



This guide provides the basic criteria for organizing, evaluating, planning, programming, designing, and constructing religious facilities on Air Force installations.

The full contents of this website are available for download in [Adobe's](#) Portable Document Format (PDF) for offline viewing and printing.



[Download Religious Facilities Design Guide PDF.](#)

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February 2000

## Chapter 1- Introduction

- A. Purpose
- B. Religious Facility Description
- C. Design Guide Scope and Use
- D. Building Code and Accessibility Considerations

## Chapter 2 - Programming Criteria

- A. General
- B. Planning and Programming Considerations
- C. Religious Facility Functional Relationships

## Chapter 3 -Overall Project Design

- A. General
- B. Site Design
- C. Building Design
- D. Building Systems

## Chapter 4 - Functional Area and Space Guidelines

- A. General
- B. Worship Center
- C. Administration Spaces
- D. Education Spaces
- E. Hospital Chapel

## Chapter 5 - Illustrative Design Information

- A. General Concepts
- B. Sample Site Layout
- C. Sample Floor Plans
- D. Schedules and Tables
- E. Reference Documents



## A. Purpose

This manual provides the basic guidelines for organizing, evaluating, planning, programming, designing, and constructing religious facilities on Air Force installations. These facilities include religious worship spaces, religious educational spaces, and associated administration spaces and collectively express the reverence, peace, and sacred atmosphere of religious worship. Because of their multi-faith use, these facilities must be religiously neutral in design, as well as flexible in their programming. Liturgical furnishings specific to individual faith groups must therefore be moveable and architectural form, images and permanent ornamentation acceptable to all users.

This document is designed for the use of Commanders, Base Civil Engineers, Chaplains and their staff, design architects, engineers, and facility programmers. This document supersedes religious facility guidelines in AF Pamphlet 88-55.

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## B. Religious Facility Description

### 1. Mission

Religious facilities play an important role on Air Force installations located in the United States and overseas. They provide spaces for worship, spiritual care, individual meditation, religious education, and pastoral counseling. Air Force personnel and their families from all faiths, denominations, and traditions, can find spiritual support and guidance and form interpersonal relationships at these facilities.

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## 2. Responsibilities

Religious services and activities are important focal events for base populations. In addition, important life-cycle events such as weddings and memorial services are held there.

The building must also accommodate other uses. These include religious education and study, administrative functions, counseling and contingency exercises. The building is also used for various other community activities of a religious nature such as: choir practice, charitable activities, meetings of interpersonal and expression groups.

These facilities must function well for all uses: for worship in various, but always appropriate, settings; for counseling in comfort and privacy; for the teaching of children and adults in well-designed classrooms; and for the administration of all these activities.

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## C. Design Guide Scope and Use

### 1. Scope

The information in this guide covers both the design of all religious facilities and major and minor renovations of existing facilities. Specifically, it provides guidelines for determining program requirements and for evaluating, planning, and designing all the required spaces. The guide does not provide all the information needed to design and execute a successful project, but should be used in conjunction with other documents and project-specific sources of information. Designers should consult with Major Command representatives to determine applicable additional design standards.

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### 2. Design

This guide consists of the following chapters:

- Chapter Two - Programming, provides the basic guidelines for sizing and configuring a facility and includes diagrams that clarify the desired relationships between spaces. Tables summarizing square footage requirements for each facility function are at the end of the chapter.
- Chapter Three - Overall Project Design, covers information on the concept and preliminary design phases and contains guidelines for organizing, designing, and planning the facility's layout, character, circulation, and systems.
- Chapter Four - Functional Area and Space Guidelines, discusses detailed design requirements for each functional space in a typical

facility. It includes photographs and illustrations that clarify details pertinent to the preparation of preliminary and working drawings.

- Chapter Five - Illustrative Design Information, contains samples of floor plans and other drawings that show how to apply the design principles to a particular project.
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## **D. Building Code and Accessibility Considerations**

### **1. Voluntary Standards**

All Air Force facilities, regardless of location, must comply with applicable DoD and Air Force construction standards and should be in voluntary compliance with commercial building codes. If commercial building codes do not apply to the location, the facility must then comply with the current edition of the Building Officials and Code Administrators code. In the event of a conflict between Air Force standards and local building codes, the more stringent requirements shall apply.

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### **2. Accessibility Standards**

Air Force facilities shall be designed to be accessible to and usable by persons with disabilities, unless it can be clearly documented that only able-bodied military personnel will occupy the facility. Otherwise, new construction and alterations to existing facilities must be designed and constructed to meet the requirements of the [Americans with Disabilities Act Architectural Guidelines](#) (ADAAG) and the [Uniform Federal Accessibility Standards](#) (UFAS), with the most stringent standards applied in the event of conflicts.

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## A. General

### 1. General

Air Force religious facilities provide space for various types of activities. However, the specific program for any facility may vary, depending on the facility type and needs of the installation's religious population. Religious facilities should be geared toward meeting the needs of the majority religious population on the installation but should also provide adequate spaces for members of other organized religions on the installation.

In developing space programs, consider existing facilities and their adequacies and inadequacies in meeting current and future needs.

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### 2. Organizational Participation

Cooperation between people representing all organizations is critical to the success of any project. Starting early in the process, therefore, the organizations and people listed below should be involved in the planning,



programming, and design of any new or renovated religious facility to ensure that all functional requirements are met. They should also approve the functional analysis and concept design in writing to help prevent inadvertent omissions in requirements.

- Chaplain Service personnel.
  - Operations and Maintenance personnel.
  - Installation Civil Engineer.
  - Installation Communications Squadron/Director of Information Management.
  - Installation Safety Officer.
  - Installation Fire Chief.
  - Installation Security Police.
- 

## **B. Planning and Programming Considerations**

### **1. Size of Facility**

The size of the facility will vary depending on the size of the Air Force base. Two sizes of chapels are covered in this guide; small and large. Small bases should have one small chapel, medium sized bases should have one large chapel, and large bases should have an appropriate mix of small and large chapels.

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### **2. Facility Layout**

The various programmed spaces can be grouped into three areas with similar functions: the worship center, the administrative spaces, and the educational spaces.

The worship center spaces should dominate the image of the facility, these spaces are primarily religious in nature and must meet specific requirements to accommodate the interdenominational uses of the facility. Care must be taken to avoid using fixed architecture associated with particular religious groups. Moveable objects associated with specific religious services should be used instead.

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### **3. Religious Terminology**

Specific religious terms have been used to describe some of the spaces within the worship center. The following definitions are provided to ensure a generic understanding of these spaces:

The **Narthex** is a public gathering space used by people prior to attending services held in either the sanctuary or the multi-faith worship center.

The **Sanctuary** is the primary space used for traditional religious worship services and consists of two distinct areas: the **Chancel** and the **Nave**. The Chancel contains such elements as a baptistry, a choir loft, the altar, and a podium and the religious service is conducted there. The Nave is where the congregation sits to view the service.

The **Multi-Faith Worship Center** is used for less conventional religious services that require open space for the congregation.

The **Blessed Sacrament Room** is a small, intimate worship space where personal services for individual members of the congregation are held.

The **Sacristy** is a room where the chaplain prepares for services in the sanctuary. Storage is provided for religious articles to be used by chaplains from the different religious faiths.

