Statement of Work

NIEHS Campus Roof Full Replacement, Restoration, Maintenance, and Repair Services

Date: May 13, 2020

1) BACKGROUND:

The National Institutes of Health (NIH) is the steward of medical and behavioral research for the Nation. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability. The mission of the National Institute of Environmental Health Sciences (NIEHS) is to discover how the environment affects people, in order to promote healthier lives.

2) OBJECTIVE:

The purpose of this statement of work is to define the requirements and procedures of a building roof replacement, restoration, and leak repair management program for the NIEHS campus. The Contractor is responsible to become familiar with the NIEHS campus, contract requirements and demonstrate the ability to assume the responsibility for the maintenance and repair of:

Approximately 1.75 million square feet of roofing area at NIEHS.

In addition to the maintenance functions described within this SOW, the Contractor must demonstrate the ability to perform and accept responsibility as the design-build general contractor for task orders for roof replacements, restorations, and maintenance activities.

3) DEFINITIONS

The following list provides definitions for terms found throughout this document.

100% Project Supervision: The Contractor shall provide a full-time employee present on site to documents and provide daily reports with photos.

20-Year Leak Free Performance: The NIH shifts all responsibility for the performance of the roof assembly to the manufacturer for the entire 20 (twenty) year warranty (including labor and materials) and shall provide the following at no additional cost to the Federal Government.

a. Project design, specifications, and drawings
b. Structured maintenance and repair program
c. Two (2) hour leak response program
d. Twenty-four (24) hour emergency call center

e. Twice annual inspection, housekeeping, and preventative maintenance program
f. Documented leak tracking report
g. Yearly computer-generated condition assessment and analysis

Accountability: A responsibility through all facets of construction management and the execution of the project with all financial risk throughout the project and warranty period borne by the Contractor.

Annual: Once per calendar year.

Defect: Each instance of noncompliance with a contract requirement. A defect may be caused by either nonperformance or poor performance. Each defect is subject to reperformance or deductions as described hereinafter.

Government: Federal Government, including NIH.

Government Representative: Any representative of the Government acting on behalf of the Government as assigned in various capacities including but not limited to the Contract Officer (CO), Contract Officer Representative (COR), Administrative Officer, Authority Having Jurisdiction, and persons performing other Government activities who are either Government employees or contracted employees not of this contract.

Hazardous Materials: The Code of Federal Regulations (CFR 49) identified hazardous materials as a substance or material that the Secretary of Transportation has determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce. This is expanded to include items of supply (substances or material) that, because of its quantity, concentration, physical, chemical, or infection characteristics, may either cause of significantly contribute to serious, irreversible, incapacitating illness or an increase in mortality. Hazardous materials may also pose an environmental threat when improperly treated, stored, transported, disposed of, or otherwise managed.

Industry Standards: Practices, procedures, or standards that are common within an industry or trade and which a reasonable and prudent person knowledgeable of that industry or trade would find acceptable as a measure of quality or acceptable procedure and which may or may not be defined in writing. May also be referred to as "standard industry procedures."

Inspection: The examination of a part to determine if it conforms to specifications.

Maintenance: Includes preventive maintenance and repair of equipment and systems.

Manufacturers' Recommendations and Standards: Procedures recommended by the manufacturer of an item of equipment or material, conformance with which shall provide the most effective maintenance or best use of the item, and which shall preserve warranty rights, if available.

Monthly: Once per calendar month, approximately thirty (30) days apart.

Manufacturer's Warranty: The warranty for the project must include material and labor. Responsibility for any roof system failure (due to either materials or installation workmanship) shall be borne by the manufacturer.

Performance Warranty: The warranty provides for a leak-free environment for the twenty (20) year warranty period as described in the SOW.

Product Data: Manufacturer's standard schematic drawings, catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, or other standard printer or electronic information on materials, products, and systems.

Contract Officer Representative: An individual designated and authorized in writing by the CO to perform specific technical or administrative functions. (see Contract Section G)

Quality Assurance: The functions and associated actions performed by the Government to ensure that contract requirements are performed in accordance with specified standards and that an appropriate level of Contractor quality control activities are in place and operational.

Quality Assurance Surveillance Plan: The plan used by the Government to ensure compliance with the contract.

Quality Control: Internal Contractor management functions that include, but are not limited to, training, documented procedures, inspections, and tests (taken at the point of performance) to ensure that Contractor products and services conform to SOW requirements, specifications, and standards.

Quarterly: Once every three calendar months, approximately one-hundred twenty-two (122) days apart.

Repair: The work required to restore a system, or component thereof, including collateral equipment, to a condition substantially equivalent to its originally intended and designed capacity, efficiency, or capability. It includes the substantially equivalent replacements of systems and collateral equipment necessitated by incipient or actual breakdown.

