CITY OF ORANGE

REQUEST FOR PROPOSAL NO. 20-21.14

The City of Orange is soliciting proposals from Genetec Unified Elite certified firms to replace existing access control system controllers and integrate the system on a unified security platform.

This Request for Proposal is set out in the following format:

SECTION I - Introduction and Instructions to Contractors
SECTION II - Proposal Response Requirements
SECTION III - Specifications and Statement of Work
SECTION IV - Evaluation Process/Criteria for Evaluation
SECTION V - Cost Proposal
SECTION VI - Administrative Elements

Proposals are due by September 17, 2020, at 2:00 P.M. P.D.T. Proposals must be submitted in sealed packages. See complete instruction in Section I, Item C.

All questions and inquiries related to contract terms and conditions contained within this Request for Proposal ("RFP") must be submitted by email to Wanda Alvarez, Purchasing Officer at walvarez@cityoforange.org. All questions and inquiries related to scope of work requirements contained within this RFP must be directed by mail to 300 E Chapman Avenue, Orange, California 92866, Attn: Purchasing Officer.

The City Purchasing Officer will initiate all official communications concerning this RFP. Any City response relevant to this RFP other than through, or approved by, the City's Purchasing Officer is unauthorized and will be considered invalid.

Wanda Alvarez
Purchasing Officer

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SECTION I

INTRODUCTION

AND

INSTRUCTIONS TO CONTRACTORS

RFP NO. 20-21.14

SECTION I: INTRODUCTION AND INSTRUCTIONS TO CONTRACTORS

A. Introduction

The City of Orange hereby invites qualified Genetec Unified Elite certified firms to provide and test a complete low-voltage Unified Security Platform comprising an Electronic Access Control System (EACS) with existing Video Surveillance System (VSS). Responding firm shall replace existing Electronic Access Control System controllers for City facilities and integrate the system on a unified Genetec platform. This project shall predominantly re-use existing wiring from the exiting controllers to security devices at each door. The project includes a small number of new door hardware installations. Optionally, Door Position Switches (DPS) and Request-to-Exit Detector (REX) are requested in select facilities. Further detailed information regarding installation specifications can be found at Section III (Specifications and Statement of Work).

The Contractor to this RFP is expected to provide all the materials and services that will meet or exceed the requirements and conditions as set forth herein.

B. RFP Schedule

The City reserves the right to make changes to the below schedule, but generally plans to adhere to the implementation of this RFP process as follows:

RFP released:	Date	08/20/2020
Mandatory Job Walk	Date	08/28/2020 at 8:00 a.m. PDT
Deadline for receiving questions:	Date	09/02/2020 at 2:00 p.m. PDT
Responses from City:	Date	09/10/2020
Proposals due:	Date	09/17/2020 at 2:00 p.m. PDT
Contractor selected:	Date	09/24/2020
Contract approved by City Council	Date	10/13/2020
Anticipated commencement of work	Date	10/26/2020

C. Instructions to Contractors and Procedures for Submittal

Proposals are to be properly identified on the outside and are due by 2:00 P.M. P.D.T. on Thursday, September 17, 2020, and shall be delivered in a sealed package(s) to:

RE: RFP No. 20-21.14
City Clerk
City of Orange
300 E. Chapman Avenue
Orange, California 92866

Proposals must be clearly identified by proposal number and sent in a sealed package. **It is the responsibility of the Contractor to ensure timely delivery is made to the City Clerk in the City of Orange.**

1. Proposals must be valid for a period of 120 calendar days from the Closing Date and Time for Receipt of Proposals. No Proposal may be withdrawn after the submission date.

2. Each Contractor must **provide three bound copies and one unbound copy** of its proposal. **One bound copy is to be clearly marked as "original" on the outside cover and contain an original signature.** An electronic soft copy on a USB drive or other standard digital storage device is also required.

3. All Proposals shall be submitted on standard 8.5 x 11-inch paper. All pages should be numbered and identified sequentially by section. Proposals must be tabbed and indexed in accordance with the information requested in Section II (Proposal Response Requirements). *It is imperative that all Contractors responding to this RFP comply exactly and completely with the instructions set forth herein.* All responses to this RFP shall be word processed (except where otherwise provided or noted), concise, straightforward and must fully address each requirement and question.

4. The Contractor's Proposal must not be marked as confidential or proprietary. The City may refuse to consider a Proposal so marked. Information in Proposals shall become public property and subject to disclosure laws. All Proposals shall become the property of the City. The City reserves the right to make use of any information or ideas in the Proposals.

5. By submitting a Proposal, the Contractor represents that it has thoroughly examined and become familiar with the work required under this RFP and that it is capable of providing and performing quality work to achieve the City objectives.

6. Pre-contractual expenses are defined as expenses incurred by the Contractor in:

   - preparing its Proposal in response to this RFP;
   - submitting that Proposal to the City;
   - negotiating with the City any matter related to the Contractor's Proposal; and
   - any other expenses incurred by the Contractor prior to the date of award and execution, if any, of the Agreement.

   The City shall not, in any event, be liable for any pre-contractual expenses incurred by Contractors in the preparation of their Proposal.

7. Each Contractor must submit its Proposal in strict accordance with all requirements of this RFP and compliance must be stated in the Proposal. Deviations, clarifications, and/or exceptions must be clearly identified and listed separately as alternative items for the City's consideration.

8. Each Contractor is encouraged to be responsive to the requirements stated in this RFP. If, however, any Contractor feels that it can offer substantial cost/benefit and/or performance advantages, the City will consider and may accept *alternate* Proposals. *Alternate Proposals must specify how they deviate from the requirements and describe cost reduction or other benefits to be achieved. Alternate Proposals must be submitted as separate Proposals clearly marked "alternate" on the outside cover.*

9. After the Closing Date and Time for Receipt of Proposals, evaluation and proposal clarification will commence.

10. In the event the City deems it necessary to clarify or make any changes to this RFP, these changes shall be made in the form of a written addendum authorized and issued only by the City Purchasing Officer or authorized designee.

11. The City reserves the right to:

    - negotiate the final Agreement with any Contractor(s) as necessary to serve the best interest of the City of Orange;

    - reject any Proposal if it is conditional, incomplete or deviates from specifications in this RFP;

    - waive, at its discretion, any procedural irregularity, immaterial defects or other improprieties, which the City deems reasonably correctable or otherwise not warranting rejection of the Proposal. Any waiver will not excuse a Contractor from full compliance.

    - withdraw this RFP at any time without prior notice and, furthermore, makes no representations that any contract will be awarded to any Contractor responding to this RFP; or

    - award its total requirements to one Contractor or to apportion those requirements among two or more Contractors as the City may deem to be in its best interest.

    In addition, negotiations may or may not be conducted with Contractors; therefore, the Proposal submitted should contain the Contractor's most favorable terms and conditions, since the selection and award may be made without discussion with any Contractor.

12. Where two or more Contractors desire to submit a single proposal in response to this RFP, they should do so on a prime/sub-contractor basis rather than as a joint venture. The City intends to contract with a single firm and not with multiple firms doing business as a joint venture.

13. Offerors shall utilize Attachment A to indicate costs.

D. Mandatory Job Walk

There will be a mandatory pre-proposal meeting and Job Walk on Friday, August 28, 2020, at 8:00 a.m., at the City of Orange 300 E. Chapman Avenue, Orange CA 92866. The City Clerk can direct you to our Weimer conference room. The duration of the Job Walk is anticipated to be 3 hours. The job walk will occur in two primary campus locations. Halfway through the walk, we'll travel to the second location approximately 5 miles away. Be prepared to provide your own travel to the second location. All prospective Contractors to this Proposal must attend this Job Walk. The Job Walk and pre-proposal meeting is intended to provide an opportunity to discuss and clarify this RFP, submission requirements and will include a tour of the sites. There will be two primary site locations walked. Be prepared to furnish your own transportation between site locations. Nothing said or represented during this conference shall be deemed to modify the requirements of this RFP unless followed by a written addendum. Individuals attending the mandatory job walk must be employees of the firm responding to this RFP.

E. Plans and Specs

Plans and specs available at the City Clerk Counter, 300 E. Chapman Avenue. Plans must be returned with the RFP.

F. Definitions

1. The CITY shall mean:
   The City of Orange and its appointed representatives.

2. The CONTRACTOR shall mean:
   The firm or company awarded a contract to design, furnish and install all project equipment; provide project oversight; provide work inspection and quality verification, verification of specification adherence in all aspects of install, commissioning, training and commissioning; provide warranty to the system described herein.

SECTION II

PROPOSAL RESPONSE REQUIREMENTS

RFP NO. 20-21.14

SECTION II: PROPOSAL RESPONSE REQUIREMENTS

Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be on completeness and clarity of content with sufficient detail to allow for accurate evaluation and comparative analysis. Responses must provide the required information in the following order for each underscored item: Contractors shall respond by repeating the section and sub-sections number(s) and statement/question and by providing the appropriate response hereunder.

A. Cover Letter

All Proposals **must** be accompanied by a cover letter, signed by an individual authorized to bind the proposing entity. **An unsigned Proposal submission is grounds for rejection.**

B. Company Data

Each Contractor shall submit the following information:

1. State the company's official name and address and the names and titles of its principal officers; indicate what type of entity, such as corporation, partnership, joint venture, sole proprietorship, etc. and indicate if the firm is incorporated.

2. Provide the firm's Federal Employer Identification Number.

3. Provide the name and address of the person to receive notices who is authorized to make decisions and represents the company. Specify in what capacity the person shall be representing the entity and any limitations to their authority.

4. Furnish the firm's complete address for any mailed funds.

5. State any failures or refusals to complete any contracts and a complete explanation.

6. Indicate the number of years in business under the present business name.

7. Indicate the number of years of the firm's experience in providing required, equivalent or related products and services.

8. Submit a detailed statement indicating whether the Contractor is totally or partially owned by another business organization or individual that will be providing the services to meet the requirements of the Proposal.

9. Submit a detailed statement indicating whether the Contractor totally or partially owns any other business organization that will be providing the services to meet the requirements of the Proposal.

C. Certificate of Insurance

The Contractor shall demonstrate the willingness and ability to provide the required insurance coverage as required by the City within ten calendar days of notification of selection for award of this Agreement.

D. Validity of Proposal

The Contractor shall state the length of time for which the submitted Proposal shall remain valid. The City requires a period of at least 120 calendar days.

E. Certification of Understanding

The City assumes no responsibility for any understanding or representation made by any of its officers or agents during or prior to the execution of any Agreement resulting from this RFP unless:

1. Such understanding or representations are expressly stated in the Agreement; and

2. The Agreement expressly provides that the responsibility therefor is assumed by the City. Representations made but not so expressly stated and for which liability is not expressly assumed by the City in the Agreement shall be deemed only for the information of the Contractor.

F. Statement of Compliance Project Design/Terms and Conditions

Include a statement of compliance indicating that all parts of this Request for Proposal and its goals, whether specified or implied, are compliant. Include acknowledgment and compliance with the attached Terms and Conditions. Provide a listing of exceptions and suggested changes if there are any deviations from the design specifications, any of the equipment, systems or services specified in the Cost Proposal Form (Attachment A).

1. Proposal must certify either (a) or (b) below:

    a. This Proposal is in compliance with said Request for Proposal information.

    b. This Proposal is in compliance with said Request for Proposal information, except for those proposed exceptions *listed in a separate attachment hereto.*

2. The attachment **must** include, for each proposed exception:

    a. the suggested rewording;

    b. reasons for submitting the proposed exception; and

    c. any impact the proposed exception may have on cost, scheduling or other areas.

G. Qualifications of Contractor

The Contractor shall provide the following information to assist in the evaluation of the firm, its Proposal and its ability to successfully provide the services required under this RFP:

1. A description of the Contractor’s credentials to deliver the services sought under the RFP.

2. Provide the resumes of the project manager and key personnel who will be assigned to this project. Resumes shall contain information relating to each person's education, experience or training in the area covered within this proposal.

3. A description of the Contractor's background and organizational history.

4. Years the Contractor has been in business under current and any former business names.

5. A statement of how long the Contractor has been performing the services required by this RFP.

6. Location of headquarters and field offices.

7. Location of office which would service the City.

8. A description of the Contractor organization's number of employees, longevity, and client base.

9. Official statement of any mergers, acquisitions, or sales of the Contractor within the last ten years (if so, an explanation providing relevant details).

10. Form of business (e.g., individual, sole proprietor, corporation, non-profit corporation, partnership, joint venture, limited liability company, etc.).

11. Include a statement of compliance regarding the section detailed in section 28 0000 1.08 Quality Assurance.

H. Schedule and Work Plan

The Contractor shall list all tasks, major project milestones, approximate number of weeks to complete each task, and anticipated completion timeframe to complete the installation. Describe how each task is to be accomplished, and identify team members responsible for completion of specific products that will be produced. The Contractor should include equipment lead-time assumptions in the schedule. A Gantt chart is the preferred form of representing an acceptable work breakdown structure. Contractor may include a narrative to indicate any broad assumptions, constraints or alternatives associated with the proposed schedule indicated in this RFP.

The schedule and work plan should address and satisfy the objectives and specifications as listed in the Statement of Work in this RFP. Submission of a proposal by the Contractor without indication of a proposed alternate schedule shall be considered an acknowledgement that the Contractor accepts all terms of the stated work schedule and project completion dates.

Prior to the commencement of work, arrangements will be made for a meeting between the Contractor and the City Project Manager. The purpose of this meeting is to coordinate the activities of the Contractor within the limits of the contract, review scheduling, and discuss work methods and procedures. A finalized schedule must be submitted to the City for review and approval.

I. Not-To-Exceed Pricing

Provide the proposed fixed cost according to specifications in the attached cost proposal. Prices must be valid for 120 days. Contractor shall use Cost Proposal Form (Attachment A) to indicate costs for all Services and Equipment accordingly and exactly as listed.

Project Funding/Not-to-Exceed Amount: The City has funding currently budgeted and available for this project. The not-to-exceed amount as indicated in the Cost Proposal Form by the Contractor shall comprise the entire and final amount required for a fully delivered system as stipulated throughout this RFP. Submission of a proposal pursuant to this RFP shall constitute acknowledgement and acceptance that all specifications and requirements of this project can and shall be met within the not-to-exceed amount.

The City also reserves the right to exclude one or more components of the project if the City determines that to do so would be in the best interest of the project. The City expects any cost-savings through decreased professional services shall be passed on to the City as a reduction in the "not-to-exceed" amount. Submission of a proposal shall constitute acknowledgement and acceptance that these goals will be adhered to.

J. Payments

Payment to the successful Contractor (awarded Contractor) shall occur, on a net 30 basis. All invoices submitted shall have a ten percent (10%) retention amount, applicable to both equipment and labor. Payment of the retention, shall be remitted only after all deliverables have been received by the City and project has been deemed complete by the City. Partial payments, except the final payment, shall not be made for periods of less than one month.

The following benchmarks shall be used to authorize the Contractor to invoice for services rendered and equipment received:

1. Receipt of equipment, as evidenced by proof of delivery as acceptable by City; process to be established upon award of a contract/agreement.

2. Successful completion of Installation and Commissioning as acknowledged by the City.

3. Successful completion of Testing, Proof of Performance, and Training.

4. Final Closeout of system and completion of testing and System Acceptance.

K. Personnel Experience and References

The Contractor shall provide at a minimum, a list of four (4) applicable references, located in California, municipalities or applicable government operations, which were provided with the similar access control services (see below under **Customer References**).

The Contractor shall provide the following information:

1. **An organizational chart** highlighting the key people who shall be assigned to accomplish the work required by this RFP and illustrating the lines of authority and designate the individual responsible for the completion of each service component and deliverable of the RFP.

2. **A narrative description** of the proposed organization, its members, and reporting structure.

3. **A personnel roster** and resumes of key people who shall be assigned by the Proposer to perform duties or services under the contract (include estimated number of hours to be worked on the contract for each person, and the resumes shall detail each individual's title and current position with the Proposer, and employment history).

4. **Customer references** for similar clients representing three government projects of similar size and complexity of the City and currently serviced by the Proposer. Each reference must include:

    a. Name and business address.

    b. Name, title, email address, and telephone number of the contact currently knowledgeable about the engagement.

    c. Brief description of the service provided and the period of service.

    d. Total revenue/contract amount.

5. **Contractual relationships** currently held with the City of Orange and all those completed within the previous five-year period. The list must include:

    a. Contract number.

    b. Contract term.

    c. Procuring department with the City.

L. Warranty

Include a statement of compliance regarding the section detailed in section 28 0000 1.12 Warranty. Provide a listing of exceptions and suggested changes if there are any deviations from the warranty requirements.

M. Maintenance Contract

Include a statement of compliance regarding the section detailed in section 28 0000 1.13 Maintenance Contract. Provide a listing of exceptions and suggested changes if there are any deviations from the warranty requirements.

As indicated in Cost Proposal Form (Attachment A), the Contractor shall provide additional long-term maintenance costs.

N. Resources Provided by the City

List any resources, City assistance, or other items expected to be provided by the City.

O. Special Forms

The City requires the Contractor to include the following forms to be submitted with their Proposal:

1. **Anti-Collusion Affidavit:** Proposer, as a part of its proposal, must submit the completed Anti-Collusion Affidavit form.

2. **Standard Terms and Conditions Understanding:** Proposer, as part of its proposal, must submit the completed Standard Terms and Conditions Understanding form.

SECTION III

SPECIFICATIONS AND

STATEMENT OF WORK

RFP NO. 20-21.14

SECTION III: SPECIFICATIONS & STATEMENT OF WORK

CONTENTS

ATTACHMENTS ASSOCIATED WITH THIS SECTION

ATTACHMENTS A

COST PROPOSAL FORM

SECTION 28 0000

SECURITY GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 SECURITY CONSULTANT OF RECORD

A. The Consultant of Record for this project is:
Triad Consulting & System Design Group
2925 Mira Vista Way
Corona, CA 92881
(949) 943-9422

1.02 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions, City of Orange Standard Terms and Special Provisions, apply to this section.

1.03 DESCRIPTION

A. General Description: This specification section covers general requirements to provide and test a complete low-voltage Unified Security Platform comprising an Electronic Access Control System (EACS) and a Video Surveillance System (VSS). Both systems shall operate on the same platform utilizing a single application with each system operating as a role on the platform. The VSS platform is existing and the EACS shall configured to be functional on the same platform. The existing VSS operates on the Genetec Unified Security platform. Following is an outline of the project scope.

B. This project shall replace existing EACS controllers and integrate the system on a unified platform. Refer to Article 1.04 for information on the existing systems.

C. This project shall re-use existing wiring from the existing controllers to security devices at each door. The contractor shall verify each cable and the device connected to the cable and provide cable ID tags for each cable and provide cable ID tag information on the drawings.

D. Furnish and install electric security hardware devices, mounting brackets, power supplies, switches, equipment cabinets, controls, consoles and other components of the system as shown and specified.

E. Furnish and install outlets, junction boxes, pull boxes, conduit, connectors, wiring, and other accessories necessary to complete the system installation. Requirements shall be in accordance with Division 26 Electrical.

F. Provide pre-testing and acceptance testing of equipment, programming, wiring and installation.

G. Related Sections: Requirements that relate to this section are included in, but not limited to, the following sections {select as appropriate}

1. Division 7 Section 07 8400 for Firestopping requirements

2. Division 8 Section 08 7100 for Door Hardware Requirements

3. Division 28 Section 28 05 13 for Security Cable requirements

4. Division 28 Section 28 10 00 Electronic Access Control System requirements

1.04 EXISTING SYSTEMS

A. Electronic Access Control System (EACS)

1. City of Orange has an existing Casi-Rusco (UTC Fire & Security) EACS located in the Police Department main facility. The system is running Facility Commander Winx 7.7 software. The existing EACS server is located in the Data Room in same building (Refer to EY110B for location).

