

|  |                               |  |                                |
|--|-------------------------------|--|--------------------------------|
| 2. AMENDMENT/MODIFICATION NO.<br>Am-0009   | 3. EFFECTIVE DATE<br>07/28/04 | 4. REQUISITION/PURCHASE REQ. NO.               | 5. PROJECT NO. (If applicable) |
| 6. ISSUED BY CODE<br>U.S. Army Engineer District, Honolulu<br>Corps of Engineers, Bldg. 230<br>ATTN: CEPOH-CT-C (Jennifer Ko)<br>Fort Shafter, Hawaii 96858-5440 |                               | 7. ADMINISTERED BY (If other than Item 6) CODE |                                |

|   |               |  |
|---|---------------|--|
| 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) | (X)           | 9A. AMENDMENT OF SOLICITATION NO.      |
|   | X             | W9128A-04-R-0012                       |
|   |               | 9B. DATED (SEE ITEM 11)<br>06/02/04    |
|   |               | 10A. MODIFICATION OF CONTRACT/ORDER NO |
|   |               | 10B. DATED (SEE ITEM 13)               |
| CODE  | FACILITY CODE |  |

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. Accounting and Appropriation Data (If required)**

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

|     |   |
|-----|---|
| (X) | A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A/  |
|     | B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc). SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). |
|     | C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  |
|     | D. OTHER (Specify type of modification and authority)   |

**E. IMPORTANT:** Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**  
Solicitation No. W9128A-04-R-0012, FY04 MCA PN 52268, Buildings 549 and 552, Whole Barracks Renewal, Phase 4B, Quad E, Schofield Barracks, Oahu, HI

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

|   |   |   |                  |
|---|---|---|------------------|
| 15A. NAME AND TITLE OF SIGNER (Type or print) | 16A. NAME AND TITLE OF SIGNER (Type or print) |   |                  |
| 15B. CONTRACTOR/OFFEROR                       | 15C. DATE SIGNED                              | 16B. UNITED STATES OF AMERICA<br>BY _____ | 16C. DATE SIGNED |
| (Signature of person authorized to sign)      |   | (Signature of Contracting Officer)        |                  |

1. **CHANGES TO SPECIFICATIONS.** Attached hereto are revised and new pages to the solicitation. The revision mark (Am-0009) is shown on each revised and new page.

**a. REVISED PARAGRAPH.** Following are revised pages to the solicitation. Changes are indicated in **bold** print. Although the entire section is being re-issued under (Am-0009) only the following section/page/paragraph changed in this section.

Chapter 5, paragraph 5-5.6.2

**b. NEW SECTION/PAGE.** The following page is added to the solicitation.

Section 00900, Responses to Questions submitted by Planholders (Page A.22)

2. The proposal closing date of July 30, 2004, 2:00 P.M., Hawaiian Standard Time, remain unchanged.

SECTION 00900  
RESPONSES TO QUESTIONS  
SUBMITTED BY PLANHOLDERS  
FOR  
SOLICITATION NO. W9128A-04-R-0012

Q28. From Dick Pacific, RFI #20, dated 7/28/04 –

In our original RFI # 10 item 4 we had asked the question “ On page SOW 2-27 Section 2-4.13.7.4 Other Requirements states “No piping, conduit or ductwork shall be exposed in exterior corridor” During the site visit we were encouraged to visit Quad F which we did. What we noticed was a certain tasteful amount of conduits and pipes were run exposed in the exterior corridor. It appears that furring of these conduits would have interfered with the historic character of the corridor. May we assume that this project will be viewed similarly and that some conduits can run exposed as was done in Quad F. “ In Addendum 06 rather than being directly answered this question was addressed by a change to the statement of work in add 05 ( now page 2-27 Section 2-4.15.7.4 ) that made deviations like what has occurred in Quad F at the discretion of the Contracting Officer. By itself while this was not a clear answer it seemed to imply that reasonable things such as was done in Quad F would be allowed.

Now with the issuance of Amendment 07 and the re-issuance of Chapter 15. We again ask our original question and would appreciate a direct answer. Chapter 15 – 2 states that Historic preservation issues supercede all other disciplines. Section 15.10.4 directly conflicts with Section 2-4.15.7.4 in our opinion. Strict application of 15.10.4 would not allow the work that has been performed in the corridors at Quad F in our opinion. As there are major cost issues involved in concealing pipes and conduits we are now again unclear how to proceed. A direct answer to our original question would clarify what is or is not acceptable and how we should base our pricing.

RESPONSE: Section 15.10.4 applies in regards to piping and conduit exposed in exterior corridors.

## CHAPTER 5

### ARCHITECTURAL DESIGN

5-1 DESIGN GOALS. Overall architectural goals for the Whole Barracks Renewal Brigade Complex QUAD E are to provide a functional, visually appealing campus of facilities that is a source of pride for residents, other facility users, and the installation. This chapter applies to all buildings under this RFP unless specifically noted otherwise.

5-1.1.1 The architectural floor plan is established and approved as shown in the RFP Concept Design Drawings. All architectural criteria must be met and accounted for, see paragraph 5-2 Applicable Codes and Standards. Any changes shall be brought to the attention of the Contracting Officer for resolution in writing.

5-1.1.2 Furnishings, Fixtures and Equipment (FF&E): FF&E is part of this project. Fixtures and Equipment (lighting, plumbing, mechanical equipment, etc.) described for programmed spaces shall be provided by the contractor as part of the base bid. Interior Furnishings (tables, chairs, sofa, bed, etc.) will be Government furnished and installed. Refer to SOW Chapter 2, Furniture Requirements for scope of Furnishings, Fixtures, and Equipment that will be required to be provided by the contractor. Any furniture layout depicted in the RFP concept design drawings will be adhered to and not deviated from without approval of the customer. The number and location of furnishings serve as an indicator of the number of power, data and communications connection points. See electrical section for more detail.

#### 5-1.2 Existing Quad Building Background and New Space Planning Intent

The existing Quad consists of four buildings-three stories each - constructed in 1920. The buildings were originally open sleeping and living spaces and until recently, a mixture of office and living spaces. Only two of the four buildings in this Quad will be renovated under this RFP.

