

#### DEPARTMENT OF THE ARMY

#### ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT 600 ARMY PENTAGON WASHINGTON, DC 20310-0600

OCT 2.8 2013

DAIM-ZA

### MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Central Issue Facility (CIF) Army Standard

- 1. The enclosed Army Standard for CIF is hereby approved for implementation. The Army Standard applies to Active and Reserve Component facilities on Army Installations. Only the Assistant Chief of Staff for Installation Management (ACSIM) has authority to approve exceptions to this standard. Waivers from the Army Standard must be approved in accordance with Army Regulation 420-1, "Army Facilities Management," latest edition.
- 2. The Army Standard is mandatory for Military Construction (MILCON) Army projects in FY15 and beyond. Designs based on the Army Standard and the United States Army Corps of Engineers (USACE) Army Standard Design Criteria will be developed consistent with MILCON Business Process. It is mandatory for Sustainment, Restoration and Modernization (SRM) Army projects in FY14 and beyond.
- 3. Installation Status Report-Infrastructure and Real Property Planning and Analysis System methodologies will be updated to reflect the Army Standard in coordination with the POCs listed below.
- 4. The points of contact (POC) for this memorandum are:
- a. The CIF Facilities Design Team (FDT) co-chairs are: Ms. Lillie P. Vinson, DCS- G-4, <a href="mailto:lillie.p.vinson.civ@mail.mil">lillie.p.vinson.civ@mail.mil</a>, (703) 614-6725; and Ms. Roberta M. Preston, OACSIM, DAIM-ODO, Roberta.m.preston2.civ@mail.mil, (571) 256-8143.
- b. The CIF USACE Center of Standardization FDT representatives are: Mr. Joshua Miller, CESWF-EC-O, joshua.w.miller@usace.army.mil, (817) 886-1891; Chevron Blond, CESWF-EC-O, Chevron.D.Blond@usace.army.mil. (817) 886-1948.

Encl

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DAIM-ZA

SUBJECT: Central Issue Facility (CIF) Army Standard

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# The Army Standard for Central Issue Facility (CIF)

### Description:

The Central Issue Facility (CIF), Category Code 44227, is an enclosed building and master planned site located on a military installation. It is designed to accommodate bulk storage, shipping and receiving capabilities, materiel turn-in, inventory control, and issue, receipt and exchange of Organizational Clothing and Individual Equipment (OCIE). Such equipment and functions shall be those authorized by the government and provided at no-cost to individual users, including both eligible military and civilian personnel, in accordance with Common Table of Allowances (CTA) 50-900, Tables 4, 5, 6, F-1, G-1, H-1, and J-1. The CIF may be a stand-alone facility or a tenant space within a larger General Purpose Warehouse (GPW) or other facility. This statement of requirements does not address General Purpose Warehouses; those are defined in other Department of the Army standards.

The CIF building sizes range from Annex to Large, and the functional areas include: Customer reception, administration, issue and fitting areas, checkout areas, warehouse operations, customer covered assembly, loading/unloading apron, and an outside storage area.

### Applicability:

- The Army Standard applies to the planning, design, and construction of a CIF for Active and Reserve Component facilities on Army Installations.
- For Army National Guard (ARNG) CIF requirements, refer to NG PAM 415-12, "Army National Guard Facilities Allowances," latest edition.
- The Army Standard is mandatory for all construction projects. Facility renovation is addressed under the Guidance section.
- CIF projects must be reviewed by the Headquarters U.S. Army Corps of Engineers (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 USACE COS for the CIF.
- This Army Standard supersedes space allowance standards contained in AR 740-1, "Storage and Supply Activities Operations" and serves as the primary authority for the CIF worldwide.

### Waivers:

 Only the Assistant Chief of Staff for Installation Management (ACSIM) has the authority to approve exceptions to the Army Standard.

- Waivers from the Army Standard must be requested in accordance with AR 420-1, "Army Facilities Management," latest edition.
- All waiver requests to the Army Standard require USACE COS conflict resolution prior to submission by the Garrison Commander through the Region U.S. Army Installation Management Command (IMCOM) to HQ IMCOM.
- Garrison Army Standard waiver request submissions must be received in sufficient time to allow completion of Facility Design Team (FDT) 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 ACSIM approved waivers shall be documented in installation master plans thereby serving as the installation's modified standards.

