STANDARD DESIGN

AIR FORCE
CIVIL ENGINEER SQUADRON
ADMINISTRATION FACILITY

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CHAPTER 1 INTRODUCTION

1.1. STANDARD DESIGN

Standard Designs provide functional and spatial requirements for specific Air Force facility types, and are intended for use in conjunction with DoD Unified Facilities Criteria (UFC), Air Force Corporate Facility Standards, Installation Facility Standards, and other applicable standards.

Standard Designs are living documents that are periodically reviewed, updated, and made available to users by posting on the Whole Building Design Guide. This Standard Design, as well as those for many other Air Force facilities, can be accessed at this web site: http://wbdg.org/ffc/af-afcec/prototypes-standard-designs

This Standard Design is effective upon issuance and is distributed only in electronic media.

1.2 AIR FORCE STANDARD DESIGN POLICY

1.2.A. Required use of Standard Designs

The use of Air Force Corporate Facilities Standards (AFCFS), Installation Facility Standards (IFS) and Standard Designs has been codified in the most recent version of AFI 32-1023, *Designing and Constructing Military Construction Projects* (ref (c)). In compliance with the AFI, all facility designs must conform to the standards outlined and specified in the AFCFS, and if there is an applicable Installation Facilities Standards (IFS) document, the project must conform to those standards as well.

This Standard Design was developed in close coordination with the facility's functional users to determine personnel counts, allowable/authorized space/room sizes, adjacency diagrams between the functional spaces, and the overall facility space requirements. It also addresses special requirements unique to this facility type. Use this Standard Design in conjunction with other AF policy and regulations such as AFI's, and UFC's when programming and designing this facility type.

1.2.B. Integration with Air Force Corporate and Installation Facility Standards

The Air Force Corporate Facilities Standards (AFCFS), is an enterprise-wide program of facility standards establishing an acceptable level of quality and performance for facility design, facility operations and ongoing building maintenance. The AFCFS provides an exciting direction forward; intended to create sustainable installations and cohesive, efficient, High Performance and Sustainable Buildings throughout the Air Force.

Installation Facilities Standards (IFS) are part of the Air Force Corporate Facilities Standards (AFCFS) program to assist bases in implementing facilities standards at the local level. Bases develop and maintain an IFS, which replaces the Architectural Compatibility Plan, as a component plan of the Installation Development Plan (IDP).

Programmers and designers for CES Administration Facilities must use this Standard Design to ensure the specific functional, spatial, and special requirements are met, meet the local requirements established by the IFS, and the overall Air Force requirements set forth in the AFCFS.

1.3 APPLICABILITY

This Standard Design provides requirements for evaluating, planning, programming, and designing a CES Administration Facility that supports the mission, is appropriately sized, flexible, durable, and life-cycle cost efficient. The information in this Standard Design applies to the design of all new construction projects, to include additions, alterations, and renovation projects worldwide. 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.

The facility size is dependent on the number personnel in each administrative department. Use the Interactive Programming Worksheet to assist in these adjustments.

1.3. A. 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 fit into existing spaces. This standard may be modified slightly to accommodate the existing structure. Remove non-structural walls to the greatest extent possible to open up space in the existing facilities to make them more receptive to the placement of the modules. The planner and designer must determine the most efficient means to balance the placement of modules within existing spaces or as a facility addition.

CHAPTER 2 FACILITY DESIGN

2.1 FACILITY DESCRIPTION

2.1.A. Function

The primary function of this CES Administration Facility is to provide a facility that fully supports the mission with a flexible state-of-the-art building. The facility supports administrative tasks for the complex/base and communications technology within standalone facility. The primary areas in the facility are the Administrative office areas. The CES Administration Facilities will consist of, but are not limited to grouped rooms or "Modules". The modules needed for this facility are as follows (included rooms are noted below module title):

Facility Modules

- Installation Flight Module
  - Installation Flight Open Office, Flight Chief Office, Next Gen Storage
- Installation Management Flight Module
  - Housing Open Office, Housing Office, Counseling (x2) Child Play Area, Family Restroom
- Operations Flight Module
  - Operations Flight Open Office, Operations Center Flight Chief
- Engineering Flight Module
  - Engineering Flight Open Office, Record Drawing Vault/Storage, Plotter Area, Engineering Flight Chief, Conference Room
- Command Section Module
  - Command Section Open Office, Conference, Deputy Base Civil Engineer, First Sergeant, Squadron Commander
- Administration Support Module
  - Main Conference Room, Copy Room, Break Room
- EMCS Control Module
  - EMCS Control Office
- Toilet Module
  - Men's Toilet, Women's Toilet, Janitor
- Building Support
  - Mechanical Room, Electrical Room, Fire Pump Room, Communications Room

AFCFS: Consult the Air Force Corporate Facilities Standards (AFCFS) to determine quality standards for this facility group. This standard facility prototype is considered a Group 2 hierarchy.

2.1.B. Typical Users

This facility is operated by active duty, guard, and reserve military personnel as well as civilian contractor representatives of the systems providers as well as USAF Civilian Federal Workforce.

The number of occupants is approximately 110-115 personnel throughout the building. Hours of operation for this facility type are user-driven, typically one full day shift and small second shift.

2.1.C. Related AFMAN 32-1084 Category Code

The related AFMAN 32-1084 Category Codes are as follows: This facility would be governed by Chapter 2, Facility Class 1, Operation and Training, Category Group 14, Operations Facilities, Sub-Category Squadron Operations CATCODE 141753 and Chapter 6, Facility Class 6, Administrative, Category Group 61, Administrative and Administrative Support Spaces.

2.1.D. Resiliency Threshold

Modules of the building that directly support the mission of the CES Administration Facility are required to have backup power to ensure resiliency during a utility power event to ensure un-interrupted functions of the weapons system.

2.2 CRITERIA

APPLICABLE UNIFIED FACILITY CRITERIA

Comply with UFC 1-200-01, DoD Building Code (General Building Requirements). UFC 1-200-01 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, and safety. Use this Standard Design in addition to UFC 1-200-01 and the UFCs and government criteria referenced therein. UFC 1-200-01 references other “Core UFCs” that are applicable to this Standard Design as well as most all DoD facilities.

UFC 1-200-01	DoD Building Code (General Building Requirements)
UFC 1-200-02	High Performance and Sustainability Building Requirements
UFC 1-300-07A	Design Build Technical Requirements
UFC 3-101-01	Architecture
UFC 3-110-03	Roofing

UFC 3-120-01	Design: Sign Standards
UFC 3-120-10	Interior Design
UFC 3-190-06	Protective Coatings and Paints
UFC 3-201-01	Civil Engineering
UFC 3-201-02	Landscape Architecture
UFC 3-210-10	Low Impact Development
UFC 3-220-01	Geotechnical Engineering
UFC 3-230-01	Water Storage, Distribution, and Transmission
UFC 3-240-01	Wastewater Collection
UFC 3-250-01	Pavement Design for Roads and Parking Areas
UFC 3-250-03	Standard Practice Manual for Flexible Pavements
UFC 3-250-04	Standard Practice for Concrete Pavements
UFC 3-260-01	Airfield and Heliport Planning and Design
UFC 3-301-01	Design: Structural Engineering
UFC 3-400-02	Design: Engineering Weather Data
UFC 3-401-01	Mechanical Engineering
UFC 3-410-01	Heating, Ventilation, and Air Conditioning Systems
UFC 3-410-02	Lonworks Direct Digital Control for HVAC and Other Local Building Systems
UFC 3-420-01	Plumbing Systems
UFC 3-450-01	Noise and Vibration Control
UFC 3-501-01	Electrical Engineering
UFC 3-520-01	Interior Electrical Systems,
UFC 3-530-01	Design: Interior and Exterior Lighting and Controls
UFC 3-550-01	Exterior Electrical Power Distribution
UFC 3-570-01	Cathodic Protection
UFC 3-575-01	Lightning and Static Electricity Protection Systems

UFC 3-580-01	Telecommunications Building Cabling Systems Planning and Design
UFC 3-600-01	Fire Protection Engineering for Facilities
UFC 4-010-01	DoD Minimum Antiterrorism Standards for Buildings
UFC 4-020-01	Security Engineering Facilities Planning Manual
UFC 4-021-01	Design and O&M: Mass Notification Systems
UFC 4-010-06	Cybersecurity of Facility-Related Control Systems
UFC 4-022-03	Security Fences and Gates
UFC 4-023-03	Design of Buildings to Resist Progressive Collapse
USGBC LEED-NC	LEED for New Construction and Major Renovations Rating System (U.S. Green Building Council)

2.2.A. Sustainability

Comply with the Federal sustainability requirements as detailed in UFC 1-200-02, High Performance and Sustainable Building Requirements. Determine third-party certification requirements based on Table 1-1 of UFC 1-200-02 and current AF guidance at https://www.wbdg.org/ffc/af-afcec.

2.2.B. Security and Antiterrorism

The facility must meet, UFC 4-020-01 Security Engineering Facilities Planning Manual , UFC 04-010-01 DoD Minimum Antiterrorism Standards for Buildings, Change 1. Internal security measures include controlled and monitored special access hardware, Intrusion Detection Systems and Closed-Circuit Television Systems (CCTV). Exterior security measures will include antiterrorism stand-off distances for parking, controlled vehicular circulation, appropriately located trash enclosures, clear space surrounding the facility, and the primary single point of building entry.

2.3 NOTIONAL SITE

2.3.A. Site Location, Orientation and Adjacencies

The notional site plan diagram demonstrates key site development criteria. It is not a site-specific solution. The information represents the land requirements to construct this facility and includes associated AT standoff 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.

Several factors determine the most appropriate and cost-effective location for a facility. The availability and capacity of required utilities and the mass/scale of the facility relative to adjacent structures and noise issues must be analyzed.

Emphasis must be placed on operation, function, and safety when siting the facility. The preferred location of the facility is determined by the base master plan and is generally located in a specific geographic area or “zone” of the base.

The approximate project area required for the facility is 14 acres, which includes AT/FP standoff and parking (visitor, staff, and government vehicles located behind a secure fenced area at the rear of the complex).

2.3.B. Parking

Parking is recommended to be provided to accommodate 60 percent of the assigned personnel to the facility plus additional parking for government vehicles. Government vehicle parking will be located in designated areas behind the secure fenced area at the rear of the facility, and visitor and staff vehicle parking will be located outside the secure fenced area at the front of the facility.

2.3.C. Vehicular and Pedestrian Circulation

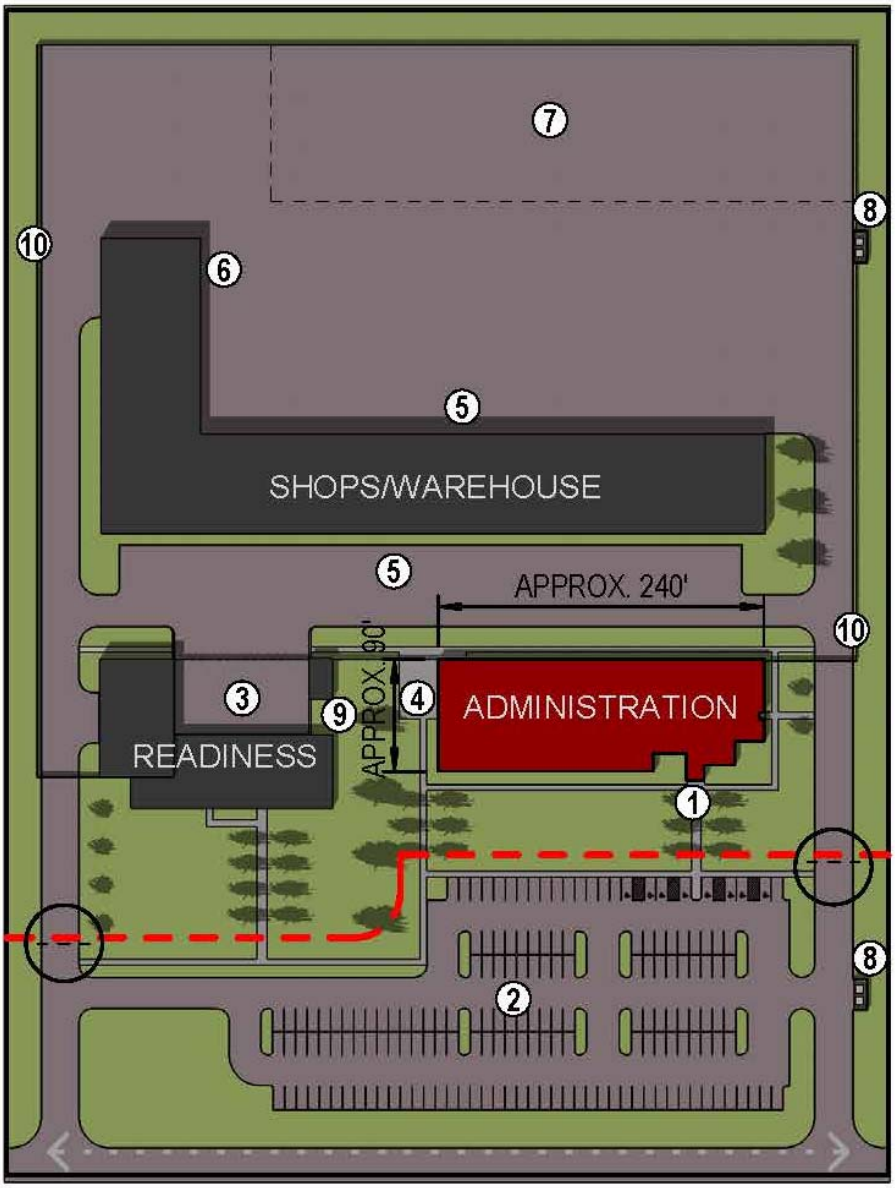
Convenient and safe vehicular access and circulation must be provided for personal vehicles and essential services, including operations, maintenance, deliveries, garbage and recycling collection, and emergency services.

