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#### SCOPE OF WORK PROJECT NUMBER: 44521 18 NOVEMBER 2024

## PROJECT TITLE:

Repair Fire Alarm System, CDC, B1051

## CONTRACT NUMBER:

## 1. Timeline:

- 1.1. Contract Period <u>360 days</u>
- 1.2. Project Walk: \_\_\_\_\_\_
- 1.3. Proposal Due: \_\_\_\_\_
- 1.4. Construction Start Date: \_\_\_\_\_TBD\_\_\_\_\_.
- 1.5. Construction Completion Date: <u>TBD</u>.

## 2. Bid Process:

3. Document Level: 35% Design.

## 4. Bid Documents:

- 4.1. Statement of work
- 4.2. Drawings
- 4.3. Specifications

## 001 GENERAL:

1) The limitations: Currently installed fire alarm system in Building 1051 has reached its limitations; therefore, this project is to replace the entire existing fire alarm system with new fire alarm and mass notification systems in the building. The new fire alarm and mass notification system requires to meet the current UFC 3-600-01 (Change 6) Fire Protection Engineering for Facilities, UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings, UFC 4-021-01 Design and O&M of Mass Notification Systems, AR 420-1 Army regulation, and all the applicable (NFPA) codes and standards requirements. This is a major fire alarm and mass notification system replacement project. (Note: Current system must remain operational until the activation of the new system.)

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- 2) General Execution Requirements: Work shall perform as described on Drawings and Specifications prepared by the Director of Public Works (DPW), Fort Moore, which conveys as a 35% design. This shall also include the engineering design service and drafting required to provide a complete, 100% set of design drawings and specifications to DPW for review and approval prior to starting work. Absolutely no work can be carried out until the design has been completed and approved by the government.
- Liquidated Damage: In the event the contractor exceeds the completion date established per the task order, liquidated damages in the amount of \$417.92 per day will be assessed.
- 4) Design and Engineering: Fort Moore's DPW Engineering Division will provide the contractor a set of complete deliverables 35% engineered construction drawings for completion of the project including design and construction and timeline schedule for work completion. The timeline shall include major benchmarks and milestones to provide knowledge of the project and objectives to complete within the construction time scheduled. This is a 35% design bid documents. Contractors are required to submit the 65, 95, and 100 percent design drawings and specifications for the government approval.
  - A) All work shall be in accordance with (IAW) all applicable codes and standards including but not limit to:
    - a. American Electrical Institute (AEI)
    - b. Technical Manual (TM) 5-811-1
    - c. National Electrical Safety Code & National Electrical Code
    - d. National Fire Protection Agency requirements.
    - e. Installation Design Guide
    - f. TM 111 Guidance provided in Fort Moore Environmental Considerations as listed on the projects FM-144R.
    - g. United States Army Training and Doctrine Command (TRADOC) Force Protection Program (FPP)
    - h. Unified Facilities Criteria (UFC) 3-600-01 (Current Edition)
    - i. Unified Facilities Criteria (UFC) 4-010-01 (Current Edition)
    - j. Unified Facilities Criteria (UFC) 4-021-01 (Current Edition)
    - k. Unified Facilities Criteria (UFC) 4-740-15 (Current Edition)
    - I. GSA Child Care Center Design Guide
    - m. All Memorandums, Fort Moore, Fire Department Requirement
    - n. Construction to be per Ft. Moore Environmental Protection Requirements, Section 01560
    - o. Construction to be per Ft. Moore Material Requirements, Construction Products

- p. Construction to be per DOD criteria, Army criteria, Ft. Moore criteria, Uniform Building Code, NFPA, Life Safety Code, and local requirements, codes, and restrictions.
- q. Access to the site shall coordinate with the DPW Engineering office.
- B) Implied specifications: When written specifications do not furnish the standards of work shall be in accordance with Unified Facilities Criteria (UFC), industry standards and Ft Moore guide specs as issued by the Savannah District Corps of Engineer.
- C) Fire Alarm System for the Child Care Facility: Special Requirements.
  - Locate the control panels in environmentally controlled locations in the facility.
  - Use fully addressable control panels with addressable detectors, supervisory sensors, pull stations, notification appliances and other devices.
  - Provide a mass notification system that is combined with the building fire alarm system.
  - Do not use loud and jarring devices such as bells, horns, and klaxons as they can severely frighten young children causing them to hide or panic.
  - Investigate a low frequency fire alarm horn strobe device and determine this device can be or cannot be installed at the childcare facility.
  - Provide manual pull stations with protective covers inside the facility at each exterior door except for the mechanical room.
  - Provide smoke detection in all areas, including closets over 20 ft<sup>2</sup>, but excluding the kitchen and spaces that are not climate controlled, such as the attic and the mechanical equipment room.
  - Provide a protected premises carbon monoxide detection system in accordance with NFPA 720 for each building provided with fuel burning appliances.
  - Manual fire alarm stations (pull stations) shall be double-action type and installed at the required exits from the facility.
  - Photoelectric smoke detectors shall be installed throughout the facility and shall be installed in accordance with the requirements of NFPA, National Fire Alarm Code.
  - In the buildings not protected throughout with an automatic sprinkler system, photoelectric smoke detectors shall be installed in the corridors of all floors occupied by the facility.
- 5) **Preparation:** Contractor shall be responsible for field/site visit to obtain and verify measurements, site conditions and to determine existing site conditions, dimensions,

