

**US ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE
FACILITIES REPAIR & RENEWAL PROGRAM**

CONTRACT NO. W912DY-21-C-00##

**Phase 2 – Repair by Replacement Potable Water Booster Pump System for Bldg. 2462
FORT BELVOIR, VA**

22 June 2021

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PERFORMANCE WORK STATEMENT

US ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE FACILITIES REPAIR & RENEWAL PROGRAM

CONTRACT NO. W912DY-21-C-00##

Phase 2 – Repair by Replacement Potable Water Booster Pump System for Bldg. 2462 FORT BELVOIR, VA

22 June 2021

1.0. GENERAL

Performance Work Statement. The objective for this Performance Work Statement (PWS) is to provide all management, labor, equipment and material necessary for design and repair by replacement of the Potable Water Booster Pump System for Bldg. 2462. Provide an in-kind replacement for the existing skid-mounted, triplex system that can provide 750 gpm at up to 30 psi boost. Provide all necessary electrical power and control hookup, Natural Gas or Propane Fired Storage Water Heaters, Electric Water Heaters and Domestic Water Boilers to support this effort. This project includes all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required. The project is located at Fort Belvoir, VA.

Background. The existing Potable water pressure booster system is over 25 years old, unreliable and requires replacement. Repairs to indicated existing domestic water distribution systems are intended to restore it to its original functional state in accordance with the current International Plumbing Code, including piping, valves, inserts, gaskets, hydrants, faucets, pumps, controls, traps, supports, meters and all necessary work to re-establish all domestic water connections, supply and drainage.

CLIN 0001_Base Bid 1_ Provide Design for the Repair by Replacement of the Potable Water Booster Pump System for Bldg. 2462, all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required.

CLIN 0002_Base Bid 2_ Provide Repair by Replacement for the Repair by Replacement of the Potable Water Booster Pump System for Bldg. 2462, all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required.

The Contractor's design and Repair by Replacement shall comply with the specifications and requirements contained herein. The project requirements and technical criteria cited within this SOW establishes minimum standards for Repair by Replacement quality.

As the Basis for Design development and generation of Draft Final Work Plan and Final Work Plan submission the Contractor shall use the following:

- APPENDIX 4 - Work Package Requirements for DLA PH2-Fort Belvoir_B2462_Repair by Replacement Potable Water Booster Pump System _Redacted.
- DOR shall field verify all information provided.

1.1. Procedure for Award. The award for services under this SOW will be limited to the priced services identified in the Contract Line Item Numbers (CLINs) in this project and its modifications. In the event of a conflict between this paragraph and any other term or provision in this SOW, this paragraph 1.0 will prevail.

- 1.2. Notice to Proceed (NTP).** Reference is made to APPENDIX 1, “Milestone Schedule” of this SOW. Per acceptance and approval of the bonds and insurance, an NTP will be issued. This NTP will be for the entire project; however, **Repair by Replacement** activities may not start until all comments from previous submissions have been resolved and the **Final Work Plan** submission has been accepted by the Government.
- 1.3. Duration of Project.** It is estimated that accomplishing the stated task(s) shall take approximately **270** calendar days from the date of NTP.
- 1.4. Removal Considerations and Requirements.** The Contractor shall survey the site to determine the extent of the work while taking the necessary precautions to avoid damage to existing items to remain in place, to be reused or to remain the property of the Government. Any damaged items shall be repaired or replaced as approved by the Contracting Officer. Where removal of existing utilities and pavement is involved, provide approved barricades, temporary covering of exposed areas and temporary services or connections for electrical and mechanical utilities.
- a. Patching.** Where removals leave damaged surfaces exposed in the finished work, patch and repair these damaged surfaces to match adjacent finished surfaces. Finished surfaces of patched area shall be flush with the adjacent existing surface and shall match the existing adjacent surface as closely as possible as to texture and finish.
- b. Unforeseen Hazard.** Notify the Contracting Officer of any unforeseen hazard or condition which becomes evident during work.
- 1.5. Environmental Considerations and Mitigation Requirements.** The Contractor is required to notify the Contracting Officer immediately if any additional suspected hazardous materials are discovered. Environmental Considerations and Mitigation requirements shall be met and coordinated with the proper Fort Belvoir Security Personnel authorities.
- 1.6. Site Inspection/Verification.** All quantities, locations, measurements, and installation types (collectively, conditions) provided by the government shall be considered estimations and prototypical.
- 1.7. Applicable Criteria.** Applicable standards and criteria references are listed within this SOW. Criteria shall be taken from the most current references as of the date of award. Referenced codes and standards are minimum acceptable criteria. Administrative, contractual, and procedural features of the contract shall be as stated in the Division 01 Specifications unless otherwise stated in the **Performance Work Statement**.
- 1.8. Specifications.** Produce detailed specifications utilizing the guide specifications. Detailed specifications shall be submitted as part of the design submission requirements described in the Division 01 Specifications included as part of this project. Utilize SpecsIntact and Unified Facilities Guide Specifications (UFGS) for applicable specification sections relating to the project.
- 1.9. Cost Proposal_ Cost Narrative is required.** In effort to allow the government the opportunity to fully to evaluate and validate contractor pricing and desired intent of the cost proposal; the Contractor shall provide a written narrative to support the cost data in the contractors cost proposal. Detailed breakout for all pricing in proposal is required; **lump sum pricing is unacceptable. Pricing shall include and explain the price proposal assumptions and methodologies as this shall serve as the baseline for any modifications. Cost proposal shall clearly identify and state any assumptions made in the proposal price.**
- 1.10. Design and Repair by Replacement.**
- 1.10.1. Materials.** Materials used in design and **Repair by Replacement** shall be in character with materials, techniques and methodologies used for similar structures unless specifically stated otherwise in this solicitation.

