

Attachment 1

STATEMENT OF WORK
for
ARCHITECT/ENGINEERING (A/E)
SERVICES

JOINT BASE CHARLESTON
SOUTH CAROLINA

24 March 2026

PART I. STATEMENT OF WORK (SOW)

1. SCOPE OF WORK: Architect-Engineer (A/E) services are required to support Design-Build Task Orders on the Multiple Award Construction Contract (MACC) to support the construction program at Joint Base Charleston (JB CHS). Here, JB CHS encompasses the following locations: Joint Base Charleston - Air Base, Charleston, SC; Joint Base Charleston - Weapons Station, Goose Creek, SC; Short Stay Recreational Area, Moncks Corner, SC; North Auxiliary Airfield, North Charleston, SC; Defense Fuel Supply Point, Charleston, SC. In addition, MACC vendors will support Seymour Johnson AFB and Shaw AFB for emergency use. The type of work vendors can expect will include, but is not limited to, new construction, alteration/repair and/or demolition of buildings and structures, roads, grounds, and utilities. Work may also include design/build from concept to full 100% design. Vendors will furnish all materials, equipment, transportation, and personnel necessary for project requirements and to manage and accomplish multiple, simultaneous projects.

- 1.1. Projects requiring design will be specified on Design Build Task Order Proposal Requests (TOPR), the MACC Contractor shall perform Title I services and/or Title II services.

Title I services include all aspects of design, including preparation and/or review of contract plans, calculations, specifications, scheduling and cost estimates, building commissioning services, and preparation of operating and design manuals. These services also encompass those efforts required to support and develop design work, including but not limited to, planning, programming, program management, project scoping, studies, investigations, evaluations, consultations, conceptual through final design, LEED™ analysis and documentation, interior design services, value engineering, geotechnical investigation and surveying.

Title II services include construction quality assurance, oversight of construction, submittal review, inspection and construction supervision.

- 1.2. Services shall be furnished complete, including all material, equipment, travel, labor, etc.
2. REFERENCES: Hard copies of reference materials will not be furnished. Unified Facilities Criteria and Unified Federal Guide Specifications are available via the Whole Building Design Guide web site (www.wbdg.org). Air Force specific design standards, policies and publications are available on the Air Force e-Publishing web site (<http://www.e-publishing.af.mil>).
3. GOVERNMENT FURNISHED INFORMATION AND MATERIALS: The MACC Contractor shall adapt, as available, Government designs, drawings, specifications and standards, to meet the requirements of the project. The MACC Contractor will be furnished, or given access to, the following material by the Government. Any material furnished will be on a loan basis to be

returned upon completion of the contract.

- 3.1. Existing record drawings and information concerning the physical composition of the existing construction. The MACC Contractor shall verify information provided on the drawings prior to use in the design.
- 3.2. AF Form 332, DD Form 1391 and/or 1391C for each project, as applicable.
- 3.3. Applicable boiler-plate Joint Base Charleston Guide Specification sections.
- 3.4. Project location drawing.
- 3.5. Available utility maps of the project site for use as reference material.
- 3.6. Standard Joint Base Charleston drawing title blocks in AutoCAD (DWG) format.
- 3.7 Air Force Design Award Program Submittal Guide.
4. PRE-DESIGN CONFERENCE: A pre-design conference between the MACC Contractor and Government representatives involved with the project will be held to allow the A/E to demonstrate how they propose to accomplish the project and to review and discuss project requirements.
5. VISITS: As part of the design phase of the Task Order (TO), the MACC Contractor will be required to make periodic visits to the facility. Visits shall be as necessary to complete work as early as possible. Informal telephone technical reviews and discussion between the A/E, MACC Contractor, and base engineering personnel are expected and encouraged.
6. DELIVERY OF MATERIALS: All materials and submittals to be furnished by the MACC Contractor shall become the property of the Government unless copyrighted and clearly identified to the Contracting Officer.
7. ERRORS & OMISSIONS: The MACC Contractor shall expeditiously correct all errors or omissions resulting from their work, whether they be discovered during the design or during the construction phase of the project. The MACC Contractor shall also respond to questions of clarification or interpretation of design work. These services will be provided by the MACC Contractor at no additional cost to the Government.

PART II. STATEMENT OF SERVICES

1. TITLE I SERVICES

- 1.1. SCOPE OF WORK: The MACC Contractor shall perform all services required to prepare and to furnish complete construction documents consisting of; contract drawings,

technical specifications, design analysis, and material submittals, as required, for the accomplishment of each project in accordance with requirements of these specifications. In addition, at the Contracting Officer's option, the MACC Contractor shall prepare an Air Force Design Award Presentation in accordance with the Design Awards Program Submittal Guide to be furnished to the MACC Contractor.

1.2. CONTRACT DRAWINGS: All contract drawings to be furnished shall be well prepared, complete, and accomplished in accordance with best professional practices to clearly and concisely show the type and extent of work to be performed. The drawings shall be drawn to appropriate scales and dimensioned completely and accurately. A scale using a fraction less than 1/8 inch equals one foot shall be avoided. Standard building material indications, symbols for architectural items and for electrical and mechanical and plumbing equipment shall be used to the greatest extent possible. Registered architects and registered professional engineers shall stamp their respective final drawings.

1.2.1. All drawings shall be prepared in AutoCAD. The 100% drawings shall be submitted on CD in files as individual drawing files, not as tabs; although the tabs may be used. The files must be saved with X-References attached and the appropriate layers turned on. Each individual sheet shall open in the state that they were printed and submitted.

1.2.1.1. The Government will provide the cover sheet template and drawing sheet template with title block. Unless otherwise noted, use of these templates is mandatory for all projects.