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and structural support requirements IAW accepted local, state, and federal building practices. All drawings provided to the contractor are for reference/information only and may or may not be current or to scale. Contractor shall provide for any/all deviations to accepted local, state, and federal building practices/codes and bring these to the attention of the Construction Inspector and Contracting Officers Representative for review / consideration by the government. Review the project's FM-144R; Record of Environmental Consideration for compliance prior to initiating any work.

- 6) **Cost and Pricing:** Within 48 hours of the bid/proposal date and time the contractor shall provide to the Architect/Engineer an itemized list of material and labor cost for review prior to award of the contract.
- 7) Coordination with Other Contractors: None
- 8) Building occupancy: Yes

## 9) Selective Building Demolition: None

- 10)**Salvage:** All devices and panels shall be removed and set aside for TIYA to salvage from. The contractor will notify COR/Inspector when the salvaged items are available for TIYA. Once TIYA is notified, TIYA has 5 business days to secure any salvage items before the contractor will dispose of them.
- 11) **Disposal of Construction Waste:** The Contractor shall be responsible for removing and disposal of all debris created by this project IAW local, state, and federal guidelines and laws. The contractor shall dispose of all debris created by this project in Georgia/Alabama approved Landfill at the contractor's expense. Contractor shall maintain and provide upon request by the KO or the designed representative receipts and haul tickets or bill of laden that construction debris from this contract has disposed of IAW with local, state, and federal guidelines and laws.
- 12) **Safety:** The contractor shall comply with all governing codes and standards. The contractor shall comply with Fort Moore Safety and Environmental laws and regulations. The contractor shall perform all work IAW government procedures for entering and working at Fort Moore. The government reserves the right to stop work at any time for safety, security reasons, and for national defense at no cost to the government.
- 13) **Accessibility to Work Site:** Normal working hours Monday-Friday, 1830 to 500, excluding Federal Holidays or as approved KO.

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- 14) **Daily Housekeeping:** The contractor shall keep the work area clean and remove all unneeded construction debris daily and/or as directed by the Construction Inspector or Contracting Officer's Representative.
- 15)**SUBMITTALS:** The contractor shall provide the following information for review and evaluation by the Engineer:
  - 1. Shop Drawings.
  - 2. Conduit entry location, cable termination sizes, mounting.
  - 3. Fire Alarm equipment, devices, cables, and conduits cut sheets.
  - 4. Updated schedules shall be submitted with each invoice or upon request by the government.
  - 5. The contractor shall create and maintain a submittal register. The submittal register shall be updated and submitted with each submittal and resubmission.
  - 6. A project specific Quality Control Plan and Accident Prevention Plan shall be submitted. Contractor shall include definable features of work specific to the TO/DO.

## 16)QUALITY ASSURANCE:

- 1. Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design, and workmanship. Products shall have been in satisfactory commercial or industrial use for 5 years prior to bid opening.
- 2. The product shall have been on sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 5-year period. Products manufactured more than 3 years prior to date of delivery to site shall not be used, unless specified otherwise.
- 3. The equipment items shall be supported by service organization which are convenient to the equipment installation to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

## **Replace Fire Alarm System in Building 1051**

## General:

Replace the entire existing fire alarm system in Building 1051 with a new fire alarm system and mass notification system. Contractor shall provide and design a new fire alarm and mass notification system in Building 1051 to meet current Fort Moore Fire Department requirements. The new fire alarm system must be modified to meet current

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UFC 3-600-01 (Change 6) Fire Protection Engineering for Facilities, UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings, UFC 4-021-01 Design and O&M of Mass Notification Systems, AR 420-1 Army regulation, and all the applicable (NFPA) codes and standards requirements due to the changes in the building construction, renovation, and occupancy.

IMCOM has chosen the Honeywell Brand Silent Knight Fire Alarm Control Panel across the Army.

