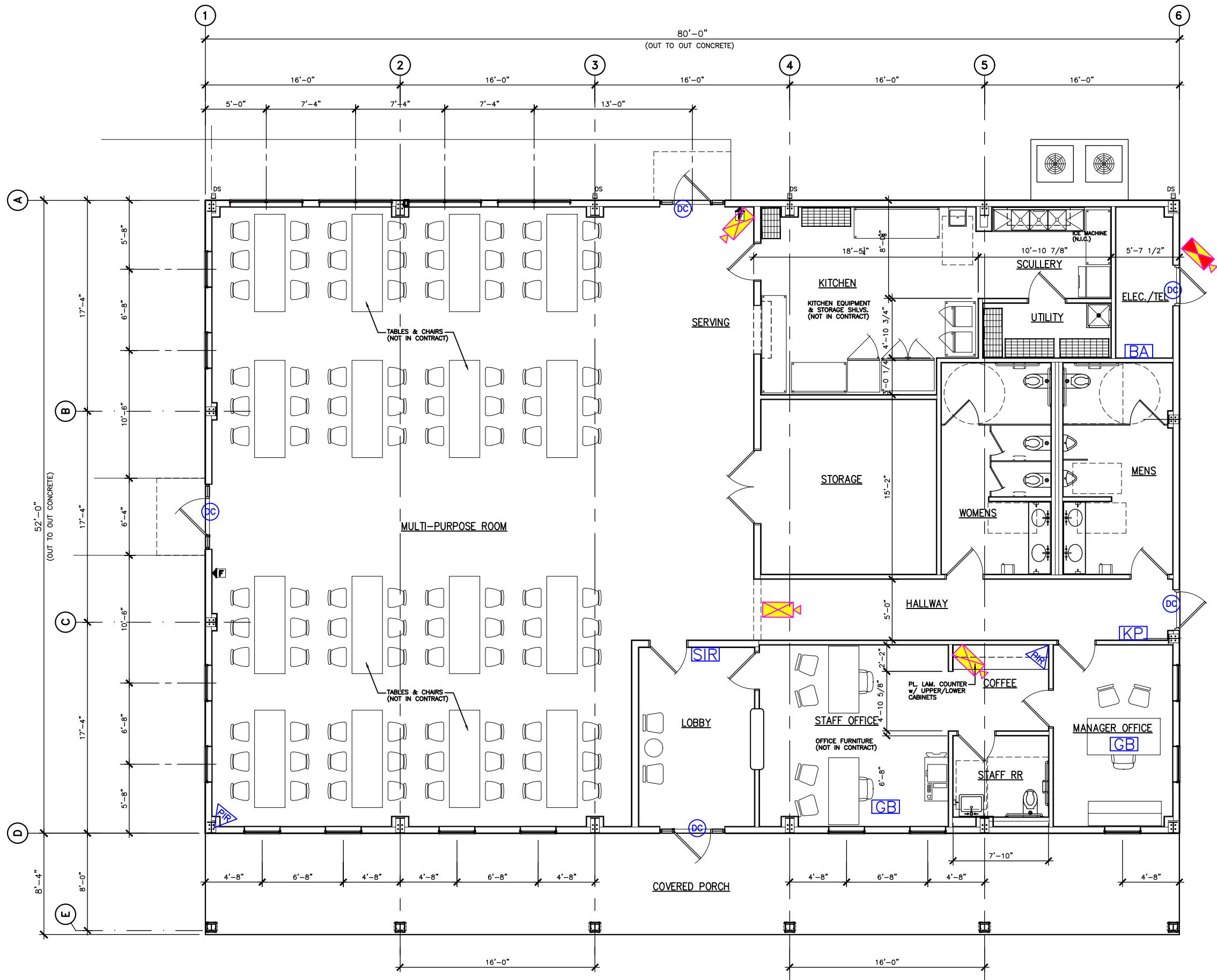
- B. All Administrator user name and passwords shall remain as manufacturer default with the addition of one username and password to be created for the onsite customer department head or as directed by the Facilities Electronics Lead.
- C. A report indicating successful test results shall be produced to FBC Facilities Lead Electronics [kevin.bulman@fortbendcountytexas.gov](mailto:kevin.bulman@fortbendcountytexas.gov)
- D. Contractor shall follow all Manufacturer-published guidance on proper installation and configuration of the camera.
- E. No exposed wiring shall be permitted visible outside of headend and equipment rooms.
- F. Cameras shall be properly supported according to manufacturer recommendations and not by removable ceiling tiles alone.

