



## **Scope of Work**

**Gerald B.H. Solomon Saratoga**

**Schuylerville, New York**

## **Pre-Placed Crypts, Columbarium, Design/Build Project**

**VA Projects 917CM3004 and 917CM3005**

**Date: 3/5/2018**

### **1. GENERAL**

This Scope of work (SOW) identifies the goal and objectives of this Design-Build project. The D/B Contractor shall provide Architectural and Engineering disciplines for the preparation of construction documents for the purpose of completing the construction project.

The D/B Contractor shall provide all labor, materials, tools and equipment, and design-build services necessary for design and construction of a project described here and in other specific tasks as further defined by this SOW. See Section 12 below, 'Additional information for this design / build project.'

The D/B Contractor shall be responsible for the quality, accuracy and completeness of the documents required to complete the SOW. Requirements contained herein are minimums; each discipline performing engineering services for this contract shall meet current industry standards for the content and quality of deliverables. The D/B Contractor shall be responsible for coordinating the documents and for producing a complete set of drawings in accordance with professional practices. Complete and accurate coordination between the disciplines and quality control of all consultants' work shall be required. All drawings shall require a professional license seal and signature by the discipline responsible for the work.

The D/B Contractor shall be responsible for ensuring that the quality of construction and materials complies with the Construction Documents reviewed and accepted by the Government.

The D/B Contractor shall submit total project cost estimates along with the 50% and 95% submissions.

## **2. PROJECT GOAL**

The purpose of this project is to provide design and construction for; 4,600 Pre-Placed Crypts (PPC), contract line item (CLIN) 01 and CLIN 02; a new 4,000+ niche columbarium per CLIN 03; and miscellaneous facility improvements per CLIN 04, CLIN 05, and CLIN 06. The D/B Contractor shall ensure the Architectural and Engineering (DB/AE) contractor provides a complete design and construction document package for the work as described in this SOW.

## **3. BACKGROUND**

Gerald B.H. Solomon Saratoga National Cemetery is located in Saratoga County, New York. Address is; 200 Duell Road, Schuylerville, NY 12871. The cemetery encompasses 351.7 acres and has over 14,000 internments.

## **4. OPERATIONAL CONSIDERATIONS**

Each national cemetery is managed by VA National Cemetery Administration (NCA) personnel in conformance with national and regional (North Atlantic District) policies, priorities, goals, and objectives. The functions of a national cemetery include the operation and maintenance of all aspects of the cemetery. Typically, this includes burial of veterans and eligible family members, the interment of cremated remains, and the placement and maintenance of a headstone or grave marker. Cemetery operations include special events on Memorial Day and other special ceremonies, as well as the care of graves, structures and grounds. Gerald B.H. Solomon National Cemetery is operated and maintained by local NCA staff supervised by the cemetery director. Operating hours are Monday through Friday, 8:00 am – 4:30 pm. Closed federal holidays except Memorial Day and Veterans Day.

All survey work must take place during normal operating hours. Any request to work beyond these hours must be requested in writing and approved by the Cemetery Director in conjunction with the COR. The request must be made a minimum of 24 hours in advance. In addition, the Cemetery hosts numerous ceremonies and events. Survey work that interferes with these ceremonies will cease during ceremonies. Notice will be provided by the Cemetery staff 5 days in advance of scheduled ceremonies whenever possible. Occasionally events are scheduled with less than 5 days' notice in which case the Cemetery will provide as much notice as is possible.

Parking is limited: Survey staff vehicle parking area will be coordinated with the COR and Cemetery Director.

Please take note: there is NO smoking inside cemetery grounds.

Proper attire and professional conduct is required at all times.

All work must cease during the time an internment is taking place near the project site. Special care must be exercised to accommodate visitors and to ensure work does not interfere with their visit and ensure that there are no safety hazards present.

## **5. ENVIROMENTAL COMPLIANCE**

Provide environmental documentation for NEPA compliance that is necessary for a new gravesite expansion project at Gerald B.H. Solomon Saratoga National Cemetery.

## **6. HISTORIC COMPLIANCE**

This project is located in the Gerald B.H. Solomon National Cemetery, which is eligible for listing in the National Register of Historic Places (NRHP). The proposed scope of work for this project is subject to compliance with Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended). Accurate documentation of the work is required for this project to indicate the protection of cultural landscapes, and be compatible with contributing elements within the Cemetery. The scope of work is to be reviewed by the National Cemetery Administration (NCA) Historic Architect (HA), who will consult with the New York State Historic Preservation Office prior to work commencing. Proposed work, methods and treatments should meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. The D/B Contractor shall not be responsible for submissions to State agencies. Where NYSHPO approval is needed this approval shall be coordinated by the NCA Historic Architect. All tasks associated with historic compliance must be completed within the Design Schedule.

- 7. CLIN 01, Pre-Placed Crypt (PPC) PROJECT SCOPE AND DESIGN CRITERIA project number 917CM3004.** New PPC are to be located at burial sections 4, 5, and 15 see cemetery map below. (See also section 18 of the SOW below).

### **7.1. Site Survey and investigation. (See section 12 of the SOW below)**

- 7.1.1.** Topography
- 7.1.2.** Utilities
- 7.1.3.** Geotechnical
- 7.1.4.** Road and Curb
- 7.1.5.** Structures as applicable
- 7.1.6.** Plants

### **7.2. Design and Engineering for project.**

### **7.3. 4,600 Pre-Placed Crypt casket gravesites**

- 7.3.1.** Develop new burial sections 4, 5, and 15 as needed to achieve required yield, see burial section map below.
- 7.3.2.** Provide gravel construction access road to the rear of each section. Cemetery operations would prefer construction access via this road. Temporary road(s) would be removed after construction completed.
- 7.3.3.** Existing burial sections 4 and 5 currently have an irrigation system that will have to be removed, section 4 has a drywell that will have to be relocated. Burial section 15 has irrigation along the curb line that shall have to be removed.
- 7.3.4.** Pre-placed crypt fields are based upon typical burial plot size of 3'x8'.

- 7.3.5. Unless directed otherwise, design of crypt fields shall contain irrigation isles that are at least the same width as the plot sizes. The spacing of irrigation isles shall be based upon the irrigation system design. New irrigation is required for Crypt fields.
- 7.3.6. Crypt fields will require storm and ground water drainage, water management systems.
- 7.3.7. Single plots should not be designed at end of irrigation isles. The minimum number of side by side plots is two.
- 7.3.8. The following criteria are to be used as a guide for plant massing within pre-placed crypt fields. These are minimum standards to be applied to cemetery expansion projects at sites where availability of land permits such practices. Check with the Project Manager regarding the applicability of installing plants and trees within crypt fields before proceeding, as this determination is to be made on a project by project basis. See VA Design and Construction Criteria, NCA Specific Criteria and Specifications chapter 5, design criteria, section 20, page 5-16.

**7.4. CLIN 02, Pre-Placed Crypts, project number 917CM3004.**

- 7.4.1. Procurement and delivery of Pre-cast Concrete Crypts for project.