## **Project Deliverables Checklist:**

- 1) This checklist is to be used as a minimum guideline for deliverables for this project.
- 2) Deliverables shall consist of drawings, narrative, reports, analysis, models, and renderings, etc. that are deemed appropriate and necessary to properly convey the scope of the proposed work along with existing conditions.
- 3) The contractor shall provide a dedicated superintendent for this project. He shall be assigned to work on this project only.
- 4) Allow 14 days for the government to review each submittal.
- 5) After demolition work, the contractor shall repair and repaint the demolished area to match the surrounding area.
- 6) The childcare facility (B1051) remains open during project construction.
- 7) The contractor shall start work from 6:30 pm to 5:00 am including cleaning up daily.
- 8) Reinstall all the ceiling tiles back to the ceiling before 5:00 am daily.
- 9) Provide new 2'X2' lay-in ceiling tiles for about 4480 sq. ft. in this project.
- 10)After installing the new fire alarm system, the contractor shall replace some of the damage or old ceiling tiles with new ceiling tiles.
- 11)Existing fire alarm system at B1051 shall remain in place and remain operational during project construction.
- 12)Existing kitchen hood fire suppression system shall remain in place and shall reconnect to the new fire alarm control panel in this project.
- 13)Completely remove the existing fire alarm system after the activation of the new fire alarm and mass notification system at B1051.
- 14)Provide automatic power shut-down capability for all HVAC equipment in Building 1051.
- 15)Connect fiber optic and/or CAT5 cable(s) from the FACP/MNS panel(s) to the server in the communication room.
- 16)Provide and install a workable fire alarm and mass notification system to meet Fort Moore Fire Department requirements.
- 17)Provide the design of the new fire alarm system and mass notification system layout plan throughout building 1051 in AutoCAD format. The design drawings

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shall include all the fire alarm devices, notification appliance devices and initiating devices. The acceptable design drawings in AutoCAD must show the initiating device and notification appliance circuits as well as signaling line circuits.

## New Fire Alarm and Mass Notification System:

The fire alarm contractor shall perform work/design work in Building 1051 in accordance with all the latest editions of the Fort Moore Fire Alarm Standard Operating Procedure (SOP), 13855N Fire Alarm Specification, and UFC 3-600-01 (Change 6) Fire Protection Engineering for Facilities, UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings, UFC 4-021-01 Design and O&M of Mass Notification Systems, AR 420-1 Army regulation, and all the applicable (NFPA) codes and standards.

Provide an integrating non-proprietary Class "X" new Fire Alarm and new Mass Notification Systems (MNS). The Mass Notification System shall be able to provide live voice messages and payback at least nine pre-recorded emergency messages. The proposed MNS panel shall meet the 10 minutes time out requirement (It requires the MNS message will automatically end after 10 minutes for overriding fire alarm signals). Fire alarm contractors shall ensure a signal sent to 911 Center by MNS including a description of specific event code for each message (not a generic code). Local operator consoles (LOC) will be provided next to the fire alarm control panel, and on every floor; therefore, no occupant must travel more than 200-feet to reach a LOC console. Visible notification appliances must provide with a clear lens marked "Alert." The use of "Fire" is not permitted. Provide FA/MNS speakers mounted on the exterior wall around the building at entrances/exits and outdoor areas (such as courtyards, covered break areas, designated smoking areas, and sidewalk leading from the building's exit doors to a public street or from parking areas for a distance up to 16- foot from the building) commonly used by the building occupants. More required work for new FA/MNS systems listed below in two new work sections:

## New work Section 1:

- 1) Provide and install a new fire alarm and mass notification system at building 1051.
- 2) Provide and install fire alarm control panel, mass notification panel, local operator console (LOC), annunciator panel (ANN), carbon monoxide detectors, dual strobes and speckers, low frequency ceiling mounted speakers, photoelectric smoke detectors, heat detector, text signs, and horn-type loudspeakers at building 1051.
- Completely remove existing Fire Alarm System from Building 1051 after the completion of the installation and activation of the new fire alarm and mass notification system.

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- 4) Remove all existing fire alarm devices (such as remote power supplies and power cabinets, pull stations, smoke detectors, heat detectors, control modules, monitor modules, relay modules, strobe/horn, strobe only, ceiling mount strobe, fire alarm cables, and so on) from Building 1051.
- 5) The contractor shall provide the design of the new fire alarm system and mass notification system layout plan throughout building 1051 in AutoCAD format. The design drawings shall include all the fire alarm devices, notification appliance devices and initiating devices. The acceptable design drawings in AutoCAD must show the initiating device and notification appliance circuits as well as signaling line circuits.
- 6) The use of proprietary fire alarm systems prohibited. The system must replace with Honeywell brand Silent Knight Fire Alarm Control Panel with the compatible detection devices, and mass notification systems.
- 7) Text signs are required for new fire alarm and mass notification systems. LED type text signs must be installed for the new fire alarm and mass notification systems. These text signs activate in conjunction with voice messages over the

