

APPENDIX D  
MORALE, WELFARE, AND RECREATIONAL FACILITIES (APPROPRIATED FUNDS)

TABLE OF CONTENTS

1. GENERAL AND SPECIFIC CRITERIA.....	<u>D-2</u>
a. Computation of Gross Areas.....	<u>D-2</u>
b. Planning.....	<u>D-2</u>
2. COMBINED FACILITIES.....	<u>D-2</u>
a. Community Activity Centers.....	<u>D-2</u>
b. Multi-purpose Recreation Building.....	<u>D-2</u>
c. Physical Fitness and Athletic Complex.....	<u>D-3</u>
3. OTHER TYPES OF FACILITIES.....	<u>D-4</u>
a. Drama Centers and Music Centers.....	<u>D-4</u>
b. Family and Community Support/Service Centers.....	<u>D-4</u>
c. Indoor Courts.....	<u>D-5</u>
d. Libraries.....	<u>D-6</u>
e. MWR/Recreation Supply/Support Facilities.....	<u>D-8</u>
f. Outdoor Courts and Fields.....	<u>D-8</u>
g. Outdoor Recreation Operations Activity Center.....	<u>D-9</u>
h. Outdoor Recreation Pavilions.....	<u>D-10</u>
i. Parks and Trails.....	<u>D-11</u>
j. Recreation Centers.....	<u>D-11</u>
k. Religious Facilities.....	<u>D-12</u>
l. Swimming Facilities (Indoor and Outdoor Pool/Beaches).....	<u>D-15</u>
m. Youth Centers.....	<u>D-16</u>
	/16/
4. REFERENCES.....	<u>D-18</u>

APPENDIX D  
MORALE, WELFARE, AND RECREATIONAL FACILITIES (APPROPRIATED FUNDS)

1. GENERAL AND SPECIFIC CRITERIA. The specific criteria contained in this appendix are applicable to the design of morale, welfare, and recreational facilities that are normally funded from appropriated funds. The general criteria contained in the preceding chapters are applicable where such criteria are not included in this appendix. Therefore, this appendix must be used with the chapters contained in this document.

a. Computation of Gross Areas. The gross area of facilities will be computed according to the definition in chapter 5. Unless otherwise noted, separate mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown in the following subparagraphs when determining a single gross area figure for a project DD Form 1391.

b. Planning.

(1) Project Justification. The requirements for morale, welfare, and recreation facilities will be carefully determined, taking into consideration all pertinent factors such as the tenure of the installation, number of military personnel or population to be served, accessibility and capabilities of existing, similar civilian or military community-type facilities, climatic conditions affecting the use of the proposed facility, and the impact on morale.

(2) Master Plans. In accordance with AR 210-20 (reference D-1), sites will be selected and approved according to the approved installation master plan.

(3) Funding Policy. Funding for the establishment, construction, maintenance, and operation of certain morale, welfare, and recreation facilities will be according to DoD Directive 1015.6 (reference D-2).

2. COMBINED FACILITIES. In general, construction and maintenance costs will be lowered and convenience to the users enhanced in recreation facilities if the use of multi-purpose recreation, and fitness and athletic centers is encouraged. The following general guidance on the types of combined facilities is furnished:

a. Community Activity Centers. Community Activity Centers (CAC) are multi-purpose recreation facilities for installations with a military strength of 501 or more. The concept of a CAC is the same as a multi-purpose recreation building in that there are economic savings in construction, energy, and operating costs through the joint-use of space when several MWR activities are collocated in the same facility. Another benefit is user convenience and the synergistic effect of many varied activities being conducted in the same place. There is no specific combination of MWR activities prescribed for a CAC. The types of activities will be based on the needs of the installation, condition of existing facilities, and the master plan. There are no specific space allowances for CAC facilities. Space allowances will conform to the authorizations for each MWR facility type and category code at an installation to be included in a CAC. DG 1110-3-142 (reference D-3) will be used as a guide when designing CDC.

b. Multi-purpose Recreation Building. A multi-purpose recreation building provides space for recreational activities that are not authorized any space allowances at installations with a military strength of 500 or less and when separate buildings are not authorized or economically advantageous to the government for construction, energy savings, operation, and user convenience.

(1) Morale, Welfare, and Recreation (MWR) Activities. The building may include space for MWR activities such as clubs, drama and music center, library, physical fitness, recreation center, theater, youth center, and other activities depending on the military strength to be served. The facility will serve as a center for physical fitness, recreation, and social activities to enhance life at the installation. DG 1110-3-132 (reference D-4) will be used as a guide when designing recreation buildings.

(2) Space Criteria. The size of the building will be determined from a study of the actual needs of the installation. In the absence of other data, table D-1 will be used as a guide for small installations.

TABLE D-1 SPACE CRITERIA FOR MULTI-PURPOSE RECREATION BUILDINGS		
MILITARY STRENGTH <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
Up to 49	Note <sup>3</sup>	Note <sup>3</sup>
50 to 100	650	(7,000)
101 to 200	743	(8,000)
201 to 300	836	(9,000)
301 to 400	975	(10,500)
401 to 500	1161	(12,500)

<sup>1</sup> Military strength is defined as active duty military personnel assigned to the installation.

