

1 May 2013

# **FACILITIES CRITERIA (FC)**

---

## **NAVY AND MARINE CORPS FITNESS CENTERS**



**APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED**

**FC 4-740-02N****1 May 2013**

**UNIFIED FACILITIES CRITERIA PROGRAM**  
**FACILITIES CRITERIA NAVY AND MARINE CORPS**

**FITNESS CENTERS**

Any copyrighted material included in this FC is identified at its point of use.  
Use of the copyrighted material apart from this FC must have the permission of the copyright holder.

U.S. ARMY CORPS OF ENGINEERS

NAVAL FACILITIES ENGINEERING COMMAND (Preparing Activity)

AIR FORCE CIVIL ENGINEER SUPPORT AGENCY

Record of Changes

<b>Change No.</b>	<b>Date</b>	<b>Location</b>

---

**This FC supersedes UFC 4-740-02, dated 26 September 2006 and UFC 4-740-02, Fitness Centers (Draft) dated April 2009.**

## **FOREWORD**

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

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

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

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

FC are effective upon issuance and are distributed only in electronic media from the following source:

- Whole Building Design Guide web site <http://dod.wbdg.org/>.

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

### **AUTHORIZED BY:**



---

JOSEPH E. GOTT, P.E.

Chief, Engineer

Naval Facilities Engineering Command

## **FACILITIES CRITERIA (FC)** **REVISION SUMMARY SHEET**

**Document:** FC 4-740-02, Navy and Marine Corps Fitness Centers dated 1 May 2013

**Superseding:** UFC 4-740-02, Fitness Centers dated 26 September 2006 and the UFC 4-740-02, Fitness Centers (Draft) dated April 2009.

**Description:** This FC separates the consolidated Tri-Service UFC version and replaces the Fitness Centers (Draft) UFC version used by the Navy, into a Navy-only FC version for Fitness Centers criteria.

Austere design and construction requirements have been added as Appendix F.

Information regarding aquatic facilities and pools is not included in this FC document. Additional information regarding recreations centers is in UFC 4-740-16, *Design: Military Recreation Centers*.

**Reasons for Document:** This FC contains the criteria for determining the appropriate size of a Fitness Center based on base population. It also provides non-Government standard resources that provide guidance in the design of Fitness Centers.

This document also contains requirements for Fitness Center facilities that are specifically designated as austere by CNIC. The requirements are located in an appendix to this document.

**Impact:** Cost impacts are negligible, except CONUS for austere projects. Austere guidance is generally deductive, and some cost savings is expected.

**Non-unification Issues:** The following are issues that remain non-unified and the reasoning for each:

**Navy and Marine Corps (MC)** have differing fitness programs and fitness metrics. There are differences noted in this document that are attributed to the fitness program specifics. Most of the programmatic differences are indicated in the text of this document or on the Functional Program Tables. These differences are a part of either the Navy or Marine Corps fitness program and listed as optional or not required by other Service. Where Navy or Marine Corps dictate program differences, it is indicated within this document.

## TABLE OF CONTENTS

<b>CHAPTER 1 INTRODUCTION .....</b>	<b>1</b>
<b>1-1 SCOPE OF DOCUMENT.....</b>	<b>1</b>
<b>1-2 APPLICABILITY.....</b>	<b>1</b>
<b>1-3 SERVICE CONTACTS .....</b>	<b>1</b>
<b>1-4 DESIGN TEAM QUALIFICATIONS .....</b>	<b>1</b>
<b>1-5 USERS OF FACILITY .....</b>	<b>1</b>
<b>1-6 RELATED DOCUMENTS.....</b>	<b>2</b>
<b>CHAPTER 2 PLANNING AND LAYOUT.....</b>	<b>3</b>
<b>2-1 SCOPE OF FACILITY. ....</b>	<b>3</b>
<b>2-2 PROGRAM AREAS. ....</b>	<b>3</b>
2-2.1 Fitness Program, Administrative Areas, and Building Support.....	3
<b>2-3 SIZE DETERMINANTS .....</b>	<b>7</b>
2-3.1 Navy .....	8
2-3.2 Marine Corps .....	8
<b>2-4 SPACE PROGRAM.....</b>	<b>8</b>
2-4.1 Space Tabulation.....	9
2-4.2 Interactive Planning Spreadsheet. ....	9
<b>2-5 LOCATION DETERMINANTS.....</b>	<b>9</b>
2-5.1 Access .....	9
2-5.2 Related Facilities .....	10
2-5.3 Cost .....	10
2-5.4 Expansion.....	10
<b>2-6 LAYOUT AND ADJACENCIES.....</b>	<b>10</b>
2-6.1 Basic Facility.....	11
2-6.2 Facility to Accommodate a Pool.....	12
<b>2-7 SPACE ASSESSMENT .....</b>	<b>12</b>
<b>2-8 ALTERATIONS TO EXISTING FACILITIES .....</b>	<b>12</b>
2-8.1 Other Considerations.....	13
<b>CHAPTER 3 GENERAL DESIGN CRITERIA.....</b>	<b>15</b>
<b>3-1 GENERAL. ....</b>	<b>15</b>
3-1.1 Accessibility. ....	15
<b>3-2 STRUCTURE.....</b>	<b>15</b>

<b>3-3</b>	<b>ARCHITECTURE.....</b>	<b>15</b>
3-3.1	Entrances/Exits.....	15
3-3.2	Interior Design.....	16
3-3.3	Acoustics.....	17
<b>3-4</b>	<b>SERVICES.....</b>	<b>18</b>
3-4.1	Plumbing.....	18
3-4.2	Heating, Ventilating, and Air Conditioning (HVAC).....	18
3-4.3	Fire Protection and Life Safety.....	18
3-4.4	Electrical.....	19
<b>3-5</b>	<b>FURNISHINGS AND EQUIPMENT.....</b>	<b>20</b>
<b>3-6</b>	<b>SITE DESIGN AND ORGANIZATION.....</b>	<b>20</b>
3-6.1	Landscaping.....	20
3-6.2	Parking and Access Drives.....	20
3-6.3	Service Drive.....	21
<b>3-7</b>	<b>SUSTAINABLE DESIGN – LEED AND COMMISSIONING.....</b>	<b>21</b>
<b>3-8</b>	<b>BARRIER-FREE DESIGN REQUIREMENTS.....</b>	<b>21</b>
<b>3-9</b>	<b>ANTITERRORISM.....</b>	<b>21</b>
<b>CHAPTER 4</b>	<b>SPECIFIC DESIGN CRITERIA.....</b>	<b>23</b>
<b>4-1</b>	<b>INTRODUCTION.....</b>	<b>23</b>
<b>CHAPTER 5</b>	<b>MULTIPURPOSE FIELD.....</b>	<b>75</b>
<b>5-1</b>	<b>INTRODUCTION AND PLANNING ISSUES.....</b>	<b>75</b>
5-1.1	Related Activity Areas.....	75
5-1.2	Shared Efficiencies.....	75
<b>5-2</b>	<b>PROGRAM AREAS.....</b>	<b>75</b>
<b>5-3</b>	<b>SPACE PROGRAM.....</b>	<b>77</b>
<b>5-4</b>	<b>LOCATION DETERMINANTS.....</b>	<b>77</b>
<b>5-5</b>	<b>LAYOUT AND ADJACENCIES.....</b>	<b>77</b>
5-5.1	Support Building.....	77
5-5.2	Field and Site.....	79
5-5.3	Space Assessment.....	79
<b>5-6</b>	<b>GENERAL DESIGN CRITERIA.....</b>	<b>79</b>
5-6.1	Accessibility.....	79
5-6.2	Exterior Lighting.....	80

<b>5-7</b>	<b>SITE DESIGN .....</b>	<b>80</b>
<b>5-8</b>	<b>SPECIFIC DESIGN CRITERIA.....</b>	<b>80</b>
	APPENDIX A REFERENCES .....	89
	APPENDIX B SPACE PROGRAM .....	93
B-1	SPACE PROGRAM STANDARDS .....	93
B-2	SAMPLE INTERACTIVE SPREADSHEETS.....	95
	APPENDIX C EQUIPMENT LISTS.....	107
C-1	FITNESS EQUIPMENT LISTS .....	107
C-1.1	FREE/PLATE-LOADED WEIGHTS .....	107
C-1.2	SELECTORIZED (MACHINE) EQUIPMENT.....	109
C-1.3	CARDIOVASCULAR EQUIPMENT .....	110
	APPENDIX D HITT CENTER.....	113
D-1	HITT CENTER LAYOUT.....	113
D-2	HITT CENTER EQUIPMENT LIST .....	114
	APPENDIX E GLOSSARY .....	117
	APPENDIX F AUSTERE FITNESS CENTERS .....	121
F-1	PURPOSE.....	121
F-2	DEFINITION AND SCOPE.....	121
F-3	APPLICABILITY.....	121
F-4	MODIFICATIONS FOR AUSTERE CONSTRUCTION .....	121

## FIGURES

Figure 2-1.	Basic Facility Functional Relationship Diagram .....	11
Figure 2-2.	Facility to Accommodate a Pool Functional Relationship Diagram .....	12
Figure 5-1.	Multipurpose Field Space Program.....	77
Figure 5-2.	Support Building Functional Relationship Diagram .....	78
Figure 5-3.	Field and Site Functional Relationship Diagram .....	79
Figure B-1.	Space Program Standards .....	94
Figure B-2.1	Sample Interactive Worksheet for a Navy Fitness Center .....	96
Figure B-2.2	Sample Interactive Worksheet for a Marine Corps Fitness Center .....	101

## TABLES

Table 2-1. Functional Program Areas.....	4
Table 4-1. Entry/Lobby and Waiting/Display .....	24
Table 4-2. Control Counter/Equipment Issue/Storage.....	25
Table 4-3. Retail/Vendng/Food and Beverage Sales. ....	27
Table 4-4. Public Toilets.....	28
Table 4-5. Janitor's Closet.....	29
Table 4-6. Administrative Offices .....	30
Table 4-7. Classrooms/Conference Rooms .....	31
Table 4-8. Copy/Work/Break Room.....	32
Table 4-9. Gymnasium/Basketball/Volleyball Courts.....	33
Table 4-10. Gymnasium Storage/Support.....	36
Table 4-11. Unit PT/Group Exercise Room .....	37
Table 4-12. Fitness Area .....	39
Table 4-13. Fitness Assessment Room.....	42
Table 4-14. Fitness Assessment Cell.....	43
Table 4-15. Rock Climbing .....	44
Table 4-16. Racquetball Courts.....	46
Table 4-17. Men's and Women's Lockers/Dressing .....	48
Table 4-18. Men's and Women's Toilets .....	50
Table 4-19. Men's and Women's Showers.....	52
Table 4-20. Sauna.....	54
Table 4-21. Convertible Locker Space .....	55
Table 4-22. Laundry. ....	57
Table 4-23. Receiving and Equipment Repair/Storage. ....	59
Table 4-24. Indoor Track .....	60
Table 4-25. Massage Room.....	62
Table 4-26. Family Changing Room/Family Locker Room .....	63
Table 4-27. Parent/Child Area.....	65
Table 4-28. Functional Fitness .....	67
Table 4-29. Auxiliary Gymnasium.....	69
Table 4-30. High Intensity Tactical Training (HITT) Center .....	71
Table 4-31. Indoor Cycling .....	73
Table 5-1. Multipurpose Field Functional Program Areas .....	76
Table 5-2. Concessions.....	81
Table 5-3. Covered Public Space.....	82
Table 5-4. Men's and Women's Toilets .....	83
Table 5-5. Maintenance Bay .....	84
Table 5-6. Announcer's Booth/Press Box.....	85
Table 5-7. Dry Goods and Sports Activity Storage.....	86
Table 5-8. Fields and Site Spaces .....	87
Table F-1. Austere Functional Program Areas .....	122
Table F-2 Austere Interior Finishes .....	125
Table F-3. Entry .....	129
Table F-4. Control Counter/Equipment Issue/Storage.....	130
Table F-5. Public Toilets.....	132



Table F-6. Janitor's Closet .....	133
Table F-7. Administrative Office .....	134
Table F-8. Classrooms/Conference Rooms .....	135
Table F-9. Copy/Work Room.....	136
Table F-10. Gymnasium/Basketball/Volleyball Courts.....	137
Table F-11. Gymnasium Storage/Support.....	139
Table F-12. Unit PT/Group Exercise Room.....	140
Table F-13. Fitness Area .....	142
Table F-14. Men's and Women's Lockers/Dressing .....	144
Table F-15. Men's and Women's Toilets .....	146
Table F-16. Men's and Women's Showers.....	147
Table F-17. Laundry. ....	148

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*

## **CHAPTER 1 INTRODUCTION**

### **1-1 SCOPE OF DOCUMENT.**

This FC provides minimum requirements for evaluating, planning, programming, and designing Navy - MC Fitness Centers. The information in this FC applies to the design of all new construction projects, to include additions, alterations, and renovation projects in the continental United States (CONUS) and outside the continental United States (OCONUS). It also applies to the procurement of design-build services for the above-noted projects. This FC is not intended as a substitution for thorough review by individual Program Managers and Operations Staff.

### **1-2 APPLICABILITY**

This FC applies to all military service elements and contractors involved in the planning, design, and construction of Navy – Marine Corps Fitness Centers.

Programmatic differences are indicated through-out this FC document that are a part of either the Navy or Marine Corps fitness program and listed as optional or not required by other Service. Comply with the Agency requirements that apply to the project.

### **1-3 SERVICE CONTACTS**

Prior to project development, confirm the acquisition methodology and coordinate the design team composition and facility requirements with the following Service contacts:

- Navy. CNIC (N944), Fleet & Family Readiness, Millington, TN; CNIC Fitness, Sports and Deployed Forces Support (N921), Washington, DC.
- Marine Corps. HQMC, Semper Fit and Exchange Services Division, Quantico, VA.

The Program Managers and Headquarters contacts listed above must be involved in review of project scope. The Navy or MC will designate a design team member to be involved with the building plans prior to final approval and must be included in all design phase meetings and the initial construction meeting.

### **1-4 DESIGN TEAM QUALIFICATIONS**

The design team of record for Fitness Centers must have experience designing a minimum of three fitness centers within the previous 5-10 years, unless additional experience requirements are defined in a specific project's RFP. Experience is also required in designing completed fitness facilities of similar size and functions. In addition, experience in designing all components of the programmed project, such as athletic playing fields, running tracks, pools, and other associated functions is required. The design team must coordinate with Service user representatives and construction staff.

### **1-5 USERS OF FACILITY**

The facility users are as follows:

- Active duty military, retired military personnel and their family members; and
- DoD civilians and others as authorized.

## **1-6 RELATED DOCUMENTS**

The Department of Defense (DoD) Memorandum dated 25 January 1999 requires the use of The American College of Sports Medicine's *Health/Fitness Facility Standards and Guidelines* for fitness and sports standards.

Also refer to the following related documents:

Navy:

- UFC 2-000-05N (P-80), Facility Planning Criteria for Navy/Marine Corps Shore Installations.
- Navy Fitness Center Standards and Metrics.

Marine Corps:

- UFC 2-000-05N (P-80), Facility Planning Criteria for Navy/Marine Corps Shore Installations.
- MCO 1700.29c, Marine Corps Fitness Center Standards and Metrics.

## **CHAPTER 2 PLANNING AND LAYOUT**

### **2-1 SCOPE OF FACILITY.**

The Fitness Center comprises the fitness program spaces, the administrative area, and building support.

Within the fitness programs there are core functional program areas and optional functional program areas. All functional program areas are described in Tables 2-1 and in the paragraph below entitled “Program Areas”. All of these spaces are described in greater detail in Chapters 2 and 4. Additionally, due to the numerous possible variations of Fitness Center programs, a special space program tool has been developed to help users calculate a baseline space program for a new Fitness Center. This tool is described in Chapter 2, Space Program.

A Fitness Center may be combined with a natatorium and/or outdoor athletic fields; however, the natatorium and fields have different Category Codes and may be programmed separately or as part of a Fitness Center Complex. Chapter 5 of this document includes requirements for Multipurpose Fields. Requirements for natatoriums and other types of athletic fields are not included in this document.

### **2-2 PROGRAM AREAS.**

#### **2-2.1 Fitness Program, Administrative Areas, and Building Support.**

Table 2-1 lists the core and optional areas for the fitness program, administrative areas, and building support. These are the traditional functions of a Fitness Center. They provide facilities and support services to meet the general fitness, skill development, training, and sports needs of all authorized users. This table identifies functional areas; when programming a facility consider other areas such as circulation/corridors, exterior wall cavities, and Mechanical/Electrical/Communication rooms to determine gross areas of the building – see UFC 3-101-01, *Architecture*, for methods to calculate gross building area. Service specific spaces are identified with an asterisk “ \* ”.

**Table 2-1. Functional Program Areas**

<b>Functional Program Area</b>	<b>Description/ Requirements</b>
<b>Lobby/Reception</b>	
Entry lobby and waiting/display	Entry space in front of control counter and/or vestibule. Combined with a waiting area with seating and display space. Space includes a public telephone.
Control counter/equipment issue storage	Sign-in and small gear issue. Provides visual control via line of sight (LOS) to, at minimum, the entry, free weights, and locker room entrance. Visual control over other key areas must be accommodated via LOS and/or CCTV. Provides area to hold gear for issue (i.e., towels, balls, and racquets).
Retail/vending/food & beverage sales	Food and beverage sales may be combined with gear issue (refrigerator); may be self-serve (vending). Option for a retail area for clothes, sports equipment. Option for an expanded, separate juice counter in lobby space. May be contract space.
Public restrooms	Restrooms used primarily by visitors, spectators, and persons not using the locker and shower rooms. Sizing is tied to gym capacity.
Janitor's closet	Space used by custodial staff, with mop sink and storage space.
<b>Administrative</b>	
Director's office	Private office.
Program managers' offices	Private offices for <b>Marine Corps</b> or workstations for <b>Navy</b> .
Administrative/Support Staff	Workstations.
Classroom/Conference room	Required program space.
Copy/work/break room	Copier, layout space, storage, small staff break area.
<b>Gymnasium</b>	
Basketball/volleyball court(s)	NCAA-size court(s).
Spectator seating	Minimum of 200 seats, more as required and with additional courts.
Storage/support	Storage area with access to both the gym and to the outside if adjacent intramural fields are present.
<b>Unit PT/Group Exercise</b>	
Group exercise room	One large subdivideable room with partitions (for classes and/or unit/command fitness training).
Storage/support	Storage area with access to Unit PT/group exercise room.

Table 2-1. Functional Program Areas

Functional Program Area	Description/ Requirements
<b>Fitness Spaces</b>	
Stretching/warm-up/cool-down	Usually one open space; may use floor finishes to separate subspaces; may use alcoves; may use balconies/mezzanines.
Free/plate-loaded weights	
Selectorized (machine) weights	
Cardiovascular (cardio) equipment	
Fitness program manager's office	Private office adjacent to fitness assessment room and fitness spaces. May include fitness testing equipment. <b>Marine Corps</b> requires fitness testing equipment.
Fitness assessment room	Private office with desk, computer, and chairs for staff to meet with customer adjacent to fitness spaces. Includes fitness testing equipment.
Indoor Track	<b>Navy and Marine Corps</b> —optional. Navy determines permissibility by center size and climate.
<b>Structured Activities</b>	
Structured activity space	Can be used as needed, i.e., for climbing wall, indoor cycling, volleyball, martial arts/boxing, other structured activity, or rolled into other functional areas as needed. <b>Marine Corps</b> only spaces include Auxiliary Gym and High Intensity Tactical Training (HITT).
Racquetball courts	Designed and specified to meet U.S. Racquetball Association Rules.
Spectator area/officiating	Optional for <b>Marine Corps</b> . Not supported by <b>Navy</b> , unless identified as regional facility by CNIC.
Functional Fitness	Functional fitness implies performing exercise in an optimal way, to achieve certain goals that allow improved performance of regular activities outside the gym. Typical equipment in the Functional Fitness area includes A-frames used for various exercises with bands (similar to TRX Suspension Trainer), individual weight stations, and various kettle balls and other equipment.
Auxiliary Gym*	<b>Marine Corps</b> only space. This space is used for sports competitions such as basketball, volleyball, wrestling, and indoor soccer. The auxiliary gymnasium can also support instructional functions, informal, intramural, group exercise/fitness functions, and community events. Preferably the Auxiliary gymnasium will be adjacent to the Main gymnasium, and if not adjacent, must be near.

Table 2-1. Functional Program Areas

Functional Program Area	Description/ Requirements
High Intensity Tactical Training (HITT)*	<b>Marine Corps</b> only space. This is typically one large open space room that is non-partitionable and is used for implementation of the HITT program. Activities/classes such as aerobics, martial arts, yoga, etc. should not be used in this space.
Indoor Cycling	Classroom to accommodate indoor cycling classes, which includes an instructor on a bike and participants on bikes as well. These bikes are different from the stationary bikes utilized in the cardio area.
<b>Locker Rooms</b>	Separate male/female facilities. Each locker room is divided into the three sub areas indicated.
Men's Locker Room	
Locker/dressing area	
Toilet area	
Shower/drying area	
Women's Locker Room	
Locker/dressing area	
Toilet area	
Shower/drying area	
Sauna	Optional. Not supported by <b>Navy</b> Separate male/female facilities. .
Convertible locker space	Optional for <b>Marine Corps</b> only in Large or Extra Large Facilities. Not supported by <b>Navy</b> . This is locker/changing space that can be used for additional male or female space to accommodate tournaments and/or changing demographics. It is a separate room between the male and female locker rooms with double-locked doors into each.
<b>Support Areas</b>	
Laundry	For towels and uniforms.
Receiving and equipment repair/Storage	Receiving, storage, and repair. Area to hold (if necessary), assemble, and repair equipment. Also store overflow from the equipment issue (i.e., seasonal items).
Additional programmatic storage	Optional storage for additional, optional program equipment (i.e., boxing ring). May be combined with receiving/equipment repair. Additional storage must be justified to Service Contacts shown in Chapter 1 of this document.
<b>Other Program Areas</b>	
Massage room	Optional room for massage.



**Table 2-1. Functional Program Areas**

<b>Functional Program Area</b>	<b>Description/ Requirements</b>
Family changing room	Required for <b>Navy</b> if co-located with a pool/natatorium. Optional for <b>Marine Corps</b> . Single-person locker room with shower, lavatory, and toilet—family member accompanies child. Adjacent to locker area, and provide direct access to the pool.
Parent child area	<b>Navy</b> required: Provides a separate room for parents to watch their children while exercising—includes adult fitness equipment on one side and a separate child play area on the other. The two sides are divided by a 30-in.- (760-mm-) high clear wall with a central entry/exit point. <b>Marine Corps</b> required: Provides an unstaffed child care room with play area for the children and a seating/lounge area for the adults. Adult supervision is required in this area. Does not include fitness equipment.
<b>Related Program/Facility Areas</b>	
Pool	Note that pools and natatoriums are a different category code. If a pool/natatorium is desired, it will affect the adjacencies and traffic flow within the building. See Figure 2-3 for these adjacencies. For space and technical criteria for pools/natatoriums, refer to UFC 2-000-05N (P-80), <i>Facility Planning Criteria for Navy/Marine Corps Shore Installations CCN 740-53 and 750-30</i> .
Physical therapy/rehabilitation training	Optional. Note that these functions are a different category code. This space is only supported in special circumstances. Coordinate with the contacts provided in Chapter 1, Service Contacts.
Multipurpose Field	See Chapter 5 for details. Fields may be programmed with or separate from a Fitness Center on a case-by-case basis; also refer to UFC 4-750-02N for other criteria.
Outdoor Track	See Chapter 5 for details. Tracks may be programmed with or separate from a Fitness Center on a case-by-case basis; also refer to UFC 4-750-02N for other criteria.

## 2-3 SIZE DETERMINANTS

Fitness Center size is generally driven by the Installation population. However, the population and sizing factors vary between the Navy and MC.

**2-3.1 Navy**

For Navy population and Fitness Center size criteria, refer to UFC 2-000-05N (P-80), *Facility Planning Criteria for Navy/Marine Corps Shore Installations*, and *Navy Fitness Center Standards and Metrics*. This FC and the associated space program spreadsheet (see Chapter 2, Space Program) have been designed to work with the Navy population and size criteria. In the event of a conflict between this FC and UFC 2-000-05N (P-80), use the criteria in this FC for the purposes of facility design development of Navy projects.

The Navy uses six size classifications:

- Extra small, for populations less than 500;
- Small, for populations between 501 and 3,000;
- Medium, for populations between 3,001 and 7,000;
- Large, for populations between 7,001 and 14,000;
- Extra large, for populations between 14,001 and 30,000; and
- Jumbo, for populations over 30,000.

**2-3.2 Marine Corps**

For Marine Corps population and Fitness Center size criteria, refer to UFC 2-000-05N (P-80), *Facility Planning Criteria for Navy/Marine Corps Shore Installations*. This FC and the associated space program spreadsheet (see Chapter 2, Space Program) have been designed to work with the Marine Corps population and size criteria. In the event of a conflict between this FC and the P-80, use the criteria in this FC.

The Marine Corps uses five size classifications:

- Extra small, for populations less than 500;
- Small, for populations between 501 and 3,000;
- Medium, for populations between 3,001 and 7,000;
- Large, for populations between 7,001 and 14,000; and
- Extra large, for populations between 14,001 and 30,000.

The Marine Corps also uses actual Installation population figures and a specific formula for sizing the fitness spaces on Installations with populations greater than 3,000: Peak load = 3.5% of installation population; fitness area = 45.32 ft.<sup>2</sup> (4.2 m<sup>2</sup>) times peak load. For the purposes of this formula, the fitness areas include only the free weight, selectorized equipment, and cardiovascular equipment areas and do not include space for stretching/warm-up/cool-down and the fitness assessment office.

**2-4 SPACE PROGRAM**

### **2-4.1 Space Tabulation.**

The tabulation of areas for the majority of spaces within a Fitness Center follows the “Building Area Calculations” Section of UFC 3-101-01, *Architecture*. Functional balconies within Fitness Centers used for fitness shall be programmed as full scope in the area calculation. For indoor elevated jogging tracks, Navy and Marine Corps programs these at full square footage.

Space requirements for the optional multipurpose field and supporting facilities can be found in Chapter 5.

### **2-4.2 Interactive Planning Spreadsheet.**

The space program for new Fitness Centers is developed through the use of an interactive spreadsheet. It is completed by first entering the appropriate Service and then selecting the appropriate size basis for the facility. These selections generate the default space program, which is broken down into the spaces listed in Tables 2-1. In some cases, there are options to modify the default numbers or to add optional spaces. This spreadsheet is available as a downloadable Microsoft® Excel® file from the Whole Building Design Guide (WBDG) Website under the DoD page, Unified Facilities Spreadsheets: [http://www.wbdg.org/references/pa\\_dod\\_sps.php](http://www.wbdg.org/references/pa_dod_sps.php)

Samples of completed interactive spreadsheets for each Navy and Marine Corps are included in Appendix B. The data upon which the interactive spreadsheet is based is also provided in Appendix B. Do not use Appendix B to develop the space program—use only the interactive spreadsheet.

The space program developed through the use of the interactive spreadsheet serves as a baseline for the Fitness Center planning team. The final space program for a new Fitness Center will need to be carefully determined by Installation representatives and the appropriate program office guided by the criteria in this FC.

## **2-5 LOCATION DETERMINANTS**

Determine the most appropriate and cost-effective location for a Fitness Center based on the following factors. Ensure the availability and capacity of required utilities and the compatibility of the mass/scale of the facility relative to adjacent structures.

### **2-5.1 Access**

Locate the Fitness Center to be visible and easily accessible to a diverse representation of the target audience. Sites that meet this requirement include along the pedestrian paths to the existing barracks/dormitories, existing MWR/NEX/ MCCS/Services facilities, and/or the dining facility. To accommodate patron access, consider the relationships to existing vehicular and pedestrian circulation patterns, bike trails, and bus stops. Provide adequate parking as close to the facility as possible within antiterrorism (AT) requirements.

**2-5.2 Related Facilities**

Locate the facility near other high-visibility areas and related functions such as outdoor running tracks, sports fields, open park space, swimming pools, outdoor recreation centers, military recreation centers, etc.

**2-5.3 Cost**

Design these facilities with the objective of achieving the lowest life cycle cost over a 50-year period. To do so, the project's design program must adequately define the scope and performance requirements and match those needs against a budget. Conversely, the budget must adequately support an appropriate and high-quality program and the performance requirements outlined and identified in this FC. Also consider possible future additions when selecting the site to ensure cost-effective expansion possibilities.

**2-5.4 Expansion.**

Consider possible future additions when selecting the site to ensure cost-effective expansion possibilities. Future projects may include: additional fitness center spaces, adjacent aquatics/swimming pool, adjacent outdoor sports fields and courts, and new/emerging program requirements.

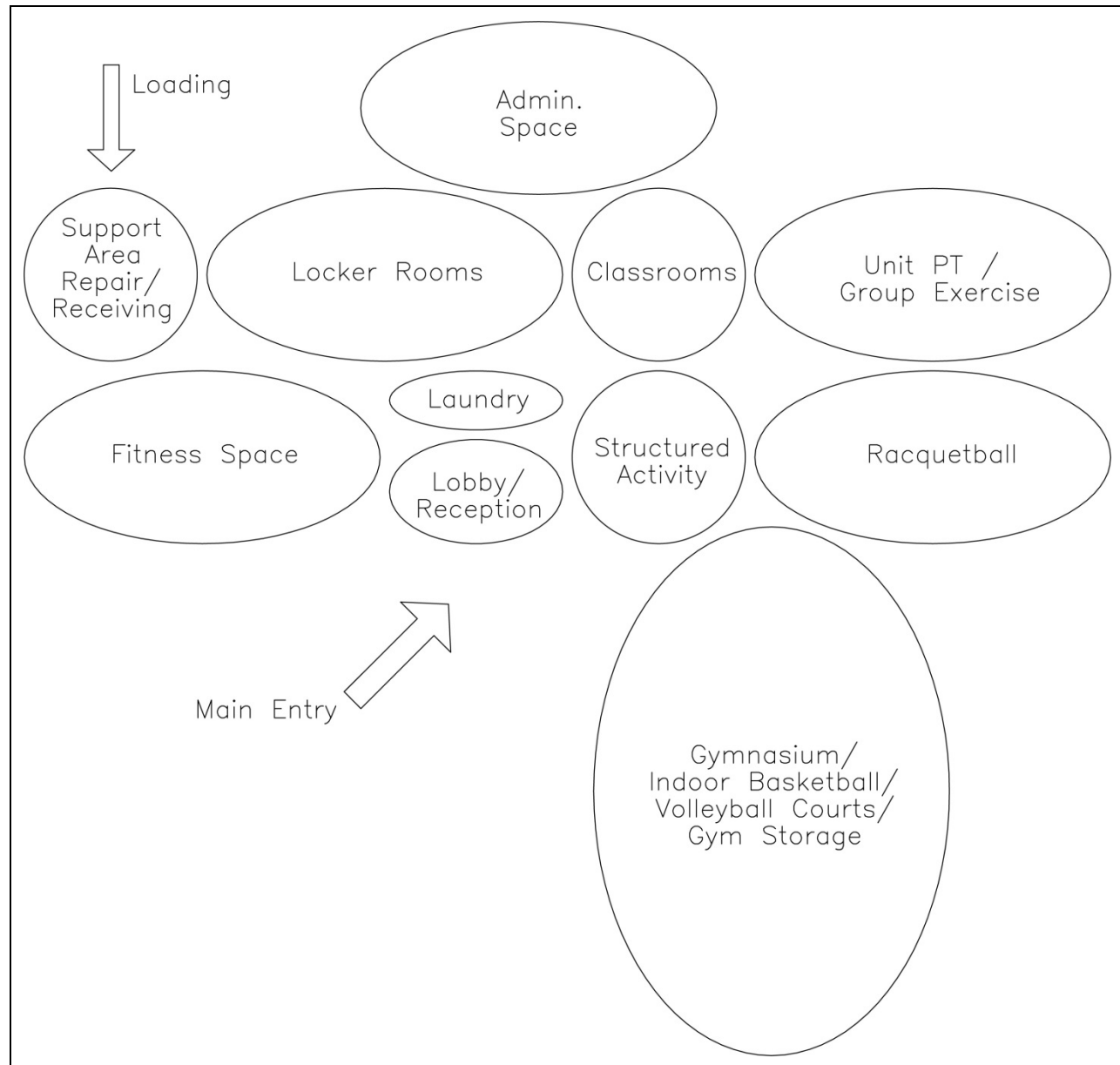
**2-6 LAYOUT AND ADJACENCIES**

The appropriate adjacencies are illustrated in Figures 2-1 through 2-2. These diagrams do not convey a building shape. Actual building shape will vary with available site, topography, vehicular access, site restrictions, utility access, etc. Required adjacencies may be accommodated vertically. These two figures illustrate a facility with the gymnasium near the front entrance. This configuration allows the gymnasium to be used for events while the rest of the facility is closed off. However, also consider the massing of the facility when determining the location of the gymnasium.