2. This project shall upgrade the Casi-Rusco EACS to a Genetec Synergis EACS running Genetec Security Center 5.9 software. The existing Casi-Rusco Micro5 controllers shall be upgraded using the Genetec/Mercury M5 Bridge hardware and shall be installed in the existing Micro5 controller enclosures and re-use existing wiring.

3. The remainder of the City facilities are operating on Keri Systems EACS. There are two operating Keri Systems, one for the Community Center and associated parks and the other operating all the other City facilities. Refer to Article 1.05 for a list of all facilities that are part of the project scope.

4. The Keri System controllers shall be replaced with Genetec/Mercury LP1502 Intelligent controllers with two reader ports where connection to the network is required and Genetec/Mercury MR52-S3 dual reader controllers for all other reader control requirements. This project shall re-use existing wiring.

5. The City has an existing Genetec Unified Security Platform system in operation for management of a number of new locations with two Cloudlink controllers installed. The contractor shall connect all new controllers to the existing system and provide all required licenses.

B. Video Surveillance System (VSS)

1. City of Orange has an existing Genetec Unified Security Platform running the Omnicast Video Surveillance software.

2. This project shall include the replacement of four cameras and installation of SIP intercoms for monitoring gate access at the Corporate Yard. Refer to the article for Alternate Bids for additional information.

1.05 SCOPE OF WORK

A. Provide systems and services as described herein and completed per the approved schedule.

B. Systems: Provide the following work complete per the contract schedule, and with acceptable engineering and installation practices as described herein.

1. Electronic Access Control System (EACS) replacement

2. Video Surveillance System (VSS) additions

C. Areas or work: The areas of work shall include, but not be limited to, the following buildings

1. City of Orange Civic Center Campus comprising the following buildings:
   a. Administration Building
   b. Public Works Building
   c. Finance Building
   d. Community Services Building
   e. Library

2. Water Facilities
   a. Water Plant Site
   b. Main Building
   c. Warehouse
   d. South Water Yard

3. Public Parks;
   a. Handy Park
   b. El Camino Park
   c. Steve Ambriz Park
   d. Grijalva Park
   e. Olive Park
   f. Killefer Park

4. Fleet Building (Adjacent to the Police Main Building)

5. Warehouse (Adjacent to the Police Main Building)

6. Police Main Building

D. Services: Contractor shall provide the following services complete and as scheduled:

1. Project Planning and Management

2. Interdiscipline Coordination

3. Engineering and Material Purchase

4. Submittals

5. System Phasing and Installation

6. System Start-up and Commissioning

7. Training

8. Testing

9. Warranty

10. Post Acceptance Work

E. General Conditions: Provide work in accordance with the following general conditions

1. Contract Compliance: Provide the Systems and Services in accordance with the conditions and system descriptions as described in Part 1 of each Specification Section. Provide specified or equivalent approved alternate products as described in Part 2 of each Specification Section. Utilize specified procedures and practices as described in Part 3 of each Specification Section.

2. Schedule: Conform to the schedule as approved during the submittal process.

3. All-inclusive work: Provide sufficient time, material, and manpower as necessary and verify, and if necessary, revise or refine, the contract bid drawings and any and all circuitry, including the development of complete shop drawings required by the Specifications in order for this work to realize complete, stable, and safe operation.

1.06 RELATED WORK

A. General

1. Observe interface procedures to related work as described in PART 3, herein.

2. Coordinate with City of Orange on all aspects of aesthetic interface.

3. Verify lighting requirements for cameras and displays to ensure adequate lighting is provided for the required performance and functions.

B. Installation of network equipment, wireless network equipment and provisioning of a complete security system network shall comply with City of Orange standards and requirements. Coordinate network equipment and connection with the City of Orange Project Manager.

C. Access Doors: Coordinate with City of Orange for the provision of access doors where needed to gain access to wiring, boxes, panels and enclosures in walls or ceilings.

D. Conditions

1. Coordinate with all existing construction, equipment, and field devices

2. Equipment provided under this project shall be installed in a manner consistent with architectural, operational, service, and maintenance considerations.

1.07 APPLICABLE PUBLICATIONS

A. Standards: Perform the work in accordance with the following standards:

1.	UL	Underwriters Laboratories, Inc., UL 294, UL 1076, ULC
2.	EIA	Electrical Industries Association
3.	NTSC	National Television Standards Committee
4.	NEMA	National Electrical Manufacturers Association
5.	NECA	National Electrical Contractors Association National Electrical Installation Standards (NEIS)

6. NFPA National Fire Protection Association
   101 Life Safety Code
   70 National Electrical Code (2017)

7. 2018 IBC International Building Code

8. ADA Americans with Disabilities Act

9. FCC Part 15, Part 68

B. Where one or more code is applicable, the more stringent shall apply

C. Cable installation, termination, and identification shall be performed in accordance with the manufacturer's installation manuals in addition to the applicable codes.

D. When the manufacturer provides no recommendations on cable applications the Contractor shall ensure the cable selected meets the technical requirements of the equipment installed and shall meet the environmental requirements of the installed location.

1.08 QUALITY ASSURANCE

A. Contractor Qualifications

1. Duration of Business: The contractor shall have been in the business of installing and servicing security systems of the type described herein for a period of at least five years. The contractor shall have conducted security system contracting business averaging at least four times the value of this bid for the last three years.

2. Similar Experience: The contractor shall have installed a minimum of three projects involving integration of the systems types required on this project. The contractor shall provide references as described below.

3. Engineering: The contractor shall have an employed engineering and drafting staff capable of providing the submittals as described herein.

4. Experience: Provide personnel with the following minimum experience:
   a. Project Management: The Project Manager shall have at least five years direct experience managing projects of the type specified herein.
   b. Field Supervisor: The Field Supervisor shall have at least three years direct experience supervising projects of the type specified herein.
   c. Field Installers: Field installers shall have at least three years direct experience installing projects of the type specified herein.

5. Certifications: The Contractor or its assigned subcontractors shall be certified by the manufacturer for the systems they are working on. Where manufacturers do not have certifications for outside personnel the Contractor shall contract with the manufacturer for Professional Services to complete the work on their system.
   a. Genetec Unified Elite reseller

B. Manufacturer Qualifications

1. This project primarily involves modifications to existing systems and the contractor shall sub-contract with the manufacturer or certified value-added reseller (VAR) for

worked performed on their system to meet the specified requirements.

2. Where new equipment is being provided it shall meet the following requirements:
   a. System components shall be furnished by manufacturers of established reputation and experience who shall have produced similar equipment and who shall be able to refer to similar installations rendering satisfactory service.
   b. The manufacturer's products shall have been in satisfactory operation on at least three similar installations for not less than three years. Contractor shall submit a list of similar installations.
   c. Components including, but not limited to, cameras, intercoms, computers, and power supplies shall have been tested and listed by Underwriters Laboratories, Inc., Factory Mutual Systems, or other approved independent testing laboratory.

1.09 RFP RESPONSE

A. General: The RFP responses shall comply with the requirements of Section I (Introduction and Instruction to Contractors) and Section II (Proposal Response Requirements) and additional instructions herein.

B. Responsibility

1. It shall be Contractor's responsibility to verify actual conditions by visiting the site, reviewing the Drawings and Specifications, and to advise City of Orange in writing of any conditions which may adversely affect the work. If any necessary exceptions are discovered, Contractor shall immediately notify City of Orange for resolution prior to any change in the design or the scope, and any resultant claim for additional compensation.

2. The RFP Response must fulfill the intent of the Drawings and Specifications to the satisfaction of City of Orange and the Consultant of Record to qualify as an acceptable Response.

C. Base Proposal Response: Base RFP response shall include replacement of Keri Systems and Casi Rusco EACS controllers and connecting the new controllers to the existing Genetec Security Center system, converting or manual reprogramming of the existing database information into the Genetec Security Center System, Upgrading the Genetec software as required to accommodate the new hardware and replace or add new cameras to the VSS as described in the Contract Documents. The contractor shall provide all licenses required for the system to perform the functions described in the Contract Documents.

D. Alternate Proposals:

1. General: Any alternates to the base proposal which are proposed by the contractor and accepted for inclusion in the contract with this work shall be subject to all of the provisions of submittal, coordination, warranty and review as if included herein.

2. Required Add scope:
   a. Additional Scope #1: Upgrade security equipment at the Corporate Yard gate located at the west end of the Warehouse. Refer to EY-112 for plan view and installation requirements. The following items shall be addressed:
      1) Replace card reader at entry and exit lanes with HID iClass dual technology reader/keypad configured to OSDP protocol to the controller.

Remove existing reader and control cable from the gate to the controllers located in the warehouse building.

2) Remove existing local keypad and cable.
3) Remove existing Aiphone intercoms and cable and replace with IP intercoms. Intercoms shall be integrated to the Genetec system. Provide licenses as required to allow the intercoms to communicate over the Genetec system.
4) Provide two RF readers with Weigand output compatible with Fast Trac transponders. Provide pathway and cable to Communications Equipment Cabinet (CEC).
5) Replace existing analog camera and cable mounted on fence with new IP camera and data cable. Route data cable to CEC.
6) Provide CEC located adjacent to the existing terminal cabinet. Provide an Intelligent controller and reader controller within the CEC. Provide 8-port hardened network switch and power supply in the CEC mounted on DIN rail. Provide duplex outlet in CEC connecting to existing 120V power.
7) Route new data cable from STC in warehouse to CEC. Terminate data cable at cable distribution module in STC.
8) Intelligent controller, IP intercoms and IP camera shall terminate at network switch in CEC.
9) Program Genetec system for access control, video monitoring and recording and intercommunications for all new devices at the gate. Install client software at four workstations on the 2nd floor of the Fleet Building to monitor camera and communicate to the intercoms. Assign readers to access groups as designated by the City.
10) Provide all service and warranty as described in the contract documents.

b. Additional Scope #2: Replace three existing analog cameras at the Corporate Yard. Two cameras are located on the Fleet Building and one on the Warehouse Building.
   1) The cameras communicate over the City network to workstations on the 2nd floor of the Fleet Building.
   2) Refer to EY109 and EY111 for camera locations and directions for routing cable to the nearest network switch.
   3) Provide all service and warranty as described in the contract documents

c. Alternate Scope #3: Provide Door Position Switches (DPS), Request-to-Exit Detector (REX) and associated cable for all card reader doors.
   1) Cables shall be routing to the same controller as the existing readers and lock cables.
   2) Provide cost to include 150 feet of cable.
   3) Provide all service and warranty as described in the contract documents.

d. Alternate Scope #4: Provide Request-to-Exit Detector (REX) and associated cable for all card reader doors with existing DPS within the Main Police Building.
   1) Provide cost to include 150 feet of cable.
   2) Provide all service and warranty as described in the contract documents.

e. Alternate Scope #5: Provide access control at new doors as identified on the plan drawings.
   1) New doors shall include door position switch(es) (DPS), electrified locking hardware with integral RX switch and new card readers.
   2) Provide cables from each door to the nearest controller location.
   3) Provide additional reader controller board to terminate cables.
   4) Provide system programming, testing and warranty for all new

equipment as described in the warranty section of the specifications.

5) New doors to be added:
   a) Police Building Lower Level Public Entrance (EY140)
   b) Police Building Lower Level Stairs adjacent to ramp (EY140)
   c) Police Building 1st Floor West Stairway (EY142)
   d) Police Building 1st Floor Loading Dock (EY143)
   e) Admin Building Computer Room (EY102)

1.10 SHOP DRAWING AND EQUIPMENT SUBMITTAL

A. General: Provide the submittals as described below.

1. Format: Make each submittal in one complete and contiguous package. Partial or unmarked submittals will be rejected without review.

2. Schedule: Submit all submittals according to the schedule put forth in the Contract Documents. This Contractor shall be responsible for schedule delays caused by late or incomplete submittals. If no other submittal schedule is provided submittals shall be completed within 30 days from Notice to Proceed (NTP).

3. The Contractor shall be aware of and identify products that may require long lead times for manufacturing and/or delivery and must prepare the submittal package accordingly for City of Orange for review.

4. The submittal package shall be clearly identified by reference to the Project name, specification section, article, paragraph, drawing number or detail as applicable. Submittals shall be well organized, and shall be clear and legible and of sufficient size for clear presentation of data. Data submitted shall describe the materials, equipment, or other items to be furnished and, where applicable, the system in sufficient detail to indicate full compliance with the requirements of these Contract Documents.

B. Contract documents, including drawings, details and specifications are generally considered conceptual in nature, and provide direction on products and project requirements. In most cases, the Contractor is given some choice of products and methods that may be incorporated into the system. These choices may affect the overall design, configuration and installation of the proposed system. The contractor shall be responsible for the means and methods of installation of equipment and raceways. Where specifically noted on the plan drawings the contractor shall use existing raceways or provide new raceways as shown.

C. Requirements: Provide the following information complete, and in the manner described herein:

1. Shop Drawings: Shop Drawings shall be numbered consecutively and shall accurately and distinctly present the following information:
   a. Title Sheet
   b. Plans: Showing all devices, pull boxes, cabinets, conduits and conductors in their proposed locations
   c. Riser Diagram: Showing all conduit relationships between devices shown on the Plans Show all power sources including panel identification and circuit number.

d. Single-Line/Block Diagrams: Show system architecture and signal relationships of controls, processors and head-end devices within the system.
e. Custom Assembly Diagrams: For each custom assembly, provide an assembly drawing illustrating the appearance of the assembled device. Include dimensions, assembly components, and functional attributes (momentary or alternate action switch, lens color, panel finish, color, etc.). "Custom assemblies" include, but are not limited to:
    1) Security Terminal Cabinets
    2) Cover plates and Escutcheons
    3) Receptacle Assemblies
    4) Console Bezels and Materials
f. Component Connection Diagrams
    1) Show the wire designations on all connectors.
    2) Show a schedule of the wire colors connected to the pins on each device connector.
g. Equipment Wiring Diagrams
    1) Show a pictorial illustration of each equipment enclosure and/or terminal cabinet, including terminals, components and wiring devices.
    2) Show the device nomenclature exactly as shown on the single line diagrams.
    3) Terminations
        a) Show every termination and terminating cable, with applicable cable and wire numbers matching the single line diagrams.
        b) Every termination in the system must be documented.
        c) Termination information may be rendered as a wiring list(s), if properly coordinated with, and referenced to, typical component and single-line diagrams. Otherwise, the Shop Drawings shall show a pictorial of every component in the system, with its terminations.
        d) Show wire colors for each terminal.
        e) For each wire exiting the enclosure, show the destination of the wire by floor, room number and the drawing number of the panel where the wire terminates.
h. All working dimensions and erection dimensions
i. Arrangements and sectional views
j. Necessary details, including complete information for making connections between work under this Contract and work under other Contracts.
k. Stock or standard drawings will not be accepted for review unless full identification and supplementary information is shown thereon in ink or typewritten form.
l. Each Drawing or page shall include:
    1) Project name, Project Number and descriptions
    2) Submittal date and space for revision dates
    3) Identification of equipment, product or material
    4) Name of Contractor and Subcontractor
    5) Name of Supplier and Manufacturer
    6) Relation to adjacent structure of material
    7) Physical dimensions, clearly identified
    8) ASTM and Specifications references
    9) Identification of deviations from the Contract Documents
    10) Contractor's stamp, initialed or signed, dated and certifying to review of submittal, certification of field measurements and compliance with Contract.

11) Location at which the equipment or materials are to be installed. Location shall mean both physical location and location relative to other connected or attached material.

2. Equipment Submittals
   a. General: Equipment submittals shall be organized in the same chronological order as listed in each specification section.
   b. Provide a Title Page, with project name, Contractors name and address, contact information, date of submission, and submission revision number.
   c. Provide a Parts List, for proposed equipment, materials, components and devices, listing the following information for each line item:
      1) The system type,
      2) Model number,
      3) Project quantity,
      4) Specification sheet page reference including Specification Section, Article, Paragraph, and sub-paragraph.
   d. Provide Manufacturers Specification Sheet with descriptive information for equipment, materials, components and devices. Number each page, to correspond with the Parts List.
   e. Clearly delineate (with highlighter, arrow, or underline) on each specification sheet, which model numbers, options and configurations are being proposed for this project.
   f. Include kinds of materials and finishes for all equipment.

3. Acceptance Testing Plan:
   a. Submit a written document detailing the test procedures to be followed by the contractor in evaluating and proving the installed System(s).
   b. Provide a sample of the test forms to be used for each system and for each component of each system.
   c. Include all tests required by the equipment Manufacturer and by this Specification.

D. City of Orange will return unchecked any submittal that does not contain complete data on the work and full information on related matters.

E. Verification: The contractor shall check and acknowledge all shop drawings, and shall place his signature on all shop drawings submitted to City of Orange. Contractor's signature shall constitute a representation that all quantities, dimensions, field construction criteria, materials, catalog numbers, performance criteria and similar data have been verified and that, in his opinion, the submittal fully meets the requirements of the Contract Documents.

F. Departure from Contract Requirements: If the shop drawings show departures from the Contract requirements, the Contractor shall make specific mention thereof in his letter of transmittal, otherwise review of such submittals shall not constitute review of the departure. Review of the drawings shall constitute review of the specific subject matter for which the drawings were submitted and not of any other structure, materials, equipment, or apparatus shown on the drawing.

G. Use of Contract Drawings: The contractor may use the contract “bid” drawings for preparation of shop drawings. When using portions of the contract documents for submittal purposes the contractor shall take full responsibility for the information shown on the drawings. The contractor shall add information as described in the shop drawing

submittal requirements herein. The submitted drawings shall include all cable types, conduit fill, cable routing (start and destination), labels for all cables and devices, and IP addresses for network connected devices. Incomplete submittals shall be rejected.

1.11 OPERATING AND MAINTENANCE MANUALS: ("AS-BUILT" RECORD SET)

A. Phase One: Notwithstanding any requirements specified elsewhere, submit for review the following clearly labeled as the "Operating and Maintenance Manual" within thirty days after Final Acceptance of the Installation and prior to requesting final payment:

1. Record Drawings: Submit two copies of revised versions of drawings as submitted in the "Shop and Field" and "Equipment Wiring Diagrams" Submittals showing actual device locations, conduits, wiring and relationships as-built. Include nomenclature showing as-built wire designations and colors.

2. Manuals: Submit two copies of each of the following materials in bound manuals with labeled dividers:
   a. Equipment Instruction Manuals: Complete, comprehensive instructions for the operation of all devices and equipment provided as part of this work.
   b. Manufacturers Instruction Manuals: All specification sheets, brochures, Operation Manuals and service sheets published by the manufacturers of the components, devices and equipment provided.
   c. A final Bill of Material for each system
   d. Include information for testing, repair, troubleshooting, assembly, disassembly and recommended maintenance intervals.
   e. Provide a replacement parts list with current prices. Include list of recommended spare parts, tools, and instruments for testing and maintenance purpose.
   f. Performance, Test and Adjustment Data: Comprehensive documentation of all performance verification according to parameters specified herein.
   g. Warranties: Provide an executed copy of the Warranty Agreement and copies of all manufacturers' Warranty Registration papers as described herein.

B. Phase Two: Within fourteen days of receipt of review comments for the Operating and Maintenance Manual (Phase One), submit the following corrected documents; two copies of the reviewed Record Drawings and two copies of the reviewed Operating and Maintenance Manuals to City of Orange. The contractor shall also provide electronic versions of submitted drawings and manuals on CD-ROM.

1. In each equipment enclosure and/or terminal cabinet, the contractor shall place a Single Line drawing of the system(s) and the respective Terminal Cabinet Wiring Diagram in a clear plastic sleeve permanently attached to the cover of the terminal cabinet.

2. The contractor shall provide to City of Orange one copy of all executive and user software, including all graphical maps on CD-ROM disks.