1.2.1.2. All drawings are to be drawn at full scale in Model Space. In Paper Space of Layout Tabs use Viewports to view objects at appropriate scales. Set the appropriate scale to each scaled set. If there are objects which are "Not To Scale" set the scale to 1:1.

1.2.1.4. Each sheet shall use the same sheet set up and be set to print at a 1:1 paper scale.

1.2.2. Final Drawing Sets

1.2.2.1. No mark ups other than signatures are to be on Final Drawing Sets.

1.2.2.2. Final drawing sets shall typically be printed on quality bond paper. If the TO requires the final set of Design Drawing Sheets to be printed on Mylar, sheets shall be printed on 0.4 mm Mylar and trimmed to appropriate paper size based on drawing sheets. MACC Contractor may submit a copy of Final Drawings on paper for review and approval by the Government before submitting Mylar's.

1.2.2.3. Final Drawings shall also be provided in AutoCAD (latest edition) format on Compact Disks (CDs). CDs shall be clearly labeled with the Air Force Project Name and Number, the A/E Firm's name and/or Logo, and the date the CD was burned. Labels shall be professional in appearance; handwritten labels are unacceptable.

1.2.3. Further submittal requirements are addressed in PART VI, paragraph 2.2.

1.3. SPECIFICATIONS: The specifications shall be complete, clear and shall amplify all information shown on the drawings and shall include detailed requirements for materials and equipment. Material items shall be specified using federal specifications or industry standards. The specifications shall be prepared in SpecsIntact using the Unified Facilities Guide Specifications and organized and numbered according to Construction Specifications Institute (CSI) MasterFormat Division/Section standard. Division 01 (General Requirements) specifications shall follow a guide furnished to the MACC Contractor by the Government. The MACC Contractor shall develop a statement of major work items and include this outline in Specification Section 01 11 00 (Summary of Work). The outline shall list major items of work in each trade involved. A one line description of work will not be adequate. The MACC Contractor shall furnish a title page and a table of contents for the specifications. These items shall follow the format furnished by the Government.

1.3.1. All extraneous material in the project specifications shall be removed. Material which appears in several sections should be listed in the first section and removed from all others. The MACC Contractor shall not refer to "owner", "architect", or "engineer" in the specifications; instead use the words "Government" or "Contracting Officer" as applicable. Do not use minimum time requirements to establish workmanship or material quality standards. When the Contracting Officer indicates changes should be made throughout the specifications the MACC Contractor must locate the changes in all paragraphs and correct the specifications completely. It is not the duty of the Government to edit the specifications. All pages and paragraphs must be numbered. The final set of original specifications shall be typed on bond paper, 8 ½" x 11", with 1" margin right and left and 1½" margin top and bottom. The quality of the specifications shall permit clear and legible reproduction.

1.3.2. For the 100% submittal, in addition to those described in 1.3.1, each specification section shall be submitted on CD in SpecsIntact (.sec) format, as Microsoft Word documents, and as Adobe Acrobat (.pdf) files. For the Final Submittal, specifications shall also be combined and submitted in a single, bookmarked, Adobe Acrobat (.pdf) file.

1.4 **ELECTRONIC SUBMITTAL FORMAT REQUIREMENTS:** In addition to hard copies designated for submission in individual design work orders, electronic project documents shall be submitted on CD using the following folder/file structure:

1.4.1 “Specifications” folder:

- “**SpecsIntact**” subfolder: Provide individual SpecsIntact (.sec) files for each of the individual specification sections.
- “**Microsoft Word**” subfolder: Provide individual Microsoft Word (.doc) files for the Title Sheet, Table of Contents and each of the individual specification sections. Format the name of each file with the section number and title; example “32 92 19 Seeding”. Abbreviations are acceptable for long section names.
- “**Adobe Acrobat**” subfolder: Provide both individual Adobe Acrobat (.pdf) files for the Title Sheet, Table of Contents and each of the individual specification sections. Format the name of each file with the section number and title; example “32 92 19 Seeding”. Abbreviations are acceptable for long section names. For the Final Submittal, submit both individual specification sections as well as a single, bookmarked, Adobe Acrobat (.pdf) file encompassing the entire set of specifications.

1.4.2 “Drawings” folder:

- “**AutoCAD**” subfolder: Provide individual AutoCAD (.dwg) files for all drawing sheets. Provide all related and referenced x-ref files, shape files, linetype definition files, custom hatch definition files, plot style tables, pen tables, etc. Individual sub-folders may be included for each of the architectural/engineering disciplines as long as all related files are included in each of the sub-folders. Should AutoCAD drawings include photos, create a sub-folder “Photos” and add the .jpg images within. Name each image to match the appropriate reference on the drawing sheets.
- “**PDF**” subfolder: Provide both individual Adobe Acrobat (.pdf) files for each drawing as well as a single Adobe Acrobat (.pdf) file for the entire set of drawings.
- “**GeoBase**” subfolder: Provide a Personal GeoDatabase (.gdb) with all survey and design features with the required attributes. See section 3.2.3 for more details.

1.4.3 **“Miscellaneous Documents”** folder:

- **“Annotated Comments”** subfolder: Provide Microsoft Word (.doc) files capturing the MACC Contractor responses to Government comments.
- **“Reports”** subfolder: Include all electronic files for study report documents in either Microsoft Word (.doc) files or Adobe Acrobat (.pdf) files. Documents with handwritten notes and signatures, such as geotechnical, asbestos & lead-based paint study documents shall be scanned and submitted in (.pdf) format.
- **“AF Form 4025”** subfolder: Include completed AF Form 4025 submittal register file in Microsoft Excel (.xls) format.
- **“EPA RMD”** subfolder: Include a completed electronic file for Environmental Protection Agency Recovered Materials Determination (EPA RMD) Form in Microsoft Word (.doc) format and a signed form in Adobe Acrobat (.pdf) file format.
- **“ODS Letter”** subfolder: Include a completed Ozone Depleting Substance (ODS) Letter in Microsoft Word (.doc) format and a signed ODS Letter in Adobe Acrobat (.pdf) file format.
- **“1354”** subfolder: Include a completed draft DD Form 1354 (Transfer and Acceptance of DoD Real Property) as an editable Adobe Acrobat (.pdf) file. Do not electronically sign the draft DD Form1354.

