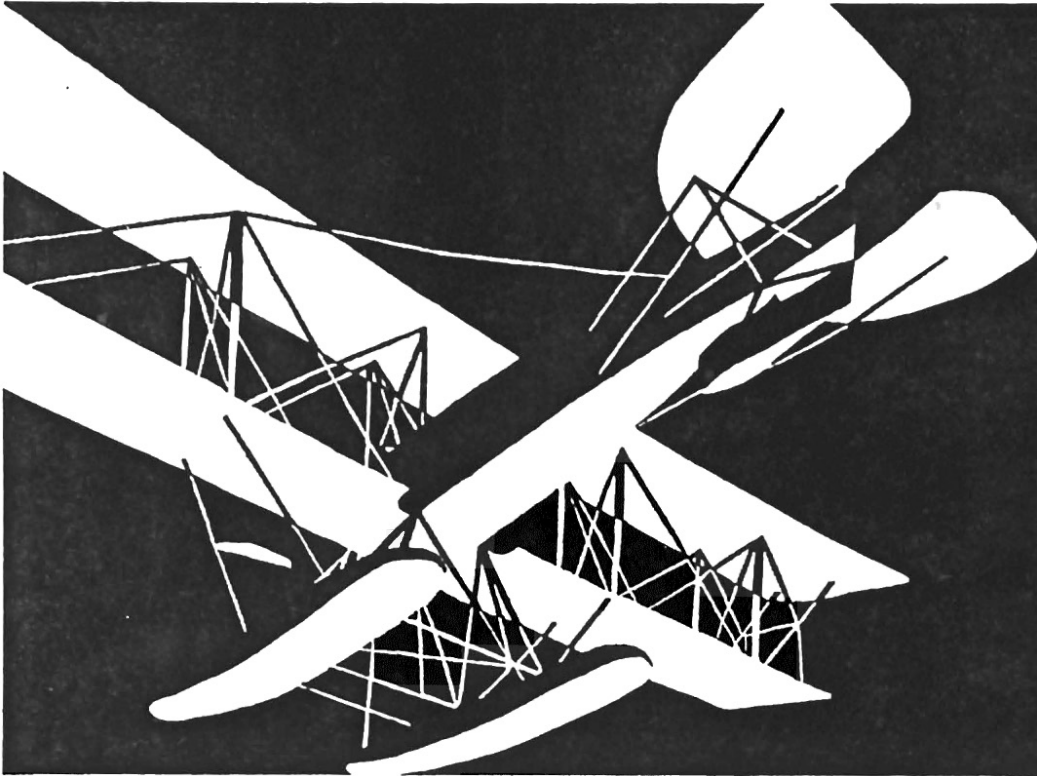


B A N G K O K

POENATEETA I. C.

*Thesis 1987R
P744r*



R O Y A L
T H A I
A I R
F O R C E
M U S E U M

T H A I L A N D

ARCH.
LIBRARY



Acknowledgements

I would like to thank to my parents, Narong and Somporn Sri-soonporn, and my husband, Visit Poenateetai, for their support and confidence in me and my decisions. This thesis would not be possible without them.

Thank also to Alan Brunken, my program advisor, and Bob E. Heatley, my thesis advisor, whose unending support helped keep things in correct perspective.

Chollada Poenateetai.

Chollada Poenateetai
Oklahoma State University



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Introduction

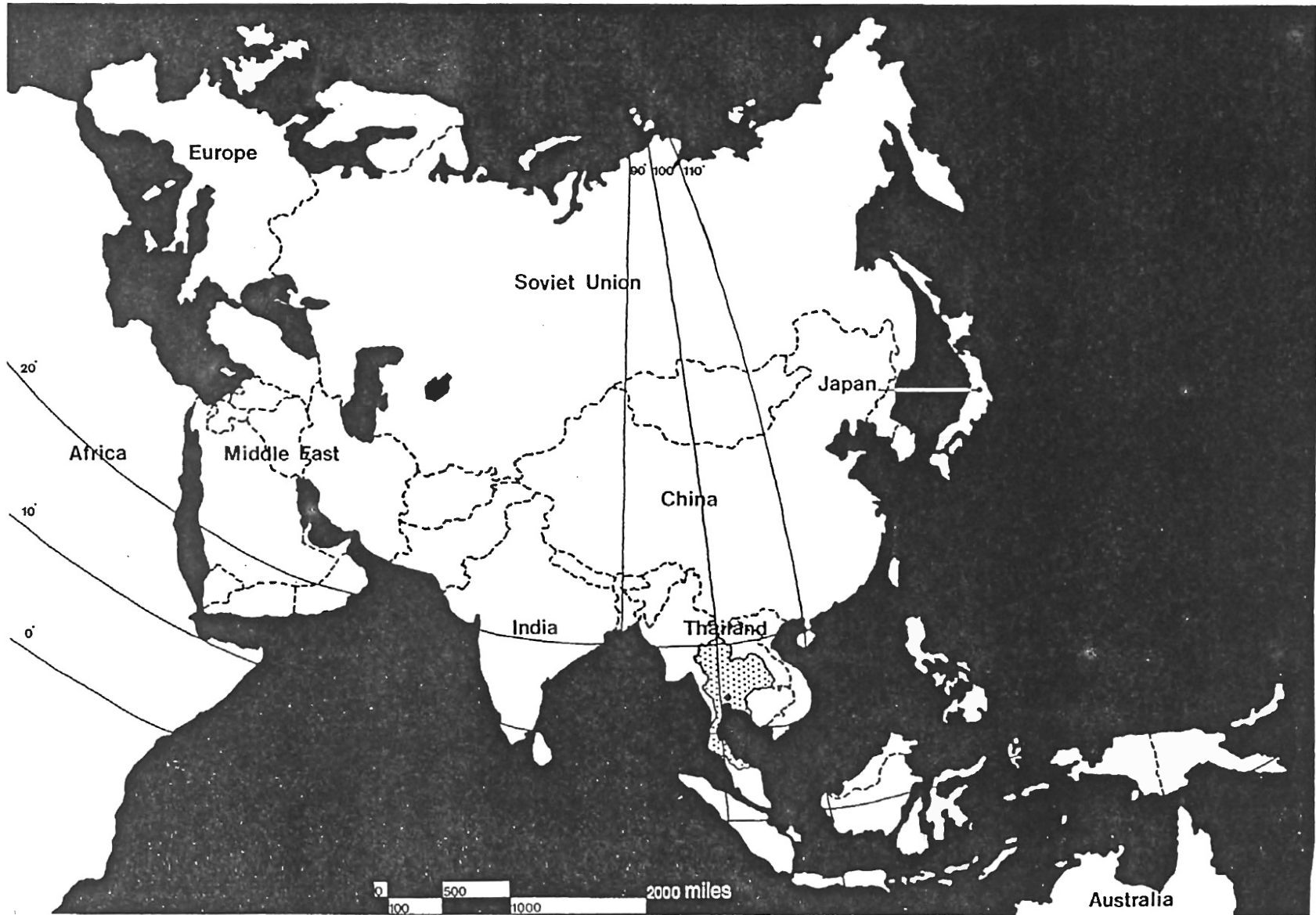
The Royal Thai Air Force Museum

The Royal Thai Air Force Museum was set up in 1952 with the purpose of collecting and restoring defense articles of different periods including equipments and aircraft in use during the early period of Thai aviation history up to the present. The Royal Thai Air Force Museum was first located at a hanger west of Don Muang airfield and was not opened to the public until March 27, 1959. The present museum was constructed on March 26, 1968, and was completed on September 15, 1968 at a cost of \$ 300,000. The museum was officially opened to the public on January 24, 1969.

The exhibits at the Royal Thai Air Force Museum feature many types of aircraft rarely found anywhere else in the world. Many of them were in service during the war and played a vital role in the safeguarding of Thailand's independence. The numerous Victory Medals awarded to the Royal Thai Air Force pilots attest to the bravery and valour of Thai's heroes.

It is the hope of the Royal Thai Air Force Museum that the exhibits on display will show the rich history of Thai aviation and install in the public a sense of pride in their Royal Thai Air Force.



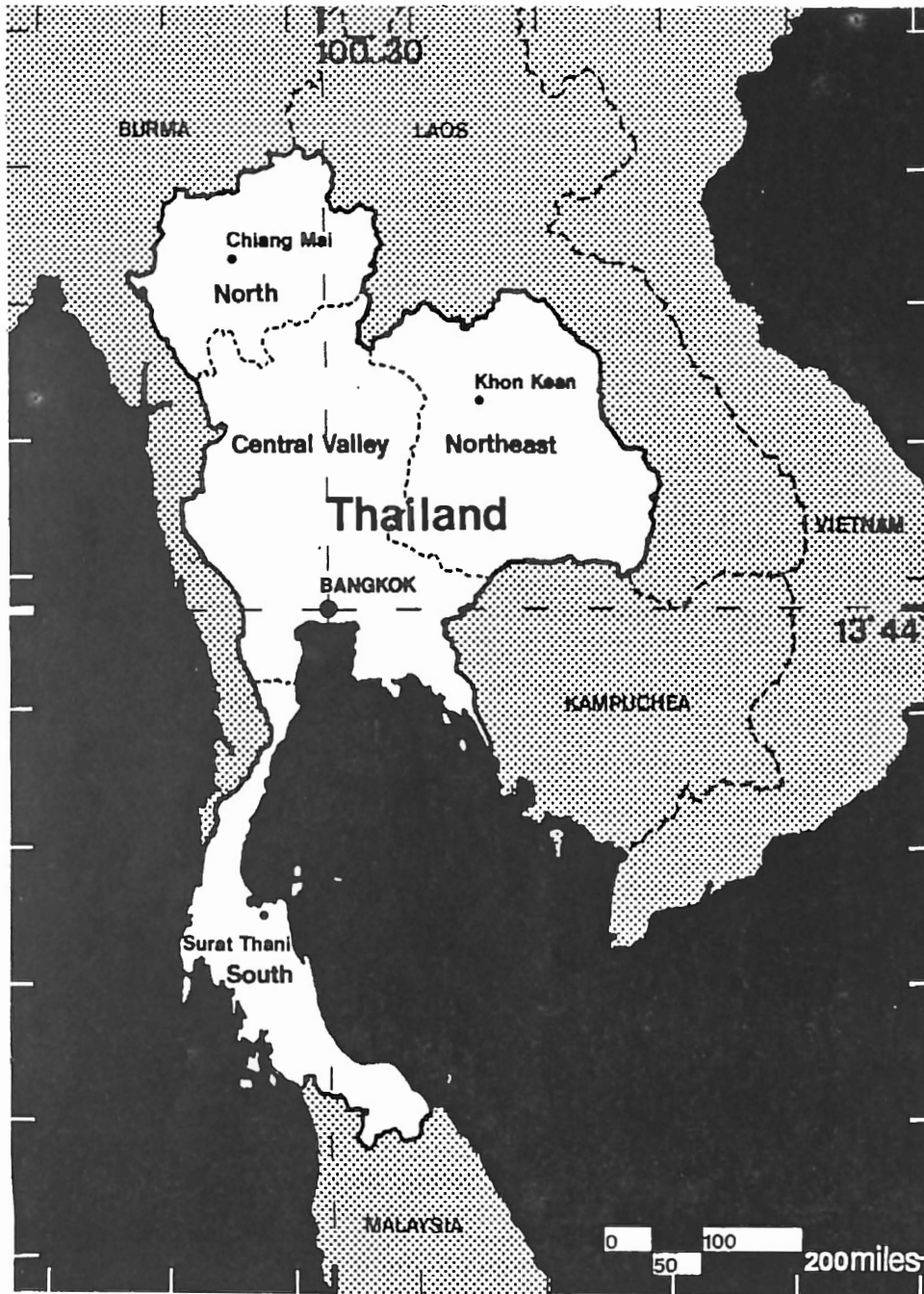


Thailand

Thailand, kingdom of Southeast Asia, was known as Siam until 1939 and again between 1946 and 1949. It is located in the center of the Indo-chinese Peninsula almost equidistant from China and India. Historically Thailand has been something of a Southeast Asian migratory, cultural and religious crossroads.

Thailand occupies a strategic position on mainland Southeast Asia, has a population of some 50 million, has an area of 198,500 square miles approximately 25% larger than California, and share borders with Burma to the west and north, Laos to the north and northeast, Cambodia to the east, and Malaysia to the south. Thailand is divided into four distinct regions – the mountainous north where elephants still work teak forests, the semi-arid northeast plateau where the world's first civilization flourished some 5,600 years ago, the central valley, one of the world's most fertile ricegrowing areas, and the lushly tropical southern isthmus.

Thailand lies entirely with the region of tropical and monsoonal climate. The weather is



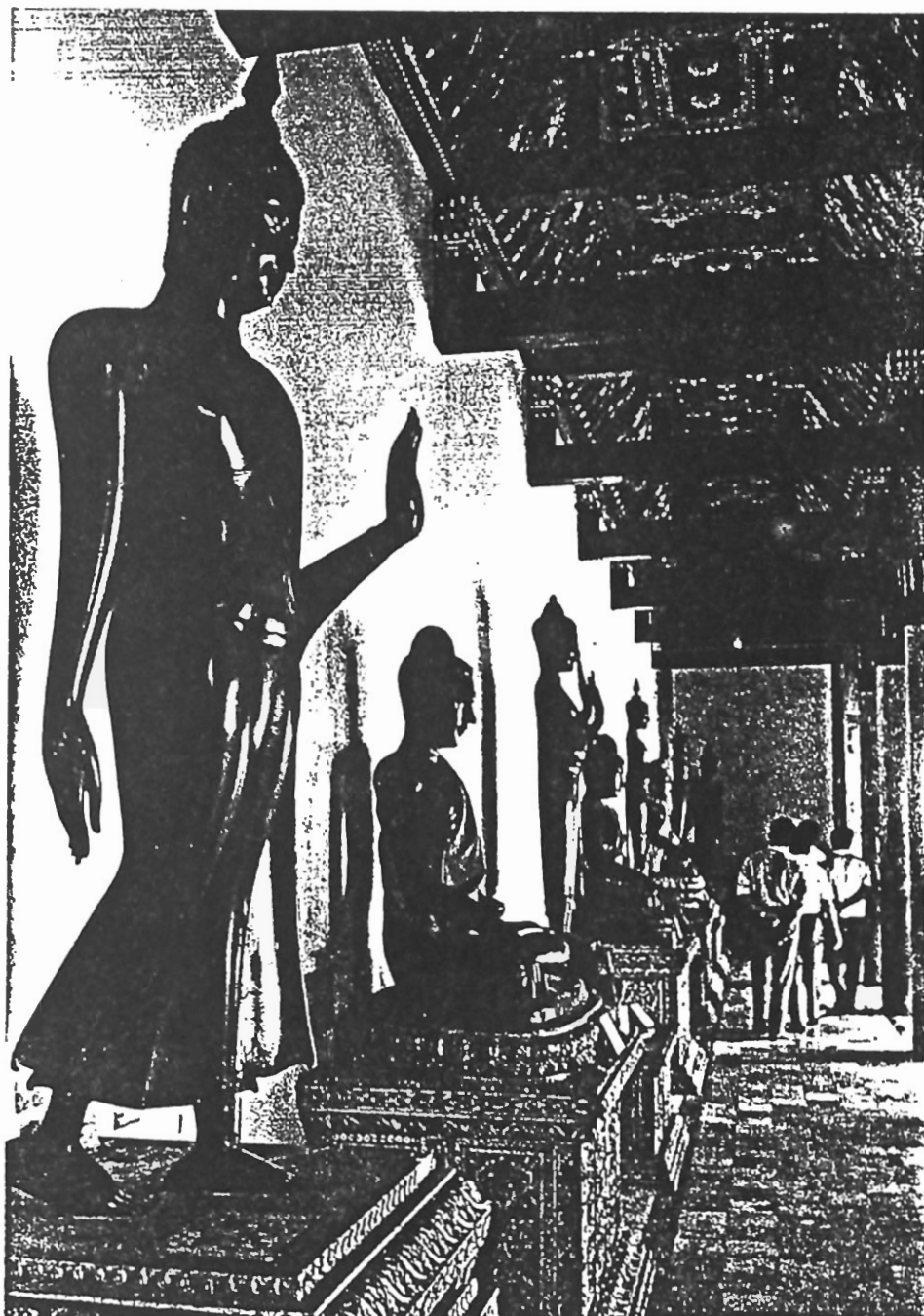


warm throughout the year. As is the characteristic of monsoonal areas, the changes of seasons are determined of prevailing winds and the resulting rainfall. The Rainy season is rainy and wet, some rain falls everyday, whereas winter and early summer are dry. Most of the country receives 40 to 60 inches of rain annually.

Thailand's economy is heavily dependent upon foreign trade. The principal export, rice, goes to other parts of the world and amounts to some 1,400 million dollars annually. Tapioca products, textiles, sugar, and rubber are the other top five exports. The most important and fundamental form of production is agriculture, although there is increasing diversity in economic activity.

People

Thailand has been an independent kingdom since 1238. Her sometimes tempestuous earlier history saw the assimilation of many prisoner-of-war from neighbouring countries, regarded as invaluable human resources, into Thai society.



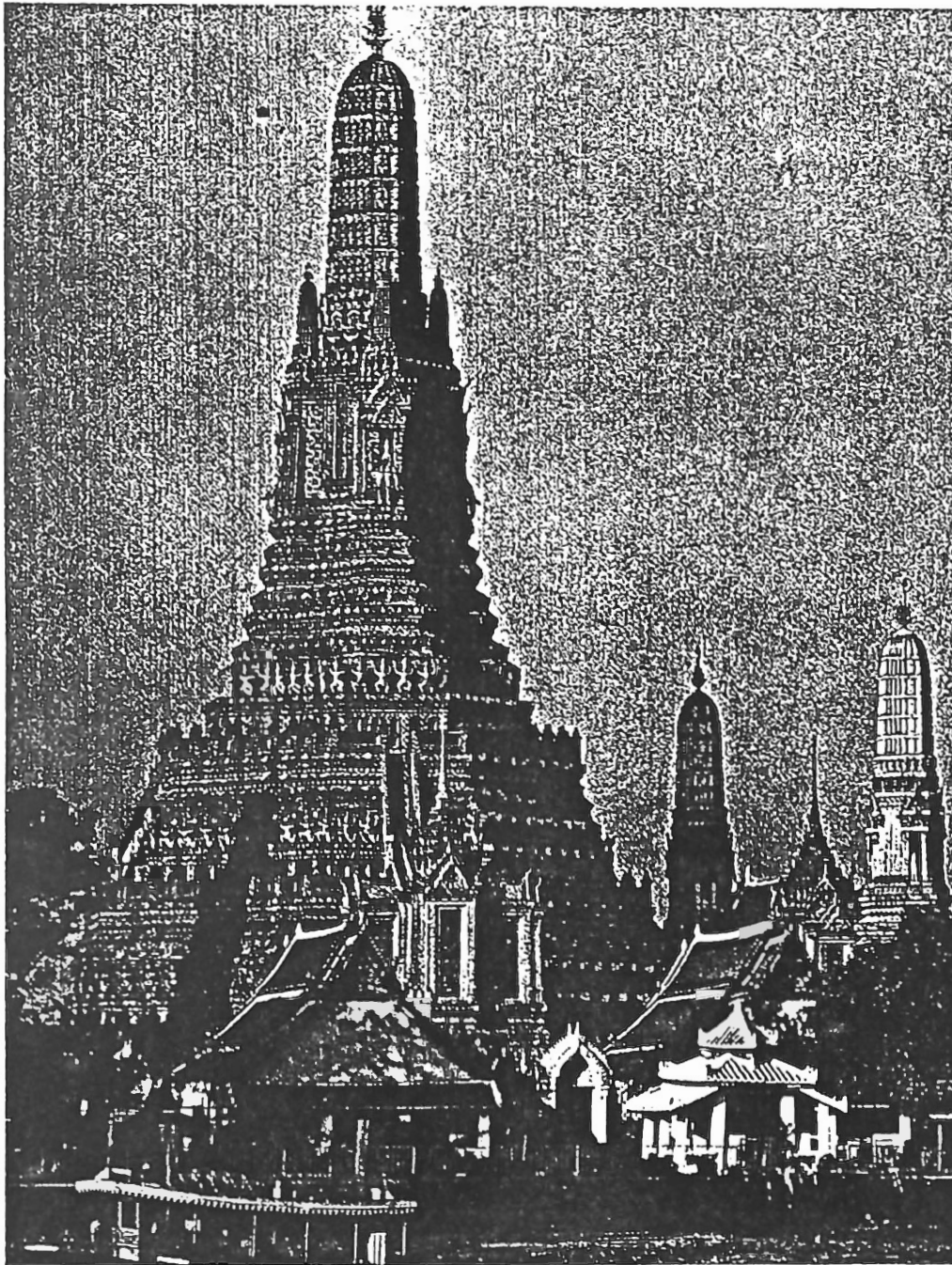
Subsequent immigrants were also gently absorbed with little or no social friction.

Thus people inhabiting Thailand today share a rich ethnic diversity, about 85% are Thais, 12% are Mon, Khmer, Burmese, Laos, Persian, and Indian, with the result that there is no typically Thai physiognomy or physique. About 85% of the people live in the rural areas, with the remaining 15% concentrated mainly in Bangkok and a few other major urban centers.

Religion

Theravada Buddhism is the professed religion of more than 90% of all Thais and casts strong influences on daily life. Buddhism first appeared in Thailand during the 3rd Century B.C. at Nakhon Pathom, site of the world's tallest Buddhist monument, after the Indian Buddhist Emperor Asoke (267-227 B.C.) Despatched missionaries to Southeast Asia to propagate the newly established faith.

Beside moulding morality, providing social cohesion and offering spiritual succour,

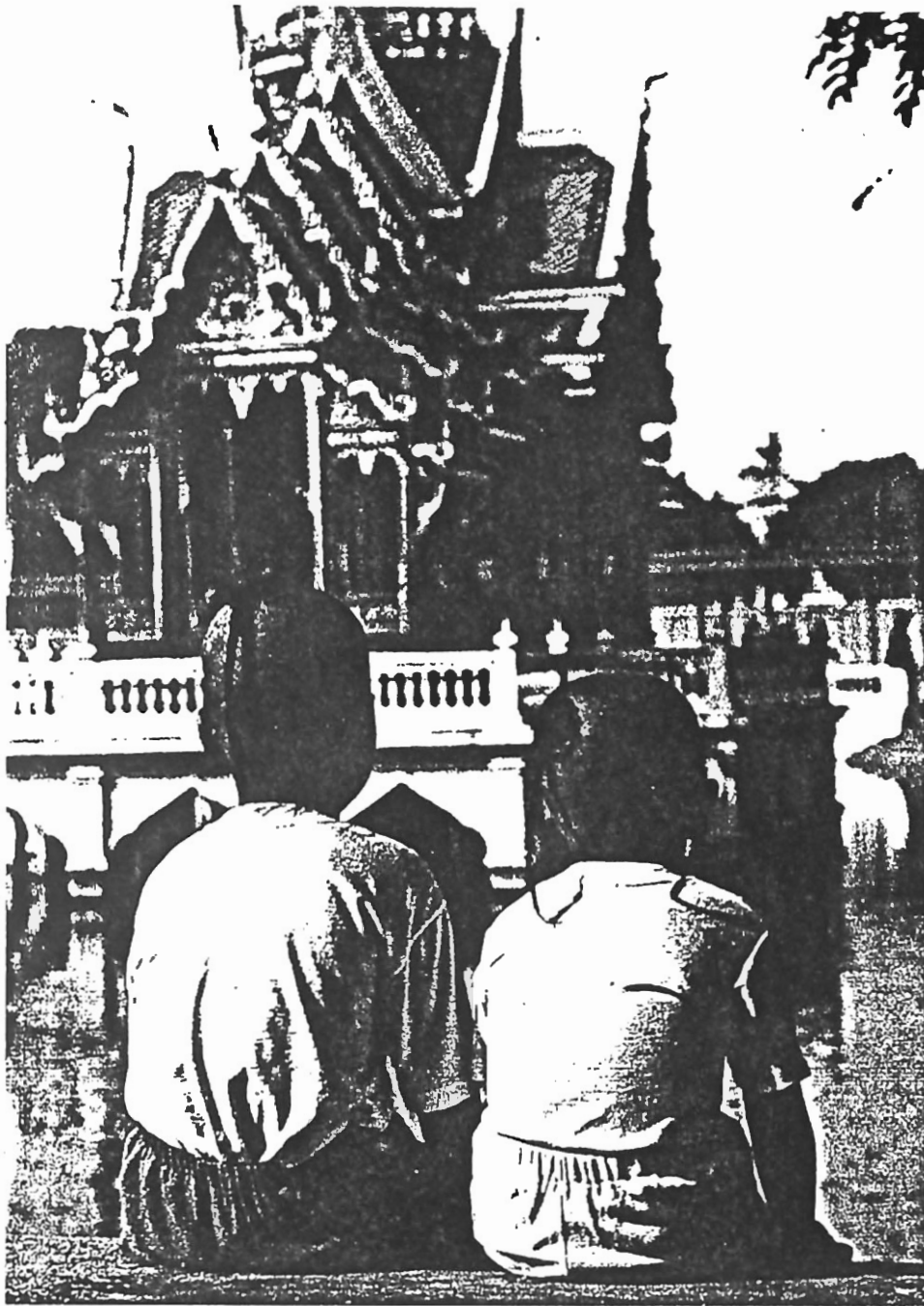


Buddhism provided artistic impetus. In common with medieval cathedrals, Thailand's innumerable multi-roofed temples inspired major artistic creation. Beside sustaining monastic communities, Thai temples have traditionally served other purpose—as the village hostelry, village news, employment and information agency a school, hospital, dispensary, and community center—to give them vital roles in Thai society.

Although Buddhism is the national religion, His Majesty the King is also the patron of all religions. There is religious tolerance, and everyone in the country enjoys complete freedom of worship. About 95% of the population are Buddhist, 4.02% are Muslims, and less than 0.60% are Christians.

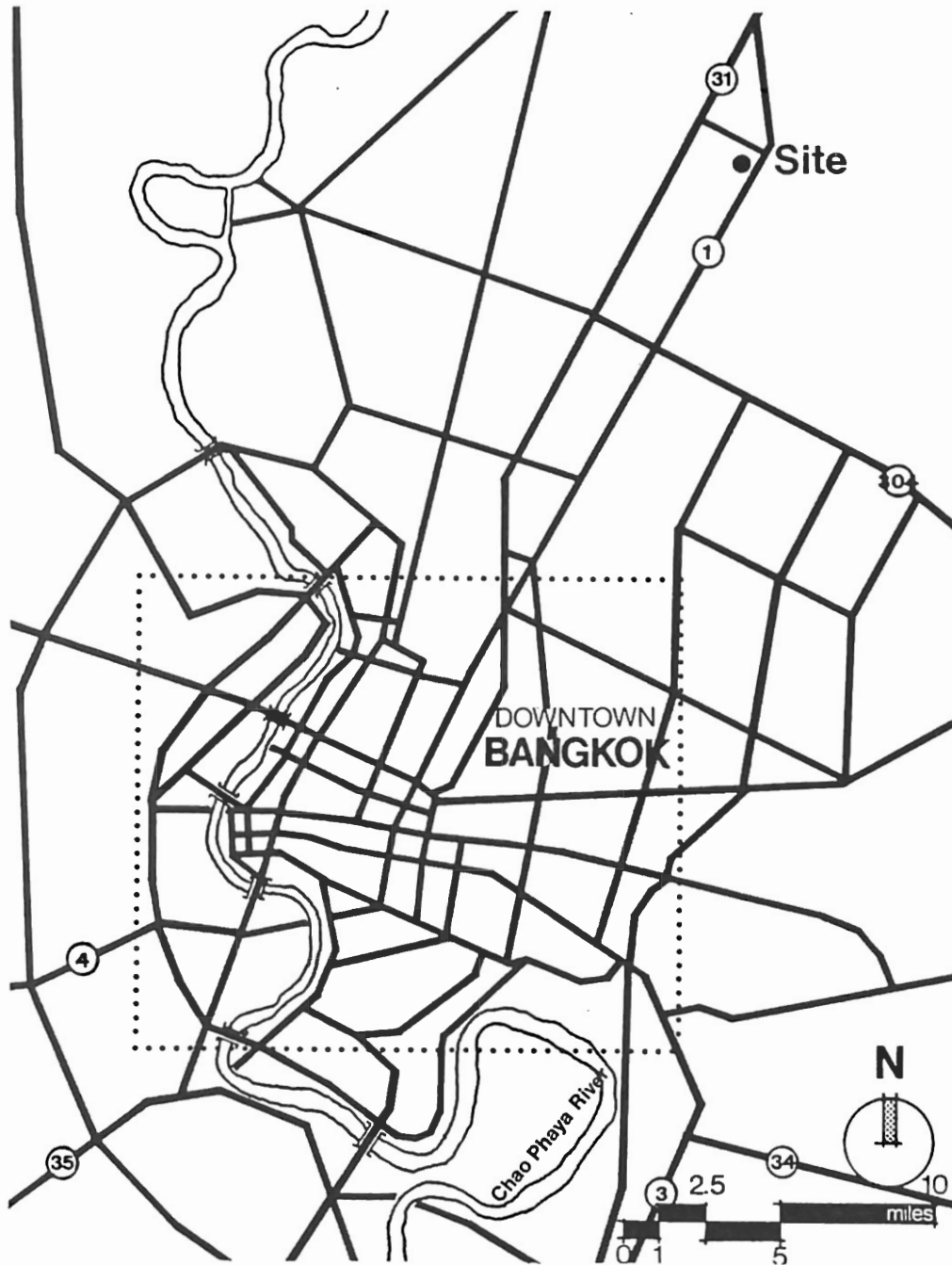
Monarchy

The Monarchy remains the central unifying force in the Thai triad of nation, king and religion. In the past, Thai Monarchs were greatly venerated and possessed absolute power until 1932 when Thailand became constitutional



monarchy. The present King Bhumibol Adulyadej, the 9th King of the Chakri Dynasty, and his consort Queen Sirikit, have devoted themselves to nation progress and well-being of the Thai people, making them well loved and respected by the whole nation. Their Majesties have four children: Their Royal Highnesses Princess Ubol Ratana, Crown Prince Vajiralongkorn, Crown Princess Maha Chakri Sirindhorn, and Princess Chulabhorn.

| | |
|----------------------|----------------------|
| Areas: | 198,000 square miles |
| Population: | 50 million |
| Cultivated: | 44% |
| Forest: | 25% |
| Capital: | Bangkok |
| Number of Provinces: | 73 |



Bangkok

Bangkok, the capital of Thailand, is located on the Southern part of the country near the Gulf of Siam, approximately 23 miles from the Gulf, at latitude $13^{\circ}44'N.$, and longitude $100^{\circ}30'E.$, with an elevation of about 6.6 feet above mean sea level. The total area of the city of Bangkok is about 375 square miles. The city, situated astride the shallow, winding Chao Phaya River, is built on a flat alluvial plain surrounded by marshlands.

Bangkok is not only a capital but also a national treasure-house and Thailand's spiritual cultural, political, commercial, industrial, educational and diplomatic center. Approximately one of ten Thais is a Bangkokian.

Bangkok is a large spreading metropolis of five and half million people, by far the largest city in Thailand. Other major cities are Chiang-Mai in the North, Knon Kaen in the Northeast and Surat Thani in the South.

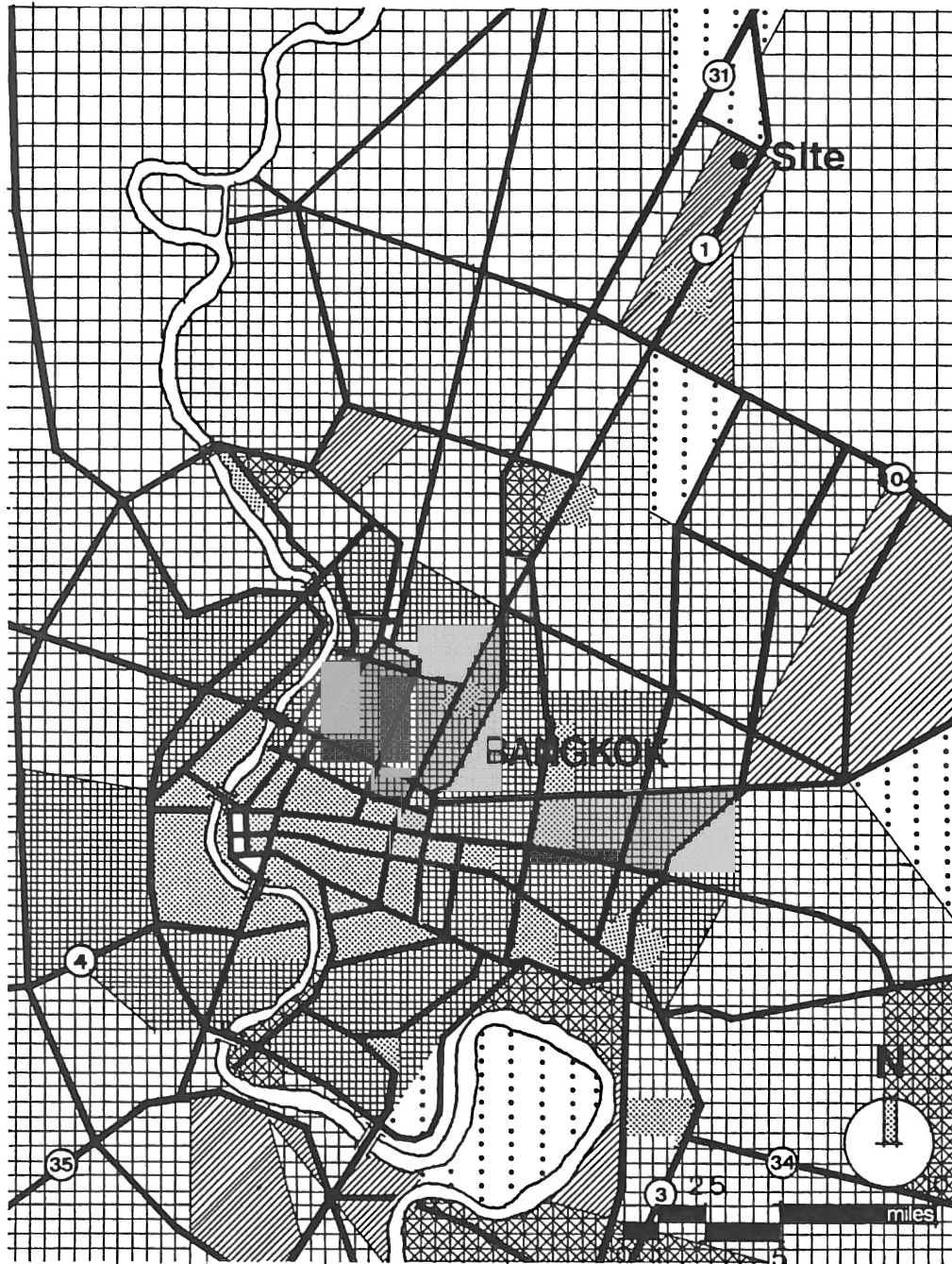


Urban Land Use


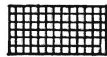
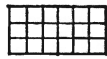
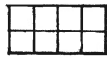



Since World War II, Bangkok has grown unprecedentedly rapidly; the population doubled between 1960 and 1970, and is estimated to be increasing 5% annually compared to 3.3% for the country as a whole, and the area of Bangkok has been extended three times - in 1942, 1955, and 1965 - to include more than 90 sq. miles. With their union in 1971, the Bangkok and Thon Buri metropolitan area had a total area of 203 square miles.

Bangkok is not a planned city and is undergoing rapid changes. The city is becoming much more densely populated in the already built-up section and, at the same time, is sprawling outward into the surrounding agricultural areas. Some districts, however, are evolving into functional units as the inner city becomes more definitely used for institutional and commercial government activities and the outer city used more for residential and industrial purposes.

Bangkok: Land Use

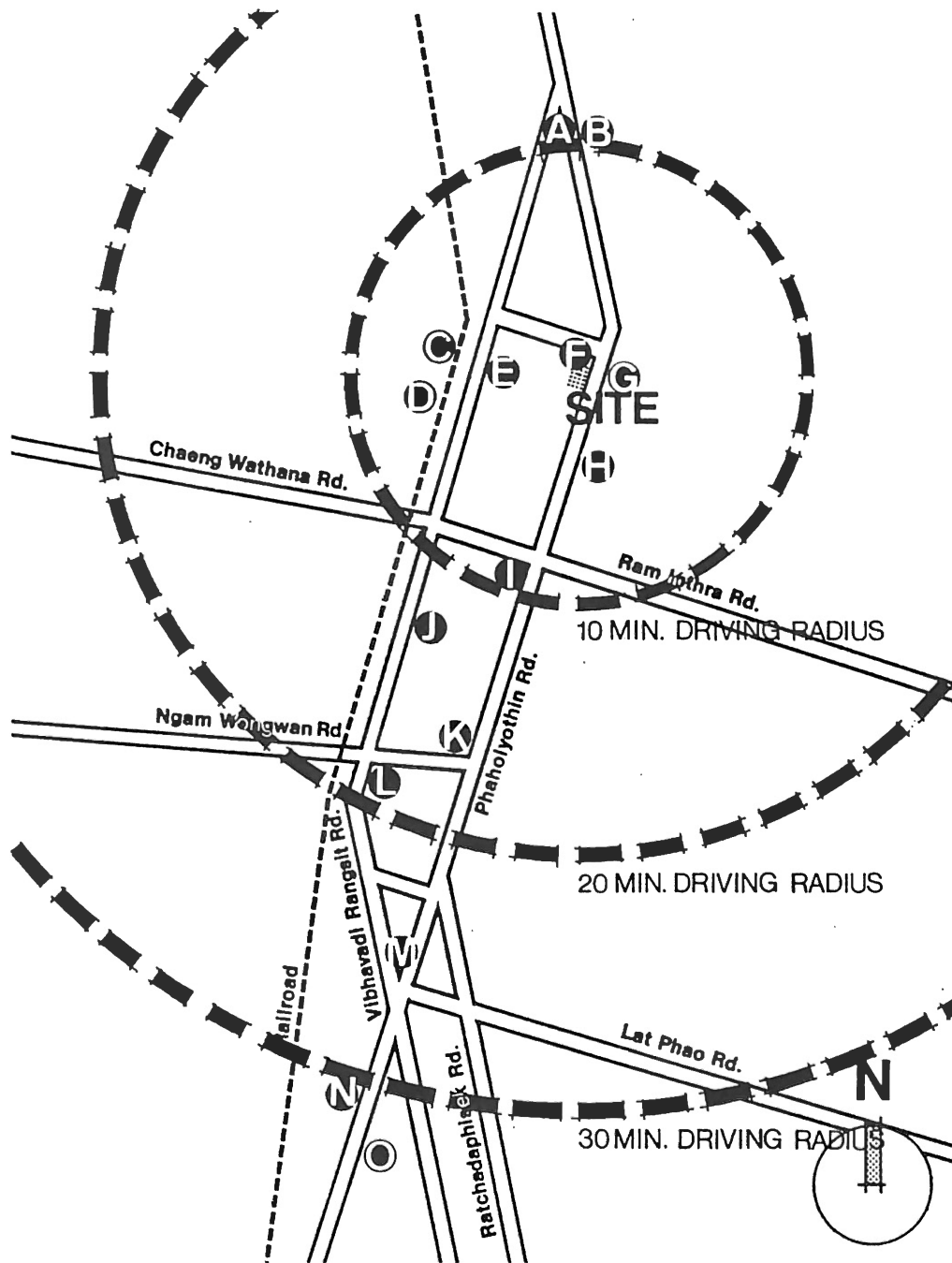


LEGEND

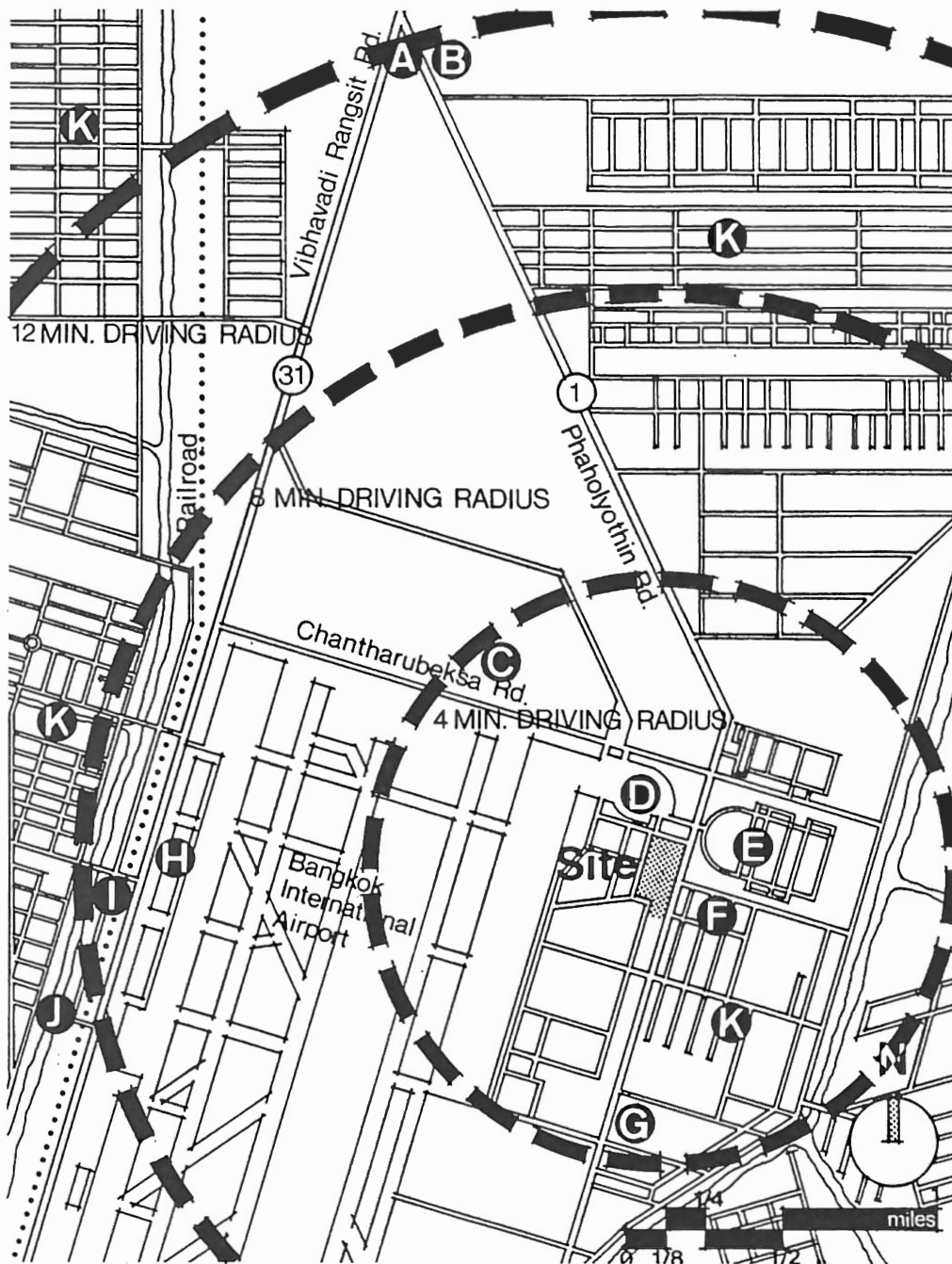
-  RECREATION OPEN
-  RESIDENTIAL HIGH DENSITY
-  RESIDENTIAL MEDIUM DENSITY
-  RESIDENTIAL LOW DENSITY
-  INSTITUTION
-  COMMERCIAL
-  INDUSTRIAL

Points of Interest

The proposed site of the new Museum is located on the north part of Bangkok city. It takes about an hour to drive from downtown Bangkok to the proposed site. However, there are many points of interest within easy driving distance of the site.



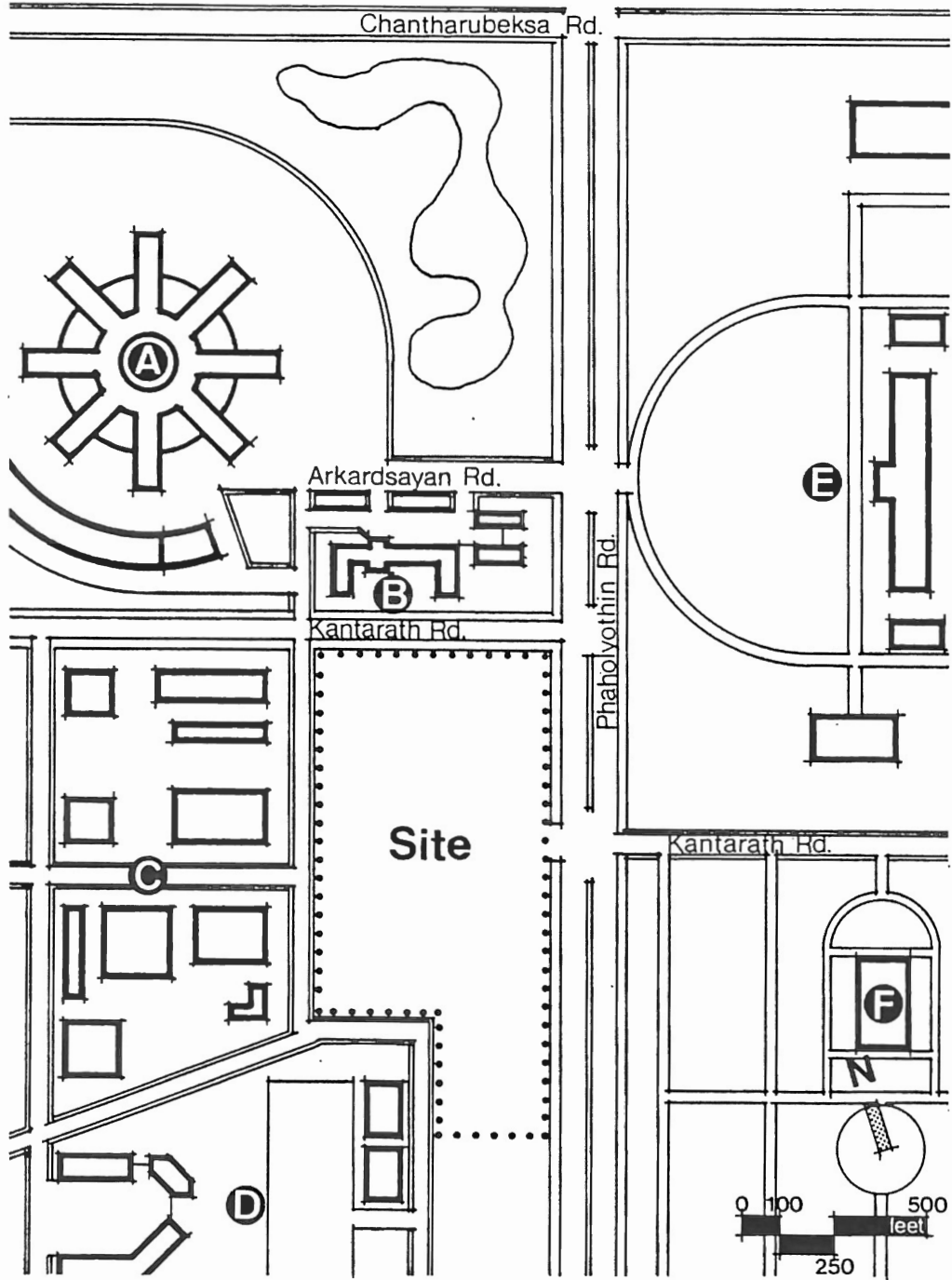
- A. Veteran Monument
- B. Royal Thai Air Force Sport Complex
- C. Don Muang Railway Station
- D. Airport Hotel
- E. Bangkok International Airport
- F. Royal Thai Air Force Headquarters
- G. Royal Thai Air Force Academy
- H. Bhumibol Adulyadej Hospital
- I. Pra Sri Maha Thart Temple
- J. Rama Gardens Hotel
- K. Karsetsart University
- L. Vibhavadi Hospital
- M. Hyatt Central Plaza Hotel and Shopping Mall
- N. Jhatuchack Park
- O. North and North-Eastern Bus Terminal



Relative Locations

Phaholyothin Road that passes in front of the site is one of the major highways of Thailand. This highway links between the northern part and the central part of Thailand. It starts from Bangkok and ends at Chiang Rai, the major northernmost city of the Northern. Phaholyothin Road, highway 1, merges with highway 31 about 3 miles northwest of the site at the Veteran Monument. Within short driving distance of the site, there are many major buildings and one landmark.

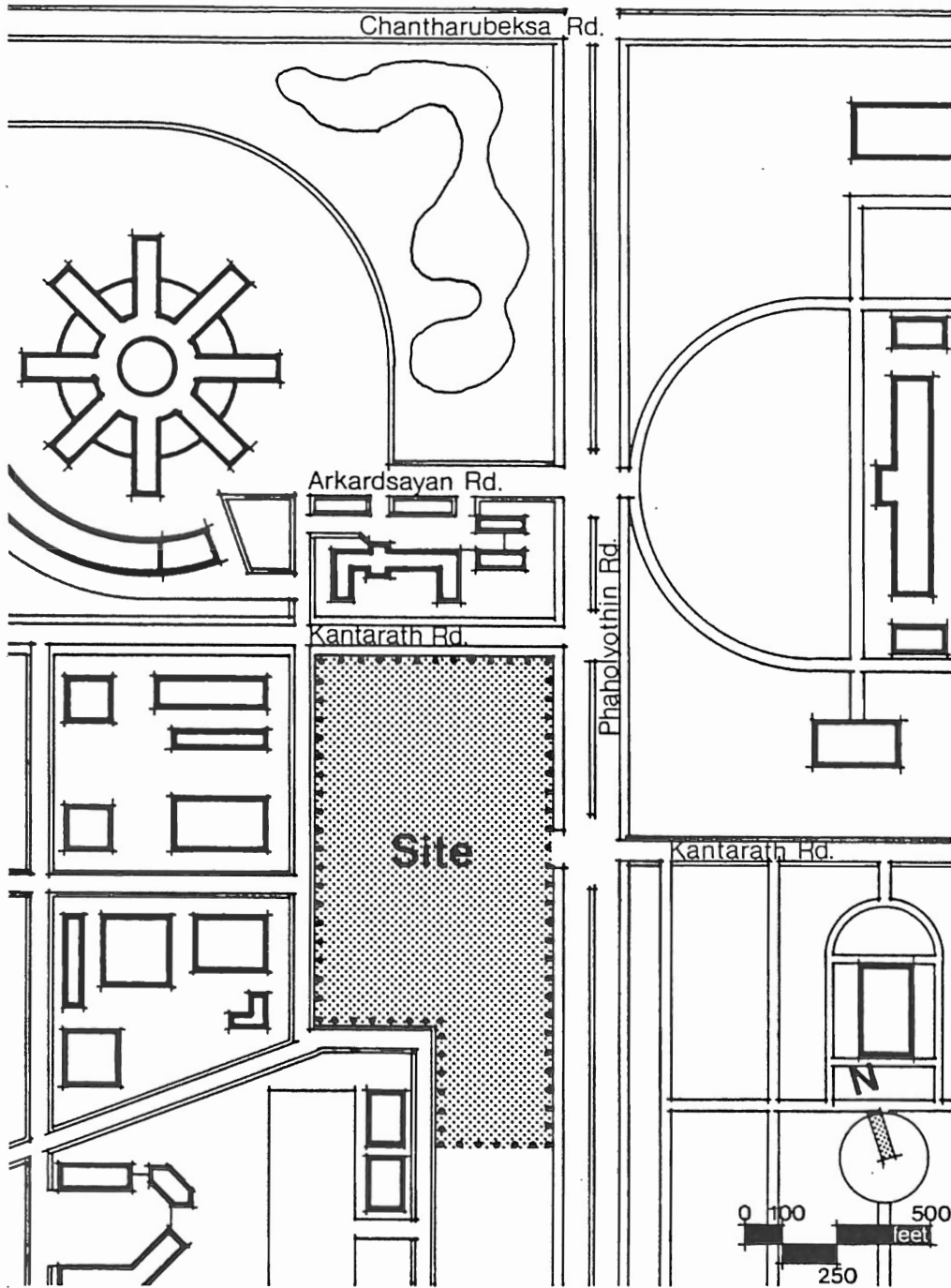
- A. Veteran Monument
- B. Royal Thai Air Force Sport Complex
- C. Royal Thai Air Force Airport
- D. Royal Thai Air Force Headquarters
- E. Royal Thai Air Force Academy
- F. Royal Thai Air Force Conference Hall
- G. Bhumibol Adulyadej Hospital
- H. Bangkok International Airport
- I. Don Muang Railway Station
- J. Airport Hotel
- K. Residential Area



Neighborhood

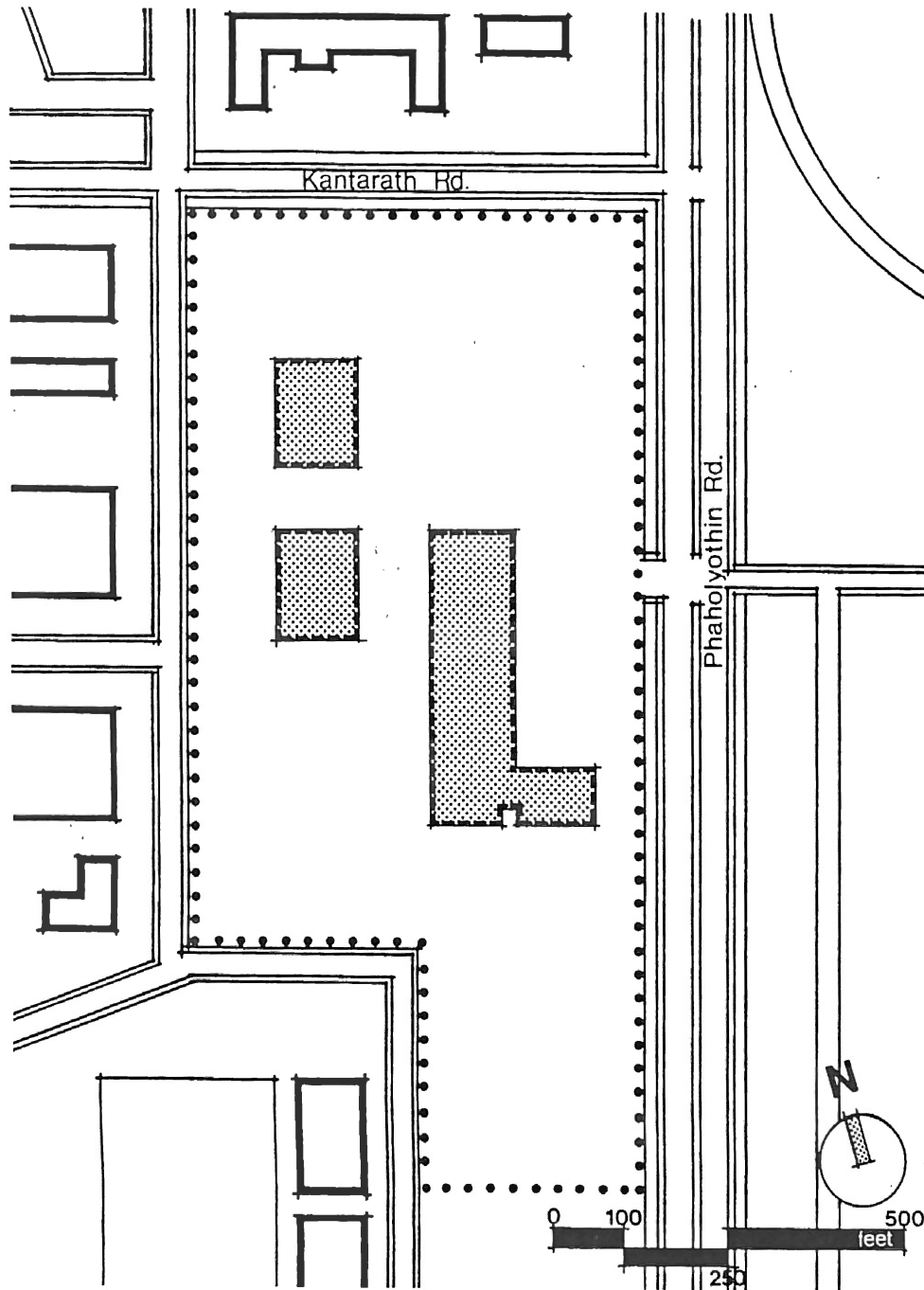
The site of new Royal Thai Air Force Museum is located in the Royal Thai Air Force Base area. Most of buildings surrounding the site are the major builds of the Royal Thai Air Force.

- A. Royal Thai Air Force Headquarters
- B. Royal Thai Air Force Research Center
- C. Royal Thai Air Force Directorate of Administrative Services
- D. Finance Group of Royal Thai Air Force Directorate of Administrative Services
- E. Royal Thai Air Force Academy
- F. Royal Thai Air Force Conference Hall



Site Location

The proposed site is located on Phaholyothin Road which in the Royal Thai Air Force Base area. Immediately across Phaholyothin Road to the east of the site is the Royal Thai Air Force Conference Hall and the Royal Thai Air Force Academy. The building adjacent to the north of the site is the Royal Thai Air Force Headquarters, to the west is the Royal Thai Air Force Directorate of Administrative Services, and to the south is Finance group of the Royal Thai Air Force Directorate of Administrative Services.

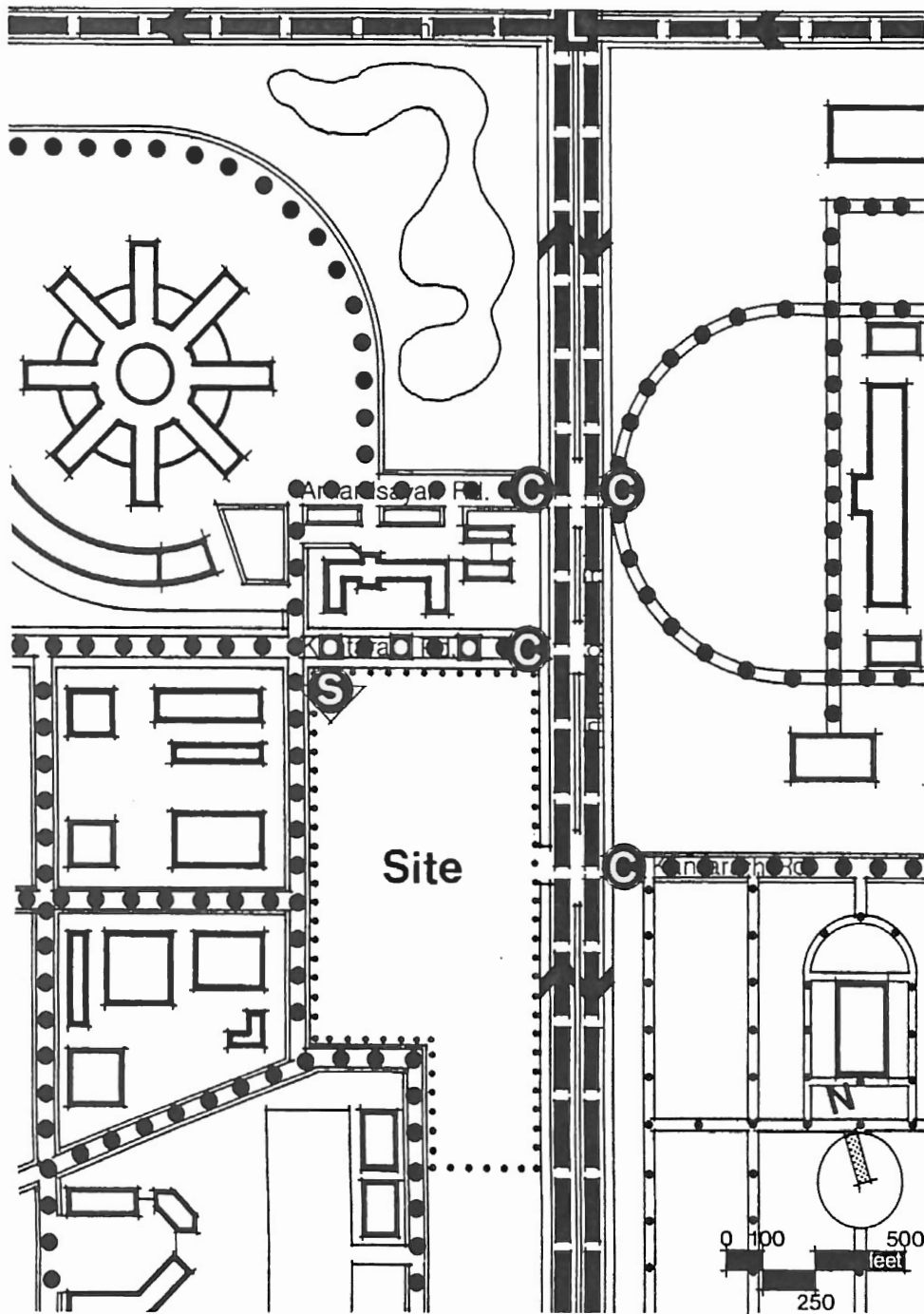


Existing Museum

The present Royal Thai Air Force Museum consists of three buildings. The first is an L-shape building which was constructed in 1968 and the others are two warehouse look alike buildings which were constructed later in 1975. These three buildings together form the present the present Royal Thai Air Force Museum.

The space in the existing Museum is inadequate for even present activities, the functions and needs of Museum having changed considerably since the two warehouse buildings were built. The buildings do not allow any adjustments for future needs as all existing space is over-taxed.








By these reasons, the Architectural Program Committee of the Royal Thai Air Force has determined to construct a new Museum in 1991 and the existing Museum should be removed in order to provide more exhibition space, support services for the classification, proper storage, preparation and conservation of the invaluable historical aircrafts, and the others collection.

