

3.0 BASIC TRAINING (BT) AND ONE STATION UNIT TRAINING (OSUT) COMPLEX <VER>(REV 2.3 – 20 SEP 2018)</VER>

3.1. GENERAL REQUIREMENTS:

3.1.1. FACILITY DESCRIPTION: The design must comply with the Army Standard for the facility type. Army Standard for Basic Training and One Station Unit Training (BT/OSUT) is provided in attachment A. BT complexes are required by the Army to encompass living, dining, training and administrative/command operations. A BT Complex consists of Barracks/Company Operations Facilities (B/COF), Dining Facility (DFAC), Battalion Headquarters (BNHQ), and Lawn Equipment Building (LEB). In addition, a Central Energy Plant (CCP) may be part of the complex. Industry standards apply except where military standards are required to meet specific operational needs. Use appropriate methods and materials for occupancy to achieve economy while not sacrificing durability. Arrange facilities, with outdoor training areas and any additional support structures and amenities on the site as a unit to allow the Battalion to live, eat, train and work together. This project consists of the facilities listed and described below.

- A. B/COF: <BTCOF_NO>Not used</BTCOF_NO><BTCOF>A B/COF is comprised of sleeping bays, restrooms, classrooms, storage, laundry areas, scrub rooms and company operations components.</BTCOF>
- B. BNHQ: <BTBN_NO>Not used</BTBN_NO><BTBN>A BNHQ is comprised of administration, command operations, special functions, storage and classroom components for a Training Battalion. </BTBN>
- C. DFAC: <BTDF_NO>Not used</BTDF_NO><BTDF>A DFAC is part of the complex but is not procured under this contract <BTDF_BTCCP>Energy loads for the dining facility are not part of the CCP loads.</BTDF_BTCCP> Refer to Dining Facility RFP.</BTDF>
- D. CCP: <BTCCP_NO>Not used</BTCCP_NO><BTCCP>A CCP consists of enclosed space for equipment and required maintenance space. No administrative, conference, or operator office is authorized.</BTCCP>
- E. LEB: <BTLEB_NO>Not used</BTLEB_NO><BTLEB>A LEB is a storage building for lawn maintenance equipment.</BTLEB>

3.1.2. FACILITY RELATIONSHIPS – NOT USED

3.1.3. ACCESSIBILITY REQUIREMENTS:

A. FACILITY DESIGN AND CONSTRUCTION:

- 1) The B/COF, LEB and CCP facilities are intended for occupancy and/or use by able-bodied military personnel only. In accordance with paragraph 3 (a) of the Deputy Secretary of Defense Memorandum dated 31 October 2008: DoD Access for People with Disabilities, facilities for able-bodied personnel are exempt from accessibility requirements.
- 2) Headquarters buildings shall comply with the Architectural Barriers Act (ABA) Accessibility Standard for Department of Defense (DOD) Facilities as currently amended.

3.1.4. BUILDING AREAS:

A. GENERAL: Calculate building areas in accordance with 011000-Par 5-GENERAL TECHNICAL section 5.4.4 COMPUTATIONS OF AREAS Overall building gross area and gross square feet per occupant shall be in accordance with the Army Standard and with paragraph 3.2.1 FUNCTIONAL SPACES below.

3.1.5. ADAPT BUILD MODEL - NOT USED

3.2. FUNCTIONAL AND OPERATIONAL REQUIREMENTS:<BTCOF>

3.2.1.BTBCOF FUNCTIONAL AND AREA REQUIREMENTS – BARRACKS/COMPANY OPERATIONS FACILITIES (B/COF)

A. PRIMARY SPACES

1) Company Operations:

- a) **Private/Semi-Private Offices:** Provide 12 private offices for: (total = eight private offices per B/COF) Command Offices- Company Commander (150 NSF); Executive Officer (110 NSF); Training Office (110 NSF); 1st Sgt (110 NSF) and four (4) Drill Instructor Offices with one office located adjacent to each barracks sleeping area and 3 Drill Instructors per office (350 NSF per office). Each Drill Instructor office shall have a private toilet and shower.
- b) **Supply:** Provide one (1) Company storage space for company Space shall be 830 NSF minimum design for storage of general equipment and supplies. Shipping and receiving functions are performed from company supply area. Provide an overhead coiling door with ramp for exterior vehicular access, a built-in issue counter between this room and the queuing corridor and space in the supply room area for two Supply NCOs.
- c) **Secure Storage:** Provide a minimum 288 NSF for the storage of high value items of electronic equipment, e.g. night goggles. Secure Storage shall comply with AR 190-13 The Army Physical Security Program and AR 190-51 Security of Unclassified Army Property (Sensitive and Nonsensitive) paragraph 3-6 and Appendix B-2. Default to Risk Level I unless a risk assessment and threat analysis is provided by the installation identifying the necessary Risk Level. Secure storage area shall be adjacent to the arms vault and shall be accessible from the company supply area only. Secure storage shall have built-in storage shelves.
- d) **Mask Storage:** Provide a minimum 280 NSF room for the storage of 288 gas mask. Provide a mask storage room adjacent to the arms vault. Mask storage room shall be accessible from the queuing corridor only.
- e) **Arms Vault:** Provide arms vault in accordance with AR 190-11. Vault door shall incorporate a steel Dutch-door type day-gate with a steel issue shelf built into lower leaf of day-gate. A minimum of 380 NSF shall be provided in the vault. Secure arms vault requires 240 PN arms storage for each B/COF. Weapons racks are typically Government furnished and contractor installed. Weapons racks are securely anchored to building Arms structure. Arms vault shall be adjacent to the company supply storage room and shall be accessible from the queuing corridor only. Intrusion Detection and Integrated Commercial Intrusion Detection Systems are required for all Arms vaults.
- f) **Covered Training/Assembly Area:** Provide covered training areas for soldiers to conduct assembly formations and to perform calisthenics during periods of inclement weather. Provide one (1) 10,700 GSF covered training/assembly area per Company. A minimum of ten (10) public telephones shall be provided for each Covered Training Assembly Area. Covered Training/Assembly Area shall be located a minimum of ten-feet (10') away from the B/COF.

2) Barracks:

- a) **Sleeping Area:** Each B/COF shall be designed for a single training company of 240 personnel in 4-60 PN Sleeping Areas. Periodic events require a surge capacity of 72 PN Each Sleeping Bay shall provide minimum 5,350 GSF sleeping area. HVAC system shall avoid "sweeping" room return or exhaust air over multiple beds to reduce the likelihood of spreading respiratory infections. Return air shall flow over no more than two (2) bed rows in the sleeping bay.
- (1) **Toilet/Shower/Dressing:** Provide each sleeping bay with two separate and equal toilet/shower/dressing rooms. Each toilet/shower/dressing room shall have a dressing area furnished with a minimum of twelve shower stalls, seven water closets and eight lavatories. Urinals shall not be substituted for water closets. Furnish dressing area with benches, mirrors and clothes hooks. Provide lavatories in a continuous vanity top and furnish each lavatory with a combination mirror/shelf. Lavatories to be constructed to support a minimum of 150lbs/linear foot and allow ease of floor maintenance.
- (2) **Laundry:** Each sleeping bay shall have two separate and equal laundry rooms. Locate one laundry room adjacent to each toilet/shower/dressing area. Each laundry room door shall be 36 inches wide minimum. Provide a total of thirty-six (36) washers and forty-eight (48) stackable dryers per B/COF with, folding tables and one laundry tray and sink. Provide power receptacles, natural gas connection (where gas is available to site) and vent connections for all dryers.

- b) **Drill Instructor (DI) Office:** Provide an administrative office adjacent to each sleeping bay on each floor to accommodate three work stations.
- (3) **DI Toilet/Shower:** Locate adjacent to DI Office and provide the DI toilet/shower with a lavatory, toilet, shower, dressing area and lockers, accessible from the DI Office only.
- c) **Platoon Classrooms:** Provide a classroom adjacent to each sleeping area on each floor. Size each classroom for 60-persons seating (and 72 Person Surge) and space for an instructor. Each classroom shall have marker boards, two projection screens and projector mounting systems, one per screen.

B. COMMON AREAS

- 1) **Reception/CQ:** Provide a reception area in the company operations area with a minimum 250 NSF reception area provided near the main building entrance. Reception CQ desk shall have an unobstructed view of the main building entrance.
- 2) **Public Toilet(s):**
 - a) Separate male and female restrooms shall be provided on the first floor for visitors, administrative personnel, and building occupant use. Each restroom shall have a minimum of one (1) shower.
 - 3) **Vestibule:** Provide an enclosed transition space between the exterior and interior of the building, at the primary entry point. Provide a minimum of 7 feet between doors. Provide walk off mats in the vestibule space.
 - a) **Entry Vestibule:** Entry vestibule for the sleeping bays shall be at the primary stairwell on each sleeping bay floor.
 - b) **Stair Vestibule:** Stair vestibule shall be the secondary ground floor entry into the sleeping bays and shall be located at the fire exit stairwell at the end of the covered training area on the first floor and adjacent to the toilet/shower/dressing and laundry areas of each sleeping bay on the upper floors.
- 4) **Corridors:** Provide 6 feet minimum width corridors.
 - a) **Queuing Corridor:** Provide a queuing corridor minimum 6 feet wide, connecting the mask storage room, the arms vault and the company supply room.
 - b) **Admin. Corridor:** Corridor in front of the administrative offices shall be 10 feet minimum width, to serve as a waiting area.
- 5) **Stairs:** Provide 4 feet 6 inch minimum width stairs.
- 6) **Janitor Closet:** Provide a minimum 30 NSF janitor closet with built-in sink per floor, in the central core area. Janitor closet shall have a mop sink, mop rack, storage shelving and space for buckets and vacuum.
- 7) **Mechanical, Electrical, and Telecommunications Rooms:** Size mechanical rooms to accommodate equipment maintenance and repair access without having to remove other equipment. First floor exterior access is required for centralized mechanical room.
- 8) **Recyclables Storage:** Provide a recyclable storage area visible in areas of high circulation or adjacent to the main point of entry into the facility to serve as a single point of collection for recyclable materials in the facility
- 9) **<BOOT_WASH>Bootwash:** Provide an outdoor area for soldiers to rinse mud from field gear, boots and clothing. Provide bootwash stations at three (3) locations, each building wing and the main building entrance. **</BOOT_WASH><BOOT_SCRAPER>Boot Scraper/Brush Station:** Provide cast iron dry boot scraper stations. Locate ten (10) stations beneath each covered training area and three (3) stations at the main building entrance. **</BOOT_SCRAPER>**
- 10) **Scrub Room:** Provide two scrub rooms for equipment and weapons cleaning. Large sinks and tables are used to clean field equipment and TA-50 gear. A total of 950 NSF shall be provided (two (2) rooms x 475 NSF provided in each room). Locate one scrub room at the rear of each covered training area. Furnish each scrub room with counter tops and washing troughs subdivided into multiple washing stations varying in size.
- 11) **Platoon Classroom Storage:** Provide a shared storage room for the two classrooms on each floor.
- 12) **TA-50 Storage:** Provide a TA-50 storage room for each sleeping bay on each floor. Provide four (4) storage rooms to accommodate 120 TA-50 gear for a total of 960 NSF (240 x 4).

13) **General Storage:** Provide one general storage room for each sleeping bay, adjacent to the TA-50 storage.

14) **Luggage Storage:** Provide secure storage for four (4) luggage rooms. Each room shall be a minimum 90 NSF and capable to store soldier's suitcases. Central luggage storage shall be lockable and partitioned into four separate and equal storage rooms. Each storage room shall be accessible from the central core of the central luggage storage area and shall have a lockable door.

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3.2.1.BTBN **FUNCTIONAL SPACES – BATTALIAN HEADQUARTERS (BNHQ)**

A. **GENERAL:** Calculate building areas in accordance with 011000-Par 5-GENERAL TECHNICAL section 5.4.4 COMPUTATIONS OF AREAS.

B. **PRIMARY SPACES:**

1) **Private Offices:** Provide private offices for: (total= eight (8) private offices per BNHQ) Battalion Commander (200 NSF) with a Closet (12 NSF minimum); Executive Officer (150 NSF); CSM (150 NSF); S-1 (110 NSF); S-2 (110 NSF); S-3 (110 NSF); S-4 (110 NSF); Chaplain (150 NSF).

