

SECTION 01 00 00
GENERAL REQUIREMENTS
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SECTION 01 00 00
GENERAL REQUIREMENTS

1.1 GENERAL INTENTION

- A. Contractor shall completely prepare site for building operations, including demolition and removal of existing structures, and furnish labor and materials and perform work for Phase 1 New Cemetery Development for Cape Canaveral National Cemetery, Scottsmoor, FL, Project No. 934CM2002, as required by drawings and specifications.
- B. Offices of Foster Conant & Associates., Inc., 120 W. Robinson Street, Orlando, FL (Telephone (407) 648-2225), as Architect-Engineer (A/E), will render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer or his duly authorized representative.
- C. All Testing Laboratory services will be retained and paid for by the Contractor (see Spec. Section 01 45 29, Testing Laboratory Services). However, the Department of Veterans Affairs may elect to retain its own Testing Laboratory for any purpose. Before placement and installation of work subject to tests by testing laboratory retained by Department of Veterans Affairs, the Contractor shall notify the Resident Engineer in sufficient time to enable testing laboratory personnel to be present at the site in time for proper taking and testing of specimens and field inspection. Such prior notice shall be not less than three work days unless otherwise designated by the Resident Engineer.
- D. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.
- E. Prior to commencing work, general contractor shall provide proof that an OSHA certified "competent person" (CP) (29 CFR 1926.20(b)(2)) will maintain a presence at the work site whenever the general or subcontractors are present.
- F. Training:
 - 1. All employees of general contractor or subcontractors having supervisory responsibilities shall have the 30-hour OSHA certified Construction Safety course and/or other relevant competency training, as determined by VA CP with input from the ICRA team. All other employees of general contractor or subcontractors shall have the 10-hour OSHA certified Construction Safety course and/or other relevant competency training, as determined by VA CP with input from the ICRA team.
 - 2. Submit training records of all such employees for approval before the start of work.

1.2 STATEMENT OF BID ITEM(S)

- A. CLIN 001, BASE BID, GENERAL CONSTRUCTION: Contractor shall furnish all labor, tools, equipment, materials, and supervision required to complete all work outside Early Turnover (ETO) area including, but not limited to, general construction of buildings including permanent Public Information Center (PIC), Administrative Building, and Maintenance Building including Honor Guard space,

Flag/Assembly area, Ossuary, Memorial Walls, Memorial Walk, Columbaria, and roads, walks, grading, drainage, mechanical and electrical work, equipment, utility systems, irrigation, landscaping, lakes, installation of pre-placed crypts, water well, and GPS/GIS system and equipment, relocation of temporary buildings, and demolition necessary to remove existing landscaping or construction, restoration of staging and ETO areas, and certain other items.

- B. CLIN 002, EARLY TURNOVER (ETO) AREA: Contractor shall furnish all labor, tools, equipment, materials, and supervision required to complete all work including, but not limited to, designated ETO area indicated in the contract documents including temporary trailers and structures including the temporary committal service shelter, burial sections 5, 6, and 7 including pre-placed crypt installation, burial sections 8, 9, 10, and 11 including pre-placed urn crypt installation, main entrance, and other elements included in ETO area.
- C. CLIN 003, CRYPTS: Manufacture, delivery, off-load at site, and storage of 152 oversized pre-placed crypts; 7,603 standard pre-placed crypts; and 2,752 pre-placed urn crypts to be installed under CLIN 001 or CLIN 002 as indicated on the drawings and as specified.
- D. CLIN 004, MEMORIAL WALL MARKERS: Off-load at site and storage of 720 Memorial Wall markers to be installed under CLIN 001 as indicated on the drawings and as specified.
- E. CLIN 005, MARBLE NICHE COVERS: Off-load at site and storage of 7,500 marble Niche Covers to be installed under CLIN 001 with excess delivered to storage at the National Cemetery in the location designated by the Resident Engineer.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, additional sets of drawings and specifications may be requested by the Contractor, at Contractor's expense.

1.4 CONSTRUCTION SECURITY REQUIREMENTS

- A. Security Procedures:
 - 1. For working outside the "regular hours" as defined in the contract, the general contractor shall give 3 day notice to the Resident Engineer so that arrangements can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.
 - 2. No photography of VA premises is allowed without written permission of the Resident Engineer.
 - 3. VA reserves the right to close or shut down the project site and order general contractor's employees off the premises in the event of a national emergency. The general contractor may return to the site only with the written approval of the Resident Engineer.
- C. Guards:
 - 1. It is the option of the general contractor to provide site security after construction hours.
 - 2. If the general contractor opts to provide security guards, the guards shall have communication devices to report events as directed by the Resident Engineer.

3. The general contractor may install equipment for recording guard rounds to ensure systematic checking of the premises.

D. Key Control:

1. The general contractor shall provide duplicate keys and lock combinations to the Resident Engineer for the purpose of security inspections of every area of project including tool boxes and parked equipment and to take any emergency action.
2. The general contractor shall turn over all permanent lock cylinders to the VA at the direction of the Resident Engineer for permanent installation. See Section 08 71 00, DOOR HARDWARE, and coordinate.

E. Document Control:

1. Before starting any work, the general contractor/sub-contractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
2. The general contractor is responsible for safekeeping of all drawings, project manual, and other project information. This information shall be shared only with those with a specific need to accomplish the project.
4. Certain documents, sketches, videos or photographs, and drawings may be marked "Law Enforcement Sensitive" or "Sensitive Unclassified". Secure such information in separate containers and limit the access to only those who will need it for the project. Return the information to the Resident Engineer upon request.
5. These security documents shall not be removed or transmitted from the project site without the written approval of the Resident Engineer.
6. All paper waste or electronic media such as CDs and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
7. Notify Resident Engineer immediately when there is a loss or compromise of "sensitive information".
8. All electronic information shall be stored in specified location following VA standards and procedures using an Engineering Document Management Software (EDMS).
 - a. Security, access, and maintenance of all project drawings, both scanned and electronic, shall be performed and tracked through the EDMS system.
 - b. "Sensitive information" including drawings and other documents may be attached to e-mail provided all VA encryption procedures are followed.

1.5 FIRE SAFETY

- A. Applicable Publications: Publications listed below form part of this Article to extent referenced. Publications are referenced in text by basic designations only.
1. American Society for Testing and Materials (ASTM):
E84-2009aSurface Burning Characteristics of Building Materials
 2. National Fire Protection Association (NFPA):
10-2010Standard for Portable Fire Extinguishers
30-2008Flammable and Combustible Liquids Code
51B-2009Standard for Fire Prevention During Welding, Cutting
and Other Hot Work

- 70-2008.....National Electrical Code
241-2009.....Standard for Safeguarding Construction, Alteration,
and Demolition Operations
3. Occupational Safety and Health Administration (OSHA):
29 CFR 1926.....Safety and Health Regulations for Construction
- B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to Resident Engineer for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the general contractor's competent person per OSHA requirements. This briefing shall include information on the construction limits, safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of equipment, etc. Documentation shall be provided to the Resident Engineer that individuals have undergone general contractor's safety briefing.
- C. Site and Building Access: Maintain free and unobstructed access to site and to facility emergency services and for fire, police, and other emergency response forces in accordance with NFPA 241.
- D. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3 m (10 feet).
- E. NOT USED
- F. Temporary Heating and Electrical: Install, use, and maintain installations in accordance with 29 CFR 1926, NFPA 241, and NFPA 70.
- G. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with Resident Engineer.
- H. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to Resident Engineer.
- I. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241, and NFPA 10.
- J. Flammable and Combustible Liquids: Store, dispense, and use liquids in accordance with 29 CFR 1926, NFPA 241, and NFPA 30.
- K. NOT USED
- L. NOT USED
- M. NOT USED
- N. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with Resident Engineer.
- O. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Resident Engineer at least 24 hours in advance. Designate Contractor's responsible project-site fire prevention program manager to permit hot work.

- P. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with and report findings and corrective actions weekly to Resident Engineer.
- Q. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction and in separate and detached buildings under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking areas.
- R. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- S. Perform other construction, alteration, and demolition operations in accordance with 29 CFR 1926.
- T. If required, submit documentation to the Resident Engineer that personnel have been trained in the fire safety aspects of working in areas with impaired structural or compartmentalization features.