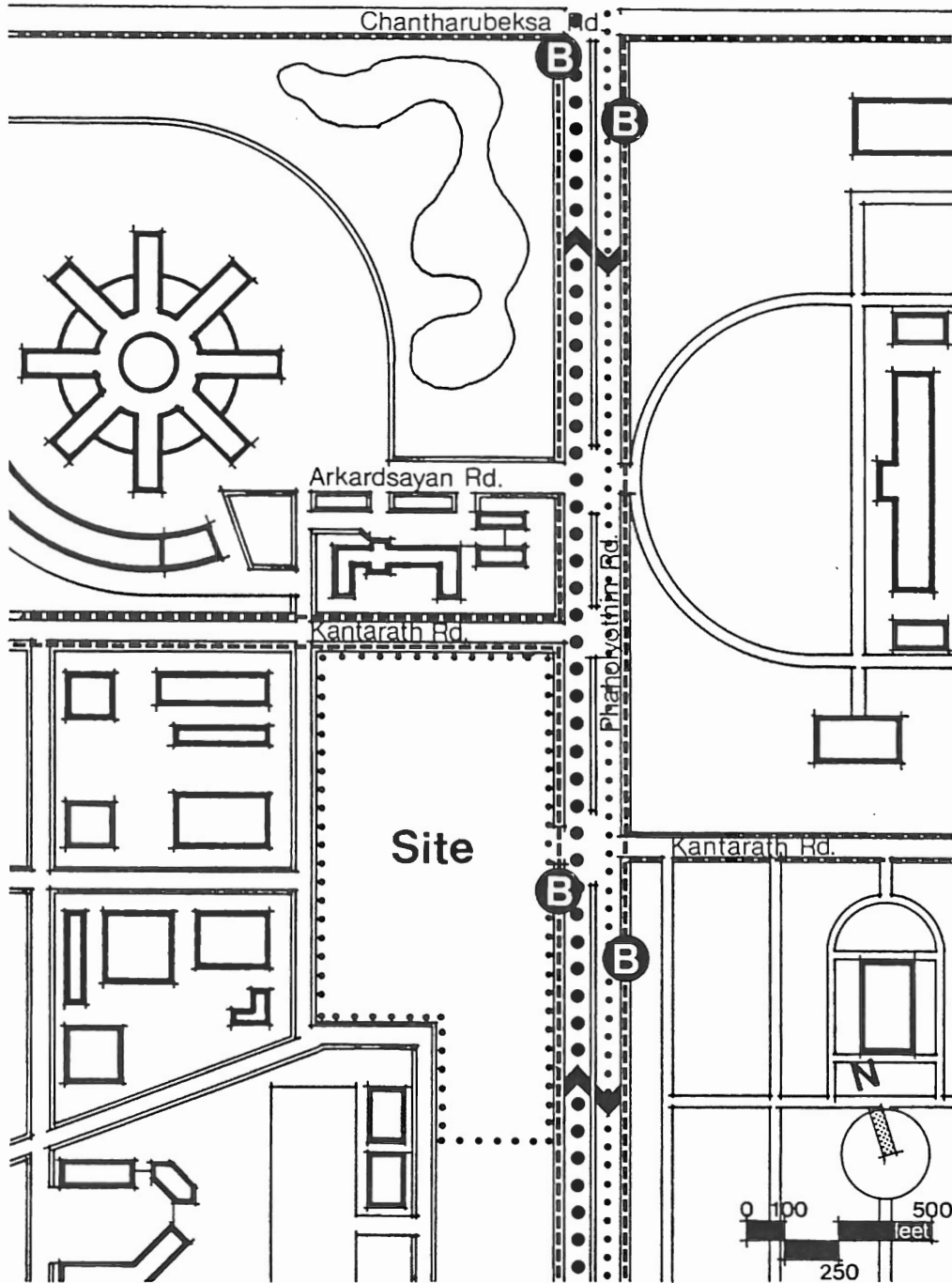


Vehicular Traffic

Main road in front of the site is six lanes two-way road. Phaholyothin Road is one of the major roads that link urban area to suburban area, it takes about an hour to drive from the site to downtown Bangkok, and has 13 feet pedestrian walk along two sides of Phaholyothin Road. However, the traffic within 1.5 miles from the site is moderate all day except during rush hour, since it is in the Royal Thai Air Force Base area.

Legend

-  CAR
-  CAR IN RESTRICTED ZONE (MAJOR)
-  CAR IN RESTRICTED ZONE (MINOR)
-  SERVICE
-  SECURITY CHECK POINT
-  SERVICE ENTRY
-  TRAFFIC LIGHT



Bus & Pedestrian Traffic

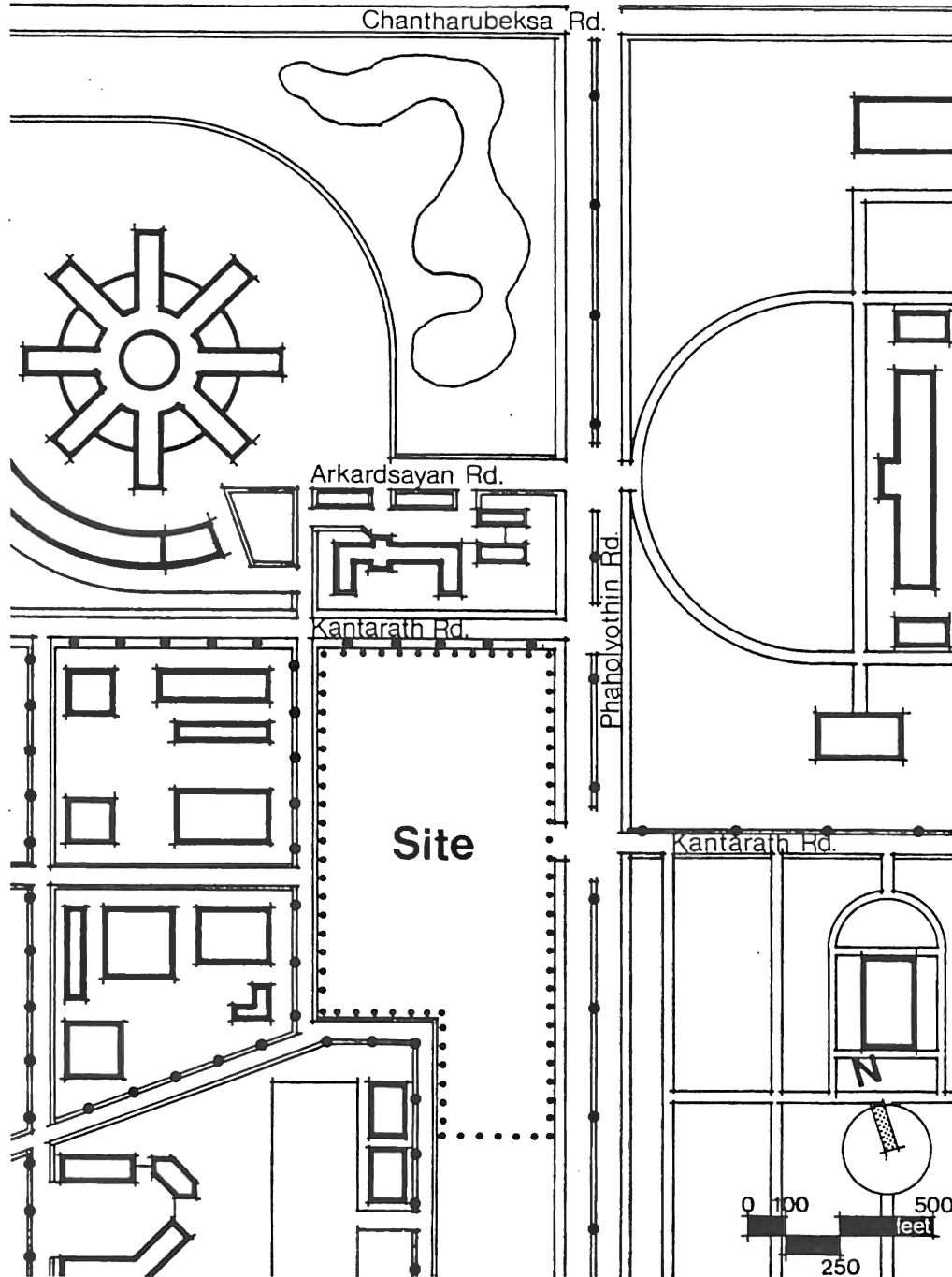
Six bus routes stop at the site, allow easy access to any part of the city from the Museum, five routes are from downtown to outskirts of the city and one route is from another city to downtown.

On the other hand Phaholyothin Road has very light pedestrian traffic, because the site is not located in the commercial area. Only pedestrian are officers of the Royal Thai Air Force Base and residents of that area.

Legend

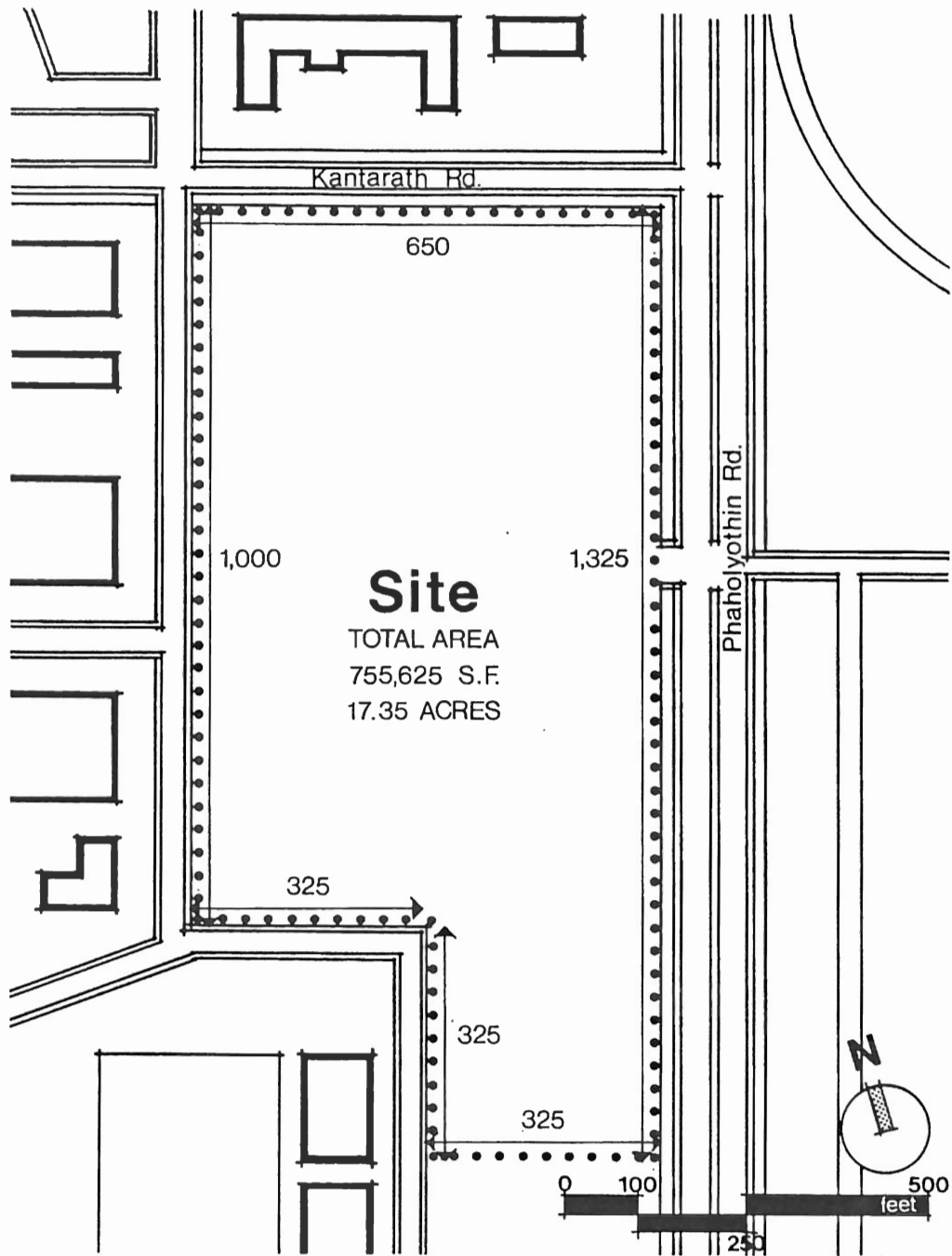
- PEDESTRIAN
- BUS - OUT OF TOWN ROUTE
- BUS - DOWNTOWN ROUTE
- B** BUS STOP

Exterior Lighting Patterns



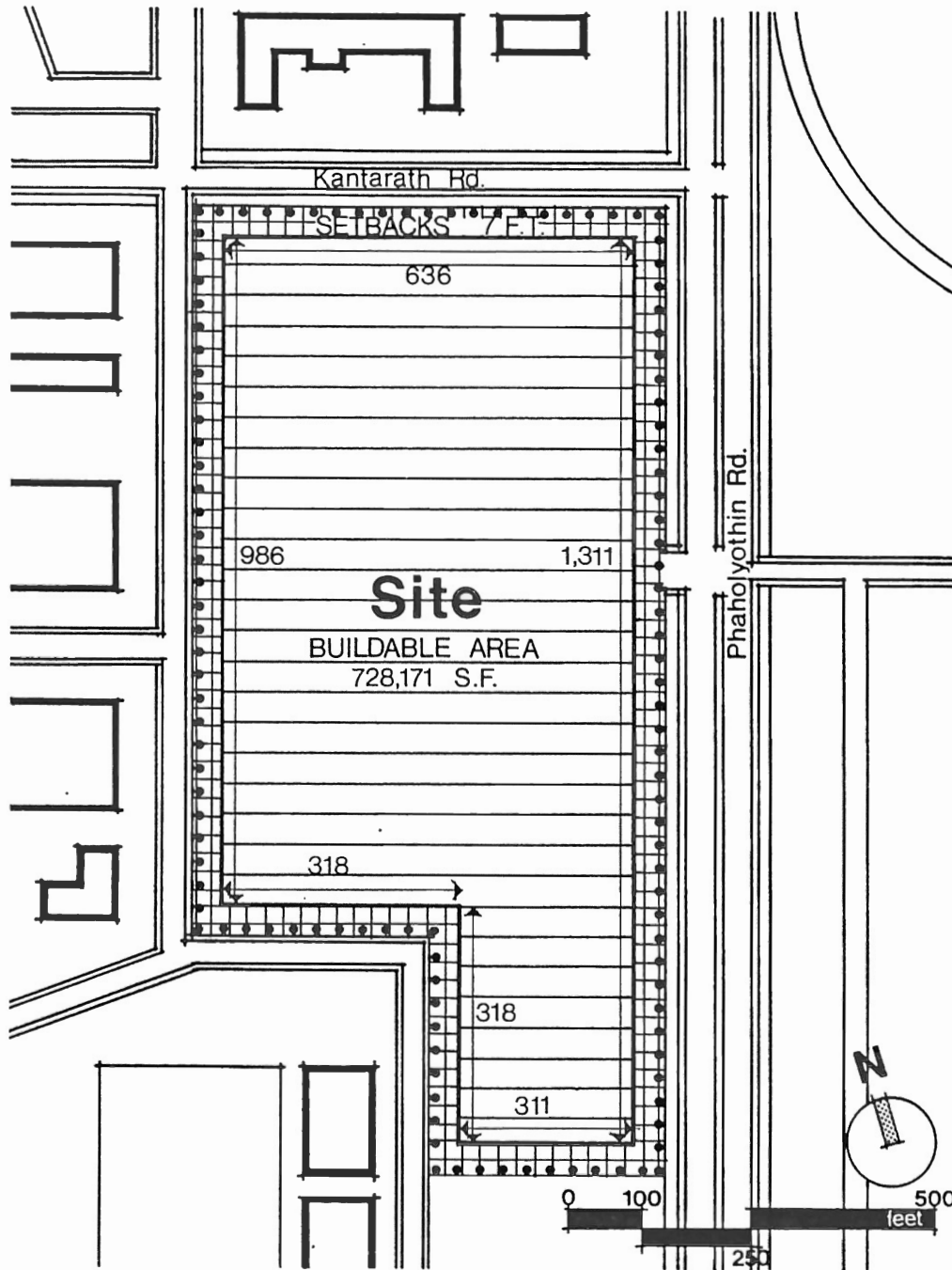
Legend

• • STREET LIGHT



Boundaries and Site Area

The site has dimensions as shown by the picture. The total area of the site is 755,625 square feet or about 17.35 acres, and the buildable area of the site is 728,171 square feet or about 16.72 acres - after the requirement of 7 feet setbacks from each boundaries. Three boundaries are adjacent to the street and another boundary is adjacent to the land of the Finance Group of Royal Thai Air Force Directorate of Administrative Services.



Building Code

Minimum setbacks of 7 feet away from property line is required for non-residential buildings.

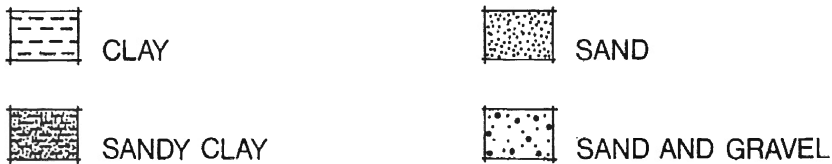
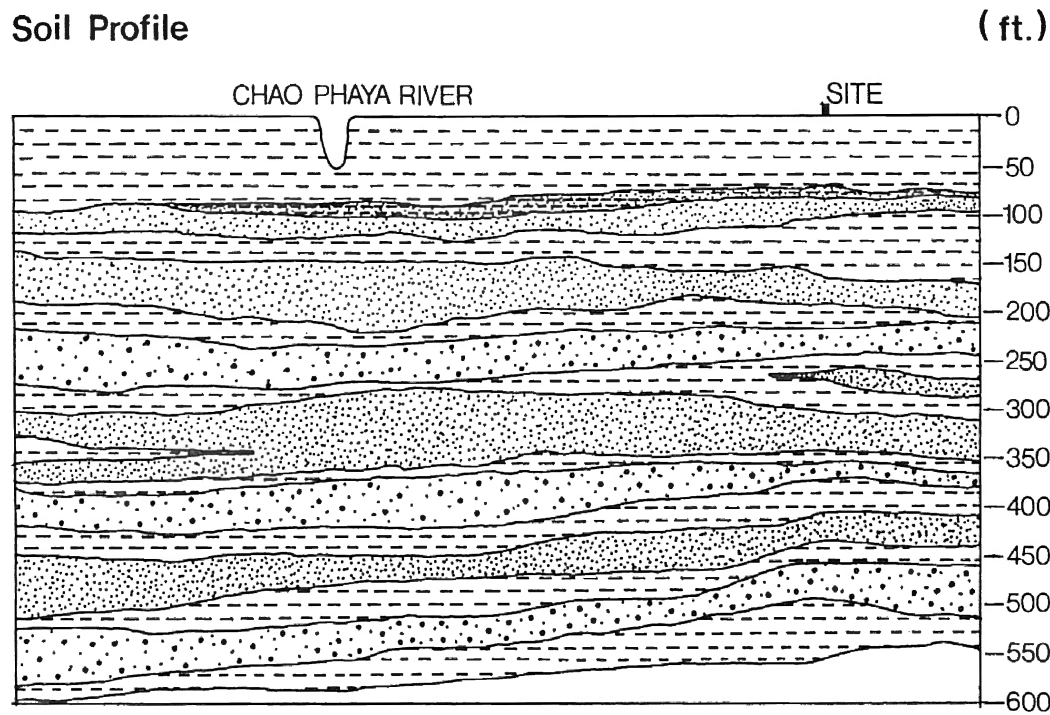
Maximum building coverage of 90% of buildable area is required for non-residential buildings.

Off-Street parking is required.

Maximum height is twice of the distance from the building wall to the edge of the opposite side of the street

Soil Analysis

Soil Profile



Bangkok soil has developed on the alluvium of the Chao Phaya River combined with that of the coalesced of the Mae Klong, Pasak, Prachin, and other rivers which have worked together to build the Bangkok Plain. It has been estimated that the sediment brought down by these rivers extends the coast of the Bangkok Plain more than three feet annually. Great quantities of silt are carried down and deposited on the bar at the mouth of the river during the rainy season each year. Numerous sand banks containing sea shell of a recent data are to be found all over the Bangkok Plains. These sand banks were at one time sand bars which guarded the former mouth of the river. The plain has grown from the development of a succession of bars, with the lagoons filling up behind them.

The Bangkok clay has a developed profile about 6 feet deep. This is a true in the central portion of the plain as it is at Bangkok itself. The dark grey (nearly black when wet) soil is characteristic of clay soils under alternating seasons of saturation and intense drying with deep and wide surface cracking.



The flat terrain of the Bangkok Plain and its very slight elevation above mean tide level results in the soil being saturated with ground water very close to the surface. At a depth of less than 6 feet the undisturbed soil is always saturated. At the Site, below a depth of about 6 feet, most of the sediments are light-colored clays with very thin, small lenses of very fine silt which seem quite unweathered.

A vertical sequence of soil types encountered beneath the ground surface is as follows:

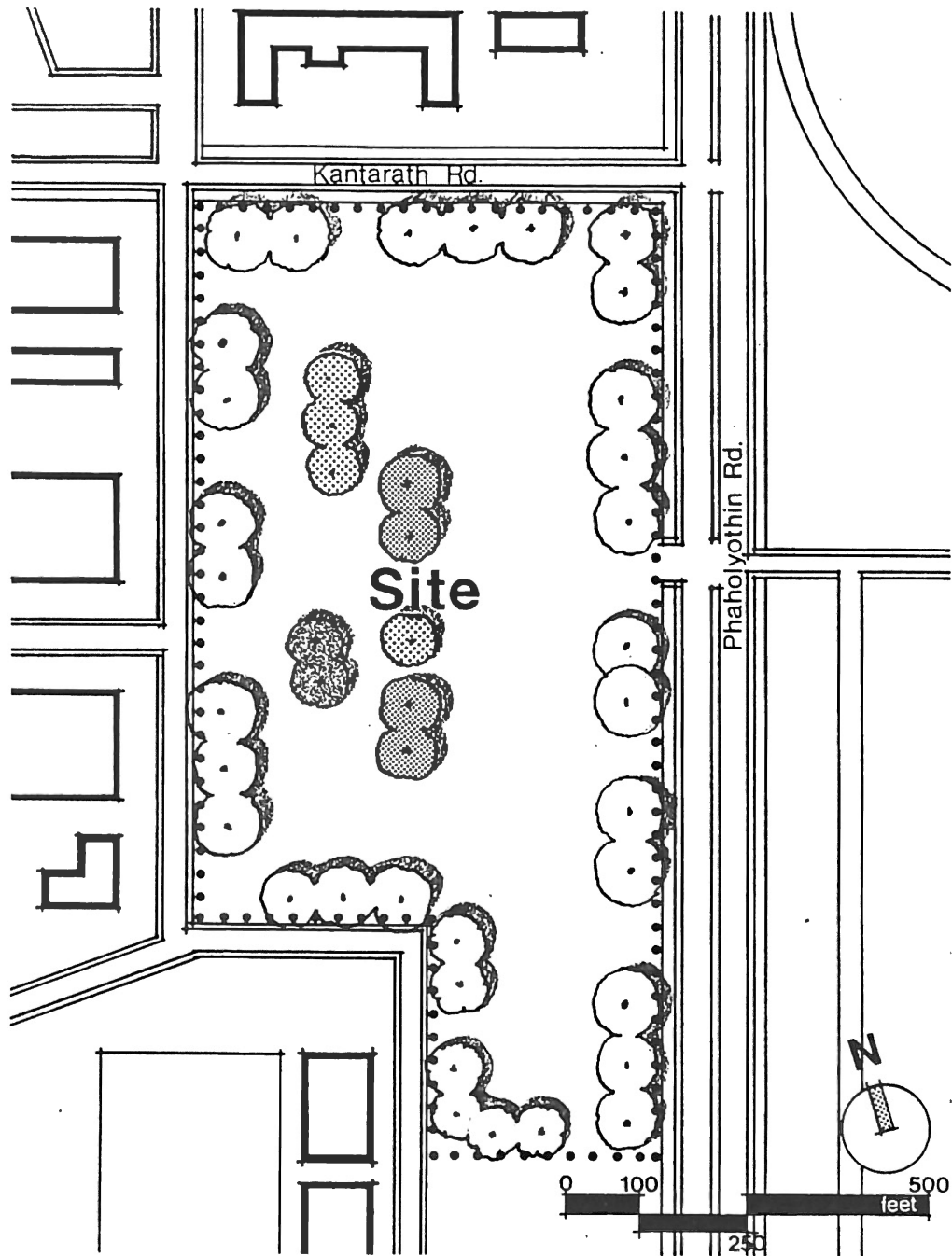
Dark clay or black clay -for a depth of about 33 feet.

Light brown to yellow clay -for a depth of about 33 feet.





Sandy clay -for a depth of about 13-26 feet.

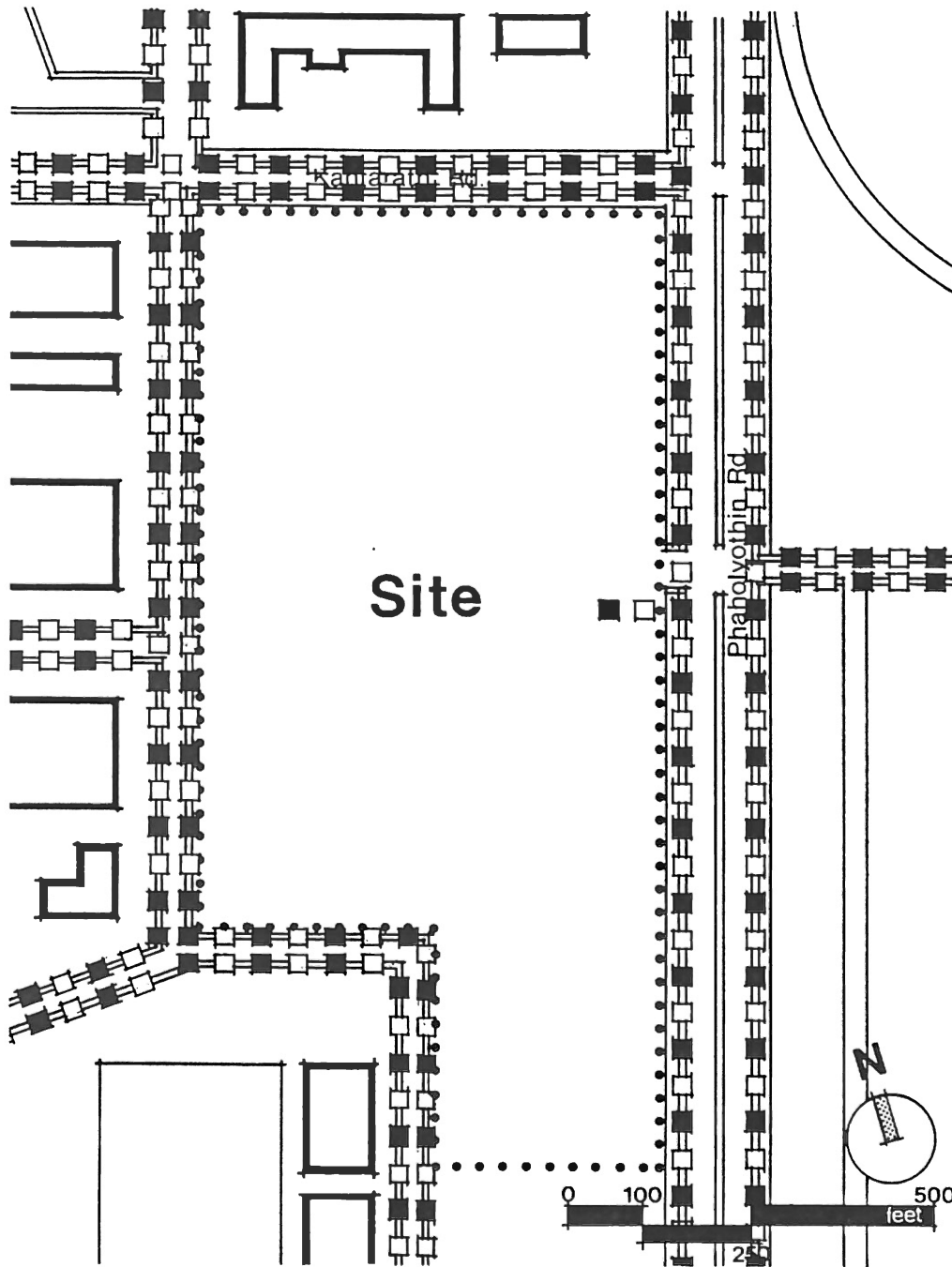
Successive layers of sand, clay, and gravel and clay of various depths.

Vegetation



Legend

| | | | |
|---|---------|-----|--------|
|  | 0 - 10 | FT. | HEIGHT |
|  | 10 - 20 | FT. | HEIGHT |
|  | 20 - 30 | FT. | HEIGHT |
|  | 30 - 40 | FT. | HEIGHT |

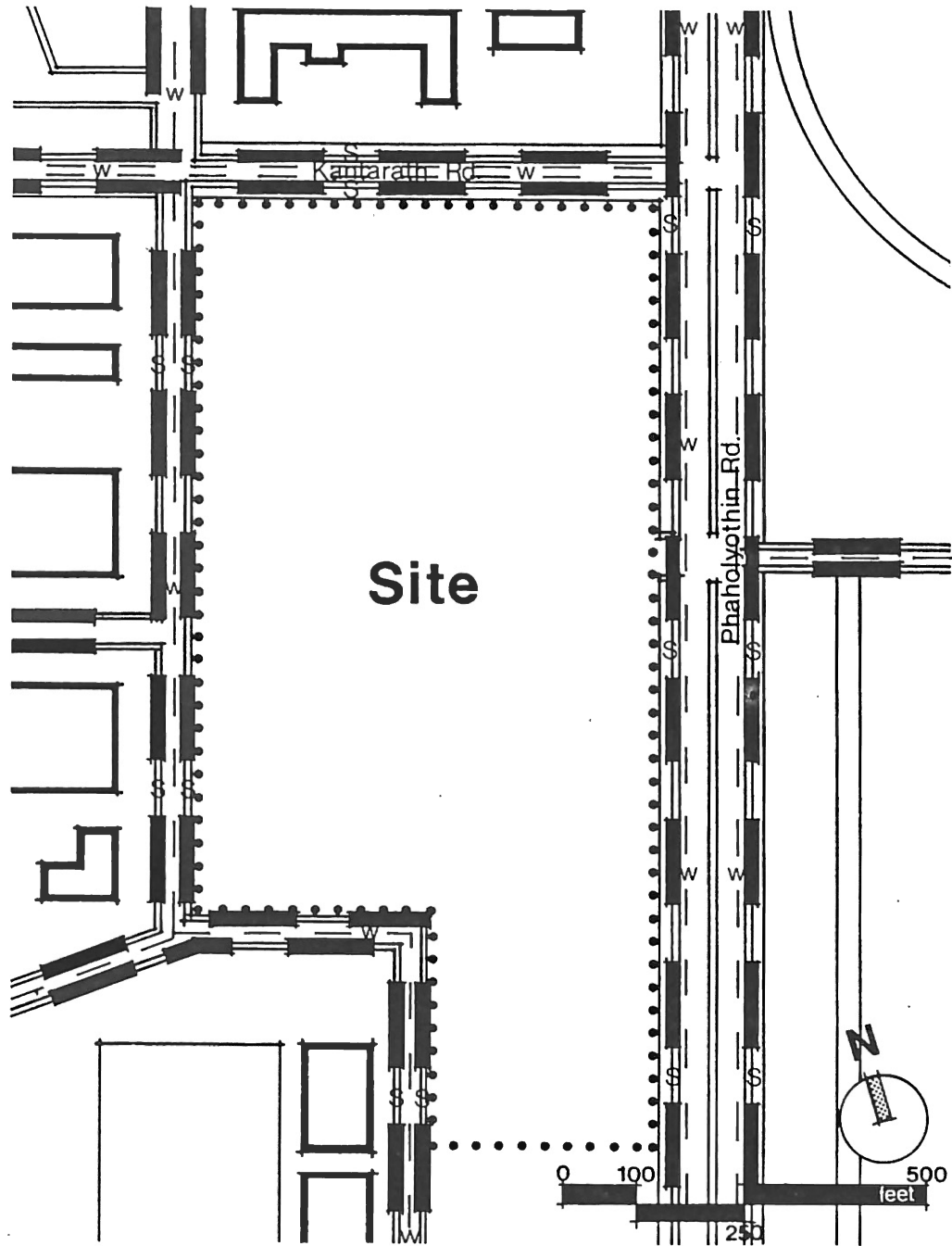


Utilities



All utilities are within easy access of the site. Sewer and Water are exist under every roads around the site, Electricity and Telephone line are exist overhead of every roads.

Legend

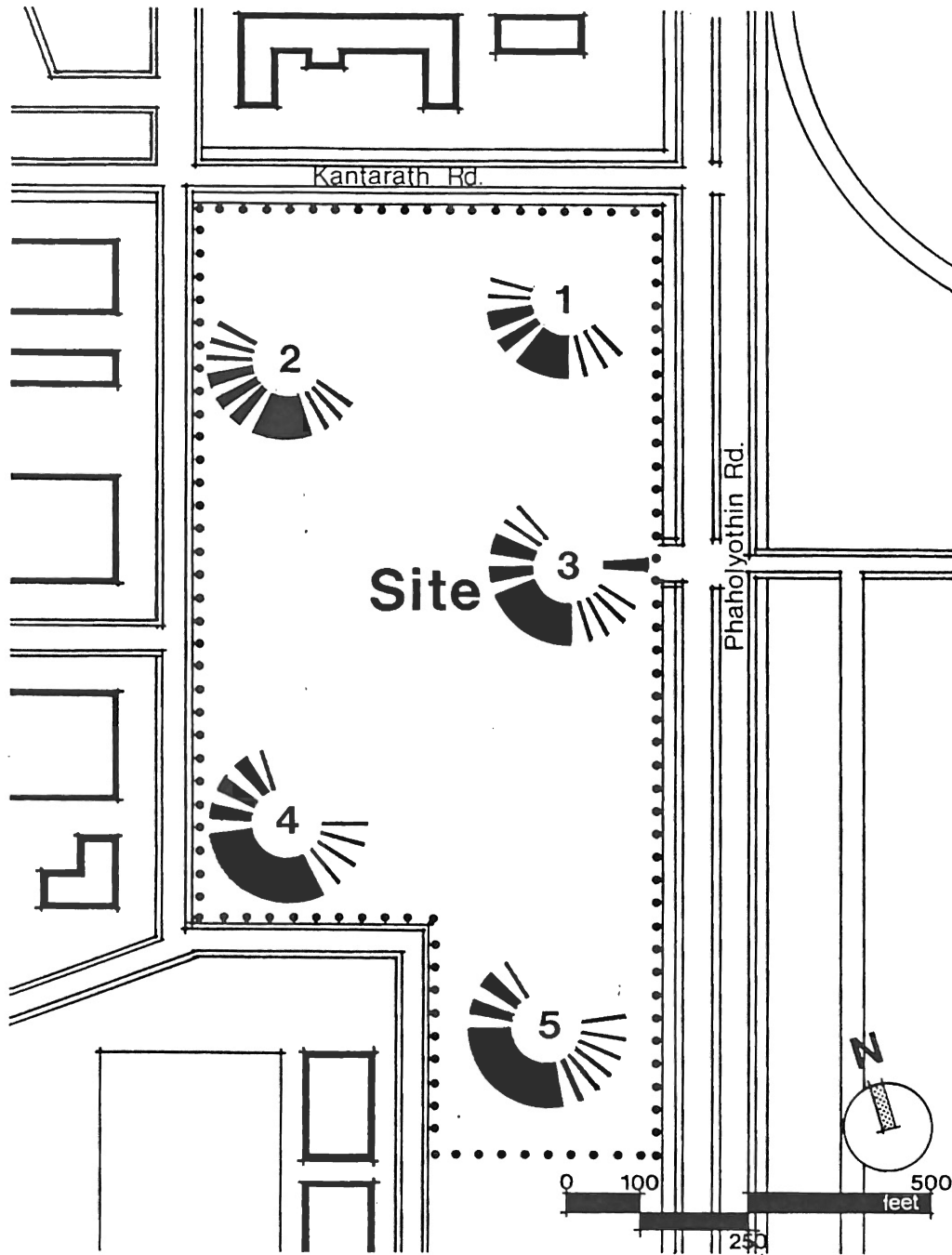
- ■ ■ OVERHEAD ELECTRICTY LINE
- □ □ OVERHEAD TELEPHONE LINE



Legend

-  S UNDERGROUND 36" VITRIFIED CLAY SEWER PIPE
-  w UNDERGROUND 8" CAST IRON WATER PIPE

View from Various Site Positions

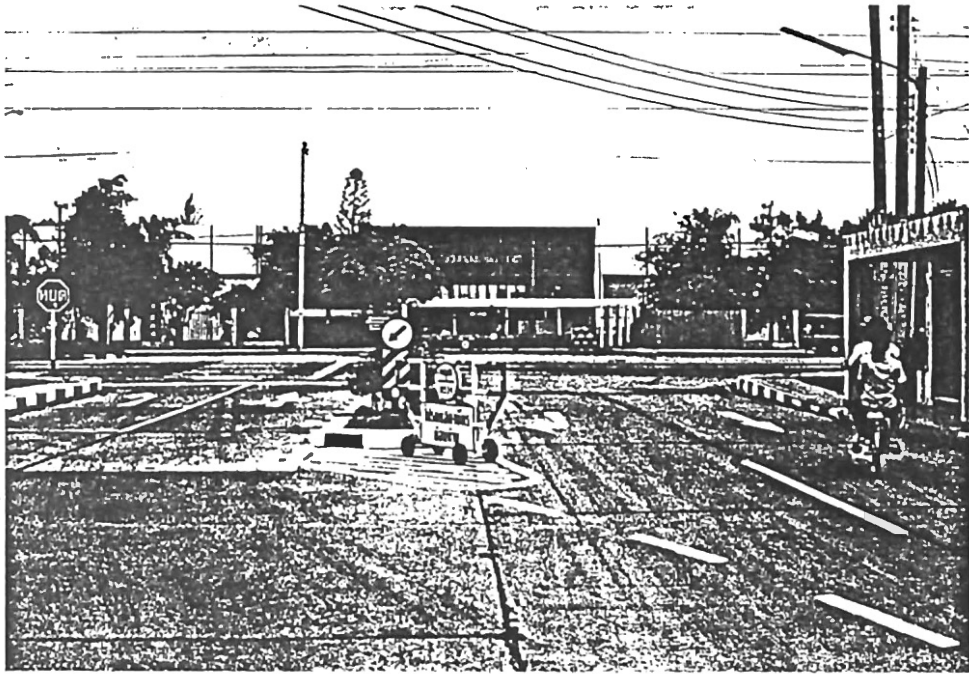


Excellent View

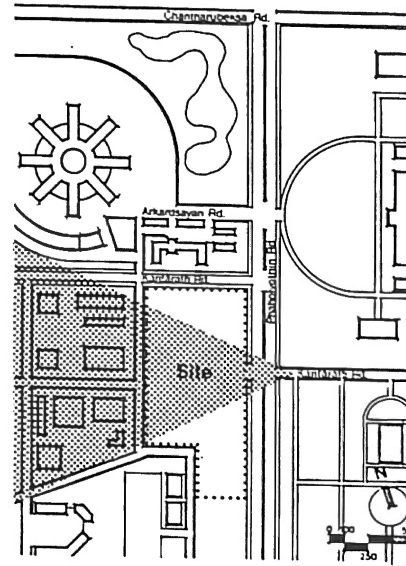
Worst View

Positive View

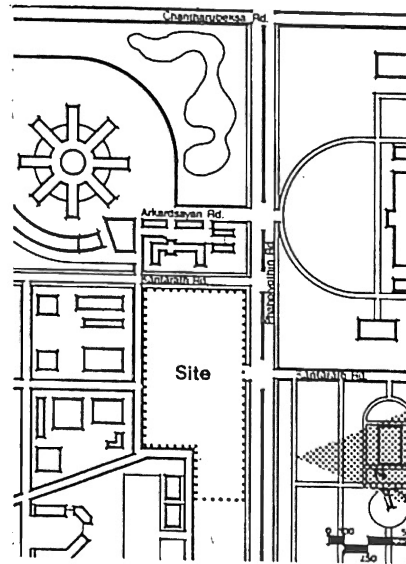
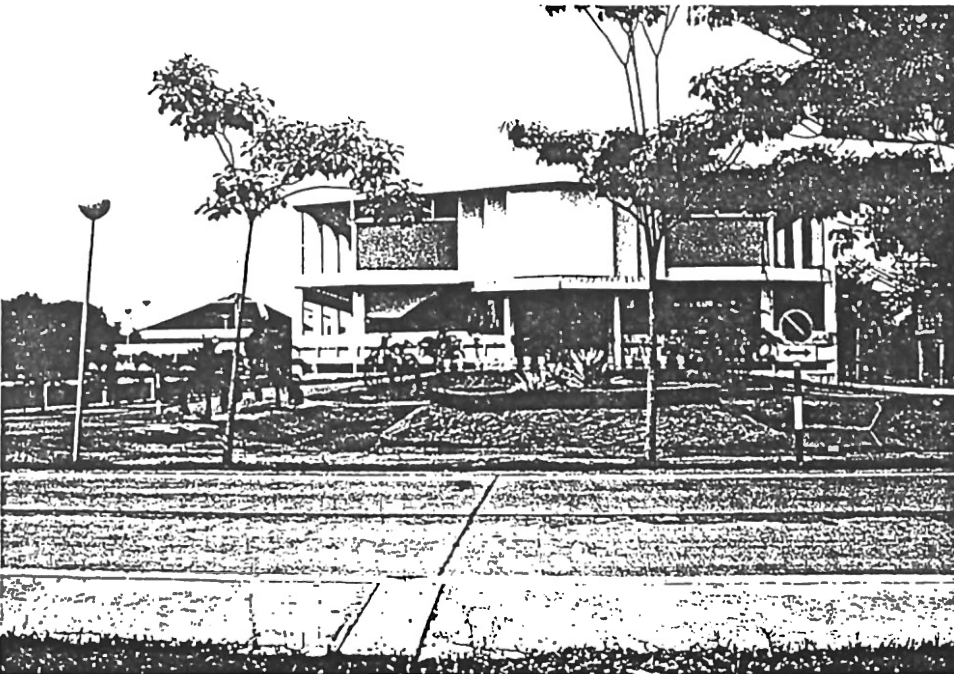
Midly Negative View



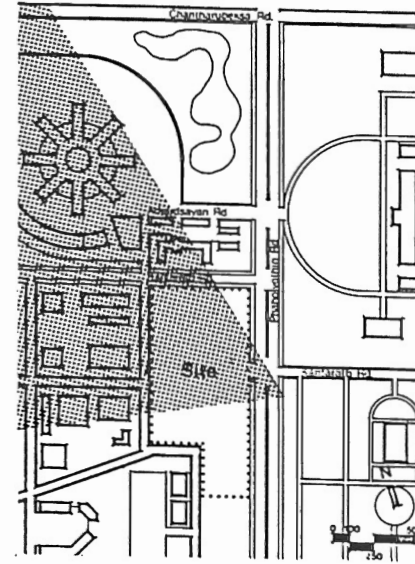
Photographic Survey



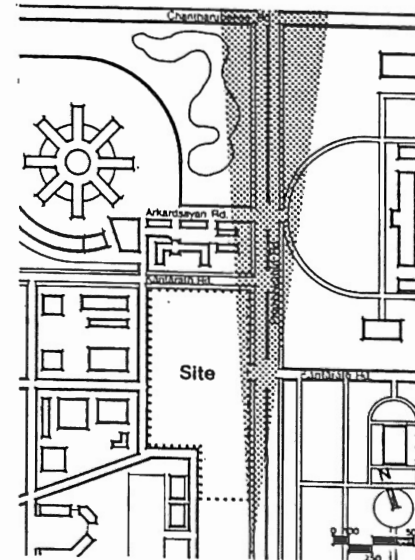
A. View from the road in the Royal Thai Air Force Conference Hall area that opposite to the site.



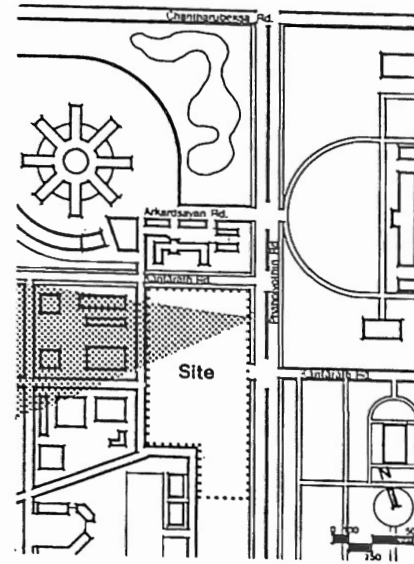
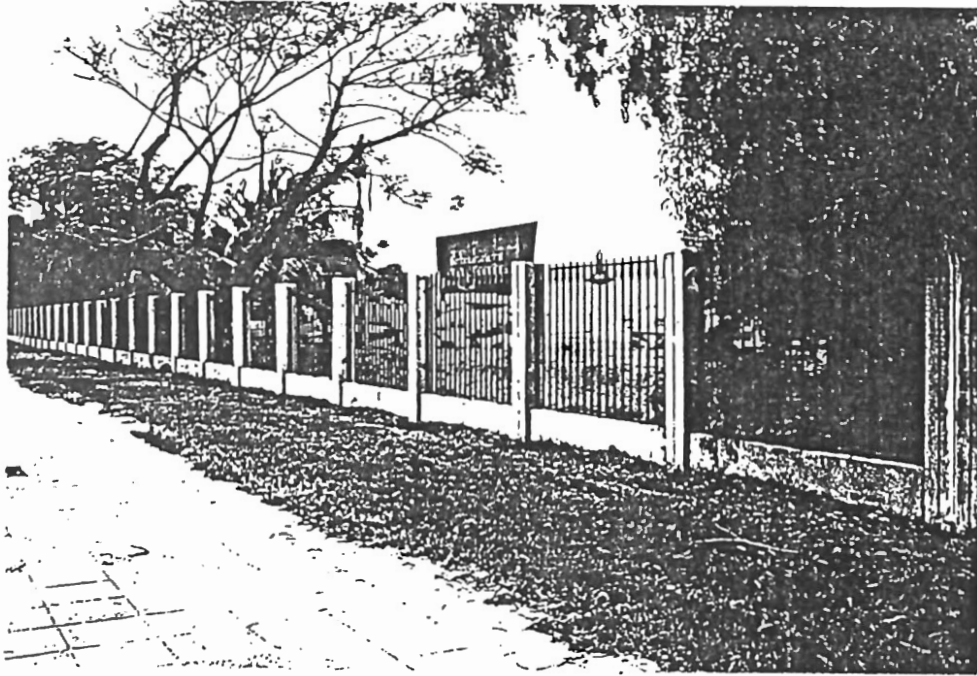
B. View of the Royal Thai Air Force Conference Hall.



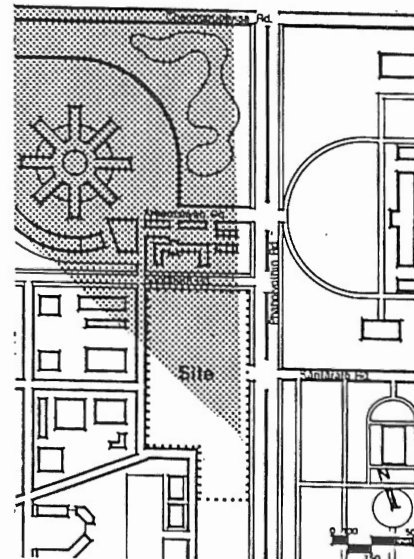
C. View from the other side of Phaholyothin Road to the site.



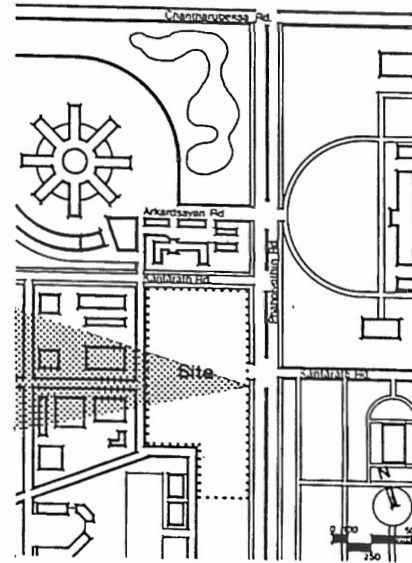
D. View of Phaholyothin Road that pass the site.



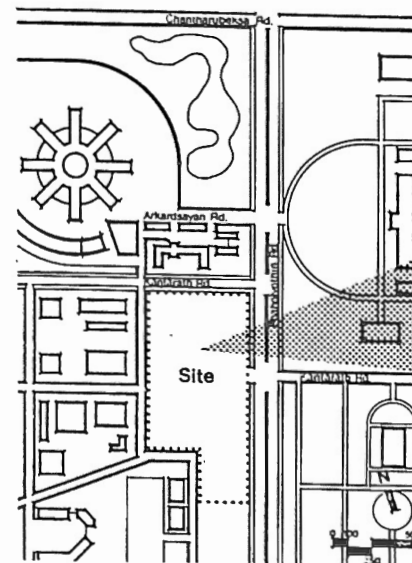
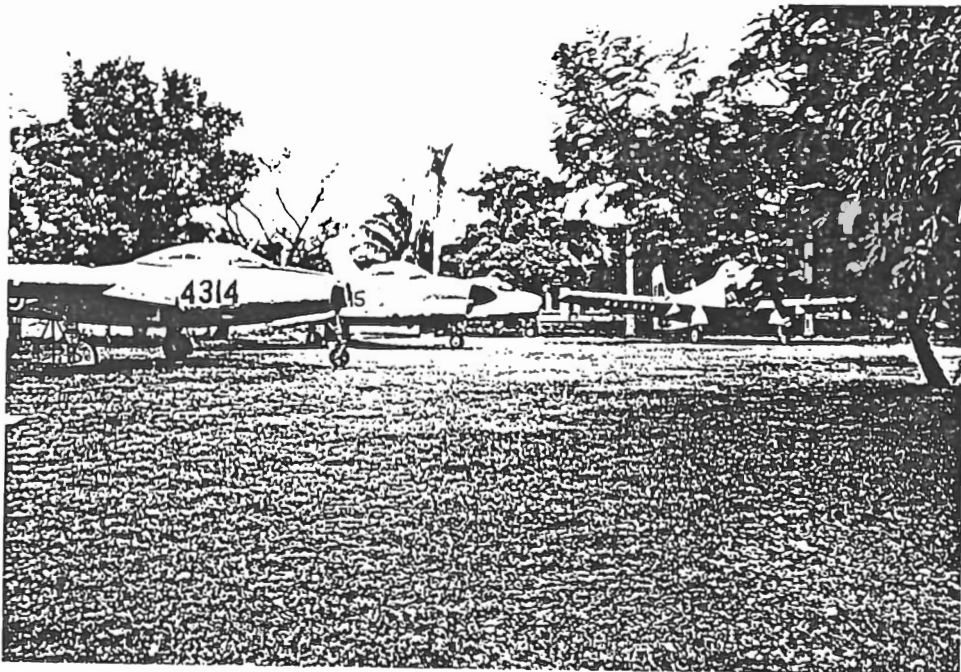
E. View of the site from pedestrian walk in front of the site.



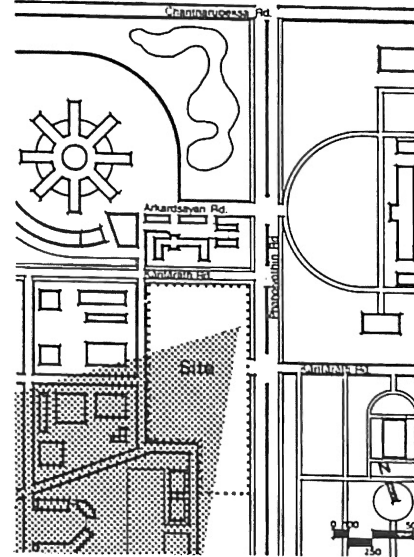
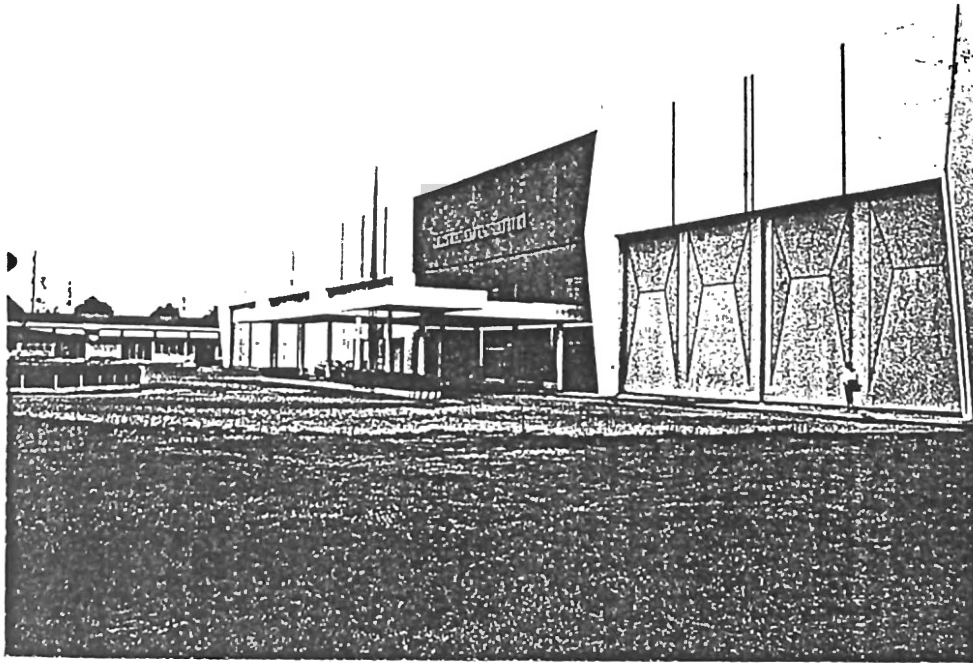
F. View from parking lot to the existing Museum.



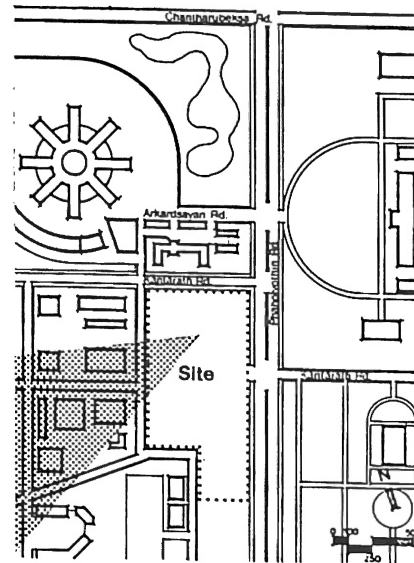
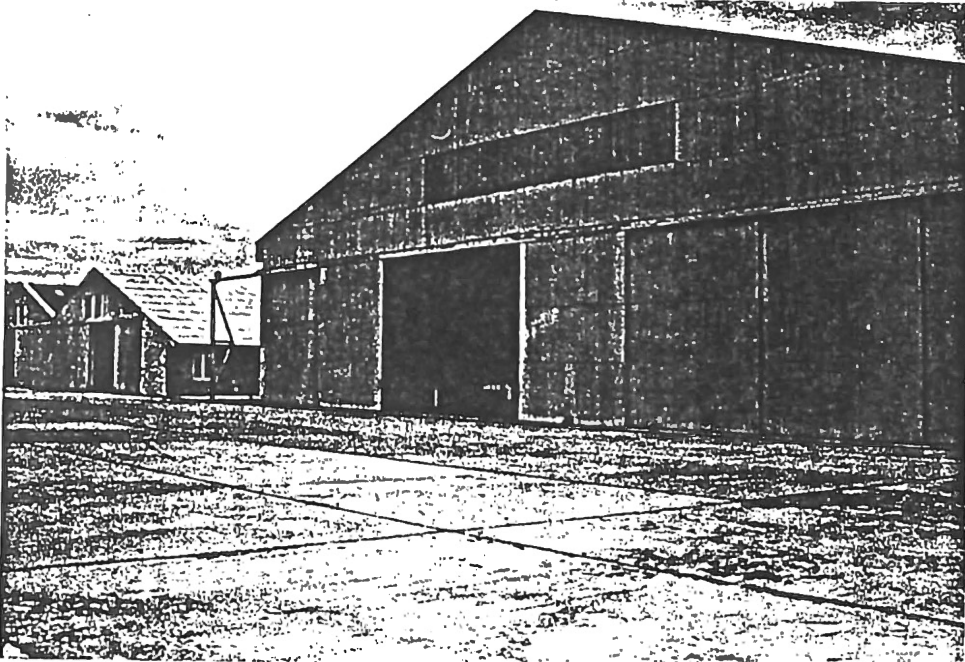
G. View from the main entry to the existing Museum.



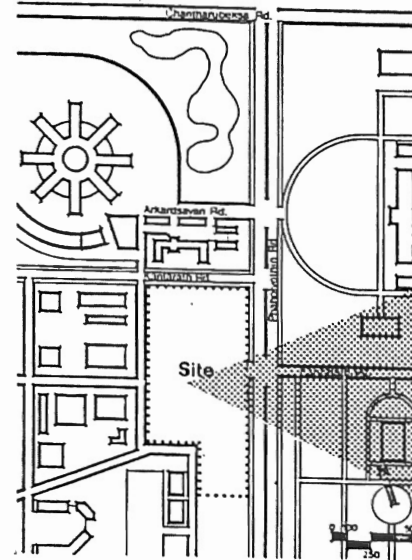
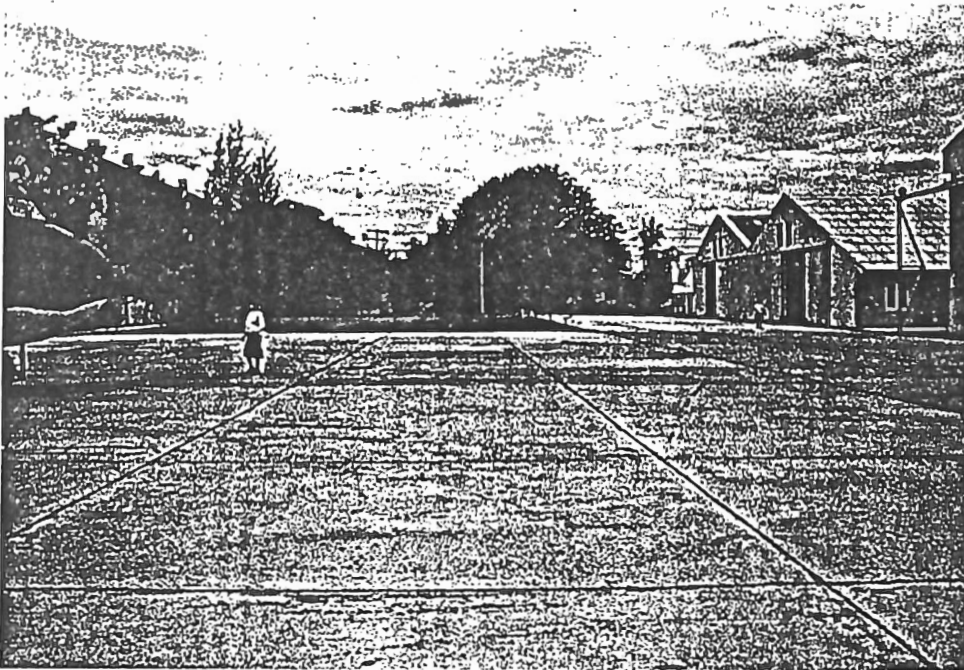
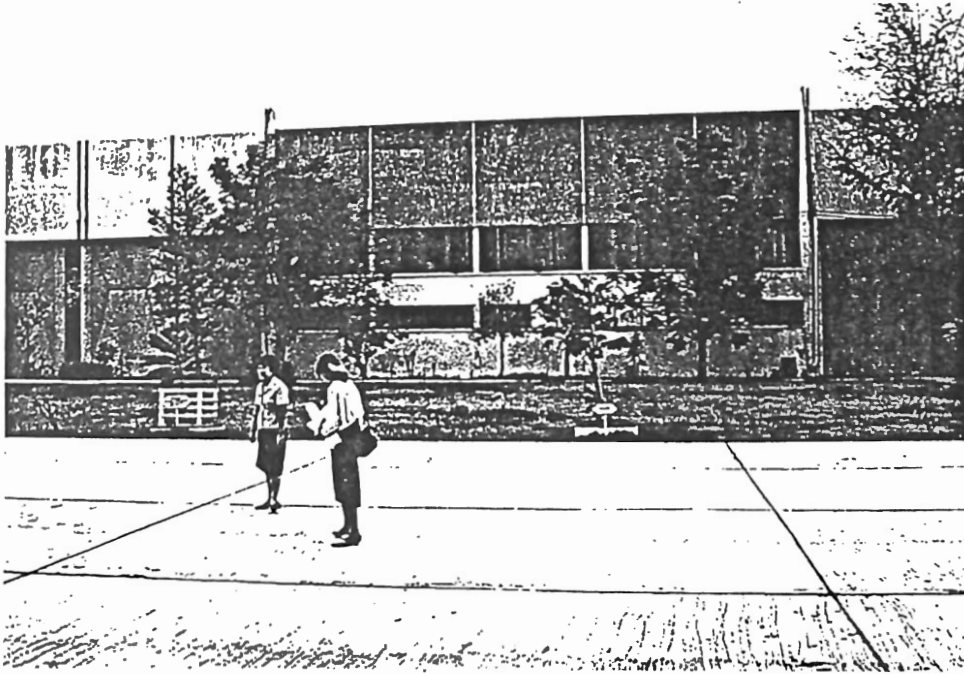
H. View from the road inside the site to the outdoor exhibit area.



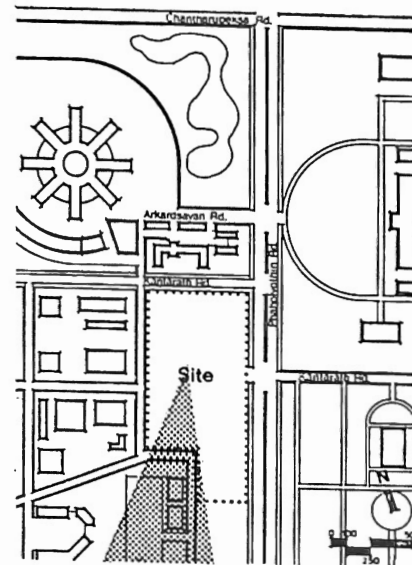
I. View of the existing Museum from the outdoor exhibit area.



