IDIQ MATOC FOR CONSTRUCTION SERVICES
DESIGN BUILD PROJECT FOR US ARMY CORPS OF ENGINEERS
NELLIS AIR FORCE BASE – F35A FLIGHT SIMULATOR
REQUEST FOR PROPOSALS

INTRODUCTION

Your firm is invited to submit a proposal for providing Design-Build services for the US Army Corps of Engineers through the Indefinite Delivery Indefinite Quantity (IDIQ) Multiple Award Task Order Contract (MATOC) for the design-build construction of the Nellis Air Force Base – F35A Flight Simulator Building.

OBJECTIVE

The primary project objective is to complete the construction of the Nellis AFB – F35A Flight Simulator Building by January 31, 2016 within the budgeted dollar amount of Ten Million Dollars ($10,000,000.00). This Project shall construct a new 20,000 square foot F-35 Flight Simulator Facility, Building 1706 (hereafter, "the Project"). The facility will feature state-of-the-art training capabilities to address the training, operational test & evaluation, tactics development, and USAF's Weapons School requirements for the Air Force's new F-35 fighter aircraft.

NELLIS AIR FORCE BASE & PROJECT BACKGROUND/HISTORY

The Project will support the 36 new F-35A aircraft that are slated to start arriving at Nellis AFB in FY15. The design incorporates four simulator bays featuring state-of-the-art, full mission simulators with adjacent computer equipment and instructor/operator stations (IOS). A central core, flanked by Simulator bays and circumnavigated by the main circulation corridors, will contain supporting spaces including Brief/De-Brief rooms and Mission Planning suite. An entry lobby with. Security offices will allow vigilance of entry doors, controlling access to the facility and control access to the simulator/training areas. Support functions including maintenance & delivery areas, communication rooms and mechanical functions have been strategically located to allow ease of expansion. The entire facility has been conceived as expandable modules to account for expanding and/or changing mission requirements. The design will conform to the current Base Architectural Standards, Lockheed Martin F-35 FRD Dated Feb-26-2010, Rev.0007 and all applicable guidelines.

PROJECT LOCATION DESCRIPTION

The site selected is located at Nellis Air Force Base, outside of Las Vegas, Nevada – adjacent to the existing BRAC Simulator facility to the east and the future Fitness Center to the west. The site, located along Kinley Drive, offers a prominent location with opportunities for high visibility and identity for the facility. Similarly, it's adjacency to the existing BRAC Simulator facility will create opportunities for synergy in training and operations. Project is located in the Mojave Desert Region which receives only 3 to 4 inches of rainfall each year. Summers are typical with climate averaging 131 days above 90 degrees with low humidity. Summers nights average between 70 to 75 degrees. Winters are mild averaging 60 degrees with a minimum of 35 degrees at night.

SCOPE OF WORK INCLUSIONS:

- Coordination, execution, and guarantee of all design and construction work.
- The design incorporates four simulator bays featuring state of the art, full mission simulators with adjacent computer equipment and instructor/operator stations.
- The Design-Builder should incorporate features that allow for the future expansion of additional flight simulator modules to support the changing mission needs.