Locate sidewalk networks to provide convenient and safe pedestrian circulation from existing circulation elements of the project site to the new parking areas and doors of the facility. Sidewalk width must accommodate maintenance and emergency services requirements.

Separate the service drives to the facility from parking circulation areas.

2.3.D. Notional Site Plan

See next page for image



NOTES:

① PRIMARY BUILDING ENTRY
② POV PARKING LOT
③ OUTSIDE DEMONSTRATION AREA
④ UTILITY YARD
⑤ GOV LOADING/PARKING ZONE
⑥ LOADING DOCK
⑦ EXTERIOR STORAGE - OPEN & COVERED
⑧ DUMPSTER ENCLOSURE
⑨ EXTERIOR BREAK AREA
⑩ SECURITY FENCE

LEGEND:

CONCEPTUAL AT SETBACK (REFERENCE UFC 4-010-01)

ACCESS STREET

CONTROLLED VEHICLE ACCESS

2.4 BUILDING DESIGN

2.4.A. General Considerations

General considerations of the facility design are centered on:

- The administrative areas of the facility
- The functional relationships between the modules as well as within the modules
- The general personnel flow requirements within the facility.

Daily shift personnel enter the facility through the primary building entrance.

2.4.B. Building Configuration

The building should be configured for future expansion or reconfiguration. The general size of the building is based on the number of staff required for the administrative areas. The size of the following modules affects the support areas of the facility:

- Installation Flight Module
- Installation Management Flight Module
- Operations Flight Module
- Engineering Flight Module
- Command Section Module

2.4.C. Interior/Exterior Relationships

This facility is a mix of administrative and business occupants and a single main point of entry with two entrance/egress points at the primary corridor spine. Visitors and clients will enter the facility through the main entrance vestibule to a small lobby area. All modules are accessed from a linear double-loaded corridor.

Exterior doors (with exception of Building Utility Rooms) will have security hardware for secondary entry capability for staff personnel. Building utility room doors will open on to wide concrete sidewalks connecting to vehicular parking/access areas.

2.4.D. Functional Area Requirements

Facility Modules Adjacency Diagrams & Conceptual Axonometric Layout(s)

The composite diagram(s) represent ways to conceptually assemble the functional areas (modules) into a cohesive whole. Individual modules are represented by different colors.

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 Interactive Programming Sheet located in Chapter 3.

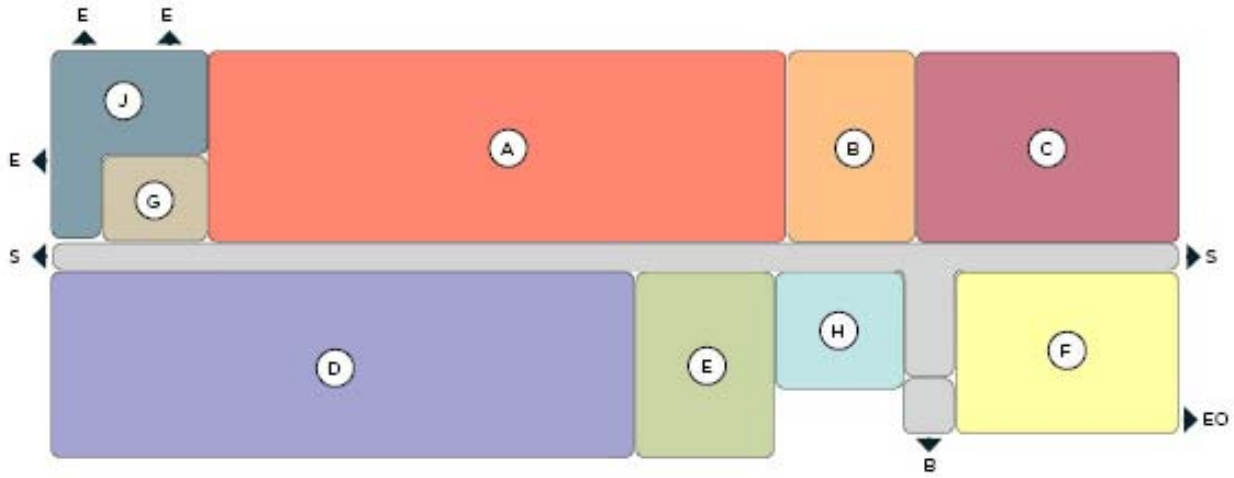
The modules are a grouping of functional spaces and represent “Lego blocks” to be used in a “kit-of-parts” design approach. Use the fixed modules as pre-assembled pieces of the facility “puzzle”. Assemble them to comply with the required adjacencies indicated in the diagrams and module plans.

Modules must be used as shown in this Standard Design to the greatest extent possible, and must not be deconstructed or altered except as indicated herein. The intent of the Standard Design criteria is to avoid manipulation of the composition, functional relationships, adjacencies, and module sizes. Modules contain fixed attributes and must not be changed arbitrarily. Modules may be rotated, flipped, and/or mirrored to accommodate an overall composition or site issue, but this must not be done arbitrarily and should occur only when necessary.

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 that 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 modules adjacencies and must not exceed the authorized project scope.

Functional Adjacency Diagram

The following Functional Adjacency Diagram will form the basis of design for the Standard Design plan for a typical CES Administration Facility. This facility is a mix of administrative and business occupants and a single main point of entry with two entrance/egress points at the primary corridor spine. Visitors and clients will enter the facility through the main entrance vestibule to a small lobby area. All modules are accessed from a linear double-loaded corridor. This Facility Adjacency Diagram and as well as the modules is the Air Force approved Standard Design plan.



(A) INSTALLATION FLIGHT
(B) INSTALLATION MANAGEMENT FLIGHT
(C) OPERATIONS FLIGHT
(D) ENGINEERING FLIGHT
(E) COMMAND SECTION
(F) ADMINISTRATION SUPPORT
(G) EMCS CONTROL
(H) TOILET
(J) BUILDING SUPPORT

PRIMARY ADJACENCY
PROXIMITY
DIRECT ACCESS
DIRECT VIEW

ENCLOSED AREA

ENTRY / EXIT

B - BUILDING ENTRY
E - EQUIPMENT / SERVICE ENTRY
EO - EGRESS ONLY
P - PERSONNEL ENTRY
S - SECONDARY ENTRY

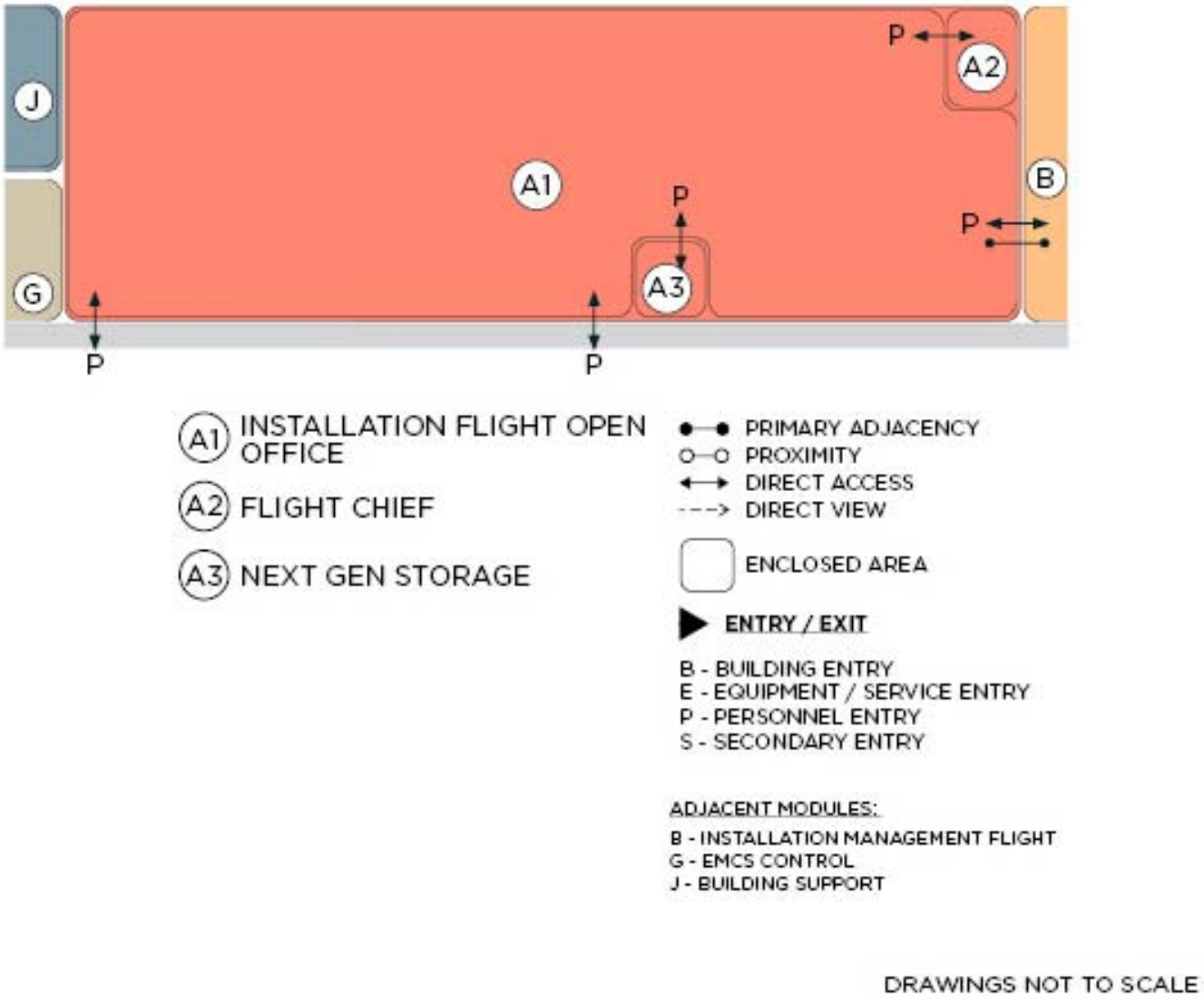
DRAWINGS NOT TO SCALE

MODULE A – INSTALLATION FLIGHT

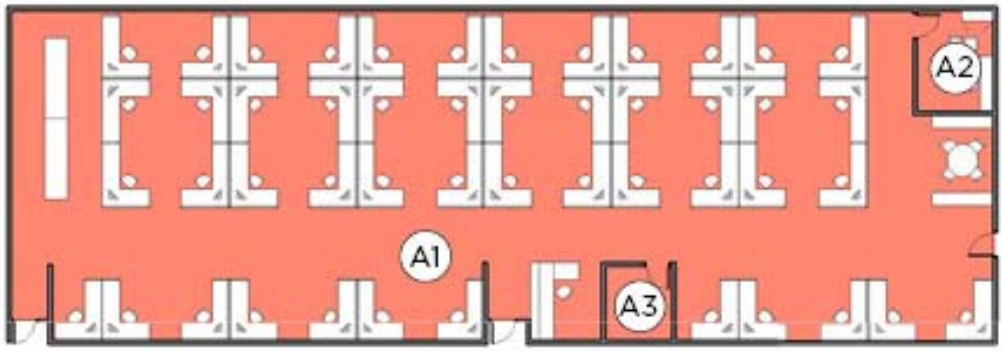
Function and Adjacency

The Installation Flight Module is composed of an Installation Flight Open Office, a Flight Chief Office, and a Next Gen Storage Room. These spaces can be separated by demountable partitions, systems furniture, or metal stud/gypsum board wall construction. This module must be in close proximity to the Installation Management Flight module and is accessible via the main circulation corridor.