5-1.2.1 Building 549: will provide administrative spaces for one (1) small Battalion Headquarters, one (1) medium Company Operations Facility (COF) and two (2) small Company Operations Facilities (COFs). Areas include equipment maintenance, storages, arm vaults, toilets, showers, lockers, building utility and service areas are on the first floor. Conference rooms, platoon offices, TA-50 gear storage, general storage, offices, training rooms, building utility and service areas are on the second floor. The third floor will be renovated to house a small Battalion Headquarters and classrooms. The existing gymnasium on the third floor will be renovated. An elevator will be installed to provide ADA accessibility to the Battalion Headquarters. Portions of the first floor will house a central mechanical plant for mechanical equipment that serves the entire Quad.

Building 549's total floor area is approximately 6,159 SM.

5-1.2.2 Building 552: will provide barracks facilities for 50 persons per floor or a total of 150 personnel per building. Laundry rooms, game rooms, mechanical rooms, electrical rooms, telecom rooms, and janitor closets will be provided on every floor. Building 552's total floor area is approximately 8,045 SM and is part of the first phase of construction. The central chiller plants air conditioning cooling tower will be located on the roof of Building 552.

5-1.2.3 The selected contractor will be required to demolish all of the existing interior partitions as well as the complete flooring system in the toilet and shower areas. Also, the selected contractor will be required to determine the location of existing partitions with respect to the proposed Concept Design Drawings, in order to remove as required. This may include concrete masonry walls that are not structural. The roofing will also have to be removed. All buildings will require the removal of existing windows and doors and provide a larger opening to install new fenestrations (door & windows) as designed to meet the approval of State Historic Preservation Office (SHPO). Adjacent wall finishes, both interior and exterior shall match the existing surfaces before the new windows are installed. Additionally, all existing plumbing, mechanical and electrical items need to be removed as indicated.

5-1.2.4 The Quad E building renovation design intent is to follow the Department of the Army Facilities Standardization Program for a Standard Company Operations Facility and Battalion Headquarters.

5-1.3 Exterior Design Objectives. Design buildings to enhance the visual environment of the installation. Exterior materials, roof forms, and detailing shall comply with the Installation Design Guide and concept design drawing, and shall be compatible with the immediate local context. Use durable, low-maintenance materials.

5-1.4 Interior Design Objectives. Arrange spaces in an efficient, functional manner. Provide simple circulation schemes that allow easy way finding within buildings. Use durable materials and furnishings that can be easily maintained and replaced. Maximize use of day lighting and operable windows. Use interior surfaces that are easy to clean and light in color; avoid trendy or bright color schemes. Provide telephone/data jacks on multiple walls to allow optional locations for furniture. Structure interior spaces to allow maximum flexibility for future modifications; companies and battalions often change size or mission, requiring reconfiguration of facilities. Refer to SOW Chapter 14-Comprehensive Interior Design for detailed information and CID Package requirements.

5-1.5 Material and Product Selection Criteria. Materials shall meet the requirements of the SOW. The SOW includes a range of specificity: some material requirements are specific (no option); other material requirements allow a range of options. The SOW requirements establish a minimum quality level.

5-2 APPLICABLE CODES AND STANDARDS. Except as specified otherwise in the RFP, design and construction of facilities shall comply with the latest editions (as of the date of the RFP) of the following. Major criteria and references for building design are as listed but not limited to this list. Additional requirements are included throughout the RFP.

5-2.1 National Fire Codes, published by the National Fire Protection Association (NFPA), including NFPA 101 Life Safety Code.

5-2.2 International Building Code (IBC), 2003

5-2.3 Americans With Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG), 1998.

5-2.4 Unified Facilities Criteria (UFC) 4-010-01 Department of Defense Minimum Antiterrorism Standards for Buildings October 8, 2003.

5-2.5 AR 190-11, Physical Security of Arms, Ammunition, & Explosives, Appendix G, para G-1a-e(1-4) dated 12 Feb 98.

5-2.6 American Architectural Manufacturer's Association (AAMA)

5-2.7 Architectural Woodworking Institute, AWI Quality Standards

5-2.8 Builders Hardware Manufacturers Association, ANSI/BHMA

5-2.9 Underwriters Laboratories.

5-2.10 Tile Council of America (TCA) Handbook for Ceramic Tile Installation.

5-2.11 The Schofield Barracks Installation Design Guide (IDG), excerpts of which are included in an appendix to the Statement of Work.

5-2.12 UFC 3-600-01 Design: Fire Protection Engineering for Facilities (17 April 2003)

5-2.13 TI 800-01, Design Criteria, 20 July 1998

5-2.14 UFC 1-200-01, Design: General Building Requirements, July 31, 2002

5-2.15 Department of the Army Facilities Standardization Program, Standard Company Operations Facility, Dated February 1994.

5-2.16 Department of the Army Facilities Standardization Program, Standard Design for Brigade and Battalion Headquarters Facility, Dated August 1995.

5-2.17 AR 190-51, Security of Unclassified Army Property (Sensitive and Nonsensitive), Appendix B.

### 5-3 IBC OCCUPANCY AND BUILDING TYPE CLASSIFICATIONS.

5-3.1 General. Occupancy classifications, construction types, allowable areas, maximum building heights, and fire separation requirements shall comply with the requirements of the International Building Code. Prior to issuance of the RFP, the design district shall coordinate with the authority having jurisdiction to determine occupancy classifications. Consult with the users to determine the hazard classification of items to be stored in the supply spaces.

5-3.2 Construction: The existing buildings in Quad E are three-story buildings that have concrete and masonry construction. The roof structures are unprotected steel. The building type is Type II-B, non-combustible, non-rated construction.

5-3.3 Occupancy Classification. Building 552 is classified as R-2 occupancies. Building 549 is classified as a mixed occupancy, which include A-3, B and S-1 occupancies.

5-3.4 NFPA Classification. The NFPA 101 classification for Buildings 552 is New Apartment Building occupancy. Building 549 is a mixed occupancy.

5-3.5 Barrack Buildings. Occupancy classification: Residential R-2.

5-3.6 Company Operations Facilities Occupancy classification of administrative areas, and locker room facilities: Business Group B. Occupancy classification for supply areas: Storage Group S, Division 1.

5-3.7 Battalion Headquarters. Occupancy classification of administrative areas: Business Group B. Occupancy classification of classroom areas: Assembly Group A-3.

