CHAPTER 8

Scientific and Technical Information Centers/ Libraries

8-1 GENERAL

This chapter discusses libraries supporting scientific research or providing specialized technical information.

a. REFERENCES

(1) AR 70-45 Scientific and Technical Information Program

(2) DOD Directive 5100.36 Department of Defense Technical Information.

b. OBJECTIVES OF SCIENTIFIC AND TECHNICAL INFORMATION CENTERS/LIBRARIES. The term "scientific and technical information centers/libraries" applies to the following library types:

(1) A technical library is considered a service activity that selects, acquires, and organizes documents for retrieval to support the scientific and technical efforts of the parent organization. Services may include, but are not limited to, preparing and publishing accession lists, indexes, abstracts, and bibliographies.

(2) A technical information center is defined as an organization concerned with receiving, processing, and distributing technical information to internal and external users. A center's functions may include, but are not necessarily limited to, report preparation services, primary production and distribution, technical editing, graphic arts, still and motion photography, and to technical library and information analysis center activities.

c. FUNCTIONS OF SCIENTIFIC AND TECHNICAL INFORMATION CENTERS/LIBRARIES. Although scientific and technical information centers/libraries perform the same basic functions as other libraries, there is a unique and more in-depth level of service and dissemination which is performed by scientific and technical reformation centers/libraries. Generally they offer highly specialized and personalized services for the user population; provide quick access to and/or retrieval of information for the user population due to the immediacy of information needs; are unique in that their collections are topical and information retrieval to set up with primary responsibility and first priority to the mission and/or users who serve this mission; and make intensive use of interlibrary loans to supplement the basic collection.

8-2 PLANNING AND DESIGN CONSIDERATIONS

a. LIBRARY USERS. As distinct from a general library, a scientific and technical information center/library's primary responsibility is to serve a particular mission(s) and first priority is therefore given to personnel assigned to carrying out this mission(s). Users consist of scientists, technicians, and professional staff engaged in scientific and technical work. Civilians, contractors, and other off-post persons may also be included in the user population, although borrowing privileges will be determined by the responsible agency. Scientific and technical information center/library users require more bibliographic search and make more telephone inquiries and requests for information than do users of general libraries. In any research and development environment, scientific and technical information is a commodity with a dollar value relative to its timely availability. Consequently, current and pertinent information is a critical commodity which must be made accessible to decision makers to meet their basic information needs in various management and technical operational areas.

b. STAFF. Scientific and technical information center/library staff requirements are based on size and type of user population, kind and type of services required, and the mission(s)/function(s) assigned to the library. The staffing requirements shown in Table 8-1 have been developed based on a 21,250 GSF technical information center with an active user population of 500. Staffing requirements for individual libraries should be developed by the administrative librarian and forwarded to the design agency.

TABLE 8-1 EXAMPLE STAFFING

Technical Information Center		21,250 GSF	
Professionals		Non-Professionals	
Administrative Librarian	1	Administrative Secretary	1
Supervisory librarian	1	Clerk-Typist	3
Abstractor	1	Technical Services Technician	3
Technical Services Librarian	1	Control Desk Technician	5
Cataloger	1	Warehouseman	1
Reference Librarian	3	Technical Publications Writer/Editor	1
Information Specialist	1		
Translator	1		
Total	10	Total	14

c. COLLECTION. The scientific and technical information center/library collection makes less use of book materials, with the exception of standard technical reference books, than a general post library. Composition of the collection has more emphasis on bound and unbound periodicals, technical reports, and microform materials.

This is primarily due to the "immediacy" requirement of scientific and technical work. A high percentage of materials on microform is a result of limited storage area, quick transfer of information, and general economy. Those libraries which serve a central or regional function in an overall system of libraries often have higher percentages of book materials and historic documents as related to the overall collection than do those libraries which perform single missions. Table 8-2 illustrates the composition of a hypothetical collection for a 21,250 GSF technical information center. Collection requirements for individual projects should be developed by the administrative librarian in conjunction with the mission organization and furnished to the design agency.

TABLE 8-2 EXAMPLE COMPOSITION OF COLLECTION

Technical Information Center		21,250 GSF
Type	No. of Items	
Books	16,000	
Bound Periodicals	30,000	
Technical Reports	36,000	8,000 classified
Serials (newspapers, magazines, etc.)	1,000	
Microfilm		
16 mm	32,000	3,200 classified
35 mm	4,000	400 classified
Microfiche	260,000	
Total Collection	379,000	

d. LOCATION. Because the function of the scientific and technical information center/library is to provide services for a particular technical mission, the technical library is often located in a building to be occupied by the mission organization. The library should be easily accessible from the main entrance of the building, consolidated into one area of the building, and be convenient for heavy users of the collection. As technological innovations (individual mini-computers, etc.) are incorporated into the library function, the need for close proximity to the mission organization may become less acute.

e. MAXIMUM SPACE REQUIREMENTS. There are no official maximum space allowances which have been established for scientific and technical information centers/libraries.

f. ACTUAL SPACE REQUIREMENTS. A general method of determining actual space required has been presented in Chapter 2. However, care must be exercised to assure that this method has application to a given project. Scientific and technical information centers/libraries vary widely in size, staff, services provided, and in the relationships among these with collection size, user seating, staff space, etc.

(1) *Space Requirements-Collection.* The number of units required for storage of the scientific and technical information center/library collection can be computed by dividing the number of projected items of the collection by the number of items per storage unit shown in Table 3-2. The number of storage units thus derived is then multiplied by the net assignable square feet (NASF/unit) to determine the actual space requirements for each type of material. Generally, the space requirement for the collection IS about 50 percent of the total library NASF.

(2) *Space Requirements-Reader Stations.* Scientific and technical information center/library users require less seating in the library and require a different kind of seating than users in general libraries. The number of users/day who come to the library is relatively small. This is partially due to the level of service provided in technical libraries and the percentage of user requests that are made by telephone. As technology permits more use of such equipment as mini-computers located at the scientists' desk for information access, the library will become more and more of a service center with even less requirement for user seating. General reading areas have less value in the technical library. Rather, a combination of private study-conference areas, carrels, and table seating should be provided. Researchers need to gather references, discuss with co-workers, and have available a typewriter for making notes and recording results. Research sometimes requires days, and a user should be able to lock his compartment and return to it for further study. The numbers of seats and seating types should be determined in accordance with Paragraph 2-4c on the basis of work tasks which will be performed by users. Space requirements for each reader station also will be in accordance with Paragraph 2-4c.

(3) *Space Requirements-Staff Area and Work Stations.* Staff space is highly dependent upon the level of service which will be offered by the scientific and technical information center/library. Administrative, reference, and information specialist staff members should be provided with private offices in most cases due to the nature of the functions which they perform. Technical services staff should be located in a separate and private area. The amount of space allocated for technical service functions will be dependent upon: the type of cataloging process (manual or computer); the form of new materials acquired for cataloging (books, journals, microform, etc.); the amount of binding of periodical literature; and the intensity of interlibrary loan usage.

g. PARKING. Since many science and technical information centers/libraries are incorporated as part of exist-

ing or new space in a building and serving a particular mission which is generally located within the same structure, parking requirements must be determined on an individual basis by the adminstrative librarian and furnished to the design agency.

h. TECHNOLOGICAL CONSIDERATIONS. A number of technological innovations are available now and for planning purposes, other possible Information system breakthroughs will be available in the foreseeable future, which must be considered in the planning and design of the scientific and technical information centers/libraries. introduction of this technology into the library can greatly affect: staff requirements by type; amount of user space provided; type of collection storage; and type of technical services necessary. Overall library space requirements probably will not be affected by this technology rather the internal organization and allocation of space to various functions will change. Paragraph 2-9 presents a summary of the "state-of-the-art" of various technological considerations. Dependent upon the individual library's mission and the availability of technology, the administrative librarian and the mission organization must mutually decide what kind of technology will be utilized in the library and furnished this information to the design agency. It is important that this be determined in the early stage of the design process since the kind of technology used can greatly affect space allocation, function, and the basic mechanical-electrical requirements for the building.

