

Facility Design and Planning

AIR FORCE DESIGN MANUAL, DEFINITIVE DESIGNS OF AIR FORCE STRUCTURES

AFM 88-2, 1 April 1969, is changed as follows:

**1. Purpose and Explanation of Change.** This change is issued to clarify certain policy on the development of new and revised drawings; to remove 93 obsolete drawings from the manual; and to add 5 new and revised drawings.

**2. Page Change.** New material is indicated by ★.

<i>Remove</i>	<i>Date</i>	<i>Insert</i>
1 thru 6	1 July 1975	1 thru 4/6

**3. Definitive Drawing Changes:**

a. Remove Definitive Drawings:

AD 14-13-01	Golf Course Club House
AD 14-28-03	Bowling Alleys
AD 16-06-281R1	Ammo Storage, Site Layout (Joint/SAC ADC Type)
AD 16-06-325	Alert Aircraft Shelter Area—Security Lighting
AD 21-01-149R1	A/C Exist Dorm (AD 21-01-110 & AD 21-02-04)
AD 21-01-150R1	A/C Exist Dorm (AD 21-01-111)
AD 26-03-27	Navigational Aids Bldg
AD 26-03-92	Liquid Oxygen Bulk Storage
AD 26-04-01	Fluoridation Facilities
AD 27-02-33	Confinement Facility—12 Men
AD 27-02-34	Confinement Facility—15 Men
AD 27-02-35	Confinement Facility—20 Men
AD 27-02-36	Confinement Facility—32 Men
AD 27-02-37	Confinement Facility—57 Men
AD 27-04-10	Gate House
AD 27-05-05	Control & Identification Bldg, Types A & B
AD 28-13-102R1	Flight Simulator Bldg—Fighter Aircraft
AD 28-13-103R1	Flight Simulator Bldg—Bomber & Cargo Aircraft
AD 28-16-18R1	Special Weapons Trng Fac
AD 28-16-19	Flight Training Basic
AD 28-19-01	Mobile Training Detachment Bldg
AD 29-04-33	Library Buildings
AD 30-01-59	Base Supply Admin
AD 30-07-18	Operations Bldg—Base
AD 31-06-18	Gymnasium—4001 to 5000 Men
AD 31-06-22	Gymnasium—11,000 SF
AD 31-06-23	Gymnasium—21,000 SF
AD 31-18-39	Service Club—501 to 1000 Airmen

AD 31-18-41	Service Club—1001 to 2000 Airmen
AD 31-18-42	Service Club—2001 to 4000 Airmen
AD 31-18-43	Service Club—4001 to 5000 Airmen
AD 33-02-89R1	Shed Storage
AD 33-02-95	Warehouse, Base, Type A thru E
AD 33-02-97	Warehouse, Base Type F thru I
AD 33-03-18R1	Ammo Storage, Segregated Magazine
AD 33-03-22	Ammo Storage, Inert Spares
AD 33-04-36	Cold Storage, Base
AD 33-13-17	Magazine, Above Ground
AD 33-15-11R2	Igloo Storage, Concrete
AD 33-15-67R2	Igloo Storage, Steel Arch
AD 33-15-68R2	Igloo Storage, Steel Arch
AD 33-15-70R1	Igloo Storage, Steel Arch
AD 33-39-03R1	Rocket Storage Check Out & Assembly Bldg
AD 35-01-31	Shop, A/C Maint, Multi-Function
AD 35-01-36	Shop Field Maint Gen. Purpose
AD 35-01-38	Shops, A/C Maint, Organizational
AD 35-02-44	Auto Maint Shop
AD 35-02-53R4	Auto Maint Shop
AD 35-02-54	Auto Maint Shop & Motor Pool Admin
AD 35-02-56	Auto Maint Shop & Motor Pool Admin
AD 35-02-57	Auto Maint Shop & Motor Pool Admin
AD 35-02-58	Auto Maint Shop & Motor Pool Admin
AD 35-02-62	Auto Shop
AD 35-23-07R1	Ammo Maint Shop
AD 35-32-03	Power Bldg 400/650 KW Units
AD 35-46-05	Instr Land System
AD 35-48-05	Rawinsonde, Weather Facility
AD 35-50-03	Weather Observation Station
AD 35-60-09R1	Armanent & Elec Shop, Type A & B
AD 35-60-10	Armanent & Elec Shop
AD 35-60-35	Armanent & Elec Shop (For F 105 A/C)
AD 35-69-07	Assembly & Checkout Bldg
AD 35-77-03	Maint Shop
AD 35-79-03R1	Engine Insp & Repair Shop
AD 36-10-09	Auto Maint Garage, Heated
AD 36-30-09	Fire Stations
AD 36-33-11	Parachute & Dinghy Shop
AD 36-48-04	Education Center
AD 38-04-22	Comm Bldg, Base, Type A&B
AD 38-04-23	Comm Bldg Base, Type C&D
AD 38-04-24	Tropospheric Scatter
AD 38-12-10	Transmitter-Receiver Bldg Types A thru D
AD 38-12-15	Transmitter-Receiver Bldg, Types A&B
AD 38-12-24	Transmitter—Receiver Bldg

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AD 39-01-13	Dock, Large Aircraft
AD 39-01-65R1	Hanger, A/C Maint
AD 39-01-82R1	Hanger, Maint, Field
AD 39-01-83R1	A/C Corrosion Control Covered
AD 39-01-84	Aircraft Shelter, Inclosed & Open
AD 39-01-86	Shelter, Aircraft Weapons Calibration (Open)
AD 39-01-87	Shelter, Aircraft Weapons Calibration (Closed)
AD 39-05-12	Dock Large Aircraft
AD 39-05-14	Dock Small Aircraft
AD 40-24-01	Aircraft Barrier
AD 84-06-05	Range, Sml Arms, Indoor (10 & 20 Position)
AD 39-05-14	Dock Small Aircraft
AD 40-24-01	Aircraft Barrier
AD 84-06-05	Range, Sml Arms, Indoor (10 & 20 Position)
AD 84-12-01R1	Target Intelligence Bldg
AD 86-08-09	Radar Approach Control Facility Bldg
AD 86-16-17	VHF OMNI-Range, AN/FRN-12A
AD 86-16-21	Class "B" VOR (TVOR)
AD 86-16-23	Nav Aids Bldg—Type 00
AD 86-19-01R3	Deflector, Jet Blast
AD 86-21-01R1	Pad Power Check

## B. Insert new or revised drawings in numerical order after Part I:

	Number of Sheets.
AD 14-13-01R1, Golf Course Clubhouse	4
AD 14-28-03R1, Bowling Centers	3
AD 30-01-62, Family Housing Management Office	1
AD 31-06-22R1, Gymnasiums	4
AD 35-02-62R1, Automotive Hobby Shops	2
Total	14

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

DAVID C. JONES, General, USAF  
Chief of StaffJAMES J. SHEPARD, Colonel, USAF  
Director of Administration

**Facility Design and Planning**  
**AIR FORCE DESIGN MANUAL, DEFINITIVE DESIGNS OF AIR FORCE STRUCTURES**

This manual contains architectural definitive drawings that are used as guides in planning, programming, and designing Air Force, Air Force Reserve, and Air National Guard structures. It also describes responsibilities and procedures for developing new and revised definitive drawings and provides guidance on the use of the drawings in construction programs. The manual implements applicable portions of DOD Construction Criteria Manual, 4270.1M, and OASD (I&H) letter, Definitive Designs, Air Force Reserve, 9 January 1974.

	<i>Paragraph</i>	<i>Page</i>
The Definitive Drawing System .....	1	1
Benefits of the System .....	2	1
Nature of the Drawings .....	3	1
Policy on Developing New and Revised Definitive Drawings .....	4	1
Use of Drawings in Construction Programs .....	5	1
Responsibility of the Director of Engineering and Services HQ USAF/PRE	6	2
Responsibilities for Developing New and Revised Definitive Drawings ....	7	2
Other Organizations Participating in the Development of Definitive Drawings .....	8	2
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AF Definitive Drawings		

**1. The Definitive Drawing System:**

a. The system is established to insure that Air Force, Air Force Reserve, and Air National Guard designs of standard facilities are based on efficient space and functional relationships and economical standardization. The concept also supports the facility requirements system (AFM 86-2, Standard Facility Requirements) and the criteria outlined in AFM 88-15, Air Force Design Manual, Criteria and Standards of Air Force Construction.

b. Under an extension of the system, the Air Force collaborates with the Army and Navy in developing the definitive drawings published in AFR 88-33, Planning and Design of Outdoor Sports Facilities.

**★2. Benefits of the System.** The benefits of the system extend to facility planning, programming, construction, and operation. For example, the system:

- a. Establishes continuity in design standards and policy.
- b. Expedites the construction planning and programming process by providing, in the form of definitive drawings, immediately usable HQ USAF-approved design guidance.
- c. Facilitates the development of standard working drawings that are beneficially used to develop duplicate facilities at various locations.
- d. Promotes the development of standard buildings which simplify the management of functional operations and the development of programs to upgrade existing facilities.
- e. Improves functional managers' understanding of their total operation. This is a product of the interdisciplinary collaboration required by the architectural design process.

**★3. Nature of the Drawings:**

a. The drawings in Parts I and II are the product of close collaboration among functional and operational criteria experts, staff architects and engineers, and architect-engineer contractors who develop the final drawings. The drawings in Part II (Air National Guard and Air Force Reserve) are also reviewed and approved by representatives of OSD. The drawings, therefore, constitute HQ USAF's formal recommendation on facility design.

b. The design criteria (space and functional requirements, equipment schedules, building specifications, and so forth) used in developing the drawings were those in effect at the time the drawings were originally developed or updated. As a result, not all drawings are fully up-to-date. However, those retained are generally compatible with current operating concepts. Drawings are removed from this manual when they become obsolete or represent obsolete facility requirements.

c. Gross areas indicated on the drawings are measured to the outside of enclosure walls. The computations:

(1) Include full area for: basements; above grade floors; mezzanines; service and equipment rooms; boiler plant and heating rooms; penthouses; enclosed passages and walks (see exceptions (3) (b) below), porches, balconies and stairs; and raised covered loading platforms.

(2) Include half area for: covered (but not enclosed) passages (see exception (3) (b) below), porches, balconies and stairs; uncovered raised loading platforms; covered or uncovered ground level or depressed (below grade) loading facilities.

(3) Exclude areas for: (a) exterior uncovered ramps, stairs, stoops, or paved terraces; (b) covered or enclosed passages and walks for officers quarters and dormitories; (c) all enclosed space having an average ceiling height of less than 7 feet.

**★4. Policy on Developing New and Revised Definitive Drawings.** The definitive drawing system was established to develop and maintain up-to-date definitive drawings for all standard facilities that represent a continuing substantial construction expenditure. Therefore, definitives will not be developed for one-time, or short-term, facility requirements. Instead, an initial design will be developed for one project and then site adapted for all other requirements.

**5. Use of Drawings in Construction Programs:**

a. Definitive drawings are to be used as the basis for design of all facility construction projects to which they apply. If siting and other conditions permit, the project design should duplicate the definitive drawing; if modifications are necessary, they should be minimal. If the site or other conditions make it necessary to rearrange the building components extensively, the resulting new design should reflect full recognition of the design concepts of the definitive drawings (for example, in space allocation, functional interrelationship, circulation, engineering and structural criteria, and so forth).

b. The project designer should consult AFM 86-2 for guidance on the latest approved space allowances for standard facilities and for other space criteria affecting design. If there are minor differences between the definitive drawing scopes and the guidance in AFM 86-2, the acceptability of using the definitive scope should be explored under the programming constraints given in AFM 86-1. Also, the equipment lists shown on the definitive drawings should be compared against the latest Tables of Allowance and Equipment. Finally, the construction criteria indicated on the drawings should be compared with those in AFM 88-15.

Supersedes AFM 88-2, 26 June 1961.

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c. When an existing building is to be modified or expanded to improve functional capability, the project designer should incorporate the major design features of the pertinent definitive drawing to the extent permitted by economy of construction and the existing building configuration.

d. ANG/USAFR may use the definitive drawings under Part I when there is no pertinent definitive drawing under Part II and the criteria in AFM 86-2 for ANG/USAFR facility requirements permit the use of the standard facility requirements criteria.

**6. Responsibility of the Director of Engineering and Services, HQ USAF/PRE.** The Director is responsible for managing the definitive drawing system. To accomplish this:

a. The Engineering Division (HQ USAF/PREE):

(1) Establishes policies, guidance, responsibilities, and procedures relative to the operation of the system.

(2) Determines facility types for which definitive drawings will be developed.

(3) Develops necessary additions and changes to AFM 88-2.

(4) Budgets for and acquires A-E contractual services to develop new and revised definitive drawings (excluding ANG/USAFR drawings) and manages current contracts.

(5) Provides consultant services to facility OPRs and to A-E contractors.

(6) Monitors changes in the nature of facility requirements (AFM 86-2) and construction programs to identify the possible need for action by facility OPRs to develop new and revised drawings.

(7) Reviews and approves all definitive drawings for technical adequacy.

b. The Programs Division (HQ USAF/PREP) processes new and revised definitive drawings developed under ANG/USAFR collaboration to obtain necessary approvals by Offices of the Secretaries of the Air Force and Defense and to obtain technical review and publication action by HQ USAF/PREE.

**★7. Responsibilities for Developing New and Revised Definitive Drawings:**

a. HQ USAF. Each OPR for facility requirements listed in AFM 86-2, Chapter 1 will:

(1) Periodically review all definitive drawings in the OPR's area to identify those that should be removed because of obsolescence in design or facility requirement.

(2) Identify facility development and acquisition programs involving repetitive construction in which up-to-date definitive drawings will provide a major and necessary instrument for expediting facility acquisition and achieving desired facility standards. (When these programs involve requirements or space criteria not currently recognized by AFM 86-2, the OPR should initiate corrective action under AFM 86-2 instructions.)

(3) Initiate a detailed investigation of all factors and operational concepts influencing facility design and submit a formal request to HQ USAF/PREE to develop definitive drawings. Include appropriate justification.

(4) Following notification that the design is to be included in an A-E contract, appoint a project officer to collaborate with HQ USAF/PREE architects in developing all the information on design, functional, and operational criteria needed for architectural design purposes.

b. Major Commands. Command HQ offices collaborate with their counterpart OPRs at HQ USAF to determine the need for definitive drawings to support facility development programs peculiar to their operational mission. They advise the HQ USAF OPRs of these needs and assist in the development of design criteria.

**8. Other Organizations Participating in the Development of Definitive Drawings.** Chief, National Guard Bureau, and Chief of Air Force Reserve collaborate in developing new and revised definitive drawings for air reserve missions and submit them to HQ USAF/PREP for processing as described above in paragraph 6b.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

J. P. McCONNEL, General USAF  
Chief of Staff

JOHN F. RASH, Colonel, USAF  
Director of Administration

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Chief of Engineers Ballistic Missile Construction Office Box 4187, Norton AFB CA 92409 .....	6
Office of the Chief of Engineers, Dept of the Army, ATTN: ENGMAC-EA, Wash DC 20315 .....	25
Division Engineer, U.S. Army Engineer Division Missouri River, Box 1216, Omaha NB 68101 .....	200
Division Engineer, U.S. Army Engineer Division, North Atlantic, 90 Church Street, New York NY 10007 .....	250
Division Engineer, U.S. Army Engineer Division, Mediterranean, APO 19, New York NY 09010 .....	200
Division Engineer, U.S. Army Engineer Division, New England, 424 Trapelo Road, Waltham MA 02154 .....	50
Division Engineer, U.S. Army Engineer Division, North Central, 536 South Clark Street, Chicago, IL 60605 ...	250
Division Engineer, U.S. Army Engineer Division, North Pacific, 210 Custom House, Portland OR 97209 .....	250
Division Engineer, U.S. Army Engineer Division, Ohio River, P.O. Box 1159, Cincinnati OH 45201 .....	250
Division Engineer, U.S. Army Engineer Division, Pacific Ocean, Bldg 96, Fort Armstrong, Honolulu HI 96813 ..	100
Division Engineer, U.S. Army Engineer Division, South Atlantic, P.O. Box 1889, Atlanta GA 30301 .....	450
Division Engineer, U.S. Army Engineer Division, South Pacific, 630 Sansome Street, San Francisco CA 94111 .	250
Division Engineer, U.S. Army Engineer Division, South- western, 1114 Commerce Street, Dallas TX 75202 .....	250
Naval Facilities Engineering Command, Department of the Navy, ATTN: 0531, Wash DC 20390 .....	25
Commanding Officer, U.S. Naval Supply Depot, Code DM-1, 5801 Tabor Ave., M/F: Distribution List NPPS 28, Philadelphia PA 19120 .....	110
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## PART I—LIST OF DEFINITIVE DRAWINGS FOR STANDARD FACILITIES

## SECTION A—DRAWINGS LISTED BY FACILITY GROUPS

NOTE: The facility groups are established by ADE RE-008, AFM 300-4, vol IV (facility category code system). The group headings also correspond to chapter headings in AFM 86-2, Standard Facility Requirements.

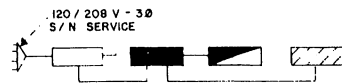
<i>Facility</i>	<i>Def Dwg Number</i>	<i>Facility</i>	<i>Def Dwg Number</i>
<b>1. Airfield Pavements</b>		<b>9. Troop Housing</b>	
Washracks, Aircraft	AD 36-40-12R2	A/C Exist Dorm (OCE Dwg 21-01-102)	AD 21-01-148R2
<b>2. Petroleum Dispensing and Operating Facilities</b>		A/C Exist OQ (Def Dwg 25-06-24)	AD 25-06-78R2
POL Operations	AD 30-05-04R2	Enlisted Dining Facility—500 Man Camp	AD 36-05-119
<b>3. Communications, Navigational Aids, Air Traffic Control, and Airfield Lighting</b>		Enlisted Dining Facility—1000 Man Camp	AD 36-05-120
Comm Bldg, Base, Type A&B	AD 38-04-22	Enlisted Dining Facility—1500 Man Camp	AD 36-05-121
Comm Bldg, Base, Type C&D	AD 38-04-23	Officers Quarters—Central Corridor	AD 25-06-83
GCA/RAPCON Support Bldg	AD 86-16-25	Officers Quarters—Open Balcony	AD 25-06-84
Mobile TACAN, AN/TRN-6	AD 86-16-15	<b>10. Personnel Support and Service Facilities</b>	
Transmitter-Receiver Bldg	AD 38-12-24	Canine Kennels	AD 39-19-01R4
Transmitter-Receiver Bldg, Types A&B	AD 38-12-15	Central Security Control	AD 27-04-08R1
Transmitter-Receiver Bldg, Types A thru D	AD 38-12-10	Security Entry Control Bldg (1,389 sq ft)	AD 27-04-05R3
Tropospheric Scatter	AD 38-04-24	Security Entry Control Bldg (737 sq ft)	AD 27-04-11R1
<b>4. Land Operational Facilities</b>		Security Policy Operations	AD 30-02-59R1
Control Tower	AD 86-06-11	<b>11. Religious, Welfare and Recreational-Indoor</b>	
Squad Operations—Type A	AD 30-10-21	Arts and Crafts Shop	AD 31-21-12
Squad Operations—Type B	AD 30-10-22	* Automotive Hobby Shops	AD 35-02-62R1
Squad Operations—Type C	AD 30-10-23	Banking Facilities	AD 36-18-06
Squad Operations—F-111 Overseas	AD 30-10-38	Base Package Store	AD 36-55-01
<b>5. Training Facilities</b>		* Bowling Centers	AD 14-28-03R1
Sml Arms Range (High Power Rifle 50 Positions)	AD 84-01-08R2	Chapel	AD 38-01-67
Sml Arms Range, Rifle (100 Positions)	AD 84-01-07R2	Chapel Center	AD 38-01-68
Sml Arms System Range, Pistol (100 Positions)	AD 84-06-06R2	Child Care Center	AD 36-54-01
<b>6. Maintenance Facilities</b>		* Family Housing Management Office	AD 30-01-62
Aero Space Ground Equip Maint Fac	AD 35-32-05R1	* Gymnasiums	AD 31-06-22R1
Maint Dock, Fuel System, Sml Aircraft	AD 39-05-15R1	Officers/NCO Club	AD 31-02-50
Hangar, Maint Field, C-5A Aircraft	AD 39-01-89	Post Office	AD 36-08-31
1000" Firing-in Butt, Types A & B	AD 86-14-04R1	Theater—350 Seat	AD 31-01-153
Laboratory Precision Measurement Equip	AD 35-06-01R3	Theater—500 Seat	AD 31-01-154
Shot Ordnance Equip	AD 35-35-08	Theater—750 Seat	AD 31-01-155
<b>7. Explosives Storage</b>		Theater—1000 Seat	AD 31-01-156
Igloo Storage, Steel Arch (ADC Types)	AD 33-15-69R2	Youth Center	AD 31-24-10
Igloo Storage, Steel Arch (Combat Zone Type)	AD 33-15-72	<b>12. Welfare and Recreational-Outdoor</b>	
<b>8. Administrative Facilities</b>		* Golf Course Clubhouse	AD 14-13-01R1
Combined Base Personnel Office	AD 30-01-61	Swim Pool-Indoor-25 Meter	AD 14-27-11
Data Automation Facility—"A" Configuration	AD 30-15-01	Swim Pool-Outdoor (8 Lane-25 meter) & Bathhouse	AD 31-10-23
Data Automation Facility—"B" Configuration	AD 30-15-02	Swim Pool-Outdoor (6 Lane-50 meter) & Bathhouse	AD 31-10-24
Judge Advocate Facilities	AD 30-16-03	Swim Pool-Outdoor (10 Lane-50 Meter) & Bathhouse	AD 31-10-25
Fallout Shelter	AD 60-04-10R2	<b>13. Electricity</b>	
		Ammo Storage Area—Security Lighting	AD 16-06-326
		Ammo Storage Area (SAC)—Security Lighting	AD 16-06-327
		Elec Emergency Power Bldg	AD 26-03-26
		<b>14. Heat, Sewage and Waste, and Water</b>	
		Oil Separators	AD 71-07-18
		<b>15. ANG/USAFR Facilities</b>	
		See Part II.	
		*New Definitives, this change 3.	

## SECTION B—DRAWINGS LISTED IN NUMERICAL ORDER

<i>Drawing No.</i>	<i>Facility</i>
<b>AD 14</b>	
* AD 14-13-01R1	Golf Course Club House
AD 14-27-11	Swim Pool-Indoor-25 Meter
* AD 14-28-03R1	Bowling Centers
<b>AD 16</b>	
AD 16-06-326	Ammo Storage Area—Security Lighting
AD 16-06-327	Ammo Storage Area (SAC)—Security Lighting
<b>AD 21</b>	
AD 21-01-148R2	A/C Exist Dorm (OCE Dwg 21-01-102)
<b>AD 25</b>	
AD 25-06-78R2	A/C Exist OQ (Def Dwg 25-06-24)
AD 25-06-83	Officers Quarters—Central Corridor
AD 25-06-84	Officers Quarters—Open Balcony
<b>AD 26</b>	
AD 26-03-26	Elec Emergency Power Bldg
<b>AD 27</b>	
AD 27-04-05R3	Security Entry Control Bldg (1389 Sq Ft)
AD 27-04-08R1	Central Security Control (787 Sq Ft)
AD 27-04-11R1	Security Entry Control Bldg
<b>AD 30</b>	
AD 30-01-61	Combined Base Personnel Office
* AD 30-01-62	Family Housing Management Office
AD 30-02-59R1	Security Police Operations
AD 30-05-04R2	POL Operations
AD 30-10-21	Squad Operations—Type A
AD 30-10-22	Squad Operations—Type B
AD 30-10-23	Squad Operations—Type C
AD 30-10-38	Squad Operations—F111 Overseas
AD 30-15-01	Data Automation Facility—"A" Configuration
AD 30-15-02	Data Automation Facility—"B" Configuration
AD 30-16-03	Judge Advocate Facilities
<b>AD 31</b>	
AD 31-01-153	Theater—350 Seat
AD 31-01-154	Theater—500 Seat
AD 31-01-155	Theater—750 Seat
AD 31-01-156	Theater—1000 Seat
AD 31-02-50	Officers/NCO Club
* AD 31-06-22R1	Gymnasiums
AD 31-10-23	Swim Pool—Outdoor (8 Lane-25 Meter) and Bath House
AD 31-10-24	Swim Pool—Outdoor (6 Lane-50 Meter) and Bath House
AD 31-10-25	Swim Pool—Outdoor (10 Lane-50 Meter) and Bath House
AD 31-21-12	Arts & Crafts Shop
AD 31-24-10	Youth Center
<b>AD 33</b>	
AD 33-15-69R2	Igloo Storage, Steel Arch (ADC Type)
AD 33-15-72	Igloo Storage, Steel Arch (Combat Zone Type)

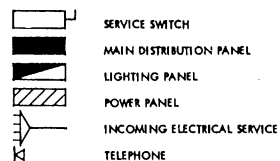
<i>Drawing No.</i>	<i>Facility</i>
<b>AD 35</b>	
* AD 35-02-62R1	Automotive Hobby Shops
AD 35-06-01R3	Laboratory, Precision Measurement Equip
AD 35-32-05R1	Aerospace Ground Equip Maint Fac
AD 35-35-08	Shop Ordnance Equip
<b>AD 36</b>	
AD 36-05-119	Enlisted Dining Facility—500 Man Camp
AD 36-05-120	Enlisted Dining Facility—1000 Man Camp
AD 36-05-121	Enlisted Dining Facility—1500 Man Camp
AD 36-07-26	Commissary Store
AD 36-08-31	Post Office
AD 36-18-06	Banking Facilities
AD 36-40-12R2	Washracks, Aircraft
AD 36-54-01	Child Care Center
AD 36-55-01	Base Package Store
<b>AD 38</b>	
AD 38-01-67	Chapel
AD 38-01-68	Chapel Center
AD 28-04-22	Comm Bldg, Base, Type A&B
AD 38-04-23	Comm Bldg Base, Type C&D
AD 38-04-24	Tropospheric Scatter
AD 38-12-10	Transmitter/Receiver Bldg Types A thru D
AD 38-12-15	Transmitter-Receiver Bldg, Types A&B
AD 38-12-24	Transmitter-Receiver Bldg
<b>AD 39</b>	
AD 39-01-89	Hanger, Maint Field, C-5A Aircraft
AD 39-05-15R1	Maint Dock, Fuel System, Sml Aircraft
AD 39-19-01R4	Canine Kennels
<b>AD 60</b>	
AD 60-04-10R2	Fallout Shelter
<b>AD 71</b>	
AD 71-07-18	Oil Separators
<b>AD 84</b>	
AD 84-01-07R2	Sml Arms Range, Rifle (100 Positions)
AD 84-01-08R2	Sml Arms Range, (High Power Rifle, 50 Positions)
AD 84-06-06R2	Sml Arms System Range Pistol (100 Position)
<b>AD 86</b>	
AD 86-06-11	Control Tower
AD 86-14-04R1	1000" Firing-in-Butt, Types A & B
AD 86-16-15	Mobile Tacan, AN/TRN-6
AD 86-16-25	GCA/RAPCON Support Bldg

\*New Definitives, this change 3.