- 1.10.2. **Design Requirements.** Requirements stated herein are minimum requirements.
- 1.10.3. **Energy and Resource Conserving Features.** Government buildings should be designed and constructed in a manner that reduces energy consumption in a life-cycle, cost effective way using renewable energy sources when economical. Products designed to conserve energy and resources by either controlling the amounts of consumed energy or by operating at increased efficiencies should be considered.

2.0. DESCRIPTION

2.1. Project Description. The intent of this project is to provide all management, labor, equipment and material necessary for design and repair by replacement of the Potable Water Booster Pump System for Bldg. 2462. Provide an in-kind replacement for the existing skid-mounted, triplex system that can provide 750 gpm at up to 30 psi boost. Provide all necessary electrical power and control hookup, Natural Gas or Propane Fired Storage Water Heaters, Electric Water Heaters and Domestic Water Boilers to support this effort. This project includes all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required. The project is located at Fort Belvoir, VA.

CLIN 0001_Base Bid 1_ Provide Design for the Repair by Replacement of the Potable Water Booster Pump System for Bldg. 2462, all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required.

CLIN 0002_Base Bid 2_ Provide Repair by Replacement of the Potable Water Booster Pump System for Bldg. 2462, all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required.

2.2. Project Requirements. Additional project requirements are detailed in Section 4.0, "Work to be Performed". Reference paragraph 4.1.1 - 4.1.4 for detailed description of project requirements.

- 2.2.1. Removal.** The Contractor shall include any and all necessary removal work necessary to successfully perform the renovation and repair and any Repair by Replacement work necessary to fully implement the Final Work Plan.
- 2.2.2. In addition to the requirements stated herein, the Contractor shall provide all labor, equipment and materials necessary to complete the requirements of this SOW in accordance with the base contract Division 01 Specifications.
- 2.2.3. Contractor shall smooth fertilize and mulch adjacent grass areas damaged from performance of this work. Contractor shall guarantee growth and development for one year.
- 2.2.4. Contractor is responsible for verifying elevations and measurements in the field. Contractor is responsible for verifying runoff and storm drainage patterns resulting from grading and pipe elevations.
- 2.2.5. Contractor is responsible for field locating and protecting all utilities. Any utilities damaged during Repair by Replacement operations shall be contractor's responsibility. Damaged utilities shall be repaired immediately at contractors' expense.
- 2.2.6. Contractor shall use Best Management Practices (BMP) for stormwater runoff in accordance with Fort Belvoir, Virginia requirements.

3.0. GENERAL CONDITIONS

3.1 Existing Conditions. It is the Contractor's responsibility to verify all existing conditions prior to any design or **Repair by Replacement** activities commencing.

3.2 Site Rules and Responsibilities.

- a. Government Holidays and Working Hours.** Reference Division 01 Specification for a list of Government holidays. The standard normal working hours are 0800 – 1700 hours (8:00 AM – 5:00 PM) Monday through Friday. However; the working hours may be changed if agreed upon between both the Government and Contractor.
- b. General Installation Information.** The Contractor shall coordinate all proposed **Repair by Replacement** activities with the Site Point of Contact (POC) prior to beginning **Repair by Replacement** activities to minimize interruption to normal operations.
- c. Coordination.** The Contractor shall, at a minimum, keep the Contracting Officer's Representative (COR) and Site Point of Contact (POC) apprised of the work and coordinate as necessary to avoid and/or lessen any impacts to the tenant(s). Further details will be provided prior to work commencing during the Kick-Off Meeting.

3.3 Other Considerations. None.

4.0. WORK TO BE PERFORMED.

4.1. Performance Work Statement Requirements By Discipline.

4.1.1 – ENVIRONMENTAL.

4.1.1.1 General Requirements. The Contractor shall design and construct a replacement for the existing skid-mounted, triplex system that can provide 750 gpm at up to 30 psi for a **potable** water pressure booster system to connect to existing water distribution systems in order to support the facility. For water, improvements shall support both fire protection and domestic use.

4.1.1.2 Environmental Requirements. At a minimum, environmental design shall be in accordance with the criteria listed in Section 4.1.2.4 and any governing state and/or local laws, codes or regulations, including such for the installation. If conflicting information between criteria is encountered the most stringent criteria shall govern. The latest editions of listed criteria, in effect at the time this RFP is issued for proposals, shall be used. If editions of criteria elsewhere in this RFP conflict with the most current edition, then the most current edition shall take precedence.

4.1.3.2.1 Permits: Contractor shall be responsible for obtaining all local, installation, and/or state permits required for design and **Repair by Replacement** of the water service lines.

4.1.1.3 Environmental Permitting Requirements. All work performed, shall comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oil substances, and noise pollution. All activities shall be completed IAW Resource Conservation and Recovery Act, Clean Water Act, Clean Air Act, and National Emissions Standards for Hazardous Air Pollutants, Toxic Substances Control Act as applicable. Contractor shall obtain all regulatory permits required for project completion, unless otherwise indicated by CEHNC. Contractor shall obtain Permits which are required to be secured prior to **Repair by Replacement** activities.

Contractor shall comply with applicable conditions of the Installation's air, NPDES, RCRA, and/or any other applicable Installation permits. Contractor shall perform activities in compliance with the Installation's Environmental Management System goals and objectives.