### 5-4 EXTERIOR DESIGN.

5-4.1 General the buildings are considered historical and any exterior construction shall be sensitive to the original design. See the Historic Narrative for detailed narrative on the historic importance, general design intent and requirements, see SOW 15. The exterior design should closely replicate the original 1920 design. The Concept Design Drawings contrast the original design where the building must conform to NFPA 101, Life Safety Code

5-4.2 Acceptable Materials and Colors. Exterior elements of the facilities shall comply with the attached architectural concept design drawings and the Installation Design Guide (IDG) unless required otherwise by applicable codes or this Statement of Work

5-4.3 Quad Building Superstructure: No specific requirement for the type of structural system is imposed other than to meet the applicable regulations, to dimensionally fit within the space allocated for structure and to accommodate the exterior materials shown on the exterior elevations and building sections.

5-4.4 Detached Building Structures. Concept design is based on a load-bearing masonry exterior wall with a manufactured steel truss roof structure.

5-4.4.1 Alternative pre-cast concrete beams or trusses, pre-engineered steel structure, or conventional steel rafter / purlin systems.

5-4.5 Exterior Closure:

5-4.5.1 Exterior Finishes. Emphasis shall be placed on low maintenance and durability for exterior finish materials. Materials shall be residential in size, scale, and texture. Exterior wall materials shall be painted concrete or concrete masonry unit:

5-4.5.2 Termite decay and protection for exterior wood materials (siding, trims, etc.) shall be in accordance with National Wood Window and Door Association (NWWDA) Standards. Each piece of treated material shall bear identification of the testing agency to indicate performance in accordance with NWWDA.

5-4.5.3 Trim elements. Aluminum or vinyl clad wood trim is preferred over painted or stained wood trim. Painted exterior surfaces shall be minimized. When exterior exposed wood trim is used the following requirements apply:

5-4.5.4 Exposed wood, such as window trim, door sills, window sills, railings and balusters, trellis, wood fencing, arbors, solar shading devices including louvers, arbors, and trellis shall be treated for rot resistance in accordance with NWWDA Industry Standards I.S.4, Water Repellent Preservative Treatment for Millwork.

5-4.5.5 Exterior surfaces requiring painting shall receive a minimum of one prime coat and two finish coats of paint. Wood trim frames, etc., shall be back primed. Exterior semi-transparent low sheen stains, two coats, are acceptable, where appropriate for wood, plywood, etc.

5-4.5.6 Existing exterior stair treads and landings shall be provided with non-slip type treads. Existing exterior stairs shall be provided with metal railings.

5-4.6 Roofs. Roofing material and color shall comply with the attached architectural concept design drawings. Roofing system shall have Underwriters Laboratory (UL) Class A rating for fire resistance, UL 90 wind resistance rating, and Factory Mutual (FM) 1-90 fire and wind resistance rating.

5-4.6.1 Quad Buildings, and Fire Pump Building Roofs. Built-up roofs shall have a minimum pitch of 1:24 (1/2-inch: 1 foot.).

5-4.6.1.1 Built-Up Roofing. Provide 4-ply, built-up roofing on rigid board insulation over existing metal decking for Quad Building Roofs. Provide 4-ply, built-up roofing on rigid board insulation over existing concrete or existing metal decking for Fire Pump Building. Provide manufacturers 20-year finish warranty. Built-up roofing shall have high reflectivity, low emissivity meeting Energy star certification.

5-4.6.2 Roof water. Conductor heads, scuppers and downspouts shall be provided for all roof areas. Provide calculation of gutter and downspout size if the existing conductor heads, scuppers and downspout dimensions cannot be determined. Calculations should be in accordance with SMACNA-03, Architectural Sheet Metal Manual. Downspouts draining onto a lower roof shall have metal or plastic splash deflectors. Downspouts shall be connected to the underground storm drainage system. Provide cast iron boot at the bottom of all downspouts.

5-4.6.3 Rainfall Calculations: Conductor heads, scuppers and downspouts shall be adequately sized to meet the following Design Rainfall Intensities: Schofield Barracks: Design Rainfall Intensity (hourly in inches for a 5-minute period to be expected once in 10 years) = 188 mm (7.4 inches).

5-4.6.4 Roof surface. Roof surfaces shall be light colored to minimize heat gain. Roof water shall be diverted away from entrances and foundations.

5-4.6.5 Roof Eave. Existing Quad Building roof eave shall be removed and restored to its original Historic design and character. Use durable, low-maintenance materials. Refer to Architectural Concept Design Drawings for detail reference.

5-4.6.6 Sheet Metal Work. All Sheet metal material shall be copper.

Note: Flashing - Continuous stepped flashing shall be installed at walls adjacent to roof slope. Design to facilitate easy maintenance and removal of roofing without removing or damaging the wall sidings.

Provide metal drip edge of flashing at roof eaves.

5-4.7 Trim and Flashing. Materials shall comply with the RFP concept design drawings. Gutters, downspouts, and fascias shall be copper; comply with SMACNA Architectural Sheet Metal Manual; provide 20-year manufacturers finish warranty.

5-4.8 Miscellaneous Exterior Elements. Comply with the attached architectural concept design drawings. It is advisable to prohibit any use of exterior wood with painted finish; require pre-finished metal trim. Coordinate with user to include requirements for any building-mounted operational items such as communications antennae, special lighting, warning beacons, etc.

5-4.9 Exterior Doors and Frames.

5-4.9.1 Doors. Provide Historic doors as indicated on the concept design drawings. Refer to RFP concept design drawings for door types and details. Fully glazed doors shall comply with wind load requirements of applicable codes. Telecomm Room doors shall be secured per AR 380-19 Information Systems Security.

5-4.9.4.1 Hollow Metal Doors and Frames. Comply with ANSI A250.8/SDI 100. Doors shall be Level 3, physical performance Level A, Model 2; insulated; top edge closed flush. Frames shall be Level 3, 14 gauge, with continuously welded corners and seamless face joints. Doors and frames shall be constructed of hot dipped zinc coated steel sheet, complying with ASTM A653, Commercial Steel, Type B, minimum A60 coating weight; factory primed. Anchors and accessories shall be zinc coated. Frames in masonry shall have bituminous back-coating, plaster guards, and shall be grouted solid. Provide concealed wall and head anchors in frame sufficient to support the weight of the grouted frame. Provide minimum four concealed wall anchors at masonry rough openings. Provide minimum one concealed head anchor for frame rough openings greater than three feet. Fire-rated openings shall comply with NFPA 80, and the requirements of the labeling authority.