mass notification or fire alarm system. Provide and install text signs

- 8) In UFC 4-021-01, 5-4.4 Notification Appliance Network, a notification appliance network consists of a set of audio speakers, strobes, and text signs located to alert occupants and provide intelligible voice and written instructions. Text signs are installed over the door to each egress stairwell and over the substantial means of egress from the level of discharge. Exterior exit doors from a single room (e.g., mechanical, or electrical rooms) do not require a text sign.
- 9) Only single clear lens strobes marked "Alert" required for the new fire alarm and mass notification systems. The use of "Fire" is not permitted. Amber strobes must no longer be used. In lieu of amber strobes, clear or white strobes marked with the word "Alert" must be used for the new mass notification systems. Clear or white strobes must be provided for shared use by the Facility's combination mass notification and fire alarm system. The clear or white strobes activate in conjunction with the voice messages over the mass notification or fire alarm system.
- 10)It shall be the responsibility of the contractor to remove existing equipment as required to accomplish the new work as shown or implied. The contractor shall refer to the scope of work and/or plans for work shown to determine the extent of demolition required.
- 11)Area affected by the demolition works shall repair and repaint to match the surrounding condition.
- 12)When removing electrical equipment and systems. All precautions shall take to prevent structural damage to the building. The contractor shall coordinate installation of any structural supports required, temporary or permanent.
- 13)The contractor shall coordinate and schedule all power interruptions with DPW project manager and DPW electrical engineer in writing.

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- 14)The contractor shall take all necessary precautions during demolition and construction to maintain the integrity and operation of existing life safety and emergency egress equipment.
- 15)The new fire alarm and mass notification system in Building 1051 must be met the current UFC 3-600-01 (Change 6) Fire Protection Engineering for Facilities, UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings, UFC 4-021-01 Design and O&M of Mass Notification Systems, AR 420-1 Army Regulation, and all the applicable NFPA Codes and Standards requirements due to the changes in the building construction, renovation, and occupancy.
- 16)The contractor shall visit the site and carefully examine the site location affected by this work before submitting proposals, to become familiar with the existing conditions and difficulties that will affect the execution of the work. Submission of a proposal will construe as evidence that such an examination has been made and later claims for labor, equipment or materials required because of difficulties encounter shall not be recognized.
- 17)The drawings from this bid document are only 35% design. The contractor shall complete the design to 100% and the final (fire protection) design shall meet all the applicable codes and standards required by the Fort Moore Fire Department.
- 18)65% of the design submittal shall be delivered and reviewed by the DPW engineer and Fort Moore Fire Department Inspector.
- 19)95% design submittal with comments incorporated from the 65% design review shall be stamped and signed by a fire protection professional engineer. No new construction work shall start until 95% of the design submittals are approved and returned to the contractor.
- 20)100% design submittal and engineered as-built construction documents shall include all final design materials, modifications, and revisions during the construction process. The acceptable As-Built drawings must have to show all the circuits (such as signaling line circuits, initiating device and notification appliance circuits) connected to the fire alarm and mass notification systems.
- 21)Army requires construction (shop) drawings and calculations must be prepared by, or prepared under the immediate supervision, of the Qualified Fire Protection Engineer (QFPE).
- 22)A registered P.E. in a related engineering discipline with a minimum of 5 years' experience, dedicated to fire protection engineering and shall verify with documentation.
- 23)Upon request, the QFPE shall submit a written copy of their resume indicating education, professional registration, and work experience, along with a letter attesting to their compliance with the requirements of this Section. The letter must include an imprint of their professional engineering stamp with their signature.
- 24)Two sets of full-size fire alarm design drawings and fire alarm equipment submittal shall deliver (one set) to Lead Inspector's Office for DES-FP review

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(7180 Yeager Ave, Fort Moore, GA 31905) as well as (one set) to DPW Engineering Department for review.