### THE ARMY STANDARD FOR CIF

### CIF 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 Military Construction Project Data Sheet (DD Form 1391) allowed total square footage (SF).

# CENTRAL ISSUE FACILITY SIZES & GSF ALLOCATION:

- ANNEX	3,800 GSF
- SMALL	26,700 GSF
- MEDIUM	65,000 GSF
- INITIAL ENTRY	75,000 GSF
- LARGE	106,500 GSF

## Gross Area of Facilities

Where used in this document, PN = personnel

The requirement is based on the authorized population of the installation, annual issues requirements, and rotation of installation personnel through the CIF.

All square footages listed above include covered loading zones and queuing areas (as applicable). Square footages listed above does not include values assigned to specific alternate Facility Category Code spaces, such as the Covered Assembly Area and the optional Brigade Set/Rapid Fielding Initiative (RFI) Storage Module. For such spaces, the overall CIF Square footage must be increased in accordance with the tables identified in this Army Standard.

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.

Scope adjustments (such as half-scope spaces), where applicable, ARE INCLUDED in the GSF number of this Army Standard. For details on calculations of GSF, refer to the Guidance section of this Army Standard and TI-800-01.

TOE+ TDA	Daily Issues	Configuration	Allowance (GSF)
<200	N/A	NONE	Ò
≥200	<1.0	ANNEX	3,800
≥200	≥1.0 and <20.6	SMALL	26,700
≥200	≥20.6 and <67	MEDIUM	65,000
N/A	N/A	INITIAL ENTRY	75,000
≥200	≥67	LARGE	106,500
	TDA <200 ≥200 ≥200 ≥200 N/A	TDA Issues <200 N/A ≥200 <1.0 ≥200 ≥1.0 and <20.6 ≥200 ≥20.6 and <67 N/A N/A ≥200 ≥67	TDA Issues  <200 N/A NONE  ≥200 <1.0 ANNEX  ≥200 ≥1.0 and SMALL  <20.6  ≥200 ≥20.6 and MEDIUM  <67  N/A N/A INITIAL ENTRY  ≥200 ≥67 LARGE

<sup>\*</sup> Army Training Center

### Methodology:

## Facilities Allowance

- a. Number of Daily Issues = (Number of Table of Organization and Equipment (TOE) Military + Number of Table of Distribution Allowances (TDA) Augmentation Military/3) + (Number of TDA Military + Temporary Duty (TDY) Student Loads + Permanent Change of Station (PCS) Student Loads + (Advanced Individual Training (AIT) Student Loads \* 3) / 242 Business Days per Year)
- TOE and TDA military is pulled from the Army Stationing and Installation Plan (ASIP) by location and includes Active, National Guard (ARNG) and Army Reserve (USAR) military (Compo 1 2 3).
- c. ATC locations are where Basic Training (BT) is conducted. Current ATC locations are Fort Benning, Fort Sill, Fort Leonard Wood, and Fort Jackson.
- d. TDY, PCS, AIT Student Loads are pulled from the ASIP by location. ASIP Student Loads are generated based on data provided by the Army Training Resource Requirements System (ATRRS).
- e. Currently there are no special conditions or exceptions that need to be applied when generating Real Property Planning and Analysis System (RPLANS) allowances.

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Site Selection & Planning	The overall CIF site footprint shall not exceed twelve (12) contiguous acres. Width of the site is predicated upon the size of the facility and constrained by the turning radius of military and commercial tractor-trailer vehicles on one side of the facility.  The distance from the loading dock of the CIF structure to the fenced security line shall be 130'-0" minimum.  Access to the CIF shall be capable of accommodating both heavy commercial and military wheeled-vehicle traffic (including tactical and non-tactical vehicles). The CIF site selection shall consider additional impacts to the installation traffic infrastructure and shall avoid increasing traffic congestion for the military and civilian population.  Associated privately owned vehicle (POV) parking is included for CIF customers and personnel. No POV movement within the CIF secured-fenced areas shall be authorized.  An ANNEX is not a constructed facility size, but rather a tenant function within another building. Requirements for that space are included herein. When the CIF operation is sharing space as a tenant function (ANNEX) within a larger GPW or other facility, the CIF operation shall occupy a single, contiguous area within the warehouse. The CIF shall be physically separated from other warehouse or building functions.
Energy Performance	Facilities shall be 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.
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 (AT/FP)	Facilities shall meet security requirements in accordance with UFC 4-010-01, "DoD Minimum Antiterrorism Standards for Buildings," latest edition.

