

DEPARTMENT OF THE ARMY ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT 600 ARMY PENTAGON WASHINGTON, DC 20310..0600

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APR 2.2 2014

MEMORANDUM FOR

Commander, United States Army Corps of Engineers (CEMP), 441 G Street NW, Washington, DC 20314

Commander, Installation Management Command, 2405 Gun Shed Road, Fort Sam Houston, TX 78234

SUBJECT: Revised Army Standard for Advanced Individual Training (AIT) Complex

1. The purpose of the memorandum is to provide a revision to the Army Standard for AIT complexes. This memorandum supersedes the previous AIT standard approved on 2 Apr 13. Waivers from the Army Standard must be approved in accordance with Army Regulation 420-1 (Facilities Management) and procedures established by the Army Facility Standardization Committee.

2. The Army Standard is mandatory for Army Military Construction projects in FY16 and beyond. Designs based on the Army Standard and the Army Standard Design Criteria will be developed consistent with Headquarters, Department of the Army, Military Construction Business Process.

3. Installation Status Report-Infrastructure and Real Property Planning and Analysis System methodologies will be updated to reflect the revised standard in coordination with the points of contact listed below.

4. The AIT Facilities Design Team (FDT) co-chairs are Ms. Mary Ellen McCrillis, DCS, G-3/5/7, (703) 614-9702, <u>mary.mccrillis.civ@mail.mil</u>; and Mr. Dolat G Desai, OACSIM, DAIM-ISH, (571) 256-9739, <u>dolat.g.desai.civ@mail.mil</u>. The representatives from US Army Corps of Engineers, Fort Worth District Center of Standardization for the AIT Complex standard are Mr. Dwain Scott (817) 886-1797, <u>dwain.scott@usace.army.mil</u>, and Mr. Bill Workman, (817) 886-1715, <u>william.k.workman@usace.army.mil</u>

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Encl





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The Army Standard for Advanced Individual Training (AIT) Complexes

Description:

Advanced Individual Training (AIT) complexes are required by the Army to encompass living, dining, training, and administrative/command operations. AIT Complexes are comprised of Barracks/Company Operations Facilities (B/COF), Dining Facility (DFAC), Battalion Headquarters (BNHQ), and Lawn Equipment Storage Buildings (LEB). These facilities, with outdoor training areas and any additional support facilities, are arranged on the site as a unit to allow the battalion to live, eat, train, and work together. When multiple battalions are organized under a brigade, a Brigade Headquarters (BDE HQ) may also be programmed in the AIT Complex.

B/COF is comprised of living quarters, toilets, multi-purpose rooms, storage, company operations and other support spaces. DFAC is comprised of delivery, storage, preparation, cleaning, serving, seated dining, and field feeding components. BNHQ is comprised of administration, special functions, storage, and multi-purpose room components for personnel assigned to work in those facilities. BDE HQ is comprised of administrative and special function components for personnel assigned to work in those facilities. LEB provides storage for maintenance equipment and materials. The site includes a running track, physical training (PT) pits, vehicular and service access drives, and parking areas.

Applicability:

- The Army Standard applies to Active and Reserve Component facilities on Army Installations.
- The Army Standard is mandatory for all construction projects. Facility renovation is addressed under the Guidance section.
- AIT projects must be reviewed by the USACE designated Center of Standardization (COS) for compliance with the Army Standard.
- All USACE geographic districts shall incorporate the mandatory design features described herein in close coordination with the COS for AIT complexes.
- This Army Standard supersedes space allowance standards contained in AR 405-70 and serves as the primary authority for AIT facilities worldwide.

Waivers:

- Only the Assistant Chief of Staff for Installation Management has the authority to approve exceptions to the Army Standard.
- Waivers from the Army Standard must be requested in accordance with AR 420-1 and the Army Facilities Standardization Program Charter, latest edition.
- All waiver requests to the Army Standard require COS conflict resolution prior to submission by the Garrison Commander through the IMCOM Region to HQ IMCOM.
- Garrison Army Standard waiver request submissions must be received in sufficient time to allow completion of Facility Design Team review and development of recommendations or courses of action for the Army Facilities Standardization Committee to consider prior to implementation into project design. Late submissions or project delays are not sufficient stand-alone justification for accelerated review or other dispensation to meeting the Army Standard.
- All waiver requests shall include compelling rationale of functional and operational deviations to include substantiating documentation in sufficient detail for the Army to assess implications of approving the waiver.
- All HQDA approved waivers shall be documented in installation master plans thereby serving as the installation's modified standards.

THE ARMY STANDARD FOR AIT COMPLEXES

ITEM	MANDATORY CRITERIA				
	AIT COMPLEX FACILITIES MAXIMUM GROSS AREA: Gross Square Footage (GSF) Deviation: The facility constructed gross area shall not exceed 105% of the space allocation set forth in this document to accommodate site, construction, or environmental factors. Such deviations must be authorized as part of the DD1391 allowed total square footage (SF). B/COF: 1,200 PN per complex (4 x 300 PN companies per BN)				
	5-story B/COF	176,000 GSF	(each, 600 PN)		
	3-story B/COF	90,000 GSF	(each, 300 PN)		
	Administration Facilities				
	BN HQ	10,900 GSF	(one per BN)		
	BDE HQ	9,450 GSF	(one per BDE)		
	Detached Storage Facilities:				
	LEB	1,000 GSF	(one per BN)		
Gross Area of Facilities	DFAC:				
	1,300 PN DFAC*	30,450 GSF	(one BN serving capacity)		
	2,600 PN DFAC*	55,350 GSF	(two BN serving capacity)		
	 * Includes Field Feeding Options as identified elsewhere in the DFAC Mandatory Criteria of this Army Standard Where used in this document, PN = personnel The requirement is based on population and whether the installation has existing facilities on-hand, or if the installation master plan involves constructing more than a battalion size AIT complex. All square footages listed above include covered training/assembly and queuing areas (as applicable). Where identified, Net Square Footages (NSF)) represents actual measured floor area. Scope adjustments (such as half-scope spaces), where applicable, ARE NOT INCLUDED in the NSF number of this Army Standard. For building area calculations and measurements, refer to the Guidance Section of this Army Standard (UFC Series 3-100 Architectural and Interior Design) 				

