NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
STATEMENT OF WORK (SOW) FOR ROOF AND HVAC REPLACEMENT

1.0 GENERAL

1.1 BACKGROUND

The National Weather Service (NWS) Eastern Region (ER) has a requirement for Roof and HVAC Replacement.

The NWS ER provides critical weather forecasts and warnings for the eastern portion of the United States, including adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. This Weather Forecast Office (WFO) site is used to make timely meteorological observations which aids in this effort. This location operates 24x7 with staffing and critical equipment.

New roof and HVAC equipment installations are necessary to prevent asset failures that could result in downtime, safety issues, and operational shutdowns. Focus is on preventing water intrusion from the exterior and lack of proper cooling to critical electronic equipment.

The existing roofs have a layer of Ethylene-Propylene-Diene-Monomer (EPDM) synthetic rubber membrane atop 4" rigid insulation board, ½" firestop board, and then a vapor barrier. Also, these flat roofs were over-sprayed with an ArmorThane elastomeric spray coating in past attempts to seal leaks.

The existing HVAC equipment to be replaced with brand name or equal specifications are as follows:

Quantity (2): Condensing Units ,12.5-ton cooling capacity (ACU-1, ACU-2)
- TRANE model TTA150E400AA

Quantity (2): Air Handling Units, 10-ton cooling capacity (AC-1, AC-2)
- TRANE model MCC10

Quantity (1): Condensing Unit, 10-ton cooling capacity (ACU-3)
- TRANE model TTA120E400AA

Quantity (1): Air Handling Unit, 6-ton cooling capacity (AC-3)
- TRANE model MCC06

1.2 SCOPE

1.2.1 The scope of work is to replace two (2) existing flat roofing systems with new roofing systems, replace three (3) existing Air Handling Units (AHUs) and three (3) existing Condensing Units with new units of the same capacity, replace all exterior ductwork, clean all interior ductwork, re-balance each HVAC System using a certified air balance company employing TAB certified technician(s), and verify system operation.

Work includes demolition and total removal of approximately 5,760 sq ft of an existing flat roofing system down to the metal deck at the WFO, and approximately 500 sq ft similarly at the adjacent Diesel Driven Generator (DDG)/Storage Building. The existing WFO HVAC equipment will be

replaced in kind with new HVAC equipment. Both buildings will remain completely functional and must be fully protected at all times during the construction work. All ingress/egress to facility and pedestrian walkways must be maintained with overhead protection when construction is occurring at/over these areas. All interior duct cleaning and re-balancing of HVAC systems will be performed within a 24x7 office environment.

The building will remain completely operational with staff during this work. All employees, visitors, building interiors and Government equipment must be fully protected at all times during this construction work.

1.3 OBJECTIVE

The purpose of this contract is to replace existing roofs and HVAC equipment (air handling and condensing units) that are beyond their life expectancy. A planned replacement is necessary to prevent: (a) outside environmental conditions from entering the building per industry standards and (b) overheating of the facility in the event of catastrophic HVAC equipment failure.

The new roofing system must be 100% reliable and warranted by the roofing manufacturer for a minimum of twenty (20) years. The roofing work accounts for roughly 56% of this requirement.

The HVAC work must include new Air Handling and Condensing Units, exterior duct replacements, interior duct cleaning, and rebalancing of the system in order to provide conditioned air to the building per industry standards. The HVAC work accounts for roughly 44% of this requirement.

1.4 APPLICABLE DOCUMENTS

1.4.1 COMPLIANCE DOCUMENTS

The following documents provide specifications, standards, or guidelines that must be complied with in order to meet the requirements of this contract:

29 CFR 1910, Occupational Safety and Health Standards (OSHA) and 29 CFR Part 1926 (Occupational Safety and Health Administration 1970)

NFPA 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations (National Fire Protection Agency 2022)

NFPA 70E, Standard for Electrical Safety in the Workplace (National Fire Protection Agency 2024)

NFPA 780, Standard for the Installation of Lightning Protection Systems (National Fire Protection Agency 2026)

UL 96A, Standard for Installation Requirements for Lightning Protection Systems (Underwriters Laboratories 2023)

National Weather Service Manual 30-4106, Lighting Protection, Grounding, Bonding, Shielding, and Surge Protection Requirements (dated April 25, 2017)

NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems (National Fire Protection Agency 2024)

Procedural Standard for Testing Adjusting and Balancing of Environmental Systems, 9th Edition (National Environmental Balancing Bureau 2019)

SMACNA HVAC Duct Construction Standards – Metal and Flexible, 4th edition, 4th Edition (Sheet Metal and Air Conditioning Contractors' National Association 2020)

SMACNA HVAC Systems Testing, Adjusting & Balancing Manual, 4th Edition (Sheet Metal and Air Conditioning Contractors' National Association 2020)

1.4.2 **REFERENCE DOCUMENTS**

The following documents may be helpful to the contractor in performance of their work:

- ATTACHMENT 1: As-Built Drawings, GSP ○ A complete set of as-builts for the building is provided with this solicitation. ○ The following drawings may be of special interest to offerors:
    - A02, Floor Plans
    - A04, Wall Sections and Details
    - A07, Roof Plan and Details
    - A11, DDG /Storage Building Plan, Elevations and Details
    - E05, Electrical Grounding Plan
    - M02, Plumbing Details and Schedules
    - M04, HVAC Sections and Details
    - S02, Roof Framing Plan
    - S11, DDG Storage Building and Details
    - S15, Antenna Platform Plans, Sections and Details
- ATTACHMENT 2A: Site Photos (Roof & Equipment) ○ Photos showing existing site conditions; view of some typical aspects of the existing roof installation, these do not provide a comprehensive depiction of all as-built conditions.
    - roof access stairs
    - HVAC units
    - HVAC hoods
    - HVAC drains
    - antenna platforms

        - parapet walls
        - lightning protection
        - other roof penetrations

- ATTACHMENT 2B: Site Photos (HVAC) ○ Photos showing existing site conditions; including existing HVAC units & nameplate information.