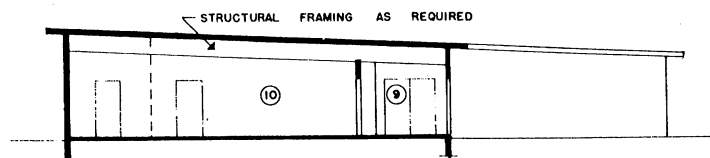
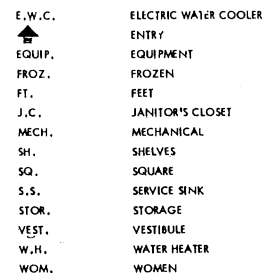


**ELECTRICAL RISER DIAGRAM**  
NO SCALE

**ELECTRICAL LEGEND**



**LEGEND**



**SECTION "A"-A**  
SCALE: 1/8" = 1'-0"

**ELECTRICAL**

LIGHTING LEVELS SHALL BE IN ACCORDANCE WITH AFM 88-15 FOR EACH AREA SERVED. CONVENIENCE OUTLETS FOR CONVENTIONAL USE IN OFFICE OR SIMILAR AREAS TO BE IN ACCORDANCE WITH N.E.C.

CONVENIENCE OUTLETS IN OTHER AREAS TO BE LOCATED BY USING AGENCY. ELECTRICAL PANELS WILL BE LOCATED AS INDICATED. OUTLETS FOR EQUIPMENT WILL BE LOCATED BY THE DESIGN AGENCY IN ACCORDANCE WITH THE EQUIPMENT POSITIONS. PROVIDE DISCONNECT DEVICES IN ACCORDANCE WITH THE N.E.C. SECTION 422-20 THRU 430-113.

PROVIDE EMERGENCY LIGHTING SYSTEM IN ACCORDANCE WITH AFM 88-15 AND N.F.P.A. BUILDING EXITS CODE NO. 101.

PROVIDE FIRE ALARM SYSTEM IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

PROVIDE PUBLIC ADDRESS SYSTEM AS REQUIRED BY USING AGENCY.

PROVIDE POWER OUTLETS AS REQUIRED FOR ALL PORTABLE EQUIPMENT.

PROVIDE STANDBY ELECTRICAL POWER IN ACCORDANCE WITH AFR 91-4 AS REQUIRED.

**MECHANICAL**

HEATING, AIR CONDITIONING, EVAPORATIVE COOLING AND MECHANICAL VENTILATION SHALL BE IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

WHEN A COMPLETE MECHANICAL EQUIPMENT ROOM IS NOT REQUIRED, THE SURPLUS SPACE MAY BE ABSORBED BY OTHER FUNCTIONS OF THE FACILITY.

**PLUMBING**

PLUMBING WILL BE IN ACCORDANCE WITH AFM 88-8, CHAPTER 4 AND AFM 88-15.

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

**GENERAL NOTE**

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

**UTILITY REQUIREMENTS**

ELECTRICITY (KW)	REFRIG.	LIGHTING	POWER	TOTAL
CONNECTED LOAD	25 KW	23.1 KW	33 KW	81.1 KW
ESTIMATED DEMAND	25 KW	21.9 KW	29.7 KW	76.6 KW
WATER (GPM)				
HOT	21			
COLD	81			
TOTAL				
TOTAL	9,750 (GPD)			
SEWAGE	6,500 (GPD)			

**HEATING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE	0° F
M/BTU/HR	336.0

**AIR CONDITIONING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE	95° DB & 78° WB
TONS OF REFRIGERATION	25

**AREA FOR PROGRAMMING GROSS AREA**

6,600 SQ. FT.

**DESIGN GUIDES**

**ARCHITECTURAL**

THE SECTION INDICATED IN THIS DEFINITIVE DRAWING IS NOT INTENDED TO ESTABLISH AN ARCHITECTURAL DESIGN TREATMENT NOR USE OF SPECIFIC MATERIALS. CAREFUL USE OF MATERIALS AND COLOR CAN ENHANCE THE APPEARANCE OF THIS FACILITY WITHOUT INVOLVING ADDITIONAL COST. IT IS NOT INTENDED THAT EXTREME DESIGN OR UNTRIED MATERIALS BE INCORPORATED. MATERIALS USED WILL BE IN ACCORDANCE WITH APPLICABLE CRITERIA FOR THIS FACILITY.

CONSIDERATION SHALL BE GIVEN TO FENESTRATION BASED ON GEOGRAPHIC LOCATION AND ORIENTATION OF THE FACILITY.

PRE-ENGINEERED STRUCTURES MAY BE USED AS PROVIDED IN STANDARD OUTLINE SPECIFICATIONS FOR AIR FORCE FACILITIES, AFM 88-15.

PLAN DIMENSIONS ARE NOMINAL AND MAY BE ADJUSTED TO CONFORM TO THE STOCK DIMENSIONS AND DETAILING OF AVAILABLE PRE-ENGINEERED STRUCTURES, AND TO ACCOMMODATE THE THICKNESS OF MATERIALS SELECTED FOR THE FINAL DESIGN.

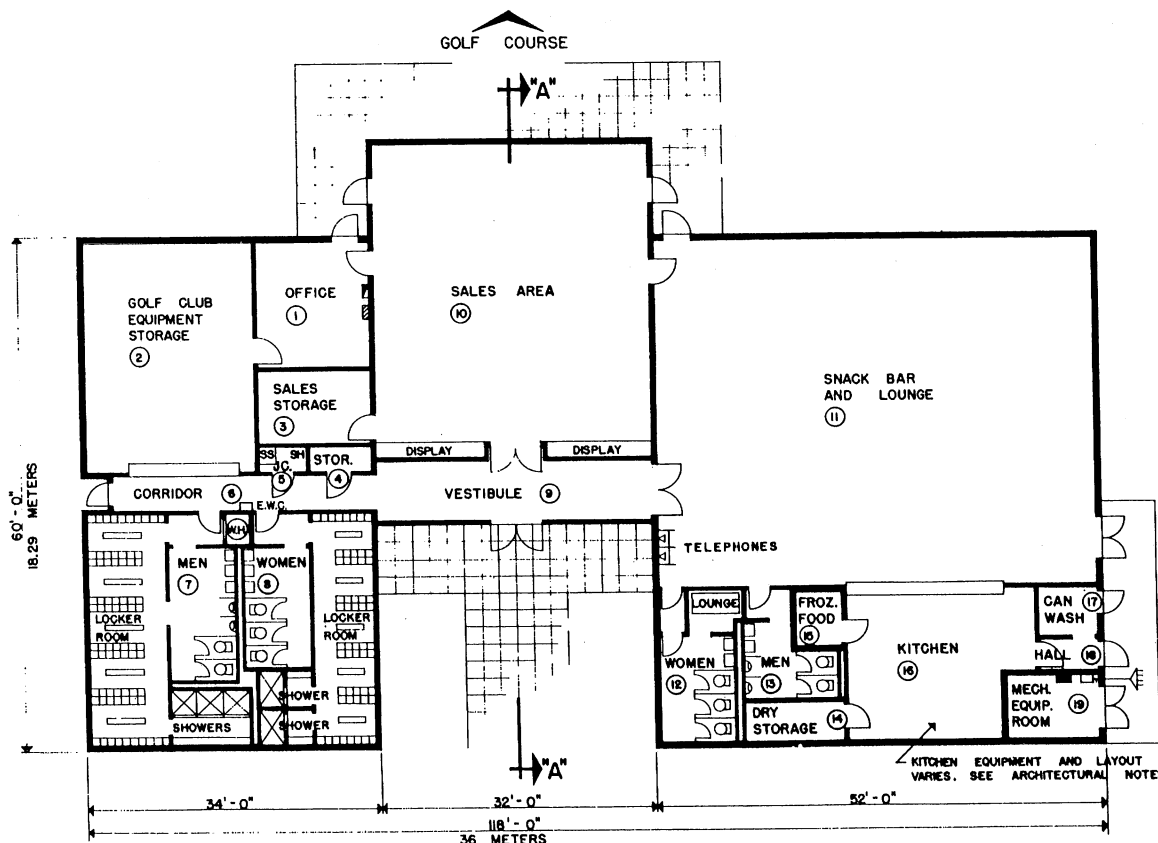
FIRE PROTECTION SHALL BE IN ACCORDANCE WITH AFM 88-15.

**STRUCTURAL**

LIVE LOADS WILL BE IN ACCORDANCE WITH AFM 88-3.

CATEGORY CODE NO. 750 - 426

ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	OFFICE	13' - 6" x 15' - 9"	213
2	GOLF CLUB EQUIPMENT STORAGE	20' - 6" x 28' - 0"	574
3	SALES STORAGE	13' - 6" x 10' - 4"	139
4	STORAGE	4' - 9" x 3' - 6"	17
5	JANITOR'S CLOSET	4' - 9" x 3' - 6"	17
6	CORRIDOR	32' - 0" x 4' - 0"	128
7	MEN/LOCKER ROOM/SHOWERS	18' - 0" x 28' - 0"	504
8	WOMEN/LOCKER ROOM/SHOWERS	16' - 0" x 28' - 0"	448
9	VESTIBULE	32' - 0" x 8' - 0"	256
10	SALES AREA	32' - 0" x 37' - 0"	1,184
11	SNACK BAR AND LOUNGE	52' - 6" x 41' - 0"	2,152
12	WOMEN/LOUNGE	9' - 6" x 18' - 6"	176
13	MEN	12' - 0" x 10' - 0"	120
14	DRY STORAGE	12' - 0" x 5' - 6"	66
15	FROZEN FOOD	6' - 0" x 7' - 6"	45
16	KITCHEN	20' - 6" x 18' - 6"	379
17	CAN WASH	8' - 0" x 6' - 0"	48
18	HALL	8' - 0" x 4' - 0"	32
19	MECHANICAL EQUIPMENT ROOM	12' - 0" x 8' - 6"	102
TOTAL			6,600



**FLOOR PLAN**

SCALE: 1/8" = 1'-0"



**GRAPHIC SCALE**

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED
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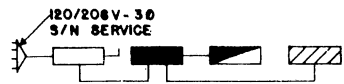
**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS UNITED STATES AIR FORCE  
SPECTOR, PEAKE AND HOWELL  
ARCHITECTS-ENGINEERS - FALLS CHURCH, VIRGINIA

**GOLF COURSE CLUB HOUSE**  
6,600 SQ. FT.  
PLAN & SECTION

APPROVED	SCALE: 1/8" = 1'-0"	SHEET 1 OF 4
FACILITY OPR	DATE:	
FOR CHIEF OF STAFF USAF		

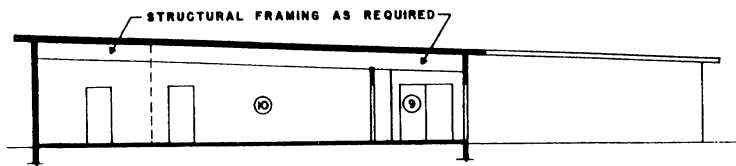
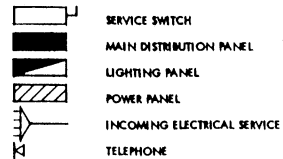
AD14-13-01 RI

C3



**ELECTRICAL RISER DIAGRAM**  
NO SCALE

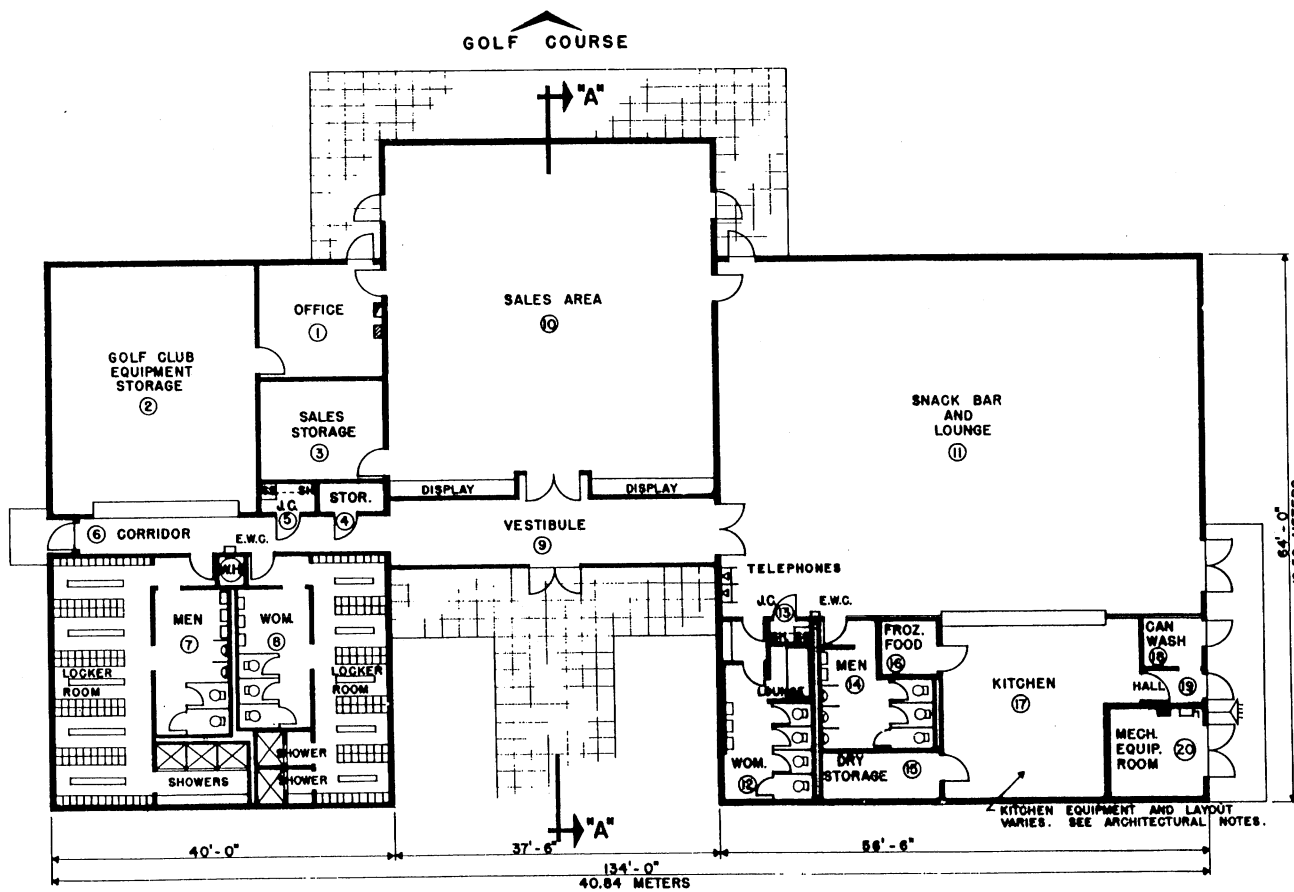
**ELECTRICAL LEGEND**



**SECTION "A"-A**  
SCALE: 1/8" = 1'-0"

**LEGEND**

- E.W.C. ELECTRIC WATER COOLER
- ↑ EQUIP. ENTRY
- PROZ. EQUIPMENT FROZEN
- FT. FEET
- J.C. JANITOR'S CLOSET
- MECH. MECHANICAL
- SH. SHELVES
- SQ. SQUARE
- S.S. SERVICE SINK
- STOR. STORAGE
- VEST. VESTIBULE
- W.H. WATER HEATER
- WOM. WOMEN



**FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

**ELECTRICAL**

LIGHTING LEVELS SHALL BE IN ACCORDANCE WITH AFM 88-15 FOR EACH AREA SERVED. CONVENIENCE OUTLETS FOR CONVENTIONAL USE IN OFFICE OR SIMILAR AREAS TO BE IN ACCORDANCE WITH N.E.C.

CONVENIENCE OUTLETS IN OTHER AREAS TO BE LOCATED BY USING AGENCY. ELECTRICAL PANELS WILL BE LOCATED AS INDICATED. OUTLETS FOR EQUIPMENT WILL BE LOCATED BY THE DESIGN AGENCY IN ACCORDANCE WITH THE EQUIPMENT POSITIONS. PROVIDE DISCONNECT DEVICES IN ACCORDANCE WITH THE N.E.C. SECTION 422-20 THRU 430-115.

PROVIDE EMERGENCY LIGHTING SYSTEM IN ACCORDANCE WITH AFM 88-15 AND N.F.P.A. BUILDING EXITS CODE NO. 101.

PROVIDE FIRE ALARM SYSTEM IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

PROVIDE PUBLIC ADDRESS SYSTEM AS REQUIRED BY USING AGENCY.

PROVIDE POWER OUTLETS AS REQUIRED FOR ALL PORTABLE EQUIPMENT.

PROVIDE STANDBY ELECTRICAL POWER IN ACCORDANCE WITH AFR 91-4 AS REQUIRED.

**MECHANICAL**

HEATING, AIR CONDITIONING, EVAPORATIVE COOLING AND MECHANICAL VENTILATION SHALL BE IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

WHEN A COMPLETE MECHANICAL EQUIPMENT ROOM IS NOT REQUIRED, THE SURPLUS SPACE MAY BE ABSORBED BY OTHER FUNCTIONS OF THE FACILITY.

**PLUMBING**

PLUMBING WILL BE IN ACCORDANCE WITH AFM 88-8, CHAPTER 4 AND AFM 88-15.

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

**GENERAL NOTE**

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

**UTILITY REQUIREMENTS**

ELECTRICITY (KW)	REFRIG.	LIGHTING	POWER	TOTAL
CONNECTED LOAD	36 KW	28.0 KW	32.0 KW	96.0 KW
ESTIMATED DEMAND	36 KW	26.6 KW	28.8 KW	91.4 KW
<b>WATER (GPM)</b>				
HOT	27 GPM			
COLD	93 GPM			
TOTAL	89 GPM			
TOTAL (GPD)	30,000 GPD			
SEWAGE (GPD)	45,000 GPD			

**HEATING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE 0° F  
M/BTU/HR 430

**AIR CONDITIONING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE 95° DB / 78° WB  
TONS OF REFRIGERATION 36

**AREA FOR PROGRAMMING**

GROSS AREA 8,000 SQ. FT.

**DESIGN GUIDES**

**ARCHITECTURAL**

THE SECTION INDICATED IN THIS DEFINITIVE DRAWING IS NOT INTENDED TO ESTABLISH AN ARCHITECTURAL DESIGN TREATMENT NOR USE OF SPECIFIC MATERIALS. CAREFUL USE OF MATERIALS AND COLOR CAN ENHANCE THE APPEARANCE OF THIS FACILITY WITHOUT INVOLVING ADDITIONAL COST. IT IS NOT INTENDED THAT EXTREME DESIGN OR UNTREND MATERIALS BE INCORPORATED. MATERIALS USED WILL BE IN ACCORDANCE WITH APPLICABLE CRITERIA FOR THIS FACILITY.

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PRE-ENGINEERED STRUCTURES MAY BE USED AS PROVIDED IN STANDARD OUTLINE SPECIFICATIONS FOR AIR FORCE FACILITIES, AFM 88-15.

PLAN DIMENSIONS ARE NOMINAL AND MAY BE ADJUSTED TO CONFORM TO THE STOCK DIMENSIONS AND DETAILING OF AVAILABLE PRE-ENGINEERED STRUCTURES, AND TO ACCOMMODATE THE THICKNESS OF MATERIALS SELECTED FOR THE FINAL DESIGN.

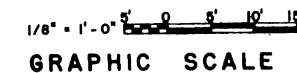
FIRE PROTECTION SHALL BE IN ACCORDANCE WITH AFM 88-15.

**STRUCTURAL**

LIVE LOADS WILL BE IN ACCORDANCE WITH AFM 88-3.

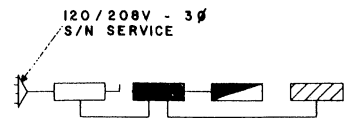
CATEGORY CODE NO. 750 - 426

ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	OFFICE	15' - 0" x 14' - 6"	218
2	GOLF CLUB EQUIPMENT STORAGE	25' - 0" x 30' - 0"	750
3	SALES STORAGE	15' - 0" x 12' - 0"	180
4	STORAGE	7' - 6" x 3' - 6"	26
5	JANITOR'S CLOSET	7' - 6" x 3' - 6"	26
6	CORRIDOR	37' - 0" x 4' - 0"	148
7	MEN/LOCKER ROOM/SHOWERS	21' - 6" x 30' - 0"	645
8	WOMEN/LOCKER ROOM/SHOWERS	18' - 6" x 30' - 0"	555
9	VESTIBULE	37' - 6" x 8' - 0"	300
10	SALES AREA	37' - 6" x 40' - 11"	1,536
11	SNACK BAR AND LOUNGE	56' - 6" x 42' - 6"	2,401
12	WOMEN/LOUNGE	11' - 0" x 20' - 0"	220
13	JANITOR'S CLOSET	5' - 6" x 3' - 1"	17
14	MEN	14' - 6" x 11' - 4"	164
15	DRY STORAGE	14' - 6" x 6' - 4"	92
16	FROZEN FOOD	7' - 6" x 7' - 2"	54
17	KITCHEN	21' - 6" x 20' - 8"	444
18	CAN WASH	8' - 0" x 6' - 4"	50
19	HALL	4' - 0" x 8' - 0"	32
20	MECHANICAL EQUIPMENT ROOM	12' - 6" x 11' - 4"	142
TOTAL			8,000

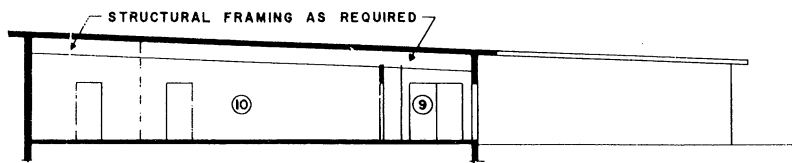


SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED
<b>DEPARTMENT OF THE AIR FORCE</b>			
HEADQUARTERS UNITED STATES AIR FORCE			
SPECTOR, PEAKE AND HOWELL			
ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA			
<b>GOLF COURSE CLUB HOUSE</b>			
8,000 SQ. FT.			
PLAN & SECTION			
APPROVED	SCALE: 1/8" = 1'-0"	SHEET 2 OF 4	
FACILITY OPR	DATE:	AD 14-13-01	
FOR CHIEF OF STAFF	USAF		





**ELECTRICAL RISER DIAGRAM**  
NO SCALE



**SECTION "A" - "A"**  
SCALE: 1/8" = 1'-0"

ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	OFFICE	16'-0" x 14'-0"	224
2	GOLF CLUB EQUIPMENT STORAGE	28'-0" x 32'-0"	896
3	SALES STORAGE	14'-0" x 14'-0"	224
4	STORAGE	9'-0" x 4'-0"	36
5	JANITOR'S CLOSET	7'-0" x 4'-0"	28
6	CORRIDOR	40'-0" x 4'-0"	162
7	MEN/LOCKER ROOM/SHOWERS	23'-0" x 32'-0"	736
8	WOMEN/LOCKER ROOM/SHOWERS	21'-0" x 32'-0"	672
9	VESTIBULE	40'-0" x 8'-0"	320
10	SALES AREA	40'-0" x 43'-11"	1,758
11	SNACK BAR AND LOUNGE	38'-0" x 44'-6"	2,584
12	WOMEN/LOUNGE	11'-6" x 21'-9"	250
13	JANITOR'S CLOSET	5'-6" x 3'-6"	19
14	MEN	14'-6" x 12'-0"	174
15	DRY STORAGE	14'-6" x 7'-0"	101
16	FROZEN FOOD	7'-6" x 8'-0"	60
17	KITCHEN	21'-6" x 23'-6"	505
18	CAN WASH	8'-6" x 6'-6"	55
19	HALL	8'-6" x 4'-0"	34
20	MECHANICAL EQUIPMENT ROOM	12'-6" x 13'-0"	162
	TOTAL		9,000

**ELECTRICAL**

LIGHTING LEVELS SHALL BE IN ACCORDANCE WITH AFM 88-15 FOR EACH AREA SERVED. CONVENIENCE OUTLETS FOR CONVENTIONAL USE IN OFFICE OR SIMILAR AREAS TO BE IN ACCORDANCE WITH N.E.C.