8-3 INDIVIDUAL SPACE CRITERIA

Individual space criteria which is considered general to all library types has been provided in Chapter 4. The criteria given below is intended to supplement the information in Chapter 4 by developing for a hypothetical scientific and technical information center/library of 21,250 GSF.

a. ENTRANCE AND LOBBY Size of entrance and/or lobby area in the scientific and technical information center/library vanes dependent upon the size of the facility location of the library in an independent structure, or included as space within an existing or new building. In each case, the entrance/lobby area should be adjacent to the control area and the card catalog area. The required area will depend on the number and kind of spaces which open onto the lobby, and the anticipated traffic flow.

(1) *Space Requirements.* See Table 8-3

TABLE 8-3 ENTRANCE AND LOBBY SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Lounge Chairs	30	3	90
Vestibule	100	1	100
Display Cabinets	25	1	25
Table	20	1	20
Total			235

(2) *Space Utilizatlon Plan.* See Figure 8-1

ENTRANCE AND LOBBY SPACE UTILIZATION PLAN

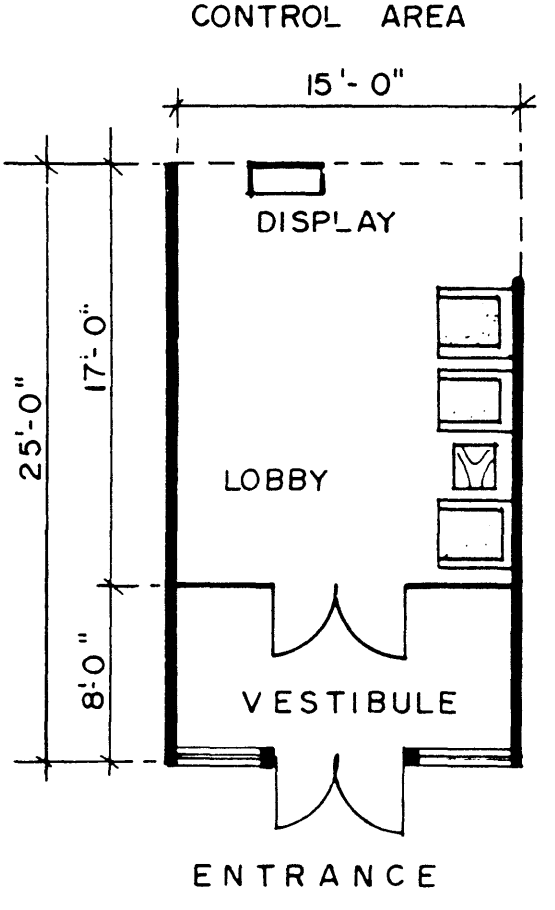

FIGURE 8-1

b. PUBLIC TOILETS. Since most scientific and technical informatlon facilities are located in existing or new space in conjunction with primary mission functions, public toilets are often not included for the exclusive use of users and staff. Where this is the case, it is important that library space be located in close proximity to toilet facilities. Where the library is either located in separate space of of such a size to warrant providing its own toilet facility, Table 8-4 should be utilized to determine number of fixtures and space requirements for toilets areas in accordance with fixture allowances given in Table 10-7 of DOD 4270.1-M. Number of people indicated should be based on number of seats provided plus full time staff if separate staff toilets are not provided. Percentages of men and women users and staff must be determined in order to make proper allocation of space between mens' and womens' toilets.

(1) *Space Requirements.* See Table 8-4.

TABLE 84. PUBLIC TOILET SPACE REQUIREMENTS—(HYPOTHETICAL EXAMPLE) (21,250 GSF)

Items	Typical Occupancy / Unit Area Allowance	30 Men 30 Women QTY	30 Men 30 Women NASF	50 Men 50 Women QTY	50 Men 50 Women NASF	90 Men 90 Women QTY	90 Men 90 Women NASF	150 Men 150 Women QTY	150 Men 150 Women NASF
Men									
WC (regular)	25	1	25	2	50	4	100	5	125
Urinals	25	1	25	2	50	3	75	3	75
Lavatories	15	2	30	3	45	5	75	6	90
WC (handicapped)	42	1	42	1	42	1	42	1	42
Women									
WC	25	1	25	3	75	5	125	5	125
Lavatories	15	2	50	4	60	6	90	6	90
WC (handicapped)	42	1	42	1	42	1	42	1	42
Total			239		364		549		589

(2) *Space Utilization Plan.* See Figure 8-2.

PUBLIC TOILETS SPACE UTILIZATION PLAN

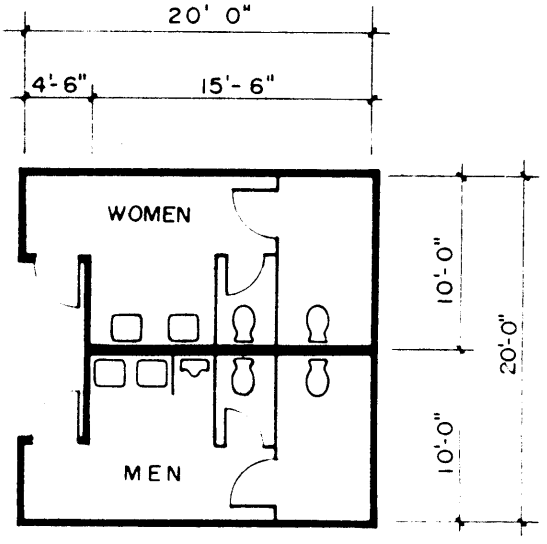

FIGURE 8-2

c. CARD CATALOG AREA. The card catalog area is used by both library users and staff to locate materials and is maintained by the technical services personnel, In scientific and technical information centers/libraries, the standard card catalog may be used in a variety of ways alone; or in combination with other cataloging formats such as microfiche or book catalogs. Because technical library collections are composed of high percentages of periodical and technical report Information with expanding use of microform, the standard card catalog may be replaced wholly or in part by other cataloging formats The card catalog area should be centrally located adjacent to and visible from the entrance. control. and reference areas. It should be easily accessible from the technical services area, the book stacks, and the periodical area.

(1) *Space Requirements.* See Table 8-5

TABLE 8-5 CARD CATALOG AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Card tray unit	17	12	204
Reference Table (4 stations w/stools)	96	1	96
Total			300

(2) *Space Utilization Plan.* See Figure 8-3.