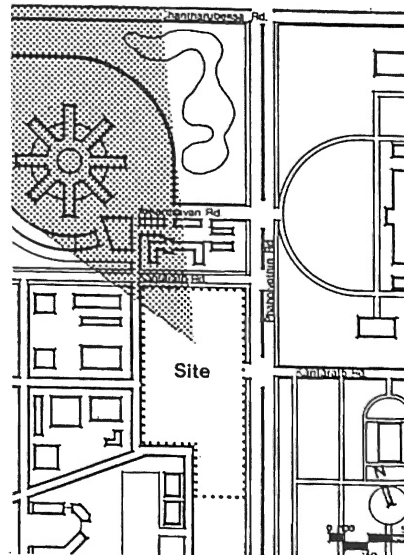
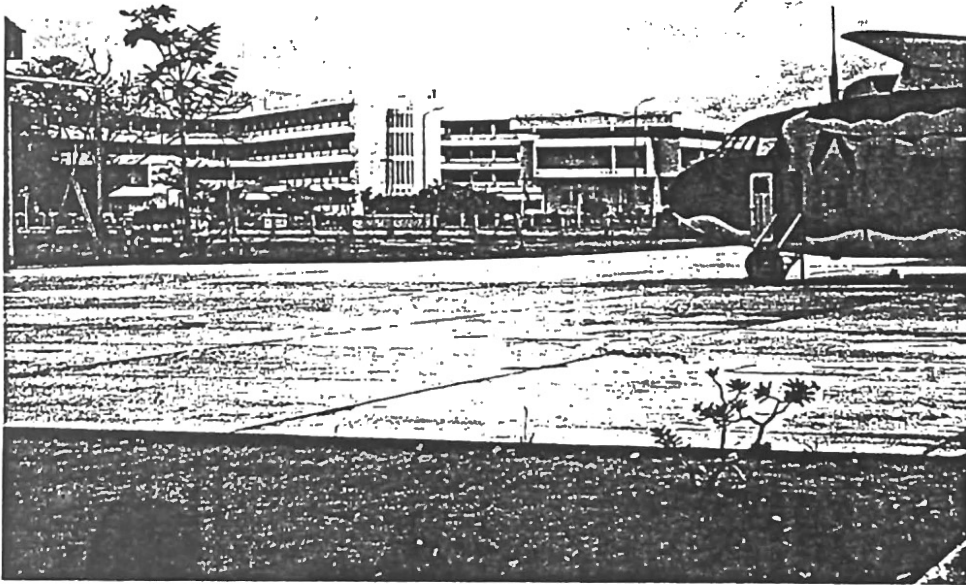
J. View of the Museum storage and warehouse.



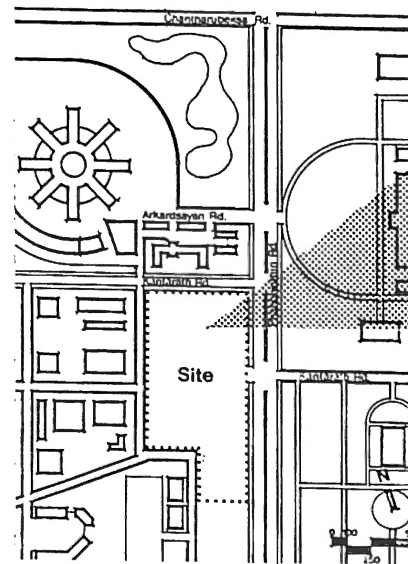
K. View from warehouse to the back side of the existing Museum.



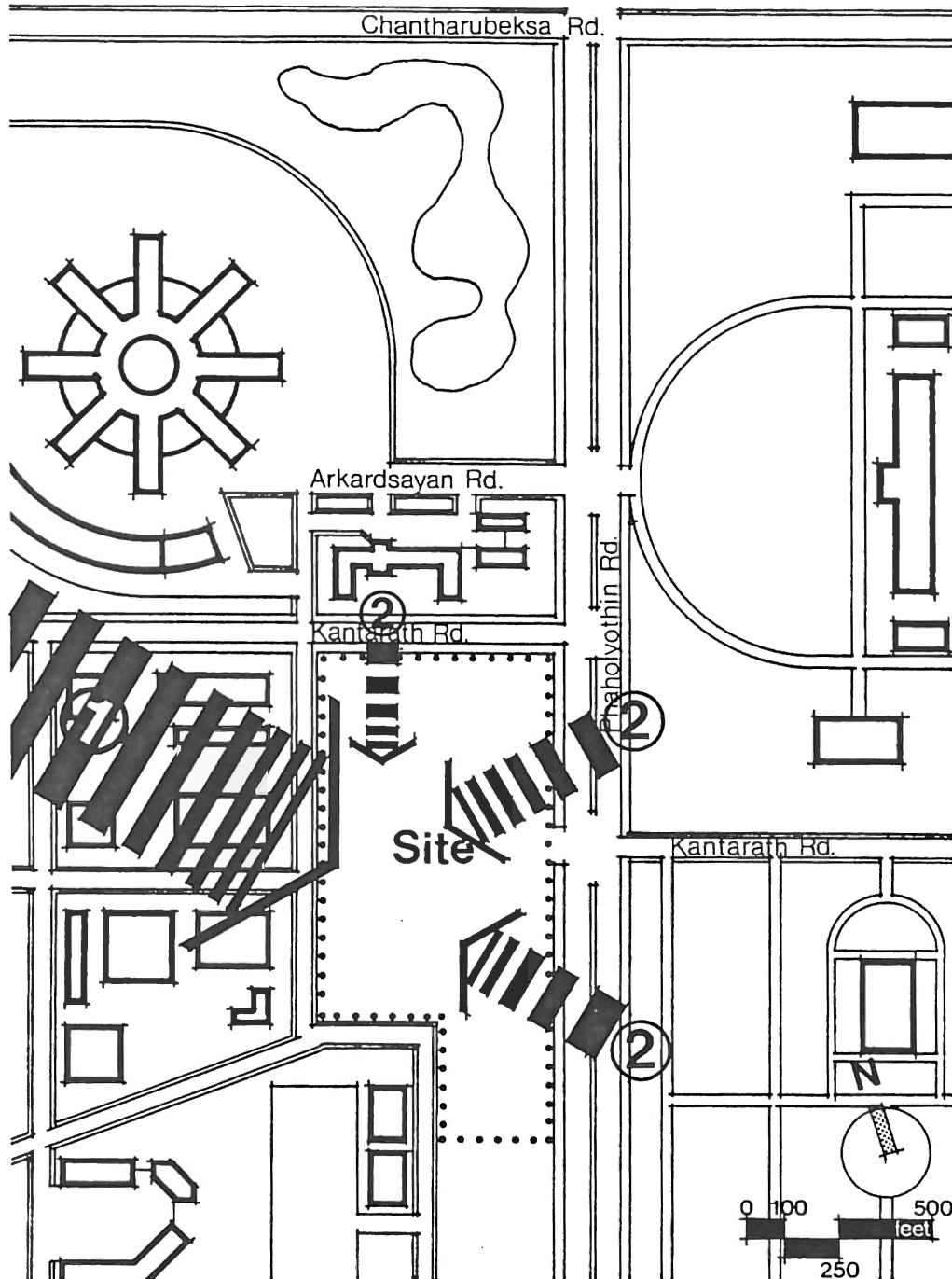
L. View to the south boundary of the site (immediately behind trees).



M. View from the existing Museum to the Royal Thai Air Force Headquarters.



N. View from the existing boundary of the site to Phaholyothin Road, show the extended area of the site.



Noise

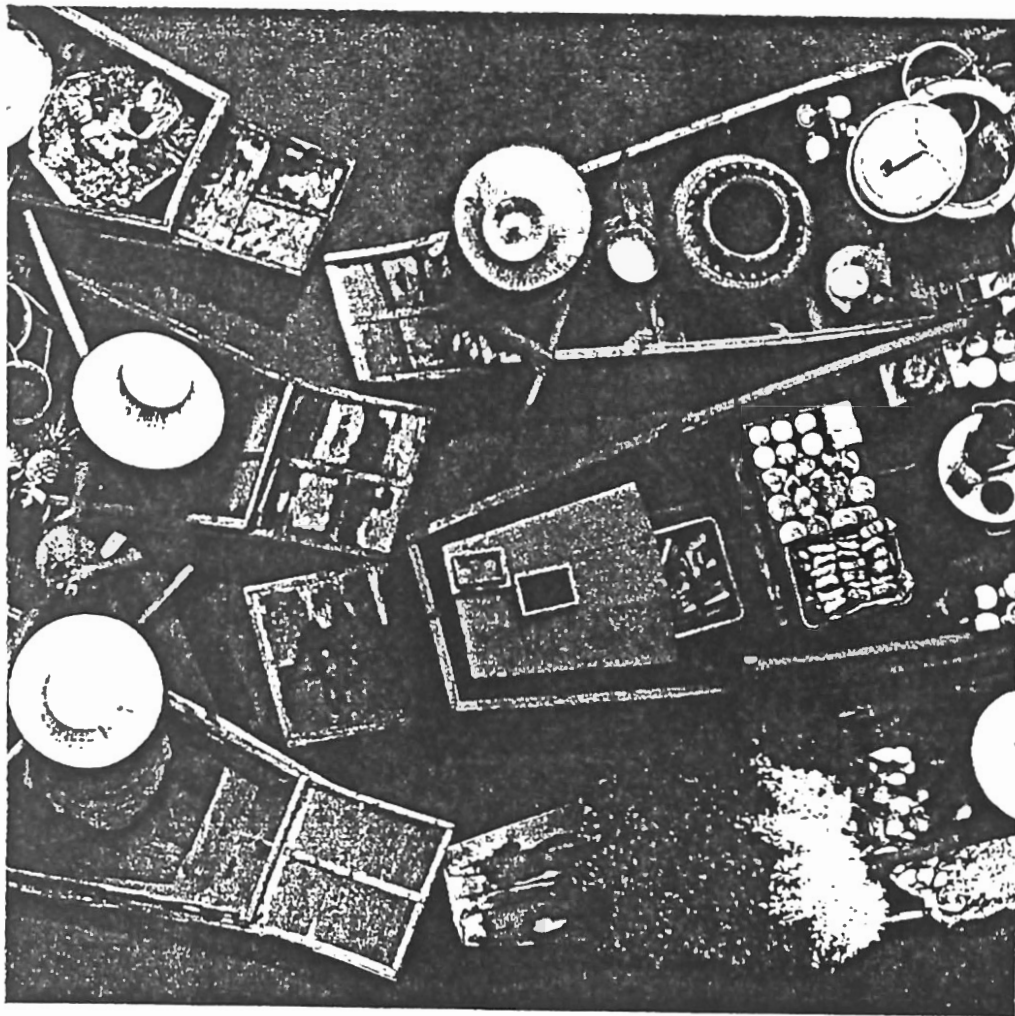
There are two major noise sources that affect the site:

1. Noise from airplanes at Bangkok International Airport periodically everyday.
2. Noise from automobiles traveling on Phaholyothin Road in front of the site and minor noise from automobiles traveling on Kantarath Road, north side of the site, that will make a small effect during rush hour.



Season

Thailand has two distinct climates: a Tropical savanna climate from the Gulf of Thailand to the North, and a tropical monsoon climate to the South. The Southeast trade wind moves equatorward in the Southern Hemisphere from late March or early April to September and the Northeast trade wind moves equatorward in the Northern Hemisphere the remaining part of the year. The area of convergence between these air masses is known as the intertropical front. Since both air masses are warm, slow-moving, and humid, this front cannot as a rule be sharply delimited. However, when the intertropical front is furthest from the equator, the contrast between the densities of the two trade winds is greatest and the front extends over Thailand during the summer months, the warmer and more humid Southwest winds are forced to ascend over the cooler and less humid Northern air mass and storms of considerable violence may occur. During the winter period the front shifts far South of the equator and the Northeast trade wind that cover all of continental Thailand are relatively calm and dry.



This trade winds create four well defined seasons:

Northeast monsoon from December to February - the "cool season", is the mild period of the year, and the spells are short-lived. The lowest temperature that has ever been registered was a low 45°F. in the middle part and 32°F. in the northern part of Thailand.

Transitional hot weather and highly variable winds of March to May - the "hot season", is the hottest period of the year when the extreme maximum temperature sometime rises to 108°F.

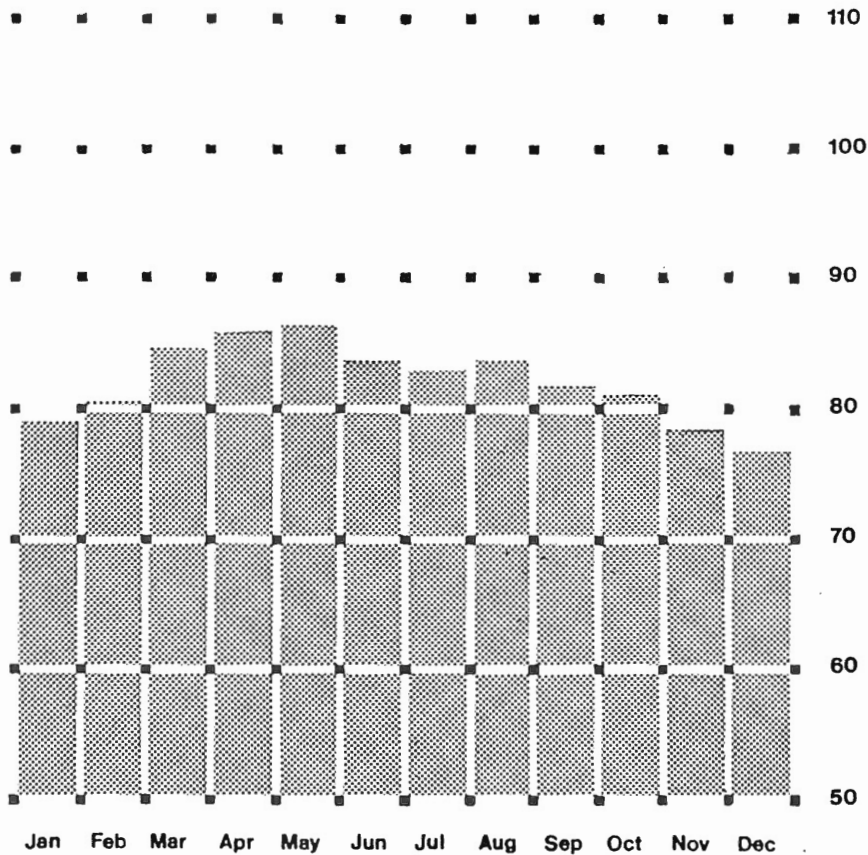
Southwest monsoon from May to October - the "rainy season", the longest rainy season was 236 days

Retreating monsoon period of October and November, changeable weather, that is, frequent rains with thunderstorms in October and becoming generally dry and cool in November.

Temperature

Mean Monthly Temperature

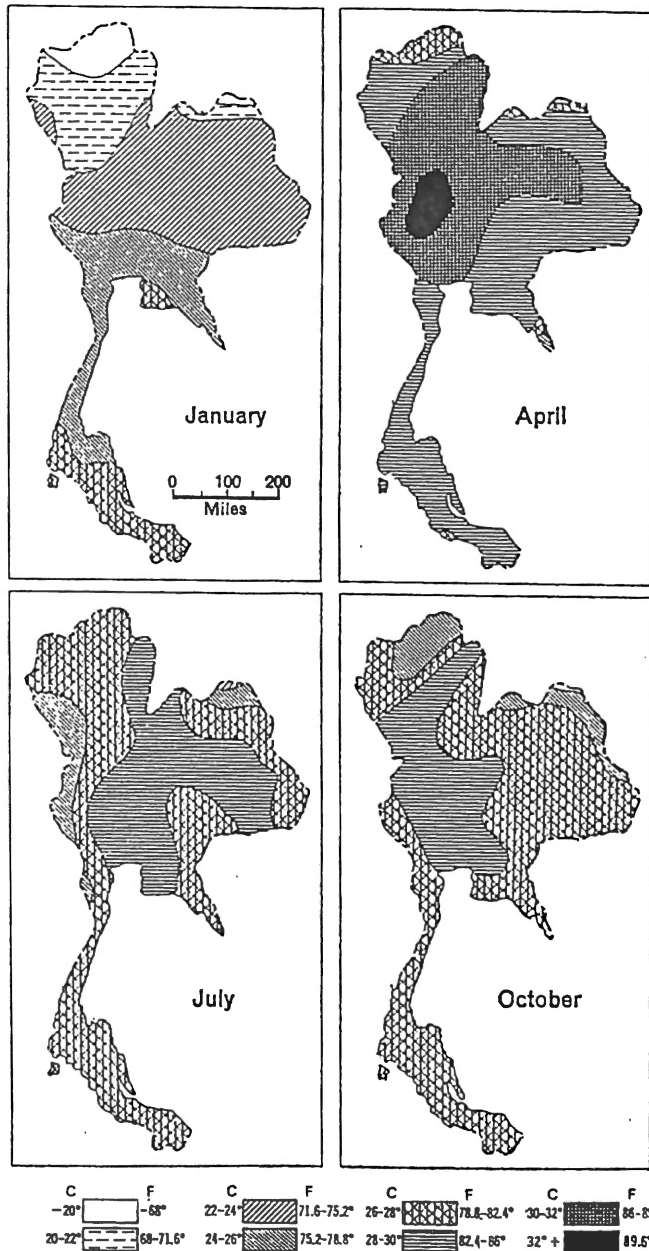
(°F)



Bangkok is in the tropical zone, therefore, the temperature is generally high especially in the afternoon, the monthly mean temperature in Bangkok is around 83°F., varies from mean minimum of 75°F. in December and January to a mean maximum of 90°F. in April, a mean annual range of only 15°F. December has over 17 days when the minimum temperature is under 70°F. and January has 22 days. However, maximum temperature will rise above 90°F. on a number of days in both months. After January the mean temperature begin to rise quickly, and during the hottest period of the year in late March, April, and May - the temperatures will exceed 90°F. almost every day. The monsoon rains forced the monthly mean temperature down 3°-5°F., and daily temperature rises above 90°F. only about two out of every three days during the rainy season; the minimum temperature, however, never falls below 70°F.

The highest temperature ever recorded at Bangkok was 108°F., recorded in both April and May the lowest was 52°F., recorded in December. The mean maximum during April and May is

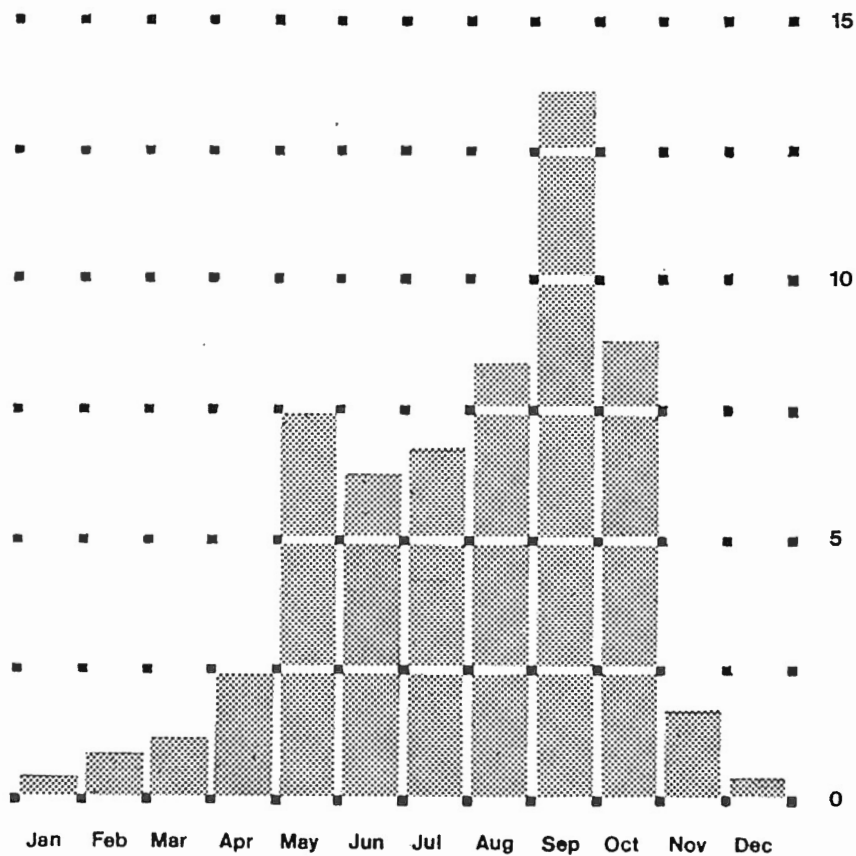
THAILAND: MEAN MONTHLY TEMPERATURE



92°- 93°F. and the mean minimum 77°- 78°F. The mean maximum and minimum in December and January are 86° and 69°F. The mean monthly range of temperature in each of the months from June through October is 12°- 13°F. This, the smallest monthly range, is not very much less than the highest mean monthly temperature range, in December and January, of 17°F.

Precipitation

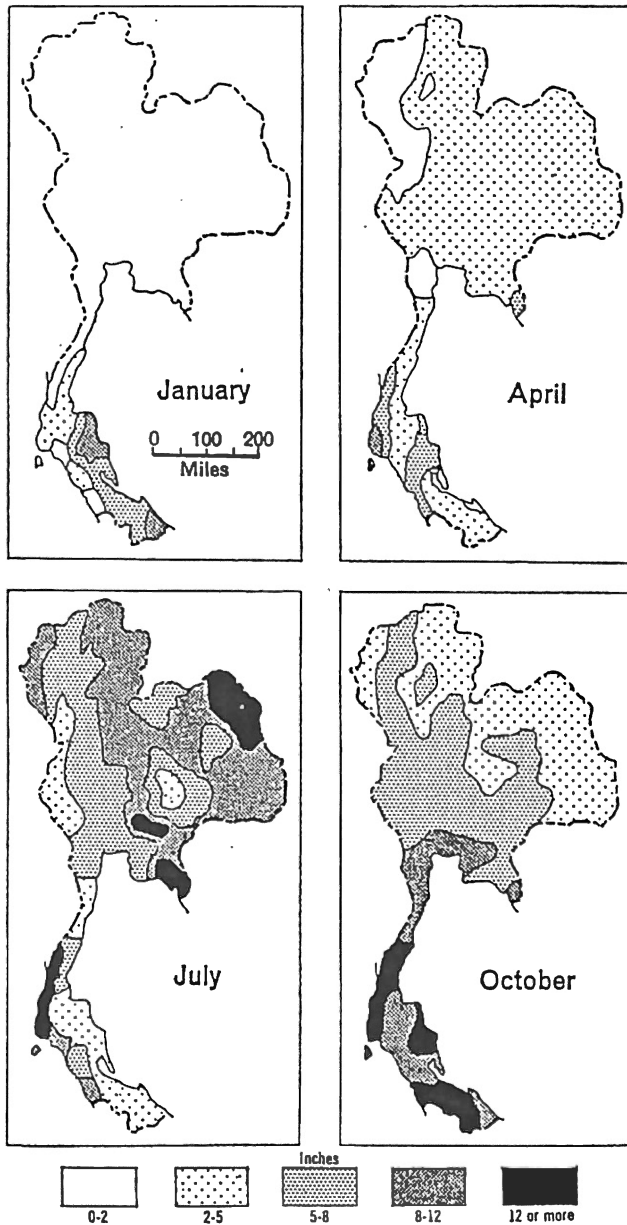
Mean Monthly Rainfall (inches)



Normal average annual precipitation in Bangkok is 59 inches with average duration of 131 rainy days. The longest rainy season was 153 days and the shortest 113 days. Its amount may be divided as 60% occur in the rainy season, 34% from hot and retreating monsoon seasons, and 6% in the cool season. The bulk of this falls during the southwest monsoon rainy season from May through October, and the month of mean highest rainfall is September when over 12 inches fall. The maximum amount of rainfall received in any month was 24 inches with about 29 rainy days, also in September. The driest September on record has less than 7 inches. The smallest amount of rainfall usually is received during the dry winter months. Very occasionally no rain has been recorded during December but never in any other months.

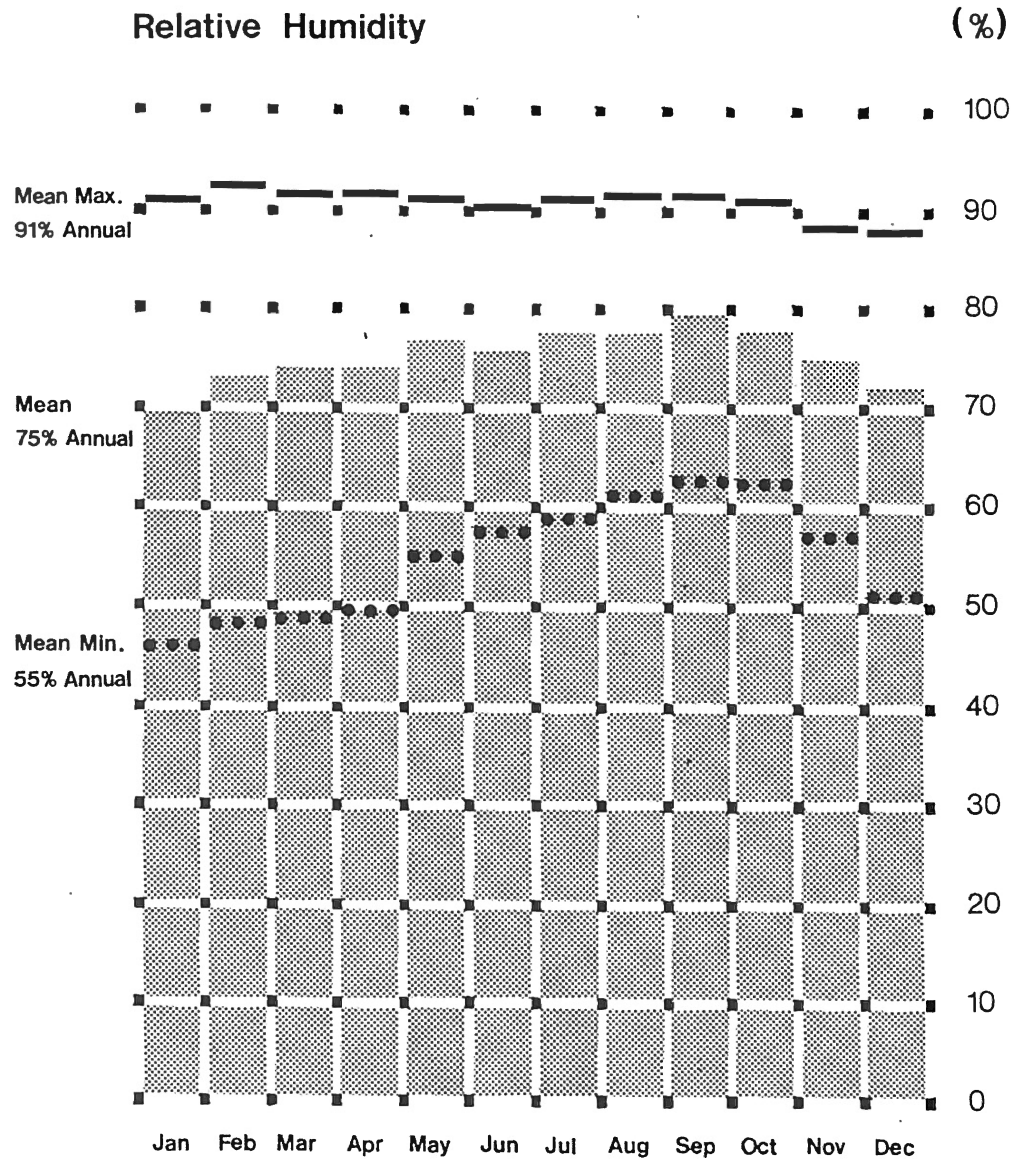
During the summer six months, rain usually falls from 17-22 days each month. As few as seven days of rain have been recorded in May, June, and August, when rainless or nearly rainless periods may last a week or more,

THAILAND: MEAN MONTHLY RAINFALL



either (in May and June) because of the later arrival of the Southwest monsoon, or (in June and August) because of interruptions in it. Interruptions have also occurred in July and September. The rainiest month on record occurred during September when rain fell 29 days, but July, August, and October are close behind with 27-28 days of recorded rainfall. The maximum recorded in any 24-hour period was over 7 inches, also attributable to September. However, heavy falls of 3-5 inches in 24 hours have been received throughout the year, including all dry season month except December.

Relative Humidity



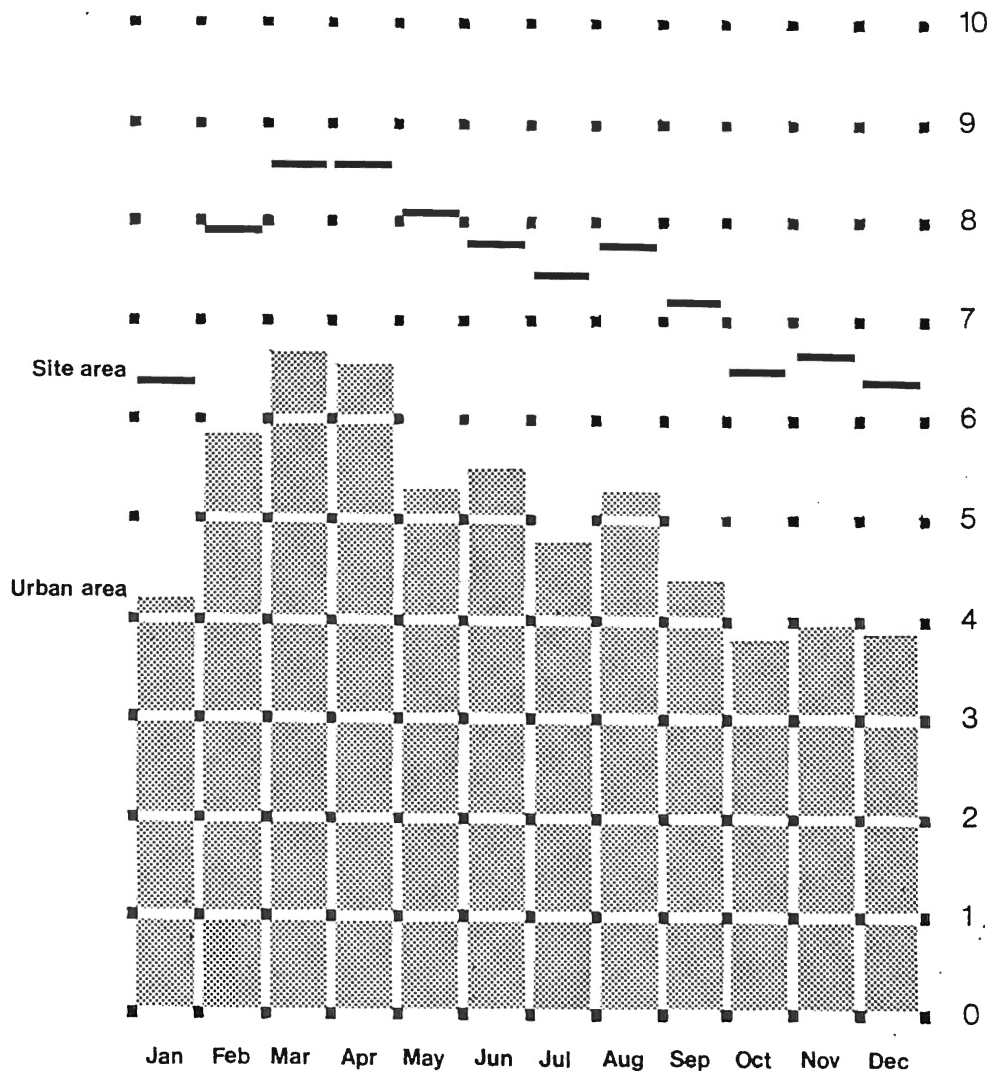
The sea that surrounds Thailand causes the high average relative humidity throughout the country. The annual average is about 78% with the maximum value of about 95% in rainy season and the minimum value of about 50% in cool season. During the cool spells, most frequent in January. The apparent relative humidity may be reduced to 20% depending on the strengthening of the northeast monsoon. In Bangkok, although the daytime temperature may not be excessively high, slight air movement and high relative humidity produces the low cooling condition.

Wind Speed

Mean Wind Speed (M.p.h.)

Wind Directions :

NE S S S S S SW SW SW NE NE NE



Surface winds and rainfall are closely related. During the southwest monsoon (rainy season), mid-May to September, winds are generally west and southwest directions. In October, variable winds with easterly tendency prevail and occasional gust due to thunderstorms will occur in the first half of the month. From November, the winds are mostly from the north and northeast directions. From March through mid-May, surface winds are again variable with the tendency of south direction. However, sea breeze has a southerly direction in the afternoon and most of the times lasting until late in the evening. Frequent gusts due to thunderstorms may rise up to a high value. The highest speed of 64 miles per hour was recorded in 1952.

Function



User : Visitors

Visitors of the Royal Thai Air Force Museum can be divided into five major categories: Public visitors, students and teachers, tourist visitors, researchers, special guests, and journalists.

Public Visitors: They will usually be visiting the Museum on weekends and holidays. They will usually be using only the public function and need more entertainment than education.

Students and Teachers: They will not only be coming to view the exhibits but also be using the auditorium, lecture room, and library as well. Usually the teachers have made reservation for a special demonstration. These group will usually be visiting the Museum from Monday through Friday. Both education and entertainment are their main interest.

Tourist Visitors: They tend to be mainly one-time visitors who come to visit Bangkok to take in the Museum as well as the other attractions. One major visitors is the visitors that have heard about the invaluable collection of this Museum before and the others just visit because the Museum is located close to the Bangkok International Airport.

Researchers: They are the people who searching for answers and questions, they are interested in everything that exhibit and really need more education than entertainment. They will be those who visit the Museum a number of time every year. They will be coming to view the new exhibits and will also be

attending the extra education function. They will be using the library, auditorium, and lecture room for research, lectures, films, and recitals.

Special Guest Visitors: They are mainly one-time visitors who are invited from the government or executive staff. They will usually be using both public and education function. They are highly interested in every exhibits.

Journalists: They are the smallest group that visit the Museum. They are not only come to view the exhibits but also highly interested in every functions of the Museum.

By the number of the visitors in the past 5 year, the Museum staff have segregated the visitors by percentage of each group of the visitors as follows:


| | |
|------------------------|---------|
| Public visitors | 40.62 % |
| Tourist visitors | 18.46 % |
| Researchers | 16.40 % |
| Students and teachers | 15.38 % |
| Special guest visitors | 4.66 % |
| Journalists | 3.08 % |

Staff are the lifeblood of the Museum, they are in charge of keeping the visitors satisfied. They are responsible for all Museum activities from administration to exhibit preparation. They function as a team, with a common goal of pleasing their guests. Most of their activities occur away from the public eye since their contact with the public spaces is usually only during off-public hours. Education is a major interface between the staff and the public. Guides tours and lecture are some of the ways the Museum staff are able to educate the public.

The Museum staff are responsible for exhibitions from the time that they are conceived until the time that they leave Museum. So, the functional organization of the Museum should facilitate them and the tasks that they must perform. It should also provide a unique work environment to culture moral and a general excitement about each persons role with in the Museum.

The Museum organization are divided into four major department:

Executive Department They provides leadership and vision for the Museum. They are the final decision makers in the day to day operation of the Museum. They initiate projects, determine policies and coordinate activities among the various departments.



Administration Department They observe the day to day business, accounting, advertising, ordering supplies and materials, security, and maintenance operations of the Museum.

Design and Technical Department They work together to prepare and maintain the exhibits. They determine the type and level of complexity of each exhibit. They also set up the direction of the exhibit and working on the maintenance for the best performing of the Museum.

Education Department They are responsible for research and propagation of the present and news objects in the Museum. They develop the special demonstrations and classes offered to students groups and also coordinate the exhibits in the main area to relate with the demonstrations. They are also in charge of publications, hand outs, and news letter to the public and also operate the library.

Organization Chart

Executive Director (1)
Assistant Director (1)
Supervisor (1)
Secretary to Director (1) Total (4)

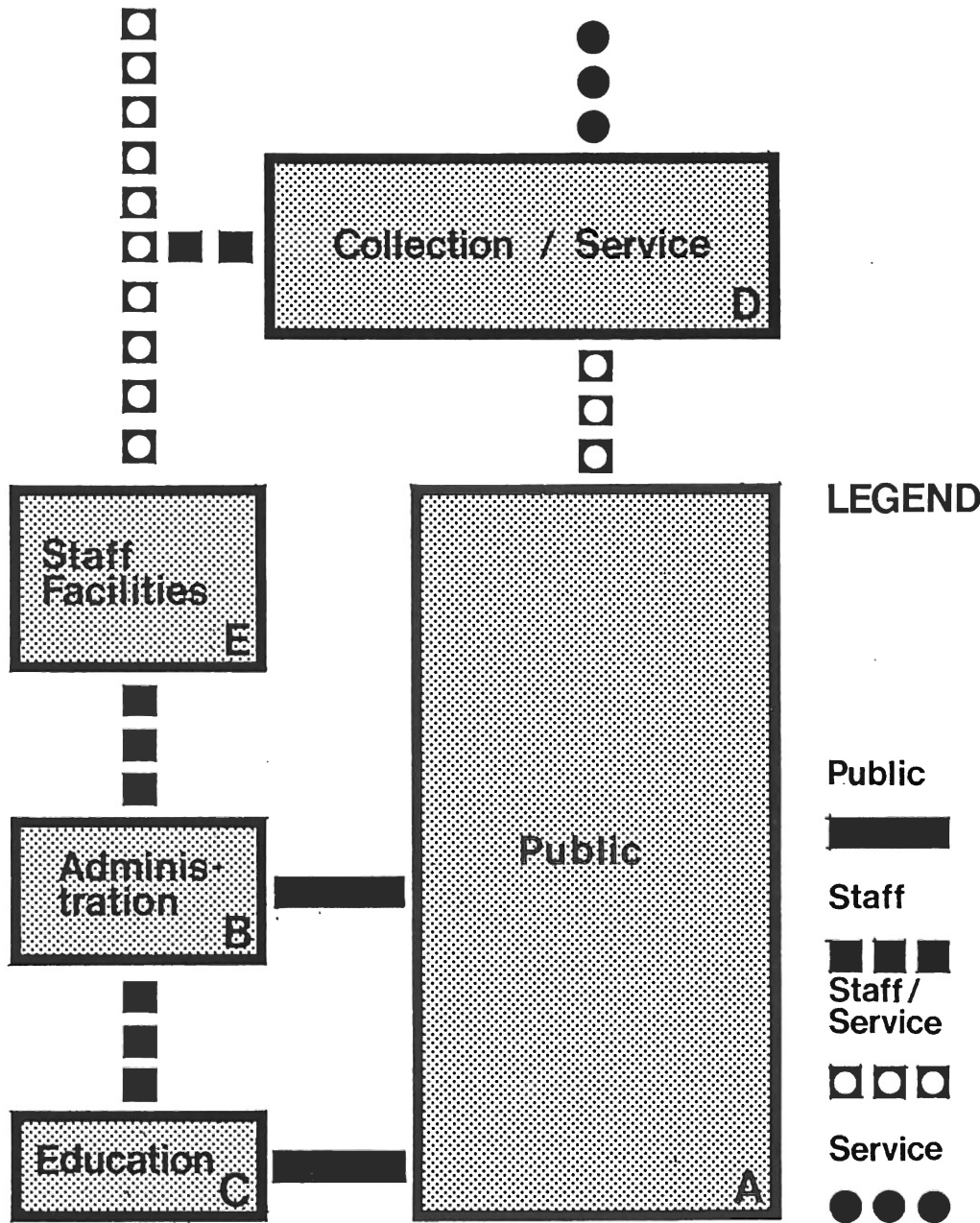
Administrator (1)
Assistant Administrator (1)
 Clerk (1)
Office Manager (1)
 Assistant Manager (1)
 Clerks (3)
 Service Personnels (2)
Stat. and Info. Director (1)
 Assistant (1)
 Clerk (1)
Treasurer (1)
 Assistant Treasurer (1)
 Accountant (1)
Curator (1)
 Assistant Curator (1)
 Clerk (1)
 Service Personnels (4)
 Janitors (4)
 Maintenance Personnels (4)
Public Relations Coordinator (1)
 Receptionist (1)
 Editorial (1)
 Clerk (1)
 Publisher (1)
Business Manager (1)
 Assistant Managers. (2)
 Cashier (1)
 Sale Persons (6)
 Ticket Sale Persons (2)
 Clerk (1)
Security Director (1)
 Assistant (1)
 Guards (5)
Total (60)

Educator (1)
Prep. and Exam. Director (1)
 Historian (1)
 Preparators (2)
 Clerk (1)
Exhibition Designer (1)
 Operators (4)
 Laborers (5)
 Clerk (1)
Bookkeeper (1)
 Bookkeeper Assistant (1)
 Clerk (1)
 Janitor (1)
Total (21)

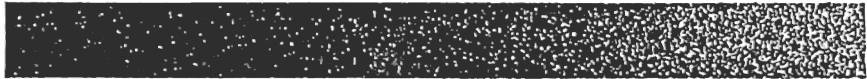
Technical Director (1)
Registrar (1)
 Assistant Registrar (1)
 Clerk (1)
Foreman (1)
 Electronics Technicians (3)
 Mechanics Technicians (2)
 Carpenters (5)
 Maintenance Personnels (3)
Art Director (1)
 Assistant Art Director (1)
 Artists (3)
 Draftman (1)
 Model Maker (1)
 Photographer (1)
 Video Photographer (1)
Total (27)

TOTAL STAFF (112)

Total Area Requirements

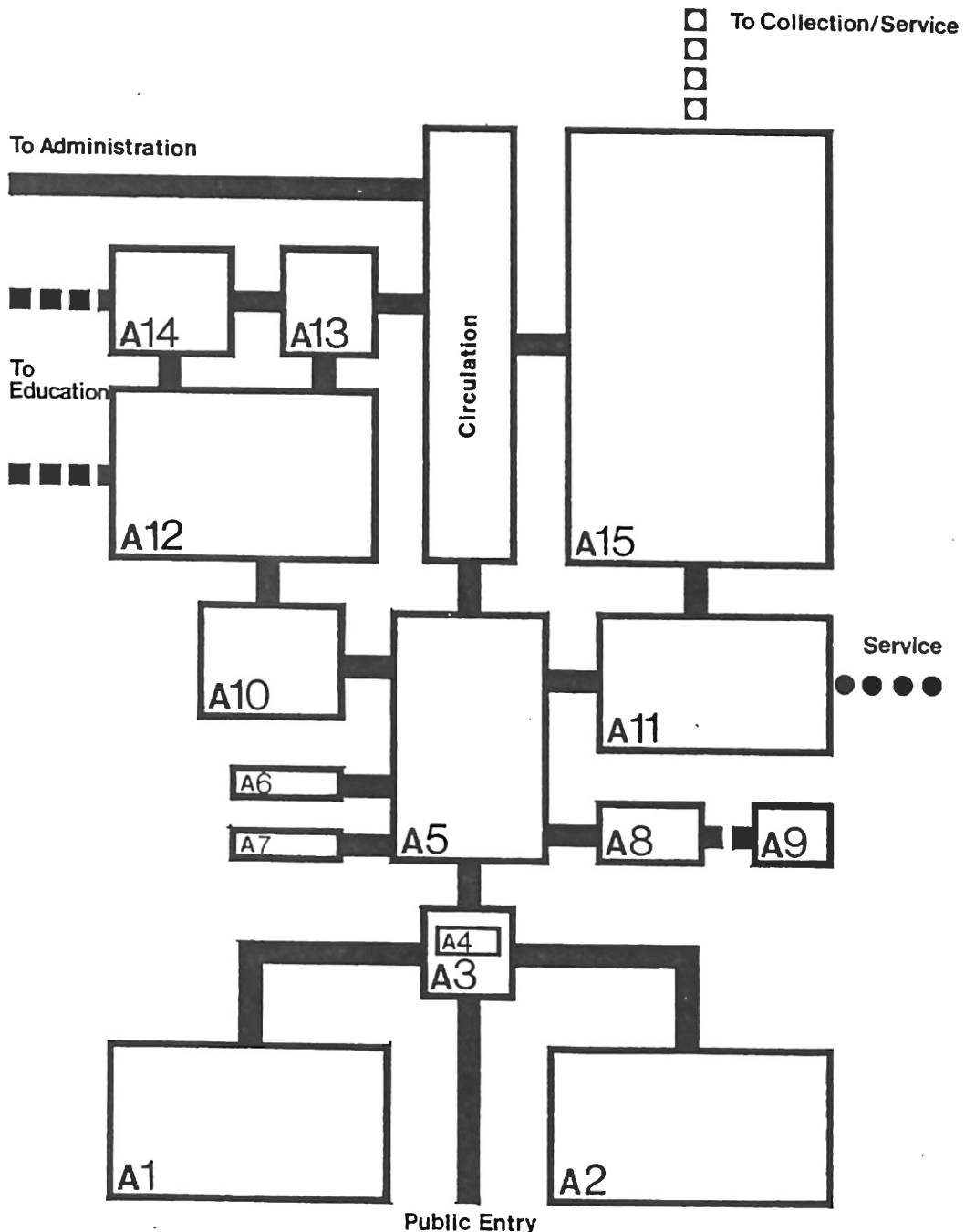


| | | | |
|--------------------------|--------------------|---------|------|
| A. | PUBLIC | 127,300 | S.F. |
| B. | ADMINISTRATION | 5,100 | S.F. |
| C. | EDUCATION | 2,740 | S.F. |
| D. | COLLECTION/SERVICE | 33,520 | S.F. |
| E. | STAFF FACILITIES | 14,050 | S.F. |
| TOTAL NET AREA | | 182,710 | S.F. |
| ALLOWING 30% CIRCULATION | | X 1.3 | |
| TOTAL GROSS AREA | | 237,523 | S.F. |



Public

A



| | | | |
|-----|-----------------------|--------|------|
| A 1 | PARKING | 29,500 | S.F. |
| A 2 | OUTDOOR EXHIBIT | 18,000 | S.F. |
| A 3 | ENTRY COURT | 800 | S.F. |
| A 4 | TICKET BOOTH | 100 | S.F. |
| A 5 | GENERAL LOBBY | 2,000 | S.F. |
| A 6 | CLOAK ROOM | 100 | S.F. |
| A 7 | INFORMATION | 100 | S.F. |
| A 8 | GIFT SHOP | 400 | S.F. |
| A 9 | LOBBY STORAGE | 250 | S.F. |
| A10 | TOILET | 900 | S.F. |
| A11 | CAFETERIA AND KITCHEN | 1,250 | S.F. |
| A12 | AUDITORIUM | 4,000 | S.F. |
| A13 | AUDITORIUM FOYER | 800 | S.F. |
| A14 | LECTURE ROOM | 550 | S.F. |
| A15 | EXHIBIT AREA | 68,500 | S.F. |

Legend

- Public
- Staff
- Staff/Service
- Service

127,300 S.F.
NET AREA



- 1 parking
- 2 outdoor exhibit
- 3 entry court
- 4 ticket booth
- 5 general lobby
- 6 cloak room
- 7 information
- 8 gift shop
- 9 lobby storage
- 10 toilet
- 11 cafeteria & kitchen
- 12 auditorium
- 13 auditorium foyer
- 14 lecture room
- 15 exhibit area

Parking

A 1

User Public Visitors

Activities Parking

Area 29,500 S.F.

Adjacency Outdoor Exhibit, Entry Court

Equipment Parking for 60 Visitors

Parking for 8 buses

Finishes

walls Open

floor Hard

ceiling None

windows None

acoustics None

color None

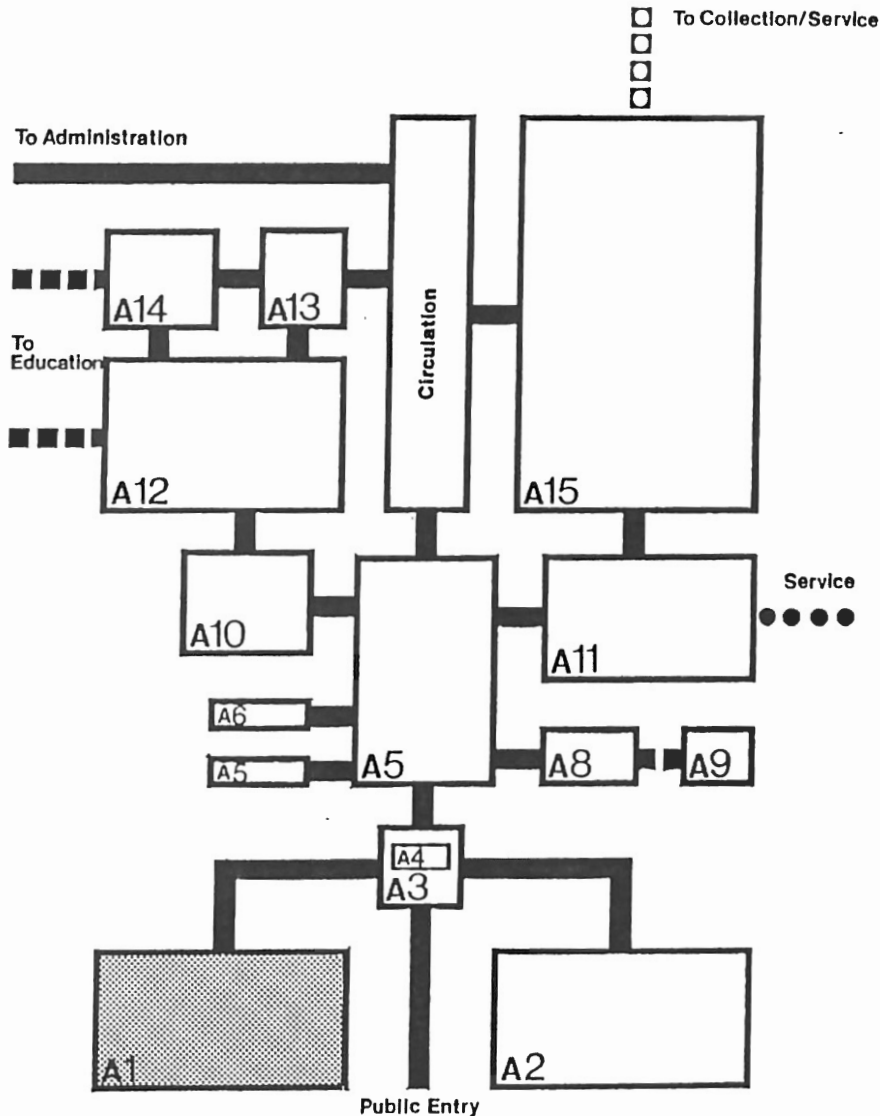
Systems

ac None

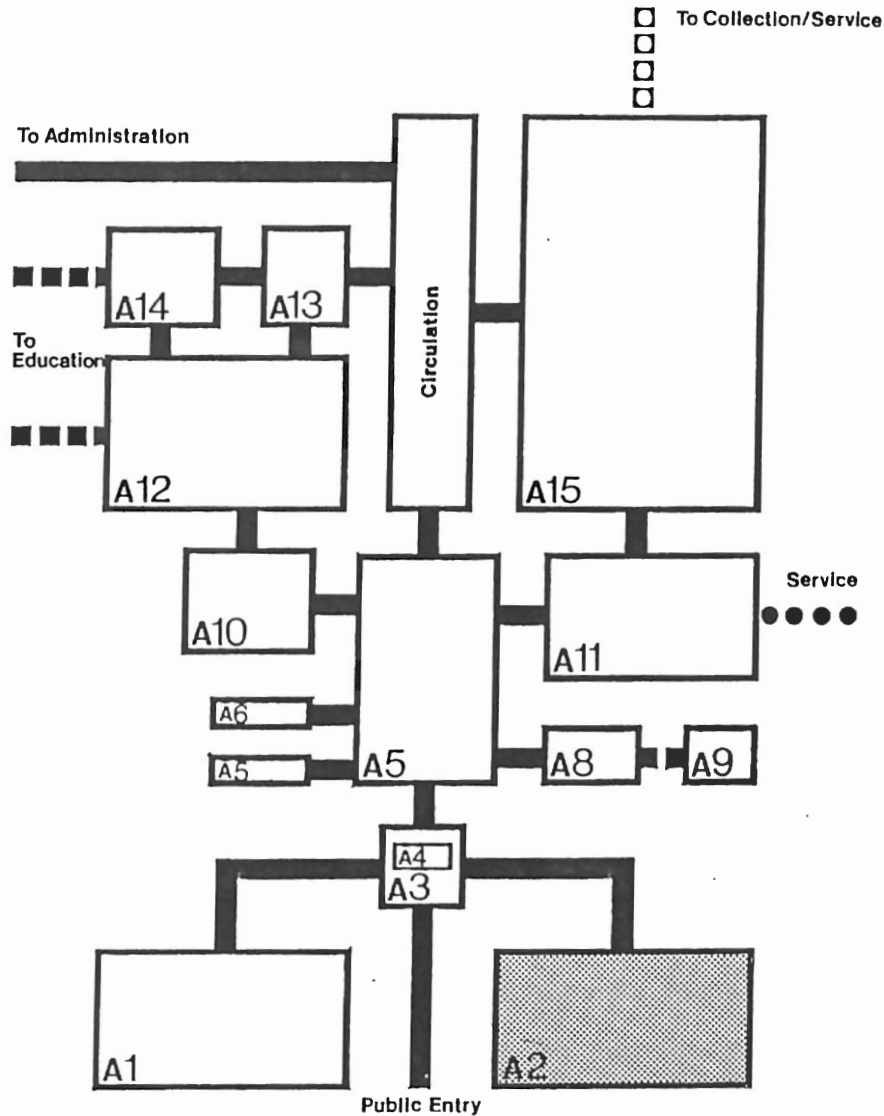
lighting Natural, General

plumbing None

special None



- 1 parking
- 2 outdoor exhibit
- 3 entry court
- 4 ticket booth
- 5 general lobby
- 6 cloak room
- 7 information
- 8 gift shop
- 9 lobby storage
- 10 toilet
- 11 cafeteria & kitchen
- 12 auditorium
- 13 auditorium foyer
- 14 lecture room
- 15 exhibit area



Outdoor Exhibit

A 2

User Public Visitors, Staff

Activities Permanent Exhibit

Area 18,000 S.F.

Adjacency Parking, Entry Court

Equipment

Finishes

walls None
 floor Hard (Moisture Proof)
 ceiling None
 windows None
 acoustics None
 color None

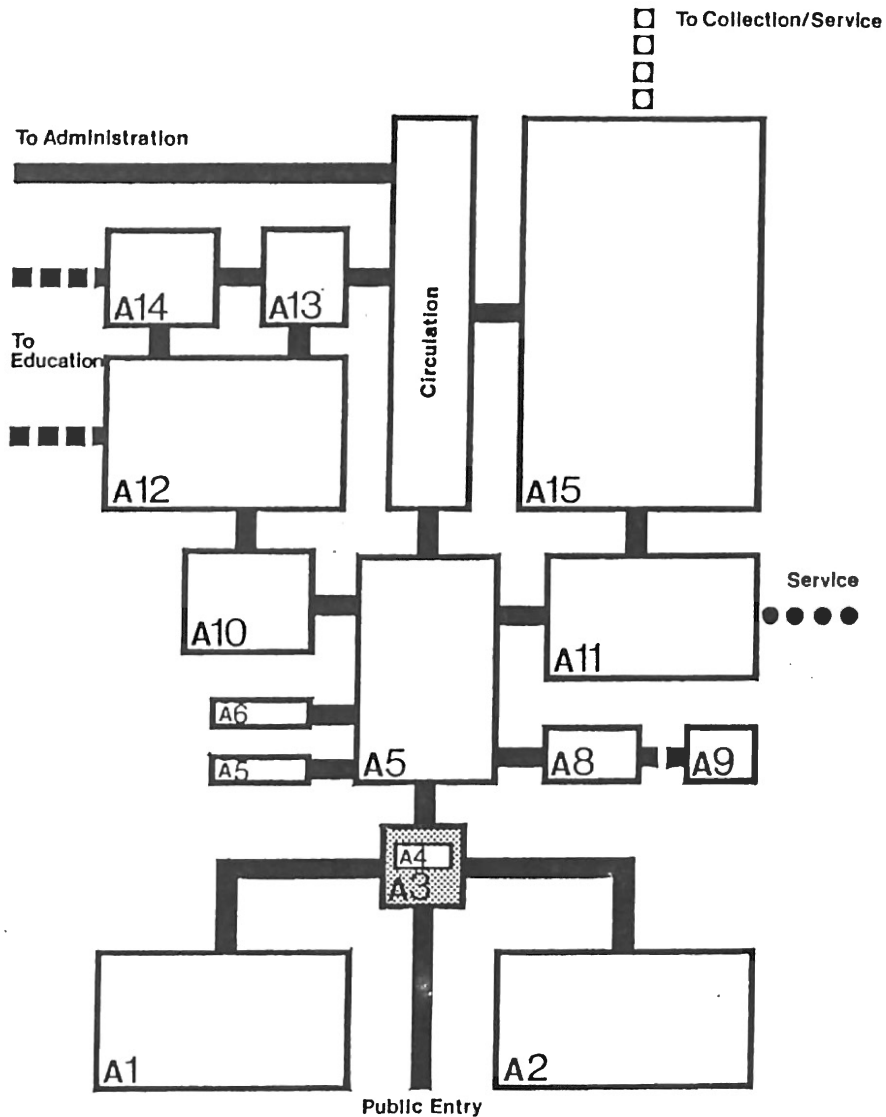
Systems

ac None
 lighting Natural, High Watts Spotlight
 plumbing None
 special None

- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |

Entry Court

A 3



User Public Visitors

Activities Entry Circulation

Area 800 S.F.