**8. CLIN 03, Columbarium PROJECT SCOPE AND DESIGN CRITERIA project number 917CM3005.** New columbarium is to be located at burial sections 11, and 13. (See also section 18 of the SOW below).

**8.1. Site Survey and investigation. (See section 12 of the SOW below)**

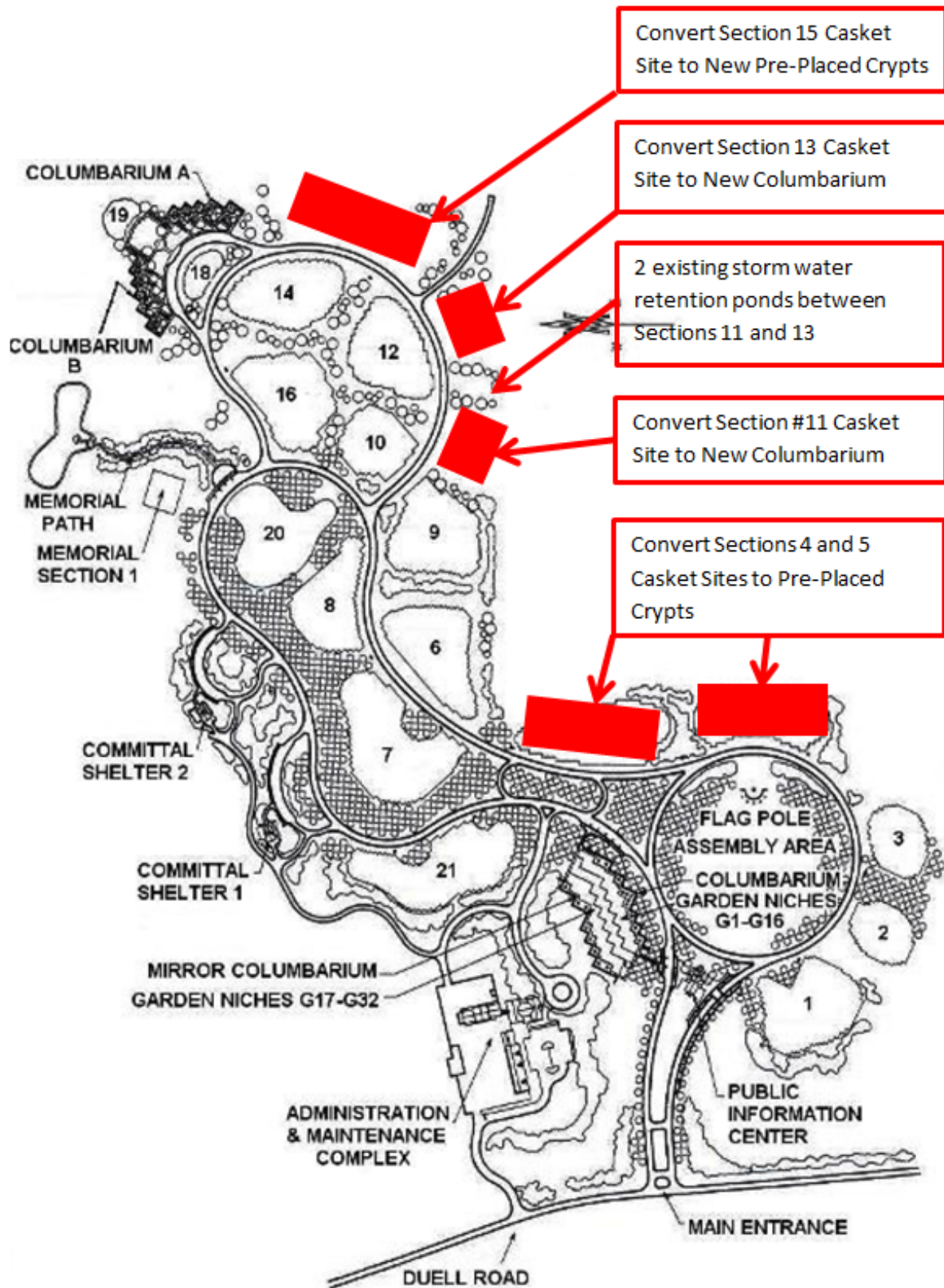
- 8.1.1. Topography
- 8.1.2. Utilities
- 8.1.3. Geotechnical
- 8.1.4. Road and Curb
- 8.1.5. Structures as applicable
- 8.1.6. Plants

**8.2. Design and engineering for project.**

**8.3. 4,000+ Niche Columbarium**

- 8.3.1. Develop new burial section 11, use section 13 also if section 11 does not accommodate the required number of niches, see burial section map below.
- 8.3.2. Provide gravel construction access road to the rear of each columbarium. Cemetery operations would prefer construction access via this road. Road would be removed after construction completed.
- 8.3.3. There are currently two retention ponds between burial section 11, and 13 that will have to be reconfigured or relocated to accommodate new development.
- 8.3.4. See NCA standard columbarium drawings NCA 010 thru 013, .pdf booklet attached herewith as a reference. This Columbarium will be similar in design to what is shown on the standard drawings however columbarium piers shall be stone that aligns with existing exterior finish materials Gerald B.H. Solomon Saratoga National Cemetery.
- 8.3.5. Provide design and construction documents for 4,000 + niche columbarium.

- 8.3.6.** Niches shall be standard 10-1/2" wide by 15" high by 20" deep.
- 8.3.7.** Columbarium wall caps shall be smooth faced limestone (pre-cast concrete wall caps are unacceptable).
- 8.3.8.** Letters, Numbers, Signage, shall be per attached standard columbarium drawing booklet.
- 8.3.9.** Niche covers with stainless steel rosettes and stainless steel mounting hardware shall be granite. The niche covers shall be Government-furnished / Contractor Installed (all mounting hardware is Contractor furnished). Niche covers are critical path items that require early procurement to meet schedule parameters. The transfer of government-furnished materials will be witnessed and documented by a representative of the Government. D/B Contractor shall be responsible for loss or damage of Government furnished materials after transfer. Contractor responsibility for loss or damage will be determined and repair, replacement, or other means of restitution may be required. Include target date for niche covers to be on site in construction schedule.
- 8.3.10.** Provide new cemetery signage as required for new columbarium, coordinate with existing signage at the cemetery
- 8.3.11.** \Provide and install irrigation system as required in and around the new columbarium, include two (2) flower watering stations for each columbarium plaza total 4.
- 8.3.12.** Columbarium will require storm and ground water management, water drainage systems.



CEMETERY MAP



**9. OPTION 1, Covered Storage Structure in Maintenance Yard, PROJECT SCOPE AND DESIGN CRITERIA project number 917CM3005.** (See also section 18 of the SOW below).