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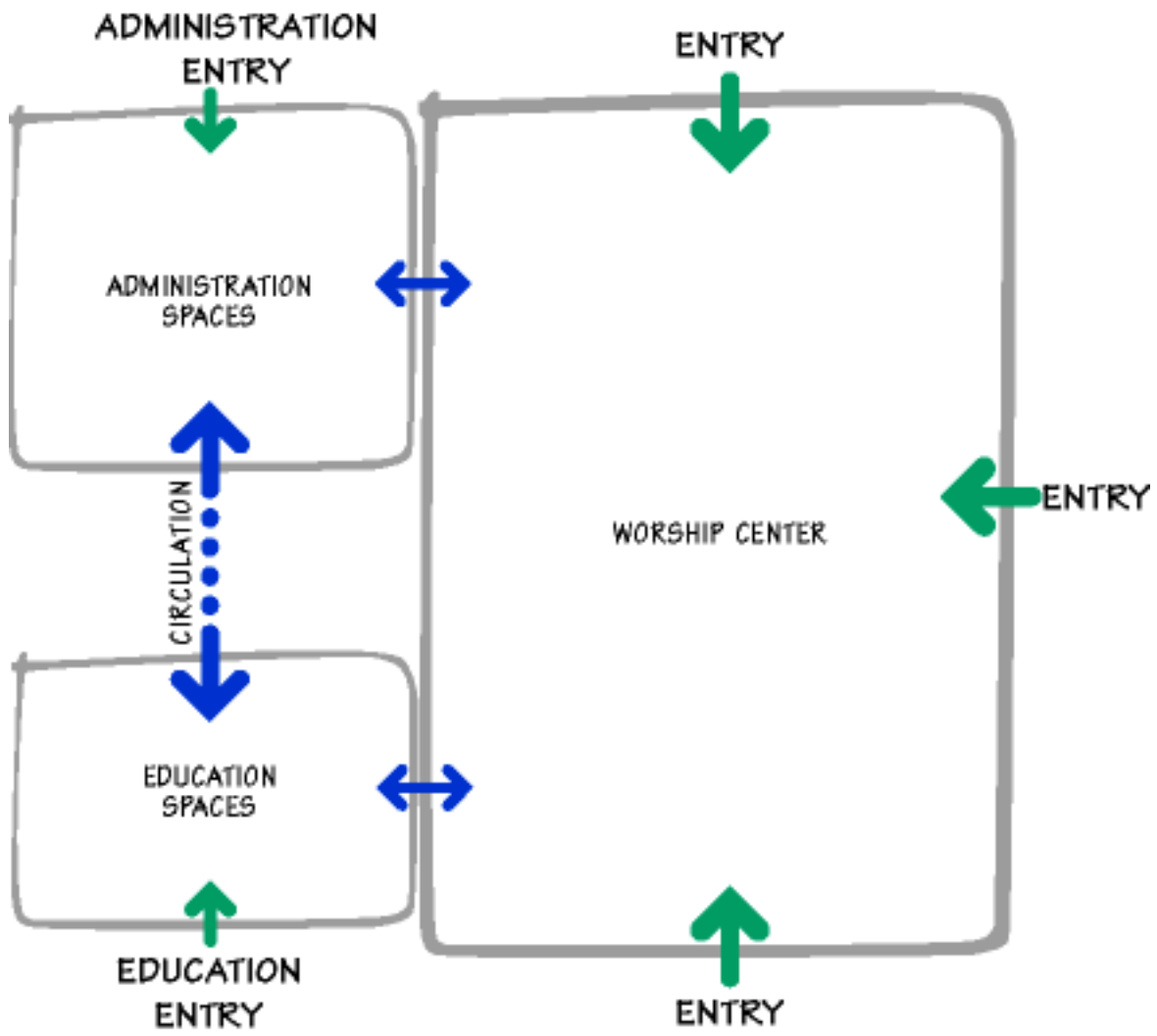
## C. Religious Facility Functional Relationships

### 1. Overall

The following graphics depict the arrangement and orientation spaces throughout the chapel. Solid lines indicate room boundaries and dashed lines indicate non-structural definition. Larger arrows indicate a higher flow of circulation.

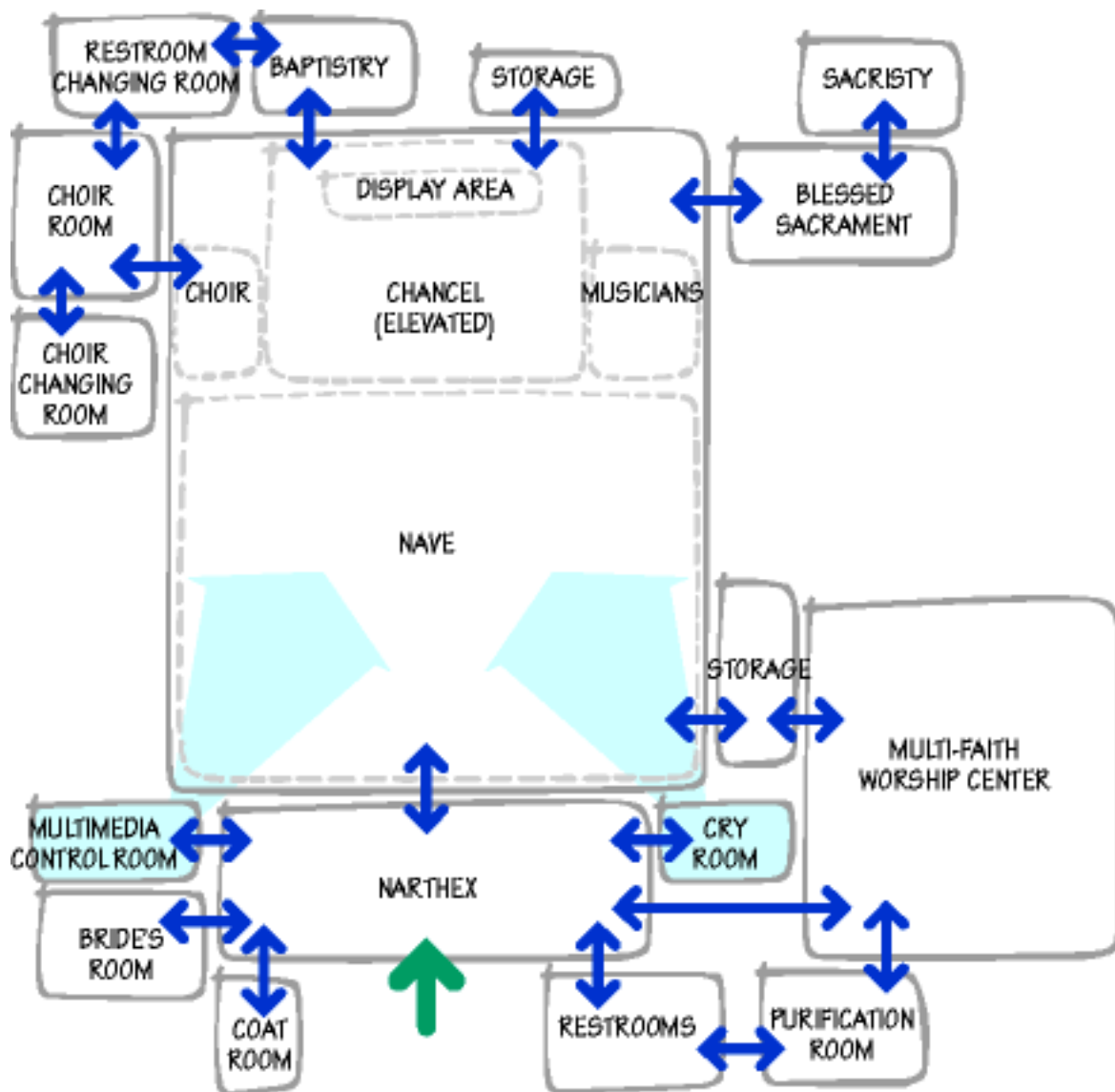
The drawings show spatial adjacencies only and are not intended to influence designers in the planning of the final building configuration.