Adjacency Parking, General Lobby

Equipment Seating
Display Surfaces

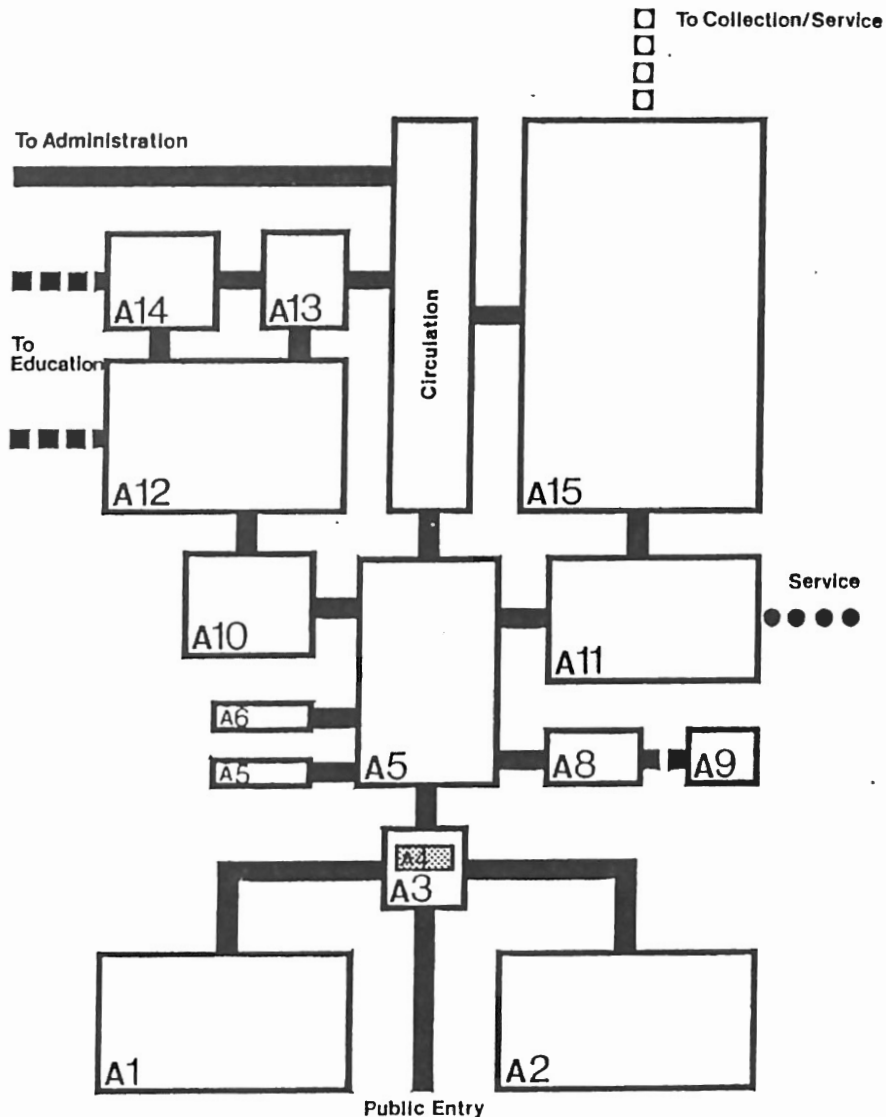
Finishes

walls None
floor Hard (Ceramic Tile)
ceiling Architectural
windows None
acoustics Open
color Neutral

Systems

ac None
lighting Natural, High Watts Spotlight
plumbing None
special None

- | | | | |
|-------------------|-----------------|---------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & | 15 exhibit area |
| 2 outdoor exhibit | 7 information | kitchen | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |



Ticket Booth

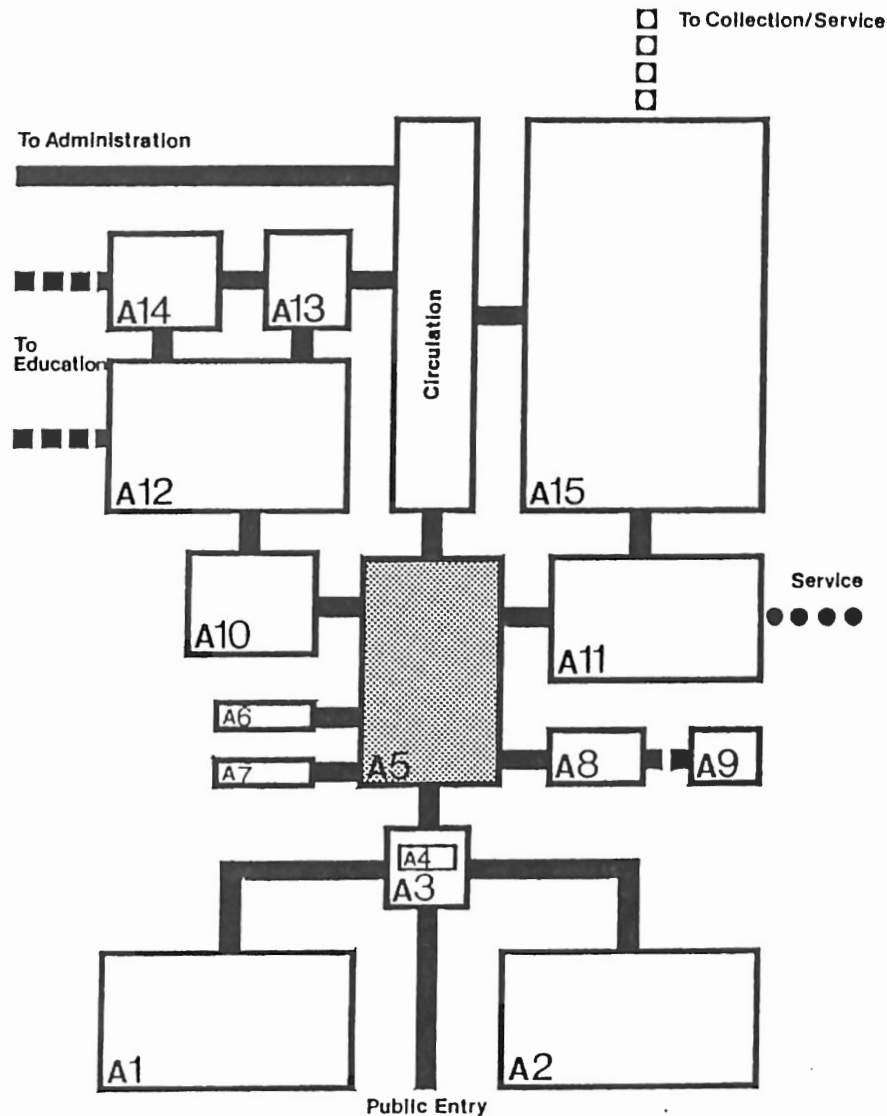
A 4

| | |
|-------------------|--|
| User | Public Visitors, Staff |
| Activities | Provide point of controlled access to the Museum |
| Area | 100 S.F. |
| Adjacency | Entry Court, General Lobby |
| Equipment | Turnstile Mechanism, Cash Registers |

| | |
|-----------------|---------------------|
| Finishes | |
| walls | Hard Wood and Glass |
| floor | Hard |
| ceiling | None |
| windows | None |
| acoustics | None |
| color | Neutral |

| | |
|----------------|----------------------|
| Systems | |
| ac | None |
| lighting | Natural, Fluorescent |
| plumbing | None |
| special | None |

- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |



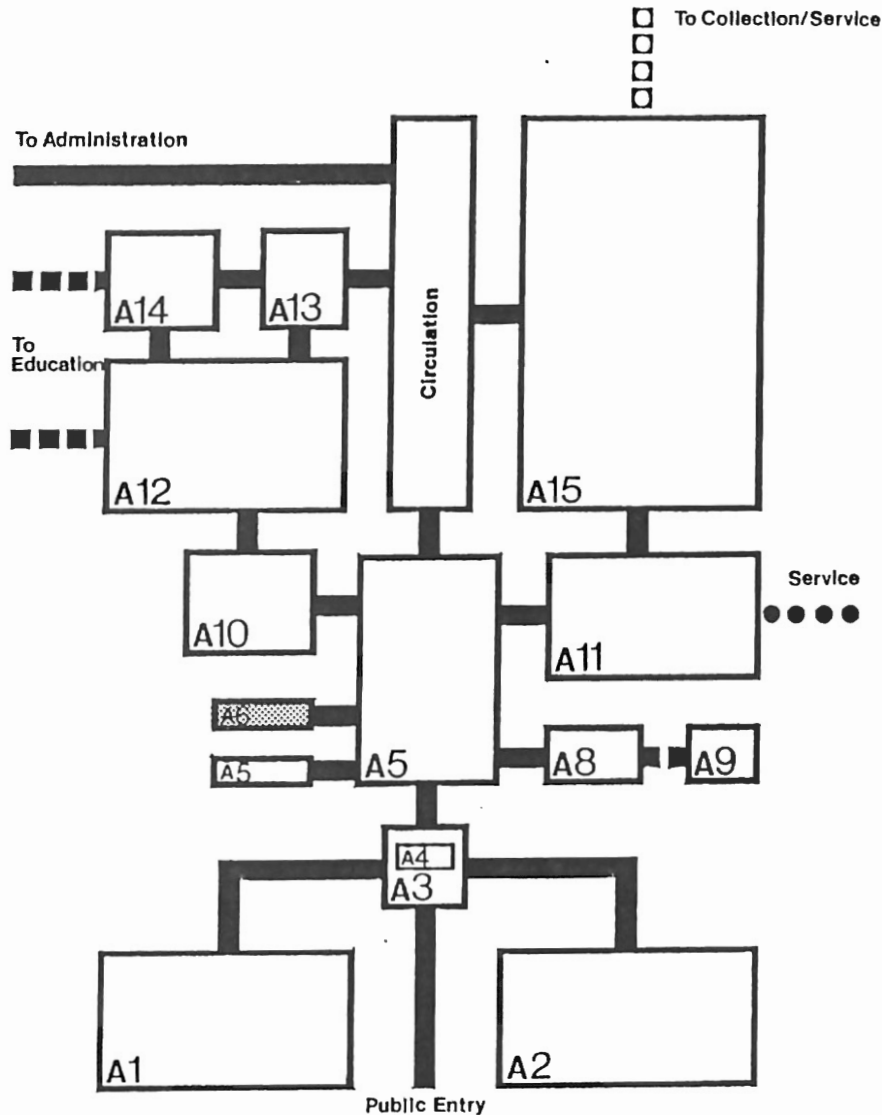
General Lobby

A 5

- | | |
|-------------------|--|
| User | Public Visitors, Groups, Staff |
| Activities | Provide area to assemble and orient visitor before entering auditorium or exhibit area |
| Area | 2,000 S.F. |
| Adjacency | Exhibit Area, Information-Desk, Toilet, Cafeteria |
| Equipment | Seating Information and Display Surfaces |

- | | |
|-----------------|--------------------------------|
| Finishes | |
| walls | Hard |
| floor | Hard (Ceramic Tile) |
| ceiling | Hard (Acoustically controlled) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, Track Lighting |
| plumbing | None |
| special | Sound System |

- 1 parking
- 2 outdoor exhibit
- 3 entry court
- 4 ticket booth
- 5 general lobby
- 6 cloak room
- 7 information
- 8 gift shop
- 9 lobby storage
- 10 toilet
- 11 cafeteria & kitchen
- 12 auditorium
- 13 auditorium foyer
- 14 lecture room
- 15 exhibit area



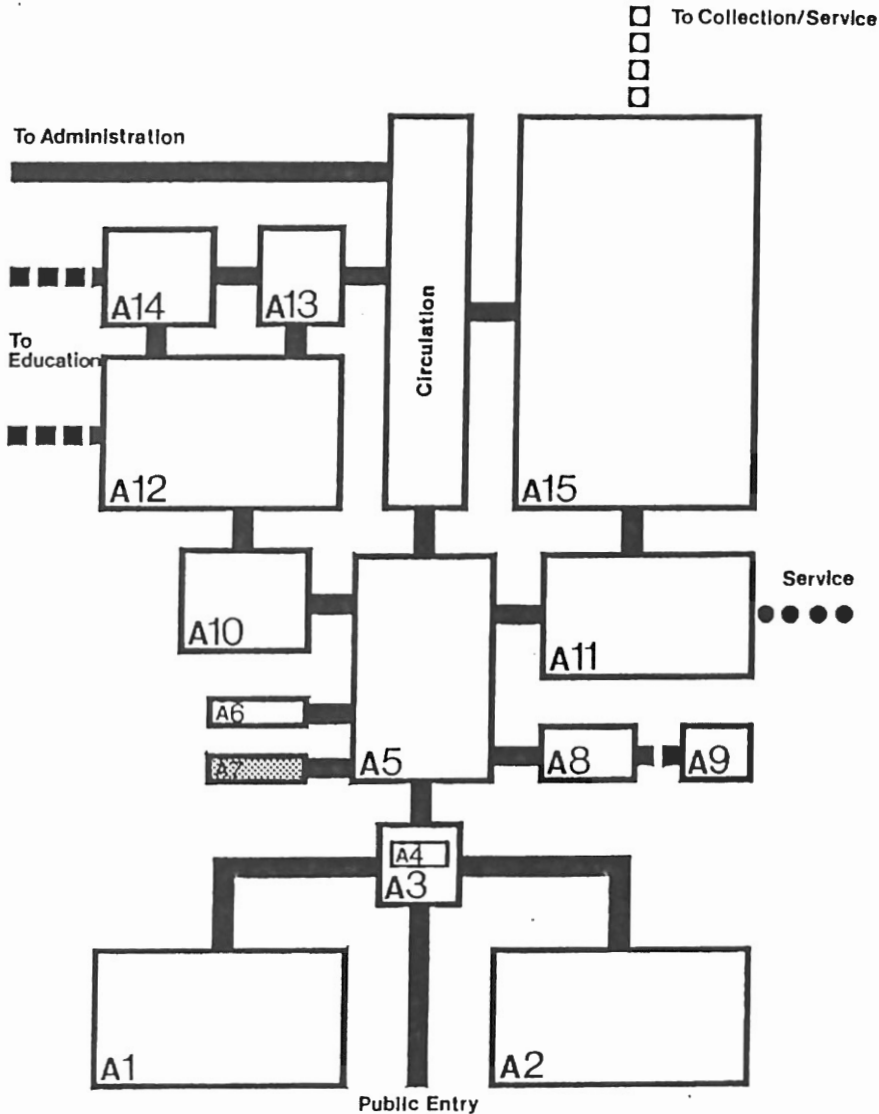
Cloak Room

A 6

| | |
|-------------------|---------------------------------------|
| User | Museum Staff, Public Visitors |
| Activities | Storage of Checked Coats and Packages |
| Area | 100 S.F. |
| Adjacency | General Lobby, Information |
| Equipment | Coat Racks Package Shelves |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Ceramic Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Hard |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | None |

- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |



Information

A 7

User Information Personnel, Visitors

Activities Information and Reception

Area 100 S.F.

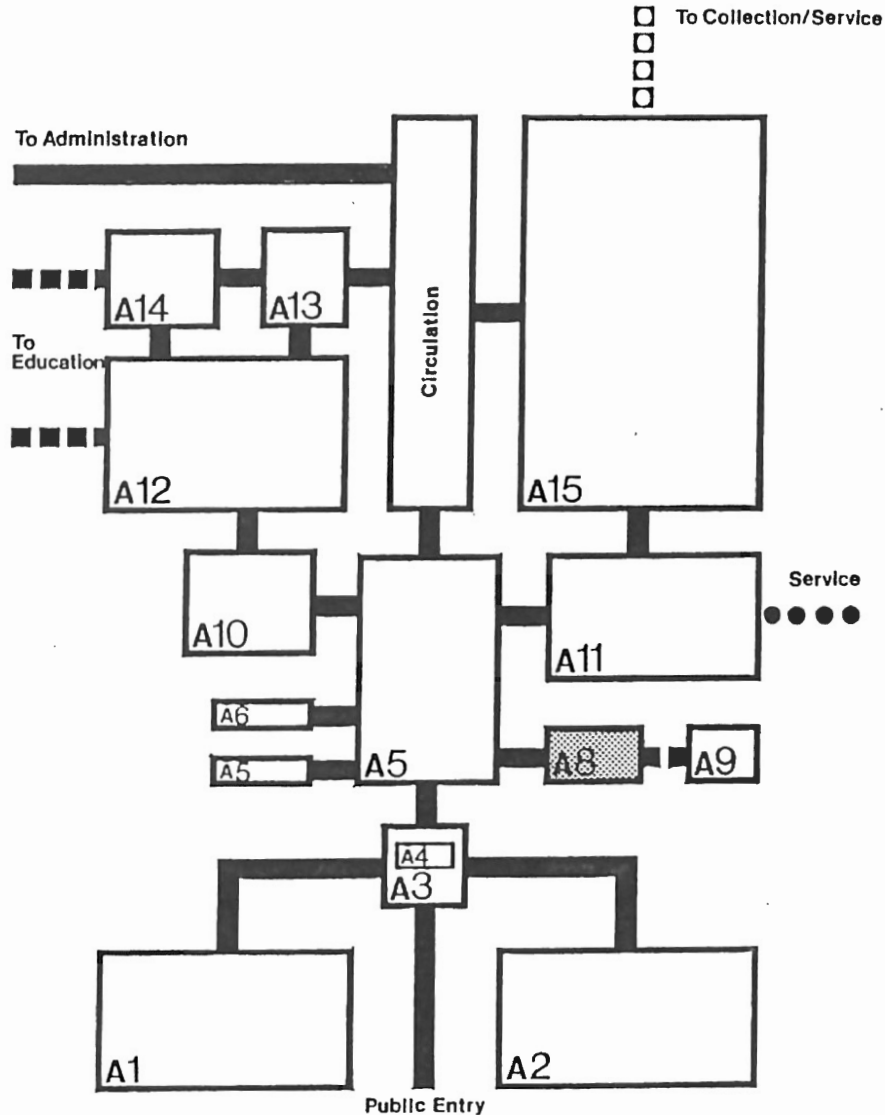
Adjacency General Lobby

Equipment Information Desk
Brochure Racks
Seating for Staff
Telephone

Finishes
walls Hard (Painted GWB)
floor Soft (Carpet)
ceiling Lobby
windows None
acoustics None
color Neutral

Systems
ac General
lighting General
plumbing None
special None

- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |



Gift Shop

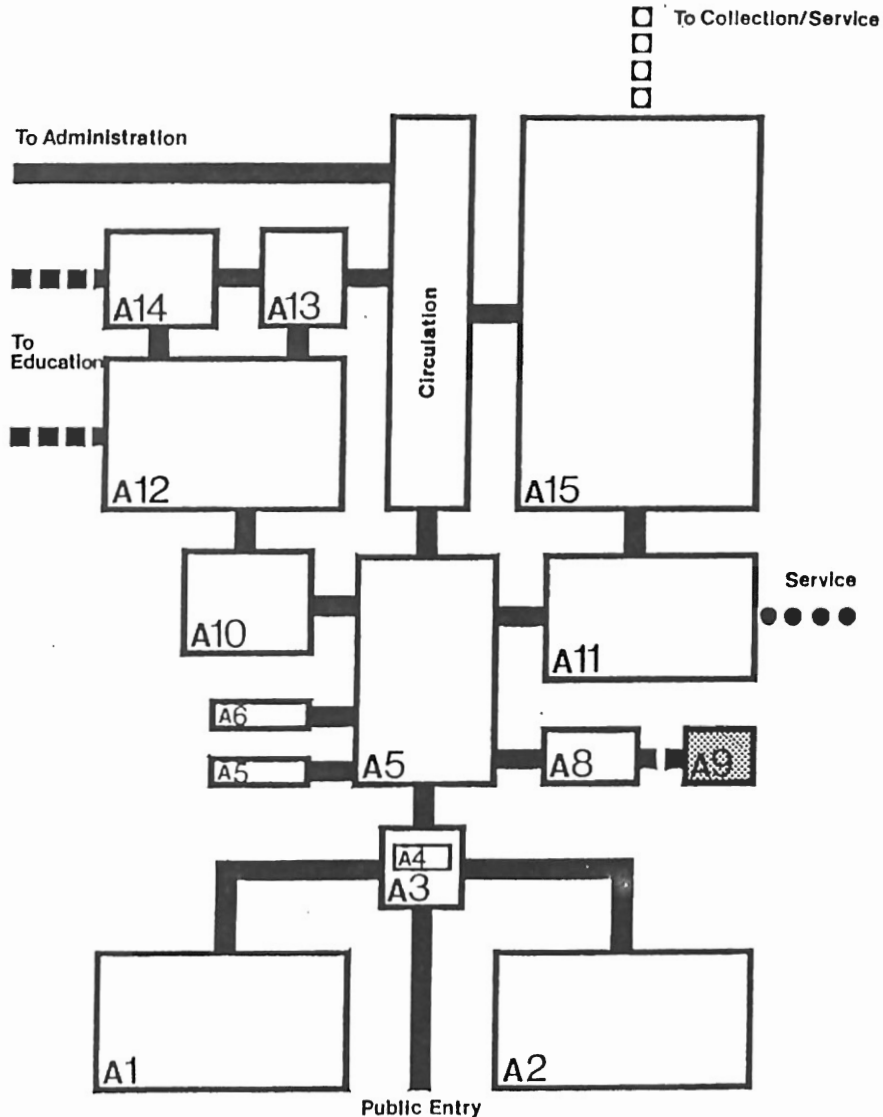
A 8

| | |
|-------------------|--|
| User | Staff, Public Visitors |
| Activities | Provide sales area for Museum merchandise |
| Area | 400 S.F. |
| Adjacency | General Lobby, Lobby Storage |
| Equipment | Display Shelves Counter Space Book Shelves Cash Registers |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |

| | |
|----------------|------------------|
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | Security checked |

- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |



Lobby Storage

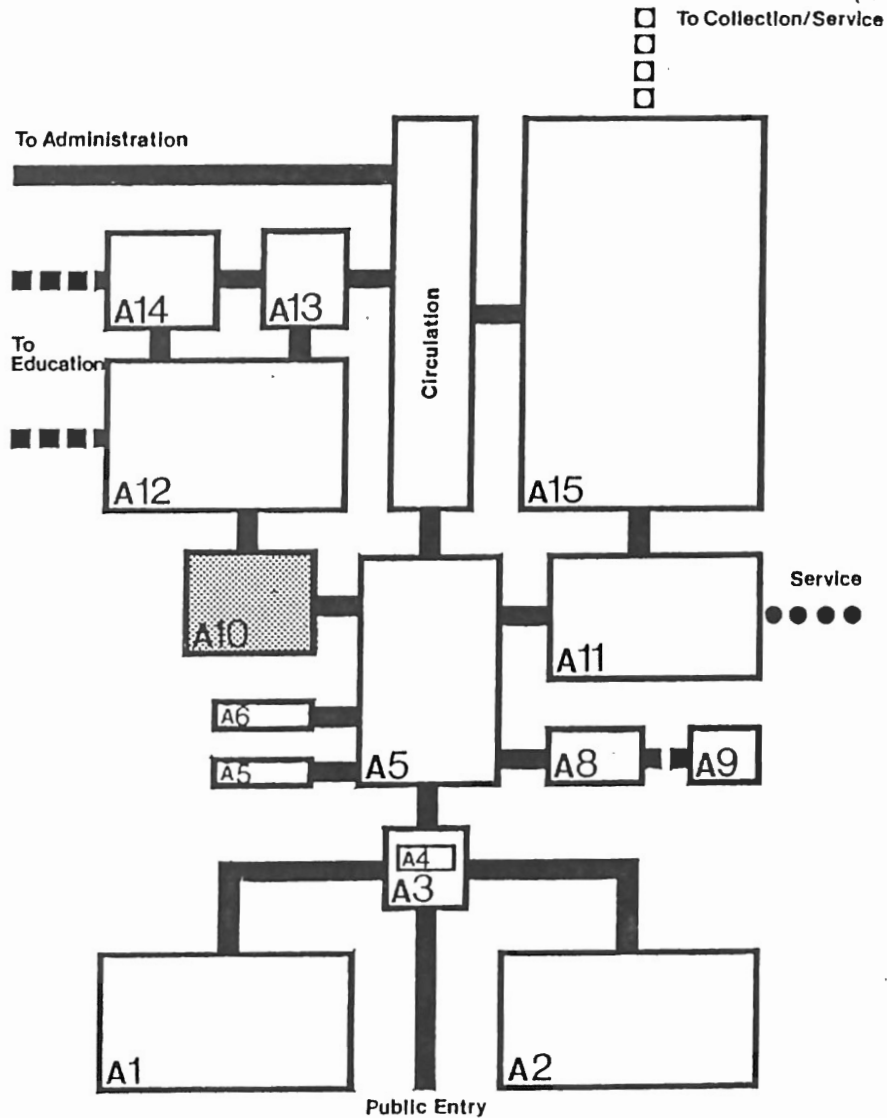
A 9

| | |
|-------------------|--|
| User | Staff, Gift Shop Manager |
| Activities | Store equipment needed for the General Lobby and merchandise for the Gift Shop |
| Area | 250 S.F. |
| Adjacency | General Lobby, Gift Shop |
| Equipment | Storage Shelves |

| | |
|-----------------|--------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Concrete) |
| ceiling | Hard |
| windows | None |
| acoustics | Hard |
| color | Neutral |

| | |
|----------------|---------|
| Systems | |
| ac | None |
| lighting | General |
| plumbing | None |
| special | None |

- 1 parking
- 2 outdoor exhibit
- 3 entry court
- 4 ticket booth
- 5 general lobby
- 6 cloak room
- 7 information
- 8 gift shop
- 9 lobby storage
- 10 toilet
- 11 cafeteria & kitchen
- 12 auditorium
- 13 auditorium foyer
- 14 lecture room
- 15 exhibit area



Toilet

A 10

User Public Visitors
Activities Public Toilet Facilities

Area 900 S.F.

Adjacency General Lobby, Auditorium

Equipment Typical

Finishes
walls Hard (Tile/GWB)
floor Hard (Tile)
ceiling Hard (Moisture Proof)
windows As necessary
acoustics Hard
color Neutral

Systems
ac General
lighting General
plumbing Cold, Sewer
special Fume Removal

- 1 parking
- 2 outdoor exhibit
- 3 entry court
- 4 ticket booth
- 5 general lobby
- 6 cloak room
- 7 information
- 8 gift shop
- 9 lobby storage
- 10 toilet
- 11 cafeteria & kitchen
- 12 auditorium
- 13 auditorium foyer
- 14 lecture room
- 15 exhibit area

Cafeteria & Kitchen

A 11

User Public Visitors
Activities Provide food service to visitors

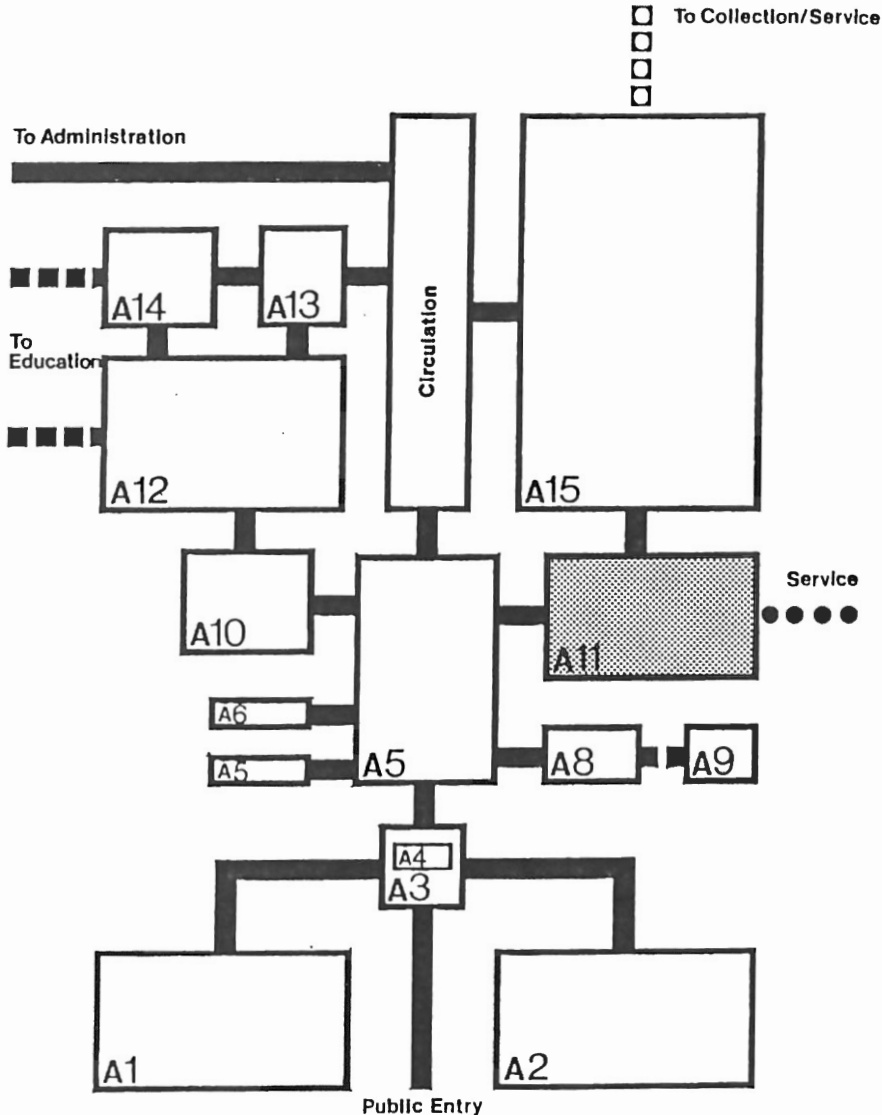
Area 1,250 S.F.

Adjacency General Lobby, Exhibit Area

Equipment Food Bars
 Serving Lines
 Tables and Chairs
 Vending Machines
 Refrigerators and Ovens
 Self Service Islands

Finishes
walls Hard (Painted GWB,Moisture Proof)
floor Hard (Ceramic Tile)
ceiling Hard (Acoustical Tile)
windows Tinted as necessary
acoustics Soft
color Neutral

Systems
ac General
lighting Natural, General
plumbing Hot, Cold, Sewer
special Fume Removal



- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |

Auditorium

A 12

User Public Visitors, Museum Staff

Activities Special Presentations, Movies, Lectures, Musics, Recitals, Etc.

Area 4,000 S.F.

Adjacency Auditorium Foyer, Lecture Room
Toilet, General Lobby

Equipment Seating
Movable Lectern
Screen
Sound Equipment
Projector
Sound Board

Finishes

walls Variable (Acoustically Controlled)

floor Soft (Carpet)

ceiling Hard (Acoustically Controlled)

windows None

acoustics Soft

color Neutral

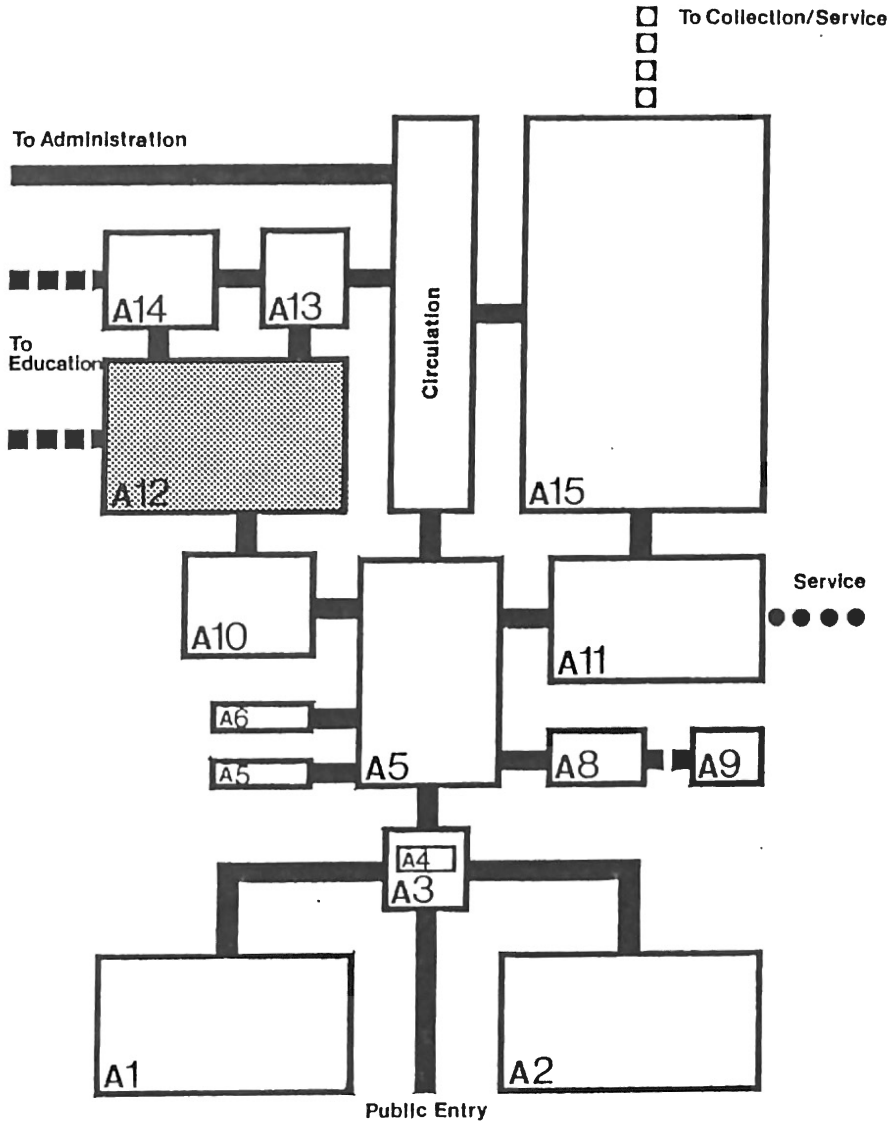
Systems

ac General (Humidity Control)

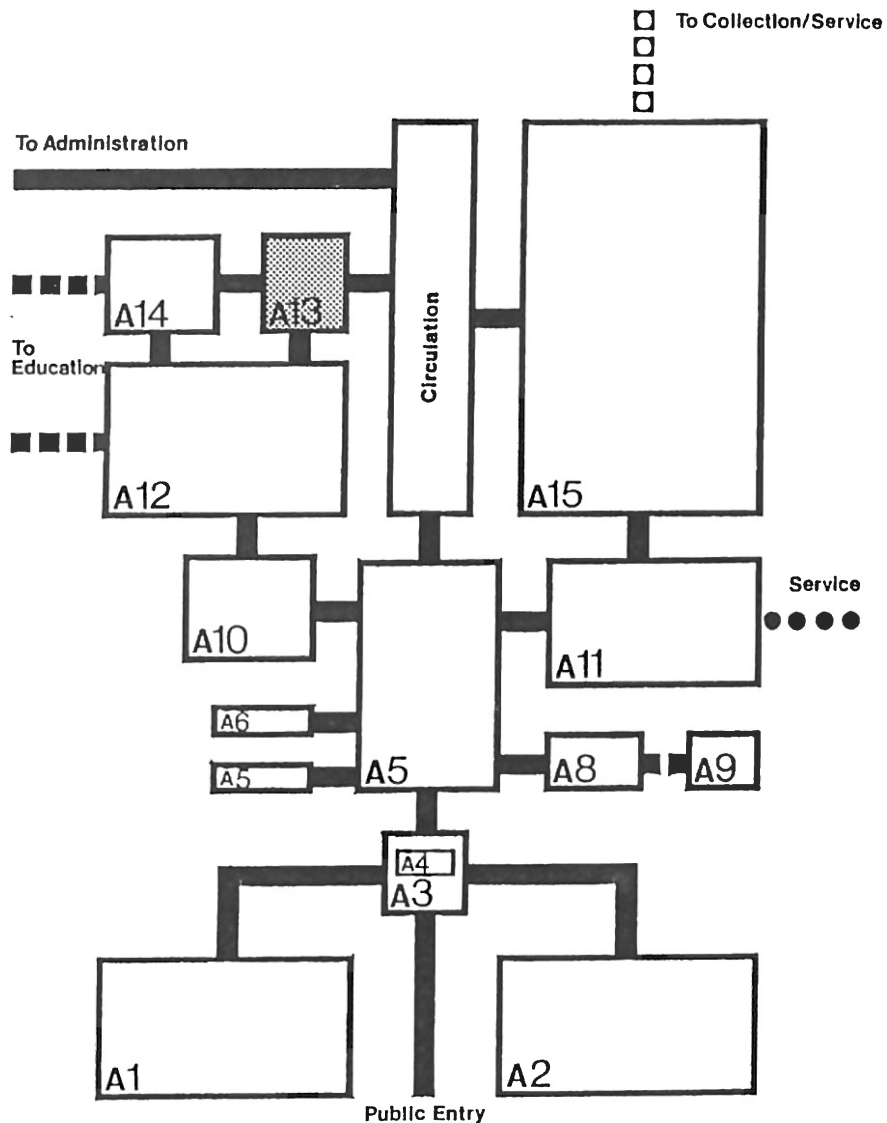
lighting General (Controlled: Spot/House)

plumbing None

special Sound Proofing



- 1 parking
- 2 outdoor exhibit
- 3 entry court
- 4 ticket booth
- 5 general lobby
- 6 cloak room
- 7 information
- 8 gift shop
- 9 lobby storage
- 10 toilet
- 11 cafeteria & kitchen
- 12 auditorium
- 13 auditorium foyer
- 14 lecture room
- 15 exhibit area



Auditorium Foyer

A 13

| | |
|-------------------|---|
| User | Public Visitors |
| Activities | Waiting Area for Presentations, Receptions for Lectures |
| Area | 800 S.F. |
| Adjacency | Auditorium, Lecture Room, Lobby |
| Equipment | Seating Display Surfaces |
| Finishes | |
| walls | Hard/Soft (Displayable) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustically Controlled) |
| windows | None |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | General, Down Lighting |
| plumbing | None |
| special | Sound System |

- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |

Lecture Room

A 14

User Public Visitors, Museum Staff

Activities Special Presentations, Lectures for small group

Area 550 S.F.

Adjacency Auditorium Foyer, A/V Archives Auditorium

Equipment Fixed Seating
Adjustable Stage Podium
Rear Screen Projection
Retractable Screen
Chalk Board
Sound System

Finishes

walls Hard (Acoustically Controlled)

floor Soft (Carpet)

ceiling Hard (Acoustically Controlled)

windows None

acoustics Soft

color Neutral

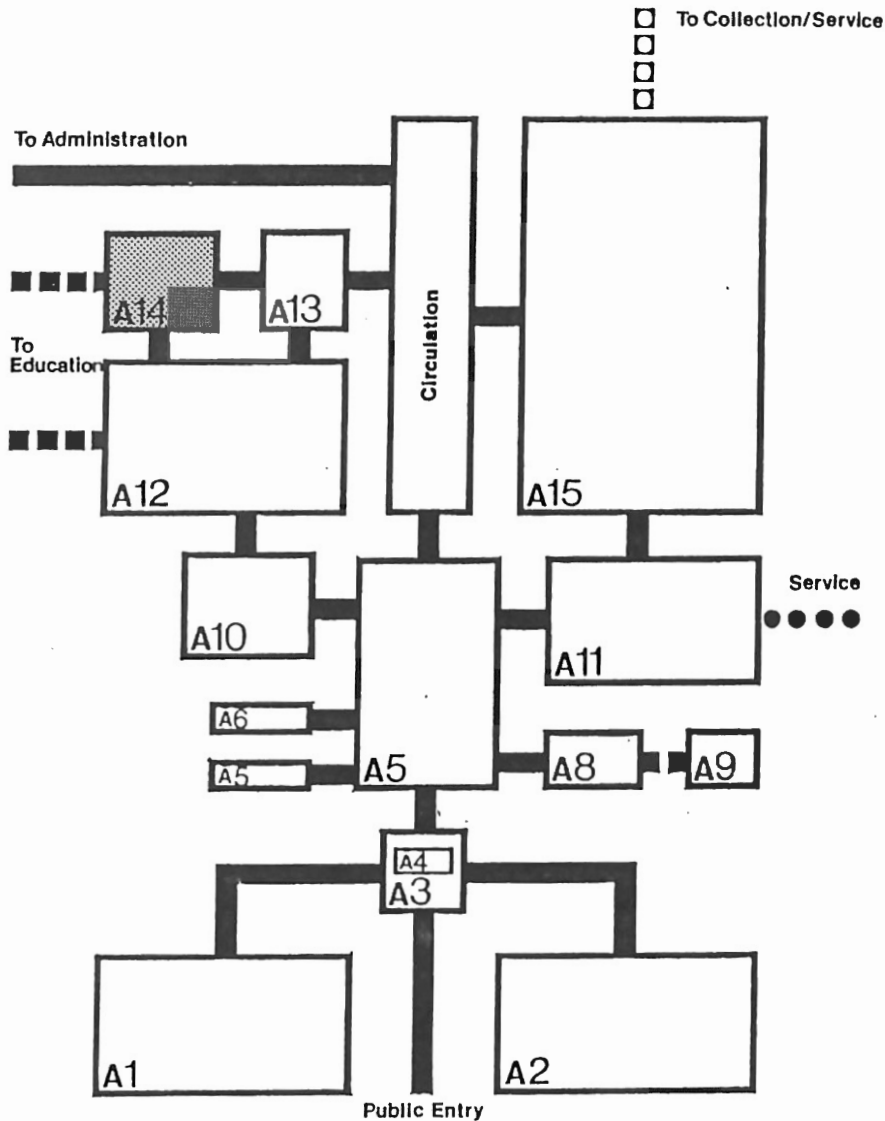
Systems

ac General

lighting General, Down Lighting

plumbing None

special Stage Light, Flexibility



- | | | | |
|-------------------|-----------------|------------------------|-----------------|
| 1 parking | 6 cloak room | 11 cafeteria & kitchen | 15 exhibit area |
| 2 outdoor exhibit | 7 information | | |
| 3 entry court | 8 gift shop | 12 auditorium | |
| 4 ticket booth | 9 lobby storage | 13 auditorium foyer | |
| 5 general lobby | 10 toilet | 14 lecture room | |

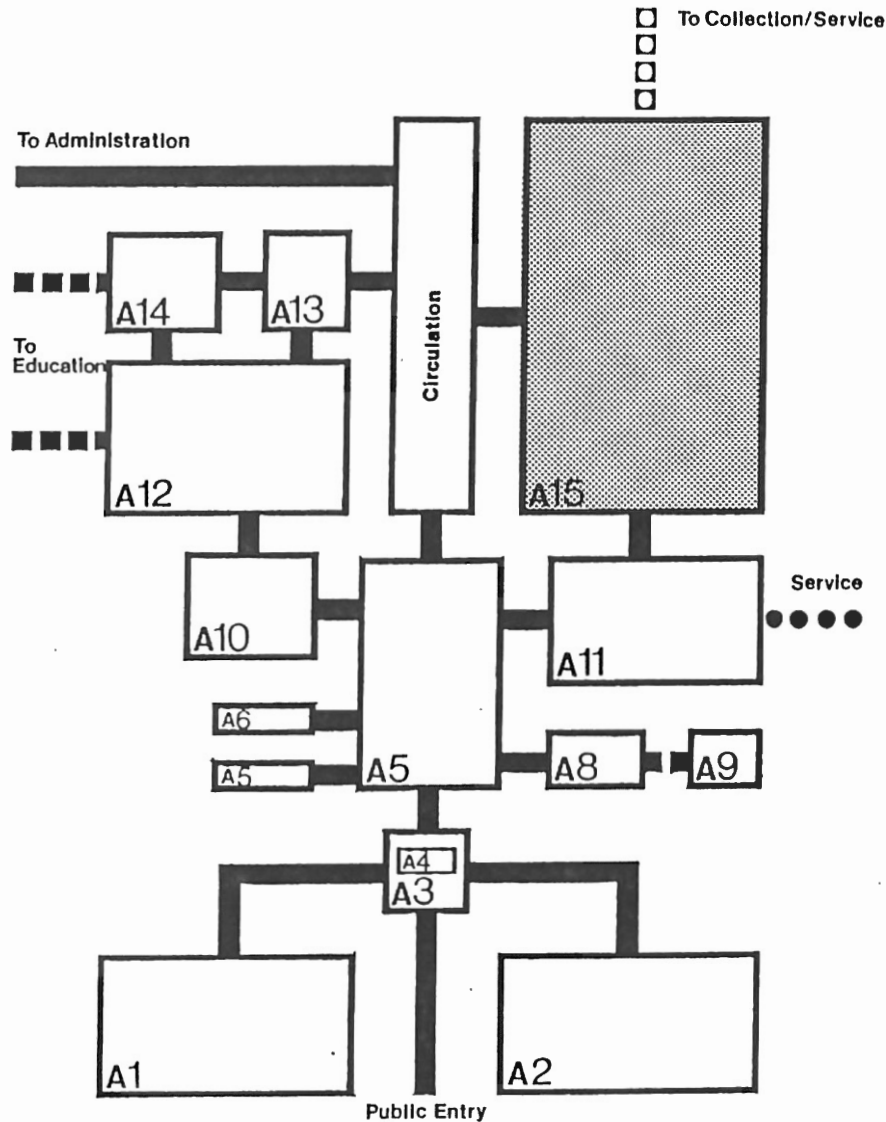


Exhibit Area

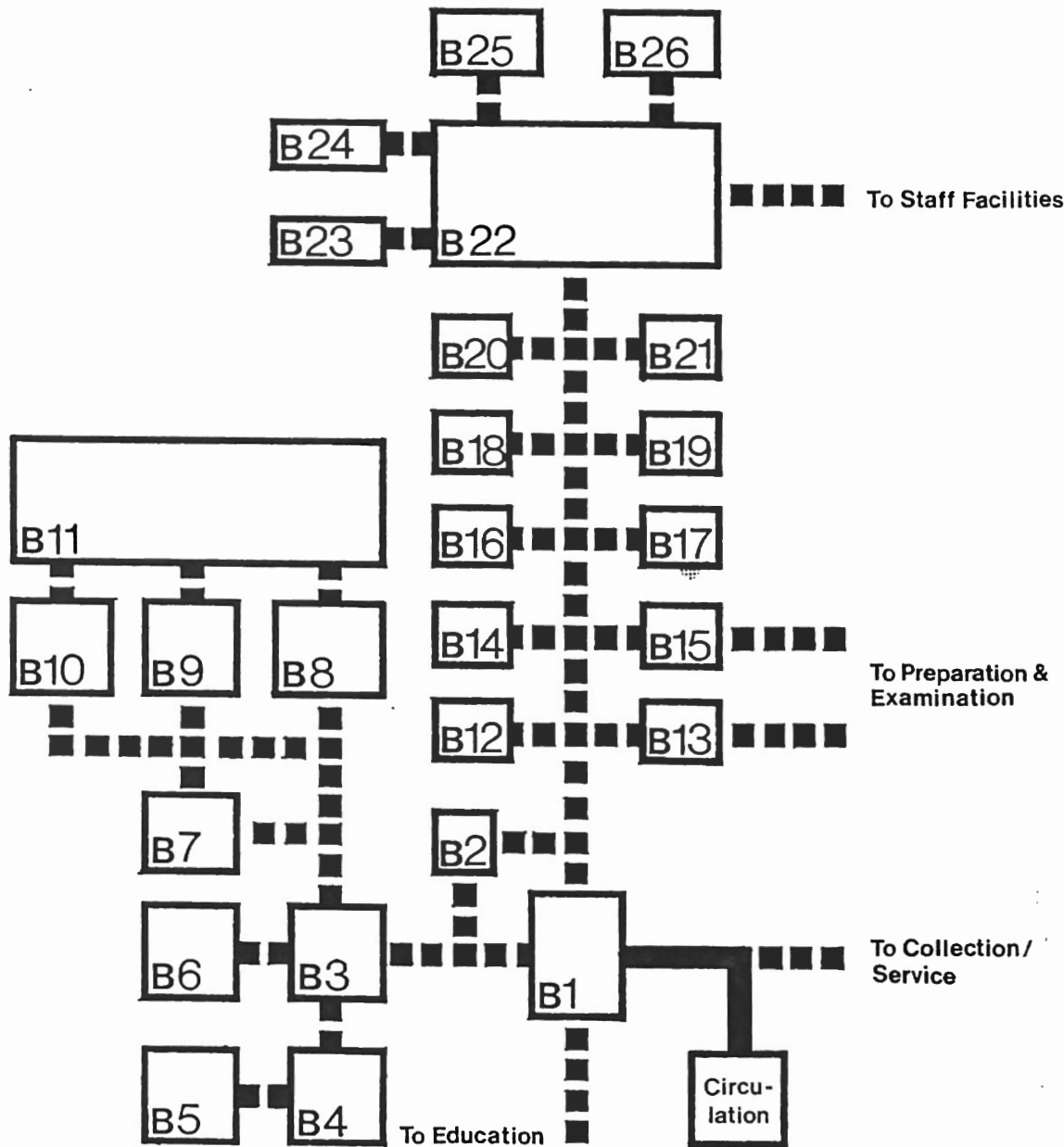
A 15

| | |
|-------------------|--|
| User | Public Visitors |
| Activities | Display of Permanent and Temporary Exhibit |
| Area | 68,500 S.F. |
| Adjacency | General Lobby, Exhibit Storage |
| Equipment | Seating |

| | |
|-----------------|-----------------------------------|
| Finishes | |
| walls | Varies |
| floor | Hard, Soft (Carpet) |
| ceiling | Varies |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Varies |
| Systems | |
| ac | General |
| lighting | Natural, Movable Special Lighting |
| plumbing | None |
| special | Security System |

Administration

B



| | | | |
|-----|-----------------------------|-------|-------|
| B 1 | ADMINISTRATIVE RECEPTIONIST | 120 | S. F. |
| B 2 | FIRST AID | 150 | S. F. |
| B 3 | SECRETARY | 150 | S. F. |
| B 4 | CATERING PANTRY | 50 | S. F. |
| B 5 | STORAGE | 150 | S. F. |
| B 6 | FILE ROOM | 100 | S. F. |
| B 7 | TOILET | 100 | S. F. |
| B 8 | DIRECTOR'S OFFICE | 250 | S. F. |
| B 9 | ASS. DIRECTOR'S OFFICE | 200 | S. F. |
| B10 | SUPERVISOR | 150 | S. F. |
| B11 | CONFERENCE ROOM | 550 | S. F. |
| B12 | BUSINESS MANAGER'S OFFICE | 120 | S. F. |
| B13 | REGISTRAR'S OFFICE | 120 | S. F. |
| B14 | TREASURER'S OFFICE | 120 | S. F. |
| B15 | CURATOR'S OFFICE | 120 | S. F. |
| B16 | OFFICE MANAGER'S OFFICE | 120 | S. F. |
| B17 | STATISTIC AND INFORMATION | | |
| | DIRECTOR'S OFFICE | 120 | S. F. |
| B18 | EDUCATOR'S OFFICE | 120 | S. F. |
| B19 | PUBLIC RELATION'S OFFICE | 120 | S. F. |
| B20 | ADMINISTRATION STAFF OFFICE | 120 | S. F. |
| B21 | ADMINISTRATOR'S OFFICE | 120 | S. F. |
| B22 | STAFF OFFICE | 1,000 | S. F. |
| B23 | STAFF TOILET | 200 | S. F. |
| B24 | CATERING KITCHEN | 100 | S. F. |
| B25 | FILE ROOM | 250 | S. F. |
| B26 | STORAGE | 380 | S. F. |

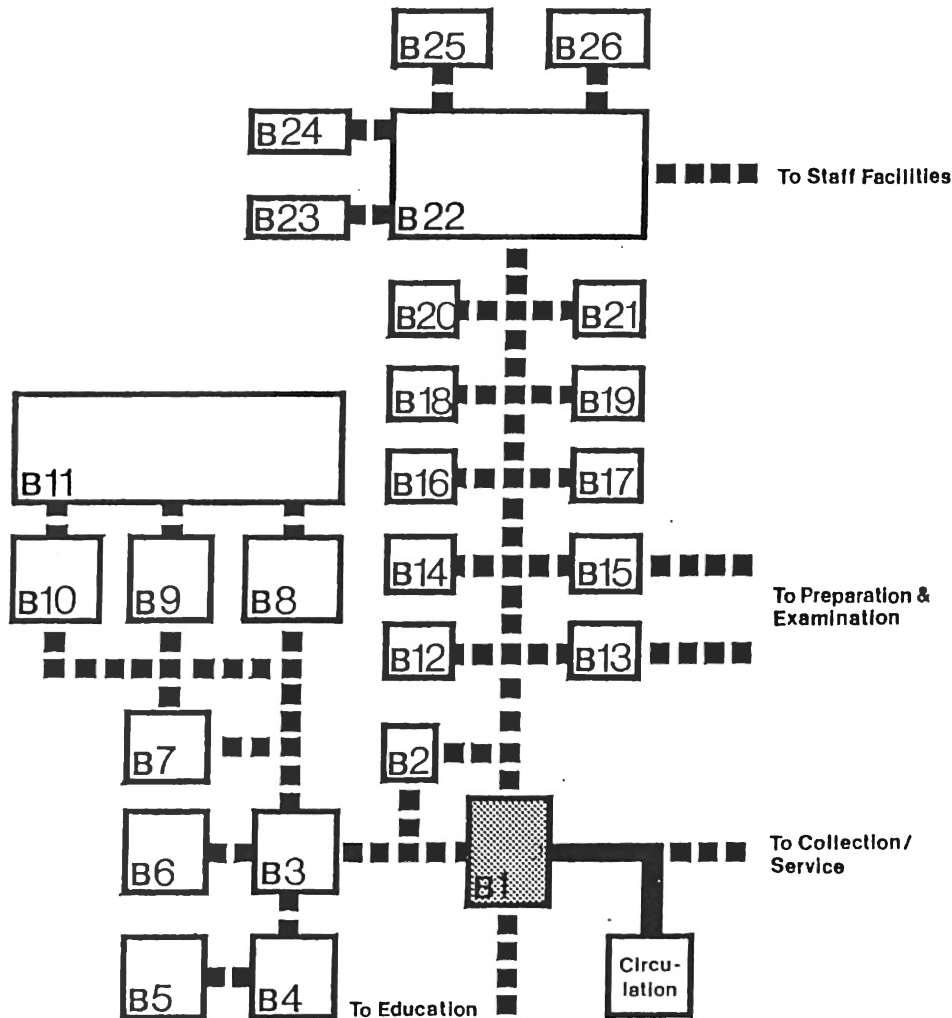
5,100 S. F.

NET AREA

Legend

- Public
- Staff
- Staff/Service
- Service

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

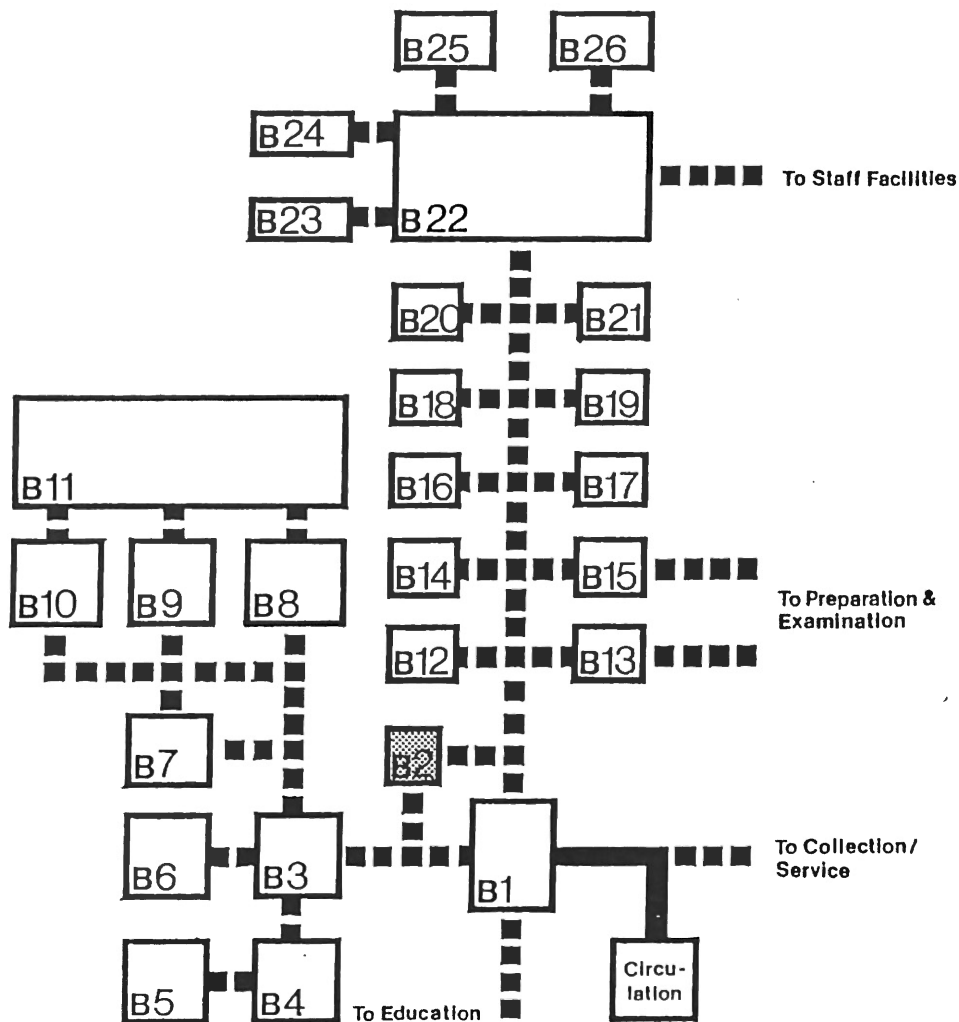


Admin. Receptionist

B 1

| | |
|-------------------|---|
| User | Public Visitors, Receptionist |
| Activities | Public Access Control, Waiting Room, Phone Center |
| Area | 120 S.F. |
| Adjacency | General Lobby, First Aid, Secretary |
| Equipment | Desk Phone Equipment Seating Magazine Selection Files Typing Station |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | As necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | Sound System |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

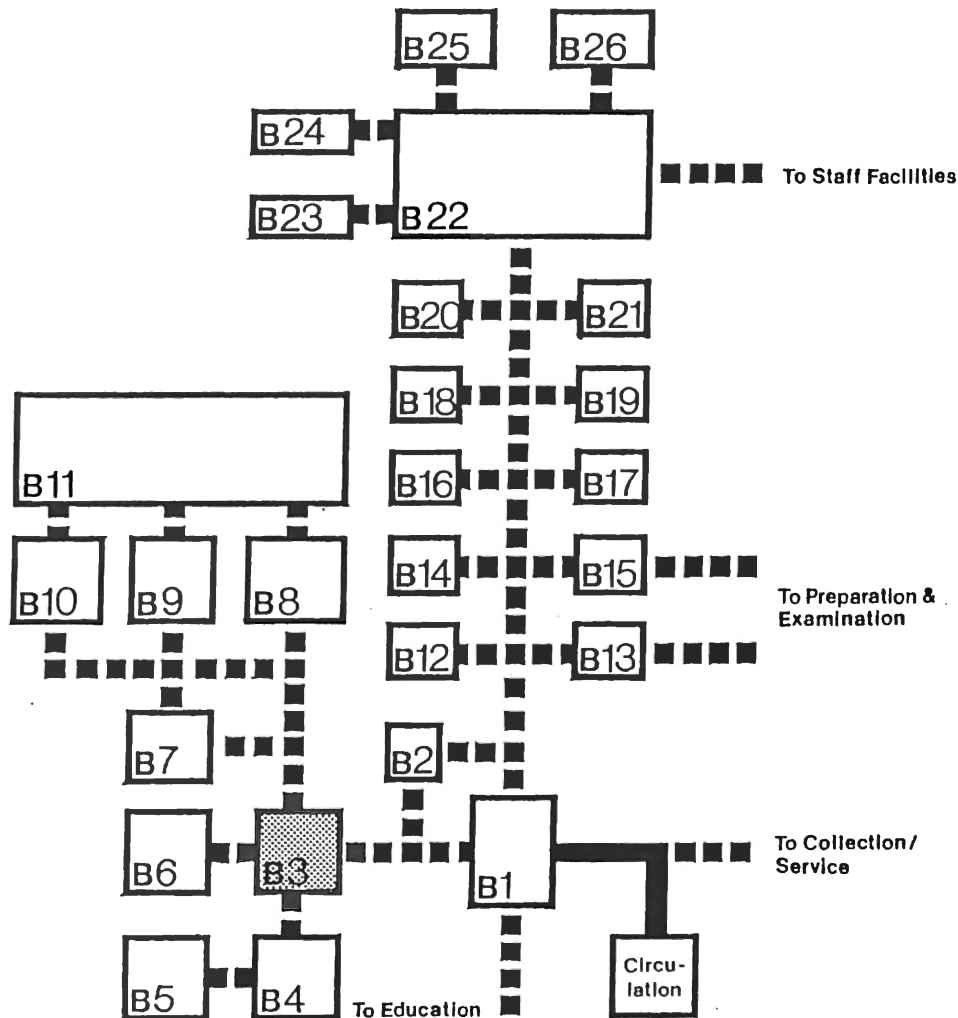


First Aid

B 2

| | |
|-------------------|--|
| User | Staff, Public Visitors |
| Activities | Provide area for medical assistance to public and private |
| Area | 150 S.F. |
| Adjacency | Receptionist, Staff Office |
| Equipment | Examination Table/Bed Counter Cabinets and Shelves Chairs |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | As necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | Hot, Cold, Sewer |
| special | Oxygen Valve |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |



Secretary

B 3

User Secretary to Director, Visitors

Activities Secretarial area, waiting area for visitors to the Director

Area 150 S.F.

Adjacency Catering Pantry, Director's Off., File Room

Equipment Desk
Chairs
Phone Equipment
Typing Station
Visitor Seating
Files

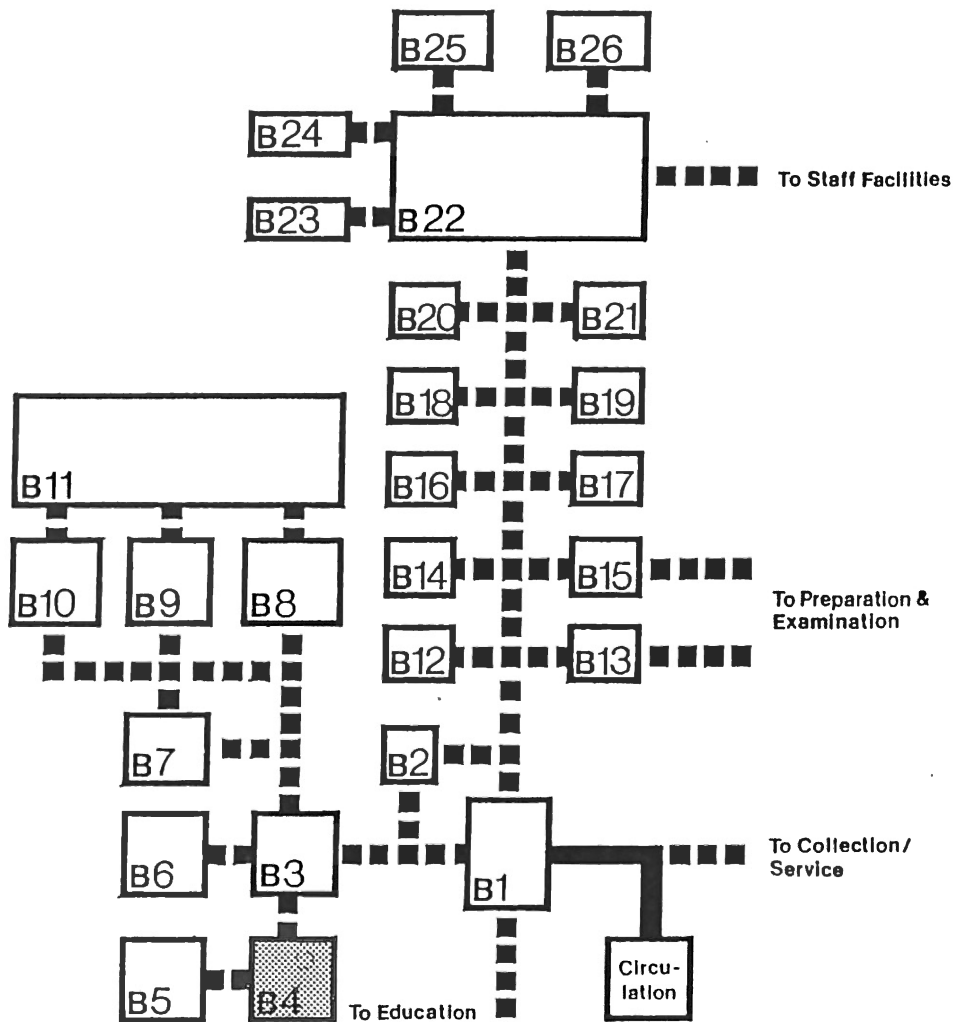
Finishes
walls Hard (Painted GWB)
floor Soft (Carpet)
ceiling Hard (Acoustical Tile)
windows Tinted as necessary
acoustics Quiet
color Neutral

Systems
ac General
lighting Natural, General
plumbing None
special None

Catering Pantry

B 4

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



User Secretary, Staff
Activities Food Preparation, Coffee Bar

Area 50 S.F.

