MEMORANDUM FOR

COMMANDER, UNITED STATES ARMY CORPS OF ENGINEERS (CEMP), 441 G ST NW, WASHINGTON, DC 20314
EXECUTIVE DIRECTOR, INSTALLATION MANAGEMENT COMMAND, 2405 GUN SHED ROAD, FORT SAM HOUSTON, TX 78234

SUBJECT: Revised Army Standard for Company Operations Facility (COF)


2. The enclosed, Army Standard for Company Operations Facility is approved for implementation. Only the Assistant Chief of Staff for Installation Management has authority to approve exceptions to this standard. Waivers from the Army Standard must be approved in accordance with AR 420-1.

3. The Army Standard is effective for Military Construction (MILCON), Army design and mandatory, where possible within statutory limitations, for Sustainment, Restoration and Modernization projects in FY 13 and beyond. Designs based on the Army Standard and the Army Standard Design Criteria will be developed consistent with the MILCON Business Process for FY15 and beyond.

4. The COF Facilities Design Team (FDT) members are Mr. Thomas P. Ciccariella, DAMO-FM, thomas.p.ciccariella_ctr@mail.mil, (703) 693-3220; Mr. Claude Matsui, USACE/Combat Readiness Support Team, Claude.I.Matsui@usace.army.mil, (202) 577-7547, and Ms. Roberta Preston, DAIM-ODO, Roberta.m.preston2_civ@mail.mil, (571) 256-8143. The USACE Center of Standardization Representative for the COF is Mr. Tom Brockbank, CESAS-EN, thomas.r.brockbank@usace.army.mil, (912) 652-5212.

Encl

MICHAEL FERRITER
Lieutenant General, GS
Assistant Chief of Staff
for Installation Management
Army Standard for Company Operations Facility (COF)

25 May 2012

Description: The Company Operations Facility (COF) Army Standard applies to all Tables of Organization and Equipment (TOE) company, troop, battery, or detachment level organizations to meet basic command and control, unit supply operations, Soldier and unit issued equipment storage, Soldier equipment maintenance and inspection, deployment preparation, and high technology/dollar items equipment (e.g., robotics, autonomous sensors, etc) storage activities in a unitized single structure. The COF does not apply to Tables of Distribution and Allowances (TDA) or non-deployable units of similar size who use Company Administration and Supply (CO A&S) facilities. The COF provides both the physical space and global information grid (GiG) connectivity as needed to meet the Army’s mission.

Applicability:

- The Company Operations Facility (hereafter referred to as the COF) Army Standard applies to the planning, design, and construction of all company echelon level organizational structures and is synonymous to a battery, troop, or detachment of similar manpower strength by Objective Table of Organization and Equipment (OTOE).
- Does not apply to Company Admin and Supply (CO A&S) facilities that do not incorporate a Readiness Module, or for aviation line companies (Company/Troop A-D) within an aviation line battalion (e.g., Assault Helicopter, Attack Helicopter, Air Cavalry Squadron, General Support Aviation Battalion, Aerial Exploitation Battalion), or training base companies addressed in other Army Standards.
- This Army Standard applies equally to Active Component Tables of Organization and Equipment (TOE) unit requirements worldwide and Reserve Component TOEs when fielded as standalone facilities other than those described above.
- The standardized criteria building blocks identified as separate line items within this Army Standard shall be used to the maximum extent before creating or developing new or different criteria serving the same basic function, task, or purpose.
- Tables of Distribution and Allowance (TDA) organizations shall use the standardized criteria building blocks in this Army Standard in order to develop CO A&S applications. No Readiness Module is authorized for a TDA application without prior COF Center of Standardization (COS) or Facility Design Team (FDT) consultation prior to conducting a Requirements Analyses, developing a DD1391, or initiating job/work order task requests.