Contractor shall not allow wastewater from **Repair by Replacement** activities, such as but not limited to, onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, and forms to enter water ways or to be discharged prior to being treated to remove pollutants.

Contractor shall coordinate with the Installation for proper disposal of the **Repair by Replacement** related waste water.

Contractor shall minimize the use of hazardous materials and the generation of waste. Contractor shall identify anticipated materials and waste for salvage, reuse, and recycling and shall follow the Installation's policies for recycling, hazardous waste management, and solid waste management.

Contractor shall employ segregation measures so that no hazardous or toxic waste will become comingled with non-hazardous solid waste. Contractors shall transport solid waste off Government property and dispose of it in compliance with 40 CFR 260, state, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill is the minimum acceptable offsite solid waste disposal option. Verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate.

If petroleum-contaminated soil, or suspected hazardous waste is found during **Repair by Replacement** that was not identified in the Contract documents, Contractor shall immediately notify the Contracting Officer. Do not disturb this material until authorized by the Contracting Officer.

Contractor shall store flammable liquids, fuels, and oils in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent products from spilling and entering the ground, storm or sewer drains, storm water ditches or canals, or navigable waters of the United States. Contractor shall be responsible for clean-up of spills due to Contractor activities. Contractor shall reimburse the Government for any costs for Government-initiated cleanup of Contractor spills.

Contractor shall manage used oil generated on site in accordance with 40 CFR 279 and in accordance with Installation policies/guidelines. Used oil mixed with a hazardous waste is also considered a hazardous waste and shall be disposed of as a hazardous waste.

Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Installation's Environmental Office, regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility.

4.1.1.4 Design Standards and Codes.

a. The performance criteria includes, but is not limited to, the following:

Federal RCRA regulations (40 CFR 261.6(a)(3)(ii))

All applicable sections of the Uniform Facilities Guide Specifications (UFGS)

Water Storage and Distribution shall be designed and installed in accordance with the references listed below, as applicable:

- UFC 3-230-01 Water Storage and Distribution with Change 2.
- UFC 3-240.01 Wastewater Collection, with Change 2.
- UFC 3-600-01 Fire Protection Engineering for Facilities, with Change 5
- State of Virginia Department of Health:
 - Waterworks Regulations, Part III. Manual of Practice for Waterworks Design
- NFPA 24 Standard for the Installation of Private Fire Service Mains and Their Appurtenances
- Water Environment Federation (WEF) Manual of Practice (MOP) FD-4, Design of Wastewater and Stormwater Pumping Stations

4.1.2 – PLUMBING.

4.1.2.1 General Requirements.

Provide any required plumbing services in compliance with UFC 3-420-01 Plumbing Systems and local codes as applicable. The Mechanical Designer of Record (DOR) shall coordinate plumbing work to be performed with design team disciplines. Coordinate with the building users to determine and verify locations requiring plumbing work to be performed. Stored materials and equipment shall always be protected against weather damage.

4.1.2.1.1 Plumbing Removal.

Perform any required **removal** to existing domestic plumbing equipment, associated components, and piping for this project in compliance with governing state and local codes. Repair and restore any damage to associated structures (tile, drywall, etc.) to pre-damaged conditions.

Remove the existing plumbing components where required. This could potentially include piping, hoses, motor, belts, etc.

4.1.2.1.2 Plumbing New Work.

Repair by Replacement of the **Potable** Water Booster Pump System for Bldg. 2462.

Provide an in-kind replacement for the existing skid-mounted, triplex system that can provide 750 gpm at up to 30 psi boost.

4.1.2.2 Plumbing Design Requirements.

All new domestic water supply piping, waste piping (DWV), fixtures, valves and other associated piping system features are to comply and be installed in compliance with UFC 3-420-01 Plumbing Systems and the International Plumbing Code (IPC). Plumbing system energy usage and equipment efficiencies are to comply with UFC 1-200-02 High Performance and Sustainable Building Requirements.

Provide domestic cold water, hot water, drain, waste & vent piping to equipment where required.

Verify available existing capacity of utilities at the site before selecting plumbing system components that uses those utilities (ex. Availability of natural gas, electricity, municipal domestic water).

Provide all necessary provisions for testing of the **Potable** water booster pump system. Perform testing in accordance with manufacturer instructions. Use the applicable Unified

Facility Guide Specification (UFGS) UFGS 22 00 00 as the template for defining the specification requirements in the work plan.

Provide all necessary Natural Gas or Propane Fired Storage Water Heaters, Electric Water Heaters and Domestic Water Boilers where required. Coordinate with the facility POC.

For Plumbing coordination purposes see items referenced in this document in Section: Paragraph 2.1 Project Description.

4.1.2.3 Design Standards and Codes.

Plumbing system shall be designed and installed in accordance with the latest edition of the International Plumbing Code (IPC) and the references listed below. Specified materials and equipment shall be standard products of a manufacturer regularly engaged in the manufacture of such products. Specified equipment shall essentially duplicate equipment that has performed satisfactorily at least two years prior to bid opening. System design and installation must conform to the following mandatory energy and water conservation criteria.

Title 10 CFR Part 434

UFC 3-420-01, Plumbing Design

All applicable sections of the Uniform Facilities Guide Specifications (UFGS)

4.1.3 – FIRE PROTECTION/LIFE SAFETY.

4.1.3.1 General Requirements.

All work shall comply with UFC 3-600-01 (Change 5, 12 August 2020).