- The building shall not impede base flight paths. As such, the basis of design is a single story structure; however, alternates will be reviewed if presented with information showing that no flight paths are impacted.
- The building shall be approximately 20,000 square feet.
- The design incorporates: a central core, flanked by simulator bays and circumnavigated by the main circulation corridors, it will contain supporting spaces including brief/de-brief rooms and mission planning.
- Access to the simulator/training areas shall be controlled via security office.
- Equipment, hardware, and materials shall be standard manufactured domestic items unless otherwise specified. Replacement parts shall be standard and readily available through commercial means. Discontinued products will not be accepted unless approved by the Contracting Officer.
- The design shall adhere to the Nellis Air Force Base Design Compatibility Guidelines included herein for reference.
- Each flight simulator shall require a 30' x 40' clear room with dedicated, secured exterior entry door at least 6'-0" into the space. Provide 16'-6" clear height in the room. All walls and door assemblies into this space shall maintain a minimum rating of STC 50.
- Structural/Civil Requirements:
    A. Based upon the Geotechnical Evaluation the soil materials are classified as Category 4C
    B. Type of Construction: Type IIB
    C. Reference Utility Plan sheets C-01 C-03. POC's for utilities may be outside of the project boundary. The contractor shall be responsible for extending work beyond the contruction boundary shown for all necessary utility connections.
    D. Runoff may be collected and routed by either surface drainage systems or underground. Surface drainage systems shall have an erosion control surface along the flow line.
    E. Existing utilities are shown per Utility Plan sheet C-02. Any utilities requiring relocation shall be relocated at least 5 feet outside of the Building footprint.
    F. The Desert climate brings high winds and dust and sand storms which can blow in excess of 50 MPH. Building should be designed to withstand wind loads of 90 MPH, Category C exposure.
    G. The area can be attributed to major earthquakes (M>6.5). Building should be designed to Seismic Design Category: D.
    H. The Structural System shall be designed and constructed to safely support all permanent and temporary Loads: Live Loads: 20 psf(reducible), Snow: 5 psf.
    I. Foundation Design should be in accordance with the recommendations of the Geotechnical Evaluaiton by GES. The foundation system shall utilize conventional shall spread footings and strip footings and ground support floor slabs unless otherwise recommended by the Geotechnical Evaluation.
- Mechanical/Electrical/Plumbing/Fire Sprinkler Requirements:
    A. Summer Indoor Design, Mechanical Room: Mechanical rooms for this climate zone are known to achieve high temperatures that impact equipment efficiencies and/or the operation of sensitive equipment such as controls. Contractor shall insure that all equipment is rated for such an environment and/or provide the necessary operating environment i.e. providing a fan coil unit to cool the room.
    B. Domestic Water Heating Systems: A domestic water heater shall be provided and located in the Janitor Room. Contractor shall pursue feasibility of solar heating hot water. Domestic water heating system shall have a minimum thermal efficiency of no less than 80 percent. Refer to UFC 3-420-01, Plumbing Systems Table 506 "Water Service

Temperatures" for domestic water temperature. The water heater shall be provided with fully automatic controls with safety controls.

C. Water Softner: Provide water treatment for mechanical equipment (evaporative chiller and hot water boiler) per UFC 3-230-08A Water Supply/Water Treatment Section 2-10.9.1. The hardness of the North Las Vegas Water District water is about 300 parts per million (ppm) or 17.5 rains per gallon, categorized as "Very Hard".
D. Conductors. Wiring shall consist of 600-volt insulated single conductors type THWN, THHN, or THW conforming to UL 83, installed in raceways consisting of electrical metallic tubing, intermediate metal conduit (IMC), or rigid galvanized steel conduit (RGS). Flexible metallic conduit shall be provided to vibrating equipment where required. Non-metallic sheathed cables and Electrical Non-Metallic Tubing (ENT) are not allowed. Conductors shall be copper only. Use of Metal Clad or Armored Cable is not allowed. Branch circuit conductors shall not be smaller than No. 12 AWG.
E. Non-Linear Loads. Due to a high concentration of nonlinear loads, provide 200% rated neutral buses in all Flight Simulator related panel boards along with associated 200% rated neutral conductors to the panels. In addition, provide K-rated transformers for all Flight Simulator related loads.
F. Load Separation. Provide separate panels for Flight Simulator related loads from non-Flight Simulator related loads.
G. Standby and UPS Power: The Flight Simulator Building will not utilize standby power. Uninterruptible Power Supplies (UPS) are provided by others for an orderly shut down of equipment in the case of a power outage.
H. Light Fixture Quality. All light fixtures and their components shall be "premium-grade".