ITEM	MANDATORY CRITERIA		
	AIT CAT Codes and Area Allowances / Gross Square Foot (GSF) below is intended for Army wide planning purposes, which is based on a seven year historic average for each planning cycle. The allowance below is for a 5-story battalion sized complex. Covered Training for a BN size complex (CPLX) includes two (2) covered training areas at 1,750 GSF per 5-story BCOF.		
	CATEGORY CODE	ALLOWANCE	
	14182 Bde HQ	9,450 GSF per Brigade	
	14183 Bn HQ	5,545 GSF per Battalion	
	14185 Co Opns Facility	7,267 GSF per Company	
	17119 Org Classroom	22,037 GSF per Battalion	
	17139 Covered Training Area	Allowance = Assets	
Army Wide Facility	44220 Lawn Equipment Bldg	1,000 GSF per Battalion	
Allowance Intended for	72121 Transient UPH, AIT	251 GSF per Space(150,301 GSF/600 PN)=251	
Planning Purposes	72210 Dining Facility	[Number of Large DFACs X 55,350 GSF] + [Number of Medium DFACs X 30,045 GSF]	
	 Utilization) / 2,600] Number of Medium DFACs = 1, 2,600)] > [1,300 X 0.80 (minimu AIT Student Loads are pulled fr (ASIP) for all Army AIT training Active Component (COMPO 1), character of the ASIP Unit Ident AIT Complex allowances. ASIF Resource Requirements System 	om the Army Stationing and Installation Plan locations. Only Trainee loads identified as Type Code (TYPCO) 6 units where the last ification Code (UIC) = 'T' are used to generate trainees are based on the Army Training n (ATRRS) data.	

ITEM	MANDATORY CRITERIA		
	 AIT CAT Codes and Area Gross Squstory battalion size complex. A typicative of the story battalion size complex. A typicative of the story AIT BCOFs. One (1) AIT BNHQ One (1) Lawn Equipment Building (LOne (1) 1300 PN DFAC The gross building area in some case combined in a single building. For experiment of the store of	al default battalion siz EB) es will be the gross a cample an AIT BCOF ludes-Living Quarters s) e/Semi Private office oms and other assoc room (Includes Multi-	area for multiple cat codes has multiple CAT Codes: a, Dayrooms, Laundries s, Platoon Sergeant iated spaces) Purpose rooms,
Facility Allowance Intended for Facility Design	FACILITY TYPE	CAT CODE	AREA (GSF)
Purposes	BCOF		
	Barracks	72121	150,301
	COF	14185	7,267
	Organizational Classroom	17119	16,682
	Covered Training	17139	1,750
	BNHQ	14183	5,545
	Organizational Classroom	17119	5,355
	BDEHQ	14182	9,450
	LEB	44220	1,000
	DFAC (Medium)	72210	30,045
	DFAC (Large)	72210	55,350
Energy Performance	Facilities shall be designed in compl requirements for Federal facilities ar time of project definition and cost es	nd Army engineering	
Sustainable Design Development	Facilities shall be designed to meet current sustainable development and design policy requirements as established by the Department of the Army.		
Antiterrorism / Force Protection	Facilities shall meet security require terrorism Standards for Buildings, la		0-01, DoD Minimum Anti-

ITEM	MANDATORY CRITERIA	
Technical Design Criteria and Standards	International Building Code except where Installation Design Guide or military standards are required to meet specific operational needs.	
Outdoor Training	 Minimum mandatory exterior training areas shall include: Running Track: One, closed quarter mile track per BN Physical Training Pit: One, 11,250 SF training pit per company (four per BN) PT pits shall be synthetic material, such as rubber mulch or turf, color as selected by installation. Physical Training Stations: Four, 4-Station pull-up bar sets per company (Sixteen per BN). 	
Exterior Lighting	Exterior lighting systems shall be provided for parking areas, sidewalks, interconnecting buildings, service yards, service drives, outdoor training areas, and other areas within complex, as required.	
Parking	Private Operated Vehicle (POV) Parking: Parking shall be provided for BDE HQ and BNHQ staff, Company cadre within B/COF, DFAC staff, government and service vehicles, and visitors. Total parking space allocation for the complex shall be designed based on current Tables of Distribution and Allowances (TDA) plus 120% of maximum DFAC employee work shift.	
Accessibility	<u>BDE HQ & BNHQ</u> - Shall be fully accessible in compliance with Architectural Barriers Act (ABA) Chapters 1 and 2 as well as Chapters 3 through 10 of the Americans With Disabilities Act and Architectural Barriers Act Accessibility Guidelines for Buildings and Facilities, 2004 version as currently amended. <u>DFAC</u> - Administrative areas (including approach to the public entrance) shall be fully accessible in compliance with ABA Chapters 1 and 2 as well as Chapters 3 through 10 of the Americans With Disabilities Act and Architectural Barriers Act Accessibility Guidelines for Buildings and Facilities, 2004 version as currently amended. <u>B/COF</u> - This facility is used by able-bodied military personnel only.	
Tele- communications	 Telecommunications infrastructure will meet the United States Army Information Systems Engineering Command (USAISEC) Technical Criteria for the Installation Information Infrastructure Architecture (I3A) and American National Standards Institute / Telecommunications Industry Association / Electronic Industries Alliance (ANSI/TIA/EIA) 568 and 569 requirements. In the event of conflicts, the most stringent guidance shall apply. The facility must connect to the Installation telecommunications (voice and data) system through the outside plant (OSP) underground infrastructure per I3A criteria. Connections to OSP cabling system shall be from each facility main cross connect located in main telecommunications room or telecommunications outlets will be provided per I3A criteria based on functional purpose of the various spaces. Outlet locations may be modified by special operations requirements identified by the end-user. A Telecommunications Room shall be provided for the voice and data network in accordance with I3A criteria and ANSI/EIA/TIA-569-B. 	