#### 4.04 STORAGE

- A. The dome camera hardware shall be stored in an environment where temperature and humidity are in the range specified by the manufacturer in the manufacturer's original packaging.

END OF SECTION

Kevin Bulman  
Ft. Bend County  
Facilities Electronics Lead  
301 Jackson Street, Suite #301  
Richmond TX. 77469  
[kevin.bulman@fortbendcountytexas.gov](mailto:kevin.bulman@fortbendcountytexas.gov)  
Mobile: 832-490-7647  
Office: 281-238-3062



**1 FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

|  |   |
|--|---|
|  | 270 Degree Panoramic W/Pendant mount    |
|  | IMP IR Dome                             |
|  | Honeywell Vista 20 W/IP Communicator    |
|  | Honeywell 6160 Alpha Numeric Keypad     |
|  | Siren                                   |
|  | Door Contact, Recessed, 1" Gap minimum  |
|  | Dual Technology Passive Infrared Motion |
|  | Dual Technology Glass Break Detector    |

Fort Bend County  
**JONES CREEK RANCH PARK**  
ADMINISTRATION BUILDING  
RICHMOND, TEXAS  
7714 FM 359 RD

|  |            |                    |
|--|------------|--------------------|
|  |            |                    |
|  |            |                    |
|  | 11/15/2017 | SECURITY           |
| 1  | 09/01/16   | DESIGN DEVELOPMENT |
| ISSUE  | DATE       | DESCRIPTION        |
| DRAWN BY: J. MCGUFF  |            |                    |
| FACILITIES MANAGEMENT & PLANNING<br>301 JACKSON<br>RICHMOND, TEXAS 77469 |            |                    |
| SHEET TITLE<br><b>FLOOR PLAN</b><br>4,160 SQ.FT.                         |            |                    |
| SHEET NUMBER<br><b>A2.00</b>   |            |                    |

# EXHIBIT B

## **Fort Bend County Facilities Electronics**

### **Fort Bend County Jones Creek Ranch Burglar Alarm RFP**

**Rev 12/22/2017 Kevin Bulman**

#### **OVERVIEW**

The purpose of this document is intended to be used as the base specification by Fort Bend County in relation to the Burglar Alarm system design located at 7714 FM 359 Rd. Richmond Texas. Listed in this document herein are the specifications of components FBC requests be met or as equal to for the Burglar Alarm system in addition to contractor design submittals.

Submittals from bidding contractors shall include a detailed narrative of their proposed implementation based on the specifications listed in this document showing an understanding of the Burglar Alarm system requirements and notate any missing dependencies needed for the Burglar Alarm system implementation prior to acceptance.

Awarded contractor shall represent that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Work and shall furnish and maintain, at its own expense, adequate and sufficient personnel to perform the scope of services when and as required without delays of the equipment listed.

The Scope of Work shall include being a turnkey installation of all components listed in this document in the manner and locations specified by owner on provided prints with their references adhered to as listed in this document meeting all manufacturer recommendations, requirements, and regulatory guidelines.

## Specifications:

### Section 1: Alarm System Scope, Specifications, and base of design (contractor to provide and install per provided drawing)

Honeywell Vista 20p Alarm panel to be installed in ELEC/TEL room as shown on drawing (BA).

Honeywell 6160 Alpha numeric keypad located in hallway installed on an electrical cut in box installed by contractor in location shown on the drawing (KP) and in accordance with ADA maximum height requirements.

Siren with minimum sound output of 80db above ambient noise located as shown on drawing (SIR).

Motion detectors shall be of dual technology type shall be programmed as **Internal Follower** and located as shown on drawing (PIR).

Door contacts shall be magnetic commercial UL listed type for with a minimum of 1.25" GAP make installed recessed within the door frames in accordance with manufacturers installation instructions and located as shown in the drawing (DC). The Entry door nearest to the keypad shall be programmed as **Entry/Exit** with a delay of not more than 60 seconds. All other door contacts shall be programmed as type **Perimeter**.

Glass break detectors shall be of dual technology with three or more sensitivity settings.

