

VA Central California Healthcare System  
Fresno, CA 93703 - 2223

## **Scope of Work (SOW)**

### **Design and Installation of 7<sup>th</sup> Floor Fire Sprinkler System Project # 570-13-202**

#### **1. GENERAL INFORMATION:**

This document contains information and minimal submission requirements for the design/construction documents specified in this contract. The contractor shall provide Design and Installation services as outlined in this SOW document and the attached specifications. Services shall be provided for the VA Central California Healthcare System, located at 2615 E. Clinton Ave., Fresno, CA 93703-2286, all in accordance with this SOW and contract terms and conditions.

#### **BACKGROUND & OVERVIEW:**

The existing Director's Suite is located on the 1<sup>st</sup> floor of Building One (1), in the east wing of the main hospital. This service along with the Sleep Lab, Nursing Service, Medical Media and Doctor On-Call Quarters will be relocating to the 7<sup>th</sup> floor of Building One (1). The current fire sprinkler system for this area will need a complete replacement to accommodate this new floor plan and will be demolished back to the two stairwell risers prior to start of work on this project.

#### **A. SCOPE:**

The contractor shall provide an evaluation of the current fire sprinkler system serving the future 7<sup>th</sup> floor renovation project. The design shall follow industry standards and VA Design Guides, Manuals and Standards. This contract shall also include resolution of installation complications due to issues such as limited space and routing conflicts with other above-ceiling systems.

##### Scope of Work:

- Provide life safety code analysis and a complete design of the fire sprinkler system.
- Address VA review comments arising from the plan review process.
- Provide and install complete fire sprinkler system.
- Provide functional performance testing, system validation/certification and on-site system testing.
- Provide As-Built AutoCAD drawings.

#### **2. GENERAL REQUIREMENTS:**

- A. SITE INVESTIGATION:** A preliminary/pre-proposal site visit is mandatory. The contractor must take appropriate safety precautions when conducting such field investigations, and notify the COR of any/all hazardous material, substances and/or circumstance discoveries. As-built

drawings and other related project drawings are included in this contract, but field verification of the existing fire sprinkler system serving the 7<sup>th</sup> floor of Building One shall be the primary source of the investigative services. The VA takes no responsibility as to the accuracy of “as-built” drawings. The contractor shall accurately locate any existing piping, electrical controls, and other fire sprinkler related utilities to incorporate them in the Design Documents if impacted by the proposed fire sprinkler design.

- B. DEMOLITION:** This demolition work of the current 7<sup>th</sup> floor system shall be accomplished by others.
- C. STRUCTURAL:** The Construction Documents shall include the mounting details for the new fire sprinkler components along new runs and at points of connection to the existing systems.
- D. ARCHITECTURAL:** Architectural drawings shall be provided as related to life safety assemblies for the newly designed fire sprinkler system. The architectural plans for the layout of the new 7<sup>th</sup> floor renovation project are included in this contract for reference.
- E. PLUMBING:** The Construction Documents shall include modifications, additions and relocations to the existing fire sprinkler piping.
- F. HVAC (Heating, Ventilating & Air Conditioning):** N/A
- G. ELECTRICAL:** The Construction Documents shall include modifications, additions and relocations to the existing electrical systems which will serve the newly designed fire sprinkler system. The designs shall comply with the most recent version of the National Electric Code (NEC), meet VA design guide requirements, and create a functional and serviceable system.
- H. FIRE SAFETY SYSTEMS:** The Construction Documents shall include analysis and design of fire safety systems related to the fire sprinkler system. Design shall include expansion, modifications and possible relocation of existing fire sprinkler systems. Evaluation, modification and/or relocation of fire sprinkler control valves and associated wiring shall be included. All design work shall comply with NFPA 13 to produce a complete fire safety system. AE shall provide all calculations justifying design selections.
- I. DATA, PHONE & SECURITY SYSTEMS:** N/A
- J. EQUIPMENT:** N/A
- K. ENERGY & RESOURCE CONSERVATION:** Any alterations or new equipment shall be energy and resource efficient.
- L. ADDITIONAL DOCUMENTATION:** The contractor shall provide other documentation (i.e., calculations, reports, recommendations, etc.) that is appropriate to support the design effort and to keep the Government fully informed of all issues or potential problems.
- M. DESIGN SPECIFICATION/REQUIREMENTS:** The contractor shall review all pertinent VA Design Manuals, Design and Construction Procedures, Seismic Design Handbook, and other pertinent VA Standards (PG-18-10, PG-18-3, H-18-8), standard details, and space criteria (Handbook 7610). The contractor is responsible for incorporating all such references in the design of this project. The contractor may obtain copies of the complete VA Design Guides, Design Manuals, & other resources from the VA Facilities Management Technical Information Library at web site/page: <http://www.cfm.va.gov/>. The VA is mandated to follow the most stringent rules, codes & etc. when economically feasible; therefore, the contractor shall also review all applicable VA, Federal, State, County, City, Industry design guides, codes, standards, regulations and policies.

**N. ACCURACY OF FACILITY PROVIDED DATA:** The contractor shall design this project by using site measurements and verifying site conditions. The contractor shall not rely solely on "As-Built" drawings.