1.5. RENDERINGS: At the option of the Government, the MACC Contractor shall provide:

1.5.1. A conceptual perspective sketch at the 35% design state and a colored rendering at the 65% design state. The location and size of any rendering, if required, will be determined for each project at the pre-design meeting.

1.5.2. A computer Generated 3-Dimensional color drawing.

1.6. CONCEPTUAL DESIGN: MACC Contractors may be required to submit a conceptual design on Design-Build TOPRs to be considered responsive.

2. TITLE II SERVICES

2.1. SCOPE OF WORK: The work covered under this provision consists of furnishing all plant, labor and materials, and performing all necessary travel and services required to obtain, control, review and evaluate submittal data such as shop drawings, samples, certificates, test reports, etc., required by the contract specifications and the Schedule of Submittals, in conjunction with the construction of each project. The construction contractor will send all submittals, in 5 copies directly to the Contracting Officer. The Contracting Officer will forward the submittals to the A/E. The A/E will recommend approval, disapproval or conditional approval for each item in writing on the submittal and forward the submittal in 4 copies back to the Contracting Officer. If the submittal is disapproved, the Contracting Officer will send one copy of the submittal to the contractor, keep one copy on file and send the remaining two copies to the Civil Engineer Squadron.

2.1.1. At the option of the Government, provide inspection services during the entire construction performance period of a project or at certain phases of the construction of a project.

2.2. MATERIALS AND SERVICES TO BE FURNISHED BY THE GOVERNMENT:

2.2.1. Access to federal and military specifications and military standards to the extent which these documents are available at Joint Base Charleston.

2.2.2. Construction contact drawings and specifications.

2.2.3. Consultation with the Government Project Manager and Construction Inspector concerning problems which may arise in the area of review, evaluation, and recommendations of submittal data.

2.3. SERVICES TO BE FURNISHED BY THE A/E:

2.3.1. Furnish personnel who are professionally qualified by nature of education and experience to perform all duties required for the A/E services called for in this provision. This qualification requirement extends to all consultants that may be retained by the A/E.

2.3.2. Evaluate all test reports, coordinate evaluations with the Government Project Manager and/or Construction Inspector and report to the Contracting Officer in writing, as to conformity or nonconformity of the materials tested with the specifications.

2.3.3. Check shop drawings, samples and materials submittals for compliance with all contract documents.

- 2.3.4. Provide inspection services during the construction performance period and a survey party to check locations and elevations with a written report on the survey results. The Contracting Officer will have overall jurisdiction covering the surveillance, inspection, and administration during the construction of the project. These services shall be furnished in accordance with the requirements set forth in the TO placed with the MACC Contractor for Title II services.
- 2.3.5. Notify the Contracting Officer, in writing, of any modifications deemed necessary or required as a result of shop drawings or materials submittals reviews for improvement of the completed project. Adequate justifications and/or engineering analysis of modification plus cost estimates, shall accompany any recommendations for changes to the drawings and/or specifications.
- 2.3.6. Approved changes to the contract that result from the A/E's review of shop drawings and other submittals shall be annotated on one copy of the drawings and specifications by the A/E. Upon completion of the contract, copies of all submittals as well as the above marked copy of the drawings and specifications shall be forwarded to the Contracting Officer.

3. OTHER SERVICES

- 3.1. SCOPE OF WORK: The MACC Contractor shall perform field reconnaissance, surveys, and site investigations, including travel and work required to obtain engineering information and design data for the accomplishment of the design documents of the project in accordance with requirements of this SOW and individual design work orders as applicable.
- 3.2. FIELD RECONNAISSANCE AND SURVEYING: The MACC Contractor shall make a complete survey of the project site recording existing topography, terrain features, location of existing equipment, location of all utilities above and below ground including its sizes and elevations; width of adjacent streets, pavements, sidewalks, curbs and ditches; locations of existing trees, hedges and other obstructions such as catch basins, manholes, utility poles and fire hydrants. An electrical, heating and air conditioning load analysis of the existing facility will be performed as applicable to determine if existing equipment capacity is sufficient to support additions to the building.
- 3.2.1. Prior to beginning any geographical surveying the MACC Contractor's surveyor shall meet with the 628 Civil Engineer Squadron's Site Development and GeoIntegration Office sections. Only benchmarks and other reference points provided by these offices shall be used in the project survey.
- 3.2.2. All reference markers (such as PK nails) must be clearly marked with flagging or other Government approved method. All reference markers shall be established

in the NAD 1983 South Carolina State Plane Coordinate System in feet.

3.2.3. Presentation of design and survey data shall be developed using the CADD/GIS Technology Center's Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE). More information can be found at <https://tsc.wes.army.mil/>. The A/E shall deliver the final product in an AutoCAD drawing and a Personal GeoDatabase (PGDB) with required attributes. The data shall be in the NAD 1983 South Carolina State Plane Coordinate System in feet. A sample database, required attributes, and more help can be obtained by contacting the GeoIntegration Office (GIO).