2) **Command Conference Room:** Provide a minimum 750 NSF conference room capable of accommodating at least sixteen (16) chairs around a conference table and twelve (12) chairs along the conference room walls.

3) **Command Toilet/Shower:** Provide one shower stall and toilet facilities to serve the administrative personnel assigned to the command suite.

4) **Semi-Private Offices:** Provide semi-private offices for: (total = three (3) semi-private offices per BNHQ) S-2/S-3 Shared (210 NSF); Asst. Chaplain/Waiting Area (310 NSF); S-1 PAC (840 NSF).

5) **Reception:** Provide a minimum 500 NSF Reception area located within the Command Suite.

6) **Chaplain Storage:** Provide a minimum 50 NSF storage room located adjacent to the Chaplain's office area.

7) **S-4 Storage:** Provide a minimum 800 NSF storage room located adjacent to the S-4 office area

8) **Copy Areas:** Provide a minimum 110 NSF copy areas located adjacent to the Reception and Staff Duty.

9) **Message Center:** Provide a minimum 140 NSF Message Center located adjacent to the S-1 Office, S-1 PAC, and the Lobby. Provide a lockable pass-through opening with a counter from the Message Center to the Lobby.

10) **Classrooms:** Provide two (2) classrooms, each a minimum of 3,600 NSF and capable of accommodating a minimum of 240 personnel seated in tablet arm chairs and space for a 10 feet deep full width instructor space along the front. Classrooms that are multi-functional spaces divisible by partitions and with full automation connectivity for up to three multi-functional configurations for each large space. Each large classroom space shall be capable of being subdivided into two equal classrooms. Each subdivided classroom must have two separate exits. Each classroom shall have marker boards, two projection screens and projector mounting systems, one per screen.

a) **Classroom Storage:** Provide two (2) minimum 160 NSF storage rooms located adjacent to each classroom for a total of four (4) Classroom storage rooms.

b) **Classroom Vestibules:** Provide a vestibule at each exterior entry point into the classrooms.

c) **Classroom Hall:** Provide a central hallway adjacent to the main entry into the classrooms to serve as the primary circulation area for the classrooms with a minimum of five (5) drinking fountains.

C. **COMMON AREAS:**

1) **Lobby:** Provide a reception area adjacent to the primary entry vestibule, to receive the general public and serve the battalion business functions. Lobby shall be a minimum 900 NSF

- 2) **Toilet(s):**
 - a) **Classroom/Public Restrooms:** Provide separate male and female restrooms with a minimum 210 NSF each. Restrooms shall be located on the first floor for visitors and building occupant use. Each restroom shall have a minimum of one (1) shower. Locate two (2) drinking fountains adjacent to the exterior of the Public Restrooms
 - b) **Command Suite Restroom:** Provide a minimum 55 NSF unisex restroom located within Command Suite for use of command staff
- 3) **Vestibule:** Provide an enclosed transition space between the exterior and interior of the building, at the primary and secondary entry points. Provide a minimum of 7 feet between doors.
- 4) **Corridors:** Provide 6 foot minimum width corridors.
- 5) **Janitor Closet** Provide a minimum 40 NSF janitor closet with built-in sink, mop sink, mop rack, storage shelving and space for buckets and vacuum.
- 6) **Mechanical, Electrical, and Telecommunications Rooms:** Size mechanical rooms to accommodate equipment maintenance and repair access without having to remove other equipment. First floor exterior access is required for centralized mechanical. All telecommunications rooms shall be conditioned space.
- 7) **Vending Area:** Provide a minimum 130 NSF open space to accommodate three (3) vending machines that allows access from both the classroom area and reception area.
- 8) **Recyclables Storage:** Provide recyclable storage visible in areas of high circulation or adjacent to the main point of entry into the facility to serve as a single point of collection for recyclable materials in the facility.
- 9) **Staff Duty/Message Area:** Provide a minimum 110 NSF in the building entrance/reception area to include security office for building surveillance.
- 10) **Copy Area:** Provide space as needed for media reproduction adjacent to Staff Duty area.

</BTBN><BTLEB>

3.2.1.BTLEB **FUNCTIONAL SPACES – LAWN EQUIPMENT BUILDING (LEB)**

A. **GENERAL:** Provide a lawn maintenance equipment storage building, based on 400 gross square feet per B/COF. Divide LEB with partitions, to provide an individually securable storage space with separate access for each B/COF. Provide access to each individual storage space through an overhead coiling door. </BTLEB><BTCCP>

3.2.1.BTCCP **FUNCTIONAL SPACES –CENTRAL ENERGY PLAN (CCP)**

A. **GENERAL:** Provide adequate space and clearance for equipment maintenance and repair. </BTCCP>

3.3. **SITE FUNCTIONAL REQUIREMENTS**

A. **PARKING:**

1) **Privately Owned Vehicle (POV) Parking:** <BTOSUT_POV_NO>POV parking details within the designated BT Complex are provided below for information only; as parking will not be procured under this contract. </BTOSUT_POV_NO><BTOSUT_POV_YES>Design and construct POV parking, within the designated BT Complex as identified below. Base the location and design of the POV parking area(s) on the Installation's site constraints. Parking can either be consolidated or spread out along the perimeter of the complex. POV parking shall be as follows: </BTOSUT_POV_YES> <BTCOF>

- a) **B/COF:** Provide 18 spaces per 240 PN B/COF for a total of 90 spaces. </BTCOF><BTBN>
- b) **BNHQ:** Provide 23 total spaces of which includes two accessible and three visitor spaces </BTBN><BTDF>
- c) **DFAC -** Provide 65 total spaces of which includes three accessible spaces. </BTDF>

B. ACCESS DRIVES AND LANES:

- 1) **Access Drives:** Provide access drives to each building. Minimum access drive width shall be 24 feet. Design drives with curb and gutter and minimum turning radius required for emergency vehicle access.
- 2) **Emergency Vehicle/Fire Access Lanes:** Provide access in accordance with NFPA 1, UFC 3-600-01 and the Installation's requirements.

C. TROOP FORMATION/ASSEMBLY AREA: **<BTCOF_NO>Not Used</BTCOF_NO><BTCOF>** Construct pavements for Troop formation/assembly areas, such as the pavement beneath the outdoor "Covered Training Areas" of Portland cement concrete having a minimum nominal thickness of 4 inches. Troop formation areas that are designed to also support emergency and service vehicle traffic shall be designed as roadway pavements. See Roadway Pavements of Paragraph 3.4 Site and Landscape Requirements for design requirements. **</BTCOF>**

3.4. SITE AND LANDSCAPE REQUIREMENTS

A. SITE STRUCTURES

1) **Dumpster Enclosure Area:** Locate, design and construct dumpster enclosure area(s) and screening. Locate dumpster enclosures outside of restricted areas to allow for servicing activities. Dumpsters are GFGI. Size dumpster pads to accommodate **<BTOSUT_TRASH_DUMP>** trash dumpsters only. No recycling dumpsters are required. **</BTOSUT_TRASH_DUMP>** **<BTOSUT_RECYC_DUMP>** both trash and recycling dumpsters. **</BTOSUT_RECYC_DUMP>** Dumpster screening shall be aesthetically and architecturally compatible with the building it serves and shall be designed in accordance with the Installations guidelines.

B. LANDSCAPING/HARDSCAPING

- 1) **Non-Vehicular Walks:** Construct non-vehicular pedestrian and troop formation sidewalks of Portland cement concrete having a minimum nominal thickness of 4 inches. Design uniform and symmetrical joint patterns in accordance with AASHTO standards. The length to width ratio shall not exceed 1.25 for non-reinforced pavements. Locate walks paralleling buildings beyond the eave drip line and at least 5 feet from the foundation.
 - a) **Pedestrian Sidewalks:** Provide pedestrian walks within the designated construction area and connect to existing sidewalks, where applicable. Sidewalks shall be a minimum of 6 feet wide.
 - b) **Troop Formation Sidewalks:** Troop formation sidewalks shall be a minimum of 15 feet wide. Troop formation sidewalks that are also designed to support emergency and service vehicle traffic shall be a minimum of 20 feet wide will be considered roadway pavements.
- 2) **Roadway Pavement:** Troop formation areas and sidewalks designed to support emergency and service vehicle traffic shall meet AASHTO standards for roadway pavements. Construct vehicular supported walks of Portland cement concrete having a minimum nominal thickness of 7 inches. Design uniform and symmetrical joint patterns in accordance with AASHTO standards. The length to width ratio shall not exceed 1.25 for non-reinforced pavements.
- 3) **Physical Training Areas:** **<BTOSUT_PT_NO>**Physical training areas are an integral component of the BT Complex. However the details below are for information only; as PT areas will not be procured under this contract. **</BTOSUT_PT_NO><BTOSUT_PT_YES>**The design and construction of physical training areas is required. **</BTOSUT_PT_YES>** Locate outdoor training areas, particularly those that are needed for physical fitness, to the interior areas of the BT Complex. The minimum mandatory exterior training areas for the complex include one running track per Battalion, one physical training (PT) pit per B/COF and four 4-station climbing bar sets per B/COF.
 - a) **Running Track:** If required by RFP, provide one closed, oval or round shaped, 1/4 mile running track. The track must be a separate stand-alone feature, not incorporated into other site features, such as roads or walks. The entire track must be observable from one central location to allow minimal drill instructor oversight. Construct the track of a synthetic sports surface material, as specified in Specification Section 02 83 30 Synthetic Sports Surface of Appendix J. Track width shall be 15 feet. Running lanes are not required. Design surface and subsurface drainage for the track. Standing water is not permitted on the track.
 - b) **PT Pits:** If required by RFP, provide one PT Pit and four 4-station climbing bar sets for each B/COF. Refer to Appendix J, drawings for physical training equipment. Each pit shall be a minimum of 18,500 square feet. Square pits are desired, but pits configurations may be adjusted to accommodate site conditions. Locate the pits to the rear of each facility as either be stand-alone facilities or located within the interior of the track.

Separation of PT pits located within the track shall be visibly defined. PT pits will be used for hand to hand combat drills, as well as, calisthenics. Construct the PT pit of a durable, low maintenance surface, such as shredded rubber chips. Design surface and subsurface drainage for the PT pits. Standing is not permitted on the PT pits. Providing canopy coverings over the PT pits or fencing around the pits is not permitted.

3.5. ARCHITECTURAL REQUIREMENTS

A. **GENERAL:** Do not use exterior materials that require periodic repainting or similar refinishing processes. Material exposed to weather shall be factory pre-finished, integrally colored or provided with intrinsic weathering finish.

B. **WALLS:**

1) **Exterior Walls:** Where Exterior Insulation and Finish Systems (EIFS), or any other material except CMU or other Masonry material is used as exterior finish material, it shall be in conjunction with a CMU wainscot. EIFS shall be "high-impact" type and shall be "drainable" type.

C. **MOLD AND MILDEW:** The Designer of Record shall provide details in the design analysis and design showing steps taken to mitigate the potential growth of mold and mildew in the facility. Perform a wall and/or roof construction moisture analysis to verify appropriate thermal insulation and vapor permeability retardant assemblies to prevent condensation within the wall and/or roof under all foreseeable climate conditions. All gypsum board shall achieve a score of 10, the highest level of performance for mold resistance under the ASTM D 3273 test method. All gypsum board shall be transported, handled, stored and installed in accordance with the GYPSUM ASSOCIATION – Guidelines for Prevention of Mold Growth on Gypsum Board (GA-238-03).

D. **ROOF SYSTEMS:** For membrane roof systems provide a minimum slope of 1/4 inch per foot and roof crickets with a minimum 1/2 inch per foot slope. Membrane roof systems shall be fully adhered. Provide pitched roof systems with a minimum slope of 3 inches per foot. Structural standing seam metal roofs shall comply with the requirements of ASTM E 1592. Roof system shall be Underwriters Laboratory (UL 580 Class 90) rated or Factory Mutual Global (FM) I-90 rated and comply with applicable criteria for fire rating.

1) **Roof Mounted Equipment:** For roof mounted equipment, if allowed, provide permanent access walkways and platforms to protect roof. Roof mounted equipment on pitched roof systems generally unacceptable exceptions must have prior government approval. Roof mounted equipment on membrane roof systems shall be completely screened by the roof parapet to a distance of 400 feet.

2) **Roof Access:** Roof access from building exterior is prohibited.

3) **Trim and Flashing:** Gutters, downspouts, and fascias shall be factory pre-finished metal and shall comply with SMACNA Architectural Sheet Metal Manual.