CONVENIENCE OUTLETS IN OTHER AREAS TO BE LOCATED BY USING AGENCY. ELECTRICAL PANELS WILL BE LOCATED AS INDICATED. OUTLETS FOR EQUIPMENT WILL BE LOCATED BY THE DESIGN AGENCY IN ACCORDANCE WITH THE EQUIPMENT POSITIONS. PROVIDE DISCONNECT DEVICES IN ACCORDANCE WITH THE N.E.C. SECTION 422-20 THRU 430-113.

PROVIDE EMERGENCY LIGHTING SYSTEM IN ACCORDANCE WITH AFM 88-15 AND N.F.P.A. BUILDING EXITS CODE NO. 101.

PROVIDE FIRE ALARM SYSTEM IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

PROVIDE PUBLIC ADDRESS SYSTEM AS REQUIRED BY USING AGENCY.

PROVIDE POWER OUTLETS AS REQUIRED FOR ALL PORTABLE EQUIPMENT.

PROVIDE STANDBY ELECTRICAL POWER IN ACCORDANCE WITH AFR 91-4 AS REQUIRED.

**MECHANICAL**

HEATING, AIR CONDITIONING, EVAPORATIVE COOLING AND MECHANICAL VENTILATION SHALL BE IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

WHEN A COMPLETE MECHANICAL EQUIPMENT ROOM IS NOT REQUIRED, THE SURPLUS SPACE MAY BE ABSORBED BY OTHER FUNCTIONS OF THE FACILITY.

**PLUMBING**

PLUMBING WILL BE IN ACCORDANCE WITH AFM 88-8, CHAPTER 4 AND AFM 88-15.

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

**GENERAL NOTE**

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

**UTILITY REQUIREMENTS**

ELECTRICITY (KW)	REFIG.	LIGHTING	POWER	TOTAL
CONNECTED LOAD	39 KW	31.5 KW	36.0 KW	106.5 KW
ESTIMATED DEMAND	39 KW	29.9 KW	32.4 KW	101.3 KW

WATER (GPM)	HOT	COLD	TOTAL
HOT	28 GPM		
COLD		98 GPM	
TOTAL			100 GPM

TOTAL (GPD)	SEWAGE (GPD)
35,000 GPD	52,500 GPD

**HEATING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE 0° F  
M/BTU/HR 470

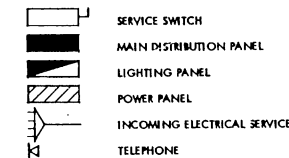
**AIR CONDITIONING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE 95° DB / 78° WB  
TONS OF REFRIGERATION 39

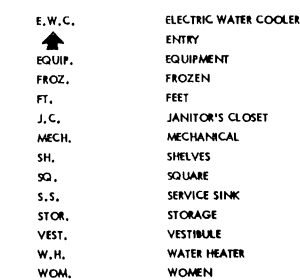
**AREA FOR PROGRAMMING**

GROSS AREA 9,000 SQ. FT.

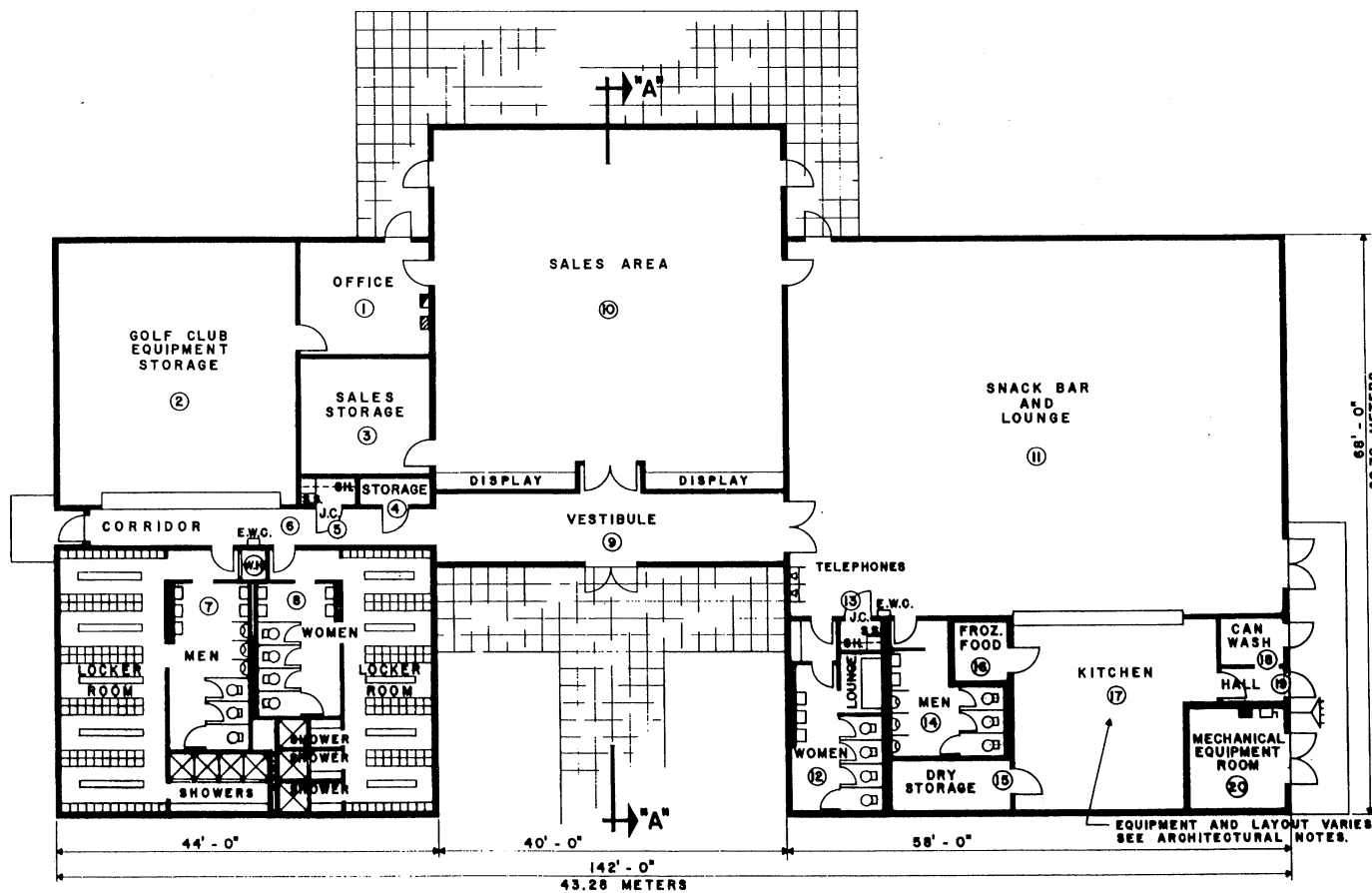
**ELECTRICAL LEGEND**



**LEGEND**



GOLF COURSE



**FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



**DESIGN GUIDES**

**ARCHITECTURAL**

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CONSIDERATION SHALL BE GIVEN TO FENESTRATION BASED ON GEOGRAPHIC LOCATION AND ORIENTATION OF THE FACILITY.

PRE-ENGINEERED STRUCTURES MAY BE USED AS PROVIDED IN STANDARD OUTLINE SPECIFICATIONS FOR AIR FORCE FACILITIES, AFM 88-15.

PLAN DIMENSIONS ARE NOMINAL AND MAY BE ADJUSTED TO CONFORM TO THE STOCK DIMENSIONS AND DETAILING OF AVAILABLE PRE-ENGINEERED STRUCTURES, AND TO ACCOMMODATE THE THICKNESS OF MATERIALS SELECTED FOR THE FINAL DESIGN.

FIRE PROTECTION SHALL BE IN ACCORDANCE WITH AFM 88-15.

**STRUCTURAL**

LIVE LOADS WILL BE IN ACCORDANCE WITH AFM 88-3, CHAPTER 1.

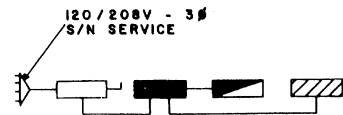
CATEGORY CODE NO. 750 - 426

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

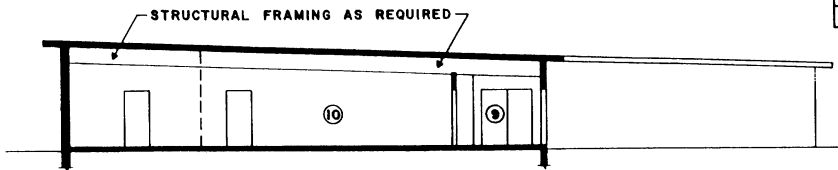
**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS UNITED STATES AIR FORCE  
SPECTOR, PEAKE AND HOWELL  
ARCHITECTS-ENGINEERS - FALLS CHURCH, VIRGINIA

**GOLF COURSE CLUB HOUSE**  
9,000 SQ. FT.  
PLAN & SECTION

APPROVED: *Charles H. Spector*  
FACILITY OPR FOR CHIEF OF STAFF USAF  
SCALE: 1/8" = 1'-0" SHEET 3 OF 4  
DATE: \_\_\_\_\_  
AD 14-13-01



**ELECTRICAL RISER DIAGRAM**  
NO SCALE



**SECTION "A" - "A"**  
SCALE: 1/8" = 1'-0"

ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	OFFICE	14' - 0" x 14' - 6"	232
2	GOLF CLUB EQUIPMENT STORAGE	30' - 0" x 34' - 0"	1,020
3	SALES STORAGE	14' - 0" x 15' - 6"	216
4	STORAGE	8' - 6" x 4' - 0"	34
5	JANITOR'S CLOSET	7' - 6" x 4' - 0"	30
6	CORRIDOR	42' - 0" x 4' - 0"	170
7	MEN/LOCKER ROOM/SHOWERS	24' - 0" x 34' - 0"	816
8	WOMEN/LOCKER ROOM/SHOWERS	22' - 0" x 34' - 0"	748
9	VESTIBULE	42' - 0" x 8' - 0"	336
10	SALES AREA	42' - 0" x 48' - 9"	2,046
11	SNACK BAR AND LOUNGE	60' - 0" x 45' - 6"	2,730
12	WOMEN/LOUNGE	12' - 6" x 34' - 4"	304
13	JANITOR'S CLOSET	6' - 0" x 4' - 6"	27
14	MEN	14' - 6" x 14' - 7"	211
15	DRY STORAGE	14' - 6" x 7' - 6"	109
16	FROZEN FOOD	7' - 6" x 8' - 6"	64
17	KITCHEN	22' - 1" x 26' - 6"	587
18	CAN WASH	8' - 6" x 7' - 0"	60
19	HALL	8' - 6" x 4' - 0"	34
20	MECHANICAL EQUIPMENT ROOM	12' - 6" x 15' - 6"	194
TOTAL			10,000

**ELECTRICAL**

LIGHTING LEVELS SHALL BE IN ACCORDANCE WITH AFM 88-15 FOR EACH AREA SERVED. CONVENIENCE OUTLETS FOR CONVENTIONAL USE IN OFFICE OR SIMILAR AREAS TO BE IN ACCORDANCE WITH N.E.C.

CONVENIENCE OUTLETS IN OTHER AREAS TO BE LOCATED BY USING AGENCY. ELECTRICAL PANELS WILL BE LOCATED AS INDICATED. OUTLETS FOR EQUIPMENT WILL BE LOCATED BY THE DESIGN AGENCY IN ACCORDANCE WITH THE EQUIPMENT POSITIONS. PROVIDE DISCONNECT DEVICES IN ACCORDANCE WITH THE N.E.C. SECTION 422-20 THRU 430-113.

PROVIDE EMERGENCY LIGHTING SYSTEM IN ACCORDANCE WITH AFM 88-15 AND N.F.P.A. BUILDING EXITS CODE NO. 101.

PROVIDE FIRE ALARM SYSTEM IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

PROVIDE PUBLIC ADDRESS SYSTEM AS REQUIRED BY USING AGENCY.

PROVIDE POWER OUTLETS AS REQUIRED FOR ALL PORTABLE EQUIPMENT.

PROVIDE STANDBY ELECTRICAL POWER IN ACCORDANCE WITH AFR 91-4 AS REQUIRED.

**MECHANICAL**

HEATING, AIR CONDITIONING, EVAPORATIVE COOLING AND MECHANICAL VENTILATION SHALL BE IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

WHEN A COMPLETE MECHANICAL EQUIPMENT ROOM IS NOT REQUIRED, THE SURPLUS SPACE MAY BE ABSORBED BY OTHER FUNCTIONS OF THE FACILITY.

**PLUMBING**

PLUMBING WILL BE IN ACCORDANCE WITH AFM 88-8, CHAPTER 4 AND AFM 88-15.

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

**GENERAL NOTE**

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

**UTILITY REQUIREMENTS**

	(KW)	REFRIG.	LIGHTING	POWER	TOTAL
ELECTRICITY					
CONNECTED LOAD		46 KW	35 KW	40 KW	121.00 KW
ESTIMATED DEMAND		46 KW	33.25 KW	36 KW	115.25 KW
WATER	(GPM)				
HOT	33	GPM			
COLD	105	GPM			
TOTAL	110	GPM			
TOTAL	(GPD)	40,000 GPD			
SEWAGE	(GPD)	60,000 GPD			

**HEATING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE 0° F  
M/BTU/HR 535.0

**AIR CONDITIONING REQUIREMENTS**

OUTSIDE DESIGN TEMPERATURE 95° DB / 78° WB  
TONS OF REFRIGERATION 46

**AREA FOR PROGRAMMING**

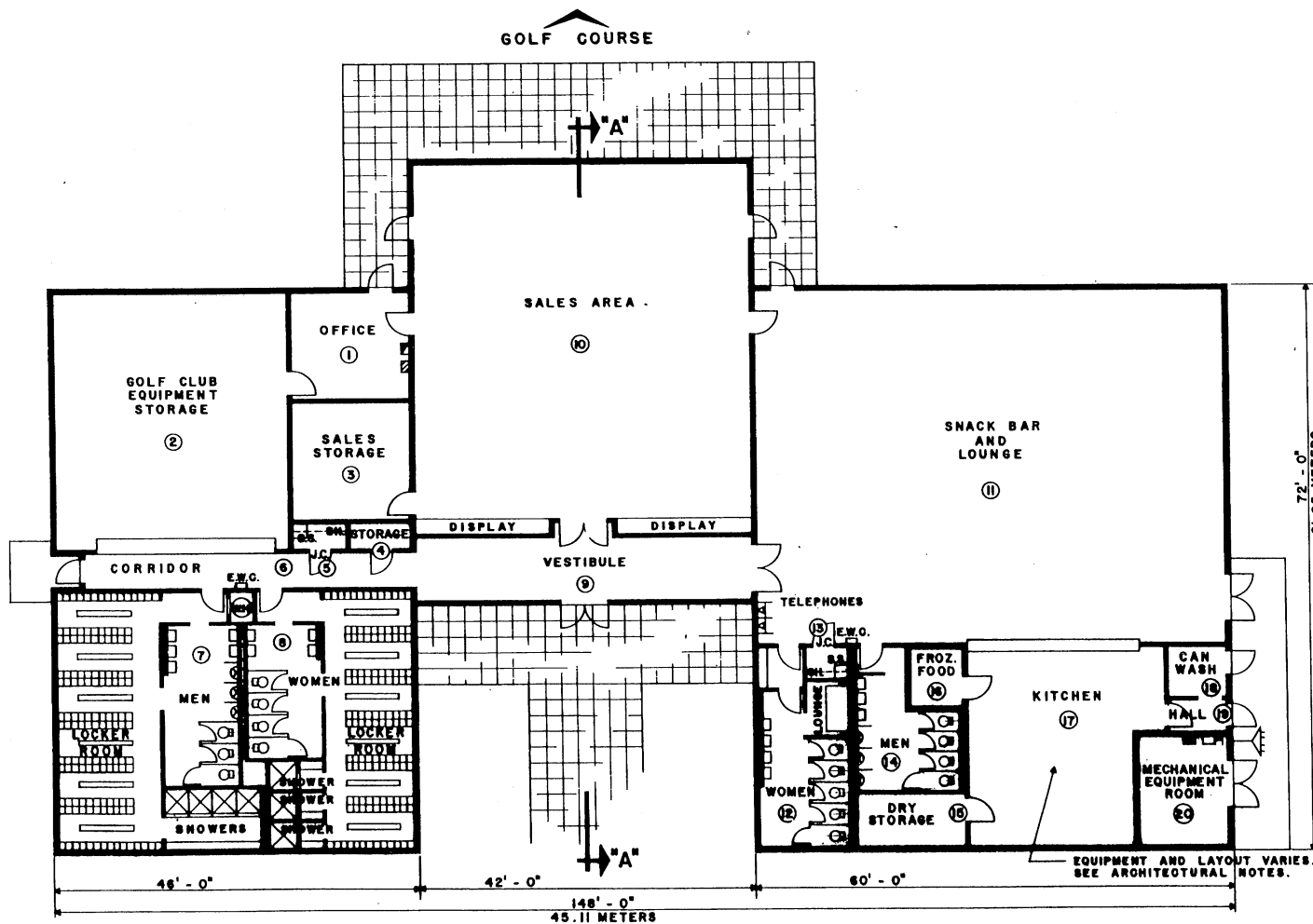
GROSS AREA 10,000 SQ. FT.

**ELECTRICAL LEGEND**

- SERVICE SWITCH
- MAIN DISTRIBUTION PANEL
- LIGHTING PANEL
- POWER PANEL
- INCOMING ELECTRICAL SERVICE
- TELEPHONE

**LEGEND**

- E.W.C. ELECTRIC WATER COOLER
- ENTRY ENTRY
- EQUIP. EQUIPMENT
- FROZ. FROZEN
- FT. FEET
- J.C. JANITOR'S CLOSET
- MECH. MECHANICAL
- SH. SHELVES
- SQ. SQUARE
- S.S. SERVICE SINK
- STOR. STORAGE
- VEST. VESTIBULE
- W.H. WATER HEATER
- WOM. WOMEN



**FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



**DESIGN GUIDES**

**ARCHITECTURAL**

THE SECTION INDICATED IN THIS DEFINITIVE DRAWING IS NOT INTENDED TO ESTABLISH AN ARCHITECTURAL DESIGN TREATMENT NOR USE OF SPECIFIC MATERIALS. CAREFUL USE OF MATERIALS AND COLOR CAN ENHANCE THE APPEARANCE OF THIS FACILITY WITHOUT INVOLVING ADDITIONAL COST. IT IS NOT INTENDED THAT EXTREME DESIGN OR UNTRIED MATERIALS BE INCORPORATED. MATERIALS USED WILL BE IN ACCORDANCE WITH APPLICABLE CRITERIA FOR THIS FACILITY.

CONSIDERATION SHALL BE GIVEN TO FENESTRATION BASED ON GEOGRAPHIC LOCATION AND ORIENTATION OF THE FACILITY.

PRE-ENGINEERED STRUCTURES MAY BE USED AS PROVIDED IN STANDARD OUTLINE SPECIFICATIONS FOR AIR FORCE FACILITIES, AFM 88-15.

PLAN DIMENSIONS ARE NOMINAL AND MAY BE ADJUSTED TO CONFORM TO THE STOCK DIMENSIONS AND DETAILING OF AVAILABLE PRE-ENGINEERED STRUCTURES, AND TO ACCOMMODATE THE THICKNESS OF MATERIALS SELECTED FOR THE FINAL DESIGN.

FIRE PROTECTION SHALL BE IN ACCORDANCE WITH AFM 88-15.

**STRUCTURAL**

LIVE LOADS WILL BE IN ACCORDANCE WITH AFM 88-3.

CATEGORY CODE NO. 750 - 426

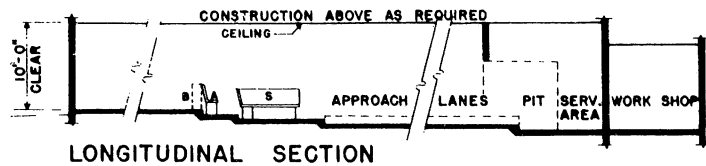
SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS UNITED STATES AIR FORCE  
**SPECTOR, PEAKE AND HOWELL**  
ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

**GOLF COURSE CLUB HOUSE**  
10,000 SQ. FT.  
PLAN & SECTION

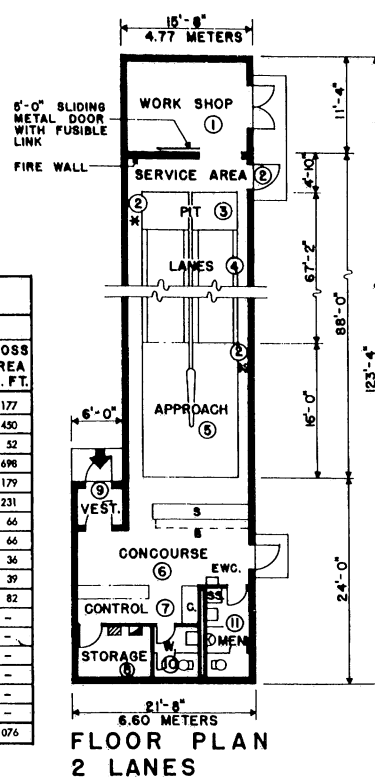
APPROVED	SCALE: 1/8" = 1'-0"	SHEET 4 OF 4
FACILITY OPR <i>John E. ...</i> FOR CHIEF OF STAFF USAF	DATE:	AD 14-13-01

C3

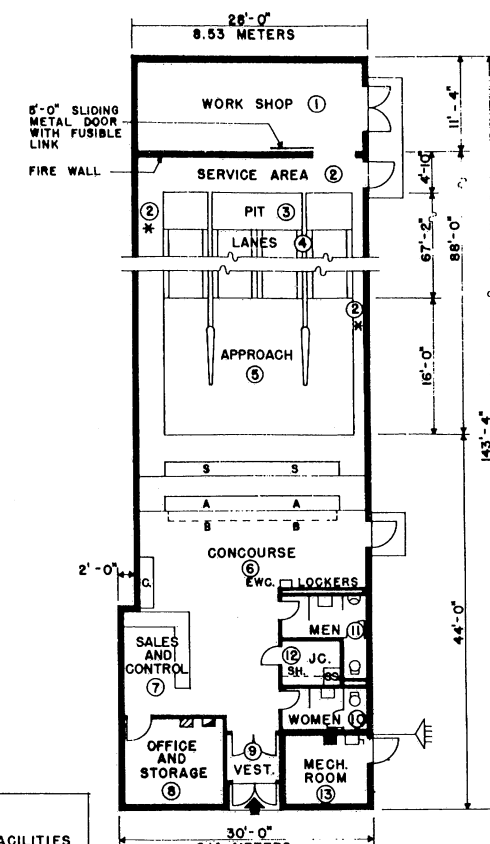


ROOM SCHEDULE		10 LANES		8 LANES		6 LANES		4 LANES		2 LANES	
		DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.
1	WORK SHOP	42'-0" x 13'-0"	504	50'-0" x 12'-0"	600	40'-0" x 11'-8"	467	28'-0" x 11'-4"	317	15'-8" x 11'-4"	177
2	SERVICE AREA	150'-1" x 5'-10"	825	125'-11" x 5'-10"	734	177'-8" x 4'-10"	858	125'-8" x 4'-10"	607	93'-2" x 4'-10"	450
3	PIT	55'-10" x 4'-8"	261	44'-8" x 4'-8"	209	32'-0" x 4'-8"	149	22'-4" x 4'-8"	104	11'-2" x 4'-8"	52
4	LANES	55'-10" x 62'-6"	3,489	44'-8" x 62'-6"	2,792	32'-0" x 62'-6"	2,000	22'-4" x 62'-6"	1,396	11'-2" x 62'-6"	698
5	APPROACH	55'-10" x 16'-0"	893	44'-8" x 16'-0"	715	32'-0" x 16'-0"	512	22'-4" x 16'-0"	357	11'-2" x 16'-0"	179
6	CONCOURSE	42'-0" x 23'-8"	1,391	35'-6" x 23'-8"	1,341	40'-0" x 28'-1"	1,122	28'-0" x 24'-1"	674	21'-8" x 10'-8"	231
7	CONTROL AND/OR SALES	8'-8" x 12'-4"	107	7'-0" x 12'-0"	84	5'-0" x 10'-0"	53	8'-6" x 12'-0"	106	14'-8" x 4'-6"	66
8	OFFICE AND/OR STORAGE	15'-0" x 17'-0"	264	12'-0" x 17'-0"	204	9'-6" x 13'-6"	128	13'-0" x 11'-0"	150	9'-2" x 7'-2"	66
9	VESTIBULE	7'-0" x 6'-6"	46	6'-6" x 7'-6"	49	6'-0" x 7'-0"	42	6'-0" x 6'-0"	36	6'-0" x 6'-0"	36
10	WOMEN'S ROOM	17'-0" x 8'-8"	164	11'-8" x 5'-8"	66	11'-0" x 6'-0"	66	11'-0" x 5'-4"	59	5'-6" x 7'-2"	39
11	MEN'S ROOM	17'-0" x 8'-3"	140	11'-8" x 8'-6"	99	11'-0" x 7'-7"	84	11'-0" x 8'-2"	90	7'-0" x 11'-8"	82
12	JANITOR'S CLOSET	10'-6" x 6'-8"	70	7'-6" x 5'-6"	42	7'-6" x 5'-0"	36	7'-0" x 6'-0"	42	4'-0" x 11'-8"	47
13	MECHANICAL ROOM	17'-0" x 11'-0"	187	11'-8" x 14'-0"	163	17'-0" x 8'-0"	136	11'-0" x 9'-8"	106	-	-
14	SNACK BAR	19'-0" x 7'-10"	149	14'-6" x 7'-6"	109	12'-4" x 7'-0"	92	-	-	-	-
15	SNACK BAR STORAGE	12'-0" x 18'-0"	216	9'-10" x 17'-0"	167	7'-6" x 13'-6"	101	-	-	-	-
16	TABLE SPACE	19'-0" x 14'-8"	317	14'-6" x 15'-10"	230	-	-	-	-	-	-
17	LOCKER AREA	10'-6" x 18'-0"	189	10'-0" x 17'-0"	170	-	-	-	-	-	-
TOTAL			9,764		7,774		5,848		4,044		2,076

\* SERVICE AREA INCLUDES WALKWAYS AT SIDES OF BOWLING LANES.  
 † DIMENSIONS ARE APPROXIMATE.