3.3. ENGINEERING INFORMATION AND DESIGN DATA: The MACC Contractor shall make subsurface soil investigation(s) as required to support design of the building foundation. Soil boring data and analysis shall clearly indicate the subsurface conditions and physical characteristics that will be encountered. Particular attention will be given to any unusual soil conditions in the project area. The MACC Contractor will be required to obtain an approved BCE Work Clearance Request, AF Form 103, before accomplishing any soil borings. Any contractor use of radioactive materials (i.e., for soil density or moisture gauges) must be submitted through contracting and approved by the Base Radiation and Safety Officer (Bio-Environmental Engineer) before material can be brought on base.

3.4. FIELD MEASUREMENTS: The MACC Contractor shall make his own field measurements to verify any dimensions shown on Government furnished reference drawings. Verification of existing construction shall be a part of this service.

3.5. STUDY/INVESTIGATIVE REPORT: At the option of the Government, the MACC Contractor shall prepare a report on his services. The specified number of copies of the report shall be furnished, typed single spaced on 8½" x 11" quality bond paper. Drawings attached to the report, if sufficiently comprehensive and clear, may be made on 8½" x 11" quality tracing paper. At the MACC Contractor's option, as required for complete and thorough representation, drawings may be prepared on a sheet sized to proper requirements and folded into the 8½" x 11" report data sheet size.

3.5.1. The report shall describe in detail the complete investigation procedure, the evaluations of proposed work and alternate proposals.

3.5.2. Each consideration shall be included and shall be evaluated with regard to the feasibility of installation, repair and/or replacement, operation/efficiency and maintenance; first initial cost shall be indicated with long term operations cost and life expectancy indicated.

3.5.3. The report shall include the MACC Contractor recommendations regarding solutions to the requirements of these projects. The recommendations and

descriptions of proposed work shall clearly and specifically identify all materials and items of work recommended and/or proposed for the repair, replacement and/or removal with all cost comparisons and all cost factors itemized.

3.5.4. The final recommendations and/or description of proposed work shall resolve the specific work requirements indicated in the investigative report (see paragraph 3.5.3 above) of the SOW, describe all additional items of work supplementary to the specific items of work required, and provide any recommended changes that could provide a more satisfactory and/or more efficient project.

3.5.5. Acceptance of the report shall be subject to approval and acceptance of the analysis, investigation, costs and report by the Contracting Officer. Based on the contents of the report the Contracting Officer shall determine the extent of work to be accomplished.

3.6. COLOR BOARDS: The MACC Contractor shall, as required, submit the following for approval: Interior color boards, material samples, floor drawing and finish schedule. The submittal times for these items will be determined for each individual project. These items shall be contained in a standard size three ring binder. Submit exterior boards in 8½" x 11" format under a completely separate cover from interiors. Clearly identify the project on the outside cover of the three ring binder containing exterior samples.

3.7. INTERIOR DESIGN SERVICES AS REQUIRED: Scope of services to be provided by Government in the Design-Build TOPR.

3.8. MACC CONTRACTOR RESPONSIBILITY AS IT RELATES TO ENVIRONMENTAL CONSIDERATIONS: The MACC Contractor shall maintain responsibility for incorporating the proper design effort to ensure compliance with applicable environmental standards and requirements, as outlined below.

3.8.1. As required in individual design work order, the MACC Contractor shall be responsible for the specific handling of environmental considerations as followed:

3.8.1.1. The MACC Contractor shall review and identify potential interaction with/disturbance of Installation Restoration Program (IRP) sites and areas of concern. IRP information will be provided by the Government.

3.8.1.2. The MACC Contractor shall assist in determining and processing any requirements of the National Environmental Policy Act of 1969 (NEPA) for the protection and preservation of the Natural and Cultural Resources on Joint Base Charleston. Wetlands and habitat protection are included in this process.

3.8.1.3. The MACC Contractor shall comply with the stormwater management practices and policies of the South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 72-300/316 - *Standards for Stormwater Management and Sediment Reduction*. Note that specific permit requirements will also apply for land disturbances on Joint Base Charleston. For land disturbances, including laydown area, the MACC Contractor shall complete DHEC Form 3306 Standard Application Form for Land Disturbing Activities Stormwater Permitting. The completed form and all attachments shall be submitted to the Base Environmental Office for signature. Plans must be kept on site and adhered to at all times. Sites may also be subject to inspection by the Office of Coastal Resource Management (OCRM).

3.8.1.4. The MACC Contractor shall ensure any air emission sources are properly permitted for design, construction, and operations in accordance with SCDHEC Title V Air Emissions management per SCDHEC Regulation 61-62 - *Air Pollution Control Regulations*. Any plans to construct, alter or add to a source of air contaminants, including installation of any device for the control of air contaminant discharges, shall be coordinated through and approved by the Base Environmental Office.

3.8.1.5. The MACC Contractor shall comply with the underground storage tank requirements of SCDHEC Regulation 61-92 - *Underground Storage Tank Control Regulations*.

3.8.2. Hazardous Materials Survey and Removal: Before submittal of proposal for a Design-Build Task Order, the MACC Contractor and his hazardous materials consultants and Government representatives shall make an initial site visit to determine the possible presence of environmentally significant materials, including (but not limited to) asbestos, lead-based paint, polychlorinated biphenyls (PCBs), and hazardous waste. At the completion of initial site survey the MACC Contractor and Government representatives will decide if special environmental consideration required for that particular project. The Government will assist by providing available previous inspection and survey information. The MACC Contractor shall incorporate the fee for the services of a qualified consultant or certified industrial hygienist (CIH) to conduct surveys of the facility, including sample collection/analysis and field consultation. Asbestos and lead-based paint survey shall be conducted in accordance with SCDHEC, OSHA, EPA. The MACC Contractor shall attempt to identify and assess previously identified materials. Results of these surveys shall be included in the first submittal, usually 35%. In addition, the MACC Contractor will be required to:

