

**Performance Work Statement**  
Repair of 50-Ton/10-Ton Hoists and Trolley Assembly  
Geotechnical and Structures Laboratory (GSL)  
Structural Mechanics Branch (SMB)

**1. INTRODUCTION**

This Performance Works Statement (PWS) is to repair the 50-Ton Double Girder Overhead Crane located at the Engineer Research and Development Center (ERDC), Geotechnical and Structures Laboratory (GSL), Structural Mechanics Branch (SMB), Bldg. 5008, 3909 Halls Ferry Road, Vicksburg, MS. 39180.

**2. BACKGROUND**

The government-owned 50-Ton Double Girder Overhead Crane is currently non-operational. The crane can no longer be serviced due to damage and in-operable parts on the existing trolley and hoists. The required replacement parts are no longer being manufactured. Therefore, GSL needs to replace the obsolete and defective trolley and hoists with a newly manufactured assembly in order to return the entire crane to working condition. See attachment 1 for building and crane layout.

**3. SCOPE**

The contractor shall provide all materials, equipment, and labor necessary to bring the 50-ton overhead crane back into fully operational status, dispose of any inoperable components and provide optional annual maintenance up to four years.

The Contractor shall be a licensed wholesale and/or manufacturer-authorized distributor of the crane products being installed.

**4. REQUIREMENT**

**4.1 (FFP)** The contractor shall replace the top running trolley that sits on the double girder bridge and traverses the length of the girders and contains the two hoists. The 50-ton main hoist and 10-ton auxiliary hoist shall work in tandem or independently and be operational while the bridge is in motion. The trolley, hoists, and components are to be designed to operate in an indoor environment and match the existing equipment dimensions. The crane's maximum wheel loads (without impact) due to dead load and the rated capacity live loads, with the trolley in any position, shall not be increased by any new component.

The Contractor is required to verify all clearances around the work area. In certain work areas, there are industrial machines and/or fixtures that cannot be moved. The Contractor needs to protect these machines, fixtures, and surrounding equipment from being damaged.

**4.1.1** Install New Top Running Trolley, including components, i.e., motors, electrical parts, mechanical parts, and controls.

The general design, manufacture, performance, and operation of the trolley shall conform to OSHA 29 CFR 1910.179 (b) – General Requirements, (e) Stops, bumpers, rail sweeps, and guards, (f) Brakes, (g) Electric equipment, and (h) Hoisting equipment.

**4.1.2** Install New Hoists:

**4.1.2.1** Replace the 50-Ton wire rope lifting hoist with like capacity, 33'0" lift on drum; 5PD reeve; Lift speed 15 fpm with closed loop VFD control; 2 drives, mounted on top running trolley, limit switch for maximum upper and lower positions, and thrust bearing swivel hook with safety latch

**4.1.2.2** Replace the 10-Ton wire rope lifting hoist with like capacity, 38'8" lift on drum; 3PD reeve; Lift speed 21 fpm with closed loop VFD control; 2 drives, mounted on top running trolley, limit switch for maximum upper and lower positions, and thrust bearing swivel hook with safety latch

The manufacture, installation, and operation of the trolley and hoists shall conform to ASME B30.2-2022 Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist).

The new trolley and hoists, and any provided repairs to inspected parts and equipment for the crane system, shall conform to applicable Crane Manufacturers Association of America (CMAA) No. 70 Specifications for Class C (minimum) Top Running Bridge and Gantry Type Multiple Girder Electric Overhead Traveling Cranes.

#### **4.1.3** Replace Electrical Components:

**4.1.3.1** Replace the electrification system with Duct-O wire 4-conductor bar cross-bridge electrification, with all associated brackets and hangers. The current cranes are wire rope, pendant-controlled, and designed to operate on 480 Volt, 115 amp, 3-phase, 60-Hertz power in an indoor environment.

**4.1.3.2** Provide a Roving pendant control system with quick release wired pendant and wireless control, including overhead indicating lights (blue to indicate MLC energized, white for power available, and red for fault).

**4.1.3.3** Replace the bridge control panel with VFD for bridge drive, mainline controls, branch fusing, transformer, and through the door disconnect.