- 9.1. Site survey and investigation as required for each repair and improvement.**
- 9.2. Design and engineering as required for each repair and improvement.**
- 9.3. 60' x 30' Covered Storage Structure in Maintenance Yard.** Provide new storage structure for protecting cemetery equipment when not in use. The general area is shown below. Coordinate exact location with Cemetery Director. The minimum clearance would be 14'-6" beneath the structure. Structure will not have utilities. Steel structure with open sides, metal roof. Color and architecture to align with existing buildings. Structure shall be designed structurally and other wise to allow full height walls to be added on 3 sides or all 4 sides in the future, the side facing maintenance yard shall be designed structurally to accommodate future vehicle bays and vehicle doors without structural modification.



**10. OPTION 2, Facility Improvements, PROJECT SCOPE AND DESIGN CRITERIA project number 917CM3004.** (See also section 18 of the SOW below).

- 10.1. Site survey and investigation as required for each repair and improvement.**

**10.2. Design and engineering as required for each repair and improvement.**

**10.3. Design and Install three covered storage bins in the location circled on site image below, remote spoils area.** A drawing is attached herewith as the basis of design for the storage bins. See “Covered Material Storage Bins” drawing included herewith as a reference.



**10.4. Contractor shall replace all the pavers at committal shelters 1 & 2 with concrete.** The existing paver walking system includes concrete pavers over a bituminous base layer. This system shall be removed completely. This is an area of public visibility that comes with an expectation for the highest quality workmanship. The concrete in this area should be designed to prevent frost heave, reinforcement steel shall be epoxy coated, capable of supporting light utility vehicle traffic without cracking or sinking; and slightly pitched for drainage. All surfaces should be broom finish, unless otherwise approved; color and finish shall be uniform throughout each service shelter. The photographs below are similar for each shelter.





- 10.5. Design and Install covered storage over the existing material bins at the maintenance building.** A design was completed for this project and materials for the new structure are on site but were never erected. The previous project was abandoned since the piles for the foundation which are currently in the ground did not achieve the desired load capacity. Assume you have to start from scratch for design and construction for this scope of work item. Remove piles that were abandoned in place. See “Protective Canopy Details” drawing included herewith as a reference only.
- 10.6. Correct several Facility Deficiencies at Building T3 (Public Information Center)**
- 10.6.1.** Replace the doors, frames, and hardware for offices and bathrooms. Fit and finish to match original. Four locations at T3.



**10.6.2.** Provide power assist door operators on both male and female bathroom doors to meet ADA requirements.

**10.6.3.** Clean the banding at each chimney. Replace the chimney caps with stainless steel chimney caps. Fit and finish to match original. There are two chimneys.



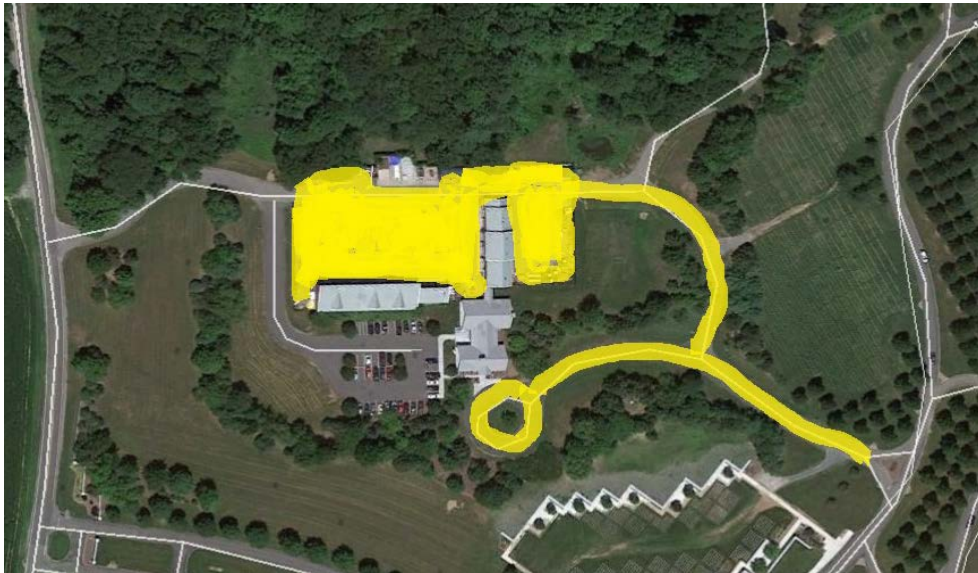
**11. OPTION 3, Road and Parking improvements, PROJECT SCOPE AND DESIGN CRITERIA project number 917CM3005.** (See also section 18 of the SOW below).

**11.1. Site survey and investigation as required for each repair and improvement.**

**11.2. Design and engineering as required for each repair and improvement.**

**11.3. Mill & Repave the roads and parking areas at the administration building.** Estimated square footage of highlighted area for repaving is 75,000 square foot, new 2" top coat required. Replace two storm inlets and repair their supporting structure. (Prior to milling operations contractor shall take paving core samples @ 75' on center at various locations

within road way and parking area to ensure the paved areas have adequate base coat and sub-base to be milled and re-paved.)



**12. Government Provided Reference Material NCA Standard Drawings,**

- 12.1.** NCA 001 thru 004, Crypt Details, dated 5/26/2018 (provided as a reference only, design will be specific to site).
- 12.2.** NCA Standard Drawings, NCA 010 thru NCA 013, Columbarium Details, dated 3/14/2017 (provided as a reference only, design will be specific to site).
- 12.3.** Covered Material Storage Bins
- 12.4.** Protective Canopy Details

**13. Accessibility-** All features of the new design for columbarium shall be accessible in compliance with the Americans with Disabilities Act-1990, Architectural Barriers Act of 1968, as amended and local accessibility requirements. To achieve compliance, the National Cemetery Administration uses as its standard for building and facility design the ABA Accessibility Standard for Federal Facilities (ABAAS). The standards are found at the following URL: <http://www.access-board.gov/ada-aba/aba-standards-gsa.cfm>. All aspects of compliance related to this project are to be discussed and exceptions may apply based on site conditions.

**14. Design Criteria-** The following general guidance applies to the project. It can be accessed from the VA web site at the following URLs:

- VA Program Guide PG-18-3, Topic 1 – Codes, Standards and Executive Orders (September 2013)  
[www.cfm.va.gov/til/cPro.asp](http://www.cfm.va.gov/til/cPro.asp)
- VA Program Guide PG-18-3, Topic 4- Foundation Drainage (April 2001)  
[www.cfm.va.gov/til/cPro.asp](http://www.cfm.va.gov/til/cPro.asp)

- VA Program Guide PG-18-3, Topic 16 - Sustainable Buildings Policy for VA Renovation and New Construction (May 2006)  
[www.cfm.va.gov/til/cPro.asp](http://www.cfm.va.gov/til/cPro.asp)
- VA Sustainable Design Manual (May 2014)  
<http://www.cfm.va.gov/til/sustain/dmSustain.pdf>
- VA Design and Construction Criteria, NCA Specific Criteria and Specifications  
<http://www.cfm.va.gov/til/nca.asp>
- VA PG 18-15 Volume D A/E Submission Requirements for National Cemetery Projects as applicable to design portion of D/B contract. Use VA PG 18-15 Volume D as a general guide; see Section 8.0 on this SOW for the required deliverables on this project.  
<http://www.cfm.va.gov/til/ae/aesubcem/>
- National Cemetery Signs. VA Signage Design Guide Section 12 (December 2012)  
<http://www.cfm.va.gov/til/signs/Signage12-Cemetery.pdf>

**15. TASKS, DELIVERABLES, AND SCHEDULE** (The D/B Contractor shall be responsible for all work listed for the following tasks and shall submit all survey information and reports to the Contracting Officer's Representative (COR) for review and comment)

**15.1. Task 1** - Surveys and investigations of existing conditions, design development drawings. Use VA PG 18-15 Volume D as a general guide, see 14 above.