- ATTACHMENT 3: Safety Data Sheet (SDS) ArmorThane Products ○ ArmorSeal 100 AL Side A SDS
  ○ ArmorSeal 100 AL Side B SDS

- ATTACHMENT 4A: Lightning Protection System (LPS) Specifications ○ original LPS installation details ○ electrical materials and layout
  ○ provided for reference and contractor use

- ATTACHMENT 4B: NWS Manual 30-4106, dated April 25, 2017 ○ Lighting Protection, Grounding, Bonding, Shielding, and Surge Protection Requirements

- ATTACHMENT 4C: UL Lightning Protection Guide ○ Marking and Application

- ATTACHMENT 5: Roof Product Specifications (existing) ○ original roofing products
  ○ approved submittals (dated June 16, 1994)
  ○ provided for reference and contractor use

- ATTACHMENT 6A: Johns Manville (JM) White EPDM NR 60 mil ○ product datasheet

- ATTACHMENT 6B: JM Single Ply Product Reference Guide for EPDM ○ membranes ○ cover boards ○ accessories ○ cleaners ○ adhesives ○ primers ○ sealants
  ○ fasteners

- ATTACHMENT 6C: JM EPDM Accessories Guide ○ general
  ○ peel and stick

- ATTACHMENT 7: JM Peak Advantage, EPDM ○ guarantee requirements

2.0 SPECIFIC REQUIREMENTS AND TASKS

Permits and Responsibilities: The Contractor must, without additional expense to the Government/Client, be responsible for obtaining any necessary licenses and permits, and for

complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor must ensure all required permits are secured, active, and displayed as necessary prior to the commencement of any applicable on-site activities.

The contractor shall provide the Government details on their equipment selection (e.g. cranes, other load handling equipment) at least forty-five days prior to the start of the project to allow for Federal Aviation Administration (FAA) review and approval of the required FAA 7460-1, Notice of Proposed Construction or Alteration.

Payment & Performance Bonds/Liability Insurance: The Contractor must secure and provide executed Performance and Payment Bonds (in accordance with FAR 52.228-15) and a Certificate of Insurance (COI) confirming compliance with all specified liability and coverage limits (in accordance with FAR 52.228-5). These original documents must be submitted to the Contracting Officer for review and approval within ten (10) calendar days after receipt of the Notice of Award.

No on-site work or physical mobilization may occur, and the formal Notice to Proceed (NTP) will not be issued, until all required bonds and insurance certificates are approved by the Government.

Site Visit:

All prospective quoters (PRIME contractors) are REQUIRED to request a site visit to clarify the actual scope of work to be performed under this contract. Failure of a quoter to arrange a site visit must not constitute grounds for a later claim against the Government. A site visit to the location is a requirement in order to respond to this request for quote. Any contractor request for a site visit must be coordinated in advance with the Government by contacting the local point of contact (LPOC) at the WFO, or Sr. FET, Joe Pisel, 631-456-9072, (joe.pisel@noaa.gov).

The contractor is to supply all needed ladders, stepladders, flashlights and any other required miscellaneous equipment during the site visit for their own use.

The contractor must evaluate existing conditions on-site prior to any work being performed. The contractor is to perform a visual inspection of the roofs, all existing roof mounted Heating, Ventilation and Air Conditioning (HVAC) equipment and exterior conduits, roof penetrations, and site conditions prior to the start of work (including submittals and ordering materials); field verification will take precedence over any discrepancy within the Statement of Work. The COR and/or LPOC is to be contacted and briefed prior to starting any work. The contractor is not to make any modifications to Government owned equipment under this contract without advance approvals.

The contractor must provide the labor, tools, supplies, materials, transportation, services, and supervision required to perform all work outlined in this Statement of Work (SOW).

If there are discrepancies in this document, the Contractor must submit a question before the Question deadline identified within the Request for Quote (RFQ).

The contractor must discuss their sequence of work with the COR and LPOC to avoid any disruptions during their planned roofing work.

The Contractor must discuss their sequence of work with the COR and LPOC to ensure when HVAC equipment can be taken off-line and minimize the time this equipment remains off-line. The LPOC will initiate internal notifications to building occupants and those affected by any planned tasks. Only one (1) HVAC system can be worked on at any given time.

The NWS has no designated area to store any hazardous or flammable chemicals used in the course of the contractor's work tasks and these are not to be stored on site.

The contractor must clean up all work areas at the end of each day.

2.1 TASK ONE: PRODUCT SUBMITTALS

2.1.1 Site Verification and Information: The Contractor is solely responsible for obtaining all necessary information during their site visit. Please note that Government-supplied information regarding existing materials is based on as-builts and is provided for informational purposes only. The Contractor must field-verify all details prior to product selection, submittal, ordering, and installation.

2.1.2 Submittal Process: The Contractor must submit all products planned for use to the COR via email. Please ensure the specific product selection is highlighted and clearly shown. The Contractor may not proceed with work or procure materials until the Government has reviewed and approved these submittals. The government will have five (5 days) to review submittals.