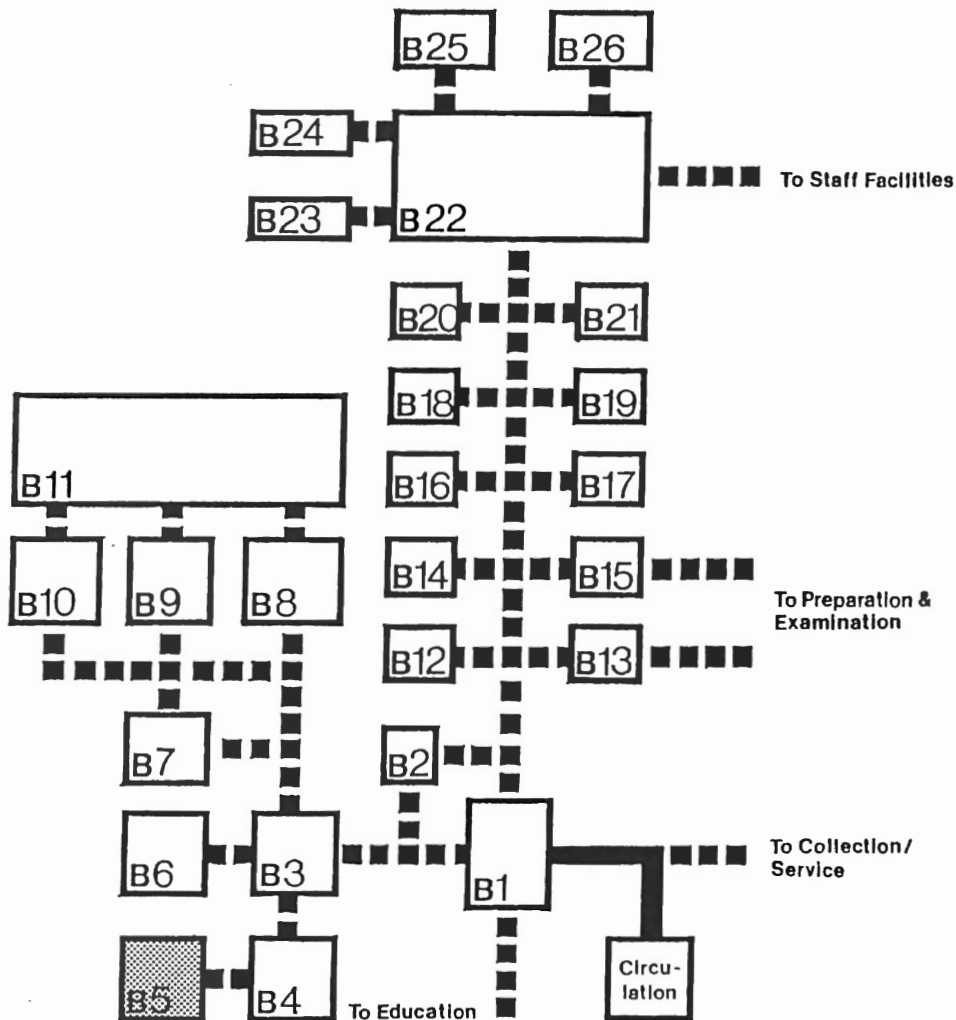
Adjacency Secretary Room

Equipment Serving Counter
 Preparation Counters
 Convection/Microwave Oven
 Coffee Machine
 Small Refrigerator

Finishes
walls Hard (Painted GWB, Moisture Proof)
floor Hard (Tile)
ceiling Hard (GWB, Moisture Proof)
windows None
acoustics Soft
color Neutral

Systems
ac General
lighting General
plumbing Cold, Sewer
special Fume Removal

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



Storage

B 5

| | |
|-------------------|-----------------------------------|
| User | Staff |
| Activities | Store equipment needed for Office |
| Area | 150 S.F. |
| Adjacency | Secretary, Catering Pantry |
| Equipment | Large Shelving Cabinet Storage |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | None |
| lighting | General |
| plumbing | None |
| special | None |

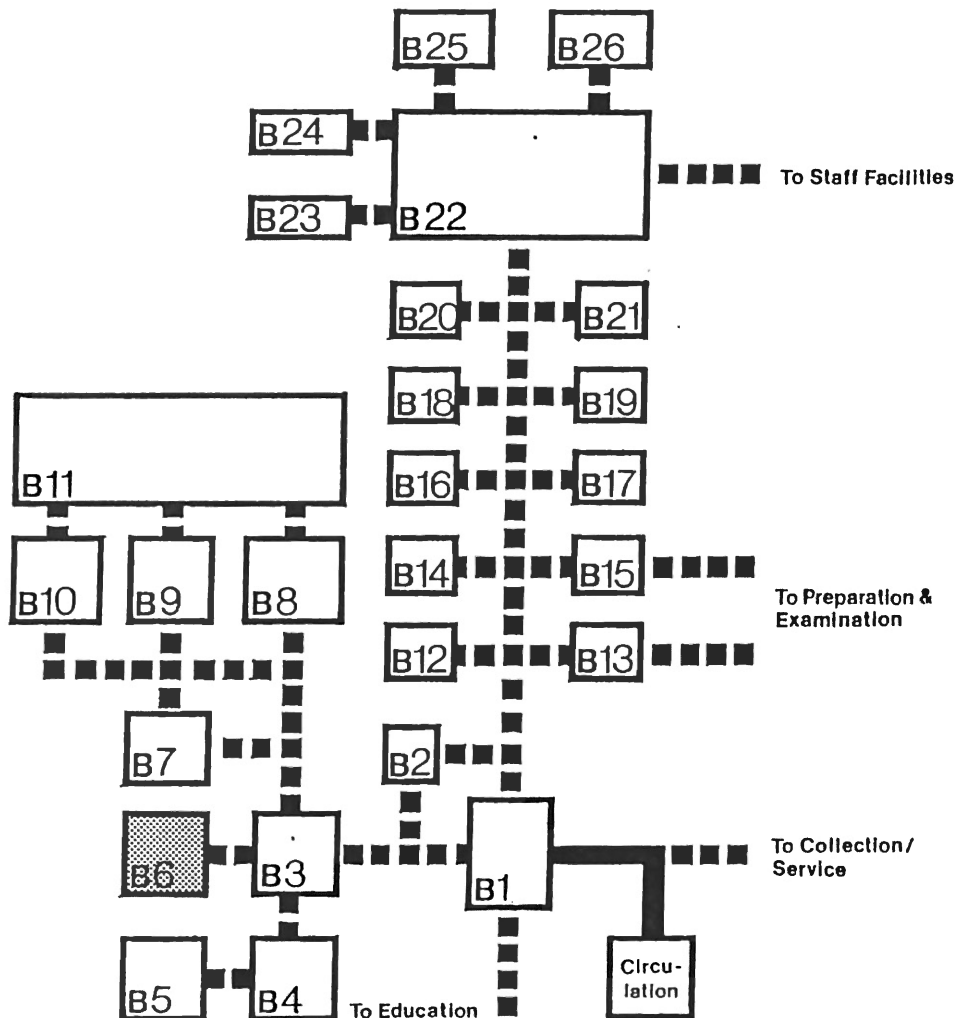
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|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

File Room

B 6

| | |
|-------------------|--|
| User | Secretary |
| Activities | Provide Important Files Storage, Copy Machine |
| Area | 100 S.F. |
| Adjacency | Secretary Room |
| Equipment | Shelves/Storages Files Copy Machine |

| | |
|-----------------|----------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustic Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | None |

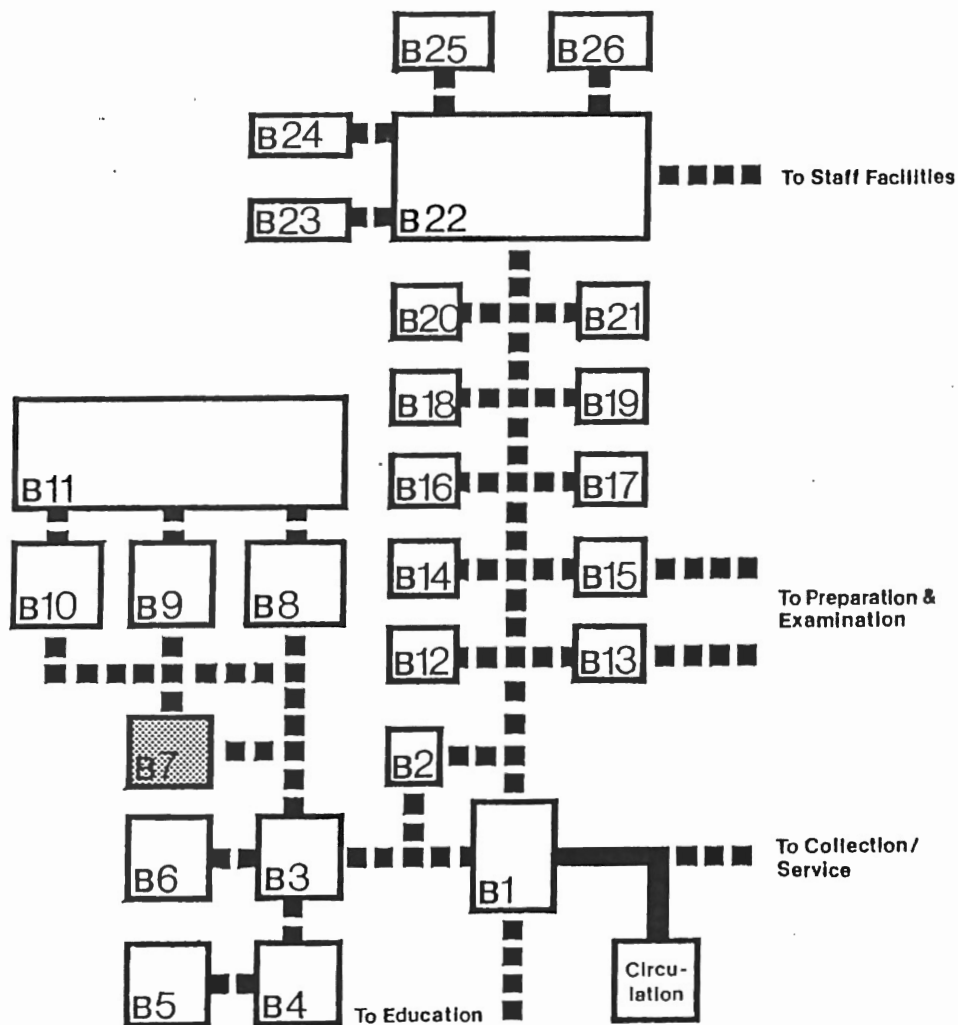


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|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

Toilet

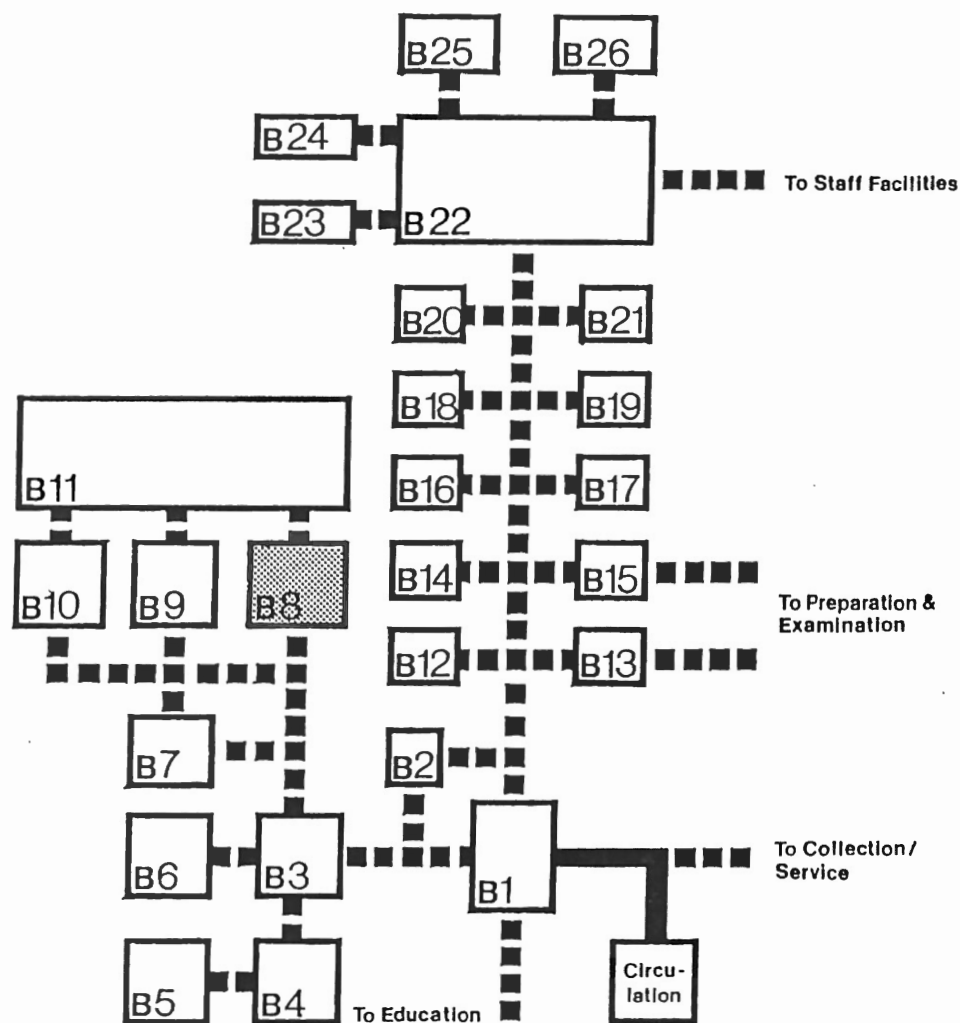
B 7

| | |
|-------------------|-------------------|
| User | Executive Staff |
| Activities | Toilet Facilities |
| Area | 100 S.F. |
| Adjacency | Executive Offices |
| Equipment | Typical |



| | |
|-----------------|-----------------------|
| Finishes | |
| walls | Hard (Tile/GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Moisture Proof) |
| windows | As necessary |
| acoustics | Hard |
| color | Neutral |
| Systems | |
| ac | None |
| lighting | General |
| plumbing | Cold, Sewer |
| special | Fume Removal |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

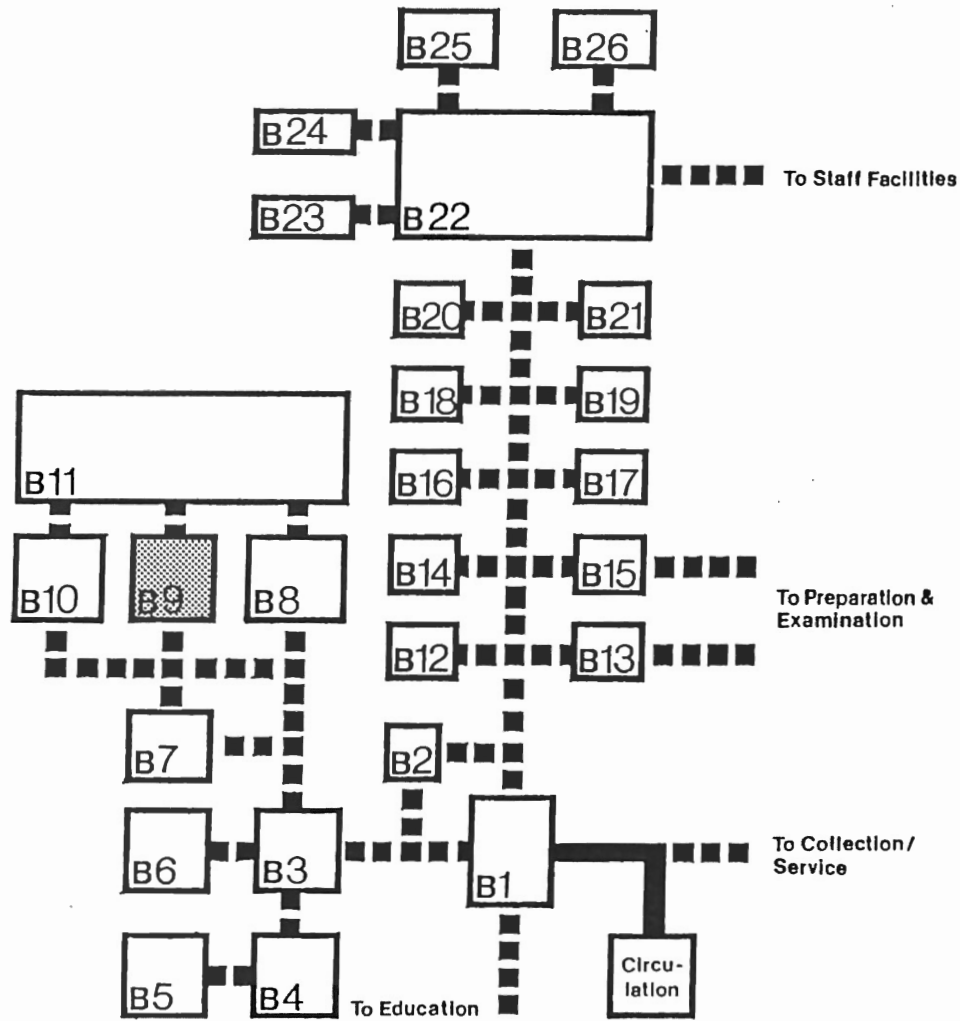


Director's Office

B 8

| | |
|-------------------|--|
| User | Executive Director |
| Activities | Office of Executive Director and small meeting space |
| Area | 250 S.F. 3 |
| Adjacency | Ass. Director's and Supervisor's-Off., Secretary, Conference Room |
| Equipment | Executive Desk Chairs Book Shelves Couch, Side Chairs P.C. Station |
| Finishes | |
| walls | Hard (Painted GWB), Tack Space |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustically Controlled) |
| windows | Tinted, Blind |
| acoustics | Quiet |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General, Fluorescent |
| plumbing | None |
| special | None |

- 1 administrative receptionist
- 2 first aid
- 3 secretary
- 4 catering pantry
- 5 storage
- 6 file room
- 7 toilet
- 8 director's off.
- 9 assistant director's off.
- 10 supervisor's off.
- 11 conference room
- 12 business manager's office
- 13 registrar's off.
- 14 treasurer's off.
- 15 curator's off.
- 16 office manager's office
- 17 stat. & info.'s office
- 18 educator's off. office
- 19 public relation's office
- 20 administration staff's office
- 21 administrator's off.
- 22 staff office
- 23 staff toilet
- 24 catering kitchen
- 25 file room
- 26 storage



Ass. Director's Office

B 9

| | |
|-------------------|--|
| User | Assistant Director |
| Activities | Office of Assistant Director and small meeting space |
| Area | 200 S.F. |
| Adjacency | Director's and Supervisor Office, Conference Room |
| Equipment | Executive Desk Chairs Seating Book Shelves |
| Finishes | |
| walls | Hard (Painted GWB), Tack Space |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustically Controlled) |
| windows | Tinted, Blind |
| acoustics | Quiet |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General, Fluorescent |
| plumbing | None |
| special | None |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

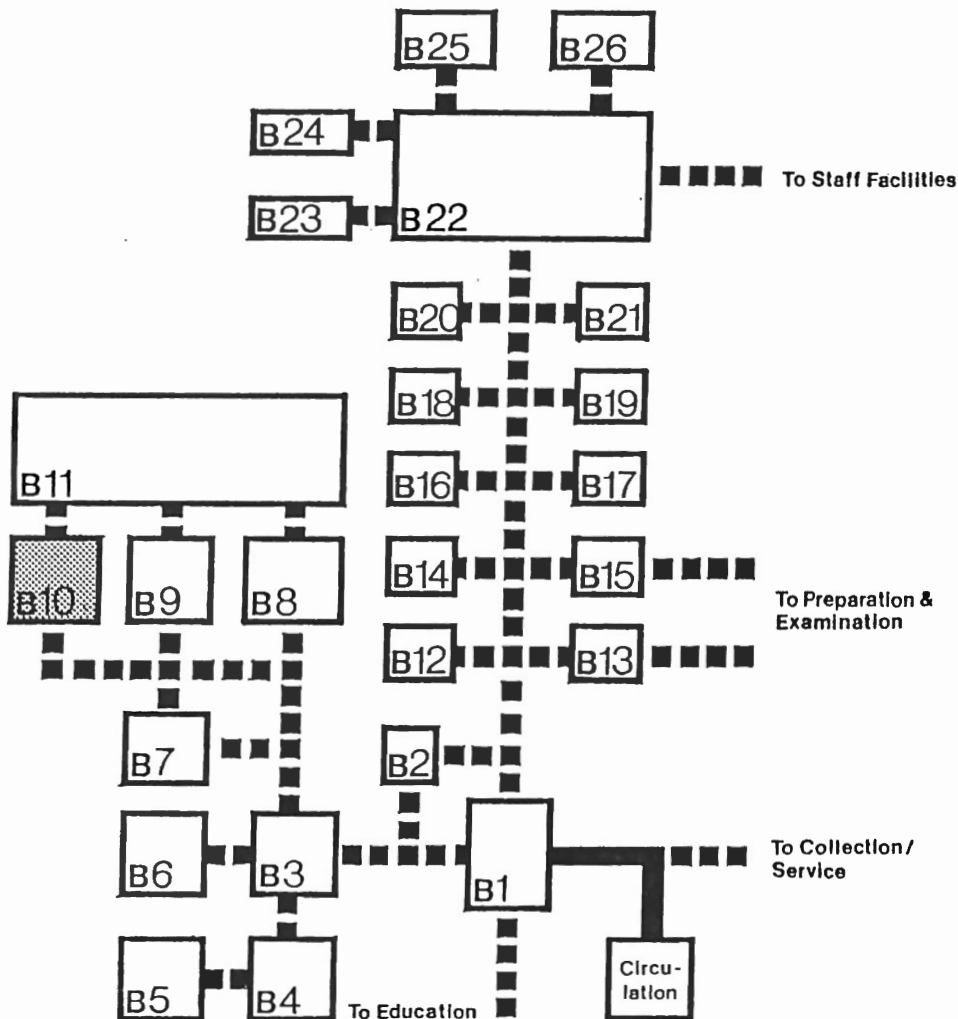
Supervisor

B 10

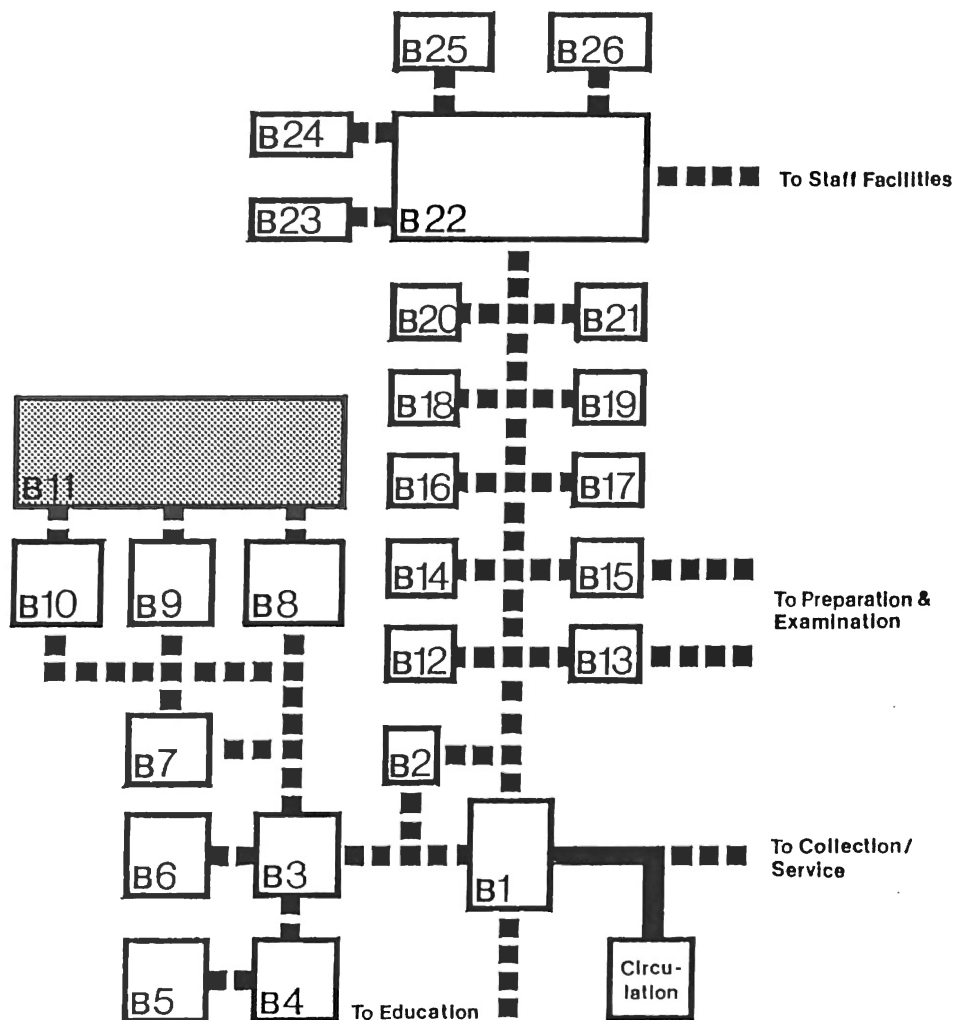
| | |
|-------------------|--|
| User | Supervisor |
| Activities | Office of Supervisor and small meeting space |
| Area | 150 S.F. |
| Adjacency | Director's and Ass. Director's Off., Conference Room |
| Equipment | Executive Desk Chairs Book Shelves Seating |

| | |
|-----------------|--------------------------------|
| Finishes | |
| walls | Hard (Painted GWB), Tack Space |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustically Controlled) |
| windows | Tinted, Blind |
| acoustics | Quiet |
| color | Neutral |

| | |
|----------------|-------------------------------|
| Systems | |
| ac | General |
| lighting | Natural, General, Fluorescent |
| plumbing | None |
| special | None |



- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



Conference Room

B 11

| | |
|-------------------|--|
| User | Administrative Personnel |
| Activities | Provide area for special meeting and general conference |
| Area | 550 S.F. |
| Adjacency | Director's, Ass. Director's, and Supervisor's Office |
| Equipment | Long Conference Table Seating Roll Down Screen Tackable Wall Telephone |
| Finishes | |
| walls | Hard/Soft (Tackable) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustically Controlled) |
| windows | Tinted, Blind |
| acoustics | Quiet |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Indirect Ambient, Task on Table |
| plumbing | None |
| special | Audio/Visual Hookups |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

Business Manager's Office

B 12

User Business Manager

Activities Office of Business Manager and brief meeting occupancy

Area 120 S.F.

Adjacency Registrar's Office

Equipment Desk
Chairs
Shelves
Files

Finishes

walls Hard (Painted GWB)

floor Soft (Carpet)

ceiling Hard (Acoustical Tile)

windows Tinted as necessary

acoustics Soft

color Neutral

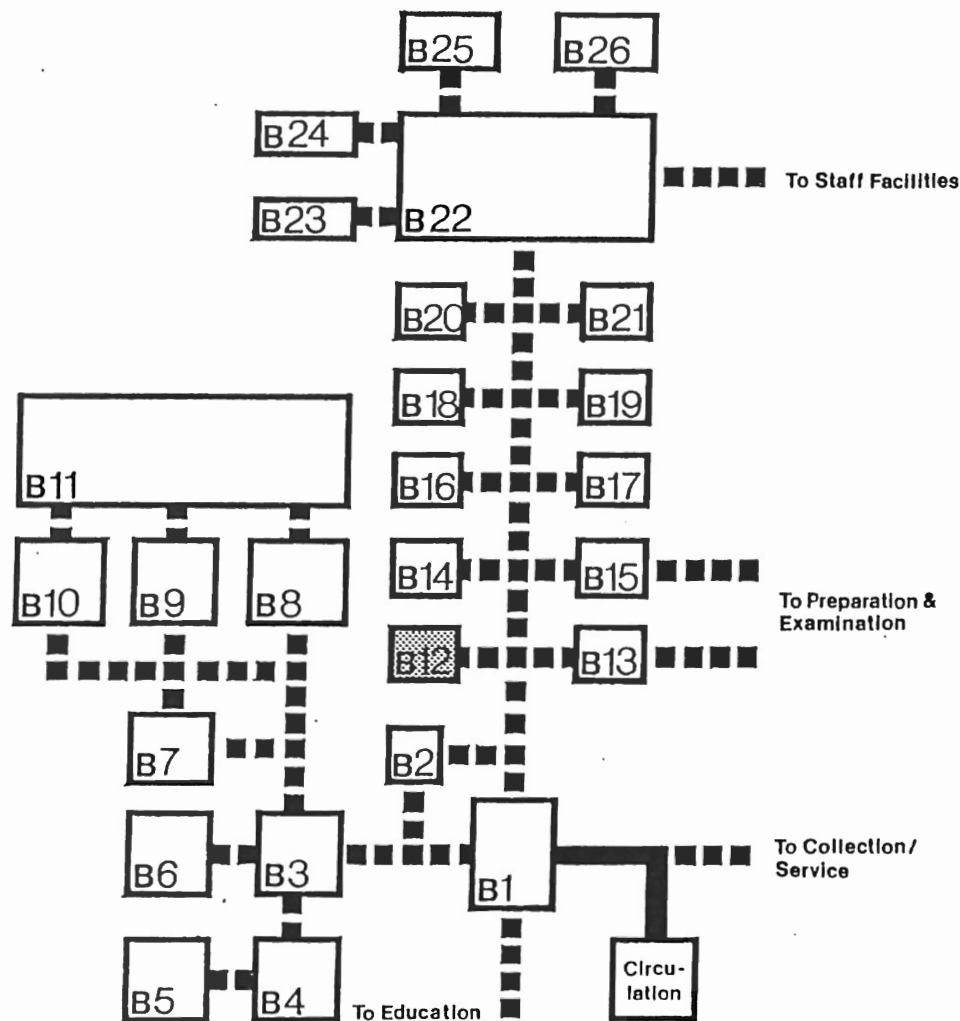
Systems

ac General

lighting Natural, General

plumbing None

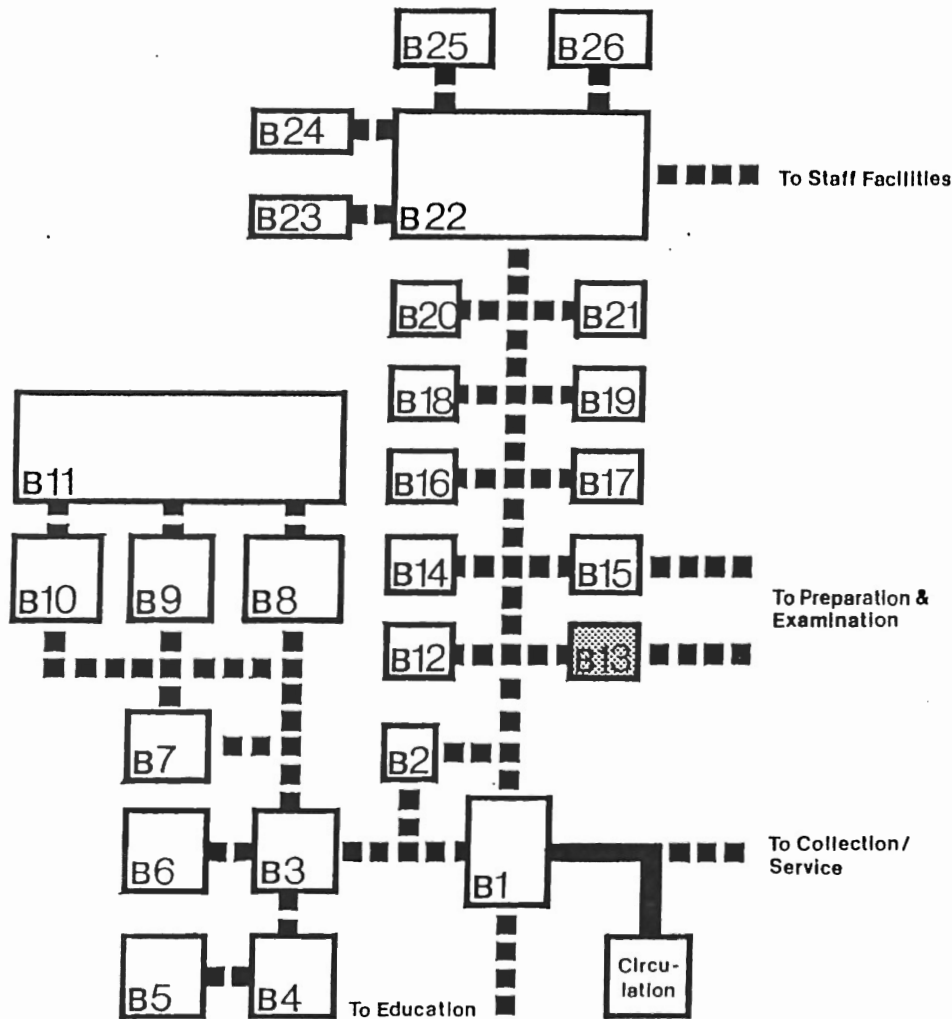
special None



- 1 administrative receptionist
- 2 first aid
- 3 secretary
- 4 catering pantry
- 5 storage
- 6 file room
- 7 toilet
- 8 director's off.
- 9 assistant director's off.
- 10 supervisor's off.
- 11 conference room
- 12 business manager's office
- 13 registrar's off.
- 14 treasurer's off.
- 15 curator's off.
- 16 office manager's office
- 17 stat. & info.'s office
- 18 educator's off.
- 19 public relation's office
- 20 administration staff's office
- 21 administrator's off.
- 22 staff office
- 23 staff toilet
- 24 catering kitchen
- 25 file room
- 26 storage

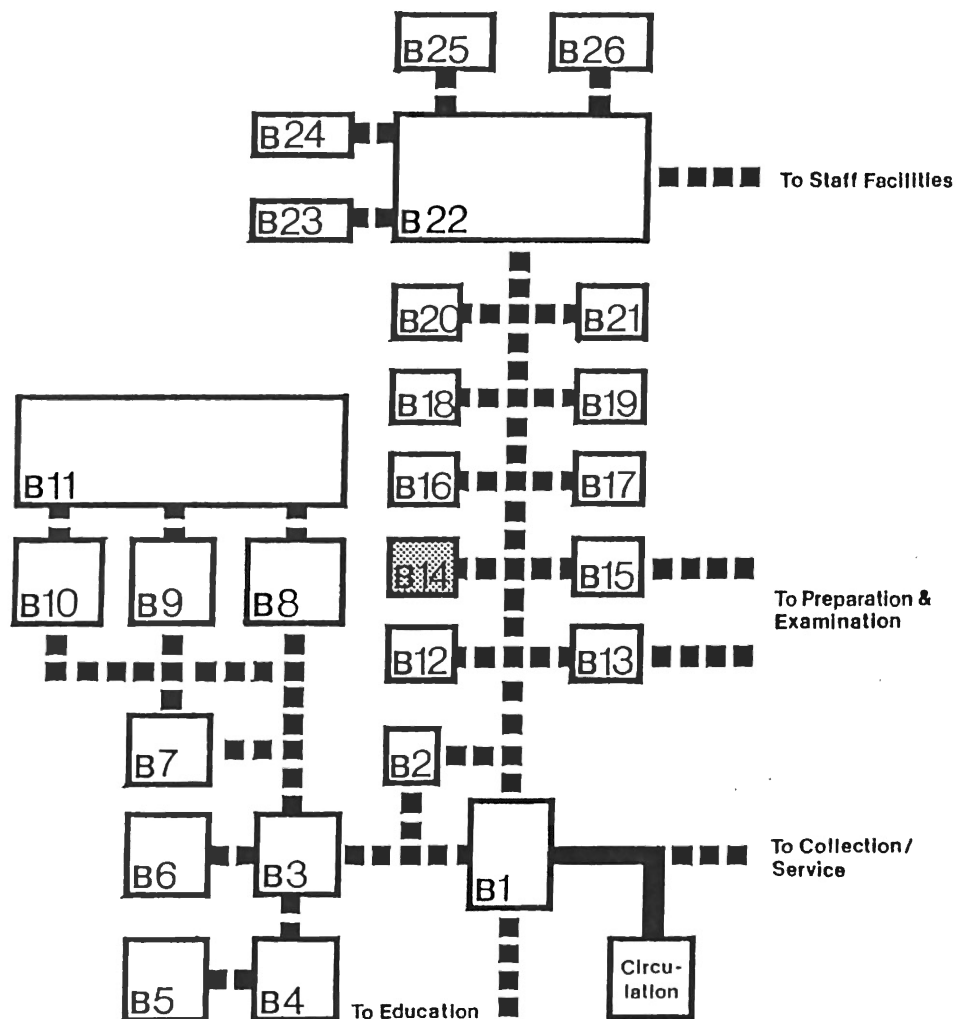
Registrar's Office

B 13



| | |
|-------------------|--|
| User | Registrar |
| Activities | Office of Registrar and small meeting space |
| Area | 120 S.F. |
| Adjacency | Preparation and Examination, Business Manager's Office |
| Equipment | Desk Chairs Shelves Files P.C. Station |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



Treasurer's Office

B 14

| | |
|-------------------|--|
| User | Treasurer |
| Activities | Office of Treasurer |
| Area | 120 S.F. |
| Adjacency | Curator's Office |
| Equipment | Desk Chairs Shelves Files P.C. Station |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

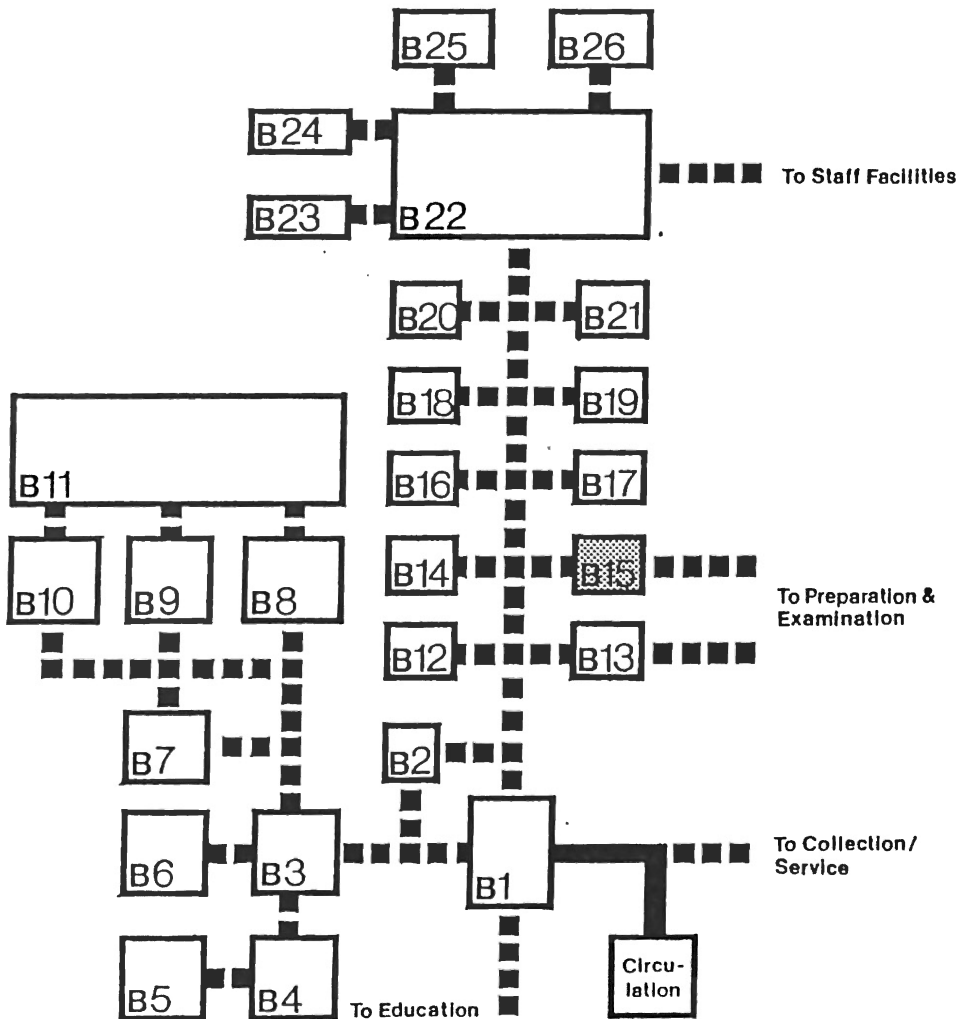
Curator's Office

B 15

| | |
|-------------------|---|
| User | Curator |
| Activities | Office of Curator and small meeting space |
| Area | 120 S.F. |
| Adjacency | Preparation and Examination, Treasurer's Office |
| Equipment | Desk Chairs Shelves Files |

| | |
|------------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |

| | |
|-----------------|------------------|
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |



- 1 administrative receptionist
- 2 first aid
- 3 secretary
- 4 catering pantry
- 5 storage
- 6 file room
- 7 toilet
- 8 director's off.
- 9 assistant director's off.
- 10 supervisor's off.
- 11 conference room
- 12 business manager's office
- 13 registrar's off.
- 14 treasurer's off.
- 15 curator's off.
- 16 office manager's office
- 17 stat. & info.'s office
- 18 educator's off.
- 19 public relation's office
- 20 administration staff's office
- 21 administrator's off.
- 22 staff office
- 23 staff toilet
- 24 catering kitchen
- 25 file room
- 26 storage

Office Manager's Office B 16

User Office Manager

Activities Office of Office Manager and small meeting space

Area 120 S.F.

Adjacency Statistic and Information Director's Office

Equipment Desk
Chairs
Shelves
Files

Finishes

walls Hard (Painted GWB)

floor Soft (Carpet)

ceiling Hard (Acoustical Tile)

windows Tinted as necessary

acoustics Soft

color Neutral

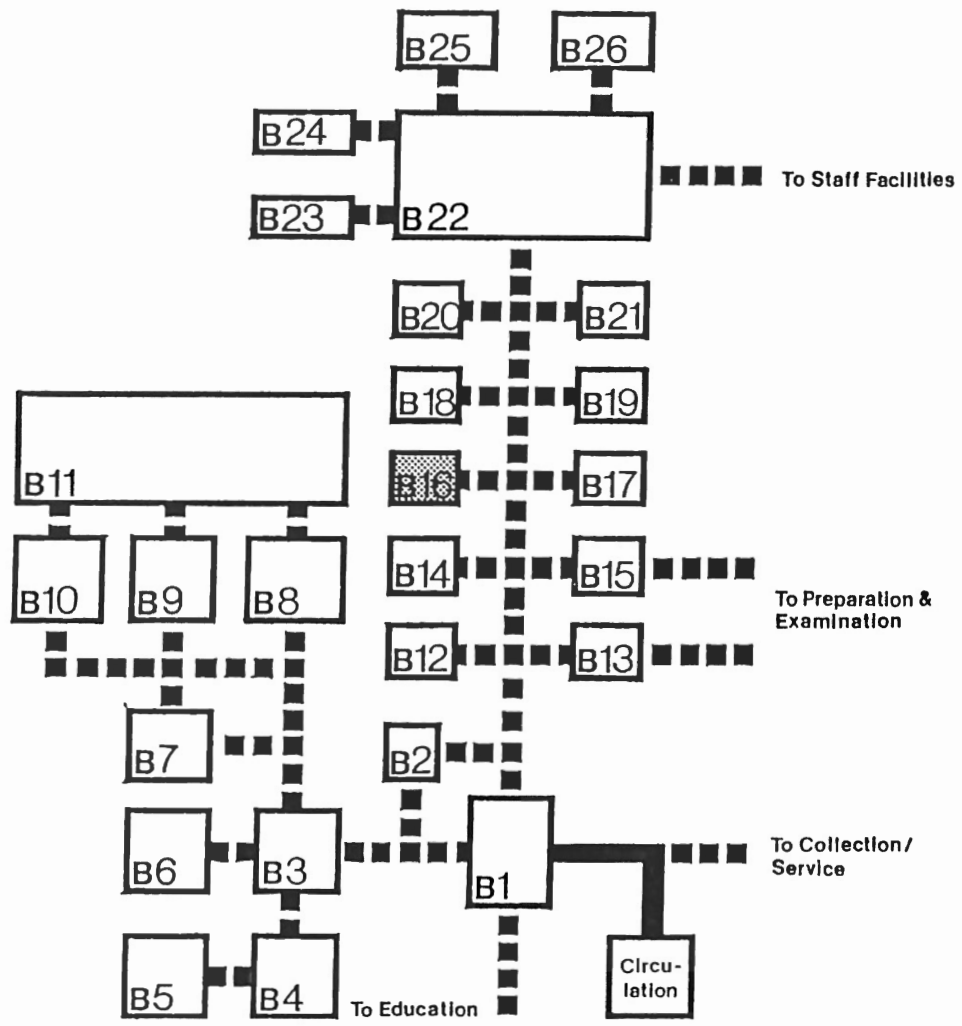
Systems

ac General

lighting Natural, General

plumbing None

special None



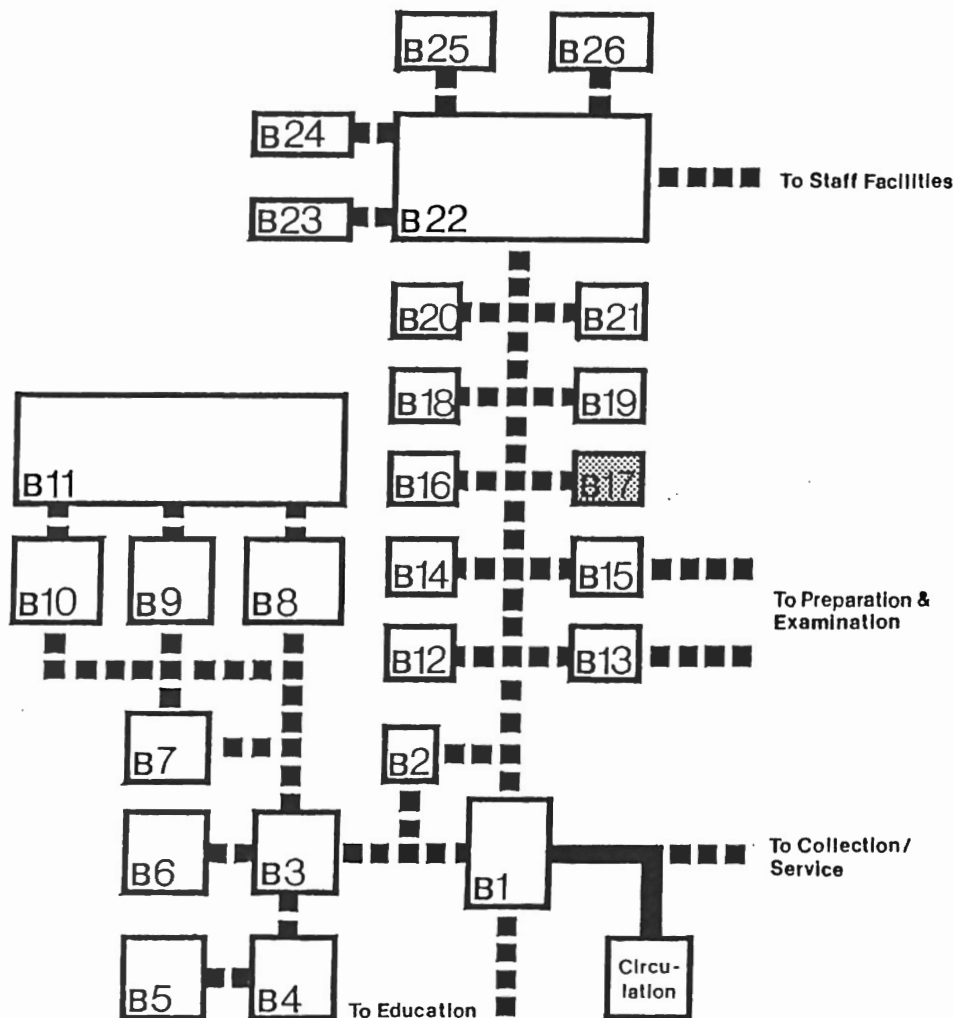
- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

Stat. & Info.'s Office

B 17

| | |
|-------------------|--|
| User | Statistic & Information Director |
| Activities | Office of Statistic and Information Director and small meeting space |
| Area | 120 S.F. |
| Adjacency | Office Manager's Office |
| Equipment | Desk Chairs Shelves Files P.C. Station |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |



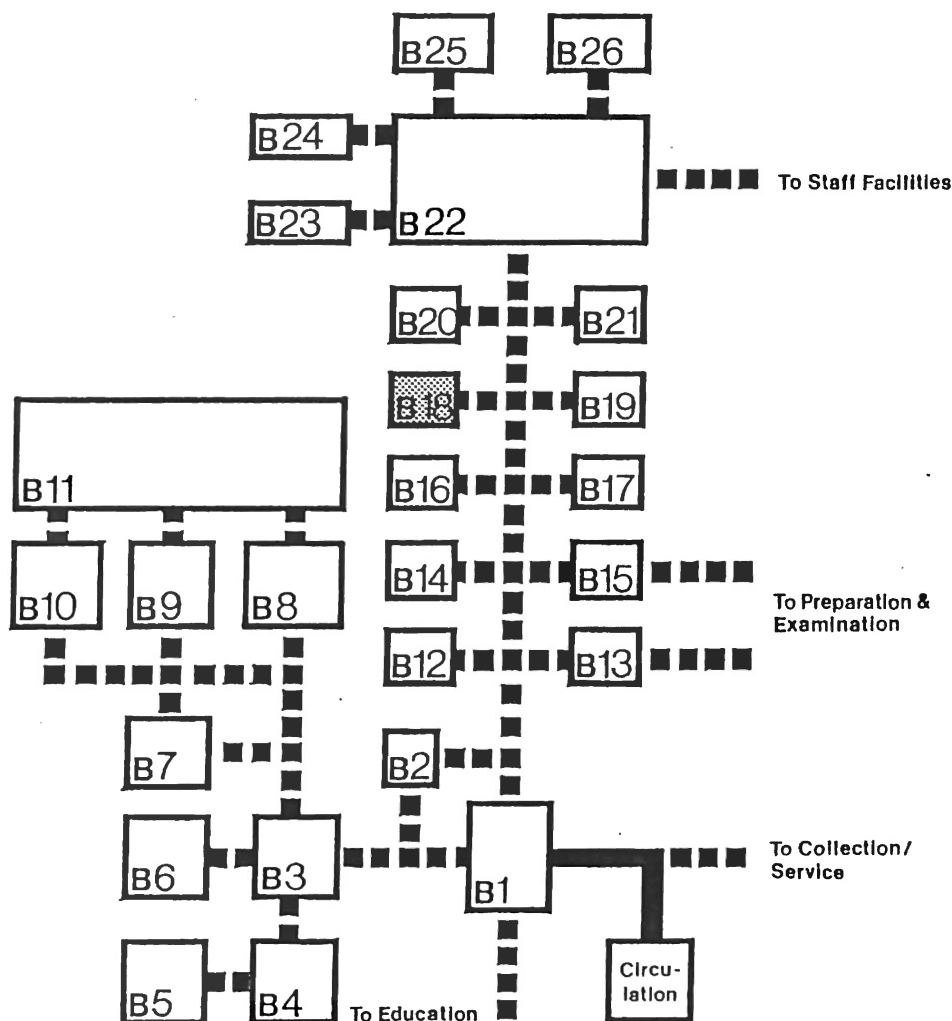
- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

Educator's Office

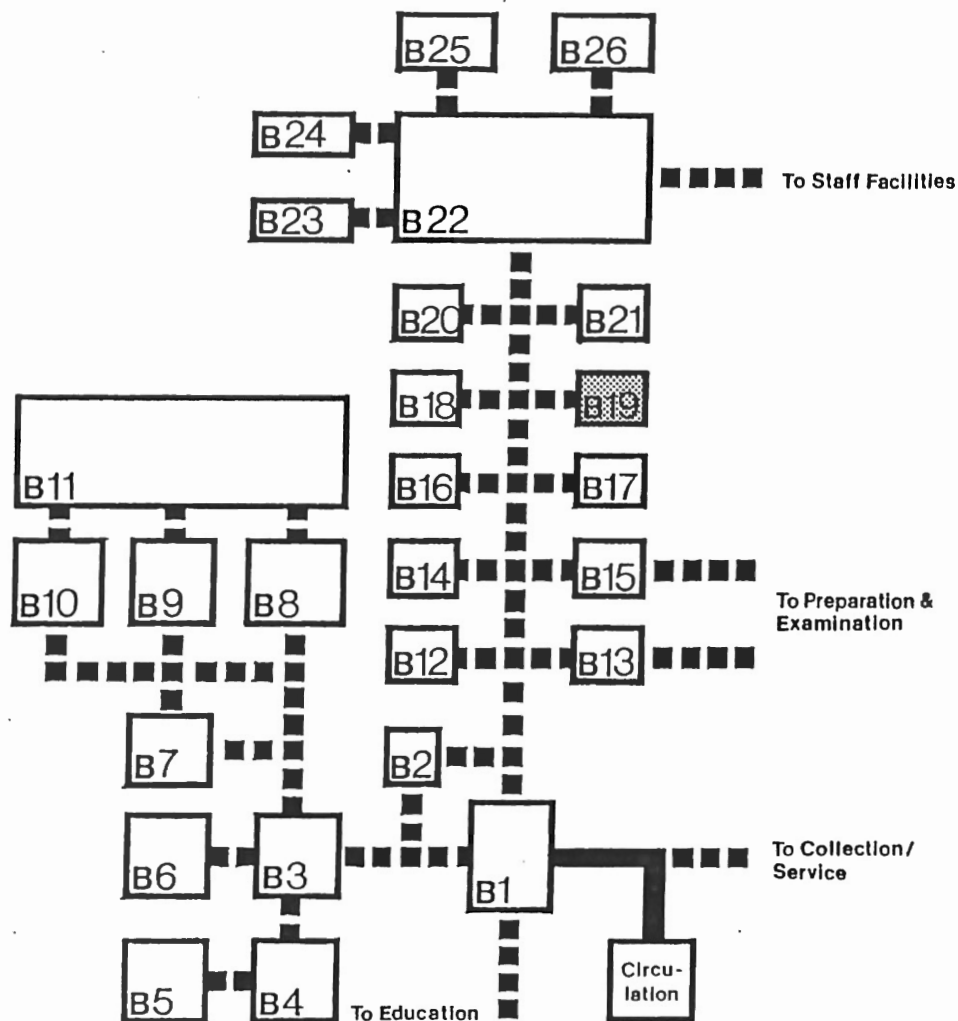
B 18

| | |
|-------------------|--|
| User | Educator |
| Activities | Office of Educator and small meeting space |
| Area | 120 S.F. |
| Adjacency | Public Relation's Office |
| Equipment | Desk Chairs Shelves Files |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |



- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

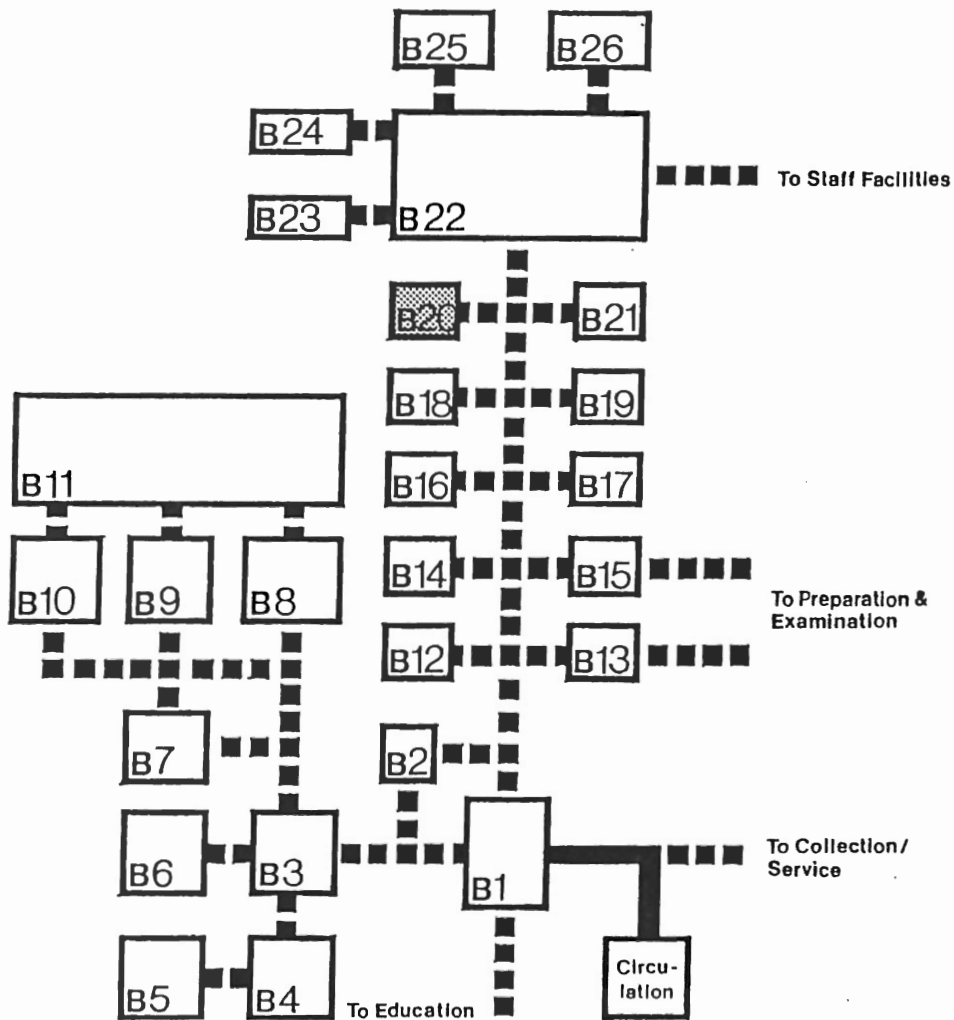


Public Relation's Office

B 19

| | |
|-------------------|--|
| User | Public Relations Staff |
| Activities | Office of Public Relations and brief meeting occupancy |
| Area | 120 S.F. |
| Adjacency | Educator's Office |
| Equipment | Desk Chairs Shelves Files Large Work Table |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



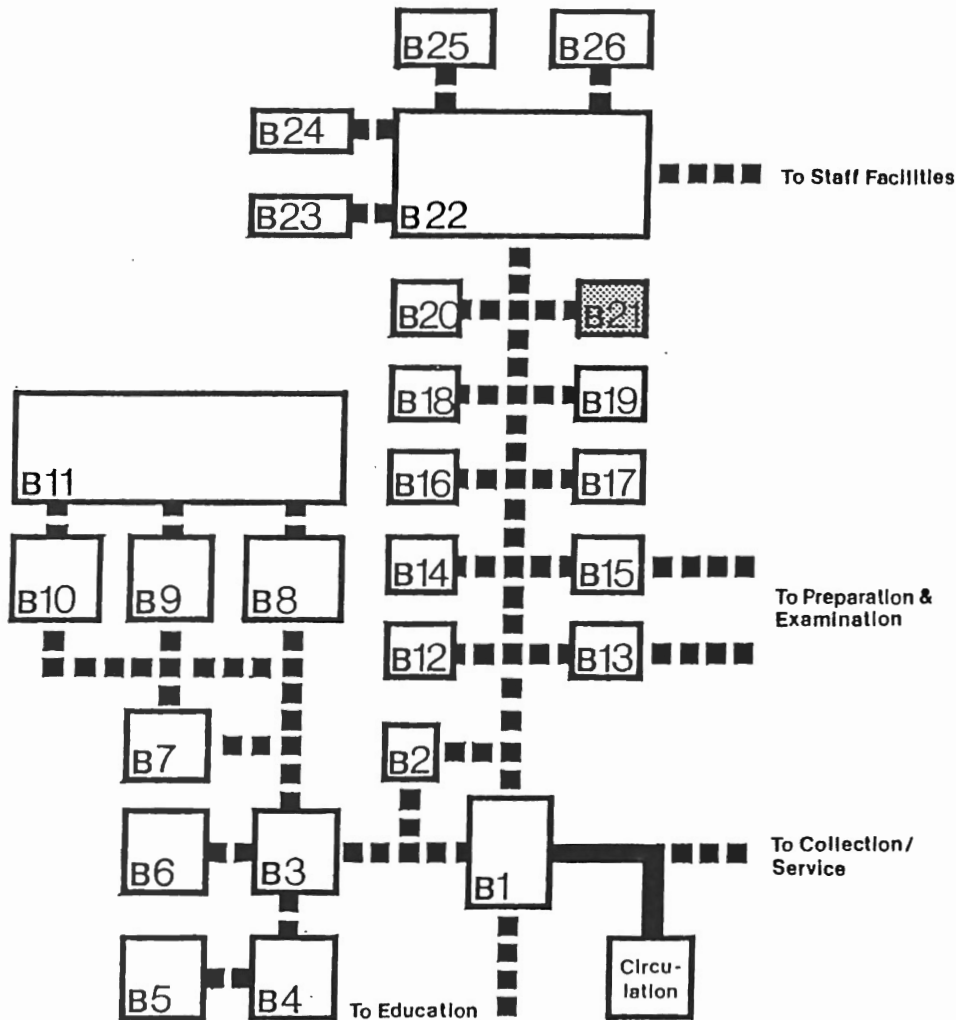
Administration Staff Office B 20

| | |
|-------------------|--|
| User | Administration Staff |
| Activities | Office of Administration Staff |
| Area | 120 S.F. |
| Adjacency | Administrator's Office |
| Equipment | Desk Chairs Shelves Files P.C. Station |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | Data Base Hookups |

Administrator's Office

B 21

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

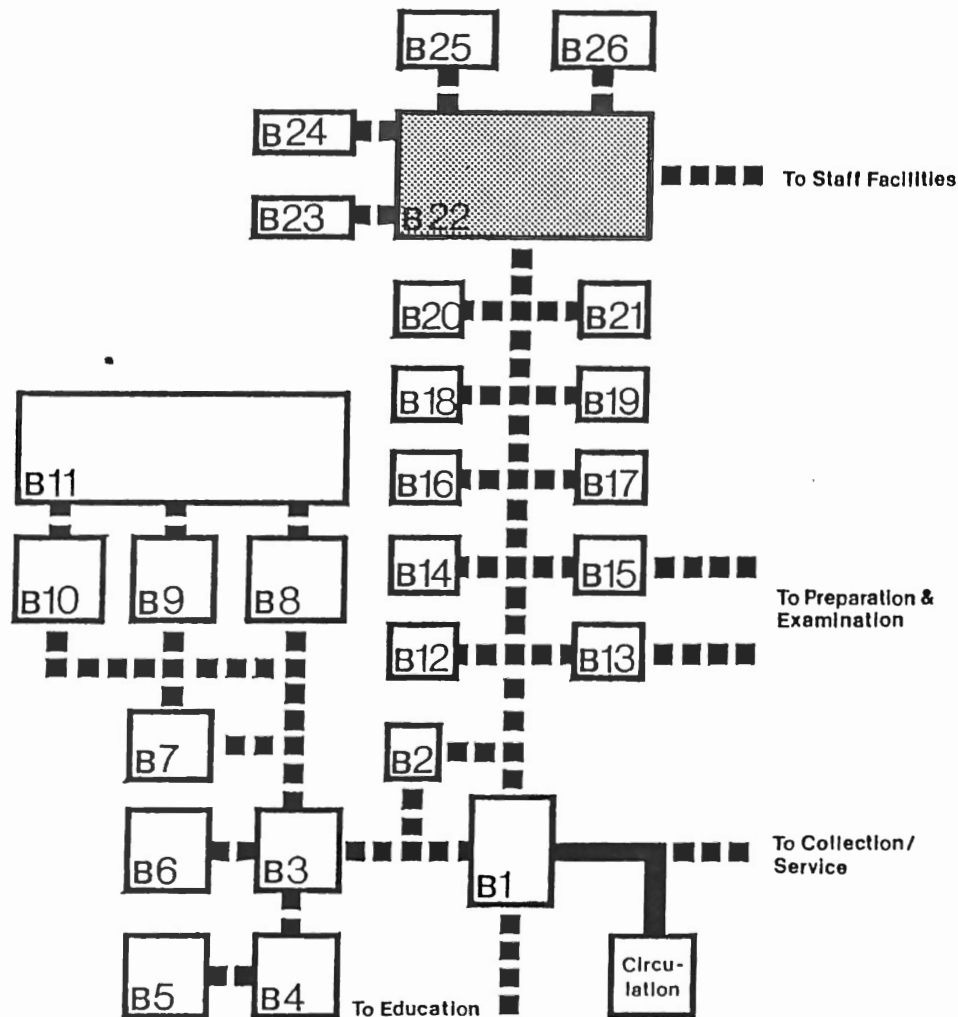


| | |
|-------------------|---|
| User | Administrator |
| Activities | Office of Administrator and small meeting space |
| Area | 120 S.F. |
| Adjacency | Administration Staff Office, Staff Office |
| Equipment | Desk Chairs Shelves Files |

| | |
|------------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |

| | |
|-----------------|------------------|
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



Staff Office

B 22

User Administrative Personnel

Activities Provide open office work space for administrative personnel

Area 1,000 S.F.

Adjacency Toilet, Catering Kitchen, File Room, Storage

Equipment Desks
Chairs
Shelves
Files

Finishes

walls Hard (Painted GWB)

floor Soft (Carpet)

ceiling Hard (Acoustical Tile)

windows Tinted as necessary

acoustics Soft

color Neutral

Systems

ac General

lighting Natural, General

plumbing None

special None

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

Staff Office

B 23

User Staff

Activities Staff Toilet Facilities

Area 200 S.F.