IP network communicator shall be compatible with the Burglar Alarm system, commercially available for private purchase, fully configurable, and programmable without a separate tool or programmer required. The IP network communicator shall be located inside the Burglar alarm panel enclosure or within 36" of the panel.

All field devices shall be assigned a unique individual zone assignment with their respective alphanumeric description programmed to report and display on the Keypad.

The Alarm panels power transformer shall be 16.5VAC **40VA** with resettable internal breaker and wired to the alarm panel with 18awg copper stranded wire suitable for installation in accordance with manufacturers listed requirements and the NEC.

Absolutely no visibly exposed wire shall be permitted in this installation.

All equipment documentation shall be delivered to Fort Bend County Facilities Electronics personnel prior to acceptance.

All installer level codes shall remain factory default and will be verified by Facilities Electronics personnel prior to acceptance.

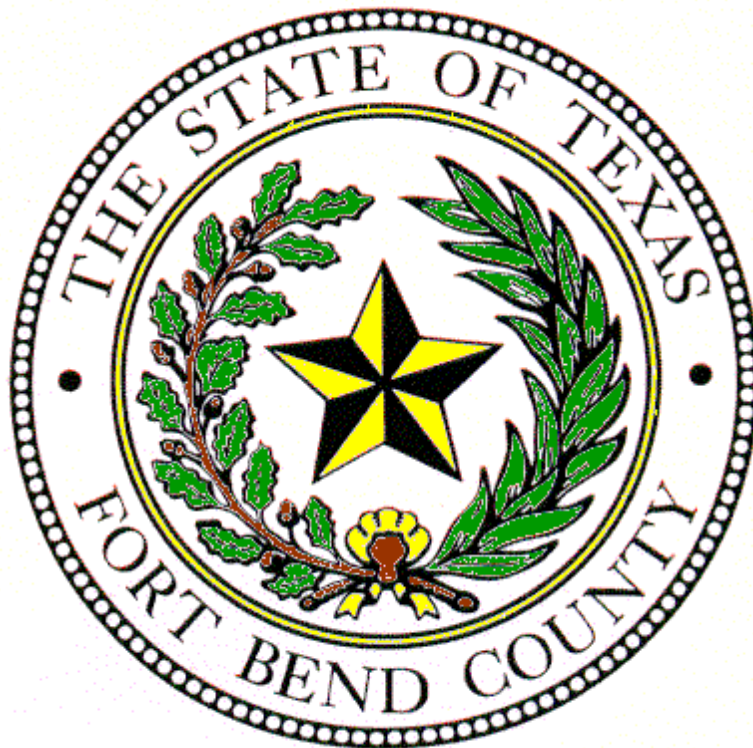
The Master code shall remain default and will be verified by Facilities Electronics personnel prior to acceptance.