2.1.3 Submittal Register: The contractor must prepare and maintain a submittal register and provide a copy to the COR.

2.1.4 Compliance and Risk: Any work performed prior to review is at the Contractor's own risk. If the CO determines that such work does not comply with the contract, the Contractor will be responsible for all costs and time required for remediation. The CO reserves the right to halt work if submittals have not been reviewed and the Government will not be liable for any associated costs or delays.

2.1.5 Deviations: A general review of submittals does not permit departure from contract requirements. The Contractor must identify all deviations or changes in writing. Without such notice, the review will not apply to those deviations.

2.1.6 Safety Data Sheets (SDS): Provide an SDS to the COR and LPOC for all products and chemicals to be used on-site. These will be reviewed and filed by the LPOC in their office.

2.1.7 Pre-Demolition Testing: Prior to any demolition, the Contractor must perform earth resistance testing on the existing lightning protection system (LPS) at all ground ring hand holes with the COR or LPOC present. The building's LPS is designed for an earth resistance <5 ohms. The Contractor must provide a submittal including a diagram of these results in which these readings will serve as a baseline for final testing comparison upon project completion.

2.2 TASK TWO: DEMOLITION

2.2.1 The summary of work as aligned with the Construction Specifications Institute (CSI) MasterFormat Specification Library as follows:

- Demolition of the existing roof system down to the deck per Section 02 41 00 Demolition.
- Repairs per Section 01 73 29 Cutting and Patching.

2.2.2 Removal Details: The Contractor must remove: (a) an existing single-ply flat roof membrane system, underlying insulation, firestop board, vapor barrier, flashing and seals, (b) traffic pads (if present), pitch pockets, and roof-mounted lightning protection cables and air terminals, (c) electrical conduits, conductors, and switches.

- Existing Conditions: The current roof system consists of an

Ethylene-Propylene-Diene-Monomer (EPDM) synthetic rubber membrane over 4" rigid insulation board, a ½" firestop board, and a vapor barrier. Please note that all roof surfaces, equipment, conduits, and HVAC curbs have been over-sprayed with ArmorThane elastomeric spray coating (ArmorSeal 100 AL sides A and B) in past attempts to seal leaks. Detailed information is available in Attachment 3.

- Equipment and Accessories: The Contractor must inspect roof drains, gutters, scuppers and curbs. Remove roof accessories as necessary to complete the new roof installation, replace if damaged. Some accessories might require replacement if it is impractical to re-use due exposure to the ArmorThane coating.
- Components: Remove intake hoods, exhaust fans, and metal equipment screens that surround HVAC units, as necessary in order to complete the work. Store exhaust fans and metal equipment screens for re-use and dispose of intake hoods.
- Electrical: Remove all electrical conduits and conductors, disconnect switches, and service receptacles that are adhered to the roof or encapsulated by the ArmorThane coating. This demolition may require phasing in order to maintain heating or cooling within the building. Temporary electrical circuits may be required to maintain 24x7 building operation. Any planned electrical disconnections that impact the building must be discussed with the COR and/or LPOC in advance of any shutdown. Advance Government approval is required for all shutdowns; there are no exceptions.

2.2.3 Logistics: The contractor must make arrangements for use of their own dumpster. No trash or debris is to be placed into Government trash receptacle(s) or left behind. The Contractor must provide all required rigging and crane services for removal of existing units and exterior ductwork from the roof.

2.2.4 Site Protection: The contractor must supply temporary roof protection for the duration of the project. Schedule work to avoid negative impact from precipitation or severe weather events to maximize the integrity of the roof substrate that will remain. The contractor is responsible for preventing water intrusion and must repair any interior damage "in kind," including corner-to-corner painting.

2.2.5 Reserved.

2.2.6 Phasing Plan: schedule the work to minimize any disruption to the Government. The phasing plan must be provided to the Government for review and approval at least ten (10) business days prior to taking any equipment off-line.

2.2.7 Operations Room: 24x7 cooling, heating, and ventilation must be maintained at all times throughout the phasing period using temporary equipment when necessary.

2.2.8 Electrical Shutdowns: Any planned disconnections must be approved by the COR and/or LPOC in advance (minimum 48 hours notice). Temporary circuits may be required to maintain building operations and or temporary equipment.

2.2.9 Lightning Protection System (LPS): This project requires the temporary removal of lightning protection cables and air terminals from the rooftop and equipment. The contractor is to temporarily remove existing lightning protection cables and air terminals and when applicable store for re-installation after completion of roof and HVAC work. If reinstallation is not possible the contractor must replace them with components that are brand name or equivalent.

2.2.10 Refrigerant: The Contractor must provide proper evacuation and disposal of existing refrigerant per EPA guidelines.

2.2.11 Refrigerant Piping: All existing refrigerant piping to the condensing units must have insulation removed and lines flushed / cleaned. The Contractor must prepare lines for re-charging with new refrigerant.

2.2.12 Disposals: The contractor is responsible for the proper removal and environmental disposal of all existing HVAC equipment: AHU-1, ACU- 2, ACU-3, AC-1, AC-2, AC-3. The Contractor is responsible for transport of all removed roofing materials to a commercial transfer site.

2.3 TASK THREE: HVAC INSTALLATION

2.3.1 Equipment Installation Requirements:

- AHU-1 & AHU-2: Install two (2) new Air Handling Units (10-ton commercial cooling capacity each).
- AC-1 & AC-2: Install (2) two new Condensing Units (12.5-ton commercial cooling capacity each).
- AHU-3: Install one (1) new Air Handling Unit (6-ton commercial cooling capacity). ● AC-3: Install one (1) new Condensing Unit (10-ton commercial cooling capacity).