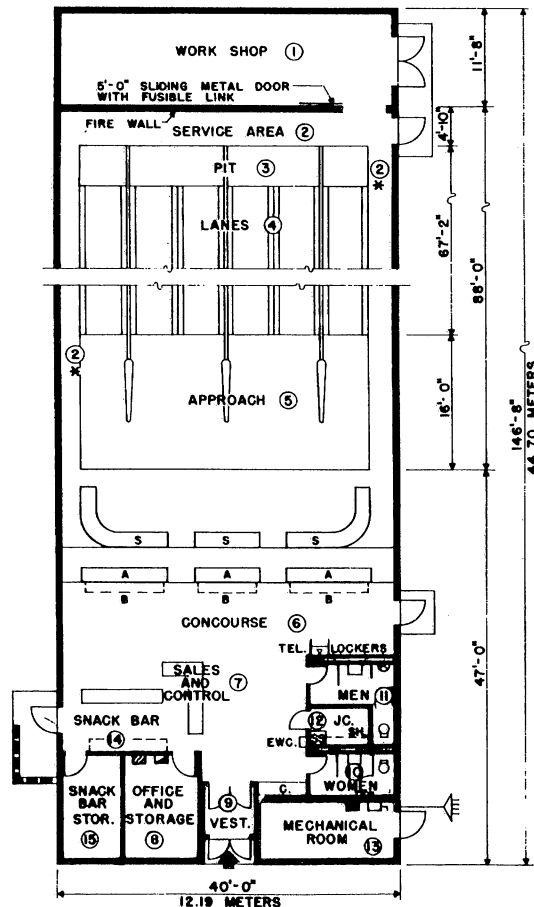


FLOOR PLAN 2 LANES

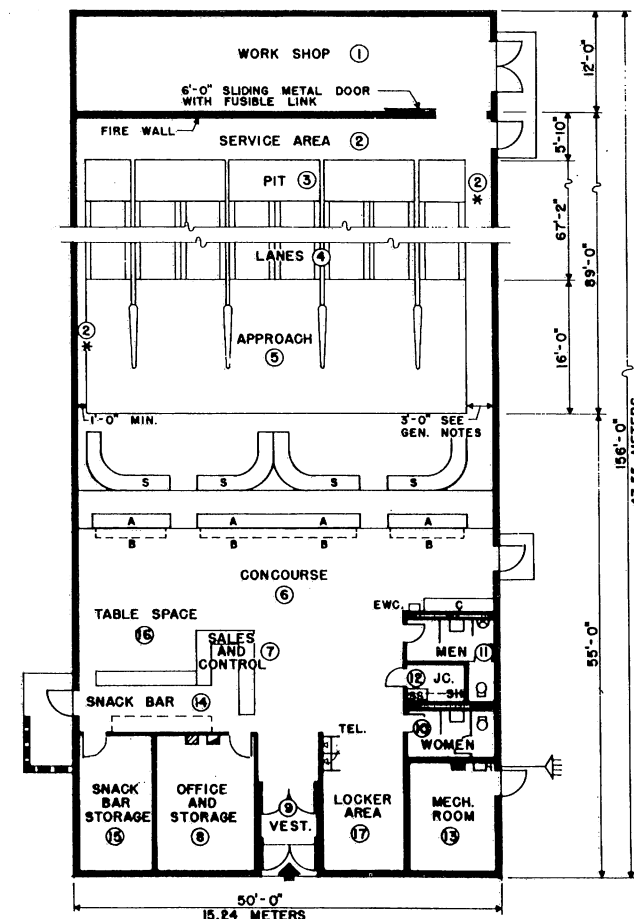


FLOOR PLAN 4 LANES

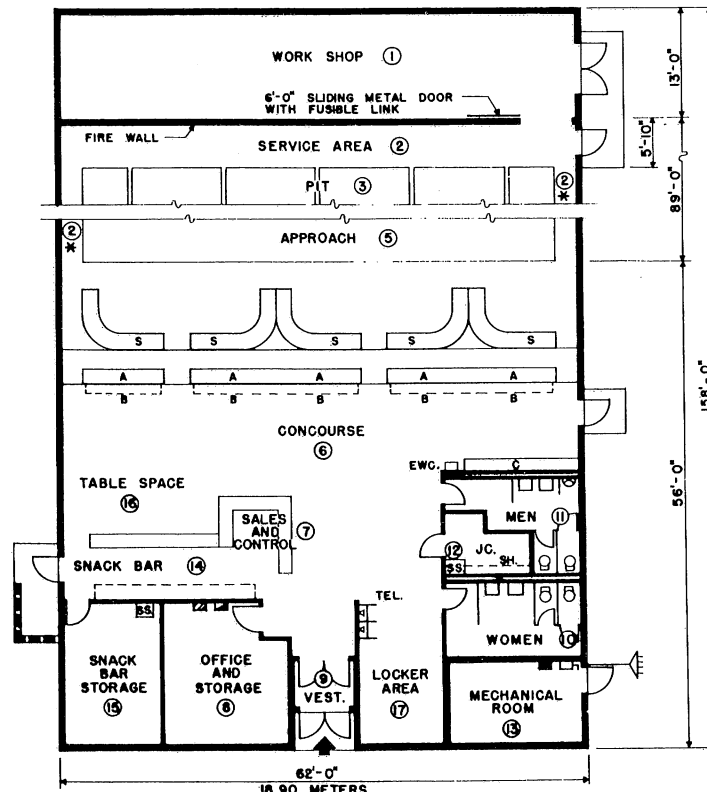
NOTE:  
 2 LANE AND 4 LANE FACILITIES SHOULD BE LOCATED IN/OR ADJACENT TO ANOTHER FACILITY WHERE POSSIBLE.



FLOOR PLAN 6 LANES



FLOOR PLAN 8 LANES



FLOOR PLAN 10 LANES

1/8" = 1'-0" 5' 0' 5' 10' 15'  
 GRAPHIC SCALE

PROGRAMMING AND PLANNING GUIDES

SPECIFICATIONS

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

GENERAL NOTES

THE REQUIREMENTS BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.  
 CONSIDERATION SHOULD BE GIVEN TO THE POSSIBILITY OF ADJOINING THIS FACILITY WITH PROGRAMMED ITEMS SUCH AS BASE EXCHANGE OR GYMNASIUM.  
 HEATING AND AIR CONDITIONING DESIGN TEMPERATURES SHALL BE IN ACCORDANCE WITH D. O. D. INSTRUCTION 4270.7 AND ARMY, NAVY, AND AIR FORCE MANUAL, ENGINEERING WEATHER DATA.  
 UP TO 10 LANES A 3'-0" WALKWAY ON ONE SIDE OF THE LANES SHOULD BE PROVIDED, IF POSSIBLE. OVER 10 LANES A 3'-0" WALKWAY ON BOTH SIDES OF THE LANES SHOULD BE PROVIDED, IF POSSIBLE.

UTILITY REQUIREMENTS

NO. OF LANES	ELECTRICITY (KW) * CONN. EST.	WATER			SEWAGE		
		HOT †	COLD	TOTAL			
LANES	LOAD DEMAND	GPH	GPM	GPM	GAL/DAY	GAL/DAY	
2	13	11	20	20	25	1200	1200
4	26	21	20	20	25	1200	1200
6	35	28	30	20	25	1200	1200
8	48	38	40	30	40	1600	1600
10	59	47	40	35	49	2000	2000
12	66	53	40	35	49	2000	2000
16	89	71	50	43	60	2800	2800
20	111	89	50	43	60	2800	2800
24	132	106	60	48	68	2800	2800
32	177	142	60	55	78	3200	3200

\* NOT INCLUDING MECHANICAL ROOM  
 † STORAGE CAPACITY

HEATING REQUIREMENTS

OUTSIDE DESIGN TEMPERATURE ° F

NO. OF LANES	2	4	6	8	10	12	16	20	24	32
M <sup>2</sup> /TU/HR	38	130	143	197	250	275	365	455	530	740

AIR CONDITIONING REQUIREMENTS

DESIGN TEMPERATURE 95° F DRY BULB 78° F WET BULB

NO. OF LANES	2	4	6	8	10	12	16	20	24	32
TONS OF REFRIGERATION	4	8	12	16	20	24	32	40	48	64

LEGEND

- A. SPECTATORS' SEATS
- B. BALLS AND/OR COATS
- C. COATS
- E.W.C. ELECTRIC WATER COOLER
- ↑ ENTRY
- J.C. JANITOR'S CLOSET
- MECH. MECHANICAL
- SCREEN WALL
- S. SETTEE
- SERV. SERVICE
- SH. SHELVES
- S.S. SERVICE SINK
- STOR. STORAGE
- TEL. TELEPHONE
- VEST. VESTIBULE
- W. WOMEN

ELECTRICAL LEGEND

- SERVICE SWITCH
- MAIN DISTRIBUTION PANEL
- LIGHTING PANEL
- POWER PANEL
- INCOMING ELECTRICAL SERVICE
- TELEPHONE

CATEGORY CODE NO. 740 - 671

REVISION - DESCRIPTION DATE APPROVED

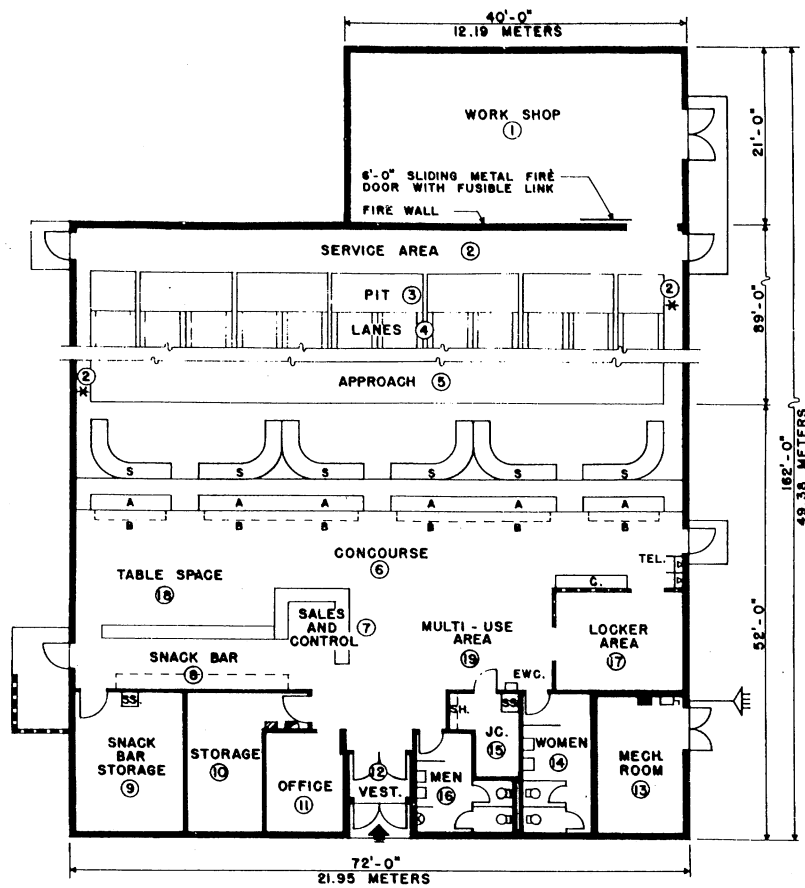
DEPARTMENT OF THE AIR FORCE  
 HEADQUARTERS UNITED STATES AIR FORCE  
 SPECTOR, PEAKE AND HOWELL  
 ARCHITECTS-ENGINEERS FALLS CHURCH, VIRGINIA

BOWLING CENTERS  
 2 THRU 32 LANES  
 PLANS & SECTION

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FACILITY OPR FOR CHIEF OF STAFF USAF AD 14-28-03 RI

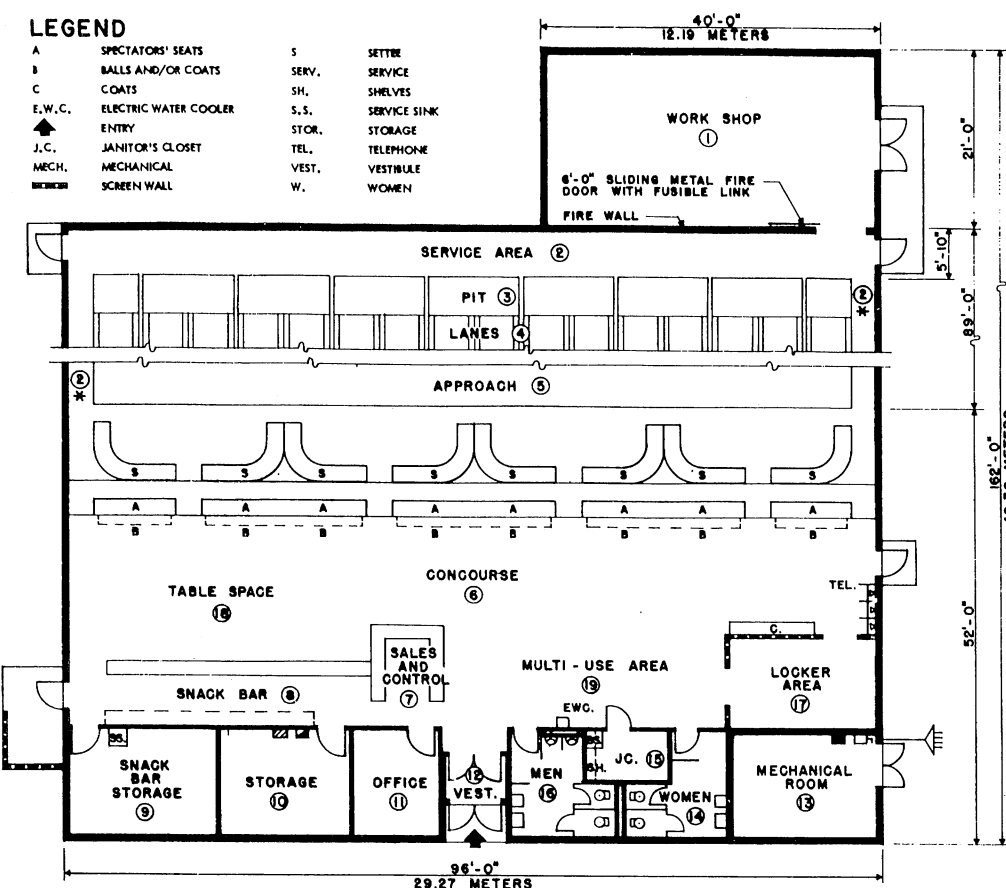
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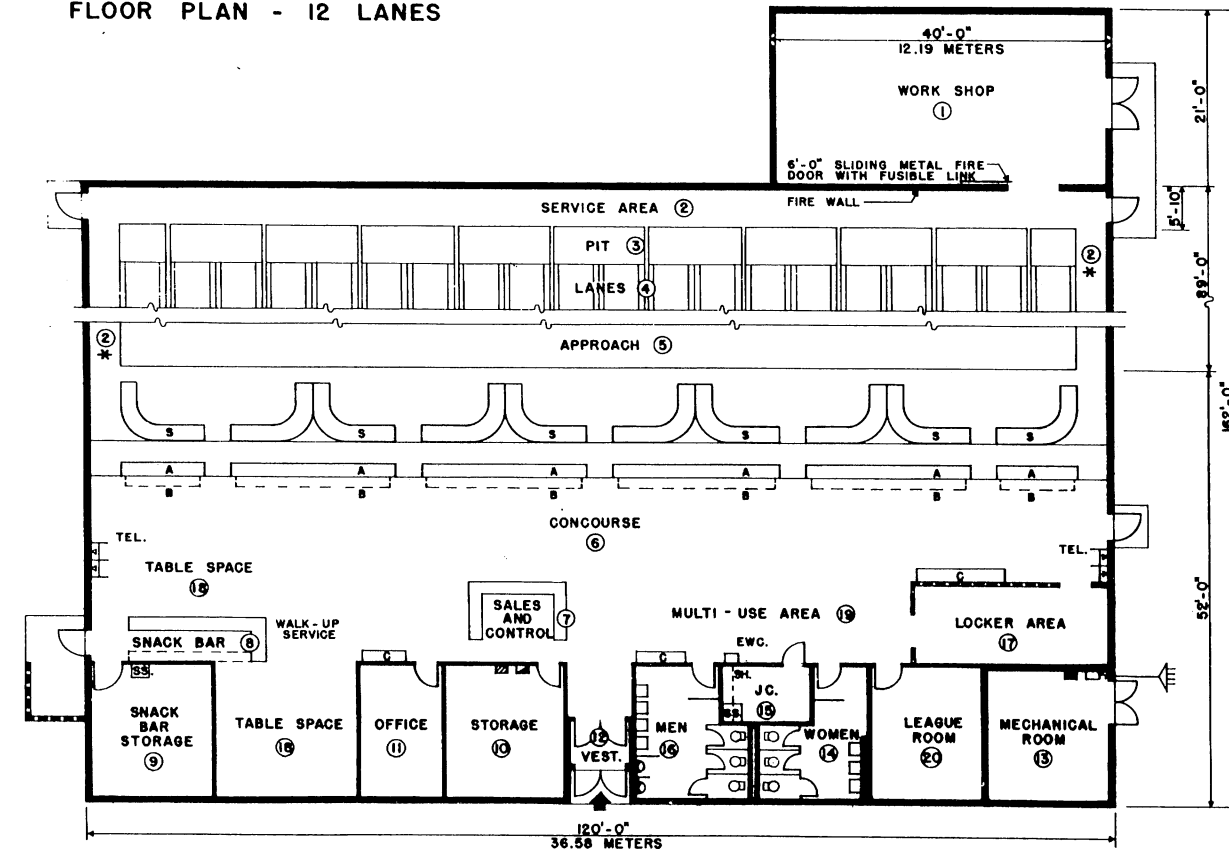
FLOOR PLAN - 12 LANES

**LEGEND**

- |        |                       |       |              |
|--------|-----------------------|-------|--------------|
| A      | SPECTATORS' SEATS     | S     | SETTEE       |
| B      | BALLS AND/OR COATS    | SERV. | SERVICE      |
| C      | COATS                 | SH.   | SHelves      |
| E.W.C. | ELECTRIC WATER COOLER | S.S.  | SERVICE SINK |
| ▲      | ENTRY                 | STOR. | STORAGE      |
| J.C.   | JANITOR'S CLOSET      | TEL.  | TELEPHONE    |
| MECH.  | MECHANICAL            | VEST. | VESTIBULE    |
| ■      | SCREEN WALL           | W.    | WOMEN        |



FLOOR PLAN - 16 LANES



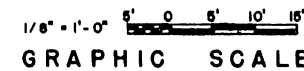
FLOOR PLAN - 20 LANES

ROOM SCHEDULE		20 LANES		16 LANES		12 LANES	
		DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.
1	WORK SHOP	40'-0" x 21'-0"	840	40'-0" x 21'-0"	840	40'-0" x 21'-0"	840
2 *	SERVICE AREA	232'-3" x 5'-10"	1,471	196'-0" x 5'-10"	1,143	150'-7" x 5'-10"	879
3	PIT	111'-4" x 4'-8"	520	89'-0" x 4'-8"	416	64'-6" x 4'-8"	311
4	LANES	1111'-4" x 62'-6"	6,958	89'-0" x 62'-6"	5,563	66'-6" x 62'-6"	4,156
5	APPROACH	1111'-4" x 14'-0"	1,781	89'-0" x 14'-0"	1,242	66'-6" x 14'-0"	1,064
6 †	CONCOURSE	108'-6" x 28'-3"	3,042	79'-9" x 27'-3"	2,174	69'-9" x 22'-6"	1,570
7	SALES AND CONTROL	11'-6" x 9'-6"	109	9'-0" x 12'-0"	108	9'-0" x 12'-0"	108
8	SNACK BAR	21'-0" x 5'-0"	105	34'-0" x 8'-0"	288	24'-0" x 8'-0"	192
9	SNACK BAR STORAGE	15'-0" x 17'-0"	255	18'-0" x 13'-0"	249	13'-6" x 17'-0"	241
10	STORAGE	15'-0" x 17'-0"	255	14'-0" x 13'-0"	221	69'-9" x 17'-0"	197
11	OFFICE	10'-0" x 17'-0"	170	11'-0" x 13'-0"	152	10'-0" x 13'-0"	130
12	VESTIBULE	7'-0" x 6'-0"	42	7'-0" x 6'-0"	42	7'-0" x 6'-0"	42
13	MECHANICAL ROOM	13'-0" x 17'-0"	255	18'-0" x 13'-0"	249	11'-0" x 17'-0"	196
14 †	WOMEN'S ROOM	11'-9" x 17'-0"	200	10'-6" x 13'-0"	145	9'-0" x 17'-0"	161
15	JANITOR'S CLOSET	11'-0" x 7'-0"	77	10'-6" x 6'-6"	68	9'-0" x 8'-9"	79
16 †	MEN'S ROOM	11'-9" x 17'-0"	200	10'-6" x 13'-0"	145	13'-0" x 10'-5"	135
17	LOCKER AREA	24'-0" x 10'-0"	240	18'-6" x 11'-6"	213	14'-0" x 12'-6"	200
18 †	TABLE SPACE	21'-0" x 30'-4"	637	34'-0" x 14'-0"	576	24'-0" x 12'-6"	300
19 †	MULTI-USE AREA	32'-0" x 10'-0"	320	25'-6" x 13'-0"	332	13'-0" x 12'-6"	163
20	LEAGUE ROOM	13'-0" x 17'-0"	225	-	-	-	-
TOTAL			17,732		14,348		10,964

\* SERVICE AREA INCLUDES WALKWAYS AT SIDES OF BOWLING LANES.  
 † DIMENSIONS ARE APPROXIMATE.

