LAUGHLIN AIR FORCE BASE
DIVISION 01 SPECIFICATIONS
FOR CONSTRUCTION PROJECTS
LAUGHLIN AIR FORCE BASE

PROJECT: LAFB WEST GATE DCC
DATE: 02-12-16
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-1 Project Description

Provide all documents, labor, materials, equipment, and oversight to construct West Gate Defense Control Centers, Laughlin AFB (LAFB), Texas.

The Defense Control Center will bring Laughlin up to current defense security standards by meeting all Air Force Specifications, including checkpoints for commercial traffic, turn-around lanes, and allowing for easier control over installation access for civilian contractors, suppliers and visitors to LAFB. These entities/individuals would enter through a controlled area and if denied entry would not have access to the base.

The building site consists of approximately 108,000 sq.ft. The site is immediately adjacent to the existing west gate on Laughlin Drive/FM 317.

The building construction is to be hardened utilizing reinforced concrete walls inside of insulated concrete forms and a hardened roof beneath a pitched standing seam metal roof. The exterior will be finished in colors and texture to match LAFB architectural design standards. The building will also be designed to meet the Green Building Council LEED criteria, Version 3, silver certification.

The project is to construct a site that has 4,572 sq.ft. single level building of which 2,600 sq.ft. is air-conditioned office space. The remaining adjacent 1,972 sq.ft. is a non air-conditioned vehicle bay, which will be used for security inspection of large commercial vehicles.

The building classification will be Business-Group B, Factory, F-1, construction type 11, unsprinkled.

Occupant load will be 11 occupants in the Office (B), 2 occupants in the inspection (F-1) for a total of 13 building occupants. Occupant load based upon building square footage is 26, which was used to calculate existing requirements.

Parking does not require a minimum number of spaces; 12 public spaces are provided, with 1 van accessible space. Security "Force parking requires 5 spaces; 10 are provided, including 1 accessible space.

The project is for construction, not design build.

Timeline:

LAFB-Defense Control Center (DCC) (Preliminary – Subject to Revision)

-2 Regulatory Requirements

a. The project shall conform to all applicable Federal, State and local laws, regulations and base-specific standards and applicable Unified Facilities Criteria (UFC). Where there is a conflict...
between the referenced standards, the most stringent shall take precedence. All work accomplished by the Contractor shall comply with these criteria unless a waiver is obtained from the Laughlin AFB when conditions warrant such consideration.

b. The Contractor shall ensure that only qualified, competent personnel carry out the tasks outlined in this SOW. Competent is defined as a registered professional or, where registration is not applicable, trained and/or certified in the respective field.

-3 Warranty Requirements
  a. The General Contractor provides all warranties required in the specifications for this project.

-4 Pre-Construction Conferences
Prior to commencing design or construction work, the Contractor shall meet with the 47 Civil Engineer Squadron Project Management personnel (47 CES/CENMP) and other designated technical personnel at a mutually agreeable time to discuss and develop mutual understandings concerning the design and construction progress schedule and the administration of work.

-5 Working Hours
  a. The Contractor's working hours shall be between 0730 and 1630, with no work expected on weekends and Federal holidays. Permission to work at times other than those stated above must be obtained from the 47 CES/CENMP at least three working days in advance. As permission may not always be granted, the Contractor's schedule should never rely on accomplishing work at times other than those stated above.

  b. No work will be allowed during quiet times for special events. Graduation ceremonies typically occur once every three weeks and require quiet times from 1600 to 2000 on Thursday and Friday evenings as well as 0900 to 1000 on Friday morning. Times may vary. Unplanned events may occur during the life of the project. Coordinate with 47 CES/CENMP for specific dates and times as the project progresses.

  c. For those activities when work is prohibited, the Contractor shall have all equipment and materials removed and/or shall organize materials and equipment on the site as directed by the 47 CES/CENMP. The Contractor shall have the areas cleaned.

-6 Inspection of Work
  a. 47 CES/CENMP is designated as the office responsible for inspecting the work, while the Owners Representative is responsible for final acceptance of the work.

  b. The 47 CES/CENMP shall be given the opportunity, during regular business hours, to inspect any construction aspect that will be buried or hidden (e.g., utilities, mechanical systems, electrical wiring). The Contractor shall contact the 47 CES/CENMP at least 1 day in advance of enclosing, encasing, burying, etc., to arrange for inspection. If the Contractor is
unable to contact the 47 CES/CENMP they should contact the Owners Representative for assistance.

-7 **SUPERVISION OF WORK**
  a. The site superintendent or approved alternate and Quality Control Manager (QC) or approved alternate shall be on the job site any time work is being accomplished. THE QC AND SUPERINTENDENT MUST BOTH BE ONSITE DURING WORK.

  b. The qualifications of the superintendent, QC, and alternates shall be approved by the 47 CES/CENMP and Owners Representative prior to assuming their responsibilities and shall include a minimum of five years’ experience on similar projects. Qualifications shall be submitted to the 47 CES/CENMP and Owners Representative in resume format prior to the start of construction.

  c. The on-site superintendent shall be reachable by telephone at all times when work is being accomplished. The Contractor’s superintendent or contract manager shall be reachable by telephone 24 hours a day, seven days a week, for the duration of the contract.

-8 **SURVEY AND VERIFICATION OF EXISTING CONDITIONS**

The Contractor shall perform all surveying necessary to complete the work and shall be solely responsible for verification and validation of existing conditions, coordination of existing conditions in parallel with proposed requirements, and above- and below-grade condition assessment. Use of existing condition data provided by the Air Force or County does not relieve the Contractor of liability.

-9 **PROTECTION OF EXISTING WORK**
  a. At the completion of the project, existing work shall be in a condition equal to or better than the condition that existed before new work started.

  b. The Contractor shall remove or alter existing work in such a manner as to prevent damage to any portions of the existing work which remain. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as approved by the 47 CES/CENMP and Owners Representative.

  c. The Contractor shall investigate the adequacy of existing roads and their allowable load limit and shall repair any damage to existing roads caused by construction operations at no additional cost to the Government.

  d. Vehicular traffic on concrete walkway pavement shall be restricted to equipment with pneumatic tires.

  e. All work that must cross existing roads shall be accomplished by boring, rather than trenching. Trenching may be approved in special circumstances, but the Contractor shall not expect this or rely on it unless specified in the contract documents.

-10 **BASE ACCESS AND SECURITY**
- 1 CRIMINAL BACKGROUND INVESTIGATION check
  a. All contractors/subcontractors seeking to enter Laughlin AFB (LAFB) for employment must submit to a criminal history background check prior entering LAFB. A release form and spreadsheet template will be provided and must be completely filled out. Individuals will fill out one release form per person and the Contractor shall compile all copies and provide them with a completed spreadsheet to 47 SFS/S5 through the 47 CES/CENMP. Contractor personnel convicted of the following crimes (but not limited to) will not be allowed to work on LAFB: espionage, sabotage, treason or terrorism; felony convictions; violent crimes against persons; sex crimes; drug crimes related to distribution or intent to distribute; or firearms/explosives violations. Other grounds for exclusion for working on LAFB include, but are not limited to: unable to provide proof of U.S. citizenship, outstanding warrants, individuals identified on Federal terrorist watch lists, and incarceration for 12 months or longer within the past three years. Deviations from this guideline are permitted on a case by case basis as determined by 47 SFS/CC and/or the 47 FTW/CC. Any release form/spreadsheet not correctly filled out will be considered incomplete and that contractor employee will not be granted access onto LAFB.

  b. Background checks may take up to 4 weeks to process and will be considered valid for a period of 12 months for contractors without a break in service working on LAFB during that time. However, if there is a break in service (work on base) for longer than 6 months, the Contractor will have to resubmit to a criminal background check.

  c. All contractor/subcontractor personnel obtaining a satisfactory criminal history background check must obtain a long (24 hrs-2 yrs) or short term (less than 24 hrs) AF Form 75 or contractor badge to enter the installation. The Contractor must provide a valid US Government issued identification. Identification must have person’s picture at time of obtaining AF Form 75 and/or contractor badge. If the contractor/subcontractor is requesting a vehicle pass he/she must provide a valid drivers license, vehicle registration and insurance meeting the minimum Texas liability coverage. Contractor/subcontractor will report all lost, stolen or missing AF Form 75s and/or contractor badges to 47 SFS immediately upon discovery. All AF Form 75 and/or contractor badges will be turned in at the completion of stated contract, termination of employee, debarment from base, released from contract, and/or Government terminates contract. Failure to follow stated procedures may prevent contractor/subcontractor from further qualifying for base access.

  d. Short-notice passes may be considered on a case-by-case basis and are subject to approval by the 47 CES/CENMP and Owners Representative with coordination of 47 SFS/S5 and 47 FTW/ATO personnel. Contractors are expected to do advance planning to the maximum extent practicable to minimize short notice pass requests.

- 2 BASE POLICIES
  a. All persons entering the base must present valid identification at base entrances.

  b. While operating any vehicle on base, all drivers must have in their possession a valid driver’s license, valid vehicle registration, and proof of vehicle insurance. If a vehicle is
registered to someone other than the operator, the operator must provide a notarized letter from the registered owner, authorizing the operator permission to operate the vehicle.

c. Access to the base may sometimes be delayed by 60 minutes or more due to security precautions, including the checking of vehicle occupants’ IDs, vehicle manifests, and the searching of all vehicles. Longer wait times may occur in the event of an emergency.

d. Contractors, subcontractors, and all personnel who report for work and do not know the location of the jobsite will be held at the main gate to await escort service from the construction superintendent or other designated representative.

e. Base speed limits are strictly enforced with the use of radar equipment. The base speed limit is 5 mph in service drives and parking lots, 15 mph in housing areas, 20 mph on Barnes Street, and 30 mph everywhere else, unless otherwise posted.

f. Motorcycle operators/riders must wear protective headgear (helmets), gloves, goggles, close toed shoes, long pants, and a reflective belt or vest at all times while riding on base.

g. Mandatory seatbelt laws are in effect on base and personnel are not permitted to ride in the beds of trucks. Seatbelts must be fastened prior to entering the base.

h. No privately owned weapons or contraband (drugs, etc.) are permitted on any military installation, at any time. Violators will be prosecuted through the Federal Magistrates Court. Cameras are to be used for construction documentation only. Any photographs that need to be taken relative to the construction site must be coordinated with the 47 CES/CENMP and Owners Representative.

i. Laughlin Air Force Base is considered to be a closed facility. No unauthorized tours or visitors will be allowed on the installation.

j. Cell phone usage while driving on base is not permitted, unless communication to device is “hands free”.

k. Contractors and personnel shall obey all posted directives and adhere to Security Forces direction and instructions.

l. Failure to comply with base policies may result in loss of driving privileges or debarment.

11 Outages and Closures

a. Any utility and communications outages necessitated by the work shall be requested in writing at least 14 calendar days prior to the proposed outage. The request shall be directed to the 47 CES/CENMP and Owners Representative and shall stipulate the specific utility system(s) to be affected and the proposed duration for the outage. Primary electrical outages including those that require power to be shut off at the transformer must be requested, in writing, 21 calendar days in advance, no exceptions.
b. If utilities are considered main utilities (water mains, overhead electrical, etc.), then 47 CES must provide this shutdown, but all other utilities should be de-energized or disconnected by the Contractor. The Contractor will provide the necessary lock-out tag devices to ensure utilities will not be energized or turned on. The Contractor shall coordinate lockout/tagout with the 47 CES/CENMP.

c. All street and parking lot closures necessitated by the work shall be requested in writing at least 14 calendar days prior to the proposed closure. The Contractor shall comply with the recommendations contained in Part 6 of the U.S. Department of Transportation, Federal Highway Administration’s Manual on Uniform Traffic Control Devices and TxDOT’s Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges to ensure proper warning to motorists. Adequate traffic control devices shall be provided by the Contractor. The Contractor shall submit a complete traffic control plan for approval by the base. Work cannot begin until the traffic control plan is approved.

d. All base access gate closures necessitated by the work shall be requested in writing at least 45 calendar days prior to the proposed closure.

-12 PRIVATIZED ELECTRICAL INFRASTRUCTURE

a. On Laughlin AFB, all primary electrical infrastructure including lines, poles, and transformers are owned by Rio Grande Electric Cooperative, Inc. (RGEC). Secondary electrical infrastructure such as electrical lines and panels inside of buildings are owned by Laughlin AFB.

b. Any work done on existing primary electrical infrastructure shall be completed by RGEC. This includes connections to the transformer on the primary side, but not connections to the transformer on the secondary side. The prime contractor shall subcontract all work on existing primary electrical infrastructure to RGEC.

c. Any work done to construct new primary electrical infrastructure must conform the RGEC specifications and with the exception of making the connection to the distribution system, can be completed by the prime contractor, subcontracted to RGEC, or subcontracted to a different contractor. If RGEC does not complete the work themselves, they have the right to inspect the work completed prior to taking ownership. The prime contractor shall coordinate this inspection with RGEC and pay all inspection fees required. The contractor will be required to re-do any work that does not meet RGEC’s specifications at no additional cost to the Government. The prime contractor shall subcontract any work to connect to the distribution system to RGEC.

d. All underground primary electrical shall be installed underground in conduit and encased in 3000 psi red pigmented concrete. An additional conduit will be installed for backup purposes. The work shall meet the requirements of UFGS specs 33 70 02.00 10 and 33 70 02.00 20.

-13 SALVAGE MATERIAL AND EQUIPMENT
Existing fencing, gates and Jersey Barriers shall be salvaged and installed at a new location as shown on the plans.

-14 BID
This contract will be awarded as a lump sum.

1-14.1 QUANTITY BASED PAYMENT ITEMS
Quantity Based Payment Items shall constitute full compensation for furnishing all plant, labor, materials, equipment, testing, reports, and for performing all work required for each of the unit price items. Payments are to be made based on measured quantities installed in the field. The Contractor shall notify the 47 CES/CENMP and Owners Representative prior to initiating work if there is a discrepancy between the quantity appearing on the Unit Prices Form and the actual quantity anticipated. The Contractor shall not be compensated for overruns that are not approved by the 47 CES/CENMP and Owners Representative in writing prior to installation. Specific information for measurement and payment of each line item is provided in the technical sections of the specifications.

- .1 LUMP SUM BASED PAYMENT ITEMS
  a. Lump Sum Payment Items consist of, mobilization, demobilization, and general conditions. These items shall constitute full compensation for performing all work required for which a separate payment is not otherwise provided.
  b. The Mobilization item shall include, but not be limited to, mobilization of personnel, equipment, and materials to the work site, and other contract expenses prior to the beginning of construction work.
  c. The Demobilization item shall consist of all work necessary to clear the work site and return equipment of all types to the Contractor’s offsite facility. Required site clean-up and restoration shall be included in this item.
  d. The General Conditions shall include the cost of any required payment and performance bonds, project insurance, project schedule, safety and environmental planning, construction quality control, submittal preparation, project photographs, contractor offices, and any other contractor costs not specifically called out for on the unit prices form.
  e. This project will require X written Notices to Proceed (NTP) from the 47 CES/CENMP and Owners Representative:
     1. NTP #1 will be issued for material submittals. The Period of Performance for this work shall be X calendar days.
     2. NTP #2 will be issued for Construction. The Period of Performance for this work shall be 365 calendar days.
  f. The Government reserves the right to not issue the Notice to Proceed for construction until the full period of performance for submittals and order and receipt of materials has
completely expired. The Notice to Proceed for any phase of construction will not be issued until the previous phase is complete and a Final Inspection has occurred.

g. A Schedule of Material Submittals is provided. All submittals shall be submitted according to the submittal schedule and all preconstruction submittals shall be approved within the period of performance for submittals and order and receipt of materials. If all submittals are not approved within the specified time frame, liquidated damages may be assessed.