CARD CATALOG SPACE UTILIZATION PLAN

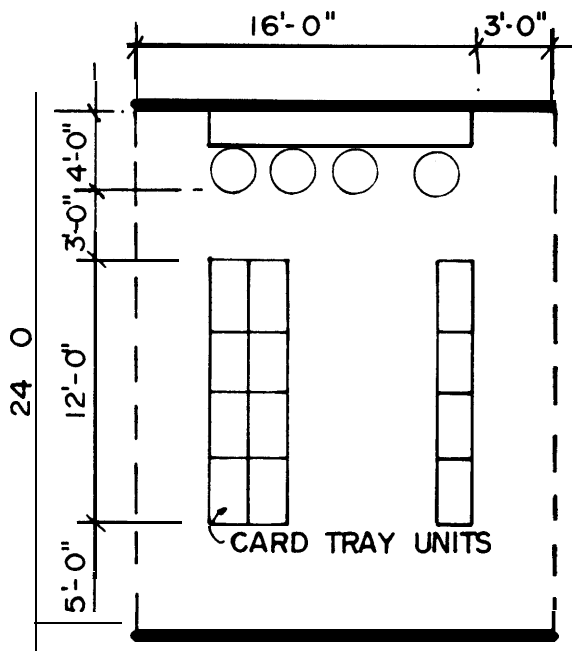

FIGURE 8-3

TABLE 8-6 CONTROL AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Work Station	80	4	320
Control Desk	80	1	80
Files	10	4	40
Copy Machine	60	1	60
Total			500

(2) *Space Utilization Plan.* See Figure 8-4.

CONTROL AREA SPACE UTILIZATION PLAN

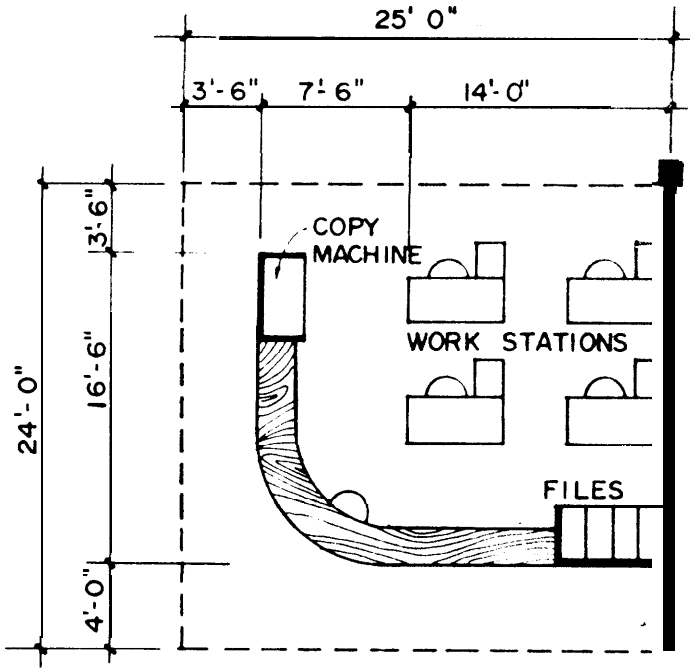

FIGURE 8-4

d. CONTROL AREA. The control area should be located adjacent to the entrance/lobby and card catalog area but removed from reading and study areas in order to minimize distractions. The control area has responsibility for circulation and inter-library loan and for the 21,250 GSF technical information center. It is staffed by five control desk technicians.

(1) *Space Requirements.* See Table 8-6.

e. PERIODICAL AREA. The periodical area should be located in proximity to the entrance/lobby and control area. Current periodicals including technical journals, magazines, and newspapers are stored here usually in display shelving. Shelving should be provided for current issues plus one year of back issues. Table seating and/or lounge seating should be provided in this area.

(1) *Space Requirements.* See Table 8-7.

TABLE 8-7 PERIODICAL AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Display Shelving*	13½	56	756
Newspaper Rack	17	1	17
Lounge Seating	30	8	240
Total			1013

*Based on 960 serials at 15 serials/unit

(2) *Space Utilization Plan.* See Figure 8-5.

PERIODICALS AREA SPACE UTILIZATION PLAN

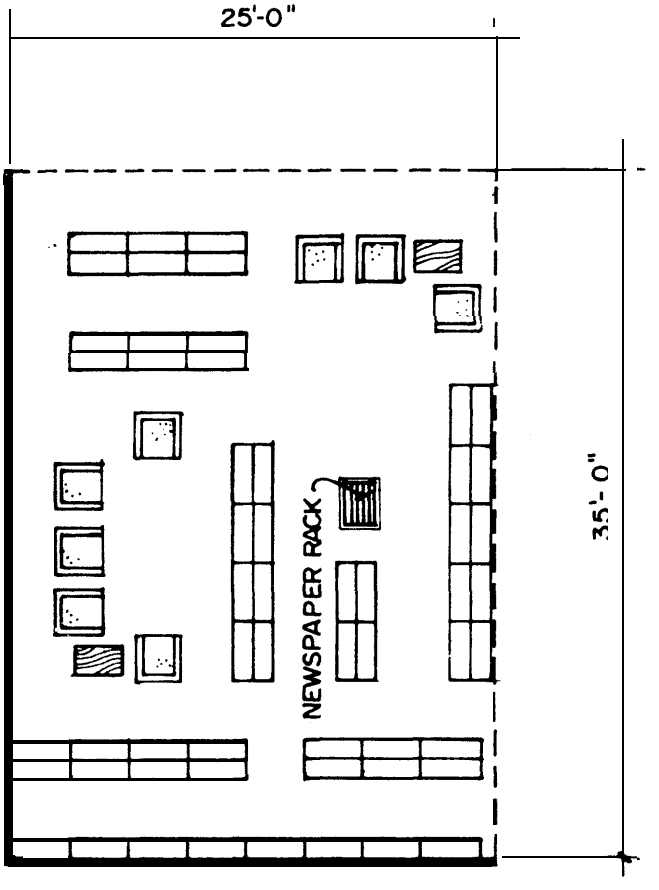

FIGURE 8-5

f. REFERENCE AREA, The reference area should be in close proximity to the card catalog area, microform area, and technical report section of the book stack. The reference area should house technical reference books, abstracts, and part of the technical report collection. In addition, standard reference materials such as atlases, maps, and dictionaries are also located in this area. The reference librarian should have a private office with enough space for meetings with 2 to 4 people. The reference librarian performs research and editorial functions and often has to meet with users to discuss particular research problems and needs. Provision of a computer terminal in this area for bibliographic search may be necessary.

The 21,500 GSF technical information center will make provisions for three reference librarians and one abstractor. Two of the reference librarians should be provided with private offices whereas the third should be provided with a visible work station in the reference area. The abstractor should be located within 25 feet of the stacks.

(1) Space *Requirements.* See Table 8-8.

TABLE 8-8 REFERENCE AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Shelving (2000 vols)	9	24	216
Map Case	40	1	40
Atlas Case	15	1	15
Dictionary Stand	15	1	15
Lat. Files	12	94	1128
Reference Librarian	150	2	300
Reference Librarian	100	1	100
Abstractor	100	1	100
Table Seating	25	12	300
Index Tables	25	4	100
Total			2314