Replacement: To provide a substitute or equivalent in the place of.

Sample: Consists of one or more service outputs drawn from a lot, the outputs being chosen at random. The number of outputs in the sample is the sample size.

Semi-Annual: Once every six calendar months, approximately one-hundred eighty-three (183) days apart.

Service Provider Furnished Property: All property and supplies other than Government Furnished Property required to perform the specified services of this ward.

Shall (or must): The use of either of these words specifies that the provision is binding and requires compliance.

Solvent Free: All materials provided are either identified as "solvent free" or "water based". Low volatile organic compound materials are not acceptable.

Standard: An acknowledged measure of comparison.

Surveillance: Inspection and documentation regarding delivery of contract services as measured against the contract specifications.

Turn-Key: Design-build removal and replacement of the designated roof systems as indicated in the SOW. The Government identifies the roofing area and expects the Contractor to prepare specifications and drawings, contract labor force, provide full-time project supervision, provide twenty (20) year leak free warranty, and a structured twenty (20) year maintenance program at the completion of project.

4) **GOVERNING DIRECTIVES:** The publications listed below form the basis for the remediation work under this contract. Additional references may be identified as required in the task orders. Work done under individual Task Orders shall utilize the latest issue of the publication dated at the time of the Task Order award. When a required publication is not referenced in this list or the task order, the Contractor shall utilize one that has national applications. Where conflicts arise between publications, the most stringent shall apply.

29 CFR	Occupational Safety And Health Administration Regulations, all sections
29 CFR 1910.1001	Asbestos
29 CFR 1910.1025	General Industry Lead Standards
29 CFR 1910.1200	Hazard Communications
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specification for Accident Prevention Signs and Tags
29 CFR 1910.2	Definitions
29 CFR 1926.103	Respiratory Protection
29 CFR 1926.1101	Asbestos
29 CFR 1926.200	Accident Prevention Signs and Tags
29 CFR 1926.51	Sanitation
29 CFR 1926.59	Hazard Communication
91-596	Occupational Safety And Health Act
NFPA 1	Fire Prevention Code

NFPA 51B	Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 55	Standard for the Storage, Use, and Handling of Compressed and Liquefied Gases in Portable Cylinders
NFPA 70	National Electrical Code
NFPA 79	Electrical Standard for Industrial Machinery
NRCA	National Roofing Contractors Association
SMACNA	Sheet-Metal and Air-Conditioning National Association
UFGS	Unified Facilities Guide Specifications

5) PLACE OF PERFORMANCE: This contract will be performed at the NIEHS campus in Research Triangle Park, NC.

6) SECURITY

a) The Contractor shall comply with NIEHS campus security and access policy, guidelines, and regulations as listed at https://www.niehs.nih.gov/about/visiting/index.cfm.

b) **Contractor Security Plan**
The Contractor shall develop and submit for approval a site-specific Contractor Security Plan. The plan shall encompass the most current administrative, physical, and operational security requirements for all personal and subcontractors performing work under this Contract as directed by the NIEHS Operations and Securities Branch.

c) **Worker Access**
Employees of contractors will be issued NIEHS identification badges depending on the nature of their work. Badge access and restrictions are dependent on the responsibilities of the worker and their anticipated length of involvement with the contract.

d) **Management Personnel**
Complete Standard Form 85P ("Long Form") questionnaire and other assorted forms for the NIH security and background check. This badge is required at minimum for the Security Manager and other personnel with direct senior level management responsibilities for the contract.

e) **Permanent Worker Access**
Complete Standard Form HHS745 ("Short Form") questionnaire and other assorted forms for the NIH security and background check. This badge is required for all employees and subcontractor employees who will be working on site for an extended period of time.

f) **Temporary or New Workers**
Anyone visiting the NIEHS campus or its leased facilities who does not have a NIH/NIEHS identification badge must follow the procedures for Visitor Access and obtain a temporary access badge each day on site.

g) **Visitor Access**
A copy of the most current NIEHS Visitor Access Policy information will be provided at the Post Award Conference for incorporation into the site-specific Contractor Security Plan. At minimum visitors must meet the following criteria to access the NIEHS campus and leased facilities.