-15 REQUIRED USE OF HIGH EFFICIENCY EXTERIOR LIGHTING

In response to Presidential Memorandum, the Air Force has mandated, where economically viable, the use of High Efficiency Lighting (HEL) for all major renovations and new construction of parking lots, roadways, and other facilities requiring exterior lighting. HEL includes induction and light-emitting diodes (LED).
SECTION 01-2   DELIVERABLES

-0 SUBMITTALS

- .1 GENERAL
a. 47 CES/CENMP and Owners Representative approval is required for all submittals.

b. Submittal requirements are specified in each section of the specifications. The Contractor shall make submittals as required by the specifications and scope of work.

c. Included in this solicitation is a Schedule of Material Submittals. The register is not all inclusive and submittals on additional items may be requested by the 47 CES/CENMP and Owners Representative.

d. The Contractor shall provide submittals according to the timeline specified on the Schedule of Material Submittals.

e. The Contractor shall ensure that no work begins or material/equipment is acquired until submittals for that work or item have been approved, except to the extent that a portion of work must be accomplished as basis of a submittal.

f. The Contractor shall complete work which must be accomplished as basis of a submittal in time to allow submittals to occur as scheduled.

g. The Contractor’s Quality Control (QC) Manager shall be responsible for reviewing and certifying all submittals are in compliance with contract requirements. The Contractor shall transmit submittals to the QC Manager to prevent delays in the work.

h. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements for each definable feature of work. Components of definable features interrelated as a system shall be submitted at same time. All of the various types of submittals required to evaluate a particular system, item, or material shall be submitted at the same time, including guarantees (when applicable). When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, submittal will be returned without review.

i. The Contractor shall be prepared to discuss submittal status during Partnering Meetings.

j. Submittals not requested may not be recognized or processed.

k. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings.

- .2 SUBMITTAL PROCESS
a. The Contractor shall transmit the number of paper and digital copies required for each type of submittal as described in Submittal Description (SD) Format and Quantity and furnish additional copies of submittals when requested by 47 CES/CENMP and Owners Representative, to a limit of 4 copies per submittal.

b. A signed AF Form 3000 shall be included with each paper and digital copy submitted. The digital copy must include a signed Form 3000 within the same PDF Document as the submittal itself.

c. Paper and digital copies of the same submittal shall be exactly identical.

d. Unless otherwise specified, all paper copies shall be provided on 8 1/2 by 11 inch paper. The Contractor shall bind together individual pages and indicate by prominent notation the contract number, project number (MXDP------), submittal number, specification number, and paragraph number to which it pertains.

e. The Contractor shall submit paper and digital copies such that information material is clearly identifiable and legible. When required for full understanding of the submittal, color PDFs and paper copies will be required. Submittals that are not clear, identifiable, and legible will be disapproved.

f. Digital copies can be e-mailed to the 47 CES/CENMP and Owners Representative, but the submittal will not be considered received until the required paper copies are delivered to each party.

g. The Contractor shall assign each AF Form 3000 a sequential Submission Number. When required, revised submittals shall be marked with the original number and sequential alphabetic suffix (e.g., 13A).

h. The Contractor shall complete all header information, specification section number and paragraph, and a complete description of information provided on the register. Each item listed on the form will follow the numbering sequence and description provided per the material register. For example, the material register states “Concrete Mix” with a line item as #20. The Contractor will place “#20” in the item number column with “Concrete Mix” under description column of the AF Form 3000. The Contractor will determine the submission number on this form, but should follow in sequence.

i. The QC Manager shall sign the AF Form 3000 certifying the submission has been reviewed and is in accordance with contract requirements.

j. The Contractor shall identify any and all variations from contract requirements.

k. The Contractor shall bring any limitations of products or systems which may be detrimental to successful performance of the completed work to the attention of the 47 CES/CENMP and Owners Representative.
l. The 47 CES/CENMP and Owners Representative shall be allowed 7 days for review of submittals.

m. Paper copies of submittals will not be returned to the Contractor.

n. The Contractor shall correct and resubmit disapproved submittals within 7 days of the disapproval date. When revised for resubmission, changes made since previous submissions shall be identified.

o. The Contractor shall update the Schedule of Material Submittals, completing the submittal number, date submitted to contracting, date disapproved and resubmitted (if applicable), and date of final approval as actions occur.

p. The Contractor shall retain a copy of approved submittals (including Contractor's copy of approved samples) at the project site throughout the life of the project.

- .3 CONSTRUCTION SUBMITTALS
Construction submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&I manuals (including parts lists); certifications; warranties; and other such required submittals.

- .1 Variations
a. Variations from contract requirements require 47 CES/CENMP and Owners Representative and will be considered where advantageous to Government.

b. Discussion with the 47 CES/CENMP, Owners Representative and Architect prior to submission will help ensure functional and quality requirements are met and minimize rejections and resubmittals. When contemplating a variation which results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).

c. For any proposed variations, the Contractor shall provide a letter on company letterhead stating the following information:

(1) How both the functional and quality requirements meet or exceed the minimum requirements of the contract and/or specific delivery order.

(2) Describe the nature and features of the variation and why the variation is desirable and beneficial to Government. Include an estimate of the cost savings, if applicable. Include the submittals required for the item. Clearly indicate the variation on submittal pages.

(3) Assurance from the Contractor and/or manufacturer, as applicable, that the variation will be compatible with other elements of the work.

(4) Any additional information requested by the 47 CES/CENMP and Owners Representative.
d. An additional 7 calendar days will be added, for a total of 14 calendar days for Government review of submittals with variations.

- Approval and Disapproval

a. Approved submittals authorize the Contractor to proceed with the work covered. The Contractor shall review the submittal for, and comply with, any conditions or other information indicated on, or attached to, the approved submittal. Approval of a separate material, product, or component does not imply approval of an assembly in which item functions.

b. The 47 CES/CENMP and Owners Representative’s approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information appear to meet the Solicitation and Accepted Proposal. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor is responsible for the satisfactory construction of all work. After submittals have been approved by the 47 CES/CENMP and Owners Representative, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

c. Disapproved submittals indicate submittal is incomplete or does not comply with design concept or requirements of the contract documents and shall be resubmitted with appropriate changes. No work shall proceed for this item until resubmittal is approved. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the clause 52.243-4 shall be given promptly to the 47 CES/CENMP and Owners Representative.

- Submittal Description (SD) Format and Quantity

Submittals are identified by SD numbers and titles as follows.

- .1 SD-01 Preconstruction Submittals

a. Preconstruction Submittals are those which are required prior to a Notice to Proceed for Construction. Preconstruction Submittals include all those submittals designated as Preconstruction Submittals in the specification sections and on the Schedule of Material Submittals.

b. Submit 1 paper copy and 1 digital copy (in PDF Format) of each submittal.

- .2 SD-02 Shop Drawings

a. SD-02 Shop Drawings include:

(1) Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

(2) Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.
(3) Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

b. Submit 2 paper copies and 1 digital copy (in PDF Format) of each submittal.

c. The Contractor shall comply with the following standards for SD-02 Shop Drawings:

   (1) Include on each drawing the drawing title, number, date, and revision numbers.

   (2) Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Identify materials and products for work shown.

   (3) Drawings shall include the nameplate data, size and capacity. Also include applicable Federal, military, industry and technical society publication references.

   (4) Paper copies shall not be less than 8-1/2 by 11 inches or more than 30 by 42 inches and shall be submitted in bound sets.

   . . . 3 SD-03 Product Data

   a. SD-03 Product Data includes:

      (1) Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.

      (2) Samples of warranty language when the contract requires extended product warranties.

b. Submit 1 paper copy and 1 digital copy (in PDF Format) of each submittal.

c. The Contractor shall comply with the following standards for SD-03 Product Data:

   (1) Present product data submittals for each section as a complete, bound volume. Include table of contents, listing page and catalog item numbers for product data.

   (2) Indicate, by prominent notation, each product which is being submitted; indicate specification section number and paragraph number to which it pertains.

   (3) Supplement product data with material prepared for project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for project, with information and format as required for submission of SD-07 Certificates.

   (4) Product data shall include the manufacturer’s name, trade name, place of manufacture, and catalog model or number. Submittals shall also include applicable Federal, military, industry and technical society publication references.
manufacturer's data require supplemental information for clarification, the supplemental information shall be submitted as specified for SD-07 Certificates.

(5) Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations such as American National Standards Institute (ANSI), ASTM International (ASTM), National Electrical Manufacturer’s Association (NEMA), Underwriters Laboratories (UL), and Association of Edison Illuminating Companies (AEIC), submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the 47 CES/CENMP and Owners Representative. The certificate shall state that the item has been tested in accordance with the specified organization’s test methods and that the item complies with the specified organization’s reference standard.

4 SD-04 Samples
   a. SD-04 Samples includes:

      (1) Fabricated or un-fabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

      (2) Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

      (3) Field samples and mockups constructed on the project site to establish standards by which the ensuing work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

   b. The Contractor shall furnish samples in sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately same size as specified:

      (1) Sample of Equipment or Device: Full size.

      (2) Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.

      (3) Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.

      (4) Sample of Linear Devices or Materials: 10-inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.

      (5) Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.

      (6) Color Selection Samples: 2 by 4 inches.
(7) Sample Panel: 4 by 4 feet.

(8) Sample Installation: As required.

c. The Contractor shall furnish the quantity of samples as stated below:

(1) When color, texture or pattern is specified by naming a particular manufacturer and style, include one sample of that manufacturer and style, for comparison.

(2) Submit one sample of each required item. For samples requiring a selection for various types, characteristics, etc, the Contractor shall submit two samples for three separate preferences of the Government, from which one will be chosen. One approved sample or set of samples will be retained by approving authority and one will be returned to Contractor.

(3) Submit one sample panel. Include components listed in technical section or as directed.

(4) Submit one sample installation, where directed.

(5) Where variations are unavoidable due to nature of the materials, submit sets of samples of not less than three units showing extremes and middle of range.

d. Incorporate returned samples into work only if so specified or indicated. Incorporated samples shall be in undamaged condition at time of use. Note and preserve the notation of area constituting sample installation but remove notation at final clean up of project.

e. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

. . . 5 SD-05 Design Data
a. SD-05 Design Data includes design calculations, mix designs, analyses or other data pertaining to a part of work.

b. Submit 1 paper copy and 1 digital copy (in PDF Format) of each submittal.

. . . 6 SD-06 Test Reports
a. SD-06 Test Reports includes:

(1) Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

(2) Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.
(3) Investigation reports

(4) Daily reports

(5) Final acceptance test and operational test procedure

b. Submit 1 paper copy and 1 digital copy (in PDF Format) of each submittal.

- . . 7 SD-08 Manufacturer’s Instructions
  a. SD-08 Manufacturer’s Instructions includes preprinted material describing installation of a product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.
  b. The Contractor shall comply with the following standards for SD-08 Manufacturer’s Instructions:
    (1) Submit manufacturer instructions in compliance with standards for SD-03 Product Data.
    (2) Submit MSDS sheets prior to bringing hazardous materials onto base.
    (3) Submit manufacturer’s instruction prior to installation.
  c. Submit 1 paper copy and 1 digital copy (in PDF Format) of each submittal.

- . . 8 SD-09 Manufacturer’s field Reports
  a. SD-09 Manufacturer’s Field Reports includes documentation of the testing and verification actions taken by manufacturer’s representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer’s standards or instructions.
  b. Submit 1 paper copy and 1 digital copy (in PDF Format) of each submittal.
  c. The Contractor shall comply with the following standards for SD-09 Manufacturer’s Field Reports:
    (1) Submit all test results; and indicate whether the material, product, or system has passed or failed the test.
    (2) Reports shall be signed by an authorized official of a testing laboratory or agency.

- . . 9 SD-10 Operation and Maintenance Data
  a. SD-10 Operation and Maintenance Data includes information furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel.
  b. Submit 2 paper copies and 1 digital copy (in PDF Format) of each submittal.
c. The Contractor shall comply with the following standards for SD-09 Manufacturer’s Field Reports:

1. Operation and Maintenance Data shall not be submitted separately for each system or component for which it is required. Rather, all data shall be incorporated into a single bound report.

2. The report shall be bound in a three ring binder and include a cover sheet, label for the binder spine, and a table of contents. Information for each component and/or system shall be separated by dividers that are clearly labeled.

3. The report provided shall provide sufficient information for base maintenance personnel to safely and efficiently operate, maintain and repair all systems and components.

- 10 SD-11 Closeout Submittals
a. SD-11 Closeout Submittals includes:

1. Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

2. Special requirements necessary to properly close out a construction contract. For example, As-Built Drawings, a Construction Warranty Management Plan, and DD Form 1354, “Transfer and Acceptance of DoD Real Property”.

b. Specific requirements for closeout submittals are provided in the Section 01-10 Closeout Procedures.

- 1 TRANSMITTALS
a. Transmittals are documents that shall be provided to the 47 CES/CENMP and Owners Representative and in some cases other Laughlin AFB agencies as part of this contract.

b. Transmittals do not appear on Schedule of Material Submittals and shall not be submitted with an AF Form 3000.

c. A list of required transmittals is provided at the beginning of each specification section.

d. Transmittals shall include all of the information required by this specification.

e. Payment, or a portion of the payment, including final payment, may be withheld if transmittals are not received as required or do not contain all of the required information.
SECTION 01-3 PROJECT SCHEDULES

-0 DELIVERABLES

- .1 TRANSMITTALS

Progress Reports

Two Week “Look Ahead” Schedule

- .2 CONSTRUCTION SUBMITTALS

SD-01 Preconstruction Submittals:

Progress Schedule

Designation Letter of Personnel Responsible for the Schedule

-1 QUALIFICATIONS

The Contractor shall designate personnel to be responsible for the preparation and updating of the schedules and preparation of progress reports. The authorized personnel shall be experienced in scheduling on projects similar in nature and complexity to this project. The contractor shall submit for approval a letter clearly defining who will be responsible for the schedule of this project.

-2 PROGRESS SCHEDULE

a. In accordance with FAR 52.236-15, Schedules for Construction Contracts, the Contractor shall prepare and submit for approval a Progress Schedule using AF Form 3064, within five days after receipt of the second Notice to Proceed (NTP#2). The schedule shall show the order of the work, broken down into all major work elements, in the form of a progress chart. The schedule shall indicate the percentage for each work element of the total contract price.

b. The approved Progress Schedule shall be used to measure the progress of the work.

c. If the schedule of work changes significantly, the Contractor may be required to submit an updated progress schedule.

-3 PROGRESS REPORTS

a. The Contractor shall complete and submit for approval an AF Form 3065, Progress Report, the first working day following each month on the Progress Schedule.

b. If, in the opinion of the 47 CES/CENMP and Owners Representative, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress including those that may be required by the 47 CES/CENMP and Owners Representative, without additional cost to the Government. In this circumstance, the 47
CES/CENMP and Owners Representative may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and submit for approval any supplementary schedules the 47 CES/CENMP and Owners Representative deems necessary to demonstrate how the rate of progress will be regained.

c. If the Contractor fails to submit the schedule or any Progress Report within the time prescribed, the Owners Representative may withhold approval of progress payments until the required documents are received and approved.

- 4 BI-WEEKLY PARTNERING MEETINGS
  a. The Government and the Contractor shall meet bi-weekly for the purpose of jointly reviewing the actual progress of the project as compared to the as planned progress and to review upcoming planned activities. The then current and approved schedule shall be used for the purposes of this meeting and for the production and review of reports. The Contractor's Project Manager and the 47 CES/CENMP and Owners Representative shall attend. The bi-weekly progress meeting will address the status of RFIs, RFPs, and Submittals.

  b. At bi-weekly partnering meetings, the Contractor shall provide a two-week "look-ahead" schedule including the sequence in which the Contractor proposes to perform the work and dates on which the Contractor contemplates starting and completing activities for the next two weeks. Contractor management personnel, subcontractors and suppliers shall actively participate in the development of the schedule.
SECTION 01-4  WORK IN CONTROLLED AREAS

-0 DELIVERABLES

- .1 TRANSMITTALS

Airfield Driver Training Records

- .2 CONSTRUCTION SUBMITTALS

SD-01 Preconstruction Submittals:

   FAA Form 7460-1

   FOD Plan

-1 GENERAL

a. This project or portions of this project are located within Controlled Areas on base. Access to Control Areas is strictly limited.

b. The Contractor shall ensure that Contractor personnel employed on the base become familiar with and obey all special regulations for working in Controlled Areas.

c. Under no circumstances shall the Contractor, any sub-contractors, or any contractor personnel enter Controlled Areas without a Government escort.

d. The Contractor shall remain strictly within the limits of work inside Controlled Areas.

e. The Contractor shall not take photographs inside of Controlled Areas without written authorization from the 47 CES/CENMP and Owners Representative. Individuals authorized to take photos should have a copy of letter granting permission on their person at all times while taking pictures. Individuals taking photos without authorization or proof of authorization may be subject to legal action. Cameras and/or phones used to take unauthorized photos may be confiscated and any film, video, or other media destroyed by Security Forces.