4.1.3.2 Fire Protection Requirements.

Provide temporary fire protection equipment for the protection of personnel and property during **Repair by Replacement** Remove debris and flammable materials daily to minimize potential hazards.

4.1.3.3 Life Safety Requirements.

UFC 3-600-01, NFPA 10 and NFPA 101.

4.1.3.4 Design Standards and Codes.

UFC 1-200-01 DoD Building Code (General Building Requirements)
(Change 1, 1 Oct 2020)

UFC 3-600-01 Fire Protection Engineering for Facilities (Change 5, 12 August 2020)

All National Fire Codes, published by the National Fire Protection Association (NFPA)

NFPA 1, Fire Code

NFPA 10, **Potable** Fire Extinguishers

NFPA 72, National Fire Alarm and Signaling Code (2019)

NFPA 101, Life Safety Code (2018)

4.1.4 – ELECTRICAL.

- 4.1.4.1 General Requirements.** Provide *evaluation, design and Repair by Replacement* of the Potable Water Booster Pump System for Bldg. 2462 at Fort Belvoir, VA, as described in paragraph 2.0 Description. Provide *necessary repairs* and modifications to the existing electrical distribution system(s) as necessary to support all associated requirements.
- 4.1.4.1.1** The exact voltage, size, and configuration shall be based on detailed calculations as performed by the Contractor based on IEEE Standard 241-1990 Recommended Practice for Electric Power Systems in Commercial Buildings (IEEE Gray Book). Any unused wiring will be removed, not abandoned in place. Labeling of new panels, circuits, and associated electrical equipment is required. The electrical system shall consist of insulated copper conductors in conduit.
- 4.1.4.1.2** Provide and install all new electrical equipment including but not limited to panelboards, transformers, lighting fixtures, disconnect switches, receptacles, conduit, and wire as required. Panelboards and circuits shall be suited to a wide range of utilization patterns. No panel shall be used as a feed thru panel. Only bolt-on type breakers are acceptable for use in power distribution panelboards. New panels shall provide at least 20% spare capacity. Panelboards and load centers shall have 200% rated neutral busses. Use only copper busses for panels. No dual section panels are allowed, IAW UFC 5-520-01 3-2.5.1.
- 4.1.4.1.3** Conductors for interior use shall be type THHN/THWN, 600 volts, copper, #12 AWG minimum. Insulated ground conductors shall be provided for each circuit. Aluminum conductors are not permitted. Conductors #10 and smaller shall be solid. Conductors #8 and larger shall be stranded. 120 volt circuits serving convenience outlets and electronic equipment shall be provided with a dedicated neutral for each circuit. Shared neutrals shall not be approved. MI or NM cables are not permitted. Pressure type connectors (push in type connectors) shall not be used.
- 4.1.4.2 Electrical Requirements.**
- 4.1.4.2.1 Power Receptacles:** 20 amp, duplex receptacles shall be installed in accordance with UFC 3-520-01, UFC 3-490-06, and UFGS 26 20 00. All locations shall be coordinated with the Government.
- 4.1.4.2.2 Grounding:** Install all grounds for service entrances, lightning protection, fire alarm system, computers, and equipment, etc. IAW NFPA 70, NFPA 780, and UFC 3-580-01. Separate equipment grounding conductors shall be provided for lighting circuits, receptacles, appliance branch circuits, motor circuits, and feeders. A ground bus shall be provided in each Electrical Room, Mechanical Room and Telecommunications Room. All grounding electrode systems shall have a maximum resistance to ground of 25 ohms and shall be interconnected at a single point. The Contractor shall conduct measurements in a number of areas to determine the location, number and length of ground rods to provide the required ground resistance. The Contractor shall clearly define areas that could create corrosion problems and necessitate the need for cathodic protection, due to installation of the grounding system. When *removal* affects an existing ground, Contractor shall be responsible for correcting the non-compliant grounding.
- 4.1.4.2.3 Electrical System Analysis and Documentation:** Provide all electrical analyses on all affected panels and circuits IAW UFC 3-501-01 3-2. Determine if the building electrical service is sufficient to support new work.

- 4.1.4.2.4 Single Line Diagram and Schedules:** Provide an electrical one-line diagram, panel and conductor schedules for all affected panels, including emergency power. Panel schedules must be verified by on-site visit.
- 4.1.4.2.5 Seismic:** New electrical components shall meet the seismic requirements for non-structural components in UFC 3-310-04.
- 4.1.4.2.6** The Contractor shall provide any and all electrical **removal** work necessary to successfully perform the renovation and repair and all electrical **Repair by Replacement** work necessary to fully implement the Final Work Plan/Design.
- 4.1.4.2.7** The Contractor shall provide labor and materials to support the electrical requirements associated with the proposed renovation area system modifications including fire protection system and mechanical system, with associated controls as required.
- 4.1.4.3 Standards and Codes.** The electrical system shall be designed and installed in compliance with the rules and regulations of the following listed criteria.

