FC 4-721-02F
1 April 2015

FACILITIES CRITERIA (FC)

AIR FORCE
LEVEL I CONFINEMENT FACILITY

FACILITIES CRITERIA (FC)

AIR FORCE
LEVEL I CONFINEMENT FACILITY

AIR FORCE CIVIL ENGINEER CENTER (Preparing Activity)

Record of Changes (changes are indicated by **1**\ ... /**1**/)

Change No.	Date	Location
1		

FOREWORD

Facilities Criteria (FC) provide functional requirements (i.e., defined by users and operational needs of a particular facility type) for specific DoD Component(s), and are intended for use with unified technical requirements published in DoD Unified Facilities Criteria (UFC). FC are applicable only to the DoD Component(s) indicated in the title, and do not represent unified DoD requirements. Differences in functional requirements between DoD Components may exist due to differences in policies and operational needs.

All construction outside of the United States is also governed by Status of Forces Agreements (SOFA), Host Nation Funded Construction Agreements (HNFA), and in some instances, Bilateral Infrastructure Agreements (BIA.) Therefore, the acquisition team must ensure compliance with the most stringent of the FC, the SOFA, the HNFA, and the BIA, as applicable.

Because FC documents are coordinated with unified DoD technical requirements, they form an element of the DoD UFC system applicable to specific facility types. The UFC system is prescribed by MIL-STD 3007 and provides planning, design, construction, sustainment, restoration, and modernization criteria, and applicable to the Military Departments, Defense Agencies, and the DoD Field Activities. The UFC System also includes technical requirements and functional requirements for specific facility types, both published as UFC documents and FC documents.

FC are living documents and will be periodically reviewed, updated, and made available to users as part of the Services' responsibility for providing criteria for military construction. HQ U.S. Army Corps of Engineers (HQUSACE), Naval Facilities Engineering Command (NAVFAC), and the Air Force Civil Engineer Center (AFCEC) are responsible for administration of the UFC system. Defense agencies should contact the preparing service for document interpretation and improvements. Technical content is the responsibility of the cognizant DoD working group. Recommended changes with supporting rationale should be sent to the respective service proponent office by the following electronic form: Criteria Change Requirements. The form is also accessible from the Internet site listed below.

FC are effective upon issuance and are distributed only in electronic media from the following source: Whole Building Design Guide web site http://dod.wbdg.org/.

Refer to UFC 1-200-01, *General Building Requirements*, for implementation of new issuances on projects.

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FACILITIES CRITERIA (FC)
NEW SUMMARY SHEET

Document: FC 4-721-02F, *Air Force Level I Confinement Facility*

Superseding: None

Description: This FC provides requirements for evaluating, planning, programming, and designing Level I confinement facilities, separate from the Security Forces Operations Center. The information in this FC applies to the design of all new construction projects, to include additions, alterations, and renovation projects in the continental United States (CONUS) and outside the continental United States (OCONUS). It also applies to the procurement of design-build services for the above-noted projects. Alteration and renovation projects should update existing facilities to meet the guidance and criteria within budgetary constraints.

Reasons for Document: This FC is the initial release to establish requirements for a Level 1 confinement facility. It defines the criteria for determining appropriately sized, flexible, cost-optimized, durable, quality-designed facilities on a life cycle basis to support the mission. The plans presented in this FC are concepts only and are primarily intended to communicate functional user and adjacency requirements. A thorough compliance check of all other applicable criteria is required.

Impact: This FC will facilitate and standardize the design of Level 1 confinement facilities throughout the Air Force. It will provide more complete and consistent project requirements and will expedite the programming and design of facilities and reduce initial design cost.

Unification Issues: None

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FIGURES

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CHAPTER 1 INTRODUCTION

1-1 GENERAL INFORMATION.

1-1.1 Purpose

This standard facility prototype design was developed to assist Air Force programmers in preparing and validating DD Form 1391 requirements and to assist architect-engineer (A-E) design professionals with approved project-specific design requirements. It is a source of basic programming and functional information for Level 1 confinement facilities. This standard is consistent with the Air Force Corporate Facilities Standards (AFCFS), Unified Facilities Criteria (UFC), and existing design guides. This standard, in conjunction with the AFCFS, defines Air Force expectations for project programming and A-E design decisions.

1-1.2 Objective

The standard facility prototype design program defines consistent facility requirements across the Air Force enterprise to expedite delivery of a facility. This FC was designed in compliance with AFMAN 32-1084. The objective is to deliver right-sized, flexible, cost-optimized, durable, quality-designed facilities on a life cycle basis to support the Air Force mission.

1-2 GENERAL BUILDING REQUIREMENTS.

Comply with UFC 1-200-01, which provides applicability of model building codes and government-unique criteria for typical design disciplines and building systems, as well as for accessibility, antiterrorism, security, high performance and sustainability requirements (comprehensive requirements are detailed in UFC 1-200-02), and safety. Use this FC in addition to UFC 1-200-01 and the UFCs and government criteria referenced therein.

1-3 REFERENCES.

Appendix A contains a list of related documents and references to use with this FC. In general, use the latest available issuance of the reference.

1-4 INSTRUCTIONS.

1-4.1 Method

This standard facility prototype was developed by determining personnel counts, allowable room sizes, adjacency diagrams between functional spaces, and overall facility space requirements. The standard facility prototype establishes Air Force criteria for the facility type. Use these criteria in conjunction with Air Force ETLs, departmental publications, and UFCs when programming and designing this facility type. Supplement this FC with thorough reviews by individual program managers and operations staff.

1-4.2 Standard Facility Prototype Tools.

This standard facility prototype consists of three parts to be used by programmers and A-Es:

- Facilities criteria standard prototype (this FC document)
- Interactive programming sheet
- Facility Building Information Modeling (BIM) drawings

1-4.3 Facilities/Design Criteria.

This FC consists of three primary components:

- Notional site
- Composite/standard floor plans and facility adjacency diagrams
- Modules with associated room data sheets

1-4.3.1 Notional Site.

The notional site plan diagram presents key site development criteria and is not a site-specific solution. The information represents the land requirements to construct this facility and includes associated antiterrorism (AT) standoff distances and parking. Utilization of existing or shared parking is allowable and may reduce the total acreage required for the facility. Adapt the requirements to the specific site and location and comply with the applicable Installation Development Plan (IDP) and Area Development Plan (ADP) for facility siting. Comply with UFC 3-600-01 regarding minimum separation from other structures.

1-4.3.2 Composite Floor Plans.

The composite floor plans are conceptual solutions that illustrate functional user and adjacency requirements. Plan variations may be rotated, flipped, or reversed to fit the actual site. A thorough compliance check of all other applicable criteria is required even when using the conceptual solutions provided in this FC.

1-4.3.3 Modules.

Spaces and rooms that are integrally related with a specific functional connection or operational flow are grouped into a module. Modules and the associated room data sheets identify specific criteria and additional detail for each functional area of the facility as outlined in the space program sheets in Appendix B. Information is provided in a standard presentation and data sheet format and the required space adjacencies and modules are illustrated in figures.

The resulting shape of the facility assembled from the facility prototype modules must provide construction efficiencies obtained from building proportions and overall configuration. The building footprint shall be organized and well composed. The building

design must comply with the installation facility standards (architectural compatibility plan) and the AFCFS. Modules shall not be deconstructed or altered except as indicated in paragraph 1-4.3.4.

1-4.3.4 Module Flexibility/Adjustments.

Utilization of the modules provided is highly recommended to maintain functional relationships, adjacencies, and allowed program areas. Modules contain fixed attributes that are essential to functional requirements. Modules may be rotated, flipped, and reversed to accommodate an overall composition or site issue. When the modules cannot be arranged to produce a constructible floor plan due to site constraints, their proportions may be adjusted to create a constructible plan. Manipulating the module shape must not result in an overall increase in square feet and/or reduce the functionality of any module or the required adjacencies in the composite plan.

Some modules are linked to space requirements that increase or decrease in size based on the personnel count and equipment for a particular mission. In these cases, increase or decrease the size of the module to match the revised scope calculation. This may sometimes require minor adjustments in other adjacent modules so they properly fit together to create a constructible facility floor plan. Spaces must comply with any critical dimensions indicated on module plans. Manipulate as few modules as possible to create a constructible facility. The resulting composite plan must respect the established module's adjacencies and must not exceed the authorized project scope.

1-4.3.5 Room Data Sheets.

Specific requirements for each room, space, or area are provided on room data sheets that are located following their respective module. Information contained on the data sheets defines the functional and physical requirements for each space within the facility type.

1-4.4 Programming Spreadsheet(s).

This tool is provided in two formats in Appendix B. A PDF programming sheet is provided as a reference and reflects the baseline standard facility program. The interactive programming sheet provides a tool for planners and programmers. It allows the input of authorized personnel positions and special purpose spaces. Updated inputs are automatically calculated and provide new required square footage for each space and the overall facility size. A link is provided in Appendix B to provide access to the interactive tool.

1-4.5 Facility Drawings – BIM.

The facility drawings component of the facility prototype tools includes both a PDF version and a Revit version of the modules, rooms, and composite floor plan. The spaces, rooms and modules shown reflect the baseline (eight cells) standard facility program spreadsheet in Appendix B. The drawings in this FC are copies of the BIM drawings and comply with the program scope. The BIM drawings provide a starting

point for the digitization of building data and a starting point in the design and construction of a facility. BIM drawings are found at the link provided in Appendix B.

1-4.6 Additions and Alterations.

For additions and alterations to existing facilities, use the adjacencies, sizing/scope, and detailed requirements contained in the site diagrams, module drawings, and room data sheets to the maximum extent possible. The functionality and adjacency of the modules are still valid but may require some manipulation to accommodate the existing structure. Move non-structural walls to the greatest extent possible to open up space in existing facilities to make them more receptive to the placement of the modules. The planner and designer shall determine the most efficient means to balance the placement of modules within existing spaces or as a facility addition.

1-4.7 A-E Design Professionals.

The requirements set forth in this FC are the approved space programming and functional layouts in accordance with AFCFS. The Air Force Security Forces Center (AFSFC) must approve variations to functional and operational issues and deviations from core requirements.

CHAPTER 2 SITE & OVERALL ADJACENCY

2-1 GENERAL FACILITY OVERVIEW.

A Level 1 confinement facility is typically a one-story structure. The confinement cells can either be part of the Security Forces (SF) operations center or a stand-alone facility. It is operated by the Air Force and consists of confinement spaces, control room, administration area, entry/visitor spaces, and building support. The facility houses confinees 24/7 and is open to visitors only a few hours per week as administered by the base command and SF directives.

2-2 FACILITY USERS/OCCUPANTS.

Occupants of the facility primarily include pretrial and post-trial confinees (referred to as “confinees”) and the SF guard staff. It may house maximum-custody confinees for short periods while awaiting trial or post-trial transfers to another facility. Visitors of confinees have access to limited areas of the facility on a controlled basis.

2-3 SIZE DETERMINANTS.

Confinement facility size is generally driven by the intended military population. Some facilities serve multiple installations due to proximity benefits.

2-3.1 Level I Confinement Facility Size.

Level I confinement facility sizes vary from four-cell to twelve-cell facilities, in increments of four. For the purpose of this FC the following sizes were analyzed but the eight-cell facility has been selected as standard:

- Four-cell facility
- Eight-cell facility
- Twelve-cell facility

The space program for confinement facilities is developed based on the size of the assigned population and historical data from AFSFC. Facility size changes must be approved/authorized by AFSFC.

Critical to facility size is the required size of cells. They must comply with Adult Correctional Institutions (ACI) requirements as follows: total of 80 square feet of floor space per single occupancy cell, of which 25 square feet is unencumbered.

2-4 OPERATIONAL ASPECTS.

The facility will house both pre-trial and post-trial confinees. Door hinges and peens must be on the side opposite of confinee access to prevent barricading or peen removal.