1. The visit must be official, and the visitor must be able to identify its purpose
2. The visit should be expected and approved by an NIEHS "host," which can be anyone working onsite with an NIEHS badge (e.g. federal employee, contractor, IRTA fellow, student, etc.)
3. The "host" employee must register visitors with security at https://apps.niehs.nih.gov/visitor/home.cfm (preferably 2 hours prior to the visit) with: the name of the visitor, the date and time that the visitor is expected and a phone number where the host (or an alternate point of contact) can be reached
4. The visitor must be prepared to show a current (i.e., not expired) photo identification at the security checkpoint at the front gate and at the time of sign-in at the security desk at the main building entrance
5. Visitors will be required to sign-in and will be issued a temporary badge which they must display prominently on their person during their visit, and will be required to sign-out and return the temporary badge as they leave the building
6. Visitors will be required to undergo a screening at the security desk at the entrance to the building, similar to that which occurs at airports, and may take up to 10-15 minutes if there is a long line of visitors
7. The NIEHS "host" must meet the visitor at the building main lobby and escort the visitor within NIEHS buildings including to and from any meeting location(s) (with the exception of the Rodbell conference center and the executive dining room for special events—see below)
8. Visitors to the NIEHS cafeteria require an NIEHS host
9. Any visitor driving a vehicle onto the NIEHS campus is required to have a valid U.S. driver's license

h) **Photo Identification (ID) Requirements**
An acceptable form of ID includes one of the following current (i.e. not expired) documents.
1. U.S. Passport
2. U.S. Driver's license or ID card
3. U.S. Military card
4. Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
5. Foreign passport
6. Employment Authorization Document that contains a photograph
7. School ID card with a photograph

7) **PUBLIC AFFAIRS:** The Contractor shall not publicly disclose any data generated or reviewed under this contract. The Contractor shall refer all requests for information concerning site conditions to the Contracting Officer or Administration Contracting Officer for comment. Press releases will be reviewed and approved by the government prior to release.

8) **CLOSURES**

a) U.S. Department of Homeland Security Threat Advisory RED

b) For inclement weather closings at NIEHS Campus, the Contractor shall follow NIEHS guidance at the following: https://www.niehs.nih.gov/.

c) The Contractor is required to provide personnel, materials, and equipment at all times to ensure uninterrupted service to the facility. Contractor personnel shall be considered to be essential personnel. Essential Contractor personnel to maintain campus infrastructure at the NIEHS campus.

9) **MAINTENANCE TASKS:** The Contractor shall establish and maintain a Maintenance and Repair program as described below. The Maintenance and Repair program consists of at minimum a Project Manager meeting the requirements specified in the Task Order Requirements. The Contractor shall provide an annual firm fixed price fee for the base period and each option year.

a) ROOF DATABASE MANAGEMENT SYSTEM (MyOLI)
The Contractor shall provide and maintain a comprehensive Roof Analysis Report on the roofs' construction, conditions, recommendations, etc. in both color hard copy and electronic formats for use as a database management tool and historical mechanism for repair and replacement activities.

The report shall include at least the following: roof construction, roof conditions (including flashings), description, number and condition of all projections, roof drawings in Autodesk AutoCad (CAD) .dwg file format and PDF file format, repair, restore or replacement recommendations with budget summaries and degrees of urgency, digitized photographs, detail drawings including all projections, scanned-in warranties, data from any infrared scan, core testing, roof tensile test, wind uplift test and any data provided to the Contractor as a result of previous surveys and reports. The report shall also include the identification and detailed explanation of repairs and replacements performed to various roof levels at the NIH.

This database shall be updated semiannually reflecting the results of the most recent maintenance visit, repair activities, leak responses, any major roof repairs, and roof level replacements.

b) ROOF PREVENTATIVE MAINTENANCE PROGRAM
The Contractor shall provide a roof preventive maintenance program that includes the following minimum components:

1. General roof housekeeping program.

2. Annual inspection of roof tie-off systems.

3. Semi-annual roof inspection and condition assessment.
   (a) Visual inspection of the roof membrane and roof surface conditions shall be performed once per year on all roof services and a condition report documented with photographs in the Roof Analysis Report.

   (b) Inspection of the flashing systems shall include: the metal edges, base flashings on equipment, and adjoining walls, counter-flashings and terminations details, soil-stacks and vents, and inspection of roof- top projections and equipment including, pitch pans, heating ventilating and air-conditioning equipment, sky lights and access hatches.

   (c) An evaluation of the individual roof section condition shall be performed, and this information provided within the Roof Analysis Report.

   (d) An infrared scan of the roof membrane and roof surface shall be performed once per year on all roof services and a condition report documented in the Roof Analysis Report.

4. Preventative maintenance shall include at least the following:
   (a) Metal edge flashing components shall be repaired with appropriate repair mastics and membranes.

   (b) Tears, splits and breaks in the membrane flashings shall be repaired with appropriate repair mastics and membranes.

   (c) Open split flashing strip-ins shall be repaired with appropriate repair mastics and membranes.

   (d) Unsecured equipment shall be secured.

   (e) Exposed fasteners shall be sealed.

   (f) Termination bar and counter-flashes shall be sealed.

   (g) Tears, breaks and splits in the roofing membrane shall be sealed with appropriate repair mastics and membranes.

(h) Splits and blisters, which threaten the roof integrity, shall be cleaned, primed and repaired with appropriate repair mastics and membranes.