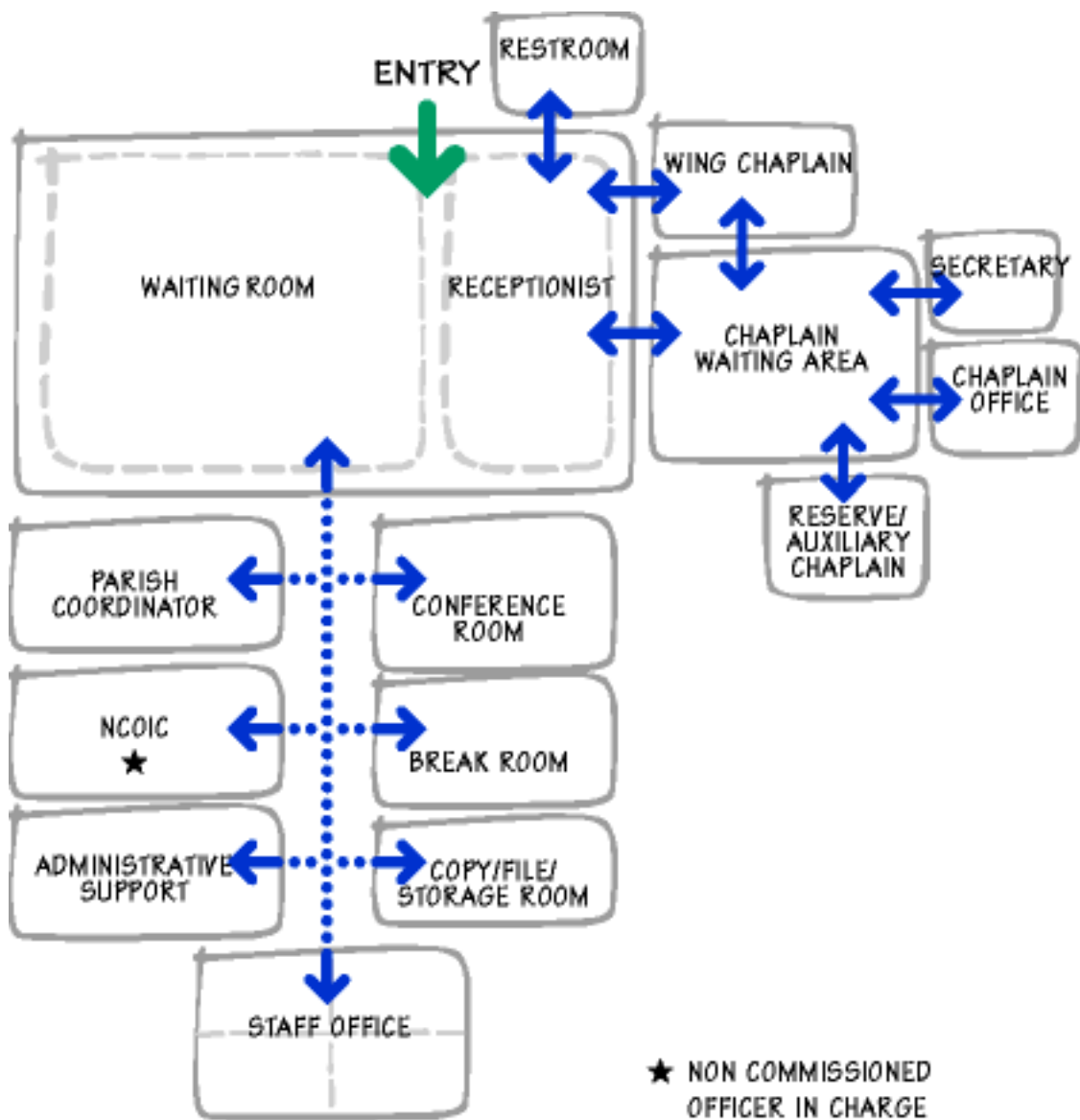


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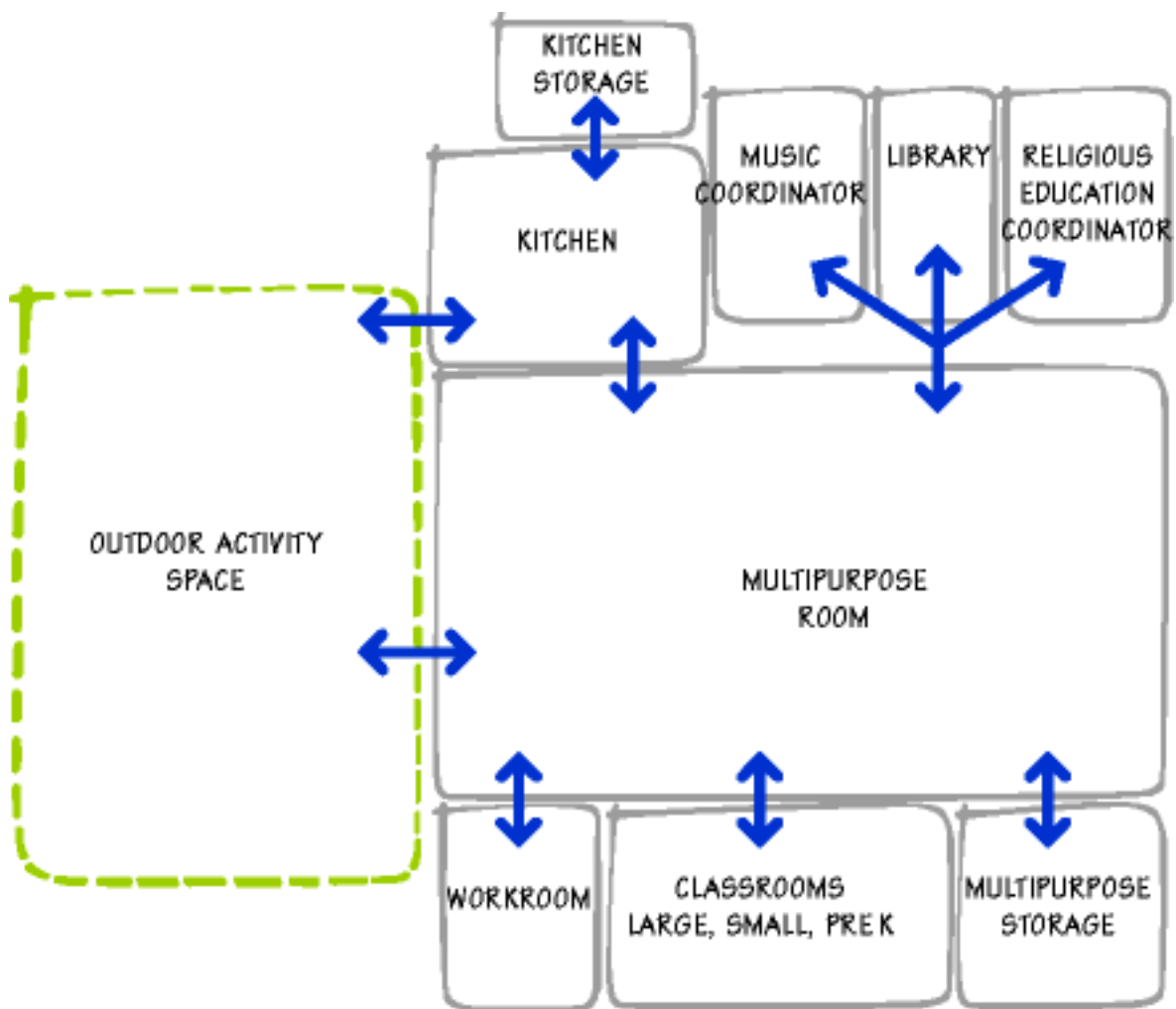
## 2. Multi Faith Worship Center



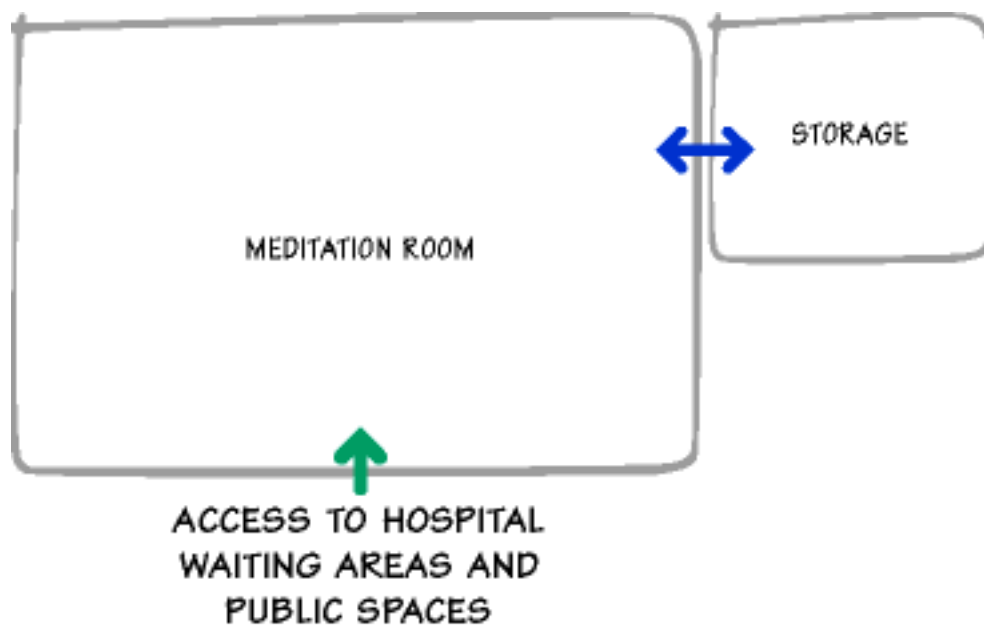
### 3. Administration Spaces



## 4. Education Spaces



## 5. Hospital Chapels



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February 2000



## A. General

This chapter provides broad guidelines for selecting a site, situating the facility on the site, and designing the facility and supporting utilities. It covers general technical requirements for building systems.

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## B. Site Design

### 1. Selection

- a. The religious facility should be sited near user groups, such as dormitories and installation housing.
  - b. Religious facilities can share parking with facilities such as the Base Exchange, commissary, schools that have occupancy peaks at different times of the day.
  - c. Where possible, the religious facility should be placed on an elevated site with pleasant vistas.
  - d. The site should be selected with future expansion in mind.
- 

### 2. Organization

- a. Orient the building so that:
  - The main entrance is visible from the main streetscape and the parking area.
  - The major activity spaces are located on the site in a way that allows for future expansion.
- b. Form and Massing



- The main entrance should be readily identifiable.
- The worship center should be the focal point of the facility.
- All shapes, forms, and symbolism used should be acceptable to all users.
- The three components, the worship center, the administration space, and the education center, may be combined or organized into individual buildings connected by a covered walkway.
- The form of the building should emphasize the vertical.

c. Site Development

- Use outdoor spaces as transition spaces into the facility and additional activity areas. (i.e. wedding garden, playgrounds, and picnic grounds)
- Allow sufficient overlapping parking to accommodate multiple services.