2-5 NOTIONAL SITE.

The site diagram (Figure 2-1) represents a notional layout to reflect site development requirements/criteria only—it is not an actual site design. Siting must comply with the IDP and ADP.

2-6 LOCATION DETERMINANTS (SITE SELECTION) OR SITE LOCATION AND ORIENTATION.

Several factors determine the most appropriate and cost-effective location for a confinement facility. Analyze the availability and capacity of required utilities and the mass/scale of the facility relative to adjacent structures and noise issues. Open space surrounding the facility is desirable. Locate away from schools, dormitories, housing, industrial, and retail areas. Comply with UFC 3-600-01 regarding minimum separation from other structures.

2-6.1 Access.

The confinement facility's ideal location is in the vicinity of the main SF squadron facility and with main road access. Locate the facility away from any active pedestrian or populated areas. Provide parking as close to the facility as possible while complying with AT requirements in UFC 4-010-01.

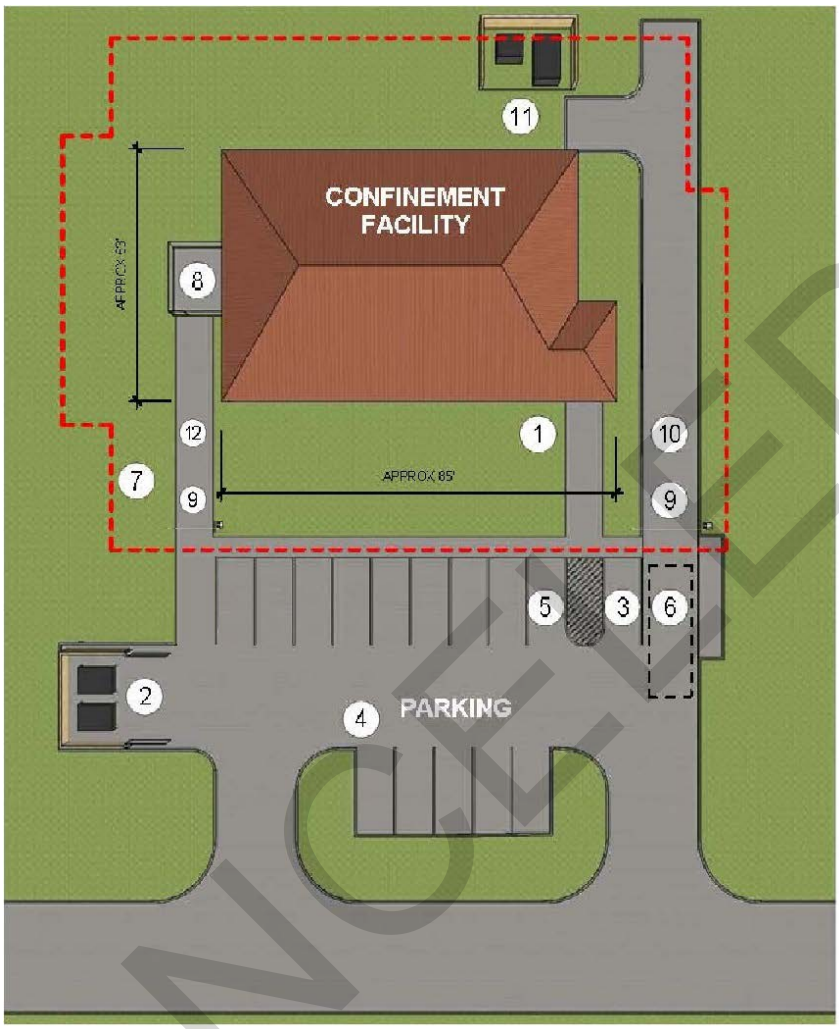
2-6.2 Parking and Access Drives.

Provide parking for both staff and visitors with access drives as indicated in the space program. Coordinate with local units if adjacent properties may share visitor parking. Comply with UFC 3-201-01. In general, provide two privately owned vehicle (POV) spaces for every three confinees.

2-6.3 Existing Facility Alteration.

Analyze the site of the existing facility and its limitations. Use permanent facilities for conversion to a confinement function. Assess existing buildings as to whether or not they can support the core and other functional areas and dimensional requirements of the program. The building must be able to accommodate durable cells and have adequate floor-to-ceiling heights.

Figure 2-1 Notional Site Diagram (8 Cell Facility)



SITE PLAN KEYNOTE LEGEND	
1.	PRIMARY BUILDING ENTRANCE
2.	SCREENED DUMPSTER ENCLOSURE
3.	HANDICAPPED PARKING SPACE
4.	STAFF / VISITOR PARKING SPACES - 13 TOTAL SPACES; TWO SPACES FOR EACH 3 CELLS AND EACH STAFF MEMBER MINIMUM
5.	LAW ENFORCEMENT PARKING SPACE (ONE DEDICATED SPACE REGARDLESS OF FACILITY SIZE)
6.	15 PASSENGER BUS PARKING SPACE WITH LOADING / UNLOADING AREA (ONE DEDICATED SPACE REGARDLESS OF FACILITY SIZE)
7.	STANDOFF DISTANCE - NOTIONAL
8.	FENCED OUTDOOR RECREATIONAL / EXERCISE YARD WITH DOUBLE-LEAF GATE
9.	ACCESS CONTROL GATE
10.	SERVICE DRIVE - MECHANICAL EQUIPMENT ACCESS
11.	SCREENED EQUIPMENT YARD
12.	WIDE SIDEWAIK FOR VEHICLE ACCESS TO EXERCISE YARD (DOUBLE-LEAF GATE AT FENCE)

2-7 COMPOSITE FACILITY ADJACENCY.

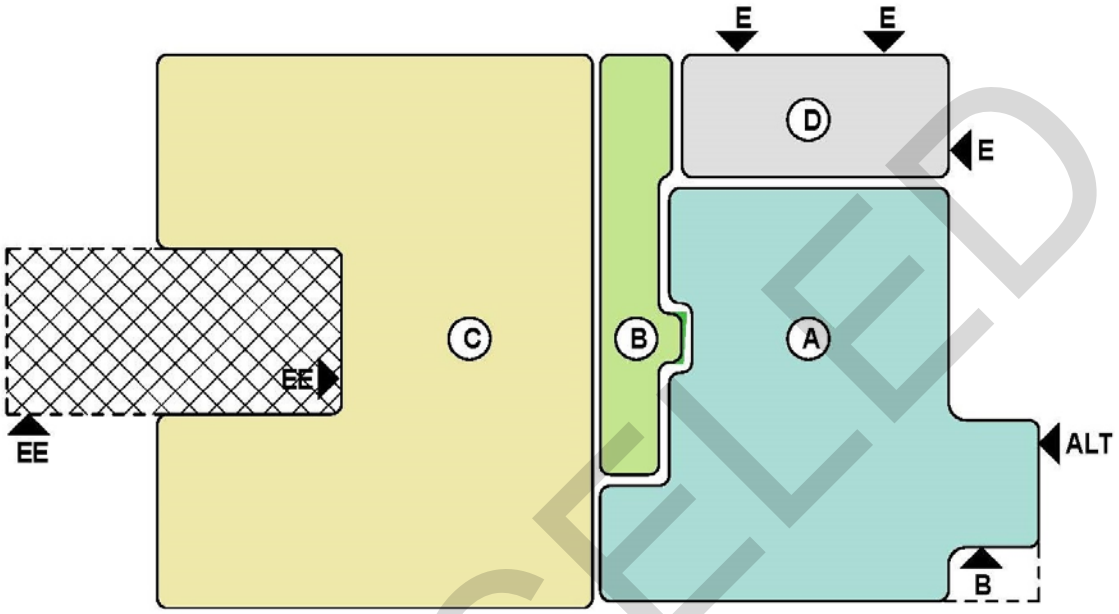
The space program for the Level 1 confinement facility is developed based upon the actual base population and the intended population of the base.

The space program developed through the base planning team generally represents the maximum space allowed. The final space program for a new confinement facility must be carefully determined by installation representatives and the appropriate service program office guided by the criteria in this FC. Additional information is found in Appendix B.

The required space adjacencies are illustrated in Figure 2-2. All program spaces are assigned a module designator. Functional spaces that must be located next to each other or share an important operational flow are grouped into one module with the intent that the module will remain intact during final design. The facility is composed of three primary functional areas: 1) secure area; 2) semi-secure area; and 3) controlled spaces/area (or administrative/visitor).

Composite plans represent conceptual solutions for Level 1 confinement project requirements. These composite facility plans convey an AFSFC-approved solution. The building shape may be adjusted in response to site requirements or unusual or specific installation issues if approved in accordance with the procedures in Chapter I. See Appendix B for conceptual facility floor plans. Three concept plans and the related BIM drawings are included in Appendix B.

Figure 2-2 Functional Adjacency Diagram



MODULES	
A	ADMINISTRATION/VISITOR AREAS
B	CONTROLLED AREAS
C	SECURED AREAS
D	BUILDING SUPPORT

▲ LEGEND ENTRY/EXIT	
ALT	ALTERNATE ENTRY/ADDITION TO EXISTING FACILITY
B	BUILDING ENTRY
E	EQUIPMENT ENTRY
EE	EMERGENCY ENTRY

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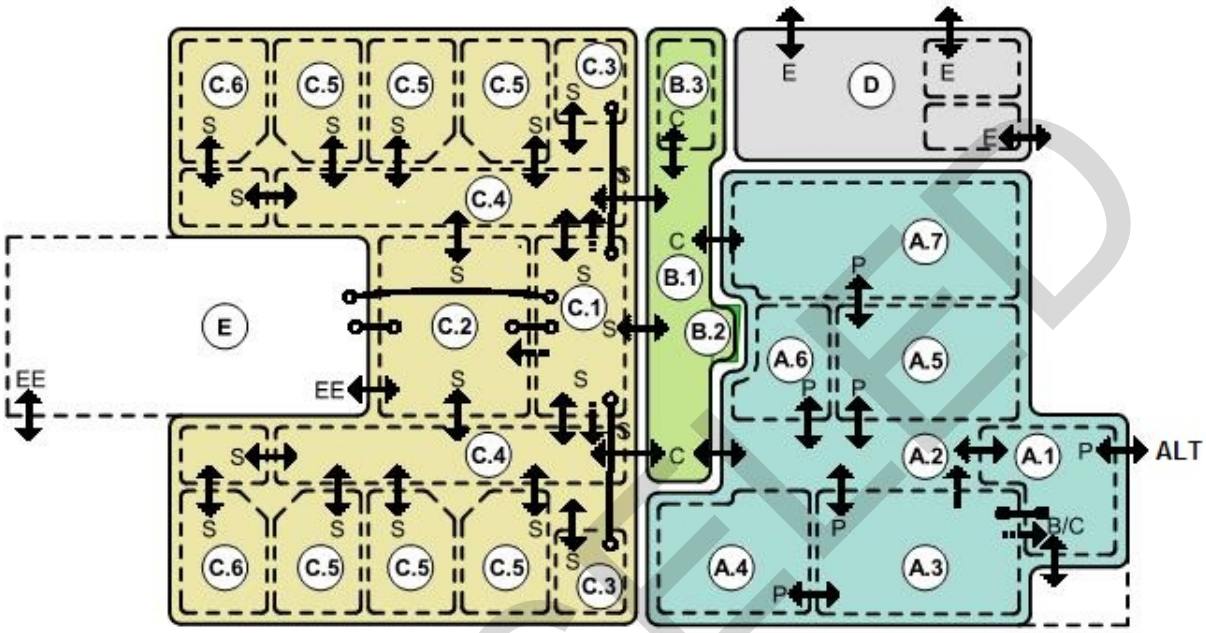
CHAPTER 3 FACILITY REQUIREMENTS & CRITERIA MODULES

3-1 ADJACENCY DIAGRAM.