Technical Design Criteria and Standards	International Building Code except where Installation Design Guide or military standards are required to meet specific operational needs.
Exterior Lighting	Exterior lighting systems shall be provided for parking areas, sidewalks, interconnecting buildings, service yards, service drives, outdoor training areas, and any required security lighting.
Parking	Private Operated Vehicle (POV) Parking shall be provided for CIF staff, customers, government and service vehicles, and visitors. Total parking space allocation for the complex shall be designed based on current specific authorized staff plus 30 visitor spaces for the SMALL CIF or 80 visitor spaces for the MEDIUM, INITIAL ENTRY, and LARGE CIF.
Accessibility	The CIF 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.
Signage	Adequate interior and exterior signage shall be provided for all public amenities and spaces.

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Telecommunications	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-B and 569-B 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 room closest to OSP access point.
	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.
Power & Data Connectivity	To facilitate transaction point issues, turn-in, and inventory transactions within the Warehouse Module, power and data drops shall be provided, at a minimum, every 50 linear feet along the perimeter wall and at every column within allowable distance from the communications room per I3A criteria.
	The CIF shall, at a minimum, connect to one Area Distribution Node (ADN) with fiber optic cabling sized to support the common user systems, but shall not be sized to less than 48 strands. High-speed data connection shall be provided to the Global Information Grid (GIG).
	In order to maximize management efficiency of warehouse operations, customer service needs, and administrative oversight, the facility shall incorporate a building-wide, zoned paging/intercom system with announcement capabilities. This paging/intercom system can be integrated with the building mass notification system and shall be managed from the Administration Module.
	In order to effectively provide for equipment modifications and changes for modern warehouse functions, the building electrical system shall be designed for an additional 15% load capacity at all switchboards, feeders, panel boards, branch circuits, etc.

# ADMINISTRATION MODULE

ITEM	MANDATORY CRITERIA
	Shall include: P/SP Offices, Common Restrooms, Janitor Closet, MP/CR, Team Room, RR, and BR&V.  Maximum Allocation of Administration Module shall be:
Net Area of Module	- ANNEX 1,120 NSF - SMALL 4,450 NSF - MEDIUM 5,000 NSF - INITIAL ENTRY 6,330 NSF - LARGE 5,300 NSF
Private / Semi- Private Offices (P/SP Offices)	Provide offices for:  Private Offices – Combined CIF Manager/Assistant Manager Office (110 NSF per PN); Property Book Manager (110 NSF).  Open Office – Open office space shall be provided to include: A general storage closet, copy/print/fax area(s), file/record storage, and 6'x6' cubicles (based on specific authorized population).
Common Restrooms	Separate male and female restrooms shall be provided on the first floor for common use by administrative personnel and other building occupants. Each restroom shall have a minimum of one (1) shower and four (4) lockers.
	A separate room to accommodate nursing mother lactation with a compact refrigerator, power outlet, countertop, sink and seating for one (1) person shall be provided (either within the female restroom or nearby). Door shall be lockable from the interior with an occupancy indicator. When facility staffing does not warrant use as lactation room, space may be repurposed for facility storage.
Janitor Closet	Provide a 20 NSF minimum janitor closet. Include a floor drain and a built-in mop sink (either wall-hung or floor mounted).
Multi-Purpose / Conference Room (MP/CR)	Provide a Multi-Purpose / Conference Room designed to facilitate meetings and training for CIF operations and personnel. Provide a 350 NSF minimum Conference Room capable of accommodating at least 4 chairs around a central conference table, four (4) additional chairs along the Conference Room walls, and equipped to provide video teleconferencing capability.