<sup>2</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

<sup>3</sup> This requirement should be accommodated in other facilities. If new construction is required, the gross area will not exceed the product of the military strength multiplied by 9.3 m<sup>2</sup> (100 ft<sup>2</sup>).

c. Physical Fitness and Athletic Complex. These complexes are a combination of physical fitness and athletic facilities at large installations. Free-standing physical fitness facilities are to be designed using the criteria in Appendix H of the ~~16~~TI800-01/16/

(1) Types of Activities. These types of facilities combine together such activities as administrative support areas, exercise and weight conditioning rooms, gymnasium, indoor sports courts, jogging tracks, locker and toilet facilities, storage space, and swimming pool. Bowling, and skating rinks (ice and roller) may be added to the complexes at large installations. These types of activities combined with outdoor courts and fields, stadium, or swimming pool will create an athletic complex. These types of facilities will be the location for inter-mural and intra-mural competitions, tournaments, and other spectator events. Therefore, appropriate seating and support functions will be provided.

(2) Space Allowances. Space allowances will conform to the authorizations for each MWR facility type and category code at an installation to be included in a physical fitness and athletic complex.

(3) Stadiums. At installations with a military strength over 10,000, a stadium with a seating capacity not to exceed one-third of the installation military strength may be provided for a combination football and soccer field. In addition, bleachers with a seating capacity not to exceed one-third of the installation military strength may be provided for a separate regulation baseball field. Both the stadium and baseball field may be provided with night lighting.

## 3. OTHER TYPES OF FACILITIES.

a. Drama Centers and Music Centers. The space allowances shown in table D-2 for drama centers and music centers are intended to provide facilities for the preparation and performance of theatrical and musical programs, shows, and activities that are produced and performed as part of the installation drama and music programs. Only one drama center and one music center will be constructed at an installation, and only when there is no existing facility that can be used for these purposes on a joint-use basis. When both are built, they will be combined into a single performing arts center. Programming of these facilities will be accompanied by a complete justification that stipulates why existing facilities cannot be used on a joint-use basis. DG 1110-3-120 (reference D-5) will be used as a guide when designing drama and music centers.

(1) Drama Centers. These facilities will include auditoriums with seating, director's office, equipment check-out, practice and rehearsal rooms, projection booths for multimedia use, property storage, recording rooms, sound and lighting booths, stages, and technical scene and costume shops.

(2) Music Centers. These facilities will include auditoriums with seating and stage, audiovisual rooms, costume storage, director's office, group and individual practice rooms, instrument repair shop, listening areas, music education room, musical instrument and equipment check-out rooms, and recording area.

TABLE D-2 SPACE CRITERIA FOR DRAMA CENTERS AND MUSIC CENTERS				
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>			
	DRAMA CENTER		MUSIC CENTER	
	square meters	(square feet)	square meters	(square feet)
Up to 500	Combined with Recreation Center			
501 to 5,000	Provided by the Unit Entertainment Center			
5,001 to 15,000	1300	(14,000)	1300	(14,000)
15,001 and over	1860	(20,000)	1860	(20,000)

<sup>1</sup> Military population is defined as active duty military personnel assigned to the installation, plus 25 percent of their dependents.

<sup>2</sup> Mechanical equipment, electrical, and electronic room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

b. Family and Community Support/Service Centers. Family and community support/service centers may be established as required to provide services to military personnel and their dependents. This assistance may include providing information on career counseling, emergency leave, family advocacy, grants, handicapped children, housing, insurance, legal matters, loans, military separation, passports, personal financial management, retirement, social work services, transportation, and voting. The facility will include space for administration, conference room, counseling rooms, household loan items, reception, storage, toilet facilities, and waiting room. Space for loan closets may be separate from the main facility but must be counted as a part of the total requirement. Space allowances for family and community support/service centers are shown in table D-3.

TABLE D-3 SPACE CRITERIA FOR FAMILY AND COMMUNITY SUPPORT/SERVICE CENTERS		
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
Up to 1,000	Note <sup>3</sup>	Note <sup>3</sup>
1,001 to 3,500	420	(4,500)
3,501 to 7,000	605	(6,500)
7,001 to 10,000	745	(8,000)
10,001 to 15,000	885	(9,500)
15,001 and over	1025	(11,000)

<sup>1</sup> Military population is defined as active duty military personnel assigned to an installation, plus 25 percent of their dependents. An additional 84 m<sup>2</sup> (900 ft<sup>2</sup>) gross area may be provided for a classroom at installations when the installation exceeds 7,000 personnel.

<sup>2</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

<sup>3</sup> This requirement should be accommodated in other facilities.

c. Indoor Courts. Combined allowances for indoor handball, racquetball, and squash courts are shown in table D-4.