## **2-6.1 Basic Facility**

The diagram in Figure 2-1 indicates acceptable relative adjacencies of the major functional spaces for a basic facility.

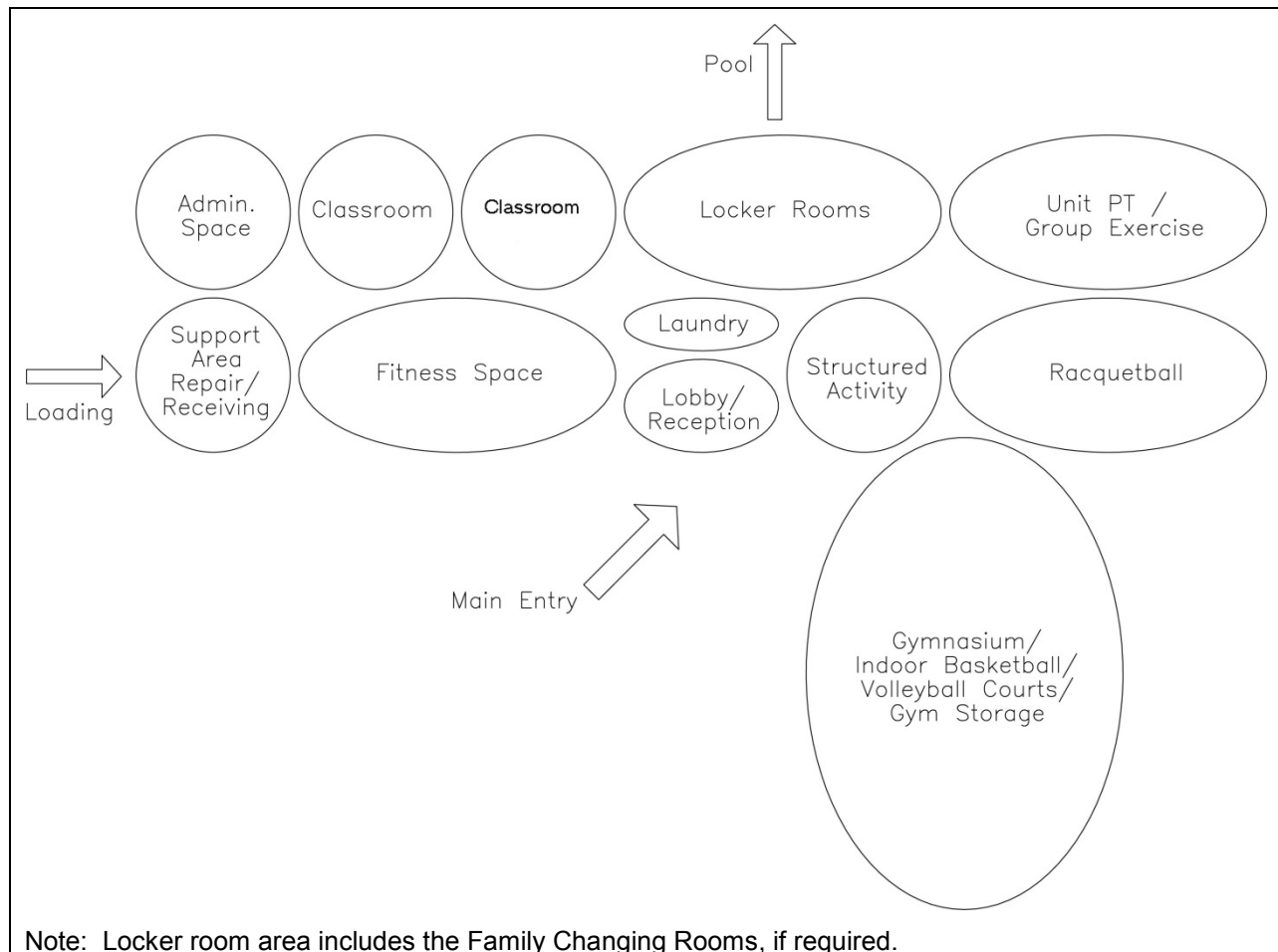
**Figure 2-1. Basic Facility Functional Relationship Diagram**



## **2-6.2 Facility to Accommodate a Pool**

The diagram in Figure 2-2 indicates acceptable relative adjacencies of the major functional spaces for a facility that includes or is adjacent to a pool.

**Figure 2-2. Facility to Accommodate a Pool  
 Functional Relationship Diagram**



## **2-7 SPACE ASSESSMENT**

See the Functional Data Sheets in Chapter 4 for additional information on the space types and their relationships to each other.

## **2-8 ALTERATIONS TO EXISTING FACILITIES**

Regulatory Authorities For alteration projects, the Authorities are contained in the most current version of OPNAVINST 11010.20 Facilities Projects Manuals and NAVFACINST 11010.45 Comprehensive Regional Planning Instruction. Prior to planning alterations to

an existing facility to convert it to a Fitness Center, the activity must consult the Service contacts listed in Chapter 1.

### **2-8.1 Other Considerations**

Ensure the site of the existing facility can accommodate the Fitness Center's needs. Consider only permanent facilities for conversion to a Fitness Center. Exceptions may be made for other buildings that are in excellent condition, subject to the location determinants in the Section entitled "Location Determinants".

Assess existing buildings being considered for conversion, alteration, or addition as to whether they can support all the core and optional spaces and dimensional requirements of the proposed building program. For example, ensure the building can accommodate an appropriately sized gymnasium. Ensure it can accommodate the locker rooms. Verify that the floor-to-ceiling heights are appropriate. All technical, code, accessibility, and ATFP requirements must be met as noted in Chapter 3.

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*



## **CHAPTER 3 GENERAL DESIGN CRITERIA**

### **3-1 GENERAL.**

Comply with UFC 1-200-01, *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 FC in addition to UFC 1-200-01 and the UFCs and government criteria referenced therein.

#### **3-1.1 Accessibility.**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for accessibility. For facilities programmed for wheelchair competition activities, provisions must be allowed for up to 40 in. (1016 mm) wide wheelchairs for access thru main entrance, to gymnasium and to restrooms

### **3-2 STRUCTURE.**

In addition to the criteria established in UFC 1-200-01, *General Building Requirements*, the following requirements are specific to Fitness Centers.

Provide clear spans as required for the activity areas and gymnasium.

### **3-3 ARCHITECTURE.**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for Architecture. Provide state-of-the-art facilities that rival facilities in communities and college campuses. Fitness areas are to be open as much as possible with maximum utilization of natural light and views. Larger spaces will be provided to allow for flexibility in addressing future fitness trends. Also comply with the following Fitness Center specific requirements.

#### **3-3.1 Entrances/Exits.**

Design the facility to require access at one main entry point sized in accordance with egress requirements of NFPA 101. To determine the occupant load of the gymnasium, use "Assembly Use - Without Fixed Seating" from NFPA 101. If the main entrance is not sized to accommodate the occupant load of a special event (e.g., Change of Command, award ceremonies), a separate gymnasium special event entrance with a paved path to the parking area is required.

The main facility entrance to the lobby serves as a welcome and transition point—provide a covered entry. In cold climates, provide a canopy (or a recess) at required egress doors to ensure that doors can open completely without obstruction from snow and ice. All other exterior doors must have a local, key-controlled alarm that sounds at the door and the control desk when the door is opened. Indicate this alarm with signage on the door.

**3-3.1.1 Exterior Doors and Windows.**

Provide doors and windows to allow natural light into and views in and out of the facility. Mitigate glare and direct sunlight in activity spaces such as the gymnasium and fitness spaces.

**3-3.1.2 Exterior Finishes.**

The exterior color, texture and design must be consistent with the programs offered, building type and the local environment in accordance with Installation design standards. The design must communicate a sense of activity and fun while complying with Installation design guides/standards.

**3-3.1.3 Exterior Signage.**

Equip the main entrance with an attractive, clearly visible sign that provides the program hours of operation. Ensure that signage complies with Installation requirements. Sign placement and type are site-specific, but signs must be strategically located, adequately lit, and of sufficient size to permit proper viewing by individuals approaching the facility.

**3-3.1.4 Exterior Walls and Mold.**

Follow UFC 3-101-01, *Architecture*, during design to help prevent the development of mold in exterior walls.

**3-3.2 Interior Design.**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for Interior Design. Design the Fitness Center interior with a premium, non-institutional character that reflects professional, high-end commercial facilities. Interior construction and finishes (walls, floor, and ceiling) must support the image and theme of the facility and be consistent with the programs offered. The following key public spaces offer the greatest opportunity to establish a creative and interesting interior design approach:

- Entry lobby and waiting/display
- Control counter
- Unit PT/group exercise
- Fitness spaces
- Structured activities
- Locker rooms and public toilets

**3-3.2.2 Interior Construction.**

Interior construction must be extremely durable. Use no hollow core wood doors. All interior glass must be tempered safety glass and mirrors must be made of break-resistant materials.

Counters, casework, and cabinets must be of high-quality and durable construction. Specify Architectural Woodwork Institute (AWI) Premium or Custom for finishes per *AWI Quality Standards Illustrated*, Current Edition. Casework and cabinet doors and drawer faces must be provided as veneer panel core. Doors, drawers, and casework faces must be plastic laminate at a minimum. Countertops must be solid surface/solid composite plastics only. Specify .75 inch (20-mm) minimum thickness for plywood, plywood backing, and solid wood panels.

Identify the functions requiring counters/casework in each space within the Fitness Center and design these to accommodate these functions. Consult with the Facility Manager and the HQ Program Managers for specific program requirements.

**3-3.2.3 Finishes.**

Finishes must take into account the intended uses, be appropriately durable, and be low maintenance. Finishes must have good acoustical, noise reducing characteristics. They must meet the requirements listed in NFPA 101, *Life Safety Code*.

Vinyl composition tile (VCT) is generally not allowed unless specifically noted for a given space. For information on finishes in specific areas, see the Functional Data Sheets in Chapter 4.

**3-3.2.4 Building Signage.**

Building signage must provide clear directional and informational assistance to all functional areas. Mechanical, electrical and/or utility room doors must have identifying signage to match other building signage.

**3-3.3 Acoustics.**

In general, since much of the facility comprises high-activity, high-noise functions, the design must seek to separate or acoustically protect the smaller, quieter functions rather than the noisier functions. For the purposes of this FC, the following spaces are considered to be “noisy”:

- Mechanical and laundry rooms
- Selectorized weight area(s)
- Free/plate-loaded weight area(s)
- Cardiovascular equipment area(s)
- Gymnasium

- Unit PT/group exercise room
- Racquetball courts and some other structured activity spaces

At a minimum, provide the required sound transmission coefficient (STC) ratings identified in Chapter 4, Functional Data Sheets, for individual spaces. Where not indicated in the Chapter 4 FDS's for a particular room, use the "Suggested Design Values" STC ratings in UFC 3-450-01, *Noise and Vibration Control* as the basis for the sound design of partition, door and window assemblies. Utilize gypsum board wall "improvements" to increase the STC of gypsum board "Stud Type" partitions to achieve the project sound requirements. Unless noted otherwise extend the room partitions and seal to the structure above for rooms that have a noise source such as, but not limited to, corridors, toilets, elevator machine rooms, gymnasiums, classrooms, training rooms, maintenance rooms, and mechanical rooms.

### **3-4 SERVICES**

#### **3-4.1 Plumbing**

Design domestic hot and cold water, sanitary and storm drainage, propane, fuel oil, or natural gas systems to meet the requirements of UFC 3-420-01, *Plumbing Systems* and local Installation standards. Electric water coolers throughout facility must have drinking capability and feature for filling water bottles.

In multi-story facilities locate toilets on each floor appropriately sized for participant load. Maintain a minimum of 60% of fixture counts in main locker rooms.

Locate floor drains outside the normal travel paths. In toilets, locate floor drains under the partitions where possible.

#### **3-4.2 Heating, Ventilating, and Air Conditioning (HVAC)**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for HVAC. Also comply with UFC 3-400-10N, *Mechanical Engineering*. (Note: New Tri-service UFC's 3-401-01, *Mechanical Engineering* and 3-410-01, *Heating, Ventilation, and Air Conditioning*, are in development at the time of this writing and are targeted for publication in late 2013)

Design ventilation systems in accordance with ANSI/ASHRAE 62.1, *Ventilation for Acceptable Indoor Air Quality*. Design system to provide 76 degrees F (24 degrees C) at 55 degrees F (13 degrees C) dew point at 1% occurrence dry bulb and mean coincident wet bulb, and 2% humidity ratio design conditions. Use winter conditions of 99% occurrence and mean coincident wet bulb. Ensure all internal latent loads are considered.

Do not locate HVAC equipment above areas with wood floors, either on roof or within the overhead space, due to the risk of a leak causing water damage.

#### **3-4.3 Fire Protection and Life Safety**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for fire protection and life safety. Also comply with UFC 3-600-10N, *Fire Protection Engineering*.

### **3-4.4 Electrical**

In addition to UFC 3-501-01, *Electrical Engineering*, comply with the following Fitness Center-specific requirements.

#### **3-4.4.1 Lighting.**

Lighting must be in accordance with UFC 3-530-01, *Design: Interior and Exterior Lighting and Controls*. Exceptions and additions are identified in the Chapter 4 “Functional Data Sheets” (FDSs). If UFC 3-530-01 and Chapter 4 FDS’s do not provide a lighting level for a particular space, use IESNA requirements for lighting levels.

#### **3-4.4.2 Standby Power Connection.**

Provide facility service entrance with the capability to temporarily connect a portable generator, via an external connection point.

Systems utilizing portable generators must comply with NFPA 70 Article 702, Optional Standby Systems. Coordinate with activity representatives to develop a written, manual load-shedding procedure for the facility. Document size of generator required to support design conditions. Place signage at connection point designating proper generator size. Loads to be supported by the emergency generator include the following, as a minimum:

- Facility lighting.
- Electric water heaters.
- Gymnasium power.
- Gymnasium HVAC system when a separate system is primarily serving the gymnasium.
- Toilet and shower exhaust.

Provide a hard surface area adjacent to the building service entrance sized to accommodate the largest portable generator dimension and weight available.

#### **3-4.4.3 CCTV.**

Provide the infrastructure for a CCTV system for security.

The contacts provided in Chapter 1, Service Contacts, will determine if design and construction funds will be provided for a complete and usable CCTV system.

#### **3-4.4.4 Telecommunication Systems.**

See Chapter 4, Functional Data Sheets, for outlet locations.

#### **3-4.4.5 CATV.**

See Chapter 4, Functional Data Sheets, for outlet locations.

#### **3-4.4.6 Electronic Security Systems (ESS).**

See Chapter 4, Functional Data Sheets, for locations and additional criteria.

#### **3-4.4.7 Intercommunication Systems.**

See Chapter 4, Functional Data Sheets, for locations and additional criteria.

#### **3-4.4.8 Receptacles.**

Provide recessed floor outlets for cardiovascular equipment. See Chapter 4, Functional Data Sheets, for locations and additional criteria.

### **3-5 FURNISHINGS AND EQUIPMENT.**

Furnishings, Fixtures & Equipment (FF&E) items are listed for specific spaces in the Chapter 4 Functional Data Sheets. Also, a sample list of fitness equipment is included in Appendix C of this document. Each Service has specific lists of required furnishings and equipment that vary by fitness program and facility size. These lists can be provided by the Fitness program office identified in Chapter 1.

### **3-6 SITE DESIGN AND ORGANIZATION.**

Where possible, use outdoor spaces as transition spaces and for extended fitness uses, such as areas for runners and bicyclists. The site design must feel safe for all authorized users. If located nearby, provide access paths to related functions such as outdoor running tracks, sports fields, open park space, or other outdoor activity areas.

#### **3-6.1 Landscaping.**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for landscaping. Also comply with local installation landscape standards. Provide an irrigation system as required.

#### **3-6.2 Parking and Access Drives**

Provide adequate parking for both staff and patrons with the appropriate access drives. Consider location of bicycle racks near the facility entrance in a secure location. Comply with UFC 3-210-02, *POV Site Circulation and Parking*. The total number of parking spaces to be constructed for a Fitness Center is based on a parking analysis of site conditions that considers factors such as available parking in the vicinity, access to public or government-furnished transportation, and location with respect to troop housing. Baseline parking space allocations for programming purposes is 1 parking

space per 250 square feet (23 square meters) of facility. Actual parking space quantity may vary based on results of parking analysis.

### **3-6.3 Service Drive.**

Verify the size of required service vehicles prior to planning and designing the service access areas. Provide a back-up spur for dead-end and service drives which exceed 100 ft. (30 m) in length. Provide access to the serviced areas: the receiving and equipment repair area, garbage dumpster/storage (indoor or outdoor), mechanical room, and service entry, if one is designated. Provide a service vehicle apron and consolidate service access when possible. Screen or separate the service area from public use or traffic areas with attractive walls, fences, depressions, berms, and landscaping. Ensure proper drainage if depressions are used. Do not cross outdoor activity areas with service access.

## **3-7 SUSTAINABLE DESIGN – LEED AND COMMISSIONING**

Navy requirements for LEED Registration and Certification apply to construction, redesign, and renovation and modernization projects per UFC 1-200-02.

All projects, which include new building systems or equipment, require LEED Fundamental Commissioning or an equivalent process as a minimum. Provide Commissioning to meet the requirements of the latest version of the applicable USGBC LEED Rating System. At a minimum, commission the following systems: HVAC systems and controls, lighting controls, and if provided, day lighting controls, refrigeration systems and controls, renewable energy systems, and domestic hot water systems. The designated Commissioning Authority must meet the requirements of the latest version of the applicable USGBC LEED Rating System, and must report results, recommendations, and findings directly to the Government. Refer to UFC 1-200-02.

## **3-8 BARRIER-FREE DESIGN REQUIREMENTS**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for barrier-free design.

## **3-9 ANTITERRORISM**

Refer to UFC 1-200-01, *General Building Requirements* and comply with stated and cross referenced requirements for antiterrorism.

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*



## **CHAPTER 4 SPECIFIC DESIGN CRITERIA**

### **4-1 INTRODUCTION.**

This chapter identifies the specific design needs for each functional area outlined in the space program. Tables 4-1 through 4-34 provide this data in a standard Functional Data Sheet format.

Programmatic differences are indicated on the Functional Program Tables that are a part of either the Navy or Marine Corps fitness program and listed as optional or not required by other Service. Comply with the Agency requirements that apply to the project.

The interior construction specialties, equipment and furnishings criteria provided in these tables are broken down as follows:

- Casework/Built-in Equipment. This includes anything physically attached or plumbed to the building such as counters, cabinets, casework, toilet accessories, window treatments, laundry machines, and retractable overhead screens.
- Furnishings, Fixtures, and Equipment (FF&E). This includes contractor-furnished, contractor-installed loose items such as desks, tables, chairs, bookshelves, and televisions (if mounted, TV mount would be built-in).
- User-provided FF&E. This includes all government-furnished, government-installed items, which are typically limited to office equipment such as computers, printers, copiers, and projectors (if mounted, projector mount would be built-in).

**Table 4-1. Entry/Lobby and Waiting/Display**

<b>Description/ Usage</b>	The lobby serves as the primary entrance to the facility for patrons, visitors, and spectators. The lobby must be open and friendly in design and serve to introduce the rest of the facility. Immediately adjacent to the lobby is the waiting/display area which provides an area for customers to relax and for the facility to display trophies, as well as, information regarding special activities and program offerings.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum. Consider visual introduction to adjacent fitness spaces, including upper floors.
<b>Finishes</b>	<p><b>Walls.</b> Provide a low-maintenance, durable finish with enhanced aesthetics. Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted surfaces. Exposed smooth face CMU block is not allowed in this area.</p> <p><b>Floor.</b> Provide a low-maintenance, durable, moisture and slip-resistant finish suitable for this high traffic area. Acceptable finishes include terrazzo, porcelain tile, stone, stained concrete, or other hard surface. Use of VCT is not allowed in this area. Provide a recessed walk-off mat/area at the entrance door. Provide a base that matches the flooring.</p> <p><b>Ceiling.</b> Provide a decorative ceiling. Consider exposed, painted structure with appropriate acoustical consideration such as, but not limited to, acoustical clouds, acoustical wall panels, and/or acoustical decking..</p>
<b>Plumbing</b>	Provide electric water cooler(s) in proximity of Public Toilets.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Consider decorative and task lighting. Provide accent lighting at signage/wayfinding devices.
<b>Communication</b>	<p><b>CCTV.</b> Provide at least one outlet, or as needed to cover the entrance and lobby.</p> <p><b>CATV/Internal Video.</b> Provide a CATV outlet.</p> <p><b>PA/Audio.</b> Provide a speaker.</p> <p><b>Telephone.</b> Provide one line.</p> <p><b>Data.</b> Provide an outlet in the waiting/display area.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide display cases and tack surfaces in this space.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Waiting/display area must include durable, easy to clean, and moisture-resistant furniture: tables, chairs, magazine and brochure rack, wall art, trophy case (if not built-in), and a wall clock. Provide a means to display Installation and staff information.
<b>User-provided Equipment</b>	Provide CCTV cameras per the outlet count. Consider providing a self-use blood-pressure monitor, a computer with Internet connectivity, and a public phone.
<b>Special Req.</b>	Provide an airlock at the main entrance. Exterior doors must have continuous or heavy-duty hinges. Provide a grated snow-trap for northern tier bases. Signage.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-2. Control Counter/Equipment Issue/Storage.**

<b>Description/ Usage</b>	<p>The control counter is often referred to as the front desk or reception desk. It's the focal point of information exchange within the building and is the check-in location for patrons. Patrons must not be able to access other facility spaces without passing the control desk and checking in. Do not use check-in/counting methods that restrict rapid access/egress to/from the facility, such as a turnstile.</p> <p>Equipment such as towels, balls, and racquetball racquets will be issued from the control desk. It must provide for direct supervision of the facility and greeting, informing, and directing patrons to their particular activity area. Additionally, the control desk serves as the focal point for safety and emergency situations. The staff access to the counter must permit access to the free weight and treadmill areas for emergency response.</p> <p>Vending functions can be provided as an over-the-counter service at the control counter. Also see Table 4-3.</p>
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted surfaces. Consider accent wall materials and colors around desk for visual interest.</p> <p><b>Floor.</b> Provide a low-maintenance, durable, moisture and slip-resistant finish suitable for this high traffic area. Provide stone, terrazzo, porcelain tile, stained concrete, or other hard tile. Carpet tile may be used for flooring behind the counter only. Provide a base that matches the flooring or a resilient base where carpet and concrete is used.</p> <p><b>Ceiling.</b> Consider using the ceiling to define and separate this area from the Lobby and create visual interest, i.e., a dropped gypsum board soffit over the control desk and gypsum board false beams.</p>
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide an emergency shut-off control per AT requirements.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide power for all equipment per Chapter 3, Electrical. Perform a power requirement survey as this area's power requirements are extremely site- and locale-specific.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) of general ambient lighting. Provide fixed 50 FC (500 Lux) task lighting at the control counter; decorative fixtures are preferred. In addition, provide accent lighting for emphasis around the counter area.
<b>Communication</b>	<p><b>CCTV.</b> All monitors must be viewable from this area.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> Provide PA and audio system controls at the control counter for room-by-room and "all call" communication. Provide intercom capability as directed by installation. Provide a speaker.</p> <p><b>Telephone.</b> Provide one line per two points of sale (POS). Provide at least two additional general purpose phone lines. In facilities that include a multipurpose field, provide a means for communication between the field kiosk and the control desk.</p> <p><b>Data.</b> Data outlets must be provided for every piece of equipment identified as requiring data, plus a 25% spare capacity for flexibility. Pieces of equipment include, but are not limited to, POS, computers, copier/printer/fax, and ID check system.</p> <p><b>Security.</b> Provide a duress alarm with controls next to the POS units.</p>
<b>Acoustics</b>	Provide sound absorbing finish materials to reduce reverberations in area.

**Table 4-2. Control Counter/Equipment Issue/Storage.**

<b>Casework/ Built-in Equipment</b>	<p>Provide a 24-in.- (610-mm-) deep counter with built-in base cabinets. Provide file drawers and storage drawers with a minimum of two lockable drawers for each POS. The counter must be dual height for standing transactions, seated office functions, and ADA customer service. Note that ADA-height counter must have knee-hole space on both sides of the counter. The counter must be a durable solid surface material such as granite, concrete, or solid plastic—laminates are not permitted. Provide a towel return drop opening in the counter top with space for a laundry cart below, if required by operations. Modesty panels and apron must be of durable materials. Consider supports such as steel angle braces for counters with knee-hole space. Consider providing wall cabinets.</p> <p>Storage must accommodate towels, small athletic equipment such as balls and racquets, and food and beverage/vending supplies (if provided at the control counter). Consider if clean towels will be provided by a service or if they will be in laundry carts and provide storage space accordingly.</p> <p>Provide PA controls.</p> <p>Consider providing an automatic external defibrillator (AED).</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<p>Chairs and stools.</p> <p>See Chapter 5 for additional details.</p>
<b>User-provided Equipment</b>	POS units, desktop computer for administrative functions, CCTV monitors, and printers.
<b>Special Req.</b>	<p>Attendants at the control desk must have direct line-of-sight visual control over the following, at minimum: the entry, free weight area, treadmill section of the cardiovascular area, and locker room entrance. Visual control over other key areas must be accommodated via LOS and/or CCTV and are identified in the individual functional data sheets</p> <p>Consider providing a gate between the desk and surrounding area. Consider providing a coiling door or grille at the counter to serve as a security screen. When provided, gate or coiling door must have locking capability.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-3. Retail/Vending/Food and Beverage Sales.**

<b>Description/ Usage</b>	As noted in Table 4-2, the retail/vending functions may be accommodated at the control counter. This table describes the optional food and beverage sales or expanded retail functions that will be provided in a separate area that is highly visible and accessible to patrons to encourage business. Vending can also be provided at a self-service standalone space with vending machines. The vending area, if a standalone space, must be identifiable, visually screened but not totally enclosed, and visually accessible from the control desk.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum or matched with the lobby.
<b>Finishes</b>	<b>Walls.</b> Ceramic wall tile or other hard surfaces approved for food and beverage areas to a minimum of 4 ft. (1.22 m) above finished floor. Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted surfaces. <b>Floor.</b> Provide hard-surface flooring matching lobby or corridor such as VCT, seamless vinyl, hard tile or other durable material. <b>Ceiling.</b> ACT or painted gypsum board.
<b>Plumbing</b>	Two-compartment stainless steel countertop sink with hot and cold water supply and a clean-out. Provide floor drain. If an icemaker is desired, provide a water connection.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide dedicated outlets for the vending machines and countertop height outlets for microwave and other equipment as required per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 40 ft. candles (400 Lux) of general ambient lighting. Provide 50 FC (500 Lux) on food displays and at food preparation areas. Consider accent fixtures and lighting to provide special ambience.
<b>Communication</b>	<b>CCTV.</b> Provide sufficient quantity to allow adequate coverage. <b>CATV/Internal Video.</b> Provide an outlet at food and beverage area, if applicable. <b>PA/Audio.</b> Provide a speaker and intercom connection. <b>Telephone.</b> Provide one line per two points of sale (POS). Provide at least one additional general purpose phone line. <b>Data.</b> Provide one outlet per POS. Provide additional outlets, as needed, for associated hardware. <b>Security.</b> Consider providing duress alarm control next to the POS units.
<b>Acoustics</b>	If possible, do not locate this area near noisy spaces as defined in Chapter 3, Acoustics. However, this space is typically open to the fitness area and lobby spaces.
<b>Casework/ Built-in Equipment</b>	Countertop with base and wall cabinets at the front opening. Behind the service corridor, provide base and wall cabinets. Sink-area countertop must be solid-surface. Drink rail. Dishwasher, refrigerated display cases, Consider an ice maker. Provide a lighted menu board (unless concessionaire operated). Option for under cabinet microwave.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Food and beverage/expanded retail: refrigerator, freezer, and other small appliances as required. In lieu of under cabinet microwave, option for counter microwave. Bistro-style tables and chairs.
<b>User-provided Equipment</b>	Provide CCTV cameras per the outlet count. Vending machines. POS unit(s).
<b>Special Req.</b>	Provide a means to secure the food and beverage sales/retail area. Consider providing a built-in safe per local policy.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-4. Public Toilets**

<b>Description/ Usage</b>	These toilet rooms are used primarily by visitors, spectators, and persons not using the locker and shower rooms. They must be adjacent to the lobby and gymnasium. Provide unisex or separate male and female restrooms depending on the total number of patrons to be accommodated in the bleachers.
<b>Min. Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Semi-gloss enamel painted, mold-resistant gypsum wallboard with a ceramic tile wainscot. Prefer full height ceramic tile walls with integral patterns, especially on wet walls. Use a dark-colored epoxy grout.</p> <p><b>Floor.</b> Non-slip porcelain or ceramic tile with dark-colored epoxy grout. Slope tile to drain.</p> <p><b>Ceiling.</b> Semi-gloss enamel or epoxy painted, mold-resistant gypsum wall board or acoustical ceiling panels.</p>
<b>Plumbing</b>	Provide water closets, floor-mounted urinals, and lavatories based on the applicable code for the calculated occupancy of the gymnasium. Provide a floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements..
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<p><b>CCTV.</b> None required.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> Provide a speaker.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	<p>Solid-surface countertop with either underhung or integral sink. Consider use of holes in lavatory countertop for waste disposal – coordinate location of paper towel dispenser. For single-occupancy toilets, wall-hung lavatories without countertop are allowed.</p> <p>Solid plastic (HDPE) or Color-Through Phenolic toilet and urinal partitions. Consider permanent ceramic-tile-finished partitions.</p> <p>Toilet accessories: toilet paper dispensers, paper towel dispenser, trash receptacle, robe hooks, grab bars, sanitary napkin disposal (female water closet stalls), seat cover dispensers, and soap dispensers.</p> <p>Mirror. Fold-down diaper changing tables/stations.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	
<b>Special Req.</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-5. Janitor's Closet**

<b>Description/ Usage</b>	This space is for use of custodial staff and includes mop sink and storage space for cleaning equipment and supplies.
<b>Min. Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Semi-gloss enamel painted, mold-resistant gypsum wallboard with a ceramic tile wainscot. Prefer full height ceramic tile walls with integral patterns, especially on wet walls. Use a dark-colored epoxy grout.</p> <p><b>Floor.</b> Non-slip porcelain or ceramic tile with dark-colored epoxy grout. Slope tile to drain. Sealed concrete is also acceptable.</p> <p><b>Ceiling.</b> Not required, but where provided must be moisture-resistant and cleanable.</p>
<b>Plumbing</b>	Provide a floor drain. Provide a mop sink and keyed hose bibb.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<p><b>CCTV.</b> None required.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> None required.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide shelving.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	If required by installation, provide lockable cabinets for cleaning supplies.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Locate in proximity of other areas with plumbing. This closet includes a floor mop sink with hot and cold water and a hose connection, a floor drain, and storage for pails, mops, vacuums, and related cleaning supplies and equipment. Include a lockable door (which can be opened from the inside). Provide space for lockable cabinets for cleaning supplies. Provide exhaust ventilation directly to the outside.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-6. Administrative Offices**