ITEM	MANDATORY CRITERIA	
Maximum Site Planning Distances	 Maximum travel distances, on walkways, between facilities and supporting amenities shall not exceed: B/COF to DFAC: 1,680 feet B/COF to PT Pits and Track: - 1,200 feet BNHQ to DFAC - 1,800 feet B/COF to BNHQ - 1,680 feet BNHQ to BDE HQ - 1,680 feet Parking Space to Facility Served - 1,680 feet 	
Signage	Adequate interior and exterior signage shall be provided for all public amenities and spaces.	

BARRACKS / COMPANY OPERATIONS FACILITY (B/COF)

ITEM	MANDATORY CRITERIA (B/COF)	
Capacity vs. Population	Each B/COF shall be designed for able-bodied populations with a Base Design Capacity (BDC) in increments of 300 personnel (PN) per company and a Peak Design Capacity of 375 personnel (PN) per company. The Peak Design Capacity is 125% of the Base Design Capacity. The Total Building Population (TBP) for a 5-story, two company B/COF will be 600 to 750 PN based on the BDC and the PDC, respectively. All buildings systems comprising the building's infrastructure, including mechanical (heating, ventilating and air-conditioning), plumbing (water and sewer) electrical (lighting and power), and communications, will be designed to accommodate the Peak Design Capacity of 750 persons (PN).	
Facility Programming	 AIT B/COFs are provided in two configurations. The first is a 5-Story B/COF that accommodates two 300 PN companies (total 600 PN). The second is a 3-Story B/COF that accommodates one 300 PN company (total 300 PN). For programming and construction, the default configuration shall be the 5-Story, 600 PN B/COF. Variations for use of a single-company, 300 PN B/COF can be approved through a signed memorandum from the facility proponent (G-3/5/7), if any of the following conditions are met: The local fire station provides a written statement that the installation cannot provide adequate fire protection for the 5-Story structure, either through on-post or local community resources. The project in question is a completion phase of a previous 1200 PN complex. (New complexes, whether phased or not, shall utilize the 5-Story structure. The project in question does not require a complete 1200 PN complex. (Such situations would result in a 5-Story, 600 PN and a 3-Story, 300 PN structure pair. All other deviations shall be made as waiver requests to this Army Standard. 	
Gross Area of Facility	 5-Story, Two Company B/COF (600 PN): Barracks Company Operations & Support Covered Training & Assembly Total Area: 176,000 GSF 3-Story, One Company B/COF (300 PN): Barracks 	

ITEM	MANDATORY CRITERIA (B/COF)	
Gross Area of Facility Cont.	 Company Operations & Support Covered Training & Assembly Total Area: 90,000 GSF 	
Living Quarters	A total of 50% of the living quarters will be designed with two person sleeping areas at 90 NSF per person or a minimum of 180 NSF for the room. The remaining 50% of the Living Quarters will be designed to accommodate the Peak Design Capacity of the building accommodating 3 persons per sleeping area at 72 NSF per person or a minimum of 216 NSF for the room.	
Private / Semi- Private Offices	 For each company, provide a Command Suite with offices for: Company Commander (150 NSF) Executive Officer (110 NSF) 1st Sergeant (110 NSF) General Office Area (260 NSF) to include: Waiting Area with seating for three visitors and display of training materials One (1) Workstation for the OPS Sgt. Storage for training materials. Platoon Sergeant Offices: Offices will be located on each floor of the facility. Each office will be designed to include: Two standard 6' x 6' Workstations (cubicles) Private Toilet Room with Shower. Individual office areas, excluding the Toilet Rooms, shall be a minimum of 160 NSF with the total minimum aggregate area for all offices of 960 NSF. 	
Common Toilet Rooms	 Command Toilet Rooms Provide single occupant, Men's and Women's Toilet Rooms with a shower adjacent to the Command Suite(s) for the use of administrative personnel and authorized visitors only. Trainee Toilet Rooms Provide Men's and Women's Toilet Rooms adjacent to the Multi-purpose Room for the common use of trainees and other building occupants 	
Charge of Quarters (CQ) Station	Provide One (1) Charge of Quarters (CQ) Station centrally located in the lobby on first floor at the building's main entrance. CQ Station shall be positioned to provide maximum visibility of the main entrance, main stairs, service elevator and main corridors. The CQ Station desk shall be sized to accommodate one (1) PN per company housed in the B/COF and will be designed to accommodate the installation of an 'optional' or 'future' camera-assisted visual surveillance system.	
Computer Learning Center (w/ Storage)	Computer Learning center shall Lab(s) shall be provided on each floor for each company (as applicable). Each computer learning lab is for used to facilitate self-paced, computer-based learning and study. Each Learning Lab will include a printer station and a storage area or storage closet for the storage of miscellaneous technology items. Computer Learning Labs, including printer and storage areas, shall be a minimum of 250 NSF with the total minimum aggregate area for all Learning Labs of 1,500 NSF.	
Day Room	Day Rooms shall be provided for the recreational use of trainees on each floor of the building. Individual Day Rooms will be a minimum of 540 NSF for a 5-Story, Two Company B/COF and 900 NSF for a 3-Story, One Company B/COF, with the total minimum aggregate area for all Day Rooms of 2,700 NSF for both the 5-Story B/COF and the 3-Story B/COF.	