(i) Metal projections (hoods and clamps) shall be sealed.

(j) Incidental debris (i.e., leaves, branches, paper, and similar items) shall be removed from the roof membrane, gutters, down-spouts, and scuppers. The Contractor is responsible to ensure that there is proper discharge through the under-ground leaders to the storm drains where applicable.

(k) In the event the underground roof leaders are blocked or clogged, the Contractor shall notify the COR prior to providing plumbing assistance to clear the debris.

(l) All debris shall be transported and properly disposed in an approved landfill.

c) ROOF LEAK RESPONSE AND REPAIR PROGRAM

1. The Contractor shall provide a (24/7, 365 days/year) toll-free phone number where leaks can be reported as "emergency repairs".

2. All work performed under this section of the contract shall conform to the following sequence:

(a) NIH representatives shall notify the Contractor and provide a location of roof repair and a brief description of the leak.

(b) The Contractor shall respond within two (2) hours after notification of the leak to either:
(i) Immediately repair the leak or
(ii) Secure the area from further leakage, diagnosis the problem, and coordinate with the COR an acceptable repair schedule.

(c) At the conclusion of the repair response the Contractor shall provide the COR a written report of the work performed or diagnosis of the problem.

3. Exclusions
The following are exclusions from the Roof Leak Response Program and considered “major repairs” or “upgrades and restorations”:

(a) “Major repairs” are defined as repairs requiring more than 32 man-hours and $1,500 materials to complete.

(b) The cost of repairs above the 32 man-hours and $1,500 material threshold are excluded from the Contractor's responsibility under the annual fee program. Any repair estimated to exceed these limits shall be accompanied by a detailed

firm-fixed price proposal of the repair to the CO. The CO will generate a task order and a separate payment schedule shall be utilized for payment.

(c) "Upgrades or restorations" of the existing roof system are excluded from the maintenance portion of this agreement. Upgrades or restoration differ from maintenance in that maintenance or repair is designed to keep the roof in its current condition and upgrades or restoration are designed to improve the condition of the roof. Upgrades or restorations will be submitted by the Contractor with a detailed proposal and documented by digital photographs. The CO will generator a task order and separate payment schedule for approved upgrades or restorations.

4. Leak Repair Warranty
   The Contractor is required to provide a one (1) year workmanship guarantee for all areas repaired under the leak response and repair program.

10) TASK ORDER REQUIREMENTS

a) GENERAL

1. Replacement, restorations, and repairs will be included under this indefinite delivery indefinite quantity contract.

2. Roof types other than those listed below may be included in individual Task Orders. Drawings and task order-specific specifications may accompany individual Task Orders, providing details for execution of the required work.

3. Before commencing any project, the Contractor shall prepare a detailed cost estimate for CO approval with a breakdown for labor, material and equipment. The Contractor shall not begin work without a notice-to-proceed from the CO.

b) TASK ORDER MANAGEMENT

1. Staffing Approvals
   (a) The Contractor shall maintain a management staff with comparable ability and experience to the staff listed in the management proposal. Any changes in the proposed and accepted management staff must be reviewed and approved by the Contracting Officer prior to making the change. A request for a change to the approved staff must be submitted in writing. A current qualification statement, and reason for changing the personnel, shall be included in the request for approval.

   (b) Resumes that have been previously submitted to the Government need not be a part of the individual task order proposal.

2. Project Manager (PM)
   (a) The Contractor's PM shall be an individual with a minimum of 15 years of combined experience as a project manager, superintendent, inspector, QC

Manager, or construction manager on similar size and type construction or roofing contracts. The individual must be familiar with the requirements of the EM 385-1-1 and have experience in the areas of hazard identification and safety compliance. The Contractor's PM shall be OSHA 30-hour certified and current within the past 3-years.

(b) The Contractor's PM is the individual who has the direct responsibility for all operations on the site. This is the individual who has the direct responsibility for contract execution. This individual shall serve as the single point of contact and liaison between the Contracting Officer and the Contractor.

(c) The Contractor's PM may perform duties of Superintendent and Site Security Manager as detailed below.

3. Superintendent
   (a) The Contractor's Superintendent shall be an individual with a minimum of 10 years of combined experience as a superintendent, inspector, QC Manager, or construction manager on similar size and type construction or roofing contracts. The individual must be familiar with the requirements of the EM 385-1-1 and have experience in the areas of hazard identification and safety compliance. The Superintendent shall be OSHA 30-hour certified and current within the past 3-years.

   (b) The Project Superintendent(s) shall supervise the work on site as stated in each task order or repair. This individual may also serve as the Site Safety and Health Officer.