Contractor is to follow the manufacturer's recommended installation guidelines and procedures for installation and start-up.

2.3.2 Manufacturer: All replacement equipment must be TRANE or an approved equal. All units must be from the same manufacturer; brand mixing is not permitted.

2.3.3 Capacity: Replacement units must have a system capacity identical to existing units.

2.3.4 Logistics: The contractor must make arrangements for use of their own dumpster. No trash or debris is to be placed into Government trash receptacle(s) or left behind. Contractor must provide all required rigging and crane services for installation of new units and exterior ductwork on the roof.

2.3.5 Ductwork: The Contractor must replace all exterior ductwork in kind, matching existing sizes and layouts. Please reference as-built drawings and notify the COR of any field conflicts prior to fabrication. Contractor must reference as-built drawings and field conditions prior to any duct fabrication.

2.3.6 Components: The Contractor must replace existing exhaust fans and relief hoods; reference field conditions and as-builts drawings for dimensions. Re-install metal equipment screens.

2.3.7 Wiring: Contractor is responsible for control wiring to existing VAV’s, thermostats, electric heaters and heater controls or any other parts within the existing ductwork. Wiring and system related parts are to be field verified, and tested fully operational.

2.3.8 Ductwork Cleaning: All interior and exterior ductwork must be cleaned using industry standard methods prior to placing the system on-line.

2.3.9 Refrigerant Piping: The Contractor must provide new insulation and a refrigerant charge for all system piping.

2.3.10 Electrical: The Contractor is responsible for all electrical wiring, rigid galvanized steel conduit (RGS), service disconnects, and new service receptacles. Contractor must replace the existing

electrical service disconnects with new and install new service receptacles. Each unit must have a weatherproof service receptacle available for tool and test equipment use.

2.3.11 Integration: The Contractor must ensure the new equipment is compatible with the existing TRANE Building Management System (BMS) for remote monitoring and system management. This includes software programming and air flow balancing throughout the office per the original design.

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2.3.12 Identification Signs: The Contractor must install an engraved identification plaque on each piece of HVAC equipment. All exterior installations must feature a weatherproof material.

2.3.13 Lightning Protection System (LPS): The Contractor must re-install the existing lightning protection system (air terminals) on the new AHUs. All connections must be made via exothermic welds in accordance with UL96A. Provide a UL Master Label Certificate upon completion. Refer to Attachments 1, 4A, 4B, and 4C for additional details.

Post Installation Testing: After lightning protection system cables, connections, air terminal and component re-installations, the Contractor must confirm earth resistance testing on the LPS at all ground ring hand holes. Perform earth resistance testing (<5 ohms) with the COR and/or LPOC and compare these readings to the baseline readings captured prior to the start of work.

2.4 TASK FOUR: HVAC TEST AND COMMISSION

2.4.1 Duct Leakage Testing: Contractor must pressure test the entire system, including all new and existing ductwork, and check for leakage. This work includes testing of the entire system; all new and existing ductwork. Repair leaks if any are found.

2.4.2 Start-Up: The contractor must perform a new system check and start-up.

2.4.3 Building Management System (BMS): The Contractor must program the BMS for monitoring including software requirements to control remotely.

2.4.4 Air Balancing: The contractor must balance air distribution on the entire system (per original design specifications).

2.4.5 Inspection: The Contractor must schedule the final warranty walkthrough as soon as practical. This meeting should include the COR, LPOC, and the manufacturer's representative. Refer to Section 2.7 for requirements.

2.5 TASK FIVE: ROOF REPAIR AND SURFACE PREPARATION

2.5.1 The summary of work as aligned with the Construction Specifications Institute (CSI) MasterFormat Specification Library as follows:

- Modifications and repairs to metal form deck systems per Section 05 31 23 Steel Roof Deck Repair.
- Standard rough carpentry per Section 06 10 00 Rough Carpentry.

2.5.2 This work includes the total removal of the existing flat roofing system down to the metal deck at the WFO and the adjacent Diesel Driven Generator (DDG)/Storage Building. Replacement will

include minor deck repairs, rough carpentry, and roof insulation (including taper). All associated sheet metal components and accessories necessary for a warranted installation are included in this scope.

2.5.3 Inspection and Substrate Preparation: The contractor must prepare and inspect the metal roof decking, blocking, masonry and Dryvit Exterior Insulation and Finish Systems (EIFS) veneer. Inform the LPOC and/or COR of any damage, corrosion or untreated substrate penetrations. Repairs must be completed using industry-standard methods, such as patching, filling, or partial replacement. Refer to Attachment 5 for details on original substrate materials.

2.6 TASK SIX: ROOF INSTALLATION

2.6.1 The summary of work as aligned with the Construction Specifications Institute (CSI) MasterFormat Specification Library as follows:

- Roof membrane, insulation, membrane flashings, associated components and accessories per Section 07 53 23 EPDM Roofing.
- Sheet metal, components, and accessories per Section 07 60 00 Flashing and Sheet Metal.
- Pre-manufactured accessories per Section 07 72 00 Roof Accessories.
- Replacement of sealant systems per Section 07 92 00 Sealants for Roofing and Sheet Metal.

2.6.2 Material Specifications: The system must be a fully adhered, 60 mil, color white Johns Manville EPDM roofing or equivalent. All components, including membranes, flashing, cleaners, primers, adhesives, sealants and accessories must be compatible and from the same manufacturer. Refer to Attachments 6A, 6B, and 6C for product details.