Figure 3-1 Module Adjacency Diagram



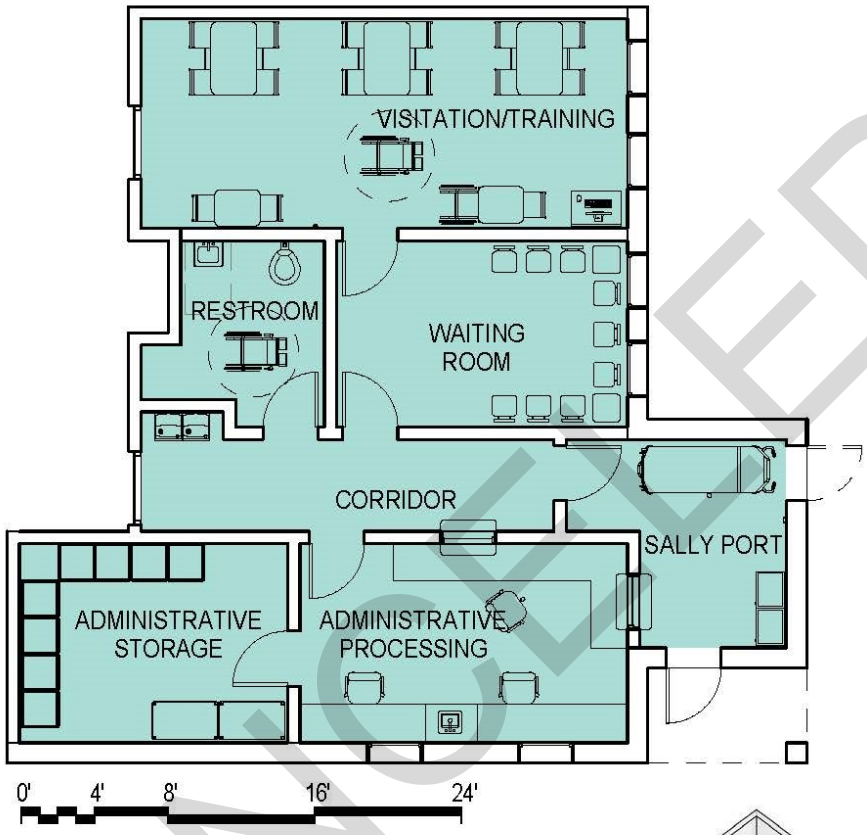
MODULES ROOM SCHEDULE	
A.1	SALLY PORT
A.2	CORRIDOR
A.3	ADMINISTRATIVE PROCESSING
A.4	ADMINISTRATIVE STORAGE
A.5	WAITING ROOM
A.6	RESTROOM
A.7	VISITATION / TRAINING
B.1	CONTROLLED CORRIDOR
B.2	LAUNDRY ALCOVE
B.3	JANITOR'S CLOSET
C.1	CONTROL ROOM
C.2	DAY ROOM
C.3	SHOWER
C.4	SECURED CORRIDOR
C.5	CELL
C.6	SEGREGATED CELL / CORRIDOR
D	BUILDING SUPPORT
E	OUTDOOR RECREATIONAL EXERCISE YARD

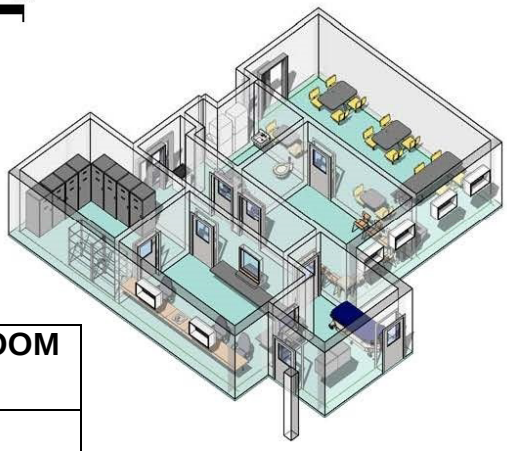
ADJACENCY RELATIONSHIP	
↔	DIRECT ACCESS
⊶	PROXIMITY
⊷	PRIMARY ADJACENCY
▭	MODULE BOUNDARY
[ ]	ENCLOSED AREA
⌒	DAYLIGHTING
←···	DIRECT VIEW

LEGEND ENTRY/EXIT	
ALT	ALTERNATE ENTRY / ADDITION TO EXISTING FACILITY
B	BUILDING ENTRY
C	CONTROLLED PERSONNEL ENTRY
E	EQUIPMENT ENTRY
EE	EMERGENCY EXIT
P	PERSONNEL ENTRY
S	SECURED PERSONNEL ENTRY

3-2 MODULE A: ADMIN/VISITOR AREAS.

Figure 3-2 Floor Plan and Axonometric





MODULE A – ADMIN/VISITOR AREA ROOM SCHEDULE	
ROOM NAME	**AREA**
ADMINISTRATIVE	**See Appendix-B Programming Worksheets**
ADMINISTRATIVE STORAGE	
CORRIDOR	
RESTROOM	
SALLY PORT	
VISITATION/TRAINING	
WAITING ROOM	

***NOTE: DAYLIGHTING TO BE DESIGNED PER UFC 1-200-02**

Figure 3-3 Administrative Processing Data Sheet

Description/Usage		General administrative functions for two staff members. Place for redundant controls/systems from control room and override capability for electronics and video monitors.
Ceiling Height		9’-0” minimum
Windows		Exterior wired, tempered glass clerestory
Doors	**Type**	3’-0” x 7’-0” hollow metal, security-rated doors and frame
	Security/ Hardware	Access controlled; keyed lockset
	View Panels/ Kick-Plates	Kick plates
Finishes	**Walls**	Painted CMU or concrete with impact-resistant gypsum on furring
	Floor	Tile, epoxy, or sealed concrete
	Base	Tile, epoxy, or vinyl
	Ceiling	Concrete with acoustical ceiling tile (no drop ceiling)
Plumbing		Bar sink with hot and cold water
HVAC		Air conditioned and heated year round
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets; quad receptacles adjacent to each workstation; dedicated outlet for printers; dedicated
Lighting		Per UFC 3-530-01
Communication	**Tele.**	One per workstation
	Data	NIPR
	CCTV	Monitoring of facility
	CATV	N/A
	Security	Door control master station
Acoustical		Minimum STC of 46
Furnishings, Equipment, and Casework		Lockable security drawer or safe; two systems workstations with chairs; two drawer type pass-through windows with integrated speaker capability; copier; under-counter refrigerator; microwave; built-in shelving for radio/flashlight charger station; coffee maker; SF counter with base and upper cabinets for clothing shakedown of confinees
Special Requirements		Lockable door to administrative storage; pass-through windows to sally port and public corridor; access control system for facility; 4’ x 4’ wall-mounted peg board for handcuffs and body cuffs

Figure 3-4 Administrative Storage Data Sheet

Description/Usage		Storage for confinees' dress uniforms and other personal belongings as well as administrative and building supplies (e.g., blankets, sheets, pillows, spare toiletries). Location for recording hardware for monitoring devices.
Ceiling Height		9'-0" minimum
Windows		N/A
Doors	**Type**	3'-0" x 7'-0" hollow metal
	Security/ Hardware	Keyed lockset
	View Panels/ Kick-Plates	Kick plates
Finishes	**Walls**	Painted CMU or concrete with gypsum board on furring
	Floor	Epoxy or sealed concrete
	Base	Epoxy or vinyl
	Ceiling	Concrete with acoustical ceiling tile (no drop ceiling)
Plumbing		N/A
HVAC		Ventilated
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets
Lighting		Per UFC 3-530-01
Communication	**Tele.**	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		N/A
Furnishings, Equipment, and Casework		2'-0" x 2'-0" single-tiered lockers (one per cell minimum); 24" x 36" x 72" open shelving for administration supplies (number of cells plus two)
Special Requirements		Controlled access direct from administrative processing

Figure 3-5 Public Corridor Data Sheet

Description/Usage		Provide main circulation in the administrative and visitor areas and space for processing confinees.
Ceiling Height		9’-0” minimum
Windows		N/A
Doors	**Type**	3’-0” x 7’-0” hollow metal, security-rated doors and frames; sliding detention
	Security/ Hardware	Controlled access
	View Panels/ Kick-Plates	Kick-plates; 6” x 30” security-rated view panels
Finishes	**Walls**	Painted CMU or concrete
	Floor	Tile, epoxy, or sealed concrete
	Base	Tile, epoxy, or vinyl
	Ceiling	Concrete with acoustical ceiling tile (no drop ceiling)
Plumbing		Electric water cooler
HVAC		Air conditioned and heated year round
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		Convenience receptacle
Lighting		Per UFC 3-530-01
Communication	**Tele.**	Integrated with security camera
	Data	N/A
	CCTV	Dual monitored, recorded
	CATV	N/A
	Security	Video camera
Acoustical		N/A
Furnishings, Equipment, and Casework		Secure pass-through drawer window with integrated speaker capability
Special Requirements		N/A

Figure 3-6 Restroom Data Sheet

Description/Usage		Restroom facilities for staff and visitors.
Ceiling Height		9’-0”
Windows		N/A
Doors	**Type**	3’-0” x 7’-0” hollow metal
	Security/ Hardware	Keyed lockset; privacy lock
	View Panels/ Kick-Plates	Kick plates
Finishes	**Walls**	Painted CMU with gypsum board on furring and tile wainscot
	Floor	Tile, epoxy, or sealed concrete
	Base	Tile or vinyl
	Ceiling	Painted concrete with gypsum ceiling
Plumbing		Connections for water closet and counter-mounted lavatory; connection to electric water cooler in corridor; floor drain
HVAC		Ventilated
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		GFI convenience duplex outlet
Lighting		Per UFC 3-530-01
Communication	**Tele.**	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		N/A
Furnishings, Equipment, and Casework		Water closet, lavatory, mirror (non-glass), grab bars, toilet paper dispenser, toilet seat cover dispenser, soap dispenser, paper towel dispenser with waste receptacle
Special Requirements		Room and all accessories shall comply with ABA accessibility requirements

Figure 3-7 Sally Port Data Sheet

Description/Usage		Secure entry point for law enforcement officials to perform pat searches, confiscate property, and complete pre-booking paperwork. Serves as the controlled entry and exit point for all visitors and confinees.
Ceiling Height		9’-0” minimum
Windows		No exterior windows allowed
Doors	**Type**	3’-0” x 7’-0” hollow metal, security-rated doors and frames; interlocking
	Security/ Hardware	Controlled access
	View Panels/ Kick-Plates	Kick-plates; 6” x 30” security-rated view panels to public corridor and at exterior door
Finishes	**Walls**	Painted CMU or concrete
	Floor	Tile, epoxy, or sealed concrete
	Base	Tile, epoxy, or vinyl
	Ceiling	Concrete with acoustical ceiling tile (no drop ceiling)
Plumbing		N/A
HVAC		Air conditioned and heated year round
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		Exterior convenience outlet near entry
Lighting		Per UFC 3-530-01
Communication	**Tele.**	Integrated with security camera
	Data	N/A
	CCTV	Dual monitored in administrative processing and control room, recorded
	CATV	N/A
	Security	Video camera (infrared capable) inside sally port and at exterior entrance; controlled from administrative processing
Acoustical		N/A
Furnishings, Equipment, and Casework		12” x 18” double-tiered lockers for visitor personal effects (one per cell minimum); pass-through drawer and window with speaker to administrative processing; one-way glass from administrative processing
Special Requirements		• Sally port must accommodate a stretcher • “Door call” button and intercom connected to control room and administrative processing • Exterior Knox Box mounted 90” above finish floor in inconspicuous location