The Army Standard for Central Issue Facility (CIF)

Team Room	Provide a 120 NSF minimum Team Room located near the CIF Manager Office. The Team Room shall be sized to accommodate at least four (4) chairs around a central table.
Recycling Room (RR)	Provide a 20 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.
Break Room & Vending (BR&V)	Provide a 270 NSF minimum combined Break Room and Vending area. Break Room shall include a sink, countertop, upper and lower storage cabinets, space for a refrigerator, and seating for at least four (4) persons. Integrated space shall accommodate three (3) vending machines. Include floor drains and plumbing as appropriate. (Note: A break room is not required as part of an Annex module.)

# **CUSTOMER MODULE**

ITEM	MANDATORYOR
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	Shall include: RA, IFA, TCOA, CAA, Maximum Allocation of Customer Module shall be:
Net Area of Module	- ANNEX 2,500 NSF - SMALL 6,230 NSF - MEDIUM 10,600 NSF - INITIAL ENTRY 18,650 NSF - LARGE 11,200 NSF
	E 11,200 NSF
Reception Area (RA)	Provide a 505 NSF minimum Reception Area to accommodate records verification, confirmation, and facility processing flow briefings. Reception Area shall also facilitate queuing, customer orientation, and provide a display area.
Issue & Fitting Area	Provide a 700 NSF minimum Issue Area with transaction counters to accommodate processing, issue, and turn-in of equipment. Transaction counters shall have reach back shelving units and checkout areas.
(IFA)	Provide a 120 NSF minimum Specialty Item Issue Room.
	Provide at least two, but not more than six Fitting Rooms at 36 NSF each. Number of rooms is dependent upon the specific authorized populations and functional requirements of the facility.
Turn-In & Check- Out Area (TCOA)	Provide a 735 NSF minimum Direct Exchange (DX) Turn-In and Check-Out Area with a turn-in counter, cashier cage, and final outprocessing assembly area.
	Provide a single covered troop assembly area near the CIF building as follows:
Covered Assembly Area (CAA) (Facility Category Code 14179)	- ANNEX 0 GSF - SMALL 0 GSF - MEDIUM 1,500 GSF - INITIAL ENTRY 3,500 GSF - LARGE 3,500 GSF
	Install an integrated wash station with hose-bib as part of the covered assembly area.

# WAREHOUSE MODULE

ITEM	MANDATORY CRITERIA
Net Area of Module	Shall include: BSA, WOA, LUA, OSA, RFI Storage areas. Maximum Allocation of Warehouse Module shall be:  - ANNEX 0 NSF - SMALL 16,000 NSF - MEDIUM 49,400 NSF - INITIAL ENTRY 50,000 NSF - LARGE 90,000 NSF  NOTE: The above Maximum Allocation includes those spaces identified within the primary CIF Facility Category Code 44227 only. Ancillary Spaces such as the Loading/Unloading Apron and Outside Storage Area are not included in this number.  Each primary functional area has an individual Base Allocation of square footage that serves as a maximum allowance for the identified functions. Due to the varying nature of specific warehouse functional operations at different installations, serving different missions, there are no minimum spatial identifiers established.
Bulk Storage Area (BSA)	Provide a contiguous Bulk Storage Area for serviceable and unserviceable items as well as a Resupply Stockage area to support daily operations. Space within this area shall include supply storage bins for items that are issued daily or have an otherwise high exchange rate.  The bulk storage module shall include:  - Two (2) doors, minimum, for receiving and issue. Each door shall be 10'-0" wide x 10'-0" high.  Base Allocation of Bulk Storage Area shall be as follows: Provide a Warehouse Operations area with a standard 6'x6' workstation for the Warehouse Supervisor. Provide an area for parking, repair, and charging of serviceable and unserviceable equipment.