2.6.3 System Requirements: Provide a new vapor barrier, firestop board, rigid insulation and EPDM system. This must include all flashings, coping, pipe seals, pitch pockets, scuppers, gutters, waterproofing, and drainage components to match existing conditions. Manufacturer-approved traffic pads are required in areas indicated on as-built drawings and in additional high-traffic zones where moderate foot traffic can be expected.

2.6.4 Any standard industry tasks necessary to ensure a waterproof installation are included in this contract, even if not specifically mentioned.

2.6.5 HVAC and Electrical: The Contractor must reinstall or replace any components temporarily removed to facilitate roofing work, including HVAC appurtenances and all electrical conduit, switches, boxes, and connections.

2.6.6 Warranty: All products and installation methods must meet manufacturer standards for a full warranty and guarantee. This requirement takes precedence over other product specifications.

2.6.7 Lightning Protection System (LPS): Install new cables and air terminals to match the existing system, as necessary. Connections to existing components must use exothermic welds in accordance with UL96A. A UL Master Label Certificate is required upon completion. Refer to Attachments 4A, 4B, and 4C for details.

2.6.8 Testing: Perform earth resistance testing at all ground ring hand holes with the COR and/or LPOC to confirm readings are <5 ohms or match pre-project levels.

2.7 TASK SEVEN: HVAC INSPECTION AND GOVERNMENT WALKTHROUGH, MANUFACTURER'S WARRANTY

The following are requirements regarding training, inspections and warranty documentation for the HVAC portion of the project:

2.7.1 Training Requirements: The HVAC contractor is required to provide up to four (4) hours of on-site training for designated NWS personnel covering all newly installed equipment, systems, and software. The date and time must be mutually agreed upon and coordinated through the LPOC prior to scheduling.

2.7.2 Equipment Warranty: The installation includes a (1) one-year parts and labor warranty on AHU units, controls, and wiring, along with a (5) five-year parts and labor warranty on compressors.

2.7.3 Roofing Warranty associated with HVAC curb work: Any portion of the roof affected by the HVAC work is covered by a one-year materials and labor warranty. Additionally, the roofing membrane system carries a (20) twenty-year material warranty. All replacement products must match the existing manufacturer products.

2.8 TASK EIGHT: ROOF INSPECTION, GOVERNMENT WALKTHROUGH and MANUFACTURER'S WARRANTY

The following are requirements regarding inspections and warranty documentation for the roof portion of the project:

2.8.1 Intermittent Inspections: The Contractor must request intermittent inspections, as required by the roof material manufacturer. A Government representative must be present during all such inspections.

2.8.2 Final Walkthrough: As soon as is practical, the contractor must schedule a final warranty walkthrough. This must include the COR and/or LPOC, and manufacturer's representative to ensure the installation meets all contract requirements, industry practices, and manufacturer criteria.

2.8.3 Warranty Requirements: The new roofing systems must include a minimum (20) twenty-year membrane warranty and a (20) twenty-year manufacturer guarantee or equivalent to the JM Peak Advantage Protection Plan which covers material defects and contractor workmanship. This coverage must include a wind rider for 120 MPH winds and a hail rider for up to 2-inch diameter hail. Please refer to Attachment 7 for further details.

2.9 TASK NINE: CLOSEOUT DOCUMENTS

2.9.1 The Contractor must provide documentation for the UL lightning protection system re-certification.

2.9.2 The Contractor must supply one (1) complete electronic soft copy set and two (2) complete hard copy sets of O&M manuals and as-built drawings. One hard copy set to remain with the LPOC; the other hardcopy set and electronic soft copy are to be delivered to:

National Weather Service - Facilities
Eastern Region Headquarters
630 Johnson Avenue, Suite 202
Bohemia, NY 11716

3.0 CONTRACTOR PERSONNEL

3.1 QUALIFIED PERSONNEL

3.1.1 The contractor must provide qualified personnel to perform all of the requirements specified in this SOW.

3.1.2 Roofers must be certified in the application of roofing materials and products by the roof manufacturer. JM products must be installed exclusively by a specialized JM approved roofing contractor.

3.1.3 HVAC technician(s) must have a valid HVAC refrigerant license, formally known as the EPA Section 608 Certification, which is federally mandated for any technician who maintains, services, repairs, or disposes of equipment that could release refrigerants into the atmosphere.

3.1.4 Electrical workers, HVAC Technicians and any other workers on-site must be trained in lockout/tagout (LOTO) procedures.

3.1.5 Field personnel must be trained in OSHA 29 CFR 1910, NFPA 70E, and the proper use of PPE.

3.1.6 Field personnel on-site must be trained in hazard recognition and working around operating equipment.

3.1.7 Field personnel working on the rooftop must be trained on hazard recognition and safety when working near a roof edge.

3.1.8 Only qualified personnel may work on electric circuit parts or equipment that has not been deenergized. NEC 70 defines “qualified person” as one who has skills and knowledge related to the construction and operation of the electrical equipment and installations and received safety training to recognize and avoid hazards involved. The qualified personnel must be properly trained regarding working safely on energized circuits and must be familiar with the proper use of special precautionary techniques, personal protective equipment (PPE), insulating and shielding materials and insulated tools as stated in 29 CFR 1910.333(c)(2).

3.1.9 All work must be performed and completed in a workmanship-like manner and in accordance with the latest proven practices of the trade by thoroughly skilled and experienced workers.

3.2 PROJECT MANAGER

3.2.1 The contractor must provide a one (1) Project Manager who must be responsible for all contractor work performed under this SOW.