ITEM	MANDATORY CRITERIA (B/COF)	
Multi-Purpose Rooms	Provide a Multi-Purpose Room for each Company centrally located at the back of the building. Each Multi-Purpose Room shall be designed to accommodate 150 trainees seated in chairs equipped with folding tablet-arms and 300 trainees for a standing muster. The Room will be divisible by the use of operable wall partitions to provide three (3) Instructional areas, each accommodating 50 trainees in chairs equipped with folding tablet-arms plus presentation space for the instructor(s). The total minimum area for each Instructional Area will be 770 NSF with a minimum aggregate area of 2,310 NSF. Each Multi-Purpose Room(s) and Instructional Areas will be designed to accommodate Classroom XXI, Level 1 Technology configurations. Provide Storage Room(s) and Audio/Visual (AV) Rooms to accommodate each Instructional Area.	
Company Supply	Provide one (1) Company Supply Room for each company (as applicable) for storage of general equipment and supplies. The minimum area of each Company Supply Room shall be 280 NSF.	
Caged Storage	Provide one (1) lockable Caged Storage Area for each Company Supply to provide a minimum of 100 NSF of storage for securing higher-valued equipment. The Caged Storage Area shall be accessible through the Company Supply Room only.	
Covered Training / Assembly Area	Provide 1,750 NSF of covered training / assembly area near the rear building entrances for each company (as applicable).	
Boot Wash Stations	Provide two (3) boot wash stations - one (1) at the building's primary main entrance and two (2), one each located at the building's secondary entrances near the covered training / assembly area. Boot wash stations may be either wet or dry type per the installation's functional requirements.	
Scrub Room / Weapons Cleaning Room	Provide a Scrub Room / Weapons Cleaning Room for each Company. The room(s) shall be a minimum of 240 NSF per company and shall be designed to accommodate the cleaning of field equipment and gear. This space shall be situated to provide direct access from the outdoors prior to entering the primary building spaces. Room shall include standing work height, built-in countertops with storage below. Cabinet storage shall have lockable doors with internal shelving. The room(s) shall also include floor mounted (or braced) scrub sinks in the room's center.	
Arms Vault	Provide a separate arms vault at 200 NSF minimum For each company. The Arms Vault shall be designed in accordance with AR 190-11 and DoD Regulation 5100.76-M, "Information Security Program." Arms door shall incorporate a steel Dutch-door type day-gate with a steel issue shelf built into the lower leaf of the day-gate.	
Laundry	Provide designated laundry rooms for each company. (Rooms shall not be shared between companies.) Company laundry spaces shall be divided among each occupied floor according to the population of each floor. Rooms shall be sized to accommodate large capacity washers at a ratio of 8:1 and stackable dryers at a ratio of 6:1. Ratios shall be calculated per floor occupancy and based on maximum surge capacity.	
Janitor and Custodial Supply Closets	Provide one (1) janitor closet and one (1) custodial supply closet per floor per Company. Each janitor and custodial closet shall be a minimum of 20 NSF. Each janitor closet will include a floor drain and a built-in mop sink (either wall-hung or floor mounted).	
Profile Recovery	Provide a minimum 270 NSF Profile Recovery room for each company. Profile	

ITEM	MANDATORY CRITERIA (B/COF)	
Profile Recovery Cont.	Recovery room shall be designed to accommodate fitness equipment and promote aerobic conditioning for injured trainees. Space shall be sized and oriented to allow installation of treadmills, stationary bikes, or similar equipment designed to improve a trainee's recovery from minor physical injuries. This space shall not serve as a company weight-room, it shall not be used for physical therapy nor shall it duplicate services that are provided at fitness centers or elsewhere on-post.	

BATTALION HEADQUARTERS (BNHQ)

ITEM	MANDATORY CRITERIA (BNHQ)	
Gross Area of Facility	<u>Battalion Headquarters</u> Total = 10,900 GSF	
SIPRNET	Secret Internet Protocol Router Network (SIPRNET) is not authorized for training facilities. Requests for inclusion of SIPRNET shall be made, in writing, to the G-3/5/7. Written approval must be obtained as preliminary documentation for request of an Army Standard Waiver for this criterion.	
Tele- communications Room	Provide a 100 NSF minimum secured communications room to accommodate facility telecommunications equipment.	
Private and Semi-Private Offices	 Provide private offices for: <i>Command Suite</i> - Battalion Commander (150 NSF); Executive Officer (110 NSF); Sergeant Major (110 NSF); S-1 (100 NSF); S-3 (100 NSF); S-4 (100 NSF). Note: An S-2 office is not authorized in training battalions. <i>Chaplain Suite</i> - Chaplain (130 NSF); and Chaplain Assistant (120 NSF). Note: The Chaplain Suite shall have a separate exterior entrance located away from the primary facility entrance and shall not be immediately adjacent to the Command Suite. Provide semi-private offices: Cubicle work areas accommodating seven (7) standard 6'x6' workstations for S-1 personnel, one (1) receptionist-type workstation in the S-1 work area, nine (9) standard 6'x6' workstations for S-3 personnel, and two (2) standard 6'x6' workstations for S-4 personnel. Cubicle work area shall be open-plan to allow maximum flexibility for adjustments based on future TDA assignments. 	
Staff Duty	Provide a 110 NSF minimum Staff Duty station adjacent to the Lobby Corridor. Additional shelving and storage shall be built-in to accommodate holding of pre- screened packages and letters.	
Break Room	Provide a 150 NSF minimum Break Room located off of the primary corridor. Break Room shall include a sink, countertop, upper and lower storage cabinets, space for a refrigerator, and seating for at least three (3) persons.	
Multi-Purpose Room	Provide one (1) multi-purpose room at 2100 NSF minimum and capable of accommodating 300 PN using standard tablet desks. Multi-purpose room shall accommodate Classroom XXI Level 1 technology configurations.	
Conference Room	Provide a 490 NSF minimum Conference Room capable of accommodating at least 16 chairs around a central conference table, twelve (12) additional chairs along the Conference Room walls, and equipped to provide video teleconferencing capability.	