TABLE D-4 ALLOWANCES FOR INDOOR COURTS	
ACTIVE DUTY MILITARY STRENGTH <sup>1</sup>	TOTAL NUMBER OF COURTS <sup>2 &amp; 3</sup>
Up to 100	1
101 to 250	2
251 to 1,000	4
1,001 to 2,000	6
2,001 to 3,500	8
3,501 to 5,500	10
5,501 to 7,500	12
7,501 to 10,000	14

TABLE D-4 ALLOWANCES FOR INDOOR COURTS	
ACTIVE DUTY MILITARY STRENGTH <sup>1</sup>	TOTAL NUMBER OF COURTS <sup>2 &amp; 3</sup>
For each additional 3,000, add	2

- <sup>1</sup> Military strength is defined as active duty military personnel assigned to the installation.
- <sup>2</sup> Each court facility should not exceed 112 m<sup>2</sup> (1,200 ft<sup>2</sup>) gross area, and, when possible, have common walls. These courts are in addition to the space authorized when combined with a gymnasium and physical fitness center. Any combination of indoor courts is allowed. However, the combined total for the installation will not exceed the number of courts authorized in table D-4.
- <sup>3</sup> When there are separate indoor court buildings of four or more courts, an additional 140 m<sup>2</sup> (1,500 ft<sup>2</sup>) gross area is authorized for administrative, exercise space, lockers, storage, toilet facilities, and viewing area functions. For each additional increment of two courts, an additional 24 m<sup>2</sup> (250 ft<sup>2</sup>) gross area is authorized.

d. Libraries.

(1) Design Criteria. DG 1110-3-110 (reference D-6) will be used as a guide when designing libraries.

(2) Main Libraries. Space allowances for main libraries are shown in table D-5. Space allowances may be increased by 10 percent when the facility is designated as a command reference center. Space allowances include provisions for an installation library service center for centralized processing of library materials. If one or more bookmobiles are operated from the main library, a minimum of 28 m<sup>2</sup> (300 ft<sup>2</sup>) gross area per bookmobile will be required in addition for sorting the bookmobile collections, book trucks, and work space for the bookmobile staff.

(3) Branch Libraries. When justified by the requirements of a particular installation, branch libraries, not exceeding 372 m<sup>2</sup> (4,000 ft<sup>2</sup>) in gross area, may be provided in support of an education center or for each increment of 3,000 military strength over 10,000. When military concentrations permit consolidation, the gross area authorized for each increment of 3,000 military strength over 10,000 may be combined into one branch library. The space allocation for branch libraries are in addition to the space criteria for main libraries.

(4) Library Service Centers. When justified by the requirements of a particular area or command, a library service center may be authorized. This is a specialized activity and the functions vary from one center to another. Basically, a library service center is a place where library materials are received, cataloged, processed, recorded, distributed, and redistributed to library outlets and also held in reserve for use as needed. The building size will be determined by the maximum quantity of library materials to be on hand at any one time (that is, the total number of books or other items held in reserve, plus the number of items on hand to be processed for distribution). Space allowances for library service centers are shown in table D-6.

TABLE D-5 SPACE CRITERIA FOR MAIN LIBRARIES		
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
Up to 500 <sup>3</sup>	235	(2,500)

TABLE D-5 SPACE CRITERIA FOR MAIN LIBRARIES		
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
501 to 1,500	420	(4,500)
1,501 to 2,500	580	(6,250)
2,501 to 4,000	745	(8,000)
4,001 to 6,000	975	(10,500)
6,001 to 8,000	1115	(12,000)
8,001 to 12,000	1675	(18,000)
12,001 to 16,000	1860	(20,000)
16,001 to 20,000	2230	(24,000)
20,001 to 26,000	2790	(30,000)
26,001 to 32,000	3345	(36,000)
32,001 to 40,000	4090	(44,000)
40,001 to 50,000	5015	(54,000)
50,001 to 60,000	5945	(64,000)
60,001 to 70,000	6765	(72,000)
70,001 to 80,000	7525	(81,000)
80,001 to 90,000	8360	(90,000)
90,001 to 100,000	9105	(98,000)

<sup>1</sup> Military population is defined as active duty military personnel assigned to the installation, plus 40 percent of their dependents.

<sup>2</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

<sup>3</sup> This requirement should be accommodated in other facilities.

TABLE D-6 SPACE CRITERIA FOR LIBRARY SERVICE CENTERS	
LIBRARY MATERIALS TO BE	GROSS AREA <sup>1</sup>

	square meters	(square feet)
Up to 40,000	560	(6,000)
40,001 to 60,000	930	(10,000)
60,001 to 80,000	1210	(13,000)
80,001 to 100,000	1485	(16,000)
100,001 to 120,000	1765	(19,000)
120,001 to 140,000	2045	(22,000)
140,001 to 160,000	2230	(24,000)
160,001 to 180,000	2415	(26,000)
180,001 to 200,000	2600	(28,000)

<sup>1</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

16\ e. MWR/Recreation Supply/Support Facilities. MWR, recreation supply and support facilities include administrative, check-out, equipment storage, and recreational support facilities. Space allowances are shown in table D-7.