-2 SCHEDULING AND COORDINATING ESCORTS

a. The Government will provide escorts to facilitate construction in Controlled Areas. The Contractor shall be responsible for planning and coordinating with the 47 CES/CENMP and Owners Representative to ensure that escorts are provided as needed. The Contractor shall adhere to the following guidelines for scheduling and coordination of escorts:

   (1) The Contractor shall request access to Controlled Areas in writing at least 5 days in advance. For long term projects, the Contractor shall include requests for escorts in their two week look-ahead schedule provided at partnering meetings.
(2) Requests must include the time the Contractor will arrive at the Controlled Area and duration of time the Contractor will work inside the Controlled Area.

(3) Escorts will meet the Contractor at the Controlled Area as scheduled. The Contractor shall arrive on time. If the Contractor is more than 15 minutes late, escorts will leave the site, and it will be the responsibility of the Contractor to reschedule access to the Controlled Area.

(4) Escorts will only be scheduled for the duration of time requested by the Contractor. Time extensions will only be granted for emergencies.

b. No time extensions, cost additions, change orders, or allowances will be granted for project schedule delays due to lack of sufficient escorts, if determined by the 47 CES/CENMP and Owners Representative that the delays are a result of lack of scheduling and coordination by the Contractor.
SECTION 01-5  PROJECT SAFETY REQUIREMENTS

-0 DELIVERABLES

- 1 TRANSMITTALS

Digging Permit
Welding Permit
Welding Certificates

- 2 CONSTRUCTION SUBMITTALS

SD-01 Preconstruction Submittals:
Contractor’s Safety Plan

SD-07 Certificates:
Certificate of Contractor Safety Compliance

-1 GENERAL

a. Contractor shall take safety and health measures in performing work under this Contract and is subject to applicable Federal, state, and local laws, regulations, ordinances, codes, and orders relating to safety and health in effect on the date of this contract.

b. During the performance of work under this contract, the Contractor shall comply with procedures prescribed for control and safety of persons visiting the project site. Contractor is responsible for his personnel and for familiarizing each of his subcontractors with safety requirements. Contractor shall advise the 47 CES/CENMP and Owners Representative of any special safety restriction he has established so that Government personnel can be notified of these restrictions.

-2 CONTRACTOR’S SAFETY PLAN

a. Contractor shall submit a safety plan to the 47 CES/CENMP and Owners Representative for approval prior to start of construction at project site.

b. Safety plan shall include, as a minimum, the following:

   (1) Safety program objectives.

   (2) Methods to attain safety objectives.

   (3) Responsibility of key personnel for the Contractor.

   (4) Procedure for safety meetings, surveys, inspections, and reports.
(5) Disaster and emergency programs.

(6) Lists of key personnel to be contacted in times of emergency.


(8) Methods to comply with the requirement for immediate reporting of mishaps to the 47 CES/CENMP and Owners Representative.

(9) Hazardous material control procedures for minimizing the use of hazardous materials and the generation of hazardous waste and procedures for proper handling, storage, labeling, and transportation of all hazardous materials. Section 01-9 Environmental Protection addresses the use of hazardous materials.

(10) Procedures for emergency actions to be taken to secure dangerous conditions, to protect personnel, and secure work areas in the event of accident or an act of nature.

(11) Procedures for securing the mishap site so that the area remains secure until arrival of a safety investigator. Mishap site will remain secured until released by the 47 CES/CENMP and Owners Representative.

-3 Certificate of Contractor Safety Compliance

In addition to the Safety Plan, the Contractor shall submit a signed statement stating that the Contractor is committed to the Safety Plan and will not invalidate the integrity of safety systems throughout the life of this contract.

-4 OSHA Inspections

The Contractor shall be subject to no-notice inspections under OSHA (Occupational Safety and Health Act) Program by inspectors of the Department of Labor, where the Contractor could be found personally liable for any violation of the OSHA Regulations. While on this installation the Contractor and all employees and subcontractors that work in any capacity for the Contractor shall adhere to and follow all safety and health requirements as established in the U.S. ARMY CORPS OF ENGINEERS MANUAL EA. 385-1-1 Dated OCT 1987 and/or the latest version/edition.

-5 Base Emergency Services

The base emergency phone number is 911. This number provides emergency police, fire and medical service. Ambulance service is dispatched from Val Verde Regional Medical Center at the request of the base Fire Department. When dialing “911” from a cellular phone, inform operator that individual is calling from a cellular phone and that the emergency is at Laughlin Air Force Base. For non-emergency security business, 24 hours a day, 7 days a week, call (830) 298-5100.

-6 Lockout/Tagout Procedures

- .1 General Safety Requirements
a. Contractor shall ensure that each employee is familiar with and complies with these procedures and 29 CFR 1910.147.

b. The Contractor shall apply lockout/tagout tags and take other actions that, because of experience and knowledge, are known to be necessary to make the particular equipment safe to work on.

c. No person, regardless of position or authority, shall operate any switch, valve, or equipment that has an official lockout/tagout tag attached to it, nor shall such tag be removed except as provided in this section.

d. No person shall work on any equipment that requires a lockout/tagout tag unless he, his immediate supervisor, project leader, or a subordinate has in his possession the stubs of the required lockout/tagout tags.

e. Only qualified personnel shall perform work on electrical circuits.

f. A supervisor who is required to enter an area protected by a lockout/tagout tag will be considered a member of the protected group provided he notifies the holder of the tag stub each time he enters and departs from the protected area.

g. Identification markings on building light and power distribution circuits shall not be relied on for established safe work conditions.

h. Before clearance will be given on any equipment other than electrical (generally referred to as mechanical apparatus), the apparatus, valves, or systems shall be secured in a passive condition with the appropriate vents, pins, and locks.

i. Pressurized or vacuum systems shall be vented to relieve differential pressure completely.

j. Vent valves shall be tagged open during the course of the work.

k. Where dangerous gas or fluid systems are involved, or in areas where the environment may be oxygen deficient, system or areas shall be purged, ventilated, or otherwise made safe prior to entry.

.2 Tag Placement

a. Lockout/tagout tags shall be completed in accordance with the regulations printed on the back of the tag and attached to any device which, if operated, could cause an unsafe condition to exist.

b. If more than one group is to work on any circuit or equipment, the employee in charge of each group shall have a separate set of lockout/tagout tags completed and properly attached.

c. When it is required that certain equipment be tagged, the Government will review the characteristics of the various systems involved that affect the safety of the operations and
the work to be done; take the necessary actions, including voltage and pressure checks, grounding, and venting, to make the system and equipment safe to work on; and apply such lockout/tagout tags to those switches, valves, vents, or other mechanical devices needed to preserve the safety provided. This operation is referred to as "Providing Safety Clearance."

- **.3 Tag Removal**
When any individual or group has completed its part of the work and is clear of the circuits or equipment, the supervisor, project leader, or individual for whom the equipment was tagged shall turn in his signed lockout/tagout tag stub to the Quality Control or Safety Manager. That group or individual’s lockout/tagout tags on equipment may then be removed on authorization by the Quality Control or Safety Manager.

- **7 Accident Treatment and Records**
Contractor shall post emergency first aid and ambulance information at project site.

- **8 Underground Utilities**

- **.1 Surface Penetration, Digging, and Excavation**

  a. The Contractor shall be responsible for securing digging permits for all projects prior to breaking ground. No less than 30 calendar days prior to construction, the Contractor shall submit an AF Form 103 with drawings delineating the areas affected by the construction, a brief description of the work, and the scheduled dates for excavation to CES Customer Service (830-298-5488). The approval process may take up to 30 calendar days. Once approved, the Contractor shall provide one copy of the signed permit and attached drawings to the 47 CES/CENMP and Owners Representative.

  b. Once the utilities have been marked the Contractor is responsible for maintaining the marking and verifying all utilities marked by the dig permit. If the site or job conditions change, a new permit is required.

  c. Contractor shall notify the 47 CES/CENMP and Owners Representative 48 hours prior to the start of excavation work or surface penetration, to enable the 47 CES/CENMP and Owners Representative to review measures being taken to prevent hazard to employees and possible damage to subsurface utilities. Where emergency conditions preclude the 48 hours advance notification, the Contractor shall immediately inform the 47 CES/CENMP and Owners Representative of his intention to initiate work prior to actual start of activity.

  d. After obtaining clearance from the 47 CES/CENMP and Owners Representative, the Contractor shall proceed with excavating work or other surface penetration work. Contractor shall temporarily halt any machine excavation work or other surface penetration when within 4 feet of an existing utility line until the Contractor has exposed the utility line by hand excavation. Once the line is located, further digging is at the contractor’s risk, so appropriate discretion in digging method shall be used.
e. The Contractor shall be responsible for any and all damages to accurately marked utilities resulting from its operations and subcontractors. This also applies to all lines after they are located/exposed by the contractor. Further, the Contractor shall be held liable for all costs associated with such damages. Such costs include not only the cost to properly repair the damaged utility, but any direct costs incurred by the Government to provide emergency response to the site, as well as for any other monetary losses. Such loss may also include the value of loss of productivity experienced by the Government due to loss of power and/or facility evacuation arising from the utility damage.

- .2 USE OF MANHOLES
  a. Safety clearance from the 47 CES/CENMP and Owners Representative is required before any Contractor personnel enter a manhole. Contractor shall contact the 47 CES/CENMP and Owners Representative for support services by calling at least 24 hours in advance.
  b. Contractor shall be responsible for removing water and debris before commencement and during execution of work in manholes.

- .9 FIRE PREVENTION AND PROTECTION
  - .1 GENERAL SAFETY REQUIREMENTS
    a. The Contractor shall provide temporary fire protection equipment for the protection of personnel and property during construction as required.
    b. The Contractor shall remove debris and flammable materials weekly to minimize potential hazards.
    c. Open-flame heating devices will not be permitted except by approval in writing from the 47 CES/CENMP and Owners Representative. Approval for the use of open fires and open-flame heating devices will not relieve the Contractor from the responsibility for any damage incurred because of fires.
    d. Burning trash, brush, or wood on the project site shall not be permitted.
  - .2 CUTTING AND WELDING
    a. Welding, cutting, brazing, or open flame use anywhere on base will be coordinated with the base Fire Prevention Officer prior to performance. A burn (welding/brazing) permit shall be obtained from the Fire Prevention Office (298-5037) before any hot work operations or activity. Allow 5 calendar days to obtain the permit. Provide a copy of the welding permit to the 47 CES/CENMP and Owners Representative.
    b. The Fire Prevention Office determines the permit’s expiration and can revoke the permit if safety guidelines are not followed.
    c. The Contractor will ensure all combustible vegetation, ignition sources, or materials are removed from hot work site. All fires or sparks must be immediately extinguished using the
proper fire fighting equipment (e.g., extinguisher, shovels). Contractor shall discontinue burning, welding, or cutting operations 1 hour prior to the end of the normal work day.

d. Only authorized personnel will operate welding equipment. The Contractor shall provide the 47 CES/CENMP and Owners Representative copies of welding certification for all personnel who will accomplish welding on the project.

e. Welding and open flames will not be permitted within 50 feet of flammable or explosive materials. When removal of flammable material is impractical, a suitable fire resistant shield and/or welding blanket will be placed between the flammable material and the welding operation and a fire watch will be performed during and for 1 hour after all operations are complete.

f. At the welding location the Contractor shall have spark arrestor equipment and fire extinguisher within reach.
SECTION 01-6  CONTRACTOR QUALITY CONTROL

- .1 TRANSMITTALS

Design Quality Control Checklist

Daily QC reports

QC Managers Punch List

- .2 CONSTRUCTION SUBMITTALS

SD-01 Preconstruction Submittals:

Quality Control Plan

Quality Control Manager Qualifications

- 1 GENERAL

The Contractor is responsible for quality control (QC) and shall establish and maintain an effective quality control system for construction. The quality control system shall consist of plans, procedures, testing, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both on site and off site, and shall be keyed to the proposed construction sequence.

- 2 QUALITY CONTROL PLAN

- .1 GENERAL REQUIREMENTS

a. The Contractor shall furnish a QC plan for review by the Government. Acceptance of the Contractor’s QC plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his plans and operations including removal of personnel, as necessary, to obtain the quality specified.

b. The Contractor’s QC plan will not be approved until the Government has approved the qualifications of the QC Manager.

c. After acceptance of the QC Plan, the Contractor shall notify the 47 CES/CENMP and Owners Representative in writing of any proposed change including changes in personnel. Proposed changes are subject to acceptance by the 47 CES/CENMP and Owners Representative.

- .2 CONTENT OF QC PLAN

The QC plan shall include, at a minimum:
a. A description of the quality control program with a chart showing lines of authority and acknowledgement.

b. The duties, responsibilities, and authorities of each person assigned a QC function.

c. Procedures for reviewing and certifying submittals.

d. Procedures for tracking construction deficiencies from identification through acceptable corrective action.

-3 PERSONNEL REQUIREMENTS AND QUALIFICATIONS
a. The requirements for the QC organization are a QC Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance.

b. The QC Manager, or alternate, shall be a separate individual from the site superintendent, be present at the site at all times while work is being done, and have complete authority and responsibility to take any action necessary to ensure contract compliance.

c. The QC Manager/alternate shall be subject to acceptance by the 47 CES/CENMP and Owners Representative and shall have a minimum of 5 years work experience on similar projects.

d. The Contractor shall submit the name and qualifications (in resume format) of the QC Manager accompanied by a copy of a letter to the QC Manager signed by an authorized official of the firm which delegates sufficient authorities to adequately perform the functions of the QC Manager, including the authority to stop work. The resume shall clearly indicate that QC Manager is qualified as required above.

-4 DAILY REPORTS
The Contractor shall maintain current records providing factual evidence that required QC activities and/or tests have been performed. One paper and one digital copy in PDF format of these records, in report form, shall be furnished to the Government weekly. All calendar days shall be accounted for throughout the life of the contract.

- 1 CONTENT OF DAILY REPORTS
These records shall include the work of subcontractors and suppliers and shall include, at a minimum, the following information:

a. Work performed each day. Include description of trades working on the project, the number of personnel working, weather conditions, and any delays.

b. Tests performed including results and references to specifications.

c. List of deficiencies noted, along with corrective action.

d. Quantity of materials received with statement as to acceptability of the material.
e. Job safety evaluations and corrective actions.

f. Conflicts in plans and/or specifications.

g. A statement signed by the QC Manager that equipment and materials incorporated in the work and workmanship comply with the contract statement.

-5 TESTS
The Contractor shall perform all required tests to verify that work and/or products conform to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for testing by the Government.

- .1 TESTING PROCEDURE
The Contractor shall perform the following activities:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Record the results of all tests taken, both passing and failing, and submit to the 47 CES/CENMP and Owners Representative. Include the date of the test, specification paragraph reference, and location where tests were taken. Failure to submit timely test reports may result in nonpayment for related work performed and disapproval of the test facility for this contract.

