

A|E IDIQ STATEMENT OF WORK v2.1

PM: Phillip Obianwu

CO: William Robbins

cc: Mike Roth, Harry Parker

☐ Statement of Work [Tasks 1-13]

☐ Selection Criteria

☐ Evaluation Factors

☐ Comments

TABLE OF CONTENTS

STATEMENT OF WORK	2
TASK 1. PRE-DESIGN SERVICES: Design Programs & Schematic Planning	5
TASK 2. PRE-DESIGN SERVICES: Planning & Design Studies and Surveys	6
TASK 3. DESIGN SERVICES: Minor & Non-Recurring Maintenance Projects	7
TASK 4. DESIGN SERVICES: Request for Proposals for Design/Build Projects	9
TASK 5. DESIGN SERVICES: Historic Preservation	10
TASK 6. POST-DESIGN SERVICES: Construction Administration	12
TASK 7. COMMISSIONING: Building + Landscape	13
TASK 8. NON-DESIGN SERVICES: Specialty Work	15
TASK 9. NON-DESIGN SERVICES: Cost Estimates	17
TASK 10. DESIGN COMMUNICATION	18
<u>TASK 11. CONSTRUCTION MANAGEMENT & INSPECTION SERVICES</u>	20
<u>TASK 12. COMMISSIONING: Building + Landscape</u>	23
<u>TASK 13. CONSTRUCTIBILITY REVIEW</u>	25
APPENDIX A. MANPOWER MATRIX	26

STATEMENT OF WORK

Design and Construction Service (DCS), National Cemetery Administration (NCA), Department of Veterans Affairs (VA) anticipates the need for Architect/Engineer (A/E) design services and other A/E services for construction, renovation, repairs, and commissioning of cemeteries, buildings, roadways, and infrastructure projects located throughout the United States. DCS plans to enter into multiple-award, indefinite-delivery, indefinite-quantity (IDIQ) task order contracts for A/E services.

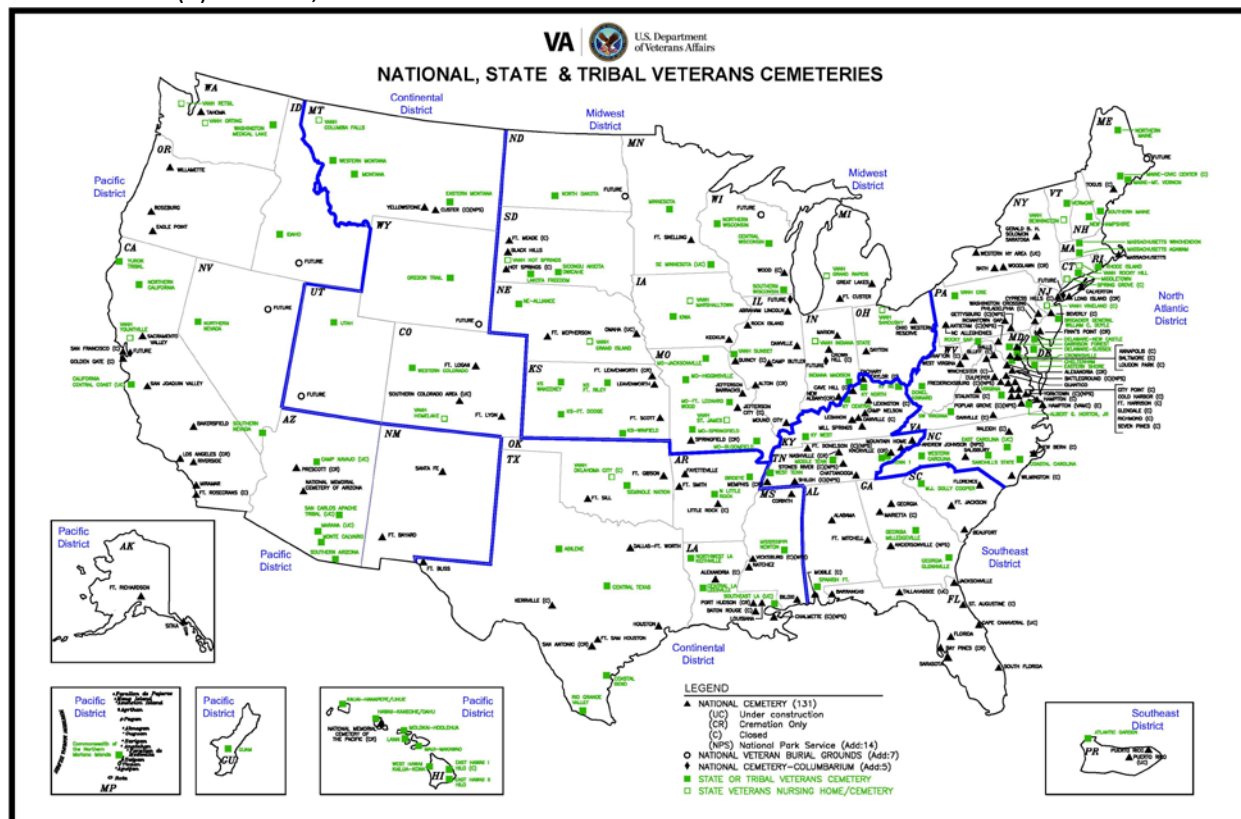
This acquisition is a **100% Service Disabled Veteran Owned Small Business Set-Aside** and will require firms to be registered in System for Award Management (SAM) and the Vendor Information Portal (VIP) as a Service Disabled Veteran Owned Small Business (SDVOSB). Large businesses please do not respond. The North American Industry Classification System (NAICS) Codes that apply to this solicitation are 541310 Architectural Services and 541330 Engineering Services. Both NAICS Codes 541310 and 541330 have a Small Business size standard of \$7.5 million and \$15 Million dollars average annual gross revenues for the past three fiscal years, respectively.

Awards will be divided by geographical zones (Districts) the government anticipates 2-3 awards per District. This invitation is for the **North Atlantic District VA786A-17-R-0024**. Submissions for multiple Districts will be evaluated independently; therefore, successful award in one District does not guarantee award in another District.

Ensure you are responding to the correct District:

North Atlantic: VA786A-17-R-0024
South East: VA786A-17-R-0029
Midwest: VA786A-17-R-0030
Continental: VA786A-17-R-0031
Pacific: VA786A-17-R-0032

There are five (5) Districts, each outlined in blue.