Waivers:

- Only the Assistant Chief of Staff for Installation Management has authority to approve deviations or exceptions to the Army Standard.
- Deviations (waiver requests) from the mandatory requirements stipulated within this Army Standards must be requested in accordance with the AR 420-1 and the Army Facilities Standardization Program Charter, latest edition.
- Deviations based on gaps or shortfalls in addressing either doctrinal, functional, operational, or readiness requirements shall be forwarded through the Army chain of command to the
ARSTAF Functional Proponent (ODCS G-3/5/7) prior to submission as an Army Standard waiver request in order to expedite the review process.

- All waiver requests to this Army Standard require COF Center of Standardization (COS) conflict resolution prior to submission by the Garrison Commander.
- Garrison Army Standard waiver request submissions must be received in sufficient time to allow the COF FDT to complete review and development of recommendations or courses of action for the Army Facilities Standardization Committee to consider prior to implementation into project design.
- All Headquarters, Department of the Army (HQDA) approved waivers shall be documented in installation master plans thereby serving as the installations modified standards for the facility type affected.
- Late submissions and/or project delays are NOT sufficient stand alone justification for accelerated review or other dispensation to meeting the Army Standard contained herein.

The Guidance Section provides instructions and definitions necessary for the application of the mandatory requirements contained in the tabular section of the Army Standard. As such, they are used in conjunction with the Army Standard in order to ensure the intent and embedded functionality contained herein will meet the Army’s mandatory requirements set forth by this standard.

**ARMY STANDARD**

<table>
<thead>
<tr>
<th>Item</th>
<th>Mandatory Criteria</th>
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<tr>
<td>Planning</td>
<td>The following planning considerations will be used for new construction and plant replacement of installation COFs.</td>
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<tr>
<td></td>
<td>1. While Army Standard Designs for single and double Company (CO) COFs will continue to be available, the provision for standalone, single or double CO COFs is undesirable and cost prohibitive.</td>
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<td>2. As such, all Separate Company requirements shall be met through consolidation into a double CO COF or UNICOF (3-7 Companies in a single structure) configuration with all necessary provisions and interior separation for security and accountability.</td>
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<td></td>
<td>3. Existing in-fill conditions shall plan to meet this requirement as plant replacement or divestiture allows for re-orientation and siting of facilities to comply with consolidation.</td>
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<tr>
<td>Site Selection</td>
<td>Siting of the COF (specifically the Readiness Module) shall be Not More Than (NMT) 250 linear feet from the parent or supporting battalion Tactical Equipment Maintenance Facility (TEMF) primary structure (FCC 21410).</td>
</tr>
<tr>
<td>Access Security</td>
<td>All external access points to the COF shall be positively controlled at all times via physical and mechanical means consistent with the appropriate level of security necessary for SIPR enabled facilities.</td>
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</table>
Primary facility/building is composed of two functionally different spaces, Company Administration (Admin Module) and Readiness (Readiness Module).

1. Administrative space (Admin Module) allocated within the Admin Module shall use the standardized four (4) office planning block for either the Company Headquarters functions or subordinate Platoon Offices.
2. Private Office space is authorized for the Company Commander, Executive Officer, First Sergeant, and Training Office.
3. Platoon Offices are shared space between the Platoon Leader and Platoon Sergeant. Squad Leader counseling or protected conversations with Soldiers shall share Platoon Office space allocations as well.
4. Readiness space (Readiness Module) provides operational space considerations in addition to merely supply (Company Admin & Supply like that provided for aviation line companies or TDA companies). It includes deployment preparation and staging space considerations and increased unit mission equipment storage (robotic and sensor technology, Warrior ensemble, etc). Specialized Soldier and unit mission equipment maintenance and repair activities are consolidated with vehicle maintenance skill sets located in the Tactical Equipment Maintenance Facility (TEMF), requiring close proximity between the COF Readiness Module and the associated TEMF.
5. Soldier Basic Individual Issue (CTA-50) and Special Individual Issue (e.g., mechanics and flight overalls, medical and mess personnel specialty uniforms, etc) storage is consolidated in the Readiness Module.
6. Space allocation and utilization will be maximized when combining two or more Companies in a single structure to reduce lifecycle sustainment cost, utilization rate, and land area consumption.
7. (Separate Company Stationing) Separate CO located on a single installation shall be consolidated into either a battalion-equivalent UNICOF NTE 7-COs per UNICOF, or when less than three CO are consolidated, NLT one double CO structure. Standalone, single CO COFs are not authorized unless prior approval from HQ IMCOM is received. Exclusions shall be substantiated with Real Property Master Planning documentation, economic analyses, and installation maps citing compelling topographic, demographic, or geographic limitations precluding consolidation thereby incurring increased lifecycle sustainment utilities cost expenditure.