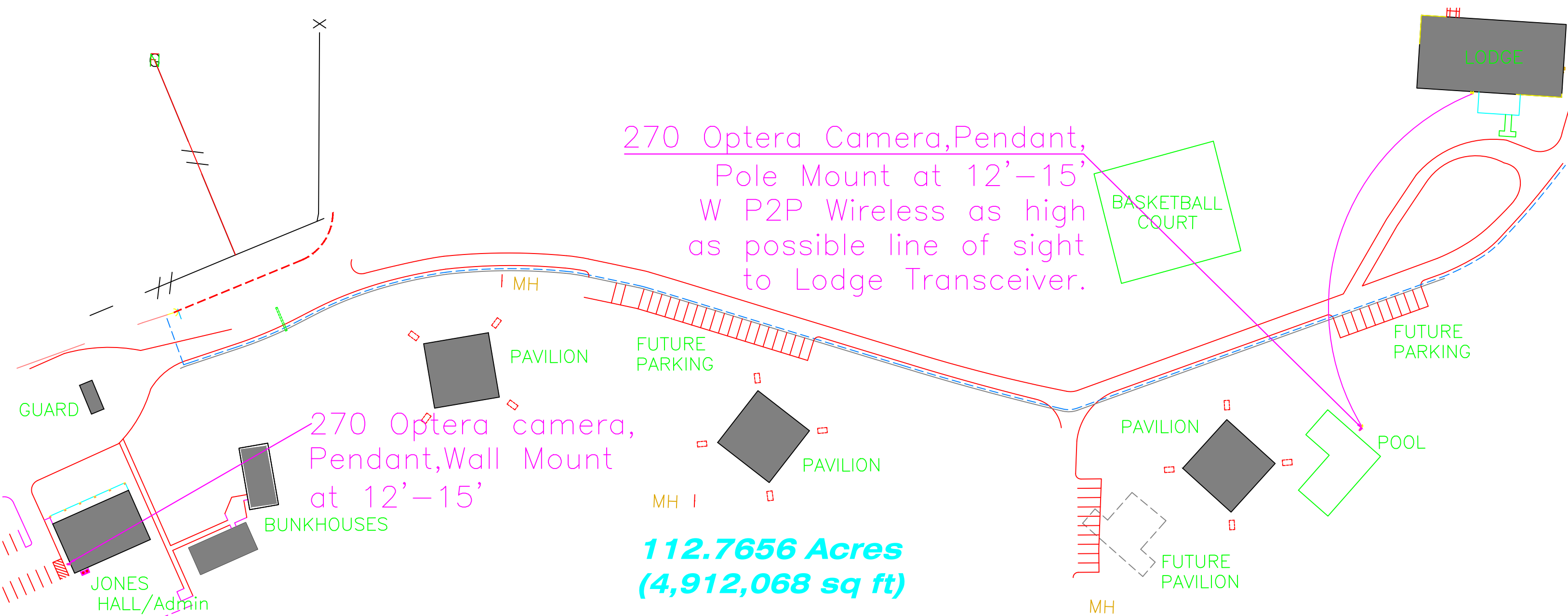
Up to 10 user codes shall be programmed and provided to the authorized onsite personnel for purpose of arming and disarming the system as needed.

Prior to beginning installation contractor shall coordinate with the authorized onsite personnel with an estimated time of completion, gather user code list, and schedule a time to provide up to 1 hour of training of all user level functions of the system.

Prior to installation the contractor shall coordinate with the authorized onsite department personnel to receive monitoring account and receiver information from the onsite department's representative to be programmed in the system. A test of all alarm points must be completed upon installation completion and an email confirmation that all points were received must be reported via email to the Fort bend County Facilities Electronics Lead at [kevin.bulman@fortbendcountytexas.gov](mailto:kevin.bulman@fortbendcountytexas.gov) prior to system acceptance and completion.

A zone list of all devices coinciding with the programmed alphanumeric descriptions and their zone assignments and types shall be left inside the Alarm panel enclosure.









## COUNTY PURCHASING AGENT

Fort Bend County, Texas

### Vendor Information

Debbie Kaminski, CPPB  
County Purchasing Agent

Office (281) 341-8640

|  |   |                                 |
|--|---|---------------------------------|
| Legal Company Name<br>(top line of W9)   |   |                                 |
| Business Name<br>(if different from legal name)                                    |   |                                 |
| Federal ID # or S.S. #   |   |                                 |
| Type of Business   | <input type="checkbox"/> Corporation/LLC <input type="checkbox"/> Partnership<br><input type="checkbox"/> Sole Proprietor/Individual <input type="checkbox"/> Tax Exempt Organization   |                                 |
| Publicly Traded Business   | <input type="checkbox"/> No <input type="checkbox"/> Yes      Ticker Symbol _____   |                                 |
| Remittance Address   |   |                                 |
| City/State/Zip   |   |                                 |
| Physical Address   |   |                                 |
| City/State/Zip   |   |                                 |
| Phone/Fax Number   | Phone: _____ Fax: _____   |                                 |
| Contact Person   |   |                                 |
| E-mail   |   |                                 |
| Check all that apply to the company listed above and provide certification number. | DBE-Disadvantaged Business Enterprise _____ <b>Certification #</b> _____<br>SBE-Small Business Enterprise _____ <b>Certification #</b> _____<br>HUB –Texas Historically Underutilized Business _____ <b>Certification #</b> _____<br>WBE-Women’s Business Enterprise _____ <b>Certification #</b> _____ |                                 |
| Company’s gross annual receipts  | <\$500,000 _____  | \$500,000-\$4,999,999 _____     |
|  | \$5,000,000-\$16,999,999 _____  | \$17,000,000-\$22,399,999 _____ |
|  | >\$22,400,000 _____   |                                 |
| NAICs codes (Please enter all that apply)  |   |                                 |
| Signature of Authorized Representative   |   |                                 |
| Printed Name   |   |                                 |
| Title  |   |                                 |
| Date   |   |                                 |

**THIS FORM MUST BE SUBMITTED WITH THE SOLICITATION RESPONSE.**

# Request for Taxpayer Identification Number and Certification

Give Form to the  
requester. Do not  
send to the IRS.