<b>Description/ Usage</b>	<p>The administrative offices consist of a mix of private and open office space. The quantity and type of offices are facility specific. Generally speaking, the following office spaces are provided: Director's office, Program Managers' office(s), and support staff workstations.</p> <p>The offices must be free from frequent distraction, have a professional appearance, and provide a sense of work place.</p>
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wall board or wall covering.</p> <p><b>Floor.</b> Carpet tile with resilient base.</p> <p><b>Ceiling.</b> ACT.</p>
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Ensure an adequate number of circuits to power all equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<p><b>CCTV.</b> Provide monitoring capability in the Director's Office when directed by the installation.</p> <p><b>CATV/Internal Video:</b> One outlet required for Director's Office.</p> <p><b>PA/Audio:</b> Provide a speaker. Provide controls in the Director's office with room-by-room and "all call" communication. Provide intercom capability as directed by installation.</p> <p><b>Telephone.</b> Provide one line per staff plus one additional line for fax and copier.</p> <p><b>Data.</b> Provide one outlet per staff plus one outlet for each printer, copier, scanner, etc.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics. If possible, do not locate these offices near noisy spaces as defined in Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	Provide dry-erase boards in select offices.
<b>Furnishings Fixtures &amp; Equipment (FF&amp;E)</b>	<p>Private Offices—provide furniture for 120 ft.<sup>2</sup> (11 m<sup>2</sup>) or 100 ft.<sup>2</sup> (9.3 m<sup>2</sup>) office: desk, credenza, filing cabinet, desk chair, and two side chairs.</p> <p>Workstations—provide furniture for 64 ft.<sup>2</sup> (6 m<sup>2</sup>) workstation: desk chair and side chair for open offices. Workstation systems furniture must provide task lighting and adequate space for filing and overhead storage.</p>
<b>User-provided Equipment</b>	Computers and other office equipment.
<b>Special Requirements</b>	<p>For the director's office, provide an interior window with blinds to accommodate visual supervision over the fitness area and the control counter, where possible.</p> <p>Where possible, locate offices on exterior wall and provide windows for natural light admission. Provide shades or blinds at exterior windows for light control.</p> <p>Provide side lites next to the office doors for supervision and security.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-7. Classrooms/Conference Rooms**

<b>Description/ Usage</b>	This space is used for conducting meetings and training. This space must be accessible from Admin areas and public circulation spaces.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wallboard or wall covering. <b>Floor.</b> Carpet tile is preferred. Other acceptable materials include stone, terrazzo, porcelain tile, stained concrete, or other hard tile. VCT is not allowed. <b>Ceiling.</b> ACT.
<b>Plumbing</b>	No special provisions required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical and additional outlets necessary to operate portable and dedicated equipment.
<b>Lighting</b>	Provide multiple light levels with controls for viewing multimedia presentations.
<b>Communication</b>	<b>CCTV.</b> Provide outlets as required for coverage. <b>CATV/Internal Video.</b> Provide one outlet. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> Provide one line. <b>Data.</b> Provide a minimum of one outlet. Consider providing additional outlets for training purposes. <b>Security.</b> None required.
<b>Acoustics</b>	Provide partition construction with a minimum STC rating of 49 per Chapter 3, Acoustics. If possible, do not locate this room near noisy spaces as defined in Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	Provide an electrically operated recessed projection screen and a built-in ceiling multimedia projector mount. Bulletin board with tack surface and dry-erase board.
<b>Furnishings Fixtures &amp; Equipment (FF&amp;E)</b>	Provide tables, chairs, and an AV cart. Consider providing TV and media player.
<b>User-provided Equipment</b>	Provide CCTV cameras per the outlet count. Projector and printer.
<b>Special Requirements</b>	Provide a lockable storage closet with built-in shelves for training materials and floor space for AV cart. Provide a vision panel, minimum 5 square feet, in the door. Consider use of side lites. For the <b>Marine Corps</b> , provide a moveable partition to divide the large classroom into two spaces. Provide two separate entrances.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-8. Copy/Work/Break Room**

<b>Description/ Usage</b>	This space is used as a staff workroom for copying, meetings, breaks, and lunches.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wall board or wall covering. <b>Floor.</b> VCT with resilient base. Hard tiles are also acceptable. <b>Ceiling.</b> ACT.
<b>Plumbing</b>	Provide a sink with hot and cold water. Consider a water connection for refrigerator ice maker. Provide floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide one additional outlet at counter height for convenience. Provide additional outlets necessary to operate dedicated equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> Consider providing one outlet. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> Provide one line. <b>Data.</b> Provide outlets as required for equipment. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide two separate solid-surface countertops: one for food/break functions and one for administrative functions. See Chapter 3, Interior Construction, for length criteria. Provide lockable wall and base cabinets. Bulletin board with tack surface and dry-erase board.
<b>Furnishings Fixtures &amp; Equipment (FF&amp;E)</b>	Table, chairs, microwave, coffee machine, and refrigerator.
<b>User-provided Equipment</b>	Copier, fax machine, printers, and other office equipment as required. Consider providing a laminating machine.
<b>Special Requirements</b>	Provide a vision panel, minimum 5 square feet, in the door.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-9. Gymnasium/Basketball/Volleyball Courts**

<b>Description/ Usage</b>	This space is used for team activities and sports competitions such as basketball and volleyball. Multiple court gymnasiums with divider curtains can accommodate simultaneous activities. The gymnasium can also support instructional functions, informal, intramural, and extramural sports as well as community events. Court size must meet NCAA standards.
<b>Ceiling Ht.</b>	28 ft. (8.53 m) clear height to lowest overhead element.
<b>Finishes</b>	<p><b>Walls.</b> Provide durable wall system up to 12' (3.66 m) height, such as concrete masonry units (CMU) with heavy-duty epoxy. Above 12 ft. (3.66 m), use semi-gloss enamel and consider acoustic panels.</p> <p><b>Floor.</b> Maple athletic flooring, 25/32" thick. Synthetic multipurpose, resilient, athletic flooring may be allowed when requested by the Installation and approved by the contacts identified in Chapter 1, Service Contacts. Flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i>; however, where primary space use is basketball, minimum ball rebound must be 93%.</p> <p><b>Ceiling.</b> Exposed, painted structure. Provide acoustical banners, baffles, panels or similar treatment.</p>
<b>Plumbing</b>	No plumbing fixtures in the gymnasium. Ensure access to nearby electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Gym, stadium (play area)" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 78 F (26 C) maximum. Provide durable air grill covers and do not place air grills in line with basketball nets. Locate ductwork to avoid trapping balls.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Provide protection for sprinkler heads, exit signs, manual pull stations, and other exposed components; minimize equipment that protrudes into activity space or safety zones near activity spaces, or install component equipment minimum 8 feet above finished floor (AFF) for safety considerations.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide power for the scoreboard; shot clocks; and a high, wall-mounted clock. Provide power requirements for other functions such as retractable backboards, divider curtain, and stage sound and lighting. Provide recessed floor outlets to power portable equipment used to officiate games. Locate power outlets along sidelines at center court.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Metal halide or fluorescent high bay with high output lamps. Provide lighting levels for basketball in accordance with IESNA Class III adjustable up to Class II. If the program dictates televised events, provide appropriate IESNA lighting Class of play levels for that specific sport. Provide perimeter compact fluorescents multi-level switched for non-sport activities. Provide keyed light switches. Provide fixtures with wire cages or appropriate shatterproof luminaire. Do not locate fixtures directly above basketball backboards. Do not install high-pressure sodium lighting.
<b>Communication</b>	<p><b>CCTV.</b> Provide at least one outlet in each divided space.</p> <p><b>CATV/Internal Video.</b> None required, unless specified by installation.</p> <p><b>PA/Audio.</b> Provide speakers with proper spacing.</p> <p><b>Telephone.</b> Provide one line with internal two-way communication.</p> <p><b>Data.</b> Provide data outlets in recessed floor boxes routed to scoreboard, centered under the anticipated scoring table location, but outside the court boundaries.</p> <p><b>Security.</b> None required.</p>

**Table 4-9. Gymnasium/Basketball/Volleyball Courts**

<b>Acoustics</b>	For single court modules, reverberation time must equal 1.0 second. For two-court or larger modules, reverberation time must equal 1.8-2.0 seconds. Provide additional acoustical control with sound baffles, banners, and acoustical materials. Provide noise attenuation measures to mitigate acoustical problems resulting from mechanical systems, plumbing systems, and vibration transmitted through the facility structure.
<b>Casework/ Built-in Equipment</b>	<ul style="list-style-type: none"> <li>• Provide retractable basketball nets/backboards at two per half court or six per full court. Tournament courts only require 2 goals. Breakaway rims must be installed on all goals.</li> <li>• Provide volleyball built-in flush floor insert sleeves in each court. Consider floor inserts for gymnastics standards.</li> <li>• Motor-operated, vertical-acting (roll-up), divider curtain with manual override. Ensure the motor is easily accessible for maintenance.</li> <li>• Provide an electronic scoreboard that is visible to officials, players and spectators. Provide control for scoreboard and divider curtain on side of room opposite of bleachers.</li> <li>• Bleachers. Use telescoping bleachers to maximize the flexibility of the space and to allow sideline space for gymnasium events. If bleachers are powered, provide non-traction capable with a keyed control switch located to allow visual control of the bleacher operation. Provide for accessible seating. Provide manually-operated bleachers.</li> <li>• Provide game lines on flooring for full- and half-court basketball and volleyball.</li> <li>• Provide 6-ft.- (1830-mm-) high attached safety padding with bottom edge on top of floor base on all walls that can be impacted by a player.</li> <li>• Provide one pair of 30-second timing clocks for the main court.</li> </ul>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide volleyball stanchions, net, standard protective pads, net antenna, and elevated judge's stands. Provide wrestling mat, exercise mat, protective floor coverings with portable rolling stand, seating, scoring table, and chairs.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.

**Table 4-9. Gymnasium/Basketball/Volleyball Courts**

<b>Special Req.</b>	<ul style="list-style-type: none"> <li>• Interior entrance doors into the gym must have vision panels, minimum 5 square feet each, and ensure visual access from the control counter to the gym entrance. Where line of sight is not possible, CCTV monitoring of gym entrance must be provided.</li> <li>• Provide minimum 10 ft. (3.05 m) of unobstructed floor space as a safety zone between the outer edge of the playing area and any feature or obstruction. Provide minimum 12' (3.7 m) side to side and 18' (5.5 m) end to end of unobstructed floor space as a safety zone between the outer edge of the playing area and any adjacent court playing area.</li> <li>• Consider moisture control and prevention of condensation on floor surface. Consider under-floor ventilation requirements, under-slab vapor barrier, estimated dew point occurrence, local water table, and local soil conditions.</li> <li>• Provide exterior double doors with removable latch post for equipment access.</li> <li>• Provide natural light. Skylights are not permitted above wood floors. Mitigate glare on the play and spectator areas. Any glass panels must be a minimum of 18 ft. (5.49 m) above finished floor and .5 in. (13 mm) thick, tempered, laminated safety glass.</li> <li>• Do not locate windows, doors, or other obstructions within 7 ft. (2135 mm) of all backboard centerlines.</li> <li>• Ensure no glazing or lighting can create glare or distraction on the play areas. Also consider cross-court play. Do not use window treatments to mitigate glare.</li> </ul>
<b>Occupancy</b>	Staff. Customers. Participants. Spectators.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-10. Gymnasium Storage/Support**

<b>Description/ Usage</b>	This room accommodates the storage of equipment and supplies, e.g., roll-away basketball goals, volleyball standards, gymnasium floor protective covering, and telescopic platform for maintenance/repair, needed for program support. Coordinate with overhead storage. See equipment requirements listed in Table 4-9.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU or painted gypsum wall board. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> None required.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, provide 65 F (18 C) minimum, 85 F (29 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 20 ft. candles (200 Lux). Provide fixtures with wire cages or appropriate shatterproof luminaire.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Shelving and storage cabinets.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	The room must be at least 8 ft. (2.44 m) wide and be accessible interior through lockable double doors with kick-plates. Exterior access may also be required when needed for installation program requirements. Consider a coiling roll-up door for the exterior access. Height of door must be adequate for access of facility maintenance equipment such as scissor lifts. Provide ramp at exterior door to facilitate equipment issue/delivery, if necessary. In addition to the gym storage room, a separate storage area accessible from the exterior may be provided for exterior sports and athletic equipment, e.g., bleachers and soccer goals.
<b>Occupancy</b>	Staff. Customers.

**Table 4-11. Unit PT/Group Exercise Room**

<b>Description/ Usage</b>	This is typically one large room that is partitionable and can be used for large unit physical training or for multiple smaller classes that require only minimal equipment. Activities/classes include aerobics, martial arts, yoga, etc.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum clear to lowest overhead feature. Provide a 12 ft. (3.66 m) minimum clear height ceiling for facilities with large martial arts programs.
<b>Finishes</b>	<p><b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU. Painted, double-layer high impact gypsum board on studs is also acceptable.</p> <p><b>Floor.</b> Maple athletic flooring. Synthetic multipurpose, resilient, athletic flooring may be allowed when requested by the Installation and approved by the contacts identified in Chapter 1, Service Contacts. Flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i>.</p> <p><b>Ceiling.</b> Exposed structure with acoustical spray paint or ACT. If ACT, provide non-sag tiles.</p>
<b>Plumbing</b>	None required. Provide access to electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/aerobics room" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum. Provide multi-speed ceiling fans, with wall-mounted controls. If space is primarily used for martial arts or other activities that might interfere with the ceiling fans, the fans are not required.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide power at TV mounting locations and for sound system.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) minimum at the floor. To address safety concerns, coordinate lighting design with equipment layout and ensure that equipment users, particularly those using horizontal benches, are not exposed to glare of direct/down lighting. Provide protection for all fixtures when appropriate for specific activity. Provide multi-level switching.
<b>Communication</b>	<p><b>CCTV.</b> Provide at least one outlet in each divided space.</p> <p><b>CATV/Internal Video.</b> Provide outlets for monitors coordinated with their location.</p> <p><b>PA/Audio.</b> Provide speakers with proper spacing.</p> <p><b>Telephone.</b> Provide one line with internal two-way communication.</p> <p><b>Data.</b> Provide data outlets in the walls or in recessed floor boxes.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	<p>Reverberation time must equal 1.0 second. Provide noise attenuation measures to mitigate acoustical problems resulting from mechanical systems, plumbing systems, and vibration transmitted through the facilities structure.</p> <p>Provide partition construction with a minimum STC rating of 50 per Chapter 3, Acoustics.</p>
<b>Casework/ Built-in Equipment</b>	<p>Provide one acoustical operable partition with minimum STC rating of 45. Partition must be recessed into an alcove.</p> <p>Provide mirrors on at least two walls at a minimum of 18 in. (450 mm) above the floor. If required, provide infrastructure and speakers for sound system for each divided space.</p> <p>Provide wall- or ceiling-mounted TV brackets in each divided space.</p> <p>Provide personal effects storage, such as cubbies, for customers in the room.</p> <p>Consider providing an AED.</p>

**Table 4-11. Unit PT/Group Exercise Room**

<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	TVs. Provide other fitness equipment as needed: indoor cycling equipment, stair steps, exercise balls, small dumbbells, etc. If required, provide sound system with MP3 and auxiliary input capability.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<p>Provide vision panel in the door, minimum 5 square feet, and consider side lites. Design the rooms to be rectangular to allow for flexibility in use. Provide a method of fastening padding on walls for use during combative sports. Provide acoustical separation from the rest of the facility.</p> <p>Provide natural light where appropriate based on activities in the space—provide glare and heat-gain protection if exterior glazing is provided.</p> <p>Provide some visual connection to the rest of the facility—consider providing interior windows to other exercise modules/circulation areas. If windows are provided, provide blinds.</p> <p>Accommodate queuing of customers in the area immediately outside the entrance. Provide secure storage room with a direct adjacency to store items such as mats, stair steps, wall padding, and other fitness equipment. Storage rooms must either have double doors without astragal or designed as flow-through storage rooms.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-12. Fitness Area**

<b>Description/ Usage</b>	This area is typically the focal point of the facility. The area is divided into four sections: stretching/warm-up/cool-down, free/plate-loaded weights, selectorized (machine) equipment, and cardiovascular equipment. The stretching/warm-up/cool-down area is open space within the larger room. It can also serve as transition areas between the other sections. The cardiovascular equipment area can be located in one or multiple areas throughout the facility. The criteria in this table will apply regardless of equipment location. Fitness Area is adjacent to the equipment repair/receiving area. The free/plate-loaded weights area includes dumbbells, plate racks and plate-loaded equipment, and benches. The selectorized (machine) equipment consists of pin-selected weight equipment. The cardiovascular equipment consists of items such as treadmills, stationary bikes, stair climbers, etc.
<b>Ceiling Ht.</b>	12 ft. (3.66 m) minimum to the lowest element. 14 ft. (4.27 m) is preferred.
<b>Finishes</b>	<p><b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU. Provide high-impact wall guards up to 18 in. above finished floor in the free weight area.</p> <p><b>Floor.</b> In the stretching/warm-up/cool-down spaces, use either:</p> <ol style="list-style-type: none"> <li>1. Non porous, fully adhered minimum 0.157" (4 mm) Linoleum sheet goods top surface product with a re-cycled minimum 0.236" (6 mm) foam pad underlayment. Approximately 0.394" (10 mm) in total thickness.</li> <li>2. Non porous, fully adhered cushioned Vinyl sheet material with a Polyurethane reinforced wear layer with Aluminum Oxide and a closed cell vinyl foam reinforced with non-woven fiberglass foam pad for dimensional stability. Approximately 0.315" (8 mm) total thickness and minimum width 6' 7" (2 m) wide to reduce side seams.</li> </ol> <p>In Cardio, Selectorized machine weights, and Free Weight Areas use 0.079" (2 mm) virgin rubber top surface with a 0.30" (7.5 mm) re-cycled rubber base. Use tile only for easy replacement. Tile must be manufactured in a mould and never cut from rolls, so that placing weights on the seams during installation is not necessary.</p> <p>Impact and athletic flooring system cannot be accommodated by interlocking flooring tiles or movable furnishings such as mats.</p> <p><b>Ceiling.</b> Exposed, painted structure. Consider providing ACT or other acoustical banners and treatments.</p>
<b>Plumbing</b>	Provide a minimum of two electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/weight rooms" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum. Provide multi-speed ceiling fans, with wall-mounted controls.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.

**Table 4-12. Fitness Area**

<b>Power</b>	<p>Provide outlets per Chapter 3, Electrical.</p> <p><b>Free weight area:</b> Provide outlets for wall- or ceiling-mounted television monitors.</p> <p><b>Selectorized equipment area:</b> If a fitness tracking system will be provided, coordinate equipment outlets with the specific equipment selected. Provide flush-floor outlets for commercial-grade equipment in a grid pattern sized appropriately for equipment spacing and to accommodate fitness tracking systems. Consider providing a raised floor system for power distribution; this is particularly useful in conversion projects. See Special Requirements for additional raised floor criteria. Provide outlets for wall- or ceiling-mounted television monitors.</p> <p><b>Cardiovascular equipment area:</b> Coordinate equipment outlets with the specific equipment selected. Provide flush-floor outlets for commercial-grade equipment in a grid pattern sized appropriately for equipment spacing and to accommodate fitness tracking systems. Consider providing a raised floor system for power distribution; this is particularly useful in conversion projects. See Special Requirements for additional raised floor criteria. Provide dedicated circuits for all treadmills. Coordinate television monitor outlet locations with CATV outlet locations and the equipment selected: If cardiovascular equipment incorporates monitors, ensure outlets are located appropriately, and provide outlets for wall- or ceiling-mounted television monitors as necessary to ensure adequate viewing angles for all equipment.</p>
<b>Lighting</b>	<p>Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) uniform lighting. To address safety concerns, coordinate lighting design with equipment layout and ensure that equipment users, particularly those using horizontal benches, are not exposed to glare of direct/down lighting.</p>
<b>Communication</b>	<p><b>CCTV.</b> Provide outlets as needed for coverage.</p> <p><b>CATV/Internal Video.</b> Provide outlets for wall or ceiling mounted television monitors throughout the fitness area. Mount at proper viewing height for cardiovascular exercise machines in that area, height as selected by Fitness Area Designer. The quantity and location of the CATV outlets must be determined by the sports fitness facility designer and the Installation fitness program manager and must be coordinated with the equipment layout. The goal must be to enhance the experience and enjoyment of working out in the fitness areas and to have a sufficient number of CATV monitors available for comfortable viewing by all users of the fitness area. Consider FM sound broadcast of video monitors.</p> <p><b>PA/Audio.</b> Provide PA speakers as needed. Provide a separate audio system with speakers as needed for full coverage. Consider separate volume control and separate channels for individual activity areas.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> Provide data outlets in recessed floor boxes in the cardiovascular and selectorized equipment areas and entertainment systems. Data to equipment for fitness tracking is optional.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	<p>Reverberation time must equal 1.0-1.3 seconds. Provide noise attenuation measures to mitigate acoustical problems resulting from mechanical systems, plumbing systems, and vibration transmitted through the facilities structure.</p>
<b>Casework/ Built-in Equipment</b>	<p>Provide 6 ft. (1830 mm) tall mirrors on at least two walls at a minimum of 18 in. (450 mm) above the floor. One of the two walls must be in the free weight area.</p> <p>Provide 1'-6"x1'-6"x15" deep open cubbies – quantity to be 50% of number of pieces of fitness equipment.</p> <p>Provide wall-mounted bulletin boards.</p>

**Table 4-12. Fitness Area**

<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<p>Fitness equipment must be commercial grade. Sample equipment lists for each area (cardiovascular, free weights, and selectorized) are provided in Appendix C. Address accessibility issues in equipment selection.</p> <p>Provide a free-standing heavy punching bag and a speed bag if a boxing program is included.</p> <p>Exercise mats, wall clocks, and trash containers.</p> <p>Provide self-serve equipment cleaning supply stations throughout that include disinfectant spray bottles and disposable or reusable towels (may be user provided).</p> <p>Provide AEDs in accordance with Service guidance.</p>
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<p>If this space is provided on the second floor, ensure that the elevator is specified to accommodate the fitness equipment.</p> <p>The foundation/floor in this space must be designed to accommodate all live and dead loads associated with the equipment.</p> <p>Provide storage either within the room or with a direct adjacency to store items such as mats, spare equipment, punching bags, and other sports equipment.</p> <p>Provide natural light through the use of windows and/or overhead skylights. Mitigate glare.</p> <p>Provide attractive, color coordinated décor that projects a friendly environment. Avoid bland treatments such as a black floor and tan walls. Color selection must coordinate with equipment selected for the space.</p> <p>Consider providing a help desk within this space in larger facilities. If provided, locate it within the space in areas not well served by the control counter.</p> <p>If provided, the raised floor provides flexibility for routing power and data cables for fitness equipment. Typically, this will be a low-profile access floor.</p> <p>If doors are provided, include vision panels, minimum 5 square feet each, and consider side lites.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-13. Fitness Assessment Room**

<b>Description/ Usage</b>	This room provides a space for staff to meet with customers and evaluate the customer's fitness level. It is inside or directly adjacent to the fitness spaces and the program manager's office and must include typical office furnishings and fitness testing equipment.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wall board or wall covering. <b>Floor.</b> Carpet tile with resilient base. <b>Ceiling.</b> ACT.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Include room thermostat that can be adjustable by occupants within the range of 68-78 F.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide a minimum of one quad outlet on at least three walls. Gang outlets with data and telephone. Provide additional dedicated outlets to accommodate the fitness equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) of general ambient lighting.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video:</b> None required. <b>PA/Audio:</b> Provide a speaker. <b>Telephone.</b> Provide one line. <b>Data.</b> Provide at least one outlet at the desk area and one outlet at the fitness equipment area. <b>Security.</b> None required.
<b>Acoustics</b>	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Office furniture: desk, credenza, filing cabinet, desk chair, and two side chairs. Fitness testing equipment such as a treadmill or cycle with built-in monitoring sensors/devices. Scale.
<b>User-provided Equipment</b>	Computer, printer, and other office equipment as needed.
<b>Special Req.</b>	Provide a key locked door. Provide side lites with blinds next to the door for supervision and security. If this space is provided on the second floor, ensure that the elevator is specified to accommodate the fitness equipment.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-14. Fitness Assessment Cell**

<b>Description/ Usage</b>	<b>Air Force</b> only space for official Air Force group PT tests. Multiple rooms consisting of check-in/waiting/reception area with two workstations, separate room for conducting measurements, and separate room for group testing in push-ups and sit-ups.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wall board. <b>Floor.</b> Carpet tile with resilient base. <b>Ceiling.</b> ACT.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Include room thermostat that can be adjustable by occupants within the range of 68-78 F.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. In the check-in/waiting/reception area, provide a minimum of one quad outlet on at least three walls, and gang outlets with data and telephone.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) of general ambient lighting.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video:</b> None required. <b>PA/Audio:</b> Provide a speaker in each room. <b>Telephone.</b> Provide two lines at the check-in/reception/waiting. <b>Data.</b> Provide two outlets at the reception workstations. <b>Security.</b> None required.
<b>Acoustics</b>	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Office furniture: two workstations, filing cabinet, two desk chair, and waiting room chairs. Exercise mats, wall clocks, and trash containers.
<b>User-provided Equipment</b>	Computers, printer, and other office equipment as needed.
<b>Special Req.</b>	Provide side lites next to the main doors into the check-in/waiting/reception area.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-15. Rock Climbing**

<b>Description/ Usage</b>	A rock climbing wall is an optional addition, usually to the fitness equipment area or combined with other structured activities. The main uses of climbing walls are threefold: offering instructional programs for new climbers, fitness training or recreation for intermediate through advanced climbers, and climbing competitions. Locate the wall within the facility so that it is a highly visible feature or centerpiece and also serves an advertising function. Ensure direct visual control from the control counter. For renovation projects, if Rock climbing area is not visible from the control counter this space must be included in a lockable room.
<b>Ceiling Ht.</b>	For renovations, accommodate a 20 ft. (6.1 m) minimum-height climbing wall and the specific requirements of the equipment selected. For new projects, accommodate a 25 ft. minimum-height climbing wall.
<b>Finishes</b>	<p><b>Walls.</b> CMU. Basic wall features can include arêtes, dihedrals, overhanging routes, flakes, chimneys, buttresses, and roof. Consider not only the width and height of climbing walls, but also the available depth to create interesting features.</p> <p><b>Floor.</b> The flooring beneath the climbing wall must be Seamless Rubber Surfacing.</p> <ol style="list-style-type: none"> <li>1. Description: Cushioned seamless floor system comprised of a cushioned impact course and colored cap surface, composed of peroxide-cured EPDM and recycled select rubber bonded by a specially formulated polyurethane binder. Completed system shall comply with applicable CSPC criteria for playground surfacing and the following: <ol style="list-style-type: none"> <li>a) Tested for shock attenuation under ASTM F1292 and HIC.</li> <li>b) Tested for slip resistance under ASTM E303.</li> <li>c) Tested for ignition characteristics under ASTM 02859.</li> <li>d) Tested for fire resistance under ASTM E84.</li> <li>e) Complies with AOAAG for wheelchair access.</li> </ol> </li> <li>3. Thickness: Poured-in-place, see Part 3 of this Section for final thickness.</li> <li>4. Color: As selected by Architect from manufacturer's full range of standard colors.</li> <li>5. Primer: As recommended by the manufacturer.</li> <li>6. Line Marker: Two-component polyurethane as recommended by the manufacturer for demarcation of specific areas or other lines or lanes.</li> <li>7. Thinner: As recommended by the manufacturer.</li> <li>8. Acceptable Manufacturers and Products: <ol style="list-style-type: none"> <li>a) No Fault Industries 'Saf Oek"</li> <li>b) Vitricon 'Vitrifurf'</li> <li>c) Approved substitute</li> </ol> </li> <li>9. Installation: <ol style="list-style-type: none"> <li>a) Areas of Installation: Climbing Wall Landing Surface.</li> <li>b) Proceed only when ambient and surface temperatures are within range recommended by the manufacturer, and substrate condition has been approved by the Installer</li> </ol> </li> </ol> <p><b>Ceiling.</b> None required.</p>
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Gym, stadium (play area)" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 78 F (26 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.

**Table 4-15. Rock Climbing**

<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) with uniform vertical illuminance on climbing surfaces. Metal halide, or high bay high output fluorescent lights are recommended. Coordinate the location of lights with the design of the climbing wall. Lighting must not impair the wall user, e.g., down-lighting fixtures must not be installed directly above the climbing wall.
<b>Communication</b>	<p><b>CCTV.</b> If direct line of sight (LOS) is not possible from the control desk, provide an outlet (also see Special Requirements).</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> Provide a speaker.</p> <p><b>Telephone.</b> If direct line of sight (LOS) is not possible from the control desk, provide an emergency call/alarm that sounds at the control counter.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equip.</b>	Consider manufactured climbing walls. Select the provider based both on service and product features. Accommodate any specific power requirements. Provide a wall-mounted bulletin board in a visible, adjacent area on which appropriate information and materials are posted, e.g., safety and injury guidelines, climbing tips, target heart zone information, and instructions for measuring heart rate.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<p>Climbing wall, whether custom designed or manufactured, must exhibit a natural rock appearance. Component manufactured holds that mount to the climbing wall surface must be adjustable to accommodate climbing competitions. This feature will also allow for climbing route variations and various types of holds.</p> <p>Provide a separate teaching station.</p> <p>If direct line of sight from the control counter is not possible, provide a means to secure the climbing wall during periods of non-use.</p> <p>Safety: If a manufactured climbing wall is used, comply with the manufacturer's guidelines and safety requirements. Also refer to the following industry groups for more information on safety requirements: Climbing Wall Association and Association for Challenge Course Technology. Ensure all anchors and other safety devices are installed for safe use.</p>
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-16. Racquetball Courts**

<b>Description/ Usage</b>	Racquetball courts generally consist of one or more enclosed courts within a larger space that allows circulation, waiting, and spectator viewing. Courts are sized and specified specifically for the game of racquetball (see Special Requirements).
<b>Ceiling Ht.</b>	20 ft. (6.1 m) exactly.
<b>Finishes</b>	<p><b>Walls.</b> Pre-manufactured racquetball court side and front walls must be .5-in.- (13-mm-) thick, balanced, high density dry panel systems with minimum 50 pound density weight panels over .5 in. (13 mm) sound cushion layer. Unless building layout precludes the option, provide a shatterproof, tempered glass back wall/door for viewing and officiating. Minimum calculated wall reflectance must be 0.65.</p> <p><b>Floor.</b> Maple athletic flooring. Flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i>.</p> <p><b>Ceiling.</b> Pre-manufactured racquetball court ceiling, .5-in.- (13-mm-) thick high density resin core panels.</p>
<b>Plumbing</b>	None Required. Consider access to electric water coolers and toilets.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, provide Summer: 74° F at less than 50% RH, and Winter: 68° F at less than 60% RH. Ventilating ducts must be installed flush with the ceiling or wall surfaces. Supply and return vents must be located in the rear one-third of the ceiling and/or the upper one-third of the back wall.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Any fire suppression or detection equipment must be protected and flush with the wall or ceiling surface.
<b>Power</b>	None required in courts. Provide convenience outlets per code in the waiting/viewing area.
<b>Lighting</b>	Provide lighting levels for racquetball in accordance with IESNA Class III adjustable up to Class II. Use translucent, impact resistant, nonbreakable, flush mounted protective covers specifically designed for racquetball courts. Light must be evenly distributed throughout the court. Use metal halide fixtures or fixture designed for use with this activity. For courts with glass walls, the lighting level must be the same on both sides of the glass wall. This reduces glare and allows players to follow the ball as it plays off the glass wall.
<b>Communication</b>	<p><b>CCTV.</b> Provide at least one outlet in the waiting/viewing area.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> Provide a speaker in each court (upper end of back wall preferred) and in the waiting/viewing area.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide mounting sockets and netting for wally ball games on 50% of the courts or per local demand. Provide recessed storage boxes in one sidewall of each court.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	If a waiting/viewing area is included, provide seating for spectators.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.



**FC 4-740-02N**  
**1 May 2013**

<b>Special Req.</b>	<p>Court striping and dimensions must comply with U.S.A. Racquetball Association (USRA) rules. Wall, floor, and ceiling materials and construction must comply with USRA Standard Specifications for Racquetball Court Construction.</p> <p>Because of the special air conditioning requirements used for Racquetball courts, design exterior exposed Racquetball courts walls to eliminate wet walls and mildew in accordance with paragraph entitled "Exterior Walls and Mold" of this FC document.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p> <p>Participants.</p> <p>Spectators.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-17. Men's and Women's Lockers/Dressing**

<b>Description/ Usage</b>	Separate men's and women's locker/dressing rooms will be used by those participating in fitness/sports activities for changing, dressing, and securing personal effects. It is open and directly adjacent to the toilet/shower facilities. As such, moisture and humidity must be addressed in the locker/dressing rooms. Locker counts are based on 1.5 per male and female participants
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum except where furred down.
<b>Finishes</b>	<p><b>Walls.</b> Epoxy or semi-gloss enamel painted CMU or mold-resistant gypsum wallboard.</p> <p><b>Floor.</b> Non-slip porcelain or ceramic tile with dark-colored epoxy grout. Slope tile to drain</p> <p><b>Ceiling.</b> High humidity-rated, vinyl-faced ACT with a corrosion-resistant supporting grid, or mold-resistant gypsum wallboard with a veneer plaster (level 5) finish and semi-gloss paint.</p>
<b>Plumbing</b>	Provide and locate floor drains as required to ensure proper drainage and no standing water on the floor (this is particularly important in facilities that include a pool). Consider providing an electric water cooler.
<b>HVAC</b>	Provide a HVAC system per Chapter 3 requirements. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side of this space (opposite the adjacent toilet/shower wet side) to the exhaust intakes in the wet area. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements for "Locker Rooms". Use heat/enthalpy recovery when cost effective. Provide multi-speed ceiling fans with wall-mounted controls. Make-up air through lockers is combination of ventilation requirements for showers and toilets.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide counter-height outlets at the vanity area. Provide power to the hair dryers identified in the built-in equipment. Provide outlets where televisions are required – provide at height of TV.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers. Minimize shadowing at face of lockers.
<b>Communication</b>	<p><b>CCTV.</b> None required.</p> <p><b>CATV/Internal Video.</b> Consider providing CATV outlets for wall or ceiling mounts.</p> <p><b>PA/Audio.</b> Provide PA speakers as needed for full coverage. Consider providing speakers for the separate audio system. Provide an emergency call/alarm.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.