- .2 TESTING LABORATORIES

a. The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician’s testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

b. If the selected laboratory fails the capability check, the Contractor will be assessed a charge of $500 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

-6 NOTIFICATION OF NON-COMPLIANCE
The 47 CES/CENMP and Owners Representative will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site,
shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the 47 CES/CENMP and Owners Representative may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.
SECTION 01-7  TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

-0 DELIVERABLES

-  .1 TRANSMITTALS
Temporary Utility Meter Readings

-  .2 CONSTRUCTION SUBMITTALS
SD-01 Preconstruction Submittals

  Construction Site Plan
  Traffic Control Plan
  Temporary Trailer Information

-1 CONSTRUCTION SITE PLAN
The Contractor shall submit for approval a Construction Site Plan including:

  a. Locations of site trailers, trash dumpsters, and temporary sanitary facilities.
  b. Detailed layouts (including location and dimensions) of construction fences and material storage areas.
  c. Identification of any areas which will be graveled.
  d. Haul routes, including routes of ingress/egress to the lay-down yard.
  e. Parking areas.

-2 TEMPORARY TRAFFIC CONTROL
Erect and maintain temporary barricades to limit public access to hazardous areas. Whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of pedestrian traffic, barricades will be required. Securely place barricades clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

Maintain and protect traffic on all affected roads during the construction period. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment, and the erection and maintenance of adequate warning, danger, and direction signs, will be as required by the State and local authorities having jurisdiction.
- **1 TRAFFIC CONTROL PLAN**

  The Contractor shall submit for approval a Traffic Control Plan detailing how traffic will be safely routed during all phases of construction. At a minimum, the Traffic Control Plan shall include drawings showing:

  a. The construction site and all haul routes and access points.

  b. All runways, taxiways, roads, driveways, sidewalks, building and hangar entrances, etc., that will be blocked during construction.

  c. Alternate routes for aircraft, vehicles, and pedestrians that will be used during construction, if required.

  d. Location, nomenclature, size, and type of all signs used to direct traffic.

  e. Location, size, and type of all barricades that will be used to close roads, driveways, sidewalks, or building entrances.

  f. For projects with Free Zone requirements, the location, size, and types of all barricades and other markings that will be used to mark haul routes and the limits of construction.

  g. Location of flaggers, if applicable.

  h. Location of FOD check points, if applicable.

- **3 WORKING AREA: CONDITIONS AND CLEAN UP**

  a. The contractor will be allowed to use a working area and material storage area on county owned land immediately adjacent to the LAFB west boundry fence. The contractor will confine generations, including material storage to the area identified by the county representative, and approved by LAFB 47 CES/CENMP.

  b. Only those routes designated by the 47 CES/CENMP and Owners Representative shall be utilized by the Contractor for access to work sites.

  c. Parking of Contractor vehicles shall be restricted to the area determined by the 47 CES/CENMP and Owners Representative. The company name and logo shall be prominently displayed on all Contractor-owned vehicles.

  d. The Contractor is responsible for maintaining the construction site in a clean and orderly condition from the start of the project to completion. **DAILY CLEAN-UPS ARE REQUIRED.** The Contractor shall have a dumpster on site or remove and dispose of debris daily. The Contractor shall arrange for transport of debris from the base to an approved disposal site. In addition, the Contractor shall completely enclose the lay down yard with a 6-foot-tall chain link fence with brown privacy slats and a sign shall be erected adjacent to the storage area displaying the company name and phone number. The Contractor shall maintain the grass and weeds surrounding the site, trailer, and lay-down yard, and all materials shall be neatly stacked at all times.
e. All equipment and materials are the responsibility of the Contractor. The Contractor shall ensure all equipment and materials are properly secured at the end of the work day. Any work area found by Security Forces or Civil Engineering to be unsecured will be checked for intruders and the responsible contract superintendent will be called in to secure the areas/equipment.

f. At the completion of the project, the entire working area shall be left in a condition that is as good as or better than the condition that existed before work started. All equipment, including dumpsters, portable toilets, etc., shall be removed. All excess material including dirt, rock, vegetation, broken concrete or asphalt, etc., shall be hauled off the grounds and disposed of in accordance with applicable state and local regulations. Grass areas shall be raked clean of debris. Damage to landscaping including trees, plants, and/or grass (including tire ruts) shall be repaired or replaced if damaged.

--- Temporary Signage ---
Immediately upon beginning work, provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the 47 CES/CENMP and Owners Representative. Locate the bulletin board in a conspicuous place easily accessible to all employees, as approved by the 47 CES/CENMP and Owners Representative.

--- Temporary Utilities ---

a. Notwithstanding the provisions of contract clause FAR 52.236-14, Availability and Use of Utility Services, all reasonable required amounts of water, electricity, etc., essential to contract performance shall be made available at no cost to the Contractor from existing systems, outlets, and supplies.

b. [Indicate the specific location where the Contractor will access utilities for this project.]

c. At the Contractor’s expense and in a manner satisfactory to the 47 CES/CENMP and Owners Representative, provide and maintain necessary temporary connections and distribution lines required to measure the amount of each utility used.

d. The Contractor shall provide metering for utilities and connections to include labor and materials for hookup. The Contractor shall provide meter readings on the last day of each month to 47 CES Energy Manager. Meter readings shall be e-mailed to the Base Energy Manager and the CES Project Manager and shall include the previous reading, current reading, and meter multiplier. Copies of the e-mail of meter readings shall be provided to the 47 CES/CENMP and Owners Representative.

e. The Contractor will be required to participate in Government energy conservation programs. For the purpose of this contract, the Government will furnish utilities such as water, electricity, etc., at no cost to the Contractor.
f. If the Contractor chooses to set up a trailer, the only utility provided in the contractor storage area is electricity. Local/long distance and Defense Switched Network (DSN) telephone service will not be provided.

g. Cell phone use is encouraged and the Contractor should be aware that all communications with DOD organizations are subject to COMSEC review. Contractor personnel will be aware the telecommunications networks are continually subject to intercept by unfriendly intelligence organizations. The DOD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from or terminating at DOD organizations. Therefore, civilian contractor personnel are advised that any time they place a call to or receive a call from a military organization, they are subject to COMSEC procedures.

h. Before completion of the work and final acceptance of the work by the Government, notify the 47 CES/CENMP and Owners Representative, in writing, 5 working days before temporary utility termination is desired. The Government will take a final meter reading and disconnect service. Then remove all the temporary distribution lines, meters, and associated paraphernalia.

i. Prior to final acceptance on any Contract, all temporary cords, lines, or other equipment shall be removed and the existing outlets and lines restored to the condition existing prior to the start of work.

-6 **LIGHTING FOR NIGHT WORK**

a. The Contractor shall be responsible for providing all lighting fixtures and power sources.

b. Lighting for night work is subject to approval by the 47 CES/CENMP and Owners Representative. If in the opinion of the 47 CES/CENMP and Owners Representative proper light is not provided for safe and/or quality work, the Contractor shall be required to provide additional light.

-7 **SANITATION**

a. The Contractor shall provide temporary sewer and sanitation facilities that are self-contained units with both urinals and stool capabilities.

b. The exterior of the unit shall match the base standard color.

c. The Contractor shall locate the facility behind the construction fence or out of the public view.

d. Units shall be ventilated to control odors and fumes and emptied and cleaned at least once a week or more often if required by the 47 CES/CENMP and Owners Representative.

e. Temporary toilets shall be removed at the completion of construction and the adjacent area restored to the condition existing prior to the start of construction. All costs incurred in connection with the temporary toilets shall be borne by the Contractor.
REQUIREMENTS FOR TEMPORARY FIELD OFFICES

a. Only Temporary Field Offices (trailers) that are in good condition and compatible with base color schemes will be approved for use on base. (Acceptable colors include: Federal Standard Color #23617 and #37769.)

b. Prior to placement of a trailer the Contractor shall submit to the 47 CES/CENMP and Owners Representative the color of the trailer and skirting, the dimensions of the trailer, and a picture of the trailer in its current condition. The trailer shall not be brought on base until the submittal is approved by the 47 CES/CENMP and Owners Representative.

c. The Contractor shall maintain the trailer and surrounding area in a neat and orderly condition and shall adhere to the following requirements:

   (1) Provide metal or fiberglass skirting completely around the trailer within 30 days after placement of the trailer on the lot and after being approved by the CO.

   (2) Painting must be done within 72 hours after installing the trailer skirt and be approved by the CO.

   (3) Trash shall be picked up daily.

   (4) Grass and weeds shall be cut weekly or as needed to a height not to exceed two inches.

   (5) Provide adequate outside security lighting at the Contractor’s temporary facilities.

   (6) If materials or equipment are to be stored at the trailer and/or surrounding area, the area shall be enclosed by a six-foot tall chain link fence.

d. TEMPORARY FACILITIES/FIELD OFFICE

   (1) Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

   (2) Common-Use Field Office: of sufficient size to accommodate needs of 47/CES/CENMP, County Representative, RPR and construction personnel office activities and accommodate project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:

      a. A lockable office space for RPR.

      b. Furniture required for Project documents including lockable file cabinets, plan tables, plan racks, bookcases, and seating,

      c. Conference room of sufficient size to accommodate meetings of 10 individuals. Provide electrical power service and 120-V ac duplex
-9 **WEATHER PROTECTION OF TEMPORARY FACILITIES AND STORED MATERIALS**  
a. Take necessary precautions to ensure that temporary facilities and stored materials are protected during rain or other inclement weather.  

b. Close and weatherproof existing areas exposed to the weather during construction prior to leaving the site each day. The Contractor shall be required to repair at no cost to the Government any damage that is caused by inclement weather making its way through the Contractor’s protective measures.  

c. In the event of a severe storm warning, the Contractor shall:  
   
   (1) Secure outside equipment and materials and place materials that could be damaged in protected areas.  
   
   (2) Check surrounding area including roof for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.  
   
   (3) Ensure that temporary erosion controls are adequate.  
   
   (4) The Contractor shall secure debris of all sizes to prevent the spread of FOD throughout the base.
SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT

PART 1  GENERAL

1.1  SUMMARY

A.  Section includes:
   1.  Special requirements for waste management during construction and demolition operations.
      a.  Protect the environment, both on-site and off-site, during construction and demolition operations.
      b.  Prevent environmental pollution and damage.
      c.  Maximize source reduction, reuse and recycling of solid waste.

B.  Related Sections:
   1.  01 51 00 – Construction Facilities and Temporary Controls
   2.  01 74 19.10 – Construction Waste Management Plan
   2.  01 81 13 – Sustainable Design Requirements

1.2  REFERENCE STANDARDS


1.3  QUALITY ASSURANCE

A.  Maximize use of source reduction and recycling procedures.

B.  Diversion Goals: A minimum 75 percent by weight of total project solid waste to be diverted from landfill, with a goal of 95 percent.

1.4  PRECONSTRUCTION MEETING

A.  After award of Contract and prior to the commencement of the Work, schedule and conduct meeting with Owner and Architect to discuss the proposed Waste Management Plan and to develop mutual understanding relative to details of environmental protection.
1.5 SUBMITTALS

A. Construction Waste Management Action Plan: Prior to the generation of construction or demolition waste, prepare and submit a Construction Waste Management Action Plan including, but not limited to, the following:
   1. List of the recycling facilities, reuse facilities, municipal solid waste landfills and other disposal area(s) to be used. Include:
      a. Name, location, and phone number.
      b. Copy of permit or license for each facility.
   2. Identify materials that cannot be recycled or reused. Provide explanation or justification.
   3. Revise and resubmit Plan as required by Owner.
      a. Approval of Contractor’s Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations and referenced standards.

B. Progress Documentation:
   With each Application for Payment, submit weight tickets, receipts, and invoices specifically identifying the Project waste material, recycling location or landfill, weight of material, and date. For co-mingled hauls, provide a monthly report of diversion rates for the receiving recycling facility:
   1. All weight tickets, receipts and invoices shall be legible.
   2. All weight tickets, receipts and invoices for recycled waste materials shall clearly state that the materials were recycled.

PART 2 – PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 CONSTRUCTION WASTE MANAGEMENT

A. Develop and implement a waste management program in accordance with ASTM E1609 and as specified herein.
   a. The City of Del Rio does not accept construction waste in a comingled container.
   b. Contractor to provide separate containers for all materials to be recycled and for general construction debris.

B. Collection: Implement a recycling/reuse program that includes separate collection of waste materials of the following types as appropriate to the project waste and to the available recycling and reuse programs in the project area:
   1. Metal
   2. Cardboard and Paper
   3. Gypsum Board
4. Wood
5. Concrete
6. Plastic
   a. Type 1: Polyethylene Terephthalate (PET, PETE).
   b. Type 2: High Density Polyethylene (HDPE).
   c. Type 3: Vinyl (Polyvinyl Chloride or PVC).
   d. Type 4: Low Density Polyethylene (LDPE).
   e. Type 5: Polypropylene (PP).
   f. Type 6: Polystyrene (PS).
   g. Type 7: Other. Use of this code indicates that the package in question is made with a resin other than the six listed above, or is made of more than one resin listed above, and used in a multi-layer combination.

8. Others as appropriate.

C. Handling:
   1. Clean materials that are contaminated prior to placing in collection containers. Deliver materials in accordance with recycling or reuse facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process).
   2. Arrange for collection by or delivery to the appropriate recycling or reuse facility.

END OF SECTION
PROJECT: LAFB West Gate DCC
RECYCLING COORDINATOR: Contractor
LEED™ CONSULTANT: M. Jones Consulting LLC

WASTE MANAGEMENT GOALS:

- Recycle or reuse 75% by weight of the waste generated on-site.
- Divert construction and demolition debris from landfill disposal.
- Redirect recyclable resources back to the manufacturing process.
- Donate reusable building materials to individuals, companies, charitable agencies or other parties who will re-use them.
- Reduce waste disposal costs and material expenses.
- Measure and communicate recycle and reuse results.

COMMUNICATIONS:

- Prior to generation of any demolition or construction waste, Contractor shall provide a Construction Waste Management Action Plan in accordance with section 01 74 19.
- **Contractor shall maintain open communication and cooperation with waste management provider(s) in order to avoid rejected hauls.**
- Waste prevention and recycling activities will be discussed at the beginning of each safety meeting.
- As each new subcontractor comes on site, the recycling coordinator (Contractor’s LEED Coordinator) will present him/her with a copy of the waste management plan and provide a tour of the recycling areas. **Refer to Section 01 81 13, Sustainable Design Requirements, for Contractor’s LEED Coordinator responsibilities.**
- The Contractor shall ensure that all crews comply with the Waste Management Plan.
- All recycling containers and/or designated areas for collection shall be clearly labeled with signage for each container notifying what is being collected in that container.
- Provide training to crews for correctly separating waste materials.
- Contractor shall coordinate with waste management provider(s) to develop list of acceptable/unacceptable materials for recycling. Lists of acceptable/unacceptable materials for recycling will be posted at the site.
- Each subcontractor will be expected to designate one crewmember to participate in a joint project housekeeping effort as needed, and at minimum three hours per week.
CONSTRUCTION WASTE MANAGEMENT STRATEGIES

REDUCE:

The first step in the conservation hierarchy is to reduce or minimize both consumption and waste. Reduction involves minimizing excess and leftover materials as well as doing more with less. The Contractor should exercise the following waste minimization practices to the greatest extent possible:

- Careful material takeoffs and purchasing.
- Correct quantities of materials ordered to avoid excess build up on site. Adjust shipments during construction when necessary.
- Return over-ordered materials to supplier in their original packaging.
- Properly store on-site materials to prevent loss from weather or theft.
- Careful installation to avoid demolition and re-installation.
- Use a centralized cutting area to facilitate the use of cutoffs rather than cutting into new material.
- Include in purchasing agreements a waste reduction provision specifying a preference for reduced, returnable, and/or recyclable packaging.
- Request materials are delivered on returnable palettes.

REUSE:

The next step is reuse, which involves finding another use for leftover and surplus materials either on or off-site. Reuse can also be applied to materials that were salvaged during the demolition phase.

- Reuse excess materials on-site for this project.
- Reuse excess materials off-site on another project.
- Sell or donate materials to a used building materials supplier or salvage company.
- Donated for use by a third party.

