Mount Rainier National Park (MORA) - Rehabilitate Climbing Facilities at Camp Muir.
140P8526R0002

RFI Responses:

1. Please confirm whether the Contracting Officer will specifically authorize, under FAR 52.232-5(b)(2), progress payment consideration for project-specific materials, equipment, or fabricated components delivered to and stored at locations other than the Camp Muir project site prior to installation.

This clarification is requested for all trades and material categories, including long-lead, high-value, or market-sensitive materials such as copper conductors, lightning protection materials, specialty metals, prefabricated assemblies, and other components procured specifically for this contract.

For the lightning protection system in particular, early procurement of copper materials at current market pricing may provide better value to the Government by reducing escalation risk, improving price certainty, and avoiding the need for offerors to include additional contingency for future material price increases. If such materials are not eligible for progress payment until delivered to the project site, bidders may need to include additional carrying costs, escalation contingency, or cash-flow costs in their proposals.

Please confirm whether off-site stored materials may be included in progress payment applications when the Contractor provides satisfactory documentation, including evidence of title, supplier invoices, proof the materials are dedicated to this contract, storage location, insurance, photographs, segregation/tagging, and any inspection access or other documentation required by the Contracting Officer. If off-site stored materials will not be authorized for progress payment, please confirm that offerors should carry all associated procurement, escalation, storage, and cash-flow costs until materials are delivered to the project site or another Government-approved location.

Basis: the solicitation incorporates FAR 52.232-5, Payments Under Fixed-Price Construction Contracts. FAR 52.232-5(b)(2) allows the Contracting Officer to consider materials delivered to locations other than the site only if that consideration is specifically authorized by the contract and the Contractor provides satisfactory evidence of title and contract use.

Yes, under certain circumstances, off-site stored materials may be considered for progress payment in accordance with FAR 52.232-5(b)(2), subject to review and approval by the Contracting Officer. Any request for payment for off-site stored materials must be supported by documentation acceptable to the Government, which may include evidence of title, invoices, proof that the materials are dedicated to this contract, storage location information, insurance coverage, inventory records, photographs, tagging/segregation, and Government inspection access, as applicable.

However, it is highly recommended that materials purchased for this requirement be stored at the designated lay down area whenever practical. Offerors and the successful Contractor should plan procurement, staging, and material handling operations accordingly.

The Government/Contracting Officer reserves the right to determine the acceptability of any off-site storage arrangement and whether such materials are eligible for inclusion in progress payment applications on a case-by-case basis. Approval of off-site stored materials for payment purposes will depend on factors including, but not limited to, the nature and value of the materials, security and accessibility of the storage location, documentation provided, and confirmation that the materials are properly protected and dedicated solely to this contract.

2. Please clarify the required surge protection scope for this contract. Section 264100 requires surge suppression units at every system entrance to the structure and requires the final inspection report to evaluate AC and telco surge suppression. However, the PV/loadcenter and certain system connections appear to be future work. Please identify the required SPD locations under this contract, including whether SPDs are required now for future PV conduits, future loadcenter/inverter connections, communication/low-voltage entrances, or spare conduits. If the future PV/loadcenter and communication systems are not part of this contract, please confirm whether the required LPI-IP or UL lightning protection certification may exclude or defer surge protection for those future systems.

If SPDs are to be included under this contract for certification, what is the intent to have those operational since power is being provided under a separate contract.

Conduits should be provided for future PV load centers and grounding. All electrical in current build will need to be grounded per code.

3. Please confirm whether the lightning protection grounding electrode system may use a copper ground ring with 18" x 18" copper ground plates in lieu of the ground rods specified in Section 260526, provided the installation complies with UL 96A and achieves the specified grounding performance. If ground plates are not acceptable, please confirm that 3/4" x 10' copper-bonded steel ground rods and the 5-ohm maximum resistance requirement remain mandatory at Camp Muir despite the site's remote rock/snow/permafrost conditions.

Any method of lightning protection grounding is acceptable if code compliant.