Figure 2-A.1 Module A Adjacency Diagram



Installation Flight
Figure 2-A.2 Module A Floor Plan & Axonometric

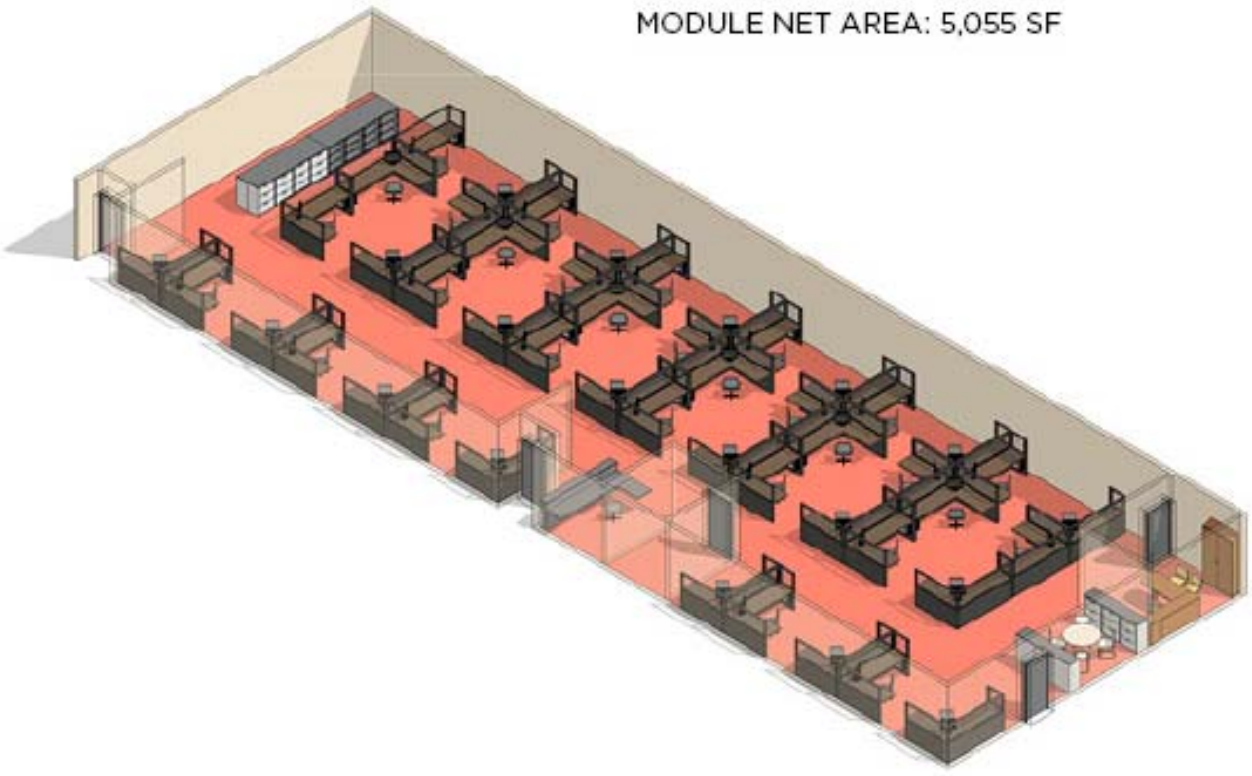


A1 INSTALLATION FLIGHT OPEN OFFICE

A2 FLIGHT CHIEF

A3 NEXT GEN STORAGE

MODULE NET AREA: 5,055 SF



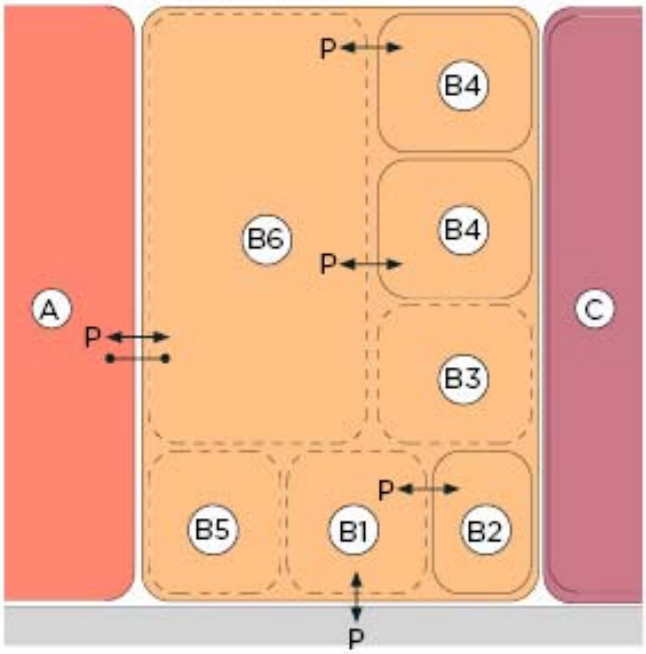
DRAWINGS NOT TO SCALE

MODULE B – INSTALLATION MANAGEMENT FLIGHT

Function and Adjacency

The Installation Management Flight Module is composed of a Reception area, Family Restroom, Child Play Area, Counseling Rooms (two), Housing Office, and Housing Open Office. These spaces can be separated by demountable partitions, systems furniture, or metal stud/gypsum board wall construction. This module is accessible via the main circulation corridor.

Figure 2-B.1 Module B Adjacency Diagram



B1 RECEPTION / WAITING
B2 FAMILY RESTROOM
B3 CHILD PLAY AREA
B4 COUNSELING
B5 HOUSING OFFICE
B6 HOUSING OPEN OFFICE

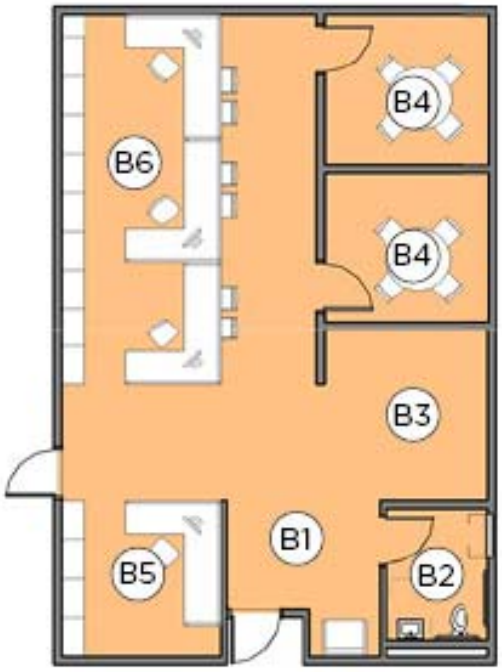
PRIMARY ADJACENCY
PROXIMITY
DIRECT ACCESS
DIRECT VIEW
ENCLOSED AREA
OPEN AREA
ENTRY / EXIT

B - BUILDING ENTRY
E - EQUIPMENT / SERVICE ENTRY
P - PERSONNEL ENTRY
S - SECONDARY ENTRY

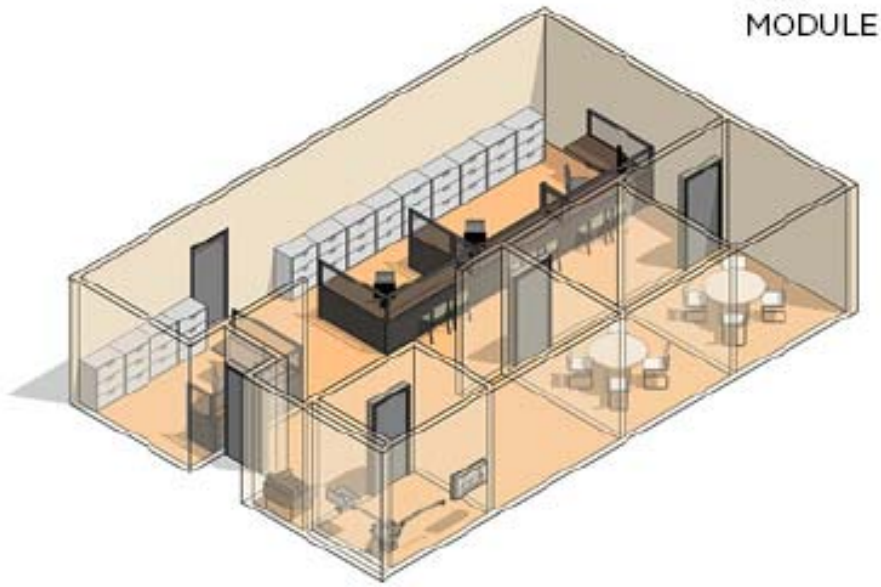
ADJACENT MODULES:
A - INSTALLATION
C - OPERATIONS FLIGHT

DRAWINGS NOT TO SCALE

Installation Management Flight
Figure 2-B.2 Module B Floor Plan & Axonometric



B1 RECEPTION / WAITING
B2 FAMILY RESTROOM
B3 CHILD PLAY AREA
B4 COUNSELING
B5 HOUSING OFFICE
B6 HOUSING OPEN OFFICE
MODULE NET AREA: 915 SF



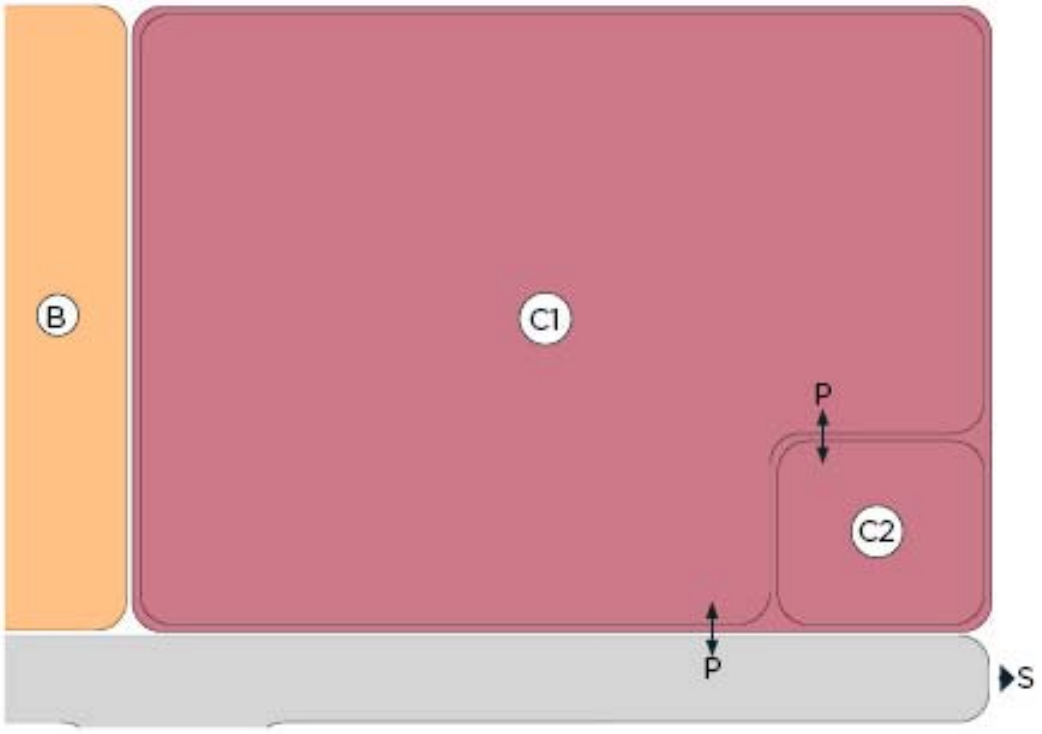
DRAWINGS NOT TO SCALE

MODULE C – OPERATIONS FLIGHT

Function and Adjacency

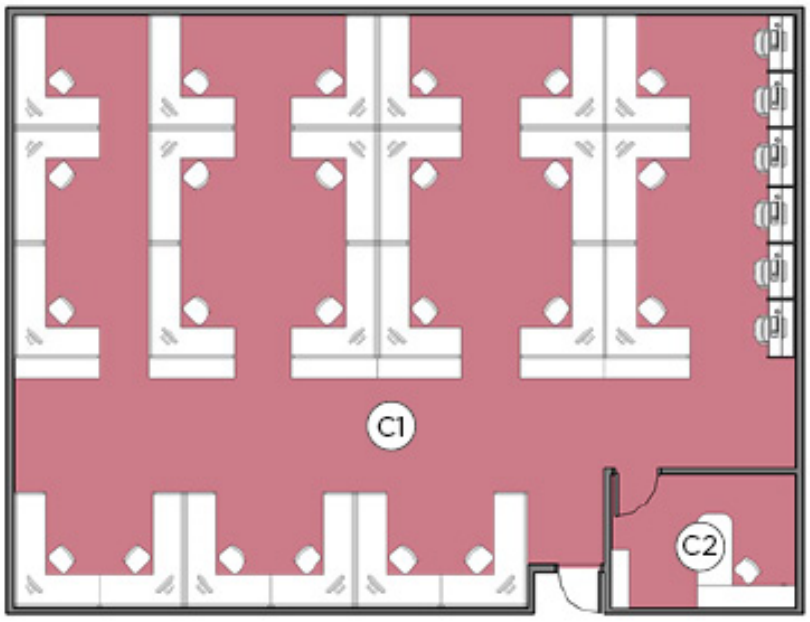
The Operations Flight Module is composed of an Operations Flight Open Office and an Operations Center-Flight Chief Office. These spaces can be separated by demountable partitions, systems furniture, or metal stud/gypsum board wall construction. This module is accessible via the main circulation corridor.