E. **OPENINGS**

1) **Storefronts/Curtain Walls & Entrances:**

a) **Storefronts (Main Entrance Doors):** Provide aluminum storefront doors and frames with Architectural Class 1 anodized finish, fully glazed, with medium or wide stile for entry into lobbies or corridors. Provide doors complete with frames, framing members, subframes, transoms, sidelights, trim, applied muntins and accessories. Provide framing systems with thermal-break design. Storefront systems shall comply with wind-load requirements of applicable codes and criteria, including UFC 4-010-01.

b) **Curtain Wall Systems:** Curtain wall systems shall be capable of withstanding area wind loads, thermal and structural movement required by location and project requirements, and shall comply with applicable codes and criteria.

2) **Windows:**

a) **Exterior Windows:** Provide insulated, high efficiency window systems, with thermally broken frames complying with applicable codes and criteria. Design window sills to discourage bird nesting. Exterior windows must meet the DoD minimum Antiterrorism standards of UFC 04-010-01 for force protection requirements.

3) **Doors and Frames:** Provide hollow metal doors, or flush solid core wood doors as required. All door frames shall be hollow metal. Fire-rated and smoke control doors and frames shall comply with applicable codes,

criteria and requirements of labeling authority. STC ratings shall be of the sound classification required and shall include the entire door, seals and frame assembly.

a) **Exterior Insulated Hollow Metal Doors & Frames:** Provide galvanized insulated hollow metal doors and frames opening to spaces other than corridors or lobbies compliant with ANSI A250.8/SDI 100. Doors shall be heavy duty (grade 2) insulated with 18-gage steel cladding; top edge closed flush; A60 galvanized. Frames shall be 12-gauge, with continuously welded mitered corners and seamless face joints. Construct doors and frames of hot dipped zinc coated steel sheet, complying with ASTM A653, Commercial Steel, Type B, minimum A40 coating weight; factory primed. Fire-rated openings shall comply with applicable codes, and the requirements of the labeling authority. Door and frame installation shall comply with applicable codes and criteria. Exterior doors must meet the DoD Minimum Antiterrorism Standards of UFC 04-010-01 for force protection requirements.

b) **Interior Insulated Metal Doors:** Insulated hollow metal doors shall comply with ANSI A250.8/SDI 100. Doors shall be minimum Level 2, physical performance Level B, Model 2; factory primed. Provide insulated hollow metal doors for utility rooms, storage rooms and toilets.

c) **Solid Core Wood Doors:** All doors shall be wood doors except noted otherwise Provide flush solid core wood doors conforming to WDMA I.S.-1A. Stile edges shall be non-finger jointed hardwood compatible with face veneer. Provide Architectural Woodwork Institute (AWI) Grade A hardwood face veneer for transparent finished doors.

d) **Interior Hollow Metal Frames:** Hollow metal frames shall comply with ANSI A250.8/SDI 100. Frames shall be minimum Level 2, 16 gauge, with continuously welded mitered corners and seamless face joints; factory primed.

4) **Hardware:**

a) **Door Hardware:** Provide closers for all exterior doors, all doors opening to corridors and as required by codes. Install exit devices on all building egress doors. Provide other hardware as necessary for a complete installation.

(1) **Finish Hardware (Master Keying System/Cores):** All hardware shall be consistent and shall conform to ANSI/BMHA standards for Grade 1. Coordinate all requirements for hardware with the Contracting Officer. Provide extension of the existing Installation's keying system. The Installation keying system is «BTOSUT_KEYING». Locksets shall have interchangeable cores with no less than seven pins. Provide key-removable type cylinder cores that allow core removal from the lockset without disassembly of knob or lockset. Locksets for mechanical, electrical and telecommunications rooms only shall be keyed to the existing Installation Master Keying System. Provide HVAC terminal units that are accessed from a central corridor with a deadbolt to minimize protrusion into corridor. Plastic cores are unacceptable.

(2) **Fire and Exit Door Labeling:** Install hardware for fire doors in accordance with the requirements of applicable codes. Exit devices installed on fire doors shall have a visible label bearing the marking "Fire Exit Hardware". Other hardware installed on fire doors, such as locksets, closers, and hinges shall have a visible label or stamp indicating that the hardware items have been approved by an approved testing agency for installation on fire-rated doors. Hardware for smoke-control door assemblies shall be installed in accordance with applicable codes.

(3) **Door Stops:** Provide wall or floor stops for all exterior doors that do not have overhead holder/stops.

b) **Auxiliary Hardware:**

(1) **Clothes/Robe Hooks:**

(a) **Toilets/Showers:** Provide double robe hook adjacent to shower enclosure entry.

c) **Electronic Key Card Access System:**

d) **Non-Destructive Emergency Access System (KNOX Box):** <BTOSUT_LOCKBOX_NO>Not Used</BTOSUT_LOCKBOX_NO><BTOSUT_LOCKBOX> «BTOSUT_LOCKBOX_DESCRIPTION» </BTOSUT_LOCKBOX>

5) **Louvers and Vents:**

a) **Exterior:** Provide exterior louvers with bird, bug and/or both screens designed to exclude wind-driven rain constructed to withstand wind loads in accordance with the applicable codes. Wall louvers shall bear the Air Movement & Control Association (AMCA) International certified ratings program seal for air performance and water penetration in accordance with AMCA 500-D and AMCA 511. Louver finish shall be factory applied.

F. EXTERIOR SPECIALTIES:

1) **Bird Habitat Mitigation:** Provide details in the design necessary to eliminate the congregating and nesting of birds at, on, and in the facility.

G. ACOUSTICAL REQUIREMENTS: Design exterior walls and roof/floor/ceiling assemblies, doors, windows and interior partitions to provide for attenuation of external noise sources such as airfields in accordance with applicable criteria, but not less than the following:

1) **Walls and Floor/Ceiling Assemblies:** Provide sound insulation to meet a minimum rating of STC 49 at walls and floor/ceiling assemblies.

2) **Video Conferencing Areas:** In addition to the sound insulation required, video teleconferencing areas shall meet a Noise Criteria (NC) 30 rating in accordance with ASHRAE Fundamentals Handbook.

3) **Interior Doors:** At interior doors provide a minimum rating of STC 25.

4) **Interior Spaces:** Sound conditions and levels for interior spaces, due to the operation of mechanical and electrical systems and devices, shall not exceed levels as recommended by ASHRAE handbook criteria. Provide acoustical treatment for drain lines and other utilities to prevent noise transmission into the interior of all surrounding spaces.

H. THERMAL REQUIREMENTS: Place emphasis on providing thermal envelope performance using continuous insulation components outside of the structural elements of the facility. <BTCOF>

3.5.BTBCOF ARCHITECTURAL REQUIREMENTS – BARRACKS/COMPANY OPERATIONS FACILITY (B/COF)

A. OPENINGS

1) **Windows:**

a) **Interior Windows:** Provide a laminated sliding glass window integrated with a lockable rolling shutter door at the built-in issue counter between the supply room and the queuing corridor. The supply room issue counter opening shall be 36 inches wide and 42 inches high minimum.

2) **Doors and Frames:**

a) **Overhead Doors:** Provide a 7 foot high by 8 feet wide, overhead coiling door in the supply room.

b) **Dutch Doors:**

(1) **Mask Storage:** Provide a lockable dutch-door with a supply shelf built into the bottom leaf.

(2) **Arms Vault:** Arms vault door shall incorporate a steel dutch-door type day-gate with a steel issue shelf built into the lower leaf of the day-gate and shall comply with Appendix G of AR 190-11.

c) **Secure Storage:** Door and frame provided for Secure Storage shall comply with AR 190-51 Appendix B-2 and ANSI A250.8/SDI 100. In the event of conflict between the references, apply the most stringent requirement.

3) **Hardware:**

a) **Auxiliary Hardware:**

(1) **Clothes/Robe Hooks:**

(a) **Sleeping Bay Toilet/Shower(s):** Provide a double robe hook at each shower entry.

(b) **Sleeping Bay Dressing:** Furnish and install thirty wall mounted clothes hooks spaced evenly along the walls of each dressing area above the wood benches.

(c) **DI Toilet/Shower(s):** Provide a double robe hook in each shower dressing area.

4) **Glass and Glazing:**

a) **Mirrors:**

(1) **Sleeping Bay Dressing Area:** Furnish and install four full length wall mirrors each, 16 to 24 inches wide by 72 inches high, spaced evenly on one short wall of each dressing area.

B. ACOUSTICAL REQUIREMENTS:

1) **Floors Separating Sleeping Spaces:** Provide sound insulation to meet a minimum rating of STC 50/IIC 55 at floors separating sleeping spaces.

2) **Sleeping Bay Gender Separation Walls:** Wall assembly shall have a minimum rating of STC 50.

3) **CO Office:** Provide sound insulation to meet a minimum STC rating of 50 at walls and doors.

C. THERMAL REQUIREMENTS

1) **Thermal Insulation:** Provide exterior wall, floor, and roof/ceiling assemblies with thermal transmittance (u-values) required to comply with the proposed energy conservation requirements. Insulation shall not be installed directly on top of suspended acoustical panel ceiling systems

2) **Building Envelope Sealing Performance Requirement:** Requirements of paragraph 5.6.2 are fully applicable except that envelope leakage test shall be a maximum of 0.15 cfm/sf for measured area. Place emphasis on provided thermal envelope performance using continuous installation components outside of the structural elements of the facility.

D. VAULT REQUIREMENTS: Arms vault for storage of arms shall comply with Appendix G of AR 190-11, Physical Security of Arms, Ammunition, and Explosives. Vendors shall be DAQ Level 3, Level 1 Certified. </BTCOF><BTBN>

3.5.BTBN ARCHITECTURAL REQUIREMENTS – BATTALION HEADQUARTERS (BNHQ)

A. OPENINGS:

1) **Windows:**

a) **Interior Windows:**

(1) **Administration (S1):** Provide a laminated sliding glass window integrated with a lockable rolling shutter door at the built-in issue counter between message center and the corridor. Counter opening shall be 36 inches wide by 42 inches high minimum.

(2) **Staff Duty:** Provide a laminated sliding glass window integrated with a lockable rolling shutter door at the built-in issue counter between message center and the corridor. Counter opening shall be 36 inches wide by 42 inches high minimum.

B. ACOUSTICAL REQUIREMENTS:

1) **Classroom Partitions:** Partitions shall have a minimum STC rating of 45.

2) **Chaplain Office & Assistant/Waiting Area:** Provide sound insulation to meet a minimum STC rating of 50 at walls and doors. </BTBN><BTLEB>

3.5.BTLEB ARCHITECTURAL REQUIREMENTS – LAWN EQUIPMENT BUILDING (LEB)

A. OPENINGS

1) **Doors and Frames:** Each overhead coiling door shall be lockable and a minimum eight feet wide by seven feet high for access. </BTLEB>

3.5.1. FINISHES AND INTERIOR SPECIALTIES

A. GENERAL: Arrange spaces in an efficient, functional manner. Provide sustainable materials and furnishings that are easily maintained and replaced. Maximize use of daylighting. Provide interior surfaces that are easy to clean and light in color. Structure interior spaces to allow maximum flexibility for future modifications.

B. FINISHES:

1) **Minimum Finish Requirements:** Designers are not limited to finishes listed in the following INTERIOR FINISHES table(s) and are encouraged to offer higher quality finishes. Wall, ceiling and floor finishes and movable partitions shall conform to the requirements of the IBC, NFPA and UFC 3-600-01 Fire Protection Engineering for Facilities. Where code requirements conflict, the most stringent code requirement shall apply.

a) **Walls:** All walls shall be minimum 5/8" painted gypsum board, except where stated otherwise. Use impact resistant gypsum board in vestibule, corridors, stairs, laundry, vending areas and storage areas. Provide a Level 4 Finish in accordance with USG Handbook, latest edition.

b) **Ceilings:** All ceilings shall be minimum 5/8" painted gypsum board, except where stated otherwise. Provide a Level 4 Finish in accordance with USG Handbook, latest edition.

(1) **Acoustical Ceiling Tiles (ACT):** Shall be 24"x 24" Acoustical tile panels of 5/8 inch minimum thickness. Type as indicated, Class A. Light reflectance shall exceed 75 percent, color, texture and finish shall be as indicated. When not indicated provide white, fissured texture acoustical panels with a beveled regular edge. NRC not less than 0.60, CAC not less than 35.