- o NFPA 101: Life Safety Code
- o Unified Facilities Criteria (UFC) – 1-200-01 General Building Requirements
- o Unified Facilities Criteria (UFC) – 1-300-09N Design Procedures
- o Unified Facilities Criteria (UFC) – 3-501-01 Electrical Engineering
- o Unified Facilities Criteria (UFC) – 3-520-01 Interior Electrical Systems
- o Unified Facilities Criteria (UFC) – 3-530-01 Interior and Exterior Lighting Systems and Controls
- o NFPA 70 National Electrical Code (NEC) Handbook
- o NFPA 70E Standard for Electrical Safety in the Workplace
- o NFPA 75 Standard for the Protection of Information Technology Equipment
- o NFPA 110 Standard for Emergency and Standby Power Systems
- o NFPA 111 Standard on Stored Electrical Energy Emergency and Standby Power Systems
- o Uniform Federal Accessibility Standards (UFAS)
- o Institute of Electrical and Electronics Engineers (IEEE) - All related Documents
- o UL Underwriter's Laboratories, Inc. - All related Documents
- o US Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1
- o International Building Code (IBC) – All applicable criteria
- o Unified Facilities Criteria (UFC) – All applicable criteria
- o Unified Facilities Guide Specifications (UFGS) – All applicable criteria
- o Huntsville Center Design Manual (CEHNC 1110-1-1) – All applicable criteria

4.2. Site Assessment Report. The site investigation shall be conducted to document existing conditions, confirm the requirements of the SOW, note impacts and risks associated with the work, state risk resolution techniques and develop the plan for performing the work. Reference the Division 01 Specifications Section 01 11 00 for further information as to the required contents of the **Site Assessment Report** (SAR). The SAR is to be submitted NLT 14 days after issuance of the NTP.

4.3. Deliverables: The Contractor shall provide the deliverables within the required periods identified in the contract.

- 4.3.1. Performance and Payment Bonds:** Performance and Payment Bonds penal amount must equal 100 percent of the Original Contract price and if the Contract price increases and additional amount equal to 100 percent of the increase, in accordance with FAR 28.102-2.

- 4.3.2. **Abbreviated Accident Prevention Plan:** In addition to an Accident Prevention Plan the Contractor shall prepare and submit to the Government for review and acceptance an Abbreviated Accident Prevention Plan for site condition and field survey work. Fulfillment of this requirement will allow the Contractor to perform low risk activities and collect essential data necessary for design. The AAPP does not alleviate the requirement for the APP as detailed in Safety Manual EM 385-1-1 to be submitted and accepted before installation can begin. Submit an AAPP for all Site Visits that involve more than “conference room meetings”. The site visit cannot occur until the AAPP has been accepted by the KO. Personal identifiable Information (PII) shall not be provided in the AAPP).
- 4.3.3. **Project Schedules:** The Contractor shall provide a preliminary and initial project schedule in accordance with the Div 01 Specifications. Once approved, the contractor shall load the cost loaded schedule into RMS. Additionally, the Contractor shall prepare a simple two to three week look ahead schedule for use at the Weekly Progress Meetings. The schedules shall also be input into RMS.
- a. **Three-Week Look Ahead Schedule:** The Contractor shall prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the Project Network Analysis Schedule. The definable features of work, work plan activities, etc. shall be keyed to NAS activity numbers and updated each week to show the planned work for the current and following three-week period. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. An electronic file of the 3-Week Look Ahead Schedule shall be delivered to the Contracting Officer no later than 8 a.m. each Monday and reviewed during the weekly CQC Coordination Meeting.
- 4.3.4. **Submittal Register:** The Contractor may use the Government provide Submittal Register to assist in the development of their contract required Submittal Register. This requirement may be waived by the contracting officer.
- 4.3.5. **Transmittals:** Transmittals are required for all submittals.
- 4.3.6. **Quality Control Plan:** Submit the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of **Repair by Replacement**." The QCP must be approved before the work may proceed.
- 4.3.7. **Site Assessment Report:** Prepare a brief report summarizing the conditions observed, personnel contacted, and data gathered during the site visits.
- 4.3.8. **Specifications:** All Division 01 Specifications requirements apply unless stated otherwise or further clarified below and in other Sections of this SOW.
- 4.3.9. **Design Submittals.** The Contractor shall submit various design packages during the design phase of this project. Field Investigation with official analysis/ report and Design submissions at 65% and 100% are required with the Draft Final Work Plan and Final Work Plan submission. Each design submission shall include the basis of design, drawings and specifications. Prior to the next design submission, the comments from the previous submission shall be resolved, if possible. The Final submission shall be have all comments resolved prior to submission. No **Repair by Replacement** activities shall commence until the Final submission has been accepted by the Government.