5-4.9.5 Exterior Door Finish Hardware.

5-4.9.5.1 Hinges. ANSI/BHMA A156.1; template, full mortise, heavy duty, anti-friction ball bearing, minimum size 114 mm x 114 mm [4 ½" x 4 ½"], stainless steel, non-removable pins.

5-4.9.5.2 Locksets for Typical Exterior Door. Provide stand-alone programmable electronic door locksets with audit capabilities. The lockset construction shall be all metal, heavy-duty, and mortise. The lockset is equipped with hidden mechanical key override, an anti-pick latch and dead bolt, and a magnetic stripe reader. Each magnetic stripe card will be programmed to gain access into its respective module and sleeping/living rooms. Lockset shall be Kaba Ilco, Solitaire 710-II Series. The lockset shall include knob and lever torque test and "Ultra" finish with two-year warranty.

5-4.9.5.3 Mortise lock for Typical Exterior Barracks Bedroom or Kitchen to Lanai Doors. Provide mortise lock with function F14 Store/Utility Room Lock. Retracted lever either side. Deadbolt extended or retracted by key either side. This lock is specified to prevent an occupant from locking themselves out on the Lanai. Note: This type of hardware is required in accordance with NFPA 101, 7.2.1.5.1. The Lanai is considered as part of the barracks unit and the Lanai door must remain unlocked when the occupant is on the lanai. The maximum travel distance within a dwelling unit to the corridor door shall not exceed 125 feet in buildings protected throughout by an approved, supervised automatic sprinkler system. This was discussed with the HED AHJ on 23 June 2003.

5-4.9.5.4 Locksets for Typical Exterior Utility and Maintenance Doors. spaces with doors covered by this paragraph include: Mechanical Rooms, Electrical Rooms, Telecommunication Rooms, Communication Rooms, Toilets, Janitor, and Stairwell. ANSI/BHMA A156.13; series 1000, grade 1, mortise lockset with removable core, non-ferrous base metal.

5-4.9.5.5 Exit (Panic) Devices. ANSI/BHMA 156.3; heavy-duty touch-pad type, through-bolted mounting. Listed and labeled for panic protection based on UL 305. Doors shall be provided with exit device if required by Building Code.

5-4.9.5.6 Closers. ANSI/BHMA A156.4; series C02000, Grade 1, hydraulic, factory-sized, adjustable to meet field conditions. Provide for all exterior doors, all doors to living units, and all doors opening to corridors and as required by codes. At exterior doors to lobbies, corridors, mechanical rooms, janitors closets, and COF supply areas provide overhead holders or closers with hold-open capability.

5-4.9.5.7 Auxiliary Hardware. ANSI/BHMA A156.16. Provide wall or floor stops for all exterior doors that do not have overhead holder/stops. Provide solid wood backing in the stud wall cavity for wall-mounted doorstops. Provide other hardware as necessary for a complete installation.

5-4.9.5.8 Thresholds. ANSI/BHMA A156.21; non-ferrous metal. Provide at all exterior doors. Provide inter-locking type threshold for Barracks Building 552 Living Unit only (threshold for Interior corridor door).

5-4.9.5.9 Weatherstripping. ANSI/BHMA A156.22. Provide at all exterior doors.

5-4.9.5.10 Kick Plates. ANSI/BHMA A156.6; stainless steel, 254 mm [10"]high x 51 mm [2"] less than door width. Provide at push side of all doors with closers.

5-4.9.5.11 Locks and keys. Lock cylinders shall have six pin tumblers and interchangeable cores, which are removable by a control key. Provide a master keying system. Locks for each organizational unit, including exterior storage shall be keyed alike. Contractor shall obtain the key bitting report from the hardware manufacturer and provide the report to DPW at the end of the project. Locks and keys shall conform to the standards and requirements of the Builders Hardware Manufacturers Association (BHMA) listed above.

5-4.10 Exterior Windows. Provide Historic windows as indicated on the concept design drawings. Refer to concept design drawings for window types and details. Fully glazed windows shall comply with wind load requirements of applicable codes. All sleeping rooms shall have operable windows complying with egress requirements of applicable codes. Windows shall be operable and shall have locks.

5-4.10.1 Screens. Fiberglass screens shall be provided at all operable windows and be of window manufacturer's standard design. Fiberglass insect screens, 18 x 16 mesh size, shall be provided for all windows and sliding glass doors and should be the window or door manufacturers standard design for use with the windows and doors being provided. Insect screen frames shall be removable type for easy cleaning.

5-4.10.2 Exterior Glass and Glazing. To comply with force protection minimum standards: Single glazing and the inner pane of insulated glass assemblies in exterior windows and doors shall be minimum 6 mm (1/4-inch) annealed laminated glass.

5-4.11 Insulation. Insulation shall be provided to meet the following requirements:

5-4.11.1 Thermal and sound insulation shall have a flame spread rating of 25 or less and a smoke development rating of 50 or less exclusive of the vapor barrier when tested in accordance with ASTM E 84. A vapor barrier shall be provided on the warm side of exterior and ceiling insulation for thermal insulation.

5-4.11.2 Urethane is not allowed as an insulation material.

5-4.11.3 Thermal Insulation. Provide exterior wall, floor, and roof/ceiling assemblies with thermal transmittance (U-values) required to comply with the proposed energy calculations for the facilities. Insulation shall not be installed directly on top of suspended acoustical panel ceilings.

5-4.12 Louvers: Aluminum-framed louvered panels. Louver finish shall be Kynar 500 or approved equal. Kynar 500 properties: a fluoropolymer-polyvinylidene fluoride (PVDF). Finish shall be factory applied and oven baked. Total overall dry film thickness shall be 0.025mm (1mil) thick.

5-4.13 Exterior Railings. All exterior handrails and guardrails shall be replaced. Existing railing design does not conform to original historic design for Quad E. Design of exterior handrails and guardrails

shall conform to historic character of Quad E. The design shall be coordinated with the State Historical Preservation Office. Exterior railing materials, including bolts and fasteners shall be painted hot-dipped galvanized steel. Design shall comply with all applicable codes. Final handrail design shall be approved by DPW.

## 5-5 INTERIOR DESIGN.

### 5-5.1 Floors and Flooring Material

5-5.1.1 Floors. Comply with requirements of applicable codes. Non-combustible construction is preferable, even where combustible materials are allowed by code. Floor finish materials shall be as specified in functional and area requirements listed in Chapter 2 of the Statement of Work.