1.6 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Resident Engineer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- B. Temporary buildings (e.g., storage sheds, shops, storage trailers, office trailers) and utilities may be erected by the Contractor only with the approval of the Resident Engineer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Resident Engineer, the buildings and utilities may be abandoned and need not be removed.
- C. The Contractor shall, under regulations prescribed by the Resident Engineer, use only established roadways when approved by the Resident Engineer, or use temporary roadways constructed by the Contractor when and as authorized by the Resident Engineer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads (**FAR 52.236-10**).
- D. Working space and space available for storing materials shall be as shown on the drawings or as determined by the Resident Engineer.
- E. Workmen are subject to rules of the National Cemetery applicable to their conduct. Execute work in such a manner as to interfere as little as possible with work being done by others. Keep roads clear of construction materials, debris, standing construction equipment, and vehicles at all times. Do not store materials and equipment in other than assigned areas.
- F. Execute work so as to interfere as little as possible with normal functioning of National Cemetery as a whole, including operations of utility services, fire

protection systems, and any existing equipment, and with work being done by others. Use of equipment and tools that transmit vibrations and noises through the building structure are not permitted in buildings that are occupied, during construction, jointly by Cemetery personnel and Contractor's personnel, except as permitted by Resident Engineer where required by limited working space.

1. Do not store materials and equipment in other than assigned areas.
2. Schedule delivery of materials and equipment to immediate construction working areas within buildings in use by Department of Veterans Affairs in quantities sufficient for not more than two work days. Provide unobstructed access to Cemetery areas required to remain in operation.
3. Where access by Cemetery personnel to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.

G. NOT USED

H. Phasing: See Phasing on drawing Number X-1. To insure such executions, Contractor shall furnish the Resident Engineer with a schedule of approximate dates on which the Contractor intends to accomplish work in each specific area of site, building, or portion thereof. In addition, Contractor shall notify the Resident Engineer two weeks in advance of the proposed date of starting work in each specific area of site, building, or portion thereof. Arrange such phasing dates to insure accomplishment of this work in successive phases mutually agreeable to Cemetery Director, Resident Engineer, and Contractor, as indicated phasing drawings.

I. Contractor shall take all measures and provide all material necessary for protecting existing equipment and property in affected areas of construction against dust and debris, so that equipment and affected areas to be used in the Cemetery operations will not be hindered. Contractor shall permit access to Department of Veterans Affairs personnel through other construction areas which serve as routes of access to such affected areas and equipment. Coordinate alteration work in areas occupied by Department of Veterans Affairs so that Cemetery operations will continue during the construction period.

J. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence, 2.1 m (seven feet) minimum height, around the construction staging area and other construction areas as indicated on the drawings or as directed by the Resident Engineer. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 375 mm (15 inches). Bottom of fences shall extend to 25 mm (one inch) above grade. Remove the fence when directed by Resident Engineer.

K. NOT USED

L. Utilities Services: Maintain existing utility services for Cemetery at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including

telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by Resident Engineer.

1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of Resident Engineer. Electrical work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, work on any energized circuits or equipment shall not commence without the Resident Engineer's prior knowledge and written approval. Refer to specification Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, for additional requirements.
 2. Contractor shall submit a request to interrupt any such services to Resident Engineer, in writing, 15 days in advance of proposed interruption and shall be performed as directed by the Resident Engineer. Request shall state reason, date, exact time of, and approximate duration of such interruption.
 3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of Cemetery. Interruption time approved by Resident Engineer may occur at other than Contractor's normal working hours.
 5. In case of a contract construction emergency, service will be interrupted on approval of Resident Engineer. Such approval will be confirmed in writing as soon as practical.
 6. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Government and not the Contractor.
- M. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned but are not required to be entirely removed, shall be sealed, capped, or plugged. The lines shall not be capped in finished areas, but shall be removed and sealed, capped or plugged in ceilings, within furred spaces, in unfinished areas, or within walls or partitions; so that they are completely behind the finished surfaces.
- N. To minimize interference of construction activities with flow of Cemetery traffic, comply with the following:
1. Keep roads, walks, and entrances to grounds, to parking, and to occupied areas of buildings clear of construction materials, debris, and standing construction equipment and vehicles. Wherever excavation for new utility lines cross existing roads, at least one lane must be open to traffic at all times.
 2. Method and scheduling of required cutting, altering, and removal of existing roads, walks, and entrances must be approved by the Resident Engineer.
- O. Coordinate the work for this contract with other construction operations as directed by Resident Engineer. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.
- P. Coordination of Construction with Cemetery Director: The burial activities at a National Cemetery shall take precedence over construction activities. The Contractor must cooperate and coordinate with the Cemetery Director, through

the Resident Engineer, in arranging construction schedule to cause the least possible interference with National Cemetery activities in actual burial areas. Construction noise during the interment services shall not disturb the service. Trucks and workmen shall not pass through the service area during this period.

1. The Contractor is required to discontinue his work two days in advance of Easter Sunday, Mother's Day, Father's Day, Memorial Day, Veteran's Day and/or Federal holidays to permit the Contractor to clean up all areas of operation adjacent to existing burial plots before these dates.
2. Cleaning up shall include the removal of all equipment, tools, materials, and debris and leaving the areas in a clean, neat condition.

Q. Construction Fence: Before construction operations begin, the Contractor shall provide a chain link construction fence, 2100 mm (seven feet) minimum height, around the Phase 1 construction area. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence material to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 15 inches. Bottom of fences shall extend to one inch above grade. Remove the fence when directed by Resident Engineer.

1.7 NOT USED

1.8 ENVIRONMENTAL CONTROLS

- A. In general, following preventive measures shall be adopted during construction to keep down dust and prevent mold.
1. Dampen debris to keep down dust and provide temporary construction partitions in new or existing structures where directed by Resident Engineer. Block off ducts and diffusers to prevent circulation of dust into occupied areas during construction.
 2. All new air ducts shall be cleaned prior to final inspection.

1.9 DISPOSAL AND RETENTION

- A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:
1. Items not reserved shall become property of the Contractor and be removed by Contractor from Cemetery.

1.10 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Resident Engineer.
- B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property

of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor **(FAR 52.236-9)**.

- C. Refer to Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, for additional requirements on protecting vegetation, soils, and the environment. Refer to Articles, "Alterations", "Restoration", and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.
- D. Refer to FAR clause 52.236-7, "Permits and Responsibilities," which is included in General Conditions. A National Pollutant Discharge Elimination System (NPDES) permit is required for this project. The Contractor is considered an "operator" under the permit and has extensive responsibility for compliance with permit requirements. VA will make the permit application available at the appropriate office. The apparent low bidder, contractor, and affected subcontractors shall furnish all information and certifications that are required to comply with the permit process and permit requirements. Many of the permit requirements will be satisfied by completing construction as shown and specified. Some requirements involve the Contractor's method of operations and operations planning and the Contractor is responsible for employing best management practices. The affected activities often include, but are not limited to the following:
 - 1. Designating areas for equipment maintenance and repair;
 - 2. Providing waste receptacles at convenient locations and provide regular collection of wastes;
 - 3. Locating equipment wash down areas on site, and provide appropriate control of wash-waters;
 - 4. Providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and
 - 5. Providing adequately maintained sanitary facilities.

1.11 RESTORATION

- A. Remove, cut, alter, replace, patch and repair any existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the Resident Engineer. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the Resident Engineer before it is disturbed. Materials and workmanship used in restoring work shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.
- B. Upon completion of contract, deliver work complete and undamaged. Any existing work (walls, ceilings, partitions, floors, utility, mechanical and electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work.

- C. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workmen to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including telephone) which are indicated on drawings and which are not scheduled for discontinuance or abandonment.
- D. Expense of repairs to such utilities and systems not shown on drawings or locations of which are unknown will be covered by adjustment to contract time and price in accordance with clause entitled "CHANGES" (**FAR 52.243-4 and VAAR 852.236-88**) and "DIFFERING SITE CONDITIONS" (**FAR 52.236-2**).

1.12 PHYSICAL DATA

- A. Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.
 - 1. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by Nodarse & Associates, a Terracon Company, 1675 Lee Road, Winter Park, Florida 32789 and/or Robert M. Angas Associates, Inc., 14775 Old St. Augustine Road, Jacksonville, Florida 32258 (**FAR 52.236-4**).
- B. Subsurface conditions have been developed by core borings and/or test pits. Logs of subsurface exploration are shown diagrammatically on drawings.
- C. A copy of the soil report will be made available for inspection by bidders upon request to the Contracting Officer and shall be considered part of the contract documents.
- D. The Government does not guarantee that other materials will not be encountered nor that proportions, conditions, or character of several materials will not vary from those indicated by explorations. Bidders are expected to examine the site of work and logs of borings; and, after investigation, decide for themselves character of materials and make their bids accordingly. Upon proper application to Department of Veterans Affairs, bidders will be permitted to make subsurface explorations of their own at site.

1.13 PROFESSIONAL SURVEYING SERVICES

A registered professional land surveyor or registered civil engineer whose services are retained and paid for by the Contractor shall perform services specified herein and in other specification sections. The Contractor shall certify that the land surveyor or civil engineer is not one who is a regular employee of the Contractor, and that the land surveyor or civil engineer has no financial interest in this contract.