Adjacency Staff Office

Equipment Typical

Finishes

walls Hard (Tile/GWB)

floor Hard (Tile)

ceiling Hard (Moisture Proof)

windows As necessary

acoustics Hard

color Neutral

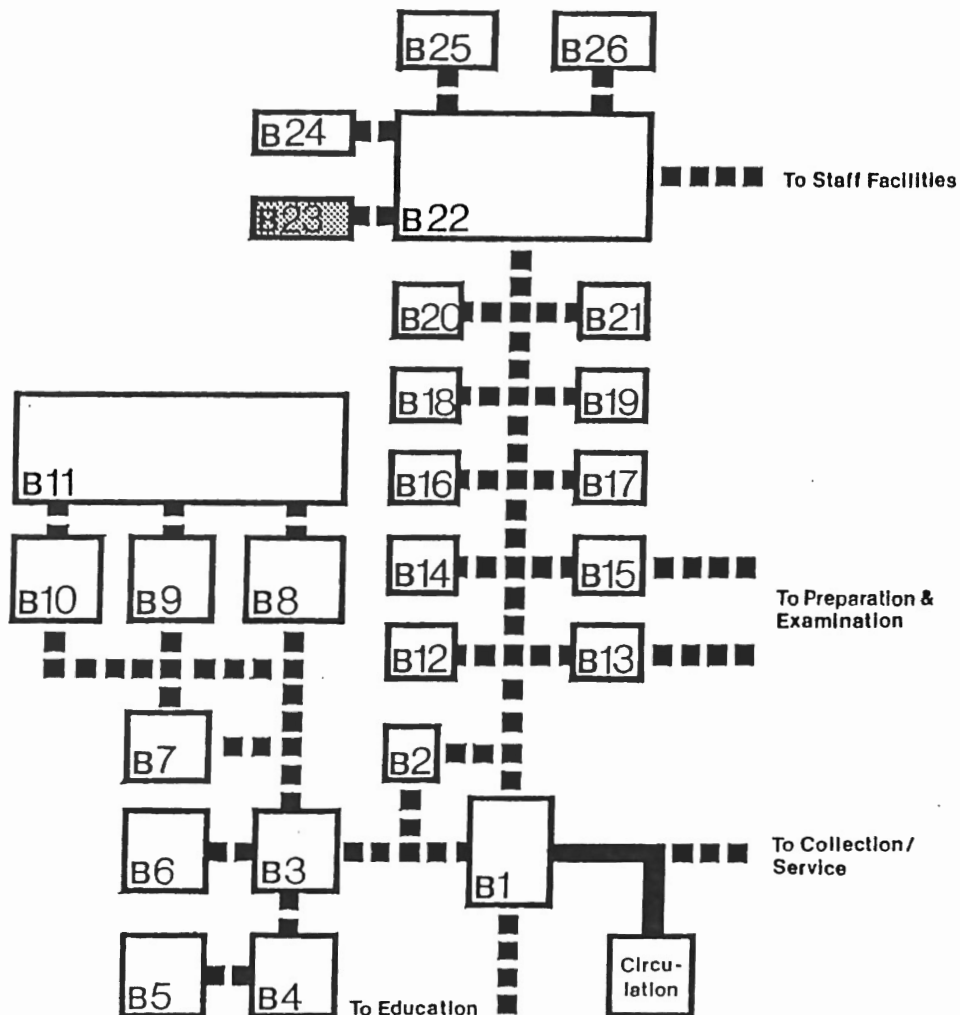
Systems

ac General

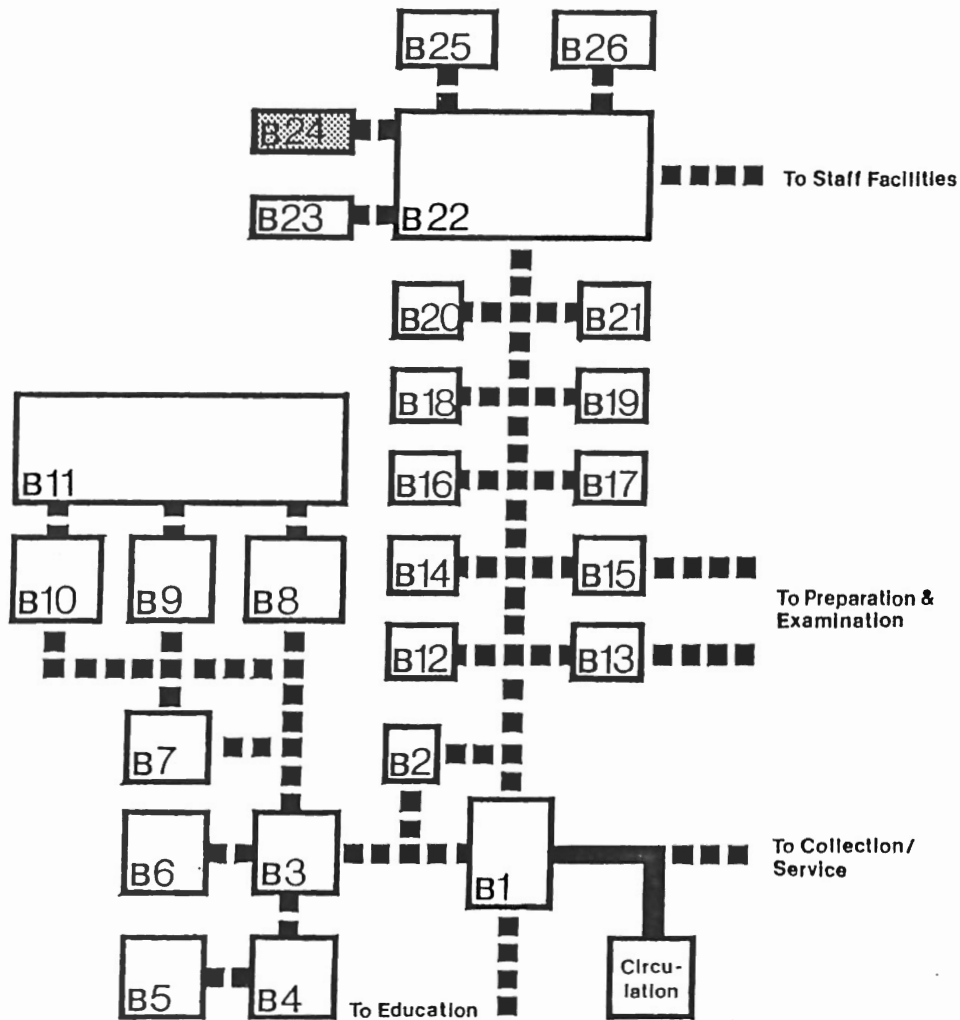
lighting Natural, General

plumbing Cold, Sewer

special Fume Removal



- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



Catering Kitchen

B 24

User Staff

Activities Food Preparation, Coffee Bar

Area 100 S.F.

Adjacency Staff Office

Equipment Serving Counter
Preparation Counters
Convention/Microwave Oven
Coffee Machines
Refrigerator

Finishes

walls Hard (Painted GWB, Moisture Proof)

floor Hard (Tile)

ceiling Hard (GWB, Moisture Proof)

windows None

acoustics Soft

color Neutral

Systems

ac General

lighting General

plumbing Cold, Sewer

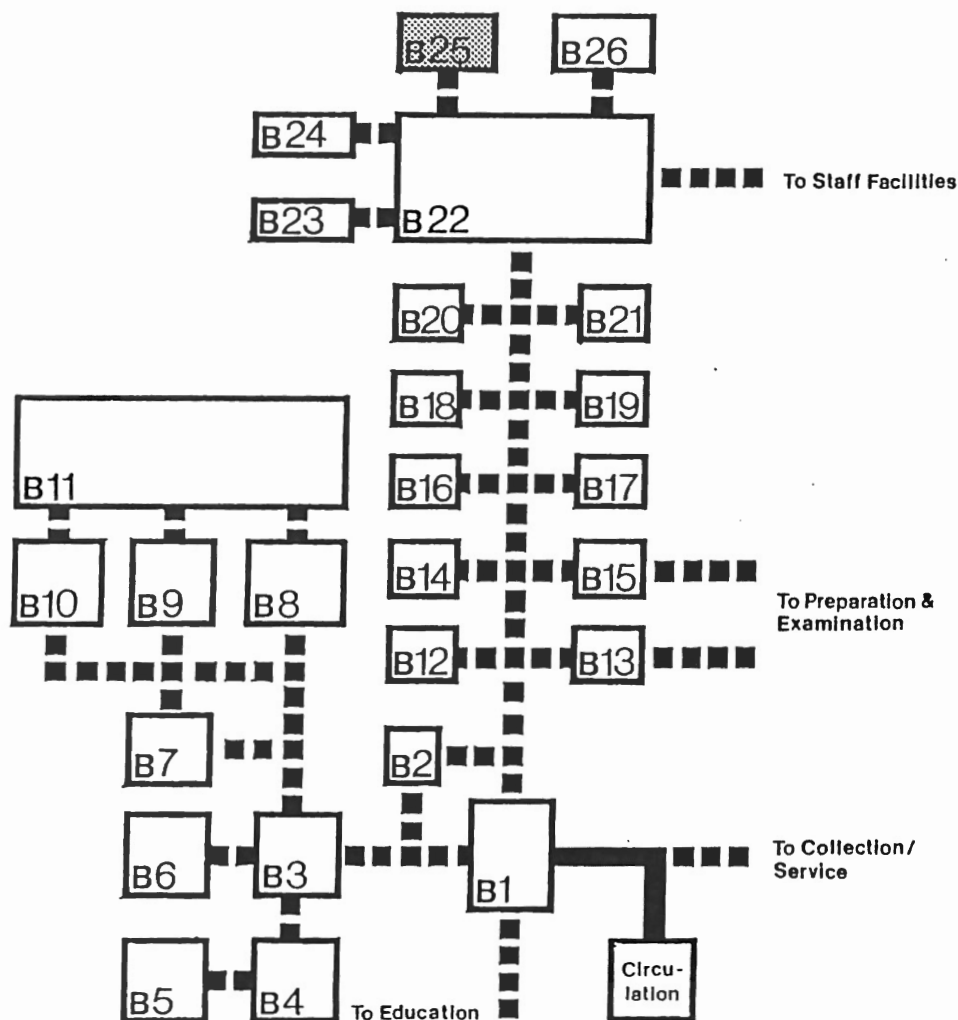
special Fume Removal

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |

File Room

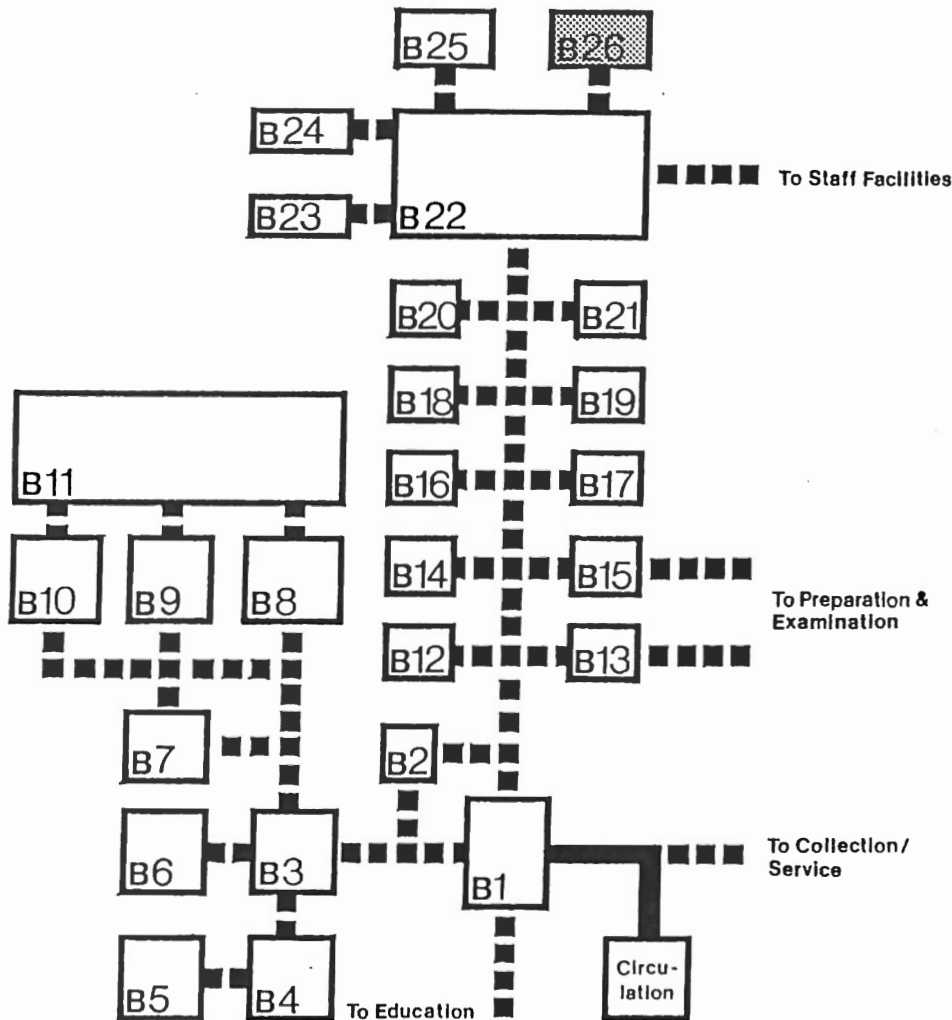
B 25

| | |
|-------------------|--|
| User | Staff |
| Activities | Provide Important Files Storage, Copy Machine |
| Area | 250 S.F. |
| Adjacency | Staff Office, Storage |
| Equipment | Shelves/Storage Files Copy Machine |



| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | None |

- | | | | |
|-------------------------------|------------------------------|----------------------------------|-------------------------|
| 1 administrative receptionist | 9 assistant director's off. | 16 office manager's office | 21 administrator's off. |
| 2 first aid | 10 supervisor's off. | 17 stat. & info.'s office | 22 staff office |
| 3 secretary | 11 conference room | 18 educator's off. | 23 staff toilet |
| 4 catering pantry | 12 business manager's office | 19 public relation's office | 24 catering kitchen |
| 5 storage | 13 registrar's off. | 20 administration staff's office | 25 file room |
| 6 file room | 14 treasurer's off. | | 26 storage |
| 7 toilet | 15 curator's off. | | |
| 8 director's off. | | | |



Storage

B 26

User Staff

Activities Store office equipment needed

Area 380 S.F.

Adjacency File Room, Staff Office

Equipment Large Shelving
Cabinet Storage

Finishes

walls Hard (Painted GWB)

floor Hard (Tile)

ceiling Hard (Acoustical Tile)

windows None

acoustics Soft

color Neutral

Systems

ac None

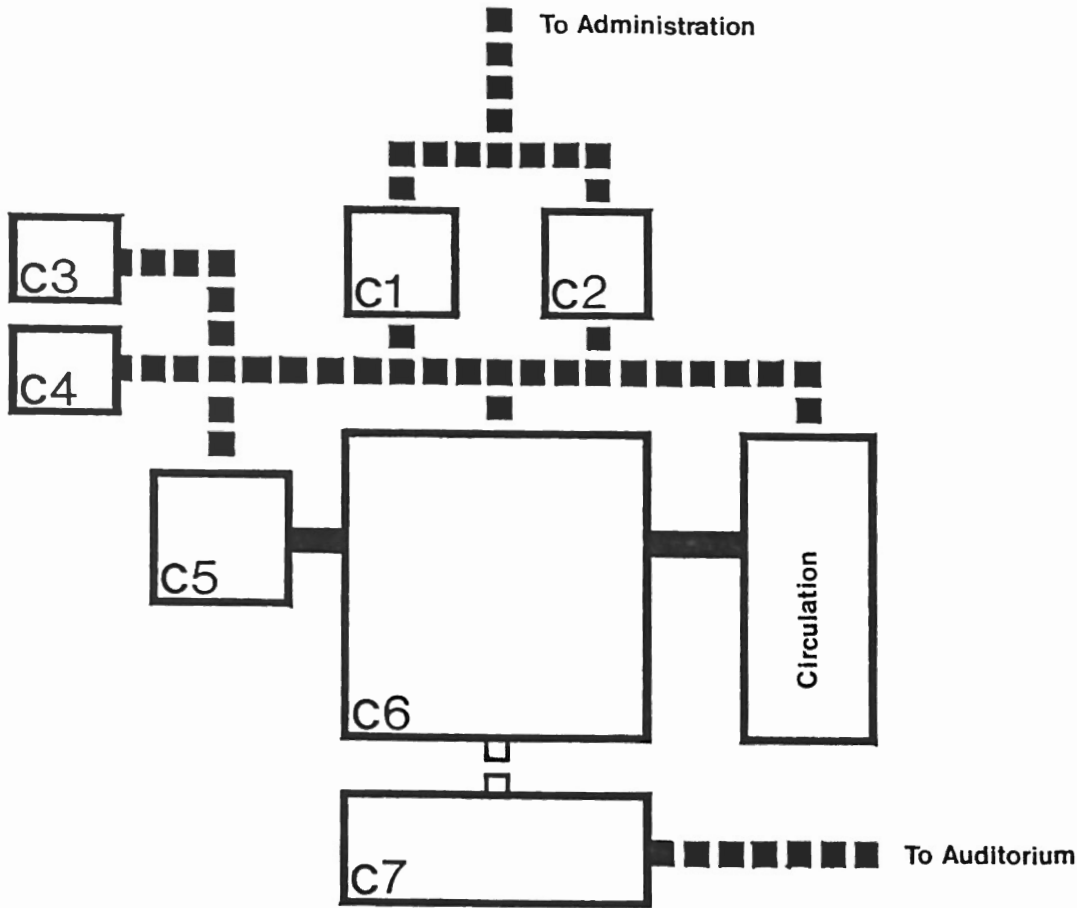
lighting General

plumbing None

special None

Education

C



| | | | |
|-----|---------------------------|-------|------|
| C 1 | EDUCATION STAFF OFFICE | 100 | S.F. |
| C 2 | BOOKKEEPER'S OFFICE | 120 | S.F. |
| C 3 | STORAGE | 120 | S.F. |
| C 4 | FILE ROOM | 150 | S.F. |
| C 5 | TOILET | 250 | S.F. |
| C 6 | LIBRARY | 1,500 | S.F. |
| C 7 | AUDIO AND VISUAL ARCHIVES | 500 | S.F. |

2,740 S.F.
NET AREA

Legend

- Public
- Staff
- Staff/Service
- Service

- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives

Education Staff Office

C 1

User Education Staff
Activities Office of Education Staff

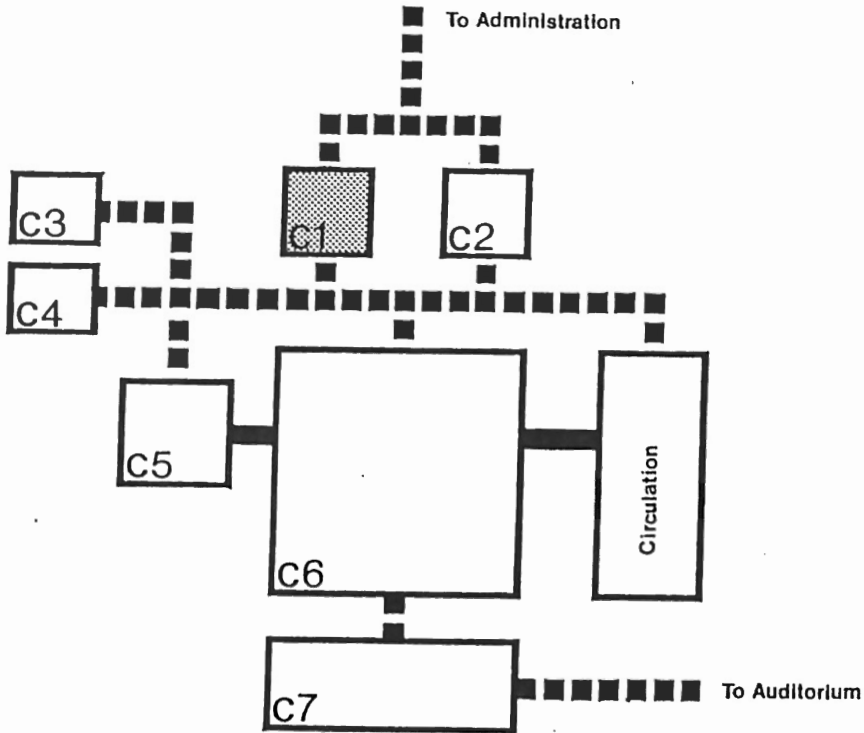
Area 100 S.F.

Adjacency Bookkeeper's Office, Library

Equipment Desk
 Chairs
 Shelves
 Files

Finishes
walls Hard (Painted GWB)
floor Soft (Carpet)
ceiling Hard (Acoustical Tile)
windows Tinted as necessary
acoustics Soft
color Neutral

Systems
ac General
lighting Natural, General
plumbing None
special None



- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives

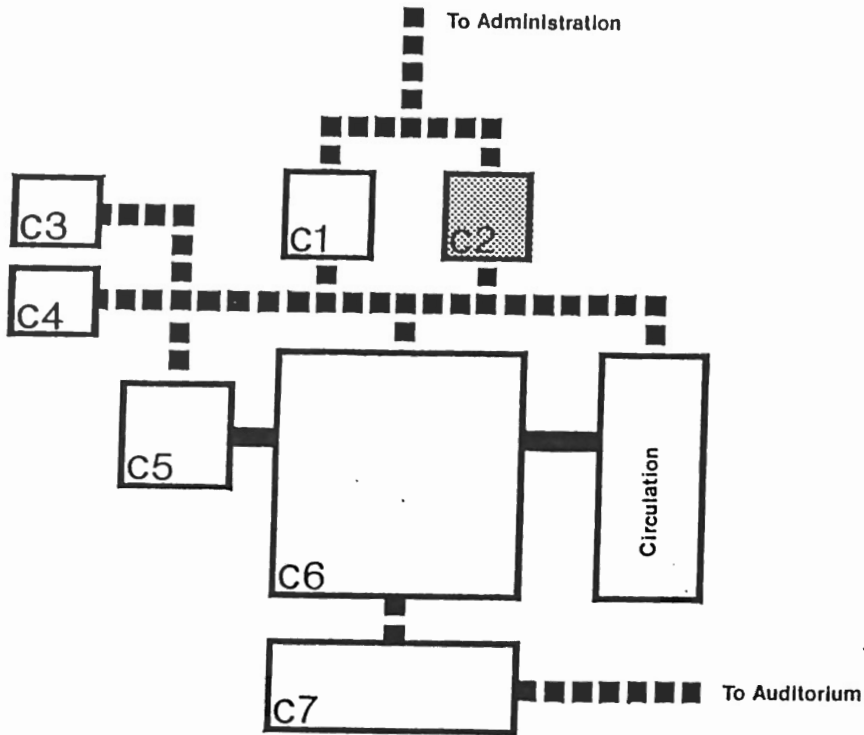
Bookkeeper's Office

C 2

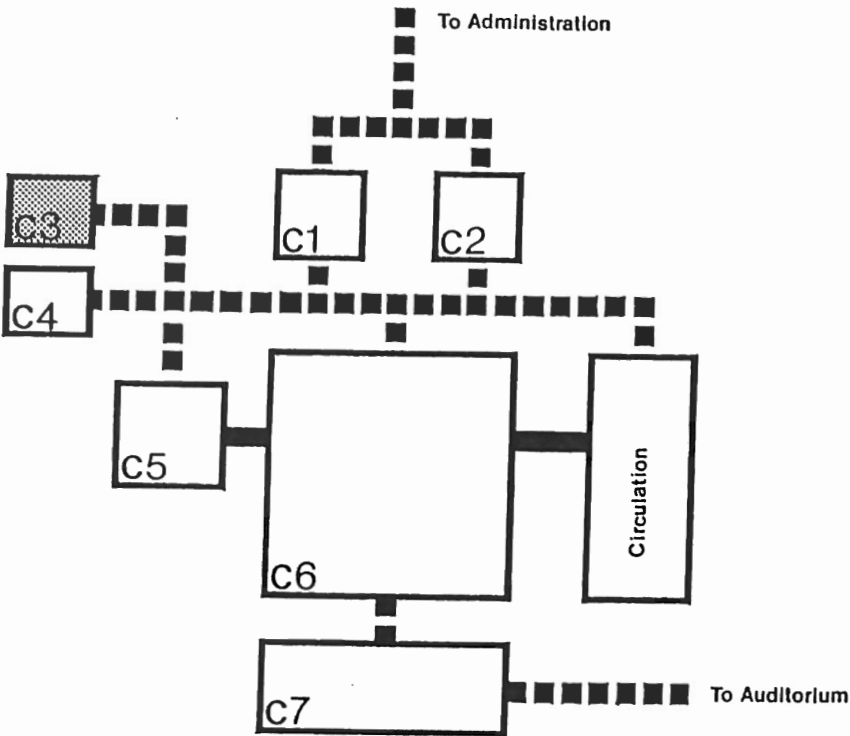
| | |
|-------------------|--|
| User | Bookkeeper and Staff |
| Activities | Office of Bookkeeper , Library Operations |
| Area | 120 S.F. |
| Adjacency | Library, Education Staff Office |
| Equipment | Executive Desk Staff Desk Electronic Cataloging Shelves Wall Files |

| | |
|------------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |

| | |
|-----------------|------------------|
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |



- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives



Storage

C 3

| | |
|-------------------|-----------------------------------|
| User | Staff |
| Activities | Store equipment needed for Office |
| Area | 120 S.F. |
| Adjacency | File Room, Education Staff |
| Equipment | Large Shelving Cabinet Storage |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |

| | |
|----------------|---------|
| Systems | |
| ac | None |
| lighting | General |
| plumbing | None |
| special | None |

- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives

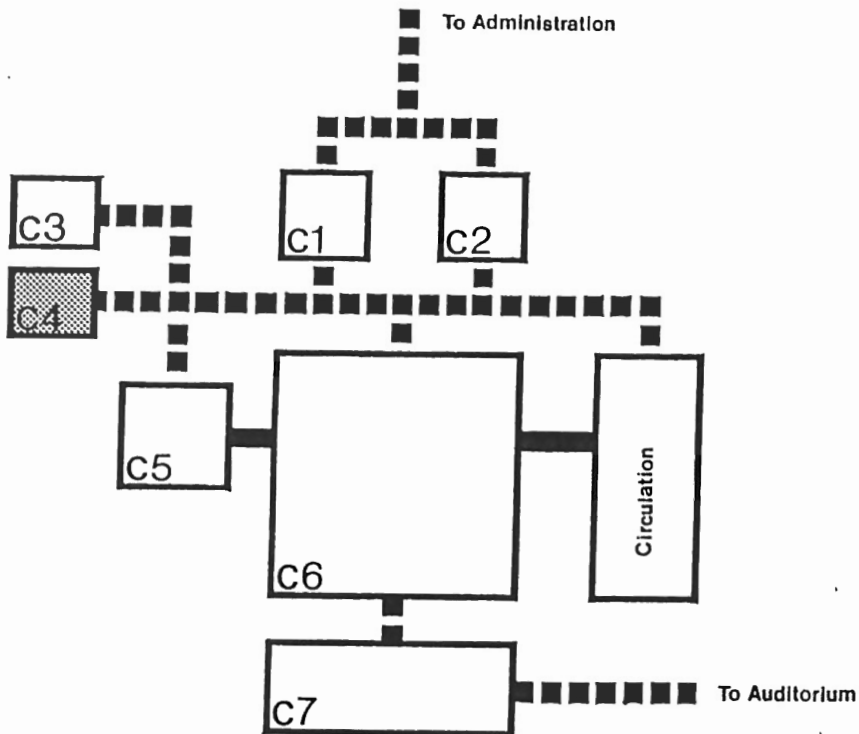
File Room

C 4

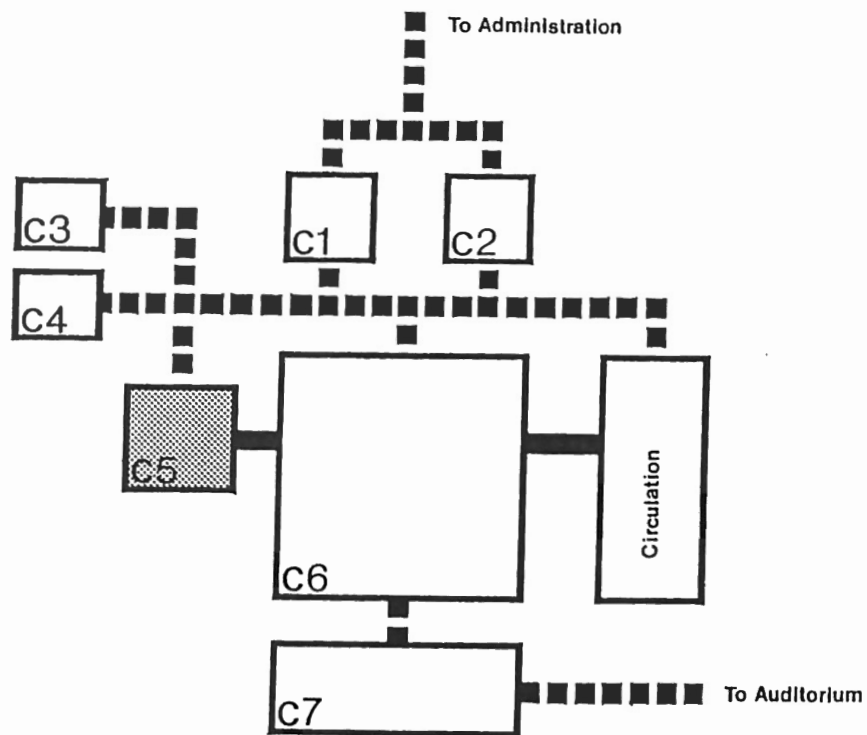
| | |
|-------------------|--|
| User | Staff |
| Activities | Provide Important Files Storage |
| Area | 150 S.F. |
| Adjacency | Storage, Education Staff's Off. |
| Equipment | Shelves/Storages Files Desk Chair |

| | |
|------------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |

| | |
|-----------------|---------|
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | None |



- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives



Toilet

C 5

User Staff, Public Visitors

Activities Toilet Facilities

Area 250 S.F.

Adjacency Library, Staff Office

Equipment Typical

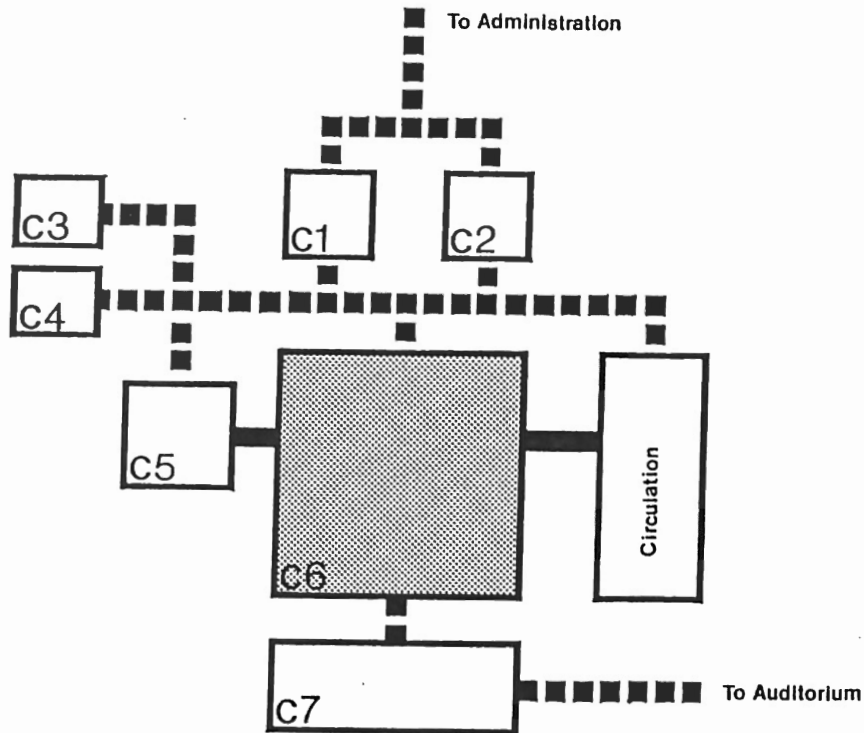
Finishes

walls Hard (Tile/GWB)
floor Hard (Tile)
ceiling Hard (Moisture Proof)
windows As necessary
acoustics Soft
color Neutral

Systems

ac General
lighting General
plumbing Cold, Sewer
special None

- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives

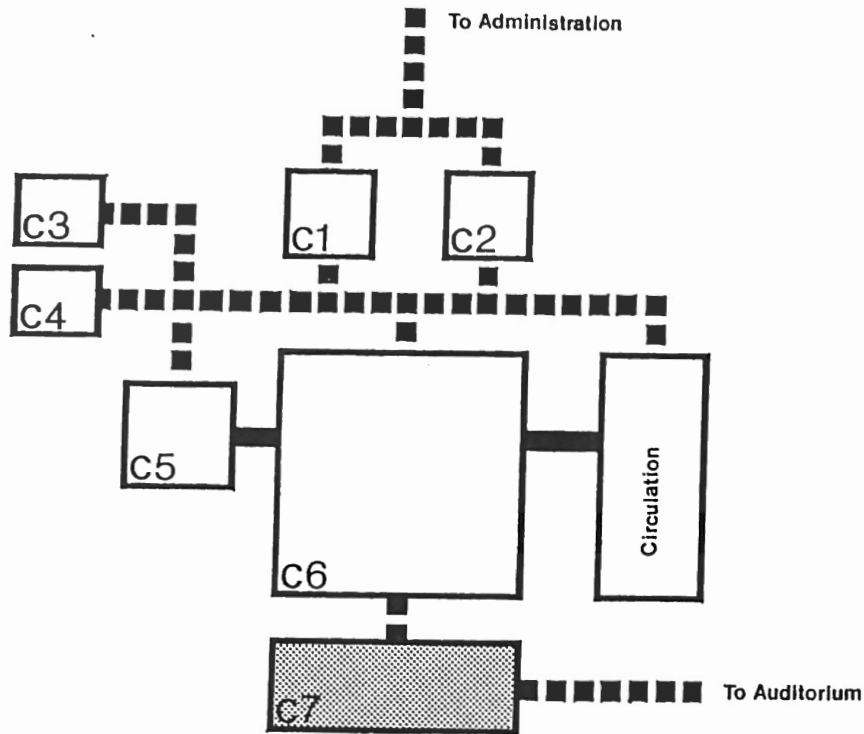


Library

C 6

| | |
|-------------------|--|
| User | Staff, Public Visitors |
| Activities | Provide storage/reference for books, periodicals, reports |
| Area | 1,500 S.F. |
| Adjacency | Bookkeeper's Office, Toilet |
| Equipment | Book Shelves Tables and Chairs Light Table Copy Machine Reference Table Microfilm Machine |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Quiet |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- 1 education staff's office
- 2 bookkeeper's office
- 3 storage
- 4 file room
- 5 toilet
- 6 library
- 7 audio & visual archives



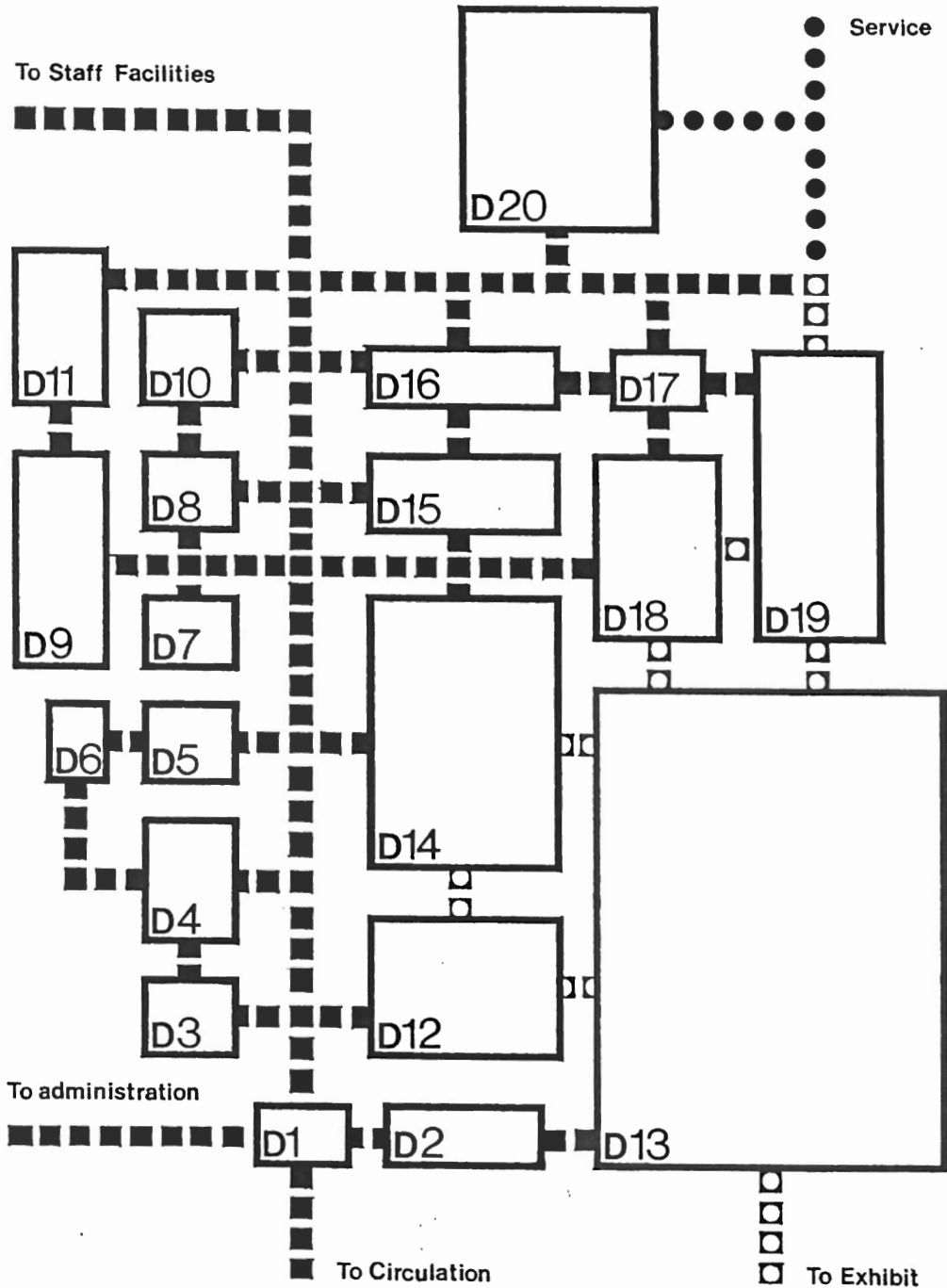
A/V Archives

C 7

| | |
|-------------------|--|
| User | Authorized Personnel |
| Activities | Store audio/visual equipments needed for auditorium & lecture |
| Area | 500 S.F. |
| Adjacency | Library, Auditorium, Lecture Rm. |
| Equipment | Slide Cataloging System Video Cassette Cataloging Film Cataloging Reference Desk Shelves |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustic Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | Climate Control System |

Collection / Service

D



| | | | |
|-----|------------------------------|--------|------|
| D 1 | CONTROL | 100 | S.F. |
| D 2 | SECURITY OFFICE | 150 | S.F. |
| D 3 | EXHIBITION DESIGNER'S STUDIO | 150 | S.F. |
| D 4 | ARTIST'S STUDIO | 650 | S.F. |
| D 5 | PHOTOGRAPHY STUDIO | 300 | S.F. |
| D 6 | DARK ROOM | 120 | S.F. |
| D 7 | BLUE PRINT ROOM | 150 | S.F. |
| D 8 | FOREMAN'S OFFICE | 120 | S.F. |
| D 9 | ELECTRICIAN'S OFFICE | 920 | S.F. |
| D10 | TOILET | 160 | S.F. |
| D11 | STORAGE | 250 | S.F. |
| D12 | DISPLAY SHOP | 1,000 | S.F. |
| D13 | EXHIBIT STORAGE | 22,500 | S.F. |
| D14 | WORKSHOP AND STORAGE | 2,400 | S.F. |
| D15 | SMALL MAINTENANCE WORKSHOP | 500 | S.F. |
| D16 | LOCKER ROOM | 200 | S.F. |
| D17 | REGISTER OFFICE | 150 | S.F. |
| D18 | PREPARATION AND EXAMINATION | 500 | S.F. |
| D19 | LOADING DOCK | 1,000 | S.F. |
| D20 | MECHANICAL | 2,200 | S.F. |

Legend

- Public
- Staff
- Staff/Service
- Service

33,520 S.F.

NET AREA

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

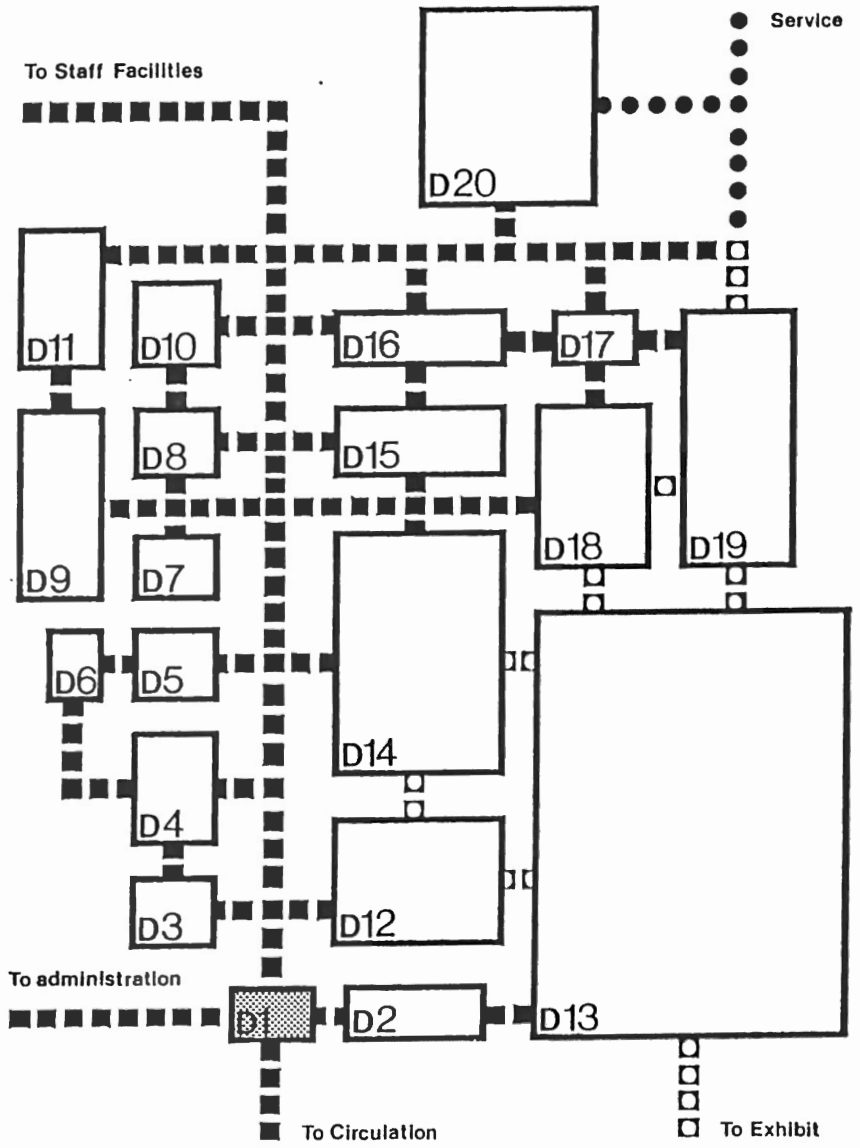
Control

D 1

| | |
|-------------------|---------------------------------------|
| User | Staff |
| Activities | Public Access Control |
| Area | 100 S.F. |
| Adjacency | Security |
| Equipment | Desk Chair Telephone Seating |

| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |

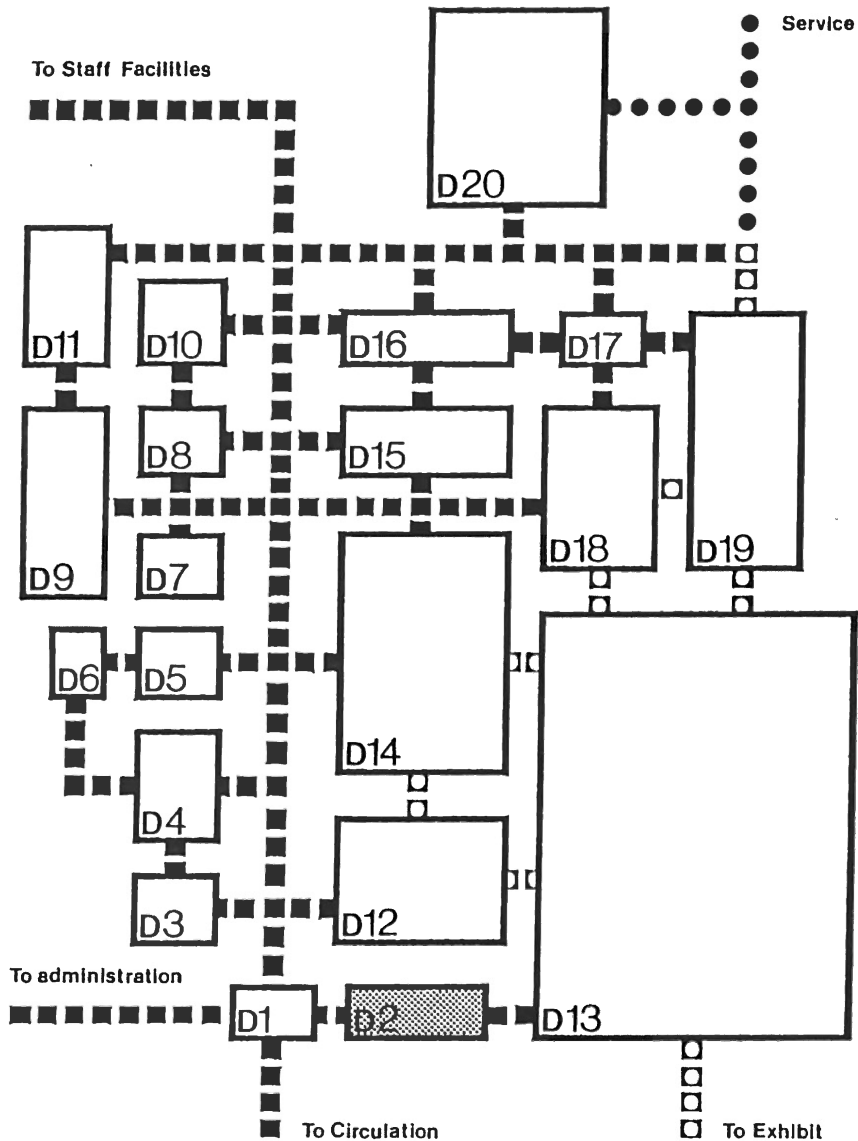
| | |
|----------------|--------------|
| Systems | |
| ac | General |
| lighting | General |
| plumbing | None |
| special | Sound System |



- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Security Office

D. 2



User 24 Hour Security Personnel

Activities To monitor security systems, entry, loading dock, Office of the Chief of security and guard

Area 150 S.F.

Adjacency Exhibit Area, Exhibit Storage

Equipment Security System Control Board
Chairs
Telephone

Finishes

walls Hard (Painted GWB), Tackable

floor Soft (Carpet)

ceiling Hard (Acoustical Tile)

windows Tinted as necessary

acoustics Soft

color Neutral

Systems

ac General

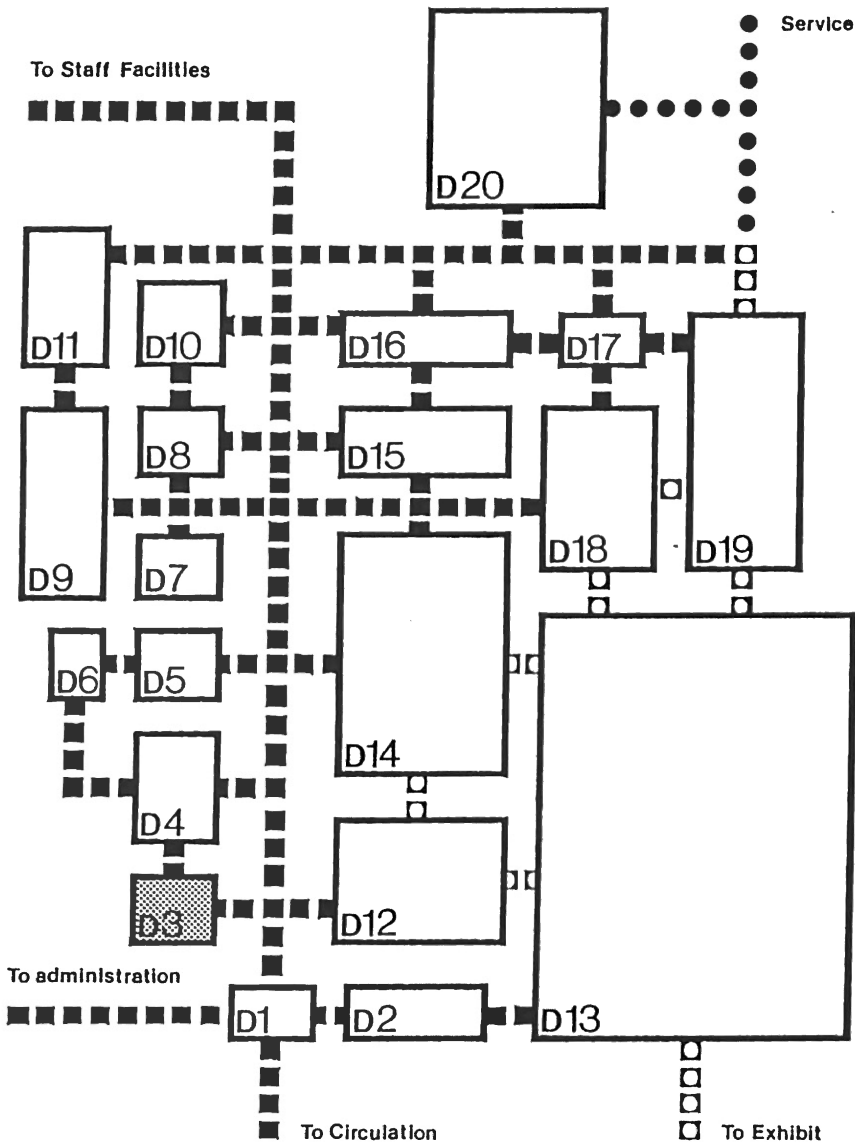
lighting Natural, General

plumbing None

special Visual access as much as possible

Exhibition Designer's Studio D 3

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



User Exhibition Designer

Activities Office of Exhibition Designer and brief meeting occupancy

Area 150 S.F.

Adjacency Display Shop, Artist's Studio

Equipment Desk
Chairs
Shelves
Files
Drafting Table

Finishes

walls Hard (Painted GWB)

floor Soft (Carpet)

ceiling Hard (Acoustical Tile)

windows Tinted as necessary

acoustics Soft

color Neutral

Systems

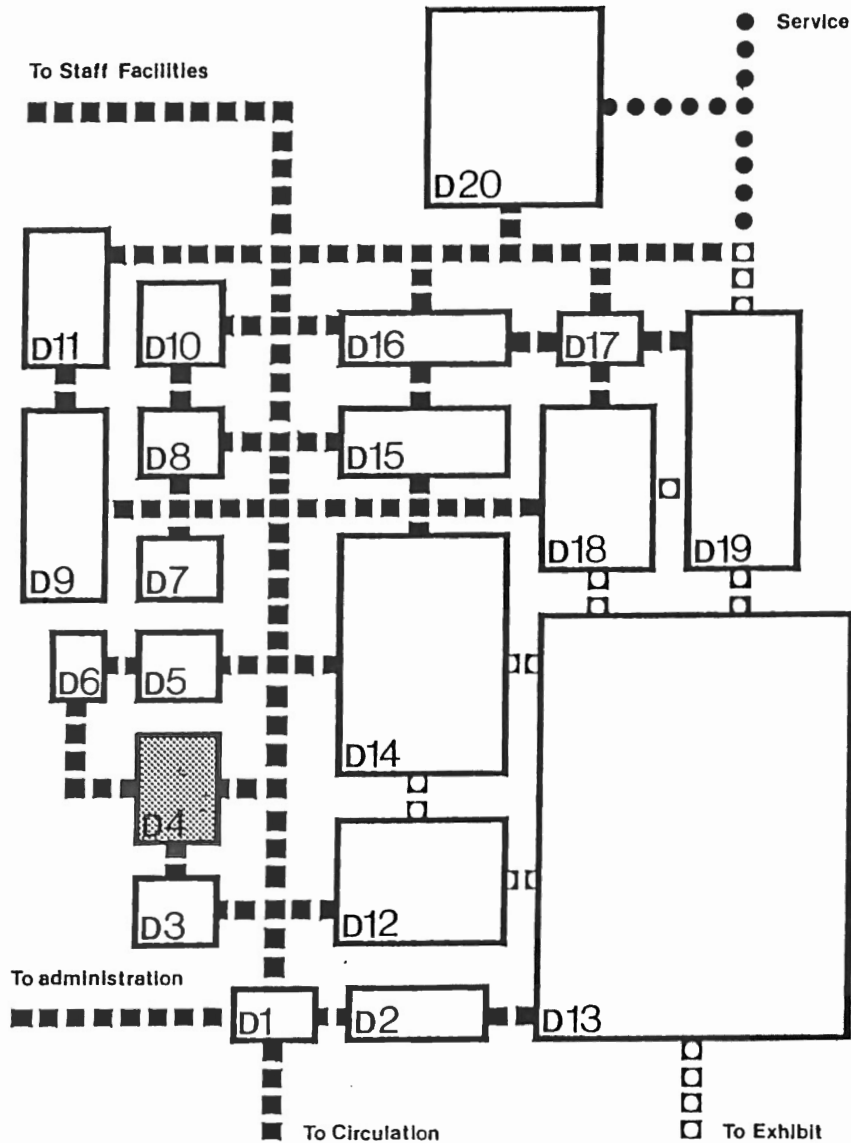
ac General

lighting Natural, General

plumbing None

special None

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Artist's Studio

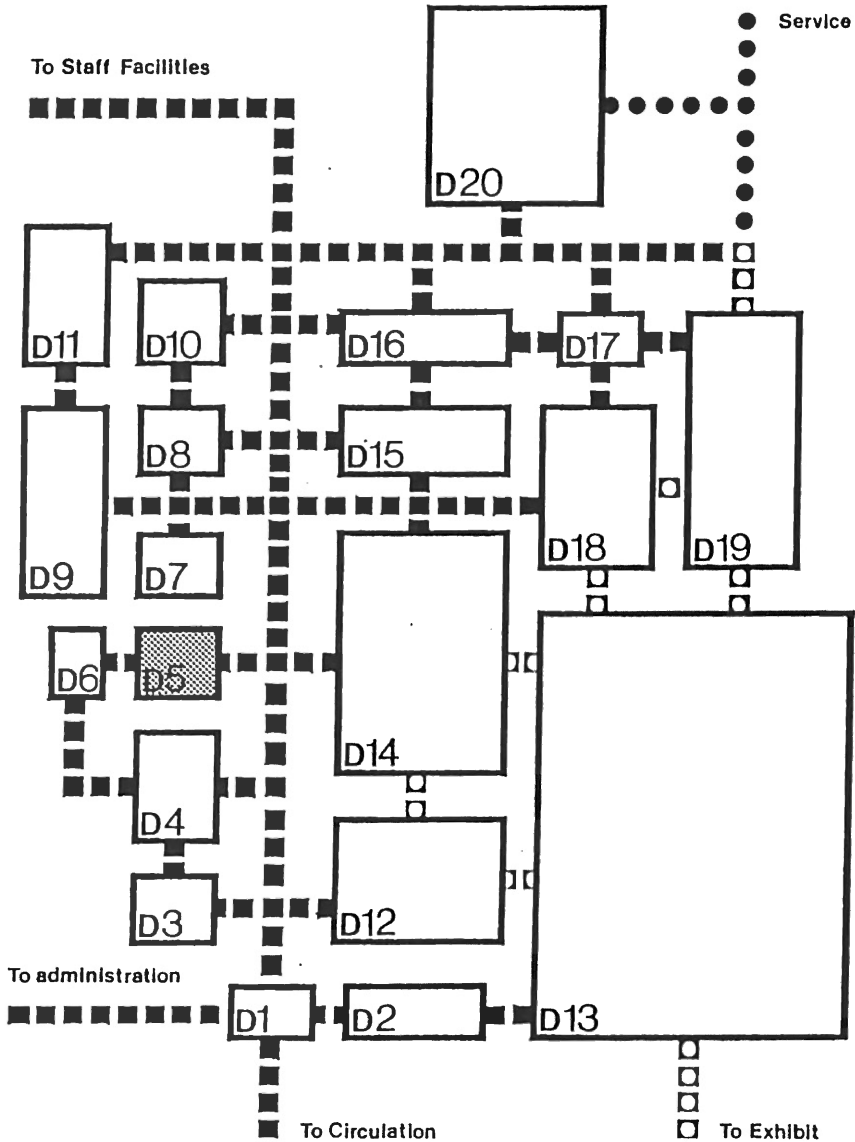
D 4

| | |
|-------------------|---|
| User | Artists, Exhibition Designer |
| Activities | Design and drawing for Graphic display and Display Module for exhibition |
| Area | 650 S.F. |
| Adjacency | Exhibition Designer's Studio, Display Shop, Blue Print Room |
| Equipment | Graphic Cutting Table Drafting Tables Paste-Up Tables Light Tables Shelves and Cabinets Chairs |
| Finishes | |
| walls | Hard (Painted GWB), Tackable |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Photography Studio

D 5



User Photographer, Technician for the Registrar & Curator, Artist

Activities Photo Studio and Processing of Photographic Information

Area 300 S.F.

Adjacency Dark Room, Artist's Studio

Equipment Tri-Pot
Changeable Color Screens
Movable Lights
Reflectors
Refrigerator
Generous Shelving

Finishes

walls Hard (Painted GWB), Tackable

floor Hard

ceiling Hard (Painted GWB)

windows None

acoustics Soft

color Neutral

Systems

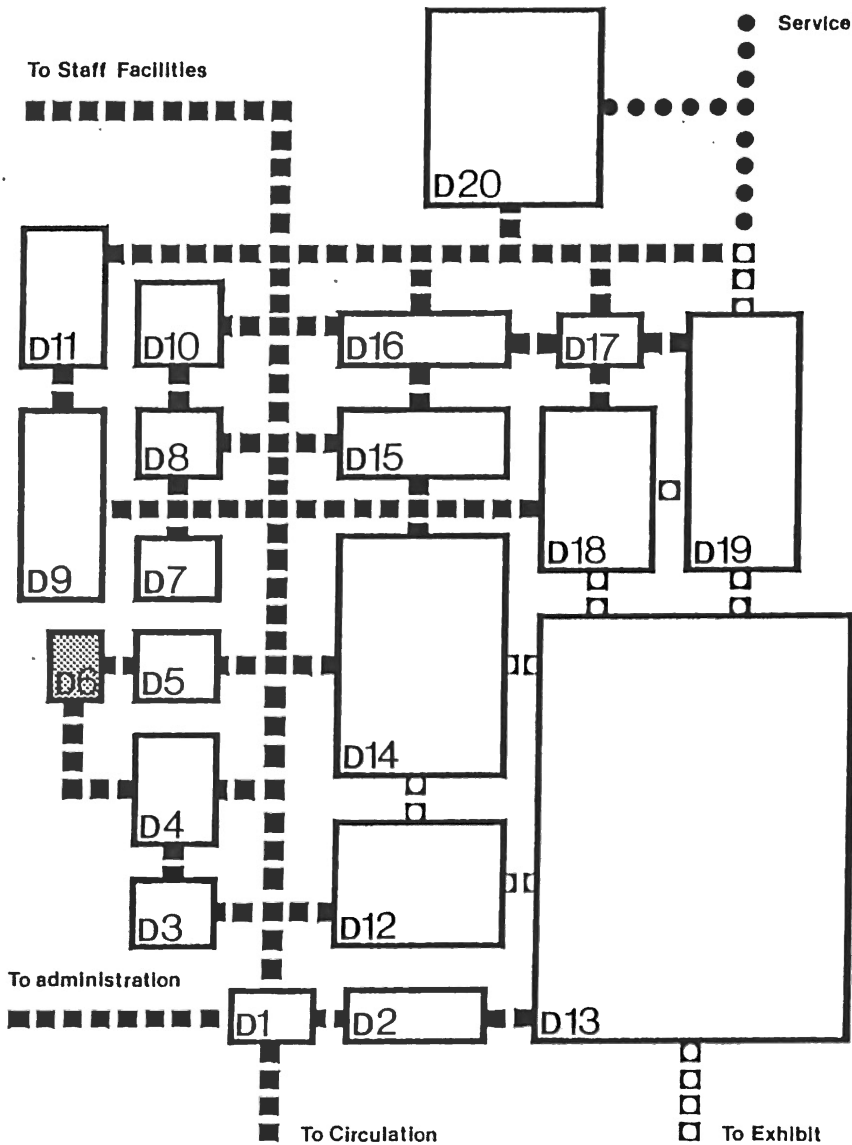
ac General

lighting General, Separate Control

plumbing Cold, Sewer

special Ventilation, Fire Control

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Dark Room

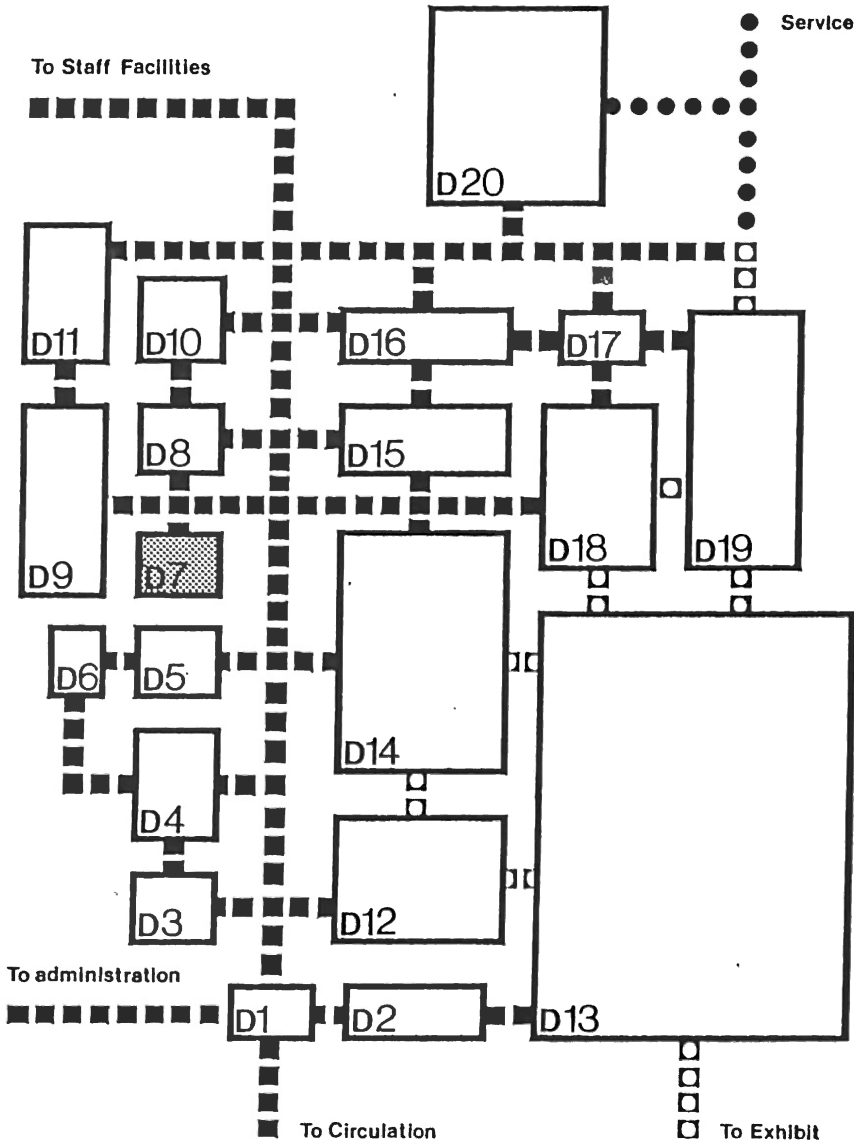
D 6

| | |
|-------------------|--|
| User | Photographer, Authorized Staff, Artist |
| Activities | Processing of Photographic Information |
| Area | 120 S.F. |
| Adjacency | Photographic Studio |
| Equipment | Refrigerator Special Sink Enlargers Dry and Wet Benches Dry Mount Press Drying Cabinets, Generous Shelves |
| Finishes | |
| walls | Moisture Proof Finish, Tackable |
| floor | Hard, Acid Resistant |
| ceiling | Acoustic, Moisture Proof |
| windows | None |
| acoustics | Soft |
| color | Dark |
| Systems | |
| ac | General |
| lighting | General, Infra-Red |
| plumbing | Non-Corrosive Piping |
| special | Positive Ventilation, Climate Control |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Blue Print Room

D 7



User Foreman, Artist, Curatorial and Registration Staff

Activities Provide blue print and copy facilities for art & collection

Area 150 S.F.