5-5.1.2 Ceramic Tile. Comply with ANSI A 137.1 and the recommendations of Tile Council of America (TCA) Handbook For Ceramic Tile Installation. Provide marble threshold under doors where a ceramic tile floor meets a different floor finish. All grout joints shall be sealed.

5-5.1.3 Vinyl Composition Tile. Vinyl composition tile shall conform to ASTM F 1066, Class 2, through pattern tile, Composition 1, asbestos-free, and shall be 12 inches square and 1/8 inch thick. The tile shall have the color and pattern uniformly distributed throughout the thickness of the tile. Flooring in any one continuous area shall be from the same lot and shall have the same shade and pattern.

5-5.1.4 Resilient Base. Base shall be manufacturers standard rubber, coved style (installed with resilient flooring). Base shall be 4 inches high and a minimum 1/8-inch thick. Job formed corners shall be provided.

5-5.1.5 Carpet. Carpet construction shall be woven; Type: Broadloom 3.6m minimum usable carpet width; Pile Type: Level Loop; Pile Fiber: Commercial 100% branded federally registered trademark nylon continuous filament; Pile Height: minimum 3.4mm in accordance with ASTM D418; Yarn Pile: minimum 2; Pile density: minimum 4696; Dye method: solution dyed; backing material: backing material shall be 100% synthetic material. Static control shall be provided to control static buildup to less than 3.5 kV when tested at 20% RH and 21 degrees C in accordance with AATCC TM 134.

5-5.1.6 Concrete Floors: All concrete floors on the first floor of all Quad E Buildings that will receive vinyl composition tile or carpet shall be provided with hardener/sealer that conforms to the following requirements:

5-5.1.6.1 Qualifications: the installer of hardener/sealer shall be certified and shall be on a list of preapproved applicators of the product.

5-5.1.6.2 Technical Representative: Hardener/sealer manufacturer's Technical Representative shall be made available for initial training of applicators and field observation during installation of the hardener/sealer. Technical Representative shall certify installations for warranty.

5-5.1.6.3 Warranty: Hardener/sealer manufacturer's "Full System 10 year warranty" on the replacement of all flooring material and labor that delaminates due to moisture migration, excessive vapor emissions or contaminates, shall be provided on all concrete floors to receive carpet and resilient flooring.

5-5.2 Interior Walls and Partitions. Comply with requirements of applicable codes. Non-combustible construction is preferable, even where combustible materials are allowed by code. The use of 16 mm [5/8"] Type X gypsum board shall be utilized where drywall partition is required.

5-5.2.1 Offices and Administration areas are to have full height drywall on metal stud partitions with sound insulation. The use of 16 mm [5/8"] Type X gypsum board shall be utilized where drywall partition is required.

5-5.2.2 Interior walls: Masonry or concrete walls at Arms Room, Heavy storage areas for the Company Operation Facilities (COF) shall have full height masonry or concrete walls.

5-5.2.3 Arms Vault needs to meet requirements at AR 190-11, Physical Security of Arms, Ammunition, and Explosives. Additional Arms Vault requirements are explained in SOW Ch 5, paragraph 5-7.2 and SOW Ch 6, paragraph 6.5-4

5-5.2.4 Interior seismic walls: these walls will be made of concrete. The wall finish shall be smooth; no visible snap-ties or formwork is permitted. These walls will be furred with 64 mm [2-1/2"] metal studs and gypsum board.

5-5.2.5 Metal Support Systems. Non-load bearing metal studs and furring shall comply with ASTM C 645; stud gauge shall be as required by height and loading, but shall not be less than 25 gauge. Maximum stud spacing: 406 mm [16"] on center. Provide galvanized finish.

5-5.2.6 Gypsum Board. Comply with ASTM C 36. Minimum panel thickness: 16 mm [5/8"]. Provide Type X panels in fire-rated assemblies. Provide moisture resistant panels at locations subject to moisture. Provide abuse-resistant panels where indicated in functional and area requirements. Joint treatment: ASTM C 475. Screws ASTM C 646. Drywall installation: ASTM C 840.

5-5.2.7 Ceramic Tile: Comply with ANSI A 137.1 and the recommendations of Tile Council of America (TCA) Handbook For Ceramic Tile Installation. Substrate for wall tile shall be cement backer board (gypsum board is not acceptable).

5-5.2.8 Concrete seismic wall on existing concrete wall: these conditions occur at the exterior facing concrete walls. The finish surface shall be smooth for paint application.

5-5.3 Telecommunication Room (Tele)

5-5.3.1 Require coordination with Schofield Barracks Physical Security Office, Harold Evans, and the Directorate of Information Management, Marion Robinson.

5-5.3.2 Telecommunication rooms that may house SIPR servers shall be treated as classified open storage areas.

5-5.3.3 Security for Telecomm rooms shall be per AR 380-19 information systems security.

5-5.4 Ceilings. Ceiling finish materials shall be as specified in functional and area requirements listed in Chapter 2 of the Statement of Work, as indicated on the Concept Design Drawings, and comply with requirements of applicable codes. Textured ceiling finish may be provided in areas other than laundry or bathrooms. Interior finish on walls and ceilings shall be in accordance with NFPA 101. Provide access doors to maintain and service equipment above the ceiling.

5-5.4.1 Acoustic Ceiling Tile. Acoustic tile shall be smooth, nondirectional finish on scratch-resistance surface. Acoustic tile shall be washable, humidity resistant, and soil resistant. Provide acoustic tile complying with Class A: Flame Spread 25 or under (UL Labeled) per ASTM E 1264; NRC: 0.70 minimum; CAC: 35 minimum; Light Reflect Coefficient: 0.89 minimum.

5-5.4.2 Fiberglass Ceiling Tile. Fiberglass ceiling tile (frp) shall be easy-to-clean panel and made of fiberglass reinforced plastic. Panel surface allows dirt and grease to be cleaned off quickly and easily. As a frp panel it is extremely resistant to most stains and chemicals. The entire panel is moisture resistant and does not support mold or mildew, and it will not rust or corrode. Provided fiberglass tile complying with Class A: Flame Spread 25 or under (UL Labeled) per ASTM E 1264. Light Reflect Coefficient: 0.89 minimum.