ITEM	MANDATORY CRITERIA (BNHQ)	
Storage	<u>Supply Storage:</u> Provide a 100 NSF minimum storage room located along the Command Suite corridor. <u>Multi-Purpose Audio / Video Storage</u> : Provide a total 20 NSF via a storage closet located adjacent to the Multi-Purpose Room.	
Vending	Provide a 45 NSF minimum open space to accommodate three (3) vending machines (beverage, snack, and ice) that allows access from the Lobby Corridor. Include floor drains and plumbing as appropriate.	
Recycling Room	Provide a 35 NSF minimum recycling room for storage of full and excess collection bins. The room shall include an oversized 4'-0" door for ease of access.	
Toilet Rooms	Staff Toilet Rooms:Provide separate male and female toilet rooms. Toilet Roomsshall be located adjacent to the Command Suites(s) for the use of the administrative personnel and authorized visitors only. Each toilet room shall have at least one (1) shower.Women's Toilet Room mother lactation with a compact refrigerator, power outlet, countertop, sink and 	
Drinking Fountains	Provide at least one "high" and one "low" drinking fountain in the primary corridor near the multi-purpose room.	
Janitor Closet	Provide a minimum of 45 NSF janitor closet and include a floor drain and a built-in mop sink (either wall-hung or floor mounted).	

BRIGADE HEADQUARTERS (BDE HQ)

ITEM	MANDATORY CRITERIA (BDE HQ)	
Gross Area of Facility	Brigade Headquarters Total = 9,450 GSF	
SIPRNET	Secret Internet Protocol Router Network (SIPRNET) is not authorized for training facilities. Requests for inclusion of SIPRNET shall be made, in writing, to the G-3/5/7. Written approval must be obtained as preliminary documentation for request of an Army Standard Waiver for this criterion.	
Private and Semi-Private Offices	 request of an Army Standard Waiver for this criterion. Provide private offices for: <i>Command Suite</i> - Brigade Commander (220 NSF); Executive Officer (150 NSF); Sergeant Major (150 NSF); S-1 (100 NSF); S-2 (100 NSF); S-3 (100 NSF); S-4 (100 NSF). <i>Chaplain Suite</i> - Chaplain (130 NSF); and Chaplain Assistant (120 NSF). Note: The Chaplain Suite shall have a separate exterior entrance located away from the primary facility entrance and shall not be immediately adjacen to the Command Suite. <i>Brigade Support</i> – SHARP (100 NSF); Equal Opportunity (90 NSF); Re- Enlistment (90 NSF). Note: Brigade Support offices shall be discreetly located and not be immediately adjacent to view from the Command Suite. <i>Brigade Legal Suite</i> – Provide a 300 NSF Brigade Legal Suite capable of accommodating four (4) persons in standard 6'x6' cubicles. <u>Provide semi-private offices:</u> Cubicle work areas accommodating five (5) standard 6'x6' workstations for S-1 personnel, one (1) receptionist-type 	

ITEM	MANDATORY CRITERIA (BDE HQ)
Private and Semi-Private Offices Cont.	workstation in the Command Suite, four (4) standard 6'x6' workstations for S-2 personnel, ten (10) standard 6'x6' workstations for S-3 personnel, and seven (7) standard 6'x6' workstations for S-4 personnel. Cubicle work area shall be open- plan to allow maximum flexibility for adjustments based on future TDA assignments.
Telecommunications Room	Provide an 85 NSF minimum secured communications room to accommodate facility telecommunications equipment.
File Storage	Provide a 70 NSF minimum File Storage room.
Legal Document Storage	Provide a 110 NSF minimum file room for Legal Document Storage. Room shall be located adjacent to and provide direct access from the Brigade Legal Suite.
Team Room	Provide a 240 NSF minimum Team Room located near the Brigade Legal Suite. The Team Room shall be sized to accommodate at least ten (10) chairs around a central table. Team Room shall serve dual purpose of Legal Conference Room for attorney/client meetings and depositions as required during regular work hours.
Staff Duty	Provide a 115 NSF minimum Staff Duty station adjacent to the Lobby Corridor. Additional shelving and storage shall be built-in to accommodate holding of pre- screened packages and letters.
Conference Room	Provide a 490 NSF minimum Conference Room capable of accommodating at least 16 chairs around a T-Shaped central conference table, twelve (12) additional chairs along the Conference Room walls, and equipped to provide video teleconferencing capability. Conference Room shall serve dual purpose of Legal Conference Room for hearings and legal proceedings as required after regular work hours.
Storage	Provide a 55 NSF minimum Supply Storage room.
Break Room & Vending	 Provide a 270 NSF minimum combined Break Room and Vending area located off of primary corridor. Break Room shall include a sink, countertop, upper and lower storage cabinets, space for a refrigerator, and seating for at least six (6) persons. Integrated space shall accommodate three (3) vending machines (beverage, snack, and ice) that allow access from Lobby Corridor. Include floor drains and plumbing as appropriate.
Recycling Room	Provide a 35 NSF minimum recycling room for storage of full and excess collection bins. The room shall include an oversized 4'-0" door for ease of access.
Drinking Fountains	Provide at least one "high" and one "low" drinking fountain in the primary corridor near the toilet rooms.
Janitor Closet	Provide a minimum of 20 NSF janitor closet and include a floor drain and a built- in mop sink (either wall-hung or floor mounted).
Staff Toilet Rooms Staff Toilet Rooms	Provide separate male and female staff toilet rooms. Toilet Rooms shall be located near the Lobby Corridor for visitors and building occupant use. Each toilet room shall have at least one (1) shower. A separate room, near the women's toilet room, shall be provided to accommodate nursing mother lactation with a compact refrigerator, power outlet, countertop, sink and seating for one (1) person. Door shall be lockable from the interior with an occupancy indicator. When facility staffing does not warrant use as lactation room, space may be