4. Please clarify the required routing, attachment, and isolation requirements for copper lightning protection conductors where they occur at or near gabion cladding, gabion roof assemblies, steel angle frames, wire mesh cages, galvanized or coated steel components, exterior sheet metal, and Unistrut/future PV support components. If copper conductors may not be installed in direct contact with these materials, please identify the required isolation method, compatible fittings, tinned copper requirements, dielectric separators, or other approved installation details to maintain compliance with Section 264100 and the UL/LPI certification requirements.

Any method maintaining compliance with Section 264100 and the UL/LPI certification requirements.

5. The Electrical Design Narrative requires a UL 217 listed, battery-powered, wirelessly interconnected multi-station smoke alarm system with dual smoke/CO sensing. The product cut sheets identify a residential battery-powered wireless smoke/CO alarm, and the manufacturer's installation guidance indicates use where temperatures normally remain between 40°F and 100°F. Please confirm whether this basis-of-design product is acceptable for the unheated Camp Muir shelter environment. If not, please provide the required temperature rating, listing requirements, and acceptable smoke/CO detection approach.

It is very unlikely that you will find smoke detectors (or any other electronic components for that matter) that are rated for the extreme conditions at Muir. Efforts should be made to spec products that come as close as possible to meeting the required conditions. PV storage batteries and inverters are another example of this.

6. Please clarify whether the required wireless interconnected smoke/CO alarm system must interconnect only within each individual shelter, or whether alarms in Shelter A and Shelter B must communicate with each other as one combined multi-station system. The basis-of-design product literature states that wireless interconnected alarms are not to be used outdoors or to transmit between buildings and that metal objects may interfere with wireless signal performance. If cross-building interconnection is required, please provide the required method and performance criteria.

Each structure should have its own stand-alone interconnected system. Communication between structures is not required or recommended.

7. Specification Section 260526 requires an equipotential grounding plane near the photovoltaic system inverter and includes connection of structural steel, specified grounds, grounds required by the Facility Lightning Protection system design, and other items shown on the drawings. Specification Section 264100 requires common interconnection of grounded systems and bonding of grounded metal bodies located within the calculated bonding distance of the lightning protection system.

The drawings and specifications include several structural and miscellaneous metal assemblies, including but not limited to structural steel framing, gabion baskets/cages, gabion steel framing, metal stairs/landings/grating, steel handrails, Unistrut/future PV mounting components, rebar/rock anchors, and other exposed or concealed metal bodies. The contract documents do not appear to identify which of these components must be bonded to the lightning protection/grounding system, made electrically continuous, or inspected prior to concealment.

Please clarify which structural and miscellaneous metal components are required to be bonded to the lightning protection/grounding system and made electrically continuous under this contract. Please also clarify trade responsibility and required timing for concealed bonding connections, including any bonding that must occur during prefabrication, prior to enclosure, or prior to roof/gabion installation.

By code, any electrically conductive (metal) parts of the structure that are likely to become energized as a result of a fault should be bonded and grounded (NEC 250.4(A)(4)). The following absolutely need to be bonded/grounded: structural steel/metallic framing, anything associated with mounting or supporting PV system components, and any metallic paneling/framing/components that support conduit/cables/fixtures/electrical equipment of any kind. Bonding of any exposed metal stairs, landings, grating, is recommended, and may be required depending on the final construction. The electrical contractor on site should be familiar with grounding-bonding requirements, and decide which additional parts need to be grounded/bonded on a case-by-case basis during construction. Typically, the electrical inspector has the final call and will evaluate for proper bonding/grounding during inspection.

Any rebar or metallic components that are to become encased in concrete or part of the foundation need to be bonded. This would be considered a "concrete encased electrode" and is required to be utilized as part of the grounding electrode system. Any connections that are to be encased or concealed (as part of the foundation or anywhere else in the structure) need to be inspected prior to concealment, as with *all* electrical components. This is a standard "cover inspection" and is the responsibility of the electrical contractor to

coordinate. Any connections that are not permanent (i.e. irreversible crimp or exothermic welding) need to remain accessible after construction for ongoing inspection.