(2) *Space Utilization Plan.* See *Figure 8-6.*

REFERENCE AREA SPACE UTILIZATION PLAN

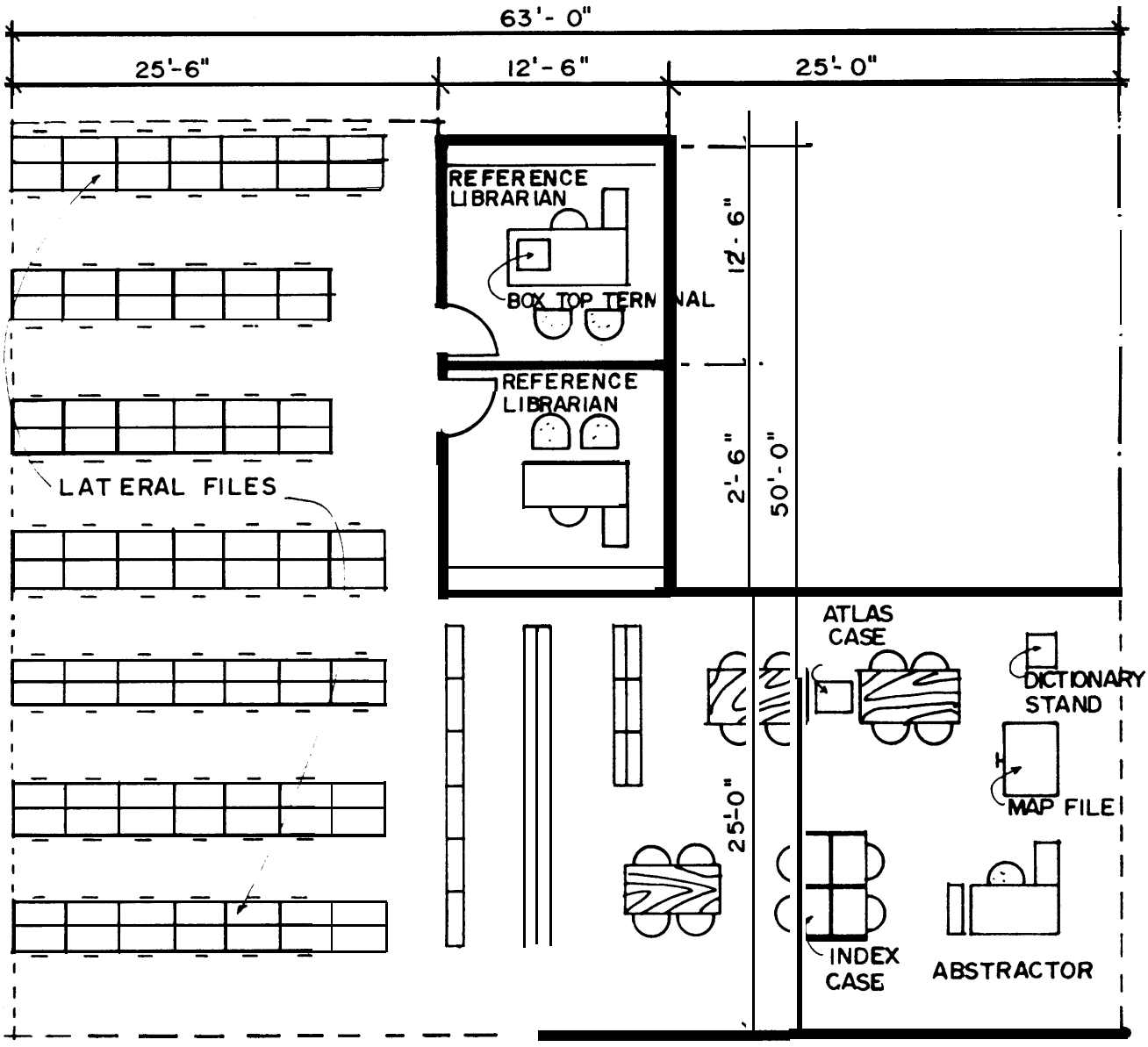

FIGURE 8-6

g. STACK AREA. The card catalog area and reference area should have proximity to the stack area. Technical services should be located nearby. Stack areas should be close to and interspersed with table and/or carrel seating. Individual study areas (enclosed) should also be located near this area. For the 21,250 GSF technical information center, the book collection (with the exception of reference books), bound periodicals, and technical reports which are stored in standard shelving will be housed in the stack area.

(1) *Space Requirements.* See Table 8-9.

TABLE 8-9 STACK AREA SPACE REQUIREMENTS

Items	Unit Area Allowance	Example Requirements QTY	NASF
Shelving (Books)	9	170	1530
Shelving (Bound Periodicals	9	469	4221
Shelving (Technical Reports)	9	120	1080
Total			6831

h. USER SEATING. Seating requirements in technical information centers differ from general libraries both in terms of quantity and type. Research activities dictate the necessity for providing individual reader stations and small table groups for group research. Provision should also be made for individual enclosed study rooms with typing and/or audio-visual equipment for the researcher that requires this type of accommodation and for the researcher who must do library research over an extended period. These reader stations should be interspersed throughout the stack area. For the 21,250 GSF information center, the following types of reader stations are postulated.

(1) *Space Requirements.* See Table 8-10.

TABLE 8-10 USER SEATING SPACE REQUIREMENTS

Items	Unit Area Allowance/ Reader Station	Example Requirements QTY	NASF
Research Carrels	40	2	80
Carrel Seating	30	18	540
Individual Study Rooms	36	3	108
Group Study Rooms	30	12	360
Total			1088

i. MICROFORM AREA. The microform area should be located adjacent to the control area because of the supervision and training work tasks associated with this area. This also allows easier supervision of the checking out of microreaders from this area. The microform area should have proximity to the reference area but should be physically separated due to the noise generated by the reader/printer equipment. The 21,250 GSF technical information center will provide, in addition to microform storage and reader stations, a microfiche duplicator, a copy machine, and a computer terminal.

(1) *Space Requirements.* See Table 8-11.

TABLE 8-11 MICROFORM AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Microfilm Storage			
16mm	15	26	390
35 mm	15	10	150
Microfiche Storage	10	10	100
Reader/Printer	28	6	168
Microfiche Reader	28	8	224
Microfiche Duplicator	20	1	20
Copy Machine	60	1	60
Computer Terminal	64	1	64
Total			1176

(2) *Space Utilization Plan.* See Figure 8-7.