3. Sufficient information, (detailed schematics of subsystems, assemblies and subassemblies to component level) clearly presented, shall be included to determine compliance with drawings and specifications.

1.12 WARRANTY

A. General: Comply with the requirements in Section II, Paragraph L Warranty and additional requirements herein.

B. Warranty Period: The Contractor shall provide labor, equipment, and materials required to maintain the entire system in an operational state as specified, for a period of a minimum of one year after formal written acceptance of the system to include scheduled and nonscheduled adjustments.

C. The Warranty shall serve two purposes:

1. The Contractor shall repair any system malfunction or installation deficiency discovered by City of Orange or their representatives during the warranty period.

2. The contractor shall replace any piece of equipment that ceases to function properly during the warranty period.

D. The Contractor shall correct any installation deficiencies found against the contract drawings and specifications discovered by City of Orange or their representatives during the warranty period

E. Personnel: Service personnel shall be certified in the maintenance and repair of the specific type of equipment installed and qualified to accomplish work promptly and satisfactorily. City of Orange shall be advised in writing of the name of the designated service representative, and of any change in personnel.

F. Schedule of Work: The Contractor shall perform quarterly inspections to verify operation of equipment.

G. Inspections shall include visual checks, review of system log files and error messages and operational tests of console equipment, peripheral equipment, local processors, sensors, and electrical and mechanical controls.

H. Inspections shall also include testing of all communication links to verify operation within manufacturer's parameters.

I. Emergency Response: City of Orange will initiate service calls when the system is not functioning properly. Qualified personnel shall be available to provide service to the complete system. City of Orange shall be furnished with a telephone number where the service supervisor can be reached at all times. Service personnel shall be at site within 4 hours after receiving a request for service. The system shall be restored to proper operating condition within 8 hours after service personnel arrive on-site and obtain access to the system.

J. Software Updates: The Contractor shall provide a description of all software updates to City of Orange, who will then decide whether or not they are appropriate for implementation. After notification by City of Orange, the Contractor shall implement the designated software updates and verify operation in the system. These updates shall be accomplished in a timely manner, fully coordinated with system operators, and shall be incorporated into the operation and maintenance manuals, and software documentation. Contractor shall make a system image file so the system can be restored to its original state if the software update adversely affects system performance.

1.13 MAINTENANCE CONTRACT

A. Maintenance Contract Terms

1. The term of this agreement will be for two years, with three (3), one-year options to extend.

2. Payment or prevailing wages is required.

3. A Non-Disclosure Agreement (NDA) will be required from the awarded contractor.

B. General

1. The Contractor is required to perform all ongoing maintenance, repair, support services, preventive maintenance including "Moves, Adds, and Changes" (MAC) for the EACS to ensure that the systems, associated hardware, Interfaces and all their subcomponents are fully functional 24-hours per day, 7 days a week, throughout the term of the Contract for the sole purpose of providing proper, safe and reliable operations of the EACS at City of Orange facilities. The EACS operates on the Genetec Security Center 5.9 platform.

2. The Services consist generally of furnishing all labor, materials, appliances, tools, equipment, services, and supervision required to perform all maintenance and repair / replacement services, preventive maintenance, programming, configuration, related interfaces, testing, troubleshooting, modifications, or installing new EACS readers and components as necessary, updating all documentation to reflect EACS related components repairs, moves, adds and changes and maintaining an on-site spare parts inventory for all EACS equipment at City of Orange facilities.

3. Contractor is required to provide repair and preventive maintenance services for EACS systems and associated hardware, including signaling devices, relays, switches and other ancillary equipment. Contractor is also required to provide repair and preventive maintenance for EACS interfaces to City of Orange databases such as human resources software. Contractor shall provide updates to the EACS programs, servers, desktop clients, and install new clients as needed. Additional equipment, software, and components, referenced throughout this Scope of Services and its attachments are all part of the repair, preventive maintenance, and support services under this Contract.

4. EACS is a critical security component required to function in support of City of Orange's Facility Security Plan. The Contractor must ensure the scalability and maintainability of City of Orange's EACS environment. EACS consists of multiple systems, subsystems, and respective components that manage/control ingress and egress of persons through numerous points at City of Orange facilities.

5. Due to the sensitivity of the EACS device placement, the City will provide detailed location information upon award of the contract. The City will negotiate when adding or deleting EACS devices to the contract with the Contractor.
   a. Additional/ existing locations and or number EACS devices may be added or removed at the City's discretion.

6. Prior to performing service contractor is required to submit a letter certifying the technician is Genetec certified, and has passed proper background checks. Letter must be submitted to the City before technician is assigned to work at any the City sites. Contractor shall be responsible for backgrounds checks.

7. The Contractor shall communicate with the Information Technology Department to coordinate schedule and staffing at each site prior to commencing any maintenance or repair work.

8. The Contractor shall be required to maintain, at all times, a record of the services provided by type of service including MACs, repairs, and preventive maintenance. The record must include, at a minimum, date, time, employee name, activity or problem descriptions, actions or resolutions, and City of Orange personnel referring the service call. The Contractor shall provide this information in a report format approved by City of Orange. The Contractor shall submit the report on a monthly basis to City of Orange and ensure that real time reports are available to City of Orange on an "as needed" basis.

C. Updating Existing Documentation

1. The City of Orange will provide the contractor with as-built documentation of the existing system.

2. The Contractor shall keep as-built documents updated throughout the term of this Service Contract. Every six months, Contractor will submit such updated records/documentation for City of Orange's review.

3. Thirty days prior to the end-date of this Service Contract, Contractor is required to submit for City of Orange's final review all currently updated records and documentation that reflect the latest move, adds and changes to date.

D. On-call Service Requirements

1. The Contractor shall perform repair work on an as needed basis, only after obtaining prior approval.

2. The Contractor response time to a call for repair from an authorized City of Orange representative shall be as follows:
   a. The Contractor shall respond by call back or email within one hour of receiving a call for service.
   b. The Contractor shall have service personnel on-site within four hours for a normal service call from the time the service call is placed.
   c. The Contractor shall have service personnel on-site within two hours for an emergency service call from the time the service call is placed. City of Orange shall determine which types of EACS failures are Emergency related failures and shall notify the Contractor of that designation at the time the call is placed.

3. The Contractor shall provide a quote to the authorized City employee, and receive approval to proceed, prior to the start of repair work.

4. The Contractor shall require verbal approval from an authorized City employee, providing the Contractor with a PO number prior to the start of any emergency work.

5. City of Orange personnel must be provided with Contractor work tickets upon completion of work. City of Orange will provide the Contractor with information regarding the asset tracking system and asset ID tags upon award of contract. A list of approved City of Orange personnel will be provided the Contractor upon award of the contract.

6. The Contractor shall be responsible for callbacks on all prior work regardless if the work is considered emergency in nature. Refer to Section 6.13 Warranty for additional requirements.

7. City of Orange will not compensate the Contractor for travel time to or from any job regardless of the nature of the call.

8. The Contractor shall maintain a spare parts inventory on-site. The City will provide a list of existing spare parts at the start of the contract to assist the Contractor in determining spare parts they are required to provide. Minimum spare parts requirements are:
   a. Electrified Locks – 1 of each type
      1) Electric Strike
      2) Electrified Mortise Lock
      3) Electrified Panic Hardware
   b. Access Control Board – 2
   c. Intelligent Controller – 1
   d. Card Readers – 2 of each type
   e. Lock Power Supply – 1
   f. Power supply for controllers – 1
   g. Backup batteries – 6 each

E. Unit Pricing

1. The Contactor shall provide unit pricing for adding access control to a new portal. The unit price shall include hardware, cable (150' for each device), labor, programming and warranty. Hardware shall include 2-door controller, reader, electrified lock, door position switch, request-to-exit motion detector and armored loop to transfer wire to the electrified lock. Provide unit pricing for the following configurations:
   a. Single door with electrified mortise lock
   b. Single door with electric strike
   c. Single door with electrified panic hardware, RIM latching
   d. Double door with electrified mortise lock
   e. Double door with electrified panic hardware, vertical rod latching and mini-power booster.
   f. Cost to recertify fire rating of door when door is in a fire rated wall.

2. In addition, the Contractor shall provide unit pricing for replacement of the following items:
   a. Genetec/Mercury LP1502 Intelligent Controller Board
   b. Genetec/Mercury MR52-S# 2-readerer Access Control Board
   c. Wall Mount Card Reader
   d. Mullion Mount Card Reader
   e. Request-to-Exit (REX) Motion Detector
   f. Concealed Door Position Switch
   g. Surface Door Position Switch
   h. Electrified Strike
   i. Electrified Mortise Lock
   j. Electrified Panic Hardware

F. Preventative Maintenance Requirements

1. General: The Contractor shall coordinate with City of Orange IT department for all Microsoft Windows updates to be completed within City of Orange's normal patch update schedule. Any work on EACS servers that will take the server off-line for any period of time shall be coordinated with City of Orange. Servers shall not be taken off-line without prior approval from City of Orange.

2. Contractor shall have service personnel on the site on a monthly basis. Contractor shall set up a schedule with City of Orange for times personnel shall be on-site. Some maintenance items shall be completed on a quarterly, semi-annual or annual basis. For maintenance of those items the contractor shall divide the number of devices by the scheduled maintenance interval and then complete the work on that number of devices every month. The information described above is a guideline. The Contactor shall provide a schedule of monthly maintenance to be conducted based on the information provided herein.

3. EACS
    a. The Contractor shall coordinate with Genetec for any patches or software updates that are recommended to be implemented since the last maintenance visit and implement those updates as required.
    b. The contractor shall coordinate with Genetec to ensure the Service Maintenance Agreement (SMA) is current. The cost of the SMA hall be included in the maintenance cost proposal as a separate line item. The current Genetec SMA is set to expire on MM/DD/202X. The Contractor shall include renewal of the SMA to be maintained through the period of the maintenance agreement.
    c. Coordinate with City of Orange to confirm application and database files are backed up on a daily basis. Set system alert if there is a problem with the daily backup.
    d. The Contractor shall run system reports on a monthly basis to review system status. At the completion of the upgrade project the Contractor shall run system reports to determine the base-line for system operation. The Contractor shall then run the reports on a monthly basis for the duration of the maintenance contract to identify any system anomalies or system errors. The following reports shall be run at a minimum:
        1) System Status
        2) Health History
        3) Health Statistics
        4) Archiver Statistics
        5) Archiver Storage Details
        6) Access Control Health History
    e. The system shall be configured to provide email alerts when system elements exceed trigger thresholds. The contractor shall coordinate with City of Orange to determine which system elements to provide alerts for and where they should be reported.
    f. There are approximately 130 access-controlled portals at City of Orange facilities. Each portal shall be checked yearly to ensure proper operation. The Contractor shall check 1/12 of the portals each month such that all portals are checked within a calendar year. Complete the following tasks:
        1) the reader to ensure there is no foreign substances on the reader. Check for damage. Report any anomalies included photos to be included in the report log.
        2) Check door assembly for any damage.
        3) Check operation of door closer, where applicable, to ensure the door

latches completely with no assistance. Report any operational issues to the City of Orange.

4) Check operation of the electric locking hardware.
5) Check operation of the card reader including operation of the LED and beeper for access granted, access denied and door programmed to be locked or unlocked.
6) Verify operation of Request-to-Exit device.
7) Verify operation of Door Position Switch (DPS).
8) Verify operation of DPS tamper circuit.
9) For locations with reader in and reader out verify the functions for both readers.
10) For doors with local alarms verify operation and reset of the local alarm device.
11) For portal with vehicle gates verify operation of the gate for open/close limits, check and adjust chain tension and note any mechanical or structural deficiencies.
12) Verify remote activation of portal from operator workstations.

g. For alarm points such as doors with only a DPS, motion detectors and duress switches verify operation in both alarm mode and bypass mode on a yearly schedule.

h. For equipment enclosures verify on a yearly basis the following:
1) Inspect for any debris and make sure the enclose is clean.
2) Check terminations to ensure they are secure.
3) Ensure all cable management devices are secure. Replace any devices that are damaged or no longer performing their intended purpose.
4) Verify operation of enclosure tamper switch.
5) Replace batteries supporting power supplies and lock power supplies every two years.

G. Quality of Work, Cleanliness, Appearance and Decorum

1. Contractor and subcontractors shall abide by the highest professional standards within the industry. All work and quality assurance shall be in accordance with current criteria and guidelines established by the City and regulatory agencies.

2. Contractor shall, at all times, while providing services, keep the immediate and surrounding service area clean and free of debris, trash, and other hazards that would impair operations of the City properties as determined by the City.

3. While performing Services, Contractor's personnel shall at all times present a professional appearance wearing neat, clean uniforms with Contractor's company name displayed on uniform shirt, jacket, and safety vest and all required personal protective equipment (PPE). Contractor personnel shall maintain the highest level of professional standards in attire, decorum, and interaction with the public and the City personnel. Contractor shall ensure that all personnel providing Services conduct themselves at all times in a professional manner that reflects well on the City. The City reserves the right to request removal of any Contractor personnel deemed inappropriate for assignment to duty on the City properties. In the event the City is dissatisfied with Contractor's personnel, Contractor shall replace said personnel within one (1) day of receiving written or verbal notification of such from the City

1.14 SPARE PARTS

A. Spare parts levels shall be maintained through the warranty and maintenance periods such that they are at the original quantities at the end of the contractor's involvement.

B. Unless otherwise noted herein, provide 2%, or a minimum of one, of the Contractor-provided quantity of each type of active electronic device including, but not limited to, card readers, electrified locking hardware, DPS, request-to-exit (REX) detectors, cameras, power supplies, etc.

C. The following items shall not require spare parts provision: Connectors, conductors, patch panels, mounting components, batteries, devices for which the system already incorporates redundant components and components or devices whose total quantity is three or less and whose failure would not affect any other part of the system.

D. Submit Spare Parts Material list to the Engineer for approval prior to shipment.

1.15 EQUIPMENT COMPATIBILITY REQUIREMENTS

A. While individual items of equipment may meet the equipment specifications and in fact meet the system specifications, the total system shall be designed so that the combination of equipment actually employed does not produce any undesirable effects such as signal distortion, noise pulses, transients, or crosstalk interferences when electrically associated with itself or other equipment.

1.16 OWNER'S RIGHT TO USE EQUIPMENT

A. City of Orange reserves the right to use equipment, material and services provided as part of this work prior to Acceptance of the Work, without incurring additional charges and without commencement of the Warranty period.

1.17 TRAINING

A. On-Site Training

1. General: Present, review and describe all equipment and materials to City of Orange operating personnel and fully demonstrate the operation and maintenance of the systems, equipment and devices specified herein.

2. The training shall cover the overall system, each individual system, each subsystem, and each component. The training shall also cover procedures for database management, normal operations, and failure modes with response procedures for each failure. Each procedural item must be applied to each equipment level.

3. Duration: Provide minimum of 24 hours of on-site training for EACS/VSS operation to designated representatives of City of Orange at a location convenient to City of Orange. Provide an additional eight hours of training to City of Orange designated IT personnel to describe system configuration to maintain system hardware and software configurations. Training shall be coordinated to ensure City of Orange personnel are properly trained before any new systems are brought on line.

B. Manufacturers Certification Training

1. Provide EACS / VSS certification training.
   a. Contractor to submit training plan for four individuals at the Manufacturers

Training Facilities.

b. Include Travel, Accommodations, and instruction of Manufacturers Certified Training Program, consisting of software operating, programming, hardware installation, repair, and troubleshooting.

C. Video Training Program: Provide System Training Video in DVD format. DVDs are to provide training on all user operation, maintenance and programming aspects of the system as described above

PART 2 - PRODUCTS

2.01 GENERAL

A. Product Acceptability: The Products section contains lists of acceptable products. If product substitutions are proposed, they must be made based upon a comparison of equivalence to the product specified. Considerations may include, but shall not be limited to functional, physical, aesthetic and/or interface aspects. City of Orange shall be the sole judge of whether or not a submitted substitution is deemed to be "equivalent" to that specified.

B. Manufacturers Specification Reference: Where specific material, devices, equipment, or systems are specified directly, the current manufacturers' specification for the same becomes a part of these specifications, as if completely elaborated herein.

C. Listed Manufacturers: Manufacturers listed in the product section are known to generally meet the specification requirements. Listing of a manufacturer does not automatically mean it meets all requirements listed herein. The contractor is responsible to provide any hardware and/or software modifications for any submitted product to ensure compatibility with the functional performance specified herein.

D. All equipment shall be new and the current model of a standard product of a manufacturer of record. When a manufacturer provides a newer model than that included in the specifications the contractor shall provide the newer model. A manufacturer of record shall be defined as a company whose main occupation is the manufacture for sale of the items of equipment supplied.

E. For each item of equipment offered, manufacturer shall maintain:

1. A factory production line

2. A stock of replacement parts

3. Engineering drawings, specifications, operating manuals and maintenance manuals

4. Manufacturer shall have published and distributed descriptive literature and equipment specifications on each item of equipment offered.

F. Complete System: All auxiliary and incidental equipment necessary for the complete operation and protection of the systems specified herein shall be furnished and installed as if specified in full.

G. Similar Devices: Similar devices within a system shall be identical.

H. Safety: Unless otherwise specified, all electronic equipment shall be UL rated. All electronic equipment shall be of the dead front type, having no exposed live electrical connections, terminals or exposures to hands-on operating surfaces or other exposed surfaces during any power-on condition. Every live electrical connection, terminal or exposure shall be covered with durable, removable insulating material.

I. Rack Mounting: All rack-mounted electronic equipment shall be specifically designed or modified for standard 19-inch rack mounting unless otherwise noted.

J. Keying: Key all panels identically where provided for similar usage within a system.

K. Framing: Floor supported units shall be substantially framed and supported. All bolted connections shall be made with self-locking devices.

L. Aesthetics: Coordinate all console or control panels so that their general appearance is similar. Provide locking panel covers on all recessed, semi-recessed and surface mounted control panels not located in equipment rooms. Control panels shall be contained within or mounted to formed and welded aluminum or steel back boxes. Operating panels shall be recessed within the back box to a depth sufficient to permit a locking hinge panel cover to close completely without affecting any device within the enclosure.

M. Labeling: Provide intelligible permanent engraved identification on or adjacent to all controls, fuses and/or circuit breakers, patching jacks, connectors, receptacles, terminal blocks, meters, indicators, switches, monitors, and the like.

N. Engraving, labels, decals or other identification on any device, equipment or miscellaneous component shall be coordinated with the associated Shop and Field and Equipment Wiring Drawings.

O. No proprietary identification on assemblies will be permitted.

P. Operational Voltage: Devices connected to the fuse or breaker protected electrical system and all auxiliary equipment necessary for the operation of the equipment associated with systems specified herein shall be designed to operate from 105 to 130 volt, 60 Hertz, alternating current service, with stable performance, fully in accordance with these specifications, and shall have integral fuse or circuit breaker protection.

Q. Contractor-fabricated items shall be provided with fuses that indicate when they are blown or defective.

R. All protection devices shall be located to facilitate replacement, resetting or observation of status without demounting the associated unit and/or de-energizing adjacent equipment.

S. Manufacturer's Recommendations: Components and devices shall be operated in accordance with recommendations of the manufacturer and shall contain sufficient permanent identification to facilitate replacement.

T. Wiring Practices: Consistently identified terminal strips shall be provided for all external connections. These designations shall be shown on drawings.

2.02 MISCELLANEOUS PRODUCTS

A. Cabinets: Hoffman, Rittal, Wiegmann or equal, assembled and wired with all components

and as indicated on the drawings. Cabinets shall be equipped with removable back panels, ventilations, fans and filters to maintain acceptable environmental conditions for the components installed within the cabinet. Coordinate color, location, and trim with City of Orange.