TABLE D-7 SPACE CRITERIA FOR MWR/RECREATION SUPPLY/SUPPORT FACILITIES				
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>			
	SUPPLY FACILITIES		ADMINISTRATIVE	
	square meters	(square feet)	square meters	(square feet)
Up to 1,000	325	(3,500)	Not less than 8 m <sup>2</sup> (80 ft <sup>2</sup> ), and not less than 9 m <sup>2</sup> (90 ft <sup>2</sup> ), of net space per employee.	
1,001 to 2,000	465	(5,000)		
2,001 to 4,000	670	(7,500)		
4,001 to 8,000	930	(10,000)		
8,001 to 12,000	1160	(12,500)		
12,001 to 20,000	1485	(16,000)		
20,001 to 50,000	1905	(20,500)		
50,001 to 100,000	2790	(30,000)		

- <sup>1</sup> Military population is defined as active duty military personnel assigned to the installation, plus 25 percent of their dependents.
- <sup>2</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

f. Outdoor Courts and Fields. For a military population (active duty military personnel assigned to the installation, plus 35 percent of their dependents) up to 500, one tennis court may be provided. One additional tennis court may be provided for each 500 military population up to a maximum of 10 tennis courts. Further, for each additional 1,000 military population above 5,000, one additional tennis court may be provided. Facilities may be provided as follows:

(1) Running Track and Baseball Field. One 400 m (1,312 ft) running track and one regulation baseball field may be provided at Army installations with a military strength of 1,000 and over.

(2) Athletic Facilities. For an active duty military strength assigned to an installation up to 750, and for each increment of 1,000 thereafter, the following facilities may be provided:

- (a) One (1) Badminton Court.
- (b) Two (2) Basketball Courts.
- (c) One (1) Combination Football and Soccer Field.
- (d) One (1) Handball and Racquetball Court.
- (e) Two (2) Regulation Softball Fields.
- (f) Two (2) Volleyball Courts.

(3) Baseball Field and Soccer Field. For a dependent population, ages six to 19, up to 500 and for each increment of 500 thereafter up to 2,500, one youth baseball field and one youth soccer field may be provided. An additional youth baseball and soccer field may be provided for each additional increment of 750 dependent population ages six to 19.

(4) Irrigation and Night Lighting Systems. These systems may be provided as required for all of the above facilities.

g. Outdoor Recreation Operations Activity Center. This type of facility includes classrooms, demonstration areas, and meeting rooms for use in conducting instructions for beginners and more advanced participants in outdoor recreation activities such as archery, camping, parking, nature interpretation, and repelling; and subject areas such as firearms safety, lifesaving, and wilderness survival.

(1) Administrative Space. Administrative space should be provided for the facility manager and staff to conduct program planning; organize activities and groups of participants; and handle reservations and the daily check-in and check-out of equipment.

(2) Display Area. A nature display area should be provided.

(3) Storage. A storage area should be provided for outdoor recreation equipment such as backpacks, boats and poles, camper trailers, fishing boats and motors, fishing equipment, skis, and tents and other camping equipment. A fenced hard-surfaced outside storage area should be provided for large items of equipment such as

boats, hard-side camper trailers, and recreational vehicles. Maintenance and repair areas should be provided to support the complete maintenance and repair of all equipment.

(4) Allowances. Space allowances for outdoor recreation operations activity centers are shown in table D-8.

TABLE D-8 SPACE CRITERIA FOR OUTDOOR RECREATION OPERATIONS ACTIVITY CENTERS		
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
Up to 100	30	(300)
101 to 500	55	(600)
501 to 1,000	115	(1,250)
1,001 to 5,000	235	(2,500)
5,001 to 10,000	465	(5,000)
10,001 to 30,000	930	(10,000)
30,001 to 60,000	1395	(15,000)
60,001 to 100,000	1860	(20,000)

<sup>1</sup> Military population is defined as active duty military personnel assigned to the installation, plus 25 percent of their dependents.

<sup>2</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

h. Outdoor Recreation Pavilions. The purpose of this facility is to support recreational areas such as beaches, parks, picnic areas, and playgrounds. This facility may include a concession stand, lounge, snackbars, storage areas, and toilet facilities, or all of those facilities for limited and related items as required. Space allowances may be used in varying numbers and sizes of pavilions. Space allowances are shown in table D-9.

TABLE D-9 SPACE CRITERIA FOR OUTDOOR RECREATION PAVILIONS		
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
Up to 1,000	75	(800)
1,001 to 3,000	125	(1,50)
3,001 to 7,000	245	(2,600)

TABLE D-9 SPACE CRITERIA FOR OUTDOOR RECREATION PAVILIONS		
MILITARY POPULATION <sup>1</sup>	GROSS AREA <sup>2</sup>	
	square meters	(square feet)
7,001 to 10,000	300	(3,200)
10,001 to 15,000	375	(4,000)
15,001 to 20,000	455	(4,900)
20,001 to 25,000	520	(5,600)
25,001 to 30,000	585	(6,300)
30,001 to 40,000	680	(7,300)
40,001 to 50,000	790	(8,500)
50,001 to 60,000	895	(9,600)
60,001 to 70,000	985	(10,600)
70,001 to 80,000	1070	(11,500)
80,001 to 90,000	1150	(12,400)
90,001 to 100,000	1235	(13,300)

<sup>1</sup> Military population is defined as active duty military personnel assigned to the installation, plus 50 percent of their dependents.