MICROFORM AREA SPACE UTILIZATION PLAN

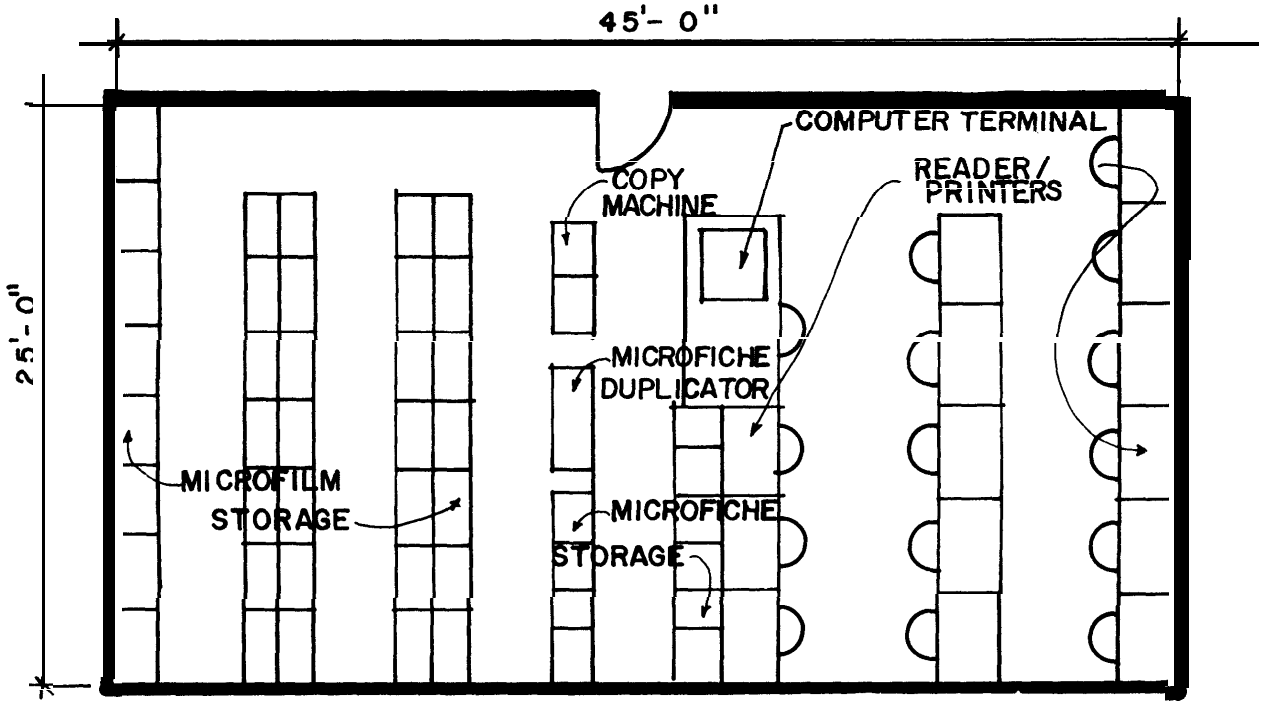

FIGURE 8-7

j. ADMINISTRATIVE OFFICES. The administrative area includes the offices of the administrative librarian, and other administrative staff members. The administrative staff is responsible for the operation of the library and its various functions. The administrative area should have proximity to both the entrance/lobby area and the technical services area. The 21,250 GSF technical information center will include private offices for the administrative librarian, the supervisory librarian, an information specialist, a writer-editor, and a translator. The administrative librarian's secretary will be provided with a secretarial work station plus an area for filing and two visitors chairs. In addition, a conference room for 10 people will be provided for staff meetings and for meetings to discuss user problems and needs. The conference room should contain a teleconference station for staff and users. The conference room should have adjacency to both staff and user areas.

(1) *Space Requirements.* See Table 8-12.

TABLE 8-12 ADMINISTRATIVE OFFICES SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Administrative Librarian	150	1	150
Supervisory Librarian	125	1	125
Information Specialist	125	1	125
Translator	125	1	125
Writer/Editor	125	1	125
Administrative Clerk Typist			
Work Station	80	1	80
Files	10	5	50
Visitor Seating	30	2	60
Conference Room	30	10	300
Teleconference Room	55	1	55
Total			1195

(2) *Space Utilization Plan.* See Figure 8-8.

ADMINISTRATIVE OFFICES SPACE UTILIZATION PLAN

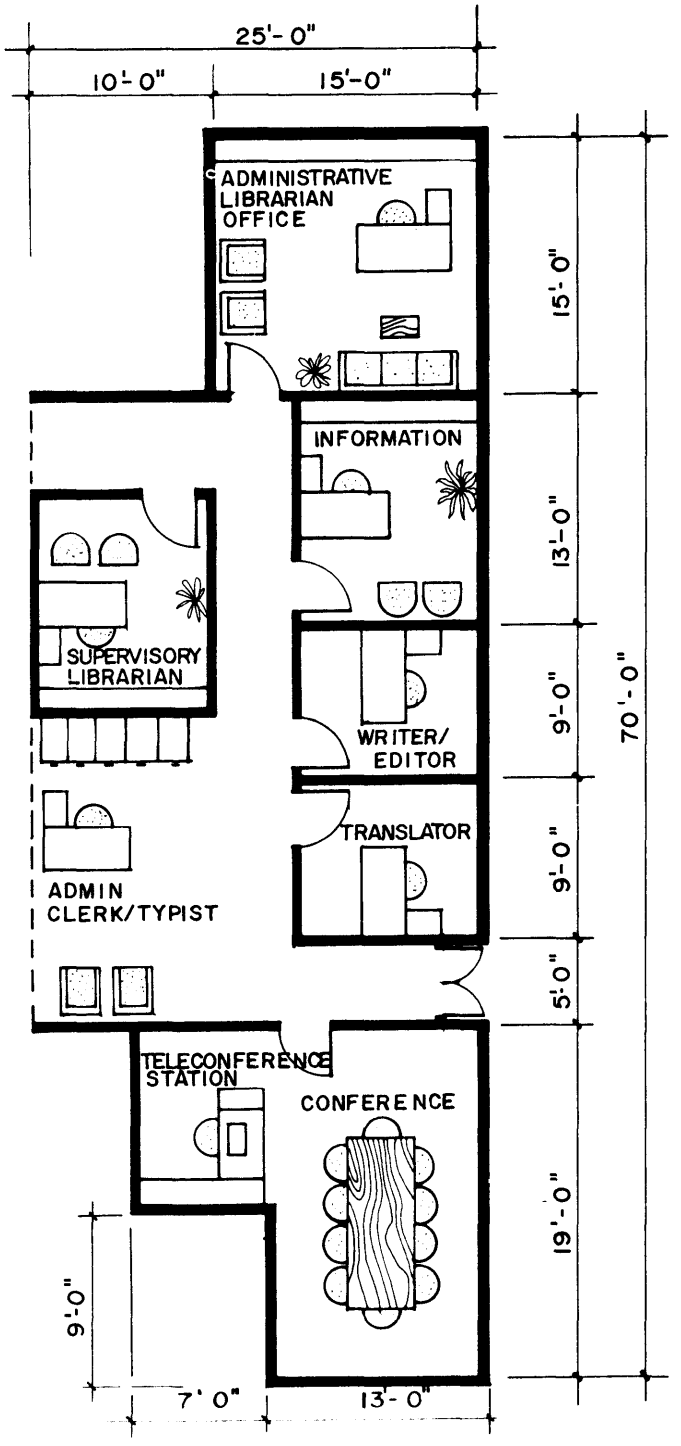

FIGURE 8-8

k. TECHNICAL PROCESSING AREA. The technical processing area accommodates all aspects of ordering and acquisition, cataloging, classification, preparation of materials for shelving and binding, and general typing and clerical work. The technical processing area should be in close proximity to the stack area and the administrative offices, if possible. It should also have close proximity to an exterior access for delivery of materials. The 21,250 GSF technical information center will provide space for a technical services librarian, a cataloger, three technicians, and two clerk/typists. in addition, a drafting table and two computer terminals will be provided for cataloging. Access to the classified collection vault will be provided through the technical processing area in order to avoid duplication of a technical processing area for classified materials alone.

(1) *Space Requirements.* See Table 8-13.

TABLE 8-13 TECHNICAL PROCESSING AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Technical Services Librarian	125	1	125
Cataloger	100	1	100
Technician	80	3	240
Clerk/Typist	80	2	160
Computer Terminal	84	2	168
Files	10	10	100
Card Catalog	17	1	17
Book Index	50	1	50
Shelving	9	6	54
Book Truck	12	5	60
Drafting Table	80	1	80
Work Counter (incl. sink)	60	1	60
Copy Machine	60	1	60
Total			1274

(2) *Space Utilization Plan.* See Figure 8-9.