4. Site Security Manager (SSM)
   (a) The Contractor's SSM shall be an individual with a minimum of 5 years of combined experience as a superintendent, inspector, QC Manager, or construction manager on similar size and type construction or roofing contracts. The individual must be familiar with the requirements of the EM 385-1-1 and have experience in the areas of hazard identification and safety compliance.

   (b) The SSM shall be directly responsible for site security coordination and implementation of the contractor's Site-Specific Security Plan. The SM will ensure all current NIH and NIEHS Security Policies, Guidelines, and Regulations are followed. The SM shall be designated by an officer of the company for the duration of the contract and must be provided the authority in writing to implement the designated security plan, policies, procedures, and directives for the project as provided by the NIEHS Operations and Security Branch (OSB).

(c) This position may be held jointly by the project manager contingent upon satisfactory performance for the duration of the contract.

5. Site Safety and Health Officer (SSHO)
   (a) The Contractor's SSHO shall be an individual with a minimum of 5 years of combined experience as a superintendent, inspector, QC Manager, or construction manager on similar size and type construction or roofing contracts. The individual must be familiar with the requirements of the EM 385-1-1 and have experience in the areas of hazard identification and safety compliance. The Contractor's SSHO shall be OSHA 30-hour certified and current within the past 3-years.

   (b) The SSHO shall be directly responsible for site safety. This position may be held jointly by the project superintendent.

6. The Contractor shall provide a Quality Control program in accordance with Specification 01 45 00, Contractor Quality Control Program.

7. Additional Staff
   Additional specialized safety and quality control staff may be required to perform an individual task order.

c) MANUFACTURER'S ROOF WARRANTY AND EXTENDED MAINTENANCE PROGRAM
   After issuance of a task order, the Contractor shall submit the contract documents listed below to the COR:
   (a) Sub-contractor bid forms
   (b) Sub-contractor agreement forms
   (c) Sub-contractor insurance certificates
   (d) Sub-contractor performance bond certifications
   (e) Safety plan and product Material Safety Data Sheet (MSDS)
   (f) Specifications, meeting minutes, all correspondence, and addendums
   (g) Verification of project identified material and their quantities

d) INVENTORY MODIFICATION
   1. Once a roof section replacement is completed, the expense for the maintenance, repair, and leak service will be deleted from the Roof Preventative Maintenance Program and included in a pre-paid twenty (20) year leak free roof performance warranty. At the onset of the new yearly contract, the square footage cost of the annual

maintenance/inspection program will be adjusted for these deletions and any additions of roofing areas to be added.

2. All annual maintenance/inspection program information shall be documented and updated in the Roof Database Management System.

e) WARRANTY

The One Source Manufacturer's Warranty provided by the Contractor shall include a pre-paid expense for the labor and materials warranty maintenance program outlined in (Section 10.b, Roof Preventative Maintenance Program) for a minimum of twenty (20) years from the completion of a replacement or restoration.

f) ROOF SECTION REPLACEMENT

Along with the proposal, the Contractor shall provide a material loading and storage plan. The plan shall identify all the equipment that will be used for loading materials. Material loading schedules shall be coordinated with and approved by the COR.

g) MECHANICAL/ELECTRICAL WORK

Roofing work includes disconnect and re-connection of mechanical equipment by mechanical subcontractor. It also included lightning protection and photovoltaic array systems disconnect and re-installation including required component upgrades to ensure compliance with NIH and fire code certification requirements by the lightning protection contractor and photovoltaic contractor. All electrical work shall be performed by licensed electrical subcontractor.

h) ROOF SYSTEM REQUIREMENTS

1. The Contractor shall develop a solvent free cold process built-up roof specification or appropriate roofing system that addresses existing conditions and projections.

2. Sloped roofs shall be replaced with material to match existing.

3. All roofing applications shall be in accordance with specifications and details by the roofing system manufacturer, Unified Facilities Guide Specifications (UFGS), National Roofing Contractors Association (NRCA), and industry standards.

4. The Contractor shall verify existing roof construction and square footage.

i) ROOF DRAINS

The roofing Contractor is responsible for ensuring all roof drains included in the specified roof replacement work are free flowing. Flush drains to verify free flowing

prior to the project start and at the project completion. Contractor shall notify Owner if roof drains are found slow flowing or inoperative prior to the project start.

j) SHEET METAL

1. Fabricate and install all sheet metal details per NRCA, Sheet Metal and Air-Conditioning Contractors National Association (SMACNA) and roofing system manufacturer's requirements and standards.

2. Install miscellaneous metal flashings and related accessories.

k) LIGHTNING PROTECTION

1. Temporarily remove existing lightning protection system as needed to accommodate the new roof installation. Reinstall lightning protection components in same location removed. Furnish and install anti-impalement balls on lightning rods while working near the components.