3.8.2.1. Prepare drawings and specifications to indicate the location of the environmentally significant materials and specify the procedure to be

followed during construction and/or demolition to prevent unauthorized release or other mishandling of the materials. The MACC Contractor shall be responsible for incorporating the applicable requirements into the specifications. The applicable requirements (latest edition) for each type of environmentally significant material are as followed:

- a) Asbestos shall be handled per
 - SCDHEC Regulation 61-86.1 - Standard of Performance for Asbestos
 - OSHA Standard 29 CFR 1926.1101 - Asbestos
 - EPA Standard 40 CFR 61, Subpart M - National Emissions Standards for Hazardous Air Pollutants; Asbestos
 - EPA standard 40 CFR 763 - Toxic Substances Control Act; Asbestos
- b) Lead-based paint shall be handled per
 - SCDHEC Regulation 61-79 - Hazardous Waste Management Regulations
 - OSHA Standard 29 CFR 1910.1025 - Lead in General Industry Standard
 - OSHA Standard 29 CFR 1926.62 - Lead in Construction Industry Standard
 - EPA Standard 40 CFR 261 - Identification and Listing of Hazardous Waste
- c) PCBs shall be handled per
 - SCDHEC Regulation 61-79 - Hazardous Waste Management Regulations
 - EPA Standard 40 CFR 763 - Toxic Substances Control Act; PCBs
 - EPA Standard 40 CFR 261 - Identification and Listing of Hazardous Waste
- d) Hazardous waste shall be handled per
 - SCDHEC Regulations 61-79 - Hazardous Waste Management Regulations
 - EPA Standard 40 CFR 261 - Identification and Listing of Hazardous Waste

Disposal of all hazardous waste shall be coordinated through the Base Environmental Office. The MACC Contractor shall provide copies of permits for transporters and treatment, storage, and disposal (TSD) facilities the contractor intends to use. The MACC Contractor will identify all wastes on the Government provided Waste Stream Characterization Process Document form. The MACC Contractor shall provide all testing/analysis data and waste profiles to the Base Environmental Office for review and signature. Additionally, contractors shall coordinate with

the Base Environmental Office to have authorized personnel sign the hazardous waste manifests for shipment of hazardous wastes.

3.8.3. Use of Hazardous Materials: If in the performance of any surveys, studies, or incidental work to contracted duties, where a hazardous material is to be used. The MACC Contractor shall complete Joint Base Charleston Transient Organization Material Inventory Form and submit this form to Contracting for authorization prior to use of the hazardous material. Throughout the contract, HAZMAT usage must be reported.

3.8.4. Affirmative Procurement:

3.8.4.1. For all project designs the MACC Contractor shall investigate the use of products with recovered materials. In an effort to comply with the affirmative procurement requirements of Section 6002 of RCRA (Resource Conservation Recovery Act) and Executive Order 13101, the Government promotes the use of the recycled and recovered materials and products identified in the Environmental Protection Agency's Comprehensive Procurement Guidelines (CPG). EPA guideline items are seen as the minimum that should be considered when evaluating recycled/reuse materials. Other materials and products not listed, but commonly used in industry outside of the Government, should also be considered. Material and product submittals for all recycled-content items should list the recycled and recovered materials used and the percentage content.

3.8.4.2. Recycled-content products meeting EPA guidelines will always be specified unless they:

- a) fail to meet performance requirements of the project
- b) are not readily available
- c) are not available from a sufficient number of sources to maintain a satisfactory level of competition
- d) are only available at an unreasonable price when compared with similar products that do not use recovered materials

An exemption may be claimed if one or more of these criteria are met. To make an exemption, the MACC Contractor must prepare and sign a "Recovered Materials Determination Form" (see attachment 1) coordinated through the Base Environmental Office for the contract file.

3.8.4.3. For project designs that include the use of any of the EPA CPG guideline items, the contract specifications must be written to require the product to meet the EPA recovered material content requirements. The EPA has created a Web page for CPG information to include designated and

proposed guideline items and their associated recycled-content requirements (<http://www.epa.gov/cpg>).

3.8.4.4. The MACC Contractor shall investigate and use in the design of projects products that promote energy conservation, pollution prevention and waste reduction to the maximum extent practicable.

3.9. OTHER ENVIRONMENTAL CONSIDERATIONS: At the option of the Government, the MACC Contractor will be required to obtain any permits for construction and operation and any certifications required by local Governments, the State or South Carolina (SCDHEC) and the Federal Government (EPA). If necessary, the MACC Contractor will be authorized to obtain a qualified consultant for these services. These services include but are not limited to: permits for oil/water separators, hazardous waste storage facilities, Land Disturbance Permits, and Stormwater Permits.

3.10. PHOTOGRAPHS: At the option of the Government, the MACC Contractor will be required to provide digital color photography of the entire construction site. Digital photography shall be in JPEG image format. The extent of the photographs required is to be defined in each Design-Build TOPR.

3.11. SUBMITTALS: Upon completion of the work, after the required information and other design data has been obtained, the MACC Contractor shall submit the following documents, as applicable, to the Contracting Officer for record purposes.

3.11.1. One (1) topographical survey map of the project site (reproducible).

3.11.2. One (1) soil borings and analysis report.

3.11.3. Electrical, heating and air conditioning load analysis.

3.11.4. Up-to-date drawings of existing facilities.

3.11.5. Investigative report.

3.11.6. Asbestos/Lead Paint Survey Report.

NOTE: Submittals identified above can occur concurrently with the preliminary design (35%) submittal outlined in Part II, Section 1, Title I Services.

PART III. RESERVED.

PART IV. PROJECT ENGINEER/MANAGER

1. The MACC Contractor shall appoint a project engineer/manager for each project to serve as the single point of contact and liaison between the MACC Contractor and the Government. Upon notification by the Contracting Officer to proceed with the design, the MACC Contractor shall advise the Contracting Officer in writing the name of the individual so designated. The MACC Contractor's project engineer/manager will be responsible for the complete coordination of all work required for this project.