(2) **Ceiling Grid:** Provide a 9/16" suspension system - Type as indicated. Color, texture and finish shall be as indicated. When not indicated provide white, hot-dipped galvanized steel, exposed tee grid with hold down clips for ceiling tiles.

c) **Floors:** Resilient Flooring shall be minimum 1/8 inch thick, conforming to ASTM F 1066, Class 2, through pattern tile, Composition 1, asbestos free, with color and pattern uniformly distributed throughout the thickness of the tile.

d) **Countertops:** Provide solid surfacing of cast 100 percent acrylic polymer to be used for countertops and backsplashes, 1/2-inch minimum thickness. Must meet ANSI/NEMA LD 3 and ASTM E 84. High-Pressure Laminate will not be allowed for countertops in restroom, toilet room, kitchen or break room applications. Provide countertops with waterfall front edge and integral coved backsplash, minimum 4" high.

e) **Window Stools:** Provide solid surfacing of cast 100 percent acrylic polymer 1/2-inch minimum thickness. Must meet ANSI/NEMA LD 3 and ASTM E 84.

2) **Minimum Paint Finish Requirements:** All paints used shall be listed on the "Approved product list" of the Master Painters Institute, (MPI). Follow application criteria recommended by MPI guide specifications for the substrate to be painted and the environmental conditions existing at the project site. Except factory pre-finished material, provide surfaces receiving paint with a minimum of one prime coat and two finish coats. Paints having a lead content over 0.06 percent by weight of nonvolatile content are unacceptable. Paints containing zinc-chromate, strontium-chromate, mercury or mercury compounds, confirmed or suspected human carcinogens shall not be used on this project.

a) **Exterior Surfaces:** Exterior paints and coating products shall be classified as containing low volatile organic compounds (VOCs) in accordance with MPI criteria. Provide an MPI Gloss Level 5 Finish (Semi-gloss), unless otherwise specified.

b) **Interior Surfaces:** Interior paints and coating products shall contain a maximum level of 150 g/l (grams per liter) VOCs for non-flat coatings and 50 g/l of VOCs for flat coatings. Provide an MPI Gloss Level 5 Finish (semi-gloss) in wet areas and a flat finish in all other areas.

C. INTERIOR SPECIALTIES:

1) Signage & Directories:

a) **Signage:** Signage shall be provided for all public amenities and all signage shall be mechanically attached.

b) **Room Signage:** Provide room number sign with changeable two-line message strip signage. Changeable message strip signs shall be of same construction as standard room signs to include a clear sleeve that will accept a paper or plastic insert with identifying changeable text. The insert shall be prepared typeset message photographically enlarged to size and mounted on paper card stock.

2) Visual Display Units/Cases:

a) **Bulletin Boards:** Where required, bulletin boards shall be 4 feet high and 6 feet wide with a header panel and lockable glazed doors.

3) **Toilet Accessories:** Furnish and install the items listed below and all other toilet accessories necessary for a complete and usable facility. All toilet accessories shall be Type 304 stainless steel with satin finish. Toilet accessories shall include the following:

a) **Toilet/Shower(s):**

- (1) Glass Mirror/Shelf – 18 inch by 24 inch glass mirror on stainless steel frame with shelf at each lavatory
- (2) Hands free liquid soap dispenser – at each lavatory
- (3) Hands free paper-towel dispenser
- (4) Waste receptacle – recessed mounted at each lavatory/toilet area
- (5) Sanitary napkin disposal at each female toilet
- (6) Toilet paper dispenser – lockable multiple roll at each toilet
- (7) Sanitary toilet seat cover dispenser – at each toilet stall
- (8) Shower curtain rod, extra heavy duty – at each shower stall
- (9) Shower curtain, white anti-bacterial nylon/vinyl fabric shower curtain – at each shower stall
- (10) Soap dish – in shower
- (11) Grab bars – as required by ABA

4) **Wall Protection:**

- a) **Chair Rail:** Install chair rails in areas prone to hi-impact use, such as corridors and lobby seating area.
- b) **Corner Guards:** Provide surface mounted, high impact resistant, integral color, snap-on type resilient corner guards, extending from floor to ceiling for wall/column outside corners in high traffic areas. Furnish factory fabricated end closure caps for top and bottom of surface mounted corner guards.

5) **Storage Shelving:**

- a) **Janitor Closet:** Provide each janitor closet with a four holder mop rack and two 18 inch deep by 48 inch long heavy duty stainless steel shelves for storage of cleaning supplies.

6) **Fire Extinguishers, Cabinets & Mounting Brackets:** Furnish a list of installed fire extinguisher cabinets and mounting brackets (including location, size and type) to the Contracting Office Representative. Provide a list of all required portable fire extinguishers, with descriptions (location, size, type, etc.) and total number per type. See also Section 01 33 16, Attachment D, "SAMPLE FIRE PROTECTION AND LIFE SAFETY CODE REVIEW", paragraph 1.14. <BTCOF>

3.5.1.BTBCOF FINISHES AND INTERIOR SPECIALTIES – B/COF

A. **GENERAL:** Design B/COF barracks area with a residential ambience. Design B/COF company operations area with an office ambience.

B. **FINISHES:**

1) **Minimum Finish Requirements:**

a) **Sleeping Bay Gender Separation Walls:** Finish shall be a minimum of one layer of 5/8 inch impact resistant gypsum wallboard on each side of wall framing and shall be one-hour fire rated.

2) **Excluded Finishes:**

a) **Floors:** Carpet shall not be used as a floor finish in the B/COF.

3) **Finish Table:**

B/COF INTERIOR FINISHES

	Floors				Base			Walls				Ceiling				Remarks	
	RESILIENT FLOORING	PORCELAIN OR QUARRY TILE	CERAMIC TILE	RECESSED ENTRY MAT	SEALED CONCRETE	RESILIENT BASE	PORCELAIN OR QUARRY TILE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT	LAMINATED GLASS, INSULATED CURTAIN WALL SYSTEM	SEALED CMU OR SEALED CONCRETE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT	ACOUSTICAL CEILING TILE	SEALED CONCRETE		EXPOSED
1ST FLOOR																	
VESTIBULE		•		•		•	•	•	•			•				9'	
STAIR	•				•	•		•	•						•	9'	NOTE 6 & 3
RECEPTION/CQ		•					•					•				9'	
CO	•					•		•					•				NOTE 10
XO	•					•		•					•				
1ST SGT	•					•		•					•				
TRO	•					•		•					•				
MEN'S TOILET/SHOWER			•					•				•	•				NOTE 1 & 4
WOMEN'S TOILET/SHOWER			•					•				•	•				NOTE 1 & 4
JANITOR CLOSET			•					•				•	•				NOTE 2
RECYCLABLES STORAGE																	NOTE 5
LUGGAGE STORAGE					•	•		•							•		
COMPANY SUPPLY					•	•		•				•					
SECURE STORAGE					•	•		•				•					
MASK STORAGE					•	•		•				•					
ARMS VAULT					•	•				•				•			
CORRIDORS		•					•	•				•				9'	
QUEUING CORRIDOR		•					•	•				•				9'	
MULTIPURPOSE ROOM	•					•		•				•				9'	
SCRUB ROOM			•					•				•				9'	NOTE 4 & 8
MECHANICAL					•	•		•				•			•		NOTE 9
ELECTRICAL					•	•		•				•			•		NOTE 9
TELECOMMUNICATIONS	•					•		•				•			•		NOTE 11
COVERED TRAINING AREA					•											9'	NOTE 7
2ND AND 3RD FLOORS																	
VESTIBULE					•	•		•	•			•				9'	
STAIR	•				•	•		•	•			•			•	9'	NOTE 6 & 3
SLEEPING BAY	•					•		•				•				9'	
TOILET/SHOWER/DRESSING			•					•				•					NOTE 1 & 4
LAUNDRY		•					•	•				•					NOTE 4
CORRIDORS		•					•	•				•				9'	
DI OFFICE	•					•		•				•					
DI TOILET/SHOWER			•					•				•					NOTE 1 & 4
PLATOON CLASSROOMS	•					•		•				•				10'	
STORAGE	•					•		•				•					
TA-50 STORAGE	•					•		•				•					
GENERAL STORAGE	•					•		•				•					
JANITOR CLOSET			•					•				•					NOTE 2
MECHANICAL					•	•		•				•			•		NOTE 9
ELECTRICAL					•	•		•				•			•		NOTE 9
TELECOMMUNICATIONS	•					•		•				•			•		NOTE 11 & 12
NOTES:																	
1. ALL WET WALLS IN TOILET ROOMS SHALL HAVE 6'-0" HIGH CERAMIC TILE WAINSCOT. ALL SHOWERS SHALL HAVE FULL HEIGHT CERAMIC TILE WALLS.																	
2. WALLS ADJACENT TO JANITOR SINK SHALL HAVE A 6'-0" HIGH CERAMIC TILE WAINSCOT.																	
3. PROVIDE PAINTED GYP. BOARD CEILING @ 3RD FLOOR ONLY.																	
4. ALL COUNTERS SHALL HAVE A MINIMUM OF 4" HIGH BACKSPLASH.																	
5. IN VENDING OR RECYCLABLES STORAGE AREA, MATCH FLOORING, WALL, AND CEILING FINISHES TO THOSE OF ADJACENT AREA.																	

B/COF INTERIOR FINISHES																
	Floors					Base			Walls				Ceiling			Remarks
	RESILIENT FLOORING	PORCELAIN OR QUARRY TILE	CERAMIC TILE	RECESSED ENTRY MAT	SEALED CONCRETE	RESILIENT BASE	PORCELAIN OR QUARRY TILE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT	LAMINATED GLASS, INSULATED CURTAIN WALL SYSTEM	SEALED CMU OR SEALED CONCRETE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT	ACOUSTICAL CEILING TILE	SEALED CONCRETE	
6. RISERS SHALL BE PAINTED STEEL. STAIR LANDINGS AND TREADS SHALL HAVE RESILIENT FLOORING OR SEALED CONCRETE. PROVIDE TREADS WITH SLIP RESISTANT NOSING. PAINT ALL EXPOSED STRUCTURES.																
7. PROVIDE INSULATED METAL PANELS @ CEILING.																
8. PROVIDE 6'-0" HIGH CERAMIC TILE WAINSCOT ON ALL WALLS.																
9. CEILING MAY BE PAINTED EXPOSED STRUCTURE IF ALLOWED BY APPLICABLE CODE.																
10. EXTEND PARTITIONS TO DECK. REFERENCE ACOUSTICAL REQ. IN PARAGRAPH 3.5.BTBCOF FOR MINIMUM STC RATINGS.																
11. COMPLY WITH THE REQUIREMENTS OF ANSI/TIA/EIA-596-B (GYPSUM BOARD CEILING ARE ACCEPTABLE)																
12. STATIC-DISSIPATIVE TILE SHALL BE USED.																

C. INTERIOR SPECIALTIES:

1) Visual Display Units/Cases:

a) **Bulletin Boards:** In each B/COF provide one bulletin board per floor. Locate bulletin board at the main vestibule on the first floor and at the entry vestibule on the upper floors.

b) **Marker Boards:**

(1) **Platoon Classrooms:** Provide each classroom with 48 inches high dry-eraser marker boards along entire length of front and side walls.

(2) **Multipurpose Rooms:** Provide each room with 48 inches high dry-eraser marker boards along entire length of front and side walls.

2) **Toilet Accessories:** Furnish and install the items listed below and all other toilet accessories necessary for a complete and usable facility. All toilet accessories shall be Type 304 stainless steel with satin finish. Toilet accessories shall include the following:

a) **Sleeping Bay Toilet/Shower(s):**

(1) Combination Glass Mirror/Shelf – at each lavatory

(2) Mirror shall be minimum 18 inches wide by 24 inches high.

(3) Stainless steel shelf length shall be full width of mirror and minimum 5 inches deep.