- 25)All Major Projects (this project) require the design, review, and oversight services of a Qualified Fire Protection Engineer (QFPE). A QFPE must be involved in every aspect of the design, construction, and testing / commissioning as it relates to fire protection and life safety. This includes, but not limit to, building code analysis, life safety code analysis, design of automatic fire alarm, detection and suppression systems, water supply analysis, a multi-discipline review of the entire project, construction inspections and witnessing of fire protection acceptance testing / commissioning. This requirement is applicable to engineering services for design-bid-build projects as well as all phases of design-build projects including RFP development, design development, and construction.
- 26)The QFPE must review the shop drawings, calculations, and material submittals. The shop drawings must bear the Review Stamp of the QFPE prior to submitting the fire alarm system shop drawings to the DFPE.
- 27)The QFPE must monitor the installation of the fire alarm system and certify in writing that the fire alarm system has been constructed and operates as intended in the design plans and specifications.
- 28)The QFPE must review the complete 100 percent design drawings and specification submission and document in writing that the design follows the current UFC 3-600-01 and all applicable fire protection and life safety design criteria.
- 29)With criteria not included in this UFC (UFC 3-600-01, Change 6), fire protection criteria must conform to the requirements of the latest editions of the National Fire Codes. Where criteria are not available from the National Fire Codes, a fire protection design analysis must be submitted to the Designated Fire Protection Engineer (DFPE) for approval.
- 30)The QFPE must affix their professional engineering stamp with signature to the shop drawings, calculations, and material data sheets, indicating approval prior to submitting the fire alarm system shop drawing to the DFPE.
- 31)Fire protection criteria must conform to the requirements of standards, codes, and guides as modified or referenced in this UFC. The primary references include the most recent editions of National Fire Codes (NFPA) and FM Global Property Loss Prevention Data Sheets. NFPA 5000, State or Local building or fire codes must not use.
- 32)A fire protection design analysis and life safety plans must provide for all Major Projects and must address the fire protection requirements of the project as required by UFC 3-600-01, Change 6.
- 33)The fire protection design analysis and life safety plans must be submitted with the initial design submission, separate from other disciplines. The final design analysis and life safety plans must be signed and sealed by the QFPE.

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- 34)During construction, the contractor shall maintain compliance with all listed safety codes to include National Fire Protection Association (NFPA) 241 and USACOE EM 385-1-1 under the most current edition. The contractor shall coordinate with Fort Moore Fire Department and their requirement on Building 1051.
- 35)Hot Work Permit requires for any operations for which work is accomplished IAW NFPA 51B.
- 36)Require for hot work permits shall coordinate with the Lead Inspectors office prior to any hot work operation. Due to scheduling and mission requirements, it recommends initial permit required seven (7) business days prior to work start.

## New Work Section 2:

- 1) Provide and install a class "X," 4-wires intelligent/analog addressable fire alarm system in accordance with federal and Army regulations. The contractor shall verify and recommend the location of the new fire alarm control panel.
- Provide and install a mass notification system as indicated on the drawing. The contractor shall verify and recommend the location of the new mass notification panel.
- The new class "X" fire alarm control panel shall be able to broadcast audible message, live voice message, fire message, and voice recording message throughout the building.
- 4) The fire alarm control panel must have the ability to store at least 400 events in the history log. These events must be stored in a non-volatile memory and remain in the memory until the memory is downloaded or cleared manually.
- 5) Resetting of the fire alarm control panel must not clear the memory from retrieved on the integral LCD display.
- 6) The fire alarm control panel must have an integral LCD 80 character (minimum) alphanumeric display.
- 7) Provide all smoke detectors connected to the FACP with an adjustable alarm verification feature. Initially set the alarm verification at 20 seconds.
- 8) Fire alarm wiring shall be Class X with a single fault on a pathway connected to the addressable devices shall not cause the loss of more than 50-addressable devices and if less than 50 no more than half of the addressable devices shall not be loss with IP communication.
- 9) All fire alarm systems shall be UL 864, current compliant. All MNS shall be Underwriters laboratory (UL) 2572 compliant.
- 10)Secondary Power shall be 48 hours for all systems to include all the associated appliances and devices.
- 11)Provide and install exterior weatherproof FA/MNS speakers on Building 1051 to meet the current Unified Facilities Criteria (UFC) requirements.
- 12)Provide and install local operator consoles (LOC) throughout Building 1051; therefore, no occupant must travel more than 200-feet to reach a LOC console.