Print or type  
See Specific Instructions on page 2.

|  |   |
|--|---|
| 1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.  |   |
| 2 Business name/disregarded entity name, if different from above   |   |
| 3 Check appropriate box for federal tax classification; check only <b>one</b> of the following seven boxes:<br><input type="checkbox"/> Individual/sole proprietor or single-member LLC<br><input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____<br><b>Note.</b> For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.<br><input type="checkbox"/> Other (see instructions) ▶ _____ | 4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):<br>Exempt payee code (if any) _____<br>Exemption from FATCA reporting code (if any) _____<br><i>(Applies to accounts maintained outside the U.S.)</i> |
| 5 Address (number, street, and apt. or suite no.)  | Requester's name and address (optional)   |
| 6 City, state, and ZIP code  |   |
| 7 List account number(s) here (optional)   |   |

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

|                                |  |  |  |   |  |  |  |   |  |
|--------------------------------|--|--|--|---|--|--|--|---|--|
| Social security number         |  |  |  |   |  |  |  |   |  |
|                                |  |  |  | - |  |  |  | - |  |
| or                             |  |  |  |   |  |  |  |   |  |
| Employer identification number |  |  |  |   |  |  |  |   |  |
|                                |  |  |  | - |  |  |  |   |  |

## Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

|           |                            |        |
|-----------|----------------------------|--------|
| Sign Here | Signature of U.S. person ▶ | Date ▶ |
|-----------|----------------------------|--------|

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at [www.irs.gov/fw9](http://www.irs.gov/fw9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

*If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.*

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

**Note.** If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

**Foreign person.** If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

**Nonresident alien who becomes a resident alien.** Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

**Example.** Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

## Backup Withholding

**What is backup withholding?** Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

**Payments you receive will be subject to backup withholding if:**

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

## What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

## Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

## Penalties

**Failure to furnish TIN.** If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

**Civil penalty for false information with respect to withholding.** If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

## Specific Instructions

### Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

**Note. ITIN applicant:** Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

**Line 2**

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

**Line 3**

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

**Limited Liability Company (LLC).** If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

**Line 4, Exemptions**

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

**Exempt payee code.**

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

| IF the payment is for . . .  | THEN the payment is exempt for . . .  |
|--|---|
| Interest and dividend payments   | All exempt payees except for 7  |
| Broker transactions  | Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012. |
| Barter exchange transactions and patronage dividends                                   | Exempt payees 1 through 4   |
| Payments over \$600 required to be reported and direct sales over \$5,000 <sup>1</sup> | Generally, exempt payees 1 through 5 <sup>2</sup>   |
| Payments made in settlement of payment card or third party network transactions        | Exempt payees 1 through 4   |

<sup>1</sup> See Form 1099-MISC, Miscellaneous Income, and its instructions.

<sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

**Exemption from FATCA reporting code.** The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

**Note.** You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

**Line 5**

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

**Line 6**

Enter your city, state, and ZIP code.

**Part I. Taxpayer Identification Number (TIN)**

**Enter your TIN in the appropriate box.** If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note.** See the chart on page 4 for further clarification of name and TIN combinations.

**How to get a TIN.** If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at [www.ssa.gov](http://www.ssa.gov). You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at [www.irs.gov/businesses](http://www.irs.gov/businesses) and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting [IRS.gov](http://IRS.gov) or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note.** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