(4) Hands free liquid soap dispenser – at each lavatory

(5) Hands free paper towel dispenser at each lavatory/toilet area

(6) Waste receptacle – recessed mounted at each lavatory/toilet area

(7) Sanitary napkin disposal - at each toilet, in one toilet wing, in sleeping bay with gender separation wall

(8) Toilet paper dispenser – lockable double toilet paper dispenser at each toilet

(9) Sanitary toilet seat cover dispenser – at each toilet stall

(10) Shower curtain rod, extra heavy duty – at each shower stall

(11) Shower curtain, white anti-bacterial nylon/vinyl fabric shower curtain – at each shower stall

(12) Soap dish – in each shower

(13) Combination tumbler/6 toothbrush holder – at each lavatory

b) **DI Toilet/Shower(s):**

- (1) Glass Mirror/Shelf – 18 inch by 24 inch glass mirror on stainless steel frame with shelf – at each lavatory.
 - (2) Liquid soap dispenser – at each lavatory
 - (3) Combination paper towel dispenser/waste receptacle – recessed mounted at each lavatory/toilet area
 - (4) Toilet paper dispenser – lockable double toilet paper dispenser at each toilet
 - (5) Sanitary toilet seat cover dispenser – at each toilet
 - (6) Shower curtain rod, extra heavy duty – at each shower stall
 - (7) Shower curtain, white anti-bacterial nylon/vinyl fabric shower curtain – at each shower stall
 - (8) Soap dish – in each shower
 - (9) Combination tumbler/6 toothbrush holder – at each lavatory
- 3) **Wall Protection:** Provide 8 foot (8') high wall guard panels with trimmings and a finish color that complements the interior finishes within the classroom corridors, queuing corridors, and stairway vestibules.

4) **Storage Shelving:**

- a) **Secured Storage:** Provide 18 inch deep built-in storage shelves, spaced at 18 inches on center vertically and capable of supporting a minimum of 20 pounds per linear foot. Permanently affix to slab. Total linear footage of storage shelves shall be three times the perimeter of storage room.
- b) **Mask Storage:** Provide 12 inch deep built-in storage shelves, spaced at 15 inches on center vertically and capable of supporting a minimum of 20 pounds per linear foot. Total linear footage of storage shelves shall be along the long wall of the storage room.
- c) **Platoon Classroom Storage:** Provide 18 inch deep built-in storage shelves, spaced at 18 inches on center vertically and capable of supporting a minimum of 20 pounds per linear foot. Total linear footage of storage shelves shall be two times the perimeter of the storage room.
- d) **TA-50 Storage:** Provide 24 inch deep built-in storage shelves, spaced at 24 inches on center vertically and capable of supporting a minimum of 30 pounds per linear foot. Total linear footage of storage shelves shall be three times the perimeter of the storage room.
- 5) **Lockers:** Furnish and install two single tier lockable metal lockers in each DI toilet/shower. Each locker shall be 18 inches wide by 18 inches deep by 78 inches high. </BTCOF><BTBN>

3.5.1.BTBN FINISHES AND INTERIOR SPECIALTIES – BATTALION HEADQUARTERS (BNHQ)

A. **GENERAL:** Design headquarters building with an office ambience.

B. **FINISHES:**

1) **Minimum Finish Requirements:**

a) **Floors:** Carpet shall be minimum of 2 yarn ply, modular tile conforming to ISO 2551, ASTM D 418, ASTM D 5793, ASTM D 5848, solution dyed, tufted, cut and loop pile, commercial 100% branded (federally registered trademark) nylon continuous filament.

2) **Finish Table:**

BNHQ INTERIOR FINISHES

	Floors						Base			Walls						Ceiling				Remarks
	RESILIENT FLOORING	PORCELAIN OR QUARRY TILE	CERAMIC TILE	RECESSED ENTRY MAT	SEALED CONCRETE	CARPET	RESILIENT BASE	PORCELAIN OR QUARRY TILE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT	LAMINATED GLASS, INSULATED CURTAIN WALL SYSTEM	SEALED CMU OR SEALED CONCRETE	CERAMIC TILE	LAMINATED GLASS, INSULATED CURTAIN WALL SYSTEM	GYPSUM WALL BOARD - PAINT	ACOUSTICAL CEILING TILE	SEALED CONCRETE	EXPOSED	MINIMUM HEIGHT 8' EXCEPT STATED OTHERWISE	
VESTIBULE		•		•					•	•	•				•					REFER TO NOTE
LOBBY		•							•	•	•				•					NOTE 5
STAFF DUTY	•								•	•	•					•				
COPY ROOM	•								•	•	•					•				
BN CO						•	•		•	•	•					•				NOTE 3 & 7
XO						•	•		•	•	•					•				
CSM						•	•		•	•	•					•				
OPEN OFFICE/RECEPTION		•							•	•	•					•				
COMMAND TOILET/SHOWER			•						•	•	•					•				NOTE 1 & 4
COMMAND CONFERENCE RM						•	•		•	•	•					•				NOTE 7
S2 OFFICE	•						•		•	•	•					•				
S3 OFFICE	•						•		•	•	•					•				
OPERATIONS OFFICE	•						•		•	•	•					•				
OPERATIONS STORAGE	•						•		•	•	•					•				
S1 OFFICE	•						•		•	•	•					•				
S1 - PAC OFFICE	•						•		•	•	•					•				
MESSAGE CENTER	•						•		•	•	•					•				
S4 OFFICE	•						•		•	•	•					•				
STORAGE	•						•		•	•	•					•				
CHAPLAIN						•	•		•	•	•					•				NOTE 7
ASSISTANT CHAPLAIN/ WAITING AREA						•	•		•	•	•					•				NOTE 3 & 7
CORRIDORS		•							•	•	•					•				
MEN'S TOILET/SHOWER			•						•	•	•		•			•				NOTE 1 & 4
WOMEN'S TOILET/SHOWER			•						•	•	•		•			•				NOTE 1 & 4
JANITOR CLOSET			•						•	•	•		•			•				NOTE 2
RECYCLABLES STORAGE																				NOTE 5
VENDING																				NOTE 5
CLASSROOMS	•						•		•	•	•					•		14'		
CLASSROOM STORAGE	•						•		•	•	•					•				
CLASSROOM VESTIBULE		•		•					•	•	•					•				
CLASSROOM HALL		•							•	•	•					•				
MEN'S TOILET (CLASSROOM)			•						•	•	•		•			•				NOTE 1
WOMEN'S TOILET (CLASSROOM)			•						•	•	•		•			•				NOTE 1
MECHANICAL					•		•		•	•	•						•			NOTE 6
ELECTRICAL					•		•		•	•	•						•			NOTE 6
TELECOMMUNICATIONS	•						•		•	•	•					•		•		NOTE 8 & 9

1. ALL WALLS IN TOILET ROOMS SHALL HAVE 6'-0" HIGH CERAMIC TILE WAINSCOT. ALL SHOWERS SHALL HAVE FULL HEIGHT CERAMIC TILE WALLS.
2. WALLS ADJACENT TO JANITOR SINK SHALL HAVE A 6'-0" HIGH CERAMIC TILE WAINSCOT.
3. USE SAME FINISHES IN ADJACENT CLOSET OR STORAGE ROOM.
4. ALL COUNTERS SHALL HAVE A MINIMUM OF 4" HIGH BACKSPLASH.
5. IN VENDING OR RECYCLABLES STORAGE AREA, MATCH FLOORING, WALL, AND CEILING FINISHES TO THOSE OF ADJACENT AREA.
6. CEILING MAY BE PAINTED EXPOSED STRUCTURE IF ALLOWED BY APPLICABLE CODE.
7. EXTEND PARTITIONS TO DECK. REFERENCE ACOUSTICAL REQ. IN PARAGRAPH 3.5.BTBN FOR MINIMUM STC RATINGS.
8. COMPLY WITH THE REQUIREMENTS OF ANSI/TIA/EIA-596-B (GYPSUM BOARD CEILINGS ARE ACCEPTABLE).

BNHQ INTERIOR FINISHES																		
	Floors			Base		Walls				Ceiling			Remarks					
	RESILIENT FLOORING	PORCELAIN OR QUARRY TILE	CERAMIC TILE	RECESSED ENTRY MAT	SEALED CONCRETE	CARPET	RESILIENT BASE	PORCELAIN OR QUARRY TILE	CERAMIC TILE	GYPSON WALL BOARD – PAINT	LAMINATED GLASS, INSULATED CURTAIN WALL SYSTEM	SEALED CMU OR SEALED CONCRETE		CERAMIC TILE	LAMINATED GLASS, INSULATED CURTAIN WALL SYSTEM	GYPSON WALL BOARD - PAINT	ACOUSTICAL CEILING TILE	SEALED CONCRETE
9. STATIC DISSIPATIVE TILE SHALL BE USED.																		

REFER TO NOTE

C. INTERIOR SPECIALTIES:

1) Visual Display Units/Cases:

- a) **Bulletin Boards:** In the headquarters building provide one bulletin board near the main entrance.
- b) **Marker Boards:** Each classroom shall have 48 inches high dry-eraser marker boards along entire length of front and side walls.
- 2) **Partitions:** Provide ceiling hung, operable partitions in Classrooms. <BTBN><BTLEB>

3.5.1.BTLEB FINISHES AND INTERIOR SPECIALTIES – LAWN EQUIPMENT BUILDING (LEB)

A. FINISHES:

1) Minimum Finish Requirements:

- a) **Walls:** Walls shall be painted impact resistant gypsum wallboard.
- b) **Floors:** Floors shall be sealed concrete with a resilient base. <BTLEB><BTCCP>

3.5.1.BTCCP FINISHES AND INTERIOR SPECIALTIES – CENTRAL ENERGY PLANT (CCP)

A. FINISHES:

1) Minimum Finish Requirements:

- a) **Walls:** Walls shall be painted impact resistant gypsum wallboard.
- b) **Floors:** Floors shall be sealed concrete with a resilient base. <BTCCP>

3.6. STRUCTURAL REQUIREMENTS

A. GENERAL: Design and construct as a complete system in accordance with APPLICABLE CRITERIA.

B. DESIGN LOADS: Note that the minimum live loads indicated do not include partition loads.

1) Live Loads: Design live loads per IBC but not lower than the following minimums:

- a) **Slab On Grade** 150 psf minimum <BTCOF>

3.6.BTBCOF STRUCTURAL REQUIREMENTS – B/COF

A. DESIGN LOADS: Note that the minimum live loads indicated do not include partition loads.

1) Live Loads: Design live loads per IBC but not lower than the following minimums:

- a) **Elevated Floors** 60 pounds per square foot (psf) minimum
- b) **Sleeping Bays w/o Partitioned Rooms** 80 psf

- c) **Centralized Laundry Area** 150 psf, (but not less than actual equipment)
- d) **Partitions:** Partition loads of 15 pounds per square foot (psf) shall be added to all areas with a live load of 80 psf or less. <BTBCOF>

3.7. SEE PARAGRAPH 6.7 THERMAL PERFORMANCE – NOT USED

3.8. **PLUMBING REQUIREMENTS**

A. **FIXTURE FLOW RATES:**

- 1) **Shower Heads:** Provide water conserving type with a maximum rated flow rate of 1.5 gpm.
- 2) **Lavatory Faucets:** Provide water conserving type with a maximum rated flow rate of .25 gpm.
- 3) **Water Closets:** Provide water conserving type with a maximum rated flow rate of 0.8 gallons per flush

B. **PLUMBING FIXTURES:**

1) **Commercial Plumbing Fixtures:**

- a) **Mop Sinks:** Provide a 10 inch deep floor mounted stainless steel mop sink, with hot and cold service faucet in each janitor closet.
- b) **Water closets:** All water closets shall be the siphon jet, flush valve type. <BTBCOF>

3.8.BTBCOF **PLUMBING REQUIREMENTS – BARRACKS/COMPANY OPERATIONS FACILITIES (B/COF)**

A. **DOMESTIC WATER:**

- 1) **Heating System:** Size domestic water heating system in accordance with UFC 3-420-01, Appendix E, except as amended herein. Base hot water consumption on 2 gpm per shower head with a delivered temperature of 110 deg F. Peak period duration shall be 19 minutes (3 groups with 5 minutes of shower operation each and 2 minutes of transition between groups). In addition to simultaneous shower operation, all lavatories and washing machine demand must be included without diversity. Base hot water storage capacity on 75% usable storage and a storage temperature of 140 deg F. Domestic hot water distribution shall be at 120 deg F from a central system mixing valve. Design domestic hot water distribution piping to handle up to 180 deg F water temperatures. Provide domestic hot water by separate water heating boiler and tank systems or storage water heating systems, located within the barracks mechanical rooms.
- 2) **Pipe Sizing:** Base domestic hot and cold water pipe sizing on all fixtures operating simultaneously. Size waste stacks, building waste drains, venting and lift stations with consideration to the increased flow rates as well.
- 3) **Drain Water Heat Recovery System:** Gravity Film Heat Exchanger (GFX) is a vertical counter flow heat exchanger that extracts heat out of drain water [and applies it to preheat the cold water and mixed with hot water to be used in the shower]. The GFX consists of a central copper pipe (that carries the warm waste water) with a ½ - inch copper coils wound around the central pipe. Heat is transferred from the waste water passing through the large, central pipe to the cold water simultaneously moving upward through the coils on the outside of the pipe. Provide GFX on all shower drains only drain piping.