Figure 3-8 Visitation/Training Room Data Sheet

Description/Usage		Room for confinees to visit with attorneys, family, and other visitors. Also serves as guard training and meeting room and worship center.
Ceiling Height		9'-0" minimum
Windows		Exterior wired, tempered glass clerestory window
Doors	**Type**	Hollow metal security-rated at waiting; sliding detention at semi-secure corridor
	Security/ Hardware	Keyed locksets
	View Panels/ Kick-Plates	Tempered wired security view panels; 6" x 30" one-way view panels for guard supervision; kick plate
Finishes	**Walls**	Painted CMU or concrete
	Floor	Tile, epoxy, or sealed concrete
	Base	Tile, epoxy, or vinyl
	Ceiling	Painted concrete with gypsum ceiling (no drop ceiling)
Plumbing		N/A
HVAC		Air conditioned and heated year round
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets, tamper-proof
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type)
Communication	**Tele.**	Phone, wall-mounted
	Audio	Intercom with call button to semi-secure corridor
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		N/A
Furnishings, Equipment, and Casework		Built-in jail-type table and benches (two seats per cell); optional stand-alone computer and printer workstation
Special Requirements		Door to semi-secure corridor must have vision panel for guard supervision; direct access from waiting area for visitors and from semi-secure corridor for confinees; computer station must not have Internet access

Figure 3-9 Waiting Room Data Sheet

Description/Usage		Visitor waiting area prior to meeting with confinees in the visitation/training room. Outer door to corridor remains open during meetings.
Ceiling Height		9’-0”
Windows		Exterior wired, tempered glass clerestory
Doors	**Type**	3’-0” x 7’-0” hollow metal, security-rated doors and frames
	Security/ Hardware	Hold-open function on outer door
	View Panels/ Kick-Plates	Kick-plates
Finishes	**Walls**	Painted CMU or concrete with impact-resistant gypsum board on furring
	Floor	Tile, epoxy, or sealed concrete
	Base	Tile, epoxy, or vinyl
	Ceiling	Concrete with acoustical ceiling tile (no drop ceiling)
Plumbing		N/A
HVAC		Air conditioned and heated year round
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets
Lighting		Per UFC 3-530-01
Communication	**Tele.**	One wall-mounted phone
	Data	N/A
	CCTV	Monitored
	CATV	N/A
	Security	Camera
Acoustical		Minimum STC rating of 46 at wall between waiting room and visitation/training room
Furnishings, Equipment, and Casework		Chairs (one per cell); side tables (one per four chairs)
Special Requirements		N/A

3-3 MODULE B: SEMI-SECURE AREAS.

Figure 3-10 Floor Plan and Axonometric

MODULE B – SEMI SECURE AREA ROOM SCHEDULE	
ROOM NAME	**AREA**
CONTROLLED CORRIDOR	**See Appendix-B Programming Worksheets**
JANITOR CLOSET	
LAUNDRY ALCOVE	

***NOTE: DAYLIGHTING TO BE DESIGNED PER UFC 1-200-02**

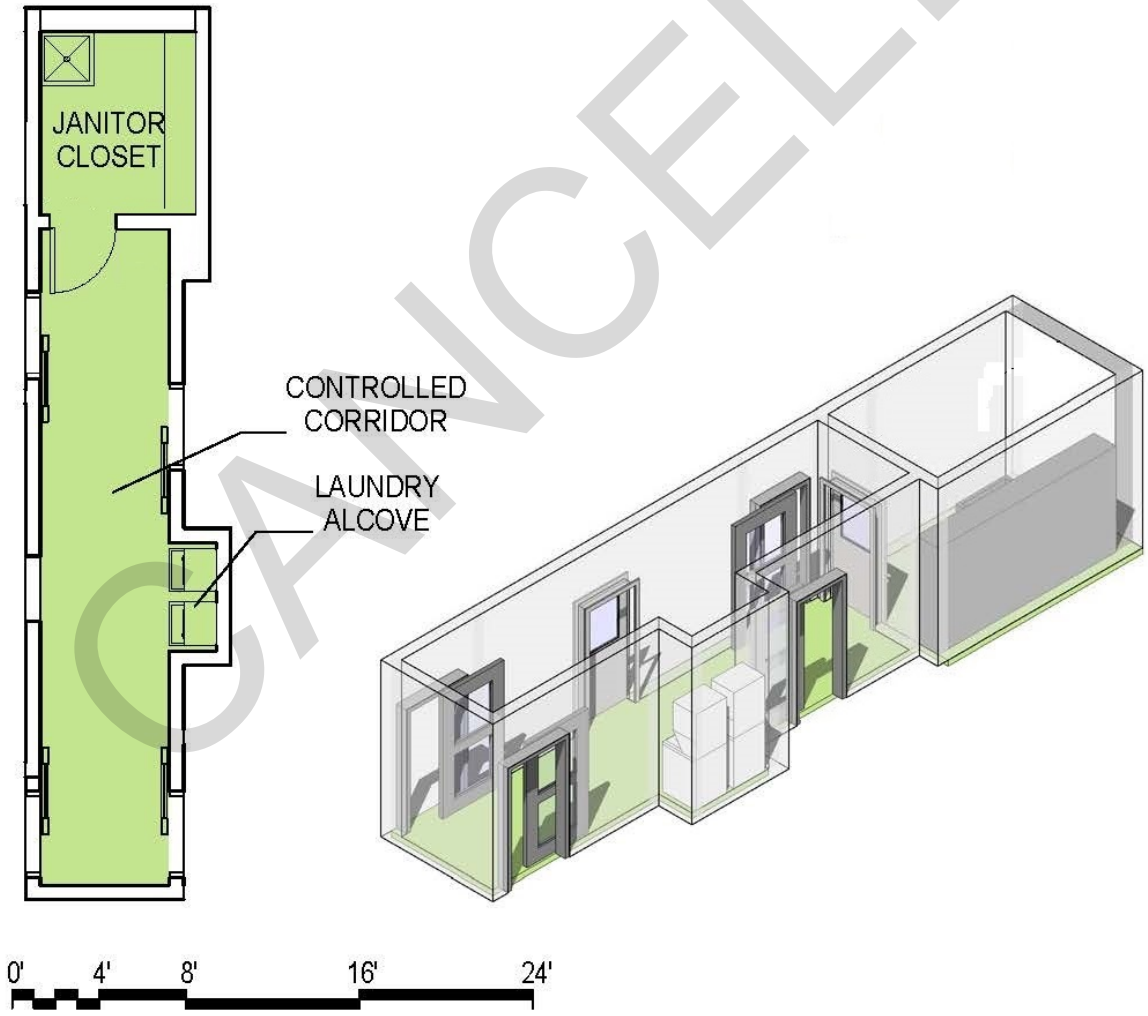


Figure 3-11 Controlled Corridor Data Sheet

Description/Usage		Main circulation point between corridor, visitation, and secure corridor. Minimum width is 5’-0” clear.
Ceiling Height		9’-0”
Windows		N/A
Doors	**Type**	Sliding detention
	Security/ Hardware	Keyed locksets
	View Panels/ Kick-Plates	Tempered wired security view panels
Finishes	**Walls**	Painted CMU or concrete
	Floor	Epoxy
	Base	Integral epoxy cove
	Ceiling	Painted concrete
Plumbing		N/A
HVAC		Air conditioned and heated year round
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets; tamper-proof
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type)
Communication	**Tele.**	N/A
	Audio	Intercom from visitation
	CCTV	Dual monitored at control room and administrative processing
	CATV	N/A
	Security	Camera
Acoustical		Minimum STC of 50
Furnishings, Equipment, and Casework		N/A
Special Requirements		N/A

Figure 3-12 Janitor Closet Data Sheet

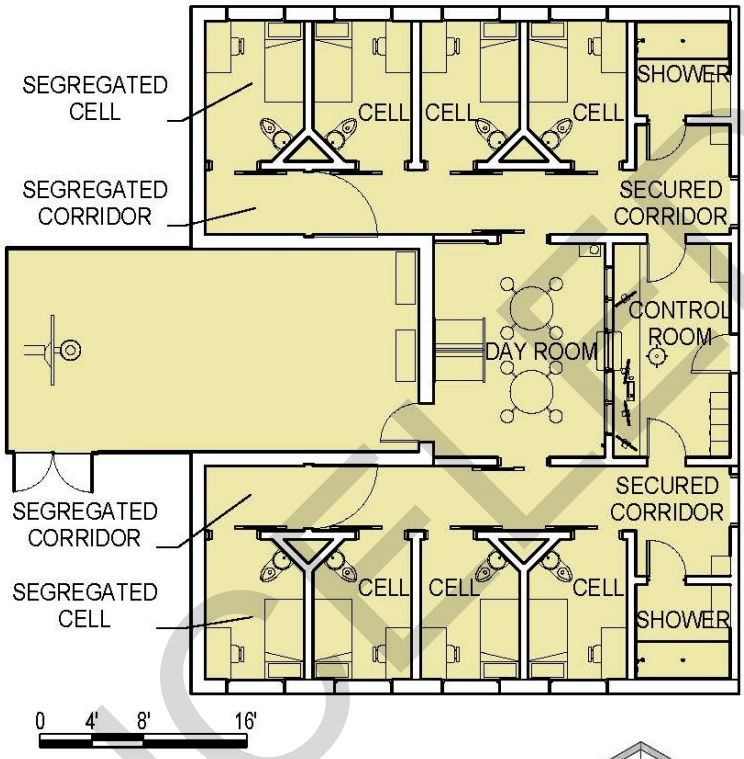
Description/Usage		Miscellaneous building storage, cleaning and laundry supplies. Confinee has access under guard supervision.
Ceiling Height		9'-0" minimum
Windows		N/A
Doors	**Type**	Hollow metal, security rated
	Security/ Hardware	Keyed lockset; alarmed; concealed hinges
	View Panels/ Kick-Plates	Kick plates
Finishes	**Walls**	Painted CMU
	Floor	Epoxy
	Base	Integral epoxy cove
	Ceiling	Painted concrete
Plumbing		Hot and cold water connection for mop sink; floor drain
HVAC		Ventilated
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		One duplex outlet; tamper-proof
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type)
Communication	**Tele.**	N/A
	Audio	N/A
	CCTV	N/A
	CATV	N/A
	Security	Monitored from control room and administrative processing, with motion detector in room and door alarmed
Acoustical		N/A
Furnishings, Equipment, and Casework		Mop sink; shelving with integral mop holder; shelving for supplies
Special Requirements		Door must swing out

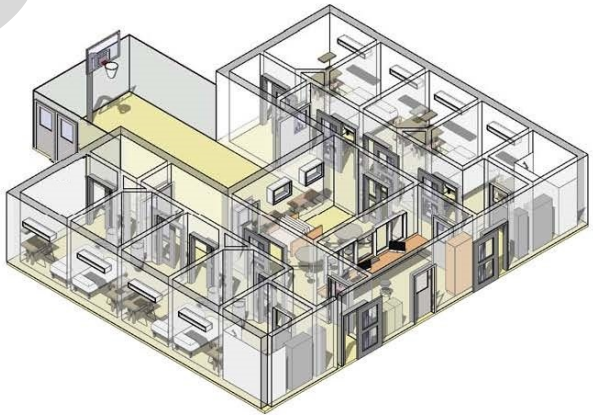
Figure 3-13 Laundry Alcove Data Sheet

Description/Usage		Laundry facilities for use by confinees under guard supervision.
Ceiling Height		9’-0” minimum
Windows		N/A
Doors	**Type**	N/A
	Security/ Hardware	N/A
	View Panels/ Kick-Plates	N/A
Finishes	**Walls**	Painted CMU or concrete
	Floor	Epoxy
	Base	Integral epoxy cove
	Ceiling	Painted concrete
Plumbing		Connection for washer
HVAC		Dryer exhaust; ventilated
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		Provide appropriate power for utilities; provide secure plug to prevent confinee access
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type)
Communication	**Tele.**	N/A
	Audio	N/A
	CCTV	Dual monitored, recorded
	CATV	N/A
	Security	Camera (infrared-capable)
Acoustical		N/A
Furnishings, Equipment, and Casework		Washer and dryer; secure units to floor or walls and prevent confinee access to vent
Special Requirements		N/A

3-4 MODULE C: SECURE AREAS – 8 CELL.