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- 13)Device priorities shall be as follows: MNS main panel MIC, LOCs, MNS main panel prerecorded messages circuits 1-9 with circuit one (1) with the highest priority going to circuit nine (9), fire alarm system, carbon monoxide, and finally general PA system.
- 14)MNS LOCs installed in the areas that are open to the public shall have unrestricted access to the LOC.
- 15)If a remote fire alarm panel (remote annunciator) is provided in the structure, a LOC shall be provided next to the remote fire alarm panel.
- 16)All LOCs that are not easily identifiable shall be labeled on the front of the LOC cabinet in a minimum of 1-inch lettering, in contrasting color.
- 17)MNS announcements shall provide inside all occupied spaces to include, but not limited to, the elevator, mechanical, POL, storage, or other areas determined by the AHJ.
- 18)Any room containing the fire alarm control panel (FACP) shall have signage on the door indicating FACP. The sign shall be in contrasting color (example: red/white) with 2-inch lettering.
- 19)Carbon monoxide detection shall be installed to provide coverage in all facilities that are serviced by natural gas, propane, or any other combustible gases or liquids.
- 20)All detection devices shall require pulling their back-up power from the FA/MNS system. No nine (9) volt batteries shall permit.
- 21)All local operating consoles (LOC) shall install at the same height as a manual pull station.
- 22)The MNS shall require transmitting trouble, supervisory, and alarm functions to Fort Moore Central Station while meeting the requirements of NFPA 72. All messages shall be point addressable regardless how activated.
- 23)Smoke/heat detectors and associated electronic components shall mount in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
- 24)Provide smoke detector not closer than 3-feet from air-supply diffuser or returnair opening.
- 25)Provide smoke detector not closer than 12-inches from any part of lighting fixture.
- 26)Ensure smoke detector spacing does not exceed 30-feet in diameter.
- 27)Provide a minimum of one notification appliance circuit per floor. Each notification appliance circuit must include 25 percent spare capacity.
- 28)Visible notification must be provided in all normally occupied, public and common use areas (e.g., break rooms, corridors, auditoriums, or conference rooms).
- 29)Visible notification must be provided in all normally unoccupied areas (such as mechanical rooms, electrical rooms, janitor rooms, storage areas, communication closets and other similar spaces) greater than 900 ft<sup>2</sup>.
- 30)Visible notification is required in any normally unoccupied area where the ambient noise is loud enough to require hearing protection (e.g., compressor room).

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- 31)Visible notification must be provided in all offices that are designed for, or may contain, more than four people at any one time.
- 32)Visible notification is not required in single person offices, unless the office assigned to a person with a hearing impairment that would require a visible notification appliance.
- 33)Visible notification is not required in bathrooms serving single person offices, unless the office assigned to a person with a hearing impairment that would require a visible notification appliance.
- 34)Visible notification appliances must provide with a clear lens marked "Alert." The use of "Fire" does not permit.
- 35)For systems using voice evacuation or combined with the mass notification system, the default fire alarm voice evacuation message should be a female voice.
- 36)Manual pull stations must be provided at all exits, regardless of occupancy. Manual pull stations must be located within five feet of the exit door. The 200foot travel distance to a manual pull station noted in NFPA 101 is not applicable.
- 37)Provide addressable double-action type manual pull stations with mechanical reset features. If the manual pull station requires a key for reset, it must be the same key as required for the fire alarm control panel.
- 38)Provide a minimum ¾" EMT conduit for all fire alarm wiring in accordance with Fort Moore Fire Alarm and Mass Notification SOP. All conductors must install in EMT conduit.
- 39)Pull all conductors splice free; conductors must be continuous from device to device. The use of wire nuts, crimped connectors, or twisting of conductors prohibited.
- 40)All signaling line circuits must be minimum 18 AWG. Initiating device and notification appliance circuits must be minimum 16 AWG.
- 41)All devices must have screw terminals. Where devices only provided with pigtails from the manufacturer, pigtails must land on terminal strips mounted within the junction box.
- 42)All terminations must be at a terminal strip or the device screw terminals. Terminal strips are only permitted where direct connection to a device is not possible. (e.g., pigtails off a rate-compensating heat detector).
- 43)Provide surge suppression (SPD) for all signaling line circuits, initiating device circuits, or notification appliance circuits that leave or enter a Facility's exterior enclosure.
- 44)SPD must provide at the first location where connections made that is close to where the circuit enters or leaves the facility, prior to connection to any other devices when feasible.
- 45)SPD does not require for devices connected directly to the facility exterior when the Facility itself does provide with lightning protection (i.e., an electric bell or speakers mounted on the exterior wall of the Facility.)