- 4.3.10. **LEED.** Actual certification is not required.
- 4.3.11. **Comment Resolution.** The Contractor is responsible for the resolution or incorporation of Government comments into the project.
- 4.3.12. **Accident Prevention Plan (APP):** The Contractor shall submit in writing an Accident Prevention Plan (APP) and submit for review/acceptance to the KO and/or Primary Project POC at least 30 calendar days prior to the **Pre- Repairs Meeting**. The APP will need to be accepted prior to starting any installation activities at the site. The APP with Activity Hazard Analysis (AHA) shall be submitted and shall follow the requirements of the EM 385-1- 1 and include all relevant AHAs. The APP shall include provisions to deal with Hazardous Materials, pursuant to the Contract Clause entitled "Hazardous Material Identification and Material Safety Data". The Contractor shall coordinate with the facility representatives or facility Contractor, on first aid, emergency phone numbers, response plans, site evacuation plans, evacuation drills, etc. Personal identifiable Information (PII) shall not be provided in the APP).
- 4.3.13. **Not Used.**
- 4.3.14. **Closeout Documents:** The Contractor shall submit the closeout documents in order to satisfy the SOW. The documents include at a minimum: Final As-Built Drawings, Warranties, Test Data, etc. As-Built Drawings shall be in the appropriate '.dgn' or '.dwg' design file formats and also in '.pdf' format and comply with the latest release of USACE ERDC/ITL R-12-6, A/E/C CAD Standard (<https://cadbimcenter.erdcdren.mil>). All '.dgn' or '.dwg' design file formats shall be compatible with the latest software of Microstation.
- a. DD Form 1354. The Contractor shall prepare the data for the DD Form 1354, The DD Form 1354 is available at:
<http://www.dtic.mil/whs/directives/forms/eforms/dd1354.pdf>.
- 4.4. **Level of Effort.** The Contractor is expected to prepare the level of design and documentation appropriate to the size and complexity of this project.
- 4.5. **Period of Performance.** The contract Period of Performance (POP) is identified in the first few pages of the contract documents; such as in block 11 of the Standard Form (SF) 1442. The Contractor shall begin performance within 14 calendar days and complete it within **270** calendar days after receiving the Notice to Proceed (NTP).
- 4.6. **Contract Contents.** This document contains or references the provisions that shall apply to the performance of the work under this contract.
- 4.7. **Request for Equitable Adjustment (REA).** All REA shall be submitted through CEHNC-FRR_REA_Claims@usace.army.mil.
- 4.8. **Invoicing and Payment.** The Contractor shall prepare payment requests for invoicing in accordance to the contract and as follows:
- a. The Contractor shall prepare payment requests for invoicing in accordance with the applicable provisions of the Division 01 specifications. Prior to submitting payment requests, the Contractor shall obtain the signature acceptance of the Quality Assurance Representative (QAR), for work in place for which the payment request is being submitted. The requested payment request shall correspond to the updated schedule submittal as required by the Division 01 specifications. Payment requests for

invoicing shall include the signature acceptance of the QAR, signed Prompt Payment Certification, ENG Form 93 and an updated schedule.

- b. Verification of percentages of work completed during the **Repair by Replacement** will be coordinated with and signed by the Government QAR prior to payment request to RMS or email. A notification stating the payment request has been exported to RMS shall be made via email to the Government's Project Manager (PM). The email notification to the PM and the CEHNC-FD- Invoice Box (FDInvoice@usace.army.mil) shall contain the scanned copy of the signed verification by QAR, ENG Form 93, Prompt Payment Certification and an updated Schedule. Once the project requirements are completed and a final payment request for invoicing is submitted, the payment request shall also include the signed Release of Claims (form to be provided by the PM near project completion).

4.9. Additional Requirements.

a. **Quality and Safety.** Quality workmanship and safety are two of the key elements expected of the Contractor to ensure the product delivered meets the requirements of both EM 385-1-1 and the SOW. In order to meet these requirements, the Contractor shall provide a Superintendent, Site Safety and Health Officer (SSHO) / Quality Control Representative (QCR) for the project. These individuals must be present on site when work is ongoing. The Site Safety and Health Officer (SSHO) and Quality Control Representative (QCR) can be one person.

b. **Safety Compliance.** The Contractor shall execute all work IAW the latest version of Safety Manual EM 385-1-1. The Abbreviated Accident Prevention Plans (AAPP template available online) and Accident Prevention Plans (APP, IAW EM 385-1-1, Appendix A) shall be submitted electronically for review and acceptance. Upon acceptance, by the U.S. Army Engineering & Support Center Huntsville (CEHNC) Safety Office, the Contractor shall submit final safety plans by CD only, including tracking submittal via Form 4025 through RMS. The Contractor's AAPP must be submitted and accepted by the CEHNC Safety Office prior to starting any survey activities at the site. Similarly, the Contractor's APP must be submitted and accepted by the CEHNC Safety Office prior to starting any work activities at the site. The APP shall include an Activity Hazard Analysis (AHA) for all activities required by the contract. Also Reference APPENDIX 5 _ SAFETY REQUIREMENTS.

Reference is made to Engineering Manual (EM) 385-1-1 (NOV 2014) which can be found here for downloading/printing:

https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf
This manual includes all safety requirements for contractors performing work on any US Army Corps of Engineers project. It also contains information and templates for preparing documents required prior to work commencing, such as the Accident Prevention Plan and Activity Hazard Analysis (es).

The Contractor Quality Control Manager may be the SSHO on this project.

USACE safety policy, regulations, documents and reporting forms are available at:
<http://www.hnc.usace.army.mil/Missions/Command-and-Staff-Offices/Safety-Office>.

c. **Asbestos Contained Material (ACM).** Not Applicable.

d. **Resident Management System.** The Government will use the Resident Management System (RMS) to assist in monitoring and administrating this project. The Contractor shall use the Contractor Module of RMS 3.0, referred to as the Quality Control System (QCS), to record, maintain and submit various information throughout the duration of the project in accordance with the Division 01 Specifications. The Contractor module, user manuals, updates and training information can be downloaded from the RMS web site (<http://rms.usace.army.mil>).

e. **Technical Criteria and References.** Technical criteria for the SOW shall be defined as noted in the Division 1 Specifications. The criteria and references contained herein are in addition to the criteria and references included in the Division 1 Specifications. All Unified Facilities Criteria (UFC) and National

Fire Protection Association (NFPA) references shall be the latest edition at the time the project is awarded. UFC's in the base contract are not all inclusive. It is the Contractor's responsibility to determine the applicable UFC's for this project. The UFC's can be located on the Whole Building Design website: <http://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc>.