- 15.1.1.** Preliminary Site Visit; meet on site with NCA Project Manager/COR and local VA staff to evaluate scope of work and glean insight into the projects goals and challenges. Identify site issues, limitations and constraints with respect to proposed location, size, and layout of proposed facilities and structures.
- 15.1.2.** Complete pre-design survey which includes documentation of existing conditions and existing utility infrastructure in the area of proposed work.
- 15.1.3.** Obtain a topographic survey, gather data, review existing site conditions, and analyze all pertinent documentation. Compile and analyze applicable Government provided reference materials, see 12 above, 'government provided reference material.'
- 15.1.4.** Engage a licensed geotechnical engineer to perform site reconnaissance, soils investigation, testing and analysis of the project site. The purpose of surface and subsurface investigation is to locate any conditions which would indicate specific areas of concern and provide recommendations for site improvements, pavement cross-sections, walkway cross-sections, ground water control, and treatment of in-place soils for the support of foundations, and slabs on grade. The geotechnical engineer shall be responsible for obtaining all necessary clearances from the Cemetery Director, local agencies, and utility companies that may have infrastructure in the vicinity of the work.. The D/B Contractor shall ensure the DB/AE logs and samples a minimum of fourteen (14) exploratory borings to a depth of 15 to 20 feet minimum below ground surface or deeper per Geotechnical Engineer recommendations and have the samples laboratory-tested to determine soil characteristics (at least 2 borings at each burial section). Coordinate all exploration work with the Cemetery Director and the COR. The D/B Contractor shall ensure the DB/AE provides a written report of findings and recommendations for site

preparation, concrete footing, concrete paving, and asphalt pavement design, and sign post installation, include within the report any other factors, i.e. underground utilities, which could influence the design of the proposed construction.

- 15.1.5.** Prepare a storm water management plan and related storm-water calculations as required for new site development and storm water/environmental department permitting.
- 15.1.6.** Review available reference drawings; see 12 above, 'government provided reference material.'
- 15.1.7.** Prepare concept plans showing location and layout of burial sections, structures, walkways, vehicular access roads, parking, and landscaping. Show grading, flow arrows, and percent slopes. All areas shall be properly graded to drain adequately. The Contractor shall perform a survey of existing trees and identify existing trees to remain and those to be removed in the area of new work.
- 15.1.8.** Columbarium landscaping is limited to trees and turf. No shrubs or ground cover are allowed. Specify trees that are native to the area and already known to thrive there.
- 15.1.9.** Existing landscaping, trees, plants, and hardscape at and around project site is to be replaced in like and kind if disturbed or removed for new construction.
- 15.1.10.** Develop a preliminary construction cost estimate based on the level of detail shown on the drawings. Break out major costs of items by element, specification division, including labor and materials.
- 15.1.11.** Deliverables: Conceptual design drawings for project scope of work. Provide site survey/topography drawings, Geotechnical Report with Boring Logs, including pavement cross-section design recommendations.
- 15.1.12.** Time to complete: Fifty Six (56) days from Notice to Proceed.
- 15.1.13.** **Task 1a**, Government review of task 1 deliverables: fourteen (14) days.
- 15.1.14.** Consultation and approval from New York State Historic Preservation Office is required. The D/B Contractor shall ensure the DB/AE prepares consultation documents, including letter of representation and project information, location and associated drawings/narratives for the VA NCA Historic Architect to submit to State Historic Preservation Office.

**15.2. Task 2 -** Construction drawings – 50% complete, draft specifications with table of contents, preliminary construction cost estimate.

- 15.2.1.** Review the PG-18-15, Vol. D, A/E Submission Requirements for National Cemetery Projects (Dec 2011.) see section 14 above. Prepare the drawing cover sheet and base sheets for each technical discipline using the survey drawings; begin construction drawings.
- 15.2.2.** Survey existing cemetery signage. Add new signage and modify and/or replace existing signage as required to provide location information and directional information for new columbarium site where required thru-out the cemetery. Use VA Signage Design Guide, National Cemetery Signs for signage design guide, see Section 14 above. Exterior site signage and posts shall match existing.



- 15.2.3.** Prepare the draft specifications with table of Contents to include all specification sections that will be part of the final documents. Review NCA master specifications, see section 14 above. D/B Contractor will identify any specification sections that DB/AE shall need to write if a NCA or VA master specification does not exist for a specific section that is needed; edit NCA master specifications and delete or add sections to specifically align with this project.
- 15.2.4.** Incorporate the soil boring location plan showing the exact location of each boring and boring profiles in the construction drawings.
- 15.2.5.** Design grading and erosion control for proposed work in accordance with NCA and ADA guidelines.
- 15.2.6.** Design vehicle parking and access as required.
- 15.2.7.** Design irrigation systems as required. The D/B Contractor shall tie-in to the existing irrigation system where possible, survey and locate nearest available point of connection for irrigation of New PPC burial sections and New Columbarium areas.
- 15.2.8.** Deliverables: 50% Construction drawings, including signage layout plan, signage schedule and sign face graphics, specifications, and preliminary construction cost estimate.
- 15.2.9.** Time to complete: One hundred twenty six (126) days from Notice to Proceed.
- 15.2.10.** **Task 2a**, Government review of task 2 deliverables: Fourteen (14) days.

**15.3. Task 3 - Construction Documents-95% complete and coordinated set of construction documents, detailed cost estimate.**

- 15.3.1.** Drawings: Submit 95% complete construction documents for all disciplines incorporating comments from VA review of 50% CD submission and final geotechnical report findings and recommendations
- 15.3.2.** Specifications: Submit 95% complete set of construction specifications coordinated with the drawings.
- 15.3.3.** Cost Estimate: Submit a detailed estimate of construction cost consistent with the level of detail shown on the drawings. All items must be quantified; lump sum items are not acceptable. Break out costs of items by element, spec. division, including all labor and materials
- 15.3.4.** Deliverables: Drawings, specifications, final Geotechnical Reports and cost estimate. Complete construction documents are required for build out of the projects on site.
- 15.3.5.** Time to Complete: One hundred ninety six (196) days from Notice to Proceed.
- 15.3.6.** **Task 3a**, Government review of task 3 deliverables: Fourteen (14) days.