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- 46)Provide primary power in accordance with UFC 3-520-01. This includes the provision of a lock-on circuit breaker.
- 47) Provide SPD on all 120 VAC circuits to control panels, subpanels, transmitters, amplifier panels, and booster panels. SPD must have both a UL 1449 and UL 1283 listing and must be in an adjacent hinged terminal box.
- 48)Fire alarm control panels used for control or release of fire suppression systems must be listed by a NRTL for releasing service.
- 49)Provide a separate releasing panel independent of the facility fire alarm system panel to activate the system.
- 50)Electronic solenoids used for release of the suppression system must list by a NRTL for use with both the releasing panel and the suppression equipment.
- 51)Provide rechargeable batteries per NFPA 72 to operate the releasing panel under supervisory conditions for 48 hours and alarm conditions for an additional 15 minutes. Include the full current draw of the solenoid in the battery calculation.
- 52)When more than one panel is used, each panel must be monitored independently by the Facility fire alarm control panel. Ensure the fire alarm control panel connects to the main service ground. Install a ground wire from the main service ground to fire alarm control panel.
- 53)The fire alarm system shall transmit using an IP transmitter in combination with or without a DACT communicator. DSC TL 300CF is a compatible transmitter, but any IP transmitter that is compatible with a DSC Sur-Gard III IP receiver shall permit.
- 54)Provide IP transmitter to communicate between fire alarm control panel and post fire stations' telephone/Mastermind Automated System (MAS) at the 911 Center in accordance with the MAS format/template.
- 55)Provide fiber or ensure fiber installed for the fire alarm transmitter.
- 56)The new fire alarm system shall be able to drive Notification Appliance Circuit (NAC) devices.
- 57)The contractor's lead on-site fire alarm technician must be at least a NICET Level III technician and factory-certified by the manufacturer of the equipment installed.
- 58)A certified factory trained fire alarm designer is required to design the complete working Fire Alarm System.
- 59)A certified fire alarm technician is required to supervise the fire alarm installation, adjustment, preliminary testing, and final testing of the system and to provide (operation and maintenance instructions) training to the government personnel as required.
- 60)Provide and obtain a dedicated 120V AC service (primary power circuit) from incoming power source ahead of all building services and disconnect switches.
- 61)Provide secondary power circuit as a backup power source for the fire alarm control panel to meet the requirements of NFPA 72.
- 62)Provide surge suppression on all incoming 120 VAC circuits.
- 63)Specify and design class "A" Style 6/7 Signaling Line Circuit (SLC) configuration installed throughout the building.

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- 64)Ensure system SLC configuration in class "A" Style 6/7 Initiating Device Circuit and Notification Appliance Circuit (NAC) in class "A" Style Z configuration.
- 65)Provide rechargeable battery (Lead-Calcium) with sufficient ampere-hour rating to operate the system at least for 48 hours normal and 5 minutes alarm time for horn/strobe systems, and 15 minutes alarm time for speaker/strobe systems in accordance with NFPA 72.
- 66)Provide two separate conduits, one for outgoing and another for returning circuit wires to ensure a single accident cannot impair the entire system.
- 67)Ensure the supply and return portions of the risers shall not be in the same stairwell or shaft.
- 68)Factory painted red enamel on all concealed fire alarm conduit and conduit located in storage rooms, mechanical rooms, and utility rooms.
- 69)Provide a fire alarm system in accordance with NFPA 72. The system must consist of an outside electric horn with alarm switches located strategically throughout the project. Electric power for the alarm must be taken from the house-current supply line on the line side of the main switch through an independent switch and circuit breaker.
- 70)Maintain NFPA 101 Life Safety requirements throughout the building.
- 71)The Mass Notification system shall be able to broadcast at least 9 pre-recorded emergency messages.
- 72)Contractor's lead on-site fire alarm technician must be at least a NICET Level IV in fire alarm system to supervise the design of the Mass Notification System.
- 73)The contractor must provide verification of the above required lead technician's qualifications, failure to meet these qualifications will disallow the contractor from bidding on the system.
- 74)The submitted final set of fire alarm drawings must be stamped by a fire protection professional engineer as required by the UFC.
- 75)UFC 4-021-01, Section 4-4.5 Power Supply Features requires MNS/FACP system that meets at least the minimum NFPA 72 requirements for standby power capacity. In addition, secondary (standby) power should provide as follows: immediately upon loss of normal AC power, the standby source of power shall provide a minimum of 60 minutes of mass notification at the maximum connected load.
- 76)Contractor shall be responsible for providing a fire alarm system capable of transmitting the correct output to the 911 Center in accordance with the MAS format or template.
- 77)The contractor shall replace the compatible supervisory tamper switch and waterflow switch, if necessary, with the new fire alarm control panel in the buildings. The water-flow switch must have no time delay capability.
- 78)Contractors shall replace the compatible tamper switch for each fire protection system control and replace the compatible vane type water flow detectors for wet pipe sprinkler systems with the new fire alarm control panel.

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- 79)Connect the existing fire sprinkler system to the new fire alarm and mass notification system.
- 80)The contractor requires to upgrade the layout of both Fire alarm strobe speaker and MNS strobe speaker to meet/obtain the required CIS requirement (score of 0.8) per UFC 4-021-01. Contractor shall evaluate speaker coverage and dB setting in the apparatus bay area to obtain the CIS score of 0.8.
- 81)All penetrations in smoke or fire rated walls resulting from construction, repair, or other work, sealed with fire department approved material.
- 82)The HVAC shut down devices required by UFC 4-010-01 shall be monitored by the fire alarm system. The LOC can program to shut down the HVAC or have a standalone button.
- 83)Provide and install emergency power off (EPO) station to de-energize equipment during an electrical fire. Connect the EPO station to the fire alarm control panel. Consider an emergency power shutdown management system or equal.
- 84)Replace the compatible supervisory tamper switch and water-flow switch, if necessary, with the new fire alarm control panel per manufacturer's recommendations. Connect the fire sprinkler system to the new fire alarm control panel (FACP).
- 85)Contractors shall furnish all labor, provide, and install all materials and equipment per federal, state, and local codes and standards.
- 86)Contractor shall coordinate work with all other trades, project drawings, project manager's instruction and owner's direction.
- 87)All work performed by the contractor shall guarantee free from defects of material and workmanship for a period of one year after the date of final acceptance.
- 88)Acceptance of the submittals or portions thereof does not relieve the contractor from complying with the contracting documents and applicable codes and standards.
- 17)**Statement of Work-General:** Work shall include this SOW, Drawings, and Specifications as titled but not limit to all materials, labor, supervision, support services, equipment and tools required to replace the fire alarm system.