Figure 3-14 Floor Plan and Axonometric





MODULE C – SECURE AREA	
ROOM NAME	**AREA**
CELL	**See Appendix-B Programming Worksheet**
CELL	
CELL	
CELL	
CELL	
CELL	
CONTROL ROOM	
DAY ROOM	
SECURED CORRIDOR	
SECURED CORRIDOR	
SEGREGATED CELL	
SEGREGATED CELL	
SEGREGATED CORRIDOR	
SEGREGATED CORRIDOR	
SHOWER	
SHOWER	

Figure 3-15 Cell Data Sheet

Description/Usage		Secure room for confinee.
Ceiling Height		8’-0” minimum
Windows		Exterior clerestory windows; minimum of 3 SF of glazing for natural light
Doors	**Type**	Sliding detention; hollow metal security-rated at segregated corridor, inset/flush to wall when open
	Security/ Hardware	Access controlled
	View Panels/ Kick-Plates	6” x 30” view panel
Finishes	**Walls**	Painted CMU or prefabricated steel (special color required for segregation cells)
	Floor	Epoxy
	Base	Integral epoxy cove
	Ceiling	Painted concrete or prefabricated steel
Plumbing		Connection for toilet and sink; provide pre-mixed cold and tepid water; Muffin Monster in sewer line
HVAC		Ventilation min. of 15 CFM of outside or recirculated filtered air per occupant for cells/rooms, officer stations, and dining areas; separate exhaust system for cells; reference ACA
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		Not allowed
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type); controlled from administrative processing and control room
Communication	**Tele.**	N/A
	Audio	Call button to administrative processing and control room; alarm indicates which cell activated the switch
	CCTV	N/A
	CATV	N/A
	Security	Camera in segregated cells
Acoustical		Minimum STC of 50
Furnishings, Equipment, and Casework		Built-in jail-type bed; built-in jail-type table and chair; stainless-steel integrated toilet and sink; stainless-steel mirror; stainless-steel shelf 12” D x 24” L and 18” above desk: two break-away hooks per cell
Special Requirements		Provide built-in jail-type beds; fiberglass bed with integrated storage. Do not use metal beds. Toilet and vanity unit to be stainless-steel mirror above sink in segregated cells. Porcelain, jail-type toilet and vanity unit preferred in standard cells. No glass mirrors allowed in cells. Ensure surfaces are smooth everywhere. Reference ACA standards.

Figure 3-16 Control Room Data Sheet

Description/Usage		Direct supervision of day room and showers; serves as control center for security cameras and doors throughout facility. Unobstructed views required of day room and shower doors.
Ceiling Height		9’-0”
Windows		One-way security-rated window units to day room with drawer type pass-through window to day room
Doors	**Type**	3’-0” x 7’-0” hollow metal, security-rated
	Security/ Hardware	Keyed lockset; access/door control and annunciator panel
	View Panels/ Kick-Plates	6” x 24” vertical view panels with one-way security-rated glazing for all doors
Finishes	**Walls**	Painted CMU or concrete with impact-resistant gypsum on furring; need sound-abatement material to reduce echo effect
	Floor	Epoxy, tile, or sealed concrete
	Base	Integral epoxy cove; tile or vinyl
	Ceiling	Painted concrete with gypsum ceiling (no drop ceiling)
Plumbing		N/A
HVAC		Air conditioned and heated year round
Fire Protection		Automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets; dedicated 20 A quad receptacle adjacent to work area receptacle for fridge under counter
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type); dimmable
Communication	**Tele.**	Connection to administrative processing
	Data	Connectivity
	CCTV	Security camera monitors
	CATV	N/A
	Security	Counter-mounted security camera monitors
Acoustical		Minimum STC rating of 50
Furnishings, Equipment, and Casework		Wall-mounted fire extinguisher; built-in counter 48” A.F.F; sound wire management features; wall-mounted lockable key box; 20” deep open cabinet with shelving for PPE and board games; 12” x 12” lockable cabinet for medical supplies; 12” x 48” double-tiered lockers for guards; under-counter refrigerator; elevated chair; computer station with 3 monitors; security camera monitors, access/door control annunciator panel
Special Requirements		• Break-away coat hook • PA to day room • Houses lighting controls for all cells

Figure 3-17 Day Room Data Sheet

Description/Usage		Recreational room for confinees.
Ceiling Height		9’-0” minimum
Windows		Exterior wired, tempered-glass clerestory window with minimum 12 SF of glazing
Doors	**Type**	Hollow metal, security-rated to exterior; sliding detention from secure corridor
	Security/ Hardware	Access/door control; electronic with manual release
	View Panels/ Kick-Plates	6” x 30” security-rated view panels in doors; unobstructed guard supervision of day room from control room via one-way security-rated window units; kick plates
Finishes	**Walls**	Painted CMU or concrete
	Floor	Epoxy or sealed concrete
	Base	Integral epoxy cove
	Ceiling	Painted concrete
Plumbing		Connection for electric water cooler
HVAC		Air conditioned and heated year round
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		General-purpose duplex outlets and power and cable connection to TV; all tamper-resistant
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type)
Communication	**Tele.**	Wall-mounted jail-type phone
	Audio	PA from control room; call button into control room
	CCTV	Dual monitored, recorded
	CATV	Wall-mounted TV connection, flush with no protruding edges
	Security	Electric locks; cameras
Acoustical		N/A
Furnishings, Equipment, and Casework		Cardio exercise equipment (in cold climates; one treadmill in 4 cell, two treadmills in 8 or 12 cell); built-in jail-type table and attached chairs (one per cell); molded jail-type couch; wall-mounted TV with protective cage (provide space/recess, wiring/conduits and enclosure cover); wall-mounted jail-type phone; electrical water cooler
Special Requirements		N/A

Figure 3-18 Secure Corridor Data Sheet

Description/Usage		Main circulation point between day room, cells, showers, and control room.
Ceiling Height		9’-0”
Windows		N/A
Doors	**Type**	Sliding detention to cells; hospital-type flush open door to near segregation cell for sight and sound control
	Security/ Hardware	Keyed locksets; kick plate on sight/sound door
	View Panels/ Kick-Plates	Tempered wired security view panels; no view panels in segregation sight and sound door
Finishes	**Walls**	Painted CMU or concrete
	Floor	Epoxy or sealed concrete
	Base	Integral epoxy cove
	Ceiling	Painted concrete
Plumbing		Access panels to plumbing chase areas from corridor; tamper-proof
HVAC		Air conditioned and heated year round
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		120V convenience outlets; tamper-proof
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type)
Communication	**Tele.**	N/A
	Audio	N/A
	CCTV	Dual monitored, recorded
	CATV	N/A
	Security	Camera
Acoustical		Minimum STC of 50 at both walls and doors
Furnishings, Equipment, and Casework		12” x 12” x 12” single-tiered lockers in secure corridor (one per cell)
Special Requirements		Place/locate cells/cell doors to avoid direct views through view panels into day room

Figure 3-19 Shower Data Sheet

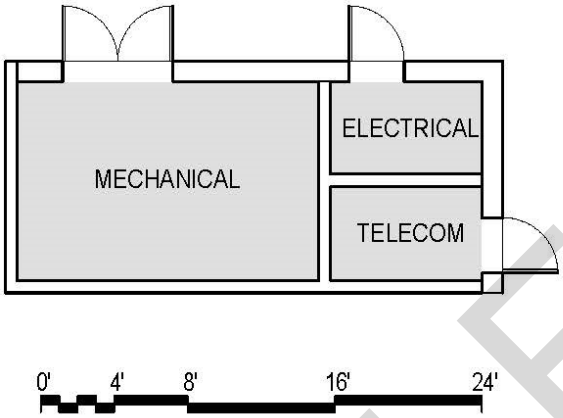
Description/Usage		Shower for confinee daily use. One male and one female per facility (in opposite secure corridors); up to a 12 cell facility. Controlled access to showers.
Ceiling Height		8’-0” minimum
Windows		N/A
Doors	**Type**	Coordinate type with AFSFC and size to meet changing regulations
	Security/ Hardware	Coordinate type with AFSFC and size to meet changing regulations
	View Panels/ Kick-Plates	Coordinate type with AFSFC and size to meet changing regulations
Finishes	**Walls**	Painted CMU; tile in shower
	Floor	Epoxy, slip-resistant floor finish
	Base	Integral epoxy cove
	Ceiling	Painted concrete
Plumbing		Provide water pre-mixed and tepid for shower use at 100–120 °F; floor drain in shower only
HVAC		Ventilated, exhaust
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		N/A
Lighting		Per UFC 3-530-01; surface-mounted security level (jail type), rated for wet location
Communication	**Tele.**	N/A
	Audio	Call button to control room and administrative processing
	CCTV	N/A
	CATV	N/A
	Security	Occupancy motion detector monitored from control room and administrative processing
Acoustical		N/A
Furnishings, Equipment, and Casework		Built-in bench; stainless steel mirror (no glass); two breakaway towel hooks (one for towel, other for clothes)
Special Requirements		Breakaway curtain rod, shower head, and clothes hooks

Figure 3-20 Outdoor Recreational/Exercise Yard Data Sheet

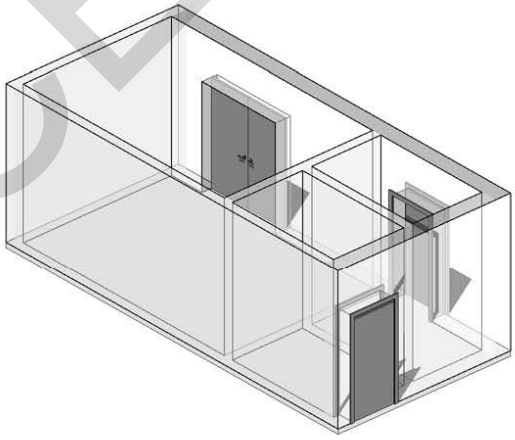
Description/Usage		Exterior secured area connected to the facility used as an exercise yard for confinees and as an emergency refugee area. Minimum size is 500 SF. Half of area is to be covered from the weather. Access directly from day room.
Ceiling Height		12'-0" minimum; nothing on the building can be lower than 12' within the covered yard area
Windows		N/A
Doors	**Type**	Gate for emergency exit; guard supervised/escorted for confinees; door from day room to recreational yard is to be opened electronically from guard room or by key for safety
	Security/ Hardware	N/A
	View Panels/ Kick-Plates	N/A
Finishes	**Walls**	Metal perforated wall minimum 12' high
	Floor	Asphalt or concrete
	Base	N/A
	Ceiling	Provide shaded covered area of at least half the total area
Plumbing		Not required
HVAC		Not required
Fire Protection		Tamper-resistant automatic sprinkler system (see UFC 3-600-01)
Power		Not required
Lighting		Per UFC 3-530-01; HID wall packs
Communication	**Tele.**	None required
	Audio	None required
	CCTV	None required
	CATV	None required
	Security	Security cameras monitored from control room
Acoustical		N/A
Furnishings, Equipment, and Casework		Optional basketball hoop; optional benches
Special Requirements		Place benches 3 to 5 feet away from walls or fences. Ensure basketball backboard is anchored and 6 to 8 feet away from walls or fences. No downspouts or vertical support allowed inside fence to prevent access to the roof. Provide locked double-leaf gate for emergency personnel or fire truck access.

3-5 MODULE D: BUILDING SUPPORT.