**ELECTRICAL LEGEND**

- SERVICE SWITCH
- MAIN DISTRIBUTION PANEL
- ▨ LIGHTING PANEL
- ▩ POWER PANEL
- ⊥ INCOMING ELECTRICAL SERVICE
- TELEPHONE



**AREA FOR PROGRAMMING GROSS AREA\***

LANES	GROSS AREA SQ. FT.	MILITARY POPULATION**
2 LANES	2,076	UP TO 250
4 LANES	4,044	251 TO 1,000
6 LANES	5,848	1,001 TO 1,800
8 LANES	7,774	1,801 TO 2,500
10 LANES	9,764	2,501 TO 3,200
12 LANES	10,964	3,201 TO 3,800
16 LANES	14,348	3,801 TO 4,900
20 LANES	17,732	4,901 TO 6,300
24 LANES	21,092	6,301 TO 7,700
32 LANES	28,180	7,701 TO 9,800

NOTE: FOR EACH INCREMENT OF 700 MILITARY STRENGTH OVER 12,600 TWO ADDITIONAL LANES TOTALING 1,900 SQ. FT. MAY BE PROVIDED.

\* GROSS AREA INCLUDES MECHANICAL ROOM. WHERE MECHANICAL ROOM IS NOT REQUIRED, ITS AREA MAY BE UTILIZED BY OTHER BUILDING FUNCTIONS.

\*\* MILITARY POPULATION IS MILITARY STRENGTH PLUS 10% OF THE DEPENDENTS.

**DESIGN GUIDES**

SEE APPLICABLE DEPARTMENT OF DEFENSE CRITERIA: D.O.D. INSTRUCTIONS 1330.3 AND 4270.18.

**ARCHITECTURAL**

CAREFUL USE OF MATERIALS AND COLOR CAN ENHANCE THE APPEARANCE OF THIS FACILITY WITHOUT INVOLVING EXCESSIVE COST. WHERE POSSIBLE, THE USE OF LOCAL MATERIALS IS DESIRED, BUT IT IS NOT INTENDED THAT EXTREME DESIGN OR UNTRIED MATERIALS BE INCORPORATED.

UNLESS NOTED OTHERWISE, WINDOWS AND DOORS SHALL BE LOCATED TO SATISFY LOCAL DESIGN AND FUNCTIONAL REQUIREMENTS. GLASS AREAS SHOULD BE KEPT TO A MINIMUM IN ORDER TO CONSERVE HEAT AND AIR CONDITIONING. DUCTS, PIPING AND SIMILAR FITTINGS SHALL BE CONCEALED EXCEPT IN THE MECHANICAL ROOM.

COMMON EXTERIOR WALLS SHOULD BE EMPLOYED FOR CONSTRUCTION ECONOMY, OR WHERE SITE CONDITIONS PERMIT. THIS FACILITY SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF A.N.S.I. STANDARD A 117.1 TO MAKE ACCESSIBLE TO, AND USABLE BY THE HANDICAPPED.

PRE-ENGINEERED STRUCTURES MAY BE USED AS PROVIDED IN APPLICABLE CRITERIA.

PLAN DIMENSIONS ARE NOMINAL AND MAY BE ADJUSTED TO CONFORM TO THE STOCK DIMENSIONS AND DETAILING OF AVAILABLE PRE-ENGINEERED STRUCTURES AND TO ACCOMMODATE THE THICKNESS OF MATERIALS SELECTED FOR THE FINAL DESIGN.

**STRUCTURAL**

BUILDINGS SHOULD BE DESIGNED FOR CLEAR SPANS AS FOLLOWS:

FOR A BUILDING HAVING UP TO 16 LANES THE SPAN SHOULD BE TRANSVERSE.

FOR A BUILDING HAVING MORE THAN 16 LANES THE SPAN SHOULD BE LONGITUDINAL.

THE STRUCTURE SHALL MEET APPLICABLE DESIGN LOAD CONDITIONS AND CONFORM TO MANUFACTURER'S STANDARDS OF PRE-ENGINEERED BUILDING COMPONENTS. LIVE LOADS SHALL BE IN ACCORDANCE WITH APPLICABLE CRITERIA.

PROVIDE LATERAL STIFFENING IN EXTERIOR WALLS AS REQUIRED TO SUIT LOCAL CONDITIONS.

INTERIOR COLUMNS, WHERE REQUIRED, SHALL BE PLACED BETWEEN LANES AT NON-BALL RETURN SPACES. TO COMPENSATE FOR THE AREA OF THE COLUMNS, ONE OF THE SIDE AISLES SHOULD BE ELIMINATED IN ORDER THAT THE MAXIMUM ALLOWABLE GROSS AREA FOR THE BUILDING WILL NOT BE EXCEEDED.

**ELECTRICAL**

THE NUMBER OF CONVENIENCE OUTLETS PER ROOM SHALL BE DETERMINED BY THE DESIGN AGENCY. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CRITERIA. THE ILLUMINATION WILL CONFORM TO THE I.E.S. RECOMMENDED STANDARD PRACTICES FOR RECREATIONAL CLASS BOWLING LANES.

LIGHTING IN WORKSHOP TO BE EXPLOSION-PROOF.

**MECHANICAL**

HEATING, MECHANICAL VENTILATION, EVAPORATIVE COOLING AND AIR CONDITIONING SHALL BE IN ACCORDANCE WITH APPLICABLE CRITERIA.

FIRE PROTECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH AIR FORCE MANUAL AFM 88-15.

PROVIDE AN EXHAUST SYSTEM IN WORKSHOP.

CATEGORY CODE NO. 740 - 671

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

**DEPARTMENT OF THE AIR FORCE**  
 HEADQUARTERS UNITED STATES AIR FORCE  
 SPECTOR, PEAKE AND HOWELL  
 ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

**BOWLING CENTERS**  
 2 THRU 32 LANES  
 PLANS

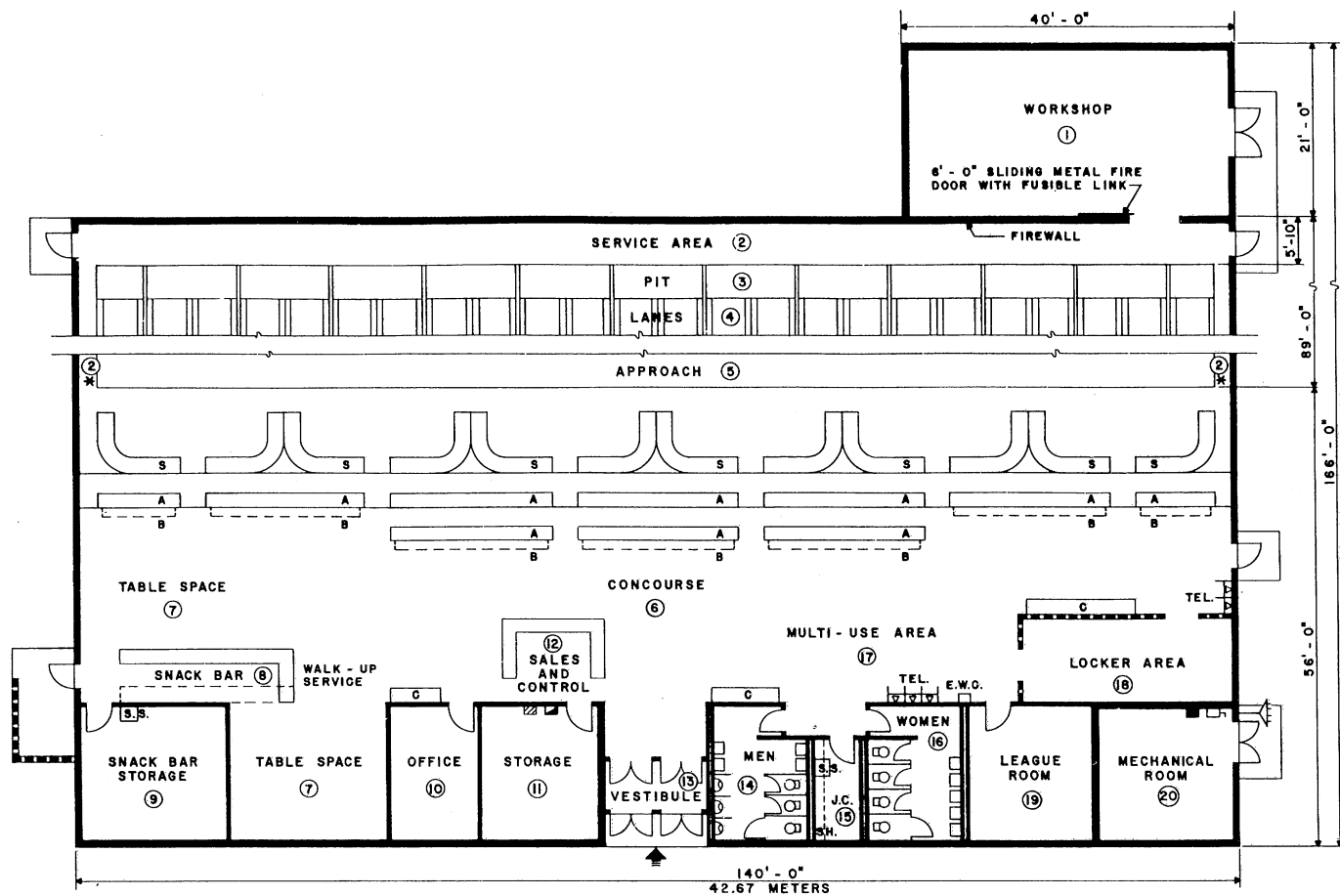
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SCALE: 1/8" = 1'-0" SHEET 2 OF 3

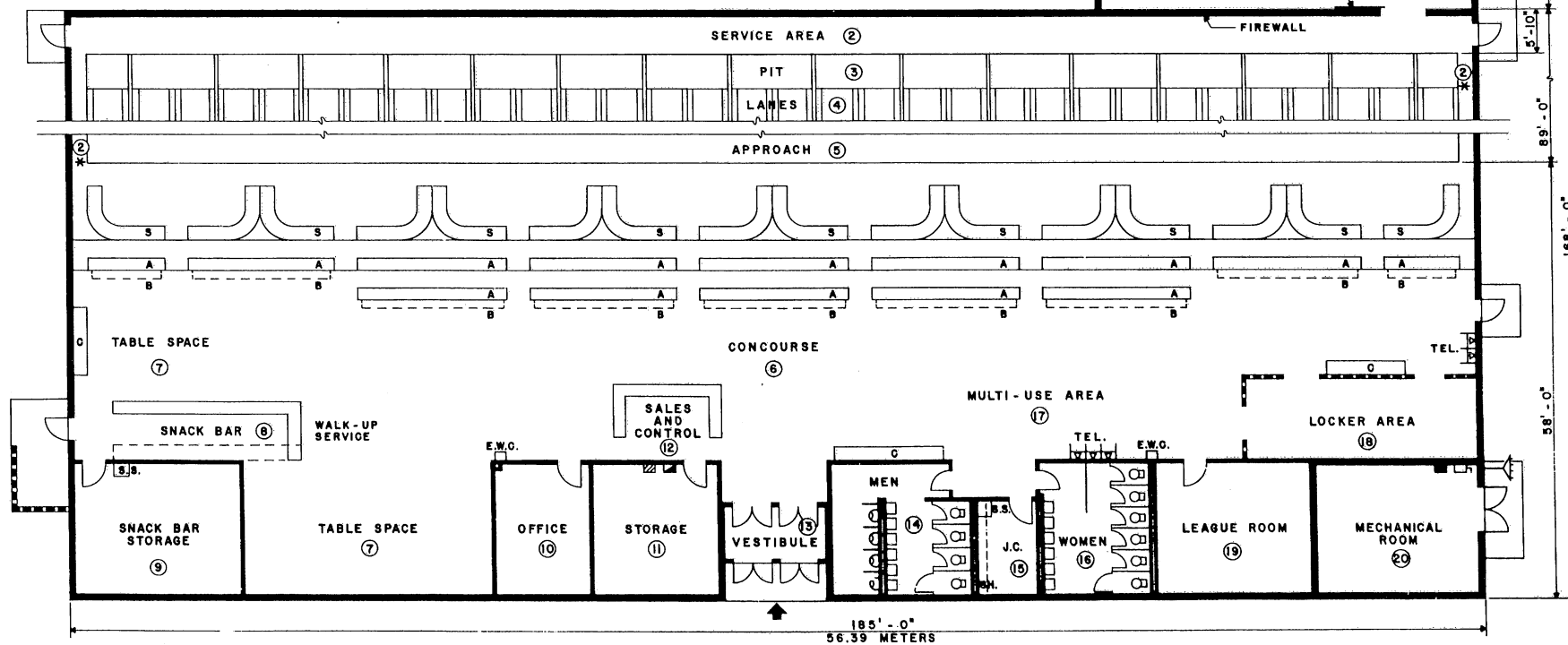
DATE: \_\_\_\_\_

FACILITY OPER. \_\_\_\_\_  
 FOR CHIEF OF STAFF USAF

AD 14-28-03 RI



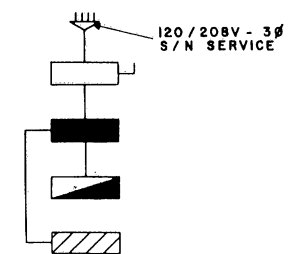
FLOOR PLAN - 24 LANES



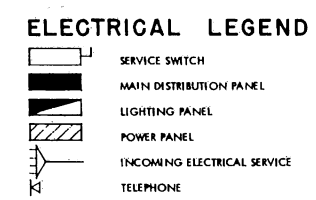
FLOOR PLAN - 32 LANES

ROOM NUMBER	DESCRIPTION	32 LANES		24 LANES	
		DIMENSIONS	GROSS AREA SQ. FT.	DIMENSIONS	GROSS AREA SQ. FT.
1	WORK SHOP	50' - 0" x 21' - 0"	1,050	40' - 0" x 21' - 0"	840
2 *	SERVICE AREA	270' - 10" x 5' - 10"	1,579	225' - 0" x 5' - 10"	1,316
3	PIT	179' - 0" x 4' - 8"	835	134' - 0" x 4' - 8"	625
4	LANES	179' - 0" x 62' - 6"	11,187	134' - 0" x 62' - 6"	8,375
5	APPROACH	179' - 0" x 16' - 0"	2,864	134' - 0" x 16' - 0"	2,144
6 †	CONCOURSE	138' - 2" x 36' - 6"	5,042	129' - 3" x 29' - 4"	3,789
7 †	TABLE SPACE	38' - 6" x 42' - 0"	1,617	33' - 6" x 30' - 8"	1,026
8	SNACK BAR	31' - 0" x 8' - 0"	248	26' - 6" x 6' - 6"	172
9	SNACK BAR STORAGE	23' - 0" x 18' - 8"	429	19' - 0" x 17' - 10"	339
10	OFFICE	13' - 6" x 18' - 8"	252	11' - 0" x 17' - 10"	196
11	STORAGE	17' - 0" x 18' - 8"	317	15' - 0" x 17' - 10"	268
12	SALES & CONTROL	14' - 4" x 10' - 0"	143	12' - 6" x 10' - 3"	128
13	VESTIBULE	13' - 0" x 8' - 0"	104	12' - 0" x 7' - 0"	84
14 †	MEN'S ROOM	19' - 2" x 18' - 8"	357	12' - 4" x 17' - 10"	220
15	JANITOR'S CLOSET	9' - 0" x 13' - 8"	123	6' - 6" x 13' - 6"	88
16	WOMEN'S ROOM	15' - 0" x 18' - 8"	280	12' - 6" x 17' - 10"	223
17 †	MULTI-USE AREA	55' - 0" x 11' - 0"	605	38' - 0" x 10' - 6"	399
18	LOCKER AREA	31' - 0" x 11' - 0"	346	26' - 6" x 10' - 6"	278
19	LEAGUE ROOM	21' - 0" x 18' - 8"	392	15' - 8" x 17' - 10"	279
20	MECHANICAL ROOM	22' - 0" x 18' - 8"	410	17' - 0" x 17' - 10"	303
	TOTAL		28,180		21,092

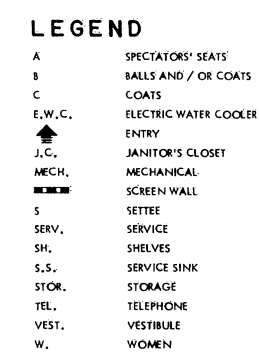
\* SERVICE AREA INCLUDES WALKWAYS AT SIDES OF BOWLING LANES.  
 † DIMENSIONS ARE APPROXIMATE.



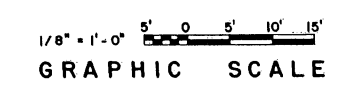
ELECTRICAL RISER DIAGRAM  
NO SCALE



ELECTRICAL LEGEND



LEGEND



GRAPHIC SCALE

CATEGORY CODE NO. 740 - 671

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED
<b>DEPARTMENT OF THE AIR FORCE</b> HEADQUARTERS UNITED STATES AIR FORCE SPECTOR, PEAKE AND HOWELL ARCHITECTS-ENGINEERS - FALLS CHURCH, VIRGINIA			
<b>BOWLING CENTERS</b> 2 THRU 32 LANES PLANS			
APPROVED	SCALE: 1/8" = 1'-0"	DATE:	SHEET 3 OF 3
FACILITY OPR <i>[Signature]</i> FOR CHIEF OF STAFF USAF		<b>AD 14-28-03 RI</b>	

C 3

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE DOCUMENTS.

**GENERAL NOTES**

- FUNCTIONAL RELATIONSHIPS AS SHOWN MUST BE FOLLOWED. HOWEVER, IT IS INTENDED THAT THIS DEFINITIVE HAVE FLEXIBILITY FOR ADAPTATION TO AN EXISTING FACILITY OR NEW CONSTRUCTION.
- FUNCTIONAL RELATIONSHIPS SHOULD BE SIMILAR IN ALL CLIMATES.
- AIR CONDITIONING, VENTILATION, ELECTRICAL AND PLUMBING REQUIREMENTS AND STANDARDS TO COMPLY WITH APPROPRIATE AIR FORCE GUIDELINES.
- GENERAL INTERIOR AND EXTERIOR COLOR SCHEMES AND GRAPHICS SYSTEM SHOULD REFLECT IMAGINATION AND BE CREATIVE YET CONFORM TO CURRENT USAF GUIDELINES.
- VISUAL AND AUDIO PRIVACY MUST BE PROVIDED FOR CUSTOMER COUNSELING AREAS.

**BACKGROUND**

ONE OF THE MOST IMPORTANT FAMILY OR COMMUNITY-ORIENTED SERVICES PROVIDED BY THE USAF IS THAT OF THE FAMILY HOUSING MANAGEMENT OFFICE. THE ACTIVITIES OF THIS FACILITY PROVIDE "ONE STOP" SERVICE FOR THE TOTAL HOUSING NEEDS OF MILITARY MEMBERS AND THEIR FAMILIES. THE PRIMARY OBJECTIVES OF THE FAMILY HOUSING MANAGEMENT OFFICE ARE THE CONSTRUCTION, OPERATION AND MAINTENANCE OF ALL ON-BASE FAMILY HOUSING AND THE ADMINISTRATION OF AN OFF-BASE FAMILY HOUSING REFERRAL AND ASSISTANCE PROGRAM. WHETHER TO OR FROM A MILITARY INSTALLATION, THE EXPERIENCE OF MOVING IS A MOST TRYING AND EMOTIONALLY UPSETTING ONE, AND THE SERVICES AND FACILITIES OF THE FAMILY HOUSING MANAGEMENT OFFICE MUST BE DIRECTED TO MAKING THIS EXPERIENCE EASIER AND MORE PLEASANT. THE DEFINITIVE DESIGN SHOWN ON THIS SHEET IS PROVIDED IN A GRAPHIC AND CONCEPTUAL FORMAT. ITS USE IS INTENDED TO ASSIST IN THE PROGRAMMING AND DESIGN OF THE FAMILY HOUSING MANAGEMENT OFFICE WHETHER IT BE AN ALTERATION PROJECT IN AN EXISTING FACILITY OR IN SUPPORT OF NEW CONSTRUCTION. THE CONCEPTUAL FORMAT IS USED TO PROMOTE FLEXIBILITY IN SELECTION OF A SITE AND THE FACILITY FLOOR PLAN.

**LOCATION**

THE LOCATION DIAGRAM SHOWS THAT ALTHOUGH ADMINISTRATIVELY UNDER THE CONTROL OF THE BASE CIVIL ENGINEER, THE STRONGEST AND PRIMARY PHYSICAL LOCATION IS WITHIN OR ADJACENT TO THE COMMUNITY SERVICES FACILITIES COMPLEX. THE ACTIVITIES OF THE USERS OF THE FAMILY HOUSING MANAGEMENT OFFICE DURING THE TIME THEY REQUIRE HOUSING ASSISTANCE WILL FOCUS PRIMARILY AROUND COMMUNITY SERVICES FACILITIES, I.E., THE BASE EXCHANGE, COMMISSARY, CAFETERIA, CHILD CARE ACTIVITIES, ETC. A SECONDARY PHYSICAL LOCATION WOULD BE NEAR THE ON-BASE FAMILY HOUSING AREA. ANOTHER SECONDARY LOCATION MIGHT BE ADJACENT TO CONSOLIDATED BASE PERSONNEL OFFICE, TRAFFIC MANAGEMENT OFFICE, HOUSING SUPPLY AND THE HOUSING SELF-HELP STORE. AS SHOWN BY THE DIAGRAM, THE REQUIREMENT FOR READY ACCESS AND EASY OF DIRECTIONAL ACCESSIBILITY COULD SUGGEST A TERTIARY LOCATION NEAR THE MAIN GATE. HOWEVER, APPROPRIATE DIRECTIONAL GRAPHICS AND A PRIMARY LOCATION IN THE COMMUNITY SERVICES FACILITIES COMPLEX CAN MEET THE NEED FOR A MAIN GATE LOCATION IN MOST SITUATIONS. AN ADJACENT BUT NECESSARY PHYSICAL LOCATION FACTOR SHOULD BE THE PROXIMITY TO AN OUTDOOR PLAY AREA OR OTHER ACTIVITY TO OCCUPY THE ATTENTION AND CONTROL OF CHILDREN OF THE FAMILIES USING THIS SERVICE. ADEQUATE PARKING FOR EXCLUSIVE USE BY FHMDO CUSTOMERS IS ALSO REQUIRED.

**MANAGEMENT**

AS SHOWN IN THE MANAGEMENT DIAGRAM, EXTERNAL MANAGEMENT RELATIONSHIPS SHOW THE FAMILY HOUSING MANAGEMENT OFFICE IN A PRIMARY LINK WITH THE BASE CIVIL ENGINEER, THE ON-BASE FAMILY HOUSING COMMUNITY, AND RESOURCES OF THE OFF-BASE HOUSING COMMUNITY. THE PRIMARY FUNCTIONS UNDER THE HOUSING OFFICER ARE THOSE OF ASSIGNMENT/INSPECTION OF ON-BASE RESOURCES AND HOUSING REFERRAL OF OFF-BASE RESOURCES. IN BOTH OF THESE FUNCTIONS, COUNSELING ACTIVITIES PLAY A KEY ROLE. IT IS REQUIRED THAT ASSIGNMENT/INSPECTION AND REFERRAL BE CO-LOCATED WITH THE HOUSING OFFICER IN THE SAME FACILITY. BOTH OF THESE PRIMARY SUBFUNCTIONS REQUIRE CLERK OR ADMINISTRATIVE SUPPORT FROM WITHIN THE ORGANIZATION AND EXTERNAL SUPPORT FROM THE BASE CIVIL ENGINEER COMPLEX. THIS BCE SUPPORT IS IN THE AREA OF ANNUAL WORK PLAN INSPECTION, PROGRAMMING IN-HOUSE AND CONTRACT MAINTENANCE AND REPAIRS MANAGER. AT SOME LARGER INSTALLATIONS PROGRAMMING, PLANNING AND FUNDS MANAGEMENT ACTIVITIES MAY BE DIRECTLY A PART OF THE FHMDO. THE ASSIGNMENT AND INSPECTION FUNCTION COUNSELS INCOMING PERSONNEL AND CONTROLS THE OCCUPANCY OF THE ON-BASE PERMANENT HOUSING COMMUNITY. ASSIGNMENT MAINTAINS OCCUPANCY STATUS AND COMPLIES WITH ELIGIBILITY GUIDELINES IN ESTABLISHING AND KEEPING CURRENT HOUSING ASSIGNMENT WAITING LISTS. THESE LISTS SHOULD BE MADE AVAILABLE FOR REVIEW BY POTENTIAL OCCUPANTS. INSPECTION MONITORS THE PHYSICAL CONDITION OF HOUSING UNITS PERFORMING BOTH IN AND OUT OCCUPANCY INSPECTIONS AND MONITORS THE MAINTENANCE WORK NECESSARY TO PROPERLY MAINTAIN THE UNITS FOR OCCUPANCY. IT REQUIRES CLOSE COORDINATION AND TEAMWORK BETWEEN ASSIGNMENT, INSPECTION AND THE HRO TO KEEP THE VACANT PERIOD BETWEEN OCCUPANTS TO AN ABSOLUTE MINIMUM. THE REFERRAL FUNCTION PERFORMS A COUNSELING SERVICE BASED ON ITS KNOWLEDGE OF OFF-BASE COMMUNITY HOUSING SUPPORT. SUCH COUNSELING IS BOTH WITH AIR FORCE FAMILIES AS PROSPECTIVE TENANTS OR PURCHASERS AND WITH OFF-BASE PROSPECTIVE LANDLORDS OR BELLETS. THIS FUNCTION RELATES CLOSELY TO THAT OF A REALTOR. COUNSELING MAY BE ACCOMPLISHED BY A CHIEF REFERRAL OFFICER WITH ONE OR MORE COUNSELORS OR BY REFERRAL OFFICERS PERFORMING DUAL ROLES AS COUNSELORS.