5-5.5 Interior Doors and Frames. Provide hollow metal doors, or flush wood solid core doors at UEPH and administration spaces. Provide hollow metal doors at COF supply spaces. All frames shall be hollow metal. Hollow metal doors and frames shall have a minimum A60 galvanizing. Hollow metal frames shall have a minimum of 3 wall anchors and one floor anchor per jamb.

5-5.5.1 Wood Doors. Provide flush wood solid core doors complying with National Wood Window and Door Association (NWWDA) I.S.-1A. Stile edges shall be non-finger jointed hardwood compatible with face veneer. Provide American Woodwork Institute (AWI) Grade A hardwood face veneer for transparent finished doors; provide AWI Sound Grade hardwood face veneer for painted doors. Transparent finished doors are preferred.

5-5.5.2 Hollow Metal Doors. Comply with ANSI A250.8/SDI 100. Doors shall be Level 2, physical performance Level B, Model 2; top edge closed flush, factory primed. Anchors and accessories shall be zinc coated.

5-5.5.3 Hollow Metal Frames. Comply with ANSI A250.8/SDI 100. Frames shall be Level 2, 16 gauge, with continuously welded corners and seamless face joints; factory primed. Anchors and accessories shall be zinc coated. Frames in masonry shall have bituminous back-coating, plaster guards, and shall be grouted solid. All hollow metal doors frames shall be painted (typical).

5-5.5.4 Arms Vault doors and frames needs to meet opening requirements at AR 190-11, Physical Security of Arms, Ammunition, and Explosives. Additional Arms Vault Door and Frame requirements are explained in SOW Ch 5, paragraph 5-7.2.

5-5.5.5 Telecom Room doors and frames to meet opening requirements for Secret-rated work.

5-5.5.6 Fire-rated and Smoke Control Doors and Frames. Comply with International Building Code (IBC), NFPA 80, and requirements of labeling authority. Doors and frames shall bear labels from Underwriters Laboratories (UL), Factory Mutual Engineering and Research (FM) or War. Comply with positive pressure testing requirements of IBC.

5-5.6 Interior Door Finish Hardware.

5-5.6.1 Hinges. ANSI/BHMA A156.1; template, full mortise; Grade 1, ball bearing on doors with closers; Grade 2, bearing on doors without closers. Minimum 114 mm x 114 mm [4 ½" x 4 ½"], stainless steel metal.

5-5.6.2 Locksets for Typical Interior Door. Provide stand-alone programmable electronic door locksets with audit capabilities. The lockset construction shall be all metal, heavy-duty, and mortise. The lockset is equipped with hidden mechanical key override, an anti-pick latch and dead bolt, and a magnetic stripe reader complying with ISO standards and ABA dimensional specifications. Each magnetic stripe card will be programmed to gain access into its respective module and sleeping/living rooms. **Lockset shall be Kaba Ilco, Solitaire 710-II Series or approved equal.** The lockset shall include knob and lever torque test and "Ultra" finish with two-year warranty ANSI/BHMA A156.13; mortise lockset with removable core; non-ferrous base metal.

5-5.6.3 Locksets for Barracks Living Units entry doors shall have lever handle on Corridor side and knob handle on room side. Locksets shall have clutching device.

5-5.6.4 Locksets for Typical Interior Utility and Maintenance Doors. spaces with doors covered by this paragraph include: Mechanical Rooms, Electrical Rooms, Telecommunication Rooms, Communication Rooms, Toilets, Janitor and Stairwell. ANSI/BHMA A156.2; series 4000, Grade 1, non-ferrous base metal, removable core.

5-5.6.5 Exit (Panic) Devices. ANSI/BHMA 156.3; heavy-duty touch-pad type, through-bolted mounting. Listed and labeled for panic protection based on UL 305. Doors shall be provided with exit device if required by code.

5-5.6.6 Closers. ANSI/BHMA A156.4; series C02000, Grade 1, hydraulic, factory-sized, adjustable to meet field conditions. Provide for all entry doors to living units, all doors opening to corridors and as required by codes.

5-5.6.7 Auxiliary Hardware. ANSI/BHMA A156.16. Provide wall or floor stops for all doors that do not

have overhead holder/stops. Provide other hardware as necessary for a complete installation.

5-5.6.8 Kick Plates. ANSI/BHMA A156.6; stainless steel, 254 mm [10"]high x 51 mm [2"] less than door width. Provide at push side of all doors with closers.

5-5.7 Roof Structure. The exposed metal roof truss and metal roof deck shall be cleaned and painted.

5-5.8 Casework.

5-5.8.1 Service Areas in Living Units and Coffee Areas in Admin Areas.  
Bathroom Vanity in Living Units  
Barracks Building CQ Station Reception Desk  
Vanity at Public Toilets

The following typical casework description shall apply to the spaces described above:

Provide architectural cabinetwork complying with AWI Quality Standards, Section 400, Custom Grade cabinets with high-pressure decorative laminate finish, meeting NEMA LD3 standards. Horizontal laminate: nominal .050" thick; vertical laminate: nominal .028" thick. Door and drawer edges shall be plastic laminate: nominal .028" thick. Countertop shall be post-formed high-pressure decorative laminate with waterfall front edge and integral covered backsplash, or solid surfacing material. Cabinets shall be constructed as specified and shall meet requirements of KCMA A161.1. The use of any particleboard material for cabinet construction is not permitted.

5-5.8.2 Other casework. Provide architectural casework complying with AWI Section 400, Custom Grade cabinets with high-pressure decorative laminate finish meeting NEMA LD3 standards. Horizontal laminate: nominal 1.27mm [.050"] thick; vertical laminate: nominal 0.71mm [.028"] thick. Door and drawer edges shall be plastic laminate: nominal 0.71mm [.028"] thick. Work surfaces and counter shall be high-pressure decorative laminate, or solid surfacing material.

5-5.9 Window Treatments. Provide horizontal aluminum mini-blinds at all exterior windows. Blinds shall have one-inch wide by .008-inch thick slats with anti-static, anti-microbial polyester baked enamel finish. Provide heavy-duty 25mm x 38mm [1" x 1-1/2"] steel headrail, and tubular steel bottom rail finished to match slats.

5-5.10 Toilet Partitions. Toilet partition panels shall be floor supported and reinforced to receive partition-mounted accessories. Finish shall be laminated plastic on solid phenolic core. Toilet partition hardware shall be stainless steel. Latching devices, pulls, and hinges for handicap compartments shall comply with Title III of the American Disability Act and Accessibility Guidelines.