**15.4. Task 4 – Final Construction Documents (drawings and specifications), final cost estimate.**

- 15.4.1.** Submit 100% Final complete and coordinated set of construction documents for all disciplines that incorporate and address all review comments and changes.
- 15.4.2.** Deliverables: Final drawings, specifications and cost estimate.
- 15.4.3.** Time to Complete: Two hundred thirty eight (238) days from Notice to proceed.
- 15.4.4.** Task 4a, Government review of task 4 deliverables: Twelve (12) days.



- 15.4.5.** Construction Document set complete: Two hundred fifty (250) days from Notice to Proceed.

**15.5. Task 5 – Construction.**

- 15.5.1.** Mobilization: Coordinate construction access, entrance to site, construction routes, and areas designated for equipment, materials, and contractor staff parking with VA Project Manager/COR and Cemetery Director. Provide temporary signage for directions too and designation of these areas at the job site.
- 15.5.2.** Temporary erosion and storm water control: Provide and install sediment traps and barriers, basin traps, sediment fences, outlet protection, runoff control, runoff conveyance, storm drains, slope drains, etc. as required to mitigate erosion and control storm water. Comply with all applicable codes. **Obtain and pay for any required permits.**
- 15.5.3.** Site preparation: Provide protective measures for valuable trees. Project includes land clearing, cutting, filling and grading, mulching, and sodding.
- 15.5.4.** Site infrastructure: Construct permanent storm and ground water management systems (include water retention ponds or similar as required), utility systems, and irrigation system. Enhance or expand existing storm and ground water management systems as required by design approach.
- 15.5.5.** Paving: Construct new parking and walkways at columbarium.
- 15.5.6.** Structures: Project shall include excavation, construction of footing/foundations, columbarium structures, and pre-cast concrete crypts.
- 15.5.7.** Landscaping: provide and install planting, final surface stabilization, top soil, trees, permanent seeding mulching, and sodding.
- 15.5.8.** Project delivery and close-out: Coordinate inspections with Government stakeholders well in advance of substantial completion of the project. Include time in the Construction schedule to address and close out all open punch list items and for final testing of site infrastructure.
- 15.5.9.** De-Mobilization: Remove all temporary structures, materials, and equipment from job site and restore disturbed areas of site to original condition.
- 15.5.10.** Final preparation and cleaning for delivery: Remove dirt and debris from all areas of new work, groom site for final acceptance and delivery.
- 15.5.11.** Time to Complete: Five hundred and fifty (550) days from Notice to proceed.

**15.6. Task 6 – Prepare and Issue as built record set of drawings (per field as built mark-ups).**

- 15.6.1.** Time to complete twenty eight (28) days after project delivery and close-out.

**15.7. Schedule Summary** (The D/B Contractor shall complete the project per schedule shown below).

- 15.7.1.** Time for Completion of Project – Five Hundred and Fifty days (550) days after issuance of Notice to Proceed. Schedule duration is as follows

- Design Notice to Proceed
- Task 1 Fifty Six (56) days (Survey, DD)

- Task 1a Fourteen (14) days (Government Review)
- Task 2 Fifty Six (56) days (50% Construction Documents)
- Task 2a Fourteen (14) days (Government Review)
- Task 3 Fifty Six (56) days (95% Construction Documents)
- Task 3a Fourteen (14) days (Government Review)
- Task 4 Twenty Eight (28) days (Final Design)
- Task 4a Twelve (12) days (Government Review)
- Task 1 thru 4 Total DB/AE schedule Two hundred fifty (250) days
- Task 5 Three hundred (300) days (Construction)
- Task 1 thru 5 Total D/B schedule Five hundred (550) days plus another 28 days for task 6, record set of drawings.
- Task 6 Four Twenty Eight(28) days (record set of drawings)

**15.7.2. Meetings as follows:**

- Site visit, project kick-off
- Conference call, after DB/AE review of VA comments on Task 1
- Conference call, after DB/AE review of VA comments on Task 2
- Conference call, after DB/AE review of VA comments on Task 3
- Conference call, after DB/AE review of VA comments on Task 4
- Bi-weekly working sessions and meetings at the cemetery for data gathering and coordination with NCA staff from project kick-off thru completion of task 1 thru 4.
- Bi-weekly project progress tele-conferences with NCA staff during task 5.
- Conference call, pre-construction meeting.
- Site visit, construction kick-off meeting.
- Additional weekly construction phase services/administration meetings if construction progress is behind schedule.
- Project close out meetings as required for punch list, substantial completion, and final project delivery (Design bid alternate)

**16. PERSONNEL RESOURCES** (The D/B Contractor shall provide the following personnel.)

- 16.1.** Overall Project Manager: To manage the project, and negotiate fees; provide project communications point of contact, and monitor progress and overall quality of deliverables and construction.
- 16.2.** Architect / Design Project Manager.
- 16.3.** Construction Project Manager.
- 16.4.** Architect / Engineer Field Representative.
- 16.5.** Professional staff: of the disciplines required to prepare surveys, studies, design and construction documents, specifications and cost estimates in a professional, quality-based, timely, efficient manner.
- 16.6.** Clerical Support: Includes the preparation and shipping of all deliverables to the Government and the typing of specifications.

- 16.7. Qualified construction staff.**
- 17. INDIRECT RESOURCES** (The D/B Contractor shall be responsible for the following)
- 17.1. Reproduction/Mailing:** All submission deliverables shall be forwarded to VA in accordance with distribution requirements listed in this scope of work. All printing and shipping costs are the responsibility of the D/B Contractor.
- 17.2. Travel:** All travel expenses for D/B contractor staff are the responsibility of the D/B Contractor.
- 18. GENERAL SUBMITTAL STANDARDS & REQUIREMENTS** (The D/B Contractor shall be responsible for the following)
- 18.1. Drawing Sheets.**
- 18.1.1.** All plans are to use the standard VA/NCA title block. VA will provide an electronic version if the D/B Contractor requires it. Sheet size is 30" x 42". Half size hardcopy sets shall be requested for reviews.
- 18.1.2.** All drawings shall be bound, along the left margin, into sets in the order of the drawing symbol list contained in this scope. At each submittal, the set of drawings shall have a cover sheet. The binding must not obscure any information on the drawings.
- 18.1.3.** Each sheet as well as all materials submitted shall be clearly labeled above the title block, what submission it is, corresponding to the required submissions in this scope of work i.e., "Survey, Design Development Submittal," "50% Construction Documents Submittal," etc. This label shall be changed per each new submission.
- 18.1.4.** Drawing Sheet Number Prefix shall be per National CAD Standard, see section 11.4.1. below
- 18.2. Drawing Content.**
- 18.2.1.** Cover sheet: Cover sheet shall have the standard VA Logo with the agency name next to it. Cover sheet must show: project title, project number, index of drawings in the set, names, addresses and phone numbers of all associated D/B firms, vicinity map, site location map, cemetery map showing project location and other pertinent project information. A complete legend of drawing abbreviations and drafting symbols for all disciplines shall be included either on the cover sheet or on a second sheet immediately following the cover.
- 18.2.2.** General phasing drawing: Show traffic control, access and staging areas, how access to the cemetery would be maintained during construction. This drawing must convey daily impact of construction work on cemetery operations.
- 18.2.3.** Subsurface investigation and Survey drawings: Topographic and Geotechnical surveys, must show surveyor's stamp on topographic survey sheet.
- 18.2.4.** Demolition drawing: Show limits of clearing and grubbing and miscellaneous other required demolition for tie in to existing infrastructure, roads and walkways where required.
- 18.2.5.** Civil drawings: Dimensioned layout plans showing location of all new work, new infrastructure, easements, and other items as applicable to new work. Finished

grading plans with spot elevations, rim elevations of storm drainage structures, retaining wall plans/sections/details, road/walkway sections/details.