B. Connection Devices

1. General Purpose Multi-Pin Panel Mounting Receptacle: Amp, Molex, or equal, or as indicated on the Drawings.

2. General Purpose Multi-Pin Cable Connector: Cannon, Amp, or equal, or as indicated on the Drawings.

C. Cable Termination Devices

1. Screw-Type Barrier Blocks: Kulka 601 or Kulka 601-3700 Series, TRW-Cinch, 140, 141 and 142 Series, Buchanan, or equal.

D. Wire and Cable Labels: Provide labels by Brady, Thomas and Betts, or equal.

E. Wire and Cable Support Racks: Provide Cable Support Racks by Unistrut, Kindorf, B-Line, or equal.

F. Tamper Proof Screws: Provide tamper proof fasteners as manufactured by Tamper-Pruf, L.H. Dottie, Theft-Pruf, or equal, for installation of security equipment in accessible locations. Provide six tamper proof screwdrivers and transfer to City of Orange prior to final acceptance testing.

2.03 TEST EQUIPMENT

A. The Contractor is responsible for furnishing test equipment required to test the system in accordance with the parameters specified. Unless otherwise stated, the test equipment shall not be considered part of the system. The Contractor shall furnish test equipment of accuracy better than the parameters to be tested.

B. Readiness: Keep all test equipment at hand and maintain in calibrated condition at the jobsite as required for routine and performance testing of this work.

PART 3 - EXECUTION

3.01 GENERAL

A. Perform this Work in accordance with acknowledged industry and professional standards and practices, and the procedures specified herein. Minimum installation standards shall meet the requirements of NFPA 731 – Standard for the Installation of Electronic Premises Security Systems 2015 Edition

B. Aesthetics are an important consideration in this installation. All components shall be installed to have aesthetically pleasing results per City of Orange. Actual locations of all visible components shall be coordinated in advance with City of Orange.

C. The Contractor shall insure that all installation personnel understand all the requirements

of the Specifications.

3.02 COORDINATION

A. General: Conform to the standards set forth in Division 1 and additional requirements listed below.

1. This Contract involves functioning systems. Coordination with City of Orange is critical. Do not interrupt any functioning system without coordination with City of Orange and any phasing requirements to minimize downtime for functioning systems.

2. Coordinate the work with City of Orange and all trades to assure that where this work interfaces to other trades, those interfaces are provided, complete and functional.

3. Meet with a representative of the City of Orange and each trade. Identify devices needed to complete functional operation of this work that are being provided by City of Orange, General Contractor or another trade, and assure that the work being provided by others will be acceptable.

4. Make sure work by others is scheduled in order that this work can be installed in a timely fashion.

5. Verify all dimensions, and work by others that may be necessary to facilitate the work and coordinate with other trades. Assure that related work by others is coordinated with this work.

6. Verify all field conditions. Regularly examine all construction and the work of others that may affect the work to ensure proper conditions are provided for the equipment and devices before their manufacture, fabrication or installation. Be responsible for the proper fitting of the systems, equipment, materials, and devices provided as part of this work.

7. Coordinate connections to City of Orange network equipment with City of Orange Information Technology Department (ITD).

B. Required Resources: Become familiar with the available access and space for equipment and any potential interference requiring coordination. Coordinate with City of Orange to assure that adequate electrical and HVAC services are available. Provide the physical space for equipment, and ample access room for installation and maintenance of equipment.

C. Positioning Members: Provide additional support or positioning members as required for the proper installation and operation of equipment, materials and devices provided as part of this work as approved by City of Orange without additional expense.

D. Interface Devices: Provide items necessary to complete this work in conformance with the Contract Documents or the satisfaction of City of Orange without any additional expense.

E. Equipment shall be mounted with sufficient clearance to meet applicable codes and facilitate observation and testing. Securely hang and/or fasten with appropriate fittings to ensure positive grounding, free of ground loops, throughout the entire system. Units shall be installed parallel and square to building lines.

F. Installation shall comply with "Codes and Standards" section of this specification. Where more than one code or regulation is applicable, the more stringent shall apply.

G. Where new equipment is replacing old equipment, Contractor is responsible for removing and dispensing the old equipment and doing whatever repair work is necessary to meet standards determined by City of Orange.

H. Install fire stopping for penetrations in slabs and firewalls to meet code at the completion of work and prior to final testing demonstration to City of Orange.

I. Project Documentation: Review all project documentation. If the Contractor perceives any conflict or ambiguity in the contract documents, he shall seek interpretation from City of Orange prior to proceeding.

J. Supervision: Maintain a competent supervisor and supporting technical personnel acceptable to City of Orange during the entire installation. A change of supervisor during the project shall not be acceptable without prior written approval from City of Orange.

K. Work and Manpower Rules: Comply with all applicable jobsite work and labor regulations.

L. Shop Drawing Redlines: The contractor shall maintain on-site the most current shop drawings with redline mark-ups of changes where the installation varies from the shop drawings. The contractor shall review the redline shop drawings with City of Orange on a weekly basis. The final redline drawings at completion of the installation shall be used by the contractor to create the final as-built drawings.

3.03 INSTALLATION

A. Legacy drawings provided may not represent the current conditions. The contractor shall field survey each site to verify equipment locations. Structural modifications or other obstacles may require camera positions to vary to some extent from those shown on the plans. Relocation of devices to provide adequate video coverage of each area shall be approved by City of Orange prior to installation. Where there may be a question about device relocation the contractor shall coordinate with City of Orange and request guidance.

1. The contractor shall document on the shop drawings the conduit routing for cameras in the parking structure. As part of the removal of the existing coax cable for analog cameras the contractor shall document which cameras are routed to the first-floor equipment room and the second-floor equipment room. The as-built documents shall identify where the new cables are routed and identify the network switch port termination for each camera.

B. Conduit routing on the bid documents of interior building spaces is diagrammatic and alternate conduit routing is acceptable to provide for a more efficient installation. Conduit routing shall be coordinated with City of Orange.

C. Contractor shall conduct detailed site surveys of each site during mobilization and the shop drawing submittal process and provide detailed shop drawings indicating the proposed installation of devices and conduit.

D. Wiring in finished areas where the wiring will be out of sight may be installed using plenum cabling. Cable shall be supported by individual hangars installed for the purpose of securing the plenum cable. Cables shall not be laid across the ceiling or secured to lighting or ceiling

supports.

E. The contactor shall field verify each cable from the controller to the field device and provide a cable tag for each cable. The cable tags will be documents and added to the drawings to provide an as-built of the current system. The majority of the doors have only a card reader and electrified locking hardware. A few doors have DPS and exit push buttons. The push buttons are typically connected to the Request-to-Exit (RTE) terminal on the existing controller. The contractor shall re-wire these to auxiliary inputs on the controller and program the system to allow the input to activate the lock. This will provide the option to add a request-to-exit motion detector (REX) to bypass the alarm point during authorized exiting.

F. Project Installation Phasing

1. General: The contractor shall complete programming of the Genetec system before transitioning any equipment to the new system. The contractor shall have the option to convert the existing Casi and Keri System databases for compatibility to Genetec or manually program the Users, access levels and controller functions in the Genetec system so Users will have access through the system when readers are transitioned to the Genetec system. Verify software is configured and programmed to connect devices so they are operational as soon as the hardware transition and installation is complete.
    a. Both of the existing systems, Casi and Keri, the system shall run simultaneously with the Genetec system until all devices are transitioned to the new Genetec system.

2. EACS
    a. The contractor shall complete the conversion of the existing database and load onto the Genetec server before replacing any hardware. The contractor shall set up a test controller with a reader to confirm the system can read the existing card population. Note that the Community Center is on a separate Keri Systems server and that database will need to be converted or programmed separately from the Civic Center Keri Systems server.
    b. The contractor shall check that the converted database has all the time zones, access levels and all other program configurations as configured in the existing system. Make any changes to the program required for items that did not get configured properly during the database conversion.
    c. After the database programming has been verified the contractor shall begin converting the hardware to the Genetec system one building at a time. Confirm the following sequence with the Owner:
        1) Civic Center Buildings
            a) Public Works
            b) Finance
            c) Administration
            d) Library
            e) Water
        2) Fleet
        3) Warehouse
        4) Community Center and Parks
            a) Handy
            b) El Camino
            c) Steve Ambriz

d) Grijalva
e) Olive
f) Killefer

5) Police Building

3.04 WORKMANSHIP

A. The installation shall be performed in a professional and competent manner.

B. On a daily basis, clean up and deposit in appropriate containers all debris from work performed under the appropriate Specification sections. Stack and organize all parts, tools and equipment when not being used.

C. Preparation, handling and installation shall be in accordance with the Manufacturer's written instructions and technical data appropriate to the product specified.

D. Work shall conform to the National Electrical Contractors Association "Standard of Installation" for general installation practice.

E. At the conclusion of the installation, work areas, including panel boxes, shall be vacuumed and cleaned to remove debris and grease.

3.05 EQUIPMENT, RACK AND CONSOLE INSTALLATION

A. Construction: Coordinate access openings and wire paths through the cabinets for desk-mounted devices.

B. Compliance: Comply with powering, conduit entry and grounding practices as described herein and as required by code.

C. Coordination of Access: Coordinate the installation of access covers, hinged panels or pull-out drawers to ensure complete access to terminals and interior components. Access shall be designed such that demounting or de-energizing of equipment is not required to gain access to any equipment.

D. Service Loop: Fasten removable covers containing any wired component with a continuous hinge along one side with associated wiring secured and dressed to provide an adequate service loop. Appropriate stop locks shall be provided to hold all hinged panels and drawers in a serviceable position.

E. Labeling: Provide an engraved lamacoid marker on the front of desk-mounted equipment including its designation as assigned and referenced consistently throughout this project.

3.06 GROUNDING PROCEDURES

A. Provide grounding of all systems and equipment in accordance with manufacturers' recommendations, local electrical codes and industry standards.

B. Signal Ground: Signal ground shall be derived from the one main electrical panel that serves all equipment herein.

C. Grounding procedures for wire, equipment and devices shall be in strict accordance with manufacturers' recommendations and standard installation practices.

D. All equipment enclosures of an assembly shall be grounded to the single grounding terminal strip of each assembly.

E. Multiple Powered System Isolation: Where powered devices of the same system exist in two or more locations and a different signal ground exists in each location, the system's communication signal shall be isolated from signal ground at both source and destination ends via modem, fiber optics or other equivalent method.

F. Contractor shall eliminate or correct all potential ground-loop problems in a manner approved by City of Orange.

G. Enclosure Isolation: Equipment enclosures of this section shall not be permitted to touch each other or any other "grounded device" unless bolted together. Equipment enclosures shall not be permitted to touch metallic conduit at any point. Conduit entry shall be made using flexible non-metallic conduit material only.

H. Shielding: Shielded cables of this section shall be grounded exclusively to Signal Ground. No shields shall be permitted to carry live currents of any kind. Shields shall be tied to Signal Ground at the signal source end only, unless otherwise noted or required by the manufacturer.

3.07 IDENTIFICATION AND TAGGING

A. Cables, wires, wiring forms, terminal blocks and terminals shall be identified by labels, tags or other permanent markings. The markings shall clearly indicate the function, source, or destination of all cabling, wiring and terminals. The wire-marking format contained in the shop drawings shall be utilized for all conductors installed under this Specification. All cables and wires shall be identified, utilizing heat-shrink, machine printed, polyolefin wire markers. Hand written tags are not acceptable.

B. Should a situation arise where the wire tagging format as shown on the shop drawings cannot be used, a substitute format shall be submitted which complies with the intent to provide documentation that will permit end-to-end tracing of all System wiring.

C. All terminal points shall be appropriately identified and labeled as shown on shop drawings.

D. All panels shall be provided with permanently attached engraved lamacoid labels with identifying names and functions. Labels shall be consistent in form, color, and typeface throughout the system and all must contain the name of the system or subsystem as part of the label textual information. Design, color, font and layout shall be coordinated with, and approved by, City of Orange.

3.08 DATABASE PREPARATION, CHECKING AND ACTIVATION

A. Contractor shall provide City of Orange with the appropriate forms necessary to organize the system database inputs. Guidance shall also be provided to City of Orange personnel in a timely manner to insure their understanding of database format requirements and constraints. It is essential that the above activities be clearly identified on the Project Schedule so database preparation is accomplished in sufficient time to permit orderly and on time system activation. The forms and guidance shall be presented to City of Orange not less than 60 days prior to scheduled central system activation.

B. It shall be the responsibility of City of Orange to ensure the accuracy of the database

information entered on forms by thoroughly checking all completed data entry forms.

C. It shall be the responsibility of Contractor to ensure that database formatting is correct prior to entry into the system and system activation.

D. The Contractor shall be responsible for the initial database entry into the system prior to activation. The database shall consist of hardware and function-related information, i.e., system configuration, cameras, card readers, alarm points, software parameters for system management, graphical maps and user profiles. A printout of the final database shall be provided to City of Orange for review and approval prior to system activation.

1. The contractor shall coordinate with the City to make sure all the existing time zones and access levels are configured as required. The contractor shall coordinate with the City to print out any programming parameters on the existing systems for reference for verifying the database conversion or manual programming of the Genetec system to match current operation.

E. System activation shall be the responsibility of Contractor. Once the system and database have been demonstrated to be functioning properly according to manufacturer's guidelines and the system design, all further database entries and upgrades shall be the responsibility of City of Orange, unless otherwise noted.

F. If later versions of the operating system or application software are made available to, or requested by City of Orange, these updated versions shall be installed and checked out by Contractor. Before installing upgrade software, Contractor shall insure that existing database information is properly "backed-up" prior to any installation action.

3.09 START-UP RESPONSIBILITY

A. Contractor shall initiate System Operation. Competent start-up personnel shall be provided by Contractor on each consecutive working day until the System is functional and ready to start the acceptance test phase. If in City of Orange' judgment Contractor is not demonstrating progress in solving any technical problems, Contractor shall supply Manufacturer's factory technical representation and diagnostic equipment at no cost to City of Orange, until resolution of those defined problems.

B. Use a start-up sequence that incrementally brings each portion of the system on-line in a logical order that incorporates checking individual elements before proceeding to subsequent elements until the entire system is operational.

3.10 PRELIMINARY INSPECTION & TESTING

A. Perform a Preliminary Inspection and Test to determine the operating status of components and systems prior to Final Acceptance Testing.

B. Coordination: Coordinate testing of components of the system in cooperation with other trades.

C. Verification: Prior to performing Preliminary Testing, perform inspection and/or testing procedures to insure the following:

1. Safe and proper operation of all components, devices or equipment, and the absence of extraneous or interfering signals.

2. Proper grounding of devices and equipment.

3. Integrity of signal and electrical system ground connections.

4. Proper powering of devices and equipment.

5. Integrity of all insulation, shield terminations and connections.

6. Integrity of soldered connections and absence of solder splatter, solder bridges, and debris of any kind.

7. Proper dressing of wire and cable.

8. "Wire-checking" of all circuitry, including phase and continuity.

9. Preliminary targeting, back focus, and setup of video camera assemblies.

10. Mechanical integrity of all support and positioning provisions, i.e.: as provided for video cameras, monitors and any other equipment.

11. Sequencing: If applicable, determine and record the sequence of energizing systems to minimize the risk of damage from improper start-up.

12. Operation of all systems in accordance with specified performance requirements.

D. Adjustments and Documentation: After successfully energizing the systems, make all preliminary adjustments and document the setting of all controls, parameters of all corrective networks, voltages at key system interconnection points, gains and losses as applicable. Tabulate all data along with an inventory of test equipment, a description of testing conditions and a list of test personnel. Copies of preliminary test data shall accompany copies of performance testing data as part of the Operating and Maintenance submittal.

3.11 PREPARATION FOR ACCEPTANCE (PRIOR TO FINAL INSPECTION)

A. Temporary facilities and utilities shall be properly disconnected, removed, and disposed of off-site.

B. Systems, equipment, and devices shall be in full and proper adjustment and operation, and properly labeled and identified.

C. Materials shall be neat, clean and unmarred, and parts securely attached.

D. Broken work, including glass, raised flooring and supports, ceiling tiles and supports, walls, doors, etc., shall be replaced or properly repaired, and debris cleaned up and appropriately discarded.

E. Extra materials as specified shall be delivered and stored at the premises as directed.

F. The contractor shall have completed a pre-test of the system to confirm all devices and programming parameters are functions as required before requesting an acceptance test date. The contractor shall provide documentation that all device shave been test and shall be signed by the contractor's project manager to attest that all pre-testing has been

completed.

G. Test reports of each system and each system component, and project record documents shall be complete and available for inspection and delivery as directed by City of Orange.

3.12 ACCEPTANCE TESTING AND ADJUSTING PROCEDURES

A. Purpose: Conduct testing and adjusting procedures to realize and verify the performance criteria specified herein. Successfully demonstrate the acceptable performance of each specified system in the presence of the City of Orange and Consultant of Record.

B. Scope: Conduct all performance testing, adjustment and documentation procedures to verify and realize compliance with the performance specifications herein. Make available at least one engineer familiar with this work, additional staff as required to conduct the testing, and all required test equipment for the duration of performance testing verification, at the convenience of City of Orange.

C. Acceptance Testing Readiness: Acceptance testing will be performed after the system is installed and pre-tested completely.

1. The contractor shall have successfully tested the system prior to scheduling formal acceptance testing. Contractor shall correct any and all deficiencies found at that time. The Contractor shall provide pre-test documentation showing the entire system has been tested with signature of the project manager attesting the pre-test work has been completed.

2. Acceptance testing will be conducted in accordance with the approved Acceptance Testing Plan.

3. Deliver all equipment, devices and materials required for the security system(s) work to the site at least fourteen working days prior to the scheduled Completion Date.

4. Install, test and ready all of the security system(s) work for final Acceptance Testing of the Installation to start ten working days prior to the Completion Date.

D. Acceptance Testing Schedule: Contractor shall confirm in writing to City of Orange when the system is ready for acceptance testing. Contractor shall then schedule a complete Acceptance Test at the convenience of City of Orange.

E. Acceptance Testing: Contractor shall test and verify the performance of all equipment, systems, interfaces and peripheral equipment in the presence of the City of Orange and the Consultant of Record. Tests shall be performed in accordance with the requirements of individual systems as specified herein and in related specification sections to include sections on Integration.

F. Correction of Jobsite Observation Report Items: Perform any and all remedial work to correct inadequate performance or unacceptable conditions of, or relating to any of this work, as determined by City of Orange prior to the completion date. Corrective work shall be performed at no additional cost to the City of Orange.

G. Test Documentation: Document all acceptance testing, calibration and correction procedures described herein with the following information:

1. Performance date of the procedure.

2. The names of personnel conducting the procedure.

3. The equipment used to conduct the procedure.

4. Type of procedure and description.

5. Condition during performance of procedure.

6. Parameters measured and their values, including values measured prior to calibration or correction as applicable.

7. Parameters associated with calibration or corrective networks, components or devices.

3.13 FINAL PROCEDURES

A. Portable Equipment: Furnish portable equipment specified herein to the City of Orange, along with complete documentation for the materials furnished. All portable equipment shall be presented in the original manufacturer's packing, complete with manufacturer's instructions, manuals and documents. Testing of all portable equipment shall have been previously conducted by the Contractor.

B. Post Acceptance Work: Check, inspect and adjust all systems, equipment, devices and components specified, at City of Orange' convenience, approximately 60 days after Acceptance of the Installation.

END OF SECTION 28 0000

SECTION 28 1000

ELECTRONIC ACCESS CONTROL SYSTEM (EACS)

PART 1 - GENERAL

1.01 DESCRIPTION

A. General Description: This specification section covers the replacement of the existing Electronic Access Control System (EACS) and the transition to a new EACS. Refer to Section 28 0000 for description of existing systems.

B. Contractor shall furnish and install security hardware devices, mounting brackets, power supplies, switches, controls, consoles and other components of the system as shown and specified.