2. The Base Civil Engineer (BCE) will appoint a Project Manager (PM) for each project. The PM will provide technical support to the Contracting Officer. The PM will serve as the point of contact for the MACC Contractor on all technical matters. All work performed by the MACC Contractor on base will be coordinated with the PM.

PART V. DESIGN POLICY AND CRITERIA:

1. The project design will conform to standard Air Force criteria, regulations, manuals and pamphlets. National codes and regulations for building construction and safety will be used where applicable. Current architectural, engineering and construction practices shall be incorporated in the project design to obtain both quality and economy and to provide a functional, complete, and usable facility.
 - 1.1. MACC Contractor shall complete Reliability & Maintainability (R & M) Design Checklist for applicable projects found in ETL 01-1.
2. Applicable criteria includes, but is not limited to, the following:
 - 2.1 Unified Federal Criteria (UFC). Available from <www.wbdg.org>.
 - 2.2 Unified Facilities Guide Specifications (UFGS). Available from <www.wbdg.org>.
 - 2.3 The International Building Code (as referenced and modified by UFC 1-200-01).
 - 2.4 The International Mechanical Code (as referenced and modified by UFC 1-200-01).
 - 2.5 The International Plumbing Code (as referenced and modified by UFC 1-200-01).
 - 2.6 The National Electrical Code (as referenced and modified by UFC 1-200-01).
 - 2.7 The National Fire Protection Association (NFPA) (as referenced and modified by UFC 1-200-01 and UFC 3-600-01).
 - 2.8 Uniform Federal Accessibility Standards
 - 2.9 Joint Base Charleston Architectural Compatibility Plan (see SOW Attachment 2).
 - 2.10 Air Force Design Guides. Available from <www.wbdg.org>.
 - 2.11 Air Force Engineering Technical Letters (AFETLs). Available from <www.wbdg.org>.
 - 2.12 JBCGS 28 31 76 Interior Fire Alarm System & Mass Notification System

2.13 Joint Base Charleston Cable Management Policy

2.14 Air Force Instructions. Available from the Air Force e-publishing website.

2.15 Air Force Handbooks. Available from the Air Force e-publishing website.

3. Projects involving environmental considerations must comply with the standards issued by the South Carolina Department of Health and Environmental Control (DHEC).
4. Any other Air Force documents deemed applicable by the Contracting Officer or Government Project Manager for each project will be made available to the MACC Contractor by the Government.
5. Any topographical surveys, excavations, soil borings, soil analyses, chemical tests, laboratory tests, pressure tests, electrical tests, corrosion and cathodic protection tests, and any other tests required for a complete design of each project will be the responsibility of the MACC Contractor.
6. The MACC Contractor shall design each project to provide a complete and usable facility within a given target construction cost provided by the Government. The target construction cost will be given at the beginning of the design of each project. The project construction cost shall include the construction contract, Government furnished equipment (GFE) and contractor furnished equipment.

PART VI. DESIGN DOCUMENTS

1. The MACC Contractor will be required to complete the design for each project and deliver the submittals to the Contracting Officer in accordance with Part VI, paragraph 2.2 and the following (the performance period for each phase will be a point of negotiation for each project):
 - 1.1. PRELIMINARY DESIGN (35%): The MACC Contractor, using the design criteria furnished by the Air Force, will develop the preliminary design documents (35% design completion) to include, but not necessarily be limited to, the following:
 - 1.1.1. Site Drawing: showing location of existing, relocated and proposed streets, walks, parking, service drives, utility service lines, drainage systems, exterior areas lighting, the location of the existing facility and the proposed addition and configuration, existing topographic conditions and proposed drainage drawing. Show a traffic flow drawing for proposed additions, parking areas, and adjacent facilities as applicable. Specific site locations within a facility (rooms, work areas) shall be related to the overall floor drawing of the building or construction location so that a person who is unfamiliar with the job site may use the drawings to readily find the exact location without assistance. This drawing shall be in the

NAD 1983 South Carolina State Plane Coordinate System in feet.

1.1.2. Soil Boring Drawing: (as required) showing locations of soil borings and sectional logs of the soil conditions and water tables existing at each boring point. The MACC Contractor will provide a complete soils investigation report covering the characteristics of the soil including load bearing capabilities, expansion and contraction and any other soil characteristics affecting the foundation design. Include a narrative description of the proposed foundation design.

1.1.3. Floor Drawing (as required):

1.1.3.1. Key drawing of the existing building (if applicable) and the addition (if applicable) giving general layout and surrounding features and keying all other drawings. A scale of $1/16" = 1'-0"$ (other scales may be used on approval by the Government Project Manager) for this drawing is acceptable.

1.1.3.2. Using the floor drawing furnished, the architect will develop a floor drawing, improved, modified and oriented as required considering streets, parking, service access points, etc. The floor drawing will show location of walls, partitions, interior/exterior doors, windows, etc. A demolition floor drawing showing partitions, equipment, etc., to be removed will also be included as applicable. Use $1/8" = 1'-0"$ scale or larger for these types of floor drawings.

1.1.3.3. Floor drawing details shall be at $1/4" = 1'-0"$ scale.

1.1.4. Elevations (as required): Scale $1/8" = 1'-0"$: The architect shall design elevations of all exterior views. The elevation will show the proposed exterior design including planned materials and landscaping, all in sufficient detail to portray the intended exterior appearance. Provide a minimum of two building cross-sections.