Figure 3-21 Floor Plan and Axonometric



MODULE D – SUPPORT AREA ROOM SCHEDULE	
ROOM NAME	**AREA**
ELECTRICAL	**See Appendix-B Programming Worksheets**
MECHANICAL	
TELECOM	



AREA OF MODULE TO BE SIZED PER CLIMATIC AND SYSTEMATIC REQUIREMENTS

Figure 3-22 Building Support Data Sheet

Description/Usage		Space for mechanical, electrical, and telecommunications systems. Three separate rooms with exterior access for civil engineering, mechanical, electrical and telecom. Possibly fire pump room where required.
Ceiling Height		9'-0" minimum
Windows		N/A
Doors	**Type**	Hollow metal 3' x 7' leafs
	Security/ Hardware	Keyed lock set
	View Panels/ Kick-Plates	Kick-plate
Finishes	**Walls**	Painted CMU or concrete
	Floor	Sealed concrete
	Base	Vinyl
	Ceiling	Open to structure for M&E; painted; painted gypsum board for telecom; needs a ceiling as it is conditioned
Plumbing		As needed for HVAC equipment and water heaters, etc.
HVAC		Ventilated; telecom room has dedicated HVAC unit
Fire Protection		Automatic sprinkler system
Power		Specific local UPS in comm room; outlets and service as needed for equipment; general maintenance receptacles for CE service. For telecom: two dedicated quad receptacles per rack; two dedicated duplex outlets on wall; convenience receptacles on each wall
Lighting		Per UFC 3-530-01; weather-rated/cold
Communication	**Tele.**	Main terminal
	Data	Main terminal
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		Minimum STC rating of 50 at mechanical room walls
Furnishings, Equipment, and Casework		Mechanical, electrical, and telecommunication equipment
Special Requirements		Design each system per appropriate UFC. Room sizes may vary per climate and system design. Provide additional weather protection for telecom room door to prevent dust and water intrusion.

CHAPTER 4 TECHNICAL CRITERIA

4-1 GENERAL.

Comply with all applicable UFCs and government-unique criteria for typical design disciplines and building systems, as well as for accessibility, anti-terrorism, security, high-performance and sustainability requirements, security and safety. Use this FC in addition to UFC 1-200-01. This chapter provides specific criteria/requirements for the program and includes references to technical design criteria documents.

4-2 STRUCTURE.

4-2.1 Foundation.

The foundation design and type is site-specific and must be designed based on geotechnical recommendations provided by a licensed geotechnical engineer knowledgeable of the local conditions.

4-2.2 Superstructure.

Construction type must not be less than Type I-A as defined in the IBC. The preferred superstructure is CMU, fully grouted, with concrete roof. Other hardened structures may be considered based on local site requirements. Much of the roof area shall be hardened to control escape attempts.

4-3 EXTERIOR DESIGN.

In general, the building's image, theme, and fixtures must be consistent with the programs offered and the architecture established on base. Reflect the local geographical and cultural environment in the design and comply with AFCFS and installation architectural standards. Provide a visually attractive, safe, and welcoming appearance. Consider grouping high bay spaces together. Do not allow the building massing to dominate or overwhelm surrounding structures.

4-3.1 Entrances/Exit.

Provide a covered entry. The main facility entrance to the sally port serves as a control and transition point.

4-3.2 Doors and Windows.

Natural light must be provided in cells and dayroom areas in sizes/areas indicated in the data sheets. Provide clerestory, wired, tempered-glass windows to allow natural light into the facility. Use hollow metal frames and doors for general-purpose doors. Provide electronic locking for all exterior doors and interior hallway doors. Units shall comply with AT requirements in UFC 4-010-01 and fire protection requirements in UFC 3-600-01.

4-3.3 Exterior Signage.

Provide an attractive, clearly visible sign at the front entrance to show the program visitor hours of operation. Comply with installation standards and UFC 3-120-01. Wording shall be as directed by local command; however, all signs shall include at least the following:

- No weapons or ammunition allowed
- No drugs or other illegal substances allowed

4-4 INTERIOR DESIGN.

Support the function and theme of confinement with finishes (walls, floor, and ceiling). Provide the same sense of safety, security, and professionalism that can be found in comparable commercial facilities.

4-4.1 Interior Construction.

Interior construction must be extremely durable. The use of hollow core wood doors is prohibited. All interior glass must be tempered safety glass. Mirrors must be standard stainless-steel jail-type mirrors; glass mirrors are not allowed. All hardware must be jail-type (i.e., resistant to confinee destruction). Gypsum board for walls shall be impact-resistant type.

Provide counters, casework, and cabinets of high-quality and extremely durable construction. Specify Premium or Custom grade for finishes per *Architectural Woodwork Standards*. All countertops shall be solid surface/solid composite plastics or composite stone or stainless steel. Items and fixtures in the cells and confinee showers and day room must be heavy-duty, non-breakable stainless-steel or fiberglass (jail type).

4-4.2 Finishes.

Finishes shall be highly durable and low maintenance. Acoustical ceiling tiles provide acoustical noise reduction for the administrative, waiting, and visitor areas. The interior design shall be coordinated with *US Air Force Interior Design Standards* and installation design standards. Use low-maintenance, easy-to-clean gloss, semi-gloss, or other coatings; stained concrete, sealed concrete. Minimize the variety of finishes to simplify maintenance and create continuity in this small facility. All interior finishes must comply with UFC 3-600-01.

Segregated cells must be painted pastel pink (for the calming effect; coordinate exact shade with AFSFC).

4-4.3 Window Treatments.

Include window treatments (shading systems) in the administrative and waiting areas not accessible to the confinees. Analyze solar conditions when selecting a window treatment. Dual fabric solar roller shade systems with manual roll chain operation are recommended.

4-4.4 Interior Signage.

Provide stencil-type graphics and interior signage to complement the architectural and finish materials. Provide interior signage as an integral part of the construction contract. Provide interior signage at each room in the public area; no removable signage is to be accessible to confinees. Coordinate with AFSFC and local command for exact wording.

4-5 SERVICES.

See paragraph 4-9 for sustainable design requirements.

4-5.1 Plumbing.

Comply with UFC 3-420-01. Use a Muffin Monster-type grinder pump between floor drains and sewer main for the plumbing system. Showers must receive water pre-mixed and made tepid at a temperature from 100 to 120 °F. Cell sinks must receive pre-mixed tepid water only. Cells shall not have floor drains. Provide heavy-duty, jail-type fixtures only. Provide toilet and vanity unit with pre-mixed cold and tepid water. Plumbing chases must have access for maintenance from the corridor. Segregated cells must have stainless-steel toilets/bubblers; other cells may use porcelain if cost-effective.

4-5.2 Heating, Ventilating, and Air Conditioning (HVAC).

Design the HVAC system to meet the requirements of UFC 3-410-01, UFC 3-410-02, and UFC 3-600-01. Comply with AT requirements in the HVAC system design (see paragraph 4-8). Supply and return air registers and ductwork shall be jail type, with security grills and tamperproof screws. Shower areas shall have localized exhaust fans to prevent accumulation of steam produced by a hot shower with a minimum ten air changes per hour. Provide a minimum of 15 cubic feet per minute (CFM) of outside air per occupant.

4-5.3 Fire Protection and Life Safety.

UFC 1-200-01 shall be utilized to determine the applicable design codes and standards required for the building construction and life safety features of the facility. UFC 3-600-01 provides the specific fire protection features required for the facility, including fire detection, alarm, and fire suppression systems.

Design and installation of a mass notification system shall be in accordance with UFC 4-021-01.

4-5.4 Electrical.

Provide electric service and distribution equipment, wiring receptacles and grounding, interior and exterior lighting and control, security lighting, exit and egress lighting, telephone, communication systems, fire alarm, other health and safety alarms, and intrusion systems in accordance with NFPA 70, UFC 3-520-01, and installation design requirements. Power distribution shall support all equipment, furniture, and systems for

this building. Provide a connection point for a temporary emergency generator to support all life safety and critical security equipment. Provide a self-contained uninterruptible power supply (UPS) for the cell door controls. The location of electrical receptacles shall be coordinated so they are adjacent to data receptacles in areas where data are provided. No outlets (or plumbing faucets) are allowed within the exercise yard area.

Electrical system and all wiring methods must meet current NFPA 70 requirements. All service equipment must be Underwriters Laboratories (UL) listed. No outlets and switches are to be provided in cells. Outlets accessible to confinees must be vandal-proof GFI type.

4-5.4.1 Lighting.

Comply with UFC 3-530-01 for lighting and control systems throughout the facility. Pay particular attention to issues such as glare, heat generation, and impact protection. The fixtures in areas accessible to the confinees shall be jail-type.

4-5.4.2 Communications and Data.

Telephone and data outlets may be independent of each other or combined into a single junction box. If the hard-wired connections can be combined into a single junction box then the cover plate to that junction box must allow for multiple connections. In some unique situations, the cable television (CATV)/internal video connection can also be combined into a single junction box with the appropriate cover plate. Identify the preference for individual or combined telephone/data/video outlets with the functional data sheets in Chapter 3. Coordinate with AFSFC to determine the actual scope of the security system and closed circuit television (CCTV) system. Specify the need for a public address (PA) system and a CCTV system for each individual space. Provide a PA master control in the control room and secondary control in the administrative processing office. Provide all CCTV security monitors in the control room with integral digital video recording (DVR). Fire alarm notification must comply with UFC 3-600-01.

4-5.4.3 Alarm System.

Provide an alarm system to acknowledge unauthorized opening/closing of interior doors and exit doors. Provide a motion detector in the janitor closet and showers to be monitored from the control room. Provide access control and alarms for all confinement areas (excludes IT, mechanical, and telecom rooms), interior doors (including module to module), both sally port doors, and cell doors. All interior doors will have key (mechanical) override capability in case of power loss. All interior doors except the storage room and restroom need electric unlocking to allow the guard to open (buzz in) the door. All doors are considered locked unless electronically or mechanically opened, except the storage room and restroom, which are mechanical only. Audible and panel light alarms shall annunciate if a door is opened without being previously cleared from the panel. Confinee showers and cells shall have a call button alarm terminating in the control room and administrative processing to request opening.

Provide a redundant door control system with master controls in both the control room and administrative processing. Primary control will be in the control room. Provide a switch in administrative processing to disable the control room in case of disturbance.

4-6 SITE DESIGN AND ORGANIZATION.

The site design and all exterior features must comply with the AT standards in UFC 4-020-01 (including standoff and access road requirements) and the local base planning documents. Also provide minimum separation from other structures in accordance with UFC 3-600-01.

4-6.1 Landscaping and Irrigation.

Refer to UFC 3-201-02, the *USAF Landscape Design Guide*, and installation standards. Comply with UFC 1-200-02, UFC 3-210-10, and UFC 4-020-01. Provide a water-efficient irrigation system. Ensure that there are no loose rocks or other objects that can be used as missile material.

4-6.2 Service Drive.

Verify the size of required service vehicles prior to planning the service access areas. Provide a back-up spur for dead-end and service drives that exceed 30 meters (100 feet) in length. Access shall be near the serviced areas: receiving area, garbage dumpster/storage (indoor or outdoor), and mechanical room. Provide a service vehicle apron and consolidate service access when possible. Screen or separate the service area from public use or traffic areas with attractive walls, fences, depressions, berms, and landscaping. Ensure proper drainage if depressions are used. Do not cross outdoor activity areas with service access. Ensure compliance with UFC 4-020-01, particularly for dumpster separation and access control.

4-6.3 General Site Lighting.

Ensure that parking areas and the facility have lighting for safety, evacuation, and security measures. Illuminate the entire perimeter fence of the recreation yard. Comply with UFC 3-530-01 and IESNA *Lighting Handbook*. CCTV cameras may be mounted on selected poles for complete coverage.

4-7 BARRIER-FREE DESIGN.