- The Design-Builder shall comply with the Davis Bacon Act
- The Design-Builder shall abide by the Federal Acquisition Regulation
- The Design-Build project team shall include one dedicated quality control manager who has the ability to stop work. This role shall report directly to company executives independent of the project team.
- The Design-Build project team shall include one dedicated safety manager who has the ability to stop work. This role shall report directly to company executives independent of the project team.
- The Design-Builder shall comply with the Buy American Act.

SCOPE OF WORK EXCLUSIONS:

- Fees for code compliance plan check, seismic peer review, and special testing will be paid by the Army Corp of Engineers.

OPPORTUNITIES & CHALLENGES:

- Design-Builder's operations shall be conducted so that they offer the least possible obstruction and inconvenience to the public and to the Nellis Air Force Base.
- Protect community residents from the effects of excessive, intrusive, and intermittent noise.

LEED CERTIFICATION:

Nellis Air Force Base is committed to promoting sustainable practices. Design-Builders are required to design and build the F35A Flight Simulator Project in a way that minimizes detrimental environmental impact throughout the life of the building and which promotes a positive physical environment for learning. The following are LEED requirements:

- Achieve LEED Silver Certification, per LEED V3.0 for New Construction.

- Calculate the number of credits achieved using the LEED Project Scorecard.
- The proposed quantity of LEED points will become a specification of the work to be provided under the contract.
- The proposal shall include a "Project Sustainable Design Analysis." A LEED Checklist by itself does NOT meet this requirement. Using the LEED checklist as a guide, the Project Sustainable Design Analysis shall fully address each sustainable design feature incorporated into the project; shall discuss why other features were not included; shall discuss synergies between sustainable features; and shall clearly describe construction-phase sustainable design features and activities.

BUILDING INFORMATION MODELING:

- Use of BIM in the design, coordination, and scheduling of the project is required. The extent to which BIM is used is to be determined by the Design-Builder.

BUDGET & SCHEDULE:

- Proposals must include costs on a Guaranteed Maximum Price basis. All submissions must be made with the understanding that the price quotation remains in effect for a period of ninety (90) days from the Proposal opening due date.
- The design-build contract cost maximum is $10,000,000. Proposals in excess of this amount will be considered non-responsive.
- Ideally, the building must be complete, and process fully functional by July 3, 2015.
- Disruption of utilities required by the execution of work of this contract shall be scheduled at the convenience of Nellis Air Foce Base. Major disruptions, such as interruption of power to other buildings, shall be planned 60 days in advance.

SUPPLEMENTAL INFORMATION

PROJECT TIME LINE

- **Contract Award** **3/1/2014**
- **Notice to Proceed** **3/15/2014**

DOCUMENTATION REQUIREMENTS

Upon substantial completion the successful Design-Builder will be required to submit as-built floor plans on a Computer Aided Design (CAD) program that is compatible with MicroStation V7, unless otherwise negotiated and approved. The required file extension is .DGN. Clean and purged files shall be submitted on CD-ROM or electronically to the San Joaquin Community Hospital. All submission shall be accompanied with written matrix indicating the layering standard to ensure that all information is recoverable. All architectural features of the space shall be accurately shown. Plans must be submitted after construction completion and prior to beneficial occupancy. Failure to provide accurate floor plans may result in payment being withheld.

SELECTION PROCESS AND SCHEDULE

The Design-Build firms will be evaluated based on experience with similar projects, recent experience with projects of similar size and scope, credentials and availability of assigned personnel, and costs. We may elect to visit some of the projects that you have completed. The following is our anticipated process and timeline.