RECYCLE:

Recycling is a system of collecting, sorting, and processing discarded materials for use as raw materials in the manufacture of new products. If construction materials cannot be reduced or reused, then they should be recycled (pending local market availability). Some materials can be recycled directly into the same product. Others can be reconstituted into other usable products. Recycling is not usually economically feasible unless a facility using recycled resources is located near the material generation source.
In most of Texas, materials that can be recycled and sorted on-site include:

- Metals (including copper piping, wire and flashing, aluminum siding, flashing and guttering, iron and steel banding from bundles, nails and fasteners, galvanized flashing and roofing, rebar, aluminum beverage cans)
- Cardboard and paper
- Acoustical ceiling tiles, if the manufacturer of the new ceiling tile will recycle the old ceiling tile, which depends on the amount and glue additives on the tile
- Brick
- Concrete
- Doors
- Gypsum wallboard
- Carpet
- Insulation
- Masonry or CMU
- Joint Sealant Tubes
- Roofing
- Lumber (non-scare pieces)
- Lighting Fixtures
- Plywood and Wood Paneling (non-scare pieces)
- Plumbing fixtures
- Equipment
- Mechanical Equipment
- Switchgear and Panelboards
- Furniture – computers and equipment, chalkboards, lockers

At a minimum, the following demolition and construction debris materials shall be recycled:

- Metal
- Cardboard and Paper
- Wood
- Concrete
- Plastic General trash

Separate bins and signage for each material listed above shall be delivered to the site prior to the generation of any demolition or construction waste. Contractor shall provide confirmation that waste management provider(s) have appropriate permits to accept all materials mentioned above for recycling.

**LEED™ DOCUMENTATION REQUIREMENTS:**

Contractor shall comply with requirements of LEED 2009 for New Construction and Major Renovation, MR Credit 2, Construction Waste Management Plan. The LEED™ green rating system requires every project to document each credit attempted to prove the activity was completed.
Because Contractor is responsible for construction waste management, the Contractor will be responsible for providing receipt documentation and description of contents for all roll-off bins taken to the landfill and materials that are salvaged or recycled from the jobsite. **All receipts must be legible and must include the following information:** date, location of recycling or salvage center or landfill, type of material recycled or disposed of, and weight (in pounds or tons) of material recycled, salvaged or disposed of. Contractor is responsible for photographic and written documentation of salvaging and recycling of materials.

The documentation required for this credit:

- **General Contractor Responsibility** — Provide haul tickets, receipts, and description of material by the recipients of salvaged and recycled materials monthly at the time of Application for Payment. If recipient of salvaged or recycled material cannot provide a receipt, prepare and provide a signed Material Salvage/Recycling Tracking Form with photo documentation.
- **General Contractor Responsibility** - Prepare the LEED Template and compile supporting documentation tabulating the total waste material, quantities diverted and the means by which diverted and declaring that the credit requirements for LEED 2009 for New Construction and Major Renovations MR Credit 2 have been met.
## RESOURCES FOR SALVAGE AND RECYCLING OF MATERIALS:

<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Information</th>
<th>Materials Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Del Rio Solid Waste Management</td>
<td>(830) 774-8501</td>
<td>Metal Containers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum cans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ferrous cans</td>
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<tr>
<td></td>
<td></td>
<td>Plastic containers (1&amp;2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Box Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated cardboard</td>
</tr>
</tbody>
</table>
- **DELIVERABLES**

- **1 TRANSMITTALS**
  - Preconstruction Environmental Survey
  - Completed Permits and Notices of Intent
  - Solid Waste Disposal Report
  - Storm Water Best Management Practices Inspection Reports
  - Recycling Statistics
  - Hazardous Material Usage Data Sheet
  - Summary of Hazardous Material Usage
  - Hazardous Waste Disposal Manifests (If Applicable)
  - Spill Documentation (If Applicable)

- **2 CONSTRUCTION SUBMITTALS**
  - Environmental Protection Plan
  - MSDS Sheets
  - Hazardous Waste Disposal Documentation

- **1 CONTACT INFORMATION**
  - Laughlin Air Force Base Environmental Section (47CES/CEIE)
    - Daniel Gallegos
    - Chief, Environmental Section
    - 47 CES/CEIE
    - 251 Fourth Street
    - Laughlin, AFB, TX 78843
    - (830)298-5694

  - Laughlin Air Force Base Hazardous Material Office (47 CES/HAZMO)
    - Hazardous Materials Representative
    - (830)298-4351
    - Hazardous Waste Manager
-2 ENVIRONMENTAL COMPLIANCE

a. The Contractor shall plan for and provide environmental protective measures during the life of the contract.

b. The Contractor shall comply with all applicable Federal, State, and local laws and regulations pertaining to the environment, including water, air, solid waste, hazardous waste, and noise pollution. These include, but are not limited to, the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response, Compensation and Liability Act, Toxic Substances Control Act, Federal Insecticide Fungicide and Rodenticide Act, Coastal Zone Management Act, Endangered Species Act, National Historic Preservation Act, Safe Drinking Water Act, Emergency Planning and Community Right-to-Know Act, Oil Pollution Act, Archeological Resources Protection Act, Pollution Prevention Act and National Pollution Discharge Elimination System (NPDES), Executive Order 11739, Executive Order 13148, 29 Code of Federal Regulations (CFR), 40 CFR, and 49 CFR. Contractor has the duty to determine for himself/herself where such laws and regulations apply. Although Contractor may request assistance from the 47 CES/CENMP and Owners Representative in delineating applicable environmental laws and regulations, the Contractor has an independent responsibility to make his/her own determination and to do so in a timely fashion.

c. The Contractor is responsible for all Federal, State and local Regulatory Notification requirements and shall in accordance with the “Permits and Responsibilities” FAR Clause obtain in Contractor’s name and at no additional expense to the Government all permits, coordination, certifications and other regulatory authorization necessary to perform and complete the work required by this Contract. No permits will be obtained by the 47 CES/CENMP and Owners Representative. As part of the Environmental Protection Plan, the Contractor shall submit in draft all applications for permits, notices and manifests, and all supporting data to the 47 CES/CENMP and Owners Representative. The Contractor shall not submit these to appropriate agencies until the drafts are approved by Laughlin AFB. Upon receiving approval from the base 47 CES/CENMP and Owners Representative, the Contractor shall submit all documents with the required fees to the appropriate agencies for approval. Once approved by the appropriate state agencies or otherwise completed, the Contractor shall provide copies of all completed/approved permits, notices, and manifests to 47 CES/CEIE, 47 CES/CENMP, and Owners Representative. All permits shall be approved as required by law prior to commencement of work activities.

d. The Contractor shall be responsible for obtaining qualified personnel, at no additional cost to the Government, to perform inspections and certifications required for environmental compliance. When required, the Contractor will obtain a Professional Engineer (PE), registered in the State of Texas. Where a PE is not required, the individual must be
otherwise qualified by other current State licensure, specific training and prior experience (minimum 5 years).

e. The Contractor shall be responsible for paying any fines or penalties assessed against Laughlin Air Force Base or the installation for environmental violations resulting from acts or omissions of the Contractor or its employees, subcontractors, or agents. This obligation is in addition to any fines or penalties that may be assessed against the Contractor for the same conduct.

f. The Contractor agrees to hold harmless and indemnify Laughlin Air Force Base for any and all damages of any kind resulting from environmentally harmful activities by the Contractor, Contractor’s employees or agents or subcontractors. “Damages” include, but are not limited to, personal injury, property damage (including diminution of value), death, environmental restoration and response costs, natural resource damages, expert witness and attorney’s fees, and reimbursement of any and all expenses incurred to obtain permits as a result of Contractor’s failure to identify or obtain permits for itself or Laughlin Air Force Base.

g. Disposal of lead, asbestos, polychlorinated biphenyl (PCB), and/or ozone depleting chemicals are not anticipated on this project. Additionally, it is not anticipated that the Contractor will encounter contaminated soil and groundwater, munitions related materials, historical/archeological relics, or endangered species. If the Contractor encounters any of these materials or situations, the Contractor shall immediately notify the 47 CES/CENMP and Owners Representative. The Contractor shall await instructions from the 47 CES/CENMP and Owners Representative before proceeding with work or disposal.

-3 Preconstruction Environmental Survey
Perform a Preconstruction Environmental Survey of the project site with the Project Manager, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report of the survey including photographs to the 47 CES/CENMP and Owners Representative for record.

-4 Environmental Protection Plan
a. The Contractor shall submit for approval an Environmental Protection Plan detailing how the Contractor will limit pollution and damage to the environment. On the cover sheet of the plan, indicate that the Storm Water Pollution Prevention Plan (SWPPP) is included as part of the Environmental Protection Plan.

b. At a minimum, the Environmental Protection Plan shall include:

(1) A table of contents clearly delineating each sub-plan included within the Environmental Protection Plan

(2) The name and qualifications of the person within the Contractor’s organization responsible for adherence to the Environmental Protection Plan.
(3) The name and qualifications of the person within the Contractor's organization responsible for training the Contractor's personnel in environmental protection.

(4) Description of the Contractor's environmental protection training program.

(5) A description of the method and procedures the Contractor will use to ensure that all Federal, State and local Regulatory Notification requirements (including permits, notices, and manifests) are complete and/or obtained prior to the start of construction.

(6) A list of and draft copies of all required permits, notices, and manifests that will be required to complete this project. Include those required for the disposal of hazardous waste.

(7) The name, appropriate professional registration or license number, address, and telephone number of the professionals or other qualified persons who will be performing inspections and certifications for each environmental permit required to complete the work.

(8) A Solid Waste Management Plan including:

   i. Estimates of the type and quantity of solid waste/debris that is anticipated to be generated by construction.

   ii. Location and methods for storing waste prior to disposal.

   iii. Size, type, and location of any roll-off containers or dumpsters.

   iv. Methods the Contractor will use for ensuring no regulated waste or recyclable material is placed in roll-off containers or dumpsters.

   v. Locations where various types of waste will be disposed or recycled.

   vi. Letters of acceptance from the disposal facilities.

(9) A Dust Control Plan including:

   i. Methods the Contractor will use for controlling dirt, debris, and dust at the construction site and lay down yard and along the haul route.

   ii. Identification of subcontractor responsible for dust control (if applicable).

   iii. List of equipment that will be used for dust control.

(10) A Land Resources Protection Plan including:

   i. A list of landscaping features that are likely to be damaged during construction and methods for returning them to their original condition.
ii. Name and qualifications of personnel or subcontractor responsible for trimming and pruning trees (if applicable).

iii. Methods the Contractor will use for protecting trees during construction (if applicable).

(11) The contractor shall develop a Storm Water Pollution Prevention Plan (SWPPP) that meets the requirement of the EPA and the Texas Commission on Environmental Quality under General Permit TXR150000 Part III Section F, and the TCEQ Plan Worksheets for storm water discharges from construction sites. The SWPPP must be approved by Laughlin’s Storm Water Program Manager (SWPM) before sending any notices to State agencies. An appropriate SWPPP template can be found at: www.epa.gov/npdes/swpppguide. In addition to complying with all requirements as defined in the TCEQ General Permit, the contractor shall submit the following:

i. For projects that will create a footprint larger than 1 acre, a copy of the Notice of Intent, Notice of Change (if applicable) and Notice of Termination (except for the effective date) that the Contractor intends to submit to the State. The contractor will not be allowed to begin work until provisional coverage under the TCEQ general permit is effective. If mailed, provisional coverage must be verified with the TCEQ prior the start of work. The Contractor shall plan accordingly to ensure that the Notice of Intent does not delay the start of work, keeping in mind that the Government may take up to 14 days to review submittals and approve or reject the submitted SWPPP.

ii. A copy of the Best Management Practices (BMPs) Inspection Report Template for the project. Install, inspect and maintain best management practices (BMPs) as required by the general permit. Provide 47 CES/CEIE, 47 CES/CENMP, and Owners Representative a copy of all BMP Inspection Reports within five days of the date of inspection.

iii. A certification statement signed by the CEO, President or Owner of the Contracted Company with the following language is required at the beginning of the SWPPP: “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”
(12) A Recycling Plan including:
   i. Plans for recycling construction debris such as concrete, asphalt, or wood.
   ii. Methods the Contractor will use to assure adherence to Green Procurement Program.

(13) A Pollution Prevention Plan including:
   i. Methods the Contractor will use to conserve energy.
   ii. Methods the Contractor will use to prevent materials or particles from becoming airborne during transportation.

(14) A Hazardous Waste Plan including:
   i. Methods the Contractor will use to minimize the use of hazardous materials and the generation of hazardous waste in association with completing this contract.
   ii. Methods the Contractor will use to ensure that hazardous materials are properly stored.
   iii. A list of the type and quantity of hazardous waste that is anticipated to be generated on Laughlin AFB as a result of this project.
   iv. Methods the Contractor will use to ensure that all hazardous waste is properly identified, tracked, and disposed of.

-5 SOLID WASTE MANAGEMENT

- .1 GENERAL
   a. The Contractor shall plan for and properly dispose of all non-hazardous wastes generated on the facility as a result of this Contract.
   b. The Contractor shall remove all solid waste from Government property and dispose offsite at an approved landfill. Solid waste disposal offsite must comply with most stringent local, State, and Federal requirements including 40 CFR 241, 40 CFR 243, and 40 CFR 258.
   c. The Contractor shall pick up solid wastes and place in covered containers which are regularly emptied.
   d. Prevent contamination of the site or other areas when handling and disposing of wastes.
   e. No preparation or cooking of food is allowed at the project site.

- .2 SOLID WASTE DISPOSAL REPORT
a. Within 14 days of the end of the project, provide a Solid Waste Disposal Report to 47 CES/CEIE, 47 CES/CENMP, and Owners Representative. The report shall include, at a minimum:

   (1) The classification, amount, disposal location, and name of the business receiving each type of solid waste generated as part of this contract.

   (2) The waste handling facilities’ telephone numbers, business addresses, tax identification numbers, and business, EPA, or State registration numbers.

   (3) Waste handling facilities’ weight tickets and receipts or a statement from the Contractor which contains all the information listed above and is signed by an officer of the Contractor firm authorized to legally obligate or bind the firm.

   (4) The type of material and quantity (pounds) of all recycled material associated with this contract.

b. Solid wastes retained by the Contractor for his own use shall be included in the Solid Waste Disposal Report. In these cases, the Contractor firm shall be designated as the “waste handling facility.”

c. Prices paid or received will not be reported to the 47 CES/CENMP and Owners Representative unless required by other provisions or specifications of this Contract or public law.

-6 DUST CONTROL

a. The Contractor shall keep dust down at the construction site and lay-down yard and along the haul route at all times, including nonworking periods.

b. Acceptable methods for dust control include water sprinklers, vacuuming, and wet mopping. Dry power brooming will not be permitted.

c. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

-7 PROTECTION OF LAND RESOURCES

a. It is intended that the land resources affected by work performed under this contract be preserved in their present condition or be restored to an equal or better condition after construction is complete.

b. The Contractor shall limit construction activities to areas defined by the drawings, specifications, or the 47 CES/CENMP and Owners Representative. Except in areas identified to be cleared, the Contractor shall not deface, remove, cut, injure or destroy trees or shrubs without specific written authority.

c. All landscape features scarred or damaged by the Contractor’s equipment or operations shall be restored to the original or superior condition at the Contractor’s expense.
d. All trimming or pruning shall be performed in an approved manner by experienced landscape personnel. Tree trimming with axes shall not be permitted.

e. Trees designated to be saved shall be protected from excavation and backfilling within the root zone.

f. No ropes, cables, or guys shall be fastened or attached to any existing trees for anchorage.

g. All scars made on trees not designated on the plans to be removed by equipment construction operations, or by the removal of limbs larger than one inch in diameter shall be coated immediately with an approved tree wound dressing.

h. Trees that are to remain, either within or outside established clearing limits, that are subsequently removed or damaged by the Contractor and are beyond saving in the opinion of the 47 CES/CENMP and Owners Representative, shall be immediately removed and replaced with a nursery-grown tree of the same species unless identified otherwise by the 47 CES/CENMP and Owners Representative.