Refer to UFC 1-200-01 for barrier-free design requirements. Confinees and staff personnel will be considered “able-bodied.” Only areas accessible by visitors will be barrier-free and handicapped-accessible. The sally port, corridor, restroom, waiting area, and visitation area shall comply with the ABA Accessibility Standard for Department of Defense Facilities. Physically challenged confinees will be housed in local civilian facilities.

4-8 ANTITERRORISM.

Refer to UFC 4-020-01 for AT requirements.

4-9 SUSTAINABLE DESIGN.

Meet the requirements of UFC 1-200-02 and achieve green building certification in accordance with the current Air Force Sustainable Design and Development (SDD) Implementing Guidance.

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Use the latest available issuance of the reference.

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APPENDIX B BEST PRACTICES

B-1 U.S. AIR FORCE SECURITY FORCES DYNAMIC PROTOTYPE PROGRAMMING WORKSHEETS.

The Interactive Programming Sheet can be found on the Whole Building Design Guide website: http://www.wbdg.org/references/afbim_tools.php.

Figure B-1 Confinement Facility (4 Cell – Standard)

Confinement Facility (4 Cell - Standard)

MODULE NO.	AREA	NO. OCCUP	SF PER USER	NO. OF ROOMS REQD	INDIVIDUAL ROOM RQRMNTS SF	NET USER REQUIREMENTS SF	NET USER REQUIREMENTS SM	COMMENTS
A	Public Areas							
A.1	Sally Port	2		1	125	125	11.61	1
A.2	Corridor	0		1	100	100	9.29	1
A.3	Administrative Processing	2		1	200	200	18.58	1
A.4	Administrative Storage	0		1	125	125	11.61	1
A.5	Waiting Room	6		1	120	120	11.15	1
A.6	Restroom	1		1	75	75	6.97	1
A.7	Visitation / Training	10		1	175	175	16.26	1
	SUBTOTAL ADMINISTRATION AREA					920	85.47	
B	Semi-Secure Areas							
B.1	Controlled Corridor	0		1	150	150	13.94	1
B.2	Laundry Alcove	0		1	15	15	1.39	1
B.3	Janitor's Closet	0		1	75	75	6.97	1
	SUBTOTAL ARMS RANGE AREA					240	22.30	
C	Secure Areas							
C.1	Control Room	2		1	130	130	12.08	1
C.2	Day Room	4		1	180	180	16.72	1
C.3	Shower	1		2	60	120	11.15	1
C.4	Secure Corridor	0		2	125	250	23.23	1
C.5	Cell	1	80	2	80	160	14.86	1
C.6	Segregated Cell / Corridor	1		2	125	250	23.23	1
	SUBTOTAL TRAINING AREA					1090	101.26	
D	Building Support							
D.1	Mechanical	0		1	150	150	13.94	2
D.2	Electrical	0		1	50	50	4.65	2
D.3	Telecommunications	0		1	50	50	4.65	2
	SUBTOTAL BUILDING SUPPORT AREA					250	23.23	
	TOTAL FACILITY NET FLOOR AREA					2,500.00	232.25	
	NET TO GROSS	20%						3
	TOTAL FACILITY GROSS AREA					3,000	279	
	Exterior Elements							
	Exterior Covered Entry			1	22	22	2	4
	Outdoor Recreational Exercise Yard	8		1	250	250	23	4
	SUBTOTAL EXTERIOR ELEMENTS					272	25	
	TOTAL EXTERIOR FACILITY ELEMENTS					272	25	

COMMENTS:

1 Facilities areas are based upon specific requirements per National Institute of Corrections Jail Design Guide and AFSF

2 Building Support areas may differ per climatic and systematic requirements

3 Net to Gross Area includes circulation and walls; Walls are to be constructed of concrete masonry units or cast-in-place concrete to meet minimum security requirem

4 Exterior Covered Entry and Outdoor Recreational Exercise Yard are covered exterior spaces and are calculated at 1/2 square footage

Figure B-2 Confinement Facility (8 Cell)

Confinement Facility (8 Cell)

MODULE NO.	AREA	NO. OCCUP	SF PER USER	NO. OF ROOMS REQD	INDIVIDUAL ROOM RQRMNTS SF	NET USER REQUIREMENTS SF	NET USER REQUIREMENTS SM	COMMENTS
A	Administration / Visitor Areas							
A.1	Sally Port	2		1	125	125	11.61	1
A.2	Corridor	0		1	100	100	9.29	1
A.3	Administrative Processing	2		1	200	200	18.58	1
A.4	Administrative Storage	0		1	175	175	16.26	1
A.5	Waiting Room	8		1	160	160	14.86	1
A.6	Restroom	1		1	80	80	7.43	1
A.7	Visitation / Training	16		1	300	300	27.87	1
	SUBTOTAL ADMINISTRATION AREA					**1140**	**105.91**	
B	Semi-Secure Areas							
B.1	Controlled Corridor	0		1	200	200	18.58	1
B.2	Laundry Alcove	0		1	15	15	1.39	1
B.3	Janitor's Closet	0		1	80	80	7.43	1
	SUBTOTAL ARMS RANGE AREA					**295**	**27.41**	
C	Secure Areas							
C.1	Control Room	2		1	150	150	13.94	1
C.2	Day Room	8		1	225	225	20.90	1
C.3	Shower	1		2	60	120	11.15	1
C.4	Secure Corridor	0		2	175	350	32.52	1
C.5	Cell	1	80	6	80	480	44.59	1
C.6	Segregated Cell / Corridor	1		2	125	250	23.23	1
	SUBTOTAL TRAINING AREA					**1575**	**146.32**	
D	Building Support							
D.1	Mechanical	0		1	150	150	13.94	2
D.2	Electrical	0		1	50	50	4.65	2
D.3	Telecommunications	0		1	50	50	4.65	2
	SUBTOTAL BUILDING SUPPORT AREA					**250**	**23.23**	
	TOTAL FACILITY NET FLOOR AREA					**3,260.00**	**302.85**	
	NET TO GROSS	20%						3
	TOTAL FACILITY GROSS AREA					**3,912**	**363**	
	Exterior Elements							
	Exterior Covered Entry	0		1	22	22	2	4
	Outdoor Recreational Exercise Yard	8		1	250	250	23	4
	SUBTOTAL EXTERIOR ELEMENTS					**272**	**25**	
	TOTAL EXTERIOR FACILITY ELEMENTS					**272**	**25**	

COMMENTS:

1. Facilities areas are based upon specific requirements per National Institute of Corrections Jail Design Guide and AFSF
2. Building Support areas may differ per climatic and systematic requirements
3. Net to Gross Area includes circulation and walls; Walls are to be constructed of concrete masonry units or cast-in-place concrete to meet minimum security requirem
4. Exterior Covered Entry and Outdoor Recreational Exercise Yard are covered exterior spaces and are calculated at 1/2 square footage

Figure B-3 Confinement Facility (12 Cell - Standard)

Confinement Facility (12 Cell - Standard)

MODULE NO.	AREA	NO. OCCUP	SF PER USER	NO. OF ROOMS REQD	INDIVIDUAL ROOM RQRMNTS SF	NET USER REQUIREMENTS SF	NET USER REQUIREMENTS SM	COMMENTS
A	Public Areas							
A.1	Sally Port	2		1	125	125	11.61	1
A.2	Corridor	0		1	100	100	9.29	1
A.3	Administrative Processing	2	90	1	200	200	18.58	1
A.4	Administrative Storage	0		1	200	200	18.58	1
A.5	Waiting Room	12		1	200	200	18.58	1
A.6	Restroom	1		1	80	80	7.43	1
A.7	Visitation / Training	20		1	375	375	34.84	1
	SUBTOTAL ADMINISTRATION AREA					**1280**	**118.91**	
B	Semi-Secure Areas							
B.1	Controlled Corridor	0		1	200	200	18.58	1
B.2	Laundry Alcove	0		1	15	15	1.39	1
B.3	Janitor's Closet	0		1	80	80	7.43	1
	SUBTOTAL ARMS RANGE AREA					**295**	**27.41**	
C	Secure Areas							
C.1	Control Room	2		1	150	150	13.94	1
C.2	Day Room	12		1	350	350	32.52	1
C.3	Shower	1		2	60	120	11.15	1
C.4	Secure Corridor	0		2	275	550	51.10	1
C.5	Cell	1	80	10	80	800	74.32	1
C.6	Segregated Cell / Corridor	1		2	125	250	23.23	1
	SUBTOTAL TRAINING AREA					**2220**	**206.24**	
D	Building Support							
D.1	Mechanical	0		1	200	200	18.58	2
D.2	Electrical	0		1	60	60	5.57	2
D.3	Telecommunications	0		1	60	60	5.57	2
	SUBTOTAL BUILDING SUPPORT AREA					**320**	**29.73**	
	TOTAL FACILITY NET FLOOR AREA					**4,115.00**	**382.28**	
	NET TO GROSS	20%						3
	TOTAL FACILITY GROSS AREA					**4,938**	**459**	
	Exterior Elements							
E.2	Exterior Covered Entry			1	22	22	2	4
E.3	Outdoor Recreational Exercise Yard	8		1	250	250	23	4
	SUBTOTAL EXTERIOR ELEMENTS					**272**	**25**	
	TOTAL EXTERIOR FACILITY ELEMENTS					**272**	**25**	
	TOTAL GROSS AREA					**5,210**	**484**	

COMMENTS:

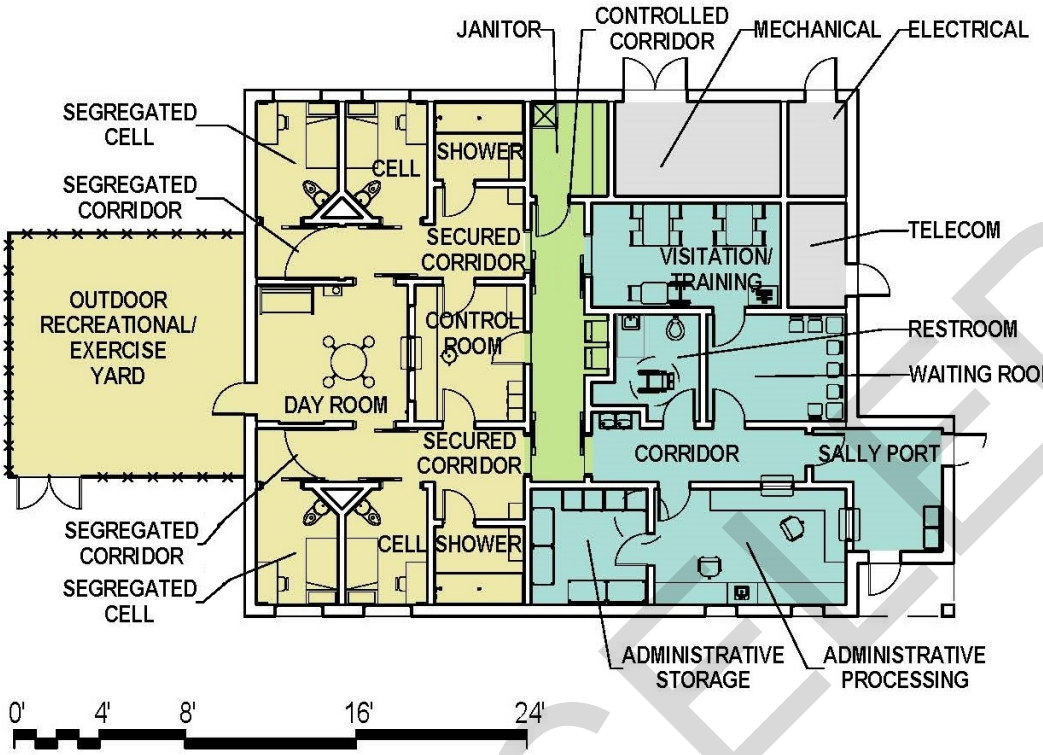
1 Facilities areas are based upon specific requirements per National Institute of Corrections Jail Design Guide and AFSF