C. Furnish and install special boxes, cable, connectors, wiring, and other accessories necessary to complete the system installation. Requirements shall be in accordance with applicable codes.

D. Outlets, junction boxes, pull boxes, conduit, connectors, wiring, and other accessories necessary to complete the system installation; will be provided by the Contractor, in accordance with CEC and NEC.

1.02 RELATED WORK

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

B. Door Hardware

1. Security Door Requirements: The Contractor shall be responsible for surveying each security door shown on the drawings before installation, and reviewing the door hardware configuration and installation conditions with respect to the specified functions. The Contractor shall verify the compatibility and completeness of the proposed hardware and its installation, submit detailed drawings showing the proposed modifications and installation, and provide all equipment and services required to achieve the specified electrical and mechanical performance. Coordinate acceptable door hardware and installation techniques with the Engineer.

2. Doors and Door Hardware:
    a. Electric door locks, panic hardware, power boosters, power transfer devices, request-to-exit (REX) devices and door position switches (DPS) are existing at designated locations. Where readers as designated as new (N) the contractor shall provide the required hardware as shown on the drawings and specified herein.
    b. Contractor shall modify locks, doors and doorframes as needed to provide the specified operation. Where modifications are required at fire rated doors the contractor shall coordinate re-certification of the doors with the Authority Having Jurisdiction (AHJ).
    c. Door hardware and installation shall comply in all respects with the requirements of Public Law 101-336, Americans with Disabilities Act

3. For designated new security doors being added to the security system door position switches, request-to-exit function, electric transfer hinges, and electrified locking hardware shall be furnished and installed by the contractor. Electrical connection for 120 VAC and connection from power booster to electric transfer hinge shall comply with electrical code requirements.

4. Electrified locks shall be mechanically keyed, to permit manual locking/unlocking, in an emergency. Mechanical operation shall not override door monitoring functions.

5. All electrified locks and strikes shall be configured as fail-secure, i.e.: the electrified lock shall unlock only when powered. Coordinate the selected hardware with Engineer to assure its suitability for the purpose intended.

6. Fire Alarm Interface: Electrified locks, strikes and delayed exiting panic hardware, which are part of this work and which are locked in the path of legal exiting, shall be connected to the building Fire Alarm System in accordance with Engineer and AHJ requirements such that they automatically unlock in the event of activation of the Fire Alarm System. This shall occur whether the activation is a result of a manual pull station, smoke detector or sprinkler flow switch.
   a. A fire alarm "general/common alarm relay" shall be programmed at the fire alarm control panel to activate the EACS interface relays located in each Lock Power Supply cabinet. The Security Contractor shall research and provide all necessary fire alarm system conduit, wire, hardware and programming to perform the required interface.
   b. This interface shall not depend on the EACS System Server or Remote Controllers for its operation. Locate these interface relays electrically ahead of lock power distribution as shown on the drawings. The Contractor shall supply and install programmed alarm interface relay(s) with sufficient capacity to control the power supplied to all controlled locks

1.03 SHOP DRAWINGS & EQUIPMENT SUBMITTAL

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

1.04 OPERATIONS AND MAINTENANCE MANUALS

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

1.05 WARRANTY

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

1.06 QUALITY ASSURANCE

Provide the work in accordance with Section 28 0000, Security General Requirements

1.07 TRAINING

Provide the work in accordance with Section 28 0000, Security General Requirements.

1.08 TECHNICAL REQUIREMENTS, ELECTRONIC ACCESS CONTOL SYSTEM (EACS)

A. General

1. The Electronic Access Control System (EACS) components provided under this scope of work shall be replacing the existing EACS. The contractor shall use the existing wiring to existing EACS devices and re-terminate at the new EACS controllers.

2. Contractor shall be responsible for providing equipment to achieve the specified system performance described herein and, by reference, realize absolute and seamless compatibility with the existing door hardware.

3. Contractor shall ensure that modifications provided under this scope of work have no negative effect on the existing systems and operations, and no permanent effect beyond that specified or implied by the scope of work unless otherwise noted herein.

4. The new installation shall include enclosures that contain all power supplies, controllers and new batteries. The contractor shall remove existing cabinets used for power and batteries.

B. Purpose:

1. General: The Electronic Access Control System is designed to monitor and restrict access to specified areas, and to report on the activity and violations of restricted access in those areas.

C. Environment:

1. The system shall be installed in City of Orange facilities as outlines in Section 28 0000, Article 1.05, Paragraph C. Refer to the drawings and Bid Instructions to determine the scope limitations for this phase of work.

2. The City currently operates three separate EACS.
   a. The Police Headquarters building is running a Casi system utilizing Facility Commander software. This system currently has three Casi Micro5 controllers. This facility also includes Genetec hardware including a Cloudlink Controller, EP1502 Intelligent Controller and a MR16IN alarm input module (AIM). The AIM monitors duress/kickplate alarms in the holding area.
   b. The City of Orange facilities are utilizing a Keri System access control system. This system comprises a mix of PNX and NXT Keri controllers with a predominance of PNX controllers. The Administration Building facility includes a Genetec EP1502 Intelligent Controller and a MR16IN alarm input module (AIM). The AIM monitors three duress switches in the Council Chambers that are wired together into a single input point.
   c. The Community Services department runs a second Keri System that controls doors at Community Centers located in designated parks. The City of Orange will provide new network connections at these locations to allow new Genetec hardware to be installed to replace the existing Keri System controllers.

3. Monitoring Posts:
   a. Primary monitoring will be at the PD Dispatch Center. Genetec client software shall be installed at existing workstations.
   b. Administrative and Badging shall be in the Administration Building in the Human Resources (HR) department. There is an existing workstation that will require Genetec client software to be installed. The existing Genetec system has Active Directory licensing to integrate to the City's HR database. The

contractor shall coordinate with the City to use Active Directory to import users into the Genetec database and program user's access to specific reader-controlled doors as directed by the City.

c. Secondary monitoring shall be at existing workstations located throughout the facility. No additional work is required at these locations.

4. Infrastructure and Connectivity:

a. Existing City of Orange network infrastructure shall be utilized for this scope of work. Network connectivity is currently existing at locations where existing network controllers will be replaced for this project.

b. Where new controllers will replace existing Keri Controllers at specified park locations the City will provide network connectivity to allow those controllers to communicate on the City network to the Genetec system.

D. Attributes

1. General: The following attributes describe the existing system capabilities. This information is provided to explain the EACS capabilities. Some, if not all, of these attributes may be utilized to accomplish the functionality required for this project.

a. This project shall use the Mercury M5 ridge product line to replace the Casi Micro/5 controllers at the main Police Building. These are direct replacement modules that plug into the Micro/5 backplane and use the same terminations as the Micro/5 interface boards and provides a network connection to communicate with the Genetec Synergis access control software.

b. For all other facilities the project shall utilize Genetec/Mercury intelligent controllers (LP-1502) and reader controllers (LP-MR52S3) to replace the Keri System controllers. For these locations the controllers shall be packaged with the electronic and lock power supplies into an integrated enclosure to simplify installation and future service requirements.

c. The system shall comprise EACS field devices located as shown on the drawings and connected together to provide a complete and operational system.

d. The EACS shall be based on a distributed system of fully intelligent, stand-alone controllers, operating in a multi-tasking, multi-user environment.

2. The system shall support all capabilities of the Genetec Synergis access control software as delineated in the Genetec A&E specifications for Synergis.

PART 2 - PRODUCTS

2.01 PRODUCT ACCEPTABILITY

A. The Products section contains lists of acceptable products. If product substitutions are proposed, they must be made based upon a comparison of equivalence to the product specified. Considerations may include but shall not be limited to functional, physical, aesthetic and/or interface aspects. the Engineer shall be the sole judge of whether or not a submitted substitution is deemed to be "equivalent" to that specified.

2.02 ELECTRONIC ACCESS CONTROL EQUIPMENT

A. System: Genetec Security Center 5.9 Unified Security Platform

1. Software: The City has existing Genetec Security Center Version 5.9 running on an

existing Directory Server. The contractor shall upgrade and program the system as delineated in the contract documents. The contractor shall upgrade the existing Synergis Standard to Synergis Enterprise.

2. Contractor shall provide a minimum of two reprogramming sessions within 12-month warranty period of the final acceptance of the system to modify the user programming as requested by Metropolitan.

B. Servers and Workstations: Provide Servers and Client Workstations as noted herein and as shown on the plans.

1. EACS Server: The EACS server is existing. The contractor's only responsibility is to upgrade and install new licenses as required for all added hardware and software features.

2. Monitoring Client Workstations: There are existing client workstation where shown on the Drawings. The Contractor shall be responsible for loading the Security Center client software on each existing client workstation(s).

C. System Controller Panels: Provide sufficient controllers and input/output boards to meet all requirements of specifications.

1. EACS System Controller: Where new controllers are required provide the following;
   a. Provide Genetec SY-CLOUDLINK OR SY-SMC1RAM16CF-KIT network controller as required for the application, compatible with the EACS application software, with a minimum 30,000 card record capacity, power supply, battery standby, and Communications Module, as specified by Genetec. Provide one Cloudlink controller in the existing Genetec controller panel located in the Administration Building. Refer to the Drawings to identify the number of readers included for this work.
   b. Contractor shall review drawings and specifications with the Engineer, and may propose changes to the topology of the system based on device layout, where such changes improve performance or functionality of the system. The Engineer has final authority as to the final approach for system topology.

2. Controller Connectivity
   a. Controllers shall support connection to the City LAN/WAN using TCP/IP protocol, and shall also support connection using standard data communications protocols (RS-232, RS-485, or RS-422).
   b. TCP/IP-connected controllers may act as a network "gateway", to re-transmit controller data via the manufacturers standard data communications protocol (RS-232, RS-485, or RS-422), to other EACS controllers located within the same site. Provide controllers which support the manufacturer's standard data communications protocol, RS-232/RS-483, as required.

3. Controller Power Supply: Provide manufacturer recommended power supply based on panel configuration.

4. Intelligent Controllers for Casi Micro/5 conversion: Provide Mercury M5 Bridge replacement M5-IC intelligent controller. At locations where there is more than one Micro/5 controller the contractor may provide a M5-COM controller board to provide communications to downstream devices.

5. Controller Modules for Casi Micro/5 conversion: Provide reader, input and output control capacity at each controller location, to meet the requirements of the site configuration. Provide access control reader boards (ACB), alarm input boards (AIM), and output control boards (OCB) as required to control the devices connected at each location.
    a. Casi 2RP 2-Reader Module: Replace with Mercury M5-2rp
    b. Casi 8RP 8 -Reader Module: Replace with Mercury M5-8RP
    c. Casi 20IN 20-Input Control Module: Replace with Mercury M5-20IN
    d. Casi 16DO 16-Outout Control Module: Replace with Mercury M5-16DO
    e. Reader Interface Module (one per reader): Provide MT15-485 module to interface the reader to the M5 reader controller.

6. Intelligent Controllers for locations where existing Keri System controller shall be replaced: Provide Genetec or Mercury LP-1502 intelligent controllers as shown on the Drawings.

7. Controller Modules for locations where existing Keri System controller shall be replaced: Provide reader, input and output control capacity at each controller location, to meet the requirements of the site configuration. Provide access control reader boards (ACB), alarm input boards (AIM), and output control boards (OCB) as required to control the devices connected at each location.
    a. ACB Dual Reader: Genetec Sy-MR52S3, Mercury MR52S3 or Equal
    b. AIM: Mercury Genetec Sy-MR16IN, Mercury MR16IN or equal
    c. OCB: Genetec Sy-MR16OUT, Mercury MR16OUT or equal

8. Controllers and modules shall be mounted within a Security Terminal Cabinet (STC). Cabinet shall be suitable for the environment in which it is installed, as recommended by the manufacturer and required by the specifications. The Contractor shall use existing STCs where shown on the Drawings.

9. Contractor may incorporate controller boards, electronic system power supplies and lock power supplies into a single enclosure. Refer to Paragraphs F and G below labeled Security Terminal Cabinets (STC).

D. Access Control Readers: Provide multiclass 125 KHz Proximity (RFID) / 13.56 MHz smartcard readers as shown on the drawings. Access control readers shall be configured to read the current City of Orange standard access credentials. Coordinate with the City to verify the current credential technology. This shall be for locations on the plan drawings where new readers are required. Readers shall be "single-package" type, combining controller, electronics and antenna in one package, in the following configurations:

1. Access Control Readers: Provide card readers compatible with the existing CITY OF ORANGE card proximity and smart card population where shown on the drawings.
    a. Reader shall be potted with a UL listed flame retardant potting material.
    b. Reader cover shall be secured to the reader using a security screw.
    c. Reader shall be designed for surface mounting, mounting on a single-gang electrical box and mounting directly to a mullion.
    d. Reader shall operate in a temperature range of minus 31 degrees (-31°) to one hundred fifty (150°) degrees Fahrenheit, minus thirty-five degrees (-35°) to sixty-six degrees (66°) Centigrade.
    e. Compatible with the following credential technologies:
        1) 125kHz Proximity Credentials: HID, Indala, AWID and EM Proximity

Credentials.

2) 13.56 MHz (NFC) Credentials: Seos, iCLASS SE, iCLASS SR, iCLASS, MIFARE Classic and MIFARE DESFire EV1/EV2
3) 2.4 GHz (Bluetooth) Credentials: HID Mobile Access powered by SEOS
4) Apple Enhanced Contact Polling (ECP) to support Apple Wallet credentials

f. Reader shall provide an operating distance of between 1.4 and 6 inches depending on the reader model, card model and mounting environment.
g. Reader shall provide native OSDP secure channel protocol and SIA Wiegand protocol. Contractor shall use the OSDP protocol for this project.
h. Reader shall include a tamper detection mechanism as a standard feature. Tamper mechanism shall not be a reed switch which may be defeated by a magnet.
i. Reader shall operate across a voltage range of eight volts direct current (8VDC) to sixteen volts direct current (16VDC).
j. Reader shall have a tri-color light emitting diode (LED) and audible annunciator.
k. Supports custom configuration for LED and audible annunciator. Coordinate requirements with City of Orange.
l. Reader shall have a limited lifetime warranty against manufacturer defects and workmanship.
m. Reader shall have the capability to perform secure transactions protecting data transmission between the card and reader utilizing cryptographic methods of mutual authentication and message authentication coding.
n. Reader shall be suitable for indoor or outdoor use.
o. Reader Configurations
   1) For single gang box mounting: HID Model 40 Signo reader
   2) For mullion mounting: HID Model 20 Signo reader

2. For reader/Keypad Locations: HID Model 20K for mullion mounting and Model 40K for Single-gang mounting.

E. Credentials (Access Cards):

1. Contractor shall provide 1000 HID SEOS dual technology cards. Coordinate with City of Orange for current format and bit-count.

F. RF Reader (Alt Bid #1): Provide Transcore Encompass 4-002 Reader or equal:

1. Compatible with ATA and SeGo tags

2. Frequency Range: 865 – 870 MHz, 902 – 928 MHz, 911.75 – 919.75 MHz. Contactor to coordinate with manufacturer fir licensing requirements.

3. Internal Antenna Gain: 9.5 dBi

4. Communications Port: Wiegand compatible for connection to EACS controller.

5. Input Power: 16 – 20VAC or 16 – 28 VDC

6. Pole Mount Adapter

7. Adjustable Wall Bracket: Model 54-1620-001

8. 20’ Cable Accessory Kit: Model 58-1620-002

9. Transformer: Model 76-1620-05

G. RF Reader Tags (Alt Bid #1): Provide Transcore AT5402 Access Control Tag

1. Supports SeGo and ATA protocols

2. Read/Write capability

3. Wiegand programmable – coordinate Wiegand bit format with the City

4. Beam-powered, no battery required

5. Interior windshield mount.

H. IP Intercom w/Camera (Alt Bid #3): Provide Axis Model A8105-E Video Door Station

1. Supports SIP Protocol

2. LED illumination for low light installations

3. Resolution: 1920 x 1200 pixels

4. Digital PTZ control

5. IP65 and NEMA 4X rated enclosure w/polycarbonate dome

I. Integrated STC: Provide Altronix Trove, LifeSafety Power ProWire or equal configured as required to support the controllers required to provide the functions as described herein and shown on the plan drawings.

1. Enclosure with backplane with stand-offs configured for mounting Mercury controllers and manufacturers power supply modules.

2. Power supply to convert 120V AC power to low voltage power for all devices mounted within the STC. Include power regulator.

3. Lock power controller board with individual fire alarm interface control and circuit breakers. Locks shall wire directly to lock power control board with outputs from the EACS controllers connected to inputs to control the associated locks.

4. Network communications module to monitor the power supply modules and connect to the network for remote monitoring. Provide software to be loaded on workstations for lock power monitoring.

5. Network power distribution module.

6. Multi-port switch to connect all IP devices within the STC and provide connection to the network EACS Intelligent Controller Board: As required for connection to access readers, locks, door position switches and egress devices associated with access-controlled doors. Intelligent controllers shall also communicate to the System Controller over the existing network and to downstream controllers over RS-485 or

network protocols.

7. EACS Access Control Board: As required for connection to readers, locks, door position switches and egress devices associated with access-controlled doors shown connected at this location

8. EACS Alarm Input Board: As required for connection to alarm initiating devices shown connected at this location.

9. EACS Output Control Board: As required for connection to controlled devices shown connected at this location.

10. STC Tamper Switch: Provide a tamper switch on the STC. Connect to the system as an individual alarm point.

11. Terminations: Provide all connections to labeled screw barrier terminal blocks.

12. Secure all devices within the STC. Dress all wiring in a neat and workmanlike manner. Label all conductors to match documentation.

J. Alarm Initiating Devices (required for new doors and Alternate Bids only)

1. Door Position Switch: The Contractor shall align, prepare and fabricate doors and frames to accept specified door position switches. The Contractor shall be responsible for coordinating the installation so systems and hardware operate as specified.
   a. Surface Mounted Door Switch: United Technologies Interlogix Model 2505-A-06 or Flair Model MSS-100-23 Surface Mounted Magnetic Switch with armored cable. Route armored cable to junction box and permanently secure to box with clamp or set-screws. Use where shown on drawings, and where flush mounted devices cannot be installed.
   b. Non-fire Rated Doors, Flush Mount:
      1) Hollow Metal Doors: United Technologies Interlogix Model 1076C-W or Flair Model MSS200 Concealed Magnetic Door Switch.
      2) Storefront Doors: United Technologies Interlogix Model 1076C-W or Flair Model MSS200 Concealed Magnetic Door Switch.
      3) Wood Faced Doors: United Technologies Interlogix Model 1275-Wn or Flair Model RMS-94 Concealed Magnetic Door Switch.
   c. Fire Rated Doors
      1) General: Contractor shall coordinate all security hardware equipment and installation so as to maintain the Fire Rating of each specific door to the satisfaction of the local Authority Having Jurisdiction (AHJ).
      2) Hollow Metal Doors: United Technologies Interlogix Model 1078CW, or 2750, concealed magnetic door switch, or equal, approved by UL for use on UL classified fire doors with metal faces, rated up to 3-hours.
      3) Hollow Metal Doors, Hinge Switch: Stanley Model “CS” Electrical Hinge Switch, or equal by Markar products. Finish and style as directed by the Engineer.
      4) Storefront Doors: United Technologies Interlogix Model 1078CW Concealed Magnetic Door Switch, or equal.
      5) Wood Door w/Hollow Metal Frame: United Technologies Interlogix Model 1078CW Concealed Magnetic Door Switch, with United

Technologies Interlogix Model 1835 Mini-Max Wide Gap Magnet. Magnet shall be made of rare-earth magnetic materials, and shall be of 5/8" x 1/8", cylindrical (washer) shape. Drill 1/8"-deep hole to flush mount magnet to top of door.

d. Gates and Roll-Up Doors: United Technologies Interlogix Model 2205A or Flair Model 1000, with armored cable. Route armored cable to junction box and permanently secure to box with clamp or set-screws.