<table>
<thead>
<tr>
<th>COF Space Allocation (General)</th>
<th>Company (CO) Headquarters (Admin Module)</th>
<th>Company Office Suite (Admin Module)</th>
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<tbody>
<tr>
<td></td>
<td>Provide NMT one (1) administrative module (CO Admin) per company. The CO Admin Module shall consist of 5 discreet segments as indicated below.</td>
<td>Provide office and administrative space in quad blocks IAW the COF Army Standard Design.</td>
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### The Army Standard for COF

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>General Purpose Storage Room (Admin Module)</strong></td>
<td>Provide one (1) GP Storage Room of NMT 48 NSF per company. Additional storage space shall be determined in consultation with the COF COS.</td>
</tr>
<tr>
<td><strong>Printer/Copier Station (CO Admin)</strong></td>
<td>Provide Printer/Copier Stations NTE 48 NSF each per allocation authorization below.</td>
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<tr>
<td><strong>Consolidated Showers and Latrines (Admin Module)</strong></td>
<td>Consolidated showers and latrines provided in this facility shall be located on the ground floor of the Admin Module. Sufficient shower stalls shall be provided to accommodate approximately 25 percent of the total number of soldiers assigned to all companies included in the UNICOF within a 1-1/2 hour duration. Consolidated shower and latrine layouts shall be as indicated in the COF Army Standard Design.</td>
</tr>
<tr>
<td><strong>Vending/Recyclables Area (Admin Module)</strong></td>
<td>Provide a Vending/Recyclables Area NTE 96 NSF</td>
</tr>
<tr>
<td><strong>Company Readiness Module (RM)</strong></td>
<td>The COF Readiness Module (RM) is required for all TOE units. It is comprised of five (5) discreet space segments with varying security levels - secure storage (arms) IAW AR 190-11, non-sensitive secure storage (serial numbered, high technology, high value items) IAW AR 190-51, CBRNE storage, consumables supply storage, Soldier issue storage, deployment-layout area (preparation &amp; staging, equipment maintenance, inspection &amp; layout, accountability).</td>
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<tr>
<td><strong>Deployment-Layout Area (RM)</strong></td>
<td>Provide one (1) interior and one (1) exterior Deployment-Layout Area per TOE Company, Battery, Troop, or Detachment (of 50-person (PN) or more).</td>
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<tr>
<td></td>
<td>1. The interior Deployment-Layout Area will be located immediately adjacent to the Soldier equipment issue storage lockers (commonly referred to as CTA-50 lockers).</td>
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<td></td>
<td>2. The exterior Deployment-Layout Area is a covered hardstand located immediately adjacent to the exterior door of the supply area to facilitate both loading/unloading operations for deployment/redeployment and Soldier equipment maintenance,</td>
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</table>
| **Arms Room (RM)** | Provide NLT one (1) Arms Room (secure storage) IAW AR 190-11 capable of holding NLT one(1) personal weapon per assigned Soldier or crew served weapons commensurate with the OTOE equipment authorizations.  
Basis of Allocation:  
– One (1) Arms Room NLT 400 NSF  
– Add 100 NSF for each additional 50 PN per CO |
| **Non-Sensitive Secure Storage Area (RM)** | Provide NLT one (1) Non-Sensitive Secure Storage Area for serial numbered, high value, technology, and pilferable items deemed to require additional security by local Provost Marshall Risk Analyses shall be store in the non-Sensitive Secure space of the COF.  
Basis of Allocation:  
– One (1) Non-Sensitive Secure Storage Area NLT 166 NSF and NMT 170 NSF for each additional 50 PN per CO IAW the COF Army Standard Design |
| **Communications Equipment Storage Area (RM)** | Provide NMT one (1) Communication Equipment Storage Area NLT 94 NSF and NMT 60 NSF for each additional 50 PN per CO IAW the COF Army Standard Design. |
| **Chemical, Biological, Radiological, Nuclear, Energy (CBRNE) Storage Area (RM)** | Provide NMT one (1) CBRNE Storage Area NLT 94 NSF and NMT 60 NSF for each additional 50 PN per CO IAW the COF Army Standard Design. |
| **Unit Storage (Supply Storage) (RM)** | Provide NMT one (1) supply storage area NLT 367 NSF and NMT 230 NSF for each additional 50 PN per CO IAW the COF Army Standard Design. |
| **Soldier Basic and Special Issue Storage Area (e.g., CTA-50) (RM)** | Provide space for one (1) storage locker per Soldier for Basic and Special individual issue. Lockers shall conform to the specifications outlined in the companion Army Standard Design for the COF.  
When a double row of lockers are provided within the RM, a |
### The Army Standard for COF