Figure 2-C.1 Module C Adjacency Diagram



DRAWINGS NOT TO SCALE

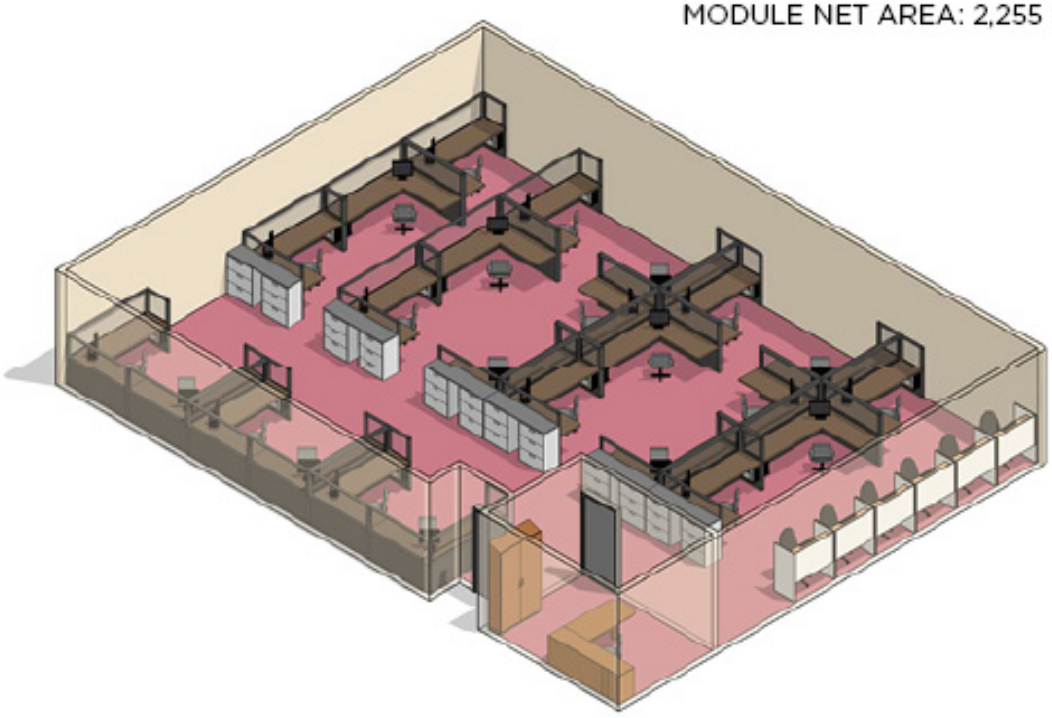
Operations Flight
Figure 2-C.2 Module C Floor Plan & Axonometric



C1 OPERATIONS FLIGHT OPEN OFFICE

C2 FLIGHT CHIEF

MODULE NET AREA: 2,255 SF



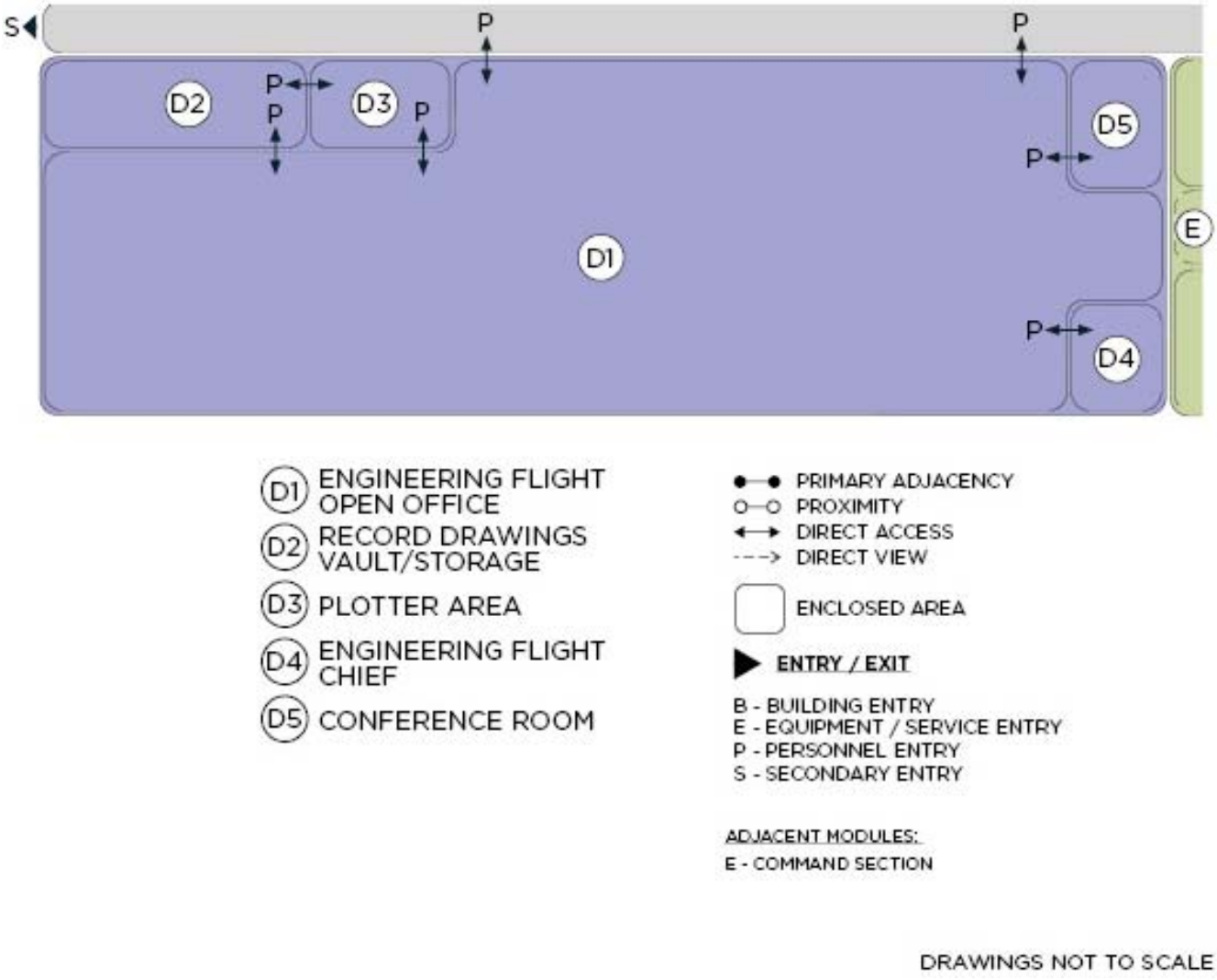
DRAWINGS NOT TO SCALE

MODULE D – ENGINEERING FLIGHT

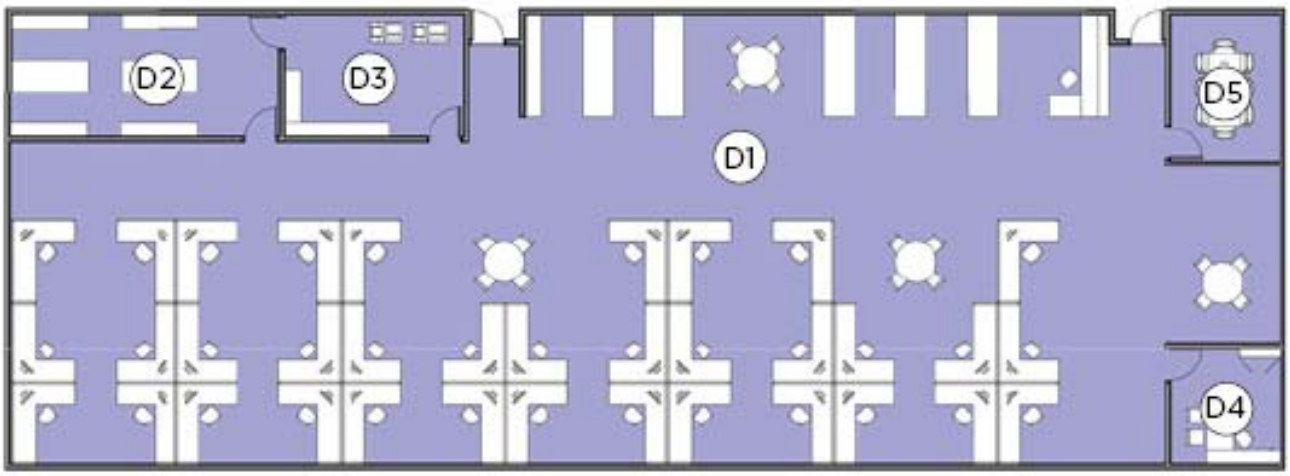
Function and Adjacency

The Engineering Flight Module is composed of an Engineering Flight Open Office, a Record Drawing Vault/Storage Room, a Plotter Area, an Engineering Flight Chief Office, and a Conference Room. Except for the record drawing vault, these spaces can be separated by demountable partitions, systems furniture, or metal stud/gypsum board wall construction. This module is accessible via the main circulation corridor.

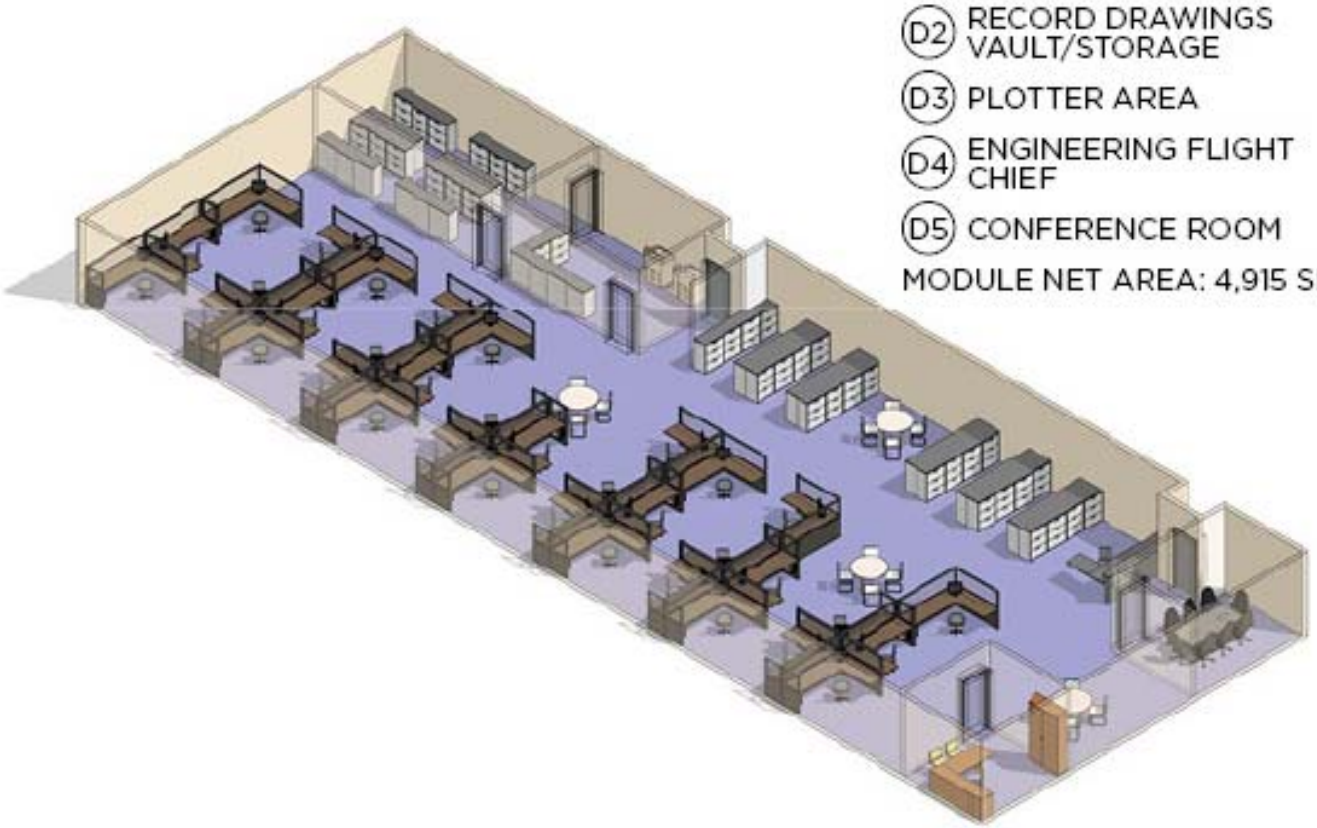
Figure 2-D.1 Module D Adjacency Diagram



Engineering Flight
Figure 2-D.2 Module D Floor Plan & Axonometric



D1 ENGINEERING FLIGHT OPEN OFFICE
D2 RECORD DRAWINGS VAULT/STORAGE
D3 PLOTTER AREA
D4 ENGINEERING FLIGHT CHIEF
D5 CONFERENCE ROOM
MODULE NET AREA: 4,915 SF



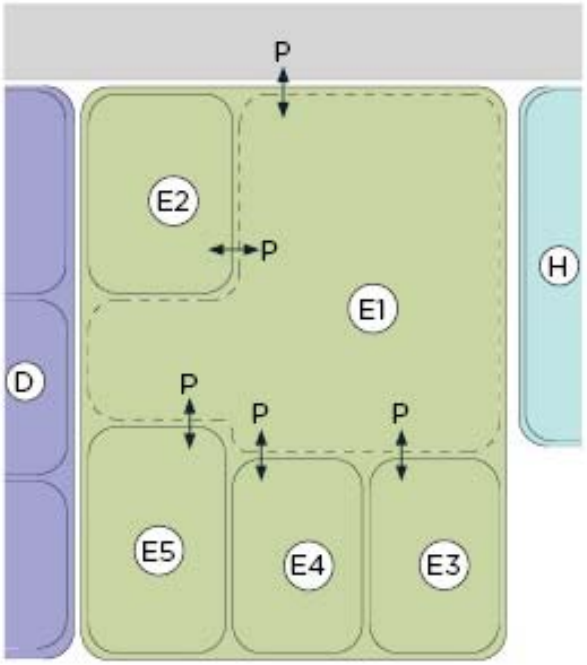
DRAWINGS NOT TO SCALE

MODULE E – COMMAND SECTION

Function and Adjacency

The Command Section Module is composed of a Command Section Open Office with reception area, Conference Room, Deputy Base Civil Engineer Office, First Sergeant Office, and Squadron Commander Office. These spaces can be separated by demountable partitions, systems furniture, or metal stud/gypsum board wall construction. This module is accessible via the main circulation corridor.