**4.1.3.4** Provide two (2) wireless bridge and hoist controllers, with 6 motions plus A/B selector for hoist/trolley.

All electrical work shall comply with American National Standards Institute (ANSI) Publication C2 - National Electric Safety Code and With National Fire Prevention Association (NFPA) Publication No. 70 - National Electrical Code. All materials used in the installation shall conform to applicable National Electrical Manufacturers Association (NEMA) and Underwriters Laboratories (UL) listings. Workmanship shall be in accordance with standard commercial practice. Runs shall be installed perpendicular and parallel to existing facilities and the equipment being installed. New equipment shall not be connected to Government power without prior approval of the Contracting Officer and Government Electrician. No high voltage work will be accomplished without prior approval of the Contracting Officer. All connections to Government power and all high voltage work shall be performed in the presence of a qualified Government electrician.

**4.1.4** Inspection: The Offeror shall inspect the crane for any defects, damage, wear and tear, and make recommendations and estimates for repair to bring the 50-ton overhead crane back into fully operational status. Any repairs that will need to be made will be covered in section 4.5, Over & Beyond Requirements. The results of the inspection shall be provided to the Contracting Officer Representative (COR) for approval prior to the Government accepting. The inspection shall include but not limited to the following components:

1. All bridge drive wheels, idler wheels, and bearings.
2. All line shafts, couplings, and bearings.
3. All runway rails, splice plates, and hanging brackets.
4. All bridge girders and end trucks.
5. Trolley and Hoist.

**4.1.5 Acceptance:** Testing of the new Trolley and Hoists prior to Acceptance will be done in accordance with standard methods stated in OSHA 29 CFR 1910.179(k) Testing requirements, which include hoisting and lowering, trolley travel, bridge travel, limit switches, locking and safety devices, and rated load test.

**4.1.6 Disposal:** The Contractor shall be responsible for the removal and disposal of components that will be replaced from the existing crane prior to the new installation onto the crane. This includes removal of existing trolley, 50-ton main hoist, 10-ton auxiliary hoist, existing hanging pendant, electrical components, and disposal of hazardous materials (i.e., gear oil, hydraulic fluid, etc.), etc.

**4.1.7 Warranty:** Warranty shall be a minimum period of twenty-four (24) months after the installation of the required parts. Parts requiring replacement under warranty shall be at no additional cost to the Government and must include material, labor, shipping, and handling. The warranty shall cover at minimum 1200 hrs. of operation, weldments, and defects in materials and/or workmanship.

**4.2. (FFP) (Option) Purchase of an Automated Motorized Rotating Bottom Block for the 50-Ton Hoist:**

This option is to purchase an automated motorized rotating bottom block for the 50-ton hoist. Delivery shall be 60 days from the date the option is exercised.

**4.3. (FFP) (Option) Purchase of an Automated Motorized Rotating Bottom Block for the 10-Ton Hoist:**

This option is to purchase an automated motorized rotating bottom block for the 10-ton hoist. Delivery shall be 60 days from the date the option is exercised.

**4.4. (FFP) (Option) Purchase of a Main Hoist Scale with Digital Readout:** This option is to purchase a main hoist scale with digital readout. Delivery shall be 60 days from the date the option is exercised.

**4.5. (Cost) (Option) Over & Beyond Requirements**

There is the possibility of over and above work that is not known at time of award.

For over and above requirements identified as part of the inspection at 4.1.4 (Inspection), the contractor will be required to identify the needed repairs and recommend corrective action during contract performance for Government approval prior to commencing.

A separate contract line will be included for over and beyond requirements. Additionally, DFAR Clause 252.217-7028, Over and Above Work, will be included in the resulting contract which requires the contractor and the contracting officer responsible for administering the contract to negotiate specific procedures for Government administration and contractor performance of over and above work requests.

**4.6. (FFP) (Option) Service and Maintenance - Year 1**

The contractor shall provide annual service and maintenance in accordance with requirements described in OSHA 29 CFR 1910.179 sections (j) Inspection and (l) Maintenance, and (m) Rope inspection for Periodic and Annual Inspections.

**4.7. (FFP) (Option) Service and Maintenance - Year 2**

**4.8. (FFP) (Option) Service and Maintenance - Year 3**

**4.9. (FFP) (Option) Service and Maintenance - Year 4**

**5. PERIOD OF PERFORMANCE**

The contractor shall replace the top running trolley and two hoists with the option to provide service and maintenance for up to one year after contract award. Service and maintenance options may commence after contract award if determined in the best interest of the Government.

## 6. WORK SCHEDULE

All work to be performed will be during ERDC regular workweek from Monday through Friday, excluding Federal holidays. All work is to be conducted during normal ERDC business hours of 7:00 a.m. and 5:30 p.m. unless prior arrangements have been discussed with the COR.