3.2.2 The Project Manager must be a single point of contact for the Contracting Officer (CO) and the Contracting Officer Representative (COR). The name of the Project Manager, and the name(s) of any alternate(s) who must act for the contractor in the absence of the Project Manager, must be provided to the Government as part of the contractor's proposal. The Project Manager and all designated alternates must be able to read, write, speak and understand English. Additionally, the contractor must not replace the Project Manager without prior approval from the CO.

3.2.3 The Project Manager must be available to the COR via telephone between the hours of 8:00 a.m. and 5:00 p.m. EST, Monday through Friday, and must respond to a request for discussion or resolution of any technical problems within two (2) hours of notification.

3.3 EMPLOYEE IDENTIFICATION

3.3.1 Contractor employees visiting Government facilities must wear a Company identification badge that, at a minimum, displays the contractor's name, the employee's photo, the employee's name, and badge expiration date. Contractor employees must comply with all Government escort rules and requirements. All contractor employees must identify themselves as contractor employees when their status is not readily apparent and must display all identification and visitor badges in plain view above the waist at all times.

3.3.2 Contractors must sign in and out of each location upon their arrival and departure daily.

3.4 EMPLOYEE CONDUCT

3.4.1 The contractor's employees must comply with all applicable Government regulations, policies, and procedures (e.g., fire, safety, sanitation, environmental protection, security, "off limits" areas, etc.) when visiting or working at Government facilities. The Project Manager must ensure contractor employees understand and abide by Department of Commerce (DOC) established rules, regulations and policies concerning safety and security.

3.5 REMOVING EMPLOYEES FOR MISCONDUCT OR SECURITY REASONS

3.5.1 The Government may, at its sole discretion (in coordination with the CO where practical), direct the contractor to remove any contractor employee from DOC facilities for misconduct or security reasons. Removal does not relieve the contractor of the responsibility to continue providing the services required under the contract. The CO will provide the contractor with a written explanation to support any request to remove an employee.

3.6 Davis-Bacon Act

3.6.1 This project is strictly subject to the Davis-Bacon Act (FAR 52.222-6). The Contractor and all subcontractors must pay all mechanics and laborers prevailing wages and benefits in accordance with the applicable Department of Labor (DOL) Wage Determination incorporated into this contract. The Contractor is required to submit weekly certified payroll records (using Form WH-347 or equivalent) to the Contracting Officer's Representative (COR) for all weeks in which contract work is performed.

4.0 OTHER APPLICABLE CONDITIONS

4.1 GOVERNMENT POINT OF CONTACT (POCs)

4.1.1 Name(s) of the Contracting Officer's Representative (COR) and Local Point of Contact (LPOC).

Point of Contact (POC) List

- LPOC at the WFO,
    - Electronics Systems Analyst (ESA), Joe Figueiredo 864-848-9970, X228, (joseph.figueiredo@noaa.gov)
- Sr. FET, Joe Pisel, 631-456-9072, (joe.pisel@noaa.gov)

4.1.2 The LPOC is assigned for site access, escort, and face to face coordination only. All contract related questions, interpretations, project coordination, technical interaction and direction must be through the COR and CO only.

4.2 PERIOD OF PERFORMANCE

The period of performance for this contract must not exceed 365 calendar days from the date of issuance of Notice to Proceed (NTP) by the Contracting Officer (CO). The Government must provide approval of the contractor's proposed construction schedule (submitted with their quote) prior to the issuance of the NTP.

4.3 PLACE OF PERFORMANCE

4.3.1 The primary place of performance will be at a Department of Commerce location.

4.3.2 The selected location and address of the Weather Forecast Office under this contract is as follows:

- National Weather Service Greenville-Spartanburg, SC
  Weather Forecast Office **(GSP)**
  1549 GSP Drive
  Greer, SC 29651

Note: this building is located on the public access grounds of the Greenville-Spartanburg International Airport.

4.4 HOURS OF OPERATION

4.4.1 Contractor employees must generally perform all work between the hours of 8:00 AM and 5:00 PM EST, Monday through Friday (except Federal holidays) unless otherwise approved by the CO, COR or LPOC. Weekend work may be considered due to inclement weather or expedience/completion of tasks on a case-by-case basis.

4.4.2 Any off-hour work must be requested at least forty-eight (48) hours in advance, not counting weekends.

4.4.3 Contractor is to plan all tasks with weather forecasts in mind; do not expose the interior of the building to water intrusion from the exterior. Start/Stop of roofing tasks must be planned between the hours of 8:00 AM and 5:00 PM EST. Do not start work that cannot be finished within this window. Any exceptions must be approved in advance.

4.5 FEDERAL HOLIDAY SCHEDULE

Contractor agrees to observe all Federal Holidays, and any other day off work designated by Federal Statute, Executive Order, or Presidential Proclamation.

4.6 PROJECT PLAN & SCHEDULE

4.6.1 The contractor must provide a draft Project Plan & Schedule at the Post Award Conference for Government review and initial comment. The contractor must provide a final Project Plan & Schedule to the COR no later than thirty (30) business days after Post Award Conference.

4.6.2 All notifications pertaining to a contractor's visit must be approved by the Government in advance of their visit. The contractor must confirm a site inspection date a minimum of three (3) business days prior to the start of construction with the Sr. FET and/or LPOC.

4.6.3 Inclement weather in the forecast could necessitate a delay in start of work in order to ensure continuity of weather forecasting operations at DOC/NOAA/NWS.

4.6.4 Unplanned utility disruptions to commercial power and other NWS operational issues could delay start of work; loss of commercial power and/or if the building is being supplied by emergency power generation.