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### 3. Access

a. Proper pedestrian, vehicular, bicycle, service, handicap, and fire emergency access should be provided for, keeping in mind that:

- Although Sunday is the peak demand time of the week, many other periods of high demand occur during the week.
- Multiple services are held at religious facilities on Air Force installations, with only limited time between services.
- Religious facilities have concentrated high occupancies on a regular schedule and may be a target of terrorist attack.
- Access to the facility such as through drop off and service entrances must be weighed against the threat risk for the facility.

b. A religious facility can have multiple entrances, but the narthex should serve as the primary entrance to the worship center.

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### 4. Supervision and Security

a. Allow enough securable storage to accommodate all portable religious items when not in use.

- b. Organize functions so that public access can be limited to those areas in use.
  - c. Provide egress from the sanctuary that allows participants at one service to exit while participants at another are entering through the narthex.
- 

## 5. Utilities and Services

- a. Ensure that sufficient utilities are available for future expansion.
- 

## 6. Landscaping

- a. Landscaping requirements should be specific to each facility and determined by:
    - The individual installation's landscape standards.
    - The regional climatic needs.
    - Refer to the [USAF Landscape Design Guide](#) for additional information.
  - b. Conservation Measures:
    - Consider using shading for energy efficient design.
    - Consider using indigenous plants, water conservation measures, and xeriscaping principles.
  - c. Transitional Spaces:
    - Use outdoor spaces as transitional spaces and entrance courts.
  - d. Functional uses of landscaping:
    - Use landscaping to hide unsightly areas such as trash disposal and loading areas.
  - e. Landscape Accessories:
    - Consider landscaped seating, color, form, shade, and water elements to maximize ease of use and reduce maintenance.
    - Provide sufficient trash disposal.
  - f. Signage
    - Provide signage that identifies locating the facility for vehicular traffic. Refer to [AFP 32-1097, Sign Standards](#).
-

## C. Building Design

### 1. Architectural Character, Materials, and Finishes

- a. The architectural character should comply with that described in the installation's design guide and relate to the indigenous architecture.
  - b. The function of the facility should be evident in the design of the building.
  - c. The sanctuary should use natural light, be a heightened space, and dynamic in form.
  - d. Natural light and potted plants should be used to make the interior more attractive and interesting.
  - e. Although as much natural light should be allowed into the facility as possible, this should be designed with force protection and energy conservation issues in mind.
  - f. Internal signage should be clear, visible, and comply with the requirements of the [ADAAG](#).
  - g. Flexibility and expansion should be designed into the facility.
  - h. Finishes should be appropriate to their use.
  - i. Materials should be low maintenance.
- 

### 2. Sustainable Design

- a. Design religious facilities for a long life span.
  - b. Consider the life cycle cost of the facility.
  - c. Consider the maintenance of the facility.
  - d. Use environmentally friendly materials.
  - e. Consider the durability of materials.
  - f. Identify and design for all mandated energy conservation requirements.
- 

### 3. Flexibility and Expansion Potential

- a. Accommodate peak demand by properly sizing the facility and

organizing the functions.

b. Provide enough storage within each space to store items for the different types of religious services to be held at the facility.

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## **4. Access and Egress**

a. The primary entrance into the sanctuary should be through the narthex.

- The narthex should be adequately sized to accommodate some members of incoming congregations waiting while outgoing congregations are exiting.

b. Proper access for Civil Engineering and maintenance should be provided.

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## **5. Special Considerations for Renovations**

a. The majority of projects for religious facilities will be renovations or additions to existing facilities.

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## **D. Building Systems**

### **1. Structural**

a. Select a cost-effective structural foundation and framing system, taking into consideration the availability of materials and local labor. Consider the design elements unique to a religious facility:

- A high bay area for the sanctuary.
  - Clear spans to allow unimpeded sight lines.
- 

### **2. Heating, Ventilation, and Air Conditioning**

a. Provide sufficient heating, cooling and ventilation in the sanctuary to meet the demands of multiple services in succession.

b. Provide proper ventilation and humidity control in all areas.

c. Zone mechanical systems to meet the demand of individual functions.

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### **3. Plumbing**

- a. Provide a collection basin with a non-trapped drain extending into the soil beneath the chapel in the Sacristy.
  - b. Provide additional trap capacity for purification room drains.
- 

### **4. Electrical**

- a. Provide sufficient chases and electrical equipment rooms to meet the current and future requirements for power, lighting, and sound systems.
- 

### **5. Acoustics**

- a. Use finishes that limit unwanted noise within the building.
  - b. Consider using non-rectilinear room configurations to limit reverberation in the sanctuary.
  - c. Consider using a professional acoustical engineer during the design phase and the construction phases of the project.
- 

### **6. Fire Protection**

- a. Provide a facility compliant with local, state and national codes with respect to egress, sprinklers, and audio/visual/voice alarms.
- 

### **7. Communications**

- a. Provide for audio receivers, video projectors, and video cameras in the sanctuary, with recording/projection equipment located in the multimedia control room.
- b. Provide microphone outlets near the podium and baptistery, and in the altar area.
- c. Provide for an audio/video facility intercom originating from the multi-media control room to broadcast sanctuary services to other spaces of the facility, including the cry room, the bride's room, the administrative offices, and the choir room.

d. Provide telephone/data lines to each of the administration spaces, the education spaces, and the multimedia control room.

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## **8. Force Protection**

a. A threat assessment must be conducted to prepare proper force protection measures. A threat assessment should be conducted for all religious facilities on the installation.

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## **9. Miscellaneous**

a. Provide small gathering spaces throughout the circulation spaces of the facility to allow social interaction before and after events.

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February 2000





## A. General

### 1. Facility Access

- a. Every room in the facility must be securable.
  - b. Keyed hardware may be designed that allows global access into the facility and specific access to the following areas:
    - Worship center.
    - Administration spaces.
    - Education spaces.
- 

## B. Worship Center

### 1. Narthex

Furnishings and Equipment:

- Portable holy water fount.
  - Display areas and ornamentation.
  - Literature racks.
  - PA system connection.
- 

### 2. Sanctuary

**Chancel**

Furnishings and Equipment

- A portable holy water fount.
- Display areas and orientation. (All ornamentation or display items should be moveable or hidden from view when not used.)
- A choir area. (The choir area should be tiered. Collapsible risers could be used to increase the flexibility of the chancel area.)
- An instrumental area. (The area should be able to accommodate a piano and/or an organ.)
- Moveable altars, podiums, and pulpits.

#### Special Requirements

- Provide for audiovisual requirements. (This includes connections for microphones and amplifiers in the choir and instrumental areas.)

### **Nave**

#### Furnishings and Equipment

- Flexible seating with space for religious reading materials. (Facilities where Catholic, Episcopal, or Lutheran services will be held require kneeling pads or similar furnishings.)

#### Special Requirements

- Provide for audiovisual requirements. (This includes connections for microphones and amplifiers in the choir area and the ability to project computer-generated images, video images and in the instrumental area.)

## **3. Multi-Faith Worship Center**

#### Furnishings and Equipment

- Determined by the type of congregations that will use this space.

#### Special Requirements

- Provide for audiovisual requirements.

## **4. Purification Room**

#### Furnishings and Equipment

- Utility floor sink with flexible hose.
- Floor drains.

#### Special Requirements

- Use a water resistant finish for floors and walls.
  - Use slip-resistant materials for the floors.
  - Provide direct access to restrooms.
- 

## **5. Blessed Sacrament Room**

### Furnishings and Equipment

- Provide flexible seating with space for religious reading materials and kneeling pads or similar furnishings.
- Portable altar.
- Candelabras.
- A tabernacle.
- Statuary.
- An eternal light.
- Confession screen.

### Special Requirements

- Provide for audiovisual requirements.
- 

## **6. Sacristy**

### Furnishings and Equipment

- A sacarium with a drain extending directly in to the ground.
- A refrigerator for wine and juice storage.
- Hanging storage for banners.
- Storage for vestments, candles, candelabras, boxes of host, altar linens, and communion trays.
- A full-length mirror.

### Special Requirements

- The room should be adjacent to a restroom.
- 

## **7. Baptistry**

### Furnishings and Equipment

- The pool must be a size that allows complete adult immersion.
- Provide hot & cold water with dedicated water heater.

### Special Requirements

- Provide a microphone outlet to the multimedia control room.
  - Use a water-resistant finish for the floors and walls.
  - Use slip resistant materials for the floors.
  - Place room adjacent to a rest room.
- 

## 8. Choir Room

### Furnishings and Equipment

- A tiered choir practice area.
- An instrumental area. (The area should be able to accommodate a piano and/or an organ.)
- Garment storage.
- Built-in shelving for the storage of music materials.

### Special Requirements

- Provide for audiovisual requirements.
- 

## 9. Choir Changing Room

### Furnishings and Equipment

- Garment storage.
- A full-length mirror and a vanity.