1.1.5. Specifications: The MACC Contractor will develop outline specifications covering the total proposed construction, including all contractor-installed and furnished equipment. Where approved, specifications may be included as notes on the drawings. Materials and equipment must be specified by an adequate generic description or a performance specification. Use of brand name or equal is restricted to those situations where its use is unavoidable. When brand name is used, it must identify the salient characteristics of the item. Additional product equal to the brand name product shall also be listed (prefer 2 additional alternate products).

1.1.6. Design Analysis: Complete design analysis including all design calculations will be submitted by the MACC Contractor covering architectural, structural, mechanical,

electrical, plumbing systems, pavements, drainage, etc. Design analysis must be submitted in hard cover binder, organized by sections indicated above. Each section must have summarizing paragraphs describing the conclusions reached and subparagraphs providing information and design calculations supporting the conclusions. A separate section may be added to list questions or issues needing Government input before the project design can proceed to the next submittal.

1.2. IN PROGRESS OR INTERMEDIATE DESIGN (65%): The 65% design submittal will include the following documents as applicable.

1.2.1. Drawings

1.2.1.1. Cover sheet/project location map/index of drawings.

1.2.1.2. Site Drawings:

- a) Existing topographic conditions drawing.
- b) Haul routes.
- c) Grading and drainage drawing including subsurface. Soil borings drawing and logs. Streets, roads, walks and parking existing and proposed. Exterior utilities.
- d) Existing and proposed water distribution.
- e) Existing and proposed exterior electrical distribution and lighting.
- f) Landscape drawings and plant schedule.

1.2.1.3. Architectural/Structural Drawings:

- a) Overall key floor drawing $1/16" = 1'-0"$ with room legend (if applicable).
- b) Foundation drawing scale $1/8" = 1'-0"$.
- c) Floor drawing scale $1/8" = 1'-0"$.
- d) Roof framing drawing scale $1/8" = 1'-0"$.
- e) Interior elevations as required.
- f) Architectural sections and details.
- g) Interior color, finish schedules, and color boards.
- h) Door and window schedules.
- i) Exterior building elevations and architectural features.

1.2.1.4. Electrical Drawings:

- a) Floor drawing scale $1/8" = 1'-0"$ fixture location, circuiting, switching, convenience outlets--electrical service to equipment.
- b) Panel board schedules.
- c) Electrical details.
- d) Partial developed single line electrical riser diagrams.
- e) Fixture and equipment schedules.

f) Symbol list.

1.2.1.5. Mechanical: Heating, Ventilation, and Air Conditioning (HVAC).

- a) Floor drawing scale 1/8" = 1'-0".
- b) Layout all systems.
- c) Details.
- d) Fixture and equipment layout and schedules.
- e) Sequence of control.
- f) Sequence of operation.

1.2.1.6. Plumbing: Water, Sewer.

- a) Floor drawing scale 1/8" = 1'-0" systems layout.
- b) Details.
- c) Riser diagrams isometric.
- d) Fixture and equipment schedules.

1.2.1.7. Interior design drawing including color coordinates and details as applicable.

1.2.2. Specifications: The specifications shall be at a stage of completion so that the clear intent of the designer in regard to items such as tests, samples, shop drawings, and other submittals is indicated.

1.3. PREFINAL DESIGN (95%) The 95% documents will be the intermediate design completed to what the MACC Contractor considers his 100% and including the review comments resulting from the intermediate review and refined cost estimate. No intentional omission of any detail and no incomplete design shall be submitted at the 95% phase. The 95% design will include complete and thorough detailing to leave the builder no question as to how assembly is intended.

1.3.1. Drawings

1.3.1.1. Cover Sheet/Project Location Maps.

1.3.1.2. Index of Drawings.

1.3.1.3. Site Drawings showing:

- a) Base layout.
- b) Borrow area.
- c) Existing topographic conditions drawing.
- d) Haul routes.
- e) Grading and drainage drawing including subsurface features.
- f) Soil borings drawing and logs.
- g) Existing and proposed landscaping and walks.

- h) Exterior utilities.
- i) Existing and proposed exterior lighting as necessary.
- j) Landscape drawing and plant schedule.

1.3.1.4. Architectural/Structural Drawings

1.3.1.5. Electrical Drawings

1.3.1.6. Mechanical Drawings

1.3.1.7. Plumbing Drawings

1.3.1.8. Interior design drawings

1.3.1.9. Drawings for Environmental work

1.3.1.10. EMCS

1.3.1.11. Fire Alarm Risers

1.3.2. De-Conflict Drawings

1.3.2.1. It is the MACC Contractor's responsibility to coordinate between the various design disciplines and resolve any potential conflicts between the structure and equipment and between various pieces of equipment. It is also the MACC Contractor's responsibility to ensure that adequate space is available for maintenance and repair of equipment and that there is adequate access for equipment replacement.

1.3.2.2. The MACC Contractor shall provide as part of the 95% Submittal one set of color-coded de-conflict drawings. Using the architectural floor plans this set of drawings shall consist of one overlay of the structural plan and mechanical plan; one overlay of the structural plan and the lighting layout plan; one overlay of the structural plan and the electrical plan; one overlay of the mechanical plan and lighting layout plan; and one overlay of the mechanical plan and electrical plan.

1.3.2.3. On the de-conflict drawings MACC Contractor shall note any areas of potential conflict between the various design disciplines. MACC Contractor shall provide written confirmation on the drawings that these areas have been investigated and that there is sufficient clearance between structure and equipment or between equipment. This statement shall also confirm that adequate space is available for maintenance and repair of equipment and that there is adequate access for equipment replacement.

1.3.3. Specifications: Specifications, including all technical and special conditions, shall be prepared by the MACC Contractor to meet Government standards. They shall be descriptive enough to permit full and free competition among bidders. When necessary to use a manufacturer's name to describe a type of product at least three manufacturers shall be named. Reference to "owner" and "Architect-Engineer" will not be used in the specifications.