2. Disconnect and re-installation shall be performed by a licensed lightning protection subcontractor

   (a) Prior to removal, verify operational condition of existing system to establish base line continuity

   (b) Lightning protection system shall be compliant with current code

   (c) Reinstall lightning protection system in same location removed. Install new blocking and pitch pans at through deck entry points. Replace defective components.

      (i) Engage an experienced installer who is NRTL listed or who is certified by Lightning Protection Institute (LPI) as a Master Installer/Designer.

      (ii) Provide Master Label Inspection Certification of system upon project completion.

l) RADIO COMMUNICATION SYSTEM

1. They radio system must stay operational the whole time.

2. The Contractor shall have a licensed Motorola installer relocate the radio system if the installed location on the roof will impede the installation of the roof system work.

3. After construction is completed, a licensed Motorola installer subcontractor shall verify in writing that the radio system is functioning and operating correctly.

4. Any damage to the radio system will be repaired by the Contractor at no cost to the Government. If repairs to the radio system are need, the system shall be down no longer than 4 hours.

m) MASS NOTIFICATION SYSTEM

1. The mass notification system must stay operational the whole time.

2. The Contractor shall have a Whelen authorized installer subcontractor relocate mass notification system if the installed location on the roof will impede the installation of the roof system work.

3. After construction is completed, a Whelen authorized installer subcontractor shall verify (in writing) that the radio system is functioning and operating as intended.

4. Any damage to the mass notification system will be repaired by the Contractor at no cost to the Government. If repairs to the mass notification system are need, the system shall be down no long than 4 hours.

n) PHOTOVOLTAIC (PV) ARRAY SYSTEM

1. The Contractor shall have a licensed North American Board of Certified Energy Practitioners (NABCEP) subcontractor remove or relocate PV array system if the installed location on the roof will impede the installation of the roof system work.

2. After construction is completed, the licensed NABCEP subcontractor shall verify (in writing) that the PV array system is functioning and operating as intended.

3. Any damage to the PV array system will be repaired by the Contractor at no cost to the Government.

o) ROOF TYPES AND ACCESSORIES

1. Single Ply Thermoplastic (TPO) Roofing System

2. Ethylene Propylene Diene Terpolymer (EPDM) Roofing System

3. Polyvinyl chloride (PVC) Roofing System

4. Green Roofing Systems

5. Liquid Applied Roofing Systems

6. Cold Applied Hybrid Modified Bitumen Roofing System with Reflective Coating

7. Cold Applied Build-Up Roofing System with Aggregate Surfacing

8. Manufacturer Standing Seam Metal Roof Panel System

9. Roof Safety Tie-Off and Anchor Systems

10. Concrete Walkway Pavers

11. Roof Sleepers

12. Gutter and Downspout

p) As-Built Drawings for Design-Build Projects

1. At the completion of work the Contractor shall submit as-built final drawings in accordance with the NIH/ORF/FMB-NC CAD Drawing Standards that were in effect at the time of task order award (unless the task order is modified to provide an updated version). The FMB-NC CAD Drawings Standards can be found within the FMB-NC Engineering Standards and Material Requirements (ESMR). Any subsequent revisions to the CAD Drawing Standards will be provided to the contractor for compliance on any future task orders. Revision H is the version included in the original contract. Future revisions will be incorporated via contract modification and noted in each task order request.

q) Transfer of As-Built Drawings to NIH Network Server

Where designs or work plans are created as part of the task order scope the Contractor shall adhere to the NIH As-Built Drawing Local Operating Procedure (LOP) for Contractors. The Contractor shall comply with all NIH as-built drawing standards and protocols. The Contractor personnel performing the drawing updates shall review and verify the changes with the NIH/ORF Project Officer. A copy of the red-line drawings is to be submitted to the Project Officer at or before the pre-final inspection. AutoCAD as-built drawings shall be completed within 30 days of project completion.

11) WORKING HOURS

Work shall be performed on weekdays during normal duty hours (7:00 am – 5:00 pm) except when such timeliness of performance is necessary to safeguard life or property. Other deviations may be authorized by the COR. Requests for deviation from normal working hours shall be submitted in writing to the NIEHS Security not less than seventy-two (72) hours in advance of the proposed work period.

12) CONTRACTOR FURNISHED EQUIPMENT

The Contractor shall furnish, maintain, and replace, at its own expense, all supplies, parts, materials, tools, support equipment, labor, vehicles, and any other equipment,

material, and services necessary to perform all work required under this SOW. No Government owned tools and equipment will be furnished to the Contractor.

13) GOVERNMENT FURNISHED SERVICES

a) UTILITIES

The Government will furnish utilities, as required, for direct support of work performed under this SOW. Utilities will be steam, chilled water, electricity, potable water, sanitary sewer, and storm sewer, as currently installed in facilities.

b) DUMPSTERS

1. The Contractor may use the Government furnished dumpster under roof preventive maintenance program and roof leak response and repair program.