- 18.2.6. Finished grading plans with spot elevations, rim elevations of storm drainage structures, retaining wall plans/sections/details, road/walkway sections/details.
- 18.2.7. Landscape drawings: Planting plans with symbols showing all trees, planting beds, and lawn seed mixture. The planting schedule should show common name, genus and species
- 18.2.8. Erosion control drawings: Shall include necessary storm drain lines and any temporary erosion and sediment control measures required for applicable environmental permits. **Consult with environmental permit office during design.**
- 18.2.9. Storm sewer drawings: Plans, profiles, details as applicable.
- 18.2.10. Irrigation drawings: Show gross irrigation layout for mains and sub mains and a typical head layout for each type of watering condition. Show points of connection, head layout, pipe sizes, valve sizes, and all appurtenances. Layout of irrigation plans must be drawn to match irrigation controller coverage. Show water demand calculations. Two (2) Flower watering stations are also to be provided at each columbarium plaza total could be 4.
- 18.2.11. Civil drawings: storm water system with storm water retention system as required by applicable local and regional authorities.
- 18.2.12. Architectural drawings: Plans, sections, elevations, and details of columbarium, and perimeter fence/paving work.
- 18.2.13. Structural drawings: Plans, sections, details as applicable
- 18.2.14. Plumbing drawings: Plans, details for watering stations, identify point of connections to existing irrigation system.
- 18.2.15. Electrical drawings: Plans, details, schedules as applicable.

### **18.3. Graphic Standards.**

- 18.3.1. Drawings shall have graphic scales, north arrow (either true north or plan north; orientation shall be consistent throughout drawings, title block, and key plan clearly identifying the drawing component within the overall plan. Each drawing, booklet, and other supporting submittal, including cover sheets, shall be clearly and consistently identified throughout the design process with the project title, location, building, phase, section, and segment. Each sheet shall be clearly labeled above the title block, what submission it is corresponding to the required submissions in this scope of work. Each sheet shall have a key map for locating and orienting individual drawing sheets to the whole site.
- 18.3.2. Plans must clearly demonstrate what is new work and what is existing and what is to be demolished. New work must be graphically bolder than existing work. For example, existing items to remain may be screened, with new work shown solid. Demolition work shall be shown by dashed lines.
- 18.3.3. Drawings using match lines must not overlap information. All information must stop at the match line and resume at the corresponding match line.

- 18.3.4.** Detail sheets should be organized logically and present the material intended in an orderly way, for example, head, jamb and sill should be arranged as such from top to bottom, not randomly placed on the sheet as space allows. Items with plan, front and side views should be arranged in that context to one another. Each detail must be clearly labeled and the scale indicated.
- 18.3.5.** A comprehensive legend of the abbreviations and symbols used on all of the drawings shall be provided on the cover sheet or immediately following the cover sheet.

**18.4. Computer Aided Design and Drafting (CADD).**

- 18.4.1.** The D/B Contractor shall supply all drawings in AutoCAD format in accordance with the United States National CAD Standard, Version 6.0. The standard includes presentation graphics, level/layer assignments, electronic file naming and standard symbols. These standards are available at the Internet website:  
<http://www.nationalcadstandard.org/>.

- 18.4.2.** If the DB/AE performs their project design work in two different CADD formats, the D/B Contractor will ensure the electronic file compact disk submission to the National Cemetery Administration shall be in only one unified CADD format, only .dwg format files will be accepted. The conversion and the integrity of the drawings is solely the responsibility of the D/B Contractor. All CADD files created for this project shall be the property of the Department of Veterans Affairs and the National Cemetery Administration. **CADD files shall not be altered in any way or locked to prevent them from being easily re-used and edited for future projects as the NCA deems necessary.**

- 18.4.3.** The external label for the electronic submittal shall contain at a minimum:
- Project Number
  - Format and version of the operating system software used
  - Name and version of utility software used for preparation (e.g., compression/decompression, if applicable) and copying files to media
  - Sequence number of the digital media
  - A list of the filenames on the digital media, as space on the label permits.

**18.5. Reports/ Calculations/ Studies/ Analyses/ Estimates/ Specifications/ Materials.**

- 18.5.1.** Submit 8 1/2" x 11" copies of all required calculations, cost estimates and specifications to the Project Manager/COR. All letter reports shall be labeled with the project name, project number, name(s) of D/B firm(s), date and title of the report or estimate. Final submittal of specifications shall be in Microsoft Word format on compact disc. Foldout sheets, up to 11" x 17", for graphics may be incorporated in the reports.
- 18.5.2.** Specifications shall be prepared using National Cemetery Administration (NCA) Master Construction Specifications. Submissions shall show changes to master by using the "Track Changes" function. Project specifications shall include

specifications for all products, materials, equipment, methods, and systems shown on the construction drawings in accordance with standard professional practice and this SOW. The specification submitted for review shall include:

- a) The name of the manufacturer, the product name, model number, or other identification as appropriate to clearly identify the product that will be used in the construction of the project;
- b) Other data as appropriate to clearly identify the product that will be used in the construction of the project i.e. shop drawings, product data, and samples as required by the construction documents; and
- c) The required stamp of the licensed architect or engineer of record will be considered as certification of compliance with construction documents.

**18.5.3.** The D/B Contractor shall submit agendas for planned meeting and submit minutes of meetings held with VA to the COR.

**18.5.4.** All submitted documents shall be updated as per written responses in a mutually agreeable electronic review and correction tracking system to reflect review comments from previous phase and further development. The D/B Contractor shall verify that all changes based on the review of the previous phase have been entered into the electronic review and correction tracking system and approved by the VA COR.

**18.5.5.** Color boards: Submit color board with samples of materials to be used for new columbarium structure, covered storage structure, canopy structure, paving and hardscape, and other as applicable.

**18.5.6.** Sequencing Plan: The D/B Contractor shall develop a Microsoft Project Bar Chart schedule demonstrating fulfillment of the contract requirements. See NAS (Network Analysis System) Section of the NCA master specifications. Sequencing plan as referenced here involves a phasing or construction sequencing plan, including long lead item milestone dates, and a narrative of construction explaining impacts on the local environment and traffic. Show staging areas, construction access, and contractor parking. Plan shall be general in nature but thorough enough to address issues related to cemetery entrance and exits, utility issues, etc.