-8 PROTECTION OF WATER RESOURCES

a. The Contractor shall not pollute storm drainage, streams, lakes, or reservoirs with fuels, oils, bituminous materials, calcium chloride, acids, construction wastes, or other harmful materials or pollutants.

b. The Contractor shall use industry-recognized best management practices to ensure that surface drainage from the construction site which contains harmful amounts of sediment shall not be allowed to drain onto adjacent areas or into adjacent bodies of water.

c. The Contractor shall take special measures to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides, cement, and surface drainage from entering public waters. In the event of a spill, the Base Fire Department, CES Environmental Section, 47 CES/CENMP, and the Owners Representative shall be notified immediately.

d. Water used in aggregate processing, concrete curing, foundation, and concrete lift clean-up and other waste water shall not be allowed to enter the storm drainage system.

e. The Contractor must receive written approval from the 47 CES/CENMP and Owners Representative prior to putting additional waste into the waste water ponds. Approval will not be given until 47 CES/CEIE has confirmed the waste water safe to enter the waste water ponds. The Contractor may be required to submit laboratory test results of the waste.

-9 RECYCLING

a. Materials used in this contract shall be, to the greatest extent practicable and consistent with financial prudence, made of recycled materials or of materials that are recyclable.

b. The Contractor shall take advantage of opportunities to recycle construction debris such as concrete or asphalt or wood.
c. On the last day of each month, the Contractor shall provide 47 CES/CEIE with a list of materials that were recycled that month. The list shall include the type of material and quantity (in pounds) recycled. A copy of the list should be provided to the 47 CES/CENMP and Owners Representative.

- **1 Green Procurement**
  a. In order to comply with the affirmative procurement requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA) and Executive Orders 13101 and 13148 (Green Procurement Program (GPP)), the Contractor shall use recycled and recovered materials and products identified in the USEPA's Comprehensive Procurement Guidelines (CPG).
  
  b. The latest CPG product list, and the specific recycled-content requirements for each product, can be found on the USEPA's website ([www.epa.gov/cpg](http://www.epa.gov/cpg)).
  
  c. The Contractor shall provide EPA-designated products containing recovered material unless the item cannot be acquired:
     
     (1) Competitively within a reasonable time frame.
     
     (2) Meeting the appropriate performance standards.
     
     (3) At a reasonable price.
  
  d. Items identified in the USEPA's CPG shall be viewed as the minimum that can be considered when evaluating recycled/reused materials. Other materials and products not listed, but commonly used in industry outside of the Government, shall also be considered.
  
  e. Material and product submittals for all recycled-content items shall list the recycled and recovered materials used and the percentage content listed.

- **10 Pollution Prevention**
  The Contractor shall perform all work IAW State and Federal Environmental Regulations in a manner minimizing pollution of air, water, and land, as required. In addition, the following requirements shall be mandatory:
  
  a. Inform the 47 CES/CENMP and Owners Representative of any processes that would cause air pollution and obtain/coordinate all required permits and prior notification to the State.
  
  b. Participate in energy conservation.
  
  c. Prevent materials or particles from becoming airborne during transportation on and offsite. Earth materials shall be wetted or otherwise protected. Gravel, sand, and concrete shall be contained within vehicles to prevent spillage.
  
  d. Refrain from burning of any material.
e. Prevent fuels, oils, bituminous materials, acids, excess sediment and other harmful materials from entering stream beds, lakes, drainage ways, sanitary and storm sewers, etc.

f. Dispose of excess mortar, plaster or drywall materials off of Laughlin Air Force Base grounds.

g. Dispose of water utilized for plastering or drywall equipment according to the instructions of the 47 CES/CENMP and Owners Representative. In no instance shall such water be disposed of in areas which are planted or scheduled to be planted.

h. Flush concrete trucks off of Laughlin Air Force Base grounds.

i. Plan in advance to find materials that will minimize the creation of waste, especially hazardous waste.

-11 HAZARDOUS MATERIALS

.1 GENERAL

a. Hazardous materials include all materials that are classified as hazardous by Federal or State environmental regulations and any material that could create potentially hazardous conditions. They include, but are not limited to, lead, asbestos, polychlorinated biphenyl (PCB), ozone depleting chemicals, oil and latex based painting and caulking products, solvents, adhesives, aerosol, petroleum products, pesticides, herbicides, rodenticides, and their containers.

b. The Contractor shall minimize the use of hazardous materials and the generation of hazardous waste in association with completing this contract.

c. THE USE OF HAZARDOUS MATERIALS MUST BE APPROVED BY LAUGHLIN AFB BEFORE ANY MATERIAL IS AUTHORIZED TO COME ON BASE. Products containing lead, asbestos, polychlorinated biphenyl (PCB), and/or ozone depleting chemicals are strictly prohibited from use.

d. The proper storage, labeling, handling, use, and disposal of hazardous materials in accordance with all Federal, State, and Air Force regulations is the responsibility of the Contractor. At a minimum:

(1) All hazardous materials must be properly labeled and stored with secondary containment.

(2) Hazardous material must always be secured and closed unless opening the container to add or remove waste.

(3) A Material Safety Data Sheet for each hazardous material brought on base shall be readily available and easily accessed at the construction site at all times.
e. All hazardous materials that are not used on the project but is still in usable condition must be removed from the base by the Contractor upon completion of the project.

f. At project completion, the Contractor shall ensure no hazardous wastes are left behind, including all materials that are residue from Contractor-furnished supplies and materials. The Contractor shall manifest, pack, ship, and dispose of hazardous waste in accordance with the generating facilities status under the Recourse Conservation and Recovery Act. The Contractor is responsible for all sampling and all payment of fees.

- **2 REQUIRED DOCUMENTATION FOR USE OF HAZARDOUS MATERIALS AND DISPOSAL OF HAZARDOUS WASTE**

The Contractor shall provide the 47 CES/CENMP and Owners Representative with the following information and documents for use of hazardous materials and disposal of hazardous waste:

a. Include in the Environmental Protection Plan EPA and State permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities.

b. Material Safety Data Sheets (MSDSs) accompanied with an estimated quantity of use for each hazardous material that will be brought on base shall submitted to the 47 CES/CENMP and Owners Representative in a single submittal with a signed AF Form 3000. These will be routed for Government approval. The Contractor shall not bring any hazardous materials on base without a signed and approved AF Form 3000 for the MSDS submittal of those materials. The Contractor shall pay close attention to any comments on the AF Form 3000 and shall not bring any material on base that the comments indicate is not permitted. If the submittal is disapproved, the Contractor shall not bring any hazardous materials on base until a revised submittal has been approved.

c. The Contractor shall fill out a Hazardous Material Usage Data Sheet and transmit it to the 47 CES/HAZMO and provide a copy to the 47 CES/CENMP and Owners Representative once every month. (For contracts lasting less than 60 days, the Contractor Hazardous Material Usage Data sheet only has to be submitted once, after construction is complete.)

d. At the end of the project, provide 47 CES/HAZMO and the 47 CES/CENMP and Owners Representative with a Summary of Hazardous Material Usage. For each hazardous material used, provide the maximum quantity of each material that was present at the site at any one time, the dates the material was present, the amount of each material that was used during the project, and how the material was used. Include a signed statement from the Contractor certifying that all hazardous materials have been removed from Laughlin AFB.

e. Prior to taking any hazardous waste off base, the Contractor shall submit Hazardous Waste Disposal Documentation to the 47 CES/CENMP and Owners Representative for approval. Hazardous Waste Disposal Documentation shall ensure that waste material can be tracked from generation through ultimate disposal as required by the Environmental Protection Agency under the Resource Conservation and Recovery Act. Waste Disposal Documentation
shall be provided for all oil and latex based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and their containers and all abrasive/sand blasting debris. At minimum, the Contractor shall provide:

1. Waste Determination forms for all Contractor-derived wastes generated. The use of Material Safety Data Sheets (MSDSs) by themselves is not adequate for waste determination. Base the waste determination upon either a constituent listing from the manufacturer used in conjunction with consideration of the process by which the waste was generated, EPA-approved analytical data, or laboratory analysis. All unknown waste shall be chemically identified. Waste stream determinations are required at the point of generation and must sufficiently document whether the waste will be a solid waste, hazardous waste, or Resource Conservation and Recovery Act (RCRA) exempt waste. Attach all supporting documentation (including laboratory test results) along with a written rational for classification to each Waste Determination form. The Contractor will bear the cost of all required testing. The 47 CES/CENMP and Owners Representative reserves the right to request waste stream determinations on questionable waste streams.

2. Manifests for the disposal of any hazardous or toxic wastes. These manifests will be reviewed and, if approved, signed by a representative of 47 CES/CEIE.

3. A letter from the Contractor certifying that all hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste per 40 CFR 26.

4. A hazardous waste summary sheet, documenting the waste type, quantity, location, and personnel/contractor/agency responsible for proper disposal.

f. The Contractor shall send the original ‘white’ copy of all manifests signed by 47 CES/CEIE for hazardous waste disposal to 47 CES/CEIE within 30 days of the date that it was signed by 47CES/CEIE. A copy of the ‘white’ copy should be sent to the 47 CES/CENMP and Owners Representative.

-12 SPILLS

a. The Contractor shall exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, and hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated by environmental law.

b. The Contractor shall contain and clean up these spills at no additional cost to the Government.

c. The Contractor shall maintain spill cleanup equipment and materials at the work site.

d. In the event of any releases of hazardous substances the Contractor shall immediately (within 5 minutes) notify the Base Fire Department, 47 CES/CENMP, and Owners Representative.
e. The Contractor shall take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of any spill/release.

f. Spill response will be in accordance with 40 CFR 300 and applicable State and local regulations.

g. If the Contractor has not begun spill cleanup procedure within one hour of spill or the Government determines that the Contractor’s spill cleanup is not adequately abating a life threatening situation or threat to environmentally sensitive areas, the Government may respond. If this should occur, the Contractor will be required to reimburse the Government for spill response assistance and analysis.

h. The Contractor is responsible for verbal and written notifications as required by the Federal 40 CFR 355, State, and local regulations. Provide copies of the written notification and documentation that all notifications were made as required to 47 CES/CEIE, 47 CES/CENMP and the Owners Representative.

- **1 PETROLEUM PRODUCTS**
  a. Conduct the fueling and lubricating of equipment and motor vehicles in a manner that protects against spills and evaporation.
  
b. Manage all used oil generated onsite in accordance with 40 CFR 279.
  
c. Determine if any used oil generated while onsite exhibits a characteristic of hazardous waste. Used oil containing 1000 parts per million of solvents will be considered a hazardous waste and disposed of at Contractor's expense.
  
d. Used oil mixed with a hazardous waste will also be considered a hazardous waste.
  
e. Prevent oil or hazardous substances from entering the ground, drainage areas, or navigable waters.

- **13 STORAGE OF PETROLEUM PRODUCTS ON BASE**
The Contractor shall adhere to the following requirements for storage of petroleum products, including fuel tanks, on Laughlin Air Force Base:

  a. Contractor shall not store more than a 30-day supply of petroleum products and lubricants on Laughlin AFB grounds. Fuel tanks shall not exceed 500 gallons.
  
b. Storage and refilling practices shall comply with 40 CFR Part 112.
  
c. Secondary containment shall be provided and be no less than 110 percent of the tank volume plus five inches of freeboard. If a secondary berm is used for containment then the berm shall be impervious to oil for 72 hours and be constructed so that any discharge will not permeate, drain, infiltrate, or otherwise escape before cleanup occurs.
d. All storage containers shall be covered during inclement weather.

e. “No Smoking” signs will be posted on all sides of the fuel tanks.

f. Dry chemical fire extinguishers shall be readily available in the direct vicinity of storage tanks.

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.1 OZONE-DEPLETING SUBSTANCES

a. “Class I Substance”, as used in this clause, means any substance designated as Class I by the EPA (40 CFR Part 82), including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform. “Class II Substance”, as used in this clause, means any substance designated as Class II by EPA (40 CFR Part 82), including, but not limited to, hydrochlorofluorocarbons.

b. The Contractor shall not bring any Class 1 ozone-depleting substances onto Laughlin Air Force Base grounds.

c. As required by 42 USC 767j(b), (c), and (d) and 40 CFR, Part 82, Subpart E, the Contractor shall label products which contain Class II ozone-depleting substances or are manufactured with a process that uses Class II ozone-depleting substances, and their containers, as follows:

   “WARNING: Contains (or manufactured with, if applicable) _____ *_____, (a) substance(s) which harm(s) public health and the environment by destroying ozone in the upper atmosphere.”

   *The Contractor shall insert the name of the substance(s).

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.2 PESTICIDES

The Contractor shall not use or apply pesticides (such as herbicides or weed-killers, insecticides, or rodenticides) without the specific written approval from the 47 CES/CENMP and Owners Representative.

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.14 NOISE

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives will not be permitted.

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.15 CUSTOMER SERVICE INSPECTIONS FOR WATER SERVICE

a. Per Texas Administrative Code (TAC) §290.46(j), the Contractor shall complete a customer service inspection certificate prior to providing continuous water service to new construction, on any existing service either when the water purveyor has reason to believe that cross-connections or other potential contaminant hazards exist, or after any material improvement, correction, or addition to water distribution facilities.
b. Per TAC, individuals with the following credentials shall be recognized as capable of conducting a customer service inspection certification: (a) Plumbing Inspectors and Water Supply Protection Specialists licensed by the Texas State Board of Plumbing Examiners (TSBPE), and (b) Customer service inspectors who have completed a commission-approved course, passed an examination administered by the executive director, and hold current professional license as a customer service inspector.

c. The completed Customer Service Inspection Certificate shall be submitted to the 47 CES/CENMP and Owners Representative.
CONSTRUCTION INDOOR AIR QUALITY PLAN

PROJECT: LAFB DCC WEST GATE

IAQ MANAGER: Contractor

INDOOR AIR QUALITY GOALS:

- Sustain the comfort and well-being of construction workers during the construction process.
- Protect the health of future occupants in the completed building.
- Achieve LEED EQ Credit 3.1 and 3.2 for successful management of an indoor air quality plan during construction and before occupancy.
- All subcontractors will attend an educational session about the indoor air quality management implemented during construction.
- All the following information below will be agenda items to be discussed regularly at preconstruction and construction meetings.

ON-SITE INDOOR AIR QUALITY MEASURES:

Preventive job-site practices will reduce the potential for residual problems with indoor air quality in the completed building and reduce undue health risks for workers.

- HVAC Protection
- Source Control
- Pathway Interruption
- Housekeeping
- Scheduling
- Materials Protection
- Job-site inspection and maintenance of IAQ measures
- Prohibit smoking

IAQ MANAGER RESPONSIBILITIES:

A member of the construction team shall be identified as the IAQ Manager and shall be responsible for the following:
Ensure that all members of the project team are knowledgeable about indoor quality issues and have defined responsibilities for implementation of good indoor air quality practices.

Establish subcontractor agreements that communicate the goals of the construction indoor air quality plan and maintain continual communication to reinforce the importance of the IAQ plan.

Keep a copy of the Construction Indoor Air quality Plan on site and review it regularly to ensure job site operations are in compliance.

Monitor the work of subcontractors to ensure indoor air quality is not affected during daily construction progress. Identify activities that may adversely impact indoor air quality, notify the responsible party, review corrective procedures and institute remedial or corrective action as necessary.

Provide subcontractors and field personnel with the proper resources (i.e. collection bins, cleaning tools and materials) to encourage compliance.

Include issues related to the Construction Indoor Air Quality Plan on the agenda during regularly scheduled construction and safety meetings. Review and discuss the status, procedures and importance of the construction indoor air quality goals. Include the following agenda items for regular discussion at preconstruction and construction meetings:

- Job-site inspection and maintenance of IAQ measures
- IAQ concerns and problems that require correction
- Conduct regular inspection and maintenance of indoor air quality measures including ventilation system protection.
- During LEED coordination meetings, review and discuss status of IAQ requirements and procedures with the Project Team.
- Document all occurrences of Construction Indoor Air Quality Plan non-compliance with a written report and photographs.
- Document the implementation of Construction Indoor Air Quality Plan procedures with written, dated reports and photographs.
- Provide signage on the jobsite during construction that clearly states that smoking is prohibited inside the building and within 25 feet of all building entrances.