2. The Contractor must provide dumpsters for any work considered to be a "major repairs" or "upgrades and restorations". The location of the dumpsters shall be discussed for each task order.

14) PROTECTION OF FACILITIES

a) The Contractor shall be responsible for the full and adequate protection of the NIH facilities, existing roof systems, personnel, equipment, products and materials, as well as protection of its own employees and equipment.

b) Lawns, shrubbery, paved areas, and buildings shall be protected from damage. Repair of damages shall be performed at no extra cost to the NIH.

15) DELIVERABLES

a) DOCUMENTATION OF SERVICES PERFORMED

1. The Contractor shall create, update, distribute, file, maintain, reproduce, and allow NIH and inspector access to documents necessary or appropriate to the performance of work under this SOW, including without limitation:
    (a) Logs of names, initials and signatures of personnel performing work
    (b) Spill clean-up reports
    (c) Personnel training and medical monitoring records
    (d) MSDS book of current and previously used products

2. Records, documents, inspections, reports, correspondence, calibrations, calculations, and all other documents and writings, together with any charts, graphs, tables, illustrations, photographs, images, and other illustrative, explanatory,

historical, or analytical material, related thereto or independent thereof, regardless of the medium (or media) by which they were produced, preserved, stored, or created in connection with or for purpose(s) of work performed under this SOW, are property of the Government and shall be delivered to the COR promptly, upon request.

3. The Contractor, at no expense to NIH, must correct and re-submit improperly prepared records rejected by the COR.

b) ROOF LEAK RESPONSE AND REPAIR

A report outlining the number of calls, response time to each, description of problem and solution, and overview of follow-up recommendations shall be submitted to the COR on a monthly basis and on a quarterly basis the roof database shall be updated to include the leak response information.

16) ATTACHMENTS

a) Building Roof Inventory

Campus	Building Name	Roof Name	Roof Area (Sq. Ft.)
Research Triangle Park	Building 101 Module C	Section A	9559
Research Triangle Park	Building 101 Module C	Section B	765
Research Triangle Park	Building 101 Module C	Section C	695
Research Triangle Park	Building 101 Module C	Section D	578
Research Triangle Park	Building 101 Module C	Section E	630
Research Triangle Park	Building 101 Module C	Section F	2825
Research Triangle Park	Building 101 Module C	Section G	769
Research Triangle Park	Building 101 Module A	Section C	2449
Research Triangle Park	Building 101 Module A	Section D	572
Research Triangle Park	Building 101 Module A	Section E	328
Research Triangle Park	Building 101 Module A	Section F-A Dock	602
Research Triangle Park	Building 101 Module A	Section H	3526
Research Triangle Park	Building 101 Module A	Section I	5650
Research Triangle Park	Building 101 Module B	Section A	10774
Research Triangle Park	Building 101 Module B	Section B	1037
Research Triangle Park	Building 101 Module B	Section G	426
Research Triangle Park	Building 101 Module D	Section A	9665
Research Triangle Park	Building 101 Module D	Section B	775
Research Triangle Park	Building 101 Module D	Section C	847
Research Triangle Park	Building 101 Module D	Section D	660

Research Triangle Park	Building 101 Module D	Section E	565
Research Triangle Park	Building 101 Module D	Section F	682
Research Triangle Park	Building 101 Module D	Section G	2836
Research Triangle Park	Building 101 Module E	Section A	9945
Research Triangle Park	Building 101 Module E	Section B	777
Research Triangle Park	Building 101 Module E	Section C	856
Research Triangle Park	Building 101 Module E	Section D	658
Research Triangle Park	Building 101 Module E	Section E	1920
Research Triangle Park	Building 101 Module E	Section F	1185
Research Triangle Park	Building 101 Module E	Section G	2094
Research Triangle Park	Building 101 Module E	Section H	565
Research Triangle Park	Building 101 Module E	Section I	670
Research Triangle Park	Building 101 Module E	Section J	2174
Research Triangle Park	Building 102	Section A	14,230
Research Triangle Park	Building 102	Section B	7,395
Research Triangle Park	Building 102	Section C	8,530
Research Triangle Park	Building 103	Section A	2,882
Research Triangle Park	Building 104	Section A	26,178
Research Triangle Park	Building 105	Metal Roof	1,376
Research Triangle Park	Building 105	Section A	16,588
Research Triangle Park	Building 105	Section B	11,960
Research Triangle Park	Building 105	Section C	8,585
Research Triangle Park	Building 105	Section D	140
Research Triangle Park	Building 105	Section E	25,591
Research Triangle Park	Building 105	Section F	5,545
Research Triangle Park	Building 106	Section A	10,388
Research Triangle Park	Building 106	Section B	3,734
Research Triangle Park	Building 106	Section C	708
Research Triangle Park	Building 107	Section A	5,504
Research Triangle Park	Building 108	Section A	6745
Research Triangle Park	Building 108	Section B	1152
Research Triangle Park	Building 109	Section A	14440
Research Triangle Park	Building 109	Section B	205
Research Triangle Park	Building 110	Warehouse	14333
Research Triangle Park	Building 110	Loading Dock	3528
Research Triangle Park	Building 110	Office	5945
Research Triangle Park	Building 111	Guardhouse	978
Research Triangle Park	Building 111	Automobile Canopy	977
Research Triangle Park	Building 111	Truck Canopy	698