**Caution:** A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.



## Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

**Signature requirements.** Complete the certification as indicated in items 1 through 5 below.

**1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

**2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

**3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.

**4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

**5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

## What Name and Number To Give the Requester

| For this type of account:   | Give name and SSN of:   |
|---|---|
| 1. Individual   | The individual  |
| 2. Two or more individuals (joint account)  | The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup> |
| 3. Custodian account of a minor (Uniform Gift to Minors Act)  | The minor <sup>2</sup>  |
| 4. a. The usual revocable savings trust (grantor is also trustee)<br>b. So-called trust account that is not a legal or valid trust under state law  | The grantor-trustee <sup>1</sup><br><br>The actual owner <sup>1</sup>                                   |
| 5. Sole proprietorship or disregarded entity owned by an individual   | The owner <sup>3</sup>  |
| 6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))  | The grantor <sup>4</sup>  |
| For this type of account:   | Give name and EIN of:   |
| 7. Disregarded entity not owned by an individual  | The owner   |
| 8. A valid trust, estate, or pension trust  | Legal entity <sup>4</sup>   |
| 9. Corporation or LLC electing corporate status on Form 8832 or Form 2553   | The corporation   |
| 10. Association, club, religious, charitable, educational, or other tax-exempt organization   | The organization  |
| 11. Partnership or multi-member LLC   | The partnership   |
| 12. A broker or registered nominee  | The broker or nominee   |
| 13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments | The public entity   |
| 14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))  | The trust   |

<sup>1</sup> List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup> List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

**\*Note.** Grantor also must provide a Form W-9 to trustee of trust.

**Note.** If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

## Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

**Protect yourself from suspicious emails or phishing schemes.** Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to [phishing@irs.gov](mailto:phishing@irs.gov). You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: [spam@uce.gov](mailto:spam@uce.gov) or contact them at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 1-877-IDTHEFT (1-877-438-4338).

Visit [IRS.gov](http://IRS.gov) to learn more about identity theft and how to reduce your risk.

## Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

## Mandatory Form



### **Contractor Acknowledgement of Stormwater Management Program**

I hereby acknowledge that I am aware of the stormwater management program and standard operating procedures developed by Fort Bend County in compliance with the TPDES General Permit No. TXR040000. I agree to comply with all applicable best management practices and standard operating procedures while conducting my services for Fort Bend County. I agree to conduct all services in a manner that does not introduce illicit discharges of pollutants to streets, stormwater inlets, drainage ditches or any portion of the drainage system. The following materials and/or pollutant sources must not be discharged to the drainage system as a result of any services provided:

1. Grass clippings, leaves, mulch, rocks, sand, dirt or other waste materials resulting from landscaping activities, (except those materials resulting from ditch mowing or maintenance activities)
2. Herbicides, pesticides and/or fertilizers, (except those intended for aquatic use)
3. Detergents, fuels, solvents, oils and/or lubricants, other equipment and/or vehicle fluids,
4. Other hazardous materials including paints, thinners, chemicals or related waste materials,
5. Uncontrolled dewatering discharges, equipment and/or vehicle wash waters,
6. Sanitary waste, trash, debris, or other waste products
7. Wastewater from wet saw machinery,
8. Other pollutants that degrade water quality or pose a threat to human health or the environment.

Furthermore, I agree to notify Fort Bend County immediately of any issue caused by or identified by:

---

(Company/Contractor)

that is believed to be an immediate threat to human health or the environment.

---

Contractor Signature

---

Date

---

Printed Name

---

Title

Job No.: \_\_\_\_\_

**TAX FORM/DEBT/ RESIDENCE CERTIFICATION**  
**(for Advertised Projects)**

Taxpayer Identification Number (T.I.N.): \_\_\_\_\_

Company Name submitting Bid/Proposal: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Are you registered to do business in the State of Texas? ☐ Yes ☐ No

If you are an individual, list the names and addresses of any partnership of which you are a general partner or any assumed name(s) under which you operate your business

I. **Property:** List all taxable property in Fort Bend County owned by you or above partnerships as well as any d/b/a names. Include real and personal property as well as mineral interest accounts. (Use a second sheet of paper if necessary.)

Fort Bend County Tax Acct. No.\*

Property address or location\*\*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* This is the property account identification number assigned by the Fort Bend County Appraisal District.

\*\* For real property, specify the property address or legal description. For business personal property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored at a warehouse or other location.

II. **Fort Bend County Debt** - Do you owe any debts to Fort Bend County (taxes on properties listed in I above, tickets, fines, tolls, court judgments, etc.)?

☐ Yes ☐ No

If yes, attach a separate page explaining the debt.

III. **Residence Certification** - Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Fort Bend County requests Residence Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that \_\_\_\_\_ is a Resident Bidder of Texas as defined in Government Code §2252.001.  
[Company Name]

☐ I certify that \_\_\_\_\_ is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is \_\_\_\_\_.

[City and State]