<table>
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<tr>
<th>Section</th>
<th>Guidance</th>
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<tr>
<td>Separation between rows of NLT 6 linear feet for circulation shall be provided.</td>
<td>Provide SIPRNET connectivity capability for EOD and MI companies as defined by the COF Army Standard Design and IAW the USAISEC Technical Guide for the Integration of SIPRNET.</td>
</tr>
<tr>
<td>Telecommunication Spaces</td>
<td>Telecommunications spaces shall be designed in accordance with TIA/EIA-569-B and the Information Infrastructure Architecture (I3A) Technical Guide. A minimum of one Telecommunications Equipment Room (TER)/Computer Room shall be provided to house telecommunications equipment supporting the unclassified, SECRET, and TS (Select Cyber COs) levels.</td>
</tr>
<tr>
<td>Telecommunications Connectivity &amp; Distribution</td>
<td>Telecommunications infrastructure, cabling, outside plant connectivity and outlets will be designed and allocated IAW ISEC (NSA, and DISA for select Cyber/Intell COs) guidance consistent with the Army Installation Information Infrastructure (I3A) Provide Non-secure and secure internet protocol network (NIPR/SIPR) capability in the COF as defined by the COF Army Standard Design.</td>
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<tr>
<td>Privately Owned Vehicle (POV) Parking</td>
<td>POV parking shall be provided at the ratio of one space for every two soldiers assigned to the companies included in the UNICOF.</td>
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<tr>
<td>Energy</td>
<td>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.</td>
</tr>
<tr>
<td>Sustainable Design Development</td>
<td>Facilities shall be designed to meet current sustainable development and design policy requirements as established by the Department of the Army.</td>
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### GUIDANCE

**General.** The following guidance for application of the Company Operations Facility (COF) Army Standard is provided for design agent use in coordination with the Garrison Department of Public Works or equivalent (Installation Management Command Regional Office for Army units on non-Army installations). All design agents shall incorporate the key mandatory design features described herein in close coordination with the US Army Corps of Engineers (USACE) designated Center of Standardization (COS) for COFs. All COF projects must be reviewed by the COS.

1. This section of the Army Standard is a necessary component for determining the application and implementation of the mandatory requirements and thresholds established in this standard. The COS, in coordination with the COF Facility Design Team (FDT), is the final arbitrator for any conflicts or inconsistencies in the application of these standards as well as a mandatory reviewer prior to submission of any formal waiver requests by the installation. Citing project execution delays is insufficient justification for expedited review or other accelerated dispensation for deviating from meeting the COF Army Standards contained herein. Late
submissions must be substantiated by unforeseen and documented life safety, health and welfare, or compelling mission imperatives that cannot be met without an approved waiver.