The following A/E disciplines will be required during the course of this contract: architecture, interior design, landscape architecture, planners, historic preservation, archeology, structural, civil, mechanical, electrical, plumbing, fire & life safety, industrial hygienist, surveying, cost estimating, commissioning, landscape commissioning, turf grass management, irrigation design, or other A/E services as defined in 40 U.S.C. 1102 and FAR Part 36.6 that may be necessary. While these tasks, disciplines and expertise are needed for a significant percentage of Task Orders, there are other tasks, disciplines and expertise that may be required. Therefore adaptability should be demonstrated.

The Contractor will provide personnel, facilities, equipment, transportation, and supplies necessary to provide technical services to Design & Construction Service, National Cemetery Administration, Department of Veterans Affairs. The Contractor's work shall be in response to Government issued Task Orders and/or subsequent Change Orders.

- Place of Performance:** Tasks may be performed at the Contractor's facilities, other Contractors' facilities, off-site testing facilities, or in Government facilities (ex. VA Central Office, National Cemeteries, or other locations around the country) and in space provided under the terms and conditions as set forth in this contract, or as specifically set forth in the Task Order (TO) or Change Order (CO) when that work must be performed at a particular Government facility.
- Mobilization:** The Contractor shall have sufficient personnel, office space, equipment and supplies

available to perform the services as described in the TO's and CO's issued in accordance with the Article. The Contractor will be afforded a maximum of twenty (20) calendar days to respond to requests for proposals for individual TO's and ten (10) calendar days to mobilize personnel after award of a TO or CO under the contract unless otherwise specified in the TO or CO. The level of support available shall remain flexible at all times in order to respond to individual TO or CO requirements.

3. **Multi-year Service:** The Government, at its option, may extend the contract beyond the initial one-year period (base year) for up to four (4) additional years at twelve (12) month increments in accordance with FAR 52.217-8 Option to Extend Services. Note, the Government reserves the right to cancel this contract(s) at any time if it is in the best interest of the Government.
4. **Award, Rates, and Fees:** A Firm-Fixed-Price (FFP) IDIQ contract will result from this solicitation, including profit, overhead and hourly rates for anticipated disciplines and for use in negotiating FFP task orders. The minimum guarantee for the entire contract term is \$5,000 per awarded contract. The minimum fee for each task order is \$1,000. Maximum fee for each task order shall not exceed \$950,000.00. The maximum cumulative contract value under any resultant contract(s) shall not exceed \$25 million for the entire contract duration including any option periods exercised. VA will provide a specific scope of work for each delivery order along with a request for the A/E to prepare a fee proposal. Fee proposals shall be based on pre-established unit prices for all disciplines as defined in the solicitations and negotiated in any resultant contract(s). Negotiated rates for base and option period will be firm for each contract period awarded. Unit prices for unique services not included in the original negotiation will be negotiated on a case by cases basis with each task order. The award of the initial task order will satisfy the minimum guarantee for the entire contract term (including option years.) Multiple task orders may be awarded with similar completion schedules and overlapping delivery dates.
5. **Limitation of Services:** Services are to be provided for a period of twelve (12) months commencing on the date of contract award. The period of performance for any Task Order issued during one of the option years, including the base year, may be extended an additional six (6) months beyond the expiration for that option year, making the period of performance for any individual Task Order up to eighteen (18) months. Orders for CPIS services may be placed as an option in conjunction with the design. No Task Order will be placed after the expiration of the last option year.
6. **Payments:** Payments for the services will be specified by the Contract Officer.

TASK 1. PRE-DESIGN SERVICES: Design Programs & Schematic Planning

WORK TO BE PERFORMED

The Contractor shall plan, prepare, develop, review and/or analyze design program(s) (such as Capital Investment Plans) to delineate the functional and physical needs that define project-specific requirements, constraints, and priorities. Development of the design program will be in accordance with Department of Veterans Affairs, Functional and Physical Design Program. Note, because design programming is an on-going process and project goals sometimes change, the design program will occasionally need to be revised, or updated.

Additionally, the Contractor shall prepare, plan, evaluate, and/or review architectural and engineering discipline calculations, specifications, reports, system analyses, drawings and cost estimates that meet the approved space program, Capital Investment Plan (CIP), or Design Program in accordance with the Minimum Requirements for Contractor Submissions, Program Guide PG-18-15, Volume D. <<http://www.cfm.va.gov/til/ae/aesubcem/>>. The Contractor shall identify and recommend correction of submissions to meet the requirements described in PG-18-15. The Contractor shall perform site visits to VA facilities and participate in meetings with NCA Design & Construction Service (DCS) personnel in Washington, DC.

DELIVERABLES

The end product will be the design program submission and/or evaluation of reports, documents, or cost estimates supporting the design program prepared by the Contractor. Should the Statement of Work specify the development and submission of a Schematic Plan, the Contractor shall meet the requirements of the distribution schedule in PG-18-15. The Contractor shall submit a specified number of copies as required by the COR designated in the contract.

MANPOWER

Architects, Engineers, Planners, Cost Estimators. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 2. PRE-DESIGN SERVICES: Planning & Design Studies and Surveys

WORK TO BE PERFORMED

The Contractor shall prepare studies, surveys and reports involving systems evaluation, geotechnical surveys, environmental surveys, archeological surveys (Phases 1, 2, and 3), cultural resource surveys, historic structures reports, facility condition assessments, energy studies, and other similar reports. Reports on the inspections of VA facilities as to site development, utilities investigations, Federal, State and local permit requirements and recommendations will be accomplished. Analyses will be made of existing and selected systems involving irrigation, underground utilities, structural, electrical, and HVAC systems. Evaluation will be done of equipment proposed for structures. Development will be done on cost comparison for studies on various systems, renovation alternatives vs. building additions or new buildings. Studies to determine time analyses of different phasing alternatives will be accomplished.

DELIVERABLES

To be determined by the COR on a case-by-case basis.

MANPOWER

Architects, Engineers, Cost Estimators. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 3. DESIGN SERVICES: Minor & Non-Recurring Maintenance Projects

WORK TO BE PERFORMED

The Contractor shall prepare Master Plans (MP), Schematic Designs (SD), Design Development (DD) documents, Construction Documents (CD), and Bid Documents (BD) with an aim toward sustainability as required by the COR designated in the contract.