**ORGANIZATION**

UNDER THE RESPONSIBILITY OF THE BASE CIVIL ENGINEER AND REQUIRING HIS ACTIVE PARTICIPATION, THE FAMILY HOUSING MANAGEMENT OFFICE IS MANAGED BY THE HOUSING OFFICER. THE PRIMARY FUNCTIONS UNDER THE HOUSING OFFICER ARE THOSE OF ASSIGNMENT/INSPECTION OF ON-BASE RESOURCES AND HOUSING REFERRAL OF OFF-BASE RESOURCES. IN BOTH OF THESE FUNCTIONS, COUNSELING ACTIVITIES PLAY A KEY ROLE. IT IS REQUIRED THAT ASSIGNMENT/INSPECTION AND REFERRAL BE CO-LOCATED WITH THE HOUSING OFFICER IN THE SAME FACILITY. BOTH OF THESE PRIMARY SUBFUNCTIONS REQUIRE CLERK OR ADMINISTRATIVE SUPPORT FROM WITHIN THE ORGANIZATION AND EXTERNAL SUPPORT FROM THE BASE CIVIL ENGINEER COMPLEX. THIS BCE SUPPORT IS IN THE AREA OF ANNUAL WORK PLAN INSPECTION, PROGRAMMING IN-HOUSE AND CONTRACT MAINTENANCE AND REPAIRS MANAGER. AT SOME LARGER INSTALLATIONS PROGRAMMING, PLANNING AND FUNDS MANAGEMENT ACTIVITIES MAY BE DIRECTLY A PART OF THE FHMDO. THE ASSIGNMENT AND INSPECTION FUNCTION COUNSELS INCOMING PERSONNEL AND CONTROLS THE OCCUPANCY OF THE ON-BASE PERMANENT HOUSING COMMUNITY. ASSIGNMENT MAINTAINS OCCUPANCY STATUS AND COMPLIES WITH ELIGIBILITY GUIDELINES IN ESTABLISHING AND KEEPING CURRENT HOUSING ASSIGNMENT WAITING LISTS. THESE LISTS SHOULD BE MADE AVAILABLE FOR REVIEW BY POTENTIAL OCCUPANTS. INSPECTION MONITORS THE PHYSICAL CONDITION OF HOUSING UNITS PERFORMING BOTH IN AND OUT OCCUPANCY INSPECTIONS AND MONITORS THE MAINTENANCE WORK NECESSARY TO PROPERLY MAINTAIN THE UNITS FOR OCCUPANCY. IT REQUIRES CLOSE COORDINATION AND TEAMWORK BETWEEN ASSIGNMENT, INSPECTION AND THE HRO TO KEEP THE VACANT PERIOD BETWEEN OCCUPANTS TO AN ABSOLUTE MINIMUM. THE REFERRAL FUNCTION PERFORMS A COUNSELING SERVICE BASED ON ITS KNOWLEDGE OF OFF-BASE COMMUNITY HOUSING SUPPORT. SUCH COUNSELING IS BOTH WITH AIR FORCE FAMILIES AS PROSPECTIVE TENANTS OR PURCHASERS AND WITH OFF-BASE PROSPECTIVE LANDLORDS OR BELLETS. THIS FUNCTION RELATES CLOSELY TO THAT OF A REALTOR. COUNSELING MAY BE ACCOMPLISHED BY A CHIEF REFERRAL OFFICER WITH ONE OR MORE COUNSELORS OR BY REFERRAL OFFICERS PERFORMING DUAL ROLES AS COUNSELORS.

**FUNCTIONAL**

THE FUNCTIONAL DIAGRAM SHOWS SPACE SIZES FOR A TYPICAL MEDIUM SIZE FACILITY AND INTERNAL ADJACENCY RELATIONSHIPS WHICH ARE DESIRABLE IN ALL SIZE FACILITIES. BOTH THE REFERRAL AND ASSIGNMENT FUNCTIONS SHOULD BE ADJACENT TO A MAIN WAITING AREA. THIS AREA SHOULD BE BRIGHT, PLEASANT AND COMFORTABLE, AND SHOULD VISUALLY RELATE TO AN OUTDOOR PLAY AREA. APPROPRIATE USE OF COLOR AND PATTERN IN WALL FINISHES AND CARPETING OR OTHER FLOORING IS ENCOURAGED. TOILET FACILITIES FOR MEN AND WOMEN SHOULD BE CONVENIENT. THE WAITING AREA MUST HAVE A DISPLAY SHOWING BOTH ON AND OFF-BASE HOUSING RESOURCES AS WELL AS THE AIR INSTALLATION COMPATIBLE USE (ACU) DISPLAY. DISPLAYS WILL NOT ONLY SHOW LOCATION AND AVAILABILITY OF OFF-BASE RESOURCES BUT MAY INCLUDE DISPLAY OF THE WAITING LISTS FOR ON-BASE HOUSING COMMUNITY FOR REVIEW BY POTENTIAL OCCUPANTS. REFERRAL MUST HAVE PRIVATE COUNSELING AREAS EITHER WITHIN THE REFERRAL OFFICER'S SPACE OR IN A COMMON COUNSELING ROOM. ASSIGNMENT CLERKS NEED A COUING AREA FOR INTERVIEW AND A FILES AREA TO MAINTAIN DATA AND STATUS ON ON-BASE UNITS. INSPECTION REQUIRES A WORK AREA TO SCHEDULE AND EVALUATE INSPECTIONS AND A FILES AREA WHICH MAY BE COMBINED WITH ASSIGNMENT FILES. A FILING AND NEWS STORAGE AREA IS ALSO REQUIRED. THE HOUSING OFFICE REQUIRES A PRIVATE OFFICE AREA FOR A CLERK, AND A PHYSICAL LOCATION SO AS TO PROVIDE GENERAL MANAGEMENT. THE INSPECTION FUNCTION MUST ALSO HAVE A SEPARATE OUTSIDE ENTRANCE. THE OUTSIDE ENVIRONMENT INTERNALLY AND EXTERNALLY OF THE FAMILY HOUSING MANAGEMENT OFFICE SHOULD BE BRIGHT, PLEASANT, COMFORTABLE AND IMAGINATIVE. COULDED WITH A SUCCESSFUL, ADMINISTRATIVE OPERATIONS, THIS FACILITY CAN AND WILL PROVIDE A CRITICAL SERVICE TO MILITARY MEMBERS.

**LEGEND:**

- PRIMARY LINK
- SECONDARY LINK
- TERTIARY LINK

NOTE: FIGURES BELOW ARE BASED ON A TYPE "B" FACILITY.

**ROOM SCHEDULE**

ABBREVIATION	DESCRIPTION	SIZE(TOTAL NET AREA)
E	ENTRANCE	N/A
W	WAITING AREA	400
D	DISPLAY	N/A
AC	ASSIGNMENT CLERK	150
I	INSPECTION	90
F	FILES AREA	160
K/S	KEY AND GENERAL STORAGE	30
CL	CLERK	150
HRO	HOUSING REFERRAL OFFICER	320
C	COUNSELING	100
T	TOILET	100
HO	HOUSING OFFICER	140
OP	OUTSIDE PLAY AREA	N/A

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

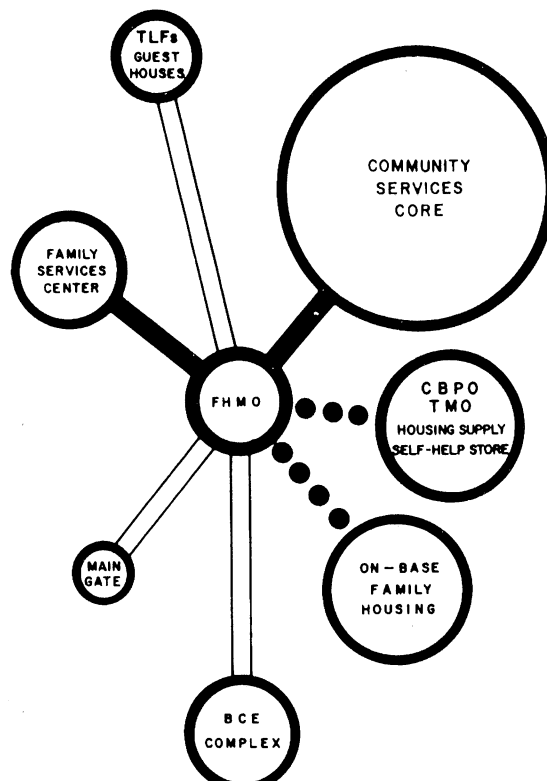
**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS UNITED STATES AIR FORCE  
DIRECTORATE OF ENGINEERING AND SERVICES  
ENGINEERING AND CONSTRUCTION DIVISION STRUCTURES BRANCH

**FAMILY HOUSING MANAGEMENT OFFICE**

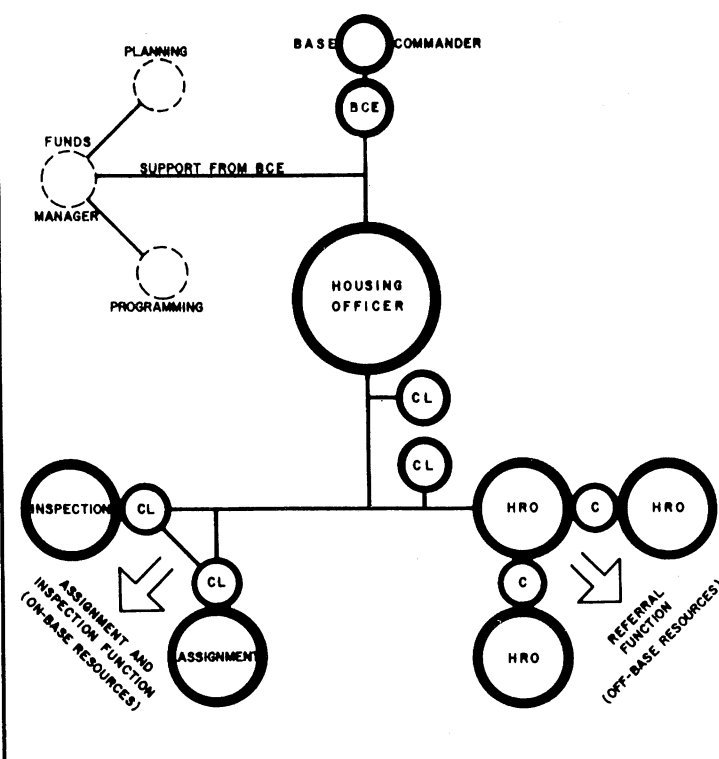
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FOR CHIEF OF STAFF USAF

SCALE: NONE  
DATE: 1 SEPTEMBER 1978  
SHEET 1 OF 1

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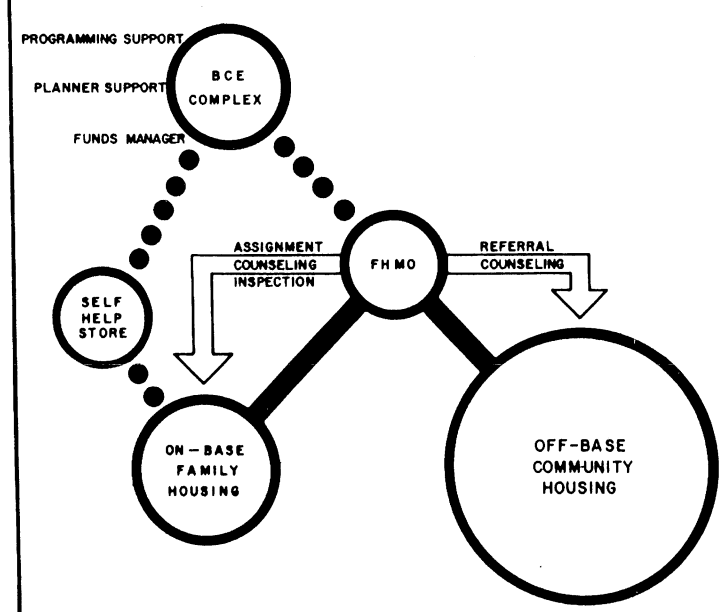


**LOCATION**

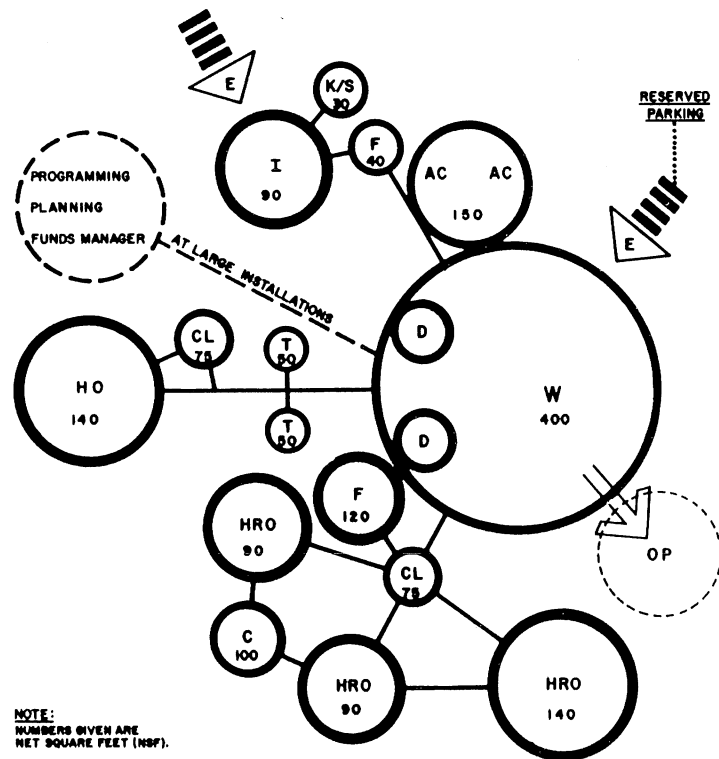


**ORGANIZATION**

○ AT LARGE INSTALLATIONS, THESE FUNCTIONS MAY BE PART OF FHMDO.



**MANAGEMENT**



**FUNCTIONAL / SIZE**

NOTE: NUMBERS GIVEN ARE NET SQUARE FEET (NSF).

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

**GENERAL NOTES**

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THE TWO FACILITIES SHOWN.

THE ARRANGEMENT AND FUNCTIONAL LAYOUT INDICATED WILL BE FOLLOWED UNLESS PRIOR CLEARANCE FOR CHANGE HAS BEEN OBTAINED FROM AFMPC/DPMSRA, RANDOLPH AIR FORCE BASE, TEXAS, 78148.

THESE FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF ANSI STANDARD A 117.1 TO MAKE IT ACCESSIBLE TO AND USABLE BY THE HANDICAPPED.

**ARCHITECTURAL**

PRE-ENGINEERED STRUCTURES MAY BE USED AS PROVIDED IN STANDARD OUTLINE SPECIFICATIONS FOR AIR FORCE FACILITIES, AFM 88-15.

IF STANDARD CONSTRUCTION IS USED, IT MUST BE PERMANENT TYPE, NON-COMBUSTIBLE.

WHERE ADDITION JOINS THE EXISTING STRUCTURE, EXTREME CARE SHOULD BE EXERCISED IN THE BONDING AND SEALING OF JOINTS TO AVOID LEAKING AND FUTURE SEPARATION.

NEW ADDITION SHALL BE IN HARMONY WITH EXISTING STRUCTURE.

**PLUMBING REQUIREMENTS**

NO ADDITIONAL REQUIREMENTS.

**HEATING REQUIREMENTS (ADDITIONAL)**

OUTSIDE DESIGN TEMPERATURE: 0° F

	EXIST'G 11,000 S.F.	EXIST'G 21,000 S.F.
MBTU/HR REFRIGERATION	139.2 10 TONS	356.7 26 TONS

**VENTILATING REQUIREMENTS (ADDITIONAL)**

MECHANICAL VENTILATION 3100 CFM 8400 CFM

**ELECTRICAL REQUIREMENTS (ADDITIONAL)**

LIGHTS		
CONNECTED LOAD	7.1 KW	19.5 KW
ESTIMATED DEMAND	3.7 KW	18.5 KW
POWER		
CONNECTED LOAD	4.1 KW	11 KW
ESTIMATED DEMAND	3.7 KW	9.9 KW
REFRIGERATION	10 KW	26 KW
TOTAL		
CONNECTED LOAD	21.2 KW	56.5 KW
ESTIMATED DEMAND	20.4 KW	54.4 KW

CATEGORY CODE NO. 740 - 674

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

**DEPARTMENT OF THE AIR FORCE**

HEADQUARTERS UNITED STATES AIR FORCE

SPECTOR, PEAKE AND HOWELL

ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

**EXISTING GYMNASIUMS**

(11,000 & 21,000 SQ. FT.)

WITH HANDBALL / SQUASH COURTS ADDED

**PLANS**

APPROVED \_\_\_\_\_ SCALE: 1/8" = 1'-0" SHEET 1 OF 4

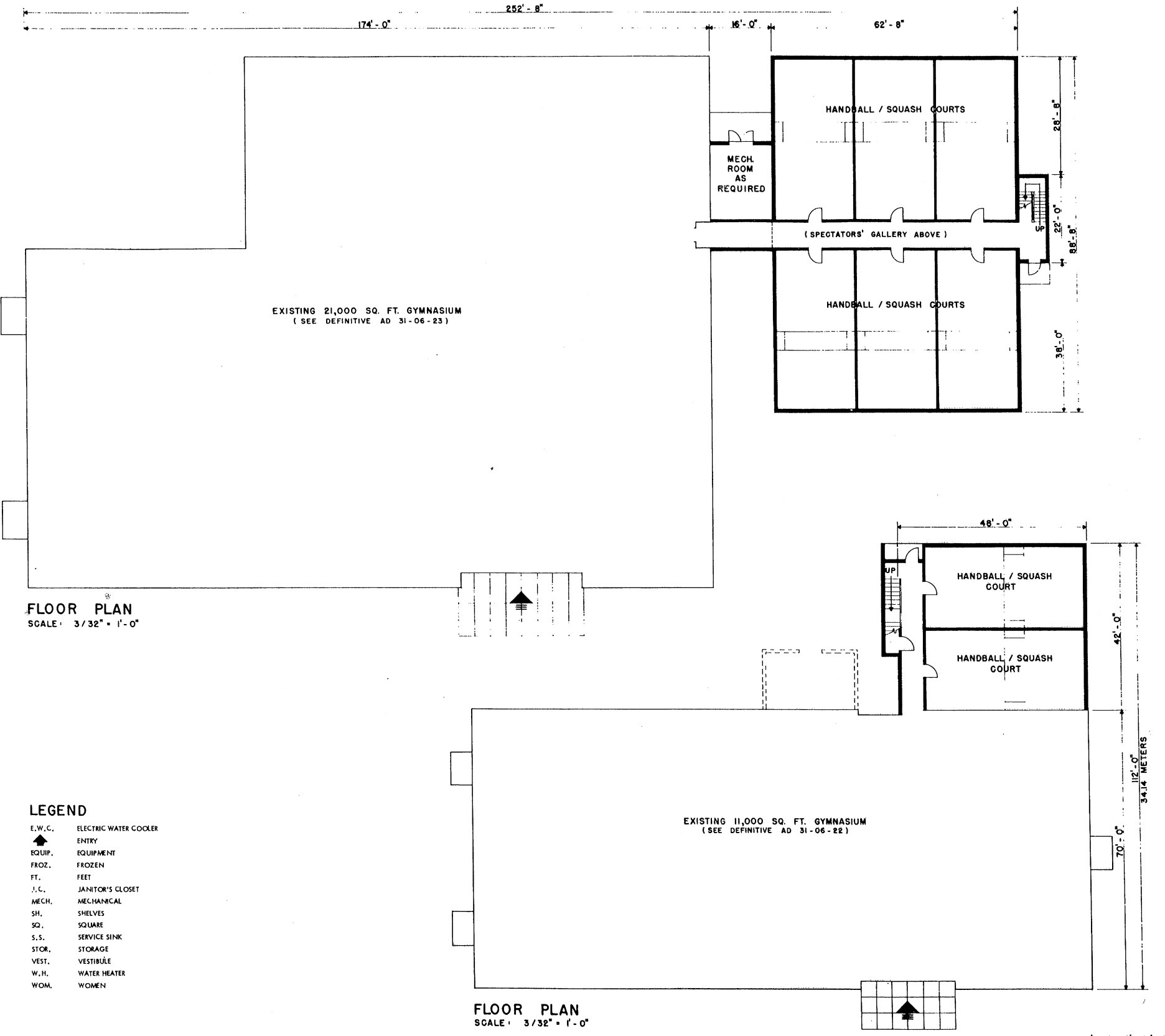
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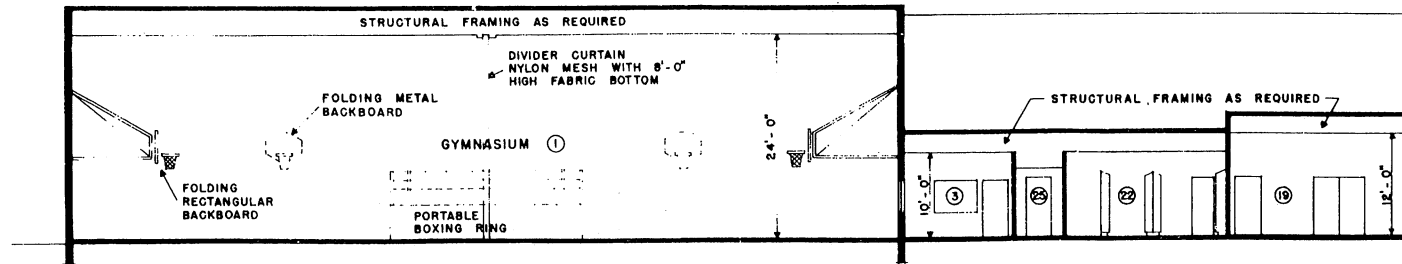
FACILITY OPR \_\_\_\_\_

FOR CHIEF OF STAFF USAF

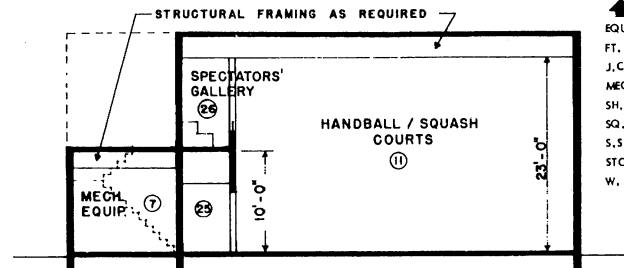
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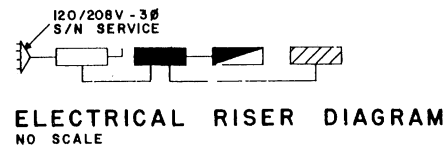
SECTION "A" - "A"  
SCALE: 1/8" = 1'-0"



SECTION "B" - "B"  
SCALE: 1/8" = 1'-0"

**LEGEND**

- C.G. CLEANING GEAR
- D. CLOTHES DRYER
- DN. DOWN
- E.W.C. ELECTRIC WATER COOLER
- E.W.C./C. ELECTRIC WATER COOLER WITH CUSPIDOR
- ↑ ENTRY
- EQUIP. EQUIPMENT
- FT. FEET
- J.C. JANITOR'S CLOSET
- MECH. MECHANICAL
- SH. SHELVES
- SQ. SQUARE
- S.S. SERVICE SINK
- STOR. STORAGE
- W. WASHING MACHINE



ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	GYMNASIUM	97'-4" x 70'-0"	6813
2	LOBBY	25'-0" x 17'-0"	424
3	OFFICE	12'-4" x 13'-8"	169
4	LAUNDRY & ISSUE	12'-4" x 16'-8"	206
5	STORAGE	12'-4" x 13'-0"	160
6	STAIRS	12'-4" x 7'-6"	92
7	JANITOR'S CLOSET	12'-4" x 4'-8"	58
8	MELH. EQUIP. ROOM	12'-4" x 18'-6"	228
9	STORAGE	12'-4" x 10'-6"	130
10	HANDBALL / SQUASH COURT	41'-6" x 71'-2"	2978
11	HANDBALL / SQUASH COURT	41'-6" x 71'-2"	2978
12	LOCKER ROOM	29'-0" x 15'-0"	435
13	MEN'S TOILET	12'-6" x 12'-6"	156
14	SAUNA / STEAM ROOM	10'-8" x 7'-0"	75
15	MEN	9'-0" x 7'-0"	63
16	DRYING ROOM	9'-4" x 7'-0"	65
17	SHOWER ROOM	12'-6" x 9'-6"	119
18	STORAGE	17'-10" x 7'-0"	125
19	EXERCISE ROOM	21'-10" x 39'-10"	870
20	SAUNA / STEAM ROOM	10'-8" x 7'-0"	75
21	WOMEN	9'-0" x 7'-0"	63
22	WOMEN (VISITING TEAM)	19'-8" x 15'-2"	298
23	WOMEN'S TOILET	12'-6" x 8'-0"	100
24	MEN'S TOILET	12'-6" x 12'-4"	154
25	CORRIDOR	5'-6" x 116'-2"	639
26	SPECTATORS' GALLERY	6'-10" x 38'-8"	264
TOTAL			13,531

**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PARAGRAPHS.

**GENERAL NOTES**

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

THE ARRANGEMENT AND FUNCTIONAL LAYOUT INDICATED WILL BE FOLLOWED UNLESS PRIOR CLEARANCE FOR CHANGE HAS BEEN OBTAINED FROM AFMPC/DPMSRA, RANDOLPH AIR FORCE BASE, TEXAS, 78148.