B. **FIXTURE FLOW RATES:**

- 1) **Scrub Room Faucets:** Faucets located in the Scrub Room shall have a maximum flow rate of 2.2

C. **DRAINS, INTERCEPTORS, SEPARATORS & CLEANOUTS:**

1) **Interceptors:**

- a) **Sand Interceptors:** Provide Scrub Room <BOOT_WASH>and Bootwash drains<BOOT_WASH> with easily maintainable sand interceptors.
- b) **Solids Interceptors:** Laundry facilities shall be considered commercial laundries with respect to the International Plumbing Code (IPC) and shall be provided with easily maintainable solids interceptor(s) in accordance with the IPC.

- 2) **Drains:**
- a) **Boot wash:** **<BOOT_WASH>**Provide each Bootwash station with a grated drain assembly. **</BOOT_WASH><BOOT_SCRAPER>** Not Used. **</BOOT_SCRAPER>**
- b) **Scrub Room:** Each station, where required, shall be provided with a grated drain assembly.
- D. **PLUMBING FIXTURES:**
- 1) **Commercial Plumbing Fixtures:**
- a) **Drinking Fountains:** Provide drinking fountains in accordance with IPC. Provide a minimum of one per floor.
- b) **Water closets:**
- (1) **COF:** Water closets in the COF area shall be hands free type operation.
- (2) **Sleeping Bay:** Provide hands free operation type water closets in the barracks Sleeping Bay.
- c) **Lavatories:**
- (1) **COF:** Lavatories in the COF area shall be hands free type operation.
- (2) **Sleeping Bay:** Provide hand operated fixtures at lavatories in the sleeping bay toilet /shower.
- d) **Showerheads:** Provide tamper resistant showerheads in the Sleeping Bay Toilet/Shower.
- e) **Hose Bibs:** Provide domestic hot and cold water hose bibs in laundry rooms and latrines for use in area cleanup/wash down.
- f) **Bootwash:** **<BOOT_WASH>**Each bootwash station shall consist of two freeze-proof hydrants located adjacent to drain. Provide two spray nozzles on 60 inch long flexible hoses per hydrant. **</BOOT_WASH><BOOT_SCRAPER>**Not Used. **</BOOT_SCRAPER>**
- g) **Scrub Room:** Furnish each Scrub Room with:
- (1) **Wash Troughs:** Provide fixed continuous heavy gauge (minimum 16 gauge, type 304 stainless steel) 4 inches deep troughs. Locate the first washing trough along the wall and sub-divide into six wash positions, each measuring 4 feet wide and 3 feet deep. Place the second trough in the center of the room and sub-divide into four wash positions each measuring 6 feet wide and 3 feet deep for a minimum dimension of 12 by 6 feet.
- (2) **Wash Positions:** Separately drained each wash position and furnish with a 9 inches high goose-necked, cold/hot water faucet with paddle type handles.
- E. **GAS PIPING:** Provide natural gas connection (where gas is available to site.) **<BTCOF><BTBN>**

3.8.BTBN **PLUMBING REQUIREMENTS – BATTALION HEADQUARTERS (BNHQ)**

- A. **PLUMBING FIXTURES:**
- 1) **Commercial Plumbing Fixtures:**
- a) **Drinking Fountains:** Provide a minimum of 5 drinking fountains in the classroom hall and in accordance with IPC. **<BTBN><BTCCP>**

3.8.BTCCP **PLUMBING REQUIREMENTS – CENTRAL ENERGY PLAN (CCP)**

- A. **GENERAL:** Provide the Central Energy Plant with all necessary plumbing to allow for make-up water, maintenance, leakage and condensate drainage, blowdown drainage, and anything else necessary for a fully functional and maintainable central cooling plant. **<BTCCP>**

3.9. **COMMUNICATIONS AND SECURITY SYSTEMS**

- A. **TELECOMMUNICATION SYSTEMS:** Provide telecommunication outlets per the applicable criteria based on functional purpose of the space within the building and in accordance with other provisions of this RFP.
- 1) **Cabling, Patch Panels & Connectors:**

- a) Provide voice and data connection capability to all workstations.
 - b) The required connection capability in classrooms is a minimum of one voice and one data outlet per room or partitioned area within the room.
- 2) **CATV:** All CATV outlet boxes, connectors, cabling, and cabinets shall conform to the Technical Criteria for I3A unless noted otherwise. All horizontal cabling shall be homerun from the CATV outlet to the nearest telecommunications room.

B. MASS NOTIFICATION SYSTEMS: Provide Mass notification system in accordance with UFC 4-021-01. **<BTBCOF>**

3.9.BTBCOF COMMUNICATIONS AND SECURITY SYSTEMS –B/COF

A. TELECOMMUNICATION SYSTEMS:

- 1) **Cabling, Patch Panels & Connectors:** Provide connectivity for 5 pay phones within each covered training area per local telephone company requirements.
- 2) **CATV:** Provide CATV connectivity in all classrooms, multipurpose rooms, drill instructor offices and private offices.

B. SECURITY INFRASTRUCTURE/SYSTEMS:

- 1) **Intrusion Detection System (IDS):** Infrastructure shall consist of conduit, pull wire and outlet boxes. Outlet boxes are required for a control panel, balanced magnetic switch, motion sensor, and duress switch unless specified otherwise in paragraph 6.10. Coordinate system requirements with the Installation.
 - a) **Arms Vault:** Provide infrastructure for an IDS for each Arms Vault. DOD ICIDS III is required for each arms vault.
 - b) **Secure Storage:** IDS Infrastructure is required for Secure Storage rooms/area assessed at Risk Level III. If the Secure Storage Room is assessed at this level by the Installation, contractor to provide infrastructure in accordance with AR 190-51 Paragraph 3-6.
- 2) **Door Status/Alarm Monitoring:** Provide a door monitoring system consisting of a door status/alarm panel and door balanced magnetic switches. Provide door status/alarms on all doors leading into and within sleeping bays in order to accommodate gender segregation. System shall allow each door alarm to be individually activated or deactivated. Locate a door status/alarm panel that monitors all doors in the reception area near the CQ workstation. In addition, each Drill Instructor office (four total) shall have a door status/alarm panel that monitors only those doors associated with the adjacent sleeping bay. Panel shall provide both an audio and visual signal when alarm is activated.
- 3) **Security Observation System Infrastructure:** **<BCOF_CAMERA_NO>**Not Used**</BCOF_CAMERA_NO><BCOF_CAMERA>**Install security infrastructure to support thirteen total cameras. See Security Cameras in paragraph 3.19.2.BTBCOF Equipment for camera locations. Infrastructure shall consist of 1-inch conduit, pull wire and outlet boxes. Conduits shall homerun from camera location outlet boxes to back of the luggage storage room located closest to CQ desk. This is where an equipment rack for GFGI monitoring equipment will be located. Provide a 2-inch conduit through the wall to provide pathway between the monitoring equipment and the CQ desk. **<BCOF_CAMERA>**

C. MASS NOTIFICATION SYSTEMS

D. AUDIO/VISUAL SYSTEMS & INFRASTRUCTURE:

- 1) **Projectors:** In each classroom, provide a dual Cat 6 data jack adjacent to the duplex receptacles in the above ceiling location and one in the wall next to the wall mounted outlet box.
- 2) **Podiums:** Install a dual Cat 6 jack adjacent to the floor mounted box in each classroom.
- 3) **Video Teleconferencing (VTC):** Provide a dual (coaxial F type and 8-pin modular) jack outlet for video teleconferencing connectivity in each classroom. **</BTBCOF><BTBN>**

3.9.BTBN COMMUNICATIONS AND SECURITY SYSTEMS – BATTALION HEADQUARTERS (BNHQ)

A. TELECOMMUNICATION SYSTEMS:

1) **CATV:** Provide CATV connectivity in conference room, partitioned areas within each classroom and private offices.

B. SECURITY INFRASTRUCTURE/SYSTEMS:

1) **Security Observation System Infrastructure:** Install security infrastructure to support Government furnished equipment including cameras, door alarms, and motion sensors. These devices will be utilized at all exterior entrances with the exception of utility room entrances. Infrastructure shall consist of conduit, pull wire and outlet boxes per user requirements. Conduits shall be homerun from outlet boxes for equipment connection to Staff Duty officer room.

C. MASS NOTIFICATION SYSTEMS

D. AUDIO/VISUAL SYSTEMS & INFRASTRUCTURE:

1) **Projectors:** Provide an empty 1" conduit (with pull wire) above the ceiling from each GFGI ceiling mounted projector location to a wall mounted outlet box at the front of each classroom and conference room.

2) **PA Systems:** Provide a zoned paging system throughout the facility and integrate with the telephone system. System may utilize mass notification amplifiers and speakers, but shall be overridden by the mass notification system if mass notification system is activated while the paging system is being utilized. System shall have a minimum capacity of eight zones. Zone facility per user requirements.

3) **Video Teleconferencing (VTC):** Provide a dual (coaxial F type and 8-pin modular) jack outlet for video teleconferencing connectivity in each partitioned area in each classroom and conference room. </BTBN>

3.10. ELECTRICAL REQUIREMENTS

A. **GENERAL:** Select electrical characteristics of the power system to provide a safe, efficient, and economical distribution of power based upon the size and types of loads to be served. Use distribution and utilization voltages of the highest level that is practical for the load to be served. Consider the effect of nonlinear loads such as computers, other electronic equipment and accommodated as necessary. Voltage drop shall not exceed the maximum allowed per ASHRAE 90.1. Provide transient voltage surge protection on service equipment.

B. **POWER:** Provide power for all installed equipment requiring power including all Government Furnished Contractor Installed GFCI equipment and all GFGI equipment. Power poles are not allowed.

1) **Outlets:**

a) Provide 125-volt duplex receptacles per NFPA 70 in conjunction with the proposed equipment and furniture layouts, and as per other stated requirements elsewhere in the RFP.

b) In addition to receptacles required elsewhere in the RFP provide one 125-volt duplex receptacle per wall in all normally occupied spaces unless otherwise noted.

c) For housekeeping purposes provide a minimum of one 125-volt, duplex receptacle per corridor and a minimum of one 125-volt duplex receptacle on each wall with in the lobby. No point along bottom of corridor or lobby walls shall be more than 25 feet from a receptacle. In BNHQ a hall shall be considered a corridor.

d) Provide 125-volt duplex receptacles mounted adjacent to lavatories. Provide a minimum of one for every two adjacent lavatories. Each single lavatory shall also be provided a receptacle.

e) Provide a minimum of two 125-volt, duplex receptacles in each mechanical room in addition to NFPA 70 requirements. Provide a minimum of one 125-volt duplex receptacle in each electrical room.

C. LIGHTING LEVELS, FIXTURES & CONTROLS:

1) Provide lighting levels within +/- 10% of required lighting levels.

2) Illuminate mechanical and electrical to a level of 30 foot-candles.

3) Fixtures shall utilize LED technology where practical.

4) **Physical Training Areas:** If PT areas are required by the RFP, PT Running Track and Pit shall be illuminated to a minimum level of 3 foot-candles and shall be switch operated.

D. **GROUNDING:** Provide grounding in accordance with NFPA 70 and the Technical Criteria for I3A. In addition raised flooring shall be grounded to the building's primary grounding electrode. <BTCOF>

3.10.BTBCOF ELECTRICAL REQUIREMENTS –B/COF

A. POWER:

1) Outlets:

a) **Sleeping Bay:** Provide six 125-volt duplex receptacles spaced evenly along exterior walls in each sleeping bay and two evenly spaced along each end wall.

b) **Laundry:** Provide electrical service for dryers regardless of whether or not electric dryers are to be used.

c) Platoon Classrooms:

(1) **Projectors:** Provide an empty 2" conduit (with pull wire) from above the ceiling at the center of the room to a wall mounted outlet in the respective classroom exterior wall approximately 6' from the front of the classroom. Provide two duplex receptacles each on a dedicated circuit at the above ceiling location and one quad receptacle on a dedicated circuit in the wall next to the wall mounted outlet box.