**Table 4-17. Men's and Women's Lockers/Dressing**

<b>Casework/ Built-in Equipment</b>	<p>Provide solid plastic (HDPE) or color-through phenolic lockers and benches. Lockers must be a minimum of 15-in. wide by 24-in. deep (380 mm x 610 mm) with integral minimum 16-in. (406-mm) wide benches (usually part of the locker system). Typically provide a mix of full- and half-sized Z-shaped lockers. However, consider the location's climate when determining the ratio of half- to full-sized lockers: Colder climates will require a higher percentage (or 100%) of full-sized lockers to accommodate bulkier cold weather gear. Steel lockers are not permitted. Mount lockers at a level above the floor to ensure operating hardware is easily reachable.</p> <p>Provide a vanity area with a counter and mirror. Provide wall-mounted hair dryers adjacent to this area. Provide one hair dryer for every three shower heads for men and one hair dryer for every two shower heads for women.</p> <p>Provide shelves and hooks for coats and hats.</p> <p>Provide a full-height wall mirror.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide a scale and a wall clock. Consider providing televisions.
<b>User-provided Equipment</b>	Consider providing a blood pressure monitor.
<b>Special Req.</b>	Provide dropped gypsum board soffits over lockers, or utilize sloped-top lockers to preclude the tops of the lockers being used for storage.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-18. Men's and Women's Toilets**

<b>Description/ Usage</b>	Separate men's and women's toilet facilities are open and directly adjacent to the corresponding gender's locker/dressing and shower areas.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Full height ceramic tile with dark-colored epoxy grout on cementitious backer units at wet walls and ceramic tile wainscots at fixture areas. Epoxy or semi-gloss painted, mold-resistant gypsum wallboard elsewhere.</p> <p><b>Floor.</b> Non-slip porcelain or ceramic tile with dark-colored epoxy grout. Slope tile to drain.</p> <p><b>Ceiling.</b> Vinyl-faced ACT or mold-resistant gypsum wallboard with a veneer plaster (level 5) finish and semi-gloss paint.</p>
<b>Plumbing</b>	<p>Provide lavatories, urinals and water closets in quantities as appropriate for participant count and features included (Indoor Track, multiple basketball courts, etc).</p> <p>Provide floor-mounted urinals.</p> <p>Provide proper drainage (i.e., floor drains and/or perimeter trench drains).</p>
<b>HVAC</b>	Provide system per Chapter 3, HVAC. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (toilet/shower) area. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements for "Toilets-Public".
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide GFCI outlets at lavatory at counter height.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers with shatterproof lens. Provide lighting directly over lavatories and grooming counters and minimize reflection glare in the mirrors in the overall lighting design.
<b>Communication</b>	<p><b>CCTV.</b> None required.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	<p>Solid-surface countertop supported at both ends and with the front edge supported by galvanized angle reinforcing. Consider use of holes in lavatory countertop for waste disposal – coordinate location of paper towel dispenser. The sink may be either underhung or integral with the counter.</p> <p>Solid plastic (HDPE) or Color-Through Phenolic toilet and urinal partitions secured at floor and ceiling.</p> <p>Toilet accessories: toilet paper dispensers, paper towel dispenser, trash receptacle, robe and towel hooks, grab bars, feminine hygiene receptacles in women's water closets, seat cover dispensers, and soap dispensers at lavatories.</p> <p>Provide wall-mounted shelves and full-width mirror at the lavatories.</p> <p>Provide a full-length mirror.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	

**Table 4-18. Men's and Women's Toilets**

<b>Special Req.</b>	Design entrances to prevent direct views into this area. Consider providing natural light via frosted skylights or translucent wall building materials.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

<b>Table 4-19. Men's and Women's Showers</b>	
<b>Description/ Usage</b>	These separate male and female areas are directly adjacent to (and may be open to) the corresponding gender's locker/dressing and toilet areas and include private shower and adjacent drying stalls. If the facility includes a pool, the pool entry/exit must be adjacent to this area. Other adjacent functions may include sauna and/or steam room. Shower compartment construction options include constructed separation walls, field-assembled pre-manufactured shower partitions and pre-manufactured solid surface shower compartments. Shower counts are based on 1 per 15 male participants, and 1 per 15 female participants.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Full height ceramic tile with dark-colored epoxy grout on cementitious backer units.</p> <p><b>Floor.</b> Non-slip porcelain or ceramic tile with dark-colored epoxy grout. Slope tile to drain.</p> <p><b>Ceiling.</b> Mold-resistant gypsum wallboard with a veneer plaster (level 5) finish and epoxy paint.</p>
<b>Plumbing</b>	Provide minimum 42-in.- (1068-mm-) wide private shower/drying stalls for men and women. Provide a minimum of one floor drain at each shower stall and additional drains as needed to ensure proper drainage.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (shower) area. If constructed separation walls are used from floor to ceiling, locate stainless steel exhaust outlets in the ceiling of each space. If gang showers and partitioned showers, locate exhaust outlets in high and low locations within the room but outside of shower area – pull 2/3 of air from high location and 1/3 from low location. Provide minimum exhaust in accordance with ANSI/ASHRAE 62.1 requirements for "Locker/dressing rooms".
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 10 ft. candles (100 Lux) of general ambient lighting. Provide recessed fixtures with sealed lenses, rated for wet applications.
<b>Communication</b>	<p><b>CCTV.</b> None required.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	<p>Solid plastic (HDPE) or Color-Through Phenolic shower partitions secured at floor and ceiling. Consider permanent walls between showers; see Finishes for wall finish.</p> <p>If the facility includes a pool, provide swim mats or tiles that are textured, anti-slip, self-draining and raise the walking surface above standing water. Also provide a swim-suit spin-dry unit.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	

**FC 4-740-02N**  
**1 May 2013**

<b>Table 4-19. Men's and Women's Showers</b>	
<b>Special Req.</b>	Design the space such as to not allow direct views from the public areas into the shower room areas. Consider providing natural light via frosted skylights or translucent wall building materials.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

Table 4-20. Sauna

<b>Description/ Usage</b>	This space is not supported by the <b>Navy</b> . The optional sauna for Marine Corps should have an adjacent cool down space and direct access to the shower and locker spaces. It provides a very hot, dry environment for therapy and relaxation. Provide separate male and female rooms as part of or adjacent to male and female toilet and shower facilities. Consider providing a prefabricated, packaged unit.
<b>Ceiling Ht.</b>	6-1/2 to 7 ft. (1.98 to 2.13 m).
<b>Finishes</b>	<b>Walls.</b> Redwood or cedar panels. <b>Floor.</b> Sealed concrete with removable redwood tile "mats." <b>Ceiling.</b> Redwood or cedar panels.
<b>Plumbing</b>	Provide a floor drain.
<b>HVAC</b>	Provide a separate dry heat system with individual temperature controls and a timer to achieve 170 to 180 F (77 to 82 C) with 5% relative humidity. Provide secure controls. Provide passive ventilation to achieve four air changes/hour.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide a dedicated circuit for the heat source.
<b>Lighting</b>	Provide 10 ft. candles (100 Lux) of general ambient lighting. Lighting fixtures must be rated for wet applications with ambient temperature rating of at least 180 deg. F (82 deg. C)
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm mounted within 36 in. (915 mm) of finished floor that sounds at the control counter until reset by the respondent. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide solid board cedar or redwood benches. Provide a wall-mounted room temperature and humidity gauge. Provide hooks.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide a water tub and ladle for wet sauna. Provide a wall-mounted clock in this area that is visible from the sauna room.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Provide an insulated door with a vision panel and seals to maintain temperature. Minimize exposed metal hardware. Ensure no exposed metal fasteners on the benches. Use plastic or wood interior door handle. An adjacent cool-down space can serve the sauna and steam room (if provided). Include a wall-mounted, solid-composite bench and wall-mounted clothing/towel hooks.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-21. Convertible Locker Space**

<b>Description/ Usage</b>	The <b>Navy</b> does not support this space. The <b>Marine Corps</b> will only consider this option for Large or Extra Large facilities. This optional area provides locker/dressing space that can be converted to male or female space, as needed, to accommodate tournaments and/or changing demographics. It is a separate room between the male and female locker rooms with double-locked doors into each. The criteria generally follow that in Table 4-17 for the locker/dressing area. This is not additional locker space and will need to be deducted from the overall calculated locker space for the facility.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum except where furred down.
<b>Finishes</b>	<b>Walls.</b> Epoxy or semi-gloss enamel painted CMU or mold-resistant gypsum wallboard. <b>Floor.</b> Non-slip porcelain or ceramic tile with dark-colored epoxy grout. Slope tile to drain <b>Ceiling.</b> High humidity-rated, vinyl-faced ACT with a corrosion-resistant supporting grid, or mold-resistant gypsum wallboard with a veneer plaster (level 5) finish and semi-gloss paint.
<b>Plumbing</b>	Provide floor drains. Consider providing an electric water cooler.
<b>HVAC</b>	Provide a HVAC system per Chapter 3 requirements, and connected to the lighting controls, thereby linking system operation to the lights being on, i.e. the space is occupied, or the lights being off, i.e. the space is unoccupied. The system is to provide normal HVAC operations when lights are on and space is occupied. When lights are off and space is unoccupied system must maintain an "unoccupied exhaust rate" of .06 cfm / sq. ft.. In addition, system is to provide 70 F (21 C) minimum, 78 F (26 C) maximum. Use heat/enthalpy recovery when cost effective. Provide multi-speed ceiling fans with wall-mounted controls.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide counter-height outlets at the vanity area.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers. Minimize shadowing at face of lockers.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> Consider providing an outlet. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm. <b>Telephone.</b> Provide one line. <b>Data.</b> Consider providing outlets to support personal fitness tracking devices. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.

**Table 4-21. Convertible Locker Space**

<b>Casework/ Built-in Equipment</b>	<p>Provide solid composite lockers and benches. Lockers must be a minimum of 15-in. wide by 24-in. deep (380 mm x 610 mm) with integral minimum 16-in. (406-mm) wide benches (usually part of the locker system). These lockers are daily use only (not rented). Typically provide a mix of full- and half-sized Z-shaped lockers. However, consider the location's climate when determining the ratio of half- to full-sized lockers: Colder climates will require a higher percentage (or 100%) of full-sized lockers to accommodate bulkier cold weather gear. Steel lockers are not permitted.</p> <p>Mount lockers at a level above the floor to ensure operating hardware is easily reachable.</p> <p>Provide a vanity area with a counter and mirror. Provide wall-mounted hair dryers adjacent to this area. Provide one hair dryer for every two shower heads.</p> <p>Provide shelves and hooks for coats and hats.</p> <p>Provide a full-height wall mirror.</p> <p>Consider providing ceiling fans.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	
<b>Special Req.</b>	<p>The doors in to the male and female locker/dressing area must be keyed from both sides.</p> <p>Provide dropped gypsum board soffits over lockers or prefabricated metal top closure to preclude the tops of the lockers being used for storage.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-22. Laundry.**

<b>Description/ Usage</b>	The laundry accommodates cleaning and drying of towels and uniforms. Some Installations contract out towel laundry; however, there is still a requirement to provide laundry for uniforms. Locate laundry adjacent to the control counter. It is preferred that the location be on an outside wall.
<b>Ceiling Ht.</b>	2.74 m (9 ft.) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU or mold-resistant gypsum wallboard. Consider the impacts from carts and the movement of equipment—provide durable finishes, rub rails, and metal/high-impact plastic corner guards. <b>Floor.</b> Sealed concrete, VCT, or seamless vinyl. <b>Ceiling.</b> None, vinyl-faced ACT, or epoxy painted mold-resistant gypsum wallboard.
<b>Plumbing</b>	Provide hot and cold water and drain connections to each washer (or washer extractor) and one laundry sink. Provide floor drains. Provide connections to an ice machine and utility sink in the equipment storage area and provide a separate floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide ventilation in accordance with ANSI/ASHRAE 62.1 requirements for “Laundry Rooms, Central” . Provide separate vents to the outside for the dryers (or tumblers).
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Note requirement for one-hour rated construction and 45-minute-rated door with self closer.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide a dedicated circuit for each washer (or washer extractor) and for each dryer (or dryer tumbler). If hard-wired (non-plug connected), provide wall-mounted safety disconnect switch within sight of the equipment it controls.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) of general ambient lighting.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide one speaker. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	Provide partition construction with a minimum STC rating of 52 per Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	Large, high capacity commercial washers and dryers. Provide 1 washer & 2 dryers for Small facilities, 2 washers and 4 dryers for Medium facilities, 3 washers and 6 dryers for Large facilities, and 4 washers and 8 dryers for Extra Large facilities. Provide a stainless steel or solid surface built-in table for folding laundry and shelves for clean towel storage. Provide push-button operated ice machine. Provide wall-mounted hanging racks if facility accommodates a large uniform inventory.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide storage shelves for laundry supplies. Laundry carts.
<b>User-provided Equipment</b>	

**Table 4-22. Laundry.**

<b>Special Req.</b>	Provide easy access to rear of dryers (or tumblers) to allow maintenance and cleaning of vents (see HVAC). Provide space for storage of laundry carts. Coordinate door openings and dimensions with room layout and equipment sizes, e.g., laundry carts, washers/extractors, dryers/tumblers, and ice machines. Provide acoustical measures to control the noise/vibration of the washers/extractors and dryers/tumblers. The laundry room must not be visible from the lobby area.
<b>Occupancy</b>	Staff.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-23. Receiving and Equipment Repair/Storage.**

<b>Description/ Usage</b>	Provides an area to store, assemble, and repair fitness equipment. It will also be used to store overflow from the control counter/equipment issue storage, such as large or seasonal items. This area is adjacent to the fitness areas.  There is an option for additional storage for optional programmatic items (such as a boxing ring). If required, this space will usually be part of/adjacent to the receiving and equipment repair area.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Durable materials such as CMU with heavy-duty epoxy paint. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> None. Paint the exposed structure.
<b>Plumbing</b>	Provide a work sink with hot and cold water connections and a floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide additional outlets at the work bench.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) of general ambient lighting. Provide 50 FC (500 Lux) task lighting at the work bench.
<b>Communication</b>	<b>CCTV.</b> Provide one outlet. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> Provide one line with internal two-way communication. <b>Data.</b> Provide one outlet. <b>Security.</b> Provide a door alarm and exterior door bell.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	..
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide adequate shelving, bins, and open end cubicles for storage of athletic equipment for both in and out of season supplies.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count. A computer may be required for maintenance use.
<b>Special Req.</b>	Provide a locking exterior double door with flush sills, a minimum 68-in. (1730 mm) clear open width and sufficient height to facilitate movement of equipment. Consider an electric roll-up door with an exterior transition ramp or a loading dock and associated roadway. Provide an interior double door with a minimum 68-in. (1730 mm) clear open width to facilitate movement of equipment. Do not combine this space with mechanical or electrical rooms.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-24. Indoor Track**

<b>Description/ Usage</b>	The indoor track provides space for running, jogging, and walking. It is usually co-located with the gymnasium (see Table 4-9) either surrounding the court safety zone or suspended above the gym area or other high-bay space. Indoor track requirements: <b>Navy.</b> The indoor track is an option depending upon local climate and facility size. When provided, Navy indoor tracks must be suspended tracks. <b>Marine Corps.</b> The indoor track is an option.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum. If suspended in a high-bay area, the underside of the track structure must be 14 ft. (4.27 m) minimum above the finished floor.
<b>Finishes</b>	<b>Walls.</b> CMU with semi-gloss enamel paint. <b>Floor.</b> Resilient, cushioned running surface, such as rubber or urethane. <b>Ceiling.</b> Exposed, painted structure.
<b>Plumbing</b>	Provide an electric water cooler in the entrance lobby to the track.
<b>HVAC</b>	The HVAC criteria must match the criteria for the space in which the track is located.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide power to a wall-mounted clock and electric water cooler. If cardio fitness equipment is provided, coordinate power requirements.
<b>Lighting</b>	The lighting criteria must match the criteria for the space in which the track is located. When located within the gymnasium surrounding the court safety zone, provide lighting levels and controls matching the court it surrounds. When suspended above the gymnasium, provide lighting control with horizontal illuminance: 30 FC (300 lux), CV = 0.30 or less (E <sub>max</sub> /E <sub>min</sub> = 4:1 or less).
<b>Communication</b>	<b>CCTV.</b> Provide outlets for adequate coverage. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> Provide a telephone line or other emergency call system within or adjacent to the running track area. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	The acoustical criteria must match the criteria for the space in which the track is located.
<b>Casework/ Built-in Equipment</b>	Provide signage to indicate running directions (directions alternate day-to-day). Provide personal effects storage, such as cubbies, for customer use. Bulletin board and digital clock.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide storage for towels and personal items. Consider providing cardio fitness equipment, such as treadmills or stair climbers, in unused corners.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.

**Table 4-24. Indoor Track**

<b>Special Req.</b>	<p>The metric unit equivalent for the track distance must be an accurate soft conversion because runners will time themselves based on number of laps; the reference point must be consistent. Track length is based on the inside radius. Lanes are preferred to be 42 in. (1067 mm) wide with an acceptable range from 39" to 42". The turns must have a minimum inside radius of 20 ft. (6100 mm). Consider using banked curves. The height of banked curves on an indoor track should be 1 in. per 1 ft. (25 mm per 305 mm) of track width. When using banked curves, ensure compliance with ABA requirements.</p> <p>Provide "lobby" areas at the entrances to a suspended track so that the doors do not open onto the track area and to provide space for stretching and warm-up. Provide an exercise mat in this area. Provide vision panels in the doors, minimum 5 square feet each. Ideally, the entry lobbies are to be located near the center of a straight-a-way.</p> <p>Provide for exterior views if possible or, at a minimum, natural light admission. Mitigate glare and prevent direct sunlight on the track or the gymnasium (if suspended above).</p> <p>Track length and number of lanes varies as follows:</p> <p><b>Navy.</b> Minimum track distance/size is 1/14 mile (115 m) and two lanes, which will fit over the smallest gymnasium option. In larger facilities, the preferred distance/size is 1/11 mile (146.3 m) in length and three lanes. In Extra Large and Jumbo size facilities, the Navy will include a 1/8-mile (201.2-m), four-lane track.</p> <p><b>Marine Corps.</b> Minimum track distance/size for new facilities is 1/8 mile (201.2 m) and four lanes. The minimum track distance/size for add/alter facilities is 1/11 mile (146.3 m) in length and three lanes.</p> <p>Typically, the most space and cost effective location for the indoor track is suspended above the gymnasium. Service-specific size and length criteria for the track is given above, but consider the following when sizing the indoor track:</p> <ul style="list-style-type: none"> <li>• Ensure the suspended track does not interfere with gymnasium play below. The track must not encroach into the clear zones of the gym. Ensure that required adjacencies are not affected by the placement of the track.</li> <li>• The facility can be designed to allow the track to extend beyond the gymnasium area and into other high-bay spaces, such as the fitness area. This can make for an interesting architectural feature but will have significant cost implications.</li> </ul>
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-25. Massage Room**

<b>Description/ Usage</b>	The optional massage room provides a private space for massage service. It is preferred to be adjacent to the locker/shower facilities.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Semi-gloss painted gypsum wall board. <b>Floor.</b> Solution dyed nylon carpet tile with antimicrobial treatment with resilient vinyl transitions and base. <b>Ceiling.</b> ACT.
<b>Plumbing</b>	Provide a hand-wash sink. Provide floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, include room thermostats that can be adjustable by occupants within the range of 72 F to 78 F (22 C to 26 C).
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) with indirect light fixtures and provide continuous dimming capability.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm that sounds at the control counter until reset by the respondent. <b>Telephone.</b> Provide one line. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics. If possible, do not locate this room near noisy spaces as defined in Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	Provide clothes hooks.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide a securable storage cabinet for supplies such as sheets, towels, and massage oil. Unless operated by a concessionaire, provide the following: height-adjustable massage table with adjustable head rest. Provide an adjustable-height wheeled stool for the therapist. Consider providing a massage chair in addition to or in lieu of the massage table. Provide a small table for making and verifying appointments.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-26. Family Changing Room/Family Locker Room**

<b>Description/ Usage</b>	For the <b>Navy</b> and <b>Marine Corps</b> , this optional space provides separate, individual rooms equipped with changing area, shower, toilet, sink, diaper changing table, and lockers intended to accommodate adults with small children. Locate near the pool (if provided) or near the parent/child and/or parent/youth areas. <b>Navy</b> only provides this option when the facility includes a pool.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> See Tables 4-17, 4-18, and 4-19 for the appropriate finishes. <b>Floor.</b> See Tables 4-17, 4-18, and 4-19 for the appropriate finishes. <b>Ceiling.</b> See Tables 4-17, 4-18, and 4-19 for the appropriate finishes.
<b>Plumbing</b>	Provide shower stall, lavatory, and water closets. Provide a floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (toilet/shower) area. Provide ventilation in accordance with space type "locker rooms" in ANSI/ASHRAE 62.1.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide counter-height GFCI outlets at the lavatory.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers. Minimize shadowing at face of lockers. Provide lighting directly over lavatory and consider reflections and glare in the mirrors when designing the overall lighting design. In the shower, provide recessed fixtures with sealed lenses, rated for wet applications.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.

**Table 4-26. Family Changing Room/Family Locker Room**

<b>Casework/ Built-in Equipment</b>	<p>Provide solid composite lockers and benches. Lockers must be a minimum of 15-in. wide by 24-in. deep (380 mm x 610 mm) with integral minimum 16-in. (406-mm) wide benches (usually part of the locker system). Typically provide a mix of full- and half-sized Z-shaped lockers. However, consider the location's climate when determining the ratio of half- to full-sized lockers: Colder climates will require a higher percentage (or 100%) of full-sized lockers to accommodate bulkier cold weather gear. Steel lockers are not permitted.</p> <p>Mount lockers at a level above the floor to ensure operating hardware is easily reachable.</p> <p>Provide a mirror over the lavatory. Provide one wall-mounted hair dryer adjacent to this area.</p> <p>Provide shelves and hooks for coats and hats.</p> <p>Provide a full-height wall mirror.</p> <p>Solid plastic (HDPE) or Color-Through Phenolic shower partitions secured at floor and ceiling.</p> <p>Solid plastic (HDPE) or Color-Through Phenolic toilet and urinal partitions secured at floor and ceiling.</p> <p>Toilet accessories: toilet paper dispensers, paper towel dispenser with integrated trash receptacle, robe and towel hooks, grab bars, feminine hygiene receptacles in women's water closets, seat cover dispensers, and soap dispensers at lavatories.</p> <p>Provide swim mats or tiles that are textured, anti-slip, self-draining and raise the walking surface above standing water. Also provide a swim-suit spin-dry unit.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide a wall clock.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	<p>Provide direct access to the pool deck.</p> <p>For additional special requirements, see Tables 4-17, 4-18, and 4-19 for the appropriate special requirements.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

Table 4-27. Parent/Child Area.

<b>Description/ Usage</b>	The Parent/Child area is required for the <b>Navy</b> and <b>Marine Corps</b> . For <b>Marine Corps</b> provide a short-term, self-service care room in which parents may watch their children separate from the rest of the facility. There is no fitness component in this room. For <b>Navy</b> provide parents/guardians a venue in which to exercise while maintaining direct visual control over their child. Part of the room has fitness equipment for the parent to use while the other part is designated for the children. The two areas are divided by a half-height Plexiglas partition.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Semi-gloss painted gypsum wallboard. Consider wall coverings. <b>Floor.</b> VCT or sheet vinyl and resilient base. Exercise area must include permanently adhered impact flooring with a nonporous, high-density rubber/elastic surface. Composite products such as recycled rubber may be used; however, the top layer must be virgin (unrecycled) material chemically bonded to the sublayers. Flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i> . Impact flooring system cannot be accommodated by interlocking flooring tiles or movable furnishings such as mats. <b>Ceiling.</b> ACT.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/weight rooms" from ANSI/ASHRAE 62.1. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical in the child area. Provide flush-floor outlets for commercial-grade fitness equipment and outlets for wall or ceiling mounted television monitors in the fitness area.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> Provide outlets to ensure adequate coverage. <b>CATV/Internal Video.</b> Provide an outlet in the fitness area. Consider providing an outlet in the child area. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm that sounds at the control counter until reset by the respondent. <b>Telephone.</b> Provide an outlet. <b>Data.</b> Provide an outlet. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equip.</b>	Child area: Storage cabinet for children's games and toys.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Child area: Provide child-sized tables, chairs, and games. Consider providing a TV, multimedia player, and exercise mat. Note, if a TV is included, provide a protective shield to minimize damage to the TV from children and thrown objects. Fitness area: Provide fitness equipment and a TV.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	For <b>Navy</b> provide the mar resistant Plexiglas partition of shatterproof, 30-in.- (760-mm-) high, .5-in.- (13-mm-) thick, and clear to ensure the parent can see the child at all times. Include a centrally-located entry/exit in the partition.  Provide vision panel in the door, and consider side lites.
<b>Occupancy</b>	Staff.

**Table 4-27. Parent/Child Area.**

Customers. Adults. Children.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>

**Table 4-28. Functional Fitness**

<b>Description/ Usage</b>	<p>This is a required space for the <b>Marine and Navy</b>.</p> <p>Functional training is exercise performed to better enable the participant to move through normal life activities. Functional fitness implies performing exercise in an optimal way, to achieve certain goals that allow improved performance of regular activities outside the gym. This may mean more fluid precise movements, accomplishing necessary activities with the least possible wear and destruction, and remaining pain free in the performance of mundane tasks. Better function could have applications in pulling weeds, loading the dishwasher, waxing the car or carrying groceries home from the store.</p> <p>Typical equipment in the Functional Fitness area includes A-frames used for various exercises with bands (similar to TRX Suspension Trainer), individual weight stations, and various kettle balls and other equipment.</p>
<b>Ceiling Ht.</b>	14'-0" minimum.
<b>Finishes</b>	<p><b>Walls.</b> Walls must be designed to withstand impact. Consider CMU with heavy-duty epoxy, and provision of high-impact wall guards up to 18 in. (450 mm) above finished floor where weights are used.</p> <p><b>Floor.</b> Use 2mm virgin rubber top surface with a 7.5mm re-cycled rubber base. Use tile only for easy replacement. Tile must be manufactured in a mould and never cut from rolls, so that placing weights on the seams during installation is not necessary.</p> <p>All flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i>.</p> <p><b>Ceiling.</b> Open structure is preferred; however, adequate acoustics must be maintained.</p>
<b>Plumbing</b>	<b>Water fountains:</b> Provide one drinking fountain near this function. Electrically cooled unit required. Water fountains must be fed from dedicated 120V, 20A circuit(s).
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/weight rooms" from ANSI/ASHRAE 62.1. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Provide protection for sprinkler heads, exit signs, manual pull stations, and other exposed components; minimize equipment that protrudes into activity space or raise it above 6 ft. (1.83 m) for safety considerations.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Convenience outlets required.
<b>Lighting</b>	<p>Recommend fluorescent lighting. Lighting must be switched to allow for different levels of lighting. Provide fixtures with wire cages.</p> <p><b>Lighting control:</b> Use of occupancy sensors to activate lighting by motion detection, is recommended.</p> <p><b>Light level:</b> 40 footcandles (400 Lux) at the floor, minimum.</p>
<b>Communication</b>	<b>Sound system:</b> Flush recessed speakers, 25 watt minimum output rating, capable of reproducing the entire audible range for human speech. Link speakers to paging system.
<b>Acoustics</b>	Walls must be acoustically treated to minimize the transmission of sounds from impact to other spaces.
<b>Casework/ Built-in Equipment</b>	None Required.

**Table 4-28. Functional Fitness**

Furnishings Fixtures & Equip. (FF&E)	Description	Notes	Quantity
	Double Power Station (3")/Storage/Stainless	includes rack, bench, platform	1
	Glute/Ham Bench (Split Pad)/Lineal		1
	Step Up Box with Plywood-no logo		1
	Olympic Lifting Bar 20kg 1-1/8" shaft 1800# test Zinc		2
	45# BUMPER PLATE		8
	35# BUMPER PLATE		4
	25# BUMPER PLATE		4
	10# BUMPER PLATE		4
	Olympic Plates-Grip Rubber	4-10, 4-5, 4-2.5	70
	Deluxe Dumbbells	15-60/5# (10 Pair Total)	1
	Triple Tier Dumbbell Rack (15 pr.)	Bottom two levels for DB's, Top level for Kettlebells.	1
	Band Attachments		1
	Vertical Medicine Ball Rack		1
	Kettlebells 5-60/5, 70-100lb/10	15/20/25/30/35/40	165
	Olympic Curl Bar (26 lb.) 5ft. Black		1
	Olympic Spring Lock Collars		3
	Medicine Ball	4/6/8/10/12/15/18/20/25/30 Elite Med Balls	1
	TRX Straps		2
	Power Sled (Plate Loaded) Includes Harness + Belt		1
		double ladder	1
		battling rope 50'	1
		weight liftin bands	1
<b>User-provided Equipment</b>	None.		
<b>Special Req.</b>	<ul style="list-style-type: none"> <li>• A storage room must be provided.</li> <li>• Must be on first floor of facility due to dropping weights, etc.</li> <li>• Provide vision panels in the doors, minimum 5 square feet, and consider side lites.</li> </ul>		
<b>Occupancy</b>	Staff Customers		
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>			

**Table 4-29. Auxiliary Gymnasium**

<b>Description/ Usage</b>	This is a <b>Marine Corps</b> only required space. This space is used for sports competitions such as basketball, volleyball, wrestling, and indoor soccer. The auxiliary gymnasium can also support instructional functions, informal, intramural, group exercise/fitness functions, and community events. Preferably the Auxiliary gymnasium will be adjacent to the Main gymnasium. If not adjacent, must be near.
<b>Ceiling Ht.</b>	Minimum 25 ft. (7.62 m) clear height to lowest overhead element.
<b>Finishes</b>	<b>Walls.</b> Provide durable wall system up to 12' (3.66 m) height, such as concrete masonry units (CMU) with heavy-duty epoxy. Above 12 ft. (3.66 m), use semi-gloss enamel and consider acoustic panels. <b>Floor.</b> Maple athletic flooring, 25/32" thick, must be installed in gymnasiums 6,500 sq. ft. or larger. Synthetic multipurpose, resilient, athletic flooring may be allowed when requested by the Installation and approved by the contacts identified in Chapter 1, Service Contacts. Flooring must meet "DIN" standards for the specified function per ACSM. <b>Ceiling.</b> Exposed, painted structure. Provide acoustical banners.
<b>Plumbing</b>	No plumbing fixtures in the auxiliary gymnasium. Ensure access to nearby electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Gym, stadium (play area)" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 78 F (26 C) maximum. Provide durable air grill covers and do not place air grills in line with basketball nets. Locate ductwork to avoid trapping balls.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Provide protection for sprinkler heads, exit signs, manual pull stations, and other exposed components; minimize equipment that protrudes into activity space or raise it above 6 ft. (1.83 m) for safety considerations.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide power for the scoreboard; shot clocks; and a high, wall-mounted clock. Consider power requirements for additional lighting for special events.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Metal halide or fluorescent high bay with high output lamps. Provide lighting levels for basketball in accordance with IESNA Class III adjustable up to Class II. If the program dictates televised events, provide appropriate IESNA lighting Class of play levels for that specific sport. Provide perimeter compact fluorescents multi-level switched for non-sport activities. Provide keyed light switches. Provide fixtures with wire cages or appropriate shatterproof luminaire. Do not locate fixtures directly above basketball backboards. Do not install high pressure sodium lighting.
<b>Communication</b>	<b>CCTV.</b> Provide at least one outlet on each wall. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	Reverberation time must equal 1.0 second. Provide noise attenuation measures to mitigate acoustical problems resulting from mechanical systems, plumbing systems, and vibrations transmitted through the facility's structure.