Figure 2-E.1 Module E Adjacency Diagram



E1 ADMINISTRATION OPEN OFFICE
E2 CONFERENCE
E3 DEPUTY BASE CIVIL ENGINEER
E4 FIRST SERGEANT
E5 SQUADRON COMMANDER

PRIMARY ADJACENCY
PROXIMITY
DIRECT ACCESS
DIRECT VIEW

ENCLOSED AREA

OPEN AREA

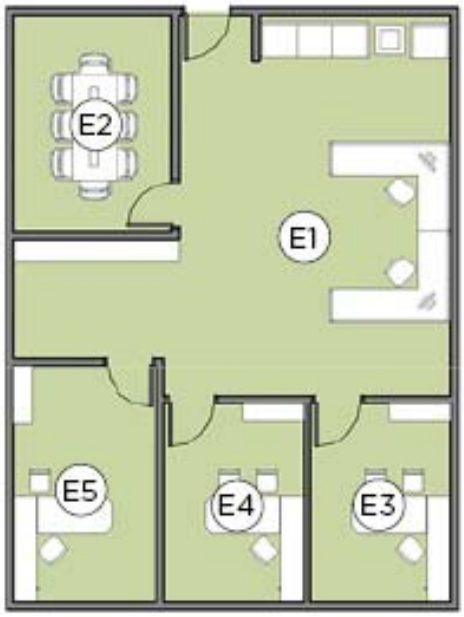
ENTRY / EXIT

B - BUILDING ENTRY
E - EQUIPMENT / SERVICE ENTRY
P - PERSONNEL ENTRY
S - SECONDARY ENTRY

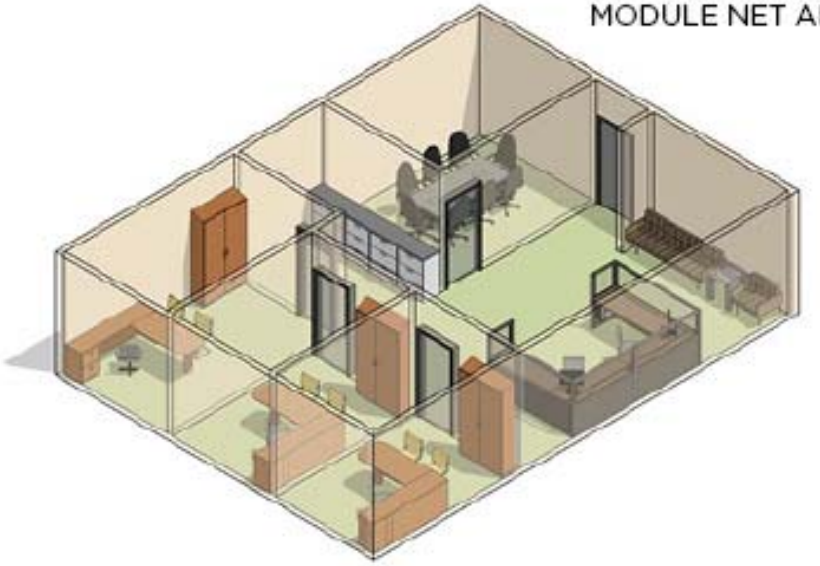
ADJACENT MODULES:
D - ENGINEERING FLIGHT
H - TOILET

DRAWINGS NOT TO SCALE

Command Section
Figure 2-E.2 Module E Floor Plan & Axonometric



E1 ADMINISTRATION OPEN OFFICE
E2 CONFERENCE
E3 DEPUTY BASE CIVIL ENGINEER
E4 FIRST SERGEANT
E5 SQUADRON COMMANDER
MODULE NET AREA: 1,125 SF



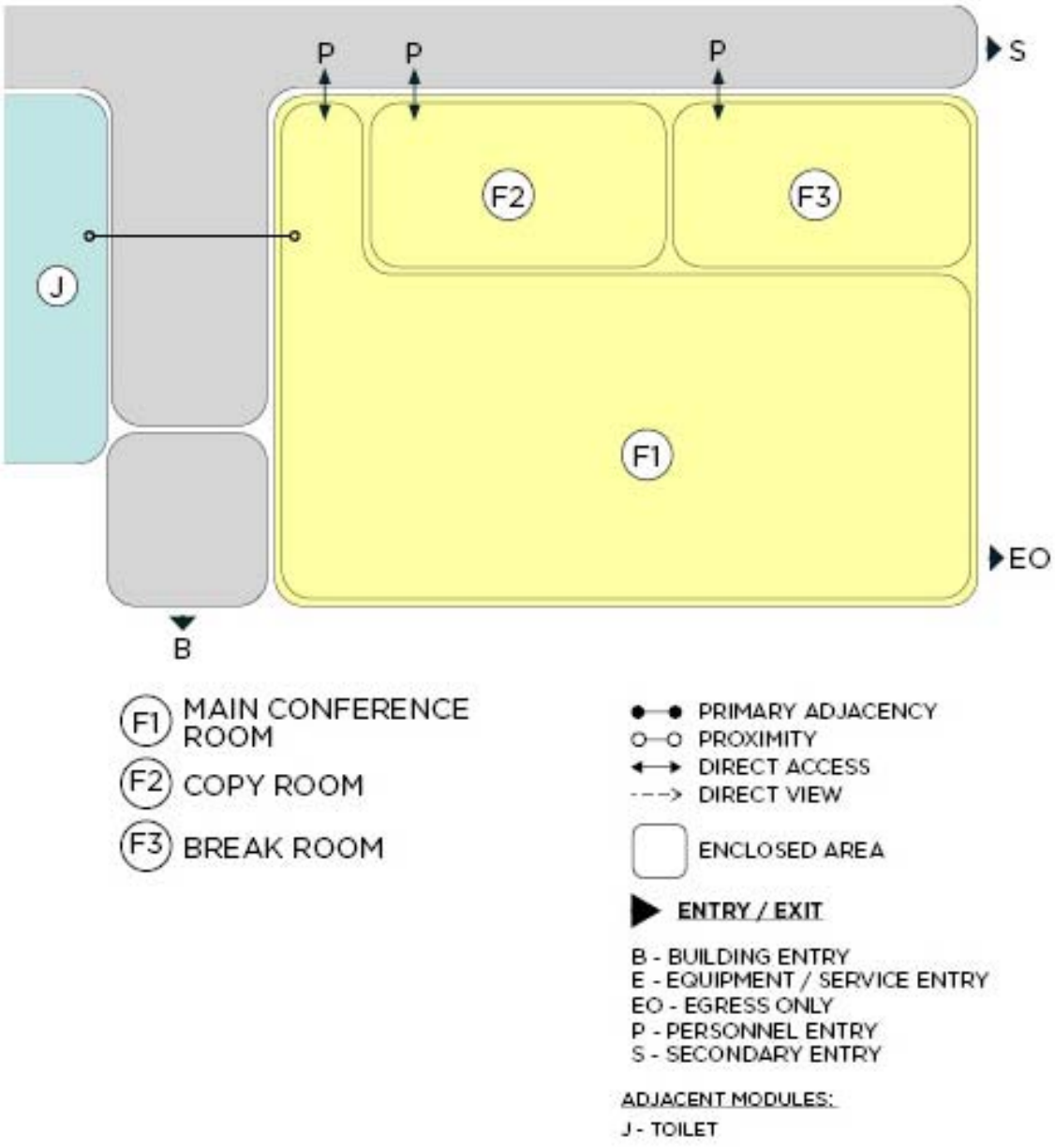
DRAWINGS NOT TO SCALE

MODULE F – ADMINISTRATION SUPPORT

Function and Adjacency

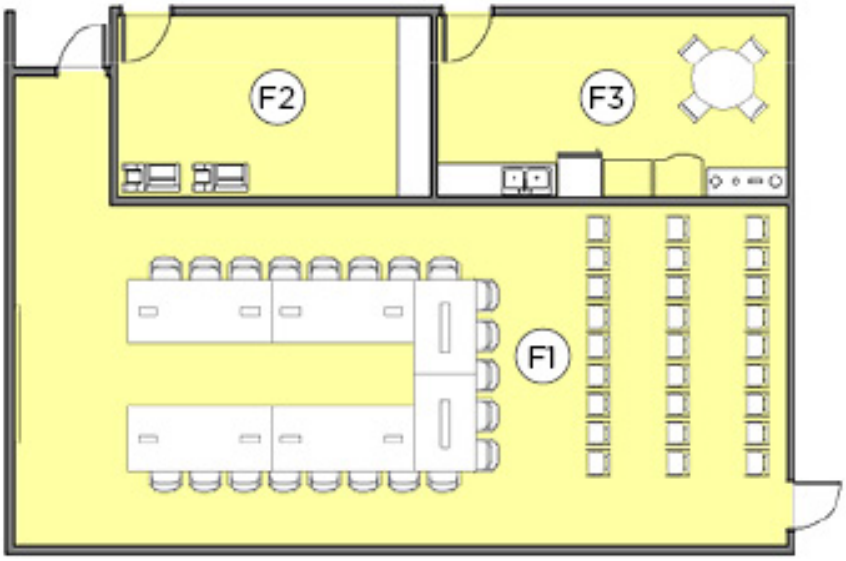
The Administration Support Module consists of a Main Conference Room, Copy Room and a Break Room. The conference room is located near the entrance and the copy and break rooms and is located at the end of the building for convenient access from occupied modules. The break room is required to have a designated recycling area. This module is accessible via the main circulation corridor.

Figure 2-F.1 Module F Adjacency Diagram

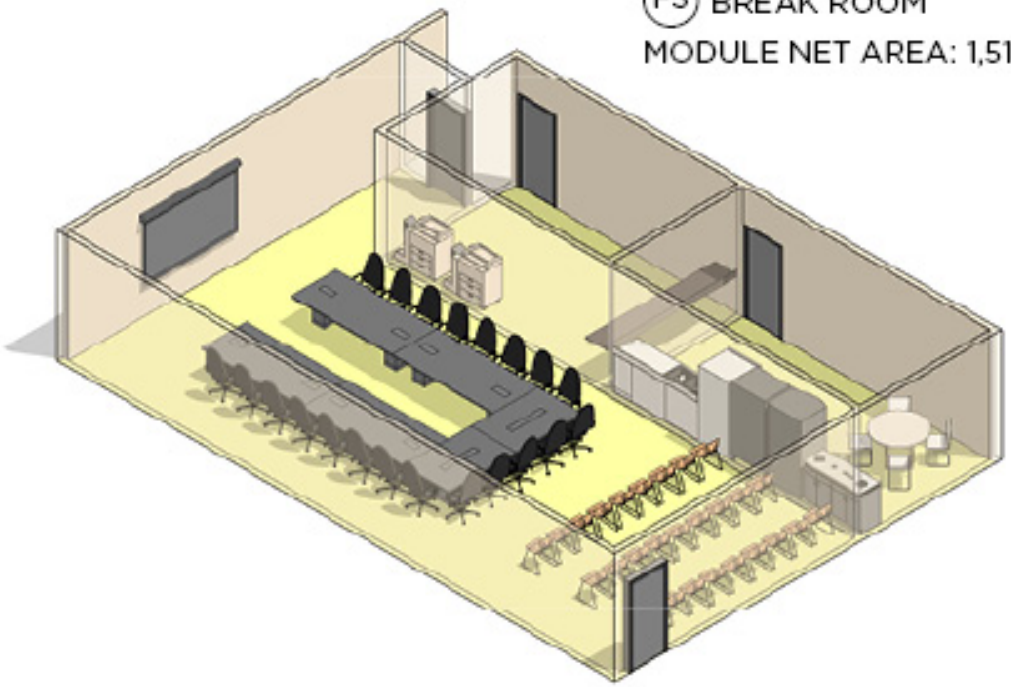


DRAWINGS NOT TO SCALE

Administration Support
Figure 2-F.2 Module F Floor Plan & Axonometric



F1 MAIN CONFERENCE ROOM
F2 COPY ROOM
F3 BREAK ROOM
MODULE NET AREA: 1,515 SF



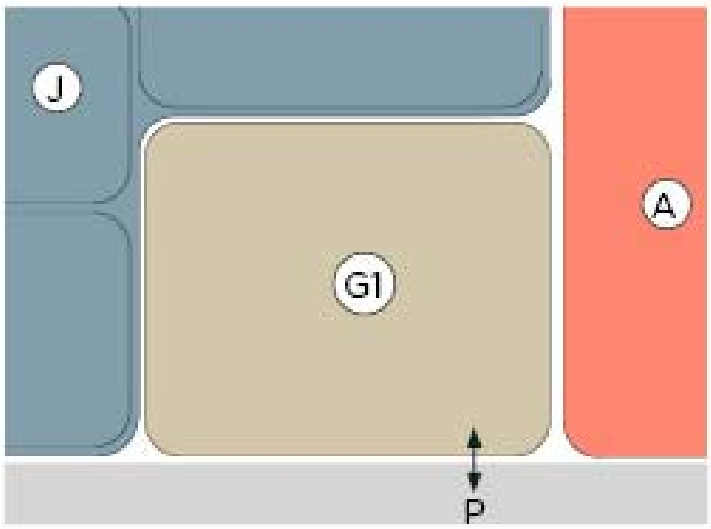
DRAWINGS NOT TO SCALE

MODULE G – EMCS CONTROL

Function and Adjacency

The EMCS Control Module is composed of a single room with two desk/workstations and an IT maintenance area. This area is enclosed with metal stud/gypsum board wall construction. This module is accessible via the main circulation corridor and located near the Installation Flight Module and the Engineering Flight Module.