1.14 LAYOUT OF WORK

- A. The Contractor shall lay out the work from Government established base lines and bench marks, indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at Contractor's own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks

established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor **(FAR 52.236-17)**.

- B. Establish and plainly mark center lines for each building, lines for all roadways and/or addition to each building, lines for each gravesite control monument, and such other lines and grades that are reasonably necessary to properly assure that location, orientation, and elevations established for each such structure and/or addition, roads, parking lots, and gravesite control monuments, are in accordance with lines and elevations shown on contract drawings.
- C. Following completion of general mass excavation and before any other permanent work is performed, establish and plainly mark (through use of appropriate batter boards or other means) sufficient additional survey control points or system of points as may be necessary to assure proper alignment, orientation, and grade of all major features of work. Survey shall include, but not be limited to, location of lines and grades of footings, exterior walls, center lines of columns in both directions, major utilities, and elevations of floor slabs:
 - 1. Such additional survey control points or system of points thus established shall be checked and certified by a registered land surveyor or registered civil engineer. Furnish such certification to the Resident Engineer before any work (such as footings, floor slabs, columns, walls, utilities, and other major controlling features) is placed.
- D. During progress of work, and particularly as work progresses, Contractor shall have line, grades, and plumbness of all major form work checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of contract drawings. Furnish such certification to the Resident Engineer before any major items of concrete work are placed. In addition, Contractor shall also furnish to the Resident Engineer certificates from a registered land surveyor or registered civil engineer that the following work is complete in every respect as required by contract drawings.
 - 1. Lines of each building and/or addition.
 - 2. Elevations of bottoms of footings and tops of floors of each building and/or addition.
 - 3. Lines and elevations of sewers and of all outside distribution systems.
 - 4. Lines of grave plot documentation.
 - 5. Lines of elevations of all swales and interment areas.
 - 6. Lines and elevations of roads, streets, and parking lots.
 - 7. Lines and elevations of top of pre-placed crypts and urn crypts.
 - 8. Lines and elevations of grade over pre-placed crypts and urn crypts.
 - 9. Easting and Northing coordinate locations of all water, sanitary, storm, gas, irrigation, etc., structures, directional fittings, control wire, and lines.
- E. Whenever changes from contract drawings are made in line or grading requiring certificates, record such changes in an electronic file in AutoCAD Version 2008 (or later version) and reproducible drawing bearing the registered land surveyor or registered civil engineer seal, and forward the electronic file and reproducible

drawings upon completion of work to Resident Engineer. Also, upon completion of the work, the Contractor shall furnish the Resident Engineer reproducible drawings at the scale of the contract drawings, showing the finished grade on the grid developed for constructing the work, including burial monuments and fifty foot stationing along new road centerlines. These drawings shall bear the seal of the registered land surveyor or registered civil engineer.

- F. The Contractor shall perform the surveying and layout work of this and other articles and specifications in accordance with the provisions of Article "Professional Surveying Services".

1.15 AS-BUILT DRAWINGS

- A. The contractor shall maintain two full size sets of as-built drawings which will be kept current during construction of the project, which will include all contract changes, modifications, and clarifications.
- B. All variations shall be shown in the same general detail as used in the contract drawings. To insure compliance, as-built drawings shall be made available for the Resident Engineer's review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the Resident Engineer within 15 calendar days after each completed phase and after the acceptance of the project by the Resident Engineer.
- D. Paragraphs A, B, & C above shall also apply to all shop drawings.

1.16 USE OF ROADWAYS

- A. For hauling, use only established public roads and roads on Cemetery property and, when authorized by the Resident Engineer, such temporary roads which are necessary in the performance of contract work. Temporary roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.
- B. When new permanent roads are to be a part of this contract, Contractor may construct them immediately for use to facilitate building operations. These roads may be used by all who have business thereon within zone of building operations.
- C. When certain buildings (or parts of certain buildings) are required to be completed in advance of general date of completion, all roads leading thereto must be completed and available for use at time set for completion of such buildings or parts thereof.

1.17 RESIDENT ENGINEER'S FIELD OFFICE

- A. The Contractor shall, within fifteen (15) days after receipt of Notice to Proceed, provide where shown on the drawings a temporary field office, furniture, and two inch deep gravel surfaced area for use of the Resident Engineer. Office trailer and furniture shall be new.
- B. The field office shall provide not less than 134 square meters (1440 gross square feet) of floor area in one unit. Installation of the office shall meet all local codes.
- C. Provide office with two, 900 mm (three foot) wide exterior doors, including hardware and OSHA approved platform and stairs leading to grade.

- D. Enclose the entire perimeter of the office from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to ground with a painted 19 mm (3/4 inch) exterior grade plywood skirt.
- E. Exterior finishes shall be manufacturer's standards.
- F. Provide floor, wall, and roof with not less than R7 insulation.
- G. Interior finishes shall consist of resilient or carpet flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.
- H. Interior shall be subdivided with full height partitions to subdivide rooms as required. Provide each space with 900 mm (three foot) wide door with master keyed locks. Section off an area with a low partition and counter for the secretary's desk.
- I. Provide break area with counter space, cabinets, and sink.
- J. Provide 750 mm (2-1/2 feet) wide by 900 mm (3 feet) high operable windows; two in each room (none required in sample room), except provide only one 600 mm (2 foot) high window in toilet rooms. Window openings shall be fitted with security bars to prevent any forced entry. The doors of field office shall have a hasp and padlock and also deadbolts keyed from both sides.
- K. Provide sufficient fluorescent lighting in each room to deliver 750 lux (70 foot-candles) of light at desk top height without the aid of daylight. Provide one light switch in each room.
- L. Provide one duplex receptacle in each wall of each room. If a wall is 3.0 m (10 feet) long or more, provide two receptacles for each 3.0 m (10 feet), or portion thereof, of wall. Provide two duplex receptacles in low partition at secretary's desk.
- M. The Contractor shall provide the following:
 - 1. Electricity, hot and cold water, and necessary utility services (except telephone).
 - 2. All necessary piping, power circuits, network cabling, patch panels, equipment racks, cat 5e or better cabling for phones and computers, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended. Provide minimum of 12 network receptacles and, in addition to the duplex receptacles required in K above, an additional 8 electrical receptacles located as approved by Resident Engineer upon review of the Contractor's submitted plan.
 - 3. Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 21 and 27 degrees C (70 and 80 degrees F) with 50 percent relative humidity maintained during the air conditioning season. Thermostats shall be energy-saving programmable type with a minimum of three temperature settings for each day of the week.
 - 4. One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room. Provide holding tank for sanitary sewer. Provide periodic emptying of holding tank as required.
 - 5. One (1) wall mounted first aid kit that meets or exceeds current OSHA and AMSI Z.803-1 requirements.

6. One (1) wall mounted key safe with push-button combination lock sized for 48 keys.
 7. Two (2) wall mounted 10 pound Tri-Class (ABC) dry chemical fire extinguishers.
 8. Six (6) hard hats, white, full brim with ratchet headband system.
 9. Six (6) ANSI 207 Class 2 safety vests in lime color with two pockets. Provide 3 size large and 3 size extra-large.
 10. The Contractor shall install a suitable security system for the field office and provide alarm monitoring services for the duration of the Resident Engineer's occupancy.
- N. Contractor shall, for the duration of the Resident Engineer's occupancy, provide the following:
1. Satisfactory conditions in and around the field office and parking area.
 2. Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
 3. Maintenance of utility services.
 4. Daily janitorial services and supplies (toilet paper, soap, etc.).
 5. Potable water, fuel and electric power for normal office uses, including lights, heating, and air conditioning.
 6. Multi-Color Photocopier/Printer/Scanner/Fax Machine (complete with installation, service, maintenance, supplies, and payment of all monthly usages charges):
 - a. Minimum Photocopier/Printer requirements:
 - 1) Collating/sorting/stapling.
 - 2) Enlarging/reducing.
 - 3) Multi-size sheet feeder.
 - 4) Four paper tray sizes including 11' x 17" paper tray size and bypass tray.
 - 5) Two-sided and single-sided copying.
 - 6) Network capability/connectivity.
 - b. Minimum Scanner requirements:
 - 1) Scan to email and scan to folder capability.
 - 2) PDF, TIFF, JPEG output format capability.
 - 3) Network capability/connectivity.
 - c. Minimum Fax Machine requirements:
 - 1) Plain paper copies.
 - 2) Memory feature with fifty documents.
 - 3) Automatic document feeder with 50 page capacity.
 - 4) Memory storage for twenty or more numbers.
 - 5) Network capability/connectivity.
 - d. All service, maintenance, and supplies shall be same day service.
 7. NOT USED
 8. Provide three (3) smart cellular telephones and service for the Resident Engineer Office for the period from award of construction to completion of all work including completion of punch list work. All cellular telephones shall have unlimited calls, texts, and data and shall be provided with replacement

insurance for lost or damaged cellular telephones. At the completion of all work including completion of punch list work, the cellular telephones shall become the property of the Contractor.