K. Request-to-Exit (REX) Detector (For new doors and Alternate Bids only):

1. Integral to door hardware where available.

2. Bosch Security Detection Systems Model DS-150, GE Sensors Model 6179 or Bosch Model A690. Coordinate color with the Engineer.

L. Electrified Locking Hardware: Refer to Section 08 7100.

M. Wire and Cable

1. General: Refer to Section 28 0513.

PART 3 - EXECUTION

3.01 GENERAL

A. The Contractor shall install system components and appurtenances in accordance with the manufacturer's instructions, and as shown. The Contractor shall furnish necessary interconnections, services, and adjustments required for a complete and operable system as specified and shown.

B. Follow the General Requirements of Section 28 0000, Security General Requirements for equipment and services provided under this section. In addition, provide the following.

C. Installation: The Contractor shall install the system in accordance with the standards for safety, NFPA 70, UL 681, UL 1037 and UL 1076, and the appropriate installation manual for each equipment type. Flexible cords or cord connections shall not be used to supply power to any components of the system, except where specifically noted. All other electrical work shall be as specified in Division 16, and as shown.

3.02 SYSTEM CONFIGURATION

A. General: System configuration shall match existing system configuration based on the database conversion of the existing Casi system Facility Commander software at the main Police Building and Keri System software for all other specified facilities. The information provide herein shall be for new doors and used as a guideline should there be any problems related to the database conversion.

B. Portal Hardware

1. Access Control and Lock Configuration

a. Secured Doors: Doors equipped with electric locks shall be individually programmed for locking according to time zones as designated by the Engineer.

During programmed secure mode for a portal a valid credential presented at a reader will allow the portal to unlock for a programmed period of time.

b. Upon authorization by card reader or manual means, "door force" and "door held open" alarms associated with the portal shall be automatically bypassed (or masked) for a duration of time programmable on an individual door and individual cardholder basis.

c. Auto-Relock: The door shall re-lock immediately upon closing, after an authorized access, and the bypass duration shall be immediately truncated. A magnetic contact will be required at every door for this purpose, and to sense the position of the door for "door forced" and "door held open" sensing.

d. Free Egress Authorization: Unless otherwise shown on the plans or described herein, such as for anti-passback zones, the system shall detect the normal egress of a user at any individual portal and shall bypass any alarm associated with the portal for a duration of time programmable on an individual door and individual cardholder basis. Request-to-exit timing shall be independently programmed for each cardholder during the initial enrollment process. This function allows extended timing for persons carrying equipment to pass through certain portals. The timing function shall automatically truncate after an adjustable period (0 - 4 seconds) after a portal is closed. This feature allows a subsequent alarm at the portal to be detected, and prevents the portal from being re-opened without an authorized request.

C. Tamper Devices:

1. Terminal cabinets, equipment cabinets, enclosures, power supply cabinets, exposed wireways, and pull and junction boxes with wire connections or splices shall be equipped with tamper switches programmed to report an alarm.

2. Junction boxes requiring tamper switches that are associated with an individual alarmed device (such as a door position switch) may report to the respective device alarm point. Other cabinet and box tamper switches shall report as independent alarm points.

3. Power Supplies and Battery Chargers: Power supplies and battery chargers shall be connected to alarm monitoring points to provide an indication of tamper, power failure, battery disconnection, and charger trouble.

D. Graphical User Interface (GUI) Environment

1. General:

a. Contractor shall create maps, icons, menus, text, and other functions of the GUI, as noted herein, to incorporate elements and functionality of the project as specified and required by the Engineer.

b. The system monitor shall display color graphic maps, menus and real-time information in graphical image formats, as required by the Engineer and described herein. All viewing, menu and operating activity, including map "browse", "zoom", scrolling, output control, alarm acknowledgment and reset functions shall be operable by point-and-click interface with the mouse and by programmable "function keys" on the system keyboard.

c. Alternate Display and Control Techniques: Alternate map control and display techniques that provide the required functionality and information may be considered by the Engineer. Contractor shall submit a clearly delineated

description of map display and control operation, demonstrate its use and effectiveness to the Engineer using a working copy of the software, and obtain approval from the Engineer before proceeding with the work.

2. Map Database: Contractor shall research (with the Engineer), design, develop and provide maps described herein in complete operating condition including graphic representations, icons, alarm and control interfaces.
   a. Individual Site Plans: Individual site plan maps shall include the entire site perimeter showing buildings, vehicle and foot traffic features and street frontage. Individual site plans may contain multiple buildings. Large-scale maps shall have dynamic zoom or designated "hot spot" areas to allow the capability to zoom into an area down to 1/8" scale. Site plans shall have icons for exterior mounted devices and entry/exit portals.
   b. Building Maps: Building Maps shall include the building footprint and surrounding areas, ground floor plan, a floor stacking plan (elevation) and stairwell risers. Building plans shall have icons for exterior mounted devices and entry/exit portals.
   c. Floor Plan Maps (Where access control, alarm, or video security measures are deployed): Floor plan maps shall include rooms, corridors, elevators, door and room designations (number and usage), penetrable wall points, column supports, location of security control equipment and any other details necessary to clearly and completely depict the secured environment.
   d. Individual site plans, building plans, and floor plan maps shall show text and icons for devices monitored and/or controlled by the security system.

3.03 EQUIPMENT, RACK AND CONSOLE INSTALLATION

A. Mount equipment in rooms, consoles, equipment racks, and desktops in accordance with Section 28 0000, Security General Requirements.

3.04 GROUNDING PROCEDURES

A. Provide grounding of all systems and equipment in accordance with Section 28 0000, Security General Requirements.

3.05 WIRE AND CABLE INSTALLATION PRACTICES

A. Provide wire and cable installation in accordance with Section 28 0513, Security Conductors and Cables.

3.06 DATABASE PREPARATION, CHECKING AND ACTIVATION

A. Provide database preparation, checking and activation for systems and equipment in accordance with Section 28 0000, Security General Requirements.

B. Research and Documentation

1. The contactor shall print hardware and software report from each system to identify current configuration
   a. Hardware report should indicate number of panels, panel ID, number of readers connected and any additional connected devices such as door position switches (DOS), request to exit device and any other devices. Note that the majority of doors only have readers and door locks configured.

b. User profiles including information related to access levels or similar information indicating which readers each user has permissions to access and time of day restrictions as well.
c. Reports including, but not limited to, time zones and reader groups used to create access levels to restrict which doors users are able to access.
d. Any other reports that provide configuration information needed to program the Genetec System.

2. Database Programming and/or Conversion
a. The contractor shall be responsible to configure the Genetec database to provide access through reader-controlled doors consistent with the current configuration.
b. The contractor may convert the existing databases from the Casi and Keri systems or manually program the configuration settings. Database conversion shall require the contractor to work with Genetec Pro Services to ensure proper conversion of the database and to merge the three separate databases into one database on the Genetec system.

C. In addition, provide the following:

1. Required Graphical Maps: Contractor shall research (with the City), develop and install property, building, floor plans, and other graphic maps with all icons and details necessary to clearly display all system information and functions, including but not limited to the information described herein. Contractor shall provide a complete and operating graphical environment for all EACS systems and subsystems.

2. Required System Programming:
a. Contractor shall research with the Engineer, develop and install all executive and user software required for the final acceptance of the system as specified herein and on the drawings.
b. Contractor shall provide the Engineer with forms and instructions to facilitate the gathering and entry of user software data. Forms shall include but not be limited to information regarding cardholder data, access privileges, time schedules, portal groups, access groups, alarm points, tenant/elevator authorization, password protection levels, two-man and anti-passback locations.

3.07 START-UP RESPONSIBILITY

A. Provide start-up services for all systems and equipment in accordance with Section 28 0000, Security General Requirements.

3.08 SYSTEM PERFORMANCE TESTING AND ADJUSTING PROCEDURES

A. Provide Preliminary Testing, Inspection, Performance Verification Testing, Commissioning and Endurance Testing services for EACS systems and equipment in accordance with Article 3.12, Section 28 0000, Security General Requirements.

B. Electronic Access Control System Testing

1. Test and verify the normal operation of every alarm point in all four states at each alarm panel. Test each alarm point for the alarm function by normal operation of the alarm point, i.e.: for a door position switch, open the door and so forth.

2. Test and verify the operation of the Electronic Access Control System.

3. Test each door during its programmed secure time period to assure that it commands the lock to activate and permits access by valid credential within one second from presentation of the key.

4. Verify all egress systems on access-controlled doors work correctly.

5. Verify system integration schemes function automatically and correctly.

6. Verify all activity at Monitoring Stations functions correctly.

3.09 FINAL PROCEDURES

A. Perform final procedures in accordance with Section 28 0000, Security General Requirements.

END OF SECTION 28 1000

SECTION 28 0513

SECURITY CONDUCTORS AND CABLES

PART 1 - GENERAL

1.01 DESCRIPTION

A. This specification section covers the furnishing and installation of conductors and cables to interconnect electronic equipment, devices and systems throughout the Papago Buttes property.

1.02 GENERAL CONDITIONS

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

1.03 RELATED WORK

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

1.04 SHOP DRAWINGS & EQUIPMENT SUBMITTAL

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

1.05 EQUIPMENT COMPATIBILITY REQUIREMENTS

A. Provide the work in accordance with Section 28 0000, Security General Requirements.

PART 2 - PRODUCTS

2.01 GENERAL

A. The Contractor shall provide wire and cable as specified, or as recommended by the manufacturer. Wiring shall meet NFPA 70 standards. Cable shall be rated and approved for the intended use.

2.02 ELECTRONIC ACCESS CONTROL AND INTRUSION DETECTION CABLE

A. Composite Cable (Reader, Lock, Monitor, REX): Provide Belden 658AFS, or equal, with (3) Twisted Shielded Pair 22AWG, 2-Condutctor Shielded 22AWG, 4-Conductor Shielded 22AWG, and 4-Conductor 18 AWG. Individual cables may also be used. Contractor shall submit proposed cables for approval by Corona MOB.

B. Alarm Monitoring Cable

1. In Conduit: Provide Belden 5500FE, or equal, 1 Pair Shielded 22AWG, or equal.

2. Plenum Rated: Provide Belden 6500FE, or equal, 1 Pair Shielded 22AWG, or equal.

3. Below Grade: West Penn AQC292 1 Pair Shielded 20AWG with water block material or equal.

C. Powered Devices (e.g. motion detectors, REX)

1. In Conduit: Provide Belden 5441FE, or equal, 2 Pair Shielded 20AWG, or equal

2. Plenum Rated: Provide Belden 6441FE, or equal, 2 Pair Shielded 20AWG, or equal

3. Below Grade: West Penn AQC359 2 Pair, 1 Pair Shielded 20AWG with water block material or equal.

D. Readers

1. In Conduit: Provide Belden 5542FE, or equal, 3 Pair Shielded 22AWG, or equal.

2. Plenum Rated: Provide Belden 6542FE, or equal, 3 Pair Shielded 22AWG, or equal.

3. Below Grade: West Penn AQC3186 6 Conductor Shielded, 18AWG with water block material or equal.

E. Lock Power

1. General: The Contractor shall calculate the voltage drop for electric locks based on distance between LPS and locks and provide cable gauge as required to maintain proper voltage at each lock.

2. In Conduit:
   a. Provide Belden 5300UE, or equal, 2-Conductor 18AWG
   b. Provide Belden 5200UE, or equal, 2-Conductor 16AWG

3. Plenum Rated:
   a. Provide Belden 6300UE, or equal, 2-Conductor 18AWG
   b. Provide Belden 6200UE, or equal, 2-Conductor 16AWG

4. Below Grade: Belden 5240U1, West Penn AQC225 1 Pair 16AWG with water block material or equal.

F. Communications (RS-485)

1. In Conduit: Provide Belden 5441FE, 2 Pair Shielded 20AWG, or equal.

2. Plenum Rated: Provide Belden 6441FE, 2 Pair Shielded 20AWG, or equal.

3. Below Grade: West Penn AQC430 2 Pair, Shielded 22AWG with water block material or equal

2.03 VIDEO SURVEILLANCE SYSTEM (VSS)

A. Data Cable for Cameras and E-Phones: Category 6 cable for standard and POE applications

1. Compliance: Listed as complying with Category 6 specifications and requirements of TIA/EIA-568-B.2-1 Draft 10b Preliminary Performance Requirements. All conductive cabling and associated components must comply with Article 800 of the NEC.
   a. UTP 4-pair Cat6: Berk-Tek Model 10032459, or equal. Coordinate color with

2. For Plenum Applications: Listed for use in air-handling spaces. Features are as specified for cables, conductors, and UTP workstation cable. Plenum rated cable shall meet applicable requirements of ANSI/ICEA S-80-576, and shall be UL certified to conform to UL910, CMP and shall be marked as such.
   a. Plenum Rated UTP 4-pair Cat6: Berk-Tek Model 10032092, or equal. Coordinate color with City of Orange

3. Underground Applications: Cables to be installed in underground conduits shall be constructed with a water block material to prevent moisture to penetrate to the core of the cable and shall meet the requirements of ICEA S-99-569.
   a. OSP, UTP, 4-pair, Cat6: Berk-Tek LANmark model 10139885, or equal. Coordinate color with City of Orange

B. Camera Power Wiring (Non-POE Applications): Contractor shall ensure power wiring is sufficient to deliver required power to cameras, regardless of distance from the power supply. Provide larger gauge wire where required to compensate for voltage drop.

1. In Conduit: Provide Belden 5300UE, or equal, 2-Conductor 18AWG

2. Plenum Rated: Provide Belden 6300UE, or equal, 2-Conductor 18AWG

3. Below Grade: West Penn AQC225 1 Pair 16AWG with water block material or equal.

C. Exposed Camera Wiring: Wiring between camera enclosures and their respective 'J' Box shall be in "Sealtite" flexible conduit. Sealtite shall be firmly affixed to 'J' Box cover plate and camera enclosure. Refer to camera details.

PART 3 - EXECUTION

3.01 INSTALLATION

A. General: Refer to Division 26 for additional requirements for cable raceways and support for cables run in conduit or installed in plenum rated areas.

B. Wires shall be installed in conduit or in another approved raceway, unless otherwise noted or excepted. Where a wire run is above a suspended ceiling, its conduit or raceway shall be tied up or clamped to the supports and not left to sit on top of the ceiling panels.

C. Conduit Verification: Verify that conduit has been installed, de-burred and properly joined, routed and terminated prior to pulling of cables.

D. Wire Pulling: Apply a chemically inert conduit lubricant to wire and cable prior to pulling. Do not subject wire and cable to tension greater than recommended by the manufacturer.

E. Wire Routing: Secure wire and cable runs vertically in conduit for continuous distances greater than 30 feet at the vertical run terminations. Non-coaxial cables shall be secured by screw-flange nylon cable ties or similar devices. Symmetrical clamping devices with split, circular or other wire conforming, non-metallic bushings shall be provided for other cables.

F. All security cabling used throughout this project shall comply with the requirements as

outlined in the National Electric Code (NEC) Articles 725, 760, 770, and 800 and the appropriate local codes. All copper cabling shall bear CMP (Plenum Rated), CM/CMR (Riser Rated) and/or appropriate markings for the environment in which they are installed. All fiber optic cabling/ tube cabling shall bear OFNP (Plenum Rated), OFNR (Riser Rated) and/or appropriate markings for the environment in which they are installed. Cable utilized underground shall be outside plant rated. Upon entering a facility, the cable shall be transitioned to the appropriate cable type outlined in the NEC (or CEC) or shall be run to its destination within the facility in conduit.

G. Cable Pathways

1. In suspended ceiling and raised floor areas where duct, cable trays or conduit are not available, the Contractor shall bundle, in bundles of 50 or less, station wiring with half inch Velcro strips, but not deforming the cable geometry. Cable bundles shall be supported via "J" hooks attached to the existing building structure and framework at a maximum of five (5) foot intervals. Plenum rated Velcro will be used in all appropriate areas. In areas where two (2) or more bundles are traveling in close proximity, utilize a Chatsworth Rapidtrak Cable support system. The contractor shall adhere to the manufacturers' requirements for bending radius and pulling tension of all cables.

2. Cables shall not be attached to lift out ceiling grid supports or laid directly on the ceiling grid.

3. Cables shall not be attached to or supported by fire sprinkler heads or delivery systems or any environmental sensor located in the ceiling air space

H. Sealing of openings between floors, through rated fire and smoke walls, existing or created by the contractor for cable pass through shall be the responsibility of the contractor. Sealing material and application of this material shall be accomplished in such a manner that is acceptable to/in compliance with the AHJ requirements, the current edition of National Fire Protection Association (NFPA) or other prevailing code and must be a system listed by Underwriter's Laboratory (U.L.). Creation of such openings as are necessary for cable passage between locations as shown on the drawings shall be the responsibility of the contractor unless otherwise noted. Any openings created by or for the contractor and left unused shall also be sealed as part of this work.

I. The contractor shall be responsible for damage to any surfaces or work disrupted as a result of his work. Repair of surfaces, including painting, shall be included as necessary.

J. Verification of Continuity: After installation, and before termination, wiring shall be checked and tested to insure there are no grounds, opens, or shorts on any conductors or shields. In addition, wiring between buildings or underground and coax cables shall have insulation tested with a megohmeter and a reading of greater than 20 megohms shall be required to successfully complete the test.

K. Splicing

1. Run wires continuously from termination to termination without splices.

2. Splices at certain junction box locations may be allowed at the discretion of Papago Buttes and the Consultant of Record. Locations which may require spliced wires should first be established with Papago Buttes and Consultant of Record. Contractor

shall obtain written approval before proceeding with splices.

3. If splices are required and approved by the Consultant of Record, the wire shall be joined with solder, then taped or otherwise protected in an approved manner so as to provide mechanical and electrical integrity. Wire nuts and/or electrical tape connections shall not be acceptable. Final connections shall be made at terminal boards with full tagging, labeling and documentation.

L. Water Protection

1. Water-resistant protection shall be continuous throughout the cable in surface conduit, poles, in-slab pull-boxes, in-slab conduit, and underground conduit and pull-boxes, and in any areas subject to moisture and/or water infiltration.

2. Splices/Junctions: Provide water-proof protection of splices and junctions in surface conduit and boxes, in-slab conduit and pull-boxes, underground conduit, and underground pull-boxes, to prevent the entry of moisture or water into cables, splices or connections.

3. Cable Entries: Provide water-blocking sealants at conduit entries into pull-boxes, junction boxes, back-boxes, cabinets, etc., to prevent the entry of moisture or water into the conduit and cable system.

M. Boxes: Provide a box loop for wire and cable routed through pull boxes or distribution panels. Cable loops and bends shall not be at a radius less than that recommended by the manufacturer. Coordinate pull box size with the Division 26 as necessary to accommodate this requirement.

N. Wire Labeling: Identify wire and cable clearly with permanent labels wrapped around the full circumference within one-inch of each connection. Locate the label so that it is visible, and so that wire does not need to be undressed or disassembled for clarity. Correlate the label with the number designated on the associated Shop and Field Drawings. Assign wire or cable designations consistently throughout a given system. Each wire or cable shall carry the same labeled designation over its entire run, regardless of intermediate terminations. Cables within pull boxes and underground vaults shall be labeled with the origination and destination of each cable.

O. Wire Lacing and Dressing: Dress, lace, tie or harness wire and cable vertically, horizontally and at right angles to the enclosure surfaces to prevent mechanical stress on electrical connections as required herein and in accordance with accepted professional practice. No wire or cable shall be supported by a connection point. Use the specified cable management guides within enclosures and cabinets to ensure a neat wiring scheme.

P. Class Mixing:

1. Class 1 circuits shall not be mixed with Class 2.

2. Wiring in the same conduit or wireway shall not contain wiring of multiple types where voltage differences exceed 20 dbv except where line and microphone levels will not be used at the same time.