- A. Master Plans (MP):** to include but not limited to presenting a comprehensive long-range development plan or the refinement of an existing master plan for a cemetery site, which would require site investigations, collecting data, performing analyses, making presentations and conducting other fact finding studies that might be necessary to support the design of the project. This may include an economic analysis, feasibility studies, suitability studies, and developing scopes for programmed projects. Services may also include additional planning studies supported by Computer Aided Drafting (CAD) or Geographic Information System (GIS) technology as necessary based on specific project scope.
- B. Schematic Design (SD):** to include but not limited to making site investigations, collecting data, performing analyses, making presentations and conducting or refining other fact finding studies (ex. economic analysis, feasibility studies, suitability studies) as might be necessary to support the design of the project. Services may also include additional planning and design studies supported by Computer Aided Drafting (CAD), Building Information Modeling (BIM), or Geographic Information System (GIS) technology as necessary based on specific project scope.
- C. Design Development (DD):** may include engineering calculations and analyses, energy modeling, life-cycle cost analyses, and complete design.
- D. Construction Documents (CD):** to provide complete detailed construction documents for final review that are of such quality and completeness that they can be competitively bid by contractors.
- D. Bid Documents (BD):** to provide completed detailed, signed and stamped drawings, specifications and documents complete and ready for issuance to prospective contractors.

Sustainability is an intrinsic part of design excellence and deeply embedded in NCA design culture. Turf management, irrigation design and water consumption, and energy use are of particular importance. NCA recognizes good design embodies best practices, which is often captured through industry certification programs such as Leadership in Energy and Environmental Design (LEED), Green Globes, Sustainable SITES Initiative, and other performance-based certification programs. The A/E shall address sustainability, as required by the COR, in three parts: 1) building sustainability, 2) landscape sustainability, and 3) ecosystem services.

1. Building Sustainability (LEED or Green Globes)

The A/E shall identify opportunities to incorporate elements from either LEED or Green Globes rating system and clearly delineate (and document) which credits are achievable and which credits are unattainable, as well as monetize their benefits to include in cost comparison studies. Application for certification will be the responsibility of the A/E on a case-by-case basis as determined by the COR and stipulated in the Statement of work for this Task Order.

2. Landscape Sustainability (Sustainable SITES Initiative v.2)

While LEED certification is appropriate for building design and construction, it is woefully short for examining landscape sustainability. Landscape planning and design involves the careful management of complex systems. In addition to measuring water consumption, other critical issues include water quality, stormwater management, soil and vegetation, pervious vs. impervious paving, and a litany of other elements that ought to be thoroughly evaluated as a collective system with the same amount of consideration given to MEP design. The A/E shall identify opportunities to incorporate elements from SITES v.2 rating system and clearly delineate (and document) which credits are achievable and which credits are unattainable, as well as monetize their benefits to include in cost comparison studies. Application for certification will be the responsibility of the A/E on a case-by-case basis as determined by the COR and stipulated in the Statement of work for this Task Order.

3. Ecosystem Services

The A/E shall plan, prepare, evaluate, review, and/or recommend opportunities to address ecosystem services to include, but not limited to the reduction of heat-island effect, the reduction of stormwater runoff and improvement of the quality of that runoff; erosion and sediment control; pollination; habitat functions; waste decomposition and treatment; rainwater harvesting; carbon sequestration; green roofs; bio-swales; and other environmental regenerative methodologies that can be monetized to include in cost comparison studies.

While there is some overlap among the three categories listed, the A/E shall clearly delineate (and document) where overlaps exist or do not exist as part of the proposed design solution or construction project. The A/E shall also follow the requirements as described in the VA Sustainable Design Manual. <<http://www.cfm.va.gov/til/sustain/dmSustain.pdf>>

DELIVERABLES

To be determined by the COR on a case-by-case basis. Electronic files will likely include a combination of CAD files that must conform to the latest national CAD standards, BIM and GIS files that follow industry practice, common Microsoft Office applications, and the use of Adobe Photoshop as required.

MANPOWER

Architects, Landscape Architects, Engineers, Cost Estimators. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 4. DESIGN SERVICES: Request for Proposals for Design/Build Projects

WORK TO BE PERFORMED

The Contractor shall prepare RFP documents for Design/Build (D/B) projects in accordance with Contractor Submission Instructions: Requests for Proposals, PG-18-15, Volume E.
<<http://www.cfm.va.gov/til/aeDesSubReq.asp>>.

During the D/B proposal process, the Contractor will assist in the review of the proposals and prepare and issue amendments to potential offerors as necessary. During the design and construction of the project, the Contractor shall be required to assist in the review of construction document submittals, shop drawings, other construction submittals and site visits.

DELIVERABLES

The development of the RFP submission will meet the distribution requirements in PG-18-15, Volume E. The schedule for delivery will be determined by the COR.

MANPOWER

Architects, engineers, cost estimators. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 5. DESIGN SERVICES: Historic Preservation

WORK TO BE PERFORMED

NCA is responsible for ensuring the preservation and long-term value of its historic assets. The agency has an ethical obligation and federal mandate to preserve, rehabilitate, restore, and reconstruct historic structures and cultural landscapes to ensure their legacy in accordance with the Secretary of Interior's treatment of historic resources. The A/E shall possess knowledge, skills, and experience in the following areas:

- A. Preservation (ex. Interventions are minimal and as inconspicuous as possible)
- B. Rehabilitation (ex. Retain, repair, or replace material that convey historic value)
- C. Restoration (ex. Remove inconsistent features and replace to appropriate restoration period)
- D. Reconstruction (ex. New construction to reflect an earlier time period)
- E. Cultural Landscapes (ex. Inventory, document, and recommend the repair, replacement, or removal of inconsistent features to restore cultural landscape to the appropriate time period)

Common examples of historic preservation work might include, but is not limited to stone repairs with natural hydraulic lime (refer to Figures 1 and 2 that illustrate acceptable and unacceptable repair conditions); iron repair for gates, fences, posts, cannons, and other objects or heritage assets; laser scanning and building information modeling studies; and the preparation of Historic Structures Reports, Facility Condition Assessments, Cultural Landscape Reports, and other documentation that follow Historic American Building Survey (HABS), Historic American Landscape Survey (HALS), and Historic American Engineering Record (HAER) standards.



Figure 1. Acceptable brick repair.



Figure 2. Unacceptable stone repair.

In order to successfully perform this work, the A/E shall identify and designate a Cultural Resources Manager who satisfies the requirements set forth by the Secretary of Interior's Professional Qualification Standards for Historic Preservation under Code of Federal Regulations, 36 CFR Part 61 <http://www.nps.gov/history/local-law/arch_stnds_9.htm>. In some cases, additional areas or levels of expertise may be needed, depending on the complexity of the task and the nature of the historic properties involved.