ITEM	MANDATORY CRITERIA (BDE HQ)	
Cont.	repurposed for facility storage.	

DINING FACILITY (DFAC)

ITEM	MANDATORY CRITERIA (DFAC)	
Population	 DFAC capacity is based on a maximum 95% utilization factor 1,300 Soldier serving capacity within 90 minutes 2,600 Soldier serving capacity within 90 minutes Where requirements exist for the larger facility and the complex is provided in a consolidated area, it shall be constructed in lieu of constructing two 1300 Soldier DFACs. 	
Gross Area	Gross building area consists of exterior covered queuing, covered loading dockand all enclosed spaces.1,300 PN2,600 PNDFAC1,300 PN2,600 PNTotal Without Field Feeding29,650 GSF54,350 GSFField Feeding Option800 GSF1,000 GSFTotal With Field Feeding30,450 GSF55,350 GSF	
Operation	 This facility must enable concurrent and segregated company operation. This includes separate queuing, entrances, hand wash, toilets, head-count stations, serving lines, self-service lines, dining rooms, beverage refill line and exits. A consolidated soiled dish drop-off and dish wash area shall be located immediately adjacent to the exits. Provide facilities and equipment for short order, hot food, and specialty service lines. Patron flow through serving lines shall minimize backtracking for desserts and beverages. Provide beverage refill stations in each main dining area. 	
Seating Capacity and Arrangement	 1,300PN – Seating capacity is 520 seats. Provide two separate main dining areas. Provide separate area adjacent to each main dining area, each with 16 seats for cadre/training staff. 2,600PN – Seating capacity is 1,040 seats. Provide four separate main dining areas. Provide separate area adjacent to each main dining area, each with 16 seats for cadre/training staff. 	
Receiving Area	Provide a minimum of 3 truck dock spaces with one dock leveler at 47" above grade. A ramp and stair shall provide access from dock to dumpster/trash area. A can wash area shall be located adjacent to the loading dock.	
Field Feeding Area	Provide an area adjacent to the dock for preparation and storage of field feeding items. This area shall include equipment for hot and cold beverage preparation, an icemaker, and space for handling and storage of insulated containers. Field Feeding is optional for AIT facilities based on need. A gross area reduction of 800 GSF for the 1,300 PN or 1,000 GSF for the 2,600 PN facility is required if programming option is not exercised	
Other Support Areas	Provide handicapped accessible staff toilets with adjacent unisex locker and break area. Provide a manager's office and adjacent staff office with lockable administrative storage. Provide janitor closets accessible to both the kitchen and the dining area.	

BACKGROUND

<u>Advanced Individual Training Complex Composition:</u> An Advanced Individual Training Complex consists of several facilities types with emphasis on the following facility categories:

Category Code	Description
14183	Battalion Headquarters Building
14182	Brigade Headquarters Building
44220	Storage Building, General Purpose (used for LEB)
72121	Transient UPH, Advanced Individual Trainees (AIT)
72210	Dining Facility

Facilities covered in this standard may have functional elements included in category codes 14185 (Company Headquarters Building), 17119 (Organizational Classroom), 17139 (Covered Training Area), or other related category codes.

<u>General Design Philosophy</u>: An AIT Complex shall be programmed as a unit, rather than as individual facilities as the complete battalion drives the overall functionality of the facility. The facilities, outdoor training areas, and any additional support facilities, shall be arranged on the site as a unit to allow the battalion to live, eat, train, and work together and ideally should be planned within a 1,680 foot diameter circle.

Functional, operational, and spatial relationships critical to meeting battalion training requirements are embedded in the operational layout of facilities. By definition, the use of the term complex in this standard refers to multiple facility types that are packaged to meet the training mission objectives while minimizing (to the extent feasible) the complex footprint. The facility planner shall contact the COS to consider alternatives that will minimize or preclude functional and operational impacts on training requirements when there is a critical need for spatial or land use consideration for this Army Standard.

<u>Planning and Land use:</u> Site selection and real property master planning for all AIT complexes should, to the maximum extent possible, meet layout and configuration for spatial relationships between the BDE HQ, BNHQ, B/COF and DFAC as depicted in the AIT Complex Standard Design.

Specific Design Considerations:

- Maximum use of natural light so facilities remain usable during periods of lost utility support.
- Economy of construction is a design prerequisite.
- Facilities must be durable to withstand the rigors of multiple users.
- Pre-fabricated construction components and/or modular construction is encouraged as long as facility durability requirements and other design criteria, such as progressive collapse requirements, are satisfied.