Q. Non-Coaxial Terminations: Make non-coaxial connections and splices (except microphone or line level) to screw-connection terminal blocks with insulated crimp-type spade lugs or

under terminal block pressure plates. Size terminal blocks and lugs properly to assure high electrical integrity. Connect only one wire per spade lug and not more than two lugs per screw terminal.

R. Shielded Cables: Shielded cables shall be insulated. Do not permit shields to contact conduit, raceway, boxes, terminal cabinets or equipment enclosures. Tin terminated shield drain wires and insulate with heat shrinkable tubing.

S. Unacceptable Conditions: Correct all unacceptable wiring conditions immediately upon receiving notice to correct.

3.02 COORDINATION

A. Provide the work in accordance with Section 28 00 00, Security General Requirements.

3.03 WORKMANSHIP

A. Provide the work in accordance with Section 28 00 00, Security General Requirements.

3.04 GROUNDING PROCEDURES

A. Provide grounding of all systems and equipment in accordance with Section 26 05 26, Grounding and Bonding and Section 28 00 00, Security General Requirements.

3.05 CONDUIT AND WIRE INSTALLATION PRACTICES

A. Provide conduit, wire and cable installation in accordance with Section 28 00 00, Security General Requirements.

3.06 IDENTIFICATION AND TAGGING

A. Provide identification of wire, panels, and devices in accordance with Section 28 00 00, Security General Requirements.

3.07 FINAL PROCEDURES

A. Perform final procedures in accordance with Section 28 00 00, Security General Requirements.

END OF SECTION 28 0513

SECTION 07 8400

FIRESTOPPING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Firestopping, as described herein, consists of furnishing and installing materials to form an effective barrier against the spread of flame, smoke and toxic gases. Use firestopping in fire barriers for sealing around penetrations for compliance with NFPA 101 and NFPA 70.

B. Firestopping materials may be either factory built (Firestop Devices) or field erected (Through-Penetration Firestop Systems) to form a specific building system, which will maintain the required integrity of the fire barrier.

1.02 RELATED DOCUMENTS

A. General: Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Special Provisions, apply to this section. Also provide the work in accordance with the Section 28 00 00, Security General Requirements.

1.03 SUBMITTALS

A. Provide Shop Drawings and Equipment Submittals as described in Section 28 00 00, Security General Requirements.

B. Manufacturers' literature and installation instructions for each type firestopping to be used. Provide UL classification number for each system to be installed.

1.04 DELIVERY AND STORAGE

A. Deliver materials in their original unopened containers and store in a location providing protection from damage and exposure to the elements. Remove damaged or deteriorated materials from the site.

1.05 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.

B. American National Standards Institute (ANSI)

1. ANSI/UL 263 - Fire Tests of Building Construction and Materials

2. ANSI/UL 723 - Surface Burning Characteristics of Building Materials

3. ANSI/UL 1479 - Standard for Fire Tests of Through-Penetration Firestops

C. American Society for Testing and Materials (ASTM):

1. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.E814-88: Fire Tests of Through-Penetration Fire Stops

2. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials

3. ASTM E 814 - Standard Test Method for Fire Tests of Through-Penetration Firestops

4. ASTM E 2174 - Standard Practice for On-Site Inspection of Installed Firestops

D. National Fire Protection Association (NFPA)

1. 70-90: National Electrical Code

2. 101-88: Life Safety Code

E. Underwriters Laboratories (UL)

1. Fire Resistance Directory (1990)

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. 3M

B. Hilti

C. Or equal. Contractor shall submit documentation to verify substituted products meets specification requirements.

2.02 MATERIALS

A. Maximum flame spread of 25 and smoke development of 50 when tested in accordance with ASTM E84.

B. Non-toxic to human beings at all stages of application and during fire conditions.

C. UL classified.

2.03 PHYSICAL REQUIREMENTS

A. Through-penetration firestop systems and firestop devices shall be tested in accordance with ASTM E814 using the F rating, and shall maintain the same integrity as the fire barrier being sealed.

B. Devices and systems requiring heat activation to seal an opening created by the burning or melting of a penetrant shall exhibit a demonstrated ability to function as designed in floors and walls of construction and thickness similar to the proposed installation.

C. Firestop sealants shall contain no flammable or toxic solvents. There shall be no dangerous or flammable out gassing during the drying or curing of products used for firestopping or smoke sealing. All products used for this purpose shall be water-resistant after drying or curing and shall be unaffected by high humidity, condensation or transient water exposure. All sealants used in exposed areas shall be capable of being sanded and finished with similar surface treatments as used on the surrounding wall or floor surface.

D. Penetrations containing loose electrical, data, or communications cabling shall be considered subject to retrofit at all phases of construction and throughout the service life of the structure. These penetrations shall be protected using firestopping systems that allow unrestricted cable changes without damage to the seal.

E. Firestopping system or devices used for penetrations by glass pipe, plastic pipe or conduits, or other non-metallic materials shall be UL classified for use with the particular type of penetrating material used.

PART 3 - EXECUTION

3.01 INSPECTION

A. Contractor shall examine areas to receive firestopping prior to submitting data and installation instructions required for the submittals. Data and installation instructions submitted shall be based on the findings of the Contractor's on-site examination.

B. No work shall begin until the specified material data and installation instructions of the proposed firestopping systems have been submitted and approved.

3.02 LOCATIONS

A. Ducts, conduits, piping, and other penetrations that pass-through floor slabs, time rated fire barriers or smoke barriers. Unless otherwise specified or shown on the drawings, the Contractor shall assume that all floor slabs shall be considered as time rated, and all walls or partitions having, or which are part of an enclosure having, fire rated doors shall be considered as time rated.

B. Openings between floor slabs and curtain walls, including inside hollow curtain walls at the floor slab.

C. Penetration of vertical service shafts

D. Other locations where specifically shown on the drawings, or where called for in other sections of the specification

3.03 PREPARATION

A. Prepare substrates in accordance with manufacturer's instructions and recommendations.

B. Install masking and temporary coverings as required to prevent contamination or defacement of adjacent surfaces due to firestopping installation.

3.04 INSTALLATION

A. Installation of firestopping systems shall be in accordance with UL approved system details and approved manufacturer's literature and installation instructions.

B. The insulation on insulated pipe shall be removed for a distance of six inches on either side of the fire rated floor or wall assembly prior to applying the firestopping materials unless the firestopping materials are classified in the UL Fire Resistance Directory for use on pipes insulated with the same type and thickness of insulation found in the actual installation.

C. Install so that openings are completely filled and material is securely adhered.

D. Where firestopping surface will be exposed to view, finish to a smooth, uniform surface flush with adjacent surfaces.

E. After installation is complete, remove combustible forming materials and accessories that are not part of the listed system.

F. Repair or replace defective installations in accordance with manufacturer's recommendations, listed systems details and applicable code requirements.

G. Clean firestop materials off surfaces adjacent to openings as work progresses, using methods and cleaning materials approved in writing by firestop system manufacturer and which will not damage the surfaces being cleaned.

H. Notify Authority Having Jurisdiction (AHJ) when firestopping installation is ready for inspection; obtain advance approval of anticipated inspection dates and phasing, if any, required to allow subsequent construction to proceed.

I. Do not cover firestopping with other construction until approval of AHJ has been received.

3.05 CLEAN-UP AND ACCEPTANCE OF WORK

A. As work on each floor is completed, remove materials, litter, and debris.

B. Completed work shall be inspected and accepted by the Consultant of Record before materials and equipment is moved to the next-scheduled work area.

C. Install identification Labels for Through-Penetration: Pressure sensitive self-adhesive vinyl labels, preprinted with the following information:

1. The words "Warning - Through-Penetration Firestop System - Do not Disturb. Notify Building Management of Any Damage."

2. Listing agency's system number or designation

3. System manufacturer's name, address, and phone number

4. Installer's name, address, and phone number

5. General contractor's name, address, and phone number (if applicable)

6. Date of installation

END OF SECTION

SECTION 08 7100

DOOR HARDWARE AND MODIFICATIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. General Description: This specification section covers the furnishing and installation of electrified door hardware, and the modification of doors and door frames where necessary to upgrade door hardware.

B. The Contractor shall furnish and install door hardware devices, locks, hinges, and other components of the system as shown and specified.

1. Electrified mortise locks

2. Electrified emergency exiting hardware

3. Electrical locking system accessories

C. Doors/Frames

1. The Contractor shall replace doors and frames as necessary to support new door hardware.

2. The Contractor shall also drill, shape, and enhance doors and door frames as necessary to support the new door hardware devices.

3. Fire rated doors and frames which are modified as a part of this project shall be re-certified by an Underwriters Laboratories (UL) certified testing agency.

D. The Contractor shall coordinate door hardware requirements with the Owner to achieve the specified operation of the EACS.

1.02 REFERENCES

A. American National Standards Institute (ANSI):

1. ANSI A115.1 - Specification for Standard Steel Door and Frame Preparation for Mortise Locks for 1 3/8" and 1 3/4" Doors.

2. ANSI A115.2 - Specification for Standard Steel Door and Frame Preparation for Bored or Cylindrical Locks for 1-3/8" and 1-3/4" Doors.

3. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.

4. ANSI/BHMA A156.2 - Bored and Pre-Assembled Locks and Latches.

5. ANSI/BHMA A156.13 - Mortise Locks and Latches.

6. ANSI/BHMA A156.18 - Materials and Finishes.

7. ANSI/NFPA 101 - Life Safety Code.

8. ANSI/NFPA 80 - Fire Doors and Windows.

B. Builders Hardware Manufacturers Association (BHMA): BHMA A156 Standards for Door Hardware.

C. Underwriters Laboratories Inc. (UL): UL Standards for Electrified Locking Equipment and Power Supplies.

D. Americans with Disabilities Act (ADA)

1.03 PRECEDENCE

A. Obtain, read and comply with General Conditions and applicable sub-sections of the contract specifications. Where a discrepancy may exist between any applicable sub-section and directions as contained herein, this section shall govern.

1.04 GENERAL CONDITIONS

A. In accordance with Section 28 0000, Security General Requirements

1.05 RELATED WORK

A. In accordance with Section 28 0000, Security General Requirements

1.06 SHOP DRAWINGS & EQUIPMENT SUBMITTAL

A. In accordance with Section 28 0000, Security General Requirements

B. Shop Drawings: Door Schedule showing each item of hardware to be installed on each door.

1. Use Engineer's door numbers on schedule.

2. Schedule may be combined with submittals required in other door hardware sections.

3. Description and Sequence of Operation of each electrified door hardware function, including location, and interface with fire alarm, access control, and security systems as applicable. Include description of component functions that occur when authorized person wants to enter; authorized person wants to exit; unauthorized person wants to enter; and unauthorized person wants to exit.

4. Upon return of reviewed finish hardware schedule and electronic locking elevations, arrange for a keying and programming meeting with the City, hardware supplier and other involved parties to ensure locksets and locking hardware, are functionally correct and keying and programming fulfills project requirements. As soon as possible after keying and programming conference, typed copies of keying and programming schedule shall be furnished to the Owner.

C. Product Data: Manufacturer's data sheets on each product to be used, including installation instructions.

D. Operating and Maintenance Data: Include operating, troubleshooting, maintenance, and

repair instructions for each item, with lists of spare parts, if any, and name, address, and phone number of local stocking distributors.

1.07 OPERATING AND MAINTENANCE MANUALS

A. In accordance with Section 28 0000, Security General Requirements

1.08 WARRANTY

A. In accordance with Section 28 0000, Security General Requirements

1.09 OWNER'S RIGHT TO USE EQUIPMENT

A. The Owner reserves the right to use equipment, material and services provided as part of this work prior to Acceptance of the Work, without incurring additional charges and without commencement of the Warranty period.

1.10 DOOR REQUIREMENTS

A. Security Door Requirements: Survey each security door shown on the drawings before installation, and review the existing door hardware configuration and installation conditions with respect to the specified functions. Verify the compatibility and completeness of the proposed hardware and its installation, submit detailed drawings showing the proposed modifications and installation, and provide all equipment and services required to achieve the specified electrical and mechanical performance. Coordinate acceptable door hardware and installation techniques with the Owner.

B. Door Position Switches shall be furnished and installed by the Contractor.

C. Doors and Door Hardware:

1. Electric door locks, strikes, panic hardware and power boosters and power transfer devices shall be furnished and installed by the Contractor.

2. Modify locks, doors and door frames as needed to provide the specified operation.

3. Door hardware and installation shall comply in all respects with the requirements of Public Law 101-336, Americans with Disabilities Act.

D. Re-Certification of Doors:

1. Where fire rated doors must be modified to accept electrified locking mechanisms or door position monitoring, the Contractor shall include the services of a qualified inspector certified by Underwriters Laboratories to re-certify the fire rating of each door so modified.

2. The contractor shall provide allowance for recertification of 24 doors.

PART 2 - PRODUCTS

2.01 GENERAL

A. Product Acceptability: The Products section contains lists of acceptable products. If product

substitutions are proposed, they must be made based upon a comparison of equivalence to the product specified. Considerations may include but shall not be limited to functional, physical, aesthetic and/or interface aspects. The Owner shall be the sole judge of whether or not a submitted substitution is deemed to be "equivalent" to that specified.

B. Fire Rated Doors: Coordinate security hardware equipment and installation so as to maintain the Fire Rating of each specific door to the satisfaction of the local Authority Having Jurisdiction. Retain the services of a certified fire rating agency (such as Warnock-Hersey) to re-certify the Underwriters Laboratories (UL) rating on doors which are currently UL rated, but require modification for access control devices.

2.02 MATERIALS

A. General:

1. Electrified door locks, electrified strikes, and lock modifications shall be provided and installed by the Contractor.

2. Special electrical power boosters for electrified panic hardware shall be provided by the Contractor.

3. Special electrical power boosters for electrified panic hardware shall be installed by the Contractor.

4. Contractor shall be responsible for coordinating the installation so that systems and hardware operate as specified.

5. Provide devices suitable for door type, lock type, frame type, dimensions and overall operation.
   a. Coordinate with electrical requirements specified in other sections.
   b. Provide all brackets, spacers, shims, lip extensions, strike boxes, and other accessory parts necessary to complete the installation.

B. Electrified Mortise Lockset, One-Sided Locking (Where required for doors with scheduled locking located in fire-rated walls or partitions):

1. Sargent 8200 series electrified mortise lock or equal by Schlage or Corbin-Russwin, fail secure, with request to exit monitor, latch bolt monitor, and specified mechanical operation. Coordinate lever handle, escutcheon, and trim types with the Owner. Provide finishes as required by the Owner.

2. Provide 24 VDC version.

3. Latch bolt: 5/8” x 1” x 3/4" Throw stainless steel with anti-friction tongue

4. Owner will provide key cylinder to match Owner’s keying system. Existing key cylinders may be reused in the new locks, if they are in operable condition.

C. Electrified Emergency Exit Devices: Where required for emergency exiting operation, use Von Duprin Series EL99 for normal stiles or Von Duprin Series EL33 for narrow stiles, or equivalent, as follows:

1. Single Door: Von Duprin Model ELRXLX9947 Series electrified locking hardware

assembly, 24VDC, with the following options:
a. Cylinder (coordinate keying with the Owner),
b. Exterior trim (coordinate type and finish with the owner),
c. Exit request signal switch,
d. Latch bolt monitor,
e. Additional hardware as required to provide a complete electrically controlled emergency exiting system.
f. Provide electrified rim, Model 7500 mortise lock, surface or concealed rod type, as required by each specific door and frame.
g. Coordinate finish hardware, cylinder, trim, finish, and keying with the Owner.

2. Double Door: Von Duprin Model 99XX, locking hardware assembly, with the following options:
a. Surface or concealed rod,
b. Exterior trim (coordinate type and finish with the owner),
c. Exit request signal switch,
d. Additional hardware as required to provide a complete emergency exiting system.
e. Coordinate finish hardware, trim and finish with the Owner.

D. Power Booster: Von Duprin Model PSB873-BK-F, or equivalent, mini-power booster, 24VDC, with battery back-up, key lock, and Fire Alarm input.

1. Provide Von Duprin Model 871-2 option to operate emergency exit hardware.

2. Locate as recommended by the manufacturer.

E. Electric Strike

1. General: Survey existing doors requiring electric strikes and identify the existing strike plate. Provide electric strike most suitable for the existing latch and frame.

2. Provide Von Duprin 6200 series or equal.
a. 24 VDC operation
b. Non-handed
c. Fail secure
d. Finish to match existing hardware

F. Power Transfer Devices: Use power transfer devices as needed to deliver power and signals to door-mounted devices. Power transfer devices shall be concealed, unless otherwise noted or where installation conditions do not allow it (as with concrete-filled frames or frameless glass doors).

1. Electric Power Transfer Hinge: Von Duprin Model EPT-2, Folger Adam Co. PTH series, Stanley CE Series, or equal, with finish as directed by the Architect.

2. Armored Door Loop: Provide Von Duprin Model DL-12, Adams Rite Model 40-01, or Keedex KDS Series, armored door loop, flexible stainless steel, in lengths as needed to fit.

G. Existing Lock Modification:

1. Contractor may field or shop modify existing locks to provide the specified electrical

and mechanical operation, unless otherwise noted.

2. The Contractor must be trained and certified by the original manufacturer to perform the proposed modifications. Contractor shall warranty the modified locks in accordance with the specifications, as if new.

3. Modifications shall include, but not be limited to, the addition of electrified locking and unlocking solenoids, request-to-exit switch, fail-safe/fail-secure configuration, and mechanical free-exiting operation.

4. Where existing locking mechanisms are to be modified, Contractor shall use parts and methods approved by the original lock manufacturer. Where the original manufacturer does not support such field modification, Contractor shall provide new locks as specified.

5. Submit proposed parts and methods of modification for approval prior to starting the work.

H. Locks and Latches

1. Locksets shall be heavy duty Sargent 8200 series, or equal, mortise lock to match existing. Trim shall be Sargent "LB" to match existing. Verify existing locksets, trim, and finishes before ordering.

2. Locksets and cylinders shall have a minimum of six pins and removable cores.

3. For access-controlled doors provide electrified mortise lock with LX (Latch bolt monitor) and RX (request-to-Exit) functions.

I. Hinges

1. General: Provide three knuckle, button tip, full mortise template type butts with non-rising loose pins and ball or iolite bearings.

2. Exterior Door Hinges: Provide out-swing door hinges of solid bronze with non-removable pins and security studs.

3. Interior Door Hinges: Wrought Steel, polished and plated to match finishes. Furnish three hinges up to 90 inches high and one additional hinge for every 30 inches or portion thereof.

4. Where required to clear trim or permit door to swing 180º, furnish hinges of sufficient throw.

5. At labeled doors, provide steel hinges with ball or oilite bearings and appropriate closer.

6. Acceptable Manufacturers: Hager, KcKinney, or Stanley

J. Door Closers

1. Furnish flat rectangular type closers with full covers. Size all closers in accordance with manufacturer's recommendations and good standard practice. All surface

mount closers shall be of a single manufacturer and shall have non-ferrous covers and cast-iron cases. Coordinate to match existing closers.

2. Acceptable Manufacturers: Rixson, LCN

K. Door Stops and Holders

1. Place door stops in such a position that they permit maximum door swing and do not present a hazard or obstruction.

L. Finishes

1. The finish for all hardware shall be polished stainless, US32, BHMA 629 or dull satin stainless, US32D, BHMA 630. Coordinate hardware finishes to match existing.

PART 3 - EXECUTION

3.01 SPECIAL INSTRUCTIONS

A. Emergency Exiting Requirements: Electrically controlled doors shall be operable in the path of egress without use of access cards, keypads or requiring any special knowledge.