**Table 4-29. Auxiliary Gymnasium**

<b>Casework/ Built-in Equipment</b>	<ul style="list-style-type: none"> <li>• Provide six retractable basketball nets/backboards. Breakaway rims must be installed on all goals.</li> <li>• Provide volleyball built-in flush floor insert sleeves in each court.</li> <li>• Provide an electronic scoreboard.</li> <li>• Provide game lines on flooring for full- and half-court basketball and volleyball.</li> <li>• Provide 6-ft. (1.83-m) high attached safety padding with bottom edge on top of floor base on all walls that can be impacted by a player.</li> <li>• Consider providing an AED.</li> </ul>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<p>Provide volleyball stanchions, net, standard protective pads, and net antenna.</p> <p>Provide wrestling mat, exercise mat, and protective floor coverings.</p>
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<ul style="list-style-type: none"> <li>• Interior entrance doors into the auxiliary gymnasium must have vision panels, minimum 5 square feet each.</li> <li>• Provide a minimum 10 ft. (3.05m) unobstructed floor space safety zone between the outer edge of the playing area and any feature or obstruction.</li> <li>• Consider moisture control and prevention of condensation on floor surface. Consider under-floor ventilation requirements, under-slab vapor barrier, estimated dew point occurrence, local water table, and local soil conditions.</li> <li>• Provide exterior double doors with removable latch post for equipment access.</li> <li>• Do not locate windows, doors, or other obstructions within 7 ft. (2135 mm) of all backboard centerlines.</li> <li>• Ensure no glazing or lighting can create glare or distraction on the play areas.</li> </ul>
<b>Occupancy</b>	<p>Staff</p> <p>Customers</p> <p>Participants</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 4-30. High Intensity Tactical Training (HITT) Center**

<b>Description/ Usage</b>	This is a <b>Marine Corps</b> only required space. This is typically one large open space room that is non-partitionable and is used for implementation of the HITT program. Activities/classes such as aerobics, martial arts, and yoga should not be used in this space.
<b>Ceiling Ht.</b>	20 ft. minimum.
<b>Finishes</b>	<b>Walls.</b> CMU with heavy-duty epoxy or painted, double-layer (impact side) gypsum board. <b>Floor.</b> Rubberized athletic flooring. Synthetic artificial turf and track are to be installed in centers 2000 sq.ft or larger. HITT logo is to be included on flooring where Olympic lift platform stations will be located. Provide high-impact wall guards up to 18 in. above finished floor. Impact and athletic flooring system cannot be accommodated by interlocking flooring tiles or movable furnishings such as mats. <b>Ceiling.</b> Exposed structure with acoustical spray paint or ACT. If ACT, provide nonsag tiles.
<b>Plumbing</b>	Provide a minimum of one electric water cooler
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/weight rooms" from ANSI/ASHRAE 62.1. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) minimum at the floor. To address safety concerns, coordinate lighting design with equipment layout and ensure that equipment users, particularly those using horizontal benches, are not exposed to glare of direct/down lighting. . Provide protection for all fixtures and dimming capability.
<b>Communication</b>	<b>CCTV.</b> Provide at least one outlet on each wall. <b>CATV/Internal Video.</b> Provide at least one outlet for wall-mounted monitor(s). <b>PA/Audio.</b> None required. <b>Telephone.</b> Provide one line with internal two-way communication. <b>Data.</b> Provide at least one outlet. VGA cable outlet below dedicated TV. <b>Security.</b> None required.
<b>Acoustics</b>	Reverberation time must equal 1.0 second. Provide noise attenuation measures to mitigate acoustical problems resulting from mechanical systems, plumbing systems, and vibrations transmitted through the facilities structure.  Provide partition and door construction with a minimum STC rating of 50 per Chapter 3, Acoustics.
<b>Casework/ Built-in Equipment</b>	<ul style="list-style-type: none"> <li>• Provide pull-up bars on at least one wall. Number of bars is determined by center size. Diagrams included in Appendix.</li> <li>• Provide a built-in protective box for the telephone.</li> <li>• Provide 9 ft. (2.74 m) high mirrors on at least two non-adjacent walls at a minimum of 18 in. (450 mm) above the floor.</li> <li>• Provide wall TV bracket in each divided space.</li> <li>• Provide personal effects storage, such as cubbies, for customers in the room.</li> <li>• Consider providing an AED.</li> <li>• Provide attached wall padding for both ends of rubberized track surface</li> </ul>

**Table 4-30. High Intensity Tactical Training (HITT) Center**

<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<ul style="list-style-type: none"> <li>• Fitness equipment must be commercial grade. Equipment counts will vary by size based on square footage - a sample equipment is provided in the Appendix</li> <li>• Address accessibility issues in equipment selection.</li> <li>• One dedicated TV for Video Analysis usage. TV must have VGA port to connect to moveable hardware platform.</li> <li>• Provide other combat fitness equipment as needed: power racks, plyometric equipment, speed and agility equipment, functional training equipment, kettlebells, medicine balls, etc.</li> </ul>
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<ul style="list-style-type: none"> <li>• Design the rooms to allow for flexibility in use. Provide a method of fastening padding on walls for use during sprint/speed training. Provide acoustical separation from the rest of the facility.</li> <li>• Provide protection of all sprinkler heads, fire alarm strobe/speaker, thermostats and other similar features.</li> <li>• Provide natural light where appropriate—provide glare and heat-gain protection if exterior glazing is provided.</li> <li>• Provide some visual connection to the rest of the facility—consider providing interior windows to other exercise modules/circulation areas. If windows are provided, provide blinds.</li> <li>• Accommodate queuing of customers in the area immediately outside the entrance.</li> <li>• Provide secure storage either within the room or with a direct adjacency to store items such as speed/agility equipment, cones, ladders, and other fitness equipment.</li> <li>• Provide attractive, color coordinated HITT logo on one main wall. Walls must be colored white.</li> <li>• Color selection for equipment must match HITT logo color.</li> <li>• Provide vision panels in the doors, , minimum 5 square feet each, and consider side lites.</li> </ul>
<b>Occupancy</b>	Staff Customers
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 4-31. Indoor Cycling**

<b>Description/ Usage</b>	Classroom to accommodate indoor cycling classes, which includes an instructor on a bike and participants on bikes as well. These bikes are different from the stationary bikes utilized in the cardio area.
<b>Ceiling Ht.</b>	10'-0" minimum to lowest element.
<b>Finishes</b>	<p><b>Walls.</b> Painted walls. Coordinate with users to find out any special images such as murals, etc. as well as preferred color (light vs. dark).</p> <p><b>Floor.</b> Rubber or wood floor typical. Provide flooring that is appropriate and industry standard for indoor cycling classrooms. Strongly recommend use of platforms for the classroom to provide better view of the instructor.</p> <p><b>Ceiling.</b> Exposed, painted structure. Consider providing ACT or other acoustical banners and treatments.</p>
<b>Plumbing</b>	Provide an electric water cooler.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/weight rooms" from ANSI/ASHRAE 62.1. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	<p>When ceiling heights do not allow pendant mounted or suspended lighting, indirect 2 x 2 or 2 x 4 lay-in fluorescent fixtures may be used. Direct 2 x 2 or 2 x 4 lay-in fluorescent fixtures may also be used, but are not recommended due to lower light quality (excessive glare and static light distribution; e.g. causes greater eye fatigue over long periods of time). Lighting must be switched to allow for different levels of lighting. Natural light via windows may be provided, but direct sun-light and glare must be avoided. Windows providing internal views to other spaces is desirable.</p> <p><b>Lighting control:</b> Use of occupancy sensors to activate lighting by motion detection, is recommended. In addition, grouping of lights so that a portion of the lights may be turned off, especially if natural daylighting is provided, is required. Independent slide or toggle controls may also be used to control fixtures by groups. Grouping needs must be coordinated with user.</p> <p><b>Light level:</b> 40 footcandles (400 Lux) at the floor, minimum.</p>
<b>Communication</b>	<p><b>CCTV/CATV/Internal Video.</b> Provide projectors with screens on the front wall, or plan for up to 3 large screen TV monitors on the front wall. The control for these must also be in the center of the front wall near the instructor.</p> <p><b>PA/Audio.</b> 1. Provide speakers for main PA system, so that announcements from the desk can be heard in this space. 2. Provide ceiling mounted speakers for high quality music reproduction. If a lay-in ceiling is provided the speakers must be recessed. Speakers must have a 100 watt minimum output rating and must be capable of reproducing CD quality sound. 3. Provide wiring, cabling, and other built-in support for a user provided sound system that will be plugged into the speaker system in the room. Provide the connection for the instructor near the center of the front wall. The instructor will position their stereo equipment close to their bike so they can adjust the music while working out.</p> <p><b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.</p>

**Table 4-31. Indoor Cycling**

<b>Acoustics</b>	The indoor cycling classroom must be designed to acoustically separate this space from other spaces. In addition, this space must be designed for proper acoustics for aerobic and other exercise classes. Aerobic activity will require partitions to be sound rated to 53 STC minimum. Where glass walls are used to enhance interior views, front these walls to interior circulation and not into other activity spaces. One exception is the gymnasium. All other sound performance characteristics are comparable to the Fitness Module.
<b>Casework/ Built-in Equipment</b>	<b>Architectural Casework:</b> Provide storage cubicles (cubbies) along one wall of the module for incidental storage during activities: Provide minimum of one cubby for 75% of the total number of participants at room's maximum occupant load (based on 50 sq. ft. per person). Cubby design is generally an open face cube in modular "banks" aligned on one wall to counter top height or vertically with the tallest cubicle 5'-0" above finish floor. Cubbies must be minimum 14" x 14" (18" x 18" preferred) face opening x minimum 15" deep. Construct cubbies of ½" minimum particle board shell with ½" plywood horizontal shelves. Entire construction veneered with .048 horizontal grade, high pressure plastic laminate. As an alternative, if solid wood or hardwood veneer-core plywood is used throughout, the surfaces may be finished and sealed with a polyurethane, or equal, coating. Cubbies may also be made from a plastic or solid phenolic type material for added durability. The coating must be cleanable and able to withstand moisture without degrading. Edge trim of cubby frames must be solid hardwood (bonded) or 3 mil PVC edging routed into panel edge. Use of plastic laminate edges is not allowed. If counter height, provide solid surfacing counter top with eased edge front and minimum 1" tall lip where the counter abuts the wall.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	None required.
<b>User-provided Equipment</b>	None.
<b>Special Req.</b>	<ul style="list-style-type: none"> <li>• Design the rooms to allow for flexibility in use.</li> <li>• Provide acoustical separation from the rest of the facility.</li> <li>• Provide secure storage room with a direct adjacency to store fitness equipment.</li> <li>• Per installation request, special lighting or themes may be required.</li> <li>• Provide vision panels in the doors, minimum 5 square feet each, and consider side lites. Provide a means to darken the vision panels.</li> </ul>
<b>Occupancy</b>	Staff Customers
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

## **CHAPTER 5 MULTIPURPOSE FIELD**

### **5-1 INTRODUCTION AND PLANNING ISSUES.**

This chapter provides criteria for a multipurpose activity field with an encircling running track, spectator seating and a support building. These features may be included as standalone, or as components of a Fitness Center Complex. When programming these fields and support features, different Category Codes apply and funding sources may be different from the Fitness Center.

This entire area will be referred to as the multipurpose field in this UFC. The multipurpose field should be planned in conjunction with a comprehensive audit of other existing or planned activity fields on the Installation to maximize consolidation and shared efficiencies. However, this chapter does not provide criteria for any other activity fields.

#### **5-1.1 Related Activity Areas.**

The following are outdoor activity areas that will benefit from being planned in conjunction with and located in proximity to the multipurpose field:

- Softball fields.
- Tennis courts.
- Outdoor basketball courts.
- Other sports fields, as needed.

#### **5-1.2 Shared Efficiencies.**

The following are the advantages to combining the multipurpose field with the related activity areas identified above:

- Shared use of the support building, which includes concessions, toilets, and a press box.
- Shared use of parking.
- Facilitates multi-activity tournaments.
- Increases awareness of Installation sports and fitness programs.

### **5-2 PROGRAM AREAS.**

Table 5-1 lists the program areas of the multipurpose field, breaking them down by the support building areas and the site areas.

**Table 5-1. Multipurpose Field Functional Program Areas**

<b>Functional Program Area</b>	<b>Description/Service Exceptions</b>
<b>Support Building</b>	
Concessions	Accommodates the warming and sales of food and drink.
Covered public space	Covered, paved exterior area directly adjacent the concessions service window.
Male toilets	A standard configuration for toilets. This can be expanded if the program and budget allows.
Female toilets	A standard configuration for toilets. This can be expanded if the program and budget allows.
Maintenance bay	Accommodates the storage of a field maintenance vehicle, maintenance supplies, and master lighting controls.
Announcer's Booth/Press box	Second-story space to accommodate up to three observers and the scoreboard controls.
Dry goods storage	Accommodates storage of non-food items such as paper goods.
Sports activity storage	Accommodates storage of sports activity items such as cones and flags.
Building support/vertical circulation	Accommodates building HVAC, janitor's closet, and non-ADA access to the press box.
<b>Fields and Site Spaces</b>	
Multipurpose field and track	Fixed-size field encircled by a running track per Table 5-8.
Bleacher pads	Standard-size concrete pads and portable, aluminum bleachers.
Lighting zone	Area outside the field and bleacher footprint with high-mast lights to illuminate the track and field to standardized levels.
Scoreboard zone	Area outside the field with an electronic scoreboard.
Paved parking	Usually shared with the Fitness Center, other fields or other facilities.
Unpaved parking	Overflow parking area for sport tournaments or other large group activities.
Site circulation	A mix of hard-surface pathways and grassed areas to connect the various areas of the multipurpose field complex.

**5-3 SPACE PROGRAM.**

The multipurpose field has a standardized space program as illustrated in Figure 5-1. It is not developed with the Fitness Center's interactive spreadsheet.

**Figure 5-1. Multipurpose Field Space Program**

Functional Program Area		Standard		Quantity	Total Area	
		m <sup>2</sup>	ft. <sup>2</sup>		m <sup>2</sup>	ft. <sup>2</sup>
Support Building	Concessions*	18.6	200	1	18.6	200
	Covered public space*	26.0	280	1	26.0	280
	Male toilets*	14.9	160	1	14.9	160
	Female toilets*	14.9	160	1	14.9	160
	Maintenance bay	26.0	280	1	26.0	280
	Press box	32.5	350	1	32.5	350
	Dry goods storage	7.4	80	1	7.4	80
	Sports activity storage	3.7	40	1	3.7	40
	Building support/vertical circulation	2.8	30	1	2.8	30
Subtotal - Net Spaces					146.8	1,580
Net-to-Gross Factor (incl. construction)				15%	22.0	237
Total Building					168.8	1,817
Site	Multipurpose field and track	13,151.9	141,570	1	13,151.9	141,570
	Bleacher pads	627.1	6,750	2	1,254.2	13,500
	Parking*	41.8	450	19	794.3	8,550
	Site circulation*	5,312.1	57,181	1	5,312.1	57,181
Total Site					20,512.4	220,801
Total Project Area					20,681.2	222,618

\* If the multipurpose field is part of a larger complex of related activity fields, sizes of these areas may be increased if mission, site and budget allow. Areas without an (\*) must not be changed regardless of adjacent functions.

**5-4 LOCATION DETERMINANTS.**

The location of the multipurpose field must be coordinated with the Fitness Center location, as described in Chapter 2, Location Determinants, and the planning issues noted above in Chapter 5. Ensure adequate site space per Figure 5-1.

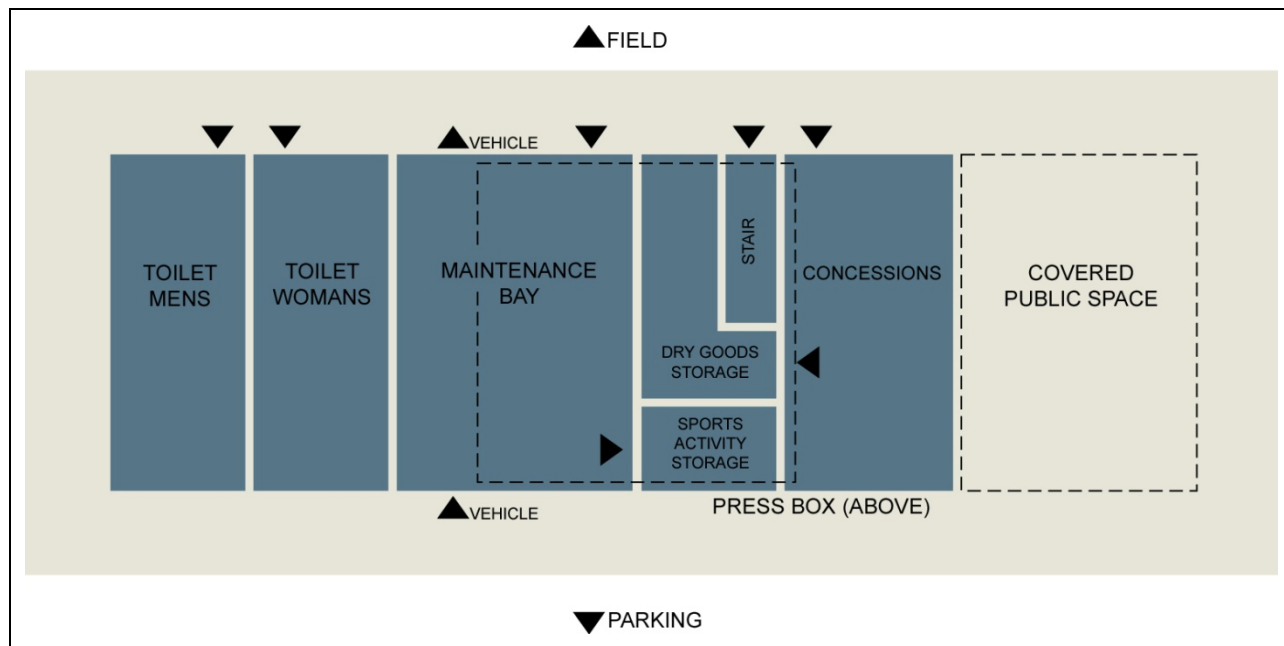
**5-5 LAYOUT AND ADJACENCIES.**

The appropriate layout and adjacencies are illustrated in Figures 5-2 through 5-3. These diagrams do not convey a building or site shape.

**5-5.1 Support Building**

The diagram in Figure 5-2 indicates acceptable relative adjacencies of the support building.

**Figure 5-2. Support Building Functional Relationship Diagram**

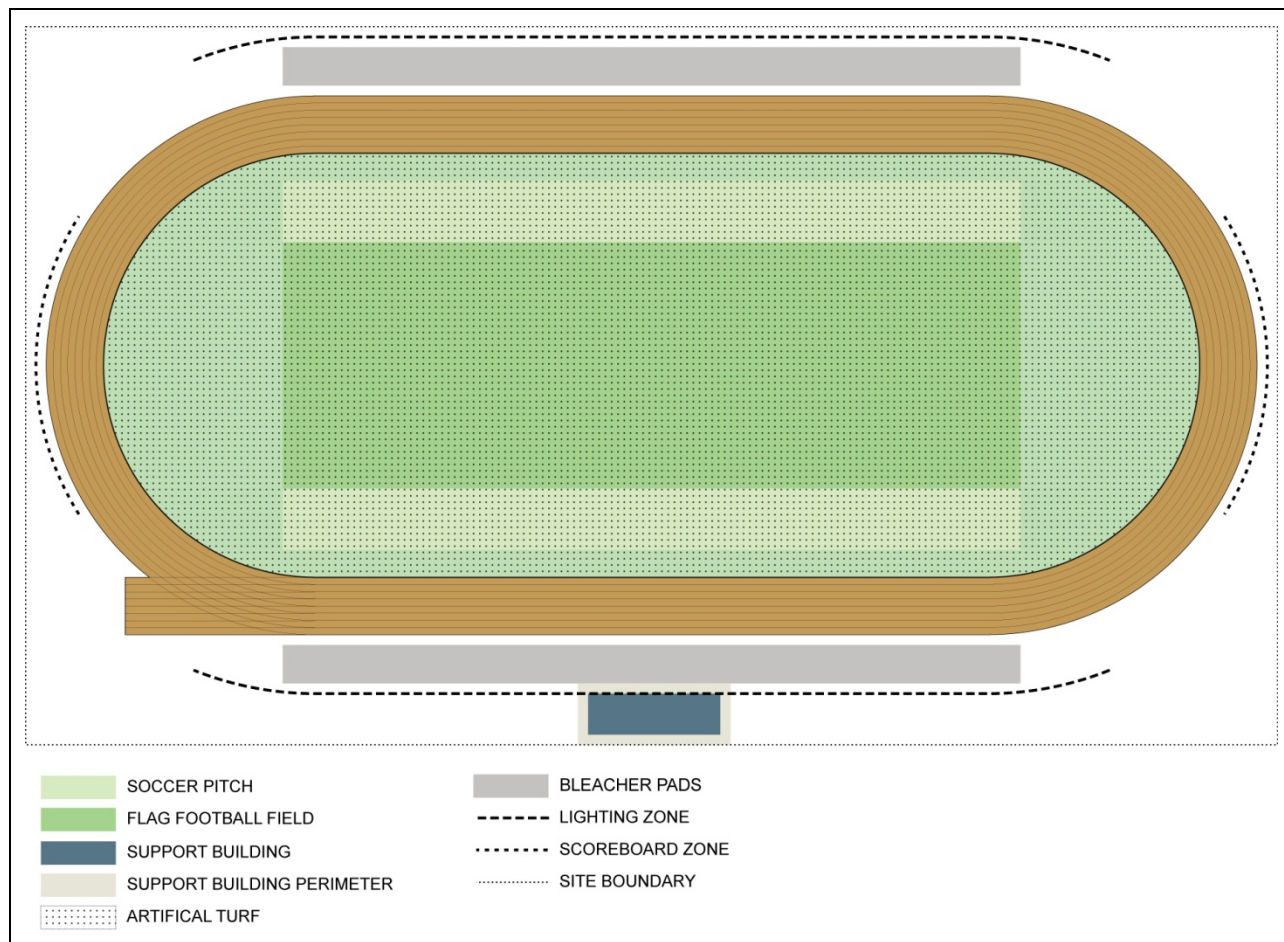




**5-5.2 Field and Site.**

The diagram in Figure 5-3 indicates acceptable relative adjacencies of the field and site spaces.

**Figure 5-3. Field and Site Functional Relationship Diagram**

**5-5.3 Space Assessment.**

See the Functional Data Sheets in Chapter 5, Specific Design Criteria, for additional information on the space types and their relationships to each other.

**5-6 GENERAL DESIGN CRITERIA.**

The design of the multipurpose field must comply with the design guidance identified in Chapter 3. Additional requirements or exceptions specific to the multipurpose field are provided here.

**5-6.1 Accessibility**

Per ADAAG 4.1.3 (5)(b), the second-story press box space is not required to be accessible as it is not open to the general public, houses less than five persons, and is less than 500 ft<sup>2</sup> (46.5 m<sup>2</sup>).

#### **5-6.2 Exterior Lighting**

Provide lighting and control systems per Chapter 3, Lighting, and the additional criteria identified Chapter 5, Specific Design Criteria, which notes field lighting levels and control requirements.

#### **5-7 SITE DESIGN**

The site design, parking and other hard-surface areas, and landscaping of the multipurpose field must comply with the design guidance identified in Chapter 3. Additional requirements for specific areas of the multipurpose field are provided in Chapter 5, Specific Design Criteria.

#### **5-8 SPECIFIC DESIGN CRITERIA**

The specific design needs for each functional area of the multipurpose field are provided in Tables 5-2 through 5-8 in a standard Functional Data Sheet format.

**Table 5-2. Concessions**

<b>Description/ Usage</b>	Space for warming and sale of food and drinks.
<b>Ceiling Ht.</b>	10 ft. (3.05m) minimum
<b>Finishes</b>	<b>Walls.</b> CMU with heavy-duty epoxy paint. <b>Floor.</b> Sealed concrete, VCT, or seamless vinyl. <b>Ceiling.</b> Painted exposed structure.
<b>Plumbing</b>	Two-compartment stainless steel sink with hot and cold water supply and a clean-out. Provide a separate hand-washing sink. Floor drain. Provide water connections to the ice machine and soda fountain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide heat and ventilation only; do not cool.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide dedicated outlets for the refrigerators, ice machine, and fountain soda machine. Provide countertop-height outlets for point of sale (POS) units, microwave and other food preparation/warming equipment as required.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 40 ft. candles (400 Lux) of general ambient lighting. Provide task lighting of 50 FC (500 Lux) at the food preparation and service areas. Provide an occupancy sensor on the light controls.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> Provide one line per POS. Provide at least one additional general purpose phone line. <b>Data.</b> Provide one outlet per POS. Provide additional outlets, as needed, for associated hardware. <b>Security.</b> Consider providing duress alarm control next to the POS units.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide 24-in.-deep (610 mm) solid surface work-surface counter for food preparation. Provide two solid surface service counters with service windows opening to the public covered space and the side facing the field. Provide coiling doors at the service windows.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide a menu board; an under-counter, reach-in refrigerator; and an ice maker.
<b>User-provided Equipment</b>	A glass-front, front-loading refrigerated display case; soda fountain machine with under-counter boxed syrup; a microwave; and other food preparation/warming equipment as required by the specific menu. Trash receptacles.
<b>Special Req.</b>	Provide a minimum 36-in.- (915-mm-) wide access door to the dry goods storage room.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 5-3. Covered Public Space.**

<b>Description/ Usage</b>	Covered, paved exterior area directly adjacent the concessions service window.
<b>Ceiling Ht.</b>	10 ft. (3.05m) minimum.
<b>Finishes</b>	<b>Walls.</b> None. <b>Floor.</b> Sealed concrete, or brick or stone pavers if budget allows. <b>Ceiling.</b> Painted exposed structure.
<b>Plumbing</b>	Provide a keyed exterior hose bibb.
<b>HVAC</b>	None.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	None required.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 15 ft. candles (150 Lux) of general ambient lighting.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide an automatic external defibrillator (AED) in an exterior-mounted, recessed case with a breakable seal for access.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide trash and recycling receptacles.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 5-4. Men's and Women's Toilets**

<b>Description/ Usage</b>	Separate ADA-compliant men's and women's toilet facilities that exit directly to the exterior.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Semi-gloss enamel painted, mold-resistant gypsum wallboard with a ceramic tile wainscot. Prefer full height ceramic tile walls with integral patterns, especially on wet walls. Use a dark-colored epoxy grout.</p> <p><b>Floor.</b> Slip-resistant epoxy no seam floor with integrated epoxy base to 6 in. (150 mm) AFF.</p> <p><b>Ceiling.</b> Mold-resistant gypsum wallboard with a veneer plaster (level 5) finish and epoxy paint.</p>
<b>Plumbing</b>	<p>Male: two floor-mounted urinals, two floor-mounted water closets, and two lavatories.</p> <p>Female: three floor-mounted water closets and two lavatories.</p> <p>Provide floor drains for proper drainage located under the water closets partitions.</p> <p>Provide keyed hose bibbs with hot and cold water.</p>
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide heat and ventilation only; do not cool. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers with shatterproof lens. Provide lighting directly over lavatories and grooming counters and minimize reflection glare in the mirrors in the overall lighting design.
<b>Communication</b>	<p><b>CCTV.</b> None required.</p> <p><b>CATV/Internal Video.</b> None required.</p> <p><b>PA/Audio.</b> None required.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> None required.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	<p>Provide solid-surface lavatory countertops supported at both ends and with the front edge supported by galvanized angle reinforcing. Consider use of holes in lavatory countertop for waste disposal – coordinate location of paper towel dispenser. The sink must be integral with the counter. As an option, consider stainless steel wash trough-style lavatories.</p> <p>Provide stainless steel, solid plastic (HDPE) or Color-Through Phenolic toilet and urinal partitions secured at floor and ceiling.</p> <p>Toilet accessories must be stainless steel and include: toilet paper dispensers, paper towel dispenser, trash receptacle, robe and towel hooks, grab bars, feminine hygiene receptacles in women's water closets, seat cover dispensers, and soap dispensers at lavatories.</p> <p>Provide full-width mirror at the lavatories.</p>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Exterior doors must have a keyed lockset that is lockable from the exterior only.
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 5-5. Maintenance Bay**

<b>Description/ Usage</b>	Space for field maintenance equipment, including truck, field groomer, and main access for field lighting.
<b>Ceiling Ht.</b>	10 ft. (3.05m) minimum.
<b>Finishes</b>	<b>Walls.</b> CMU with heavy-duty epoxy paint. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> Painted exposed structure.
<b>Plumbing</b>	Provide floor drain with a filter-cartridge-style oil/water separator. Provide exterior hose bibb.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide heat and ventilation only; do not cool.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide an occupancy sensor on the light controls. Provide wire guards or lens protection on fixtures.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide lockable cabinets for cleaning supplies. Provide two overhead doors on opposite sides of the bay to allow drive-through with the maintenance vehicle. Provide one separate personnel door to the side of one of the overhead doors. All doors must be lockable.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	Synthetic turf groomer.
<b>Special Req.</b>	Place the master control panel for the field lights and irrigation system in this space. Provide a paved approach outside the overhead doors, where equipment can be hosed-off prior to entering the bay
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 5-6. Announcer's Booth/Press Box**

<b>Description/ Usage</b>	Second-story space to accommodate observers and scoreboard controls.
<b>Ceiling Ht.</b>	10 ft. (3.05m) minimum.
<b>Finishes</b>	<b>Walls.</b> CMU with heavy-duty epoxy paint. <b>Floor.</b> Sealed concrete, VCT, or seamless vinyl. <b>Ceiling.</b> ACT or painted gypsum board.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide ventilation only; do not heat or cool.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide dedicated power to the scoreboard controls.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide an occupancy sensor on the light controls.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Where required in project scope, provide public address system with speakers to project sound to spectators area(s). <b>Telephone.</b> Provide one line. <b>Data.</b> Scoreboard controller. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide a seated-height solid surface countertop at field-side window.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Three chairs. Provide the control panel for the scoreboard. Scoreboard controls to include a game timer/clock, home and visitor scores, and quarter and half indicators.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Provide lockable, horizontal sliding windows facing the multipurpose field for the full-width of the wall. The window sill must be at the seated-height countertop and the glazed area must extend to 78 in. (2030 mm) above finished floor. If the support building serves multiple activity fields, provide a counter and windows on each side that faces a field.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table 5-7. Dry Goods and Sports Activity Storage**

<b>Description/ Usage</b>	Accommodates separate storage spaces for dry food service supplies such as paper goods (not for food storage) and sports activity items such as cones and flags.
<b>Ceiling Ht.</b>	10 ft. (3.05m) minimum.
<b>Finishes</b>	<b>Walls.</b> CMU with heavy-duty epoxy paint. <b>Floor.</b> Slip-resistant sealed concrete. <b>Ceiling.</b> Painted exposed structure.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide ventilation only; do not heat or cool.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide an occupancy sensor on the light controls. Provide wire guard or lens protection on fixtures.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide storage shelving as required.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	The walls for both storage rooms must extend to underside of structural ceiling. The dry goods storage must only be accessible from the concessions area via a lockable door. The sports activity storage must only be accessible from the maintenance bay via a lockable door.
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table 5-8. Fields and Site Spaces**

<b>Description/ Usage</b>	This table describes all the site spaces outside of the support building, including the multipurpose field and track, bleacher pads, lighting zone, scoreboard zone, parking, and site circulation.
<b>Dimensions</b>	<p><b>Track.</b> A 440-yard or 400-meter elliptical track: Six lanes for medium-sized facilities and smaller, eight lanes for large-sized facilities and larger, and a 100-yard or 100-meter dash straightaway. See Special Requirements below for additional criteria. If a field is required exceeding minimum Federal International Football Association (FIFA) field dimension standards of 70 yds x 110 yds (64 m x 100 m), or unobstructed space is required beyond FIFA field sidelines, and irregular custom-length track is required. See Special Requirements below for more information.</p> <p><b>Multipurpose field.</b> Fixed-size field per National Collegiate Athletic Association (NCAA) with a size of 65 yds by 110 yds and for touch and flag football per United States Flag Football Association. Optional to provide striping for NCAA football. See Special Requirements below for additional criteria. Optional to provided fixed size field per Federal International Football Association (FIFA) standards with a size no less than 70 yds (64 m) by 110 yds (100 m) and no more than 80 yds (75 m) by 120 yds (110 m). <u>Note: a minimum size FIFA-regulation field with dimensions of 70 yds x 110 yds (64 m x 100 m) will fit inside both a 440-yard and 400-meter track; however, it will utilize the entire rectangular area inside the track.</u></p> <p><b>Bleacher pads.</b> Pads are sized to accommodate 5-row tilt-up bleachers with a 5 ft. (1525 mm) space around perimeter. The length can be continuous or with 5 ft. (1525 mm) gap between each set of bleachers.</p>
<b>Surface Materials</b>	<p><b>Track.</b> Base layer of asphalt or bituminous material with a cushioned synthetic/rubber course topping with protective color coating and lane markings. Provide a flush, paved transition strip a minimum width of 18 in. (455 mm) between the outside edge of the track and the surrounding area. This transition strip must not present a tripping hazard.</p> <p><b>Multipurpose field.</b> Provide either a natural grass turf or a synthetic artificial turf surface. Synthetic artificial turf comprising monofilament polyethylene blend fibers tufted into a polypropylene backing with a mixture of silica sand and Lead free, thermoplastic non-vulcanized rubber infill (such as Ecofill® or equal). This surface must cover the entire area within the inside perimeter of the track.</p> <p><b>Navy</b> requires synthetic turf surface.</p> <p><b>Bleacher pads.</b> Reinforced concrete. Pad surface must be flush with surrounding areas.</p> <p><b>Site circulation.</b> Provide concrete pathways with grass in non-paved areas. If budget and design language allow, provide brick or porous concrete pavers in lieu of concrete.</p>
<b>Plumbing and Drainage</b>	<p><b>Multipurpose field.</b> Provide drainage per the selected manufacturer's specifications; do not use plastic cells for drainage. Provide water supply with quick hose disconnects at 4 locations around the perimeter of the field. If facilities include a natural grass turf surface, the field wet-down system is not required. Provide a sprinkler system or other means of watering the turf.</p> <p><b>Site circulation.</b> Provide drinking fountains adjacent to an approach path for the track and multipurpose field. These drinking fountains may also be located on the support building exterior wall.</p>
<b>Power</b>	Provide power to the lights, scoreboard, and lighting control/communications kiosk.