<sup>2</sup> Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.

i. Parks and Trails. On installations where the land area is available, the development of parks should be considered. Parks may range from small play areas to large installation parks and should be the subject of special studies. Consideration should be given to developing trails for archery, bicycles or off-road vehicles, fitness, hiking, horseback riding, jogging, nature study, or other use, either with or separate from such parks.

j. Recreation Centers. This type of facility serves as a center for recreation to enhance the life of the military community through leisure time activities: competitive, cultural, educational, and social. Programs will be provided to serve individuals, families, groups, units, and community-wide interests. At some installations, other recreation programs such as arts and crafts, libraries, or music and theater, may be collocated because of economies of construction and convenience of the users. In such cases, space allocated to these other programs must conform to the total installation authorization for each type of facility included. DG 1110-3-132 (reference D-4) will be used as a guide when designing recreation centers. Space allowances for recreation centers are shown in table D-10.

TABLE D-10 SPACE CRITERIA FOR RECREATION CENTERS	
	GROSS AREA <sup>2 &amp; 3</sup>

	square meters	(square feet)
Up to 250	Note <sup>4</sup>	Note <sup>4</sup>
251 to 500 <sup>5</sup>	375	(4,000)
501 to 2,000	1180	(12,700)
2,001 to 4,000	1840	(19,800)
4,001 to 5,000	2585	(27,800)
5,001 to 10,000	5165	(55,600)
10,001 to 15,000	7750	(83,400)
For each additional 5,000	2585	(27,800)

- 1 Military population is defined as active duty personnel assigned to the installation, plus 10 percent of their family members.
- 2 Mechanical, electrical, and electronic equipment room space as required will be added to the gross areas shown when determining a single gross area figure for each facility.
- 3 Gross areas may be provided in more than one facility provided the total maximum authorized area is not exceeded.
- 4 This requirement should be accommodated in other facilities.
- 5 Gross area will be combined with other recreation facilities when possible.

k. Religious Activities Facilities.

(1) Standardization. The Center of Standardization (COS) for chapels, small chapels, chapel centers with expanded religious education facilities (REF), separate REF, and chapel family life centers is Omaha District Engineer Office. In addition, the chief of Chaplains Office should be contacted whenever a specific project is being proposed to get their assistance in developing programming data. The functional criteria used in developing and updating these facility types are as follows:

(a) Support religious worship of many kinds including the accommodation of various sacramental services, dedications, marriage and memorial services.

(b) Support religious education and instruction, religious fellowship, religious personal and family needs and religious pastoral care of many kinds.

(c) Support the community and professional functions that correspond with these religious functions including the support of Family Life and general community activities that build healthy military communities and support for Deployment and Mobilization actions.

(d) Support the administrative activities necessary to operate and maintain the facilities in a manner beneficial to the Installation./29/

(2) Obsolete Criteria. DG 1110-3-116 will not be used as a guide when designing chapels and religious education facilities. The criteria contained in this design guide have been superseded by the new criteria stated below.

(3) Some criteria which applies to all facilities, such as regarding security or anti-terrorism, can have periods where changes are occurring rapidly to meet new needs. The latest versions of these criteria are to be sought and applied to Religious Activities Facilities as appropriate.

(4) Chapels (Category Codes: 73017, 73019 and 73020)

(a) Standard Troop, Post and Unit Chapel and Chapel Centers. The standard size troop (Training Center or TOE units), post, unit and chapel center is composed of three basic sizes (schemes) of chapel facilities.

The size identified as "Chapel" is 1660 Square Meters (17,900 square feet) in area **with a "regular" weekly seating capacity of 200 persons** and a "special occasion" capacity of 355 persons by utilizing chairs in the adjoining (the two spaces are separated by movable partitions) activity room.

The size identified as "Chapel Center" is 2100 Square Meters (22,600 square feet) in area **with a "regular" weekly seating capacity of 400 persons** and a "special occasion" capacity of 629 persons by utilizing chairs in the adjoining (the two spaces are separated by movable partitions) activity room.

The size identified as "Chapel Complex" is 3050 Square Meters (32,900 square feet) in area **with a "regular" weekly seating capacity of 600 persons** and a "special occasion" capacity of 1191 persons by utilizing chairs in the adjoining (the two spaces are separated by movable partitions) expansion area/classroom and activity room.

All three sizes include religious education space, separate mechanical, electrical, and electronic equipment room space, and a variety of features that allow each facility to support a full range of Chaplaincy programs.

(b) Standard Small Chapels. In addition to the regular chapel standard designs there are two sizes (schemes) of chapels specifically developed for unusually small sites or congregations. New small chapels will be designed in accordance with the approved Department of the Army standard design DEF 730-19-02 (reference D-8).

The size identified as "Scheme A" is 280 Square Meters (3,000 square feet) in area with a maximum seating capacity of 60 persons.

The size identified as "Scheme B" is 440 Square Meters (4,770 square feet) in area with a maximum seating capacity of 120 persons.

These two sizes of facility include enough features to allow each facility to support a reasonable, but limited range of Chaplaincy programs.