## 5. Customer Approval:

5.1.Business Name (print): \_\_\_\_\_

5.2. Signature:

Officer or Business owner

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5.3. Name and Title (print):	

Date: \_\_\_\_\_

# **STATEMENT OF WORK**

## 1. Antiterrorism / Operations Security Requirements

The Contractor shall comply with Government personal identity verification procedures implemented in Homeland Security Presidential Directive (HSPD) – 12, Office of Management and Budget (OMB) Guidance M-05-24, and Federal Information Processing Standards Publication (FISP PUB) number 201. Contractor and all associated subcontractor employees shall comply with applicable installation, facility and area commander installation/facility access and local security policies and procedures provided by government representative. The contractor shall also provide all information required for background checks to meet installation access requirements to accomplish by installation Provost Marshal Office, Director of Emergency Services or Security Office. Contractor workforce shall comply with all personal identity verification requirements as directed by Department of Defense (DoD), Headquarters Department of the Army (HQDA) and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes.

1 <u>AT Level I Training:</u> All contractor employees, to include subcontractor employees, requiring access Army installations, facilities and controlled access areas shall complete AT Level I awareness training within 30 calendar days after contract start date or effective date of incorporation of this requirement into the contract, whichever is applicable. The contractor shall submit certificates of completion for each affected contractor employee and subcontractor employee, to the COR or to the contracting officer, if a COR is not assigned, within 30 calendar days after completion of training by all employees and subcontractor personnel. AT level I awareness training is available at the following website: <u>http://jko.jten.mil</u>. AT Level I training is an annual requirement if option years are exercised.

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2 <u>Access and General Protection/Security Policy and Procedures:</u> Contractor and all associated sub-contractors employees shall provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. Contractor workforce must comply with all personal identity verification requirements (FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel) as directed by DOD, HQDA and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes.

2a Contractors Requiring a Common Access Card (CAC): N/A.

2b <u>Contractors that do not Require CAC, but Require Access to a DoD Facility or Installation:</u> Contractor and all associated sub-contractors employees shall comply with adjudication standards and procedures using the National Crime Information Center Interstate Identification Index (NCIC-III) and Terrorist Screening Database (TSDB) (Army Directive 2014-05/AR 190-13), applicable installation, facility and area commander installation/facility access and local security policies and procedures (provided by government representative), or, at OCONUS locations, in accordance with status of forces agreements and other theater regulations.

## 3 AT Awareness Training for Contractor Personnel Traveling Overseas: N/A.

4 <u>iWATCH Training</u>: The contractor and all associated sub-contractors shall brief all employees on the local iWATCH program (training standards provided by the requiring activity ATO). This local developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the COR. This training shall be completed within 30 calendar days of contract award and within 30 calendar days of new employees commencing performance with the results reported to the COR NLT 30 calendar days after contract award.

5 <u>Army Training Certification Tracking System (ATCTS) Registration for</u> <u>Contractor Employees who Require Access to Government Information Systems:</u> N/A.

6 <u>OPSEC Standing Operating Procedure/Plan</u>: The contractor shall adhere to the Government's Operations Security (OPSEC) Standard Operating Procedure (SOP)/Plan during the entire period of performance.

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7 Operations Security (OPSEC) Training: N/A.

8 Information Assurance (IA)/Information Technology (IT) Training: N/A.

- 9 Information Assurance (IA)/Information Technology (IT) certification: N/A.
- 10 Contractors Authorized to Accompany the Force: N/A.

11 Performance or Delivery in a Foreign Country: N/A.

- 12 Handling or Access to Classified Information: N/A.
- 13 <u>Threat Awareness Reporting Program:</u> N/A.

Additionally, the contractor shall adhere and conform to all safety, security and attendance requirements that apply to the supported office. The contractor is required to attend and participate in all organizational meetings, training, and emergency preparedness events and is required to vacate the Government office work site when no sufficient Government oversight is available.

-- End of Antiterrorism / Operations Security SOW --