**Table 5-8. Fields and Site Spaces**

<b>Lighting</b>	<p>Provide system per Chapter 3, Lighting. Light must be maintained (not initial) levels measured at 3 ft. (915 mm) from field surface. Minimize light pollution through the use of cut-off shields and by optimizing pole height. Aiming angles must not be greater than 45 degrees above vertical. Cut-off shields are required on any luminaire that is within a distance of 2.5 times its height from the property boundary.</p> <p><b>Track.</b> IESNA Class III lighting levels for recreation mode and Class II for competition mode.</p> <p><b>Multipurpose field.</b> IESNA Class III lighting levels for recreation mode and Class II for competition mode.</p>
<b>Fencing</b>	Fencing must be 9 gage measured at metal (not coating), double knuckle, and vinyl coated.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<p><b>Multipurpose field.</b> Soccer goals and cones. If NCAA-style football will be accommodated, provide removable field goal posts.</p> <p><b>Bleacher pads.</b> 3- to 5-row, tilt-up, portable aluminum bleachers. Provide trash and recycling receptacles.</p> <p><b>Scoreboard zone.</b> Provide an electronic scoreboard that includes game timer/clock, home and visitor scores, and quarter and half indicators. Scoreboard must be sized to ensure visibility from the opposite end of the field.</p>
<b>Special Req.</b>	<p><b>Track.</b> Track design and exact dimensions must be per the USA Track and Field (USATF), USATF Rules, Article IV, Rules of Competition, Section I General, Rule 160, Track Lanes and Measurements, current edition.</p> <p>Track design and dimensions may be modified beyond these standards if requiring a multipurpose field that exceeds the minimum Federal International Football Association (FIFA) field dimension standards of 70 yds x 110 yds (64 m x 100 m).</p> <p><b>Multipurpose field.</b> Fixed-size playing area per Dimension section above. Provide white striping for soccer per National Collegiate Athletic Association (NCAA). Provide gold striping per United States Flag Football Association (USFFA), USFFA Rulebook, Diagram of Eight Man Field, current edition.</p> <p>If FIFA standards are to be accommodated, provide fixed size playing per Dimensions section above.</p> <p>If NCAA-style football is to be accommodated, provide contrasting-color striping per the NCAA governing document except that no hash marks are to be included.</p> <p>Provide an Installation logo at the center of the field.</p> <p><b>Site circulation.</b> Provide a lighting control/communications kiosk adjacent to an approach path to the track and multipurpose field. The kiosk must include controls for the recreation mode light level on a one-hour maximum timer, a phone or intercom communication link to the fitness center control desk, and a phone or intercom communication link to the Installation emergency dispatch.</p>
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

## **APPENDIX A REFERENCES**

### **AMERICAN COLLEGE OF SPORTS MEDICINE**

<http://www.acsm.org>

ACSM Health/Fitness Facility Standards and Guidelines

### **ARCHITECTURAL WOODWORK INSTITUTE**

<http://www.awinet.org>

AWI Quality Standards Illustrated

### **ASHRAE**

<https://www.ashrae.org/home/>

ANSI/ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality

### **NATIONAL COLLEGIATE ATHLETIC ASSOCIATION**

NCAA® Football Rules and Interpretations

<http://www.ncaa.org/wps/wcm/connect/public/NCAA/Playing+Rules+Administration/NCAA+Rules+Sports/Football/Playing+Rules/index>

### **NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**

<http://www.nfpa.org>

NFPA 70, National Electric Code

NFPA 101, Life Safety Code

### **UNITED STATES ACCESS BOARD**

ADAAG, Americans with Disabilities Act Accessibility Guidelines

<http://www.access-board.gov/adaag/html/adaag.htm>

ADA and ABA Accessibility Guidelines for Buildings and Facilities,

<http://www.access-board.gov/ada-aba/final.cfm>

### **UNITED STATES DEPARTMENT OF DEFENSE, UNIFIED FACILITIES CRITERIA (UFC) PROGRAM**

<http://dod.wbdg.org>

UFC 1-200-01, General Building Requirements

UFC 1-200-02, High Performance and Sustainable Building Requirement

UFC 2-000-05N (P-80), Facility Planning Criteria for Navy/Marine Corps Shore Installations

**FC 4-740-02N**  
**1 May 2013**

UFC 3-101-01, Architecture

UFC 3-120-10, Interior Design

UFC 3-210-02, POV Site Circulation and Parking

UFC 3-400-10N, Mechanical Engineering

UFC 3-401-01, Mechanical Engineering (in development at the time of this writing and is targeted for publication in late 2013).

UFC 3-410-01, Heating, Ventilation, and Air Conditioning (in development at the time of this writing and is targeted for publication in late 2013).

UFC 3-420-01, Plumbing Systems

UFC 3-450-01, Noise and Vibration Control

UFC 3-501-01, Electrical Engineering

UFC 3-530-01, Design: Interior and Exterior Lighting and Controls

UFC 3-600-10N, Fire Protection Engineering

UFC 4-740-16, Design: Military Recreation Centers

UFC 4-750-02N, Design: Outdoor Sports and Recreational Facilities

## **UNITED STATES DEPARTMENT OF THE NAVY**

NAVFACINST 11010.45, Comprehensive Regional Planning Instruction

[https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac\\_docs\\_pp/policy/navfac\\_policyinstr\\_pp\\_tab](https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac_docs_pp/policy/navfac_policyinstr_pp_tab)

Navy Fitness Center Standards and Metrics

[http://www.navyfitness.org/fitness/fitness\\_standards\\_and\\_metrics/](http://www.navyfitness.org/fitness/fitness_standards_and_metrics/)

OPNAVINST 11010.20, Facilities Projects Manual

<http://doni.daps.dla.mil/Directives/11000%20Facilities%20and%20Land%20Management%20Ashore/11-00%20Facilities%20and%20Activities%20Ashore%20Support/11010.20G%20w%20CH-1.pdf>

## **UNITED STATES MARINES CORPS**

MCO 1700.29c, Marine Corps Fitness Center Standards and Metrics

**FC 4-740-02N**  
**1 May 2013**

## **UNITED STATES FLAG FOOTBALL ASSOCIATION**

USFFA Rulebook, Intro and Table of Contents, Page 4 of 5, Diagram of Eight Man Field  
<http://www.usffa.org/rulebook.htm>

## **USA RACQUETBALL ASSOCIATION**

Rules and Official Racquetball Court Specifications  
<http://usaracquetball.com/Rules.aspx>

## **USA TRACK AND FIELD**

2010 USATF Rules, Article IV, Rules of Competition, Section I General, Rule 160, Track  
Lanes and Measurements  
<http://www.usatf.org/about/rules/2010/2010rules.pdf>

## **WHOLE BUILDING DESIGN GUIDE, NATIONAL INSTITUTE OF BUILDING SCIENCES**

<http://www.wbdg.org>

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*

## **APPENDIX B SPACE PROGRAM**

### **B-1 SPACE PROGRAM STANDARDS**

The data in Figure B-1 is the basis for the Space Program Interactive Spreadsheet discussed in Chapter 2, Space Program, and is provided here for reference only. Do not use this table to program a Fitness Center. The interactive spreadsheet combines this data in the correct manner and incorporates the necessary Service Exceptions—which may not be apparent from this Figure.

Figure B-1. Space Program Standards

Functional Component	Space Allocation Standard			
	m <sup>2</sup>	ft. <sup>2</sup>	Standard	Description
<b>Fitness Spaces</b>				
<b>Lobby/Reception</b>				
Entry Lobby	9.29	100	Vestibule/Lobby Module(s) (for 2-3 ppl)	Vesibule and/or space for 2 to 3 ppl to queue
Control Counter	11.61	125	Counter Module(s)	Space for counter, space behind, space in front
Equipment issue storage	16.26	175	Storage Module(s)	Equipment storage at/behind gear issue
Vending	1.86	20	Vending Machine(s)	per vending machine
Waiting/Display	8.36	90	Seating/Display Module(s) (for 4 ppl)	Space for seating for 4 ppl and display area
Spectator peak-time circulation	27.87	300	Circulation Module(s)	Per one-side bleachers - driven by gym size
Public restrooms/phones	0.00		Public Restroom(s)	Option - Driven by gym size
<b>Gymnasium</b>				
Basketball/volleyball Court	826.07	8,892	One-court/200-seat Module(s)	NCAA Court + 10' safety + 200 seats (one side)
Two Court Module	1630.95	17,556	Two-court/200-seat Module(s)	Two courts + 10' safety, 16' between cts, + 200 seats
Arena-style Two-Court Module	1708.62	18,392	Arena-style Two-Court Module(s)	Provides space for arena-style seating for center, longitudinal ct.
Additional Spectator seating	84.71	912	Additional 200-seat Module(s)	Four rows of seats (one ea. side) = 200 ppl.
Basic storage/support	65.03	700	Storage Module(s)	Roughly 8% of base gym area
Additional court storage	32.52	350	Additional storage module(s)	Storage space per additional court
<b>Unit PT/Group Exercise</b>				
Partitionable Room(s)	4.65	50	people at 4.6 m <sup>2</sup> (50 ft. <sup>2</sup> )/person	116.1 m <sup>2</sup> (1,250 ft. <sup>2</sup> ) (25 ppl) minimum size
Storage/support	0.46	5	10% of partitionable room area	11.6 m <sup>2</sup> (125 ft. <sup>2</sup> ) minimum (10% of room area)
<b>Fitness Spaces</b>				
Stretching	4.65	50	people at 4.6 m <sup>2</sup> (50 ft. <sup>2</sup> )/person	50 sf per person - min. 2 ppl
Cardiovascular Equipment	4.65	50	items at 4.6 m <sup>2</sup> (50 ft. <sup>2</sup> )/item	50 sf per station
Selectorized (machine) weights	4.65	50	items at 4.6 m <sup>2</sup> (50 ft. <sup>2</sup> )/item	50 sf per station
Free/Plate-loaded weights	6.04	65	items at 6.0 m <sup>2</sup> (65 ft. <sup>2</sup> )/item	65 sf per station
Fitness Program Manager's Office	11.61	125	Office	Private office that may include fitness testing equipment
Fitness Assessment Room	11.61	125	Office(s)	1 piece fitness equip for testing, computer desk, chairs, stretching
<b>Structured Activities</b>				
Structured Activity Space	74.32	800	Flexible space Module(s)	Based on size of a single racquetball court
Racquetball Courts	74.32	800	Racquetball Court(s)	Single court size. Minimum of two courts
Spectator/officiating	18.58	200	Spectator/officiating Module(s)	Two rows of 10 seats for one ct. Max of two cts (400 sf)
Structured activity storage	7.43	80	10% of Structured Activity Space	Based on Structured activity space (10% of room area)
<b>Locker Rooms</b>				
Men's Locker Room				
Locker/changing area	0.74	8	Lockers	Per slot (2 double lockers or 1 single locker)
Shower/drying area	2.79	30	Showers	Per shower & integral drying area at 22 lockers/shower
Toilet area	4.18	45	Water closets/lavatory modules	Per wc and lav. at 30 lockers per wc/lav
Woman's Locker Room				
Locker/changing area	0.74	8	Lockers	Per slot (2 double lockers or 1 single locker)
Shower/drying area	2.79	30	Showers	Per shower & integral drying area at 22 lockers/shower
Toilet area	4.18	45	Water closets/lavatory modules	per wc and lav. at 20 lockers per wc/lav
Sauna and cool-down area			M/F (2) Saunas/cool-down area	small = 6 ppl, med = 8-9, lg = 12 ppl (+ cool down space)
Steam Room and cool-down area			M/F (2) Steam Rooms/cool-down area	small = 6-7 ppl, med = 8-9, lg = 12-14 (+ cool down space)
Hot Tub			Unisex Hot Tub	small = 5 ppl, med = 8, lg = 12-14 ppl
<b>Support Areas</b>				
Laundry	18.58	200	Laundry Room	Per one-washer/two-dryer room
Equipment repair and receiving			Repair/receiving Room	Fixed receiving area + variable repair (10% of Fitness)
Storage			Storage Room	Variable lockable storage room (5% of fitness)
Additional Programmatic Storage			sf Additional Storage	To be filled-in by programmer and justified based on item stored.
<b>Core HAWC Spaces</b>				
Lobby/Reception	27.87	300	Lobby/Reception Module(s)	per area
Director's Office	11.15	120	Office	per office
Program Managers' Offices	9.29	100	Office(s)	per office
Support Staff Workstations	5.95	64	Workstation(s)	per workstation
Classrooms/Training rooms	58.53	630	Classroom/Training Module(s)	per room
Resource Room/Computer Lab	23.23	250	Resource/Computer Lab Module(s)	per room
Storage/support	7.43	80	Storage/support Module(s)	per area
Ergometry and Fitness Testing *	7.43	80	Testing Cubicle(s)	per testing cubicles
Wellness Assessment *	13.94	150	Assessment Room(s)	per room
<b>Administrative Spaces (required or optional)</b>				
Director's Office	11.15	120	Office	per office
Program Managers' Offices	9.29	100	Office(s)	per office
Support Staff Workstations	5.95	64	Workstation(s)	per office
Copy/file/work/break Room	7.43	80	Workroom Module(s)	per room
Classroom/Training Room	39.02	420	15-person Classroom/Training Module(s)	small training room (15 ppl)
Classroom/Training Storage	5.57	60	Storage Module(s)	per 15-person Training Room
* Service-specific space.				
<sup>1</sup> If contract service, verify area with contractor.				



Figure B-1. Space Program Standards (continued)

Functional Component	Space Allocation Standard			
	m <sup>2</sup>	ft. <sup>2</sup>	Standard	Description
<b>Optional or Service-specific Program Spaces</b>				
<b>Indoor Track</b>				
Indoor Track			need to include corners	
1/14th-mile Indoor Track	310.01	3,337	1/14th-mile, 2-lane Indoor Track	1/14th-mile, 2-lane Indoor Track (754 linear ft.)
1/12th-mile Indoor Track	523.03	5,630	1/12th-mile, 3-lane Indoor Track	1/12th-mile, 3-lane Indoor Track (1284 linear ft.)
1/11th-mile Indoor Track	556.75	5,993	1/11th-mile, 3-lane Indoor Track	1/11th-mile, 3-lane Indoor Track (1440 linear ft.)
1/8th-mile Indoor Track	989.11	10,647	1/8th-mile, 4-lane Indoor Track	1/8th-mile, 4-lane Indoor Track (2640 linear ft.)
Indoor track lobby	13.38	144	Indoor track lobby(ies)	Access point to lobby from stair/elevator
Additional Group Exercise Room	116.13	1,250	Additional Group Exercise Room	per room
Massage Room	11.15	120	Massage Room(s)	per room
Physical Therapy Training	11.61	125	Physical Therapy Training Room(s)	per room
Expanded Retail <sup>1</sup>	9.29	100	Expanded Retail Module(s)	per area
Expanded Juice Bar <sup>1</sup>	13.94	150	Expanded Juice Bar Module(s)	per area
Expanded Juice Bar Seating	13.94	150	Two-table seating Module(s)	Two 4-top tables and seating area
Family Changing Room	10.22	110	Family Changing Room(s)	per shower, wc, lav, changing, and locker
Male DV Locker Room *	46.45	500	Male DV Locker Room	500, 750, 1000 sf
Female DV Locker Room *	23.23	250	Female DV Locker Room	250, 500, 750
Child Play Area/Parent Child Area *	74.32	800	Parent/child Module(s)	400 sf play area (at 35 sf/child), 400 sf equip (50 sf/equip)
HAWC Demonstration Kitchen	46.45	500	Kitchen Module(s)	per kitchen
HAWC Relaxation Room *	9.29	100	Relaxation Room(s)	per room
<b>Site Spaces</b>				
Staff Parking	41.81	450	Parking Spaces	per space (including circulation)
Loading dock	8.36	90	Loading Dock	Per single-truck dock
Service Drive/trash	69.68	750	Service Drive Module	per area
Customer Parking	41.81	450	Parking Spaces	per space (including circulation)
Bicycle Rack Area	14.86	160	10-bike Rack(s)	per 10-bike Rack
Patio	2.32	25	Patio Module(s)	per patio
* Service-specific space.				
<sup>1</sup> If contract service, verify area with contractor.				

## B-2 SAMPLE INTERACTIVE SPREADSHEETS

Figures B-2.1 through B-2.2 illustrate sample interactive spreadsheets completed for hypothetical Navy, and Marine Corps facilities, respectively.

Figure B-2.1 Sample Interactive Worksheet for a Navy Fitness Center

Sample Navy Fitness Facility Project															
<b>Select Service Branch:</b>		Navy													
<b>Select size of facility:</b> Navy size options are to the right. Check box next to appropriate size. Refer to UFC Section 2.1 for population criteria.		<b>Check box next to appropriate facility size.</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"><b>Extra Small</b></td> <td><input type="checkbox"/> For populations of &lt;500</td> </tr> <tr> <td><b>Small</b></td> <td><input type="checkbox"/> For populations of 501-3,000</td> </tr> <tr> <td><b>Medium</b></td> <td><input type="checkbox"/> For populations of 3,001-7,000</td> </tr> <tr> <td><b>Large</b></td> <td><input type="checkbox"/> For populations of 7,001-14,000</td> </tr> <tr> <td><b>Extra Large</b></td> <td><input type="checkbox"/> For populations of 14,001-30,000</td> </tr> <tr> <td><b>Jumbo</b></td> <td>For populations over 30,000, enter 1 here: <span style="border: 1px solid black; padding: 0 10px;">1</span></td> </tr> </table>		<b>Extra Small</b>	<input type="checkbox"/> For populations of <500	<b>Small</b>	<input type="checkbox"/> For populations of 501-3,000	<b>Medium</b>	<input type="checkbox"/> For populations of 3,001-7,000	<b>Large</b>	<input type="checkbox"/> For populations of 7,001-14,000	<b>Extra Large</b>	<input type="checkbox"/> For populations of 14,001-30,000	<b>Jumbo</b>	For populations over 30,000, enter 1 here: <span style="border: 1px solid black; padding: 0 10px;">1</span>
<b>Extra Small</b>	<input type="checkbox"/> For populations of <500														
<b>Small</b>	<input type="checkbox"/> For populations of 501-3,000														
<b>Medium</b>	<input type="checkbox"/> For populations of 3,001-7,000														
<b>Large</b>	<input type="checkbox"/> For populations of 7,001-14,000														
<b>Extra Large</b>	<input type="checkbox"/> For populations of 14,001-30,000														
<b>Jumbo</b>	For populations over 30,000, enter 1 here: <span style="border: 1px solid black; padding: 0 10px;">1</span>														
Based on data entered above, facility size basis is:		Jumbo For populations of >30,000													
Confirm facility size basis is correct (yes or no):		Yes													
Many of the spaces below are determined by the size and/or population criteria confirmed above. Where appropriate or necessary, modify each space or select the appropriate options to determine the total net facility size.															
Fitness Spaces	Default quantities	m <sup>2</sup>	ft. <sup>2</sup>												
<b>Lobby/Reception</b>															
Entry Lobby	6 Vestibule/Lobby Module(s) (for 2-3 ppl).	55.74	600												
Control Counter	4 Counter Module(s).	46.45	500												
Equipment issue storage	4 Storage Module(s).	65.03	700												
Vending	1 Vending Machine(s).	1.86	20												
Waiting/Display	5 Seating/Display Module(s) (for 4 ppl).	41.81	450												
Spectator peak-time circulation	3 Circulation Module(s).	83.61	900												
Public restrooms/phones	2 male/ 3 female Public Restroom(s).	20.90	225												

Figure B-2.1 Sample Interactive Worksheet for a Navy Fitness Center

Sample Navy Fitness Facility Project					
			Default quantities	m <sup>2</sup>	ft. <sup>2</sup>
<b>Gymnasium</b>					
Basketball/volleyball Court			3 Two-court/200-seat Module(s).	4892.86	52,668
Additional Spectator seating	To change default, enter new quantity: <input type="text"/>		0 Additional 200-seat Module(s). 600 total seats.		
Basic storage/support			5 Storage Module(s).	325.15	3,500
Additional court storage					
<b>Unit PT/Group Exercise</b>					
Partitionable Room(s)			75 people at 4.6 m2 (50 ft.2)/person.	348.38	3,750
Storage/support			10% of partitionable room area.	34.84	375
<b>Fitness Spaces</b>					
Stretching			12 people at 4.6 m2 (50 ft.2)/person.	55.74	600
Cardiovascular Equipment			150 items at 4.6 m2 (50 ft.2)/item.	696.75	7,500
Selectorized (machine) weights			54 items at 4.6 m2 (50 ft.2)/item.	250.83	2,700
Free/Plate-loaded weights			45 stations at 6.0 m2 (65 ft.2)/stations.	271.73	2,925
Fitness Program Manager's Office					
Fitness Assessment Room			1 Office(s).	11.61	125
<b>Structured Activities</b>					
Structured Activity Space			3 Flexible space Module(s).	222.96	2,400
Racquetball Courts			8 Racquetball Court(s).	594.56	6,400
Spectator/officiating					
Structured activity storage			10% of Structured Activity Space.	22.30	240
<b>Locker Rooms</b>					
Space criteria for men's and women's locker, shower, and toilet areas are provided at the end of the spreadsheet because they are determined by selections made throughout.					
Sauna, cool-down area	To change default, select new: <input type="text"/>		Large M/F (2) Saunas/cool-down area.	26.76	288
Steam Room, cool-down area	To change default, select new: <input type="text"/>		Large M/F (2) Steam Rooms/cool-down area.	30.66	330
Hot Tub	To change default, select new: <input type="text" value="Medium"/>		Medium Unisex Hot Tub.	11.71	126

Figure B-2.1 Sample Interactive Worksheet for a Navy Fitness Center

Sample Navy Fitness Facility Project					
Fitness Spaces (continued)		Default quantities	<table border="1"> <tr> <th>m<sup>2</sup></th> <th>ft.<sup>2</sup></th> </tr> </table>	m <sup>2</sup>	ft. <sup>2</sup>
m <sup>2</sup>	ft. <sup>2</sup>				
<b>Support Areas</b>					
Laundry		5/10 machine combo Laundry Room.	<table border="1"> <tr> <td>44.59</td> <td>480</td> </tr> </table>	44.59	480
44.59	480				
Equipment repair and receiving		Repair/receiving Room.	<table border="1"> <tr> <td>141.44</td> <td>1,523</td> </tr> </table>	141.44	1,523
141.44	1,523				
Storage		Storage Room.	<table border="1"> <tr> <td>63.75</td> <td>686</td> </tr> </table>	63.75	686
63.75	686				
Additional Programmatic Storage	For this option, enter required sf: <input type="text" value="200"/>	200 sf Additional Storage.	<table border="1"> <tr> <td>18.58</td> <td>200</td> </tr> </table>	18.58	200
18.58	200				
<b>Core HAWC Spaces</b>					
Lobby/Reception			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Director's Office			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Program Managers' Offices			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Support Staff Workstations			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Classrooms/Training rooms			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Resource Room/Computer Lab			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Storage/support			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Ergometry and Fitness Testing *			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
Wellness Assessment *			<table border="1"> <tr> <td></td> <td></td> </tr> </table>		
<b>Administrative Spaces (required or optional)</b>					
Director's Office		1 Office.	<table border="1"> <tr> <td>11.15</td> <td>120</td> </tr> </table>	11.15	120
11.15	120				
Program Managers' Offices		1 Office(s).	<table border="1"> <tr> <td>9.29</td> <td>100</td> </tr> </table>	9.29	100
9.29	100				
Support Staff Workstations		5 Workstation(s).	<table border="1"> <tr> <td>29.73</td> <td>320</td> </tr> </table>	29.73	320
29.73	320				
Copy/file/work/break Room		3 Workroom Module(s).	<table border="1"> <tr> <td>22.30</td> <td>240</td> </tr> </table>	22.30	240
22.30	240				
Classroom/Training Room		5 15-person Classroom/Training Module(s).	<table border="1"> <tr> <td>195.09</td> <td>2,100</td> </tr> </table>	195.09	2,100
195.09	2,100				
Classroom/Training Storage		5 Storage Module(s).	<table border="1"> <tr> <td>27.87</td> <td>300</td> </tr> </table>	27.87	300
27.87	300				

Figure B-2.1 Sample Interactive Worksheet for a Navy Fitness Center

Sample Navy Fitness Facility Project				
Optional or Service-specific Program Spaces		Default quantities	m <sup>2</sup>	ft. <sup>2</sup>
<b>Indoor Track</b>				
Indoor Track	To change default, select new:	1/8th-mile, 4-lane Indoor Track	989.11	10,647
To change the default selection (described to the right), choose the size of track desired. The description to the right will then change to reflect the new choice. To return to the default, delete the selection above.				
Indoor track lobby	To change default, enter new quantity:	2 Indoor track lobby(ies).	26.76	288
<b>Additional Group Exercise Room</b>				
Massage Room	For this option, select yes or no: Yes	1 Massage Room(s).	11.15	120
Physical Therapy Training	For this option, select yes or no: No			
Expanded Retail 1	For this option, select yes or no: No			
Expanded Juice Bar 1	For this option, select yes or no: Yes	1 Expanded Juice Bar Module(s).	13.94	150
Expanded Juice Bar Seating	For this option, enter required modules: 2	2 Two-table seating Module(s).	27.87	300
Family Changing Room	Does this facility include a pool (yes/no)? Yes	5 Family Changing Room(s).	51.10	550
Male DV Locker Room *				
Female DV Locker Room *				
Child Play Area/Parent Child Area *		1 Parent/child Module(s).	74.32	800
HAWC Demonstration Kitchen				
HAWC Relaxation Room *				
<b>Locker Rooms</b>				
The following Locker Room spaces are based on total building occupancy, which is driven by the selections made on this spreadsheet.				
Navy allocates the locker area at a 60% Male and 40% Female split.		To change this default split, select new:		
Men's Locker Room			384.14	4,135
Locker/changing area	To change default, select new:	508 Lockers in 335 slots.		
Navy designates 2 spaces (slots) for every 3 lockers (66%). This is 1 full-sized & 2 half-sized lockers for every 3 required. To change this default, select new configuration. ALSO: See Women's Locker/changing area.				
Shower/drying area		23 Showers.		
Toilet area		17 Water closets/lavatory modules.		