9. Internet, Data, and Voice Equipment/Connection and Communications (complete installation, maintenance, and payment of all monthly usage charges).
 - a. Three (3) voice lines (one dedicated phone line for FAX machine and two dedicated phone line for communications).
 - b. Voice line numbers must have local area code.
 - c. Four (4) desk telephones, each with speaker, answering machine, and long telephone cord. Each desk telephone shall be capable of transferring calls to all other telephones provided.
 - d. One (1) conference room telephone set with conference speaker(s) and extra-long telephone cord.
 - e. Indoor Equipment: Must provide separate RJ45 connections for data communications (CAT5 cabling) and RJ11 connections for analog voice communications in quantities specified in General Requirements paragraph 1.17.L.2 above. Provide central location for termination of the CAT5 cabling.
 - f. Data Connection: Provide T-1 connection lines. Methods and material shall be per ANSI/EIA/TIA-568-1991 Standard. Install 2 four-pair Category 5e/6 cable Unshielded Twisted Pair (total of 8 conductors) (UTP) Category 5e/6 IEEE 802.3 100BaseT UTP Level 5e/6, 24 AWG cables. Contractor shall supply 100BaseT, Category 5e or Category 6 certified rack-mounted modular RJ45 punch down block/panel as required (24/48 ports) for jacks meeting the ANSI/EIA/TIA 568-A-5 category 5e/6 standards.
 - g. 24/7 live phone-based technical support.
 - h. Next business day on-site support, maintenance, and service.

P. NOT USED

Q. The Contractor shall provide the following new items:

QUANTITY REQUIRED

- 2 Secretary workstations with adjustable keying desk or drawer 738 mm H x 1.5 m W x 750 mm D (size 29-1/2" H x 60" W x 30" D)
- 2 Printer stands 738 mm H x 1.5 m W x 750 mm D (size 29-1/2" H x 60" H x 30" D)
- 7 Office desks, double pedestal
- 2 Conference tables 900 mm x 1800 mm (size 3' x 6')
- 1 Plan table 1.2 m x 6 meters (4' x 20')
- 7 Work tables 750 mm x 1.8 m (folding 30" x 72")
- 2 Secretary chairs
- 7 High-backed swivel chairs with arms
- 12 Conference chairs
- 7 Arm chairs
- 8 Lockable 5 drawer file cabinets, letter-size

- 2 Drawing racks, each with 12-750 mm (12-30 inch) "Plan Hold" drawing holders, freestanding
- 7 Bookcases
- 1 Electric water cooler; provide contract for water for the duration of the project.
- 4 Shelves for sample 900 mm x 450 mm x 1.8 m (36" x 18" x 72") high, 7 adjustable shelves
- 1 Metal storage cabinet, 900 mm x 450 mm x 1.8 m (36" x 18" x 72") with six shelves
- R. The Contractor shall provide an allowance for office supplies required to support the Resident Engineer office including an initial set-up value of \$2,500 and an additional amount of \$250 per month for a duration of 27 months. The Contractor shall deliver the required items within three (3) business days. Any adjustments will be made at contract completion.
- S. At the completion of all work, including the punch list, the Resident Engineer's field office and facilities shall become the property of the Contractor and Contractor shall remove same, including utility connections, from the Cemetery. The site shall be restored to original condition and finished in accordance with contract requirements. All 5 drawer file cabinets and contents provided shall become the property of the Government.
- T. The Contractor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.
- U. Within thirty (30) days after Notice to Proceed, the Contractor shall provide, for the use of the Resident Engineer, one (1) new full-sized pickup type vehicle (such as a Ford F-150 XL Super-Cab or equal) for use in completion of this Contract/Project. The Contractor shall lease the vehicle for a period of 28 months and the Government will return the vehicle to the Contractor after completion of this project. The Resident Engineer must inspect and approve vehicle for use before lease commences. Contractor shall submit all lease documents to the Resident Engineer office upon supplying vehicle to the Resident Engineer. Minimum criteria are as follows:
 - 1. V-6 or V-8 Engine with Automatic Transmission.
 - 2. A/C, heater.
 - 3. Off road tires, tow hooks, class 3 hitch in rear with hitch attachment and 2" ball with 3/4" shank for hitch.
 - 4. Vehicle shall have 4-wheel drive capacity with hi/low range or on demand capacities.
 - 5. Vehicle shall be provided with two (2) additional sets of keys with remote entry.
 - 6. Vehicle shall be provided with front and rear rubber floor liners as manufactured by Weather Tech or Resident Engineer approved equal.
 - 7. Provide all necessary fuel and service maintenance/repairs for the duration of the project. Contractor shall take vehicle off site as needed for these services.
 - 8. Contractor shall keep state license plates on the vehicle and maintain auto insurance at all times during the life of the project. Provide insurance certificate to the Resident Engineer office.

9. No stickers, name plates, or decals are to be placed on vehicle by Contractor.
 10. A loaner vehicle shall be provided to Resident Engineer if vehicle is out for service more than 24 hours.
- V. Within thirty (30) days after Notice to Proceed, the Contractor shall provide, for the use of the Resident Engineer, one (1) 4X4 ATV type utility vehicle such as Polaris Ranger or John Deere Gator or similar vehicle for use in completion of this Contract/Project. The Contractor shall lease the vehicle for a period of 28 months and the Government will return the vehicle to the Contractor after completion of the project. The Resident Engineer must inspect and approve vehicle for use before lease commences. Contractor shall submit all lease documents to the Resident Engineer office upon supplying vehicle to the Resident Engineer. Minimum criteria are as follows:
1. Vehicle shall be gas or diesel fueled.
 2. Vehicle shall have an enclosed cab of rigid material and shall have a cab heater with windshield wipers and windshield defrost cycle.
 3. Vehicle shall be provided with seating for two adults minimum.
 4. Vehicle shall be provided with engine displacement of 500 cc minimum.
 5. Vehicle shall be provided all necessary fuel, service, maintenance, and repairs for the duration of the lease. Contractor shall maintain vehicle insurance at all times during the lease. Contractor shall provide insurance coverage certificate to the Resident Engineer office.
 6. No stickers, name plates, or decals shall be placed on vehicle by Contractor.
 7. A loaner vehicle shall be provided to Resident Engineer if vehicle is out for service more than 24 hours.

1.18 TEMPORARY TRAILER FACILITIES

Administration Offices

- A. The Contractor shall, within thirty (30) days before delivery of ETO, provide where shown on the drawings a temporary field office, furniture, and two inch deep gravel surfaced area as indicated for use of the National Cemetery Administrative staff. Office trailer and furniture shall be new.
- B. The field office shall provide not less than 134 square meters (1440 gross square feet) of floor area in one unit. Installation of the office shall meet all local codes.
- C. Provide office with two, 900 mm (three foot) wide exterior doors, including hardware and OSHA approved platform and stairs leading to grade.
- D. Enclose the entire perimeter of the office from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to ground with a painted 19 mm (3/4 inch) exterior grade plywood skirt.
- E. Exterior finishes shall be manufacturer's standards.
- F. Provide floor, wall, and roof with not less than R7 insulation.
- G. Interior finishes shall consist of resilient or carpet flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.
- H. Interior shall be subdivided with full height partitions to subdivide rooms as required. Provide each space with 900 mm (three foot) wide door with master

keyed locks. Section off an area with a low partition and counter for the secretary's desk.