2 Building Support areas may differ per climatic and systematic requirements

3 Net to Gross Area includes circulation and walls; Walls are to be constructed of concrete masonry units or cast-in-place concrete to meet minimum security requirem

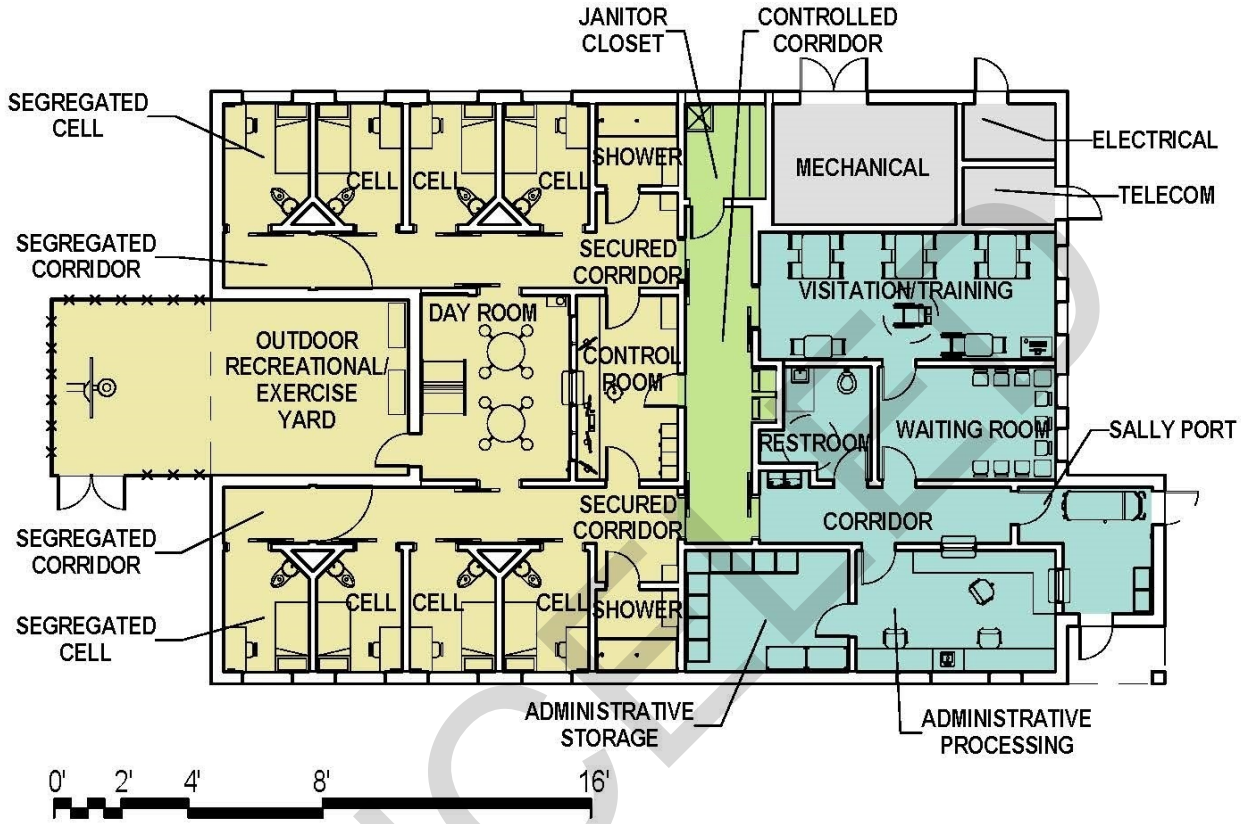
4 Exterior Covered Entry and Outdoor Recreational Exercise Yard are covered exterior spaces and are calculated at 1/2 square footage

Figure B-4 Proof of Concept – 4-Cell Facility



FC - 4 CELL FACILITY ROOM SCHEDULE	
ROOM NAME	**AREA**
ADMINISTRATIVE PROCESSING	**See Appendix-B Programming Worksheet**
ADMINISTRATIVE STORAGE	
CELL	
CELL	
CONTROL ROOM	
CONTROLLED CORRIDOR	
CORRIDOR	
DAY ROOM	
ELECTRICAL	
JANITOR	
MECHANICAL	
RESTROOM	
SALLY PORT	
SECURED CORRIDOR	
SECURED CORRIDOR	
SEGREGATED CELL	
SEGREGATED CELL	
SEGREGATED CORRIDOR	
SEGREGATED CORRIDOR	
SHOWER	
SHOWER	
TELECOM	
VISITATION/ TRAINING	
WAITING ROOM	

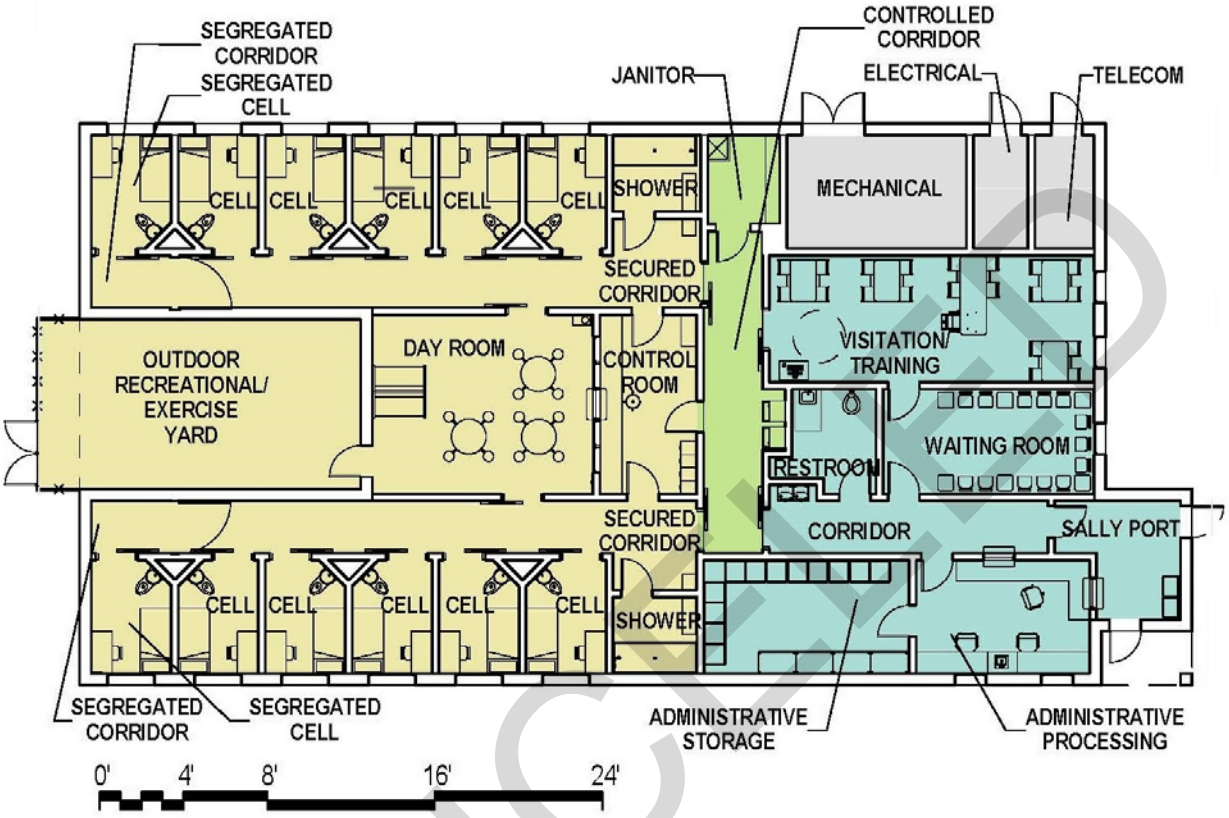
Figure B-5 Proof of Concept - 8-Cell Facility



FC - 8 CELL FACILITY ROOM SCHEDULE	
ROOM NAME	**AREA**
ADMINISTRATIVE PROCESSING	**See Appendix-B Programming Worksheet**
ADMINISTRATIVE STORAGE	
CELL	
CELL	
CELL	
CELL	
CELL	
CELL	
CONTROL ROOM	
CONTROLLED CORRIDOR	
CORRIDOR	
DAY ROOM	
ELECTRICAL	
JANITOR	
MECHANICAL	

FC - 8 CELL FACILITY ROOM SCHEDULE	
ROOM NAME	**AREA**
RESTROOM	
SALLY PORT	**See Appendix-B Programming Worksheet**
SECURED CORRIDOR	
SECURED CORRIDOR	
SEGREGATED CELL	
SEGREGATED CELL	
SEGREGATED CORRIDOR	
SEGREGATED CORRIDOR	
SHOWER	
SHOWER	
TELECOM	
VISITATION/TRAINING	
WAITING ROOM	

Figure B-6 Proof of Concept - 12-Cell Facility



FC - 12 CELL FACILITY ROOM SCHEDULE	
ROOM NAME	**AREA**
ADMINISTRATIVE PROCESSING	**See Appendix-B Programming Worksheet**
ADMINISTRATIVE STORAGE	
CELL	
CELL	
CELL	
CELL	
CELL	
CELL	
CELL	
CELL	
CELL	
CELL	
CONTROL ROOM	
CONTROLLED CORRIDOR	
CORRIDOR	
DAY ROOM	
ELECTRICAL	

FC - 12 CELL FACILITY ROOM SCHEDULE	
ROOM NAME	**AREA**
JANITOR	**See Appendix-B Programming Worksheet**
MECHANICAL	
RESTROOM	
SALLY PORT	
SECURED CORRIDOR	
SECURED CORRIDOR	
SEGREGATED CELL	
SEGREGATED CELL	
SEGREGATED CORRIDOR	
SEGREGATED CORRIDOR	
SHOWER	
SHOWER	
TELECOM	
VISITATION/TRAINING	
WAITING ROOM	

B-2 PDF FLOOR PLANS AND BIM DRAWINGS.

The PDF floor plans and BIM drawings can be found on the Whole Building Design Guide at http://www.wbdg.org/references/afbim_tools.php

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APPENDIX C GLOSSARY

°F	degrees Fahrenheit
A.F.F.	above finished floor
ABA	Architectural Barriers Act
ACA	American Correctional Association
ACI	American Concrete Institute
ADP	Area Development Plan
A-E	architect-engineer
AFCFS	Air Force Corporate Facility Standard
AFH	Air Force Handbook
AFMAN	Air Force Manual
AFSFC	Air Force Security Forces Center
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASTM	American Society of Testing and Materials
AT	antiterrorism
AWI	Architectural Woodwork Institute
AWS	American Welding Society
BIM	Building Information Modeling
CATV	cable television
CCTV	closed-circuit television
CMU	concrete masonry unit

EISA	Energy Independence and Security Act
EM	Engineer Manual
EPACT 2005	Energy Policy Act of 2005
ER	Engineer Regulation
ETL	Engineering Technical Letter
fc	foot-candle
GFI	ground fault circuit interrupter
HVAC	heating, ventilating, air conditioning
IBC	International Building Code
IDP	Installation Development Plan
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IESNA	Illuminating Engineering Society of North America
IFC	International Fuel Gas code
IMC	International Mechanical Code
IPC	International Plumbing Code
LEED	Leadership in Energy & Environmental Design
M&E	mechanical and electrical
MIL-HDBK	Military Handbook
NFPA	National Fire Protection Association
NIPR	Non-Classified Internet Protocol Router network
PA	public address system
PDF	Portable Document Format
PPE	personal protective equipment
SF	Security Forces

STC	Sound Transmission Class
TI	Technical Instruction
UFC	Unified Facilities Criteria
UPS	uninterruptible power supply
USGBC	U.S. Green Building Council
V	volt