Adjacency Foreman's Office, Electrician's Office

Equipment Blue Print Machine
Copy Machine
Cutting Tables
Shelves
Cabinets

Finishes

walls Hard (Painted GWB)

floor Hard (tile)

ceiling Hard (Acoustical Tile)

windows None

acoustics Soft

color Neutral

Systems

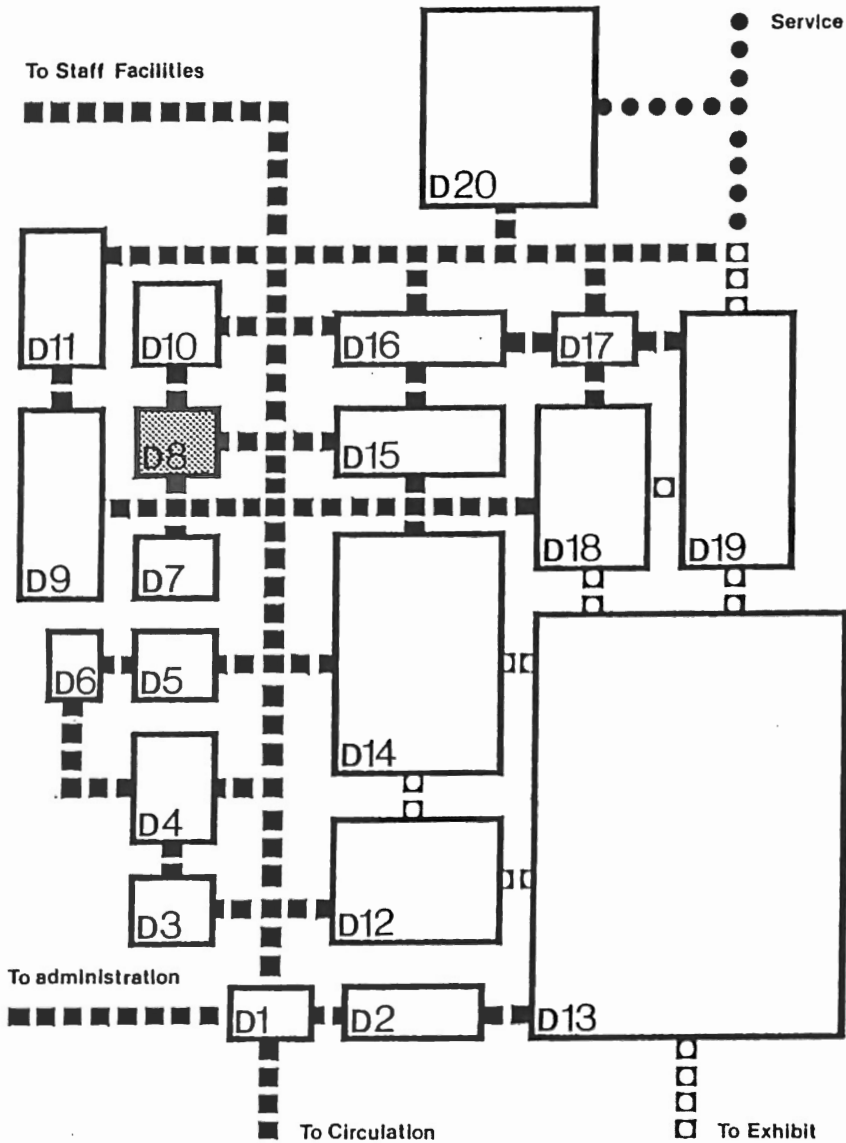
ac General

lighting General

plumbing None

special None

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

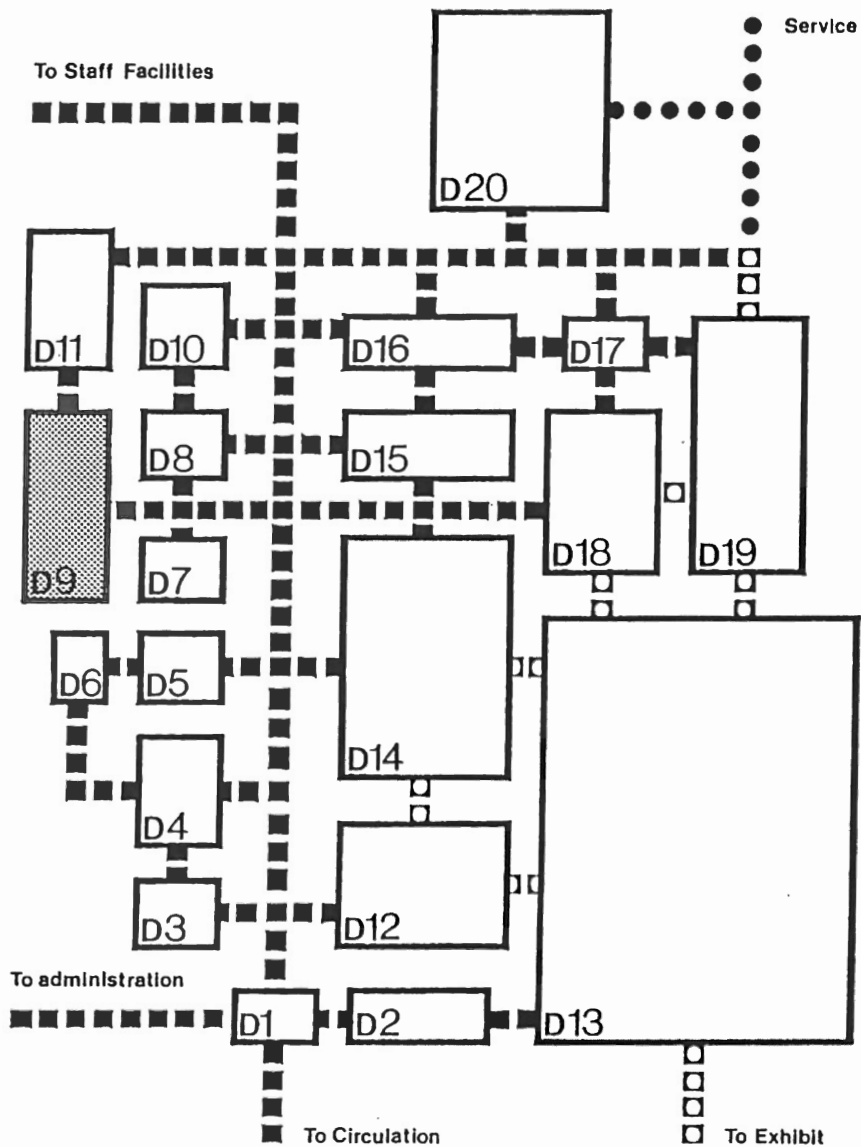


Foreman's Office

D 8

| | |
|-------------------|--|
| User | Foreman |
| Activities | Office of Foreman and small meeting space |
| Area | 120 S.F. |
| Adjacency | Blue Print, Electrician's Office |
| Equipment | Desk Chairs Shelves Files Drafting Table |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | None |
| special | None |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

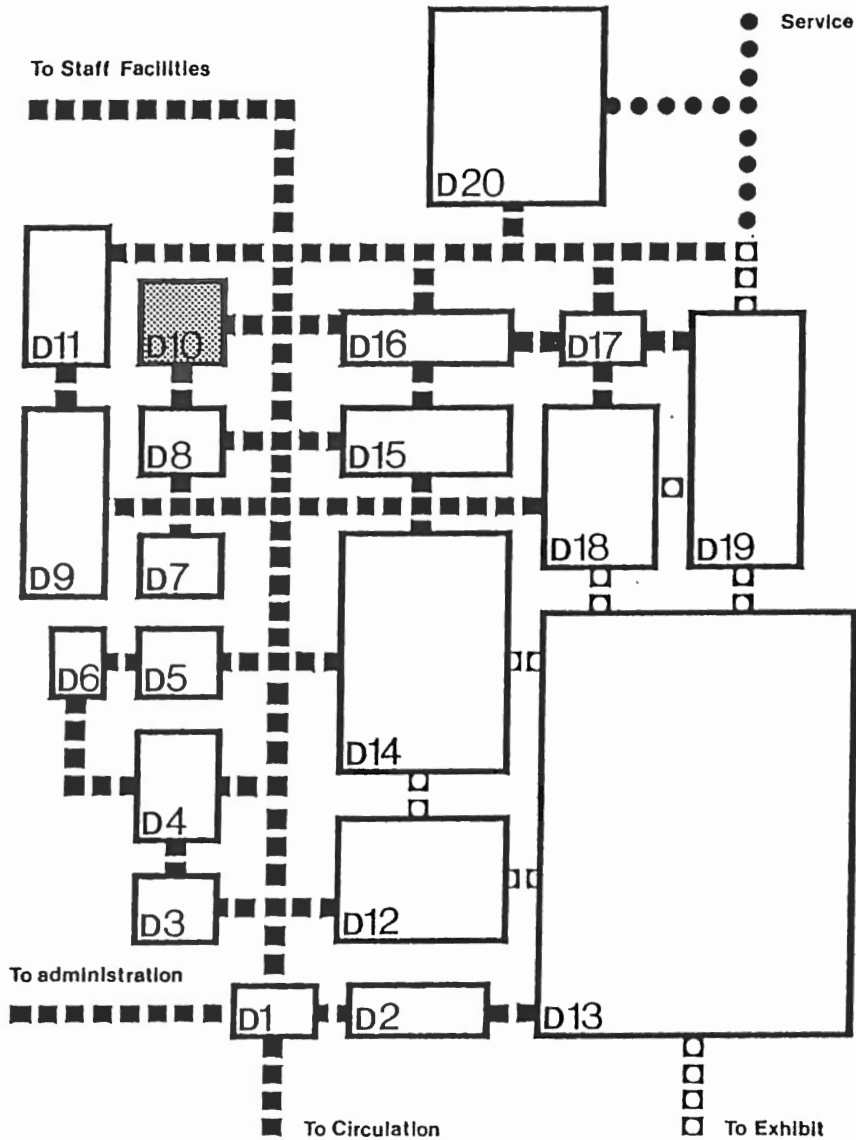


Electrician's Office

D 9

| | |
|-------------------|--|
| User | Electrician, Foreman |
| Activities | Construct and assemble all electronic needed |
| Area | 920 S.F. |
| Adjacency | Foreman's Office, Blue Print Rm. |
| Equipment | Long Working Tables Chairs Supply Storages Shelves Generous Electric Outlets Volt/Amp. Meters |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Soft (Carpet) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General, Fluorescent |
| plumbing | None |
| special | Voltage Control Equipment |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Toilet

D 10

User Staff

Activities Staff Toilet Facilities

Area 160 S.F.

Adjacency Locker Room

Equipment Typical

Finishes

walls Hard (Tile/GWB)

floor Hard (Tile)

ceiling Hard (Moisture Proof)

windows As necessary

acoustics Hard

color Neutral

Systems

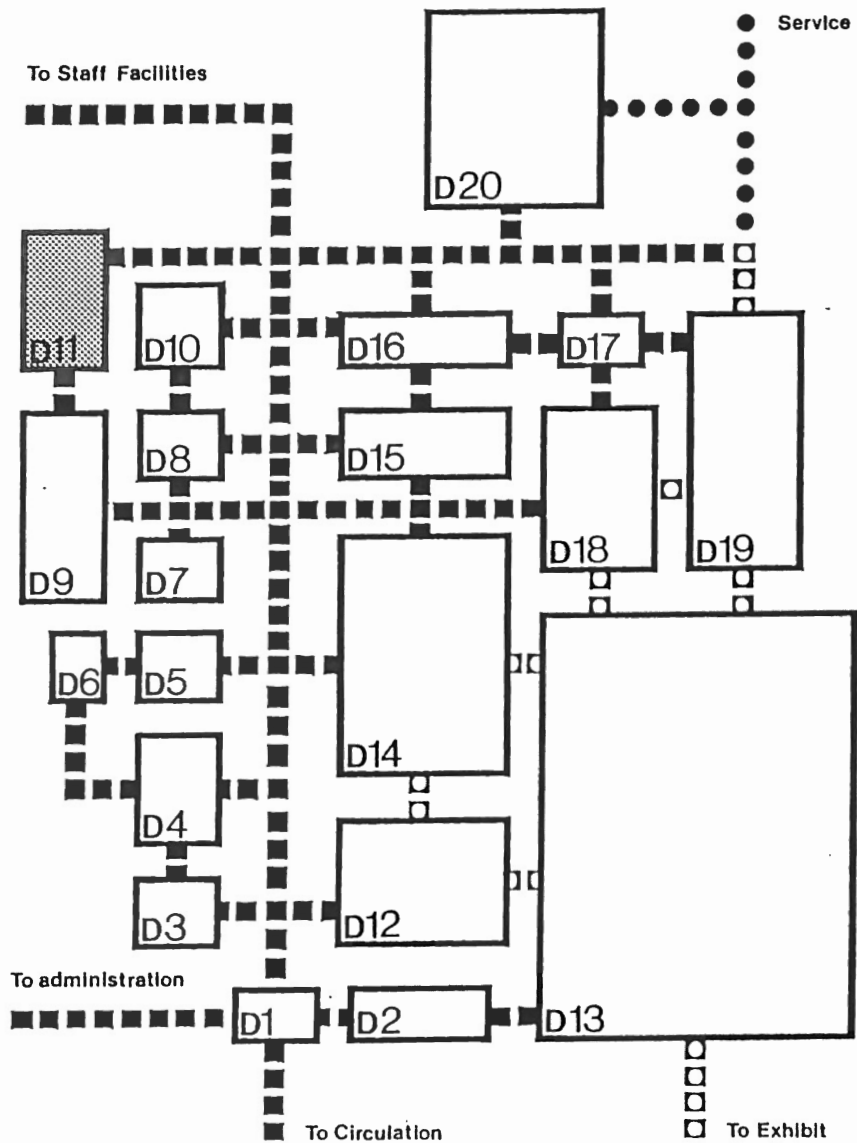
ac General

lighting General

plumbing Cold, Sewer

special Fume Removal

- | | | | |
|----------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Storage

D 11

| | |
|-------------------|-----------------------------------|
| User | Staff |
| Activities | Store equipment needed for Office |
| Area | 250 S.F. |
| Adjacency | Electrician's Office, Toilet |
| Equipment | Large Shelving Cabinet Storage |

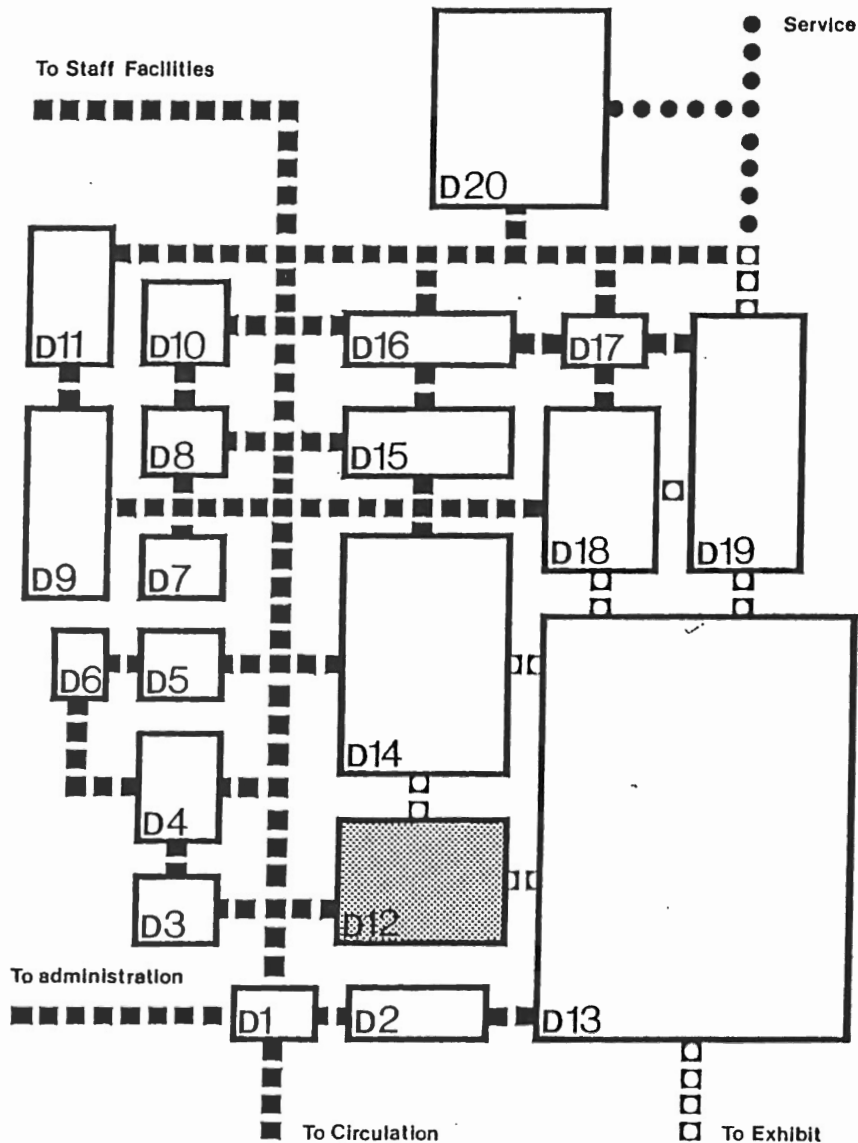
| | |
|-----------------|------------------------|
| Finishes | |
| walls | Hard (Painted, GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | None |
| acoustics | Soft |
| color | Neutral |

| | |
|----------------|---------|
| Systems | |
| ac | None |
| lighting | General |
| plumbing | None |
| special | None |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Display Shop

D 12



User Preparator, Curator, Registrar Staff, Exhibition Designer, Artist
Activities Construction of Display Module

Area 1,000 S.F.

Adjacency Workshop, Exhibition Storage, Exhibition Designer's Studio

Equipment Table and Circular Saw
 Work Benches
 Cabinets

Finishes
walls Hard (Durable)
floor Hard (Concrete)
ceiling Optional
windows As necessary
acoustics Hard
color Neutral

Systems
ac None
lighting Natural, Generous
plumbing Cold, Sewer
special Dust Control, Oversized Door

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

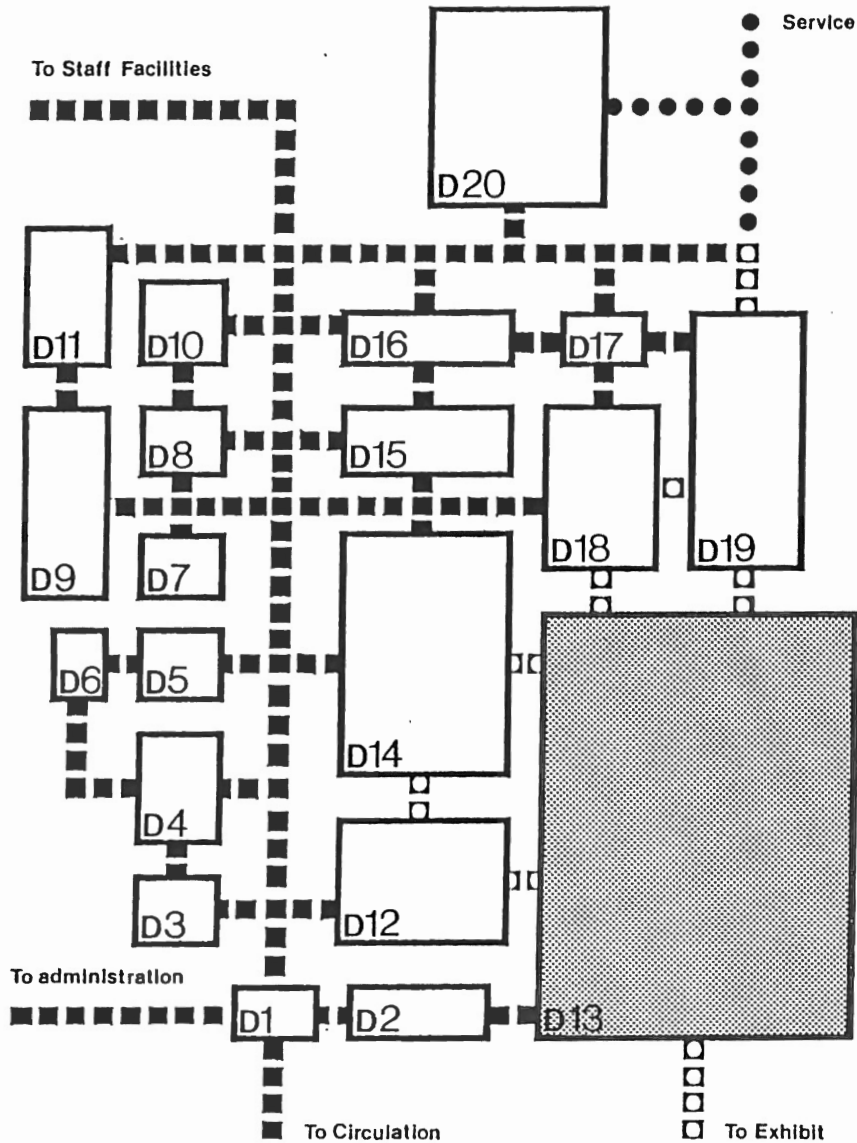


Exhibit Storage

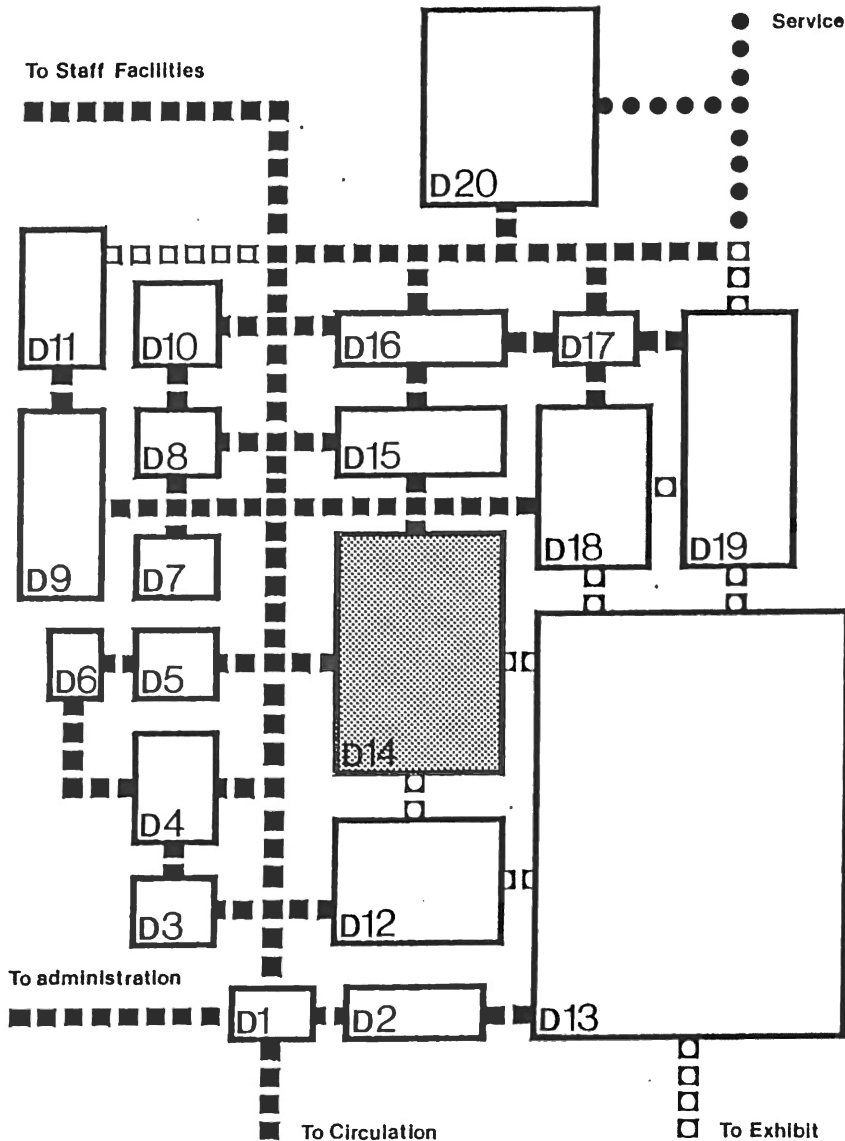
D 13

| | |
|-------------------|---|
| User | Preparator; Curator, Registrar, Authorized Staff |
| Activities | Provide temporary and permanent storage for museum collection |
| Area | 22,500 S.F. |
| Adjacency | Exhibit Area, Loading Dock, Workshop, Display Shop, Security |
| Equipment | Movable Rack Storage Shelving Cabinets I-Beam Crane Hydrolic Dock Tables |
| Finishes | |
| walls | Hard (Durable) |
| floor | Hard (Concrete) |
| ceiling | Optional |
| windows | As necessary |
| acoustics | Hard |
| color | Neutral |
| Systems | |
| ac | None |
| lighting | Natural, Generous |
| plumbing | None |
| special | Oversized Doors |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Workshop and Storage

D 14



User Preparator, Curator, Registrar, Authorized Staff

Activities Construct, assemble, and repair of collection and everything needed for exhibition

Area 2,400

Adjacency Exhibit Storage, Display Shop, Preparation and Examination

Equipment Table and Circular Saw
Workbenches
Cabinets
I-Beam Crane
Hydraulic Dock

Finishes

walls Hard (Durable)

floor Hard (Concrete)

ceiling Optional

windows As necessary

acoustics Hard

color Neutral

Systems

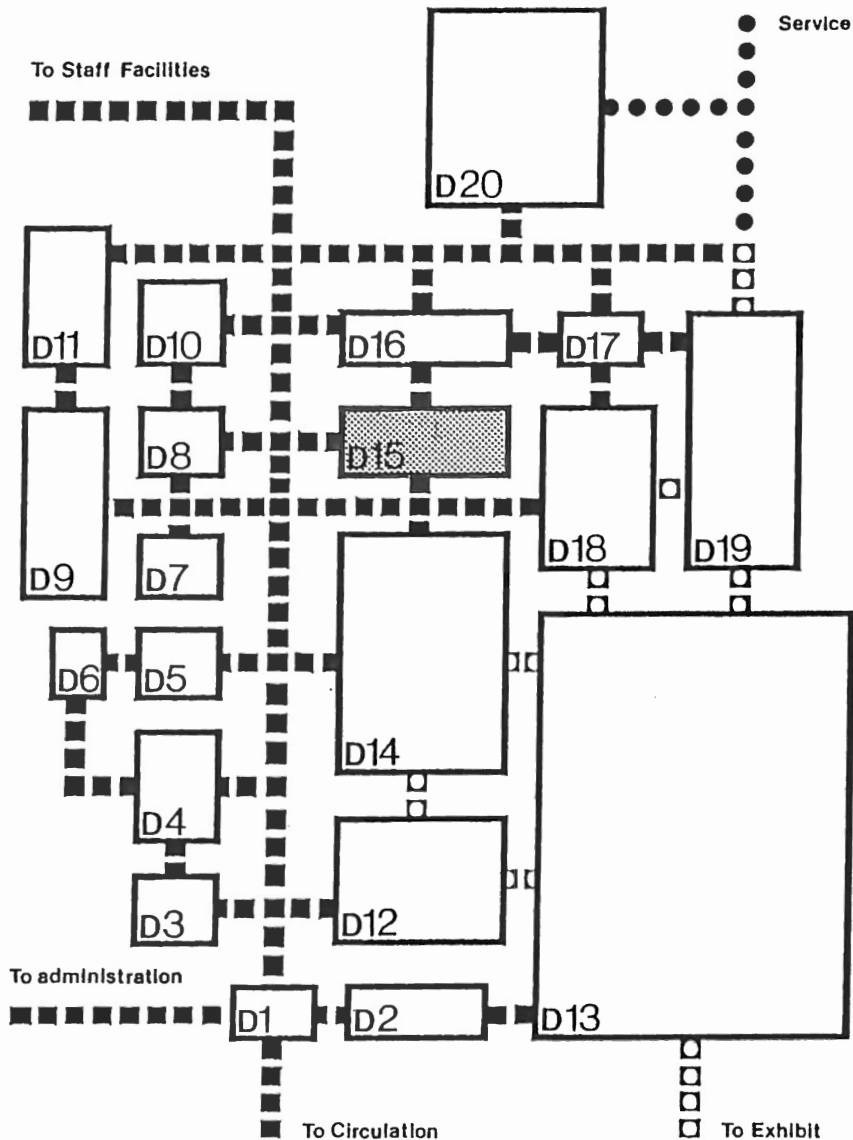
ac None

lighting Natural, Generous

plumbing Cold, Sewer

special Dust Control, Oversized Doors

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Small Maintenance Workshop D 15

User Preparator, Foreman, Electrician

Activities Provide space to maintenance and construct small collection

Area 500 S.F.

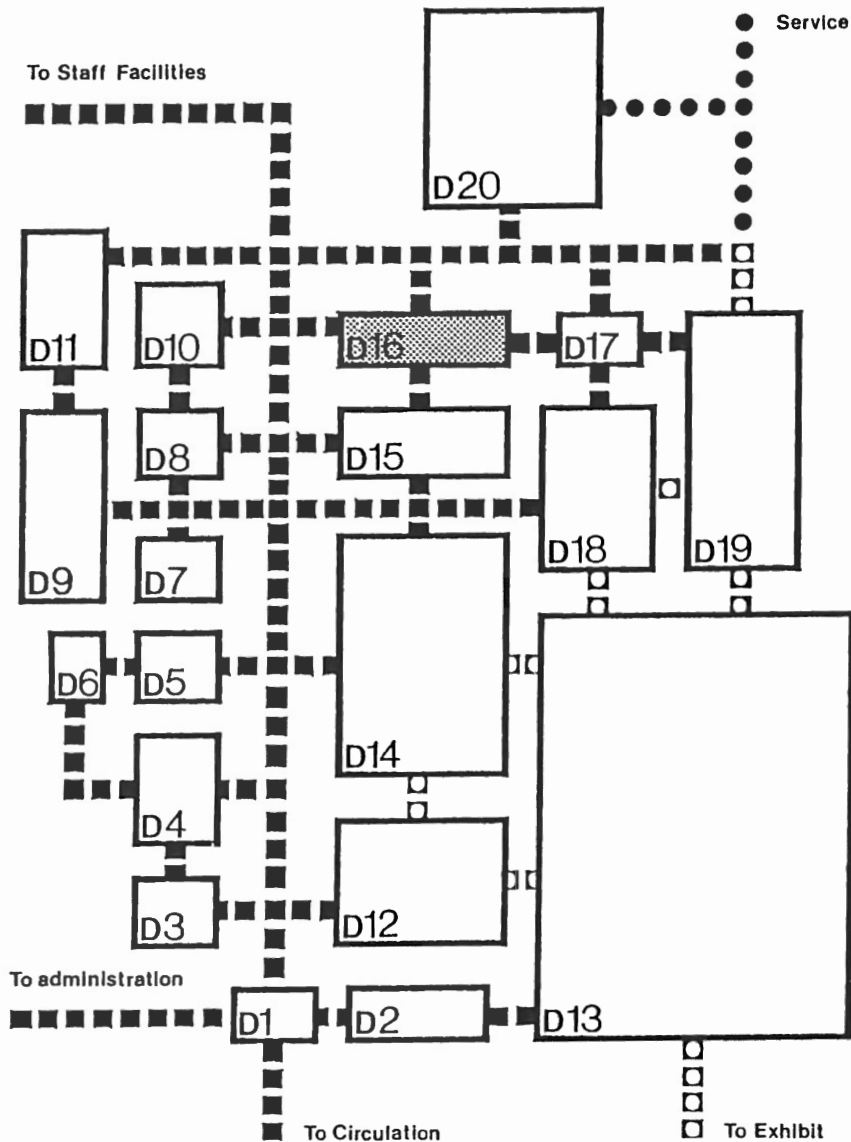
Adjacency Workshop, Foreman's Office

Equipment Table and Circular Saw
Workbenches
Cabinets
Large Shelving

Finishes
walls Hard (Durable)
floor Hard (Concrete)
ceiling Optional
windows As necessary
acoustics Hard
color Neutral

Systems
ac None
lighting Natural, Generous
plumbing Cold, Sewer
special Dust Control

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Locker Room

D 16

| | |
|-------------------|--|
| User | Staff |
| Activities | Provide locker and cloth changing area to staff |
| Area | 200 S.F. |
| Adjacency | Toilet, Working Area |
| Equipment | Locker Seating Large Shelving Mop Sink Cabinet Storage |
| Finishes | |
| walls | Hard (GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Moisture Proof) |
| windows | As necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | None |
| lighting | Natural, General |
| plumbing | Cold, Sewer |
| special | None |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Register Office

D 17

User Registration Staff
Activities Office of Registration Staff

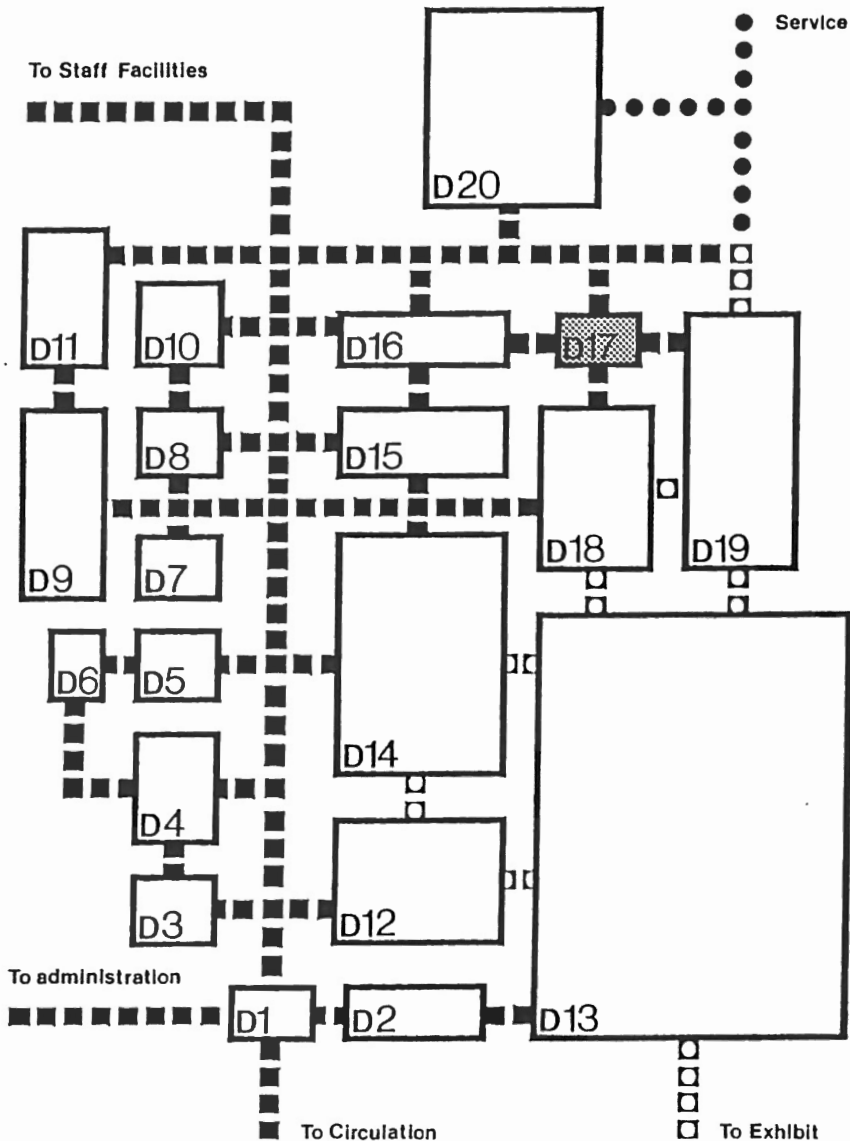
Area 150 S.F.

Adjacency Preparation and Examination, Loading Dock

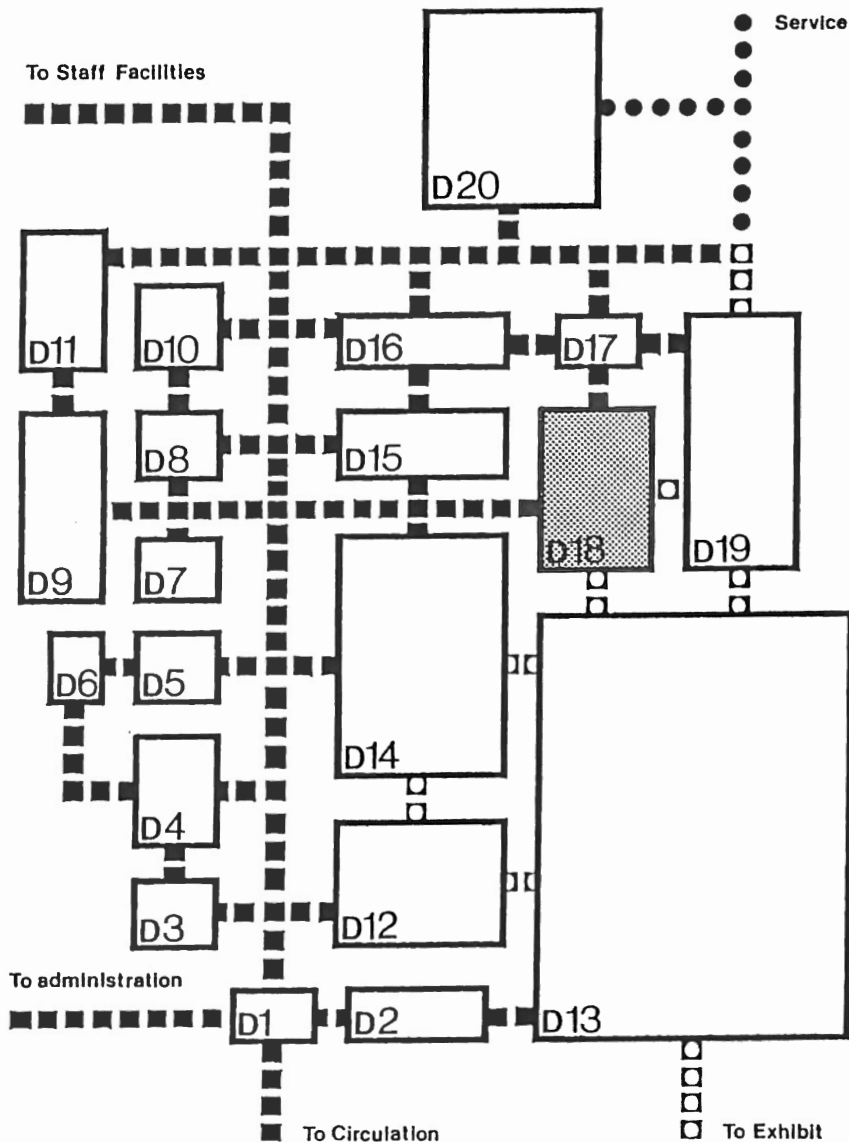
Equipment Desks
 Chairs
 Shelves
 Files
 P.C. Station

Finishes
walls Hard (Painted GWB)
floor Soft (Carpet)
ceiling Hard (Acoustical Tile)
windows Tinted as necessary
acoustics Soft
color Neutral

Systems
ac General
lighting Natural, General
plumbing None
special None



- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Prep. and Exam.

D 18

User Authorized Staff (Generally Curatorial and Registration)

Activities Packing and Unpacking, labeling, Examination, Cleaning, Photography

Area 500 S.F.

Adjacency Register Office, Loading Dock
Exhibit Storage, Workshop

Equipment Supply Storage
Tool Cabinet

Finishes

walls Hard (Durable)

floor Hard (Concrete)

ceiling Optional

windows As necessary

acoustics Hard

color Neutral

Systems

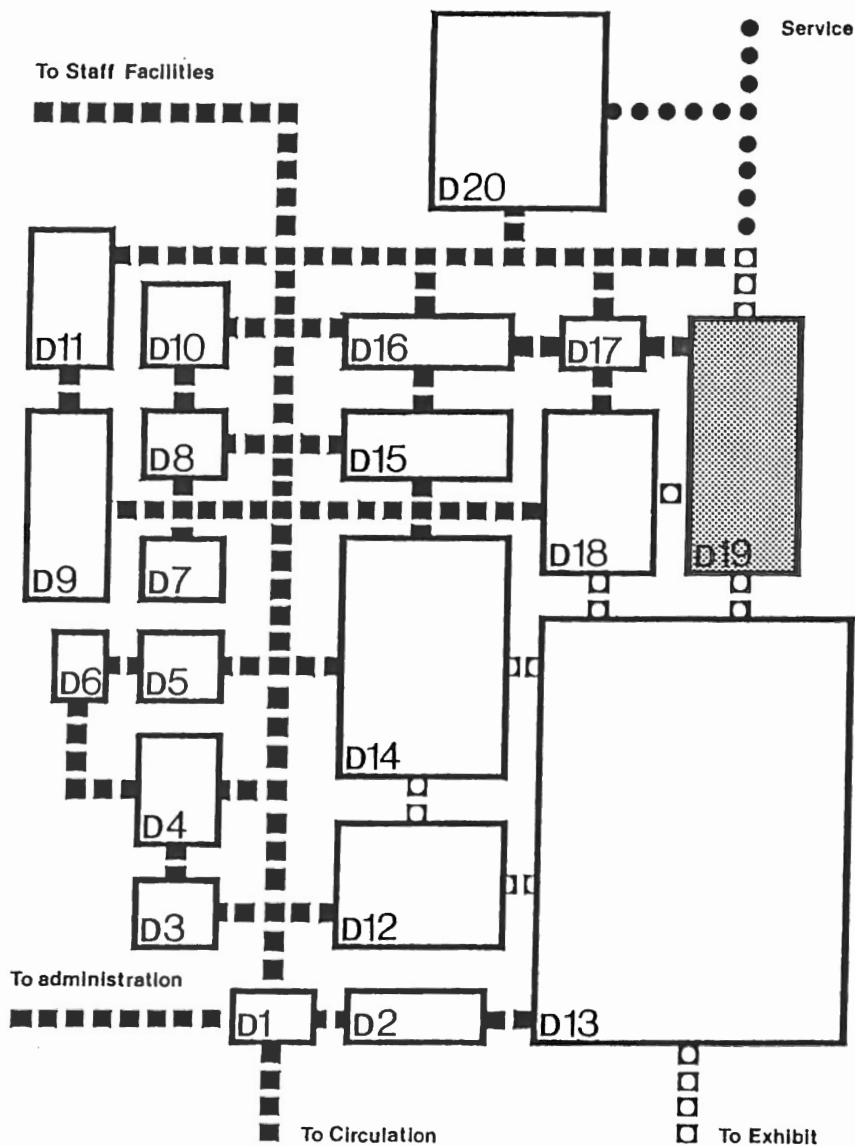
ac None

lighting Natural, Generous

plumbing Cold, Sewer

special Oversized Doors

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |



Loading Dock

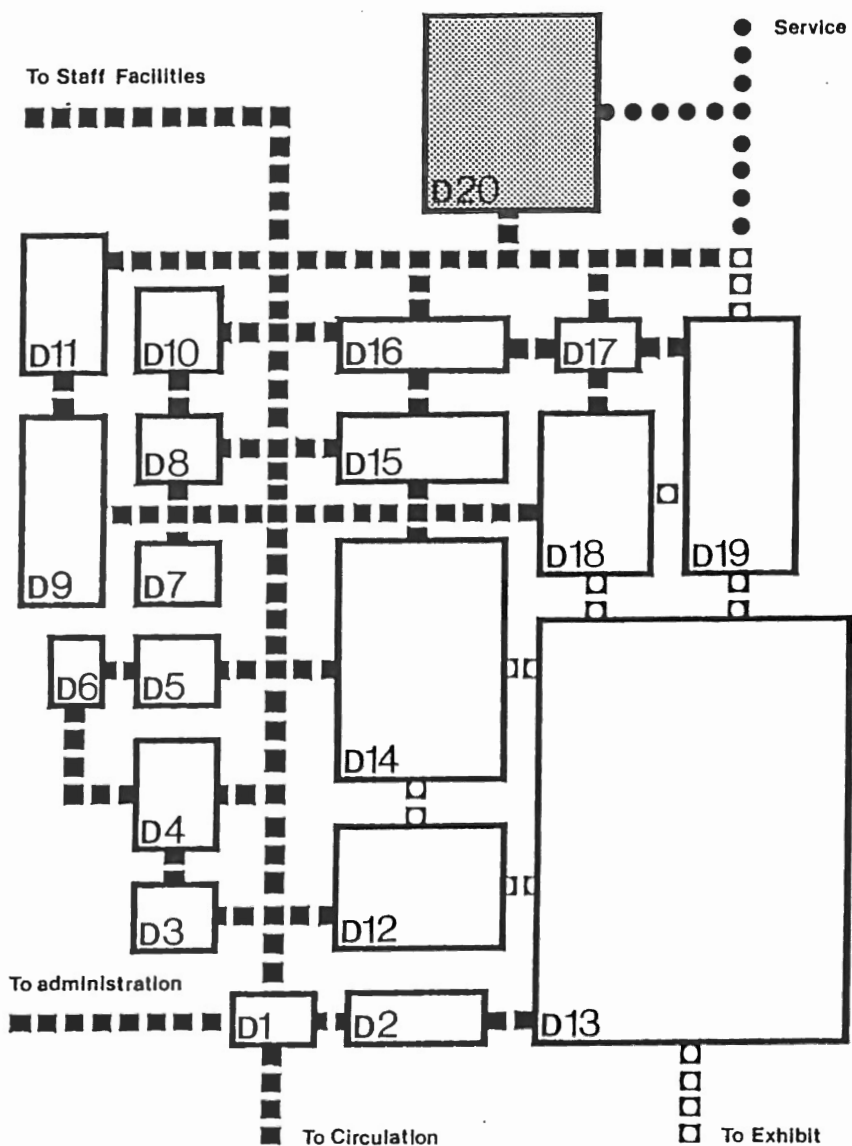
D 19

| | |
|-------------------|---|
| User | Delivery Personnel, Curatorial and Registration Staff |
| Activities | Loading and Unloading of objects, Temporary Storage |
| Area | 1,000 S.F. |
| Adjacency | Preparation and Examination, Exhibit Storage, Register Off. |
| Equipment | I-Beam Crane for heavy shipments Hydraulic Dock Overhead Doors Storage Vestibule |
| Finishes | |
| walls | Hard (Durable) |
| floor | Hard (Concrete) |
| ceiling | Optional |
| windows | As necessary |
| acoustics | Hard |
| color | Neutral |
| Systems | |
| ac | None |
| lighting | Natural, Generous |
| plumbing | None |
| special | Loading Equipment Possible |

- | | | | |
|--------------------------------|--------------------------|-------------------------------|------------------------------|
| 1 control | 6 dark room | 11 storage | 16 locker room |
| 2 security office | 7 blue print room | 12 display shop | 17 register off. |
| 3 exhibition designer's studio | 8 foreman's off. | 13 exhibit storage | 18 preparation & examination |
| 4 artist's studio | 9 electrician's workshop | 14 workshop | 19 loading dock |
| 5 photography studio | 10 toilet | 15 small maintenance workshop | 20 mechanical |

Mechanical

D 20



User Maintenance Personnel

Activities To meet the AC and power needs for the museum

Area 2,200

Adjacency Service Parking, Loading Dock

Equipment A.U.
Electrical Closet
Moisture Control Unit

Finishes

walls Hard (Moisture Proof)

floor Hard (Ware Resistant)

ceiling Hard (Moisture Proof)

windows None

acoustics Soft

color Neutral

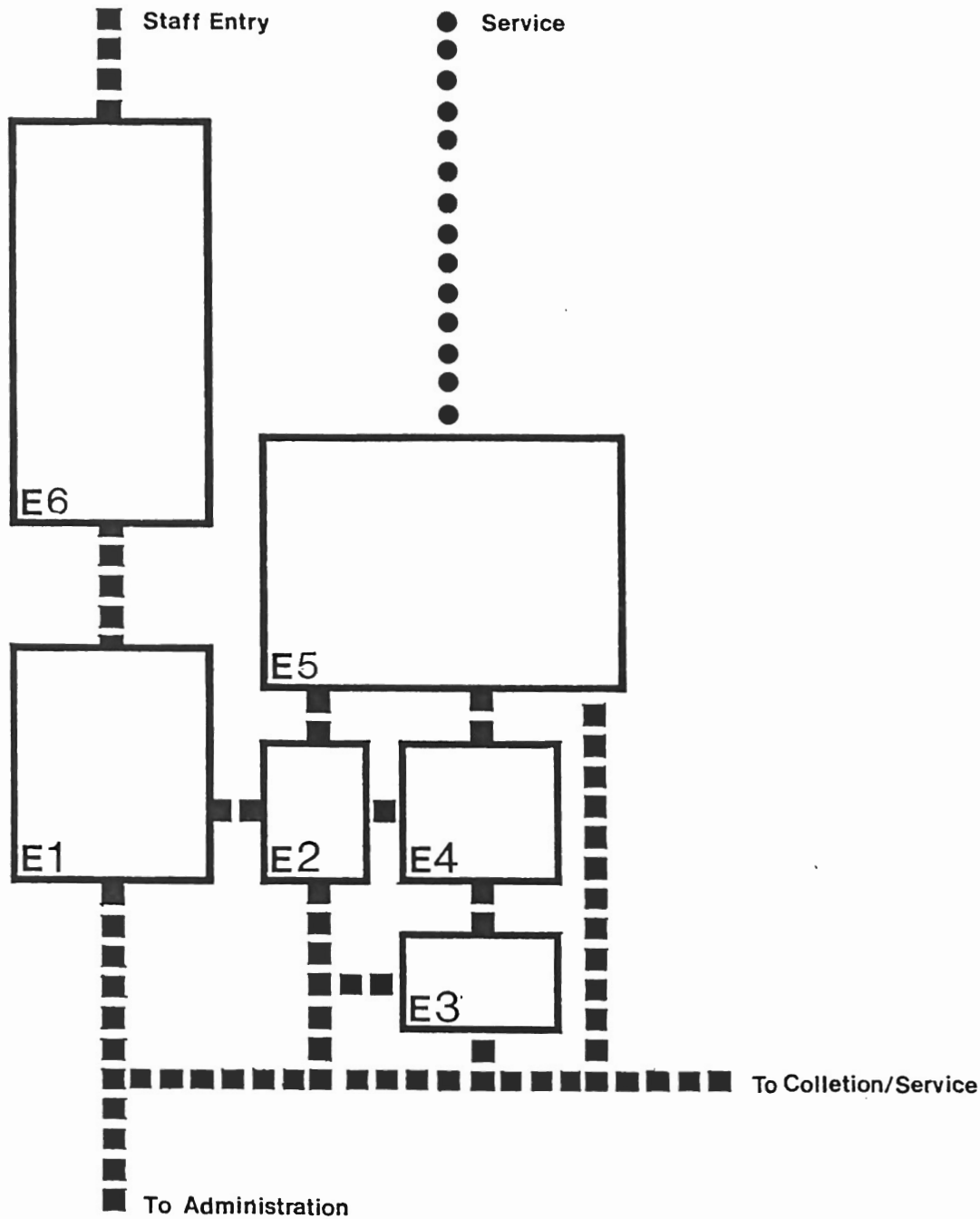
Systems

ac None

lighting General

plumbing Hot, Cold, Storm Drainage

special Chilled Water/Steam System







Staff Facilities

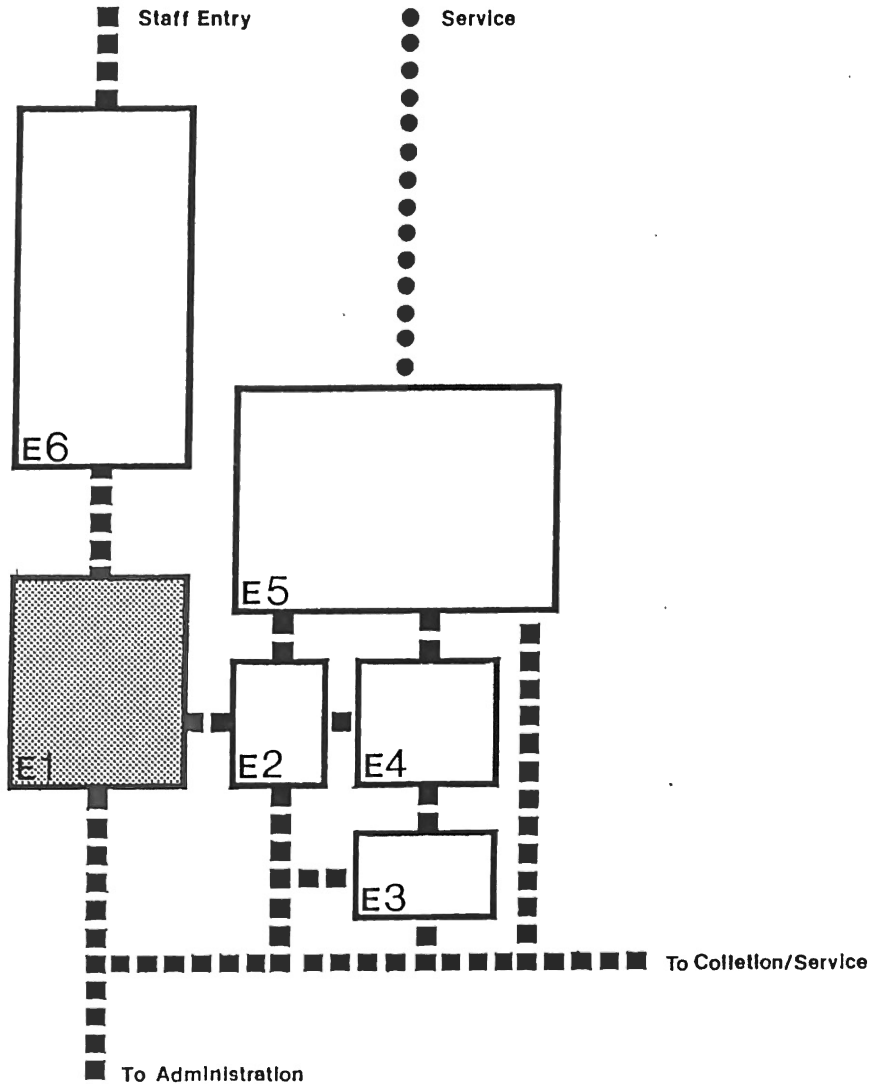
E

| | | | |
|-----|----------------------------|----------|------|
| E 1 | STAFF BREAK ROOM | 1,800 | S.F. |
| E 2 | TOILET | 400 | S.F. |
| E 3 | LOCKER ROOM | 350 | S.F. |
| E 4 | JANITOR & GUARD BREAK ROOM | 700 | S.F. |
| E 5 | CAFETERIA AND KITCHEN | 2,250 | S.F. |
| E 6 | STAFF AND SERVICE PARKING | 8,550 | S.F. |
| | | <hr/> | |
| | | 14,050 | S.F. |
| | | NET AREA | |

Legend

-  Public
-  Staff
-  Staff/Service
-  Service

- 1 staff break room
- 2 toilet
- 3 locker room
- 4 janitor break room
- 5 cafeteria & kitchen
- 6 staff parking

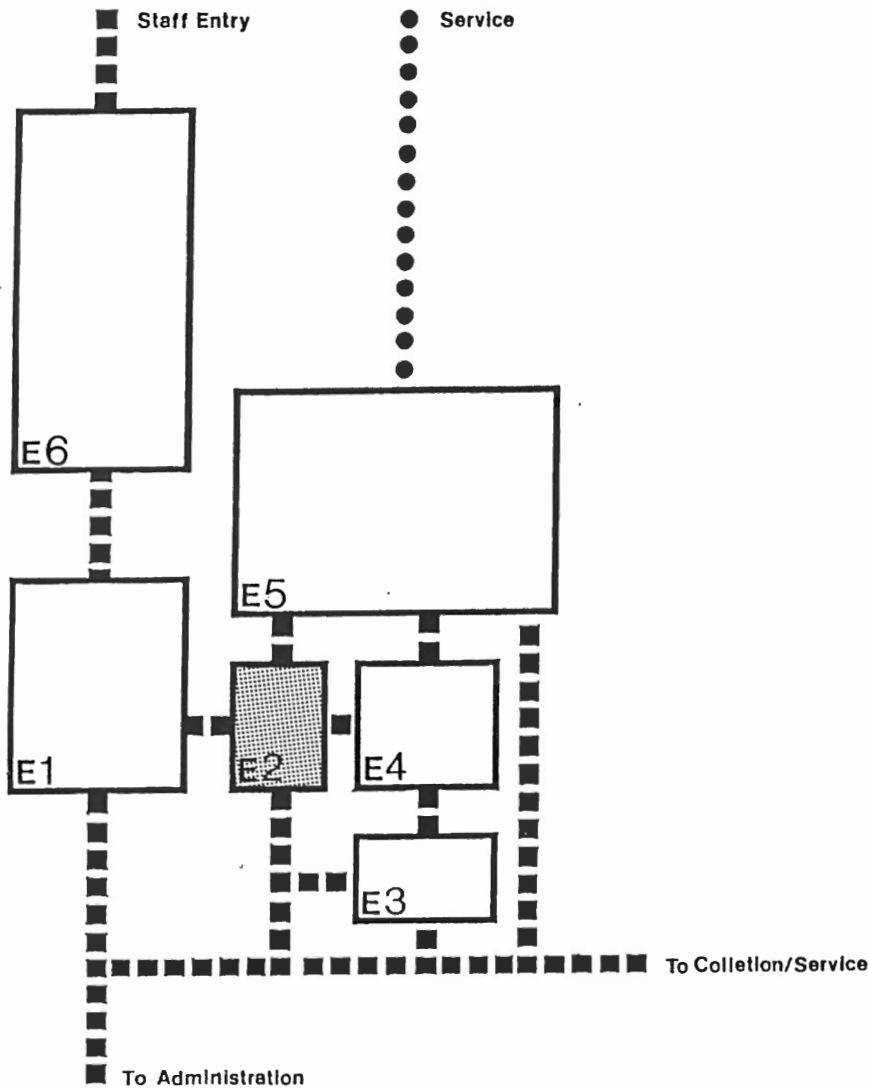


Staff Break Room

E 1

| | |
|-------------------|---|
| User | Staff |
| Activities | Staff Coffee Room |
| Area | 1,800 S.F. |
| Adjacency | Toilet, Cafeteria, Parking |
| Equipment | Break Tables Seating Kitchenette Vending Machines Newspaper Racks Refrigerator |
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | Tinted as necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | General |
| lighting | Natural, General |
| plumbing | Cold, Sewer |
| special | None |

- 1 staff break room
- 2 toilet
- 3 locker room
- 4 janitor break room
- 5 cafeteria & kitchen
- 6 staff parking



Toilet

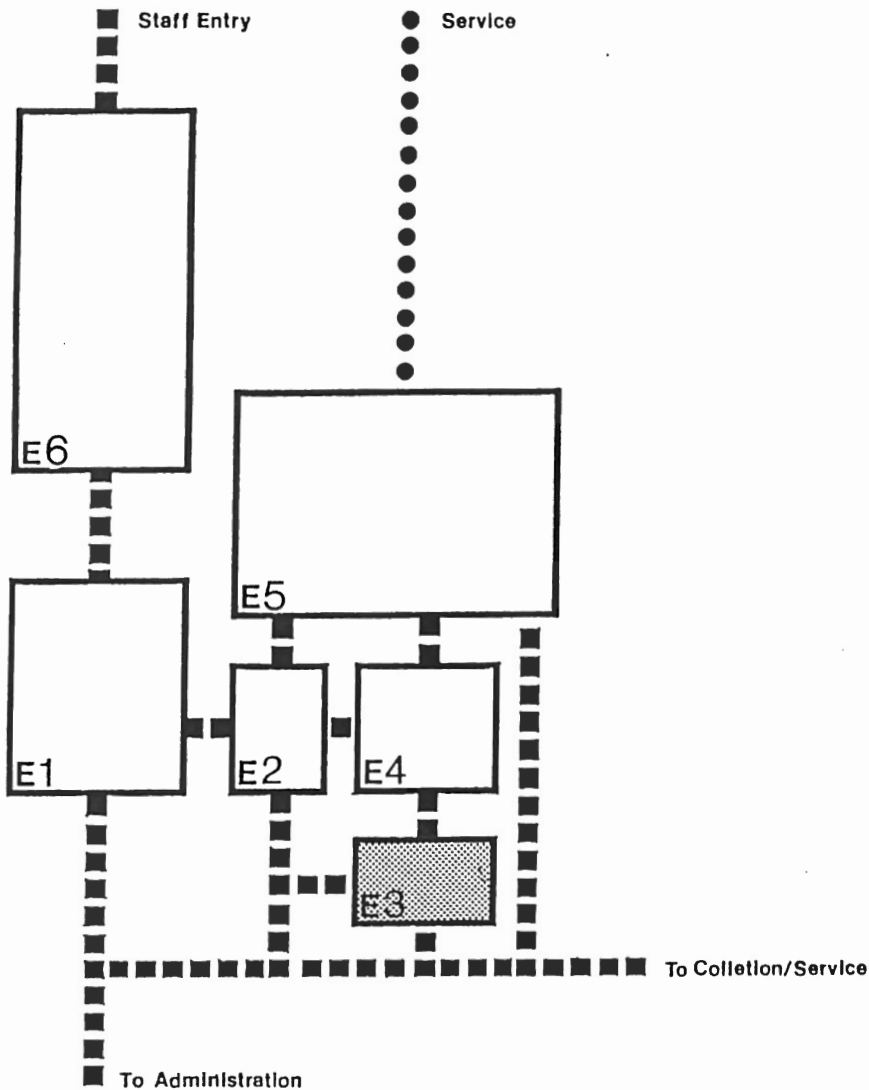
E 2

| | |
|-------------------|---|
| User | Staff Toilet |
| Activities | Staff Toilet Facilities |
| Area | 400 S.F. |
| Adjacency | Staff Break Room, Cafeteria, Janitor and Guard Break Room |
| Equipment | Typical |

| | |
|-----------------|-----------------------|
| Finishes | |
| walls | Hard (Tile/GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Moisture Proof) |
| windows | As necessary |
| acoustics | Hard |
| color | Neutral |

| | |
|----------------|------------------|
| Systems | |
| ac | None |
| lighting | Natural, General |
| plumbing | Cold, Sewer |
| special | Fume Removal |

- 1 staff break room
- 2 toilet
- 3 locker room
- 4 janitor break room
- 5 cafeteria & kitchen
- 6 staff parking

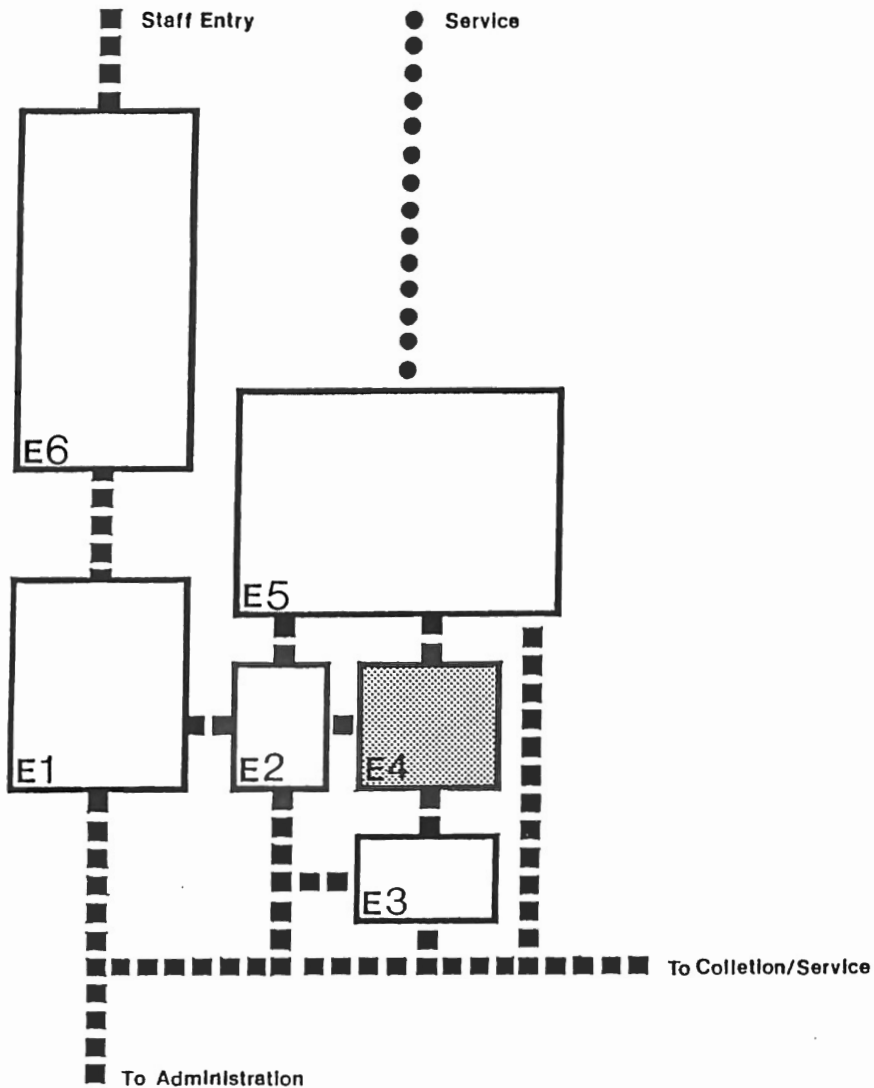


Locker Room

E 3

| | |
|-------------------|--|
| User | Janitors and Guards |
| Activities | Provide locker and cloth changing area to janitors and guards |
| Area | 350 S.F. |
| Adjacency | Toilet, Janitor & Guard Break Rm. |
| Equipment | Locker Seating Sink Large Shelving Mop Sink Cabinet Storage |
| Finishes | |
| walls | Hard (GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Moisture Proof) |
| windows | As necessary |
| acoustics | Soft |
| color | Neutral |
| Systems | |
| ac | None |
| lighting | Natural, General |
| plumbing | Cold, Sewer |
| special | None |

- 1 staff break room
- 2 toilet
- 3 locker room
- 4 janitor break room
- 5 cafeteria & kitchen
- 6 staff parking



Janitor Break Room

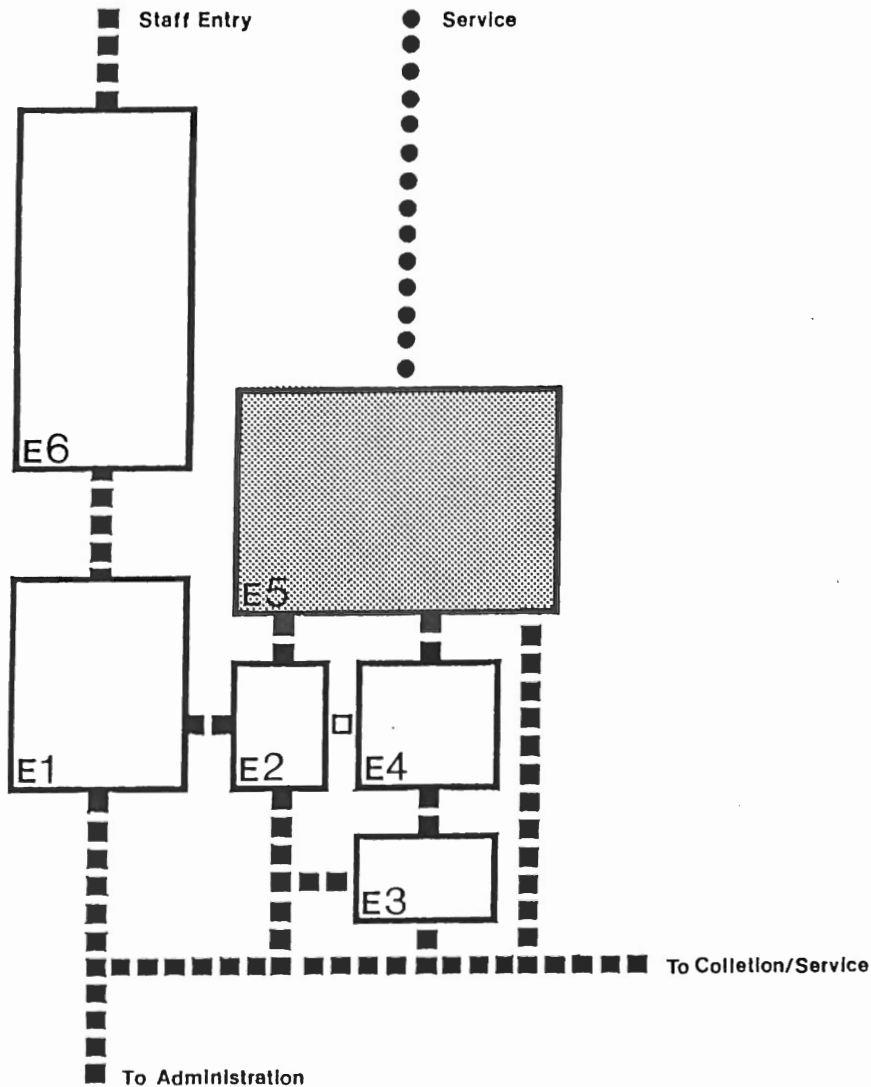
E 4

| | |
|-------------------|--|
| User | Janitors and Guards |
| Activities | Provide break area to guards and janitors |
| Area | 700 S.F. |
| Adjacency | Locker Room, Toilet |
| Equipment | Break Table Seating Newspaper Rack Refrigerator |

| | |
|------------------|------------------------|
| Finishes | |
| walls | Hard (Painted GWB) |
| floor | Hard (Tile) |
| ceiling | Hard (Acoustical Tile) |
| windows | As Necessary |
| acoustics | Soft |
| color | Neutral |

| | |
|-----------------|------------------|
| Systems | |
| ac | None |
| lighting | Natural, General |
| plumbing | Cold, Sewer |
| special | None |

- 1 staff break room
- 2 toilet
- 3 locker room
- 4 janitor break room
- 5 cafeteria & kitchen
- 6 staff parking



Cafeteria and Kitchen

E 5

User Staff
Activities Provide food service to staff

Area 2,250 S.F.