Warehouse Operations Area (WOA)	Provide a clear Loading Dock Area to accommodate space for receiving and outbound bays, pallet staging, Defense Reutilization Marketing Service (DRMS), sorted laundry pick-up/delivery, and small package receiving.  The warehouse module shall include:  - An eye wash station,  - A clear height of 32 feet,  - Floor area free of intermediate support columns,  - Floor loading designed to support a 5,000 lb. rough terrain forklift (minimum),  - Minimum of two (2) but not more than four (4) commercial truck doors (10'-0"x9'-0" ea.) with integrated dock levelers and automatic rollup doors,  - At least one (1) but not more than two (2) service doors (18'-0"x14'-0") with integrated dock and fork truck ramp,  - A dock cover that extends at least 4'-0" past the edge of the loading platform, and  - Separate loading docks for receiving and issue operations to accommodate both commercial and military vehicle deliveries.
	Base Allocation of Warehouse Operations Area shall be as follows:  - ANNEX 0 NSF - SMALL 6,500 NSF - MEDIUM 18,400 NSF - INITIAL ENTRY 18,000 NSF - LARGE 28,150 NSF
Loading/Unloading Apron (LUA) (Facility Category Code 85210)	Each CIF, excluding Annex-sized facilities, shall include a rigid pavement Loading/Unloading Apron. Loading apron shall accommodate commercial and military vehicles for safe and efficient loading and unloading of shipments. Loading apron shall be built 50'-0" minimum away from utility rooms.  Base Allocation of Loading/Unloading Apron shall be as follows:
	- ANNEX 0 GSF - SMALL 1,890 GSF - MEDIUM 1,890 GSF - INITIAL ENTRY 1,890 GSF - LARGE 1.890 GSF

Outside Storage Area (OSA) (Facility Category Code 85210)	Each CIF, excluding Annex-sized facilities, shall include a rigid pavement area for CONEX storage.  Base Allocation of Outside Storage Area shall be as follows:  - ANNEX 0 GSF - SMALL 4,950 GSF - MEDIUM 4,950 GSF - INITIAL ENTRY 4,950 GSF - LARGE 4,950 GSF
Brigade Set/Rapid Fielding Initiative (RFI) Storage Module (Facility Category Code 44220)	Provide a separate bulk storage module for the exclusive use of Brigade and/or RFI Sets. This module shall support Brigade-level short-term fielding. Based on functional mission requirements, the module may also accommodate storage for fixed Non-Destructive Test Equipment (NDTE).  This is an optional module that requires written G4 approval prior to programming.  This module does not contain a supply operations area.  Maximum Gross Square Footage shall be 17,000 GSF, and is based upon a single Brigade Set.

### **BACKGROUND**

General Design Philosophy: The following criteria for application of the CIF Army Standard is provided for Garrison Directorate of Public Works (DPW) staff and design agent use in implementing installation planning, programming, and design activities. All design agents shall incorporate the key mandatory design features described within this Army Standard and shall do so in close coordination with the USACE COS for CIF buildings. All CIF projects must be reviewed by the USACE COS.

- 1. This section of the Army Standard is a necessary component for determining the application and implementation of this Standard. The USACE COS, in coordination with the FDT, is the final arbitrator for any conflicts or inconsistencies in the application of these standards. The USACE COS is also a mandatory reviewer prior to submission of any formal waiver requests by an installation. Citing project execution delays is insufficient justification for expedited review or other accelerated dispensation for deviating from meeting the Army Standard contained herein. Late submissions must be substantiated unforeseen and documented life, health, safety, and welfare, or other compelling mission imperatives that cannot be met without an approved waiver.
- 2. Where applicable, the minimum acceptable functional and operational capability is established by a THRESHOLD or "Not Less Than" requirement. The Army's maximum level of commitment to addressing the flexibility to adapt to future requirements is set by the OBJECTIVE or "Not to Exceed" requirement. These same parameters are used by other Army activities in the doctrinal, organizational, training, and material domains and are adopted herein to simplify coordination and preclude misinterpretation when synchronizing requirements across the Army. They also provide definition for design flexibility and achievement of Military Construction (MILCON) Business Process objectives and benefits when applying this standard.
- 3. Space modules, criteria, or components of the CIF shall be used to develop spatial allowances and/or requirements for this facility category before considering development of unique or specialized space allowances from those set forth in this Army Standard. When space modules, criteria, and/or components are not used, the Functional Proponent, in coordination with the FDT and USACE COS, will review and validate functional or operational requirements prior to the development of any unique or specialized space allowance(s) and before incorporating into a project programming document, facility design, or installation master plan.
- 4. Army Transformation depends on the capability to rapidly deploy forces from their home station. This places significant demands on installations and how functional and operation requirements are "packaged" to maximize maintaining, repairing, deploying, and sustaining combat power capabilities. These functional and operational requirements are focused on modular capabilities and based on brigade formations.
- 5. The CIF is a major component of the installation's support to Army Force Generation (ARFORGEN) and deployment by assuring personnel are properly equipped for the mission they will participate. Functional, operational, and spatial relationships critical to