TECHNICAL SERVICES SPACE UTILIZATION PLAN

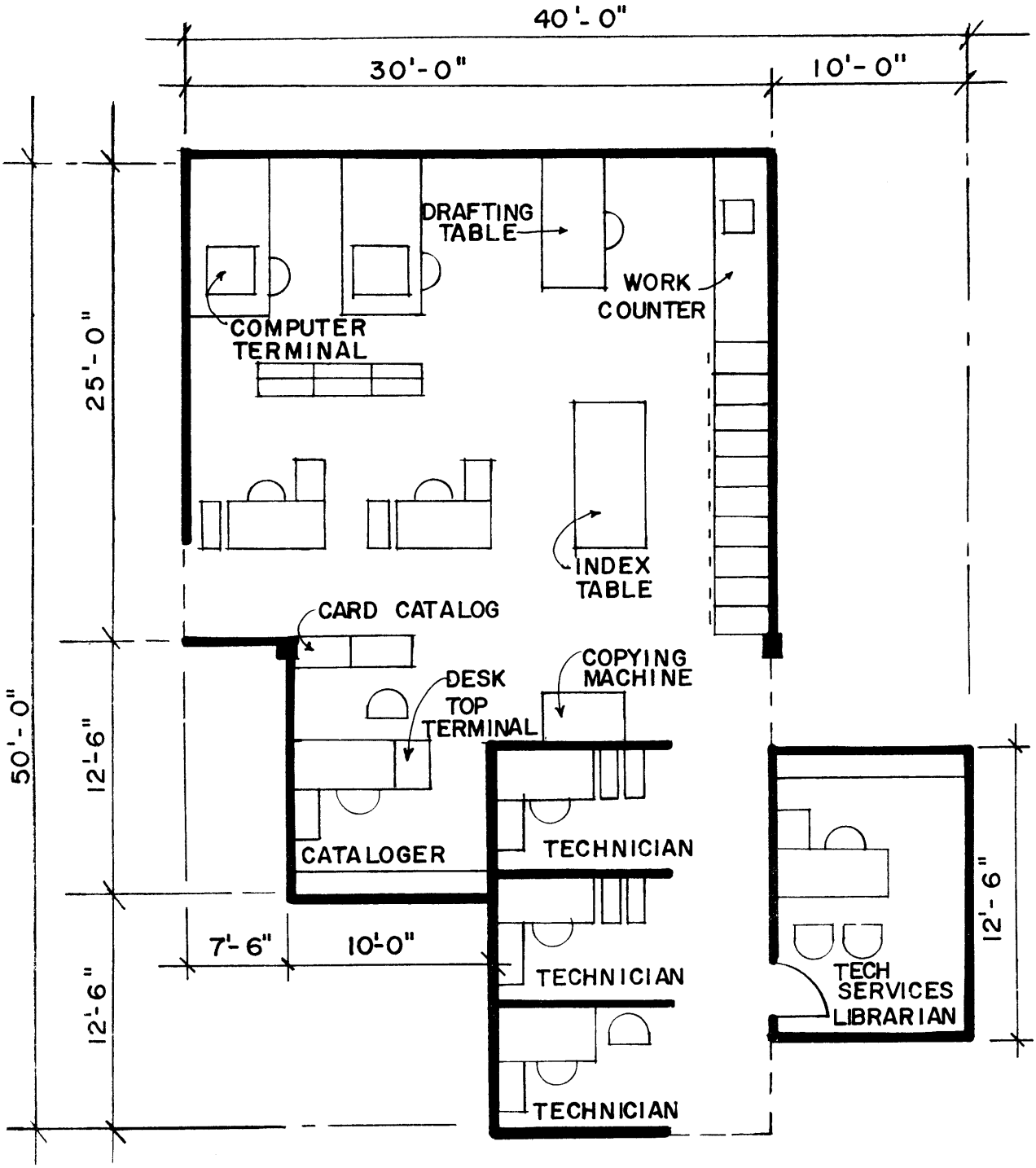

FIGURE 8-9

l. CLASSIFIED COLLECTION. The classified collection is usually located in a vault with access limited to authorized personnel only. Classified materials require the same kind of technical processing as for unclassified materials with the exception that technical processing must have the necessary security clearance. In order to avoid duplicating technical processing space, it is recommended that, where possible, classified collections be located adjacent to technical processing areas in which all personnel have the necessary security clearance.

The 21,250 GSF technical information center used as an example has a classified collection of 11,600 items. This includes 800 technical reports (2600 on shelves and 4500 in lateral files), 3200 16 mm microfilm reals, and 400 35 mm microfilm reals. In addition, a DTIC terminal is required for access to classified materials. A separate classified reading area is located at the entrance to the classified collection and contains two carrels and two reader/printers.

(2) *Space Requirements.* See Table 8-14.

TABLE 8-14 CLASSIFIED COLLECTION SPACE REQUIREMENTS

Items	Unit Area Allowance	Example Requirements QTY	NASF
Technical Reports:			
Shelving	9	25	225
Lateral Files	12	25	300
Microfilm: 16 mm	15	4	60
35 mm	15	2	30
DTIC Terminal	100	1	100
Carrel Seating	30	2	60
Reader/Printer Station	28	2	56
Total			831

(2) *Space Utilization Plan.* See Figure 8-10.

CLASSIFIED COLLECTION SPACE UTILIZATION PLAN

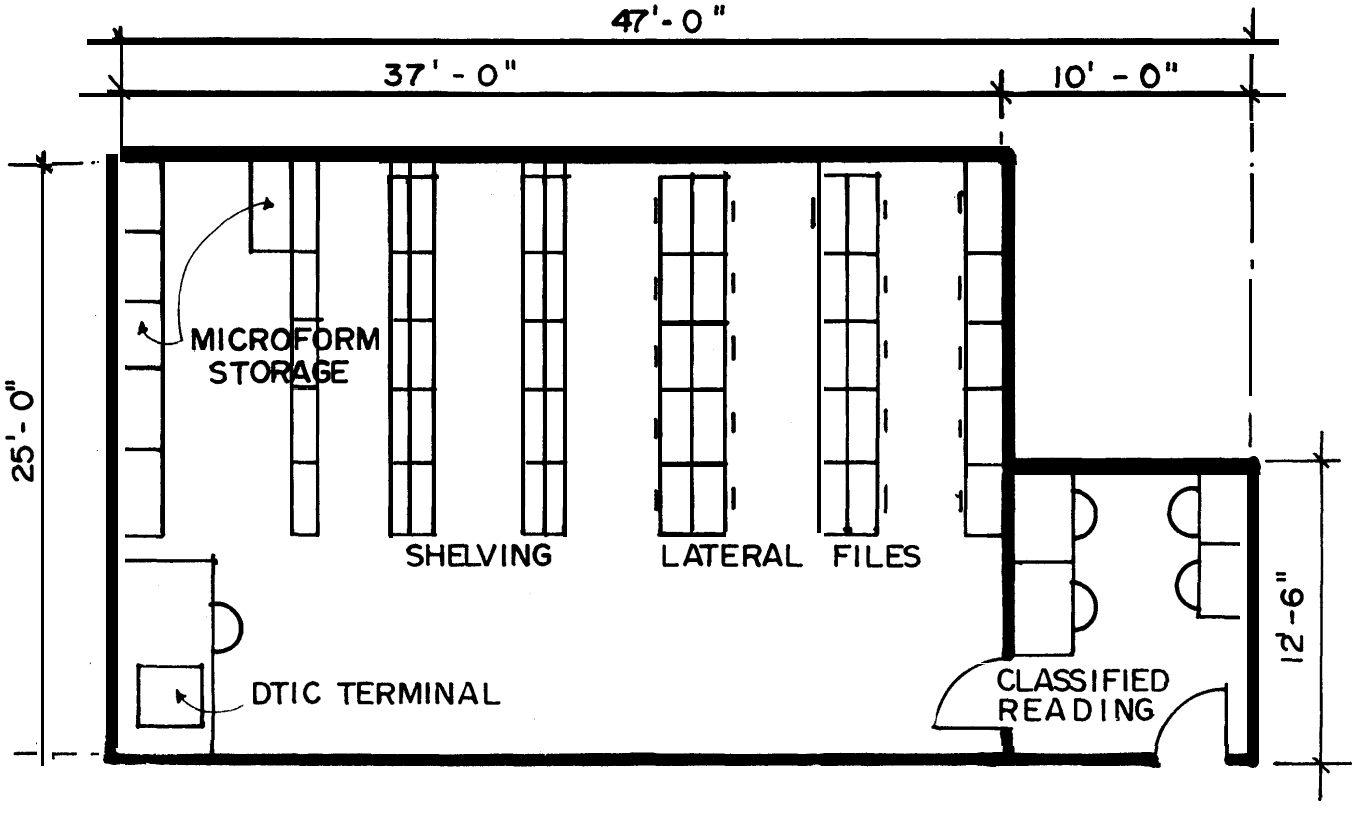

Figure 8-10

m. STAFF LOUNGE. The staff lounge provides an area for library staff to eat and relax and can also be used for informal staff meetings. To allow for limited food preparation, a unit kitchen should be provided. The staff lounge should be adjacent to the technical processing area and in as close proximity to the administrative and control desk areas as practicable. Lockers should be provided for library personnel who do not have private offices for storage of personal items.