4.6.5 The generator is located in the DDG/Storage Building and is scheduled to exercise on a weekly schedule. Contractor must discuss with the LPOC and coordinate work outside of this time frame.

4.7 POST AWARD CONFERENCE

4.7.1 The contractor must attend a Post Award Conference with the CO and COR no later than thirty (30) calendar days after the date of award. The purpose of the Post Award Conference (chaired by the Contracting Officer) is to discuss technical and contracting objectives of this contract and review the contractor's draft project plan. The Post Award Conference will be held via a teleconference.

4.8 SITE COMPLETION: PROGRESS UPDATES, FIELD ACTIVITY REPORTS, PHOTOGRAPHS

4.8.1 The contractor must issue to the COR and LPOC a brief daily verbal progress update (prior to leaving the site) summarizing all work performed and identification of any critical issues before leaving the customer site. Contractor must also note any environmental concerns and off-line equipment.

4.8.2 The contractor must issue a written Weekly Field Activity Report (signed typewritten report on company letterhead) listing status of each piece of equipment, site conditions, tasks completed, and percent completion of the project, along with any applicable notes and observations to the COR within three (3) business days. These must include ten (10) photos representative of the completed work.

4.8.3 At the completion of all daily field work, the contractor must remove from the area all trash, rubbish, packing material, and debris caused by its operations, leaving the job site clean.

4.8.4 **Notification of Delays:** The Contractor must notify both the Contracting Officer (CO) and the Contracting Officer's Representative (COR) via email immediately, and in no event later than twenty-four (24) hours, upon identifying any actual or potential project delay. This written notification must detail the cause of the delay, the specific impact on the project schedule, and proposed mitigation steps.

Timely email notification to both the CO and COR is a strict condition precedent to any request for an extension of time or an equitable adjustment. Failure by the Contractor to provide such immediate email notification must constitute an absolute waiver of the Contractor's right to seek an extension of performance, additional compensation, or an equitable adjustment at a later date. The Contractor must remain solely responsible for all impacts and costs resulting from uncommunicated delays.

4.9 PROGRESS REPORTS

4.9.1 The Project Manager must provide a Monthly Progress Report to the COR via electronic mail within three (3) business days after the following month's work. This report must include: (1) a summary of all contractor work performed, (2) schedule status, (3) an updated project schedule against original milestones, (4) an assessment of technical progress, and (5) any contractor concerns or recommendations. The final progress report must include, at minimum, ten (10) photos representative of the completed project. This applies to both the ROOF & HVAC portions of this project.

4.10 ACCIDENT PREVENTION

4.10.1 Site Safety

- Any worker injuries must be brought to the attention of the COR and LPOC immediately.
- Workers must deposit soiled solvent cleaning rags and waste materials in metal containers approved for that purpose; dispose of such items off-site at end of each day's work.
- Contractor must apply lockout/tagout (LOTO) procedures to the equipment's power source when applicable.
- Contractor must not release refrigerant into the atmosphere.
- Contractor tools that exhaust fumes cannot be located near building intakes while in use. ● Storage containers containing fuel cannot be used or left on the roof deck.
- The contractor must provide and maintain work environments and procedures which will:
    - Safeguard the public and Government personnel, property, materials, supplies and equipment exposed to contractor operations and activities.
    - Utilize appropriate safety barricades and signage.
    - All work, including the demolition of the existing membrane with ArmorThane elastomeric spray coating must be performed utilizing proper safety precautions.

4.10.2 Contractor's Accident Prevention Plan, including the Activity Hazard Analysis (AHA) is to include analyses of the potential impact of inspection, and maintenance and repair work on their personnel and on others involved in and adjacent to the work zone.

5.0 GOVERNMENT TERMS & DEFINITIONS

CFR	Code of Federal Regulations
CO	Contracting Officer
COR	Contracting Officer's Representative
DOC	Department of Commerce
EPA	Environmental Protection Agency
ER	Eastern Region
LOTO	Lockout/Tagout
LPOC	Local Point of Contact
NEXRAD	Next Generation Weather Radar
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
OEM	Original Equipment Manufacturer
P/N	Part Number
POC	Point of Contact

RDA	Radar Acquisition Data
RADAR	Radio Detection and Ranging
SDS	Safety Data Sheet
SOW	Statement of Work
TPMS	Transition Power Maintenance Shelter
TPOC	Technical Point of Contact
WFO	Weather Forecast Office

6.0 GOVERNMENT FURNISHED RESOURCES

6.0.1 The Government will provide the contractor with access to the job site as necessary for performance of the work.

6.0.2 The Government will provide the contractor with electrical outlets for power tools use.

6.0.3 The Government will provide the contractor with any known system deficiencies prior to the site visit.

7.0 CONTRACTOR FURNISHED PROPERTY

7.0.1 The contractor must furnish all materials, equipment, and services necessary to fulfill the requirements of this contract.

7.0.2 The contractor must provide and service a portable restroom rental services for their work crews.

7.0.3 Contractor tools that exhaust fumes cannot be located near building intakes while in use.

7.0.4 Storage containers containing fuel cannot be used or left on the roof deck.

7.0.5 The contractor must make arrangements for delivery, use, and removal of their own dumpster(s).

- The NWS WFO on-site trash dumpster must **NOT** be used by the contractor for the disposal of any construction debris.

8.0 GOVERNMENT ACCEPTANCE PERIOD

8.0.1 The COR will review deliverables prior to acceptance and provide the Contractor with notification via electronic mail that provides documented reasons for non-acceptance.