RFP Distribution: February 6, 2013

Qualification Due: February 6, 2013
Presentation Date: February 7, 2013
Selection Date: February 7, 2013

RFP RESPONSE REQUIREMENTS

OUTLINE FOR PROPOSALS

Design Build Teams shall use the following outline in the presentation of their solutions to this RFP. The proposal shall be concise and fully self-contained, and shall display clearly and accurately the information requested in the order and format indicated below. It is recommended that all submitted proposal content be capable of being converted to Adobe PDF format for consistency. Only one (1) electronic PDF formatted proposal will be required this year. **Do not submit proposal copy in 3-ring binder. Each section of the electronic copy of the proposal must be saved as a separate PDF file as follows:**

PDF files for each of the following documents shall be submitted via "USB jump drive":

Response For Proposals

Example File Name: School Prefix-001 (refer to "Electronic Processing of RFIs" memorandum)

- **Electronic File 001:** **Completed Form SF1442 (as Cover Letter)**
  Completed 00600 – Representations and Certifications
  Table of Contents

- **Electronic File 002:** **Project Management**
  Narratives of Safety Programs/Contracts/Site Logistics/Organization
  Traffic Control Plan

- **Electronic File 003:** **Design Solution (include floor plans, elevations, details, etc. as necessary to convey your design).**
  Construction Materials/Systems
  BIM techniques

- **Electronic File 004:** **Cost Proposal**

- **Electronic File 005:** **Proposed Schedule**

- **Electronic File 006:** **Exceptions, Clarifications**
  LEED Scorecard/Checklist
  Sustainable solutions

- **Electronic File 007:** **Addendum Acknowledgement Forms**

Thursday, February 6, 2013

- 6:00 am – Pre-Bid Meeting – Pre-Qualifications

- Submittal of Statement of Qualifications due (1) Electronic copy on CD
- All Team Members are required to attend.

- 9:00 am – One copy of Conceptual Design Due
  - Include at least 3 quality sketches/diagrams that best illustrate your design at this phase, also include brief written description. At a minimum, general schematic diagram showing building shape and orientation on site, and elevations or details identifying any architectural elements.

- 11:00 am – Deadline for all RFI's.
  - Use RFI format provided only.

- 12:30 pm – RFI responses returned to D/B teams.

Proposals to be delivered electronically.

- Acceptable document formats include:
  - PDF in Adobe Standard 9.0 or earlier
  - MS Word, Excel, and PowerPoint – 2007 or earlier
  - MS Project 2000 or earlier, SureTrak 3.0
  - AutoCAD: Compatible with AutoCAD LT 2006
- 9:00 pm – One (1) electronic colored copy of Design-Build Proposal Due

- 11:00 pm – Proposal Presentation Materials due and PDF Files of hard copy proposal.

Friday, February 7, 2010

- 6:00 am – Presentation drawing
- 9:00 am - Presentations begin
- 7:00 pm - Swinerton Builders presentation of problem solution and answer questions

Transmittal Letter:

Provide a transmittal letter identifying the prime Design-Builder and Design-Build Team. Introduce and summarize the overall approach and outcome of the D/B team efforts and note any outstanding characteristics of the D/B proposal presented. Confirm that all requested requirements have been met in the proposal, or briefly summarize those elements that could not be provided.

Table of Contents:

The Table of Contents shall list all Proposal sections as outlined herein.

Project Management:

Provide a detailed Organization Chart for your proposed team, and correlate in with a detailed Project Management Plan. The proposal should include **each team member's real resume.** The Project Management Plan should clearly communicate your specific plans for controlling the design and construction efforts. Identify all the major risks included in the project and how will the contractor solve or avoid them.

The D/B team shall clarify in a narrative site plan on a site utilization plan that will include materials staging, temporary field office, employee parking and other activities sown in the design solution material.

Conceptual Design Submittal:

Provide at least three sketches, plans, or diagrams, which best explain your design and circulation at this phase. The way in which the design is presented (sketches, diagrams, plans, etc.) is of your choosing. Include a brief summary of your approach to the design portion, and the team intention with the design. Turn in one copy.

Provide a concept design presentation that effectively proposes solutions to the design challenges presented by this project. Presentation materials submitted with the Proposal shall be the same 8 ½ " x 11" proposal package, for the selection committee review prior to D/B team presentations and interviews.

The A/E written narrative should include but is not limited to:

- A description of the proposed architectural concept, façade, interior space development, and utility routing design. How will this building suit the needs of the owner? How will it suit the needs of the users?