**18.6. Distribution of Review Submissions by D/B Contractor.**

VA STAFF	SETS of DRAWINGS	COST ESTIMATE	REPORTS/ CALCS.	SPECS	E-FILES
NCA Develop. Coord.	1-half-size	1	1	1	1 CD/DVD
NCA PM/COR	2 half-size	1	1	1	1 CD/DVD
District Engineer	1 half-size	1	1	1	1 CD/DVD
NCA Cemetery Director	1 half-size				1 CD/DVD
NCA Crypt Specialist	1 half-size	1	1	1	1 CD/DVD
<i>Total</i>	6	4	4	4	5

**18.7. Work Coordination and Reviews.**

- 18.7.1.** The NCA Project Manager is the Contracting Officer's Representative (COR). All work shall be coordinated with the COR. Only the Contracting Officer (CO) has the authority to make any changes to the contract.
- 18.7.2.** Each drawing submittal will be reviewed by VA and comments will be provided to the D/B Contractor according to the schedule in the contract (typically 2 weeks). All comments are from various VA entities and changes shall be coordinated through the NCA Project Manager/COR. If the D/B Contractor makes changes or modifications based on comments from VA entities other than the Project Manager/COR, the D/B Contractor will be liable and at their own expense shall revise the changes. The D/B Contractor must respond in writing to all comments within ten (10) calendar days of receiving VA comments. Subsequent work and changes made shall reflect the VA comments and the outcome of the review.
- 18.7.3.** VA and the D/B Contractor shall utilize a tracking system to review and respond to all comments. At each phase, D/B Contractor shall verify that documents have been revised.

**19. ADDITIONAL INFORMATION FOR THIS DESIGN / BUILD PROJECT:****19.1. Definitions.**

- 19.1.1.** Design-Build (D/B): as defined by the Department of Veterans Affairs (VA) is the procurement by the Government, under one contract, with one firm or joint venture (JV) for both design and construction services for a specific project.
- 19.1.2.** Contracting Officer (CO): The services to be performed under this contract are subject to the general supervision, direction, control and approval of the Contracting Officer.

- 19.1.3.** Contracting Officer's Representative (COR): The Contracting Officer's representative is responsible for administering contracts under the immediate direction of the Contracting Officer.
- 19.1.4.** Resident Engineer (RE): The Contracting Officer's authorized representative at the construction site. When more than one Resident Engineer is assigned to a construction project one is designated as being in-charge and is called the "Senior Resident Engineer". The Resident Engineer is responsible for protecting the Government's interest in the execution of the construction contract work. His duties include surveillance of all construction work to assure compliance with the contract documents, interpretation of the contract documents, recommendations for approval of changed work, approval of all submittals, samples, shop drawings, etc.
- 19.1.5.** Design Build Contract: This term, as used herein, refers to the Contract(s) to perform the design and construction of the project.
- 19.1.6.** Contractor: This term, as used herein, refers to the contractor under this contract referred to as the DB Contractor.
- 19.1.7.** Architect/Engineer (AE or A/E or DB/AE): This term, as used herein, refers to the Architect-Engineer firm (s) that are subcontracted by the D/B Contractor, also referred to as the DB/AE.
- 19.1.8.** Schedule Objectives - The anticipated completion of this project is 550 days after "Notice to Proceed" (NTP). The proposed schedule may be shorter than this.
- 19.2. Cost Range.** The anticipated cost range for this project is between \$5M and \$10M.
- 19.3. VA Team Responsibilities.**
- 19.3.1.** The VA NCA Office of Design and Construction at VA Headquarters located in Washington, DC produced the SOW. NCA Design and Construction office will provide design and construction period review and monitoring, the DB/AE is also to provide construction period review and monitoring of the construction phase.
- 19.4. Design Build Contractor Responsibilities.**
- 19.4.1.** The D/B Contractor includes all Joint Venture (JV) partners, consultants and sub-contractors to the one firm. The D/B Contractor shall provide Architectural and Engineering (DB/AE) disciplines for the preparation of construction documents, and construction contractor capabilities for construction of the project.
- 19.4.2.** If the D/B Contractor and the DB/AE are a JV (not one and the same firm), the engineering and other technical consultants shall be subcontractors of the JV. For the purpose of this contract, the Prime Contractor referred to as the D/B Contractor shall be responsible for the management and coordination of all subcontracted disciplines and consultants.
- 19.4.3.** The SOW is intended to define certain required items, and design parameters to be included in the project. It is the D/B Contractor's responsibility to complete construction documents and construction in a manner consistent with the intent of the SOW documents within the required time period (contract length).

**19.5. Technical Proposal Requirements.** See solicitation documents.

**19.6. POST AWARD REQUIREMENTS**

**19.6.1. Design Review Submissions:**

- The D/B Contractor shall prepare and submit complete construction documents for review and approval by the VA in accordance with standard professional practice, the Department of Veterans Affairs SOW (VA SOW), and prevailing codes.
- Submit complete design package for each submission and distribute via mail per section 18.6 above.
- Submission package will be reviewed at Survey / Design Development, 50%, 95%, and Final completion stages. Each review submission package shall incorporate the review comments from the previous review. If any package is not complete for the required stage a post review may be required the cost of which will be borne by the D/B Contractor.
- Each review submission package shall include 6 half size hard copy drawing sets, 4 copies of the cost estimate, 4 copies of reports and calculations, 4 copies of specifications and 5 CD-ROM/DVD which include electronic version of all submission documents. The package will include an index of drawings (by sheet number and title) and specifications (by section number and title) submitted. The packages shall be sent directly to the VA NCA Development Coordinator, VA NCA Project Manager/COR, VA NCA District Engineer, VA NCA Cemetery Director, and NCA Crypt Specialist as determined by the VA NCA Project Manager.

**19.6.2. Design Review Meetings:**

- A review meeting to resolve design issues will be held for each design review package submitted. The meeting will include discussion of VA NCA comments on functional relationships and technical peer review comments (by others).
- Participants will include VA Staff and D/B Contractor members as appropriate for the specific package to be reviewed and others. D/B Contractor's management will be present at each review meeting.
- The D/B Contractor shall allow a minimum of ten (10) working days for each review cycle. A review cycle includes:
  - a.) The VA's receipt of the design review submission package.
  - b.) The review meeting.
  - c.) D/B Contractor's receipt of comments from the VA, either electronically, by fax, or by hard copy delivery.
- Coordination of the review meeting schedules will be the responsibility of the D/B Contractor's Team Project Manager.