(c) Functional Areas. Adequate and appropriate individual offices (such as for chaplains and senior assistants), group offices and other common administrative spaces required for the Unit Ministry Teams will be provided within the allowances indicated above. In addition, chapels will include a primary worship center/auditorium with a podium type raised platform and seating area, a large group activity room with a stage type raised platform and seating area, baptistery suite, kitchen/pantry room, primary entrance narthex/reception area, sacristy/robing room, resource room, general use classrooms in multiple sizes and some "special use" classroom suites. These suites will consist of blessed sacrament/reconciliation rooms, a choir room and a nursery room, each adjacent to general classroom space that these activities can expand into when necessary. In addition to these specific spaces each chapel center will also include appropriate circulation space, storage

spaces, toilet facilities, and equipment spaces to support the total building and all of its functions./29/

(d) Space Allowances. Space allowances for chapels will be based on the installation population as defined in Note 1 of table D-11. The authorized space allowances for chapels are shown in table D-11.

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TABLE D-11 SPACE CRITERIA FOR CHAPELS		
INSTALLATION POPULATION	GROSS AREA <sup>1 and 3</sup>	
	square meters	(square feet)
Up to 500 <sup>2</sup>	280	(3,000)
501 to 2,000	440	(4,770)
2,001 to 6,000	1,660	(17,900)
6,001 to 10,000	2,100	(22,600)
10,001 to 14,000	3,060	(32,900)
14,001 to 18,000	4,200	(45,200)
18,001 to 22,000	5,160	(55,500)
22,001 to 24,000 <sup>3</sup>	5,620	(60,500)
24,001 and over by 2,000's	By 470's	By (5,000)'s

<sup>1</sup> Note: Mechanical, electrical, and electronic equipment room space as required has been added to calculate the gross areas shown.

<sup>2</sup> Note: Requirement generated only where a chaplain is authorized.

<sup>3</sup> Note: Installations with ASIP population over 22,001 will have at least one Chapel Complex and will determine additional chapel sizes through installation religious needs analysis.

<sup>4</sup> Note: Deviation from chapel sizes due to existing facilities may be requested from DACH-IML.

/29/

(5) REF, and Chapel Family Life Centers (Category Code: 73018)

(a) These facilities are normally operated in conjunction with existing chapels on installations where there is adequate worship space but inadequate or no activity space, counseling space or REF classroom space. The facility provides space for an activity center, REF classrooms, conference/library/training room, family life chaplain, family life administration office, group/family counseling, individual counseling, resource center, kitchen/pantry, toilet facilities, storage space and reception and waiting areas as required.

(b) The Chapel Family Life Center is composed of two schemes. Scheme "A" (without covered drop-off) is \29\1095 m<sup>2</sup> (11,786 ft<sup>2</sup>)/29/ gross area including separate mechanical, electrical, and electronic equipment room space. Scheme B (without covered drop-off) is \29\1575 m<sup>2</sup> (16,953 ft<sup>2</sup>)/29/ gross area including

separate mechanical, electrical, and electronic equipment room space with additional REF classrooms, family life/pastoral care areas and a larger administration area.

(c) The REF is composed of three schemes. Scheme "A" (without covered link) is 29,292 m<sup>2</sup> (3,140 ft<sup>2</sup>)/29/ gross area including separate mechanical, electrical, and electronic equipment space. Scheme "B" (without covered link) is 29,465 m<sup>2</sup> (5,005 ft<sup>2</sup>)/29/ gross area including separate mechanical, electrical, and electronic equipment room space. Scheme "C" (without covered link) is 29,868 m<sup>2</sup> (9,340 ft<sup>2</sup>)/29/ gross area including separate mechanical, electrical, and electronic equipment space.

(d) New REF and Chapel family life centers will be designed in accordance with the approved Department of the Army standard design packages, DEF 730-18-01 (reference D-9) and DEF 730-18-02 (reference D-10).

(e) Space Allowances. Space allowances for REF and Chapel Family Life centers will be calculated independently of and exclusive of chapel requirements based on the installation population as defined in Note 1 of table D-11. The authorized space allowances for REF and Chapel Family Life centers are shown in table D-12.

29\

TABLE D-12 SPACE CRITERIA FOR REF AND CHAPEL FAMILY LIFE CENTERS		
INSTALLATION POPULATION	GROSS AREA <sup>1</sup>	
	square meters	(square feet)
Up to 1,200	0	(0)
1,201 to 4,000	292	(3,140)
4,001 to 8,000	465	(5,005)
8,001 to 12,000	868	(9,340)
12,001 to 16,000	1095	(11,786)
16,001 to 20,000	1575	(16,953)
20,001 to 25,000	2175	(23,412)
25,001 to 30,000	2775	(29,870)
30,001 to 36,000	3375	(36,328)
36,001 and over	3975	(42,787)

<sup>1</sup> Note: Mechanical, electrical, and electronic equipment room space as required has been added to calculate the gross areas shown.