Figure 2-G.1 Module G Adjacency Diagram



G1 EMCS CONTROL

PRIMARY ADJACENCY
PROXIMITY
DIRECT ACCESS
DIRECT VIEW

ENCLOSED AREA

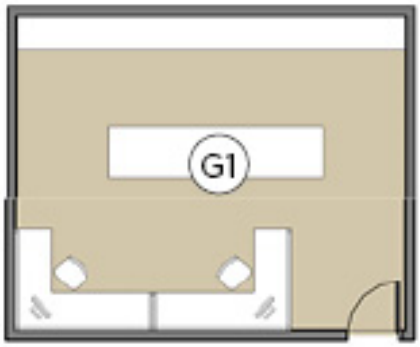
ENTRY / EXIT

B - BUILDING ENTRY
E - EQUIPMENT / SERVICE ENTRY
P - PERSONNEL ENTRY
S - SECONDARY ENTRY

ADJACENT MODULES:
A - INSTALLATION FLIGHT
J - BUILDING SUPPORT

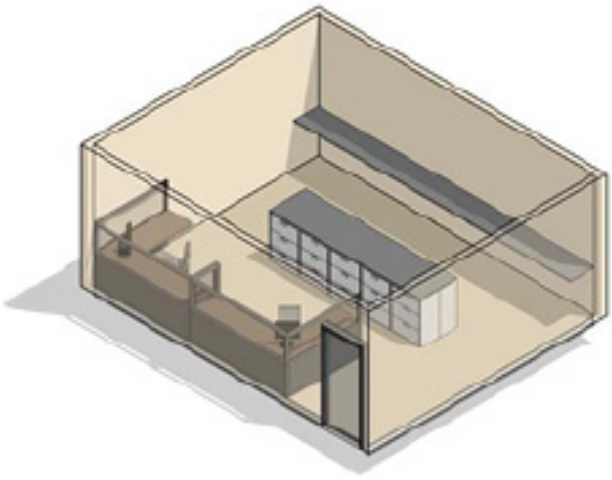
DRAWINGS NOT TO SCALE

EMCS Control
Figure 2-G.2 Module G Floor Plan & Axonometric



G1 EMCS CONTROL

MODULE NET AREA: 400 SF



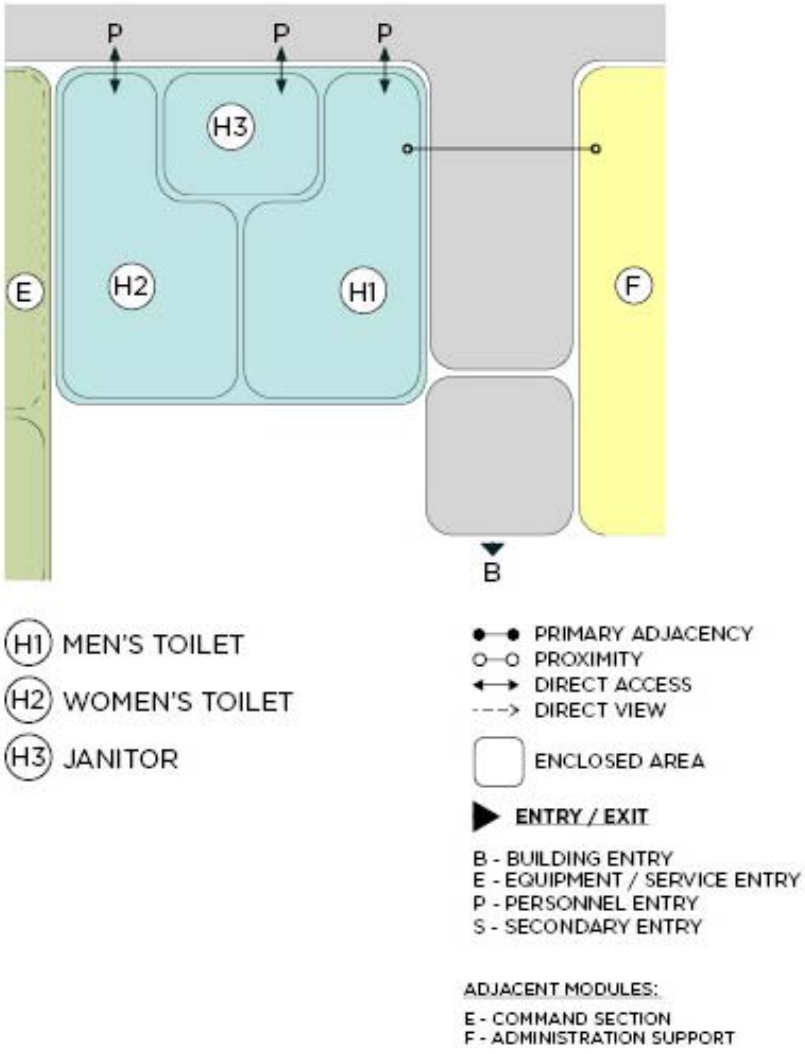
DRAWINGS NOT TO SCALE

MODULE H – TOILET / JANITOR

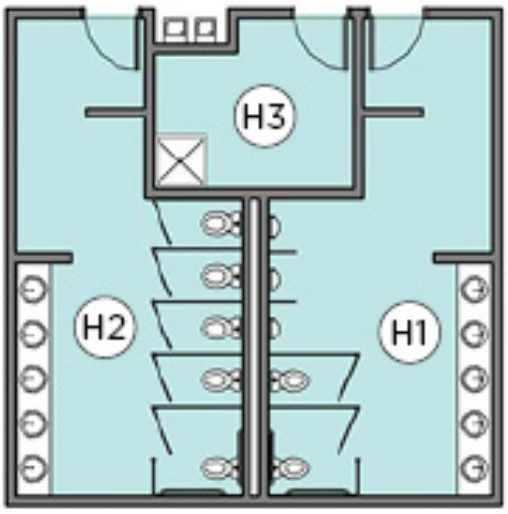
Function and Adjacency

The Toilet Module consists of a Men's and Women's Toilet Room and a Janitor's Closet located within this module. This area will be centrally located and have close proximity to the Administration Support Module. The male toilet room will have two water closets (one ABA), three urinals, and five lavatories (one ABA). The female toilet room will have five water closets (one ABA) and five lavatories (one ABA). The fixture calculations are based on a 50/50 ratio of Male and Female personell. This module will also have two electric water coolers (one ABA) located nearby. The plumbing fixture count in the Standard design plan is approximate and actual plumbing fixture count shall be as required per actual occupancy count and as required in International Plumbing Codes, latest edition, Chapter 29.

Figure 2-H.1 Module H Adjacency Diagram



Toilet / Janitor
Figure 2-H.2 Module H Floor Plan & Axonometric

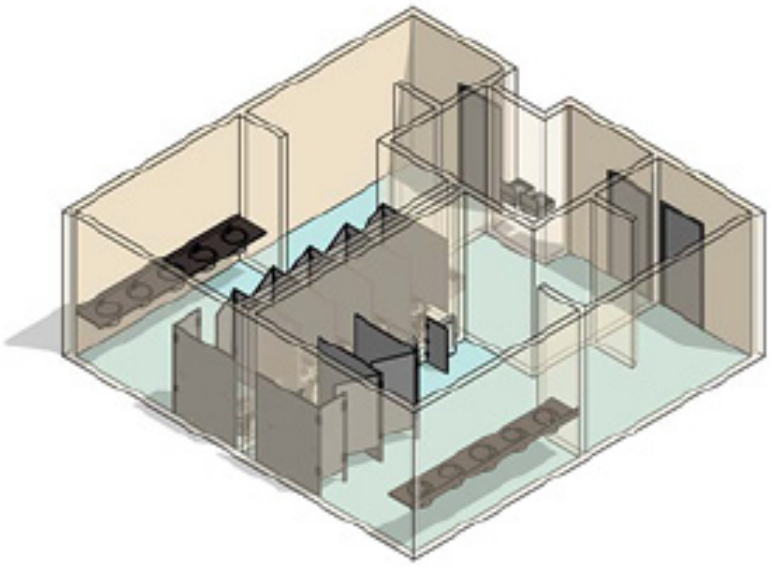


H1 MEN'S TOILET

H2 WOMEN'S TOILET

H3 JANITOR

MODULE NET AREA: 590 SF



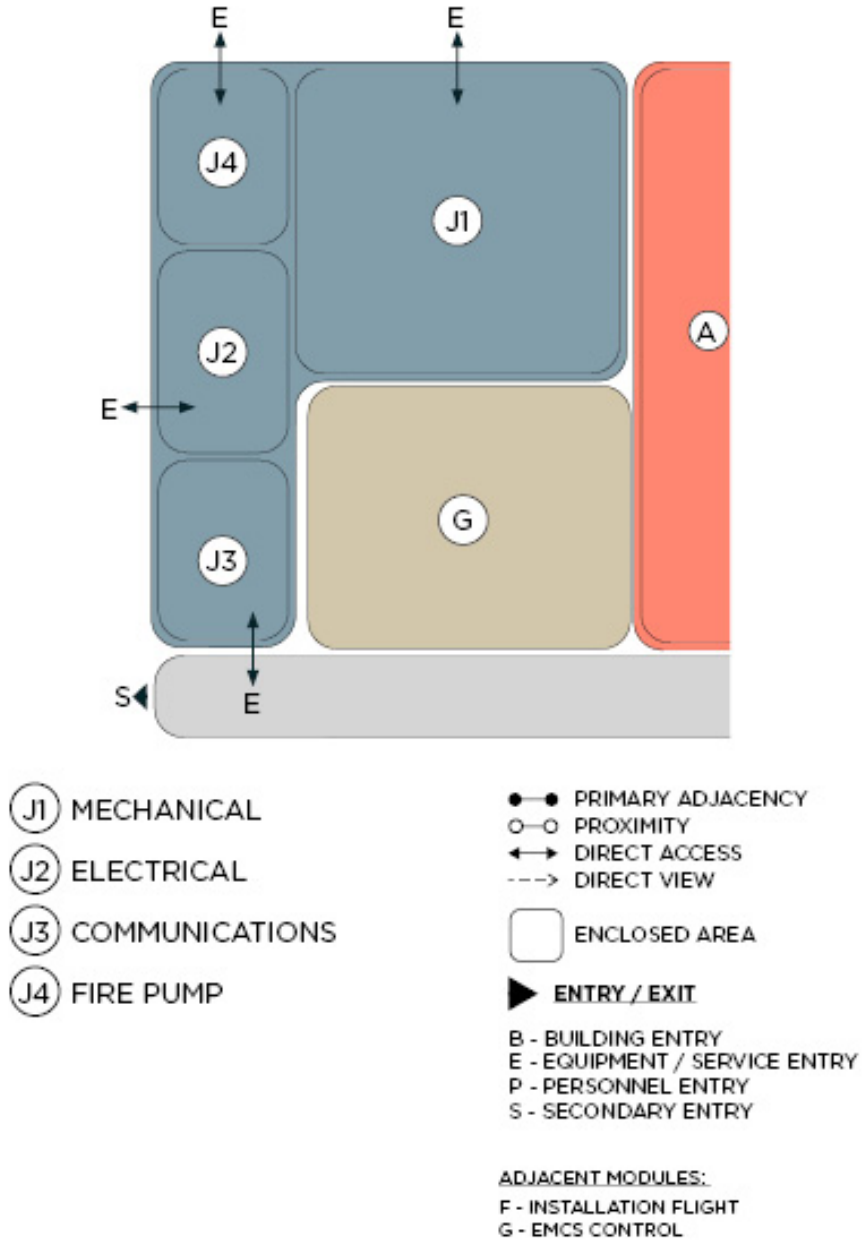
DRAWINGS NOT TO SCALE

MODULE J – BUILDING SUPPORT

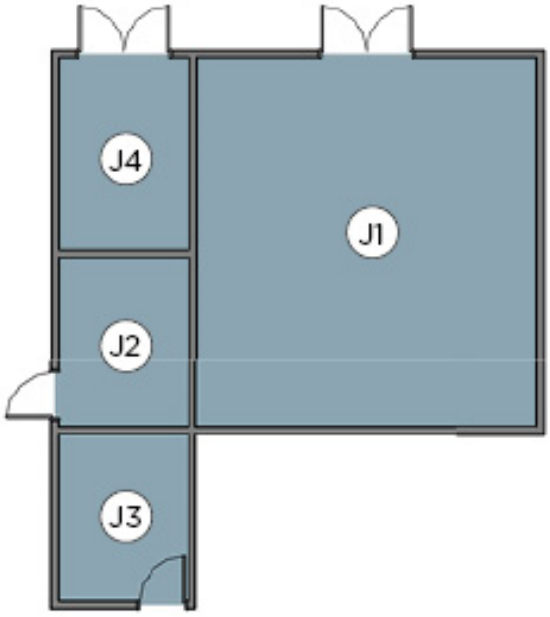
Function and Adjacency

The Building Support Module consists of a Mechanical Room, Electrical Room, Fire Pump Room and Communications Room. All rooms will have exterior access (with exception of the Communication Room, which may have interior access). These modules are to be located on exterior wall adjacent to the utility courtyard and accessible for maintenance.