2. The COF Army Standard represents the third generation to simultaneously address past issues, 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. However, the range of acceptability is determined through a Warfighter Review process and deviation from this standard will equally consider implications on future requirements embedded herein and the potential impact of follow-on or retrofit construction activities on readiness as well as current situation.

3. The COF is a major reach operations facility with overarching responsibilities for deployed Brigade Combat Teams (BCT). Functional, operational, and spatial relationships critical to meeting mission planning, rehearsal, deployment, and operations are embedded in the operational layout of the facility. When there is a critical need for spatial or land use consideration for siting and implementing this Army Standard, guidance is provided to minimize or preclude functional and operational impacts on the COF and its Warfighter requirements.

4. The COF differs from Company Administration & Supply (CO A&S) that is used for provided for aviation line companies or some TDA companies. Operational or readiness space factors in readiness (e.g., deployment preparation and staging) and operational (e.g., deployment sequencing and timelines) space implications into the standards and criteria used to provide company level facilities for predominantly TOE organization. Increased unit mission equipment storage (robotic and sensor technology, Warrior ensemble, etc), specialized Soldier and unit mission equipment maintenance and repair activities are also considered down to who performs the functions and tasks. Under maintenance and repairer MOSC consolidation, two-level maintenance conversion, and adoption of condition-based maintenance doctrine, the necessary skill sets to accomplish non-vehicular maintenance and repair are consolidated and located in the Tactical Equipment Maintenance Facility (TEMF) shops. This reduces the need for specialized bench and test space in two facilities with their special utilities enablers but also requires close proximity of the COF Readiness Module to the servicing TEMF. These same factors do not require consideration for sizing and designing CO A&S.

**Design Philosophy.**

1. Army Transformation depends on the capability to rapidly project forces from homestation locations placing significant demands on installations and how functional and operational requirements are “packaged” to maximize training, mission planning, sustaining, and deploying/re-deploying combat power.

2. The COF Army Standard and the COF Standard Design ensures that primary facility and support structures will provide the desired adjacencies to meet Warfighter functional and operational requirements. Critical to the operations conducted in the COF is the identification of secure data connectivity to support execution of mission plans. Security considerations based on operational requirements must be developed based on the functional mission of the company being supported and varies extensively (infantry versus electronic warfare companies). COF configuration and layout is intended to minimized the facility footprint as well as recognize OCONUS requirements regarding foreign or local national support. Hence, overflow and expansion space is primarily oriented towards the vertical orientation vice horizontal orientation.
3. There are instances where COFs are assigned additional mission responsibilities or equipment allocations tailored to the functional mission area of the assigned company. As such, the COF Army Standard was developed to address the space allocations and functional adjacencies that meet the basic mission requirement for an Infantry Company which represents over 75% of the companies in the Army Force Structure. However, specialized companies may require additional space considerations and are reviewed on an individual, case-by-case basis ICW the COF COS and COF FDT. COF GSF thresholds are based on a banding or grouping of fully staffed companies by mission/branch category IAW Army authorization documents for the organization supported (e.g., Objective Tables of Organization and Equipment (OTOE)). Tables of Distribution and Allowances (TDA) organizations shall use a Company Administration and Supply configuration which normally does not employ the RM of the COF. When TDA applications are developed, the standardized criteria for space allocations and allowances for the COF shall be used before developing new or different criteria. When new or different criteria is considered, the COF COS will review and concur with the space allocation and/or allowance prior to implementation in programming or design documentation.

4. Consideration of technology adoption to maintain technological superiority, enhanced information security, and provide leap ahead capabilities to conduct operations have been incorporated (albeit not in the Warfighter unit’s current authorization documents) to disruption construction imposes on the Soldier and unit readiness. Adaptive, multipurpose design philosophy is used to reduce the disruption construction imposes on the Soldier and unit readiness.