5-5.11 Elevators. The contractor shall provide the services of an elevator inspector employed by an independent testing company to inspect the elevator, witness the final testing, and certify elevator. The inspector shall meet all qualification requirements of ASME QEI-1 and shall be certified in accordance with ASME QEI-1. The contractor shall provide an elevator certificate signed by the inspector for each elevator. The certificate shall be provided to the Contracting Officer within 30 days of the completion of testing.

5-5.12 Sound Attenuation.

5-5.12.1 Testing. Certified proof-of-performance field tests will be conducted to demonstrate that the wall systems as constructed provide the required sound isolation. Tests for air-borne sound shall be made in compliance with ASTM E336. Tests for impact sound shall be made in compliance with ASTM E1007. Testing of 10 percent (minimum) of each type of wall system is required. Location of test sites will be chosen at random by the Contracting Officer.

5-5.12.2 Any wall system found to be inadequate shall have the deficiencies corrected and the additional qualifying tests conducted at the contractor's expense. Testing at the contractor's expense of greater than 10 percent of each system may be required if the Contracting Officer determines that the quality of construction

requires this additional testing.

5-5.12.3 Walls shall be designed to provide the minimum airborne sound transmission ratings and impact isolation ratings stated in Table 5-5.12

TABLE 5-5.12 - SOUND TRANSMISSION STANDARDS  
FOR WALL CONSTRUCTION

| Area  | FSTC <sup>1</sup> |
|---|-------------------|
| Walls at Barracks Bldgs. 552 between 1+1 units & single units | 50                |
| Walls at Barracks Bldgs. 552 at all Other Locations           | 40                |
| Walls at Bldg. 549 at all Other Locations                     | 40                |
| Walls at Conference Rooms                                     | 50                |
| Walls at Administration Spaces                                | 40                |
| Walls at all Mechanical Rooms                                 | 50                |
| Operable partition at Classroom                               | 47                |

Note<sup>1</sup>: Field Sound Transmission Class. See ASTM E336.

## 5-6 PAINT FINISHES AND COATINGS

5-6.1 Interior surfaces, except factory pre-finished material, shall be painted a minimum of one prime coat and two finish coat. Baths and laundry rooms, and all their painted trim shall be finish painted with semi-gloss latex. Natural finished interior doors are acceptable. All other areas shall be water-based latex low sheen washable eggshell finish for walls/trims and water-based latex low sheen washable eggshell finish for ceilings. Oil-based paint is not allowed except for surfaces that require special coating. Interior paint finish may be textured. When semi-gloss and low sheen painted surfaces are adjacent to each other, the wall surfaces in the room shall be finished with semi-gloss paint to avoid having two different finishes adjacent to each other.

5-6.2 All exterior surfaces including all utility appendages, shall receive a minimum of one prime coat and two finish coats of paint. Exterior paint shall be water-based latex. Exterior low sheen stains (two coats) will be acceptable, where appropriate for wood. Oil-based paint is not allowed except for surfaces that require special coating.

5-6.3 All painting work conform to and be in compliance with Unified Facilities Guide Specifications, Division 09-FINISHES, Section 09900, Paintings and Coatings.

5-6.4 Paints used on surfaces in areas of high humidity where mildew is possible and on fabric or vapor barrier over insulation shall contain a mildewcide. The mildewcide will not adversely affect the color, texture, or durability of the coating. The mildewcide shall be incorporated into the paint by the manufacturer and shall attain a surface disfigurement rating of 8 or greater when tested in accordance with ASTM D 3273 and evaluated in accordance with ASTM D 3274. Mercurial mildewcide and insecticides shall not be used in paints.

5-6.5 Colors shall be as approved from schemes submitted with proposal. All interior paint surfaces shall be painted off-white. Each proposal shall include three basic exterior and interior color coordinated schemes and color samples. Final selection of exterior colors will be made by the Installation Commander (USAGE-HI). Exterior color selections shall conform to the Installation Exterior Architectural Plan (IEAP).

All exterior wood trim to include framing members around garage door openings shall be "back-primed" (surfaces that will be inaccessible to field painting after installation of the wood trim shall be primed with one coat of primer before installation).

## 5-7 PHYSICAL SECURITY REQUIREMENTS.

5-7.1 Anti Terrorism / Force Protection. Designs shall conform to the Department of Defense Minimum Antiterrorism Standards for Buildings, listed as Reference 5-2.4. Contractors' proposals will be deemed acceptable provided they comply with the Physical Security Requirements described in paragraphs described below. UEPH buildings are classified as troop billeting structures; COFs, Locker Room Facilities, and Battalion HQs are classified as primary gathering structures

5-7.1.1 The AT/FP standard used to develop the proposed design is the Department of Defense Minimum Antiterrorism Standards for Buildings. Agreements regarding definitions include the following: (refer to Civil, Structural, Mechanical and Electrical Sections for additional information)

5-7.1.2 Laminated minimum 1/4 inch thick annealed glass is required for all exterior windows and doors, defined in para. B-3.1.1. Window frames shall be provided as defined in para. B-3.1.2.

5-7.1.3 Exterior doors that are not designated as Historic Type (See concept design drawings) are required to be hollow metal door type.

5-7.2 Arms Vault at Company Operations Facilities. Physical Security of Arms shall be in compliance with AR 190-11. Refer to SOW Ch 6, for structural Arms Vault requirements. Refer to SOW Ch 2 for Arms Vault in Building 549. New floors, walls, and ceilings shall be provided for each Arms Vault. Unless more stringent construction features are required by life safety or building codes, minimum construction requirements shall be as follows:

5-7.2.1 Floor. 152 mm [6"] slab on grade; reinforced with minimum 152 mm x 152 mm MW 25.8 x MW 25.8 [6 x 6, W4 x W4] welded wire fabric, on vapor barrier, on 152 mm [6"] deep porous fill.

5-7.2.2 Walls. 206 mm [8"] thick cast-in-place concrete reinforced with 15M [#5] bars at 152 mm [6"] on center, each way, each face. Concrete masonry units reinforced in a similar manner, as described, will be permitted.

5-7.2.3 Ceiling. 206 mm [8"] thick cast-in-place concrete reinforced with 15M [#5] bars at 152 mm [6"] on center, each way, each face.