## 7. DELIVERABLES

**FIELD SERVICE REPORT (FSR):** Upon completion of base services, an FSR shall be provided to the COR within seven (7) days of completing the work. The report shall include the contract number, name of the technician(s) who performed the work, date(s) the work were provided, model and serial numbers of all the equipment provided, replaced and/or installed, a detailed report of the work performed. The detailed report will include a summary of what was replaced and/or repaired, procedures that were used, and any testing performed, the results of the test, along with any issue resolutions. Any discrepancies should be noted along with a list of parts and/or services suggested to return or keep the equipment operational.

### **Printed Manuals:**

1. Operators' manual – including step-by-step system startup, operation, and shutdown. Operation manuals shall include the manufacturer's name, model number, parts list, and brief description of all equipment and their basic operating features.
2. Maintenance manual - list routine maintenance procedures, possible breakdowns and repairs, and troubleshooting guides. Maintenance manuals shall include equipment layout and simplified wiring and control diagrams of the system as installed.
3. Parts manual - spare parts data for each different item of material and equipment installed. The data shall include a complete list of parts and supplies.
4. Manufacturer as-built drawings – provide drawings for new components, as well as repairs of existing components (to include location of repairs).

## 8. KICK-OFF MEETING

A kick-off meeting will be held 10 days after contract award for the to review the specifications in the PWS.

## 9. SECURITY REQUIREMENTS

**AT Level I Training.** All contractor employees, to include subcontractor employees, requiring access to Army installations, facilities, controlled access areas, or require network access, shall complete AT Level I awareness training within 30 calendar days after contract start date or effective date of incorporation of this requirement into the contract, whichever is applicable. Upon request, the contractor shall submit certificates of completion for each affected contractor employee 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 by all employees and subcontractor personnel. AT Level I awareness training is available at the following website: <http://jko.jten.mil/courses/at11/launch.html>; or it can be provided by the RA ATO in presentation form which will be documented via memorandum.

**Access and General Protection/Security Policy and Procedures.** All contractor and all associated sub-contractors' employees shall comply with applicable installation, facility and area commander installation/facility access and local security policies and procedures (provided by government representative). The contractor shall also provide all information required for background checks to meet installation/facility access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. Contractor workforce must comply with all personal identity verification requirements (FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel) as directed by DOD, HQDA 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 installation or facility change, the Government may require changes in contractor security matters or processes.

**For contractors requiring Common Access Card (CAC).** The contractor and all sub-contractors employees will be issued a CAC only if duties involve one of the following: (1) Both physical access to a DoD facility and access, via logon, to DoD networks on-site or remotely; (2) Remote access, via logon, to a DoD network using DoD-approved remote access procedures; or (3) Physical access to multiple DoD facilities or multiple non-DoD federally controlled facilities on behalf of the DoD on a recurring basis for a period of 6 months or more. At the discretion of the sponsoring activity, an interim CAC may be issued based on a favorable review of the FBI fingerprint check and a successfully scheduled NACI at the Office of Personnel Management.

**Suspicious Activity Reporting Training (e.g. iWATCH, CorpsWatch, or See Something, Say Something).** The contractor and all associated sub-contractors shall receive a brief/training (provided by the RA) on the local suspicious activity reporting program. 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 project manager, security representative or law enforcement entity. 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 NLT 5 calendar days after the completion of the training.

**For Contracts that Require an OPSEC Standing Operating Procedure/Plan.** The Contractor shall develop an OPSEC SOP/Plan within 90 days of contract award. The OPSEC SOP/Plan must be reviewed and approved by the RA OPSEC Officer. The SOP/Plan will include the government's critical information, why it needs to be protected, where it is located, who is responsible for it and how to protect it. In addition, the contractor shall identify an individual who will be an OPSEC Coordinator.

**For Contracts that Require OPSEC 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: <https://www.iad.gov/ioss/> or <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.

**Will be escorted in areas where they may be exposed to classified and/or sensitive materials and/or sensitive or restricted areas.** All contract employees, including subcontractor employees who are not in possession of the appropriate security clearance or access privileges, will be escorted in areas where they may be exposed to classified and/or sensitive materials and/or sensitive or restricted areas.

**Pre-screen candidates using E-Verify Program.** The Contractor must pre-screen Candidates using the E-verify Program (<http://www.uscis.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 enrollment 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 3 business days after the initial contract award.