5. The COF Army Standard also simultaneously resolves past issues, current needs, and the capability to accommodate future requirements without the need for new construction thereby reducing construction disruption on readiness activities.

6. Two fundamental concerns have resulted in the development and use of a COS validation process for this facility category. First, is the evolving mission for command and control facilities and the inability for traditional facility engineering systems and databases (e.g., RPLANS, FPS, ASIP) to keep pace with Army Transformation and Technology Insertion decisions. Second, given the number of critical functional and operational variables associated with this facility type, especially at echelons above Corps, an automated and manual verification process is used to determine actual requirements for a given OTOE, TDA, and AUGTDA. The majority of the process is based on computer algorithms and formulas based on this Army Standard and applied to specific UICs. Once a base calculation of space allowances has been completed, a manual, on-site verification is conducted by the COS or the COS’s designated representatives. Clarification and adjudication is accomplished within the authorizations of this Army Standard with discrepancies or issues forwarded to the COF FDT Co-Chairs for further deliberation, adjudication, or recommendations for higher authority review.

**Specific MILCON Transformation Design Consideration:**

- Maximum use of natural light so that facilities remain usable during periods of lost utility support
- Economy of construction
- Durable facilities to withstand the rigors of multiple users
- Pre-fabricated construction components and/or modular construction that satisfies facility durability and functional requirements
Application Guidance.

1. Site Selection and Planning. The COF must be located on the installation considering functional relationships to other operations and facilities. Site selection for the COF includes adjacency to the supporting Tactical Equipment Maintenance (TEMF) Facilities. Whenever possible considering existing construction constraints, the separation between the COF RM and TEMF shall not exceed 250 linear feet in order to implement Army two-level maintenance (2LM) and DoD/Army condition-based maintenance (CBM) doctrine. Access security should be established that ensures positive pedestrian or vehicle control. When applicable, a security line may divide the site front (community side) and rear (secured side) of the administration portions of the Battalion and COF building(s) from the TEMF and the readiness module of the COF similar to that provided for Brigade Combat Teams (see Battalion-Brigade Army Standard). Force Protection measures must be met. However, additional building hardening above the minimum requirements outlined in Force Protection directives are not required as long as established setback distances are met. When local conditions or actual site limitations preclude “walking distance” accessibility, options or alternatives considered should be documented in the installation real property master plan.

2. COF Space Allocation (General Considerations). Space allowances are dictated by the approved mission for the command and any other validated requirements approved by HQDA, G-3. When mission conditions for a specific command cannot be adequately met by this Army Standard, the compelling functional and operational requirements shall be cited and justified prior to incorporation into any project programming or design. Deviations, including user requests, are considered waivers to Army standardization documents and will be adjudicated as cited above.

   a. Space allocation is determined by doctrinally-based functions and tasks. Regardless of configuration, minimal use of “hard walls” will be used to provide maximum reconfigurability with minimal to no construction.

   b. For TOE units, the COF is comprised of two modules: 1) Company Admin Module (CO Admin) and 2) Readiness Module (RM). Space for primary administrative functions within a company is contained in the CO Admin Module. All supply, logistics, specialized storage, and Soldier equipment issue storage (e.g., CTA-50) is contained in the RM. The RM also serves as admin expansion or specialized applications in order to accommodate all company functions and tasks across the entire Army Force Structure.

   c. For TDA units, the criteria contained in this Army Standard shall apply for Company Admin and Supply configurations less the Readiness Module component. As such, application individual space allowances and allocations for individual functions (e.g., supply storage, CBRNE storage, Arms Room) shall be applied before development of unique or different space allowances/allocation. Any TDA application will be reviewed by the COF COS to preclude publication of conflicting or contradictory standards and criteria.