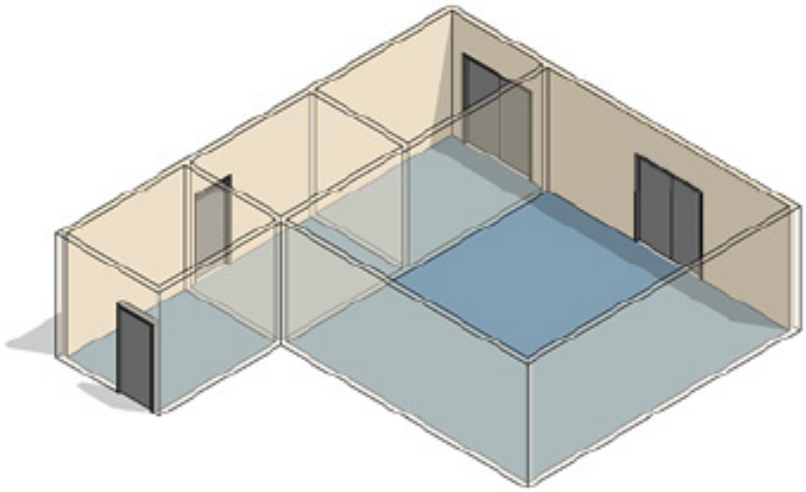
Figure 2-J.1 Module J Adjacency Diagram



Building Support
Figure 2-J.2 Module J Floor Plan & Axonometric



J1 MECHANICAL
J2 ELECTRICAL
J3 COMMUNICATIONS
J4 FIRE PUMP
MODULE NET AREA: 895 SF



DRAWINGS NOT TO SCALE

2.4.E. Room Data Sheets

Specific requirements for each room, space, or area are provided on room data sheets that correspond to their respective color-coded Modules, basis of design Functional Adjacency Diagram as well as the Interactive Programming Worksheet. Information contained on the data sheets defines the functional and physical requirements for each of the spaces within the facility type and are generally minimum requirements and must be modified as required for specific unique situations/scenarios as deem appropriate by the USAF.

Figure 2-A.3.1 Installation Flight Open Office Room Data Sheet		
Index		A1
Description/Usage		This room is an open office space that accommodates approximately 48–50 persons. Space includes areas for Engineer/Program Managers, Next Gen IT, Resources, Real Property, Force Management, Environmental Staff, Element Chiefs, Asset Accountability Section Chief, Environmental Section Chief, Housing Management Section Chief, Secretary/Admin, Team work areas, and Library/File Storage areas.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		48–50 desks/workstations and one secretary/administrative desk, one 4-person conference table and chairs, file storage.
Special Requirements		N/A

Figure 2-A.3.2 Flight Chief Office Room Data Sheet		
Index		A2
Description/Usage		Office with one desk/workstation.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation and two visitor chairs.
Special Requirements		N/A

Figure 2-A.3.3 Next Gen Storage Room Data Sheet		
Index		A3
Description/Usage		Storage room for general storage.
Ceiling Height		9'-0" minimum
Windows		N/A
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates both sides of doors
Finishes	Walls	Demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Storage racks/shelving.
Special Requirements		N/A

Figure 2-B.3.1 Reception Area Room Data Sheet		
Index		B1
Description/Usage		Reception/waiting area with chairs.
Ceiling Height		9'-0" minimum
Windows		N/A
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor and to office Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		2-4 visitor chairs.
Special Requirements		N/A

Figure 2-B.3.2 Family Restroom Data Sheet		
Index		B2
Description/Usage		Family toilet room.
Ceiling Height		8'-0" minimum
Windows		N/A
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Privacy lock set
	View Panels/ Kick Plates	No view panels Kick plates on both sides of door
Finishes	Walls	Gypsum board - painted
	Floor	Porcelain tile or quartz epoxy
	Base	Porcelain tile or quartz epoxy
	Ceiling	Gypsum board - painted
Plumbing		Water closet and lavatory. Floor drain in area.
HVAC		Heating, ventilation, air conditioning. Exhaust directly outdoors.
Fire Protection / Life Safety		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		Per UFC 3-450-01 for noise control
Furnishings / Equipment / Casework		N/A
Special Requirements		Fold-down diaper-changing table.

Figure 2-B.3.3 Child Play Area Room Data Sheet		
Index		B3
Description/Usage		This room is an open child's play area.
Ceiling Height		9'-0" minimum
Windows		Meet daylighting requirements of UFC 1-200-02 with shared window from Housing Open Office
Doors	Type	N/A
	Security/ Hardware	N/A
	View Panels/ Kick Plates	N/A
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		N/A
Special Requirements		N/A

Figure 2-B.3.4 Counseling Room Data Sheet		
Index		B4
Description/Usage		Small counselling rooms (2) each with 4-person table.
Ceiling Height		9'-0" minimum
Windows		No windows required; if located on Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02 if provided.
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of door
Finishes	Walls	Gypsum board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per table
	Data	NIPR and/or SIPR per mission requirements
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One conference table and four chairs in each room (2).
Special Requirements		N/A

Figure 2-B.3.5 Housing Office Room Data Sheet		
Index		B5
Description/Usage		This room is an open office space for supervisor with one desk/workstation and a file storage area.
Ceiling Height		9'-0" minimum
Windows		Meet daylighting requirements of UFC 1-200-02 with shared window from Housing Open Office
Doors	Type	N/A
	Security/ Hardware	N/A
	View Panels/ Kick Plates	N/A
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation.
Special Requirements		N/A

Figure 2-B.3.6 Housing Open Office Room Data Sheet		
Index		B6
Description/Usage		This is an open office space with three desk/workstations with two client chairs each, file storage.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	N/A
	Security/ Hardware	N/A
	View Panels/ Kick Plates	N/A
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Three desk/workstations, each with two visitor chairs.
Special Requirements		N/A

Figure 2-C.3.1 Operations Flight Open Office Room Data Sheet		
Index		C1
Description/Usage		This room is an open office space that accommodates approximately 30 persons. Space includes desks/workstations for Deputy Ops Chief, Secretary/Admin., Ops Flight Superintendent, Heavy Repair Superintendent, Facility Systems Superintendent, Infrastructure Systems Superintendent, Ops Engineering Chief, E6 (3–6 positions), R&O OIC, R&O NCO, Engineers (2–9 positions), Technicians (6 positions), Service Contracts (3–4 positions).
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per workstation
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Minimum 24 desks/workstations and 6 carousel type workstations, filing cabinets.
Special Requirements		N/A

Figure 2-C.3.2 Operations Center-Flight Chief Room Data Sheet		
Index		C2
Description/Usage		Office with one desk/workstation.
Ceiling Height		9'-0" minimum
Windows		If located on Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation.
Special Requirements		N/A

Figure 2-D.3.1 Engineering Flight Open Office Room Data Sheet		
Index		D1
Description/Usage		This room is an open office space that accommodates approximately 36 persons. Space includes areas for SABER Workspaces, Portfolio Optimization, Project Management, Supervisors, Secretary/Administrative, Team work areas, and Library/File Storage area.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		35 desks/workstations, secretary/administrative desk, four 4- person conference tables and chairs, file/Library storage.
Special Requirements		N/A

Figure 2-D.3.2 Record Drawing Vault/Storage Room Data Sheet		
Index		D2
Description/Usage		Record drawing storage room with file storage; access to plotter room. Room to be on exterior wall.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Cipher lock set
	View Panels/ Kick Plates	No view panels Kick plates both sides of doors
Finishes	Walls	CMU - painted
	Floor	Sealed concrete, stained concrete or tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One Per Desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Storage racks/shelving, drawing storage systems.
Special Requirements		N/A

Figure 2-D.3.3 Plotter Area Room Data Sheet		
Index		D3
Description/Usage		Room for plotters and copiers; access to record drawing vault/storage.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Cipher lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of doors
Finishes	Walls	Gypsum board - painted
	Floor	Sealed concrete, stained concrete or tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One for the room
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Work tables and storage.
Special Requirements		N/A

Figure 2-D.3.4 Engineering Flight Chief		
Index		D4
Description/Usage		Office with one desk/workstation.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation and two visitor chairs.
Special Requirements		N/A

Figure 2-D.3.1 Conference Room Data Sheet		
Index		D5
Description/Usage		Conference room with conference table and chairs for 8 persons.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panel, 5" x 20" Kick plates both sides of door
Finishes	Walls	Demountable partitions, gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One for the room
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Conference table with seating for 8; wall-mounted video monitor.
Special Requirements		N/A

Figure 2-E.3.1 Command Section Open Office Room Data Sheet		
Index		E1
Description/Usage		This room is an open office area with a reception area with chairs and two administrative desks/workstations.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Two administrative desks/workstations, visitor chairs and end tables.
Special Requirements		N/A

Figure 2-E.3.2 Conference Room Data Sheet		
Index		E2
Description/Usage		Conference room with conference table and chairs for 8 persons.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panel, 5" x 20" Kick plates both sides of door
Finishes	Walls	Demountable partitions, gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One for the room
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Conference table with seating for 8; wall-mounted video monitor.
Special Requirements		N/A

Figure 2-E.3.3 Deputy Base Civil Engineer Room Data Sheet		
Index		E3
Description/Usage		Office with one desk/workstation.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation; two visitor chairs
Special Requirements		N/A

Figure 2-E.3.4 First Sergeant Room Data Sheet		
Index		E4
Description/Usage		Office with one desk/workstation.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation; two visitor chairs
Special Requirements		N/A

Figure 2-E.3.5 Squadron Commander Room Data Sheet		
Index		E5
Description/Usage		Office with one desk/workstation and two visitor chairs.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" Kick plates both sides of door
Finishes	Walls	Systems furniture, demountable partitions or gyp. board - painted
	Floor	Sealed concrete, stained concrete, tile, or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		One desk/workstation; two visitor chairs.
Special Requirements		N/A

Figure 2-F.3.1 Main Conference Room Data Sheet		
Index		F1
Description/Usage		Main conference room for building for approximately 44 persons, 21 at conference table and 29–30 chairs at walls. This room may also serve as CE Control Center
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Cipher lock set
	View Panels/ Kick Plates	View panel, 5" x 20" on door to corridor Kick plates both sides of door
Finishes	Walls	Gypsum. board - painted
	Floor	Sealed concrete, stained concrete, tile or carpet tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One for the room
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Conference table composed of 6 individual tables with seating for 21; additional chairs for 29–30; wall-mounted video monitor.
Special Requirements		N/A

Figure 2-F.3.2 Copy Room Data Sheet		
Index		F2
Description/Usage		Copy room for building for copy/printer, storage cabinet for supplies.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panel, 5" x 20" on door to corridor Kick plates both sides of door
Finishes	Walls	Gypsum board - painted
	Floor	Sealed concrete, stained concrete, or tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One for the room
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		N/A
Furnishings, Equipment and Casework		N/A
Special Requirements		N/A

Figure 2-F.3.3 Break Room Data Sheet		
Index		F3
Description/Usage		The break room is used as an informal gathering space for personnel during lunch and breaks and as a transitional space before and after shifts.
Ceiling Height		9'-0" minimum
Windows		Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	View panels, 5" x 20" for door to corridor Kick plates both sides of doors
Finishes	Walls	Gypsum board – painted or CMU - painted
	Floor	Sealed concrete, stained concrete or tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		Sink with disposal
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		120V dedicated circuits for coffee maker, microwave, & refrigerator; 120V convenience outlets per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	Determined by operations at location
	Data	NIPR
	CCTV	N/A
	CATV	Flat screen TVs
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Refrigerator, microwave, dishwasher, double sink with disposal; vending machines; wall-mounted bulletin board.
Special Requirements		Recycling Area

Figure 2-G.3.1 EMCS Control Room Data Sheet		
Index		G1
Description/Usage		This room is an open office space that accommodates two EMCS Control personnel. There is also an IT rack server system. Room will have work benches and wall space to fabricate, rebuild, and test equipment and associated EMCS devices.
Ceiling Height		9'-0" minimum
Windows		If located on Exterior – Aluminum framed, insulated fixed, blast resistant; Meeting daylighting requirements of UFC 1-200-02
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates both sides of door
Finishes	Walls	Gyp. board -painted
	Floor	Sealed concrete, stained concrete, tile
	Base	Resilient base or ceramic/porcelain tile
	Ceiling	Acoustical ceiling tile, or open to structure – painted
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One per desk
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		Two workstations, work benches.
Special Requirements		N/A

Figure 2-H.3.1 Men's Toilet Room Data Sheet		
Index		H1
Description/Usage		Men's toilet room
Ceiling Height		8'-0" minimum
Windows		N/A
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Privacy lock set
	View Panels/ Kick Plates	No view panels Kick plates on both sides of door
Finishes	Walls	Gypsum board - painted
	Floor	Porcelain tile or quartz epoxy
	Base	Porcelain tile or quartz epoxy
	Ceiling	Gypsum board - painted
Plumbing		Water closets, urinals, lavatories. Floor drain in restroom area.
HVAC		Heating, ventilation, air conditioning. Exhaust directly outdoors. Combine exhaust with janitor's closet. Provide occupancy sensors in toilet rooms.
Fire Protection / Life Safety		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		Per UFC 3-450-01 for noise control
Furnishings / Equipment / Casework		Fixture count shall be determined by the number of building occupants at maximum load per International Plumbing Code latest edition, Chapter 29; wall hung water closets and urinals, lavatories in counter tops.
Special Requirements		Water-resistant gypsum board throughout.