THIS FACILITY SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF ANSI STANDARD A 117.1 TO MAKE IT ACCESSIBLE TO AND USABLE BY THE HANDICAPPED.

THE SECTIONS INDICATED IN THIS DEFINITIVE DO NOT ESTABLISH AN ARCHITECTURAL DESIGN TREATMENT NOR THE USE OF SPECIFIC MATERIALS. MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE CRITERIA FOR THIS FACILITY.

CONSTRUCTION SHALL BE PERMANENT TYPE, NON-COMBUSTIBLE.

PRE-ENGINEERED STRUCTURES MAY BE USED PROVIDED THAT DURABILITY, MAINTENANCE, STRUCTURAL AND SAFETY QUALITIES FOR PERMANENT NON-COMBUSTIBLE CONSTRUCTION ARE MET.

THE MAXIMUM GROSS AREA SHOWN DOES NOT INCLUDE SPACE FOR MECHANICAL EQUIPMENT WHICH WILL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS OF SPECIFIC PROJECTS. WHERE SPECIFIC PROJECT CONDITIONS PERMIT, MECHANICAL EQUIPMENT MAY BE LOCATED IN A BASEMENT.

FIRE PROTECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH AIR FORCE MANUAL AFM 88-15.

**PLUMBING REQUIREMENTS**

COLD WATER: 40,000 GPD SEWAGE: 40,000 GPD  
(PROBABLE MAXIMUM FLOW RATE)  
NOTE: ABOVE FLOW RATE DOES NOT INCLUDE REQUIREMENTS FOR FIRE PROTECTION.

HOT WATER: 575 GPH DEMAND  
STORAGE: 575 GAL. STOR. CAPACITY

**HEATING REQUIREMENTS**

TYPICAL OUTSIDE DESIGN TEMPERATURE: 0° F  
MBTU/HR 674.2  
TYPICAL INSIDE DESIGN TEMPERATURE: 70° F  
REFRIGERATION: 62 TONS

**VENTILATING REQUIREMENTS**

MECHANICAL VENTILATION: 19,300 CFM

**ELECTRICAL REQUIREMENTS**

LIGHTS  
CONNECTED LOAD: 46.9 KW  
ESTIMATED DEMAND: 44.5 KW  
POWER  
CONNECTED LOAD: 40.2 KW  
ESTIMATED DEMAND: 36.2 KW  
REFRIGERATION  
CONNECTED LOAD: 62 KW  
ESTIMATED DEMAND: 62 KW  
TOTAL CONNECTED LOAD: 149.1 KW  
TOTAL ESTIMATED DEMAND: 142.7 KW

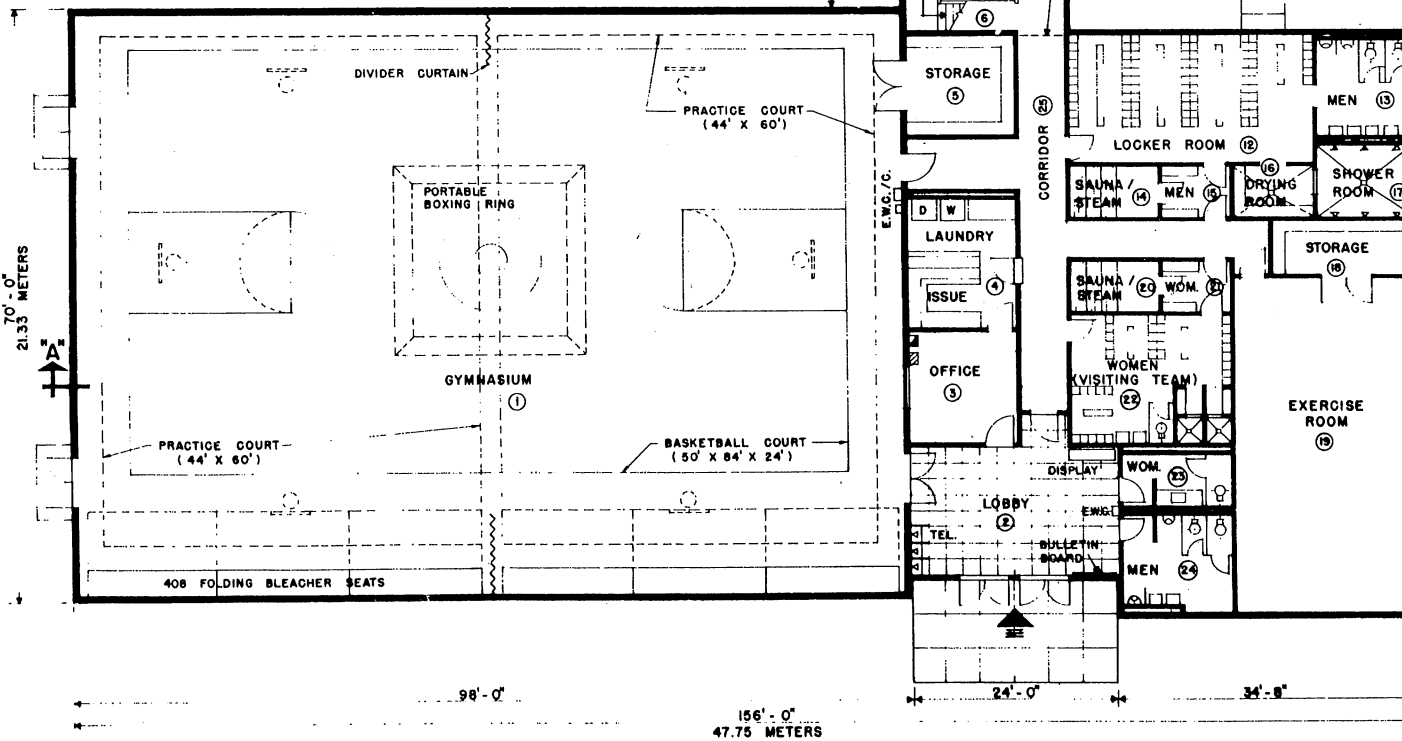
CATEGORY CODE NO. 740 - 674

EQUIPMENT SCHEDULE		
DESCRIPTION		QUANTITY
<b>GYMNASIUM</b>		
BLEACHER SEATS, FOLDING	CI	408
BASKETBALL BACKSTOPS, GLASS	CI	2
BASKETBALL BACKSTOPS, METAL	CI	4
VOLLEYBALL NET	GFE	2
VOLLEYBALL NET POLE W/FLOOR PLATES	CI	AS REQ'D.
SCOREBOARD, ELECTRIC W/CLOCK	GFE	1
SCORER'S TABLE, ELECTRIC	CI	1
DIVIDER CURTAIN	CI	1
P.A. SYSTEM	CI	1
CLIMBING ROPES	CI	2
CLOCK, ELECTRIC	CI	1
RING, BOXING, PORTABLE	GFE	1
BADMINTON NETS	GFE	3
BADMINTON POLE W/FLOOR PLATES	CI	AS REQ'D.
<b>EXERCISE ROOM</b>		
STALL BARS	CI	2
HORIZONTAL BAR W/FLOOR PLATES	CI	1
BAG, TRAINING, SPEED W/PLATFORM	CI	2
BAG, TRAINING, HEAVYWEIGHT	CI	1
WEIGHT, CHEST, PLATY	CI	2
MIRROR, WEIGHTLIFTING 4' x 6'	CI	1
CLOCK, ELECTRIC	CI	1
<b>LAUNDRY</b>		
MACHINE, WASHING	CI	1
DRYER, CLOTHING	CI	1
<b>MEN'S LOCKER ROOM</b>		
CLOCK, ELECTRIC	CI	1
CLOTHES LOCKER (1/2 LOCKER)	CI	166
MIRROR 4' x 6'	CI	1
<b>WOMEN'S LOCKER ROOM</b>		
CLOCK, ELECTRIC	CI	1
CLOTHES LOCKER (1/2 LOCKER)	CI	66
MIRROR 4' x 6'	CI	1
<b>LOBBY</b>		
BULLETIN BOARD	CI	1
DISPLAY CASE	CI	1
<b>NOTES</b>		
1. GFE = GOVERNMENT FURNISHED EQUIPMENT		
2. CI = CONTRACTOR FURNISHED AND INSTALLED		

**ELECTRICAL LEGEND**

- SERVICE SWITCH
- MAIN DISTRIBUTION PANEL
- ▨ LIGHTING PANEL
- ▩ POWER PANEL
- ⚡ INCOMING ELECTRICAL SERVICE
- ☎ TELEPHONE

1/8" = 1'-0" GRAPHIC SCALE



FLOOR PLAN  
SCALE: 1/8" = 1'-0"

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

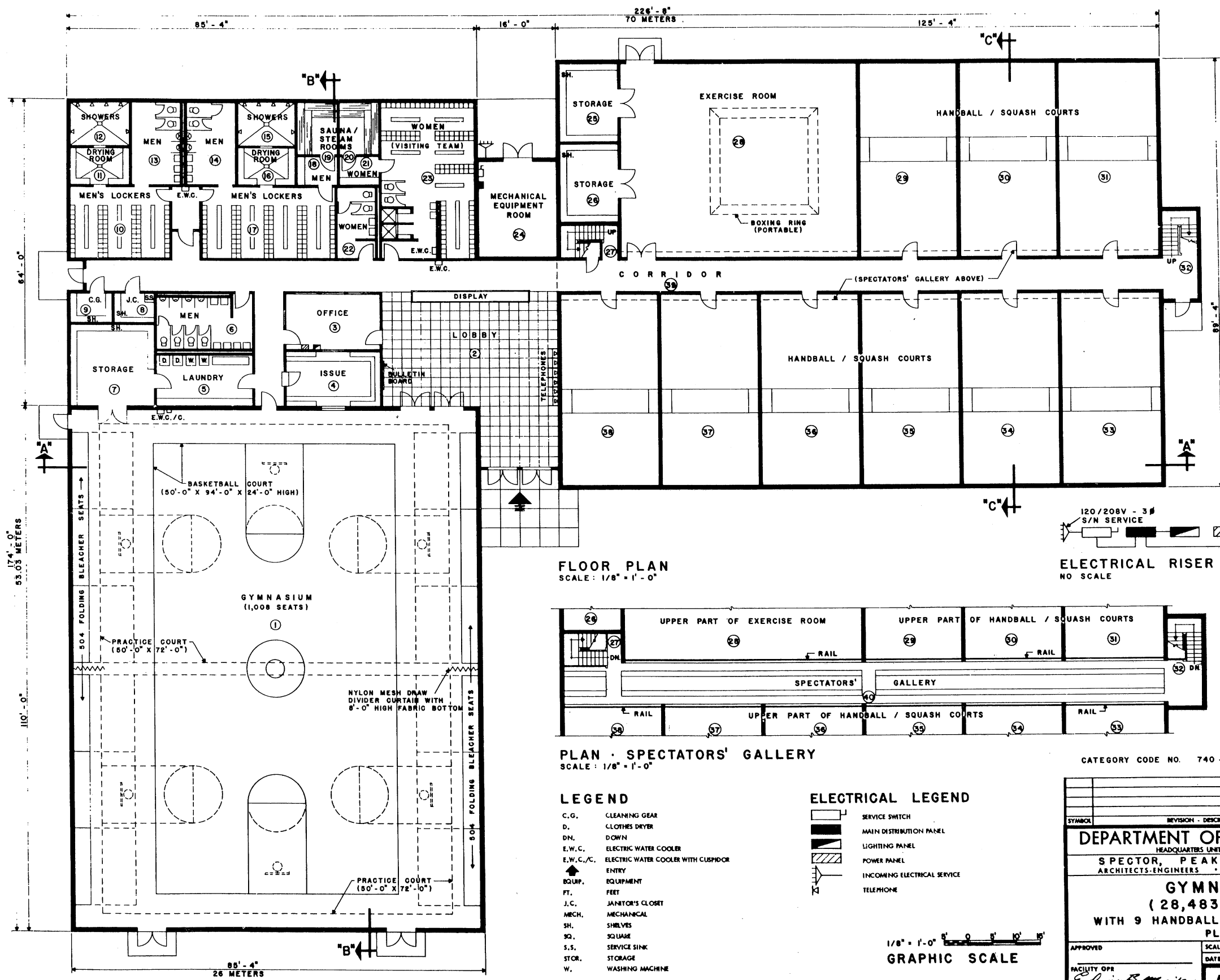
DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
SPECTOR, PEAKE AND HOWELL  
ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

**GYMNASIUM**  
(13,531 SQ. FT.)  
WITH 2 HANDBALL / SQUASH COURTS  
PLAN & SECTIONS

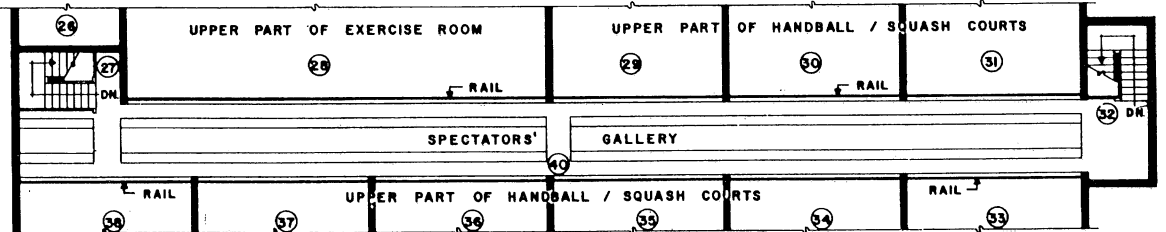
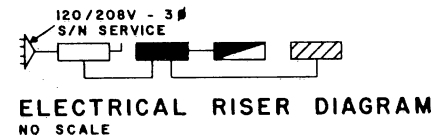
APPROVED: *Edwin B. Mason*  
FACILITY OPER FOR CHIEF OF STAFF USAF  
SCALE: 1/8" = 1'-0" SHEET 2 OF 4  
DATE: AD 31-06-22 RI

C3





**FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



**PLAN - SPECTATORS' GALLERY**  
SCALE: 1/8" = 1'-0"

**LEGEND**

- C.G. CLEANING GEAR
- D. CLOTHES DRYER
- DN. DOWN
- E.W.C. ELECTRIC WATER COOLER
- E.W.C./C. ELECTRIC WATER COOLER WITH CUSHPOOR
- ENTR. ENTRY
- EQUIP. EQUIPMENT
- FT. FEET
- J.C. JANITOR'S CLOSET
- MECH. MECHANICAL
- SH. SHELVES
- SQ. SQUARE
- S.S. SERVICE SINK
- STOR. STORAGE
- W. WASHING MACHINE

**ELECTRICAL LEGEND**

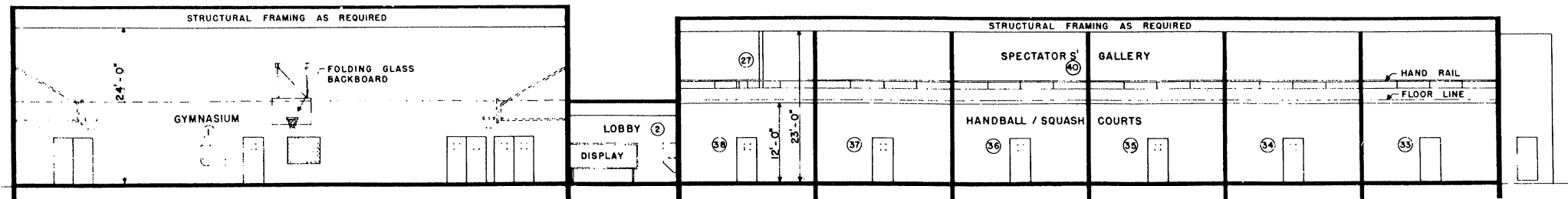
- [Symbol] SERVICE SWITCH
- [Symbol] MAIN DISTRIBUTION PANEL
- [Symbol] LIGHTING PANEL
- [Symbol] POWER PANEL
- [Symbol] INCOMING ELECTRICAL SERVICE
- [Symbol] TELEPHONE



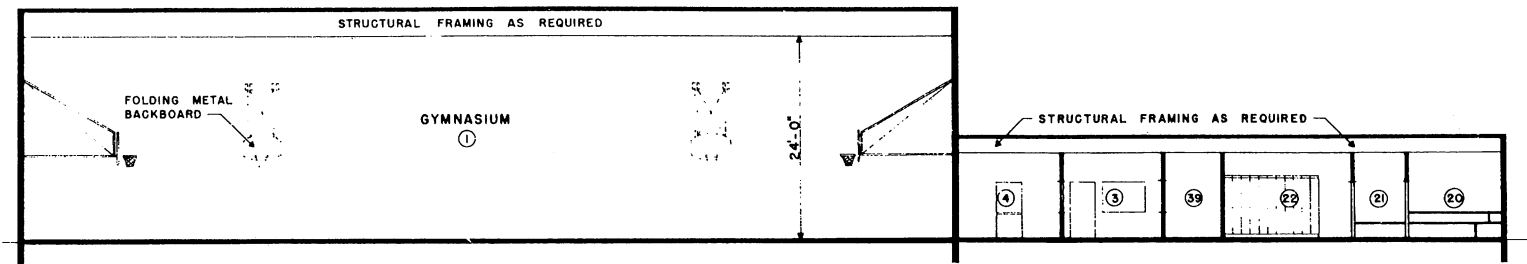
CATEGORY CODE NO. 740-674

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED
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HEADQUARTERS UNITED STATES AIR FORCE			
<b>SPECTOR, PEAKE AND HOWELL</b>			
ARCHITECTS-ENGINEERS FALLS CHURCH, VIRGINIA			
<b>GYMNASIUM</b>			
(28,483 SQ. FT.)			
WITH 9 HANDBALL / SQUASH COURTS			
<b>PLANS</b>			
APPROVED	SCALE: 1/8" = 1'-0"	SHEET 3 OF 4	
FACILITY OPR <i>Edwin B. ...</i> FOR CHIEF OF STAFF USAF		DATE:	AD 31-06-22 RI

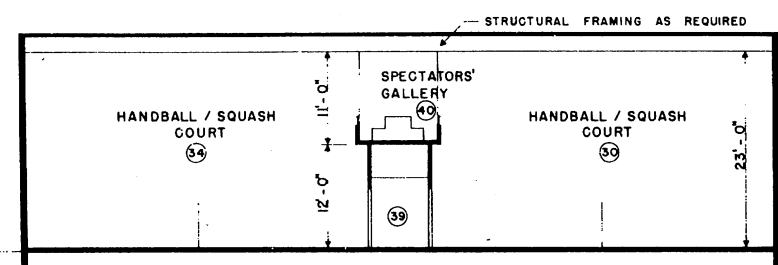
C3



SECTION "A" - "A"  
SCALE: 1/8" = 1'-0"



SECTION "B" - "B"  
SCALE: 1/8" = 1'-0"

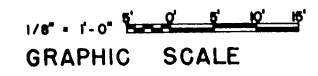


SECTION "C" - "C"  
SCALE: 1/8" = 1'-0"

EQUIPMENT SCHEDULE					
DESCRIPTION	*	QUANTITY	DESCRIPTION	*	QUANTITY
<b>GYMNASIUM</b>			<b>LAUNDRY</b>		
BLEACHER SEATS, FOLDING	CI	1,000	MACHINE, WASHING	CI	2
BASKETBALL BACKSTOPS, GLASS	CI	2	DRYER, CLOTHING	CI	2
BASKETBALL BACKSTOPS, METAL	CI	4			
VOLLEYBALL NET	GFE	2	<b>MEN'S LOCKER ROOM</b>		
VOLLEYBALL NET POLE W/FLOOR PLATES	CI	AS REQ'D.	CLOCK, ELECTRIC	CI	2
SCOREBOARD, ELECTRIC W/CLOCK	CI	2	CLOTHES LOCKER (1/2 LOCKER)	CI	300
SCORER'S TABLE, ELECTRIC	GFE	1	MIRROR 4' x 6'	CI	2
DIVIDER CURTAIN	CI	1	<b>WOMEN'S LOCKER ROOM</b>		
P.A. SYSTEM	CI	1	CLOCK, ELECTRIC	CI	1
CLIMBING ROPES	CI	2	CLOTHES LOCKER (1/2 LOCKER)	CI	170
BADMINTON NETS	GFE	3	MIRROR 4' x 6'	CI	1
BADMINTON NET POLE W/FLOOR PLATES	CI	AS REQ'D.	<b>LOBBY</b>		
CLOCK, ELECTRIC	CI	1	BULLETIN BOARD	CI	1
			DISPLAY CASE	CI	1
<b>EXERCISE ROOM</b>					
STALL BARS	CI	1			
BAG, TRAINING, SPEED W/PLATFORM	CI	2			
BAG, TRAINING, HEAVYWEIGHT	CI	2			
WEIGHT, CHEST, PULLEY	CI	2			
MIRROR, WEIGHTLIFTING, 4' x 6'	CI	2			
RING, BOXING, PORTABLE	GFE	1			
CLOCK, ELECTRIC	CI	1			
HORIZONTAL BAR W/FLOOR PLATES	CI	1			

**\* NOTES**  
1. GFE = GOVERNMENT FURNISHED EQUIPMENT  
2. CI = CONTRACTOR FURNISHED AND INSTALLED

ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	GYMNASIUM	85'- 4" x 110'- 0"	9387
2	LOBBY	37'- 0" x 30'- 8"	1133
3	OFFICE	20'- 8" x 12'- 0"	248
4	ISSUE	20'- 8" x 12'- 2"	251
5	LAUNDRY	20'- 2" x 12'- 2"	245
6	MEN'S TOILET	20'- 2" x 12'- 0"	242
7	STORAGE	18'- 6" x 17'- 6"	341
8	JANITOR'S CLOSET	8'- 8" x 6'- 8"	58
9	CLEANING GEAR	9'- 10" x 6'- 8"	66
10	MEN'S LOCKERS	22'- 6" x 15'- 6"	349
11	DRYING ROOM	13'- 10" x 8'- 8"	120
12	SHOWERS	13'- 10" x 9'- 8"	134
13	MEN'S TOILET	10'- 8" x 18'- 4"	196
14	MEN'S TOILET	10'- 8" x 18'- 4"	196
15	SHOWERS	12'- 6" x 9'- 8"	121
16	DRYING ROOM	12'- 6" x 8'- 8"	108
17	MEN'S LOCKERS	29'- 2" x 15'- 6"	452
18	MEN	8'- 8" x 6'- 10"	59
19	SAUNA / STEAM ROOM	8'- 8" x 11'- 6"	100
20	SAUNA / STEAM ROOM	8'- 8" x 11'- 6"	100
21	WOMEN	8'- 8" x 6'- 10"	59
22	WOMEN'S TOILET	9'- 4" x 15'- 6"	145
23	WOMEN (VISITING TEAM)	20'- 4" x 33'- 10"	688
24	MECH. EQUIP. ROOM	21'- 10" x 16'- 0"	350
25	STORAGE	13'- 5" x 17'- 0"	228
26	STORAGE	13'- 5" x 16'- 8"	224
27	STAIRS	13'- 5" x 8'- 0"	107
28	EXERCISE ROOM	49'- 7" x 41'- 8"	2066
29	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
30	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
31	HANDBALL / SQUASH COURT	21'- 0" x 41'- 8"	875
32	STAIRS	8'- 0" x 20'- 0"	160
33	HANDBALL / SQUASH COURT	21'- 0" x 41'- 8"	875
34	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
35	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
36	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
37	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
38	HANDBALL / SQUASH COURT	20'- 8" x 41'- 8"	861
39	CORRIDOR	6'- 0" x 253'- 4"	1520
40	SPECTATORS' GALLERY	125'- 4" x 10'- 0"	1253
	TOTAL		28,483



**PROGRAMMING AND PLANNING GUIDES**

**SPECIFICATIONS**  
FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA SEE CURRENT AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

**GENERAL NOTES**  
THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

THE ARRANGEMENT AND FUNCTIONAL LAYOUT INDICATED WILL BE FOLLOWED UNLESS PRIOR CLEARANCE FOR CHANGE HAS BEEN OBTAINED FROM AFMPL/DPMRA, RANDOLPH AIR FORCE BASE, TEXAS, 78148.