- I. Provide break area with counter space, cabinets, and sink.
- J. Provide 750 mm (2-1/2 feet) wide by 900 mm (3 feet) high operable windows; two in each room (none required in sample room), except provide only one 600 mm (2 foot) high window in toilet rooms. Window openings shall be fitted with security bars to prevent any forced entry. The doors of field office shall have a hasp and padlock and also deadbolts keyed from both sides.
- K. Provide sufficient fluorescent lighting in each room to deliver 750 lux (70 foot-candles) of light at desk top height without the aid of daylight. Provide one light switch in each room.
- L. Provide one duplex receptacle in each wall of each room. If a wall is 3.0 m (10 feet) long or more, provide two receptacles for each 3.0 m (10 feet), or portion thereof, of wall. Provide two duplex receptacles in low partition at reception desk.
- M. The Contractor shall provide the following:
 1. Electricity, hot and cold water, and necessary utility services (except telephone).
 2. All necessary piping, power circuits, network cabling, patch panels, equipment racks, cat 5e or better cabling for phones and computers, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended. Provide minimum of 12 network receptacles and, in addition to the duplex receptacles required in K above, an additional 8 electrical receptacles located as approved by Resident Engineer upon review of the Contractor's submitted plan.
 3. Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 21 and 27 degrees C (70 and 80 degrees F) with 50 percent relative humidity maintained during the air conditioning season. Thermostats shall be energy-saving programmable type with a minimum of three temperature settings for each day of the week.
 4. One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room. Provide holding tank for sanitary sewer. Provide periodic emptying of holding tank as required.
 5. One (1) wall mounted first aid kit that meets or exceeds current OSHA and AMSI Z.803-1 requirements.
 6. One (1) wall mounted key safe with push-button combination lock sized for 48 keys.
 7. Two (2) wall mounted 10 pound Tri-Class (ABC) dry chemical fire extinguishers.
 8. NOT USED.
 9. NOT USED.
 10. The Contractor shall install a suitable security system for the field office and provide alarm monitoring services for the duration of the Administrative staff's occupancy.

N. Contractor shall, for the duration of the National Cemetery Administrative staff's occupancy, provide the following:

1. Satisfactory conditions in and around the field office and parking area.
2. Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
3. Maintenance of utility services.
4. Daily janitorial services and supplies (toilet paper, soap, etc.).
5. Potable water, fuel and electric power for normal office uses, including lights, heating, and air conditioning.
6. NOT USED.
7. NOT USED.
8. NOT USED.

P. NOT USED.

Q. The Contractor shall provide the following new items:

QUANTITY REQUIRED

- 2 Secretary workstations with adjustable keying desk or drawer 738 mm H x 1.5 m W x 750 mm D (size 29-1/2" H x 60" W x 30" D)
- 7 Office desks, double pedestal
- 2 Conference tables 900 mm x 1800 mm (size 3' x 6')
- 1 Plan table 1.2 m x 6 meters (4' x 20')
- 7 Work tables 750 mm x 1.8 m (folding 30" x 72")
- 2 Secretary chairs
- 7 High-backed swivel chairs with arms
- 12 Conference chairs
- 7 Arm chairs
- 8 Lockable 5 drawer file cabinets, letter-size
- 7 Bookcases
- 1 Electric water cooler; provide contract for water for the duration of the project.
- 1 Metal storage cabinet, 900 mm x 450 mm x 1.8 m (36" x 18" x 72") with six shelves

R. NOT USED.

S. At the completion of all work, including the punch list, the National Cemetery Administrative staff's field office and facilities shall become the property of the Contractor and Contractor shall remove same, including utility connections, from the Cemetery. The site shall be restored to original condition and finished in accordance with contract requirements.

T. The Contractor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.

Maintenance Offices

- A. The Contractor shall, within thirty (30) days before delivery of ETO, provide where shown on the drawings a temporary field office, furniture, and two inch deep gravel surfaced area as indicated for use of the National Cemetery Maintenance staff. Office trailer and furniture shall be new.
- B. The field office shall provide not less than 67 square meters (720 gross square feet) of floor area in one unit. Installation of the office shall meet all local codes.

- C. Provide office with two, 900 mm (three foot) wide exterior doors, including hardware and OSHA approved platform and stairs leading to grade.
- D. Enclose the entire perimeter of the office from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to ground with a painted 19 mm (3/4 inch) exterior grade plywood skirt.
- E. Exterior finishes shall be manufacturer's standards.
- F. Provide floor, wall, and roof with not less than R7 insulation.
- G. Interior finishes shall consist of resilient or carpet flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.
- H. Interior shall be subdivided with full height partitions to subdivide rooms as required. Provide each space with 900 mm (three foot) wide door with master keyed locks. Section off an area with a low partition and counter for the reception desk.
- I. NOT USED.
- J. Provide 750 mm (2-1/2 feet) wide by 900 mm (3 feet) high operable windows; two in each room, except provide only one 600 mm (2 foot) high window in toilet rooms. Window openings shall be fitted with security bars to prevent any forced entry. The doors of field office shall have a hasp and padlock and also deadbolts keyed from both sides.
- K. Provide sufficient fluorescent lighting in each room to deliver 750 lux (70 foot-candles) of light at desk top height without the aid of daylight. Provide one light switch in each room.
- L. Provide one duplex receptacle in each wall of each room. If a wall is 3.0 m (10 feet) long or more, provide two receptacles for each 3.0 m (10 feet), or portion thereof, of wall. Provide two duplex receptacles in low partition at reception desk.
- M. The Contractor shall provide the following:
 - 1. Electricity, hot and cold water, and necessary utility services (except telephone).
 - 2. All necessary piping, power circuits, network cabling, patch panels, equipment racks, cat 5e or better cabling for phones and computers, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended. Provide minimum of 12 network receptacles and, in addition to the duplex receptacles required in K above, an additional 8 electrical receptacles located as approved by Resident Engineer upon review of the Contractor's submitted plan.
 - 3. Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 21 and 27 degrees C (70 and 80 degrees F) with 50 percent relative humidity maintained during the air conditioning season. Thermostats shall be energy-saving programmable type with a minimum of three temperature settings for each day of the week.
 - 4. One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room. Provide holding tank for sanitary sewer. Provide periodic emptying of holding tank as required.

5. One (1) wall mounted first aid kit that meets or exceeds current OSHA and AMSI Z.803-1 requirements.
 6. One (1) wall mounted key safe with push-button combination lock sized for 48 keys.
 7. Two (2) wall mounted 10 pound Tri-Class (ABC) dry chemical fire extinguishers.
 8. NOT USED.
 9. NOT USED.
 10. The Contractor shall install a suitable security system for the field office and provide alarm monitoring services for the duration of the National Cemetery Maintenance staff's occupancy.
- N. Contractor shall, for the duration of the National Cemetery Maintenance staff's occupancy, provide the following:
1. Satisfactory conditions in and around the field office and parking area.
 2. Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
 3. Maintenance of utility services.
 4. Daily janitorial services and supplies (toilet paper, soap, etc.).
 5. Potable water, fuel and electric power for normal office uses, including lights, heating, and air conditioning.
 6. NOT USED.
 7. NOT USED.
 8. NOT USED.
 9. NOT USED.
- P. NOT USED.
- Q. The Contractor shall provide the following new items:
- QUANTITY REQUIRED
- 1 Secretary workstations with adjustable keying desk or drawer 738 mm H x 1.5 m W x 750 mm D (size 29-1/2" H x 60" W x 30" D)
 - 1 Printer stands 738 mm H x 1.5 m W x 750 mm D (size 29-1/2" H x 60" H x 30" D)
 - 3 Office desks, double pedestal
 - 1 Conference tables 900 mm x 1800 mm (size 3' x 6')
 - 1 Plan table 1.2 m x 6 meters (4' x 20')
 - 3 Work tables 750 mm x 1.8 m (folding 30" x 72")
 - 1 Secretary chairs
 - 3 High-backed swivel chairs with arms
 - 6 Conference chairs
 - 4 Arm chairs
 - 4 Lockable 5 drawer file cabinets, letter-size
 - 1 Drawing racks, each with 12-750 mm (12-30 inch) "Plan Hold" drawing holders, freestanding
 - 3 Bookcases
 - 1 Electric water cooler; provide contract for water for the duration of the project.
 - 4 Shelves for sample 900 mm x 450 mm x 1.8 m (36" x 18" x 72") high, 7 adjustable shelves

- 1 Metal storage cabinet, 900 mm x 450 mm x 1.8 m (36" x 18" x 72") with six shelves

R. NOT USED.

S. At the completion of all work, including the punch list, the National Cemetery Maintenance staff's field office and facilities shall become the property of the Contractor and Contractor shall remove same, including utility connections, from the Cemetery. The site shall be restored to original condition and finished in accordance with contract requirements.