### Special Requirements

- Place room adjacent to a rest room.
- 

## 10. Bride's Room

### Furnishings and Equipment

- Garment storage.
- A full-length mirror and a vanity.

### Special Requirements

- Place room adjacent to a rest room.
- 

## 11. Cry Room

### Furnishings and Equipment

- Seating.
- Built-in storage.

#### Special Requirements

- The room should have a window that looks directly into the sanctuary or a video monitor and sound system that can transmit the service.
  - The room should be sound isolated.
  - The room should be adjacent to a lavatory with diaper changing station.
- 

## 12. Multimedia Control Room

#### Furnishings and Equipment

- An audio and visual control system.
- A computer-generated visual projection system into the sanctuary.

#### Special Requirements

- The room should control the cable outlets throughout the facility.
  - The room should have connections to all digital, audio, and visual equipment in the sanctuary.
  - The room should have control of the lighting in the sanctuary.
  - The room should have direct visual access into the sanctuary
  - The room should be sound isolated.
- 

## 13. Storage

#### Special Requirements

- The room should provide adequate storage for all moveable equipment in the sanctuary.
- 

## C. Administration Spaces

### 1. Reception/Waiting Area

#### Furnishings and Equipment

- One workstation.

- Communications and data connections.
  - Securable file storage.
  - Seating for visitors.
  - Cable TV connections.
  - Built-in bookcases.
- 

## **2. Chaplain's Waiting Area**

### Furnishings and Equipment

- Seating for visitors.
- Cable TV connections.
- Built-in bookcases.

### Special Requirements

- This space should be a private area where those waiting for counseling are not in public view.
- 

## **3. Wing Chaplain's office**

### Furnishings and Equipment

- Executive furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- A seating area for counseling.
- Cable TV connections.
- Built-in bookcases.

### Special Requirements

- The office should be sound dampened.
  - The office should have a solid wood door with a vision panel.
- 

## **4. Secretary's Area**

### Furnishings and Equipment

- One workstation.
  - Communications and data connections.
  - Securable file storage.
-



## **5. Chaplain's Office**

### Furnishings and Equipment

- Executive furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- A seating area for counseling.
- Cable TV connections.
- Built-in bookcases.

### Special Requirements

- The office should be sound dampened.
  - The office should have a solid wood door with a vision panel.
- 

## **6. Reserve/Auxiliary Chaplain's Office**

### Furnishings and Equipment

- Executive furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- A seating area for counseling.
- Cable TV connections.

### Special Requirements

- The office should be sound dampened.
  - The office should have a solid wood door with a vision panel.
- 

## **7. Parish Coordinator**

### Furnishings and Equipment

- Executive furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- Cable TV connections.

#### Special Requirements

- The office should be sound dampened.
- 

## **8. Non-Commissioned Officer-In-Charge (NCOIC)**

#### Furnishings and Equipment

- Furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- Cable TV connections.

#### Special Requirements

- The office should be sound dampened.
- 

## **9. Administrative Support**

#### Furnishings and Equipment

- Furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- Cable TV connections.

#### Special Requirements

- The office should be sound dampened.
- 

## **10. Staff Office**

#### Furnishings and Equipment

- Workstations for each staff member.
- Communications and data connections.
- Securable file storage.

#### Special Requirements

- The office should be sound dampened.
  - The staff members will share a common securable office.
  - Cable TV connections.
- 

## **11. Conference Room**

#### Furnishings and Equipment

- Conference table with seating.
- Communications and data connections.
- Securable file storage.
- Cable TV connections.
- Built-in bookcases.

#### Special Requirements

- The room should be sound dampened.
  - The room should have a solid wood door with a vision panel.
  - Controlled lighting.
  - Audiovisual requirements.
- 

## 12. Copy/File/Storage Room

#### Furnishings and Equipment

- Work counter.
- Communications and data connections.
- Securable file storage.
- Display space for Bulletins.

#### Special Requirements

- The office should be sound dampened.
  - Provide proper ventilation.
- 

## 13. Break Room

#### Furnishings and Equipment

- Lunch table with seating.
- Communications and data connections.
- The office should be sound dampened.
- Sink, microwave, refrigerator, coffee machine, and vending machines.
- Sufficient cabinet storage.
- A white/tack board for notices and bulletins.

#### Special Requirements

- The office should be sound dampened.
  - Provide proper ventilation.
-

## D. Education Spaces

### 1. Religious Education Coordinator

#### Furnishings and Equipment

- Furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Securable file storage.
- Adequate storage for short-term religious program items.

#### Special Requirements

- The office should be sound dampened.
- 

### 2. Music Coordinator

#### Furnishings and Equipment

- Furnishings, including a desk, credenza, and chair.
- Communications and data connections.
- Adequate storage for short-term religious program items.
- Securable file storage.

#### Special Requirements

- Audiovisual requirements.
- 

### 3. Library

#### Furnishings and Equipment

- Reading table with seating.
- Communications and data connections.
- Securable file storage.
- Built-in bookcases.

#### Special Requirements

- The room should be sound dampened.
  - The room should have a solid wood door with a vision panel.
  - Controlled lighting.
  - Audiovisual requirements.
  - The furnishings necessary to allow the room to function as a second conference room for the Educational Center.
-

## 4. Multipurpose Room

### Furnishings and Equipment

- Fold-out tables with seating.
- Communications and data connections.

### Special Requirements

- The room should be sound dampened.
  - The room should have a solid wood door with a vision panel.
  - Audiovisual requirements.
  - Controlled lighting.
  - Equipment storage.
  - Consider moveable partitions to divide this room into smaller spaces for classroom use.
- 

## 5. Large Classroom

### Furnishings and Equipment

- Fold-out tables with seating.
- An instructor's desk and chair.
- Communications and data connections.
- Chalk or white boards along two walls.
- Adequate storage for short-term religious program items.
- Built-in bookcases.

### Special Requirements

- The room should be sound dampened.
  - The room should have a solid wood door with a vision panel.
  - Audiovisual requirements.
  - Lighting controls.
  - Equipment and educational material storage.
- 

## 6. Small Classroom

### Furnishings and Equipment

- Fold-out tables with seating.
- An instructor's desk and chair.

- Communications and data connections.
- Chalk or white boards along two walls.
- Adequate storage for short-term religious program items.
- Built-in bookcases.

#### Special Requirements

- The room should be sound dampened.
  - The room should have a solid wood door with a vision panel.
  - Audiovisual requirements.
  - Controlled lighting.
- 

## 7. Pre-school Classroom

All equipment in these rooms should be sized for pre-school age children.

#### Furnishings and Equipment

- Fold-out tables with seating.
- An instructor's desk and chair.
- Communications and data connections.
- Cable TV connections.
- Chalk or white boards along two walls.
- Adequate storage for short-term religious program items.
- Built-in bookcases.
- Equipment and educational material storage.
- Toilet fixtures for pre-school-aged children.

#### Special Requirements

- The room should be sound dampened.
  - The room should have a solid wood door with a vision panel.
  - Audiovisual requirements.
  - Controlled lighting.
- 

## 8. Kitchen

#### Furnishings and Equipment

- Communications and data connections.
- Cable TV connections.



- Sufficient cabinet storage.
- Kitchen equipment and utility connections necessary for typical food service.
- Icemaker.
- Sufficient bulk storage with secure hardware.

#### Special Requirements

- Kitchen equipment should be commercial grade.
  - The room should have a solid wood door with a vision panel.
- 

## 9. Outdoor Activity Space

#### Furnishings and Equipment

- Ground fault-protected electrical outlets capable of supporting equipment required to conduct an outdoor service.
  - Landscape lighting to accommodate an outdoor evening service.
  - Audio, digital, and video access to multimedia control room.
  - Loading/unloading access to storage room.
- 

## E. Hospital Chapel

### 1. Meditation Room

#### Furnishings and Equipment

- Seating with kneelers for 20-25 persons.
  - Altar.
  - Sound system with the equipment located in the storage room.
- 

### 2. Storage Room

#### Furnishings and Equipment

- Storage space for religious materials.
- Electrical supply and cable outlets for sound system.

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February 2000



## A. General Concepts

This chapter contains sample plans for a typical Air Force Chapel that conforms to the area requirements and fulfills the functional relationship guidelines described earlier in this manual.