8.0.2 The COR will have the right to reject or require correction of any deficiencies found in the deliverables that are contrary to the information contained in the contractor's accepted proposal. In the event of a rejected deliverable, the contractor will be notified in writing by the CO of the specific reasons for rejection.

8.0.3 The COR will have three (3) business days to review deliverables and make comments. The contractor must have seven (7) business days to make corrections and re-deliver.

9.0 DELIVERABLES

9.0.1 The contractor must leave worksite(s) in a clean condition.

9.0.2 The Project Manager must provide deliverable(s) and/or report(s) to the CO and COR via electronic mail.

9.0.3 This report must include a summary of all contractor work performed and any contractor concerns or recommendations. Contractor must consider items in **BOLD** as having mandatory due dates.

9.0.4 The Deliverables Table lists important milestones and response times requiring contractor action on this contract. This is inclusive of each work location. Contractor must consider items in **BOLD** as having mandatory due dates.

Table 1: Project Deliverables (Management & Milestones)

This table tracks the project management lifecycle, scheduling, reporting, and final closeout handoffs.

Item	SOW Ref	Deliverable / Event	Description & Requirements	Due By / Frequency	Distribution
0	2.0	**Payment & Performance Bonds/Liability Insurance**	Please see FAR 52.228-15 and FAR 52.228-5. All required bonds and insurance certificates must be approved before any on-site work can occur.	Submitted to CO for review/approval within 10 days after receipt of award	CO
1	4.6 / 4.7	**Draft Project Plan & Schedule**	Initial draft tracking sequence of work, construction schedule, and planned outages for review.	At the Post Award Conference (Within 30 calendar days after date of award)	COR, CO
2	4.6	**Final Project Plan & Schedule**	Final baseline plan incorporating Government feedback and finalized construction timeline.	Within thirty (30) business days after Post Award Conference	COR, CO

3	2.2.6	**Phasing Plan**	Detailed schedule of how 24x7 cooling/heating will remain online using temporary circuits/equipment.	At least ten (10) business days prior to taking any equipment offline	COR, LPOC
4	3.6.1	**Payrolls**	Payrolls to be submitted in accordance with Davis Bacon Act 52.222-6	Weekly	COR, CO
5	4.8	**Site Completion Update**	Brief daily verbal progress summary, critical issue highlights, environmental concerns, and offline equipment status.	Daily: Before leaving the site	COR, LPOC
6	4.8	**Site Completion Field Activity Report**	Signed typewritten report on letterhead tracking equipment status, site conditions, tasks completed, and 10 representative photos.	Weekly: Within three (3) business days after the following week's work	COR, LPOC
7	4.9	**Progress Reports**	Monthly report containing a summary of work, schedule/milestone tracking, technical progress assessment, and 10+ photos.	Monthly: Within three (3) business days after the following month's work	COR, CO
8	2.7 / 2.8	**Manufacturer's Warranty**	Coordination of punch list, acceptance verification, and	As identified in the	COR
		Inspection & Walkthrough	joint walkthrough with the manufacturer's representative.	Project Schedule	

9	2.7 / 2.8 / 2.9	**Closeout Documents**	20-year roof membrane warranty/guarantee, 5-year compressor warranty, 1-year parts/labor HVAC warranty, and As-Built drawings.	Upon final project acceptance and inspection walkthrough	COR (1 electronic soft copy + 2 hard copies distributed to Facilities HQ & LPOC)

Table 2: Technical Product Submittals

This table explicitly itemizes all technical equipment, materials, test results, and safety data that require review and approval before work or procurement begins.

Item	SOW Ref	Technical Submittal	Explicit Materials & Requirements Included	Due By / Frequency	Government Action
1	2.1 / 2.6	**Roofing System Product Data**	Highlighted manufacturer specifications for: • EPDM membranes (60 mil white) • Insulation (including taper layout) • Fasteners • Adhesives • Underlayments • Pitch pockets • Traffic pads	Prior to ordering materials or beginning installation	Review and Approval (5-day turnaround)
2	2.1 / 2.3	**HVAC Equipment & Component**	Highlighted manufacturer specifications for: • HVAC curbs	Prior to ordering materials or beginning	Review and Approval (5-day

		Data	• Condensing units (12.5-ton and 10-ton) • Air handling units (10-ton and 6-ton) • Ductwork • Refrigerant lines • Insulation • Electrical disconnect switches • Conduit and conductors	installation	turnaround)
3	2.1.6	**Safety Data Sheets (SDS)**	Complete chemical and material listings for all roofing adhesives, primers, sealants, cleaners, and HVAC refrigerants used on site.	Prior to bringing any chemicals or materials on site	Review and filed by LPOC
4	2.1.7	**Pre-Demolition LPS Test Results**	Earth resistance testing baseline diagrams (<5 ohms) recorded at all ground ring hand holes with the COR/LPOC present.	Prior to any demolition work	Baseline Verification & Review
5	2.3.13 / 2.4	**Testing, Adjusting, & Balancing (TAB) Report**	Independent, certified air/water balance report demonstrating complete system performance per original design specs.	Within 5 days of system startup / testing	QA Review & Technical Acceptance
6	2.4.1	**Duct Leakage Test Results**	Pressure test documentation for the entire system (all new and existing ductwork) proving leak remediation.	Prior to placing the systems fully online	Verification & Review

7	2.3.13 / 2.6.7	**UL Lightning Protection Recertification**	Documentation of post-installation earth resistance testing and the final UL Master Label Certificate.	Upon completion of roof and HVAC system work	Final Closeout Review

***** END *****