T. The Contractor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.

Honor Guard Facility

- A. The Contractor shall, within thirty (30) days before delivery of ETO, provide where shown on the drawings a temporary field office, furniture, and two inch deep gravel surfaced area as indicated for use of the National Cemetery Honor Guard staff. Office trailer and furniture shall be new.
- B. The field office shall provide not less than 360 gross square feet of floor area in one unit. Installation of the office shall meet all local codes.
- C. Provide office with two, 900 mm (three foot) wide exterior doors, including hardware and OSHA approved platform and stairs leading to grade.
- D. Enclose the entire perimeter of the office from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to ground with a painted 19 mm (3/4 inch) exterior grade plywood skirt.
- E. Exterior finishes shall be manufacturer's standards.
- F. Provide floor, wall, and roof with not less than R7 insulation.
- G. Interior finishes shall consist of resilient or carpet flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.
- H. Interior shall be subdivided with full height partitions to subdivide rooms as required. Provide each space with 900 mm (three foot) wide door with master keyed locks.
- I. Provide break area with counter space, cabinets, and sink.
- J. Provide 750 mm (2-1/2 feet) wide by 900 mm (3 feet) high operable windows; two in each room except provide only one 600 mm (2 foot) high window in toilet rooms. Window openings shall be fitted with security bars to prevent any forced entry. The doors of field office shall have a hasp and padlock and also deadbolts keyed from both sides.
- K. Provide sufficient fluorescent lighting in each room to deliver 750 lux (70 foot-candles) of light at desk top height without the aid of daylight. Provide one light switch in each room.
- L. Provide one duplex receptacle in each wall of each room. If a wall is 3.0 m (10 feet) long or more, provide two receptacles for each 3.0 m (10 feet), or portion thereof, of wall.
- M. The Contractor shall provide the following:
 1. Electricity, hot and cold water, and necessary utility services (except telephone).

2. All necessary piping, power circuits, network cabling, patch panels, equipment racks, cat 5e or better cabling for phones and computers, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended.
 3. Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 21 and 27 degrees C (70 and 80 degrees F) with 50 percent relative humidity maintained during the air conditioning season. Thermostats shall be energy-saving programmable type with a minimum of three temperature settings for each day of the week.
 4. One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room. Provide holding tank for sanitary sewer. Provide periodic emptying of holding tank as required.
 5. One (1) wall mounted first aid kit that meets or exceeds current OSHA and AMSI Z.803-1 requirements.
 6. NOT USED.
 7. Two (2) wall mounted 10 pound Tri-Class (ABC) dry chemical fire extinguishers.
 8. NOT USED.
 9. NOT USED.
 10. The Contractor shall install a suitable security system for the field office and provide alarm monitoring services for the duration of the Honor Guard's occupancy.
- N. Contractor shall, for the duration of the Honor Guard's occupancy, provide the following:
1. Satisfactory conditions in and around the field office and parking area.
 2. Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
 3. Maintenance of utility services.
 4. Daily janitorial services and supplies (toilet paper, soap, etc.).
 5. Potable water, fuel and electric power for normal office uses, including lights, heating, and air conditioning.
 6. NOT USED.
 7. NOT USED.
 8. NOT USED.
 9. NOT USED.
- P. NOT USED.
- Q. The Contractor shall provide the following new items:
- QUANTITY REQUIRED
- 1 Office desk, double pedestal
 - 1 Conference tables 900 mm x 1800 mm (size 3' x 6')
 - 4 High-backed swivel chairs with arms
 - 4 Conference chairs
 - 4 Arm chairs
 - 1 Electric water cooler; provide contract for water for the duration of the project.

- 1 Metal storage cabinet, 900 mm x 450 mm x 1.8 m (36" x 18" x 72") with six shelves

R. NOT USED.

- S. At the completion of all work, including the punch list, the Honor Guard facilities shall become the property of the Contractor and Contractor shall remove same, including utility connections, from the Cemetery. The site shall be restored to original condition and finished in accordance with contract requirements.
- T. The Contractor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.

Restrooms

- A. The Contractor shall, within thirty (30) days before delivery of ETO, provide where shown on the drawings a temporary restroom and two inch deep gravel surfaced area as indicated for use of the National Cemetery Administrative staff and the public.
- B. The restroom trailer shall provide not less than 360 gross square feet of floor area in one unit. Installation of the restroom shall meet all local codes.
- C. Provide restroom trailer with office with three, 900 mm (three foot) wide exterior doors, including hardware and OSHA approved platform and stairs and ramp leading to grade.
- D. Enclose the entire perimeter of the restroom trailer from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to ground with a painted 19 mm (3/4 inch) exterior grade plywood skirt.
- E. Exterior finishes shall be manufacturer's standards.
- F. Provide floor, wall, and roof with not less than R7 insulation.
- G. Interior finishes shall consist of resilient or carpet flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.
- H. Interior shall be subdivided with full height partitions to subdivide toilet trailer into separate and secure male, female, and handicapped restrooms as required. Provide each space with 900 mm (three foot) wide door with master keyed locks.
- I. NOT USED.
- J. The doors of restroom trailer shall have a hasp and padlock and also deadbolts keyed from both sides.
- K. Provide sufficient fluorescent lighting in each room to deliver 750 lux (70 foot-candles) of light at desk top height without the aid of daylight. Provide one light switch in each room.
- L. Provide one duplex receptacle in each wall of each room. If a wall is 3.0 m (10 feet) long or more, provide two receptacles for each 3.0 m (10 feet), or portion thereof, of wall.
- M. The Contractor shall provide the following:
 1. Electricity, hot and cold water, and necessary utility services (except telephone).
 2. All necessary piping and power circuits necessary to provide a habitable structure for the purpose intended.
 3. Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 21 and 27 degrees C (70 and

- 80 degrees F) with 50 percent relative humidity maintained during the air conditioning season. Thermostats shall be energy-saving programmable type with a minimum of three temperature settings for each day of the week.
4. Two water closets, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room. Provide holding tank for sanitary sewer. Provide periodic emptying of holding tank as required.
 5. One (1) wall mounted first aid kit that meets or exceeds current OSHA and AMSI Z.803-1 requirements.
 6. NOT USED.
 7. Two (2) wall mounted 10 pound Tri-Class (ABC) dry chemical fire extinguishers.
 8. NOT USED.
 9. NOT USED.
 10. The Contractor shall install a suitable security system for the field office and provide alarm monitoring services for the duration of the National Cemetery's and public's occupancy.
- N. Contractor shall, for the duration of the National Cemetery's and public's occupancy, provide the following:
1. Satisfactory conditions in and around the field office and parking area.
 2. Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
 3. Maintenance of utility services.
 4. Daily janitorial services and supplies (toilet paper, soap, etc.).
 5. Potable water, fuel and electric power for normal office uses, including lights, heating, and air conditioning.
 6. NOT USED.
 7. NOT USED.
 8. NOT USED.
 9. NOT USED.
- P. NOT USED.
- Q. NOT USED.
- R. NOT USED.
- S. At the completion of all work, including the punch list, the restroom facilities shall become the property of the Contractor and Contractor shall remove same, including utility connections, from the Cemetery. The site shall be restored to original condition and finished in accordance with contract requirements.
- T. The Contractor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.
- 1.19 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT**
- A. Use of new installed mechanical and electrical equipment to provide heat, ventilation, plumbing, light, and power will be permitted subject to compliance with the following provisions:
1. Permission to use each unit or system must be given by Resident Engineer. If the equipment is not installed and maintained in accordance with the

following provisions, the Resident Engineer will withdraw permission for use of the equipment.

2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e., transformers, relays, circuit breakers, fuses, conductors, motor controllers, and their overload elements shall be properly sized, coordinated, and adjusted. Voltage supplied to each item of equipment shall be verified to be correct and it shall be determined that motors are not overloaded. The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.
 3. Units shall be properly lubricated, balanced, and aligned. Vibrations must be eliminated.
 4. Automatic temperature control systems for preheat coils shall function properly and all safety controls shall function to prevent coil freeze-up damage.
 5. The air filtering system utilized shall be that which is designed for the system when complete, and all filter elements shall be replaced at completion of construction and prior to testing and balancing of system.
 6. All components of heat production and distribution system, metering equipment, condensate returns, and other auxiliary facilities used in temporary service shall be cleaned prior to use; maintained to prevent corrosion internally and externally during use; and cleaned, maintained, and inspected prior to acceptance by the Government. Boilers, pumps, feedwater heaters, and auxiliary equipment must be operated as a complete system and be fully maintained by operating personnel. Boiler water must be given complete and continuous chemical treatment.
- B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal shall be replaced with identical replacements at no additional cost to the Government.
- C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.

1.20 NOT USED

1.21 TEMPORARY TOILETS

- A. Provide, where directed (for use of all Contractor's workmen), ample temporary sanitary toilet accommodations with suitable sewer and water connections; or, when approved by Resident Engineer, provide suitable dry closets where directed. Keep such places clean and free from flies and all connections and appliances connected therewith are to be removed prior to completion of contract, and premises left perfectly clean.

1.22 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all

the temporary connections, distribution lines, meters, and associated paraphernalia.