(2) **Podium:** At a location approximately 4' from the classroom side wall and approximately 6' from the front wall, provide a flush, floor mounted outlet box with an empty 2" conduit (with pull wire) run under the floor to a wall mounted outlet box located adjacent to the outlet box described above. Install a flush, floor mounted duplex receptacle on a dedicated circuit to the floor mounted box.

B. LIGHTING LEVELS, FIXTURES & CONTROLS:

1) Local manual controls shall supplement automatic controls in offices, classrooms and specialized areas such as scrub rooms, multipurpose rooms, and covered training areas.

2) **Arms Vault:** Provide an un-switched vandal resistant fixture with emergency ballast at each arms vault entrance.

3) **Covered Training Areas:** Illuminate covered training areas to a level of 15 foot-candles.

4) **Reception/CQ Station:** Illuminate reception area to a level of 10 foot-candles and the CQ workstation within the lobby to a level of 30 foot-candles.

5) Illuminate supply rooms, arms vault, TA-50 storage rooms, multipurpose rooms and mask storage room to a level of 30 foot-candles. <BTBN>

3.10.BTBN ELECTRICAL REQUIREMENTS – BATTALION HEADQUARTERS (BNHQ)

A. POWER:

1) Outlets:

a) **Reception/CQ Station:** Provide a 125-volt quadruplex receptacle on a dedicated circuit for the reception area workstation.

b) **Command Conference Room:** In addition to convenience receptacles, provide two floor mounted 125-volt duplex receptacles located at the ends of a conference room table in the command conference room. Furnish and install concealed electrical wiring, connections and accessories necessary for projector operation.

c) **Classrooms:** Furnish and install concealed electrical wiring, connections and accessories necessary for projector operation.

d) **Vending Area:** Provide power receptacles for vending machines.

B. LIGHTING LEVELS, FIXTURES & CONTROLS:

1) Local manual controls shall supplement automatic controls in offices, classrooms and specialized areas such as conference rooms and large open work spaces.

- 2) **Supply Room:** Illuminate supply room to a level of 30 foot-candles.
- 3) **Lobby:** Illuminate hall and lobby to a level of 20 foot-candles. Provide accent lighting for display area in lobby and illuminate reception desk within lobby to 30 foot-candles.
- 4) Provide lighting compatible with security cameras and security requirements. <BTBN><BTLEB>

3.10.BTLEB ELECTRICAL REQUIREMENTS – LAWN EQUIPEMENT BUILDING (LEB)

A. POWER:

1) **Outlets:** Provide a minimum of two 125-volt, duplex receptacles in each of the separate secure spaces within the LEB. Place one receptacle near the overhead roll up door and one on the wall opposite the door.

B. **LIGHTING LEVELS, FIXTURES & CONTROLS:** Separately switch each secure space within the LEB and illuminate to a level of 10 foot-candles. <BTLEB>

3.11. HEATING VENTILATING AND AIR CONDITIONING (HVAC) REQUIREMENTS

A. **GENERAL:** For freeze protection, air handling unit heating coils shall either be placed in the pre-heating position or preheating coils shall be provided where mixed air temperature may fall below design cooling supply air temperatures or less than 45 degrees F or where stratification may occur. Freeze protection provisions shall be specifically documented. <BTCOF>

3.11.BTCOF HEATING, VENTILATING & AIR-CONDITIONING – BARRACKS/COMPANY OPERATIONS FACILITIES (B/COF)

A. HVAC DESIGN CRITERIA:

1) HVAC shall be designed per the latest UFC 3-410-01 Heating, Ventilating, and Air Conditioning System standard.

2) **Unit Location and Access:** Locate all HVAC air handling units in mechanical equipment rooms accessible through equipment room doors. Access for maintenance shall not require entry into the sleeping bays or classrooms. Locate air filters in duct or unit mounted filter boxes within the mechanical room. HVAC system selection shall be in accordance to ASHRAE 90.1. Chillers and cooling towers shall be located exterior to building in mechanical yard with applicable AT/FP requirements.

3) Loads:

a) Heating, mechanical ventilation and air-conditioning shall be in accordance with ASHRAE Standard 62; design supply air volumes in occupied spaces shall be not less than 0.8 cubic feet/minute/square foot (cfm/sq. ft). Heating and cooling load calculations shall allow for a minimum of 0.3 air changes per hour from incidental infiltration for all building spaces. For severe winter climatic areas incorporation of low intensity, gas-fired infrared heating systems may be considered for adjoining covered training or assembly areas.

b) HVAC design loads must include plug loads of 4 watts/sf in classrooms and 1.5 watts/sf in sleeping bays. HVAC design loads must also account for surge population in sleeping bays and classrooms.

4) **Ventilation:** The HVAC system shall provide continuous outside air ventilation to each space and centralized exhaust systems with heat recovery between exhaust and the incoming outside air.

a) **Storage & Electrical spaces:** Storage and electrical spaces must be ventilated to limit summer interior temperatures and minimally heated (45 deg F). Communications spaces require separate cooling (24 hour cooling if required by the Installation Directorate of Information Management (DOIM) or similar organization).

b) **Laundry rooms:** Laundry rooms must be provided with sufficient tempered makeup air either from transfer air via the air handling systems serving the sleeping bays or their own air handling systems.

c) Continuous ventilation air must be provided throughout each building for indoor air quality, building pressurization, and makeup of exhausted air. The overall building shall be positively pressurized by approximately 10% to exclude unplanned infiltration. Provide all ventilation air using one or more dedicated outdoor air units. Dedicated outdoor air units shall continuously supply dehumidified, tempered air to the building. Supply air conditions from the dedicated outdoor air unit(s) shall be between 70 and 75 degrees F dry bulb and no greater

than 48 degrees F dew point. DOAU unit shall be direct expansion (DX) type and cooling/dehumidification shall be available 24/7/365. DOAU units shall be minimum 14 SEER (3.52 COP) and equipped with hot gas reheat and auxiliary heat/ reheat coil.

5) **Exhaust:** Provide exhaust airflows and people ventilation as required by ASHRAE Standard 62. Exhaust calculations shall include all dryers on at same time (200 cubic feet/min./dryer) and exhaust for shower, drying areas and toilet exhaust, etc.

a) In sleeping areas, provide either 15 cubic feet/min./person or 10% of supply airflow for building pressurization plus makeup air for all exhausts, whichever is greater.

b) Exhausted dryers to the exterior. Do not manifold dryer exhaust vents. Dryer vent material shall be hard ducted.

6) **Ductwork:**

a) For purposes of prevention of respiratory illness, supply and return air in sleeping bays must be arranged to prevent air movement across multiple bunks. Supply and return air must be ducted to air distribution devices located between every other bunk.

b) Design ductwork in sleeping bays to prevent placement or concealment of contraband. Round ductwork is recommended.

B. **TEMPERATURE CONTROLS:**

1) Due to possible fluctuations in trainee populations, HVAC controls must incorporate controls software and hardware to facilitate building or space shutdown or reduced utilization at various times during the year. During unoccupied times buildings or spaces must continue to be minimally heated (55 deg F), cooled (85 deg F dry bulb, 55 deg dew point) and ventilated (0.06 cfm/sf) to conserve energy, preclude molding problems, etc.

2) **Sleeping Bay:** Provide two separate controls in each sleeping bay such that a longitudinal privacy partition may be installed to divide the bay.

C. **ZONING:**

1) **Sleeping Bay:** Design ductwork and controls to provide two separate zones within each sleeping bay such that a longitudinal privacy partition may be installed to divide the bay.

2) **Storage and Laundry:** Storage and laundry spaces may be served by single zone heating and ventilating fan coil and/or forced air systems, respectively. </BTCOF><BTBN>

3.11.BTBN HEATING, VENTILATING & AIR-CONDITIONING – BATTALION HEADQUARTERS (BNHQ)

A. **HVAC DESIGN CRITERIA:** Air handling units shall run continuously during occupied hours.

1) **Unit Location and Access:** Locate all air handling units in mechanical rooms accessible only through an exterior door. Locate air filters in the mechanical room.

2) **Ventilation:** Similarly, outdoor ventilation air required by ASHRAE 62.1 shall be continuous during occupied hours.

B. **ZONING:** Zone each conference room and classroom separately. Other space zoning shall be based on exterior envelope exposures. Where VAV systems are used, limit individual zones to a maximum of 2,500 cfm. </BTBN><BTCCP>

3.11.BTCCP HEATING, VENTILATING & AIR-CONDITIONING – CENTRAL ENERGY PLANT (CCP)

A. **CENTRAL ENERGY PLANT:**

1) Design the Central Energy Plant to support the peak block load of all connected buildings. Provide low temperature hot water if heating is provided for domestic water or building heat. Distributed steam or high temperature hot water shall not be used except in climate zones 6 and 7. Central plants providing heat source/heat sink for water source heat pumps are acceptable system types.

- 2) Ventilate the CCP in accordance with ASHRAE 55 and ASHRAE 15. Provide space heat for freeze protection. No space within the CCP shall be air conditioned.
- 3) Provide multiple units for major equipment components such as chillers, boilers, pumps, and cooling towers so that no more than 50% capacity is lost in the event of a single failure. However, backup or spare capacity is not authorized. System design shall be in accordance with ASHRAE Handbooks.
- 4) Enclose equipment located outside in a screened equipment yard. Consider sound/noise in the selection of equipment. All hydronic systems shall have provisions for chemical treatment. Open loop systems shall incorporate continuous, automatic water treatment. Incorporate required AT/FP design for all exterior located HVAC equipment.

3.12. ENERGY CONSERVATION REQUIREMENTS <BTCOF_NO>- NOT USED</BTCOF_NO><BTCOF>

3.12.BTBCOF ENERGY CONSERVATION REQUIREMENTS –B/COF

A. LOAD & SET-POINT SCHEDULES: The following facility schedules must be used in all facility energy simulations for purposes of documenting compliance with energy performance requirement.

1) **Training Barracks Sleeping Bays Internal Load Schedules**

Hr	Occupancy			Lighting			Plug Loads			Service Hot Water		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
2	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
3	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
4	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
5	1.00	1.00	1.00	0.90	0.90	0.90	0.05	0.05	0.05	0.10	0.10	0.10
6	0.00	0.00	0.00	0.50	0.50	0.50	0.05	0.05	0.05	0.00	0.00	0.00
7	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
8	1.00	1.00	1.00	0.90	0.90	0.90	0.05	0.05	0.05	1.00	1.00	1.00
9	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
10	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
11	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
12	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
13	0.50	0.50	0.50	0.90	0.90	0.90	0.05	0.05	0.05	0.00	0.00	0.00
14	0.50	0.50	0.50	0.90	0.90	0.90	0.05	0.05	0.05	0.00	0.00	0.00
15	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
16	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
17	0.00	0.00	0.00	0.10	0.10	0.10	0.05	0.05	0.05	0.00	0.00	0.00
18	0.50	0.50	0.50	0.90	0.90	0.90	0.50	0.50	0.50	0.10	0.10	0.10
19	1.00	1.00	1.00	0.90	0.90	0.90	0.50	0.50	0.50	0.10	0.10	0.10
20	1.00	1.00	1.00	0.90	0.90	0.90	0.50	0.50	0.50	0.10	0.10	0.10
21	1.00	1.00	1.00	0.50	0.50	0.50	0.25	0.25	0.25	0.10	0.10	0.10
22	1.00	1.00	1.00	0.20	0.20	0.20	0.05	0.05	0.05	0.00	0.00	0.00
23	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
24	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
Peak	60/72* occ/Sleeping Bay			1.0 W/ft ²			0.25 W/ft ²			1770 gal/hr		

* For occupancy, the capacity of the HVAC equipment should handle 72 occupants per sleeping bay but the annual energy consumption should be based on a peak value of 60 occupants per sleeping bay.