The Contractor shall identify and designate a Cultural Resources Specialist (CRM) with the requisite experience to evaluate, review, and make recommendations for the preparation of plans, projects, and reports related to preservation, rehabilitation, restoration, reconstruction, Section 106, and/or Cultural Landscape Reports (CLR) as required by the COR designated in the contract.

The Contractor shall prepare written and graphic reports to be determined by the COR on a case-by-case basis. The Contractor shall also prepare Schematic Designs (SD), Design Development (DD) documents, Construction Documents (CD), Bid Documents, and/or perform Construction Administration Services as required by the COR designated in the contract.

- A. Schematic Phase (SD):** to include but not limited to making site investigations, collecting data, performing analyses, making presentations and conducting other fact finding studies (ex. economic analysis, feasibility studies, suitability studies) as might be necessary to support the design of the project. Services may also include additional planning and design studies supported by Computer Aided Drafting (CAD), Building Information Modeling (BIM), or Geographic Information System (GIS) technology as necessary based on specific project scope.
- B. Design Development (DD):** may include engineering calculations and analyses, complete design, and statements of probable cost.
- C. Construction Documents (CD):** to provide complete detailed construction documents for final review that are of such quality and completeness that they can be competitively bid by contractors.
- D. Bid Documents (BD):** to provide completed detailed, signed and stamped drawings, specifications and documents complete and ready for issuance to prospective contractors.

DELIVERABLES

To be determined by the COR on a case-by-case basis. Electronic files will likely include a combination of CAD files that must conform to the latest national CAD standards, BIM and GIS files that follow industry practice, common Microsoft Office applications, and the use of Adobe Photoshop as required.

MANPOWER

Cultural Resource Manager, Historic Architect, Historic Landscape Architect, Architects, Engineers, Archeologists. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 6. POST-DESIGN SERVICES: Construction Administration

WORK TO BE PERFORMED

The A/E shall direct the exchange of project information and communications during construction and coordinate any architecture work to be executed at this stage in the project. The A/E will be responsible for providing information to the contractor that cannot be fully discerned from the drawings and specifications.

The A/E shall be responsible for Construction Administration to include, but not limited to three (3) broad categories: document control, submittal review, and design clarification. To effectively perform these responsibilities, the A/E shall provide project support consistent with industry practice. The A/E will assist the COR by facilitating project communication and organizing structured meetings designed to define project issues and goals, team responsibilities, and other essential project concerns. The A/E shall maintain accurate project records; prepare meeting reports, document logs, transmittal letters, change orders and cost estimates; respond to Requests for Information (RFI); issue Architect's Supplemental Instructions (ASI); process shop drawings and submittals; review manufacturers data and material test reports; perform compatibility analyses of different materials and prepare recommendations associated with acceptance or rejection of alternate materials and products; record changes to the contract documents; and coordinate project closeout procedures with the general contractor or construction manager to include a punch list and complete set of as-built documents.

Additionally, the A/E shall exercise sensitivity for historic preservation-related projects and provide a qualified inspector to perform on-site inspections and prepare reports to verify that design and construction specifications are being followed in compliance with contract requirements. Site visits will serve as an opportunity to perform quality assurance and control checks, as well as witness performance tests of various types of irrigation, underground utility, structural, electrical, HVAC equipment, fire alarm, communication and other systems integral to a fully operational NCA National Cemetery.

DELIVERABLES

Future statements of work for this Task Order will provide more specific information about the preparation of as-built documents, review of submittals, and other work to be performed as detailed by the COR.

MANPOWER

Architects, Engineers, and qualified inspectors to monitor historic preservation-related projects, among other subject matter experts. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 7. COMMISSIONING: Building + Landscape

WORK TO BE PERFORMED

Building performance and landscape performance are integral to a strategic and comprehensive sustainability plan for any cemetery. Design decisions that are made early in the design process need to consider and include building commissioning and landscape commissioning. Commissioning plans need to be developed concurrently with the design process to ensure optimized energy performance, minimize operation and maintenance needs, and accurately project life-cycle costs.

A. Building Commissioning

Building commissioning plans should optimize performance during construction, at substantial completion, and beyond. The A/E shall identify a Commissioning Agent (CxA) to plan, prepare, and develop a building commissioning plan that includes the testing and balancing of heating, ventilation and air conditioning (HVAC) systems prior to acceptance by NCA. The CxA will provide documented confirmation that the facility fulfills the functional and performance requirements of NCA as described by the Whole Building Commissioning Process Manual <<http://www.cfm.va.gov/til/spclRqmts.asp#Cx>>.

B. Landscape Commissioning

Recognizing that landscapes function as complex systems, the process of building commissioning has been applied to landscape design as a performance assessment and measurement tool. The Landscape Architecture Foundation Case Study Investigation program is an example of similar work. The A/E shall identify a Landscape Commissioning Agent (LCxA) to plan, prepare, gather metrics, and develop a landscape commissioning plan based on site-specific conditions or environmental constraints. The landscape commissioning plan and related reports shall include, but not be limited to:

1. Means and methods of measurement, verification, and validation.
2. Applicable testing / inspection standards and allowable tolerances.
3. Site conditions at time of testing (time, temperature, wind, etc.).
4. Testing schedule (timing, frequency, duration).
5. Sampling (size, depth, stratified or blended strata sample, etc.).
6. Address structural soils, planting soils, aggregate materials, fertilizers, biologicals, blending methodology, root development and zone aeration systems, rhizosphere performance over time, levels of compaction for hardscape vs landscape areas, sub-drains/ surface drains, tree failure analysis and recommendations for tree replacements and
7. Assessing plant health and performance between nursery and site to improve transplantation success rates.
8. Address storm water management, gray water systems and irrigation, water feature pumping systems, water feature water treatment systems, and automatic controls.
9. Recommend near-term and long-term irrigation system strategies.

The LCxA shall perform pre-construction testing of materials and site conditions, in-situ conformance testing of work in progress, and operational testing of irrigation, drainage, lighting, and other systems. The LCxA shall work with the A/E to reconcile near-term and long-term aesthetic and performance goals, as well as involve the construction team in the commissioning process (when

feasible) to ensure continuity of design intent. The LCxA will document performance metrics upon substantial completion and manage performance confirmation (Verify, Witness, Test).

The A/E shall plan, prepare, evaluate, review, and/or make recommendations for building commissioning plans and/or landscape commissioning plans to include necessary calculations, measurements, testing, and field verification as required by the COR designated in the contract.

DELIVERABLES

Submission of reports and recommendations will be accomplished according to a schedule developed by the COR.