GUIDANCE

<u>Operational Configuration</u>: The overall scope of an AIT Complex varies depending on the number of Battalions within the complex. A single battalion AIT Complex includes four BCOF, one BNHQ, one DFAC, an outdoor training area with a quarter mile running track, parking, and service access. A Brigade Headquarters may be included if the site includes multiple Battalions organized under a Brigade. The BNHQ is typically located at the entrance to the AIT Complex where visitors can be received and entry into the complex controlled. The BNHQ should also have a clear and convenient pedestrian access to the various Barracks/Company Operations Facilities and Dining Facility. The Standard Design does not utilize or include a Central Chiller or Energy Plant.

<u>"Typical" Battalion AIT complex has:</u> 1,200 PN B/COF	<u>Total GSF</u> 352,000 GSF (incl. Covered Training Area)
	č
 Battalion Headquarters 	10,900 GSF
 Lawn Equipment Storage Building 	1,000 GSF
 1,300 Soldier Dining Facility 	30,450 GSF (Reduced Covered Queuing Area and no
	Field Feeding Option)

<u>Accessibility</u>: The Barracks/Company Operations Facilities are for able-bodied personnel and are not required to meet ADAAG requirements. The mission is for transient training and there is no visitor requirement.

<u>Arms Vault</u>: Secure arms vault requires a minimum of 375 (PN) arms storage for each Company. Weapons racks are typically Government furnished and contractor installed. Weapons racks are securely anchored to building structure.

<u>Net Floor Areas</u>: Where NSF is identified in this Army Standard those numbers shall be actual constructed sizes and are calculated by measuring the inside clear dimensions from the finish surfaces of walls.

<u>Gross Floor Areas</u>: For scoping purposes, compute the "gross area" and GSF in accordance with the following:

- Enclosed Spaces: The "gross area" is the sum of all floor spaces with an average clear height ≥6'-11" (as measured to the underside of the structural system) and having perimeter walls which are ≥4'-11". The area is calculated by measuring to the exterior dimensions of surfaces and walls.
- Limited Scope Spaces: Areas of the following spaces shall count as one-half scope when calculating "gross area":
 - Balconies
 - Porches
 - Covered exterior loading platforms or facilities
 - Covered but not enclosed spaces, canopies, training, and assembly areas
 - Covered but not enclosed passageways and walks
 - Open stairways (both covered and uncovered)
 - Covered ramps
- Excluded Spaces: The following spaces shall be excluded from the "gross area" calculation:
 - Crawl spaces
 - Uncovered exterior loading platforms or facilities
 - Exterior insulation applied to existing buildings
 - Open courtyards
 - Open paved terraces
 - Uncovered ramps
 - Uncovered stoops
 - Utility tunnels and raceways

Roof overhangs and soffits measuring less than 3'-0" from the exterior face of the building to the fascia.

<u>Net Floor Areas</u>: Where NSF is identified in this Army Standard those numbers shall be actual constructed sizes and are calculated by measuring the inside clear dimensions from the finish surfaces of walls.

<u>Gross Floor Areas</u>: For scoping purposes, compute the "gross area" and GSF in accordance with the following:

 Enclosed Spaces: The "gross area" is the sum of all floor spaces with an average clear height ≥6'-11" (as measured to the underside of the structural system) and having perimeter walls which are ≥4'-11". The area is calculated by measuring to the exterior dimensions of surfaces and walls.

Division of NSF Among Spaces: In various portions of this Army Standard, spaces are designated as sum total NSF values. These totals are to be divided between each building floor. In some cases, these totals are designated "per company" (such as Platoon Sgt Offices). In other cases, these totals are simply "per building." Each sub- section of the Army Standard identifies that intent. For those portions that are considered "per company," it is important to understand the intended functional division of AIT Soldiers inside the building. It is intended that each occupant Company be provided one of the building wings. Certain spaces, such as laundries and day rooms, are duplicated per floor to maintain unit integrity and functional responsibility. In a 5-Story B/COF, those per floor spaces are not required to be as large, per floor, as the corresponding space in a 3-Story B/COF. Because the number of Soldiers housed per floor

(for each company) is smaller in a 5-Story building, the corresponding per floor area of support spaces is smaller.

Example Calculation:

- 3-Story B/COF, Platoon Sgt Offices 960 NSF total ÷ 3 Floors = 320 NSF per Floor
- 5-Story B/COF, Platoon Sgt Offices 960 NSF total ÷ 5 Floors = 192 NSF per Floor

<u>Private Operated Vehicle (POV) Parking</u>: The location of the POV parking area(s) are designed based on each Installation's specific site constraints and can either be consolidated or spread out along the perimeter of the AIT Complex. POV parking areas must meet setback requirements dictated IAW UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings.

Example POV Parking Requirements for Typical Complex (Per Current TDA Guidance):

- B/COF: 18 Spaces per Company x 4 Companies = 72 Total Spaces
- BNHQ: 18 Cadre + 3 Visitor + 2 Handicap = 25 Total Spaces
- DFAC: 120% (54 PN for an 801-1300PN facility) = 65 Total Spaces Note – 3 Handicap Spaces included in DFAC total requirement
- > TOTAL: 72 + 23 + 65 = 160 Total Spaces per Typical Complex

Laundry Facilities:

Laundry facilities should be located adjacent to sleeping units to provide ease of access to occupants.