meeting efficient and effective equipment issue, turn-in, and inventory management are embedded in the layout and spatial relationships of the CIF. When there is a critical need for spatial or land-use considerations for siting and implementing this Army Standard, additional guidance should be requested from the USACE COS and HQDA G-44 (S) in order to minimize or preclude operational impacts on Warfighter deployment and sustainment requirements.

- 6. These facilities are critical elements for maintaining combat capability and readiness. The CIF Army Standard represents the past issues or shortfalls, current needs, and future requirements. As such, there are instances where a band of acceptability is allowed in the application and implementation of these standards and may not directly correspond to current units fielded and stationed at installations. However, the range of acceptability has been determined by HQDA G-44(S). Any requests for deviation from this Standard, through the waiver process, shall also consider implications on future requirements embedded herein, the potential impact of follow-on or retrofit construction activities, and the current situation.
- 7. Authorization for a CIF is generated by the annual demand data reviewed and verified by HQDA, G-44(S) as a top-down designated capability.
- 8. Authorization for CIF-managed Brigade-level/Rapid Fielding Initiative (RFI) Set Bulk Storage Module is required by HQDA, G-44(S) as a requirement.

# Specific Design Considerations:

- Maximize 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 are encouraged as long as facility durability requirements and other design criteria, such as progressive collapse requirements, are satisfied.

### **GUIDANCE**

G-4 Review of Facility Programming: During planning and programming activities, G-4 may review the installation request for facilities and request adjustments or issue authorization variations. Adjustments will be based upon proximity of the requested CIF to other facilities and upon mission-specific needs that may increase or decrease the actual need. Such actions will be completed through the normal waiver process.

Net Floor Areas: 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.
- Half-Scope Spaces: Areas of the following spaces shall count as one-half scope when calculating "gross area":
  - o Balconies
  - o Porches
  - o Covered exterior loading platforms or facilities
  - o 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;
  - o Crawl spaces
  - o 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>Site Selection and Planning:</u> Ideally, the CIF should be sited in close proximity to the installation In/Out Processing Center or Welcome Center. However, resupply or lateral transfer operations are supported by commercial tractor-trailer and heavy military vehicle traffic and access to commercial truck routes is imperative. As such, existing facilities may not meet the Army CIF requirement and land area may not be available for

application of this criteria. When this occurs, CIF facilities will be sited in deference to commercial truck traffic routes.

Limited benefit can be achieved through co-location of CIF facilities in a single General Purpose Warehouse structure. However, when this strategy or methodology is used, the complete CIF operation will occupy a contiguous floor area and physically separated from all other warehouse operations. Access by non-CIF personnel will be strictly prevented.

Energy Performance & Sustainable Design: CIF buildings shall be designed to meet current sustainable development and design policy requirements as established by the Department of the Army. At a minimum, facilities must be designed to achieve Leadership in Energy and Environmental Design (LEED) Silver Certification. 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, less-efficient legacy systems.

Warehouse Operations: The warehousing operations and storage area is an enclosed area used primarily for replenishment and storage of day-to-day issue and turn-in operations. This area is composed of rack assemblies capable of stacking palletized supplies six-levels high and serviced with commercial and tactical Materiel Handling Equipment (MHE). Parts may occasionally be received in specialized containers such as ISU90 or BOH containers, with the latter being the heaviest to reposition and store. Three separate doors with paved access aprons are provided to facilitate ingress/egress of military or commercial forklifts on the outside the security line to position/reposition parts and supplies. All access aprons and pavement areas stipulated below will be contiguous or connected to each other. No overhead lift is authorized for this facility. Limited Non-Sensitive Secure Storage (e.g., high value, pilferable, serial numbered items other than weapons/arms) is provided. No secure storage (e.g., weapons) or Communication Security (COMSEC) items will be received or stored in this facility.