**19.6.3. Electronic Media:**

- Design review submission drawings and final Construction Document submission drawings will be executed in electronic format AutoCAD 2014 or earlier .dwg format and in published .pdf format.
- The reference drawings included with the VA solicitation will be available to the DB Contractor in electronic format in .pdf format. The user shall independently verify all information in the files. Any user shall agree to indemnify and hold the VA harmless from any and all claims, damages, losses, and expenses including, but not limited to, attorney's fee arising out of the use of the .pdf drawing files.
- Design review submission specifications and other 8 1/2 by 11 formatted material and final Construction Document submission specifications and other 8 1/2 by 11 formatted materials will be executed in electronic format Microsoft Office Suite 2010 or earlier, Word.
- The construction record drawings shall be completed in AutoCAD 2014 or earlier version.
- Construction shop drawings are required to be completed in AutoCAD.

**19.6.4. Professional Licensing:**

- The D/B Contractor shall ensure the DB/AE who prepares the construction documents shall be a professional architect or engineer licensed in the state in which the design work is completed.
- The professional seal indicating such license by the state shall appear on the final construction documents. The architect whose seal is shown will be known as the Architect of Record. The D/B Contractor shall have the DB/AE certify compliance with the VA SOW and all applicable codes.

**19.6.5. Approved Construction Documents:**

- The final construction document submission package will be submitted by the D/B Contractor for approval by the VA after completion of the 100% review cycle for the final package to be submitted by the D/B Contractor. The VA will have 1 week to take approval action.
- The final construction documents submission package will include a full set of final construction documents including all disciplines/packages.
- The final construction documents submission package will incorporate all VA supplied comments from the earlier 50%, 95%, and 100% final submission package reviews and will comply with the VA SOW.
- If the final construction documents submission package is not complete a post submittal may be required, the cost of which will be borne by the D/B Contractor.
- The approved final construction documents include such details that the project can be constructed and will be used for construction of the project.
- See sections 18.6 above for submittal distribution information.

- Construction Drawing Preparation - See section 18 above.
- Construction Specifications – See section 18.5.2. above.
- Design Requirements - Compliance with codes and standards. Project design shall be in compliance with applicable standards and codes described in VA Program Guides and design manual, See section 14 above.

**19.6.6.** In the design and construction of work under this contract, the D/B Contractor shall incorporate the following requirements as applicable:

- Zoning laws: Environmental and erosion control regulations; and laws relating to landscaping, open space, minimum distance of a building from the property line, maximum height of a building, historic preservation, and aesthetic qualities of a building. Also similar laws, of the State and local authorities, which would apply to the building if it were not to be constructed or altered by the U.S. Government.
- The D/B Contractor shall consult with appropriate officials of the Federal, state, and local authorities, and submit plans under the rules prescribed by those reviewing authorities. The VA shall give due consideration to the recommendations of the referenced building officials. VA will also permit inspection by the officials described above during the construction period in accordance with the customary schedule of inspections in the locality of the building construction. The D/B Contractor shall provide VA with inspection schedules for officials before construction begins or give reasonable notice of their intention to inspect prior to the inspections as applicable.
- The D/B Contractor shall provide prompt, written notification to the Contracting Officer concerning conflicts with, or recommended deviations from codes, laws, regulations, standards, and opinions of review officials as described above. No work altering the scope of this contract shall be undertaken prior to receipt of written approval from the Contracting Officer.
- No action may be brought against VA and no fine or penalty may be imposed for failure to carry out any of the previously described recommendations of Federal, state, or local officials. VA and its contractors, shall not be required to pay any amount for any action taken by a state or political division of a state in carrying out functions described in this article, including reviewing plans, carrying out on-site inspections, issuing permits, and making recommendations.
- The D/B Contractor shall advise the Contracting Officer of any variances with the applicable Department of Labor, Occupational Safety and Health Standards, for occupancy requirements.

**19.6.7.** Quality Assurance/Quality Control:

- To reduce design errors and omissions, the D/B Contractor shall develop and execute a QA/QC plan that demonstrates the project plans and specifications have gone through a rigorous, thorough review and coordination effort.

- Within 2 weeks of receipt of Notice to Proceed, the D/B Contractor will submit a detailed QA/QC plan describing each QA/QC task that will be taken during the development of the various design submission packages and the name of the D/B Contractor's team member responsible for QA/QC.
  - a) Upon its completion each task shall be initialed and dated by the responsible D/B Contractor's team member.
  - b) A 100% completed QA/QC plan shall be submitted with the final construction document submission package.

**19.6.8. Construction Period Submittals:**

- The D/B contractor shall distribute 6 sets of the approved final construction documents to the VA, as directed by the VA Project Manager and per 18.6 above.
- Other submittals - The D/B Contractor shall submit test results, certificates, manufacturer's instructions, manufacturer's field reports, etc. as required by the project specifications, to the VA Project Manager.
- Project record drawings - The D/B Contractor will maintain a set of construction documents (field as-built drawings) to record actual construction changes during the construction process as required by the SOW. The project record drawings will be available for review by the VA Project Manager at all times.
- Shop drawings and submittals - The D/B Contractor shall ensure the DB/AE check government furnished and/or the D/B Contractor's shop drawings, detail drawings, schedules, descriptive literature and samples, testing labor-laboratory reports, field test data and review the color, texture and suitability of materials for conformity with the SOW and construction documents. The D/B Contractor shall ensure the DB/AE recommend approval, disapproval, or other suitable disposition to the VA NCA Project Manager/COR. The VA NCA Project Manager/COR will have final approval authority. The D/B Contractor's DB/AE shall evaluate the submittals with reference to any companion submittals that constitute a system. When necessary, the DB/AE will request the D/B Construction Contractor to submit related components of a system before acting on a single component. Should this procedure be inappropriate, the DB/AE shall review all prior submittals for related components of the system before acting on a single component. The DB/AE may be required to hold joint reviews with the VA technical staff on complicated system submittals. The D/B Contractor's DB/AE shall notify the VA Project Manager in writing of any and all deviations from the requirements of the construction documents that he/she has found in the submittals.

**19.6.9. Project Close-Out.** The D/B Contractor shall comply with the requirements in the "General Conditions", Section 01001, and "General Requirements", Section 01010 (these spec sections to be generated by the D/B Contractor's DB/AE per VA spec templates) for submission of final as built drawings, manuals, and other



documents as noted. Required as built drawings and specifications will be submitted in the same format required for the construction documents.

- 19.6.10.** Site Visits and Inspections. During the construction period the D/B Contractor's DB/AE shall make monthly visits to the project site and when requested by the VA NCA Project Manager/COR). The VA NCA Project Manager/COR may also request visits for special purposes. Only registered architects and engineers thoroughly familiar with the project may make these site visits. The VA Project Manager/COR has the prerogative to determine the professional discipline(s) required for any visit. *The D/B Contractor's DB/AE shall observe the construction, advise the NCA Project Manager of any deviations or deficiencies or solutions to issues discussed. A site inspection report which includes the purpose of the inspection, items reviewed, deficiencies observed, recommendations and additional actions required, shall be furnished to the VA NCA Project Manager within three work days following the site visit date*

Signed by Michael J. Borgman Michael Borgman Date: 5/10/2018