2) **Laundry Room Internal Load Schedule**

Hr	Washer/Dryer			Washer SHW		
	Wk	Sat	Sun	Wk	Sat	Sun
>	0.00	0.00	0.00	0.00	0.00	0.00
1-18	0.00	0.00	0.00	0.00	0.00	0.00
19-21	1.00	1.00	1.00	1.00	1.00	1.00
22-24	0.00	0.00	0.00	0.00	0.00	0.00
Peak	44 kW/per Laundry Room			80gal/hr per Laundry Room		

3) **Training Barracks Sleeping Bay Thermostat Set-Point Schedules**

Hr	Heating (°F)			Heating (°C)			Cooling (°F)			Cooling (°C)		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
>	70	70	70	20	20	20	75	75	75	24	24	24
24/7 days	70	70	70	20	20	20	75	75	75	24	24	24

4) **Training Barracks Company Operations 1st, 2nd, 3rd Floor Admin Areas Internal Load Schedules**

Hr	Occupancy			Lighting			Plug Loads			Service Hot Water		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
2	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
3	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
4	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
5	0.07	0.07	0.07	0.90	0.90	0.90	0.05	0.05	0.05	0.10	0.10	0.10
6	0.07	0.07	0.07	0.50	0.50	0.50	0.05	0.05	0.05	0.00	0.00	0.00
7	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
8	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.00	0.00
9	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.50	0.05	0.05
10	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
11	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
12	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
13	0.50	0.50	0.50	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
14	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
15	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
16	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.10	0.05	0.05
17	0.90	0.20	0.20	0.50	0.20	0.20	0.50	0.20	0.20	0.00	0.00	0.00
18	0.20	0.20	0.20	0.50	0.20	0.20	0.25	0.20	0.20	0.00	0.00	0.00
19	0.07	0.07	0.07	0.05	0.05	0.05	0.10	0.05	0.05	0.00	0.00	0.00
20	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
21	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
22	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
23	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
24	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00
Peak	15 occ/floor			1.0 W/ft ²			0.5W/ft ²			10 gal/hr		

5) **Training Barracks Company Operations First Floor Thermostat Set-Point Schedules**

Hr	Heating (°F)	Heating (°C)	Cooling (°F)	Cooling (°C)
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1	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
2	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
3	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
4	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
5	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
6	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
7	70	70	70	21	21	21	75	75	75	24	24	24
8	70	70	70	21	21	21	75	75	75	24	24	24
9	70	70	70	21	21	21	75	75	75	24	24	24
10	70	70	70	21	21	21	75	75	75	24	24	24
11	70	70	70	21	21	21	75	75	75	24	24	24
12	70	70	70	21	21	21	75	75	75	24	24	24
13	70	70	70	21	21	21	75	75	75	24	24	24
14	70	70	70	21	21	21	75	75	75	24	24	24
15	70	70	70	21	21	21	75	75	75	24	24	24
16	70	70	70	21	21	21	75	75	75	24	24	24
17	70	70	70	21	21	21	75	75	75	24	24	24
18	70	70	70	21	21	21	75	75	75	24	24	24
19	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
20	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
21	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
22	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
23	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4
24	60	60	60	15.6	15.6	15.6	85	85	85	29.4	29.4	29.4

</BTCOF>

3.13. FIRE PROTECTION REQUIREMENTS

A. FIRE DETECTION AND ALARM SYSTEMS:

1) All software, software locks, special tools and any other proprietary equipment required to maintain, add devices to or delete devices from the system, or test the Fire Alarm system shall become property of the Government and shall be furnished to the Contracting Officer's Representative prior to final inspection of the system. <BTCOF>

3.13.BTBCOF FIRE PROTECTION REQUIREMENTS – BARRACKS/COMPANY OPERATIONS FACILITIES

A. FIRE SUPPRESSION SYSTEMS: Design fire suppression in accordance with the latest edition of UFC 3-600-01.

1) **Fire Sprinkler Systems:** The B/COF shall be classified as mission essential and shall be provided with sprinkler protection regardless of other criteria or code provisions. The facility shall be protected throughout by a complete automatic sprinkler system.

B. FIRE DETECTION AND ALARM SYSTEMS: Fire alarm systems shall be addressable type with addressable devices. Coordinate the type, function and location of the fire alarm annunciator with the local authority having jurisdiction.

1) **Smoke Detectors:** Provide smoke detectors in all sleeping bays. <BTCOF_SMOKE1> Smoke detectors in bedrooms shall be monitored. Tampering with a smoke detector shall send a trouble signal. Trouble signals shall be transmitted to the fire department. </BTCOF_SMOKE1><BTCOF_SMOKE2> Smoke alarm signals shall not be transmitted to the fire department. </BTCOF_SMOKE2><BTCOF_SMOKE3> Smoke alarm signals shall

be transmitted as a supervisory signal to the fire department. </BTCOF_SMOKE3><BTCOF_SMOKE4> Smoke alarm signals shall be transmitted as an alarm signal to the fire department. </BTCOF_SMOKE4></BTCOF>

3.14. SEE PARAGRAPH 6.14 SUSTAINABLE DESIGN

A. SUSTAINABLE DESIGN: The facility shall be designed and **constructed in consideration of mandated High Performance Sustainable Building guidance and LEED standards applicable to systems and material selection.**

3.15. SEE PARAGRAPH 6.15 ENVIRONMENTAL – NOT USED

3.16. SEE PARAGRAPH 6.16 PERMITS – NOT USED

3.17. SEE PARAGRAPH 6.17 DEMOLITION – NOT USED`

3.18. SEE PARAGRAPH 6.18 ADDITIONAL FACILITIES – NOT USED

3.19. EQUIPMENT AND FURNITURE REQUIREMENTS

3.19.1. FURNISHINGS

A. CASEWORK: Provide cabinets complying with Architectural Woodwork Institute (AWI) Quality Standards.

B. WINDOW TREATMENTS: Provide window treatment in all exterior windows. Maintain uniformity of window covering color and material to the maximum extent possible throughout each building.

C. FURNITURE LIST/CHARTS:

1) Furniture List:

a) **Toilet/Shower(s)**: Provide a built-in teak wooden bench at each dressing area, the length of shower minus 6 inches. Mount benches on powder-coated steel pedestals permanently anchored to the floor.

b) **Recyclables Storage**: Provide the necessary number of bins for metal/plastic/glass/paper/ cardboard items. Items may be combined to reduce the number of bins if approved by the installation and user. If the installation has a single stream recycling system, provide a minimum of two bins to cover all items. <BTCOF>

c) **All furnishings**: Sustainably sourced furniture and furnishings shall be provided to improve indoor environmental quality.

3.19.1.BTBCOF FURNISHINGS – BARRACKS/COMPANY OPERATIONS FACILITIES (B/COF)

A. FURNITURE LIST/CHARTS:

1) Furniture List:

a) **Barracks**:

(1) **Sleeping Bay**: Sleeping bays must be able to accommodate one bunk frame 84 inches long by 42 inches wide and one wardrobe 42 inches wide x 24 inches deep for each trainee, with adequate circulation. All furniture listed here is GFGI. The sleeping beds shall not exceed a weight load of 500 lbs unloaded.

(2) **Sleeping Bay Dressing Area**: Furnish dressing area with continuous hardwood benches. Mount benches on powder-coated steel pedestals permanently anchored to the floor and run benches the entire length of the two longest walls of the dressing area.

2) Furniture Chart:



B/COF FURNITURE CHART		
Description	Comments	Furniture Required
Command Office (CO, XO, OPS SGT, 1st SGT)	Private Office	Executive double pedestal desk unit, storage credenza, two guest chairs, one executive chair - CO, XO (or) one managerial chair - OPS SGT, 1st SGT
Open Workstation (DI Office)	Open Workstation	Systems furniture workstation, with work surfaces, file pedestals, and overhead storage, one task chair, one guest chair
Multi-Purpose	Multi-Purpose	To be determined by Installation
Classroom	Classroom	60 seats. Tables shall be 18" width by 4' - long (2 chairs per table).
Arms Vault	Storage	1 workstation
Supply	Storage	Systems furniture workstation, with work surfaces, file pedestals, and overhead storage, one task chair. 21 Heavy-duty shelving units.
Reception Area	Reception Area	Systems furniture open office area for one staff member and 4 guest chairs
Sleeping Bay	Barracks	60 beds, 60 wardrobes

B. WINDOW TREATMENTS:

- 1) **Barracks:** Provide room darkening mini blinds in B/COF barracks area.
- 2) **Platoon Classrooms:** Windows shall have operable blinds. </BTCOF><BTBN>

3.19.1.BTBN FURNISHINGS – BATTALION HEADQUARTERS (BNHQ)

A. FURNITURE LIST/CHARTS

1) **Furniture Chart:**

BNHQ FURNITURE CHART		
Description	Comments	Furniture Required
Battalion Commander Office (BNCO)	Private Office	L-shaped Executive desk with two pedestals, one bookcase, loveseat, one guest chair, one executive chair
Reception	Open Office	1 workstation with 2 chairs, conference room table with 8 chairs, 2 guest chairs
Executive Office (XO, OPS SGT)	Private Office	L-shaped Executive desk with two pedestals, one 4-drawer lateral file, one book case, two guest chairs, one managerial chair
Office 1 (S-1, S-2, S-3, S-4, Chaplain)	Private Office	L-shaped desk with two pedestals, one 4-drawer lateral file, two guest chairs (Chaplain - 3-seat upholstered arrangement), one managerial chair
Office 2 (Chaplain Assistant)	Office	One single pedestal desk, one task chair
Open Workstations	Open Work spaces	Systems furniture workstation, with work surfaces, file pedestals, and overhead storage, two 4-drawer lateral files per workstation, two guest chairs, one task chair
Classroom	Classroom	240 tablet-arm chair desks.

BNHQ FURNITURE CHART		
Description	Comments	Furniture Required
Conference Room	Command Conference Room	Wedge-shaped conference table, 15 conference chairs, 12 side chairs, one storage credenza, 1-workstation for projector equipment storage
Lobby	Waiting area	10 guest chairs, four side tables
Staff Duty	Reception desk	One task chair, two 4-drawer lateral files
S-4 Storage	Storage	Six lockable storage cabinets, four 4-drawer lateral files, 1- workstation

</BTBN>

3.19.2. EQUIPMENT

A. AUDIO/VISUAL EQUIPMENT:

1) Projectors:

a) **Projection Screens:** Screens will be GFGI power operated 8'-0" x 6'-0" ceiling flush mounted projection screens at front of the classroom. Projection screens shall be flame retardant, mildew resistant, and white matte with black masking borders.

b) **Projector Mounting System:** A low profile ceiling mounted projector mount system with each projection screen will be GFGI. Ceiling mount shall consist of a steel ball joint and universal projector bracket. Ceiling mount shall project a maximum 6 inches below finished ceiling height, and shall securely attach to ceiling and structure above. Steel ball joint shall attach to the universal projector bracket with twist-lock engagement. Mount shall provide up to 30° roll or pitch adjustment and 360° yaw adjustment at ball joint. Two setscrews lock ball joint in position. Projector mount shall be capable of supporting a 26 pound load. <BTCOF>

3.19.2.BTBCOF EQUIPMENT - BARRACKS/COMPANY OPERATIONS FACILITIES (B/COF)

A. AUDIO/VISUAL EQUIPMENT:

1) **Security Cameras:** <BCOF_CAMERA_NO>Not Used</BCOF_CAMERA_NO><BCOF_CAMERA> The thirteen GFGI cameras will be placed underneath the covered training areas to monitor the two doors leading into the stairwells, the two doors (one camera) leading into the queuing corridor and the door leading into the Reception/CQ area. In addition, cameras will be used to monitor both entrances into the sleeping bays and the main entrance into the building (camera to be placed outside to monitor main entrance).</BCOF_CAMERA>

B. COMMERCIAL EQUIPMENT:

1) **Scrub Room:** Furnish and install each scrub room with a fixed 3 feet deep by length of wall, minimum 16 gauge, type 304 stainless steel counter top, running the full length of one long wall of the room for weapons cleaning.

2) **Commercial Laundry Equipment:** Each laundry room shall accommodate the following:

a) **Washers:** Washers shall be heavy-duty, extra capacity, commercial washers. GFGI

b) **Dryers:** Dryers shall be heavy-duty, extra capacity, double stacked commercial dryers. GFGI

c) **Folding Tables:** Contractor to furnish and install fixed heavy gauge stainless steel clothes folding/hanging tables measuring 2 feet deep by 3 feet wide.

d) **Laundry Tray/Sink:** Furnish and install one stainless steel laundry tray and sink. <BTBCOF><BTBN>

3.19.2.BTBN EQUIPMENT - BATTALION HEADQUARTERS (BNHQ)

A. COMMERCIAL EQUIPMENT:

1) **Vending Area:** Vending machines shall be full-size and GFGI. </BTBN>

3.20. FACILITY SPECIFIC REFERENCES - NOT USED