- A narrative of how the D/B team shall manage the design phase. The following categories are an example of additional areas in which the design team may need to manage additional consultants in: Civil Engineering, Landscape Design, Structural Engineering, Fire Protection, MEP, Security, etc.

- The written narrative should describe how the proposed concept design responds to the requirements of the problem. Following the submittal of Design-Build proposals, which include the concept design presentation materials described above.

- Provide a written narrative to briefly describe the nature and quality of the building systems and materials proposed for the project. Include why the systems and materials were chosen. Describe the design philosophy of where available funds would be allocated to assure long-term project success.

- The narrative should include general information regarding proposed materials and systems in the following areas:
  - Structural System Concept
  - Hardscape & Landscape Materials
  - Exterior Building Finish Materials & Textures
  - MEP Systems
  - Special Consideration for Fire Protection
  - Utility Service Provisions
  - Interior Design & Space Planning

Itemized Cost Proposal:

Provide an itemized cost breakdown (budget) that corresponds with the turnkey provisions of the concept design, program, schedule, construction systems & materials.

Proposal may include the following:

- Design/Engineering
- Site Work/Improvements
- Construction

- Construction Inspections, including quality control and quality assurance testing
- Administration and General Conditions as required
- Professional Fees
- Design Surveys and Investigations
- LEED Certification & Fees

Use proposed estimate summary sheet provided for the overall summary of your estimate. Enter numbers in excel format and place the estimate summary in front of the detailed estimate. The detailed itemized cost breakdown shall be categorized by Uniformat Divisions. Provide both construction and design cost. A schedule of values is also required. Also include a separate breakdown of General Conditions, show fee.

***All the backup sheets need to be attached to the proposal in order to receive scores.**

Schedule:

Provide a detailed Bar Chart **AND** a logic diagram in PERT or PDM with minimal 75 activities. Include design reviews in the schedule. Think about what takes place at each of these phases.

The schedule should clearly identify all project phases, major activities and duration, major milestones, owner activities, and major disruptions. The schedule should at least indicate the following categories, activity description and ID, early start, late start, early finish, late finish, total float, and duration. Copies of the schedule should be provided in the Proposal. Manpower loaded schedules are note required but welcomed.

Also provide a brief narrative of the project phasing/scheduling approach to be utilized. Identify assumptions, risks and benefits. Describe the Owner's and Designer's responsibilities in assuring the schedule success with this approach. Identify Pre-Construction Activities: such as procurement items, permitting, design review, etc.

Establish a schedule including at a minimum the following milestones:

- 100% DD complete
- 100% CD complete
- Long lead procurement
- Mobilize / start work
- Set transformer
- Place foundation
- Erect structure
- Building dry-in
- MEP wall rough-in complete
- Test Building MEP System
- Building Commissioning

The Design-Build team shall specify how much allowance, if any has been made for inclement weather in the schedule. The D/B team shall also specify the days of the week and the hours of the construction operations during each phase of the work.

Exceptions and Clarifications:

Several assumptions will need to be made throughout the Design-Build process. Include all the design, estimate, scheduling assumptions and value engineering proposals and ideas in this section.

LEED Checklist:

Complete LEED v3.0 checklist and provide narrative on innovative techniques and/or materials to be used in the construction of the facility.

Presentation:

Each proposing Design-Build team will be scheduled for a presentation/interview, where the Design Build team may present the full sized presentation materials prepared. It is anticipated that the presentations will be limited to 30 minutes with an additional 10 minutes for Q&A.

Judging Criteria:

The following is a percentage breakdown for the Design-Build Competition:

- **Pre-qualification Submittal** **5%**

- **RFP Response** **70%**
  - Construction Management Plan 10%
  - Design/BIM 15%
  - Schedule 15%
  - Estimating/Pricing 15%
  - LEED/Exceptions & Clarifications 15%

- **Presentation Materials** **5%**

- **Oral Presentation & Interview** **20%**

Thank you and Good luck!