b) Building Roof Warranty Status

Parent Level	Building Name	Roof Name	Warranty	Warranty Status
Research Triangle Park	Building 101 Module A	Section C	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module A	Section D	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module A	Section E	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module A	Section F-A Dock	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module A	Section H	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module A	Section I	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module B	Section A	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module B	Section B	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module B	Section G	4/21/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section A	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section B	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section C	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section D	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section E	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section F	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module C	Section G	8/2/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section A	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section B	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section C	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section D	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section E	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section F	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module D	Section G	3/30/2017	Expires 2017
Research Triangle Park	Building 101 Module E	Section A	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section B	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section C	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section D	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section E	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section F	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section G	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section H	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section I	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module E	Section J	9/18/2016	Expired 2016
Research Triangle Park	Building 101 Module F	Section A	4/17/2028	
Research Triangle Park	Building 101 Module F	Section B	4/17/2028	
Research Triangle Park	Building 101 Module F	Section C	4/17/2028	
Research Triangle Park	Building 101 Module F	Section C-1	4/17/2028	
Research Triangle Park	Building 101 Module F	Section D	4/17/2028	
Research Triangle Park	Building 101 Module F	Section E	4/17/2028	
Research Triangle Park	Building 101 Module F	Section F	4/17/2028	

Research Triangle Park	Building 101 Module F	Section G	4/17/2028	
Research Triangle Park	Building 101 Module F	Section H	4/17/2028	
Research Triangle Park	Building 101 Module F	Section I	4/17/2028	
Research Triangle Park	Building 101 Module F	Section J	4/17/2028	
Research Triangle Park	Building 101 Module F	Section K	4/17/2028	
Research Triangle Park	Building 101 Module F	Section L	4/17/2028	
Research Triangle Park	Building 101 MRI	MRI	7/28/2024	
Research Triangle Park	Building 101 Plaza Patio	Plaza Patio	5/12/2019	Expired 2019
Research Triangle Park	Building 101 Walkway E-F	Section A	4/17/2028	
Research Triangle Park	Building 101 Walkway E-F	Section B	4/17/2028	
Research Triangle Park	Building 101 Walkway E-F	Walkway	4/17/2028	
Research Triangle Park	Building 102	Section A	4/28/2019	Expired 2019
Research Triangle Park	Building 102	Section B	4/28/2019	Expired 2019
Research Triangle Park	Building 102	Section C	4/28/2019	Expired 2019
Research Triangle Park	Building 103	Section A	4/28/2019	Expired 2019
Research Triangle Park	Building 104	Section A	4/28/2019	Expired 2019
Research Triangle Park	Building 105	Metal Roof	12/11/2019	Expired 2019
Research Triangle Park	Building 105	Section A	12/11/2019	Expired 2019
Research Triangle Park	Building 105	Section B	12/11/2019	Expired 2019
Research Triangle Park	Building 105	Section C	12/11/2019	Expired 2019
Research Triangle Park	Building 105	Section D	12/11/2019	Expired 2019
Research Triangle Park	Building 105	Section E	12/11/2019	Expired 2019
Research Triangle Park	Building 105	Section F	12/11/2019	Expired 2019
Research Triangle Park	Building 106	Section A	12/11/2019	Expired 2019
Research Triangle Park	Building 106	Section B	12/11/2019	Expired 2019
Research Triangle Park	Building 106	Section C	12/11/2019	Expired 2019
Research Triangle Park	Building 107	Section A	12/11/2019	Expired 2019
Research Triangle Park	Building 108	Section A	10/6/2036	
Research Triangle Park	Building 108	Section B	10/6/2036	
Research Triangle Park	Building 109	Section A	11/29/2037	
Research Triangle Park	Building 109	Section B	11/29/2037	
Research Triangle Park	Building 110	Warehouse	7/21/2037	
Research Triangle Park	Building 110	Loading Dock	7/21/2037	
Research Triangle Park	Building 110	Office	7/21/2037	
Research Triangle Park	Building 111	Guardhouse	2/19/2039	
Research Triangle Park	Building 111	Automobile Canopy	2/19/2039	
Research Triangle Park	Building 111	Truck Canopy	2/19/2039	