THIS FACILITY SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF ANSI STANDARD A 117.1 TO MAKE IT ACCESSIBLE TO AND USABLE BY THE HANDICAPPED.

THE SECTIONS INDICATED IN THIS DEFINITIVE DO NOT ESTABLISH AN ARCHITECTURAL DESIGN TREATMENT NOR USE OF SPECIFIC MATERIALS. MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE CRITERIA FOR THIS FACILITY.

CONSTRUCTION SHALL BE PERMANENT TYPE, NON-COMBUSTIBLE.

PRE-ENGINEERED STRUCTURES MAY BE PROVIDED THAT DURABILITY, MAINTENANCE, STRUCTURAL AND SAFETY QUALITIES FOR PERMANENT NON-COMBUSTIBLE CONSTRUCTION ARE MET.

THE MAXIMUM GROSS AREA SHOWN DOES NOT INCLUDE SPACE FOR MECHANICAL EQUIPMENT WHICH WILL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS OF SPECIFIC PROJECTS. WHERE SPECIFIC PROJECT CONDITIONS PERMIT, MECHANICAL EQUIPMENT MAY BE LOCATED IN A BASEMENT.

FIRE PROTECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH AIR FORCE MANUAL AFM 88-15.

**PLUMBING REQUIREMENTS**

COLD WATER: 75,000 GPD SEWAGE: 50,000 GPD  
(PROBABLE MAXIMUM FLOW RATE)

NOTE: ABOVE FLOW RATE DOES NOT INCLUDE REQUIREMENTS FOR FIRE PROTECTION.

HOT WATER: 1140 GPH DEMAND  
STORAGE: 1140 GAL. STOR. CAPACITY

**HEATING REQUIREMENTS**

TYPICAL OUTSIDE DESIGN TEMPERATURE: 0°F

MBTU/HR: 1270.3 MBH

TYPICAL INSIDE DESIGN TEMPERATURE: 70°F

REFRIGERATION: 100 TONS

**VENTILATING REQUIREMENTS**

MECHANICAL VENTILATION: 34,850 CFM

**ELECTRICAL REQUIREMENTS**

LIGHTS: CONNECTED LOAD 95.34 KW TOTAL CONNECTED LOAD 285.06 KW  
ESTIMATED DEMAND 90.57 KW ESTIMATED DEMAND 272.11 KW

POWER: CONNECTED LOAD 81.72 KW  
ESTIMATED DEMAND 73.54 KW

REFRIGERATION: CONNECTED LOAD 108 KW  
ESTIMATED DEMAND 108 KW

CATEGORY CODE NO. 740-674

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

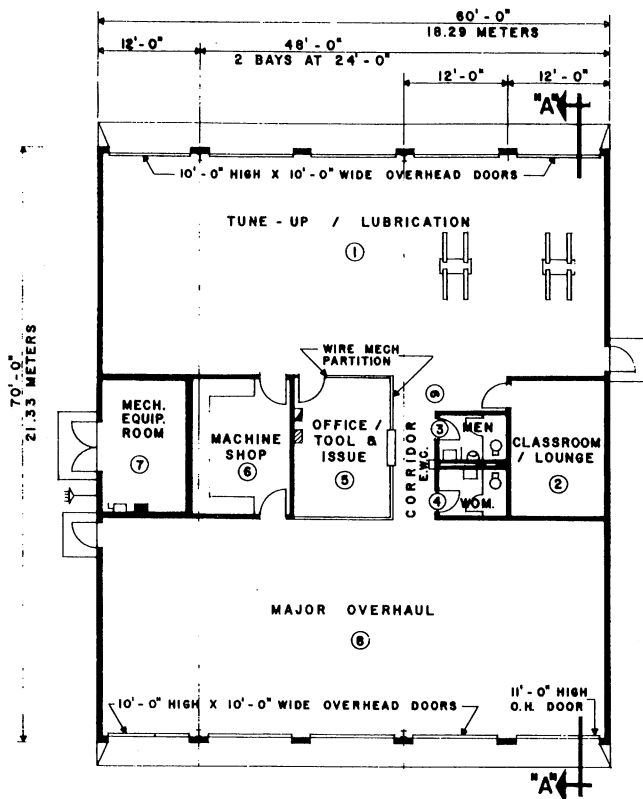
**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS UNITED STATES AIR FORCE  
SPECTOR, PEAKE AND HOWELL  
ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

**GYMNASIUM**  
(28,483 SQ. FT.)  
WITH 9 HANDBALL / SQUASH COURTS

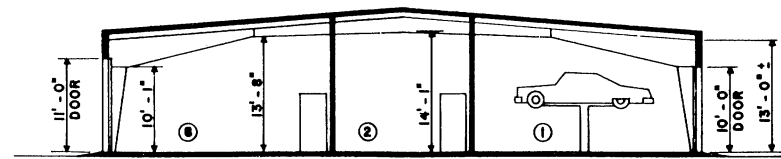
SECTIONS

APPROVED: \_\_\_\_\_ SCALE: 1/8" = 1'-0" SHEET 4 OF 4

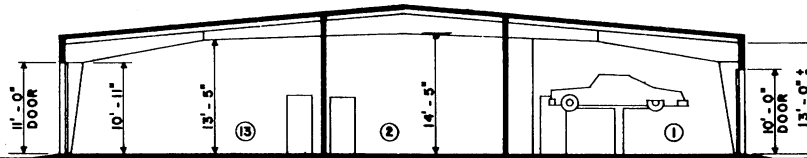
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FOR CHIEF OF STAFF USAF AD 31-06-22 RI



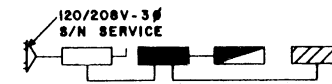
FLOOR PLAN  
SCALE: 1/8" = 1'-0"



SECTION "A" - "A"  
SCALE: 1/8" = 1'-0"

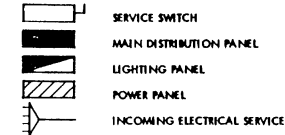


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SCALE: 1/8" = 1'-0"



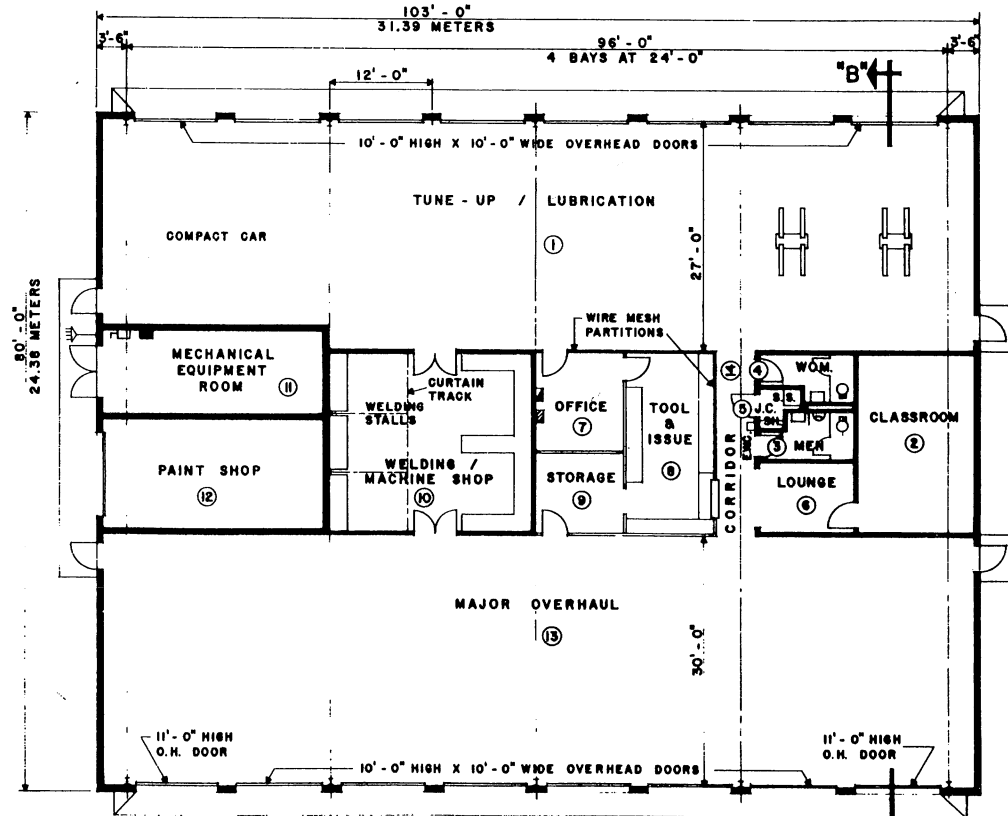
ELECTRICAL RISER DIAGRAM  
NO SCALE

ELECTRICAL LEGEND



LEGEND

- E. W.C. AND ELECTRIC WATER COOLER
- H. HEIGHT
- J.C. JANITOR'S CLOSET
- MECH. MECHANICAL
- O.H. OVER HEAD
- SH. SHELVES
- SQ. FT. SQUARE FEET
- S.S. SERVICE SINK
- WOM. WOMEN



FLOOR PLAN  
SCALE: 1/8" = 1'-0"

ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	TUNE-UP / LUBRICATION	60'-0" x 24'-6"	1,370
2	CLASSROOM / LOUNGE	12'-0" x 17'-0"	204
3	MEN'S TOILET	9'-0" x 4'-6"	38
4	WOMEN'S TOILET	9'-0" x 4'-7"	39
5	OFFICE / TOOL & ISSUE	11'-4" x 17'-0"	196
6	MACHINE SHOP	11'-3" x 17'-0"	191
7	MECHANICAL EQUIPMENT ROOM	11'-0" x 17'-0"	—
8	MAJOR OVERHAUL	60'-0" x 24'-6"	1,370
9	CORRIDOR	4'-6" x 25'-0"	112
TOTAL*			4,000

\*TOTAL DOES NOT INCLUDE MECHANICAL ROOM AREA.

ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	TUNE-UP / LUBRICATION	103'-0" x 24'-6"	2,730
2	CLASSROOM	14'-0" x 22'-0"	308
3	MEN'S TOILET	12'-0" x 5'-6"	66
4	WOMEN'S TOILET	12'-0" x 5'-6"	66
5	JANITOR'S CLOSET	5'-2" x 5'-2"	27
6	LOUNGE	12'-0" x 8'-9"	105
7	OFFICE	10'-4" x 12'-0"	126
8	TOOL & ISSUE	10'-4" x 22'-0"	231
9	STORAGE	10'-4" x 10'-0"	105
10	WELDING / MACHINE SHOP	24'-0" x 22'-0"	528
11	MECHANICAL EQUIPMENT ROOM	27'-4" x 8'-9"	—
12	PAINT SHOP	27'-4" x 14'-3"	407
13	MAJOR OVERHAUL	103'-0" x 24'-6"	3,142
14	CORRIDOR	4'-6" x 22'-0"	99
TOTAL*			8,000

\*TOTAL AREA DOES NOT INCLUDE MECHANICAL ROOM AREA.



PROGRAMMING AND PLANNING GUIDES

SPECIFICATIONS

FOR ACCEPTABLE CONSTRUCTION MATERIALS AND DESIGN CRITERIA, SEE CURRENT AFM 88-15 AND OTHER APPLICABLE AIR FORCE DOCUMENTS.

GENERAL NOTES

THE REQUIREMENTS GIVEN BELOW ARE FOR ESTIMATING PURPOSES AND APPLY TO THIS SIZE FACILITY ONLY.

THE ARRANGEMENT AND FUNCTIONAL LAYOUT INDICATED SHALL BE FOLLOWED UNLESS PRIOR CLEARANCE FOR CHANGE HAS BEEN OBTAINED FROM MILITARY PERSONNEL CENTER, RANDOLPH AIR FORCE BASE, TEXAS, 78148.

THIS FACILITY SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF ANSI STANDARD A 117.1 TO MAKE IT ACCESSIBLE TO AND USABLE BY THE HANDICAPPED.

THE SECTIONS INDICATED IN THIS DEFINITIVE DO NOT ESTABLISH AN ARCHITECTURAL DESIGN TREATMENT NOR THE USE OF SPECIFIC MATERIALS. MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE CRITERIA FOR THIS FACILITY.

FIRE PROTECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH AIR FORCE MANUAL AFM 88-15.

UTILITY REQUIREMENTS

AREA* SQ. FT.	ELECTRICITY (KW)*		WATER		SEWAGE GPD
	CONN. LOAD	EST. DEMAND	HOT† GPM	COLD GPM	
4,000	33.0	30.69	3	40	7,300
8,000	64.8	60.05	4	41	11,300
12,300	101.0	93.64	4	41	15,000

\* NOT INCLUDING MECHANICAL ROOM  
† STORAGE CAPACITY

HEATING REQUIREMENTS

OUTSIDE DESIGN TEMPERATURE 0° F

AREA IN SQUARE FEET	4,000	8,000	12,300
M/WTU/HR	388,800	896,830	1,060,660

AIR CONDITIONING REQUIREMENTS

DESIGN TEMPERATURE 95° F DRY BULB 78° F WET BULB

AREA IN SQUARE FEET	4,000	8,000	12,300
TONS OF REFRIGERATION	1.5	3	5

AREA FOR PROGRAMMING

GROSS AREA

AUTHORIZED AREA*	MILITARY POPULATION **
4,000 SQ. FT.	1,001 TO 3,000
8,000 SQ. FT.	5,001 TO 7,000
12,500 SQ. FT.	10,001 TO 15,000

\* DOES NOT INCLUDE MECHANICAL ROOM

\*\* MILITARY STRENGTH PLUS 10% DEPENDENT POPULATION AND 10% OF RETIRED STRENGTH SERVED

CATEGORY CODE NO. 740-665

SYMBOL REVISION - DESCRIPTION DATE APPROVED

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
SPECTOR, PEAKE AND HOWELL  
ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

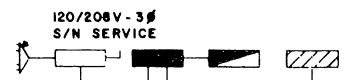
AUTOMOTIVE HOBBY SHOPS  
4,000 SQ. FT. & 8,000 SQ. FT.

PLANS & SECTIONS

APPROVED SCALE: 1/8" = 1'-0" SHEET 1 OF 2

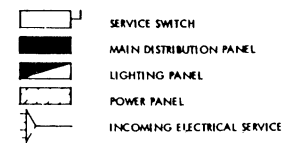
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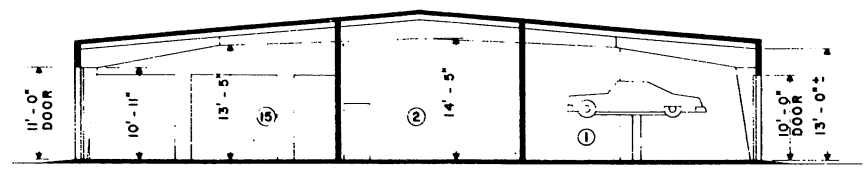
**ELECTRICAL RISER DIAGRAM**  
NO SCALE

**ELECTRICAL LEGEND**

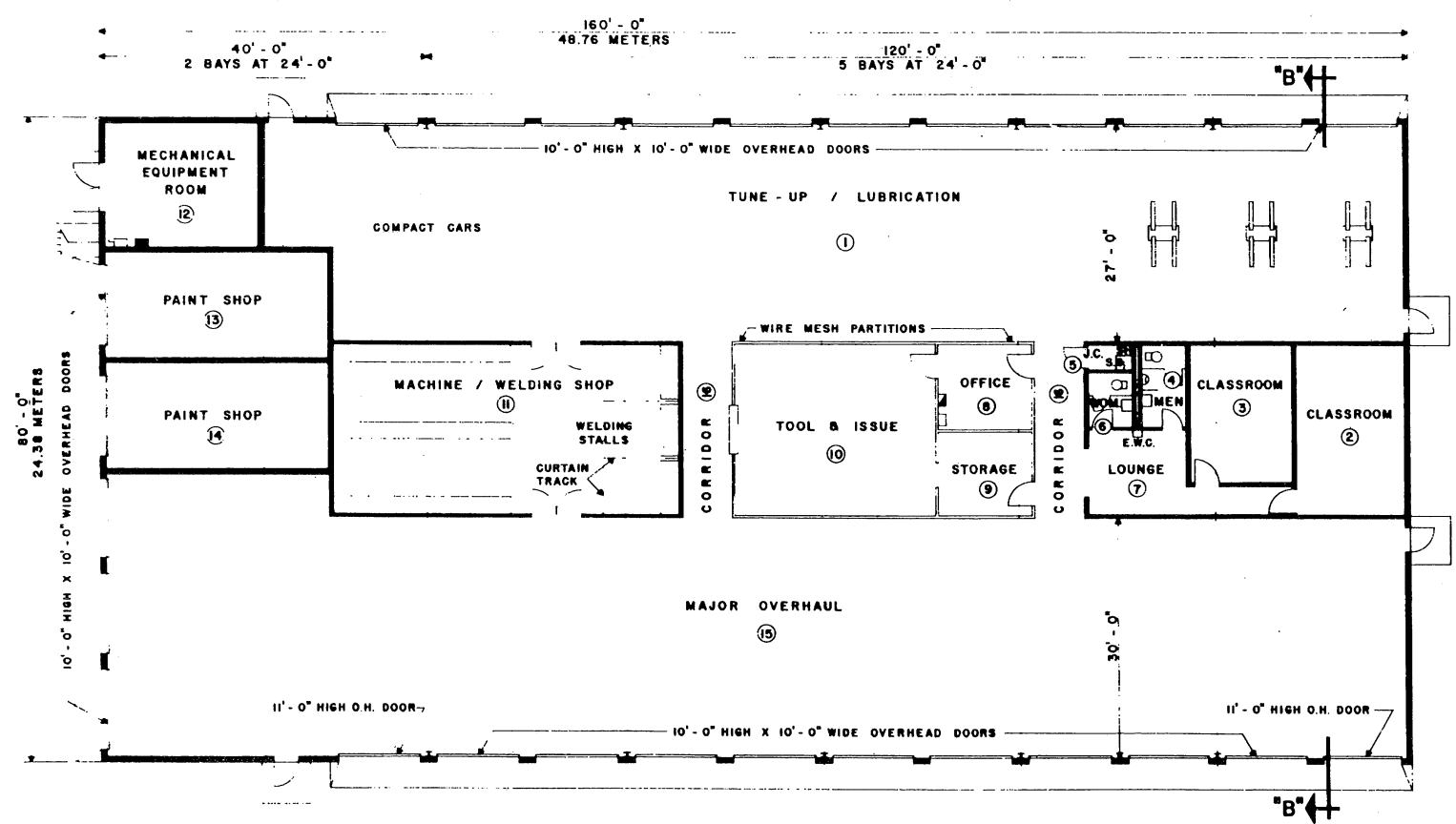


ROOM SCHEDULE			
ROOM NUMBER	DESCRIPTION	DIMENSIONS	GROSS AREA SQ. FT.
1	TUNE-UP / LUBRICATION	139'-8" x 27'-0"	3,772
2	CLASSROOM	14'-0" x 22'-0"	308
3	CLASSROOM	13'-0" x 18'-0"	234
4	MEN'S TOILET	6'-0" x 11'-0"	72
5	JANITOR'S CLOSET	6'-0" x 3'-6"	23
6	WOMEN'S TOILET	6'-0" x 7'-6"	49
7	LOUNGE	17'-9" x 11'-0"	195
8	OFFICE	12'-0" x 11'-0"	132
9	STORAGE	12'-0" x 11'-0"	132
10	TOOL & ISSUE	25'-0" x 22'-0"	550
11	MACHINE / WELDING SHOP	42'-0" x 22'-0"	935
12	MECHANICAL EQUIPMENT ROOM	18'-9" x 16'-0"	---
13	PAINT SHOP	28'-0" x 14'-0"	399
14	PAINT SHOP	28'-0" x 14'-0"	399
15	MAJOR OVERHAUL	160'-0" x 31'-6"	5,036
16	CORRIDOR	5'-0" x 44'-0"	264
TOTAL*			12,503

\*TOTAL AREA DOES NOT INCLUDE MECHANICAL ROOM AREA.

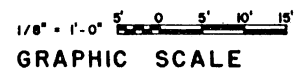


**SECTION "B" - "B"**  
SCALE: 1/8" = 1'-0"



**FLOOR PLAN**  
SCALE 1/8" = 1'-0"

- LEGEND**
- & AND
  - E.W.C. ELECTRIC WATER COOLER
  - H. HEIGHT
  - J.C. JANITOR'S CLOSET
  - MECH. MECHANICAL
  - O.H. OVER HEAD
  - SH. SHELVES
  - SQ. FT. SQUARE FEET
  - S.S. SERVICE SINK
  - WOM. WOMEN



**DESIGN GUIDES**

**ARCHITECTURAL**

CAREFUL USE OF MATERIALS AND COLOR CAN ENHANCE THE APPEARANCE OF THIS FACILITY WITHOUT INVOLVING EXCESSIVE COST.

CONSIDERATION SHALL BE GIVEN TO FENESTRATION BASED ON GEOGRAPHIC LOCATION AND ORIENTATION OF THE FACILITY.

PLAN DIMENSIONS ARE NOMINAL AND MAY BE ADJUSTED TO CONFORM TO THE STOCK DIMENSIONS AND DETAILING OF AVAILABLE PRE-ENGINEERED STRUCTURES AND TO ACCOMMODATE THE THICKNESS OF MATERIALS SELECTED FOR THE FINAL DESIGN.

FIRE PROTECTION SHALL BE IN ACCORDANCE WITH AFM 88-15.

**STRUCTURAL**

LIVE LOADS SHALL BE IN ACCORDANCE WITH AFM 88-3, CHAPTER 1.

**ELECTRICAL**

LIGHTING LEVELS SHALL BE IN ACCORDANCE WITH AFM 88-15 FOR EACH AREA SERVED. CONVENIENCE OUTLETS FOR CONVENTIONAL USE IN OFFICE OR SIMILAR AREAS TO BE IN ACCORDANCE WITH N.E.C.

CONVENIENCE OUTLETS IN OTHER AREAS TO BE LOCATED BY USING AGENCY. ELECTRICAL PANELS WILL BE LOCATED AS INDICATED. OUTLETS FOR EQUIPMENT WILL BE LOCATED BY THE DESIGN AGENCY IN ACCORDANCE WITH THE EQUIPMENT POSITIONS. PROVIDE DISCONNECT DEVICES IN ACCORDANCE WITH THE N.E.C. SECTION 422-20 THROUGH 430-113.

PROVIDE FIRE ALARM SYSTEM IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

PROVIDE PUBLIC ADDRESS SYSTEM AS REQUIRED BY USING AGENCY.

PROVIDE POWER OUTLETS AS REQUIRED FOR ALL PORTABLE EQUIPMENT.

**MECHANICAL**

PROVIDE ADEQUATE EXHAUST SYSTEM FOR DISCHARGING AUTOMOBILE FUMES TO OUTSIDE OF BUILDING.

HEATING, AIR CONDITIONING, EVAPORATIVE COOLING AND MECHANICAL VENTILATION SHALL BE IN ACCORDANCE WITH AFM 88-15 AND APPLICABLE AIR FORCE PAMPHLETS.

WHEN A COMPLETE MECHANICAL EQUIPMENT ROOM IS NOT REQUIRED, THE SURPLUS SPACE MAY BE ABSORBED BY OTHER FUNCTIONS OF THE FACILITY.

**PLUMBING**

PLUMBING SHALL BE IN ACCORDANCE WITH AFM 88-8 AND AFM 88-15.

PROVIDE OIL SEPARATOR IN ACCORDANCE WITH AFM 88-15.

CATEGORY CODE NO. 740-665

SYMBOL	REVISION - DESCRIPTION	DATE	APPROVED

**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS UNITED STATES AIR FORCE  
**SPECTOR, PEAKE AND HOWELL**  
ARCHITECTS-ENGINEERS • FALLS CHURCH, VIRGINIA

**AUTOMOTIVE HOBBY SHOPS**  
12,500 SQ. FT.  
**PLAN & SECTION**

APPROVED	SCALE: 1/8" = 1'-0"	SHEET 2 OF 2
FACILITY OPER	DATE:	
<i>Edwin B. Spector</i> FOR CHIEF OF STAFF USAF		

**AD 35-02-62 RI**

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