(1) *Space Requirements.* See Table 8-15.

TABLE 8-15 STAFF LOUNGE SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Sofa	75	1	75
Lounge Chairs	30	4	120
Chairs & Tables	25/seat	8	200
Unit Kitchen	80	1	80
Lockers	4	16	64
Storage		1	50
Total			589

(2) *Space Utilization Plan.* See Figure 8-11.

STAFF LOUNGE SPACE UTILIZATION PLAN

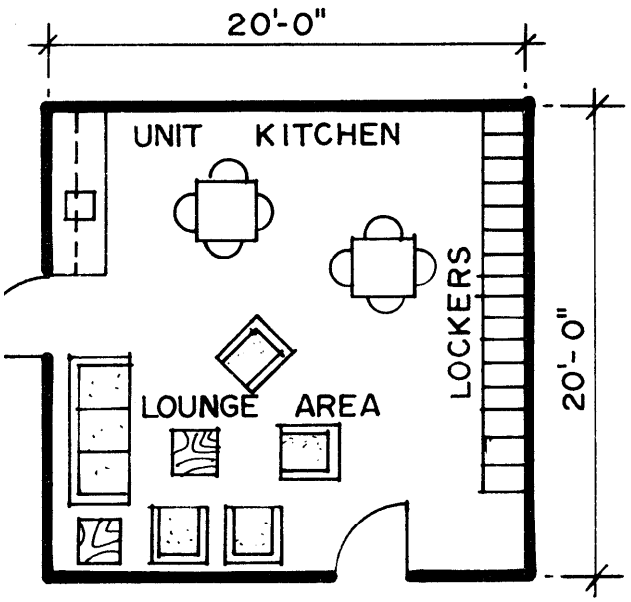

FIGURE 8-11

n. STORAGE AREA. A storage room should be provided adjacent to the technical processing and shipping and receiving areas for storage of unprocessed materials, library supplies, and shelving for books.

(1) *Space Requirements.* See Table 8-16.

TABLE 8-16 STORAGE AREA SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Shelving	9	24	216
Storage Cabinet	15	6	90
Total			306

(2) *Space Utilization Plan.* See Figure 8-12.

STORAGE AREA SPACE UTILIZATION PLAN

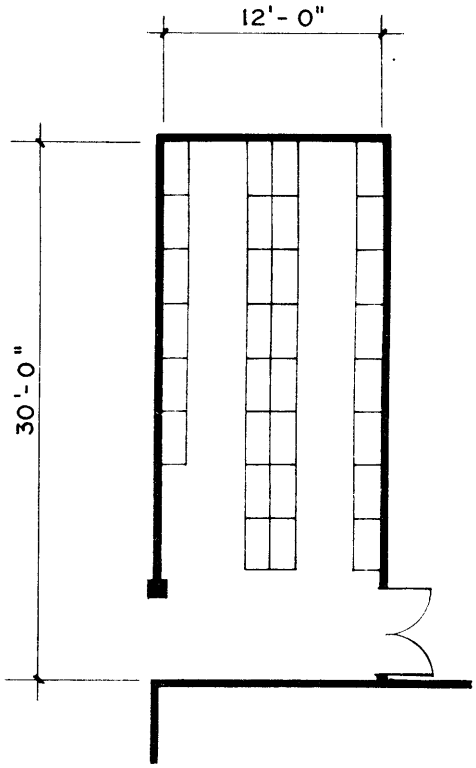

FIGURE 8-12

o. SHIPPING AND RECEIVING. Library materials must be provided with an area where items received can be checked in and stored for processing and where materials being sent out can be prepared for shipping and picked up. The shipping and receiving areas, if located on a ground floor, should have direct access to an exterior entrance if possible. If located above or below the ground level, this area should have direct access to a service corridor and/or a service elevator. Internally, the shipping and receiving area should have adjacency to a storage area and the acquisitions section of the technical services area.

(1) *Space Requirements.* See Table 8-17.

TABLE 8-17 SHIPPING AND RECEIVING SPACE REQUIREMENTS

Item	Unit Area Allowance	Example QTY	Requirements NASF
Desk & Chair	50	1	50
Work Counter	50	1	50
Storage Bins	25	6	150
Total			250

(2) *Space Utilization Plan.* See Figure 8-13.

SHIPPING AND RECEIVING SPACE UTILIZATION PLAN

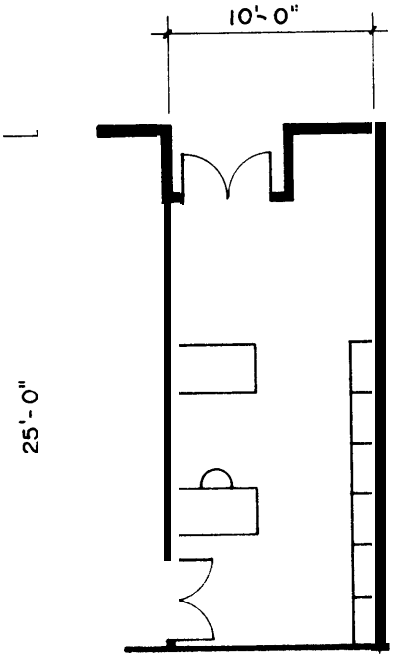

FIGURE 8-13

p. JANITOR'S CLOSET. A janitor's closet should be provided with a slop sink and shelving for storage of cleaning gear. This area will be used primarily by maintenance personnel.

(1) *Space Requirements.* See Table 8-18.

TABLE 8-18 JANITOR'S CLOSET SPACE REQUIREMENTS

Item	Unit Area Allowance	Example Requirements QTY	NASF
Janitor's Closet	50	1	50
Total			50

(2) *Space Utilization Plan.* See Figure 8-14.

JANITOR'S CLOSET SPACE UTILIZATION PLAN

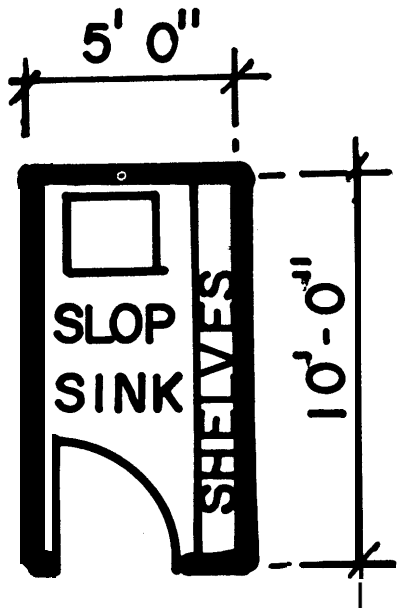

FIGURE 8-14

q. SUMMARY. Table 8-19 summarizes the space requirements for a 21,250 GSF example facility, Figure 8-15 shows a typical siting, and Figure 8-16 illustrates an example of a technical information center.