/29/

I. Swimming Facilities (Indoor Pool and Outdoor Pool/Beaches).

(1) Indoor Swimming Pool. One installation swimming pool may be enclosed to allow for year around use. The building will not exceed 1319 m<sup>2</sup> (14,200 ft<sup>2</sup>) gross area for a 25-meter swimming pool with locker rooms and will not exceed 2118 m<sup>2</sup> (22,800 ft<sup>2</sup>) gross area for a 50-meter swimming pool exclusive of the authorized locker rooms.

(2) Bathhouse. A bathhouse should include a check-in area, equipment storage area, lifeguard room, office, showers, toilet facilities and dressing room areas, including wall lockers for both male and female swimmers. One bathhouse not to exceed 372 m<sup>2</sup> (4,000 ft<sup>2</sup>) gross area may be provided for each installation with a beach. One bathhouse of 372 m<sup>2</sup> (4,000 ft<sup>2</sup>) gross area may be provided with each 25-meter outdoor swimming pool. One bathhouse of 604 m<sup>2</sup> (6,500 ft<sup>2</sup>) gross area may be provided with each 50-meter outdoor swimming pool. A bathhouse is required only at outdoor recreation areas that have an outdoor swimming pool or beach facilities.

(3) Diving Areas and Boards. Diving area allocations are additive to the water surface areas shown in table D-13. Diving areas of swimming pools may be equipped with from one to three diving boards. The diving area will be sized as follows for the number of diving boards specified:

- (a) One diving board: 14 m by 8 m (45 ft by 24 ft).
- (b) Two diving boards: 14 m by 11 m (45 ft by 36 ft).
- (c) Three diving boards: 14 m by 15 m (45 ft by 48 ft).

(4) Swimming Lanes. The specified swimming pool dimensions in table D-14 permit the development of either six- or eight-lane facilities. Interior lanes will be 2.5 m (8 ft 1-1/2 inches) wide and the outside lanes will be 3 m (9 ft 7-1/2 inches) wide.

(5) Safety Deck. Minimum safe deck widths of 4 m (12 ft) indoors and 5 m (15 ft) outdoors with a 5 m (15 ft) indoor and 6 m (20 ft) outdoor clearance at the diving board end of the swimming pool should be incorporated within the criteria for the overall sizing of swimming pool facilities.

(6) Other Criteria. All swimming pools may be equipped with overhead and underwater lighting and heated as required. Wading and splash pools may be added to each outdoor swimming pool and are additives to the basic swimming pool areas shown in table D-13.

(7) Allowances. The number of authorized standard size swimming pools with bathhouses is shown in table D-13.

TABLE D-13 CRITERIA FOR INSTALLATION INDOOR AND OUTDOOR SWIMMING POOLS	
	NUMBER OF POOLS AUTHORIZED

	25-meter <sup>2</sup>	50-meter <sup>2</sup>
Up to 250	Note <sup>3</sup>	Note <sup>3</sup>
251 to 3,000	1	None
3,001 to 6,000	1	1 <sup>4</sup>
6,001 to 10,000 <sup>5</sup>	2	1

<sup>1</sup> Military population is defined as active duty military personnel assigned to the installation, plus 70 percent of their dependents.

<sup>2</sup> 25-meter pool measuring 21 m by 25 m (68 ft by 82 ft - 2 in), 50-meter pool measuring 21 m by 50 m (68 ft by 164 ft).

<sup>3</sup> One swimming pool not to exceed 116 m<sup>2</sup> (250 ft<sup>2</sup>) of water surface area and an 74 m<sup>2</sup> (800 ft<sup>2</sup>) gross area bathhouse may be provided as required.

<sup>4</sup> Outdoor swimming pool only.

<sup>5</sup> One 25-meter outdoor swimming pool with a 372 m<sup>2</sup> (4,000 ft<sup>2</sup>) gross area bathhouse may be provided for each increment of 5,000 military population over 10,000. In lieu of a 25-meter outdoor swimming pool, one 50-meter outdoor swimming pool with a 604 m<sup>2</sup> (6,500 ft<sup>2</sup>) gross area bathhouse may be provided for each increment of 10,000 military population over 10,000. For installations exceeding 20,000 military population, a second indoor swimming pool with bathhouse may be provided.

m. Youth Centers.

(1) General. Youth centers (YC) may be established as required to accommodate the cultural, educational, recreational, and social activities of the eligible youth population, as part of the morale support activities on Army installations. The eligible youth population is defined as dependents 6 through 19 years of age of the active duty military personnel and authorized civilian employees assigned to the installation.

(2) Standardization. The Center of Standardization (COS) for youth centers is the Huntsville Engineering and Support Center.

(a) Standard Design. Copies of the Department of the Army approved YC standard design package, DEF 740-66-01 (reference D-11), are available from the Huntsville Division Engineer Office. This standard design package includes two types of YC – a main YC and a neighborhood YC. This design package will be used for installation master planning purposes and early determination of YC requirements for preparing DD Forms 1391. It provides a description of the functional and operational requirements, criteria, and the basic technical data necessary to implement the final design.

(b) Applicability. The standard design was developed with flexibility to permit its adaptation to all YC construction projects on a worldwide basis without revision, except as noted on the design. Deviations from items identified as mandatory on the standard design package must be approved in accordance with ER 1110-3-113 (reference D-12). Requests for deviations should be coordinated with the U.S. Army Community and Family Support Center (USACFSC), Alexandria, VA.