Figure B-2.1 Sample Interactive Worksheet for a Navy Fitness Center

Sample Navy Fitness Facility Project				
Woman's Locker Room			278.61	2,999
Locker/changing area	To change default, select new:		338 Lockers in 223 slots.	
Shower/drying area			15 Showers.	
Toilet area			17 Water closets/lavatory modules.	
<b>Building Totals</b>				
			Subtotal - Total Net Building Area	10,533.0    113,380
Is this facility more than one story (yes/no)?			Net-to-gross Factor @ 0.28	2,949.2    31,746
Yes			TOTAL GROSS BUILDING	13,482.2    145,126
<b>Site Spaces</b>				
		Default quantities	m <sup>2</sup>	ft. <sup>2</sup>
Staff Parking		15 Paking Spaces.	627.08	6,750
Loading dock		1 Loading Dock.	8.36	90
Service Drive/trash		1 Service Drive Module.	69.68	750
Customer Parking		500 Parking Spaces.	20902.50	225,000
Bicycle Rack Area		2 10-bike Rack(s).	29.73	320
Patio				
			TOTAL GROSS SITE SUPPORT	21,637.4    232,910
			TOTAL GROSS FACILITY (BUILDING + SITE SUPPORT)	35,119.6    378,036

Figure B-2.2 Sample Interactive Worksheet for a Marine Corps Fitness Center

Sample Marine Corps Fitness Facility Project			
<b>Select Service Branch:</b> <span style="border: 1px solid black; padding: 2px 10px;">Marine Corps</span>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Select size of facility:</b>            Marine Corps size options are to the right. Check box next to appropriate size. Also enter actual total Installation population size in the space provided. Refer to UFC Section 2.1 for reference to population criteria.         </div> <div style="width: 50%;"> <b>Check box next to appropriate facility size.</b>  <div style="display: flex; flex-direction: column; gap: 5px;"> <div> <b>Extra Small</b> <input type="checkbox"/> For populations of &lt;500           </div> <div> <b>Small</b> <input type="checkbox"/> For populations of 501-3,000           </div> <div> <b>Medium</b> <input type="checkbox"/> For populations of 3,001-7,000           </div> <div> <b>Large</b> <input checked="" type="checkbox"/> For populations of 7,001-14,000           </div> <div> <b>Extra Large</b> <input type="checkbox"/> For populations of 14,001+           </div> </div> </div> </div> <div style="text-align: right; margin-top: 10px;"> <b>Enter actual total population:</b> <span style="border: 1px solid black; padding: 2px 20px;">8,500</span> </div>			
<b>Based on data entered above, facility size basis is:</b> <span style="border: 1px solid black; padding: 2px 20px;">Large For populations of 7,001-14,000</span> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Total Installation population is</span> <span style="border: 1px solid black; padding: 2px 20px;">8,500</span> </div>			
<b>Confirm facility size basis is correct (yes or no):</b> <span style="border: 1px solid black; padding: 2px 20px;">Yes</span>			
Many of the spaces below are determined by the size and/or population criteria confirmed above. Where appropriate or necessary, modify each space or select the appropriate options to determine the total net facility size.			
Fitness Spaces	Default quantities	m <sup>2</sup>	ft. <sup>2</sup>
<b>Lobby/Reception</b>			
Entry Lobby	4 Vestibule/Lobby Module(s) (for 2-3 ppl).	37.16	400
Control Counter	4 Counter Module(s).	46.45	500
Equipment issue storage	4 Storage Module(s).	65.03	700
Vending	6 Vending Machine(s).	11.15	120
Waiting/Display	6 Seating/Display Module(s) (for 4 ppl).	50.17	540
Spectator peak-time circulation	For this option, select yes or no: <span style="border: 1px solid black; padding: 2px 10px;">No</span>		
Public restrooms/phones	For this option, select size of restroom: <span style="border: 1px solid black; padding: 2px 10px;">1 male/ 1 female</span> 1 male/ 1 female Public Restroom(s).	8.92	96



Figure B-2.2 Sample Interactive Worksheet for a Marine Corps Fitness Center

Sample Marine Corps Fitness Facility Project					
<b>Gymnasium</b>			<b>Default quantities</b>	<b>m<sup>2</sup></b>	<b>ft.<sup>2</sup></b>
Basketball/volleyball Court	Select size: <b>Arena-style</b>	1 Arena-style Two-Court Module(s)		1708.62	18,392
Select the Basketball/volleyball Court size. The selected size will be described to the right.					
Additional Spectator seating	To change default, enter new quantity: <input type="text"/>	0 Additional 200-seat Module(s). 1200 total seats.			
Basic storage/support					
Additional court storage					
<b>Unit PT/Group Exercise</b>					
Partitionable Room(s)	To change default, enter new quantity of ppl: <input type="text"/>	140 people at 4.6 m2 (50 ft.2)/person.		650.30	7,000
Storage/support		10% of partitionable room area.		65.03	700
<b>Fitness Spaces</b>					
Stretching		5 people at 4.6 m2 (50 ft.2)/person.		23.23	250
Cardiovascular Equipment	For Medium and larger facilities, this number includes area for cardio, selectorized, and free weights.			1252.54	13,483
Selectorized (machine) weights		See above.			
Free/Plate-loaded weights		See above.			
Fitness Program Manager's Office					
Fitness Assessment Room		4 Office(s).		46.45	500
<b>Structured Activities</b>					
Structured Activity Space		3 Flexible space Module(s).		222.96	2,400
Racquetball Courts		4 Racquetball Court(s).		297.28	3,200
Spectator/officiating					
Structured activity storage		10% of Structured Activity Space.		22.30	240
<b>Locker Rooms</b>					
Space criteria for men's and women's locker, shower, and toilet areas are provided at the end of the spreadsheet because they are determined by selections made throughout.					
Sauna and cool-down area	To change default, select new: <input type="text"/>				
Steam Room and cool-down area					
Hot Tub	To change default, select new: <input type="text"/>				



Figure B-2.2 Sample Interactive Worksheet for a Marine Corps Fitness Center

Sample Marine Corps Fitness Facility Project				
Fitness Spaces (continued)		Default quantities	m <sup>2</sup>	ft. <sup>2</sup>
<b>Support Areas</b>				
Laundry	To change default, select new: <u>2/4 machine</u>	2/4 machine combo Laundry Room.	21.37	230
Equipment repair and receiving		Repair/receiving Room.	141.51	1,523
Storage		Storage Room.	63.79	687
Additional Programmatic Storage	For this option, enter required sf: <u>100</u>	100 sf Additional Storage.	9.29	100
<b>Core HAWC Spaces</b>				
Lobby/Reception				
Director's Office				
Program Managers' Offices		1 Office(s).	9.29	100
Support Staff Workstations		1 Workstation(s).	5.95	64
Classrooms/Training rooms		2 Classroom/Training Module(s).	117.05	1,260
Resource Room/Computer Lab		1 Resource/Computer Lab Module(s).	23.23	250
Storage/support		1 Storage/support Module(s).	7.43	80
Ergometry and Fitness Testing *				
Wellness Assessment *				
<b>Administrative Spaces (required or optional)</b>				
Director's Office		1 Office.	11.15	120
Program Managers' Offices		2 Office(s).	18.58	200
Support Staff Workstations		8 Workstation(s).	47.56	512
Copy/file/work/break Room		2 Workroom Module(s).	14.86	160
Classroom/Training Room				
Classroom/Training Storage				

Figure B-2.2 Sample Interactive Worksheet for a Marine Corps Fitness Center

Sample Marine Corps Fitness Facility Project				
Optional or Service-specific Program Spaces		Default quantities	m <sup>2</sup>	ft. <sup>2</sup>
<b>Indoor Track</b>				
Indoor Track	To change default, select new:			
To change the default selection (described to the right), choose the size of track desired. The description to the right will then change to reflect the new choice. To return to the default, delete the selection above.				
Indoor track lobby	To change default, enter new quantity:			
<b>Additional Group Exercise Room</b>				
Massage Room	For this option, select yes or no:	No		
Physical Therapy Training	For this option, select yes or no:	No		
Expanded Retail 1	For this option, select yes or no:	No		
Expanded Juice Bar 1	For this option, select yes or no:	No		
Expanded Juice Bar Seating				
Family Changing Room	For this option, select yes or no:	No		
Male DV Locker Room *				
Female DV Locker Room *				
Child Play Area/Parent Child Area *	For this option, select yes or no:	Yes	0.5 Parent/child Module(s).	37.16
HAWC Demonstration Kitchen			1 Kitchen Module(s).	46.45
HAWC Relaxation Room *				500
<b>Locker Rooms</b>				
The following Locker Room spaces are based on total building occupancy, which is driven by the selections made on this spreadsheet.				
Marine Corps allocates the locker area at a 80% Male and 20% Female split.		To change this default split, select new:		
Men's Locker Room			337.69	3,635
Locker/changing area	To change default, select new:		447 Lockers in 295 slots.	
Marine Corps designates 2 spaces (slots) for every 3 lockers (66%). This is 1 full-sized & 2 half-sized lockers for every 3 required. To change this default, select new configuration. ALSO: See Women's Locker/changing area.				
Shower/drying area			20 Showers.	
Toilet area			15 Water closets/lavatory modules.	

Figure B-2.2 Sample Interactive Worksheet for a Marine Corps Fitness Center

Sample Marine Corps Fitness Facility Project				
<b>Woman's Locker Room</b> Locker/changing area Shower/drying area Toilet area			To change default, select new: <input type="text"/>	112 Lockers in 74 slots. 5 Showers. 6 Water closets/lavatory modules.
			94.01	1,012
<b>Building Totals</b>				
			Subtotal - Total Net Building Area	5,512.1 59,334
Is this facility more than one story (yes/no)? <input type="text"/> No			Net-to-gross Factor @ 0.2	1,102.4 11,867
			TOTAL GROSS BUILDING	6,614.5 71,200
<b>Site Spaces</b>				
			Default quantities	m <sup>2</sup> ft. <sup>2</sup>
Staff Parking			12 Paking Spaces.	501.66 5,400
Loading dock			1 Loading Dock.	8.36 90
Service Drive/trash	For this option, select yes or no: <input type="text"/> Yes		1 Service Drive Module.	69.68 750
Customer Parking			160 Parking Spaces.	6688.80 72,000
Bicycle Rack Area			3 10-bike Rack(s).	44.59 480
Patio	For this option, select yes or no: <input type="text"/> No			
			TOTAL GROSS SITE SUPPORT	7,313.1 78,720
			TOTAL GROSS FACILITY (BUILDING + SITE SUPPORT)	13,927.6 149,920

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*

**APPENDIX C EQUIPMENT LISTS****C-1 FITNESS EQUIPMENT LISTS**

The following lists contain sample equipment for the fitness areas and are broken down into three categories: free weights, selectorized equipment, and cardiovascular equipment.

**C-1.1 Free/plate-loaded Weights**

The following are samples of commercial-grade, plate-loaded or free weight equipment and benches:

- Leg Extension
- Leg Curl (Seated)
- Leg Curl (Horizontal/Prone)
- Leg Curl (Standing/Kneeling)
- Squat Press (Seated/45deg/Hip)
- Squat Press (Vertical/Hack)
- Squat Press (Horizontal/Supine)
- Squat Press (Jammer/Ground Based)
- Calf Raise (Seated)
- Calf Raise (Standing)
- Calf Raise (45deg)
- Rotary Calf
- Tibia Dorsi Flexion
- Abduction
- Adduction
- Glute Isolation
- Chest Press (Seated)
- Chest Press (Horizontal/Supine)
- Wide Chest Press
- Incline Press
- Decline Press
- Military/Shoulder Press
- Lat Pulldown

- Lat Pullover
- Low Row
- High Row
- Rear Deltoid (Seated)
- Rear Deltoid (Horizontal/Prone)
- Back Extension
- T-Bar/Lever Row
- Lateral/Deltoid Raise
- Shoulder Press
- Shrug
- Bicep Curl
- Tricep Extension
- Tricep Dip Extension
- Wrist Curl
- Hand Grip Isolation
- Neck Isolation
- Smith Machine
- Ab Crunch
- Rotary Torso
- Dumbbell Sets (10pr)
- Dumbbell Rack-1 Tier/5pr
- Dumbbell Rack-2 Tier/10pr
- Fixed Barbell Set (10 Assorted)
- Fixed Barbell Rack
- Weights (Assorted 2.5#-45#)
- Weight Tree/Rack
- Bars (Assorted/Loose)
- Bar Rack
- Benches (Assorted)
- Squat Rack (F) & Bar
- Bench Press (F) & Bar

- Incline Press (F) & Bar
- Decline Press (F) & Bar
- Military/Shoulder Press (F) & Bar
- Dead Lift Platform/Rack (F) & Bar
- Power Cage/Rack (F) w/ Bar
- Curl Bench (Seated)
- Curl Bench (Standing)
- Leg Raise/Dip
- Chin-Up/Dip
- Back Extension
- Abdominal Board

#### **C-1.2      Selectorized (Machine) Equipment.**

The following are samples of selectorized equipment:

- Multi-Station (Ex. 6 stations)
- Leg Extension
- Leg Curl (Seated)
- Leg Curl (Horizontal/Prone)
- Leg Curl (Standing/Kneeling)
- Leg Press (Seated/45deg)
- Leg Press (Horizontal/Supine)
- Leg Press (Lunge)
- Calf Raise (Seated)
- Calf Raise (Standing/Donkey)
- Calf Raise (45deg)
- Rotary Calf
- Abductor
- Adductor
- Multi-Hip Machine (Rotary Hip)
- Hip Extension
- Glute Isolation
- Bent Arm/Pectoral Fly

- Straight Arm Fly/Rear Delt
- Chest Press (Seated)
- Chest Press (Horizontal/Supine)
- Incline Press
- Decline Press
- Lat Pulldown
- Lat Pullover
- Low Row
- High Row
- Rear Deltoid (Seated)
- Rear Deltoid (Horizontal/Prone)
- Back Extension
- Lateral/Deltoid Raise
- Shoulder/Overhead Press
- Bicep Curl
- Tricep Extension
- Tricep Dip Extension (Press)
- Wrist Curl
- Neck Isolation
- Smith Machine (H)
- Cable Crossover w/ Chin-up Bar
- Cable Station (2 sided)
- Ab Crunch
- Rotary Torso
- Pull-up/Dip Assist

### **C-1.3 Cardiovascular Equipment**

Wherever possible, use cordless cardiovascular equipment. The following are samples of commercial-grade, electronically controlled cardiovascular equipment:

- Treadmill
- Elliptical Trainer
- Cross Trainer/Hiker (Upright)



**FC 4-740-02N**  
**1 May 2013**

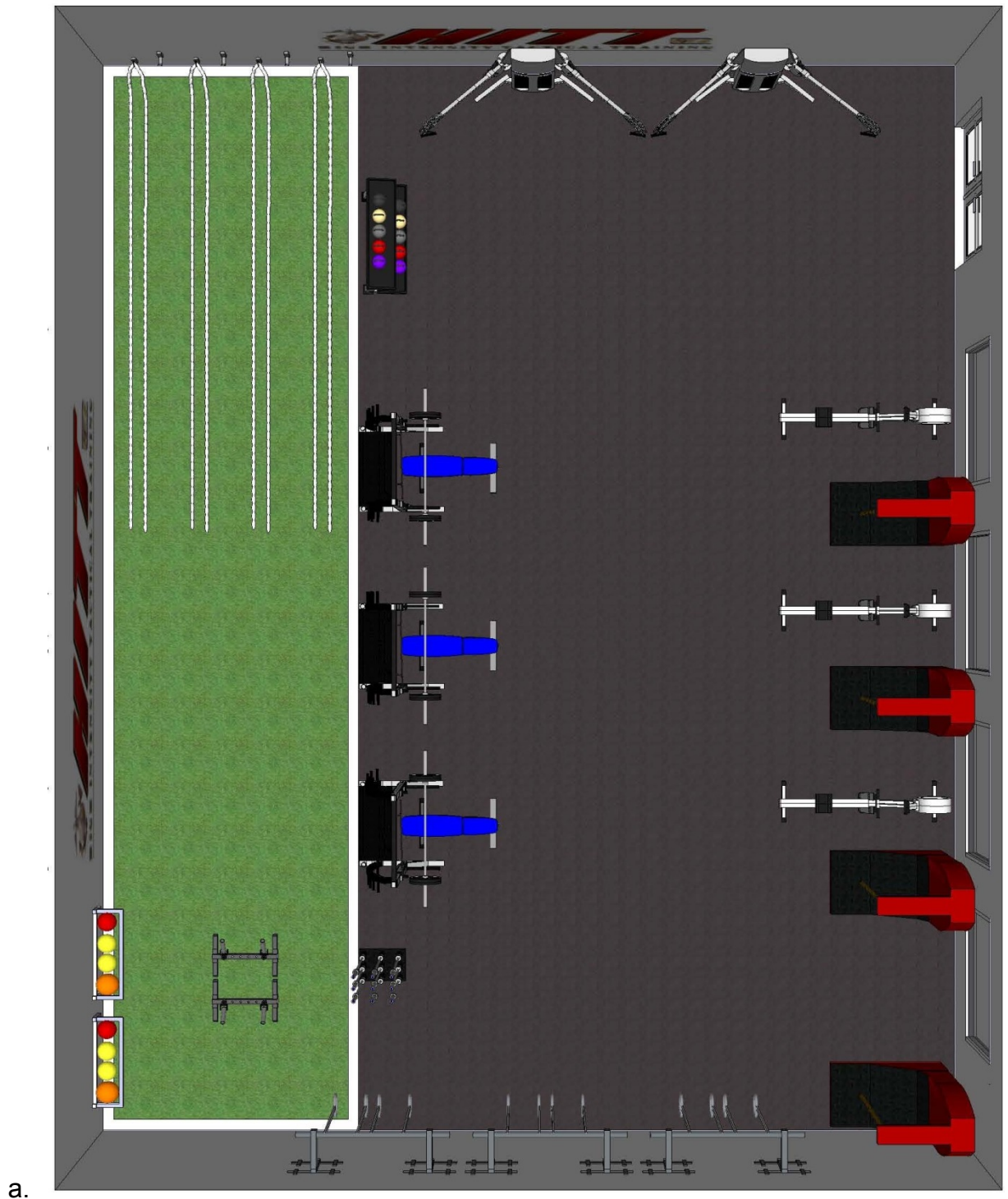
- Cross Trainer/Hiker (Recumbent)
- Stationary Bike (Upright)
- Stationary Bike (Recumbent)
- Stair Climber/Stepper
- Rowing Machine
- Skier
- Kayak Machine
- Skate Machine

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*

**APPENDIX D HITT CENTER****D-1 HITT CENTER LAYOUT**

The following floor plan presents a sample layout for a 2,000 SF High Intensity Tactical Training (HITT) Center. These are facilities required only by the Marine Corps.



**D-2 HITT CENTER EQUIPMENT LIST**

The following is a sample equipment list for a 2,000 SF HITT Center:

Equipment	Item #	Vendor	# Needed
Stretchband-Small (32")	6428SP	Perform Better	8
MB Stretchband-Medium (38")	6428MP	Perform Better	8
MB Stretchband-Large (43")	6428LP	Perform Better	8
Stretch Out Strap	9251P	Perform Better	15
First Place Competitor Hurdle	6921P	Perform Better	6
Dynamax Accelerator II	5043P	Perform Better	4
Dynamax Stout	I 5044P	Perform Better	4
Dynamax Stout II	5045P	Perform Better	4
Dynamax Hefty I	5046P	Perform Better	4
Dynamax Hefty II	5047P	Perform Better	4
Dynamax Burlly	5048P	Perform Better	4
Dynamax Rack	5059P	Perform Better	3
Sled Dawg Elite	2068P	Perform Better	8
Agility Ladder	3561P	Perform Better	8
Saucer Cones - set of 12	6526P	Perform Better	6
Saucer Cone Carrier	6528P	Perform Better	3
Bullet Belt Deluxe Pack	7649P	Perform Better	12
Plyosafe G2 Set – Black	5622P	Perform Better	1
Vertimax	2823P	Perform Better	2
Training Rope Anchor	3018P	Perform Better	2
Training Rope Holder	3019P	Perform Better	4
30' Training Rope (1.5")	3226BP	Perform Better	2
30' Training Rope (2.0")	3229P	Perform Better	2
First Place Medbells - 10 lb.	2442	Perform Better	4
First Place Medbells - 12 lb.	2443	Perform Better	4
First Place Medbells - 15 lb.	2444	Perform Better	4
First Place Medbells - 18 lb.	2445	Perform Better	4
First Place Medbells - 20 lb.	2446	Perform Better	4
First Place Medbells - 25 lb.	2447	Perform Better	4
First Place Medbells - 30 lb.	2448	Perform Better	4
First Place Medbells - 35 lb.	449	Perform Better	4
First Place Kettlebell Rack	P-2693	Perform Better	2
Lifting Chain - 30 lb.	1825P	Perform Better	2
Lifting Chain - 45 lb.	1826P	Perform Better	2
Lifting Chain - 60 lb.	1827P	Perform Better	2
TRX Suspension Trainer	2030P	Perform Better	4 \$
Wall Chin-Up Bar	5738P	Perform Better	4
Bravo Functional Trainer	8810	Cybex	2
The Trainer	6650	Perform Better	2
ECT	7701	Perform Better	2
Ultimate Sandbag	9081S	Perform Better	2
Ultimate Sandbag	9082S	Perform Better	2
Ultimate Sandbag	9083S	Perform Better	4
Wall Mount Rack	3680S	Perform Better	3
Bulldog Collar	50398	Power Systems	12
5' Olympic Training Bar	6745	Power Systems	4
Pure Strength Olympic Bar	3024-3241	Power Systems	4
Glute/Ham Developer	46118	Power Systems	2
9' Big Iron Half Rack	19000	Cybex	2
Locking Bench	19100	Cybex	2
York Bumper Grip Plates (5 lbs.)	2905-5	Power Systems	8
York Bumper Grip Plates (10 lbs.)	2905-5	Power Systems	8
York Bumper Grip Plates (25 lbs.)	2905-5	Power Systems	8
York Bumper Grip Plates (35 lbs.)	2905-5	Power Systems	8

**FC 4-740-02N**  
**1 May 2013**

York Bumper Grip Plates (45 lbs.)	2905-5	Power Systems	8
Smart Hurdle 3	3120	Power Systems	12
Arc Trainer	750A	Cybex	2

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*

**APPENDIX E GLOSSARY****ACRONYMS & ABBREVIATIONS**

A	Amp(s)
AAHC	Accreditation Association for Ambulatory Health Care
ADAAG	Americans with Disabilities Act Accessibility Guidelines
ACSM	American College of Sports Medicine
ACT	Acoustic Ceiling Tile
ADA	Americans with Disabilities Act
AED	Automatic External Defibrillator
AFF	Above finished floor
AT	Anti-terrorism
AV	Audiovisual
AWI	Architectural Woodwork Institute
C	Celsius
CATV	Cable Television
CCTV	Closed Circuit Television
CD	Compact disk
CFM	Cubic feet per minute
CMU	Concrete masonry unit
CNIC	Commander, Navy Installations Command
CONUS	Continental United States
deg.	degree
DIN	Deutsches Institut für Normung eV (German Institute for Standardization; similar to U.S. ANSI)
DoD	Department of Defense
ESS	Electronic Security System

F	Fahrenheit
FC	Footcandles
FDS	Functional Data Sheets
FF&E	Furnishings, Fixtures and Equipment
ft	feet or foot
GFCI	Ground fault circuit interrupt
HDPE	High Density Polyethylene
HITT	High Intensity Tactical Training
HNFA	Host Nation Funded Construction Agreements
HQ	Headquarters
HVAC	Heating, Ventilating and Air Conditioning
IESNA	Illuminating Engineering Society of North America
IMCOM	Installation Management Command
In	inch(es)
LOS	Line of Sight
m	meter
mm	millimeter
MILCON	Military Construction
Min.	Minimum
Max.	Maximum
NAVFAC	Naval Facilities Engineering Command
NCAA	National Collegiate Athletic Association
NFPA	National Fire Protection Association
OCONUS	Outside the Continental United States
PA	Public Address



POS	Point of Sale
POV	Privately Owned Vehicle
PT	Physical Training or Physical Therapy
PVC	Polyvinyl chloride
RFP	Request for Proposal
SF	square feet
sq.	Square
STC	Sound Transmission Coefficient
UFC	Unified Facilities Criteria
U.S.	United States
USATF	United States of America Track and Field
USFFA	United States Flag Football Association
USMC HQ	United States Marine Corps Headquarters
USRA	United States of America Racquetball Association
V	Volt(s)
VCT	Vinyl composition tile
WC	Water closet

**FC 4-740-02N**  
**1 May 2013**

*This Page Intentionally Left Blank*

**APPENDIX F AUSTERE FITNESS CENTERS****F-1 PURPOSE.**

The purpose of this appendix is to provide implementation requirements for the austere construction established by Commander, Navy Installations Command (CNIC). These requirements were developed to address construction of support facilities only in CNIC designated operating environments.

**F-2 DEFINITION AND SCOPE.**

An austere facility is defined as a structure designed and constructed with minimal infrastructure, footprint area and finishes, incorporating applicable building codes and facility criteria to assure adherence to all health, accessibility and life safety standards and regulations required to fulfill the mission, including Anti-Terrorism Force Protection appropriate to each site. Austere facilities should be built with the least total ownership costs (TOC) possible, including purchase, maintenance and use of consistently available alternative local goods.

**F-3 APPLICABILITY.**

Austere construction is intended for facilities in locations determined by CNIC and approved by OPNAV to be eligible for austere facilities construction. The austere standards are intended to be applied flexibly and in varying degrees to all facilities at locations designated as austere. This flexibility should be allowed to ensure the criteria are appropriate for individual austere locations.

**F-4 MODIFICATIONS FOR AUSTERE CONSTRUCTION**

For austere design and construction use the FC 4-740-02, Fitness Centers, with the following (generally deductive) modifications of this Appendix.

**CHAPTER 2 PLANNING AND LAYOUT****2-2 PROGRAM AREAS.****2-2.1 Fitness Program, Administrative Areas, and Building Support.**

Delete paragraph and replace with the following:

Table F-1 lists the core and optional areas for the fitness program, administrative areas, and building support. This table identifies functional areas; when programming a facility consider other areas such as circulation/corridors, exterior wall cavities, and Mechanical/Electrical/Communication rooms to determine gross areas of the building – see UFC 3-101-01, *Architecture*, for methods to calculate gross building area.

**Table F-1. Austere Functional Program Areas**

<b>Austere Functional Program Area</b>	<b>Description/Service Requirements</b>
<b>Entry/Reception</b>	
Entry	Entry space in front of control counter and vestibule. Space includes a public telephone.
Control counter/equipment issue storage	Sign-in and small gear issue. Provides visual control via line of sight (LOS) to, at minimum, the entry, free weights, and locker room entrance. Visual control over other key areas must be accommodated via LOS and/or CCTV. Provides area to hold gear for issue (i.e., towels, balls).
Public toilets	Restrooms used primarily by patrons and staff if Locker Room Toilets are not provided.
Janitor's closet	Space used by custodial staff, with mop sink and storage space.
<b>Administrative</b>	
Administrative/Support Staff	Office for Director, Program Manager and/or support staff. Workstations.
Classroom/Conference room	<b>Optional program space</b> ; may be combined with Administrative space
Copy/work room	<b>Optional program space</b> ; may be combined with Administrative space. Copier, layout space, storage area.
<b>Gymnasium</b>	
Basketball/volleyball court(s)	<b>Optional</b> ; as approved by CNIC
Storage/support	<b>Optional</b> ; as approved by CNIC
<b>Unit PT/Group Exercise</b>	
Group exercise room	One large room with partition dividers (for classes and/or unit/command fitness training).
Storage/support	Storage area with access to Unit PT/group exercise room.
<b>Fitness Spaces</b>	
Stretching/warm-up/cool-down Free/plate-loaded weights "Selectorized" (machine) weights Cardiovascular (cardio) equipment	Usually one open space
<b>Locker Rooms</b>	
Men's Locker Room	Separate male/female facilities. Each locker room is divided into the three sub areas indicated.
Locker/dressing area	
Toilet area	
Shower area	
Women's Locker Room	
Locker/dressing area	
Toilet area	
Shower area	
<b>Support Areas</b>	
Laundry	For towels and uniforms.

**2-4 SPACE PROGRAM.****2-4.2 Interactive Planning Spreadsheet.**

Delete paragraph and replace with the following:

Refer to UFC 2-000-05N (P-80), *Facility Planning Criteria for Navy/Marine Corps Shore Installations* for space planning spreadsheets for austere fitness facilities.

**2-5 LOCATION DETERMINANTS.****2-5.1 Access.**

Delete paragraph and replace with the following:

Locate the fitness center to be visible and easily accessible to a diverse representation of the users. Consider sites that are located along the pedestrian paths to the existing or proposed barracks/dormitories, existing or proposed MWR/NEX facilities, and/or the dining facility. To accommodate patron access, consider the relationships to existing or proposed vehicular and pedestrian circulation patterns, bike trails, and bus stops.

**2-5.3 Cost.**

Delete paragraph and replace with the following:

Design these facilities with consideration of a time frame appropriate to austere facilities, regionally appropriate acquisition of equipment, Base Operating Support BOS, and logistic difficulties.

**2-7 SPACE ASSESSMENT.**

Delete paragraph and replace with the following:

See the Austere Functional Data Sheets in Appendix F - Chapter 4 for additional information on the space types and their relationships to each other.

**CHAPTER 3 GENERAL DESIGN CRITERIA****3-3 ARCHITECTURE.**

Delete paragraph and replace with the following:

Refer to UFC 3-101-01, *Architecture* for direction to the appropriate core criteria for architectural details and finish concerning:

- Exterior Finishes, vapor retarders, thermal insulation, and air infiltration.
- Roof systems. Design and detail roof systems to resist maximum wind for the area.

- Austere construction requires durable materials and finishes throughout.

In addition to UFC 3-101-01, *Architecture*, the following requirements are specific to austere Fitness Centers.

### **3-3.1.2 Exterior Finishes.**

Add the following:

Exterior surfaces requiring paint must use a minimum of one prime coat and two finish coats.

### **3-3.2 Interior Design.**

Delete paragraph.

#### **3-3.2.1 Interior Construction.**

Add the following to the FC paragraph:

Ability to repair, refinish and reconfigure are important in austere construction. Austere projects use of light-frame construction for interior wall construction is preferred. Concrete / masonry is optional; minimize load bearing walls where appropriate.

Construct cabinets to American Woodworking Institute (AWI) Custom grade with heavy-duty hardware.

#### **3-3.2.2 Finishes.**

Add the following to the FC paragraph:

Refer to Table F-2 for austere interior finishes. For additional information on finishes in specific areas, see the Functional Data Sheets in the austere Appendix F Chapter 4.

Ceilings are to be exposed and painted, including all exposed plumbing mechanical fire stops and electrical conduit, unless it is more cost effective to provide a finished ceiling.

Finishes must take into account the intended uses, be appropriately durable, and be low maintenance. Finishes must have good acoustical, noise reducing characteristics where appropriate. They must meet the requirements of Life and Fire Safety Codes as listed in UFC 1-200-01 and UFC 1-200-02. Vinyl composition tile (VCT) is generally not allowed unless specifically noted for a given space. Ceilings are to be exposed and painted, including all exposed plumbing, mechanical fire stops and electrical conduit, unless it is more cost effective to provide a finished ceiling. Refer to Table F-2 for austere interior finishes.

**Table F-2 Austere Interior Finishes**

General Space	Recommended Finishes			
	Floor	Base	Walls	Ceiling
Entry/Vestibule	CONCS/W M	RB	P	P
Control Counter/ equipment issue storage	CONCS	RB	P	P
Public Toilets	CONCS or PT	RB	P or CT	P
Janitors Closet	CONCS	RB	P	P
Administrative Office	CONCS	RB	P	P
Classroom/Conference Room	CONCS	RB	P	P
Copy/work Room	CONCS	RB	P	P
Basketball/volleyball courts	RSF	RB	P	P
Group exercise room	RSF	RB	P	P
Fitness Spaces	RSF	RB	P	P
Locker Rooms	PT	CT	P	P
Toilets	PT	CT	P/CT wet walls	P
Showers	PT	CT	CT full height	P
Laundry	CONCS or PT	RB or CT	P or CT	P
Stairwells	CONCS	RB	P	P

**Key:**

CONCS – Sealed Concrete

CT – Ceramic Tile

P – Paint

PT – Porcelain Tile

RB – Rubber Base

RSF – Resilient Sports Flooring

WM - Walk-off Mat (Surface)

**3-3.3 Acoustics.**

Delete the FC paragraph for austere designs.

**3-4 SERVICES****3-4.1 Plumbing**

Add the following:

Avoid plumbing chases whenever possible by placing plumbing in wall cavities. Fixture clearances should be appropriately sized for the intended occupants and use low-flow fixtures where feasible.

- Provide hot and cold water to laundry facilities.
- Provide easily accessible shutoff valves at all fixtures.
- Water Closets must be commercial quality. Use low consumption type only if appropriate for the austere location. It is recommended that areas with low water pressure use power-flush type water closets. Use elongated, one-piece construction with a closed front seat and a lid. Provide fixtures in neutral color.
- Provide flush-valve toilets, dual-flush manual type, and overhead rain fall type shower heads that meet low flow requirements.
- Provide hose bibs on one exterior wall of each building and near rooftop mechanical units; frost-free as dictated by climatic conditions. Provide floor drains in all janitor closets and laundry rooms, if applicable.
- Use the following fixtures as standards: washerless faucets at lavatories with single lever faucets. Provide showerheads with maximum 2.2 gpm flow rate. Locate showerheads a minimum of 75 inches (190.5 cm) above the shower base.

### **3-5 FURNISHINGS AND EQUIPMENT.**

Delete the FC paragraph and replace with the following:

Furnishings, Fixtures & Equipment (FF&E) items are listed for specific spaces. Refer to the Functional Data Sheets in this Appendix for austere design and construction. Also, a list of fitness equipment is included in Appendix C of this document. Each Service has specific lists of required furnishings and equipment that vary by fitness program and facility size. These lists can be provided by the Fitness program office identified in Chapter 1.

### **3-6 SITE DESIGN AND ORGANIZATION.**

Delete paragraph and replace with the following:

Apply austere decision making processes to assess, modify and incorporate location, antiterrorism circulation and lighting plans appropriate to local conditions.

#### **3-6.1 Landscaping.**

Delete paragraph.

#### **3-6.2 Parking and Access Drives**

Delete paragraph and replace with the following:

Apply austere decision making to assess, modify and incorporate requirements such as pedestrian circulation, bus access, service vehicle parking, and lighting plans appropriately to local conditions and to limit parking as much as possible while still



meeting the facility mission. Review the security study and incorporate its requirements into the design. Ensure existing and proposed parking is in compliance with antiterrorism requirements. In austere facilities parking for residents, visitors, staff, and service personnel should be extremely minimal and only to the mission. Maintenance parking for service functions does not necessarily require dedicated space. Use the expected frequency of maintenance vehicles to determine whether dedicated parking is needed. Locate service access and parking to avoid disturbing residents.

### **3-6.3 Service Drive.**

Add the following:

Limit (or eliminate) use of screen walls.

### **3-7 SUSTAINABLE DESIGN – Leed and Commissioning**

Delete the FC paragraphs and replace with the following: Do not register or certify projects designated austere. The Chief Engineer of NAVFAC has waived LEED registration and Certification requirements for projects designated austere (OCONUS). However, the requirements for the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (HPSB) remain. Refer to UFC 1-200-02 for criteria associated with HPSB.

Austere projects require fundamental commissioning or an equivalent process. At a minimum, commission the following systems: HVAC systems and controls, lighting controls, and if provided, day lighting controls, refrigeration systems and controls, renewable energy systems, and domestic hot water systems. Refer to UFC 1-200-02.

### **3-8 BUILDING CODES.**

Add the following: Comply with UFC 1-200-01, 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 FC in addition to UFC 1-200-01 and the UFCs and government criteria referenced therein.

### **3-9 ACCESSIBILITY.**

This Appendix does not change the DOD requirements for accessibility in Fitness Centers. Refer to the DOD Policy Memorandum, Access for People with Disabilities.

### **3-10 ANTITERRORISM (AT).**

The DOD objective is to eliminate personnel exposure to security threats in occupied Fitness facilities and limit property damage and minimize the likelihood of mass casualties from terrorist attacks through cost effective security improvements. DOD policy and guidance for antiterrorism and the physical security of facilities is contained in core criteria as referenced in UFC 1-200-01. Use UFC 4-010-01, and UFC 4-010-02,

and the Geographic Combatant Commander Antiterrorism construction standards for these antiterrorism requirements. These requirements are applicable to austere design and construction.