MANPOWER

Building Commissioning Agent, Landscape Commissioning Agent, Architects, Landscape Architects, Engineers. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 8. NON-DESIGN SERVICES: Specialty Work

WORK TO BE PERFORMED

The A/E shall plan, prepare, evaluate, review, and/or make recommendations for Environmental Assessments (EA) and/or Environmental Impact Statements (EIS) to ensure compliance with federal laws, regulations, and executive orders as required by the COR designated in the contract. Additionally, the A/E shall provide GIS program support to produce various dynamic maps and map analyses used for special reports and studies as required by the COR designated in the contract. The A/E shall also provide non-design services to include general management and administration, and other program support as required by the COR designated in the contract.

A. NEPA [EA + EIS]

Per the National Environmental Policy Act of 1969, the federal government has an obligation to evaluate the environmental impact of proposed actions that might alter a particular project site. The impact of proposed actions must be captured in a detailed report (ex. Environmental Assessment, Environmental Impact Statement, etc.). The Contractor shall prepare such report after carefully examining the proposed site to determine or discover the obvious presence, or likely presence of a hazardous material, which has been released, or is likely to be released on the site. The range of contaminants considered should be consistent with the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and should include petroleum products. Additionally, because all projects vary in scope and complexity, some statements of work might include the need for an Environmental Assessment for a master plan, while other projects might need minor intervention or expertise to enhance scientific assessments (ex. biological assessment). Future statements of work for this Task Order will provide more specific information about the work to be performed as detailed by the NCA environmental engineer.

B. Geographic Information System [GIS]

NCA Design & Construction Service has the need to build dynamic maps from project data collected on a regular basis by regional offices. This data is often used to perform complex spatial analyses and verify real-time project information linked to an internal database. There is the occasional need to build new and more sophisticated maps as part of the program's GIS Initiative. The A/E shall provide GIS expertise to assist with map-making using ArcDesktop and other Esri-related map tools (ex. ArcGIS Online). NCA will furnish the requisite data and information with the expectation that the Contractor will return geodatabases and files that are consumable inside NCA's GIS environment (.mxd, .shx, .kml, etc.).

C. General Management & Administration [GM&A]

General management and administration work includes tasks that are often associated with NCA design and construction projects or program-related work. The type of work and expertise may vary to include, but is not limited to technical studies, post-occupancy evaluations, expert witness testimony, claims consultation, CPM services, and similar services as required by the COR designated in the contract.

DELIVERABLES

To be determined by the COR on a case-by-case basis.

MANPOWER

The A/E shall present at the time of the contract, the education, technical, and professional experience of assigned A/E personnel for evaluation and approval by the COR to support the preparation of work for various issues associated with NCA Design and Construction Service as described in this Task Order. This may include, but not limited to qualified Architects, Landscape Architects, Engineers (ex. sanitary engineers, soils engineers, civil engineers, structural engineers, and environmental engineers), Environmental Scientists (ex. biologists, ecologists, chemists, hydrologists, and geologists), Cultural Specialists (ex. archaeologists, historians, and architectural historians), GIS technician, Claims specialists, CPM specialists. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 9. NON-DESIGN SERVICES: Cost Estimates

WORK TO BE PERFORMED

A. THROUGH DESIGN DEVELOPMENT 2 (DD-2) STAGE

The Contractor shall evaluate and review cost estimates prepared by the Design A/E, or VA in-house personnel, verifying the cost submission accuracy in quantities and completeness based upon submission requirements of the PG-18-15. <<http://www.cfm.va.gov/til/ae/aesubcem/>>.

Evaluation shall include, but not be limited to, local labor rates, energy conservation costs, material costs, equipment rates, land values and various system costs. The Contractor shall prepare independent cost estimates, evaluate mid-point construction costs and verify anticipated inflation rates during construction.

B. COST ESTIMATES (CONSTRUCTION DOCUMENTS AND CONSTRUCTION CHANGES)

The Contractor shall provide cost estimating services associated with the evaluation, analysis and preparation of construction changes or design alternatives.

These services will cover all construction related issues that include, but are not limited to, materials, systems and construction techniques. Review, analyses and recommendation of construction document cost estimates covering labor, materials, equipment, general conditions and requirements developed for the project will be as directed by the COR. Participation in the VA CM review of the construction document submittal by the VA retained AE. Analyses shall be presented on forms as described in PG-18-15. Provide independent cost estimates as required by the COR.

DELIVERABLES

To be determined by the COR on a case-by-case basis.

MANPOWER

Architects, Engineers, Cost Estimators. See Appendix I

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 10. DESIGN COMMUNICATION

WORK TO BE PERFORMED**A. Wayfinding & Signage**

Wayfinding solutions are unique to each project and an intrinsic part of cemetery design that directly impacts the user's experience, particularly those who are visually impaired. Wayfinding is often expressed through signage, visual cues, and/or infographics to help orient people in physical space. The A/E shall develop and present wayfinding solutions that are appropriate in scale, mass, and context using the most current versions of the NCA Signage Guide and the Architectural Barriers Act Accessibility Standard (ABAAS), when applicable. Details for these requirements will be provided in statements of work for subsequent task orders and will reference other technical information found online at VA's Technical Information Library <<http://www.cfm.va.gov/til/index.asp>>.

B. Graphic Design & Publications

NCA has the occasional need for the A/E to design, develop, and produce full-color commemorative monographs, brochures, pamphlets, posters, instructional guides, manuals, infographics, and e-books to document the legacy of significant work. Unless otherwise stated, the agency will provide requisite narratives, manuscripts, and reductions of appropriate master plan drawings, renderings, photographs, or other illustrations for the intended publication. The A/E shall follow a standardized design format as part of NCA Design & Construction Services' identity and brand. Review of any program collateral will require the submission of, at minimum, an initial draft and final proof in a format that can easily be sent to a professional printing office for reproduction, as well as 508-compliant document for web-publishing. The number of copies to be furnished will be determined by NCA prior to reproduction. As part of the final deliverable, the A/E will include both an electronic proof (.pdf) and the final design file with associated fonts and graphics produced using InDesign, Photoshop, or Illustrator.

C. Photography & Professional Printing

NCA has the occasional need for photographic documentation of specific projects. The A/E will be responsible for providing high quality, high-resolution professional photographs and panoramic prints (300-600 dpi) to include in various publications, program collateral, and presentations. The number of photographic prints to be furnished will be determined in future task orders. NCA retains the right to use and reproduce photographic images, and will include courtesy credits when including such images in presentations or publications.

D. Rendering & Illustrations

NCA has the occasional need to produce renderings and illustrations for public meetings, presentations, and publications. The A/E shall prepare professional illustrations with full color for elevations, perspectives, isometrics, or master plans using various media to include, but not limited to watercolor, pencil, ink, or computer generated imagery.