5-7.2.4 Door and Frame. Provide 44mm [1-3/4"] thick hollow metal door, industrial type construction, minimum 14 ga. skin plate thickness, and internally reinforced vertically with continuous steel stiffeners spaced 152mm [6"] max. on center. Provide steel bar type, Dutch door style daygate with metal shelf for issuing arms and ammo. Comply with egress requirements of applicable codes. See Attachment 19 for Arms Vault Door and Daygate Details.

5-7.2.5 Penetrations. Penetrations shall be minimized. All openings or penetrations in Vault floor, walls or ceiling greater than .062 m<sup>2</sup> [96 square inches] shall be protected with welded steel rod-and-bar grid weighing 39.6 kg/m<sup>2</sup> [8.1 lb./sf], consisting of 25.4 mm x 4.8 mm [1" x 3/16"] vertical bearing bars at 25 mm [1"] on center, and 8 mm [5/16"] diameter horizontal rods at 50 mm [2"] on center; or equivalent protection.

5-7.2.6 Arms Rack Anchor Rings. Provide 10 mm [3/8"] diameter stainless steel bar bent into U-shape (25 mm inside radius). Overall length shall be 127 mm [5"]; embed 76 mm [3"] of horizontal legs (open end) in pre-drilled epoxy filled holes. U-shaped end will protrude from floor to provide anchorage for GFGI arms racks. Orient the projecting U-shape vertically. Provide anchor rings at 3'-0" on center along the floor inside the Arms Vault -Verify with DPW for exact installation and mounting location.

5-7.2.7 Floor Anchors for GFGI Security Safes. Provide 10 mm [3/8"] diameter stainless steel bar bent into U-shape (25 mm inside radius) with 2" long 90-degree returns at ends of vertical legs. Overall height shall be 127 mm [5"]; embed 76 mm [3"] of vertical legs (open end) in concrete floor slab; 51 mm [2"] of U-shaped end will protrude above slab to provide anchorage for GFGI security safe.

## 5-8 SIGNAGE

5-8.1 Directional, Informational, and Motivational Signage. Signs consist of exterior building signage, interior signage, Interior building directories, directional signs, and identification signs. All Exterior and Interior Signage shall comply with TM 5-807-10. Coordinate with installation facilities engineer (DPW) for location of all signs, color of sign, and verbiage to be included on all signs. All exterior signs and interior Building Directory Signs shall be constructed of minimum 0.090-inch thick aluminum sheets. All other signs shall be constructed of minimum 4.76 mm [3/16-inch] thick plastic acrylic sheets. All signage shall comply with requirements of ADAAG and UFAS. Refer to Attachment No. 1 for Sign Types described below.

5-8.2 Exterior Signs: provide the following Exterior Building Sign Types:

5-8.2.1 Provide a total of two Exterior Building Identification Signs, one per building, Type D4, Sign grid 1, size: 762 mm H x 1067 mm W [30"H x 42"W].

5-8.2.2 Provide a total of four Exterior Building Number Signs, two per building, Type C8, wall mounted, Sign grid 1, size: 457 mm H x 1372 mm W [18"H x 54"W].

5-8.2.3 Provide all exterior doors with Room Identification Sign, Type BB2, wall mounted, size: 229 mm H x 229 mm W [9"H x 9"W].

5-8.2.4 Provide a total of six Exterior Guide Signs, Type AA5, wall mounted, size: 3 modules of 70 mm H x 457 mm [W 2-3/4"H x 18"W].

5-8.2.5 Provide a total of six Exterior Guide Signs, Type AA6, ceiling mounted, size: 3 modules of 102 mm H x 610 mm W [4"H x 24"W].

5-8.2.6 Provide a total of seven Company Identification Sign, Type BB2 (similar), wall mounted, size: 305 mm H x 610 mm W [12"H x 24"W]. Text Size=1" Cap with 1/2" line spacing vertically in lieu of 3/8".

5-8.3 Interior Signs: provide the following Interior Building Sign Types:

5-8.3.1 Provide four Building Directory Signs, two per building, Type AA1, wall mounted, Sign grid 2, size: 1067 mm H x 1219 mm [42"H x 48"W].

5-8.3.2 Provide all interior doors with Room Identification Sign, Type BB2, wall mounted, size: 229 mm H x 229 mm [9"H x 9"W].

5-8.3.3 Provide the following signs for each arms vault. All signs shall be visible to personnel when the door to the arms vault is open.

A. Restricted Area Sign. Sign Type G-3. Size 2'-0" (H) X 2'-6" (W). Text shall be as specified in AR 190-13, para 6-4. Sign shall be affixed to the outside of the vault wall adjacent to the vault door at eye level.

B. Intrusion Detection Sign (IDS) Sign shall be constructed as specified in AR 190-11, Appendix F, Figure F-1. The sign shall be affixed to the outside of the vault wall adjacent to the vault door at eye level.

C. Hazard Warning Symbol. The sign shall be as specified in FM 4-30.13. It shall be either NSN 7690-01-081-9584 or 7690-01-082-6709; Fire Symbol 4, Diamond Shape.

5-8.4 See accessibility section for accessible signage requirements.

## 5-9 ACCESSIBILITY FOR HANDICAPPED (PHYSICALLY IMPAIRED) PERSONS, BARRIER FREE DESIGN.

5-9.1 Accessibility will be based on requirements of the Americans with Disabilities Act (ADA.) Public accommodation will be provided as described in the ADA Architectural Guidelines (ADAAG.). Refer to SOW Chapter 2 for ADA requirements for individual spaces.

5-9.2 Proposed accommodations generally consist of the following:

5-9.2.1 Public areas will be ADA-compliant.

5-9.2.2 Entries and exits accessible as required by ADA.

5-9.2.3 An accessible path to all offices will be provided.

- 5-9.2.4 Toilets Rooms to be ADA-compliant.
- 5-9.2.5 All common use areas will be ADA-compliant.
- 5-9.2.6 ADA-compliant directional and identification signage will be provided.
- 5-9.2.7 All employee-only spaces will be provided with ADA-compliant approach, entry, turn-around and exit.
- 5-9.2.8 Where disabled employees presently exist, provide path and floor area space suitable for accommodation should be provided. No disabled employees have been identified.
- 5-9.2.9 ADA-compliant fire alarm systems are described in the Fire Protection Design Analysis.
- 5-9.2.10 ADA-compliant communication systems are described in the Electrical Design Analysis.