## **CHAPTER 4 SPECIFIC DESIGN CRITERIA**

### **4-1 INTRODUCTION.**

Delete paragraphs and replace with the following:

This chapter identifies the specific design needs for each functional area outlined in the space program. Tables F-3 through F-17 provide this data in a standard Functional Data Sheet format.

The interior construction specialties, equipment and furnishings criteria provided in these tables are broken down as follows:

- Casework/Built-in Equipment. This includes anything physically attached or plumbed to the building such as counters, cabinets, casework, toilet accessories, window treatments, laundry machines, and retractable overhead screens.
- Furnishings, Fixtures, and Equipment (FF&E). This includes contractor-furnished, contractor-installed loose items such as desks, tables, chairs, bookshelves, and televisions (if mounted, TV mount would be built-in).
- User-provided FF&E. This includes all government-furnished, government-installed items, which are typically limited to office equipment such as computers, printers, copiers, and projectors (if mounted, projector mount would be built-in).

**Table F-3. Entry**

<b>Description/ Usage</b>	The entry serves as the primary entrance to the facility for patrons. The space should have minimal footprint.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum.
<b>Finishes</b>	<p><b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted surfaces.</p> <p><b>Floor.</b> Sealed concrete, moisture and slip-resistant. Provide a surface walk-off mat/area at the entrance door. Provide rubber base.</p> <p><b>Ceiling.</b> Exposed painted structure.</p>
<b>Plumbing</b>	Provide electric water cooler(s) in proximity of public toilets/locker rooms.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Consider task lighting.
<b>Communication</b>	<p><b>CCTV.</b> Provide at least one outlet, or as needed to cover the entrance.</p> <p><b>CATV/Internal Video.</b> Consider a CATV outlet.</p> <p><b>PA/Audio.</b> Provide a speaker.</p> <p><b>Telephone.</b> Provide one line.</p> <p><b>Data.</b> Provide an outlet.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	None.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<p>Furniture shall be durable, easy to clean, and moisture-resistant, if provided.</p> <p>Provide a means to display Installation and staff information.</p>
<b>User-provided Equipment</b>	Provide CCTV cameras per the outlet count.
<b>Special Req.</b>	Provide an airlock at the main entrance. Exterior doors must have continuous or heavy-duty hinges. Provide a grated snow-trap for northern tier bases. Signage.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-4. Control Counter/Equipment Issue/Storage.**

<b>Description/ Usage</b>	The control counter is often referred to as the front desk or reception desk. It's the focal point of information exchange within the building and is the check-in location for patrons. Patrons must not be able to access other facility spaces without passing the control desk and checking in. Do not use check-in/counting methods that restrict rapid access/egress to/from the facility, such as a turnstile. Equipment such as towels and balls will be issued from the control desk. It must provide for direct supervision of the facility and greeting, informing, and directing patrons to their particular activity area. Additionally, the control desk serves as the focal point for safety and emergency situations. The staff access to the counter must permit access to the free weight and treadmill areas for emergency response.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted surfaces. <b>Floor.</b> Sealed concrete, moisture and slip-resistant finish. Provide rubber base. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide an emergency shut-off control per AT requirements.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide power for all equipment per Chapter 3, Electrical. Perform a power requirement survey as power requirements are extremely site- and locale-specific.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) of general ambient lighting. Provide fixed 50 FC (500 Lux) task lighting at the control counter.
<b>Communication</b>	<b>CCTV.</b> All monitors must be viewable from this area. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide PA and audio system controls at the control counter for room-by-room and "all call" communication. Provide intercom capability as directed by installation. Provide a speaker. <b>Telephone.</b> Provide at least two general purpose phone lines <b>Data.</b> Data outlets must be provided for every piece of equipment identified as requiring data, plus a 25% spare capacity for flexibility. Pieces of equipment include, but are not limited to, computers, copier/printer/fax, and ID check system. <b>Security.</b> None
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	Provide a 24-in.- (610-mm-) deep counter with built-in base cabinets. Provide file drawers and storage drawers with a minimum of two lockable drawers for each POS. The counter must be dual height for standing transactions, seated office functions, and ADA customer service. Note that ADA-height counter must have knee-hole space on both sides of the counter. The counter must be a durable solid surface material such as concrete or solid plastic—laminates is not permitted. Provide a towel return drop opening in the counter top with space for a laundry cart below, if required by operations. Modesty panels and apron must be of durable materials. Consider supports such as steel angle braces for counters with knee-hole space. Consider providing wall cabinets. Storage must accommodate towels and small athletic equipment such as balls. Consider if clean towels will be provided by a service or if they will be in laundry carts and provide storage space accordingly. Provide PA controls. Consider providing an automatic external defibrillator (AED).

**Table F-4. Control Counter/Equipment Issue/Storage.**

<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Chairs and stools.
<b>User-provided Equipment</b>	Desktop computer for administrative functions, CCTV monitors, and printers.
<b>Special Req.</b>	Attendants at the control desk must have direct line-of-sight visual control over the following, at minimum: the entry, free weight area, treadmill section of the cardiovascular area, and locker room entrance. Visual control over other key areas must be accommodated via LOS and/or CCTV and are identified in the individual functional data sheets.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-5. Public Toilets**

<b>Description/ Usage</b>	These toilet rooms are used primarily by patrons and staff if no locker and shower rooms are provided. They must be adjacent to the lobby and gymnasium. Provide unisex or separate male and female restrooms.
<b>Min. Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Semi-gloss enamel painted, mold-resistant gypsum or ceramic tile wainscot. <b>Floor.</b> Sealed concrete or non-slip porcelain tile with dark-colored epoxy grout. Slope tile to drain. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	Provide water closets, urinals, and lavatories based on the applicable code for the calculated occupancy of the gymnasium. Provide a floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Solid-surface countertop with either undermount or integral sink. For single-occupancy toilets, wall-hung lavatories without countertop are allowed. Solid plastic (HDPE) or Color-Through Phenolic toilet and urinal partitions. Toilet accessories: toilet paper dispensers, paper towel dispenser, trash receptacle, robe hooks, grab bars, sanitary napkin disposal (female water closet stalls), seat cover dispensers, and soap dispensers. Mirror.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	None.
<b>User-provided Equipment</b>	None.
<b>Special Req.</b>	
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-6. Janitor's Closet**

<b>Description/ Usage</b>	This space is for use of custodial staff and includes mop sink and storage space for cleaning equipment and supplies.
<b>Min. Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Semi-gloss enamel painted, mold-resistant gypsum wallboard. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> Not required, but where provided must be moisture-resistant and cleanable.
<b>Plumbing</b>	Provide a floor drain. Provide a mop sink and keyed hose bibb.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide shelving.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	If required by installation, provide lockable cabinets for cleaning supplies.
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Locate in proximity of other areas with plumbing. This closet includes a floor mop sink with hot and cold water and a hose connection, a floor drain, and storage for pails, mops, vacuums, and related cleaning supplies and equipment. Include a lockable door (which can be opened from the inside). Provide space for lockable cabinets for cleaning supplies, as required by installation. Provide exhaust ventilation directly to the outside.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-7. Administrative Office**

<b>Description/ Usage</b>	The administrative office provides space for the Director, Program Manager(s) and/or support staff. This space may also be used for conference and copy room functions for staff.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wall board. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Ensure an adequate number of circuits to power all equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> Provide monitoring capability when directed by the installation. <b>CATV/Internal Video:</b> One outlet required for office. <b>PA/Audio:</b> Provide a speaker. Provide controls in the office with room-by-room and "all call" communication. Provide intercom capability as directed by installation. <b>Telephone.</b> Provide one line per staff plus one additional line for fax and copier. <b>Data.</b> Provide one outlet per staff plus one outlet for each printer, copier, scanner, etc. <b>Security.</b> None required.
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	None.
<b>Furnishings Fixtures &amp; Equipment (FF&amp;E)</b>	Workstations—provide furniture for 64 ft. <sup>2</sup> (6 m <sup>2</sup> ) workstation: desk chair and side chair for open offices. Consider task lighting and adequate space for filing and overhead storage.
<b>User-provided Equipment</b>	Computers and other office equipment.
<b>Special Requirements</b>	Provide an interior window with blinds to accommodate visual supervision over the fitness area and the control counter, where possible. Provide a vision panel, minimum 5 square feet, in the door
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	



**Table F-8. Classrooms/Conference Rooms**

<b>Description/ Usage</b>	This OPTIONAL space is used for conducting meetings and training. This function may be incorporated into the Administrative Office area.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wallboard. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	No special provisions required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical and additional outlets necessary to operate portable and dedicated equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> Provide outlets as required for coverage. <b>CATV/Internal Video.</b> Provide one outlet. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> Provide one line. <b>Data.</b> Provide a minimum of one outlet. <b>Security.</b> None required.
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	None.
<b>Furnishings Fixtures &amp; Equipment (FF&amp;E)</b>	Provide tables, chairs, and an AV cart, as required
<b>User-provided Equipment</b>	Provide CCTV cameras per the outlet count.
<b>Special Requirements</b>	Provide a vision panel, minimum 5 square feet, in the door if space is provided
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-9. Copy/Work Room**

<b>Description/ Usage</b>	This OPTIONAL space is used as a staff workroom for copying, meetings, breaks, and lunches and may be incorporated into the Administrative Office area.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted gypsum wall board. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	
<b>HVAC</b>	Provide a system per Chapter 3, HVAC.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide one additional outlet at counter height for convenience, if casework is provided. Provide additional outlets necessary to operate dedicated equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> Consider providing one outlet. <b>PA/Audio.</b> Provide a speaker. <b>Telephone.</b> Provide one line. <b>Data.</b> Provide outlets as required for equipment. <b>Security.</b> None required.
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	Solid-surface countertops, if casework is provided.
<b>Furnishings Fixtures &amp; Equipment (FF&amp;E)</b>	Table, chairs, microwave, coffee machine, and refrigerator, as required.
<b>User-provided Equipment</b>	Copier, fax machine, printers, and other office equipment as required.
<b>Special Requirements</b>	Provide a vision panel, minimum 5 square feet, in the door, if space is provided.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-10. Gymnasium/Basketball/Volleyball Courts**

<b>Description/ Usage</b>	OPTIONAL space as approved by CNIC. Consider providing a covered outdoor basketball/volleyball court. Court size must meet NCAA standards.
<b>Ceiling Ht.</b>	28 ft. (8.53 m) clear height to lowest overhead element.
<b>Finishes</b>	<p><b>Walls.</b> Provide durable wall system up to 12' (3.66 m) height, such as concrete masonry units (CMU) or concrete with heavy-duty epoxy. Above 12 ft. (3.66 m), use semi-gloss enamel.</p> <p><b>Floor.</b> Synthetic multipurpose, resilient, athletic flooring. Flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i>; however, where primary space use is basketball, minimum ball rebound must be 93%.</p> <p><b>Ceiling.</b> Exposed, painted structure.</p>
<b>Plumbing</b>	No plumbing fixtures in the gymnasium. Ensure access to nearby electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Gym, stadium (play area)" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 78 F (26 C) maximum. Provide durable air grill covers and do not place air grills in line with basketball nets. Locate ductwork to avoid trapping balls.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Provide protection for sprinkler heads, exit signs, manual pull stations, and other exposed components; minimize equipment that protrudes into activity space or safety zones near activity spaces, or install component equipment minimum 8 feet above finished floor (AFF) for safety considerations.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide power for the scoreboard; shot clocks; and a high, wall-mounted clock. Provide power requirements for other functions such as retractable backboards, divider curtain. Locate power outlets along sidelines at center court.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Metal halide or fluorescent high bay with high output lamps. Provide lighting levels for basketball in accordance with IESNA Class III adjustable up to Class II. Provide perimeter compact fluorescents multi-level switched for non-sport activities. Provide keyed light switches. Provide fixtures with wire cages or appropriate shatterproof luminaire. Do not locate fixtures directly above basketball backboards. Do not install high-pressure sodium lighting.
<b>Communication</b>	<p><b>CCTV.</b> Provide at least one outlet in each divided space.</p> <p><b>CATV/Internal Video.</b> None required, unless specified by installation.</p> <p><b>PA/Audio.</b> Provide speakers with proper spacing.</p> <p><b>Telephone.</b> Provide one line with internal two-way communication.</p> <p><b>Data.</b> Provide data outlets in recessed floor boxes routed to scoreboard, centered under the anticipated scoring table location, but outside the court boundaries.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No provisions required.

**Table F-10. Gymnasium/Basketball/Volleyball Courts**

<b>Casework/ Built-in Equipment</b>	<ul style="list-style-type: none"> <li>• Provide retractable basketball nets/backboards at two per half court or six per full court. Tournament courts only require 2 goals. Breakaway rims must be installed on all goals.</li> <li>• Provide volleyball built-in flush floor insert sleeves in each court.</li> <li>• Motor-operated, vertical-acting (roll-up), divider curtain with manual override. Ensure the motor is easily accessible for maintenance.</li> <li>• Provide an electronic scoreboard that is visible to officials, players and spectators.</li> <li>• Provide game lines on flooring for full- and half-court basketball and volleyball.</li> <li>• Provide 6-ft.- (1830-mm-) high attached safety padding with bottom edge on top of floor base on all walls that can be impacted by a player.</li> <li>• Provide one pair of 30-second timing clocks for the main court.</li> </ul>
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide volleyball stanchions, net, standard protective pads, net antenna, as required. Provide wrestling mat, exercise mat, protective floor coverings with portable rolling stand, seating, scoring table, and chairs as required by installation.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<ul style="list-style-type: none"> <li>• Interior entrance doors into the gym must have vision panels, minimum 5 square feet each, and ensure visual access from the control counter to the gym entrance. Where line of sight is not possible, CCTV monitoring of gym entrance must be provided.</li> <li>• Provide minimum 10 ft. (3.05 m) of unobstructed floor space as a safety zone between the outer edge of the playing area and any feature or obstruction. Provide minimum 12' (3.7 m) side to side and 18' (5.5 m) end to end of unobstructed floor space as a safety zone between the outer edge of the playing area and any adjacent court playing area.</li> <li>• Consider moisture control and prevention of condensation on floor surface. Consider under-floor ventilation requirements, under-slab vapor barrier, estimated dew point occurrence, local water table, and local soil conditions.</li> <li>• Provide exterior double doors with removable latch post for equipment access.</li> <li>• Mitigate glare on the play and spectator areas. Any glass panels must be a minimum of 18 ft. (5.49 m) above finished floor and .5 in. (13 mm) thick, tempered, laminated safety glass.</li> <li>• Do not locate windows, doors, or other obstructions within 7 ft. (2135 mm) of all backboard centerlines.</li> <li>• Ensure no glazing or lighting can create glare or distraction on the play areas. Also consider cross-court play. Do not use window treatments to mitigate glare.</li> </ul>
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers. Participants. Spectators.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-11. Gymnasium Storage/Support**

<b>Description/ Usage</b>	OPTIONAL space as approved by CNIC.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU or painted gypsum wall board. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> None required.
<b>Plumbing</b>	None required.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, provide 65 F (18 C) minimum, 85 F (29 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 20 ft. candles (200 Lux). Provide fixtures with wire cages or appropriate shatterproof luminaire.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> None required. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	None.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Shelving and storage cabinets as required.
<b>User-provided Equipment</b>	None.
<b>Special Req.</b>	None.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.

**Table F-12. Unit PT/Group Exercise Room**

<b>Description/ Usage</b>	This is typically one large room that is partitionable and can be used for large unit physical training or for multiple smaller classes that require only minimal equipment. Activities/classes include aerobics, martial arts, yoga, etc.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum clear to lowest overhead feature.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU. Painted, double-layer high impact gypsum board on studs is also acceptable. <b>Floor.</b> Synthetic multipurpose, resilient, athletic flooring. Flooring must meet "DIN" standards for the specified function per ACSM's <i>Health and Fitness Facility Standards and Guidelines</i> . <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	None required. Provide access to electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/aerobics room" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide power at TV mounting locations and for sound system.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) minimum at the floor. To address safety concerns, coordinate lighting design with equipment layout and ensure that equipment users, particularly those using horizontal benches, are not exposed to glare of direct/down lighting. Provide protection for all fixtures when appropriate for specific activity.
<b>Communication</b>	<b>CCTV.</b> Provide at least one outlet in each divided space. <b>CATV/Internal Video.</b> Provide outlets for monitors coordinated with their location. <b>PA/Audio.</b> Provide speakers with proper spacing. <b>Telephone.</b> Provide one line with internal two-way communication. <b>Data.</b> Provide data outlets in the walls or in recessed floor boxes. <b>Security.</b> None required.
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	Provide one acoustical operable partition. Partition must be recessed into an alcove. Provide mirrors on at least two walls at a minimum of 18 in. (450 mm) above the floor. If required, provide infrastructure and speakers for sound system for each divided space. Provide wall- or ceiling-mounted TV brackets in each divided space as required. Consider providing personal effects storage, such as cubbies, for customers in the room. Consider providing an AED.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	TVs. Provide other fitness equipment as needed: indoor cycling equipment, stair steps, exercise balls, small dumbbells, etc. If required, provide sound system with MP3 and auxiliary input capability.
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	Provide vision panel in the door, minimum 5 square feet. Design the rooms to be rectangular to allow for flexibility in use. Consider providing storage room with a direct adjacency to store items such as mats, stair steps, wall padding, and other fitness equipment as required.
<b>For use during project execution by the appropriate Service agency</b>	

**FC 4-740-02N**  
**1 May 2013**

**Table F-12. Unit PT/Group Exercise Room**

<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-13. Fitness Area**

<b>Description/ Usage</b>	This area is typically the focal point of the facility. The area is divided into four sections: stretching/warm-up/cool-down, free/plate-loaded weights, selectorized (machine) equipment, and cardiovascular equipment. The stretching/warm-up/cool-down area is open space within the larger room. It can also serve as transition areas between the other sections. The cardiovascular equipment area can be located in one or multiple areas throughout the facility. The free/plate-loaded weights area includes dumbbells, plate racks and plate-loaded equipment, and benches. The selectorized (machine) equipment consists of pin-selected weight equipment. The cardiovascular equipment consists of items such as treadmills, stationary bikes, stair climbers, etc.
<b>Ceiling Ht.</b>	12 ft. (3.66 m) minimum to the lowest element. 14 ft. (4.27 m) is preferred.
<b>Finishes</b>	<p><b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU. Provide high-impact wall guards up to 18 in. above finished floor in the free weight area.</p> <p><b>Floor.</b> In the stretching/warm-up/cool-down spaces, use either:</p> <ul style="list-style-type: none"> <li>10. Nonporous, fully adhered minimum 0.157" (4 mm) linoleum sheet goods top surface product with a recycled minimum 0.236" (6 mm) foam pad underlayment. Approximately 0.394" (10 mm) in total thickness.</li> <li>11. Nonporous, fully adhered cushioned vinyl sheet material with a polyurethane reinforced wear layer with aluminum oxide and a closed cell vinyl foam reinforced with non-woven fiberglass foam pad for dimensional stability. Approximately 0.315" (8 mm) total thickness and minimum width 6' 7" (2 m) wide to reduce side seams.</li> </ul> <p>In cardio, selectorized machine weights, and free weight areas use 0.079" (2 mm) virgin rubber top surface with a 0.30" (7.5 mm) re-cycled rubber base. Use tile only for easy replacement. Tile must be manufactured in a mould and never cut from rolls, so that placing weights on the seams during installation is not necessary. Impact and athletic flooring system cannot be accommodated by interlocking flooring tiles or movable furnishings such as mats.</p> <p><b>Ceiling.</b> Exposed, painted structure.</p>
<b>Plumbing</b>	Provide a minimum of two electric water coolers.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. For ventilation rates, use rates for "Health club/weight rooms" from ANSI/ASHRAE 62.1. Use demand controlled ventilation or heat/enthalpy recovery when cost effective. Temperature operating range is 68 F (20 C) minimum, 74 F (23 C) maximum. Provide multi-speed ceiling fans, with wall-mounted controls.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	<p>Provide outlets per Chapter 3, Electrical.</p> <p><b>Free weight area:</b> Provide outlets for wall- or ceiling-mounted television monitors.</p> <p><b>Selectorized equipment area:</b> If a fitness tracking system will be provided, coordinate equipment outlets with the specific equipment selected. Provide flush-floor outlets for commercial-grade equipment in a grid pattern sized appropriately for equipment spacing and to accommodate fitness tracking systems. Provide outlets for wall- or ceiling-mounted television monitors.</p> <p><b>Cardiovascular equipment area:</b> Coordinate equipment outlets with the specific equipment selected. Provide flush-floor outlets for commercial-grade equipment in a grid pattern sized appropriately for equipment spacing and to accommodate fitness tracking systems. Provide dedicated circuits for all treadmills. Coordinate television monitor outlet locations with CATV outlet locations and the equipment selected: If cardiovascular equipment incorporates monitors, ensure outlets are located appropriately, and provide outlets for wall- or ceiling-mounted television monitors as necessary to ensure adequate viewing angles for all equipment.</p>



**Table F-13. Fitness Area**

<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 30 ft. candles (300 Lux) uniform lighting. To address safety concerns, coordinate lighting design with equipment layout and ensure that equipment users, particularly those using horizontal benches, are not exposed to glare of direct/down lighting.
<b>Communication</b>	<p><b>CCTV.</b> Provide outlets as needed for coverage.</p> <p><b>CATV/Internal Video.</b> Provide outlets for wall or ceiling mounted television monitors throughout the fitness area. Mount at proper viewing height for cardiovascular exercise machines in that area, height as selected by fitness area designer. The quantity and location of the CATV outlets must be determined by the sports fitness facility designer and the Installation fitness program manager and must be coordinated with the equipment layout. Consider FM sound broadcast of video monitors.</p> <p><b>PA/Audio.</b> Provide PA speakers as needed. Provide a separate audio system with speakers as needed for full coverage. Consider separate volume control and separate channels for individual activity areas.</p> <p><b>Telephone.</b> None required.</p> <p><b>Data.</b> Provide data outlets in recessed floor boxes in the cardiovascular and selectorized equipment areas and entertainment systems. Data to equipment for fitness tracking is optional.</p> <p><b>Security.</b> None required.</p>
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	Provide 6 ft. (1830 mm) tall mirrors on at least two walls at a minimum of 18 in. (450 mm) above the floor. One of the two walls must be in the free weight area.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	<p>Fitness equipment must be commercial grade. Sample equipment lists for each area (cardiovascular, free weights, and selectorized) are provided in Appendix C.</p> <p>Exercise mats, wall clocks, and trash containers.</p> <p>Provide self-serve equipment cleaning supply stations throughout that include disinfectant spray bottles and disposable or reusable towels (may be user provided).</p> <p>Provide AEDs in accordance with Service guidance.</p>
<b>User-provided Equipment</b>	CCTV cameras per the outlet count.
<b>Special Req.</b>	<p>If this space is provided on the second floor, ensure that the access is sized to accommodate the fitness equipment.</p> <p>The foundation/floor in this space must be designed to accommodate all live and dead loads associated with the equipment.</p> <p>Consider storage either within the room or with a direct adjacency to store items such as mats, spare equipment, punching bags, and other sports equipment.</p> <p>If doors are provided, include vision panels, minimum 5 square feet each.</p>
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	<p>Staff.</p> <p>Customers.</p>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-14. Men's and Women's Lockers/Dressing**

<b>Description/ Usage</b>	Separate men's and women's locker/dressing rooms will be used by those participating in fitness/sports activities for changing, dressing, and securing personal effects. It is open and directly adjacent to the toilet/shower facilities. As such, moisture and humidity must be addressed in the locker/dressing rooms. Distribution of lockers for each gender are determined on a case-by-case basis.
<b>Ceiling Ht.</b>	10 ft. (3.05 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Epoxy or semi-gloss enamel painted CMU or mold-resistant gypsum wallboard. <b>Floor.</b> Non-slip porcelain tile with dark-colored epoxy grout. Slope tile to drain <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	Provide and locate floor drains as required to ensure proper drainage and no standing water on the floor (this is particularly important in facilities that include a pool). Consider providing an electric water cooler.
<b>HVAC</b>	Provide a HVAC system per Chapter 3 requirements. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side of this space (opposite the adjacent toilet/shower wet side) to the exhaust intakes in the wet area. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements for "Locker Rooms" per hour. Use heat/enthalpy recovery when cost effective. Provide multi-speed ceiling fans with wall-mounted controls. Make-up air through lockers is combination of ventilation requirements for showers and toilets.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide counter-height outlets at the vanity area. Provide power to the hair dryers identified in the built-in equipment.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers. Minimize shadowing at face of lockers.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> Consider providing CATV outlets for wall or ceiling mounts. <b>PA/Audio.</b> Provide PA speakers as needed for full coverage. Consider providing speakers for the separate audio system. Provide an emergency call/alarm. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Provide solid plastic (HDPE) or color-through phenolic lockers and benches. Lockers must be a minimum of 15-in. wide by 24-in. deep (380 mm x 455 mm). Typically provide a mix of full- and half-sized Z-shaped lockers. However, consider the location's climate when determining the ratio of half- to full-sized lockers: Colder climates will require a higher percentage (or 100%) of full-sized lockers to accommodate bulkier cold weather gear. Steel lockers are not permitted. Provide minimum 16-in. (406-mm) wide integral (usually part of the locker system) benches. Mount lockers at a level above the floor to ensure operating hardware is easily reachable. Provide a full-height wall mirror.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Consider providing a scale and a wall clock. Consider providing televisions.
<b>User-provided Equipment</b>	Consider providing a blood pressure monitor.
<b>Special Req.</b>	Provide sloped-top lockers to preclude the tops of the lockers being used for storage.

**FC 4-740-02N**  
**1 May 2013**

**Table F-14. Men's and Women's Lockers/Dressing**

For use during project execution by the appropriate Service agency	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-15. Men's and Women's Toilets**

<b>Description/ Usage</b>	Separate men's and women's toilet facilities are open and directly adjacent to the corresponding gender's locker/dressing and shower areas.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Ceramic tile wainscot with dark-colored epoxy grout on cementitious backer units at wet walls/fixture areas. Epoxy or semi-gloss painted, mold-resistant gypsum wallboard elsewhere. <b>Floor.</b> Non-slip porcelain tile with dark-colored epoxy grout. Slope tile to drain. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	Provide lavatories, urinals and water closets in quantities as appropriate for participant count and features included (multiple basketball courts, etc). <b>Navy</b> prefers floor-mounted urinals. Provide proper drainage (i.e., floor drains and/or perimeter trench drains).
<b>HVAC</b>	Provide system per Chapter 3, HVAC. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (toilet/shower) area. Provide exhaust in accordance with ANSI/ASHRAE 62.1 requirements for "Locker Rooms".
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide GFCI outlets at lavatory at counter height.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Lighting fixtures must have translucent, damp location, nonbreakable, protective covers with shatterproof lens. Provide lighting directly over lavatories and grooming counters and minimize reflection glare in the mirrors in the overall lighting design.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Solid-surface countertop supported at both ends and with the front edge supported by galvanized angle reinforcing. The sink may be either undermount or integral with the counter. Solid plastic (HDPE) or color-through phenolic toilet and urinal partitions secured at floor and ceiling. Toilet accessories: toilet paper dispensers, paper towel dispenser, trash receptacle, robe and towel hooks, grab bars, feminine hygiene receptacles in women's water closets, seat cover dispensers, and soap dispensers at lavatories. Provide wall-mounted shelves and full-width mirror at the lavatories. Provide a full-length mirror.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Design entrances to prevent direct views into this area.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-16. Men's and Women's Showers.**

<b>Description/ Usage</b>	These separate male and female areas are directly adjacent to (and may be open to) the corresponding gender's locker/dressing and toilet areas and include private shower stalls. If the facility includes a pool, the pool entry/exit must be adjacent to this area. Shower compartment construction options include constructed separation walls, field-assembled pre-manufactured shower partitions and pre-manufactured solid surface shower compartments.
<b>Ceiling Ht.</b>	9 ft. (2.74 m) minimum.
<b>Finishes</b>	<b>Walls.</b> Full height ceramic tile with dark-colored epoxy grout on cementitious backer units. <b>Floor.</b> Non-slip porcelain tile with dark-colored epoxy grout. Slope tile to drain. <b>Ceiling.</b> Exposed painted structure.
<b>Plumbing</b>	Provide minimum 36-in.- (915-mm-) wide private shower stalls for men and women. Provide a minimum of one floor drain at each shower stall and additional drains as needed to ensure proper drainage.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. In addition, provide 70 F (21 C) minimum, 78 F (26 C) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (shower) area. If constructed separation walls are used from floor to ceiling, locate stainless steel exhaust outlets in the ceiling of each space. If gang showers and partitioned showers, locate exhaust outlets in high and low locations within the room but outside of shower area – pull 2/3 of air from high location and 1/3 from low location.
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety.
<b>Power</b>	Provide outlets per Chapter 3, Electrical.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 10 ft. candles (100 Lux) of general ambient lighting. Provide recessed fixtures with sealed lenses, rated for wet applications.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide a speaker. Provide an emergency call/alarm. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No special provisions required.
<b>Casework/ Built-in Equipment</b>	Solid plastic (HDPE) or Color-Through Phenolic shower partitions secured at floor and ceiling. Consider permanent walls between showers; see Finishes for wall finish. If the facility includes a pool, provide swim mats or tiles that are textured, anti-slip, self-draining and raise the walking surface above standing water.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	
<b>User-provided Equipment</b>	
<b>Special Req.</b>	Design the space such as to not allow direct views from the public areas into the shower room areas.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	Staff. Customers.
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

**Table F-17. Laundry.**

<b>Description/ Usage</b>	The laundry accommodates cleaning and drying of towels and uniforms. Some Installations contract out towel laundry; however, there is still a requirement to provide laundry for uniforms. Locate adjacent to the control counter. It is preferred that the location be on an outside wall.
<b>Ceiling Ht.</b>	2.74 m (9 ft.) minimum.
<b>Finishes</b>	<b>Walls.</b> Utilize a durable and scrubbable eggshell or satin finish, whichever has higher gloss, for painted CMU or mold-resistant gypsum wallboard. Consider the impacts from carts and the movement of equipment—provide durable finishes, rub rails, and metal/high-impact plastic corner guards. <b>Floor.</b> Sealed concrete. <b>Ceiling.</b> None or epoxy painted mold-resistant gypsum wallboard.
<b>Plumbing</b>	Provide hot and cold water and drain connections to each washer (or washer extractor) and one laundry sink. Provide floor drains. Provide connections to an ice machine and utility sink, if provided and provide a separate floor drain.
<b>HVAC</b>	Provide a system per Chapter 3, HVAC. Provide ventilation in accordance with ANSI/ASHRAE 62.1 requirements for “Laundry Rooms, Central” per hour. Provide separate vents to the outside for the dryers (or tumblers).
<b>Fire Protection</b>	Provide system per Chapter 3, Fire Protection and Life Safety. Note requirement for one-hour rated construction and 45-minute-rated door with self closer.
<b>Power</b>	Provide outlets per Chapter 3, Electrical. Provide a dedicated circuit for each washer (or washer extractor) and for each dryer (or dryer tumbler). If hard-wired (non-plug connected), provide wall-mounted safety disconnect switch within sight of the equipment it controls.
<b>Lighting</b>	Provide system per Chapter 3, Electrical. Provide 50 ft. candles (500 Lux) of general ambient lighting.
<b>Communication</b>	<b>CCTV.</b> None required. <b>CATV/Internal Video.</b> None required. <b>PA/Audio.</b> Provide one speaker. <b>Telephone.</b> None required. <b>Data.</b> None required. <b>Security.</b> None required.
<b>Acoustics</b>	No provisions required.
<b>Casework/ Built-in Equipment</b>	Large, high capacity commercial washers and dryers.
<b>Furnishings Fixtures &amp; Equip. (FF&amp;E)</b>	Provide storage shelves for laundry supplies. Laundry carts.
<b>User-provided Equipment</b>	None.
<b>Special Req.</b>	Provide easy access to rear of dryers (or tumblers) to allow maintenance and cleaning of vents (see HVAC). Provide space for storage of laundry carts. Coordinate door openings and dimensions with room layout and equipment sizes, e.g., laundry carts, washers/extractors, dryers/tumblers, and ice machines.
<b>For use during project execution by the appropriate Service agency</b>	
<b>Occupancy</b>	<b>Staff.</b>
<b>Min. net m<sup>2</sup> (ft<sup>2</sup>)</b>	

## **CHAPTER 5 MULTIPURPOSE FIELD**

### **5-1 INTRODUCTION AND PLANNING ISSUES.**

Add the following:

The requirements for the multipurpose field in an austere environment are not addressed in this appendix however need to be considered and dealt with appropriately.

End of Appendix F