E. Site Models

The A/E shall prepare and produce professional site models with an appropriate scale that can easily be dismantled, shipped, reassembled, and stored. The materiality of the site model and its construction may vary on a project-by-project basis.

The A/E shall plan, develop, evaluate, review, and/or make recommendations for wayfinding and signage solutions that are appropriate in scale, mass, and context using the most current versions of the NCA Signage Guide, ADA standards, and the Architectural Barriers Act Accessibility Standard (ABAAS) when applicable and as required by the COR designated in the contract. The A/E shall prepare and develop program collateral for reproduction as required by the COR designated in the contract.

DELIVERABLES

The Contractor will provide plans, publications, photographs, renderings, and site models to be determined by the COR on a case-by-case basis.

MANPOWER

Graphic Designer, Writer/Editor, Photographer, Architects. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 11. CONSTRUCTION MANAGEMENT & INSPECTION SERVICES

WORK TO BE PERFORMED

The Contractor shall act on behalf of the owner (NCA) to help complete projects on time, on budget, and with high levels of quality, safety, and compliance. The Contractor shall work directly with the designated COR to facilitate communication with the A/E of record, General Contractor, NCA project team, and other key stakeholders to keep everyone fully informed of requirements, resources, progress, and potential issues in order to avoid project delays, disputes, accidents, and cost overruns.

The Contractor shall dedicate a project representative or, when required, a subject matter expert to work on select projects as the owner's representative on-site to coordinate and supervise work performed by the General Contractor (and his/her subcontractors), and verify that design and construction specifications are being followed in compliance with contract requirements.

To effectively perform these responsibilities, the Contractor shall provide project support consistent with industry practice as defined by the Construction Management Association of America (CMAA). Categories for Construction Management Services include, but are not limited to the following areas:

▪ Operations Management:

The Contractor may need to provide on-site management, oversight, and observation of construction. This includes monitoring construction activities to inspect the quality and quantity of work performed by the general contractor and ensure that such work is in accordance with the Department of Veterans Affairs' contract objectives for cost, time, and quality. The Contractor shall advise the Contracting Officer (CO) and Contracting Officer Representative (COR)/Project Manager (PM) on issues and decision-making, and maintain detailed project records (document control, submittal review, shop drawings, modifications, proposals, payments, subcontracting, design clarification, etc.) as appropriate.

In collaboration with VA, the Contractor shall establish and implement procedures for expediting the receiving, coordinating, processing and reviewing of shop drawings, descriptive literature and data, samples, shop test reports, certificates, manufacturer's service manuals, substitutions, value engineering, and all other submittals. The Contractor shall prepare daily logs and reports associated with on-site inspections of materials, equipment and systems components; provide written analyses of performance tests; review and respond to Requests for Information (RFI); review shop drawings reviews; prepare and record change orders; identify any problems or errors in the design documentation; carefully monitor asbestos and lead abatement, or any biohazard mitigation (ex. underground storage tank removal); conduct intermediate and final inspections services and reports; and manage project closeout procedures (ex. punchlist) to include the collection and transfer of warranty information, service manuals and instructions, and the careful coordination, collection, review, and transfer of as-built documents from the general contractor to the A/E and, if required in the absence of an A/E, the completion of CAD record drawings before final turnover to VA.

The Contractor shall not be responsible for construction means, methods, techniques, sequences and procedures employed by general contractor in the performance of the project, and shall not be responsible for the failure of any general contractor to carry out work in accordance with the contract

documents. Construction means, methods, safety and corrective measures remain the responsibility of the general contractor.

▪ **Communication Management:**

The Contractor shall be responsible for project communication by planning, coordinating and facilitating structured meetings to jointly address project issues and goals, team responsibilities, and other essential project concerns. This includes participating in pre-construction meetings, conducting pre-construction surveys, and preparing meeting minutes or special reports as required by the COR. The Contractor shall serve as the contracting officer's on-site representative and shall be responsive to all inquiries and requests of the general contractor. The Contractor is expected to assure timely and accurate responses to the general contractor.

▪ **Cost Management:**

The Contractor shall assist the COR to cross-check and verify that invoice submittals align with work performed on-site, prepare cost estimates, and evaluate contract modifications against project costs and overall budget. This work includes providing the VA Project Manager with monthly completion reports and forecasts that reflect the dollar amount of work completed based on the Contractor submitted schedule of values, as well as maintaining accurate cost accounting records on authorized work performed under unit costs, actual costs for labor and material, or other pertinent cost items requiring accounting.

▪ **Time Management**

The Contractor shall review and confirm the general contractor's schedule submission and, if required by the COR, develop an alternative project schedule and Work Breakdown Structure (WBS) based on the best possible sequence of construction tasks to keep the project on schedule (ex. CPM scheduling). The Contractor shall monitor, coordinate, and review the general contractor's work schedules with a view towards maximum construction efficiency and identify potential variances between scheduled and probable completion dates of activities to include a realistic activity sequences and duration, allocation of labor and material, processing of submittals for approval, and delivery of products requiring long lead-time procurement. The Contractor shall review schedules for work not started or incomplete and recommend to VA and the general contractor adjustments in the schedules to meet the construction contract completion dates. The Contractor shall require the general contractor to update construction schedules as necessary to maintain satisfactory progress.

▪ **Quality Management:**

The Contractor shall evaluate product/material substitutions and provide recommendations, perform quality control and assurance, witness performance testing, and certify compliance of various types of irrigation, underground utility, structural, electrical, HVAC equipment, fire alarm, communication and other system installations that are integral to a fully operational cemetery.

▪ **Risk Management and Safety:**

The Contractor shall identify and manage risks and uncertainties such as claims analysis/negotiations,

as well as safety (ex. develop an Accident Prevention Plan (APP) to ensure safety and compliance with federal laws and regulations).

Additional responsibilities may include, but are not limited to participating in early design reviews and/or peer reviews as part of an integrative approach to ensure design intent is carried out during construction, conduct Post-Occupancy evaluations, formulate lessons learned, coordinate project commissioning with the A/E, and/or perform other pre-construction or construction management responsibilities as specified by the COR.

DELIVERABLES

The Contractor shall prepare daily logs, provide test reports or product literature responses, cost estimates, review product submittals and certified payroll statements within ten (10) calendar days of receipt of product literature or inspection reports, or at such intervals as directed by the COR. Additional deliverables to be determined by the COR on a case-by-case basis.