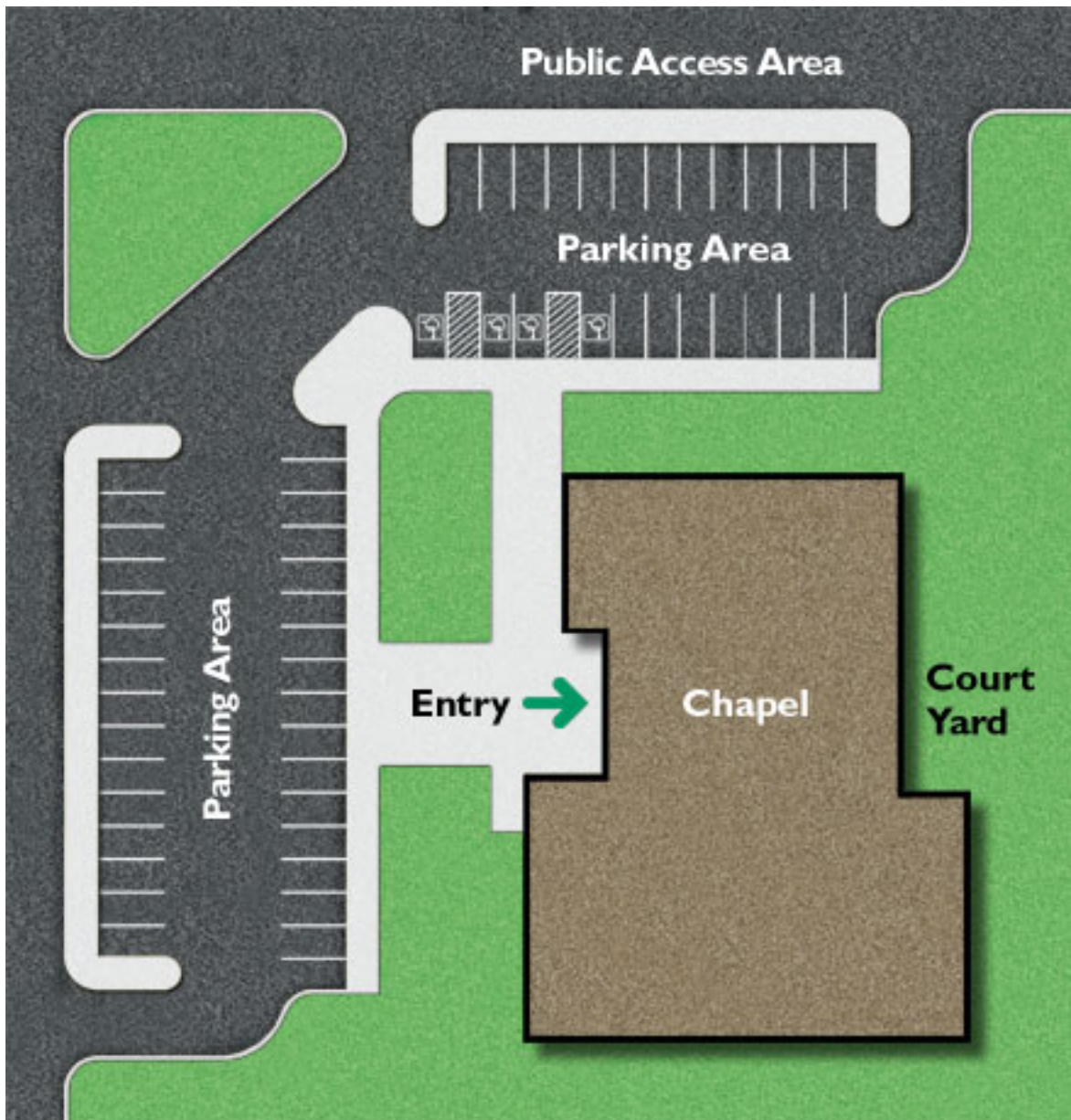
The examples presented do not represent the absolute solution to the Air Force Religious Facility Design. Rather, they provide illustrative examples of how the programming requirements may be accommodated. Other design solutions are also possible.

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## B. Sample Site Layout

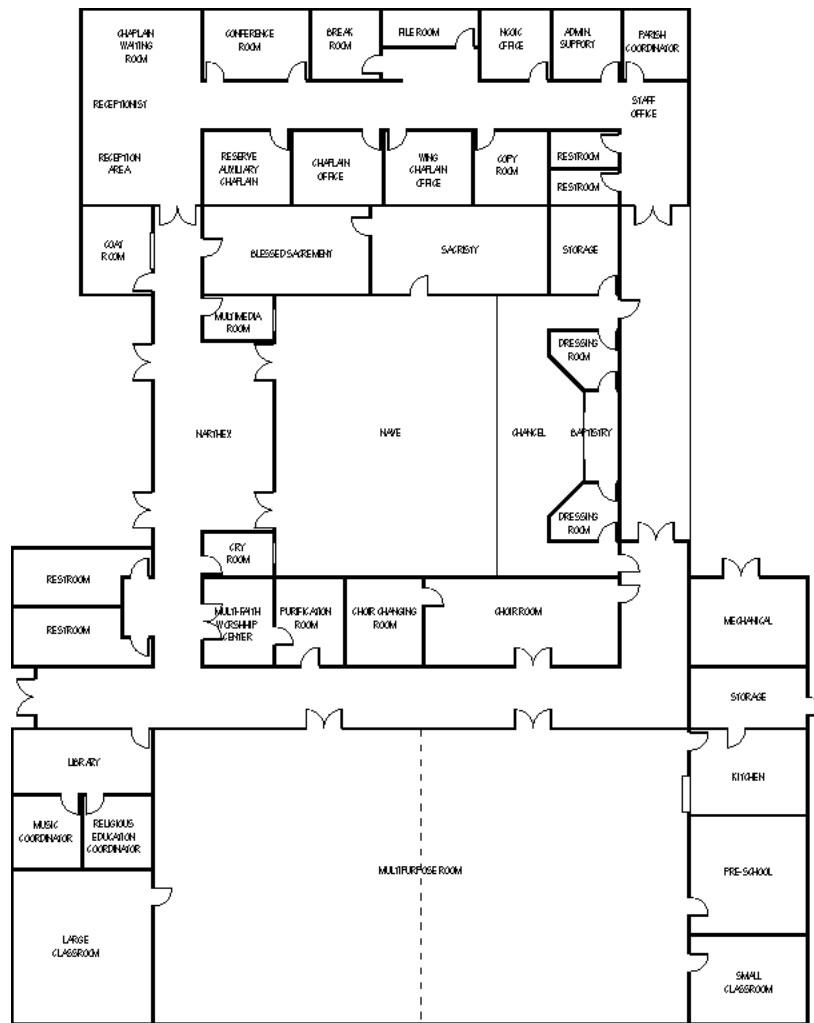
The first site layout shows a chapel with several parking areas amply separated to reduce traffic congestion resulting from closely scheduled services. Pedestrian traffic can access the

facility in several locations and a drop off point has been established in a central location. A private courtyard has been positioned to the rear of the sanctuary, allowing an exterior service convenient to the sanctuary.



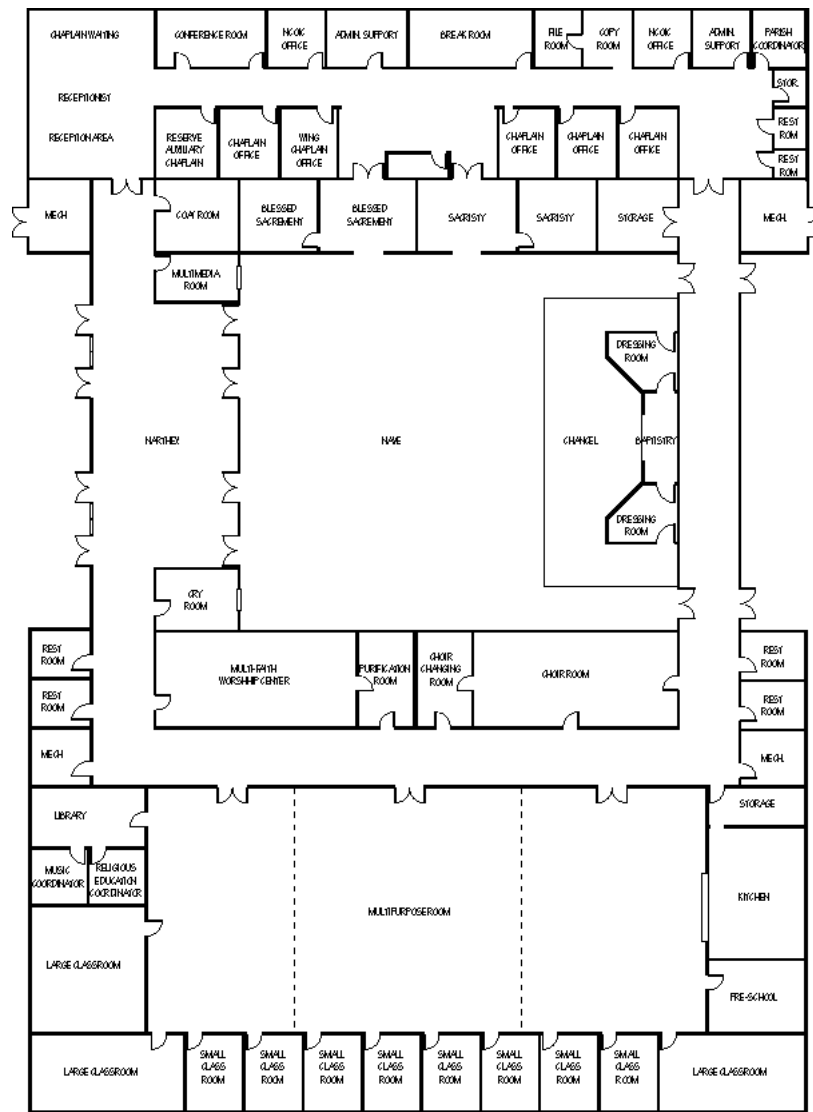
### C. Sample Floor Plans

The plan illustrated below is an example of how a small chapel could be designed using the criteria established in this guideline. The administrative spaces have been grouped into a suite of offices bordering the worship area. The main entry accesses the narthex that becomes a transition space leading into the sanctuary. The education spaces are provided with access to the worship center.