SUBCONTRACTOR RESPONSIBILITIES:

- Ensure that each foreman and all field crews are familiar with the goals and procedures contained in the Construction Indoor Air Quality Plan.
- Attend construction progress and safety meetings and provide supporting documentation if requested or required.
- Purchase and install low-VOC emitting materials, including flooring, ceiling systems, furniture, composite wood & agrifiber products, paints, coatings, adhesives or sealants compliant with the low-VOC standards of LEED EQ Credit 4, Low-Emitting Materials.
- Take precautionary measures to reduce health risks for workers. Require VOC safe masks for workers installing VOC emitting products. (defined as products that emit 150 g/L or more VOCs)
- OSHA requires the use of personal protective equipment (PPE) to reduce employees’ exposures to hazards when engineering and/or administrative controls are not feasible or
effective in reducing these exposures to acceptable levels. Subcontractors are responsible for determining if PPE will be used to protect their workers.

- Appropriate working apparel, hard hats, boots, etc., are required. Wearing contaminated work clothes is unacceptable.
- Submit a construction schedule to prevent materials from acting as sinks for storage and subsequent release of contaminants emitted from finishes which have the potential for short-term off-gassing. In the schedule, the contractor will include appropriate allowances for drying or curing times before installation of materials that have a fibrous or porous nature that tend to absorb contaminants.
- Report occurrences that may affect or represent a potentially negative impact on indoor air quality long-term to General Contractor’s Superintendent, immediately.
- Submit LEED credit information in submittal package, including product data sheets and requested cost information.
- Review low-emitting requirements listed in the specifications for paints, coatings, adhesives, sealants, composite wood, flooring, furniture and furnishing, ceiling and wall systems and laminate adhesives before sending submittals for purchase and installation. Failure to provide correct products may result in unacceptable work.

EXECUTION OF CONTROL MEASURES:

The Contractor and all Subcontractors are required to meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008, Chapter 3, for compliance with LEED EQ Credit 3.1. Contractor is required to keep a copy of the referenced standard onsite. Visit www.smacna.org or call (703) 803-2980 to obtain a copy of the referenced standard. Minimum control measures for an effective IAQ plan during the construction phase include the following:

HVAC Protection

The intent of this section is to protect all HVAC equipment from collecting dust and / or odors. Odors can be absorbed by porous materials in the system and be released later.

- HVAC equipment shall be delivered on-site sealed in plastic on pallets protecting the interior of the units from dust, debris and moisture. Equipment will be stored on raised pallets and sealed in plastic until installation. If necessary, the plastic can be removed during installation and replaced immediately afterward. Seal all duct and equipment openings with plastic. The protective plastic covering will remain until the system is tested prior to occupancy. At that time, all vents and ducts will be inspected for contamination. If any dust deposits are observed, the area will be cleaned by a professional with expertise in the proper use of equipment and procedures for duct cleaning.
- **The permanently installed HVAC system shall not be used during demolition or construction without prior approval of Owner and Mechanical Engineer of Record. Use temporary air handling units as needed to maintain proper temperature and humidity for finishes.** Until the HVAC system is fully installed, all parts of the system
will be covered or stored off the ground in a clean, dry location where contaminants are not introduced, away from construction.

- All supply and return ducts must be sealed during construction at all times. The return side of the HVAC system is, by definition under negative pressure and thus capable of drawing in nearby construction dust and odor. Isolate the return side of the HVAC system from the surrounding environment as much as possible and seal all return system openings with plastic. The permanent HVAC system will be shutdown whenever possible during heavy construction and demolition.

- If the permanent HVAC system is approved for use during construction, protect the return side by installing temporary filtration media over grilles and openings with a Minimum Efficiency Reporting Value (MERV) of 8 as determined by ASHRAE 52.2 – 1999. For open plenum returns, the return air ducts in the plenum will need MERV 8 filters. To prevent dirt contamination to the air terminal units prior to the installation of ceiling tiles and return grilles: (1) Have the primary air damper on the air terminal units set to fully open (by controls contractor). (2) Remove and store the filter from the air terminal units. (3) Block the return air intake at the air terminal units. The intake at the air terminal unit is located at the filter location. Once the ceiling and return air grilles are in place the MERV 8 filtration must be shifted to the return grille or other openings in the plenum if the air handlers are to be used during construction.

- During construction, filters will be inspected every other day and replaced as needed. Maintain a filter schedule to show the type of filters installed, inspection dates and replacement dates.

- If an unducted ceiling plenum returns over the construction zone must be used, it should be isolated by having all ceiling tiles in place. Check for leaks in the ducts and air handlers and repair promptly.

- If permanently installed HVAC system is approved for used during construction, heaviest work areas shall be dampered off or blocked if temporary imbalance of the return air system does not create a greater problem.

- If permanent HVAC systems are approved for use during construction, filtration with media such as activated charcoal or potassium permanganate shall be used as needed to control construction related odors.

- The mechanical room shall not be used to store construction or waste materials.

- All HVAC equipment is scheduled for commissioning and testing prior to occupancy.

- If contamination occurs, affected components will be cleaned prior to start-up testing.

- The mechanical contractor shall provide data sheets of filtration media used during construction and installed immediately prior to building flush-out and prior to building occupancy.

Source Control

Minimize the sources of construction pollution by complying with the following measures:

- Use low-emitting materials as specified by the architect.

- Recover, isolate and ventilate containers housing toxic materials.

- Store liquids outdoors. To reduce the possibility of spills during storage, transfer, or mixing, store all odorous or toxic liquids outside the building and protect against freezing. Any pollution sources within the building will be stored in spaces that are exhausted directly to the outside away from openings and intakes. Do not use the mechanical rooms for storage.
- Keep containers closed. Containers storing VOC-emitting products such as fuel, paints, finishes and solvents will be kept tightly sealed and away from absorptive materials when not in use. These items will remain outside of the building(s) when not in use.
- Avoid use of combustion equipment indoors. Engines, heaters or equipment that runs on gasoline, diesel, kerosene or other fossil fuels shall not be operated indoors unless absolutely necessary and only when large quantities of exhaust ventilation, such as the use of large industrial fans located downwind at nearby openings, are provided to remove combustion pollutants such as carbon monoxide, moisture, and dust. Emissions from propane-powered equipment such as generators and forklifts are cleaner but potentially harmful under some circumstances. **Exhaust fumes from idling vehicles and gasoline-fueled tools within the building must be exhausted to the exterior of the building through the use of funnels or temporary piping.** Use of electric power tools, hoists, forklifts and machinery will be considered whenever possible.
- Operation of motor vehicles. Motor vehicles will not be operated within the building. Motorized equipment or delivery vehicles used near doors or openings will be limited. Turn off engines when not in use and do not allow idling.
- Reduce construction dust. Minimize the amount of dust in the air and on surfaces. **Vacuum assisted cut-off saws, grinders and drywall sanding equipment shall be used to minimize dust.** Empty dust collection systems into receptacles located outside of the building.
- No smoking or chewing tobacco is allowed on school property.
- Permanently seal all abandoned sewer and waste piping. Unsealed abandoned floor drains and pipes can emit sewer gas back into the occupied spaces.
- Confirm that all new and abandoned gas and refrigerant piping has been properly pressure tested and is leak-free. Abandoned refrigeration lines will be decommissioned and permanently sealed.
- Seal all newly installed piping to prevent dust contamination.
- Roofing kettles shall be equipped with emissions control equipment and shall be staged downwind of any building openings or outside air intakes.

**Pathway Interruption**

- Temporary barriers shall be constructed to isolate areas under construction from clean or occupied areas.
- Prevent air movement from the work site to clean or occupied spaces by interrupting potential contaminant pathways, and by manipulating the following factors to achieve environmental control:
  - **Depressurize the work area.**
    - Adjust the balance of the existing HVAC and exhaust systems (if prior approval is given by Owner and Mechanical Engineer of Record).
    - Install portable fans.
    - Exhaust the work site at a rate at least 10% greater than the rate of supply (if prior approval is given by Owner and Mechanical Engineer of Record).
  - **Pressurize occupied space.**
    - Increase supply air or decrease exhaust air in occupied spaces (if prior approval is given by Owner and Mechanical Engineer of Record.)
    - Protect HVAC system from construction emissions.
  - Erect barriers to contain construction area
Dust curtains to control nuisance dust
- Continuous plastic seal to control hazardous dust
- Relocate pollutant sources
  - Do not store construction products and waste materials in mechanical rooms
  - Locate emissive materials as far away from air intakes as possible
  - Roofing tar kettles shall be located as far away from air intakes and building openings as possible.
  - Refurbishing of mechanical equipment shall be performed outdoors or in a shop.
- Temporarily seal the building
  - When construction emissions are occurring on the roof or adjacent to a building, and there is no other alternative, seal intake dampers and other building openings to prevent emissions from entering the building through the HVAC system.

Housekeeping

As dust accumulates at the construction site, it will become airborne when disturbed by nearby activity. Similarly, spills or excess applications of products containing solvents will increase odors at the project site.

- Clean daily to remove construction dust and debris. Promptly clean up spills. Remove accumulated water daily and keep work areas as dry as possible to discourage the growth of mold and bacteria. Take extra measures when working with hazardous materials, and clean in accordance with any requirements or regulations for the product involved.
- Suppress dust with sweeping compounds. Use damp rags, mops or vacuum cleaners to clean up dust instead of brooms to clean construction dust from floors whenever possible.
- Building materials, especially those with moisture absorbing properties like wood, insulation, paper and fabric, shall be kept dry to prevent the growth of mold and bacteria. Cover dry materials with plastic to prevent water damage or dust contamination, and if resting on the ground, use spacers to allow air to circulate between the ground and the materials.
- Water damaged materials shall be dried within 24 hours. Due to the possibility of mold growth, materials that are damp or wet for more than 72 hours shall be discarded.
- Low-toxic cleaning supplies such as soybean-based solvents and citrus-based cleaners certified by Green Seal, shall be used for surfaces, equipment and worker’s personal use.
- Clean spills immediately. If solvents, cleaners, gasoline or other odorous or potentially toxic liquids are spilled onto the floor, they shall be cleaned up immediately. If a spill occurs on a porous building material, discard the affected product and replace it with new material.

Scheduling

- Coordinate construction activities to minimize or eliminate disruption of operations in the occupied portions of the building.
- Conduct activities with high pollution potential during off hours, such as weekends or evenings, to allow time for new materials to air out. Plan adequate time to conduct testing and balance, commissioning, and IAQ flush out and/or testing procedures before occupancy.
Ensure that construction activity is sequenced to minimize the absorption of VOCs by absorptive building materials.

- Schedule construction operations so that absorptive materials like ceiling tile and carpeting are installed only after all applications of wet and odorous materials such as adhesives, sealants, paints and other coatings have been completed.
- Prior to absorptive materials being installed, building will be dried in with doors and windows on all openings.
- Replace all filtration media immediately prior to occupancy. Filtration media shall have a minimum MERV rating of 13.

SUBSTITUTIONS:

- Under no circumstances will a product substitution be allowed that does not meet the low-VOC requirements as listed in the Specifications and/or the LEED Credit Requirements.
- Installation of a non-compliant product may result in the failure of the air quality testing to be performed prior to occupancy and loss of LEED EQ Credits 3.1, 3.2 and 4.
- Low emitting products have been specified with maximum VOC limits that include paints and coatings, adhesives and sealants, flooring, furniture, ceiling and wall systems, and composite wood and laminate adhesives.
- Should the Contractor desire to use procedures, materials, equipment or products that are not specified, but meet the intent of LEED EQ Credits 3.1 and 4.1, 4.2, 4.4 and the Construction Indoor Air Quality Plan to protect air quality on the site, the Contractor will propose the substitutions in accordance with the requirements.

LEED SUBMITTAL DOCUMENTATION FOR EQ CREDIT 3.1 – GENERAL CONTRACTOR RESPONSIBILITIES:

- Upload LEED template declaring that the Construction IAQ Management Plan has been developed and implemented, along with listing each air filter used during and at the end of construction.
- Review submittals for compliance with LEED Credit requirements.
- Review low-emitting requirements listed for paints, coatings, adhesives, sealants, flooring, ceiling and wall systems, furniture, composite wood and laminate adhesives before purchase and installation.
- Conduct site observations with photo documentation, identifying the SMACNA approaches featured in each of the photos taken during the site visit showing consistency in adherence to the LEED credit requirements, and report non-compliance as necessary.
- Provide additional photographs of all LEED-related best practice procedures and report non-compliance as necessary. The photos will help document compliance with the stated requirements of the LEED program during the review process.

INDOOR AIR QUALITY TESTING:
Coordinate with Owner to conduct baseline IAQ testing after construction ends and prior to occupancy using testing protocols consistent with the *EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air* and as additionally detailed in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition.

Demonstrate that the contaminant maximum concentration levels listed below are not exceeded:

<table>
<thead>
<tr>
<th>CONTAMINANT</th>
<th>MAXIMUM CONCENTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>27 parts per billion</td>
</tr>
<tr>
<td>Particulates (PM10)</td>
<td>50 micrograms per cubic meter</td>
</tr>
<tr>
<td>Total volatile organic compounds (TVOCs)</td>
<td>500 micrograms per cubic meter</td>
</tr>
<tr>
<td>4-Phenylcyclohexene (4-PCH)†</td>
<td>6.5 micrograms per cubic meter</td>
</tr>
<tr>
<td>Carbon monoxide (CO)</td>
<td>9 part per million and no greater than 2 parts per million above outdoor levels</td>
</tr>
</tbody>
</table>

* This test is only required if carpets and fabrics with styrene butadiene rubber (SBR) latex backing are installed as part of the base building systems.

For each sampling point where the maximum concentration limits are exceeded, conduct an additional flush-out with outside air and retest the noncompliant concentrations. Repeat until all requirements are met. When retesting noncompliant building areas, take samples from the same locations as in the first test.

Conduct the air sample testing as follows:

- All measurements must be conducted prior to occupancy, but during normal occupied hours with the building ventilation system started at the normal daily start time and operated at the minimum outside air flow rate for the occupied mode throughout the test.
- All interior finishes must be installed, including but not limited to millwork, doors, paint, carpet and acoustic tiles.
- For each portion of the building served by a separate ventilation system, the number of sampling points must not be less than 1 per 25,000 square feet or for each contiguous floor area, whichever is larger. Include areas with the least ventilation and greatest presumed source strength.
- Air samples must be collected between 3 and 6 feet from the floor to represent the breathing zone of occupants, and over a minimum 4-hour period.
PART 1 - GENERAL

1.0.0.1 SUMMARY

A. Section includes general requirements and procedures for compliance with certain USGBC LEED prerequisites and credits needed for Project to obtain LEED Silver certification based on LEED 2009, New Construction and Major Renovations.

1. Other LEED prerequisites and credits needed to obtain LEED certification depend on material selections and may not be specifically identified as LEED requirements. Compliance with requirements needed to obtain LEED prerequisites and credits may be used as one criterion to evaluate substitution requests and comparable product requests.

2. Additional LEED prerequisites and credits needed to obtain the indicated LEED certification depend on Architect's design and other aspects of Project that are not part of the Work of the Contract.

A copy of the LEED Project checklist is attached at the end of this Section for information only.

B. Documentation Required for Certification: The Project has been registered with GBCI and the LEED Consultant is the administrator. Final documentation will be submitted via LEED Online:

1. Design Credits: Reference LEED Project Checklist for individual parties responsible for documentation. LEED Consultant will review all documentation prior to final submittal.

2. Construction Credits: Reference LEED Project Checklist for individual parties responsible for documentation. LEED Consultant will review all documentation prior to final submittal.


D. Monitoring and Payment: Progress on complying with LEED requirements will be monitored regularly, not less than monthly, based on reports submitted with applications for payment. Failure to make progress and to provide evidence of progress may result in Architect withholding certification of an application.

E. Related Sections:
1. Divisions 01 through 33 Sections for LEED requirements specific to the work of each of these Sections. Requirements may or may not include reference to LEED.

1.2 DEFINITIONS

A. Chain-of-Custody Certificates: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship." Certificates shall include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.