TABLE 8-19 SUMMARY OF SPACE REQUIREMENTS FOR 21,250 GSF EXAMPLE FACILITY

Space	NASF
a. Entrance Lobby	235
b. Public Toilets	239
c. Card Catalog	300
d. Control Area	500
Periodical Area	1013
e. Reference Area	2314
g. Stack Area	6831
h. User Seating	1088
i. Microform Area	1176
j. Administrative Offices	1195
k. Technical Processing Area	1274
l. Classified Collection	831
m. Staff Lounge	589
n. Storage Area	306
o. Shipping and Receiving	250
p. Janitor's Closet	50
Total NASF	18,490
Core Area 15% ± NASF	2,760
GSF	21,250

TYPICAL SITING FOR TECHNICAL INFORMATION CENTER

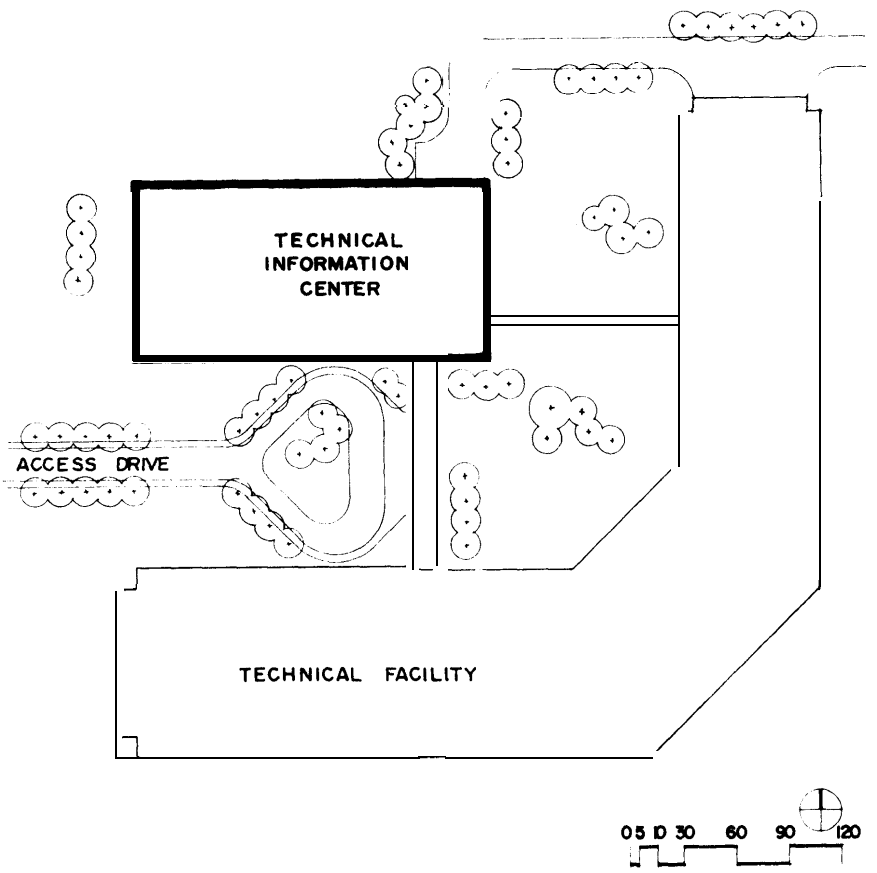

FIGURE 8-15

EXAMPLE TECHNICAL INFORMATION CENTER 21,250 GSF

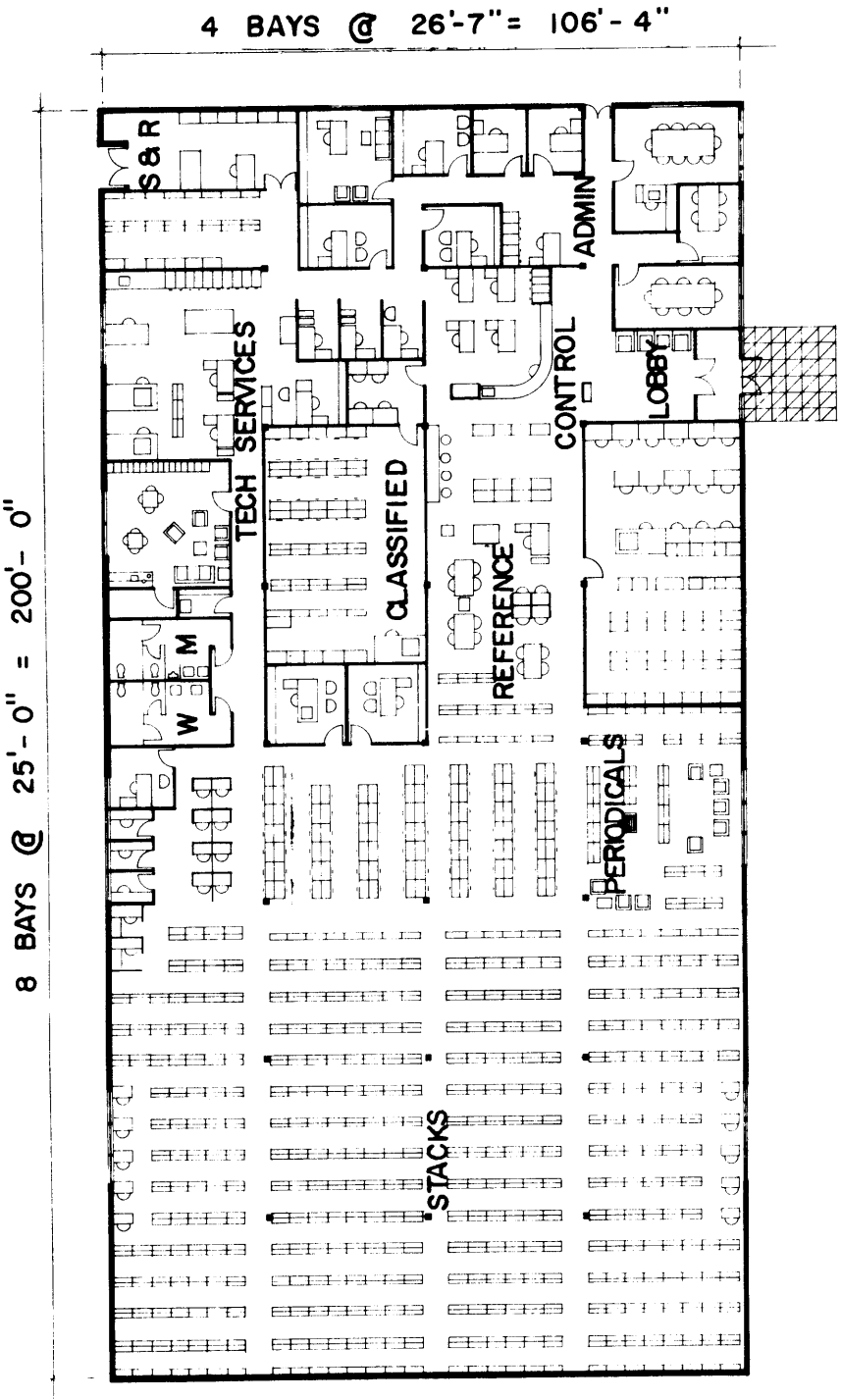

FIGURE 8-16