   d. The adjacency requirements and space program for the COF are part of the Army Standard. Space allowances for additional mission staffing or augmentation is authorized but must be reviewed in advance of application to a project (waiver granted only when validated permanent population exceeds building design capacity by more than 5%) citing Army authorization documentation approved/validated by the Functional Proponent for this facility type. All other adjustments to space allowance authorizations will be accomplished in accordance with the Army Facility Standardization waiver process.
3. **Company Administration Module (CO Admin Module).** The CO Admin module shall consist of 4 discreet segments as described below. Each Provide NMT one (1) administrative module (CO Admin) per company.

   a. **Office and Administrative Spaces.** Authorized sizing of the administrative space used of offices and other administrative functions are based on quad blocks or sets of four (4) as defined by the COF Army Standard Design. This applies to both the CO Admin Module and second floor mezzanine of the Readiness Module (RM). Any deviation from the application and allowances contained herein shall be reviewed and concurred with by the COF COS prior to implementation in DD1391 programming documentation or project designs.

   b. **General Purpose (GP) Storage Room.** The GP Storage Room is provided based on staff element size ratio and organizational hierarchy. This room shall be lockable but will not be used as a substitute classified storage area. These rooms are allocated based on the COF COS validation process and algorithms available from the COS.

   c. **Printer/Copier Station.** Printer/Copier Stations are provided based on staff element size ratio and organizational hierarchy. This is dedicated floor space within an Open Office Space or Work Area for copiers, printers, plotters, faxes or other printing/reproduction equipment. Printing and reproduction is limited to non-secure data. These areas are allocated based on the COF COS validation process and algorithms available from the COS.

4. **Readiness Module (RM).** The COF Readiness Module (RM) is required for all TOE units. It is comprised of seven (7) discreet space segments with varying security levels. The average Soldier in the Army assigned to deployable (TOE) units is issued anywhere from 90 to 140 pounds of equipment. Generally, this is the equivalent volume of 2.5 to 3 duffle bags which a Soldier is held accountable for. As such, specialized lockers are provided for storage.

   Interior storage is also provided for robotic Squad Logistics Support carriers (electrically powered unmanned ground vehicles) which will reduce actual equipment loads a Soldier carries on their back to a more manageable 90-100 pounds. Because the robotic carriers employ sensitive, advanced technologies, and to prevent hostile override of command signals through acquisition of carrier control units, these carriers must be stored in a storage facility. In order to reduce the need for yet another building, the layout area of a RM is used to park electrically powered robotic carriers. The RM flooring shall be capable of supporting ground pressure loading to support maximum forklift axle loads as prescribed in the COF Army Standard Design with a single door Not Less Than 6 feet wide to accommodate Squad Logistics Support carriers access/egress from storage within the RM layout area.

   a. **Arms Room.** The Arms Room requires Level 1 physical security features IAW AR 190-11. Intrusion Detection and alarm systems are employed as well as high security locks to meet Army policy for secure storage. Weapons and weapon target acquisition and engagement equipment are the only items authorized for storage within the Arms Room. The Arms Room is sized based on an average space allocation for specific mission type units that include consideration for arms racks and lockers for Weapon and weapon accessory storage, circulation, and a small work area for the Unit Armorer. The Arms
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Room maintains a controlled environment (humidity control) to prevent moisture damage to weapons and weapon accessories.

b. Non-Sensitive Secure Storage Area. The Non-Sensitive Secure Storage Area provides Level 2 physical security features IAW AR 190-51. Serial numbered, high value, technology, and pilferable items deemed to require additional security by local Provost Marshall Risk Analyses shall be stored in the non-Sensitive Secure space of the COF. This space does not require “hard walls” but must provide penetration barriers commensurate with that required for Level 2 storage.

c. Unit Communications Equipment Storage Area.

d. Unit Chemical, Biological, Radiological, Nuclear, Energy (CBRNE) Storage Area.

e. Unit Storage Area. Propertybook and accountable consumable supplies.