**O. DRAWINGS:** The contractor shall provide both hard copy and electronic copies of drawings at each review step generated in the latest version of AutoCAD or its companion products and submitted in PDF and DWG document formats. This facility currently uses AutoCAD 2012. The standard drawing size shall be ARCH E1 [30" x 42"]. The format to be used in creating the CAD drawings (i.e. layer/level structure, fonts, font sizing, file naming conventions, etc.) is the latest edition of the National CAD Standard <http://www.buildingsmartalliance.org/index.php/ncs/>.

The contractor shall follow these level/layer formats, file-naming conventions, and symbol library. Drawings shall be drawn from the VA's "As-Built" drawings updated by site verification, not scanned reproductions.

**P. SPECIFICATIONS:** Fire sprinkler components and installation methods shall be as described in the attached specifications.

**Q. ELECTRONIC DOCUMENTS:** Information requested in electronic form (digital, CD-ROM, etc.) shall be in the following formats:

1. Drawings and details: AutoCAD 2012
2. Written documents: Microsoft Word 2010
3. Spread sheets, charts, graphs: Microsoft Excel 2010
4. Reproductions of manufacturers specifications, blue print "mark-ups", pictures and similar items: Adobe PDF (most current version).
5. CD-ROM's shall be "write protected" and clearly labeled with Project Number, Project Name, Date and Contents before submission to the VA.

**R. ASBESTOS and LEAD:** The contractor shall immediately notify the VA in writing of any harmful contaminants or hazardous materials encountered during evaluation of the facility. The contractor is not responsible to mitigate the contaminant or hazard or fully quantify the materials.

**S. COST ESTIMATE:** N/A.

**T. REVIEW MEETINGS:** The contractor is required to attend a design review meeting at 50% and 100% completion of the design process.

### **3. COMPLIANCE WITH CODES AND STANDARDS:**

- A. Evaluation and design shall be in compliance with applicable standards and codes described in VA Program Guides included or referenced in the contract/task order.
- B. The contractor shall provide prompt, written notification to the Contracting Officer concerning conflicts with, or recommended deviations from codes, laws, regulations, standards, and opinions of review officials as described above. No work altering the scope of this contract shall be undertaken prior to receipt of written approval from the Contracting Officer.

### **4. PROFESSIONAL LICENSING:**

- A. The contractor who prepares the submissions shall be a certified Fire Protection Engineer or other Design Professional licensed in the State in which the design work is completed as described in 'B' and 'C' below.

- B. The contractor who conducts the fire sprinkler installation shall be Class A General Engineering, Class C-16 Fire Protection, or Class C-36 Plumbing Contractor. These contractors may both design and install systems within the parameters of their license and in accordance with California IR A-25 "Design, Installation and Maintenance of Automatic Fire Sprinkler Systems (AFSS)". Contractor shall maintain all professional engineering licensing, certifications, and accreditation information, along with any other credentials and qualifications for all workers involved in this project, and provide copy of such to the VA upon request.
- C. The professional seal indicating such license by the State shall appear on the final submission with signature. The Engineer whose seal is shown will be known as the Design Professional. The Design contractor shall certify compliance with the SOW and all applicable codes, other than those deviated from with the approval of the VA.

## 5. DELIVERABLES

- A. Phasing Schedule:** Submit a phasing schedule that includes the specific timeframe of the design process, internal document review process and submission and VA review timeframes. Schedule should include consideration for coordinating access to secure or restricted areas and impact to the facility during evaluation.
- B. QA/QC Plan:** N/A.
- C. Schedule of Values:** The Contractor shall submit a Schedule of Values (SOV) within 3 calendar days following the Notice to Proceed for COR review and approval. The SOV shall be of such detail that determination of work progress shall be specific and clearly measurable, and shall conform to the Payment Schedule shown below.
- D. Construction Documents:** Submit three (3) bound hardcopies of preliminary plans, 1-full size and 2- half size; and 2 CD's containing both PDF and DWG formats of the plans. The CONTRACTOR shall provide a full set of project drawings showing the scope and plan for each discipline involved to the minimum completion level described below.

(1) All Disciplines:

- (a) Demolition: Show what will remain during construction.
- (b) Show and identify existing conditions, sections, elevations, details, dimensions, and capacities as required for the existing and proposed fire sprinkler system. The contractor shall site verify all items.
- (c) Show items to be removed, all disciplines.
- (d) Provide symbol sheets and explanation of detail symbols used.

(2) Architectural:

- (a) Show floor plans that include rooms, windows, corridors, and closets, mechanical, electrical, and other spaces. All rooms and spaces shall be numbered and labeled.

(3) Structural:

- (a) Show existing conditions and how new work interfaces if impacted by the new fire sprinkler design.
  - (b) Show locations and layout of any additional structural modifications necessary to support the new fire sprinkler design.
- (4) Plumbing:
- (a) Show locations of existing fire sprinkler related plumbing lines if impacted by the new fire sprinkler design.
  - (b) Show preliminary relocations of any fire sprinkler plumbing utilities affected by the new fire sprinkler design.
- (5) Electrical:
- (a) Show any existing fire sprinkler related electrical systems within the project area affected by the new fire sprinkler design.