MANPOWER

Construction Managers, Project Managers, Art Conservators and/or Historic Preservation Specialists. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 12. COMMISSIONING: Building + Landscape

WORK TO BE PERFORMED

Building performance and landscape performance are integral to a strategic and comprehensive sustainability plan for any cemetery. Design decisions that are made early in the design process need to consider and include building commissioning and landscape commissioning. Commissioning plans need to be developed concurrently with the design process to ensure optimized energy performance, minimize operation and maintenance needs, and accurately project life-cycle costs.

C. Building Commissioning

Building commissioning plans should optimize performance during construction, at substantial completion, and beyond. The CM shall identify a Commissioning Agent (CxA) to coordinate with the A/E of record to plan, prepare, and develop a building commissioning plan that includes the testing and balancing of heating, ventilation and air conditioning (HVAC) systems prior to acceptance by NCA. The CxA will provide documented confirmation that the facility fulfills the functional and performance requirements of NCA as described by the Whole Building Commissioning Process Manual <<http://www.cfm.va.gov/til/spclRqmts.asp#Cx>>.

D. Landscape Commissioning

Recognizing that landscapes function as complex systems, the process of building commissioning has been applied to landscape design as a performance assessment and measurement tool. The Landscape Architecture Foundation Case Study Investigation program is an example of similar work. The A/E shall identify a Landscape Commissioning Agent (LCxA) to plan, prepare, gather metrics, and develop a landscape commissioning plan based on site-specific conditions or environmental constraints. The landscape commissioning plan and related reports shall include, but not be limited to:

10. Means and methods of measurement, verification, and validation.
11. Applicable testing / inspection standards and allowable tolerances.
12. Site conditions at time of testing (time, temperature, wind, etc.).
13. Testing schedule (timing, frequency, duration).
14. Sampling (size, depth, stratified or blended strata sample, etc.).
15. Address structural soils, planting soils, aggregate materials, fertilizers, biologicals, blending methodology, root development and zone aeration systems, rhizosphere performance over

- time, levels of compaction for hardscape vs landscape areas, sub-drains/ surface drains, tree failure analysis and recommendations for tree replacements and
16. Assessing plant health and performance between nursery and site to improve transplantation success rates.
17. Address storm water management, gray water systems and irrigation, water feature pumping systems, water feature water treatment systems, and automatic controls.
18. Recommend near-term and long-term irrigation system strategies.

The LCxA shall perform pre-construction testing of materials and site conditions, in-situ conformance testing of work in progress, and operational testing of irrigation, drainage, lighting, and other systems. The LCxA shall work with the A/E to reconcile near-term and long-term aesthetic and performance goals, as well as involve the construction team in the commissioning process (when feasible) to ensure continuity of design intent. The LCxA will document performance metrics upon substantial completion and manage performance confirmation (Verify, Witness, Test).

The CM shall plan, prepare, evaluate, review, and/or make recommendations for building commissioning plans and/or landscape commissioning plans to include necessary calculations, measurements, testing, and field verification as required by the COR designated in the contract.

DELIVERABLES

Submission of reports and recommendations will be specified by the COR.

MANPOWER

Building Commissioning Agent, Landscape Commissioning Agent, Architects, Landscape Architects, Engineers, Construction Managers. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

TASK 13. CONSTRUCTIBILITY REVIEW

DESCRIPTION OF WORK TO BE PERFORMED

The Contractor shall review and evaluate A/E design submissions at various stages of the project (Schematic Design, Design Development, and/or Construction Documents) to ensure clarity, accuracy, coordination, completeness, and constructability of the documents, and when appropriate, recommend alternate means and methods. The review will focus on the suitability of the drawings and specifications for ease of construction, as well as the placement and maintenance of equipment. Thorough reviews might include, but are not limited to mechanical systems and equipment (ex. air handling units, chillers, boilers), controls schemes, building envelope systems, equipment access and maintainability, ductwork and piping systems, plumbing equipment, life safety, primary and secondary power distribution systems and transformers, lighting systems, code compliance, and other functional and environmental criteria. The Contractor shall identify conflicts and potential claims that may arise from design deficiencies during construction.

DELIVERABLES

The Contractor shall provide report(s) evaluating the constructability of the design and construction documents as required by the COR.

MANPOWER

Construction Managers, Architects, Engineers, Schedulers, Cost Estimators. See Appendix I.

INDIRECT RESOURCES

Reproduction services, shipping, and travel.

APPENDIX A. MANPOWER MATRIX

To fully execute the requirements of each task order, the Government anticipates the following disciplines will include, but not be limited to:

Discipline	Task 1 PRE-DESIGN SERVICE: Design Programs & Schematic Planning	Task 2 PRE-DESIGN SERVICE: Planning & Design Studies and Surveys	Task 3 DESIGN SERVICE: Minor & Non-Recurring Maintenance Projects	Task 4 DESIGN SERVICE: Request for Proposals for Design/Build Projects	Task 5 DESIGN SERVICE: Historic Preservation	Task 6 POST-DESIGN SERVICE: Construction Administration	Task 7 COMMISSIONING: Building + Landscape	Task 8 NON-DESIGN SERVICE: Specialty Work	Task 9 NON-DESIGN SERVICE: Cost Estimates	Task 10 DESIGN COMMUNICATION
Principal	X	X	X	X	X	X	X	X	X	X
Project Manager	X	X	X	X	X	X	X	X	X	X
Sr. Architect	X	X	X	X	X	X	X	X	X	X
Project Architect	X	X	X	X	X	X	X	X	X	X
Architect	X	X	X	X	X	X	X	X	X	X
Technician/ CADD	X	X	X	X	X					X
Sr. Interior Designer	X	X	X	X	X					
Interior Designer	X	X	X	X	X					
Sr. Cemetery Planner	X	X	X	X				X	X	X
Cemetery Planner	X	X	X	X				X	X	X
Technician/ CADD	X	X	X	X						X
Sr. Structural Engineer	X	X	X	X	X	X			X	
Structural Engineer	X	X	X	X	X	X			X	
Sr. Civil Engineer	X	X	X	X	X	X		X	X	
Civil Engineer	X	X	X	X	X	X		X	X	
Civil Technician/ CADD	X	X	X	X	X					
Sr. Land Surveyor	X	X	X	X	X			X	X	
Land Surveyor	X	X	X	X	X			X	X	
Sr. Geo-Technical Engineer	X	X	X	X	X	X		X	X	
Geo-Technical Engineer	X	X	X	X	X	X		X	X	
Sr. GIS Technician	X	X	X	X	X			X	X	
GIS Technician	X	X	X	X	X			X	X	