f. Soldier Basic and Special Individual Issue Storage Area. (e.g., CTA-50 locker area)

g. Deployment-Layout Area. The Soldier Deployment-Layout Area serves multiple mission functions in order to minimize space and reduce overall facility footprint to both conserve land and reduce sustainment, lifecycle cost. There are four specific missions in order of priority for the Deployment-Layout Area: 1) Deployment preparation, staging, loading and unloading of Soldier and Unit equipment, 2) Soldier and Unit equipment light maintenance, 3) equipment serviceability and accountability inspection, and 4) storage for high technology/high cost equipment transient cases (e.g., small unmanned aircraft, ground robotic vehicles, and autonomous sensors) assigned to the CO, PLT, and SQD levels as well as the unmanned squad carrier vehicle. For the purposes of sizing, deployment flow considerations deployment sequencing, transient case storage, and basic layout and circulation space per Soldier derived from the Basic Individual Issue (BII) and Special Individual (equipment) Issue (SII) for say, armor CVC helmets, nomex coveralls, and nomex gloves for Armor and Armored Calvary Soldiers, or Warrior (Soldier System) ensemble with wearable computers, helmet mounted displays, and internal communications/navigation equipment was used. This space is equivalent to approximately two poncho liners or 40 SF habitually used to layout equipment and some circulation for inspectors.

Area is then computed based on a percentage of the assigned personnel to the company OTOE calculated against the sitting company for which the facility was originally modeled from (Infantry Company model of 4 PLT/CO). As such, the layout area is a resource multiplier compounded as a cost avoidance factor by also serving as expansion/reconfiguration space should the OTOE authorizations change by threat analyses, stationing, unit building assignment, or technology adoption. Finally, space is defaulted to the minimum acceptable deployment (loading/unloading and staging for deployment) and layout (time to inspect prior to deployment) risk factors. Hence, no COF will have less than 50% of assigned personnel interior Deployment-Layout Area,

Additional layout area is provided under a covered hardstand area immediately adjacent to the COF.

5. Telecommunications Spaces. Telecommunications spaces shall be designed in accordance with TIA/EIA-569-B and the Information Infrastructure Architecture (I3A) Technical Guide. A
minimum of one Telecommunications Equipment Room (TER) shall be provided to house telecommunications equipment supporting future and select SIPRNET installation. All TERs Rooms are sized based on the building configuration and operational and security requirements as determined by the appropriate engineering and certification authority. Telecommunications Rooms (TR) shall be provided IAW TIA/EIA-569-B and the I3A Guide.

6. Telecommunications Connectivity & Distribution. Telecommunications infrastructure will meet I3A and ANSI/TIA/EIA requirements.

   a. Data outlets will be provided per the I3A technical guide based on functional purpose of the various spaces within the facility as modified by user special operational requirements. Provide telecommunications spaces to accommodate both unclassified (e.g., NIPRNET, voice, video-teleconferencing (VTC)) and classified systems (e.g., SIPRNET) will require Secure Internet Protocol Routing Network (SIPRNET) access capability, installed in accordance with provisions of Technical Guide for the Integration of Secret Internet Protocol Router Network (SIPRNET).

   b. Outside plant connectivity shall be provided in accordance with the Army I3A guidance. The COF facilities shall be connected with fiber optic cabling sized to support the common user systems.

   c. The telecommunications infrastructure, cabling, outside plant, and outlets will be designed and allocated IAW the following references:

      • Project specific USAISEC Information Technology Facility Design Criteria
      • USAISEC Technical Guide for Installation Information Infrastructure Architecture (I3A)
      • USAISEC Technical Guide for the Integration of Secret Internet Protocol Router Network (SIPRNET)

Reference Criteria. The designs should use latest editions of the following design criteria:

   • DA PAM 415-28, Facility Guide To Army Real Property Category Codes
   • UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings
   • UFC 4-023-03, Security Engineering: Design to Resist Progressive Collapse
   • UFC 4-140-01, Standard Definitive Design for COF