**E. As-Built Drawings:** At project completion, the contractor shall incorporate the as-built drawings and furnish an updated set of CD-ROM's with both PDF and AutoCAD format, and a set of "record" Mylar drawings. The AutoCAD drawings shall each be bound (without x-references) but not assembled in a book format. The government will provide the marked-up (red-line) "as-built" drawings from the in-house construction crew.

**F. Deliverable Schedule:** Contract duration for Construction Document deliverables on this project is 30 calendar days. The contractor shall meet with the project COR to discuss and outline phasing requirements for the evaluation. These phasing requirements shall describe the general sequence of the evaluation, estimated duration, and what Government constraints that might exist, impacting the design schedule. The contractor shall be responsible for recording the phasing requirements and submitting to the Government for approval. If the contractor has a conflict with the deliverable schedule deadlines as outlined below, the contractor shall submit a proposed Deliverable Schedule to the VA for review within 3 calendar days of the NTP. The VA shall be allotted a minimum of 3 calendar days for review of submitted documentation, and written response. Written responses will be provided to the contractor at the scheduled review meeting and site walk for each submission.

Item Number	Item Description	Deliverable Date <sup>1</sup>
1	Submit Phasing Schedule	NTP + 3 calendar days
2	Submit Schedule of Values (SOV)	NTP + 3 calendar days
3	50% Construction Document Drawings and Preliminary Fire Sprinkler Sizing Calculations	NTP + 14 calendar days
4	100% Construction Document Drawings and Final Fire Sprinkler Sizing Calculations	NTP + 10 calendar days
<sup>1</sup> In the event a submission day falls on a weekend or Federal Holiday the required submission/completion date shall be the next Federal Work Day.		

**G. Installation:** Contract duration for complete installation of the fire sprinkler system is 30 calendar days after completion and government acceptance of the final fire sprinkler design and sizing calculations. Therefore, the entire contract duration is 60 calendar days from the Notice

to Proceed.

## 6. **PAYMENT:**

The Contractor shall submit a Schedule of Values (SOV) within 3 days following the NTP for COR review and approval. The SOV shall be of such detail that determination of work progress shall be specific and clearly measurable, and shall conform to the Payment Schedule shown below. All Progress Payment requests shall be submitted for review and approval by the COR prior to faxed submission to Austin, Texas. Payment will not be processed until at least seven (7) business days after faxed receipt of contractor's approved invoice. Note, pay requests may be submitted outside of the submission schedule by mutual agreement of the parties.

Item Number	Item Description	Payment Schedule <sup>12</sup>
1	Submit Phasing Schedule & SOV	
2	Submit 50% Construction Documents	
3	Submit 100% Construction Documents	35%
4	Installation at 50% Completion	25%
5	Installation at 100% Completion	25%
6	Testing of Fire Sprinkler System	10%
7	"As-Built" AutoCAD Drawings	5%
<sup>1</sup> In the event a submission day falls on a weekend or Federal Holiday the required submission/completion date shall be the next Federal Work Day. <sup>2</sup> Payment will not be released until submission item has been completed to the full acceptance of the VA.		

## 7. **PROPOSAL REQUIREMENTS:**

- A. Proposal shall be submitted in accordance with VAAR 836.606-71, on VA Form 08-6298 "Fee Proposal", Parts I through III along with the certification. Form may be accessed electronically at: <http://www4.va.gov/vaforms/medical/pdf/vha-10-6298.pdf>.

If you have difficulties accessing this internet address, please contact the Contracting Office, and a copy of the form will can be sent to you via email and/or by mail. Proposals shall be received by the due date stipulated.

- B. Technical and Cost sections of the proposal will be evaluated independently. Carefully follow proposal submission instructions stipulated. Offeror shall include all required Representations and Certifications; and acknowledge receiving any/all amendments by number.
- C. If determined to be necessary, proposal revisions will be requested from the offeror after receipt. The Contracting Officer will make any such request.
- D. The VA Central California Healthcare System requires mandatory site visits by the potential Contractor prior to submission of any cost proposal to the Contracting Officer.

## 8. **ADDITIONAL SERVICES:**

If additional services are necessary to be performed by consultants, submit criteria for the work to be performed to the VA Contracting Officer as soon as possible. Upon approval of the criteria by the Contracting Officer, submit proposals and qualifications of at least three firms being considered for the work in accordance with the contract procedures (CP1) of the contract, together with a proposal from the recommended firm and a brief justification for its selection, for VA approval.

**9. DEFINITIONS:**

- A. Contracting Officer (CO): The services to be performed under this contract are subject to the general supervision, direction, control and approval of the Contracting Officer.
- B. Contracting Officer's Representative (COR): The Contracting Officer's authorized representative at the construction site. His/her duties include surveillance of all construction work to assure compliance with the contract documents, interpretation of the contract documents, approval of changed work, approval of all submittals, samples, shop drawings, etc.

\*\*\* END \*\*\*