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The large chapel below is an example of applying the guidelines to create a floor plan that will fulfill the design criteria for the large installations. This plan has been created as an sample. Environmental criteria such as chapel location, area climate, and solar angles will have a great effect on the final design creating a unique solution at each location.



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## D. Schedules and Tables

- a. [Space Allocation Table](#)
- b. [Finish Schedule](#)
- c. [Amenities Schedule](#)

## E. Reference Documents

### A. Related Air Force Documents

AFI 31-209

[Protection of USAF Resources](#)

AFPD 32-10

[Installations and Facilities](#)

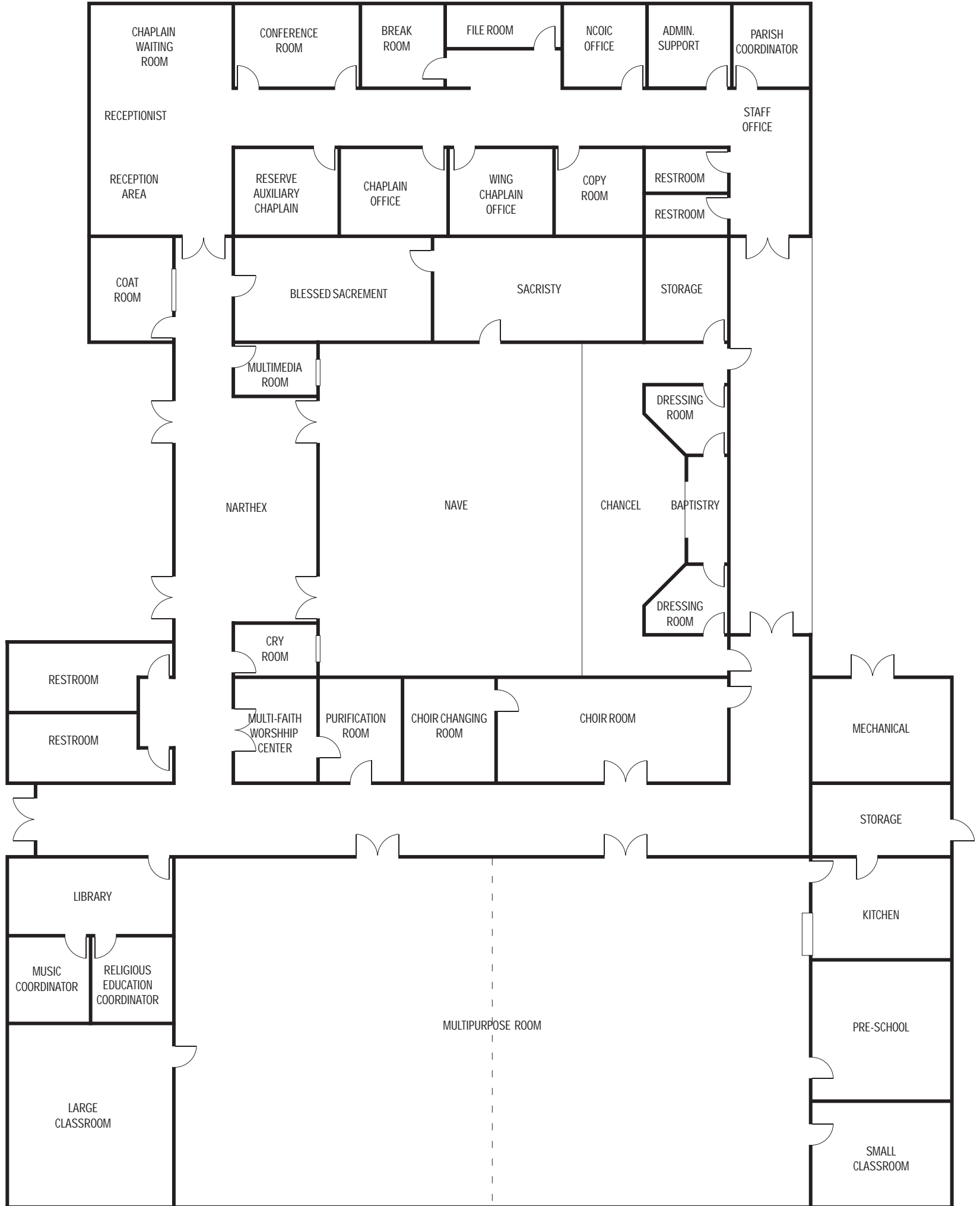
AFI 32-1021	<a href="#">Planning and Programming of Facility Construction Projects</a>
AFI 32-1023	<a href="#">Design and Construction Standards and Execution of Facility Construction Projects</a>
AFI 32-1024	<a href="#">Standard Facility Requirements</a>
AFI 32-1032	<a href="#">Planning and Programming Real Property Maintenance Projects Using Appropriated Funds (APF)</a>
Air Force Handbook (AFH) 32-1084	<a href="#">Standard Facility Requirements</a>
AFJMAN 32-1090	<a href="#">Noise and Vibration Control</a>
AFPAM 32-1097	<a href="#">Sign Standards</a>
AFMAN 32-1181	<a href="#">Electrical Design- Interior Electrical Systems</a>
AFPD 23-3	<a href="#">Air Force Energy Management</a>
USAF 88-29	Weather Manual
	<a href="#">USAF Landscape Design Guide</a>
	<a href="#">Installation Force Protection Guide</a>
	<a href="#">USAF Base Architectural Compatibility Guide</a>
	<a href="#">USAF Environmentally Responsible Facilities Guide</a>
	<a href="#">USAF Project Managers' Guide</a>
	<a href="#">Achieving Design Excellence</a>
	<a href="#">Air Force Cost Guides/Handbooks</a>
	<a href="#">USAF Interior Design Guides</a>
<b>B. Related Reference Documents</b>	
ADAAG	<a href="#">Americans with Disabilities Act Accessibility Guidelines</a>
DoD 5100.76-M	Design Guide for Physical Security of Facilities