- B. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices, which may be fire hazards or may smoke and damage finished work, will not be permitted. Maintain minimum temperatures as specified for various materials.
- C. Electricity (for Construction and Testing): Furnish all temporary electric services.
- D. Water (for Construction and Testing): Furnish temporary water service.
 - 1. Maintain connections, pipe, fittings, and fixtures and conserve water-use so none is wasted.
- E. Fuel: Natural and LP gas and burner fuel oil, if required for boiler cleaning, normal initial boiler-burner setup and adjusting, and for performing the specified boiler tests, shall be furnished by the Contractor. Fuel required for prolonged boiler-burner setup, adjustments, or modifications due to improper design or operation of boiler, burner, or control devices shall be furnished by the Contractor at Contractor's expense.

1.23 NEW TELEPHONE EQUIPMENT

- A. The Contractor shall coordinate with the work of installation of telephone equipment by others. This work shall be completed before the building is turned over to VA.

1.24 TESTS

- A. Pre-test mechanical and electrical equipment and systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.
- B. Conduct final tests required in various sections of specifications in presence of an authorized representative of the Contracting Officer. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.
- C. Mechanical and electrical systems shall be balanced, controlled, and coordinated. A system is defined as the entire complex which must be coordinated to work together during normal operation to produce results for which the system is designed. For example, air conditioning supply air is only one part of entire system which provides comfort conditions for a building. Other related components are return air, exhaust air, steam, chilled water, refrigerant, hot water, controls, electricity, etc. Another example of a complex which involves several components of different disciplines is a boiler installation. Efficient and acceptable boiler operation depends upon the coordination and proper operation of fuel, combustion air, controls, steam, feedwater, condensate, and other related components.
- D. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably short period of time during which operating and environmental conditions remain reasonably constant.

- E. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

1.25 INSTRUCTIONS

- A. Contractor shall furnish Maintenance and Operating manuals and verbal instructions when required by the various sections of the specifications and as hereinafter specified.
- B. Manuals: Maintenance and Operating manuals (four copies each) for each separate piece of equipment shall be delivered to the Resident Engineer coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of time, and dismantling and reassembling of the complete units and sub-assembly components. Manuals shall include an index covering all component parts clearly cross-referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory, and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason for each precaution shall be clearly set forth. Manuals must reference the exact model, style, and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.
- C. Instructions: Contractor shall provide qualified, factory-trained manufacturers' representatives to give detailed instructions to assigned Department of Veterans Affairs personnel in the operation and complete maintenance for each piece of equipment. All such training will be at the job site. These requirements are more specifically detailed in the various technical sections. Instructions for different items of equipment that are component parts of a complete system shall be given in an integrated, progressive manner. All instructors for every piece of component equipment in a system shall be available until instructions for all items included in the system have been completed. This is to assure proper instruction in the operation of inter-related systems. All instruction periods shall be at such times as scheduled by the Resident Engineer and shall be considered concluded only when the Resident Engineer is satisfied in regard to complete and thorough coverage. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the Resident Engineer, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.26 GOVERNMENT-FURNISHED PROPERTY

- A. The Government shall deliver to the Contractor the Government-furnished property shown on the drawings.
- B. Equipment furnished by Government to be installed by Contractor will be furnished to Contractor at the Cemetery.

- C. Contractor shall be prepared to receive this equipment from Government and store or place such equipment not less than 90 days before Completion Date of project.
- D. Notify Contracting Officer in writing, 60 days in advance, of date on which Contractor will be prepared to receive equipment furnished by Government. Arrangements will then be made by the Government for delivery of equipment.
 - 1. Immediately upon delivery of equipment, Contractor shall arrange for a joint inspection thereof with a representative of the Government. At such time the Contractor shall acknowledge receipt of equipment described, make notations, and immediately furnish the Government representative with a written statement as to its condition or shortages.
 - 2. Contractor thereafter is responsible for such equipment until such time as acceptance of contract work is made by the Government.
- E. Equipment furnished by the Government will be delivered in a partially assembled (knock down) condition in accordance with existing standard commercial practices, complete with all fittings, fastenings, and appliances necessary for connections to respective services installed under contract. All fittings and appliances (i.e., couplings, ells, tees, nipples, piping, conduits, cables, and the like) necessary to make the connection between the Government furnished equipment item and the utility stub-up shall be furnished and installed by the Contractor at no additional cost to the Government.
- F. Completely assemble and install the Government furnished equipment in place ready for proper operation in accordance with specifications and drawings.
- G. Furnish supervision of installation of equipment at construction site by qualified factory trained technicians regularly employed by the equipment manufacturer.

1.27 NOT USED

1.28 NOT USED

1.29 CONSTRUCTION SIGN

- A. Provide a Construction Sign where directed by the Resident Engineer. All wood members shall be of framing lumber. Cover sign frame with 0.7 mm (24 gage) galvanized sheet steel nailed securely around edges and on all bearings. Provide three 100 mm by 100 mm (4 inch by 4 inch) posts (or equivalent round posts) set 1200 mm (four feet) into ground. Set bottom of sign level at 900 mm (three feet) above ground and secure to posts with through bolts. Make posts full height of sign. Brace posts with 50 mm x 100 mm (two inch by four inch) material as directed.
- B. Paint all surfaces of sign and posts with two coats of white gloss paint. Border and letters shall be of black gloss paint, except project title which shall be blue gloss paint.
- C. Maintain sign and remove it when directed by the Resident Engineer.
- D. Detail Drawing of Construction Sign showing required legend and other characteristics of sign is attached herewith and made a part of this specification.

1.30 SAFETY SIGN

- A. Provide a Safety Sign where directed by Resident Engineer. Face of sign shall be 19 mm (3/4 inch) thick exterior grade plywood. Provide two 100 mm by 100

- mm (four inch by four inch) posts extending full height of sign and 900 mm (three feet) into ground. Set bottom of sign level at 1200 mm (four feet) above ground.
- B. Paint all surfaces of Safety Sign and posts with one prime coat and two coats of white gloss paint. Letters and design shall be painted with gloss paint of colors noted.
 - C. Maintain sign and remove it when directed by Resident Engineer.
 - D. Detail Drawing of Safety Sign showing required legend and other characteristics of sign is attached herewith and is made a part of this specification.
 - E. Post the number of accident free days on a daily basis.

1.31 CONSTRUCTION DIGITAL IMAGES

- A. During the construction period through completion, furnish Department of Veterans Affairs with 750 views of digital images, including one color print of each view and one Compact Disc (CD) per visit containing those views taken on that visit. Digital views shall be taken of exterior and/or interior and aerial views as selected and directed by Resident Engineer. Each view shall be taken with a professional grade camera with minimum size of 8 megapixels (MP) and the images will be a minimum of 2272 x 1704 pixels for the 200 x 250mm (8 inch x 10 inch) prints and 2592 x 1944 pixels for the 400 mm x 500 mm (16 inch x 20 inch) prints, as per these specifications:
 - 1. Normally such images including aerial views will be taken at monthly intervals. However, the Resident Engineer may also direct the taking of special digital images at any time prior to completion and acceptance of contract. If the number of trips to the site exceeds an average of one per month of the contract performance period then an adjustment in contract price will be made in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) of Section 00 72 00, GENERAL CONDITIONS.
 - 2. In the event that a greater or lesser number of images than specified above are required by the Resident Engineer, adjustment in contract price will be made in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88).
- B. Images shall be taken by a commercial photographer and must show distinctly, at as large a scale as possible, all parts of work embraced in the picture.
- C. Prints shall be made on 200 mm x 250 mm (8 inch by 10 inch) regular-weight matte archival grade photographic paper and produced by a process with a minimum of 300 pixels per inch (PPI). Prints must be printed using the commercial RA4 process (inkjet prints will not be acceptable). Photographs shall have 200 mm x 200 mm (8 inch by 8 inch) full picture print with no margin on three sides and a 50 mm (2 inch) margin on the bottom for pre-typed self-adhesive identity label to be added by Resident Engineer. It is required that the prints are professionally processed so the quality will meet or exceed that of the same size print made with a film camera. Prints must be shipped flat to the Resident Engineer.
- D. Images on CD-ROM shall be recorded in JPEG format with a minimum of 24 bit color and no reduction in actual picture size. Compressed size of the file shall be no less than 80% of the original with no loss of information. File names shall

contain the date the image was taken, the Project number, and a unique sequential identifier. The CD-ROM shall also contain an index of all the images contained therein in either a TXT or Microsoft Word format.

- E. In case any set of prints are not submitted within five days of date established by Resident Engineer for taking thereof, the Resident Engineer may have such images/photographs taken and cost of same will be deducted from any money due to the Contractor.
- F. Interior Final Photos: After completion of all work in an area, final interior photos will be taken. The camera must allow the colors to be as close as possible to the actual colors. Twenty (20) final photos will be provided with views directed by the Resident Engineer. Interior final photos shall be taken after final completion of work. The images shall also be provided on a CD to the Resident Engineer Office.
- G. Aerial Photographs: Submit aerial photographs at one-month intervals during the entire construction period. The first aerial photo shall be taken just prior to the start of construction and then at one-month intervals. The final aerial photograph shall be taken at full project completion during a growing season when lawns are green and not dormant and as directed by the Resident Engineer.