Figure 2-H.3.2 Women's Toilet Room Data Sheet		
Index		H2
Description/Usage		Women's toilet room
Ceiling Height		8'-0" minimum
Windows		N/A
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Privacy lock set
	View Panels/ Kick Plates	No view panels Kick plates on both sides of door
Finishes	Walls	Gypsum board - painted
	Floor	Porcelain tile or quartz epoxy
	Base	Porcelain tile or quartz epoxy
	Ceiling	Gypsum board - painted
Plumbing		Water closets, lavatories. Floor drain in restroom area.
HVAC		Heating, ventilation, air conditioning. Exhaust directly outdoors. Combine exhaust with janitor's closet. Provide occupancy sensors in toilet rooms.
Fire Protection / Life Safety		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		Per UFC 3-450-01 for noise control
Furnishings / Equipment / Casework		Fixture count shall be determined by the number of building occupants at maximum load per International Plumbing Code latest edition, Chapter 29; wall hung water closets and urinals, lavatories in counter tops.
Special Requirements		Water-resistant gypsum board throughout.

Figure 2-H.3.3 Janitor Room Data Sheet		
Index		H3
Description/Usage		Custodial room for general maintenance for the building.
Ceiling Height		8'-0" minimum
Windows		N/A
Doors	Type	Hollow metal, 3' x 7'
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates both sides of door
Finishes	Walls	Gypsum board - painted, ceramic tile at mop sink
	Floor	Porcelain tile or quartz epoxy
	Base	Porcelain tile or quartz epoxy
	Ceiling	Gypsum board - painted
Plumbing		Mop sink, floor drain
HVAC		Heating, ventilation, air conditioning. Exhaust directly outdoors. Combine exhaust with toilet room's exhaust.
Fire Protection / Life Safety		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical		Per UFC 3-450-01 for noise control
Furnishings / Equipment / Casework		Mop Shelf
Special Requirements		Water-resistant gypsum board throughout.

Figure 2-J.3.1 Mechanical Room Data Sheet		
Index		J1
Description/Usage		Mechanical equipment and service.
Ceiling Height		No ceiling, 9' minimum clearance
Windows		N/A
Doors	Type	Hollow metal, pair 3' x 7', exterior access required
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates each side of door
Finishes	Walls	CMU – painted
	Floor	Sealer hardener
	Base	No base
	Ceiling	Open to structure - painted
Plumbing		Floor drains as required
HVAC		Heated & ventilated
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	One for the room
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		N/A
Special Requirements		N/A

Figure 2-J.3.2 Electrical Room Data Sheet		
Index		J2
Description/Usage		Electrical equipment and service.
Ceiling Height		No ceiling, 9'-0" minimum clearance
Windows		N/A
Doors	Type	Hollow metal, 3' x 7', exterior access required
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates each side of door
Finishes	Walls	Gypsum board – painted or CMU - painted
	Floor	Sealer hardener
	Base	No base
	Ceiling	Open to structure - painted
Plumbing		N/A
HVAC		Heated & ventilated
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		N/A
Furnishings, Equipment and Casework		N/A
Special Requirements		N/A

Figure 2-J.3.3 Fire Pump Room Data Sheet		
Index		J3
Description/Usage		Fire protection equipment and service.
Ceiling Height		No ceiling, 9' minimum clearance
Windows		N/A
Doors	Type	Hollow metal, pair 3' x 7', exterior access required
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates each side of door
Finishes	Walls	CMU – painted
	Floor	Sealer hardener
	Base	No base
	Ceiling	Open to structure - painted
Plumbing		Floor drains as required
HVAC		Heated & ventilated
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		Per UFC 3-450-01 for noise control
Furnishings, Equipment and Casework		N/A
Special Requirements		N/A

Figure 2-J.3.4 IT/Communication Room Data Sheet		
Index		J4
Description/Usage		Communication and UPS service.
Ceiling Height		No ceiling, 9'-0" minimum clearance
Windows		N/A
Doors	Type	Hollow metal, 3' x 7', interior or exterior access is acceptable
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	No view panels Kick plates each side of door
Finishes	Walls	Gypsum board – painted or CMU - painted
	Floor	Sealer hardener
	Base	No base
	Ceiling	Open to structure - painted
Plumbing		N/A
HVAC		Dedicated cooling system in addition to building system cooling
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	NIPR
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		N/A
Furnishings, Equipment and Casework		N/A
Special Requirements		N/A

Figure 2-X-3.1 Entrance & Circulation Room Data Sheet		
Index		
Description/Usage		All areas of general facility circulation. This includes facility entrances, vestibules or corridor spaces. An air lock type entrance vestibule may be required.
Ceiling Height		9'-0" minimum
Windows		No windows required
Doors	Type	Hollow metal, 3' x 7' (egress), pair 3' x7' aluminum framed with full glass (medium stile) at entrance vestibule.
	Security/ Hardware	Keyed lock set
	View Panels/ Kick Plates	Side lites and transom at entrance vestibule doors Kick plates both sides of door
Finishes	Walls	Gypsum board - painted
	Floor	Sealed concrete, stained concrete or tile
	Base	Resilient or tile
	Ceiling	Acoustical Ceiling Tile
Plumbing		N/A
HVAC		Air conditioned; heated; ventilation
Fire Protection		Wet pipe sprinkler system
Power		Per UFC 3-520-01
Lighting		Per UFC 3-530-01
Communication	Tele.	N/A
	Data	N/A
	CCTV	N/A
	CATV	N/A
	Security	N/A
Acoustical Requirements		N/A
Furnishings, Equipment and Casework		N/A
Special Requirements		Walk-off mat at entry vestibule.

2.4.F. Floor Plan

The floor plan below is a composite of the Modules within the approved Functional Adjacency Diagram which is based on the criteria listed within this Standard Design document. The scaled drawing showing conceptual fixture and furniture information is located within the Standard Design drawings.

DRAWINGS NOT TO SCALE

2.4.G. Interactive Programming Worksheet

This tool is provided in two formats. A snapshot of the programming sheet is provided in this section primarily as a reference and reflects the baseline standard facility program based on the criteria as discussed in this document. The additional 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 estimated overall facility size.

MODULE NO.	AREA	NO. OCCUP	SF PER USER	NO. OF ROOMS REQUIRED	INDIVIDUAL ROOM RQRMNTS SF	NET USER REQUIREMENTS SF	NET USER REQUIREMENTS SM	COMMENTS
A	INSTALLATION FLIGHT							
A1	INSTALLATION FLIGHT OPEN OFFICE (INCLUDES RECEPTION)			1	4,855	4,855	451.03	2,4
A2	FLIGHT CHIEF			1	120	120	11.15	
A3	NEXT GEN STORAGE			1	80	80	7.43	6
	SUBTOTAL INSTALLATION FLIGHT AREA					5,055	469.61	
B	INSTALLATION MANAGEMENT FLIGHT							
B1	RECEPTION / WAITING			1	150	150	13.94	6,7
B2	FAMILY RESTROOM			1	60	60	5.57	6,7
B3	CHILD PLAY AREA			1	120	120	11.15	6,7
B4	COUNSELING			2	100	200	18.58	6,7
B5	HOUSING OFFICE			1	125	125	11.61	7
B6	HOUSING OPEN OFFICE			1	260	260	24.15	2,4
	SUBTOTAL INSTALLATION MANAGEMENT FLIGHT AREA					915	85.00	
C	OPERATIONS FLIGHT							
C1	OPERATIONS FLIGHT OPEN OFFICE			1	2,135	2,135	198.34	2
C2	OPERATIONS CENTER - FLIGHT CHIEF			1	120	120		2
	SUBTOTAL OPERATIONS FLIGHT AREA					2,255	209.49	
D	ENGINEERING FLIGHT							
D1	ENGINEERING FLIGHT OPEN OFFICE (INCLUDES RECEPTION)			1	4,175	4,175	387.86	2,4
D2	RECORD DRAWINGS VAULT/STORAGE			1	290	290	26.94	6
D3	PLOTTER AREA			1	190	190	17.65	6
D4	ENGINEERING FLIGHT CHIEF			1	110	110	10.22	
D5	CONFERENCE ROOM			1	150	150	13.94	8
	SUBTOTAL ENGINEERING FLIGHT AREA					4,915	456.60	
E	COMMAND SECTION							
E1	ADMINISTRATION OPEN OFFICE			1	570	570	52.95	2,4
	(INCLUDES RECEPTION & WAITING AREA)							6
E2	CONFERENCE			1	165	165	15.33	8
E3	DEPUTY BASE CIVIL ENGINEER			1	120	120	11.15	2
E4	FIRST SERGEANT			1	120	120	11.15	2
E5	SQUADRON COMMANDER			1	150	150	13.94	2
	SUBTOTAL COMMAND SECTION AREA					1,125	104.51	
F	ADMINISTRATION SUPPORT							
F1	MAIN CONFERENCE ROOM			1	1,065	1,065	98.94	8
F2	COPY ROOM			1	190	190	17.65	6
F3	BREAK ROOM			1	260	260	24.15	5,6
	SUBTOTAL ADMINISTRATION SUPPORT AREA					1,515	140.74	
G	EMCS CONTROL							
G1	EMCS CONTROL			1	400	400	37.16	6
	SUBTOTAL EMCS CONTROL AREA					400	37.16	
H	TOILET							
H1	MEN'S TOILET			1	260	260	24.15	9
H2	WOMEN'S TOILET			1	260	260	24.15	9
H3	JANITOR			1	70	70	6.50	9
	SUBTOTAL TOILET AREA					590	54.81	
J	BUILDING SUPPORT							
J1	MECHANICAL			1	530	530	49.24	10
J2	ELECTRICAL			1	125	125	11.61	10
J3	COMMUNICATIONS			1	125	125	11.61	10
J4	FIRE PUMP			1	115	115	10.68	10
	SUBTOTAL BUILDING SUPPORT AREA					895	83.15	
	FACILITY CORRIDOR			1	1,940	1,940	180.23	
	VESTIBULE			1	115	115	10.68	
	COVERED ENTRY (1/2 SCOPE)			1	50	50	4.65	
	TOTAL FACILITY NET FLOOR AREA					16,770	1,557.93	
	CIRCULATION MULTIPLIER 10.0%					18,445		11
	NET TO GROSS MULTIPLIER 16.0%					21,395		
	TOTAL FACILITY GROSS AREA (ROUNDED)					21,500	1,997	12,13,14

COMMENTS:

1. Facility Personnel Count : 115
2. Reference Tables in Chapter 6 of Air Force Manual 32-1084 for Administration Area sizes.
3. Includes all areas listed in Air Force Manual 32-1084, Chapter 1 and Chapter 6
4. Administration Areas include circulation factor of 10% per Chapter 1 Air Force Manual 32-1084
5. Break Room also serves as Team room, sized per Table 6.3 Break Rooms - max allowed : 16% of 115 occupants mulitplied by 18 sf per occupant. Some space reallocated to copy room.
6. These areas are User Justified Spaces; Special Purpose. SF to be adjusted or verified for each base installation.
7. Family Housing Management Office areas per Table 6.3
8. Team/Meeting/Mini-Conference Room; Conference Room per Table 6.4
9. Male/Female ratio of 50/50 as determined by the subject matter experts. Actual fixture count shall be based on International Plumbing Code, latest edition, Chapter 29 and the UFC 3-420-01, latest edition, Plumbing Systems.
10. Building Support areas are estimates only and actual size is dependent on requirements for climate zone, location, system, etc. (Sq. Ft. not included in Total Facility Net Floor Area as this area is included in Net to Gross Multiplier).
11. Circulation areas are based on Proof of Concept and a circulation multipilier of 10% per Air Force Manual 32-1084, Chapter 1, paragraph 1.10.2.
12. Per AFM 32-1084 Chapter 1, net-to-gross multiplier of up to 25%, used 16% per Standard Design Plan which would include any additional Building Support Areas that may be required. Also included in multipliers are column furr-outs and mechanical/plumbing chases.
13. All area SF's are rounded to the nearest whole 5 number.
14. This worksheet represents a facility rounded up to 21,500 Square Feet.