Receiving and Issue Bay: The Receiving and Issue Bay is a separate interior space located adjacent to the Warehouse Operations Area. Two separate doors to facilitate receiving and issue activities are provided. Additionally loading docks that simultaneously support both commercial and military delivery truck and trailer activities are provided. Access aprons to the loading docks will be paved surfaces and contiguous to other pavement areas. The Receiving Bay depth is based on a bay depth of four to six pallets (small, medium, and large). The Receiving Bay width is based on the Warehouse Bulk Operations interior area of 70-120 linear feet (LF) (SMALL = 70 LF, MEDIUM = 90 LF, LARGE = 120 LF). Circulation is based on using Rough Terrain Fork Lifts (RTFLs) for pallet movement into and out of the building and using floor pallet movers for interior distribution.

<u>Loading and Unloading Apron:</u> The Loading and Unloading Apron is a contiguous area sized for commercial container vehicles with an exterior lay-down area on hardstand within the fenced security line of the CIF. MHE operations should not impede or block access to structural bays access/egress at any time. Exterior lighting is required as well as a public address system that can be heard by MHE operators while conducting loading or unloading activities both inside and outside of the building.

<u>Power and Data Connectivity:</u> The adoption of technologies that enable the use of electronic tagging, asset tracking, and automated inventory control systems requires this facility to have the same connectivity capabilities as previously expected in high technology administrative buildings and/or warehouses with automated processes.

Compliance Threshold: The Army Standard may identify an Army regulation, technical guide or other written guidance as mandatory criteria. The USACE COS provides the first line technical compliance review. The FDT, in conjunction with the USACE COS, will resolve any issues where there may be conflicting, unclear or no compliance measurement threshold. The Army Standard is not intended to provide compliance criteria detailed in references, regulations, industry standards, or the standard design.

Renovation: 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 COS is the recommended 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:

- a. Assure that minimum requirements for seismic issues, fire protection, life safety, and sustainable design can be met with the buildings intended for renovation.
- b. 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.
- c. 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.
- d. Leadership in Energy and Environmental Design (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.

e. Anti-Terrorism/Force Protection (AT/FP) standards (setbacks) are required if renovation cost is greater than 50% of building's replacement value as determine by the Installation.

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
- Standards Institute (ANSI)/ Telecommunications Industry Association (TIA)/ Electronic Components Industry Association(EIA) 568-B Commercial Building Telecommunications Cabling Standard
- ANSI/TIA/EIA-569-B Commercial Building Standard for Telecommunications Pathways and Spaces
- Army Regulations, AR 380-05, Department of the Army Information Security Program
- AR 405-70, Utilization of Real Property
- AR 420-01, Army Facilities Management
- AR 740-1, Storage and Supply Activity Operations
- Current Energy Policy as adapted by the U.S. Army
- Department of Army, DA PAM 415-28, Construction Real Property Category Codes
- Intelligence Community Directive (ICD) Number 704 (Sensitive Compartmented Information Facilities) with technical specifications located in Technical Specifications for Construction and Management of Sensitive Compartmented Information Facilities v1.2
- Engineer Regulations (ER) 1110-3-113, Engineering and Design, Department of the Army Facilities Standardization Program
- Engineering Technical Letter (ETL) 1110-3-491, Sustainable Design for Military Facilities
- International Building Code (IBC)
- National Guard Bureau (NG) PAM 415-12, Army National Guard Facilities Allowances
- Technical Instructions (TI) TI 800-01, Design Criteria
- Unified Facilities Criteria, UFC1-200-01, Design: General Building Requirements
- UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design
- 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
- United States Army Information Systems Engineering Command (USAISEC)
   Technical Criteria for the Installation Information Infrastructure Architecture (I3A)