f. Liquidated Damages. Liquidated damages will be assessed for this project in accordance with the base contract. The Contractor shall pay liquidated damages to the Government if the work is not completed by the date specified in the award documents. Liquidated damages will be charged at a rate of \$395 per calendar day of Contractor delay until the work is accepted.

g. Contractor Laydown, Storage Area, Parking Area and Dumpsters. The Contractor shall coordinate with the Site POC to obtain approval prior to using a designated area.

h. Occupancy during Repair by Replacement. The facility will be occupied by government employees and their contractors during Repair by Replacement.

i. Utility Cutovers and Interruptions. The Contractor shall make every attempt possible to minimize disruptions to tenants and/or the installation when performing utility cutovers and interruptions after normal working hours or on Saturdays, Sundays and Government holidays. Allow up to thirty (30) calendar days prior to any outage, temporary service, information, etc. for requesting, processing and/or Garrison approval. Ensure that new utility lines are complete, except for the connection, before interrupting existing service. Interruption to water, sanitary sewer, storm sewer, telephone service, electric service, air conditioning, heating or fire alarm shall be considered utility cutovers. Such interruption shall be further limited to 6 hours (after business hours). This time limit includes time for setup, deactivation, reactivation and cleanup.

j. Dig Permits. Any excavation requires dig permit.

k. Hot Work Permit. Contact the Fort Belvoir Fire Department for a Hot Work Permit.

l. Warranty and Support. The Contractor shall provide a warranty that has 8-5 Live Help Desk with 24/7 on-call technical support, Remote Troubleshooting, Options Emergency Response, Loaner Equipment, Standard shipping on Warranty Equipment, two (2) Semi-Annual Complete Preventative Maintenance Visits during warranty period and one (1) On-Site Training Session for new users. Reference Appendix 15 for additional warranty requirements. Any conflicts in warranty requirements among the contract documents shall be brought to the attention of the Contracting Officer.

m. Miscellaneous Installation and Removal. All installation work shall be completed within the normal hours of operation. Workspace clean up shall occur at the end of each day to include removal of all packing materials. Removal of existing equipment and disposal in accordance to DOD and Army Property guidelines. Disposal shall be coordinated with the designated Government representative/point of contact.

n. Project Progress Meeting. The Contractor shall perform Weekly Progress Meetings. These meetings will include all relevant base POC's and Contracting Personnel on an as needed basis. These meetings will cover the progress made in the past period and will include any pertinent issues which could affect future task order progress. The Contractor shall provide minutes of this meeting to all participants within two (2) calendar days after the meeting. The following items shall be covered.

4.10. **Site Specific Requirements.** For Site Specific Requirements Reference "APPENDIX 4 - Work Package Requirements for DLA PH2-Fort Belvoir_B2462_Repair by Replacement Potable Water Booster Pump System_Redacted"

5.0. ANTITERRORISM/OPERATIONAL SECURITY (AT/OPSEC)

- 5.1. AT Level I Training.** All new contractor employees will complete Level I OPSEC Training within 30 calendar days of their reporting for duty. Additionally, all contractor employees must complete annual OPSEC awareness training. The contractor shall submit certificates of completion for each affected contractor and subcontractor employee, to the COR or to the contracting officer (if a COR is not assigned), within 5 calendar days after completion of training. OPSEC awareness training is available at the following websites: [Blockedhttps://www.iad.gov/ioss/](https://www.iad.gov/ioss/) or [Blockedhttp://www.cdse.edu/catalog/operations-security.html](http://www.cdse.edu/catalog/operations-security.html); or it can be provided by the RA OPSEC Officer in presentation form which will be documented via memorandum.
- 5.2. Access and General Protection/Security Policy and Procedures.** All contractor and associated subcontractor employees shall comply with applicable installation, facility and area commander installation/facility access and local security policies and procedures. The Contractor shall also provide all information required for background checks to meet installation access requirements to be accomplished by Installation Provost Marshall Office, Director of Emergency Services or Security Office. Contractor workforce must comply with all personnel identity verification requirements as directed by Department of Defense (DoD), and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes. Ensure that Contractor employees entering Army-controlled installations or DLA facilities have obtained access badges and passes IAW installation and facility regulations and that these badges and passes are obtained in advance in order to avoid delaying contracted. Delay caused by Contractor failure to obtain badges and passes in advance will not be a basis for claim by the Contractor.
- 5.3. iWatch and/or Corps iWatch Training.** The Contractor and all associated subcontractors shall brief all employees on the local iWATCH, Corps iWatch or See Something, Say Something Program (training standards provided by the requiring activity ATO). This locally developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the COR and KO. This training shall be completed within 30 calendar days of contract award and within 30 calendar days of new employees commencing performance with the results reported to the COR no later than (NLT) five (5) calendar days after contract award.
- 5.4. Pre-Screen Candidates using E-Verify Program.** The Contractor must pre-screen candidates using the E-Verify Program (<http://www.dhs.gov/E-Verify>) website to meet the established employment eligibility requirements. The Vendor must ensure that the Candidate has two valid forms of Government issued identification prior to ensure the correct information is entered into the E-Verify system. An initial list of verified/eligible candidates must be provided to the COR no later than three (3) business days after the initial contract award. All assigned contractor employees shall have the required security clearance to perform work at the facility. Reference AFI 31-101 and AFI 31-501. In order to have unescorted access to the building/project site but not to areas storing classified information, a National Agencies Check (NAC) must be started and closed with favorable results. In order to have unescorted access to the areas containing classified information, a Secret Clearance is required.