Detailed photos shall be taken of all electrical work to be concealed.

8. The solicitation identifies four required key personnel positions: Project Manager, Job-site Superintendent, Quality Control Manager, and Safety Manager. Section L lists the On-site Safety Specialist as a separately named proposal requirement.

Please confirm whether the Job-site Superintendent is permitted to concurrently serve as the Safety Manager/On-site Safety Specialist under this contract, or whether these must be filled by two separate individuals.

If a dedicated Safety Manager is required as a standalone role, please confirm whether there are any minimum certifications required for that position (e.g., OSHA 30 or equivalent).

Safety Manager to develop and monitor, adapt as needed, the progress of established SSSP at Heli site and Construction site. The Site Superintendent can act as On-site Safety Lead given the remote location and small size of project.

9. The project approach specifically states that helicopter lifting will be limited to medium lift (Bell 205-A or similar). This equates to around a 2,000 lb lift capacity at that elevation. For the bulk of the project, that is no problem. However, if we are limited to an excavator that only weighs 2,000 lbs, the foundation and retaining wall work will be exceedingly challenging. Would it be possible to allow the contractor a single heavy-lift drop-off and pick-up to bring in a larger machine? This would significantly expedite the excavation process.

Heavy lift helicopter use is permitted with short or long-haul line provided the heavy lift begins and ends outside of the park boundaries (e.g., private airstrip, USFS lands), and maintains altitude of 2,000 ft or greater as it passes through the park to preserve NPS requirements related to Endangered Species Act.

The use of a Type 1 helicopter for the insertion/extraction of any heavy equipment is recommended. However, there are additional concerns that need to be discussed (mitigation of down-draft, potential damage to other structures) before any medium or heavy helicopter work is conducted at Muir. Additionally, this project will require extensive coordination/communication with the Park (PAM) to ensure that contracted end-product aviation does not conflict with Park emergency and project aviation resources.

10. In exploring various vendors for the nail-laminated-panels, I've discovered that most manufacturers have switched to dowel laminated panels. Our understanding is that dowel laminated panels are a superior product and are also much more available. Please confirm DLPs will be acceptable in lieu of the specified NLPs.

The product cut sheets are examples of recommended products to use in the construction of this requirement. Contactors are not required to provide the exact product but should be equivalent to or better. As long as materials meet specifications then they can be provided as a material submittal after award for approval.

11. Would the use of a heavy-lift helicopter with an extended long-line length be considered acceptable if the additional line length allows the aircraft to remain farther offset from the work area, sensitive terrain, and personnel, thereby reducing rotor wash effects at the delivery location?

Specifically, would the agency consider whether a heavy-lift aircraft using a longer line could provide equal or reduced site-level rotor wash, environmental disturbance, and operational impact compared to a medium-lift aircraft using a more standard line length, especially if the heavy-lift option also reduces the total number of flight cycles required?

Additionally, our team will utilize certified riggers and qualified flight-support personnel onsite during each day of flight operations to conduct and document pre-flight inspections, rigging verification, safety checklists, communication procedures, and ongoing operational monitoring throughout the workday to help ensure safe and environmentally conscious material delivery operations and adherence to all requested requirements.

Heavy lift helicopter use is permitted with short or long-haul line provided the heavy lift begins and ends outside of the park boundaries (e.g., private airstrip, USFS lands), and maintains altitude of 2,000 ft or greater as it passes through the park to preserve NPS requirements related to Endangered Species Act.

12. Has NPS calculated out a maximum rotor wash that they want to stay within on the mountain? Not only pertaining to heavy duty helicopters but for medium duty helicopters, we can get personalized rigging and a calculated flight plan that ensures we meet expectations of minimalizing effects of the helicopters during the operation.

No calculated maximum rotor wash. Winds are routinely observed in excess of 150mph.