1. Doors Equipped with Electrical Strikes, Electrified Mortise Locks or Electrified Exit Hardware:
   a. The hardware configuration on access-controlled doors shall enable egress without requiring electrical release of its associated strike, mortise lock or electrified emergency exit device.
   b. Door handles on the "path of egress side" shall retract latch bolt from the strike.
   c. Door handles on the “ingress side” side shall not retract latch bolts.
   d. For doors not configured with reader in/reader out capability, the system shall detect the normal egress of a user at any individual portal with an Exit Touch Bar or a Signal Switch built directly into the handle mechanism, and shall bypass any alarm associated with the portal for an individually programmable duration.

2. Request-To-Exit Activation: Verify Request-To-Exit devices and System Controllers will react quickly enough to bypass alarms before a fast-moving individual can reach and open the door. Request-to-Exit devices shall always be connected to EACS inputs for processing and control. Request-To-Exit devices shall never be connected directly to electrified locks, local control relays, or power supplies.

3. Mechanical Lock Operation: Electrified locks shall be mechanically keyed, to permit manual locking/unlocking, in an emergency. Mechanical operation shall not override door monitoring functions.

4. Lock Failure Configuration: Electrified locks and strikes shall be configured as fail-secure, i.e.: the lock or strike shall unlock only when powered. Coordinate the selected hardware with the Owner to assure its suitability for the purpose intended.

5. Fire Alarm Interface: Electrified locks, strikes and delayed exiting panic hardware, which are part of this work and which are locked in the path of legal exiting, shall be connected to the building Fire Alarm System in accordance with City requirements

such that they automatically unlock in the event of activation of the Fire Alarm System. This shall occur whether the activation is a result of a manual pull station, smoke detector or sprinkler flow switch.

a. A fire alarm "general/common alarm relay" shall be programmed at the fire alarm control panel to activate the EACS interface relays located in each Lock Power Supply cabinet. The Contractor shall research and provide all necessary fire alarm system conduit, wire, hardware and programming to perform the required interface.

b. This interface shall not depend on the EACS Host or Remote Controllers for its operation. Locate these interface relays electrically ahead of lock power distribution as shown on the drawings. The Contractor shall supply and install programmed alarm interface relay(s) with sufficient capacity to control the power supplied to all controlled locks.

3.02 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.03 INSTALLATION

A. General: Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, install each item completely and then remove and store in a secure place during finish application. After completion of finishes, re-install each item. Do not install surface-mounted items until finishes have been completed on substrate.

B. Install each item according to manufacturer's written instructions, utilizing proper fasteners provided by manufacturer.

C. Standards: Install in accordance with requirements of BHMA. Mounting height measurements are from finish floor except top butt.

1. Butts: top 11 3/4" (298 mm) center of butt to top of door; intermediate equal distance between top and bottom butts; bottom 13" (330 mm) to center of butt.

2. Knob Locks: 40 5/16" (1 m) to center of strike.

3. Deadlocks: 48" (1.2 m) to center of strike.

4. Exit Devices: 40 5/16" (1 m) to center of strike.

5. Push Plates: 45" (1.1 m) to center.

6. Pull Plates: 42" (1.1 m) to center.

7. Door Closers: Per manufacturer’s instructions.

D. ADA Standard: Conform to ANSI A117.1 for positioning requirements for disabled.

E. Items for fire doors shall be installed in conformance with NFPA 80, and all other applicable building codes and regulations.

F. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.

G. Door/Frame Preparation:

1. Prepare doors and frames for the installation of electrified locking mechanisms, cable, and related door hardware and appurtenances, including but not limited to the following.

2. Drill doors for the installation of wire and cable.

3. Cut doors and door frames for the installation of locks, door position switches, and electrified hinges.

4. Fabricate brackets, escutcheons, and other support members as necessary to properly support the new devices and leave a professional and finished appearance.

5. If doors require other repairs not directly associated with this work, report such repairs to the Owner, and request direction.

H. Rated Door Recertification:

1. Fire rated doors and frames that are modified to add additional security door hardware shall be recertified to maintain the existing fire rating.

2. Contractor shall provide recertification by a by a company or individual licensed to perform the recertification.

3.04 CLEANING

A. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

B. After installation clean metal surfaces on both interior and exterior of mortar, plaster, paint and other contaminates. After cleaning, protect work against damage.

3.05 ADJUSTING

A. Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended.

B. Test for proper operation with building power energized; coordinate with startup procedures of other installers.

3.06 FINAL PROCEDURES

A. Perform final procedures in accordance with Section 28 0000, Security General Requirements.

END OF SECTION 08 7100

SECTION IV

EVALUATION PROCESS/ CRITERIA FOR EVALUATION

RFP NO. 20-21.14

SECTION IV: EVALUATION PROCESS/CRITERIA FOR EVALUATION

A. Evaluation and Committee

An Evaluation Committee shall review all proposals to determine which Proposers qualify for consideration. The evaluation will include an initial review for minimum qualifications and general compliance followed by a detailed review. The initial review will evaluate all submissions for conformance to stated specifications to eliminate all responses that deviate substantially from the basic intent and/or fail to satisfy the mandatory requirements. Only those proposals that meet or exceed the intent of the mandatory requirements will be further evaluated.

The Committee's detailed evaluation shall be based on Proposers adherence to the specified scope of work and the Proposer's proposed methodologies used to successfully achieve the goals described. The Committee's considerations will be primarily focused on the information responded to in the following categories:

1. **Qualifications:** Consideration will be given to the qualifications of the Proposer's personnel proposed for assignment to the engagement. Staff qualifications and specific experience demonstrated on engagements of a similar nature will receive primary attention.

2. **Experience and References:** The Proposer's successful past performances on similar engagements will be considered as a significant indicator of the Proposer's technical competency and capability to complete this engagement.

3. **Schedule:** The Committee will evaluate the Proposer's schedule of the project.

4. **Warranty:** Consideration will be given to equipment warranty.

5. **Pricing:** This evaluation criterion is based on the Proposer's cost model including line-item and summary costs of labor and equipment. Please note that a low-cost proposal, in and of itself, will not be sufficient to earn the award of this contract. Cost should include DIR regulated prevailing wages for all contractors and sub-contractors as applicable.

SECTION V

COST PROPOSAL

RFP NO. 20-21.14

SECTION V: COST PROPOSAL

SEE ATTACHMENT A COST PROPOSAL FORM

SECTION VI

ADMINISTRATIVE ELEMENTS

RFP NO. 20-21.14

SECTION VI: ADMINISTRATIVE ELEMENTS

6.1 Collusion

By submitting a response to the RFP, each Proposer represents and warrants that its response is genuine and made in the interest of or on behalf of any person not named therein; that the Proposer has not directly induced or solicited any other person to submit a sham response or any other person to refrain from submitting a response; and that the Proposer has not in any manner sought collusion to secure any improper advantage over any other person submitting a response. Refer to Section 4.12.

6.2 Gratuities

No person will offer, give or agree to give any City employee or its representatives any gratuity, discount or offer of employment in connection with the award of contract by the City. No City employee or its representatives will solicit, demand, accept or agree to accept from any other person a gratuity, discount or offer of employment in connection with a City contract.

6.3 Required Review and Waiver of Objections by Proposers

Proposers should carefully review this RFP and all attachments, including but not limited to the Standard Contract, for comments, questions, defects, objections, or any other matter requiring clarification or correction (collectively called “comments”). Comments concerning RFP objections must be made in writing and received by the City no later than the Deadline for Written Comments detailed in the Table 1, RFP Schedule of Events. This will allow issuance of any necessary amendments and help prevent the opening of defective proposals upon which contract award could not be made.

Protests based on any objection will be considered waived and invalid if these faults have not been brought to the attention of the City, in writing, by the Deadline for Written Comments.

6.4 Proposal Withdrawal

To withdraw a proposal, the Proposer must submit a written request, signed by an authorized representative, to the RFP Coordinator. After withdrawing a previously submitted proposal, the Proposer may submit another proposal at any time up to the deadline for submitting proposals.

6.5 Proposal Errors

Proposers will not be allowed to alter proposal documents after the deadline for submitting a proposal.

6.6 Incorrect Proposal Information

If the city determines that a Proposer has provided, for consideration in the evaluation process or contract negotiations, incorrect information which the Proposer knew or should have known was materially incorrect, that proposal will be determined non-responsive, and the proposal will be rejected.

6.7 Prohibition of Proposer Terms and Conditions

A Proposer may not submit the Proposer's own contract terms and conditions in a response to this RFP. If a proposal contains such terms and conditions, the City, at its sole discretion, may determine the proposal to be a nonresponsive counteroffer, and the proposal may be rejected.

6.8 Assignment and Subcontracting

The Contractor may not subcontract, transfer, or assign any portion of the contract without prior, written approval from the City. Each subcontractor must be approved in writing by the City. The substitution of one subcontractor for another may be made only at the discretion of the City and with prior, written approval from the City.

Notwithstanding the use of approved subcontractors, the Contractor, if awarded a contract under this RFP, will be the prime contractor and will be responsible for all work performed and will responsible for all costs to subcontractors for services provided by the Proposer. If Proposers plan to utilize Subcontractors, Proposers must identify the Subcontractors and summarize their scope of work. In addition, throughout the proposal, a Proposer must identify any task and/or deliverable to be completed by Subcontractors and describe their role in accordance with the requirements.

The Proposer is prohibited from performing any work associated with this RFP or using subcontractors for any service associated with this RFP offshore (outside the United States).

6.9 Right to Refuse Personnel

The City reserves the right to refuse, at its sole discretion, any subcontractors or any personnel provided by the prime contractor or its subcontractors. The City reserves the right to interview and approve all Proposers' staff. Proposer's staff may be subject to the City's background and drug testing processes at any time. All Proposers' staff must be eligible to work in the United States and be subject to E-verify or similar employment eligibility service.

6.10 Proposal of Alternate Services

Proposals of alternate services (*i.e*., proposals that offer something different from that requested by the RFP) may be considered nonresponsive and rejected.

6.11 Proposal of Additional Services

If a Proposer indicates an offer of services in addition to those required by and described in this RFP, these additional services may be added to the contract before contract signing at the sole discretion of the City.

The cost for any such additional services must be presented separately as described in Section 4.11.

6.12 Licensure

Before a contract pursuant to this RFP is signed, the Proposer must hold all necessary, applicable business and professional licenses. The City may require any or all Proposers to submit evidence of proper licensure.

6.13 Conflict of Interest and Proposal Restrictions

By submitting a response to the RFP, the Proposer certifies that no amount will be paid directly or indirectly to an employee or official of the City of Orange as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Proposer in connection with the procurement under this RFP.

Notwithstanding this restriction, nothing in this RFP will be construed to prohibit another governmental entity from making a proposal, being considered for award, or being awarded a contract under this RFP.

6.14 Right of Rejection

The City reserves the right, at its sole discretion, to reject any and all proposals or to cancel this RFP in its entirety.

Any proposal received which does not meet the requirements of this RFP may be considered to be nonresponsive, and the proposal may be rejected. Proposers must comply with all of the terms of this RFP and all applicable State and City laws and regulations. The City may reject any proposal that does not comply with all of the terms, conditions, and performance requirements of this RFP.

Proposers may not restrict the rights of the City or otherwise qualify their proposals. If a Proposer does so, the City may determine the proposal to be a nonresponsive counteroffer, and the proposal may be rejected.

The City reserves the right, at its sole discretion, to waive variances in technical proposals provided such action is in the best interest of the City. Where the City waives minor variances in proposals, such waiver does not modify the RFP requirements or excuse the Proposer from full compliance with the RFP. Notwithstanding any minor variance, the City may hold any Proposer to strict compliance with the RFP.

6.15 Disclosure of Proposal Contents

All proposals and other materials submitted in response to this RFP procurement process become the property of the City of Orange. Selection or rejection of a proposal does not affect this right. All proposal information, including detailed price and cost information, will be held in confidence during the evaluation process. Upon the completion of the evaluation of proposals, the proposals and associated materials will be open for review by the public to the extent allowed by the California Public Records Act, (Government Code Section 6250-6270 and 6275-6276.48). By submitting a proposal, the Proposer acknowledges and accepts that the contents of the proposal and associated documents will become open to public inspection.

6.16 Proprietary Information

The master copy of each proposal will be retained for official files and will become public record after the award of a contract unless the proposal or specific parts of the proposal can be shown to be exempt by law (Government code §6276). Each Proposer may clearly label part of a proposal as "CONFIDENTIAL" if the Proposer thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any information that is released by the City will constitute a complete waiver of all claims for damages caused by any release of the information. If a public records request for labeled information is received

by the City, the City will notify the Proposer of the request and delay access to the material until seven business days after notification to the Proposer. Within that time delay, it will be the duty of the Proposer to act in protection of its labeled information. Failure to so act will constitute a complete waiver.

6.17 Severability

If any provision of this RFP is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions will not be affected; and, the rights and obligations of the City and Proposers will be construed and enforced as if the RFP did not contain the particular provision held to be invalid.

6.18 RFP and Proposal Incorporated into Final Contract

This RFP and the successful proposal will be incorporated into the final contract.

6.19 Proposal Amendment

The City will not accept any amendments, revisions, or alterations to proposals after the deadline for proposal submittal unless such is formally requested, in writing, by the City.

6.20 Consultant Participation

The City reserves the right to share with any consultant of its choosing this RFP and proposal responses in order to secure a second option. The City may also invite said consultant to participate in the Proposal Evaluation process.

6.21 Rights of the City

The City reserves the right to:

- Make the selection based on its sole discretion
- Reject any and all proposals
- Issue subsequent Requests for Proposals
- Postpone opening proposals if necessary for any reason
- Remedy errors in the Request for Proposal process
- Approve or disapprove the use of particular subcontractors
- Negotiate with any, all, or none of the Proposers
- Accept other than the lowest offer
- Waive informalities and irregularities in the proposals
- Enter into an agreement with another Proposer in the event the originally selected Proposer defaults or fails to execute an agreement with the City
- An agreement will not be binding or valid with the City unless and until it is approved by the City Council and executed by authorized representatives of the City and of the Proposer

APPENDIX A

STANDARD TERMS AND CONDITIONS

RFP NO. 20-21.14

APPENDIX A – STANDARD TERMS AND CONDITIONS

1. No other terms or conditions apply to this order unless specifically agreed to by Buyer.

2. All purchases are F.O.B. Orange and all transportation charges must be prepaid unless otherwise authorized.

3. Terms discounted from receiving date unless otherwise specified. Bills are payable only on completion of order.

4. We will not assume responsibility for material shipped but not ordered or not shipped according to instructions. Articles covered by this order must conform with applicable safety orders of the California Division of Industrial Safety. Supplier agrees to comply with the provisions of the Occupational Safety and Health Act of 1970 and the standards and regulations issued thereunder and certifies that all items furnished under this order will conform to and comply with said standards and regulations. Supplier further agrees to indemnify and hold harmless Buyer for all damages assessed against Buyer as a result of Supplier's failure to comply with the act and the standard issued thereunder and for the failure of the items furnished under this order to comply.

5. ACKNOWLEDGEMENT:
   There is no acknowledgement copy of this purchase order. Any discrepancies in price, quantities, items or delivery, must be phoned to Buyer's purchasing department within 48 hours of your receipt of this purchase order. Any correspondence referring to the terms, prices and conditions of this order must be directed to Buyer's purchasing agent. Inquiries relative to payment of invoices should be directed to Buyer's accounts payable.

6. ARBITRATION:
   Any controversy or claim rising out of or relating to this purchase order or the breach thereof, shall be settled by arbitration at election of either party in accordance with the rules of the American Arbitration Association and judgement upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

7. ASSIGNMENT:
   No assignment by the Seller of the purchase order or any part hereof, or of funds to be received hereunder will be recognized by the Buyer unless such assignment has had prior written approval and consent of the Buyer.

8. DELIVERIES:
   Deliveries for all departments must be made as directed. Non-payment may result for merchandise delivered in any other manner. Cash terms shall be predicated on the delivery date of the material as specified, or from date correct invoices are received in Buyer's accounts payable office, if the latter date is later than the date of delivery.

9. HOLD HARMLESS – WORKER'S COMPENSATION:
   The Contractor shall comply with all of the provisions of the Worker's Compensation Insurance and Safety Acts of the State of California, the applicable provisions of Division 4 and 5 of the California Labor Code and all amendments thereto; and all similar State or Federal acts or laws applicable; and shall indemnify and hold harmless the Buyer and City from and against all claims, demands, payments, suits, actions, proceedings, and judgements of every nature and description, including attorney's fees and costs,

presented, brought or recovered against the Buyer and City, for or an account of any liability under any said Acts which may be incurred by reason of any work to be performed under this Contract.

10. HOLD HARMLESS – PATENTS:
    The Contractor agrees to indemnify and hold free and clear the City and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any Letters Patent arising out of the Performance of this contract or out of the use or disposal by or for the account of the City of equipment or supplies furnished or construction work performed hereunder. If Seller breaches this agreement and fails to deliver the goods, services or materials as provided herein within reasonable time, or by failing to make sufficient progress so as to endanger performance of this order, then Buyer may terminate this contact and purchase the goods, services or material from whatever source, and Seller shall be liable to Buyer for the difference in price which Buyer is obligated to pay plus all of its costs and expenses incurred against any of the monies which may be owing to the Seller.

11. HOLD HARMLESS – GENERAL:
    Seller guarantees and agrees to indemnify, defend and hold harmless the Buyer against any or all loss, liability, damages, demands, claims or costs arising out of defective material and products, faulty work performance, negligent or unlawful acts and non-compliance with any applicable local, state or federal codes, ordinances, orders or statutes including the Occupational Safety and Health Act (OSHA) and the California Industrial Safety Act. This guarantee is in addition to and not intended as a limitation on any other warranty, expressed or implied.

12. Freight: Excessive charges from incorrect description or from routing other than given will be charged to Seller's account. Packing list must each case or parcel, showing Buyer's order number. No charges for transportation, containers, or any other purpose, etc., will be allowed unless so specified in this order. Freight charges allowable pursuant to the terms FOB point or origin or FOB designation plus freight shall be prepaid by the Seller and must be itemized on the invoice, and a copy of the paid express or freight bill shall be attached to the invoice. COD shipments will not be accepted.

13. Rejections: If any of the goods are found at any time to be defective in material or workmanship, or otherwise not in conformity with the requirements of the order, Buyer, in addition to any other rights which it may have under warranties or otherwise, shall have the right to reject and return such goods at Seller's expense, such goods not to be replaced without written authorization from Buyer. This order must be filled exactly as specified, no exceptions. Alternatives or substitutions will not be accepted unless authorized by Buyer's purchasing agent. Where quality is questioned on any deliver, any cost of inspection will be against the account of the Seller.

14. Anti-discrimination claim: It is the policy of the Buyer that in connection with all the work performed under public works, and purchasing contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, sex, ancestry, national origin, or religious creed, and therefore the Seller agrees to comply with applicable Federal and California laws including, but no limited to, the California Fair Employment Practice Act beginning with Labor Code Section 1410, and Labor Code Section 1735. In addition, the Seller agrees to require like compliance by all sub-contractors employed.

15. Buyer furnished or paid for items: All artwork, specifications, tools, equipment, and other items furnished to Seller, or paid for by the Buyer shall (A) remain Buyer's property, or upon acquisition by Seller, shall become Buyer's property. (B) be safely kept by Seller in good and usable order; (C) be promptly returned to Buyer upon request.

16. CANCELLATION:
    Buyer shall have the right to cancel at any time for Seller's breach of any provisions of this order, including failure to meet their stated delivery schedule. All or any portion of this order may be cancelled by Buyer if Seller, in Buyer's judgement, is failing to make sufficient progress so as to endanger performance of this order in accordance with its terms. Buyer reserves the right to terminate the contract without penalty, without cause or with cause immediately, 10 days after written notice thereof, if delivered to the Seller either personally or by mail addressed as shown on the purchase order form.

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Attachments