1.3.4. Design Analysis: A complete design analysis covering main features and cost

centers.

1.3.5. Schedule of Material Submittals (AF Form 4025): A detailed itemized list of all material submittals required by the specifications.

1.3.6. Performance Time: The MACC Contractor's construction time estimate, including any recommendations for weather exclusion. Also list any long lead-time items that extend the performance time and how many days have been allowed for each item.

1.3.7. Government Furnished Equipment (Section D): A listing of all GFE is required for any project containing such equipment. An AF Section D will be turned in at the 95% submittal but drawings must indicate locations at the 65%, 95%, and the 100%.

1.3.8 Environmental Protection Agency Recovered Materials Determination.

1.3.9 Ozone Depleting Substance (ODS) Letter.

1.3.10 Completed draft DD Form 1354 "Transfer and Acceptance of DoD Real Property."

1.4. FINAL DESIGN DOCUMENTS (100%): The final design documents shall include the 95% documents with all 95% review comments incorporated and shall specifically include:

1.4.1. Corrected final design drawings with A/E professional stamp/seals.

1.4.2. Reproducible quality, corrected specifications.

1.4.3. Return of all Government furnished documents.

1.4.4. Corrected final Personal GeoDatabase.

1.5. The Government reserves the right to include intermediate design document submittals, i.e. 15%, 45%, etc. In these cases specific design directives will be given to the MACC Contractor during the TOPR.

2. TIME SCHEDULE AND SUBMITTALS

2.1. Time allowed for design completion (Title I services) will be established for each TO and included in the overall Period of Performance (PoP). If the Government review is not accomplished within period specified in the contract, the MACC Contractor's due date for the next submittal will be extended one day for each day the Government delays the review. The Government reserves the right to a review period of a sufficient length to adequately review the project. The review period will be established for each individual

Task Order.

- 2.2. Submittals: For each Task Order the submittal matrix below will be completed by the Government giving the number of copies to be mailed directly to the agencies listed below via Federal Express or equivalent overnight service by the MACC Contractor (Note for certain Task Orders additional agencies may be added to this list with a matrix giving that particular agency's submittal requirements):

2.2.1. 628CONS/LGCB

101 East Hill Blvd
Joint Base Charleston, SC
29404-5021

2.2.2.

Submittal Document	35%	65%	95%	100% (Final)
Basis of Design / Design Narrative				
Engineering Reports				
Design Calculations				
ACM/LBP Survey/Report				
Drawings (Full Size)				
Drawings (Half Size)				
De-Conflict Drawings (Full Size, Color-Coded)				
Specifications – Covers & Binders				
Specifications – Pages (8-1/2" x 11")				
A/E Annotated Government Comments				
AF Form 4025				
Ozone Depleting Substances (ODS) Memo				
Submittal schedule - AF Form 4025 (8-1/2 x 11)				
Color Boards				
Government Furnished Equipment (Section D)				
Entire Package on CD ROM				

- Following completion of each design phase, a review of the submittals will be performed by the Government. The Government shall review and approve, with or without comments, each schedule item prior to the MACC Contractor initiating work on the subsequent schedule item. A design review conference will be held after completion of this review and technical comments will be given to the MACC Contractor. The time and place of these conferences will be established by the Government. The technical comments shall be incorporated into the design before completion of the next design phase. MACC Contractor response shall include what action was taken. If action was taken in a location other than where referenced by the comment, MACC Contractor action shall also include where action was taken.

PART VII. MISCELLANEOUS

- The MACC Contractor shall notify the Contracting Officer immediately upon receipt of a request for services that are considered to be beyond the scope of the Design-Build Task Order. The MACC Contractor shall not start work on those items until given Written Notice to Proceed by the Contracting Officer. The Contracting Officer has sole authority to revise this contract.
- The MACC Contractor shall be required to provide the Contracting Officer a written record of all designs, conferences, and other meetings held between the Government and MACC

Contractor during which the technical design of the project is discussed. The written record of the discussion will not be accepted as a "Notification of Change" as contemplated by the changes clause of the contract. All changes shall be incorporated by amendment or modification.

3. The MACC Contractor will be permitted, upon written confirmation from the Contracting Officer, to add excusable, non-compensable days caused by Government delays to the total number days in the Task Order schedule for design-phase only.
4. The MACC Contractor shall be required to coordinate all submittal due dates with the Contracting Officer. The Contracting Officer will then coordinate the due date with the BCE and notify the MACC Contractor of the approved due date in writing.
5. The MACC Contractor, as part of his design effort, shall check delivery times for materials and equipment. The delivery time shall be stated in a letter to the Government for any item not stocked locally. The letter shall also state the make, model, and supplier of each item referenced. The MACC Contractor must also provide a Critical Path Method (CPM) Schedule reflecting an estimated number of calendar days for project completion, including inclement weather days, that does not exceed the overall PoP for the Task Order.
6. With each submittal, the MACC Contractor shall furnish copies of the Government review comments. The comments shall be annotated with the MACC Contractor's response or action taken as a result of the comments. In an instance where there are numerous comments on the drawings and/or specifications, the Government may furnish a marked-up copy of the documents to the MACC Contractor. The MACC Contractor is responsible for making the corrections indicated and for returning the Government's marked-up sheets.
7. In the event that the MACC Contractor inadvertently takes the equipment room key or any other Government property off base, he shall not wait until "the next time he plans to come out". The key or property shall be returned by courier or by overnight mail at no additional cost to the Government.
8. The MACC Contractor may borrow a ladder from the Government when ladders are available. The MACC Contractor must furnish transportation to carry the ladder to and from the job site. The ladder must be returned at least 20 minutes before the end of the 628th Civil Engineer Squadron's working hours on the same day on which the ladder is borrowed.

END of Attachment 1