Example Laundry Requirements for 5-Story Standard Design B/COF:

- 1st Floor: 180 max PN ÷ 8 Washers = 23 Large Capacity Washers
- 1st Floor: 180 max PN ÷ 6 Dryers = 30 Stackable Dryers
- 2nd Floor: 180 max PN ÷ 8 Washers = 23 Large Capacity Washers
- 2nd Floor: 180 max PN ÷ 6 Dryers = 30 Stackable Dryers
- 3rd Floor: 180 max PN ÷ 8 Washers = 23 Large Capacity Washers
- 3rd Floor: 180 max PN ÷ 6 Dryers = 30 Stackable Dryers
- 4th Floor: 180 max PN ÷ 8 Washers = 23 Large Capacity Washers
- 4th Floor: 180 max PN ÷ 6 Dryers = 30 Stackable Dryers
- 5th Floor: 180 max PN ÷ 8 Washers = 23 Large Capacity Washers
- 5th Floor: 180 max PN ÷ 6 Dryers = 30 Stackable Dryers

Example Laundry Requirements for 3-Story Standard Design B/COF:

- 1st Floor: 150 max PN ÷ 8 Washers = 19 Large Capacity Washers
- 1st Floor: 150 max PN ÷ 6 Dryers = 25 Stackable Dryers
- 2nd Floor: 150 max PN ÷ 8 Washers = 19 Large Capacity Washers
- 2nd Floor: 150 max PN ÷ 6 Dryers = 25 Stackable Dryers
- 3rd Floor: 150 max PN ÷ 8 Washers = 19 Large Capacity Washers
- 3rd Floor: 150 max PN ÷ 6 Dryers = 25 Stackable Dryers

Washers and Dryers are rounded up to provide even numbers for each laundry facility on each floor.

<u>Energy Performance & Sustainable Design:</u> AIT Complex facilities shall be designed to meet current sustainable development and design policy requirements as established by the Department of the Army. Facilities must be designed to achieve LEED Silver or higher if justified by Life Cycle Cost Analyses (LCCAs). (Scoring criteria and LEED Version shall be in accordance with current policies as established by the Department of the Army.) Higher sustainability levels may be established above this minimum by other applicable Army or DoD policy, regulation, or criteria.

- Exterior Construction: Utilize sustainable, low-maintenance finish materials. Roofing materials shall be reflective, "cool-roof" type finishes in appropriate regions.
- Landscaping: Utilize Xeriscape™ design techniques to ensure all plant materials are native to the area and require minimal maintenance. All landscapes shall be designed to utilize no potable water

for irrigation after a one-year establishment period. Irrigation shall be minimal and achieved through ground-water collection and grey-water reuse.

- Site Utilities: Where feasible, all site utilities should utilize underground distribution methods.
- Mechanical Systems: Facilities shall utilize the most energy efficient solution for HVAC design available within budget. Mechanical system design shall not be required to accommodate older, lessefficient legacy systems.

<u>Compliance Threshold</u>: The Army Standard may identify an Army regulation, technical guide or other written guidance as mandatory criteria. The COS provides the first line technical compliance review. The Facilities Design Team (FDT), in conjunction with the COS, will resolve any issues where there may be conflicting, unclear or no compliance measurement threshold. Resolution may require senior leadership guidance or amendment of the Army Standard. The Army Standard is not intended to provide compliance criteria detailed in references, regulations, industry standards, or the standard design.

<u>Renovation</u>: Renovated facilities are designed in compliance with prevailing policy and mandatory requirements for Federal facilities and Army engineering documentation in force at time of project definition and cost estimating. The USACE Center of Standardization is an excellent source to engage when considering renovation due to their subject matter expertise. A new facility is necessary if renovation criteria identified below cannot be met:

- Assure that minimum requirements for seismic issues, fire protection, life safety, and sustainable design can be met with the buildings intended for renovation.
- Seismic mitigation must occur if renovation cost is greater than 50% of building's replacement value (if Seismic Design Category C) as determined by the Installation.
- Fire Protection/Life Safety standards are required if renovation cost is greater than 50% of the building's replacement value as determine by the Installation.
- LEED Silver certification from US Green Building Council (USGBC) must be obtained when renovation provides significant opportunities for substantial improvement in sustainable design elements of building, including energy efficiency, or any renovation that exceeds \$7.5M.
- AT/FP standards (setbacks) are required if renovation cost is greater than 50% of building's replacement value as determine by the Installation.
- Comply with AR 420-1, Table 3-7 for minimum standards of acceptable space and privacy for Soldier sleeping areas.
- Review AIT Complex Army Standard mandatory construction criteria for facility being considered for renovation to ensure each mandatory criteria item is met. Obtain a signed memorandum from the facility proponent (HQDA, G-3/5/7, Training Directorate, Institutional Training Division) approving lesser standard where renovation does not meet the Army Standard mandatory criteria identified for new construction.

Reference Criteria: The designs use latest adopted editions of following design criteria:

- Americans With Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines, 2004 as amended
- IBC International Building Code
- AR 405-70, Utilization of Real Property
- AR 420-01, Army Facilities Management
- AR 380-05, Department of the Army Information Security Program
- AR 190-11, Physical Security of Arms, Ammunition, and Explosives
- DoD 5100.76-M, Physical Security of Sensitive conventional Arms, Ammunition, and Explosives
- DA PAM 415-28, Construction Real Property Category Codes
- UFC 3-600-01, Design: Fire Protection Engineering for Facilities
- UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings
- UFC 4-023-03, Security Engineering: Design to Resist Progressive Collapse
- UFC 4-722-01 Dining Facilities
- UFC Series 3-100 Architecture and Interior Design
- TB MED 530 Occupational and Environmental Health Food Sanitation
- ETL 1110-3-491, Sustainable Design for Military Facilities

- United States Army Information Systems Engineering Command (USAISEC) Technical Criteria for the Installation Information Infrastructure Architecture (I3A)
- UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design
- ANSI/TIA/EIA-568-B Commercial Building Telecommunications Cabling Standard
- ANSI/TIA/EIA-569-B Commercial Building Standard for Telecommunications Pathways and Space