B. LEED: Leadership in Energy & Environmental Design. Rapidly Renewable Materials: Materials made from plants that are typically harvested within a 10-year or shorter cycle. Rapidly renewable materials include products made from bamboo, cotton, flax, jute, straw, sunflower seed hulls, vegetable oils, or wool.

Regional Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles of Project site. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.

Recycled Content: The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.

1. "Post-consumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.
2. "Pre-consumer" material is defined as material diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

F. New Wood: Wood product that has not been reclaimed, salvaged or recycled.

G. Inside Weatherproofing System: Inside of the vapor barrier or moisture barrier.
1.3 SUBMITTALS

A. General: Submit additional LEED submittals required by other Specification Sections.

B. LEED submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED requirements.

C. Within 30 days of Notice to Proceed, submit a Schedule of Values listing material costs for Divisions 03-10, 31 (Section 31.60.00 Foundations), 32 (Sections 32.10.00 Paving, 32.30.00 Site Improvements, and 32.90.00 Planting), and 12 (Furniture and Furnishings). Materials costs shall be provided separately for each applicable Division and Section. Where specific Sections are listed, sub-Sections falling under the primary section number need to be included. For example, all Sections that pertain to Foundations and begin with the numbers 31.6X.XX shall be included in the Schedule of Values, and materials costs shall be provided for those sections.

LEED Documentation Submittals:

- Prerequisite EA 1 and Credit EA 3: Comply with Division 01 Section “Commissioning Requirements”. Coordinate with Owner.
- Prerequisite SS 1: Comply with Section 01 57 13, Temporary Erosion and Sedimentation Control, the Stormwater Pollution Prevention Plan (SWPPP), the Erosion and Sedimentation Control (ESC) Plan, and all requirements of the 2003 EPA Construction General Permit. Document implementation of the erosion and sedimentation control plan through date-stamped photos, inspection logs or reports and descriptions of corrective action in response to problems.
- Credit EA 5: Product data and wiring diagrams for sensors and data collection system used to provide continuous metering of building energy-consumption performance over a period of time of not less than one year of post-construction occupancy.
- Credit MR 2: Implement before any construction or demolition debris is generated, monitor during construction, and maintain until end of construction according to Division 01 Section 01 74 19 Construction Waste Management.
- Credit MR 4:
  a. Provide the following information for each material
     1) Product data for Credit MR 4: For products having recycled content, provide documentation indicating percentages by weight of post-consumer and pre-consumer content.
        i. Provide statement indicating cost for each material having recycled content.
        ii. This applies to Divisions 03-10, 31 (Section 31.60.00 Foundations), 32 (Sections 32.10.00 Paving, 32.30.00 Site Improvements, and 32.90.00 Planting), and 12 (Furniture and Furnishings).
  b. Submit a complete list of all concrete mix designs, with documentation from the supplier showing the extraction site and manufacturing site of each component in the mix design, post-consumer and pre-consumer recycled content percentages of...
each component in the mix design, and material cost for each component in the mix design (excluding labor and other fees).

c.

Credit MR 5:

a. Provide the following information for each material:

1) Product data for Credit MR 5: For products extracted and manufactured within 500 miles, provide documentation indicating percentages by weight of regionally extracted and manufactured components.
   i. Provide statement indicating cost for each material having regionally extracted and manufactured content.
   ii. This applies to Divisions 03-10, 31 (Section 31.60.00 Foundations), 32 (Sections 32.10.00 Paving, 32.30.00 Site Improvements, and 32.90.00 Planting), and 12 (Furniture and Furnishings).

b. Submit a complete list of all concrete mix designs, with documentation from the supplier showing the extraction site and manufacturing site of each component in the mix design, post-consumer and pre-consumer recycled content percentages of each component in the mix design, and material cost for each component in the mix design (excluding labor and other fees).

c.

Credit IEQ 3.1:

a. Comply with Division 1 Section 01 81 09 Indoor Air Quality Management and Testing.

b. Product data for temporary filtration media: Prior to installation, provide list of filtration media to be used during construction, including manufacturer, product number, MERV rating, location of installed filter. Confirm that each filter was replaced prior to final occupancy.

c. Product data for filtration media used during occupancy.

d. Construction Documentation: Six photographs at three different times during the construction period, along with a brief description of the SMACNA approach employed, documenting implementation of the indoor-air-quality management measures, such as protection of ducts and on-site stored or installed absorptive materials.

e. Coordinate with LEED Consultant to provide training meetings for all Contractors and Subcontractors on Indoor Air Quality Management, Construction Waste Management, and LEED Submittal Requirements.

Credit IEQ 3.2:

Comply with Division 1 Section 01 81 09 Indoor Air Quality Management and Testing.

9. Credit IEQ 4.1:

Provide confirmation of the following information for all adhesives and sealants on the interior of the building (i.e. inside the weatherproofing system and applied-onsite):
a. Product Data for Credit IEQ 4.1, including printed statement of VOC content stated in grams per liter (g/L) and provide certificate documentation of certification in one of the following:
b. Projected quantities in gallons or ounces for each adhesive and sealant to be used on project.

Credit IEQ 4.2:
Provide confirmation of the following information for all paints and coatings on the interior of the building (i.e. inside the weatherproofing system and applied-onsite):
a. Product Data for Credit IEQ 4.2, including printed statement of VOC content stated in grams per liter (g/L) and provide certificate documentation of certification in one of the following:
b. Projected quantities in gallons or ounces for each paint and coating to be used on project.

11. Credit IEQ 4.3:
Provide confirmation of the following information for all flooring elements installed on the building interior (i.e. inside the weatherproofing system):
a. Product Data for Credit IEQ 4.3:
   (1) All carpet installed in the building interior must meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program.
   (2) All carpet cushion installed in the building interior must meet the requirements of the Carpet and Rug Institute Green Label program.
   (3) All carpet adhesive must meet the requirements of IEQc4.1.
   (4) All hard surface flooring must meet the requirements of the Floor Score standard (current as of the date of the LEED rating system). Mineral based finish flooring products such as tile, masonry, terrazzo, and cut stone without integral organic-based coatings and sealants and unfinished/untreated solid wood flooring qualify for credit without any IAQ testing requirements. However, associated site-applied adhesives, grouts, finishes and sealers must be compliant for a mineral-based or unfinished/untreated solid wood flooring system.
   (5) Concrete, wood, bamboo and cork floor finishes such as sealers, stain and finish must meet the requirements of SCAQMD Rule 1113, in effect on January 2004.
   (6) Tile setting adhesives and grout must meet SCQMD Rule 1168, in effect on January 7, 2005.

14. Credit IEQ 4.4:
Provide confirmation of the following information for all composite wood, agrifiber products, laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies used on the interior of the building (i.e. inside the weatherproofing system):
   1) No added urea formaldehyde resins.
1.4 QUALITY ASSURANCE

A. LEED Coordinator: Engage an experienced LEED-Accredited Professional to coordinate LEED requirements. LEED coordinator may also serve as waste management coordinator.

PART 1 - PRODUCTS

2.0.0.1 RECYCLED CONTENT OF MATERIALS

A. Credit MR 4: Provide building materials with recycled content such that post-consumer recycled content plus one-half of pre-consumer recycled content constitutes a minimum of 30 percent of cost of materials used for Project.

1. Value of post-consumer recycled content of an item shall be determined by multiplying the percentage by weight of the post-consumer recycled content by the material cost.

Do not include mechanical, electrical and plumbing components, or specialties items such as elevators and equipment in the calculation.

2.0.0.2 REGIONAL MATERIALS

A. Credit MR 5: Provide 30 percent of building materials (by cost) that are regional materials, extracted and manufactured within 500 miles of the project site.

2.0.0.3 LOW-EMITTING MATERIALS

A. Credit IEQ 4.1: For field applications that are inside the weatherproofing system, use products that comply with the following:


b. Aerosol Adhesives VOC must not exceed levels established by Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.


B. Credit IEQ 4.2: For field applications that are inside the weatherproofing system, use products that comply with the following:
   

b. Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates must not exceed the VOC content limit of 250 g/l established in Green Seal Standard GS-03.


C. Credit IEQ 4.3: All flooring systems installed inside the weatherproofing system shall meet the testing and product requirements as follows:
   a. All carpet installed in the building interior must meet the testing and product requirements of the Carpet and Rug Institute’s Green Label Plus program.
   b. All carpet cushion installed in the building interior must meet the requirements of the Carpet and Rug Institute Green Label program.
   c. All carpet adhesive must meet the requirements of IEQc4.1.
   d. All hard surface flooring must meet the requirements of the Floor Score standard (current as of the date of the LEED rating system). Mineral based finish flooring products such as tile, masonry, terrazzo, and cut stone without integral organic-based coatings and sealants and unfinished/untreated solid wood flooring qualify for credit without any IAQ testing requirements. However, associated site-applied adhesives, grouts, finishes and sealers must be compliant for a mineral-based or unfinished/untreated solid wood flooring system.
   e. Concrete, wood, bamboo and cork floor finishes such as sealers, stain and finish must meet the requirements of SCAQMD Rule 1113, in effect on January 2004.
   f. Tile setting adhesives and grout must meet SCQMD Rule 1168, in effect on January 7, 2005.

D. Credit IEQ 4.4: All composite wood or agrifiber products installed inside the weatherproofing system shall not contain any added urea-formaldehyde resins.

PART 2 - EXECUTION

3.0.0.1 CONSTRUCTION WASTE MANAGEMENT

A. Credit MR 2: Comply with Division 01 Section 01 74 19 "Construction Waste Management and Disposal."
3.0.0.2 CONSTRUCTION INDOOR-AIR-QUALITY MANAGEMENT

A. Credit EQ 3.1: Comply with Division 01 Section 01 81 09 Indoor Air Quality Management and Testing

B. Credit EQ 3.2: Comply with Division 01 Section 01 81 09 Indoor Air Quality Management and Testing

END OF SECTION 018113
LEED SUBMITTAL EXHIBIT FORM

*Submit this form with each product as required by Division 01 section "Sustainable Design Requirements"

Subcontractor Name: 

Signature: 

Print Name: 

Phone Number & Email Address: 

Manufacturer Name and Telephone Number: 

CSI Division and Product: 

Material Cost Total (including OH&P) excl. labor & equipment) for this product:

$ 

ALL INFORMATION STATED BELOW MUST HAVE MANUFACTURER DOCUMENTATION OR MANUFACTURER LETTER SUPPORTING CLAIM

MRC4 - Recycled Content

Post Consumer: 

Post Industrial (Pre Consumer): 

MRC5 - Regional Materials

Distance between Project Location & Manufacturing Plant 

Distance between Project Location & Extraction/Harvest/Recovery Site: 

If an assembly, what % is <500 miles for both manufacture and harvest locations. ___%
ALL INFORMATION STATED BELOW MUST HAVE MSDS, MANUFACTURER DOCUMENTATION OR CERTIFICATE SUPPORTING CLAIM

LOW EMITTING MATERIALS

IEQ4.1 - Adhesives & Sealants
Product Category (See list in Section 01 81 13) ..........................................................
VOC content of product: g/L ........................................................................

IEQ4.2 - Paints & Coatings
Product Category (See list in Section 01 81 13) ..........................................................
VOC content of product: g/L ........................................................................

IEQ4.3 - Flooring Systems
Flooring Type (ie: carpet, VCT, rubber etc.) ...........................................................
Compliance Method (ie: CRI, Floor Score etc.) ....................................................

IEQ4.4 - Composite Wood & Agrifiber
Does this composite wood or agrifiber product contain any added urea-formaldehyde?
SECTION 01-9  CLOSEOUT PROCEDURES

-0 DELIVERABLES

- .1 TRANSMITTALS
QC Manager’s Punch List

- .2 SUBMITTALS
SD-11 Closeout Submittals
  As-Built Drawings
  Construction Warranty Management Plan
  DD Form 1354 Draft
  DD Form 1354 Final

-1 AS-BUILT DRAWINGS
  a. The Contractor shall update the As-Built drawings every month. Payment, or a portion of the payment, including final payment, may be withheld until the Record Drawings have been updated and accepted by the 47 CES/CENMP and Owners Representative. Final payment of this contract will not be made until the As-Built Drawings are approved by the 47 CES/CENMP and Owners Representative.

  b. The Contractor shall comply with the following standards for As-Built Drawing submittal:

    (1) Submit 1 paper copy, 1 digital copy in PDF Format, and 1 digital copy in AutoCAD Format to the 47 CES/CENMP and Owners Representative for review and approval.

    (2) Paper copies shall be 11 x 17 inches.

    (3) AutoCAD drawings shall comply with A/E/E CADD Standard Release 4.0 or the latest published version listed on the https://cadbim.usace.army.mil/cad website. The Datum shall be North American 1983 (NAD83), local State Plane Texas South Central 4204 coordinate system. The drawings shall be to scale with applicable survey control points, monuments and marks listed. Any buried utility shall be identified by type, material composition, size, and elevation.

    (4) All drawings shall clearly indicate (by “red line” markings) any and all deviations from the contract drawings.

    (5) All lines, letters, and details shall be sharp, clear, and legible.
(6) Additions and corrections to the drawings shall be drawn to the scale of the original drawing.

-2 CONSTRUCTION WARRANTY MANAGEMENT PLAN

a. All warranty periods shall begin on the same date as project acceptance and shall continue for the full product warranty period.

b. The Contractor shall comply with the following standards for the Construction Warranty Management Plan:

(1) Submit 1 paper copy and 1 digital copy (in PDF Format) to the 47 CES/CENMP and Owners Representative for review and approval.

(2) The paper shall be bound in a three ring binder and include a cover sheet, label for the binder spine, and a table of contents.

(3) A signed warranty letter guaranteeing all work associated with this Contract for 1 year shall be included. The letter shall include the start date and end date of the warranty period.

(4) The plan shall include an equipment product warranty list. For each item, the Contractor shall provide the specification section applicable to the equipment/product, duration of the warranty, start date of the warranty, ending date of the warranty, and the point of contact for fulfillment of the warranty.

(5) Written warranties for equipment/products furnished under the contract shall be included in the plan.

-3 DD FORM 1354

a. Submit to the 47 CES/CENMP and Owners Representative a draft copy of the DD Form 1354, "Transfer and Acceptance of Military Real Property," 14 days prior to final acceptance of the work. A pre-final inspection will not be scheduled until the draft DD Form 1354 has been received. The final DD Form 1354 shall be submitted simultaneous with the final inspection. The Government is prevented by AFI 32-9005 from taking Beneficial Occupancy of a facility until a DD Form 1354 is signed by the Government.

b. A blank DD Form 1354 (fill-able) in Adobe (PDF) may be obtained at the following website:

c. A completed Checklist Form for the DD1354 shall be attached to the draft and final DD Form 1354.

d. Contact the 47 CES/CENMP and Owners Representative for any project specific information necessary to complete the DD Form 1354.

e. Submit 1 paper copy and 1 digital copy (in PDF Format) of the draft and final DD 1354.
-4 COMPLETION INSPECTION

a. Prior to requesting a Pre-Final Inspection, the QC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and submitted to the 47 CES/CENMP and Owners Representative. Once the QC Manager has assured that all punch list items have been corrected, the Contractor shall notify the Government and request a Pre-Final Inspection.

b. The Government will perform the Pre-Final Inspection to verify that all work is complete and meets specified requirements. The Contractor’s QC Manager and superintendent shall be in attendance at the Pre-Final Inspection. If the Government identifies items that do not conform to specified requirements, a Pre-Final punch list will be developed. The QC Manager shall ensure all items on this list have been corrected prior to the Contractor requesting Final Inspection.

c. The Contractor shall submit a request for Final Inspection to the 47 CES/CENMP and Owners Representative. The request shall include the Contractor’s assurance that all items on the Pre-Final punch list will be completed at the time of the Final Inspection. The Contractor’s QC Manager and superintendent shall be in attendance at the Final Inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection may be cause for the Owners Representative to bill the Contractor for the Government’s additional inspection cost. All inspections’ deficiency corrections required shall be accomplished within the performance period for the project.
APPENDIX B:  
FREE ZONE PACKAGE  

\{\textit{Remove this appendix if the project does not include work in a controlled area}\}