Discipline	Task 1 PRE-DESIGN SERVICE: Design Programs & Schematic Planning	Task 2 PRE-DESIGN SERVICE: Planning & Design Studies and Surveys	Task 3 DESIGN SERVICE: Minor & Non-Recurring Maintenance Projects	Task 4 DESIGN SERVICE: Request for Proposals for Design/Build Projects	Task 5 DESIGN SERVICE: Historic Preservation	Task 6 POST-DESIGN SERVICE: Construction Administration	Task 7 COMMISSIONING: Building + Landscape	Task 8 NON-DESIGN SERVICE: Specialty Work	Task 9 NON-DESIGN SERVICE: Cost Estimates	Task 10 DESIGN COMMUNICATION
Sr. Mechanical Engineer	X	X	X	X	X	X	X		X	
Mechanical Engineer	X	X	X	X	X	X	X		X	
Mechanical Designer	X	X	X	X	X	X	X		X	
Sr. Electrical Engineer	X	X	X	X	X	X	X		X	
Electrical Engineer	X	X	X	X	X	X	X		X	
Electrical Designer	X	X	X	X	X	X	X		X	
Sr. Plumbing Engineer	X	X	X	X	X	X	X		X	
Plumbing Engineer	X	X	X	X	X	X	X		X	
Plumbing Technician	X	X	X	X	X	X	X		X	
Sr. Fire Protection Engineer	X	X	X	X	X	X			X	
Fire Protection Engineer	X	X	X	X	X	X			X	
Fire Protection Technician	X	X	X	X	X	X			X	
Sr. Physical Security Engineer	X	X	X	X	X	X			X	
Physical Security Engineer	X	X	X	X	X	X			X	
Physical Security Technician	X	X	X	X	X	X			X	
Sr. Environmental Engineer	X	X	X	X	X	X		X	X	
Environmental Engineer	X	X	X	X	X	X		X	X	
Sr. Traffic Consultant	X	X	X	X				X	X	
Traffic Consultant	X	X	X	X				X	X	
Sr. Landscape Architect	X	X	X	X	X	X	X	X	X	X
Landscape Architect	X	X	X	X	X	X	X	X	X	X
Sr. Irrigation Specialist	X	X	X	X		X	X		X	
Irrigation Specialist	X	X	X	X		X	X		X	
Sr. Cost Estimator	X	X	X	X	X			X	X	
Cost Estimator	X	X	X	X	X			X	X	

Discipline	Task 1 PRE-DESIGN SERVICE: Design Programs & Schematic Planning	Task 2 PRE-DESIGN SERVICE: Planning & Design Studies and Surveys	Task 3 DESIGN SERVICE: Minor & Non-Recurring Maintenance Projects	Task 4 DESIGN SERVICE: Request for Proposals for Design/Build Projects	Task 5 DESIGN SERVICE: Historic Preservation	Task 6 POST-DESIGN SERVICE: Construction Administration	Task 7 COMMISSIONING: Building + Landscape	Task 8 NON-DESIGN SERVICE: Specialty Work	Task 9 NON-DESIGN SERVICE: Cost Estimates	Task 10 DESIGN COMMUNICATION
Sr. Scheduler	X	X	X	X	X					
Scheduler	X	X	X	X	X					
Building Cx Agent (certified)	X	X	X	X	X	X	X		X	
Landscape Cx Agent	X	X	X	X		X	X	X	X	
Sr. Cultural Resource Mgr.	X	X	X	X	X	X		X	X	
Cultural Resource Mgr.	X	X	X	X	X	X		X	X	
Specification Writer	X	X	X	X	X					
Graphic Designer										X
Photographer			X							X
Administrative Support	X	X	X	X	X	X	X	X	X	X

APPENDIX A. MANPOWER MATRIX

To fully execute the requirements of each task order, the Government anticipates the following disciplines will include, but not be limited to:

Discipline	Task 11 CONSTRUCTION MANAGEMENT & INSPECTION SERVICES	Task 12 COMMISSIONING: Building + Landscape	Task 13 CONSTRUCTIBILITY REVIEW
Principal	X	X	X
Construction Manager	X	X	X
Project Manager	X	X	X
Sr. Architect	X	X	X
Project Architect	X	X	X
Architect	X	X	X
Technician/ CADD			X
Sr. Interior Designer			X
Interior Designer			X
Sr. Cemetery Planner			X
Cemetery Planner			X
Technician/ CADD			X
Sr. Structural Engineer	X		X
Structural Engineer	X		X
Sr. Civil Engineer	X		X
Civil Engineer	X		X
Civil Technician/ CADD	X		X
Sr. Land Surveyor	X		X
Land Surveyor	X		X
Sr. Geo-Technical Engineer	X		X
Geo-Technical Engineer	X		X
Sr. GIS Technician	X		X

Discipline	Task 11 CONSTRUCTION MANAGEMENT & INSPECTION SERVICES	Task 12 COMMISSIONING: Building + Landscape	Task 13 CONSTRUCTIBILITY REVIEW
GIS Technician	X		X
Sr. Mechanical Engineer	X	X	X
Mechanical Engineer	X	X	X
Mechanical Designer	X	X	X
Sr. Electrical Engineer	X	X	X
Electrical Engineer	X	X	X
Electrical Designer	X	X	X
Sr. Plumbing Engineer	X	X	X
Plumbing Engineer	X	X	X
Plumbing Technician	X	X	X
Sr. Fire Protection Engineer	X		X
Fire Protection Engineer	X		X
Fire Protection Technician	X		X
Sr. Physical Security Engineer	X		X
Physical Security Engineer	X		X
Physical Security Technician	X		X
Sr. Environmental Engineer	X		X
Environmental Engineer	X		X
Sr. Traffic Consultant	X		X
Traffic Consultant	X		X
Sr. Landscape Architect	X	X	X
Landscape Architect	X	X	X
Sr. Irrigation Specialist	X	X	X
Irrigation Specialist	X	X	X
Sr. Cost Estimator	X		X

Discipline	Task 11 CONSTRUCTION MANAGEMENT & INSPECTION SERVICES	Task 12 COMMISSIONING: Building + Landscape	Task 13 CONSTRUCTIBILITY REVIEW
Cost Estimator	X		X
Sr. Scheduler	X		
Scheduler	X		
Building Cx Agent (certified)	X	X	X
Landscape Cx Agent	X	X	
Sr. Cultural Resource Mgr.	X		
Cultural Resource Mgr.	X		
Administrative Support	X	X	X