1.32 FINAL ELEVATION DIGITAL IMAGES

- A. A minimum of four (4) images of each elevation shall be taken with a minimum 8 megapixel (MP) camera by a professional photographer with different settings to allow the Resident Engineer to select the image to be printed. All images shall be provided to the Resident Engineer on a CD.
- B. Photographs shall be taken upon completion, including landscaping. They shall be taken on a clear, sunny day to obtain sufficient detail to show depth and to provide clear, sharp pictures. Pictures shall be 400 mm x 500 mm (16 inch by 20 inch), printed on regular weight paper, matte finish archival grade photographic paper and produced by a RA4 process from the digital image with a minimum 300 PPI. Identifying data shall be carried on a label affixed to back of the photograph without damage to the photograph and shall be similar to that provided for final construction photographs.
- C. Furnish six (6) 400 mm x 500 mm (16 inch by 20 inch) color prints of all Cemetery buildings constructed under this project (elevations as selected by the Resident Engineer from the images taken above). Photographs shall be artistically composed showing full front elevations. All images shall become property of the Government. Each of the selected six prints shall be placed in a frame with a minimum of 2 inches of appropriate matting as a border. Provide a selection of a minimum of 3 different frames from which the Resident Engineer will select one style to frame all six prints. Photographs with frames shall be delivered to the Resident Engineer in boxes suitable for shipping.
 - 1. Entrance sign & wall/fence feature
 - 2. PIC/Administration building
 - 3. Maintenance building
 - 4. Committal Service Shelter No. 1
 - 5. Flag/Assembly Area

6. Columbarium

1.33 HISTORIC PRESERVATION

- A. Where the Contractor or any of the Contractor's employees, prior to, or during the construction work, are advised of or discover any possible archeological, historical and/or cultural resources, the Contractor shall immediately notify the Resident Engineer verbally, and then with a written follow up.

1.34 PROJECT HEALTH AND SAFETY PLAN

- A. Prior to commencing any construction, the Contractor shall submit a site specific Project Health and Safety Plan (PHSP). At a minimum, the PHSP shall; cover the following topics:
1. Organizational structure (including Responsible Persons)
 2. Site Characterization and Job Hazard Identification
 3. Site Control and Security
 4. Training
 5. Medical Surveillance
 6. PPE
 7. Exposure Monitoring
 8. Heat Stress
 9. Spill Containment
 10. Decontamination
 11. Emergency Response
 12. Confined Spaces
 13. Hosting Operations
 14. Trench Safety
 15. Lockout/Tagout
- B. Notify the Resident Engineer as soon as practical, but no more than four hours after any accident meeting the definition of OSHA Recordable Injuries or Illnesses or High Visibility Accidents, Contractor property damage equal to or greater than \$25,000, Government property damage equal to or greater than \$2,500, or any weight handling equipment accident. Within notification include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Resident Engineer determines whether a separate Government investigation will be conducted.
- C. Conduct an accident investigation for all OSHA recordable injuries and illnesses, Contractor property damage accidents resulting in at least \$25,000 in damages and Government property damage equal to or greater than \$2,500 to establish the root cause(s) of the accident. Complete the VA Form 2162, and provide the report to the Resident Engineer within five (5) calendar days of the accident. The Resident Engineer will provide copies of any required or special forms.
- D. A summation of all man-hours worked by the Contractor and associated sub-contractors for each month will be reported to the Resident Engineer on a

monthly basis by the 10th of the month for the previous month using the form provided under the Contract.

- E. A summation of all OSHA recordable accidents experienced on site by the Contractor and associated sub-contractors for each month will be provided to the Resident Engineer on a monthly basis by the 10 of the month for the previous month using the form provided by the Resident Engineer. The Contractor and associated subcontractors' OSHA 300 logs will be made available to the Resident Engineer as requested.

1.35 PUNCH LIST APPLICATION SCOPE

- A. Contractor shall provide an automated punch list application for the project. This solution shall be a Commercial-Off-The-Shelf (COTS) product. Contractor shall procure this service based on the performance criteria listed below.
- B. Scope of Work:
 - 1. Provide five (5) hand held tablets loaded with the punch list application for use by quality assurance inspectors (QAI) including the Resident Engineer and Architect/Engineer (A/E) team. Tablets shall be the latest technology as required to support efficient use of the proposed solution. Tablets shall be equipped with built-in high resolution camera and video capability. Provide protective case/cover for tablet field use.
 - 2. The setup shall allow the QAI to enter, compile, and assign punch lists on a stand-alone platform at the site without being connected to the internet. The QAI shall have the ability to seamlessly switch to the cloud platform and distribute the punch list once they have connected to the internet via land line or a stable 4G signal.
 - 3. The solution shall allow the QAI to access and use the application via the cloud-based portal from any device with Wi-Fi access. The solution shall allow the QAI to efficiently import and export data collected in the field on a stand-alone tablet.
 - 4. All platforms shall utilize a graphic user interface with pre-loaded drop-downs for the QAI to load, view, and manipulate plans and to mark up locations of punch list items and annotate plans. The solution shall automatically compile the data to be distributed in the provider's standard report format. Report format shall allow for end user customization to add/delete fields and items.
 - 5. Procure two year service package from application provider to include unlimited access from unlimited devices to all web based services and products offered by the application provider. This scope is only for this project and the provider shall set up access permissions to web-based application and data as directed by the Resident Engineer.
 - 6. Product selection shall be based on the lowest priced solution that meets the required system attributes.
- C. System Attributes:
 - 1. Tablets shall be loaded with the solution to allow for stand-alone use. All other devices capable of connecting to the hosted cloud application shall require no additional software other than flash player for their devices in order to access and use the solution once permissions have been granted.

2. System shall be configured for use on Apple products as well as PC. Other team members with tablets, lap tops, or desktop computers shall be able to access data, edit data, and update status as allowed by permission assignments for the various project team members.
3. Drop down lists and templates shall allow both preloaded industry standard construction inspection items and also additional site-specific items to be added by the end users. Provide legends and icons for widely used items.
4. The solution shall allow for the QAI to make annotations directly on plan view and to attach supporting data for the individual punch list items, including photographs, details, submittals, testing reports, and/or specification sections.
5. The solution shall allow the QAI to enter descriptions and actions related to the punch list item and to assign responsibilities and due dates based on a preloaded, customizable resource list of project team members.
6. The solution shall include filters to allow for data access permissions, sorting of punch lists for sub-contractors and for querying various reporting outputs such as "ball-in-court", due date, and status of completion.
7. Web-based solution shall allow for unlimited data storage and provide the latest security encryption technology consistent with Federal standards. Provider shall submit evidence of redundant systems to ensure that data is not lost and is accessible 24/7/365.

1.36 VA TRIRIGA CPMS

- A. VA contractors, selected by award to perform work, are required to get access to the VA TRIRIGA CPMS. The TRIRIGA CPMS is the management and collaborative environment that the VA uses for all Major, Minor, and Non-Recurring Maintenance (NRM) projects within the Office of Construction & Facilities Management (CFM), Veterans Health Administration (VHA), National Cemetery Administration (NCA), and the Veterans Benefits Administration (VBA). The Contractor is solely responsible for acquiring access to the VA TRIRIGA CPMS.
- B. To gain access to the VA TRIRIGA CPMS, the Contractor is encouraged to follow the licensing process outline as specified below:
 1. Requirement: TRIRIGA is the management and collaborative environment that VA uses for all construction projects. VA requires its contractors to procure TRIRIGA access as part of the cost of performance for a VA construction related contract.
 2. Access Request and Payment can be made through the following URL:

<https://valicensing.oncfi.com/>

3. For inquiries or to request additional services, contact the following:

Craig Alsheimer, Federal Account Manager
Computerized Facility Integrations, LLC
18000 West Nine Mile Road
Suite 700
Southfield, MI 48075

Email: calsheimer@gocfi.com

Telephone: 248-557-4234 Extension 6010; 410-292-7006

4. Process:
 - a. Once the Contractor has been notified by VA of the award and a unique contract number, the Contractor shall enter a request for access to TRIRIGA at URL <https://valicensing.oncfi.com/>
 - b. CFI will process the request for access and payment. CFI will create the USER ID and a password. Security provisions required to align the Contractor to the Contract Number will be entered and an email will be generated and submitted to the requestor.
 - c. CFI will also provide standard terms and conditions related to the transaction and use agreement.

- - - E N D - - -