6.0. ADDITIONAL INFORMATION

- 6.1. ProjNet.** A folder has been placed on Dr. Checks to access this project along with other applicable project files. In order to access these files log, into the ProjNet site (<https://www.projnet.org/projnet/bin/KornHome/index.cfm>) and access the Design link at the top of the ProjNet page. Go to the drop down link under Design and click on Filer. Enter the project ID number in the box that says Name and then click Search. For this project, the ID number is [496535](#). Click on the document under Project Name then click on Project Data. Quantities and dimensions provided are to be verified by the Contractor prior to bid. It is the Prime Contractors responsibility to provide these documents to their subs and/or access to these documents in ProjNet.

6.2. Bidder Inquiry. In order to ask questions concerning this project follow these instructions:

Enter your email address, enter the key in the Quick Add box, Accept Terms & Conditions then click Sign In. In the next screen answer your Secret Question then click Login. For this project the key is [853PJU-8EDU6Y](#). From this screen you can submit your inquiry and view inquiries.

The method above is applicable if you already have a ProjNet account. If you are new to ProjNet and don't have an account use the following procedure:

Follow the same instructions as above, on the next screen supply the requested information. Once registered, you will be able to access Bidder Inquiry. If necessary, **ProjNet Help Desk** can assist in the download and login.

7.0. POINTS OF CONTACT (POCs)

Amanda Mobley
US Army Engineering and Support Center, Huntsville
4910 University Square, Suite 4
Ph: (256) 895-8093; Email: Amanda.L.Mobley@usace.army.mil

Kavi Spence, Contracting Officer
US Army Engineering and Support Center, Huntsville
4910 University Square, Suite 4
Ph: (256) 895-1425; Email: Kavi.C.Spence@usace.army.mil

TBD Contracting Specialist
US Army Engineering and Support Center, Huntsville
Ph: (256) 895-####; Email:

Marilyn Scott, FRR Project Engineer/Architect
US Army Engineering and Support Center, Huntsville
4910 University Square, Suite 4
Ph: (256) 895-1495; Email: Marilyn.L.Scott@usace.army.mil

8.0. ADDENDUMS, MODIFICATIONS, ETC

9.0. APPENDIXS

Appendix A – Price Proposal Format

APPENDIX 1 -Milestone Schedule

APPENDIX 2 -Table of Deliverables

APPENDIX 3 - Not Used

APPENDIX 4 - Work Package Requirements for PWBPS (PROVIDED FOR INFORMATION ONLY)

APPENDIX 5 - SAFETY REQUIREMENTS

APPENDIX 6 – LIFE, SAFETY AND HEALTH REQUIREMENTS.

APPENDIX 7 – CONTRACTOR QUALITY CONTROL REQUIREMENTS.

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APPENDIX A PRICE PROPOSAL FORMAT		
REQUEST FOR PROPOSAL – Phase 2 – Repair by Replacement Potable Water Booster Pump System for Bldg. 2462 FORT BELVOIR, VA 22 June 2021		
Contractors shall complete this spreadsheet by providing fully burdened, lump sum costs for each item. Breakdown of specific items via labor, material, and equipment, along with relevant contractor overheads shall be provided in the price proposal documents.		
#	Item	Price
CLIN 0001	Base Bid 1_ Provide Design for the Repair by Replacement of the Potable Water Booster Pump System for Bldg. 2462, all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required.	\$
CLIN 0002	Base Bid 2_ Provide Repair by Replacement of the Potable Water Booster Pump System for Bldg. 2462, all related civil, environmental, mechanical, plumbing, fire protection/life safety and electrical components and system installations as required.	\$
	TOTAL PROPOSAL	\$

APPENDIX 1 - MILESTONE SCHEDULE

MAJOR MILESTONE ACTIVITY		MILESTONE (date or duration)
Pre - Repairs	Task Order Award	TBD
	Submit Bonds and Insurance	NLT 7 days after award
	Submit Abbreviated Accident Prevention Plan (AAPP)	NLT 14 days after award
	Kickoff Meeting	NLT 7 days after bonds and insurance received/approved
	Notice to Proceed (NTP)	Issued after Kickoff meeting
	Site Assessment Report	At the conclusion of the Kick - Off Meeting
	Submit Preliminary Project Schedule	NLT 7 days after NTP
	Submit Design Quality Control Plan	NLT 7 days after NTP
	Submit Site Assessment Report (SAR)	NLT 14 days after NTP
	Draft Final Work Plan	NLT 21 days after NTP
	Final Completed - Submit Final Work Plan	NLT 45 days after NTP
Repair by Replacement	Submit Quality Control Plan (CQCP)	NLT 7 days prior to Pre-Repairs Conference
	Submit Accident Prevention Plan (APP)	NLT 30 days prior to Pre-Repairs Conference
	Start of Repair by Replacement	Upon acceptance and approval of Final Work Plan
	Redzone Meeting	TBD - start when project is 80% complete
	Closeout Submittals	Start submitting upon conclusion of Redzone Meeting
	Submit Final Invoice and Release of Claims	Upon satisfactory completion of all work requirements; submission of all O&M manuals and warranty plan; and any other contractual requirements
	Contract Completion Date	270 days after NTP

Note 1. Milestone Schedule: The Contractor shall include the above milestones in the Project Schedule. The Milestone Schedule does not include all of the required submittals.

- i. Milestones are established based on the award date and the Notice to Proceed (NTP) date. Milestones are provided for the Contractor delivery of the objectives of the task order.

Note 2. Work Week: Monday through Friday, unless specified otherwise.

APPENDIX 3 - Not Used

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