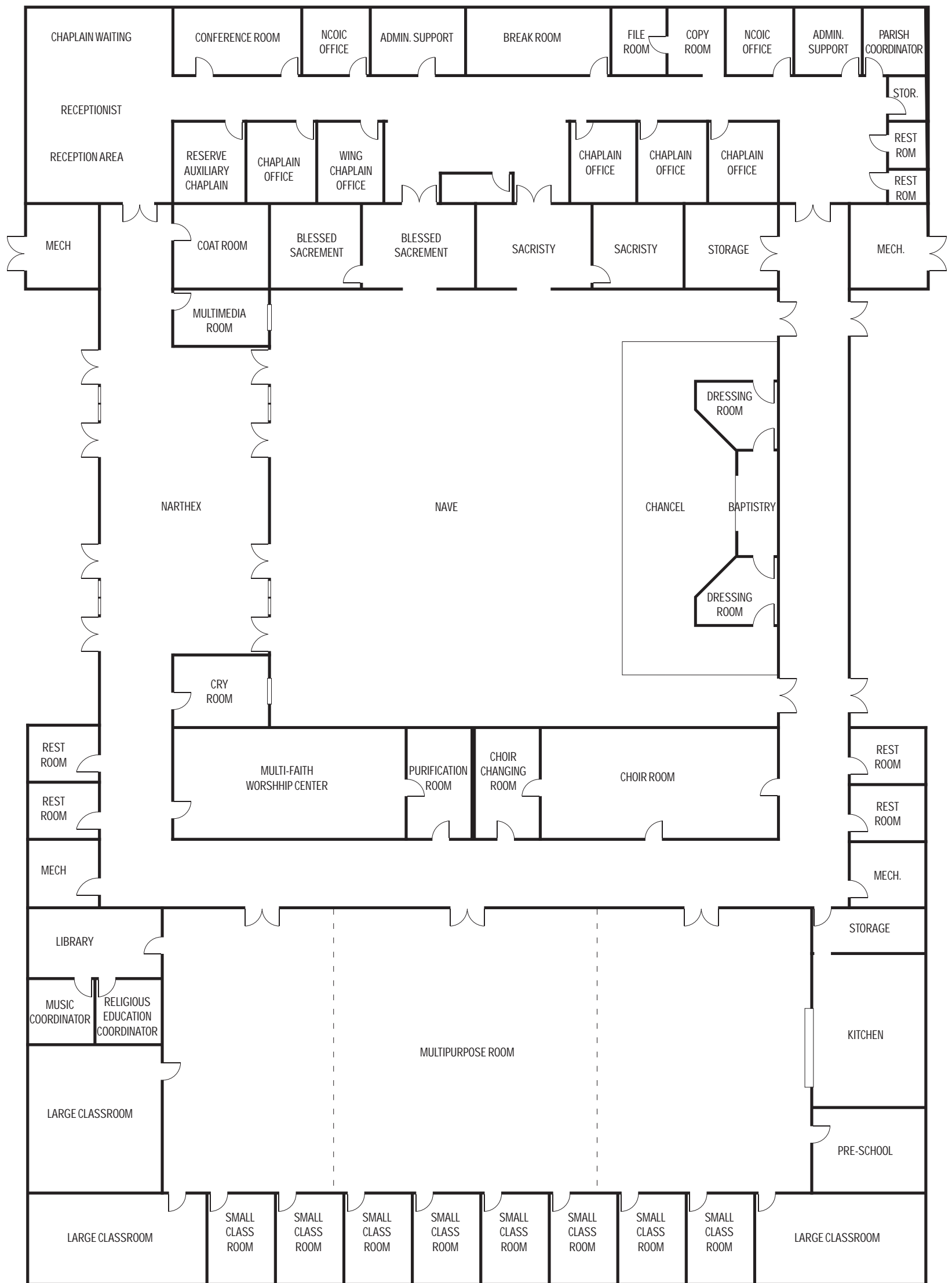
DoDI 6055.6	Department of Defense Fire Protection Program
MIL-HDBK-1008 (Current Edition)	Military Handbook-Fire Protection for Facilities Engineering Design and Construction
NFPA	<a href="#"><u>National Fire Protection Association</u></a>
NEC	<a href="#"><u>National Electrical Code</u></a>
NPC	<a href="#"><u>National Plumbing Code</u></a>
UFAS	<a href="#"><u>Uniform Federal Accessibility Standards</u></a>
ASHRAE	<a href="#"><u>American Society of Heating, Refrigerating and Air-Conditioning Engineers Fundamentals Handbook</u></a>
IES	<a href="#"><u>Illuminating Engineering Society's Illuminance Selection Procedure</u></a>
	Ramsey/Sleeper Architectural Graphic Standards (Current Edition)

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February 2000







## Space Allocation Table

Location	Small Chapel (NSF)	Large Chapel (NSF)	Comments
<b>Worship Center</b>			
Narthex	420	1,972	Narthex = 30% of net area of sanctuary
Sanctuary			Sanctuary must accommodate choir, musicians, display area, and pulpit
Chancel	300	1,375	
Nave	1,100	5,200	Nave Criteria: 13 sq.ft. per person for 300 seats or larger, 11 sq.ft. per person for less than 300 seats
Multi Faith Worship Center	150	600	
Blessed Sacrament	250	250	
Sacristy	300	300	Chancel/Multi-Faith Criteria: 25 sq.ft per person
Baptistery	100	100	
Choir Room	500	500	
Choir Changing Room	225	225	
Bride's Room	120	120	
Cry Room	120	120	
Multimedia Control Room	120	120	
Storage	250	250	
Coat Room	150	150	
<b>Total</b>	<b>4,105</b>	<b>11,282</b>	

<b>Administration Spaces</b>			
Reception Area	200	200	
Receptionist	36	36	
Chaplain Waiting Room	200	200	In small facilities the Wing Chaplain's Secretary serves as the Receptionist
Wing Chaplain Office	185	185	
Secretary	36	36	
Chaplain Offices	185	925	
Reserve/Auxiliary Chaplain	185	185	
Parish Coordinator	120	120	The number of Chaplain's will depend on the number and type of services provided
NCOIC	120	120	
Administrative Support	120	120	
Staff Office	60	240	
Conference Room	250	250	
Copy/File/Storage Room	120	240	
Break Room	120	240	
<b>Total</b>	<b>1,937</b>	<b>3,097</b>	

<b>Education Spaces</b>			
Religious Education Coordinator	120	120	
Music Coordinator	120	120	
Library	200	200	
Multipurpose Room	4,000	4,000	Partition into smaller spaces
Large Classroom	500	1,000	
Small Classroom	300	2,400	
Pre-school Classroom	400	800	
Kitchen	500	1,000	
Storage	100	200	
<b>Total</b>	<b>6,240</b>	<b>9,840</b>	
<b>Building Totals + 33% for Circulation, Mech, and RR</b>	<b>16,335</b>	<b>32,211</b>	

## Finish Categories Table

Finish Category	Location	Description
Assembly	Floors	Carpet
	Base	Wood or Rubber
	Walls	Paint (Paneling or Wall Covering with Accents)
	Ceilings	Acoustical Ceiling Tile
Offices	Floors	Carpet
	Base	Rubber
	Walls	Paint
	Ceilings	Acoustical Lay-In System
Courtroom	Floors	VCT
	Base	Rubber
	Walls	Paint
	Ceilings	Acoustical Lay-In System
Utility	Floors	VCT
	Base	Rubber
	Walls	Paint
	Ceilings	Painted Gypboard or Acoustical Lay-In System
Restrooms	Floors	Ceramic Tile
	Base	Ceramic Tile
	Walls	Ceramic Tile
	Ceilings	Acoustical Lay-In System

## Amenities Schedule

	Small Chapel	Large Large	Room Finish Category	Telephone	Data	Cable TV	TV/VCR Unit	Projection System	Sound System	Built-In Millwork	Lockable Doors	Lighting Controls	View Panel in Door	Sound Dampening	Sound Proofing
<b>Worship Center</b>															
Narthex	33	100	Assembly							■	■				
Sanctuary															
Chancel	12	55	Assembly			■		■	■			■			
Nave	100	400	Assembly									■			
Multi-Faith Worship Center	6	24	Assembly							■	▲				
Blessed Sacrament Room	1	3	Assembly							■	▲				
Sacristy	4	12	Assembly								■				
Baptistery	2	2	Utility						■			■			
Choir Room	10	50	Classroom	■						■	■	■	■		
Choir Changing Room	4	12	Office												
Brides Room	1	3	Office	■					■		■				
Cry Room	1	3	Office	■		■			■		■				■
Multi-Media Control Room	1	3	Utility	■	■	■					▲		■		■
Storage Room			Utility								■				
Coat Room			Utility						■						
<b>Total Number of Personnel</b>	<b>175</b>	<b>667</b>													
<b>Administration Spaces</b>															
Reception Area/Workstation	1	6	Office	■	■	■				■					
Chaplain Waiting Room	3	3	Office	■	■										
Wing Chaplain Office	3	3	Office	■	■	■			■	■	■	■	■		
Secretary	1	1	Office	■	■						■				
Chaplain Offices	1	1	Office	■	■	■			■	■	■		■	■	
Reserve Auxiliary Chaplain Office	1	1	Office	■	■	■			■		■		■	■	
Parish Coordinator Office	1	1	Office	■	■	■			■	■	■		■	■	
NCOIC Office	3	3	Office	■	■	■				■	■		■	■	
Administrative Support	3	3	Office	■	■	■	■			■	■		■	■	
Staff Office	1	1	Office	■	■	■			■	■	■		■	■	
Conference Room	12	25	Office	■	■	■	■	■		■		■	■	■	
Copy/File/Storage Room	1	3	Office	■	■					■	■		■	■	
Break Room	4	12	Open	■	■	■	■			■			■		
<b>Total Number of Personnel</b>	<b>35</b>	<b>63</b>													
<b>Education Spaces</b>															
Religious Education Coordinators	1	3	Office	■	■	■				■	■		■	■	
Music Coordinator	1	3	Office	■	■	■				■	■		■	■	
Library	4	12	Classroom	■	■	■				■	■		■	■	
Multipurpose Room	100	200	Classroom	■	■	■	■				■	■	■		
Large Classroom	24	24	Classroom	■	■						■	■	■		
Small Classroom	12	12	Classroom	■	■						■	■	■		
Pre-School Classroom	12	12	Classroom	■	■						■	■	■		
Workroom	3	3	Office	■	■					■	■		■		
Kitchen	3	12	Utility	■	■						■		■		
Kitchen Storage	1	3	Utility							■		■			
<b>Total Number of Personnel</b>	<b>161</b>	<b>284</b>													

**Note:** ▲ - Denotes higher security level entry

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