(c) DG 1110-3-138. DG 1110-3-138 (reference D-13) will continue to be used as a guide when planning and designing a YC. In the event of a conflict between the DG 1110-3-138 and the standard design, the

later will take precedence.

(2) Functional Areas. Youth centers will be designed to meet the developmental needs of the youth whose composition may vary from installation to installation. Within the user population range, their interest will vary according to age, sex, and physical and mental condition, cultural conditioning, and peer-group behavior pattern. To fulfil the needs for the different subgroups of users the following functional areas have been provided in the standard design: game room, lounges, snack facilities, small multi-purpose room, project room, large multi-purpose room (not provided in neighborhood YC), supervision and administration module, and storage and toilet facilities.

TABLE D-14 STANDARD MAIN YOUTH CENTER SIZES <sup>1</sup>		
ELIGIBLE YOUTH POPULATION <sup>2</sup>	GROSS AREA <sup>3</sup>	
	square meters	(square feet)
Up to 250	Note <sup>4</sup>	Note <sup>4</sup>
251 to 600	892	(9,601)
601 to 1,200	1130	(12,159)
1,201 to 2,400	1331	(14,321)
2,401 to 4,800	1818	(19,568)
For each additional 600, add <sup>5</sup>	225	(2,412)

<sup>1</sup> Environmental Adjustment Factor. This table provides maximum allowances when no such facilities are available in the local community. Facilities in the local community will be considered in justifications for youth centers.

<sup>2</sup> Eligible youth population will be established by determining the enrollment in the local school districts (on or off the installation) of the dependent youths ages 6 through 19 of the active duty military personnel and the authorized civilian employees assigned to the installation.

<sup>3</sup> Mechanical, electrical, and electronic equipment room space as required has been added to the gross areas shown. Additional space will not be added when determining a single gross area figure for each facility.

<sup>4</sup> This requirement should be accommodated in other facilities.

<sup>5</sup> No standard designs exist for YC serving over 4,800 youth population. Functional relationships and space adjacencies shown in the largest YC standard design (2,401 to 4,800 youth population) will be maintained, if feasible, when designing larger facilities.

(3) Space Criteria. The space allowances for YC are shown in tables D-14 and D-15. When justified by the requirements of a particular installation, neighborhood YC may be constructed only as a supplement to a main YC.

TABLE D-15 STANDARD NEIGHBORHOOD YOUTH CENTER SIZES <sup>1</sup>		
ELIGIBLE YOUTH POPULATION <sup>2</sup>	GROSS AREA <sup>3</sup>	
	square meters	(square feet)
Up to 250	Note <sup>4</sup>	Note <sup>4</sup>
251 to 600	422	(4,539)
601 and over	561	(6,040)

<sup>1</sup> Environmental Adjustment Factor. This table provides maximum allowances when no such facilities are available in the local community. Facilities in the local community will be considered in justifications for youth centers.

<sup>2</sup> Eligible youth population will be established by determining the enrollment in the local school districts (on or off the installation) of the dependent youths ages 6 through 19 of the active duty military personnel and the authorized civilian employees assigned to the installation.

<sup>3</sup> Mechanical, electrical, and electronic equipment room space as required has been added to the gross areas shown. Additional space will not be added when determining a single gross area figure for each facility.

<sup>4</sup> This requirement should be accommodated in other facilities. /16/

#### 4. REFERENCES.

- D-1 AR 210-20, Master Planning for Army Installations
- D-2 DoD Directive 1015.6, Funding of Morale, Welfare and Recreation (MWR) Programs, August 3, 1984
- D-3 DG 1110-3-142, Design Guide, Community Activity Centers, December 1984
- D-4 DG 1110-3-132, Design Guide, Recreation Centers, January 1976
- D-5 DG 1110-3-120, Design Guide for Music and Drama Centers, January 1981
- D-6 DG 1110-3-110, Design Guide for Libraries, February 1983
- D-7 DEF 730-19-01, Department of the Army Standard Design Package for Army Chapel, 15 May 1987 and 16 May 1989, prepared by the Omaha District Engineer Office
- D-8 DEF 730-19-02, Department of the Army Standard Design Package for Small Chapel, 26 October 1988, prepared by the Omaha District Engineer Office
- D-9 DEF 730-18-01, Department of the Army Standard Design Package for Chapel Family Life Centers, 26 October 1988, prepared by the Omaha District Engineer Office
- D-10 DEF 730-18-02, Department of the Army Standard Design Package for Religious Education Facilities, August 1991, prepared by the Omaha District Engineer Office

- D-11 DEF 740-66-01, Department of the Army Standard Design Package for Youth Center, January 1989, prepared by the Little Rock District Engineer Office (Huntsville Engineering and Support Center is now the COS for Youth Centers)
- D-12 ER 1110-3-113, Department of the Army Facilities Standardization Program, 27 September 1993
- D-13 DG 1110-3-138, Design Guide for Dependent Youth Activity Centers