Adjacency Staff Break Room, Toilet

Equipment Food Bars
 Serving Lanes
 Self Service Island
 Tables and Chairs
 Refrigerators
 Ovens

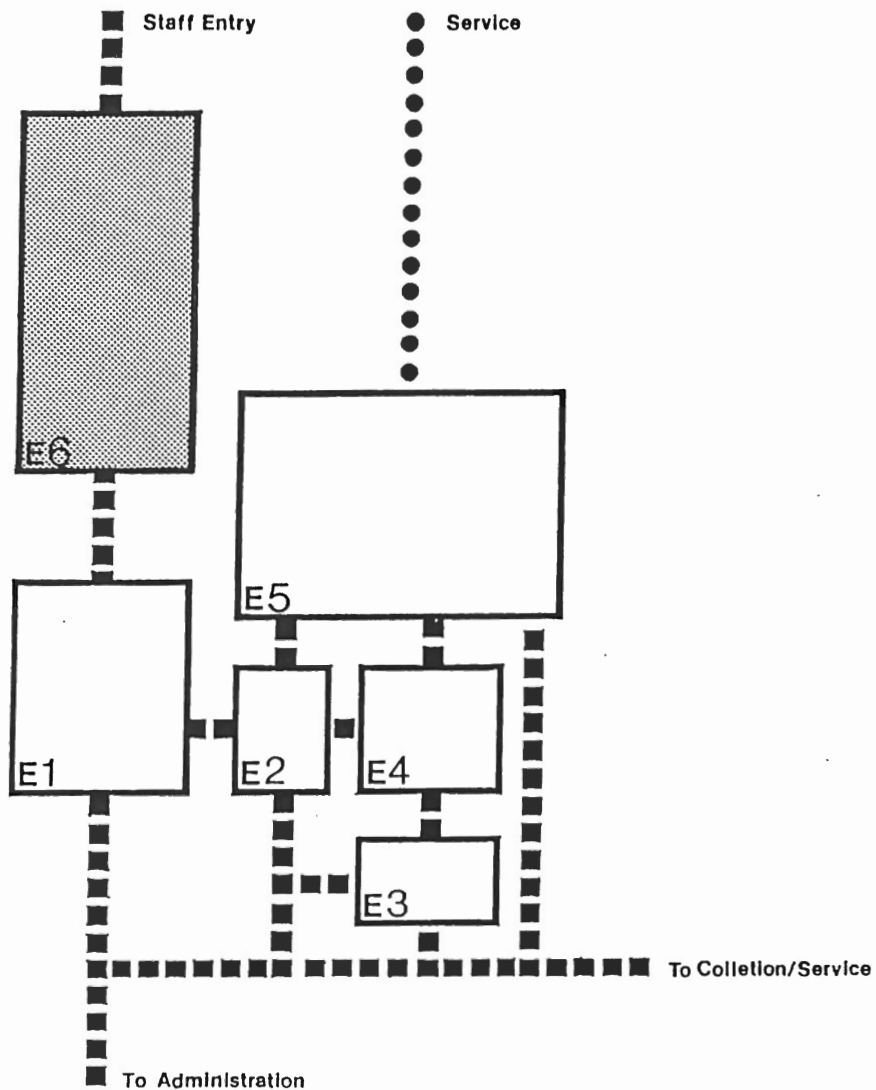
Finishes

walls Hard (GWB), Moisture Proof
floor Hard (Tile)
ceiling Hard (Acoustical Tile)
windows Tinted as necessary
acoustics Soft
color Neutral

Systems

ac General
lighting Natural, General
plumbing Hot, Cold, Sewer
special Fume Removal

- 1 staff break room
- 2 toilet
- 3 locker room
- 4 janitor break room
- 5 cafeteria & kitchen
- 6 staff parking



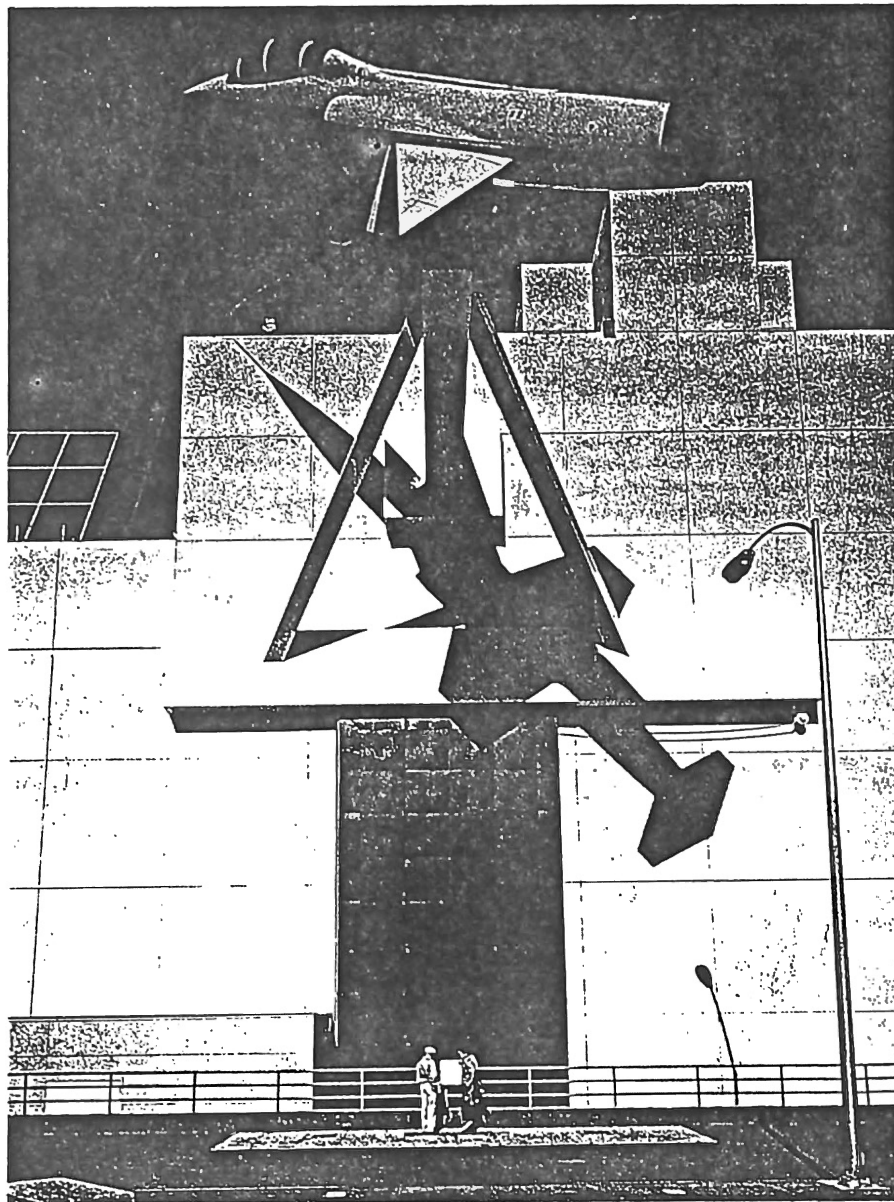
Staff & Service Parking

E 6

| | |
|-------------------|---|
| User | Staff |
| Activities | Parking |
| Area | 8,550 |
| Adjacency | Staff Break Room |
| Equipment | Parking for 15 Cars Parking for 25 Motorcycles Parking for 3 Service Cars |

| | |
|-----------------|------------------|
| Finishes | |
| walls | Open |
| floor | Hard |
| ceiling | None |
| windows | None |
| acoustics | None |
| color | None |
| Systems | |
| ac | None |
| lighting | Natural, General |
| plumbing | None |
| special | None |

Contemporary Projects

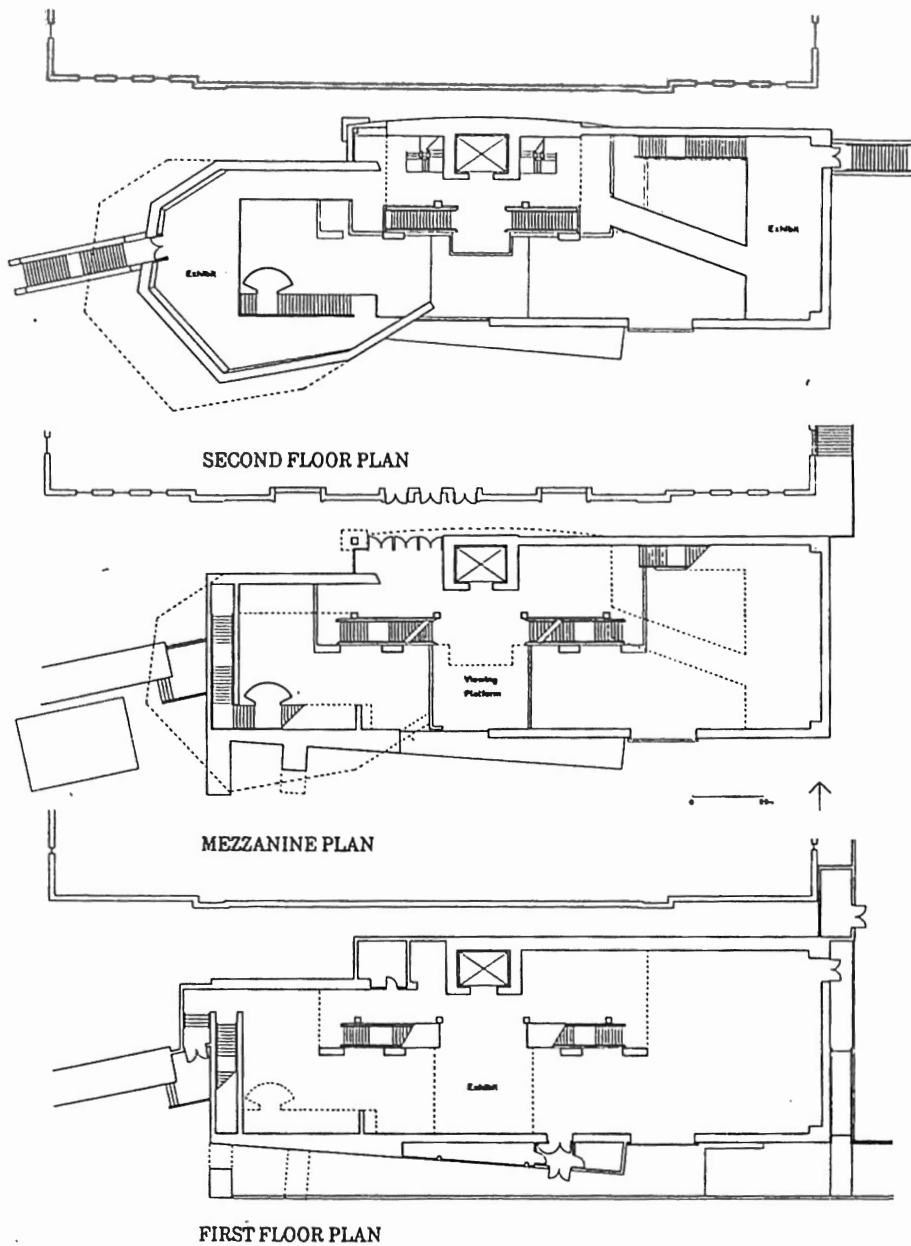


Aerospace Museum

Location: Los Angeles, California

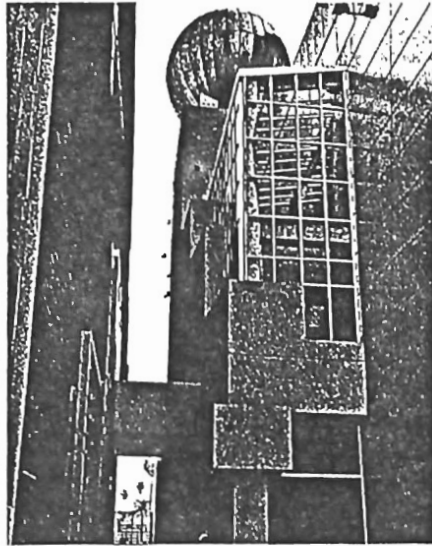
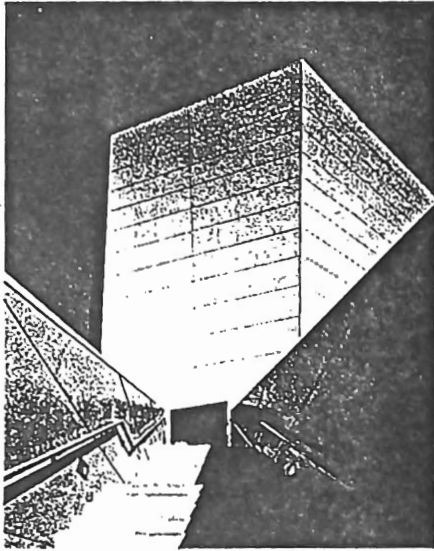
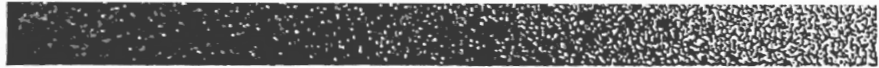
Architect: Frank Gehry

To co-ordinate with preparation for the 1984 Summer Olympics – but in advance of full funding for all conservation of the armory – it was decided to construct a new building on the narrow site between the old armory building and the street. The new building was designed to house the first exhibits, to be a gateway to the eventual complex of facilities planned in and around the armory, and to be a kind of exhibit itself – drawing support for, and conveying the spirit and excitement of, the institution's subject and plans. The building rises from its narrow 206-by-65-foot site up – and in places out over the sidewalk – to a height of 75 feet. It consists of two major volumes linked by a glazed wall. Above the latter a sheet metal sphere, which lies over the entry to the complex at the rear of the new building, is visible through a knife-shaped, metal – covered form. One volume is faced in white stucco surmounted by a cruciform skylight monitor. Hanging over the sidewalk is an airplane, suspended

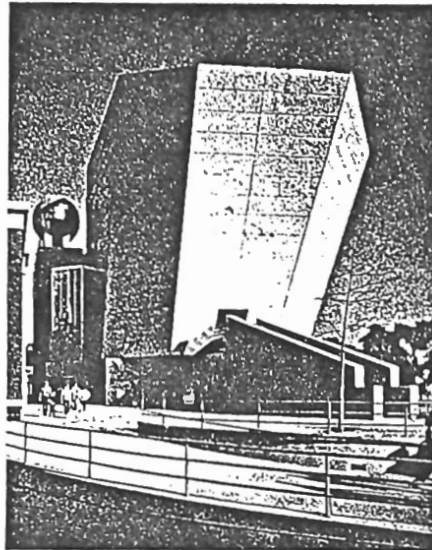
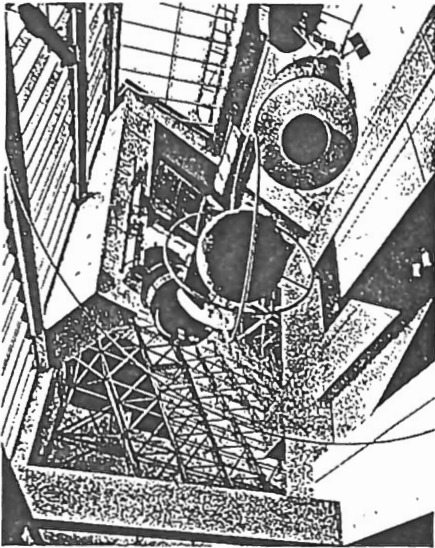


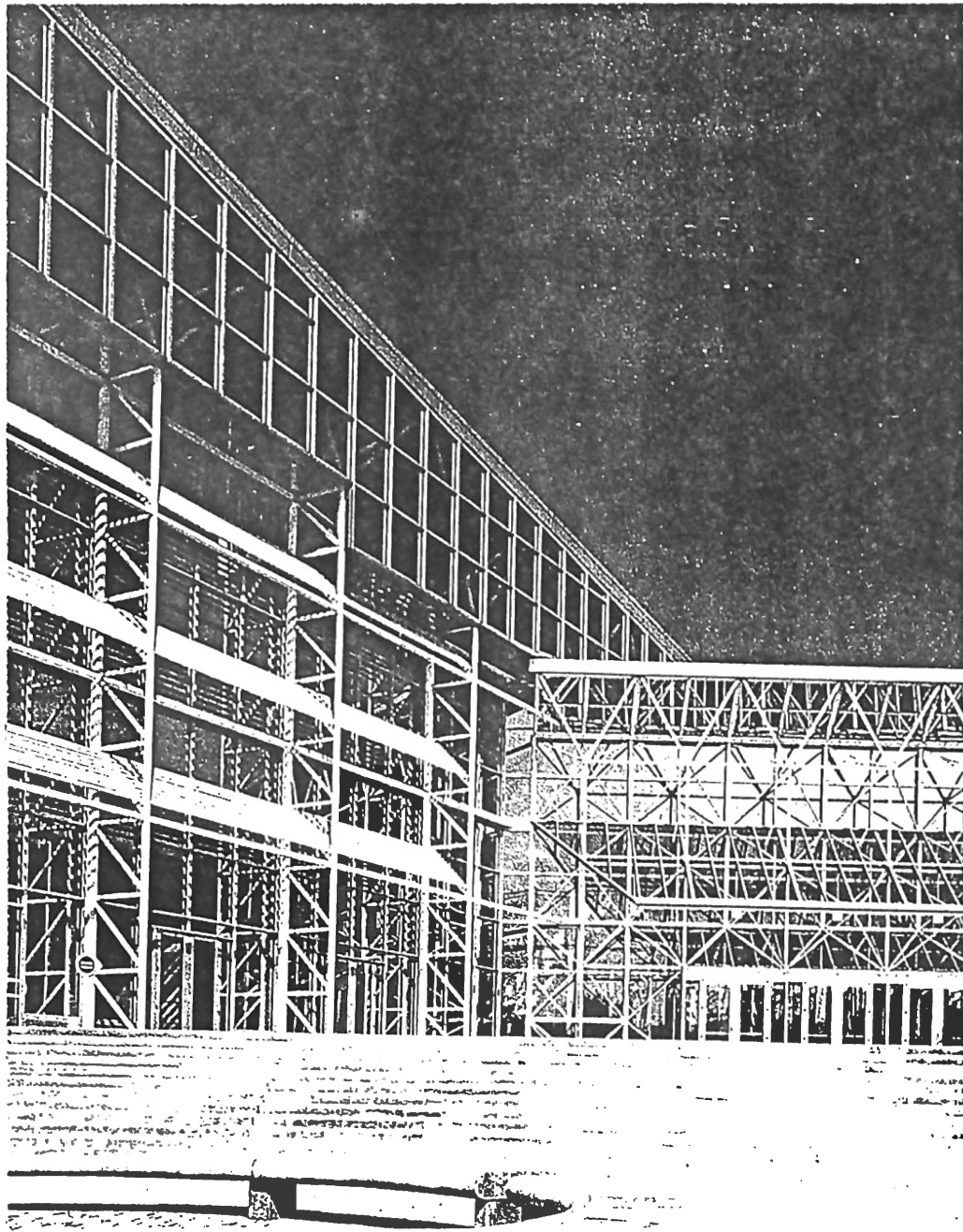
in mid-nosedive on a braced armature. The other volume is, above a height of 30 feet, sheet-metal clad, irregularly shaped, seven-sided polygon, part of which cantilevers over the street. A ramp curves up from the sidewalk around the polygonal volume and its attendant exit stair and leads to the museum's entrance.

Surmounted by a ziggurat form which contains the building's circulation core, and crowned by the sheet-metal sphere, the entrance serves as a central element connecting the new building to the armory, and -by a walkway continuing between the two buildings -the outdoor exhibit area to the east. Inside, platforms at $12\frac{1}{2}$, 27, and 45 feet overlook the 80-foot high exhibition spaces and the exhibits and furnishings designed by Joseph Wetzel and Associates. The ziggurat shape is reflected in the disposition of the viewing platforms immediately adjacent to the elevator core. The outdoor exhibit area to the east is also populated by an exit stair from the stucco-faced volume, and by an octagonal "IMAX" theater which hosts huge-screen presentations of aerospace film materials. The pylon which marks its



entrance is an inexpensive construction of several layers of chain-link fencing. During a second phase of construction, the armory will be renovated for museum use.





Museum of Flight

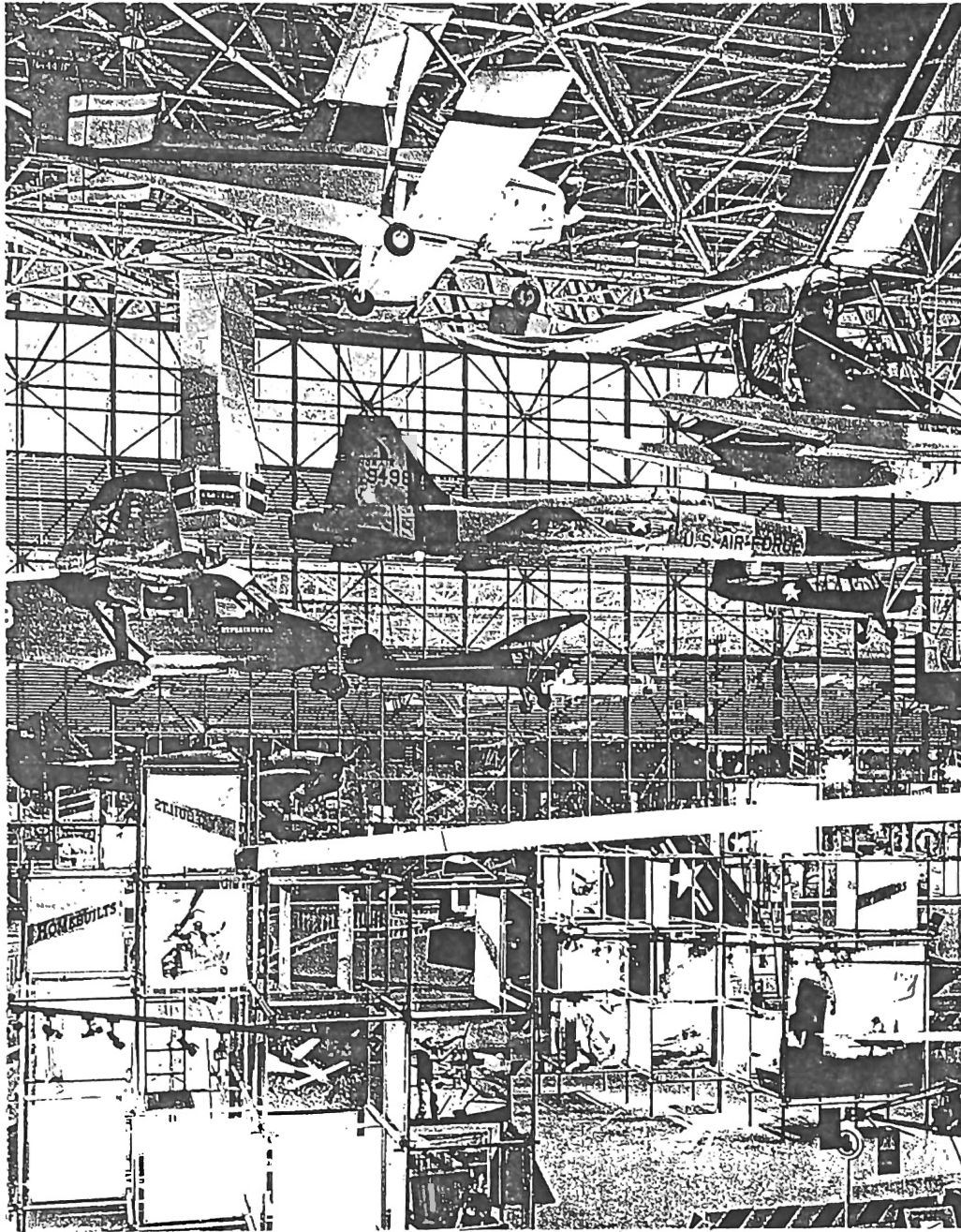
Location: Seattle, Washington

Architect: Ibsen Nelsen and Associates

Ibsen Nelsen and the museum's planning committee decided that the concept of a building whose semitransparent walls and roof wall essentially be the lighting design during the daylight hours. His concept was that a gallery for airplanes ought to be as free of obstructions and as light-filled as the air in which they once flew.

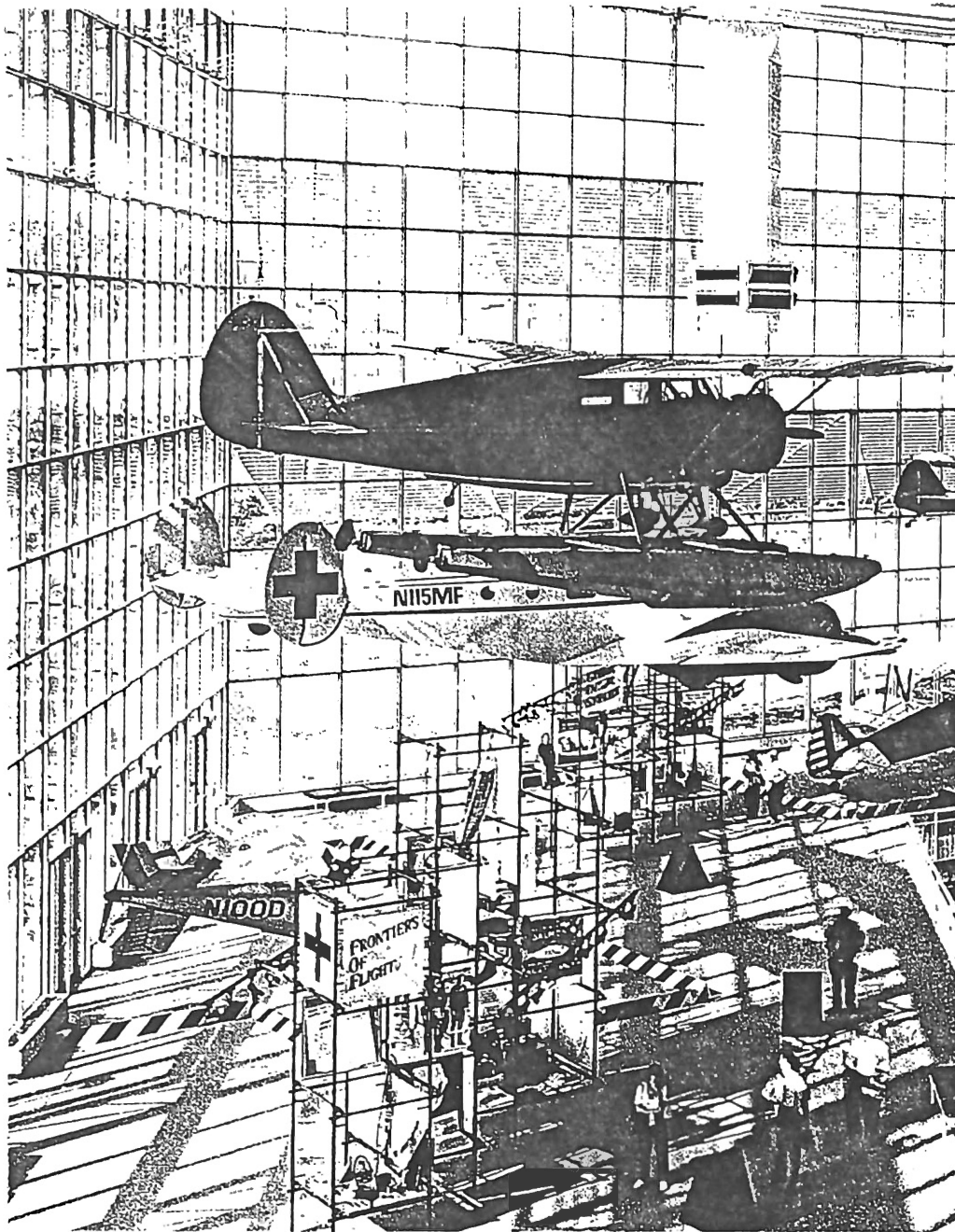
The King County (Washington) energy code allows buildings to be designed in two ways: prescriptively or by performance. The museum's planning committee chose to design a building that do not conform to the code, so they must demonstrate that the design's predicted energy performance is equal to or better than a standard building that would meet the code on a prescriptive basis.

The complete six-story great gallery has a floor area of 50,672 square feet, with over 50,500 square feet of the Heat Mirror low-e glazing used in the exterior walls. These walls are shaded by canopies, each made of a group of



parallel steel pipes mounted horizontally in the exterior walls frames and about 50,672 square feet of the triple-glazed reflective glass used on the roof. Other energy-efficiency features incorporated in the mechanical and electrical systems made it possible to meet the projected budget. For example, fans and vents that open automatically draw in cool fresh air for first stage cooling without the use of air conditioning and state of the art photocontrolled lighting system that turn on 400-watt metal halide lamps automatically when daylight decreases to a specified level. At night, a series of ellipsoidal reflector fixtures give the aircraft additional lighting. These are mounted on rails next to a catwalk mounted within the space frame that supports the roof of the gallery. Additional fixtures are hung from a track located elsewhere in the gallery.

The museum provides two completely different visitor experiences, the daytime and nighttime. In the daytime it has a huge volume of light, which floods the aircraft in the gallery and is impossible to redirect. At night, the incandes-



cent lighting lights the airplanes selectively and gives them a completely different look -with a careful and sensitive lighting design, the depth and the contours of the airplanes come out more effectively than they do in the daytime. The advantage of the daytime situation is that the visitors can see the outside of Museum through the glass roof and walls, and can relate the airplanes to the occurrence outside at Boeing Field. Visitors can look up through the ceiling and see real airplanes going overhead or look up at the airplanes with the sky as a backdrop, and get a closer approximation to what their natural habitat is.

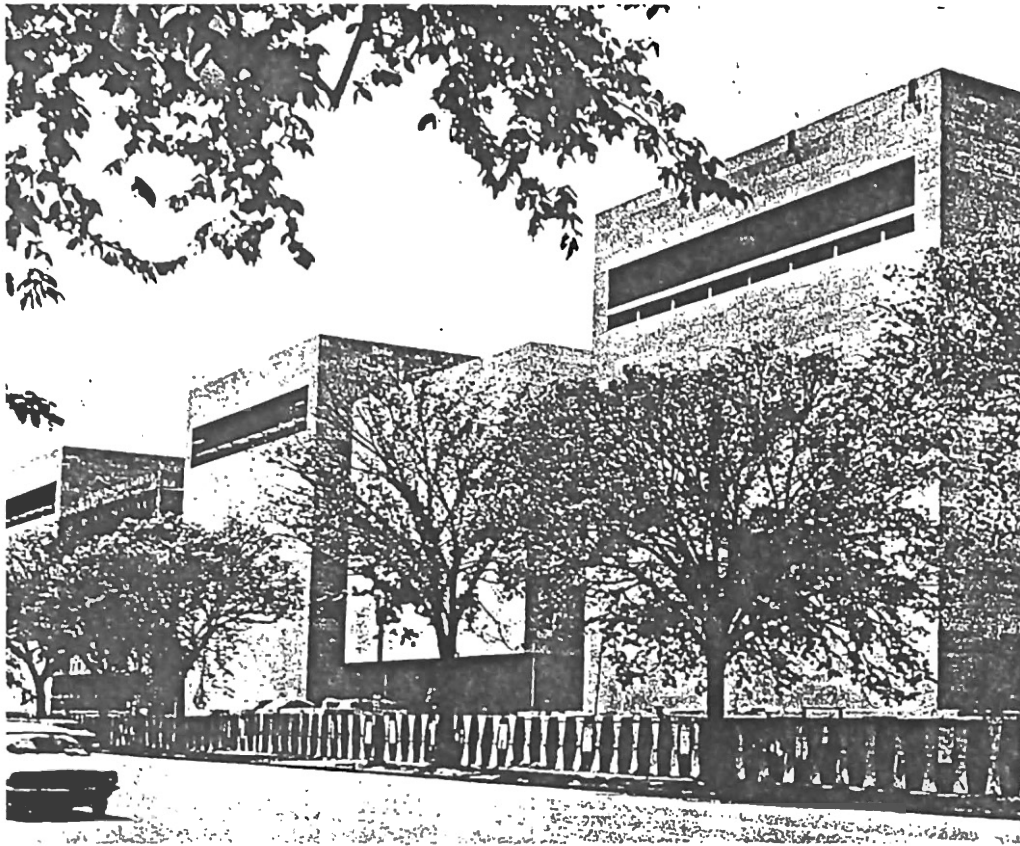
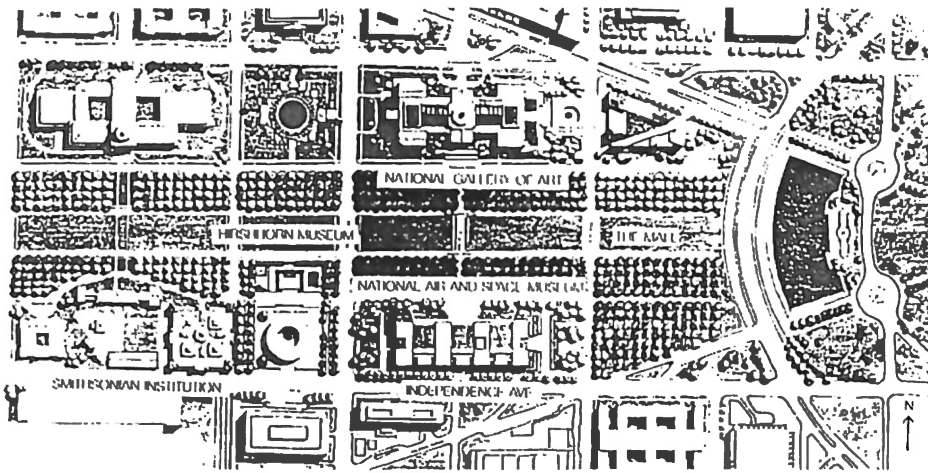
National Air & Space Museum

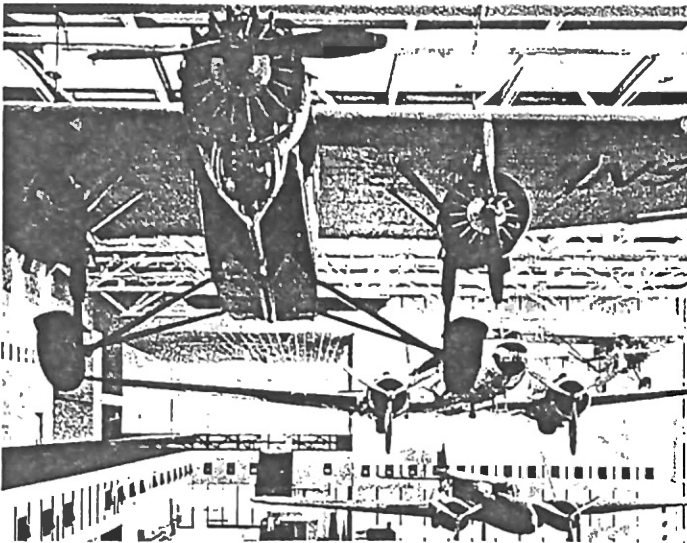
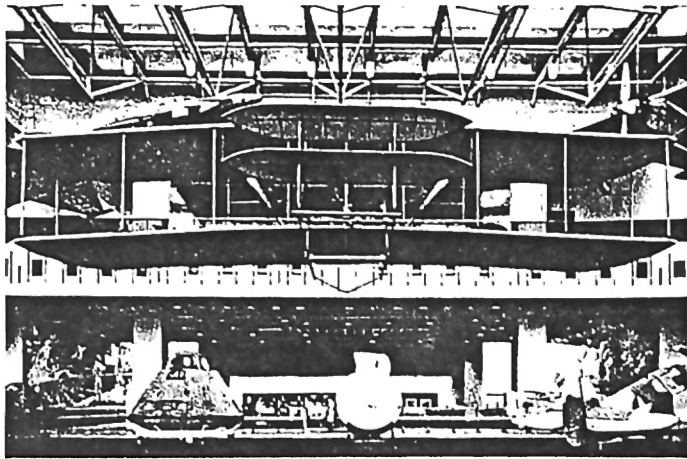
Location: Washington, D.C.

Architect: Hellmuth, Obata, and Kassabaum

The National Air and Space Museum is located on the south side of the Mall east of the Hirshhorn Museum and opposite the National Gallery of Art. It is a monumental building, as befits its location on the Mall, and it contains some of the most spectacular spaces in the capital, three soaring skylit galleries in which aircraft hang from exposed structural members as if caught in a dramatic stop-action moment. The building corresponds roughly in size and shape to the National Gallery, and is even wrapped in the same material - a pinkish Tennessee marble. The rectangular hulk could also be defended as a foil for the massive circular geometry of the Hirshhorn Museum - itself swathed in pinkish granite aggregate panels.

The area of the Museum is approximately 632,000 (gross) square feet that devoted to the exhibition and display of artifacts and information pertaining to the U.S. development of its air and space technology. Two floors contain exhi-





Exhibition galleries have area of about 200,000 square feet, auditorium, and spacearium. The third floor contains offices, library, and cafeteria. The Museum also has underground parking for 400 cars.

The elevation facing the Mall has been designed with three glassed-in bays - 115 X 124 X 62 feet high - where exhibits of air and space craft loom majestically. The glazing is intended to disclose glimpses of these historic contents to the Mall. However, the opacity of the building extends to even the brown-tinted double-glazed window walls and acrylic bubble skylights enclosing the bent white pipe trusses from which planes hang. The seven bays with their two floors of exhibition spaces (offices, library, and cafeteria are located on a third floor) are strung out parallel to the Mall. A central circulation spine directs visitors on two levels along the axis past 25 cul-de-sac exhibition galleries, usually 75 feet square. Special spaces such as the spacerium and auditorium are deftly fitted in between the double-height exhibit halls.

Goals and Concepts

Relationships

GOAL: To allow for organized activities that respond to groups as well as individual activities.

CONCEPT: Separate group activities from the general visitor activities. [1]

CONCEPT: Provide large and small interaction areas within the facilities. [2]

GOAL: To provide for administrative privacy.

CONCEPT: Separate administrative from public areas. [3]

CONCEPT: Placing a buffer between administrative and public space. [4]

Activities

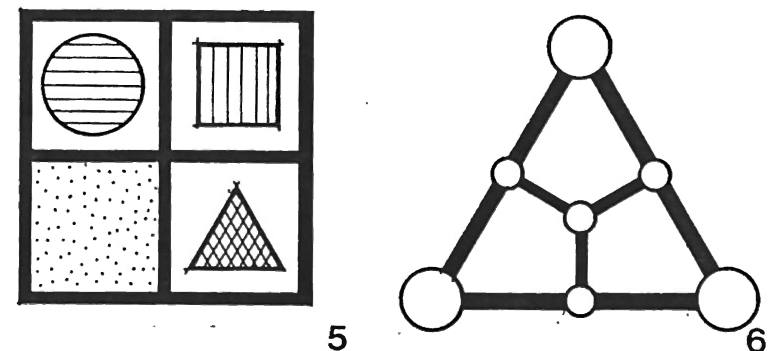
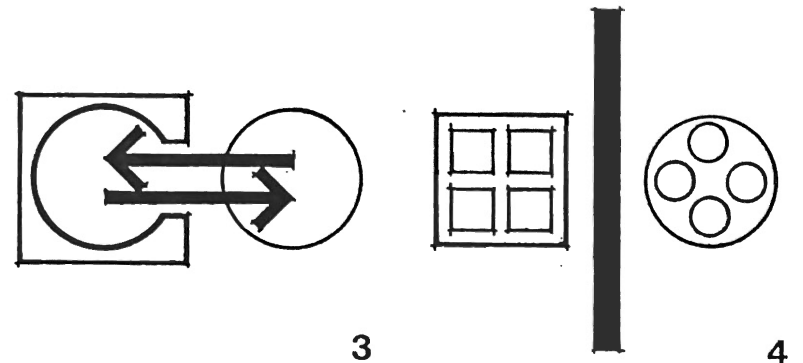
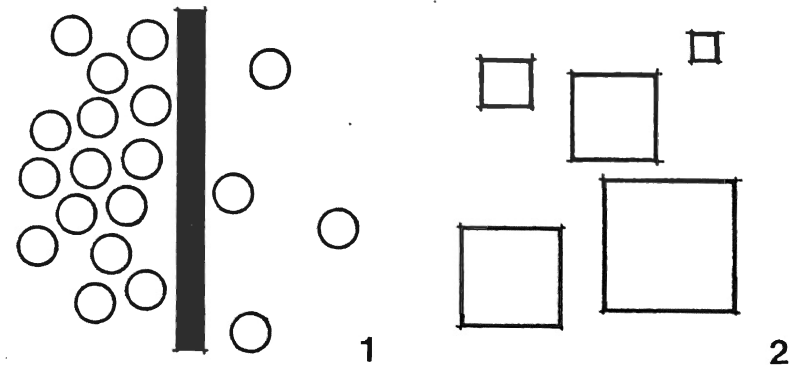
GOAL: To prevent monotony within the exhibit space.

CONCEPT: Provide an exhibit organization that promotes interest and activities. [5]

GOAL: Avoid the problem of visitor fatigue.

CONCEPT: Provide alternate routes as shortcuts and adequate rest areas. [6]

Function



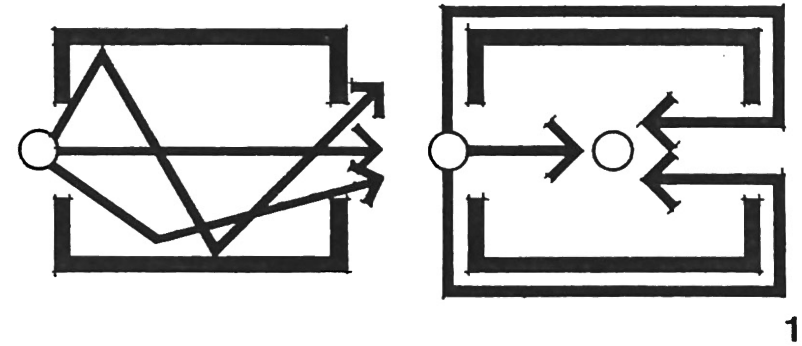
Flexibility

GOAL: To promote a multiple of experiential sequences according to visitor tastes.

CONCEPT: Exhibit areas have open plans, short cuts, or multiple routes etc. [1]

GOAL: To provide flexibility of display space.

CONCEPT: Allow the closing of some exhibit areas without disrupting other areas by use of common circulation. [2]

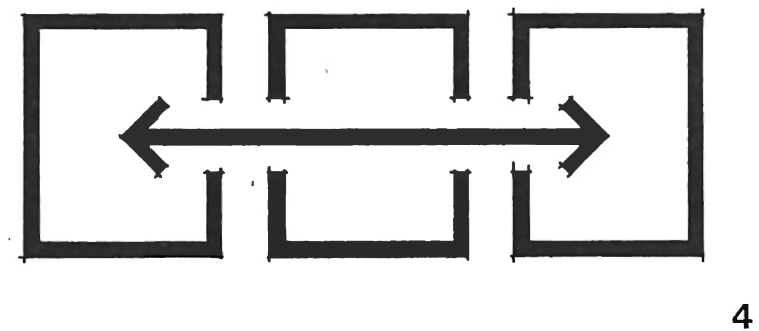
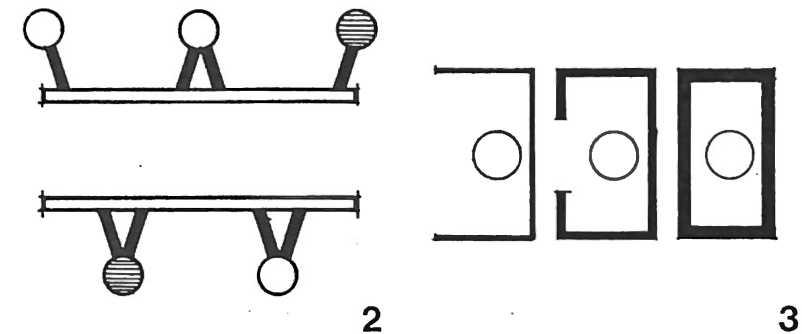


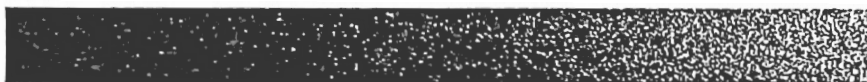
Security Controls

GOAL: To provide security against theft and vandalism without infringing on the visitors' experience.

CONCEPT: Security zones should be layered to provide maximum security and multiple checkpoints. [3]

CONCEPT: Provide limited access, barriers, and observation. [4]





Quality

GOAL: To augment the Museum's overall goal of providing a quality spectacular and exciting experience.

CONCEPT: The exterior character and expression should reveal to the visitors what awaits them inside. [1]

CONCEPT: Develop building form, fenestration, and orientation that is provokes excitement.

Site

GOAL: To achieve a wholistic building/site relationship.

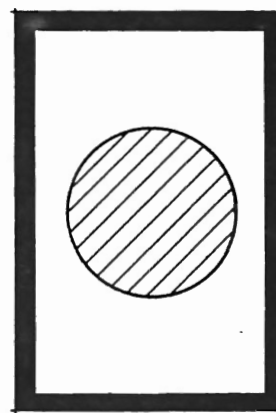
CONCEPT: Integrate the natural aspects of the site with public areas within the museum. [2]

Image

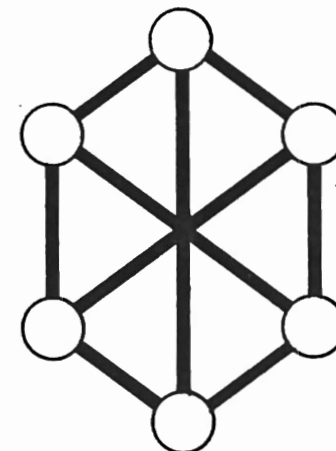
GOAL: To aid visitor in orientation.

CONCEPT: Provide the image ability indicating nodes, edges zones, landmarks, and paths. [3]

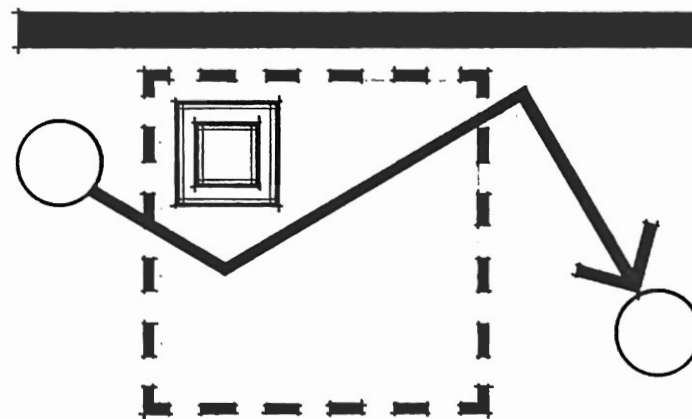
Form



1



2



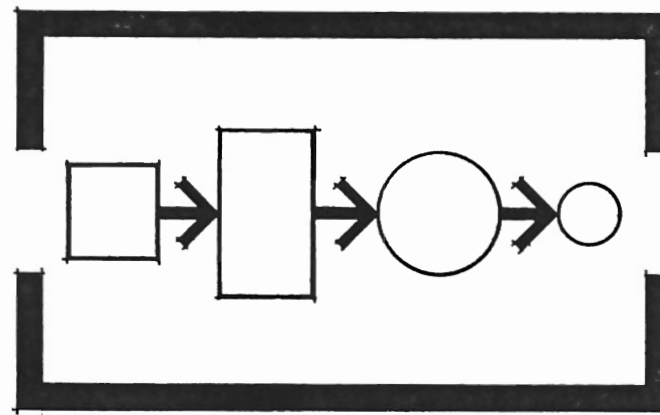
3

Economy

Systems

GOAL: To sustain with minimum expense a variety of exhibits and displays.

CONCEPT: Provide variable volumes, natural, and artificial light within the exhibit areas. [1]

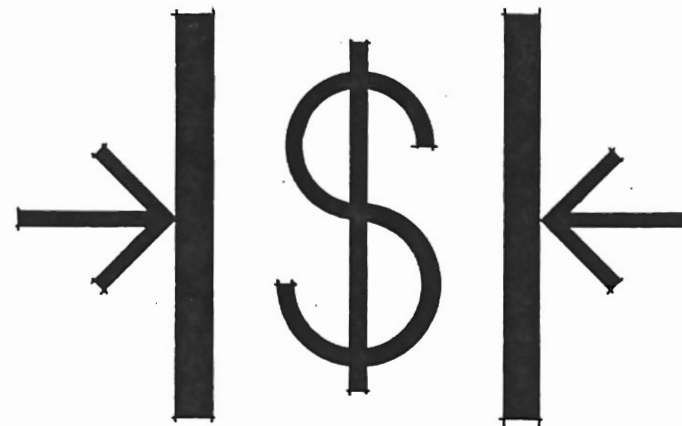


1

Energy

GOAL: To maintain a minimum level of operational costs.

CONCEPT: Explore the potential of alternate energy systems. [2]



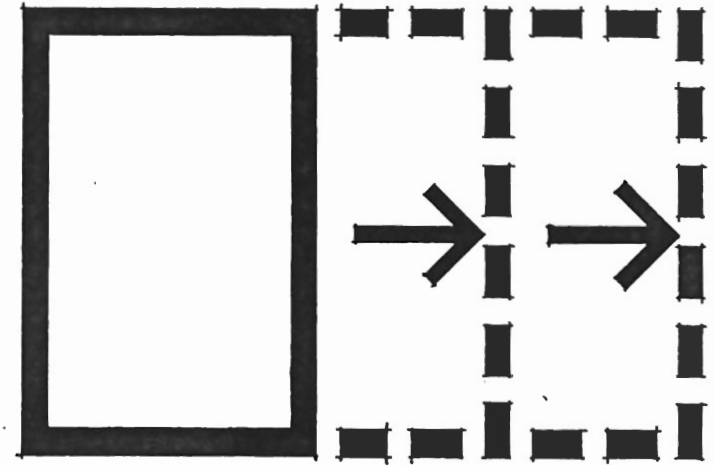
2

Growth

GOAL: To take into consideration any future expansion of the facility.

CONCEPT: Flexibility in form and fenestration techniques should allow for moderate expansion. [1]

Time



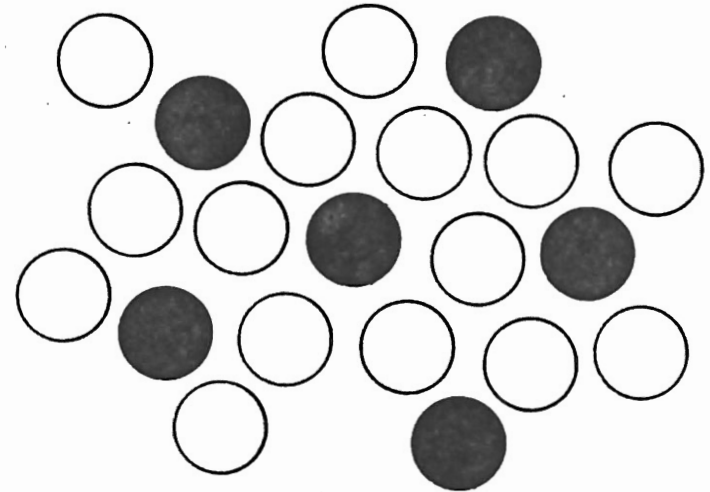
1

Permanence

GOAL: To provide the maximum life-span for the facility.

CONCEPT: Employ the use of high quality materials in an appropriate manner.

CONCEPT: Choice of materials and quality of construction should reflect a sense of permanence. [2]



2

Statement of Problem



Statement of Problem

Function

Because of the importance of the functional duality of the Museum as both an education and an entertainment center for visitors, **the solution should express this duality.**

Since the Museum will be used by groups and individuals simultaneously, **it should service both without conflict.**

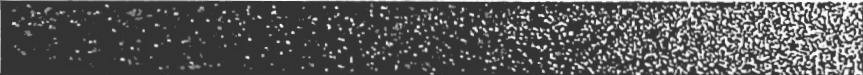
Since the Museum is in the military zone, **the plan should provide for the separation of visitors movement and officers movement in case of security control.**

Since the exhibits will be actual aircraft, **the Museum should accommodate delivery and set-up of heavy and large pieces without disrupting visitor use and offsite traffic flows.**

Form

Since there is a need for capturing the spirit of a Museum that combines educational, amusing, and user activities, **design should respond to this unique need.**

Since large open space for outdoor aircraft exhibit is an element that occurs in this Museum, **the open space system should be utilized as a positive design element to enhance the total image.**



Since space activities are exciting, the Museum should be dynamic in form.

Economy

Since the Museum will be a military showcase, the quality of design and construction must be of a high level.

Time

since space activities are developing and growing at an accelerating pace, the Museum should adapt to that change through time.



Design Theories

Public Services

This area is most likely to distinguish the building architecturally. It also unites the experience of the building exterior and site with the experience of the exhibit areas and other interior functions.

General

The entrance and general orientation spaces usually include a museum store; other facilities, like an auditorium or meeting rooms, will depend on the museum's program. The arrangement of these spaces should permit maximum use while preserving the security of the collection in galleries and staff areas.

Educational

Museums with active educational programs may have lecture and studio classrooms, seminar and meeting rooms and support facilities. If school groups will arrive by bus, space must be provided for group orientation and for handling coats, boots, and bag lunches.

Food Service

Public demand for food service is likely to grow if the museum is a beautiful and successful place. The arrangement should permit expansion without disrupting other museum functions. Functional access relationships among the public entrance and service entrances for museum objects and food service facilities (both deliveries and trash removal) may be hard to resolve.



Public Galleries

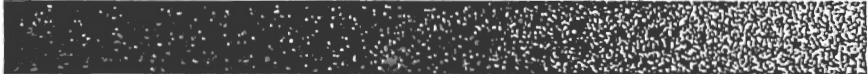
Interpretive Exhibits

These are distinguished primarily by their educational content and emphasis on the historical, social, and scientific importance of the object rather than its esthetic value. Each space must be appropriate to the exhibition content in scale, architectural treatment, lighting, acoustics, and climate control. The illustration itself often constitutes the primary visual environment, and the task of the architects may be simple to provide a flexible neutral shell. In other instances the architectural enclosure will be very exacting, with built-in exhibition casework, platforms, pedestals, vitrines, and other accommodations.

"Dark Rides!" In some interpretive exhibits the visitors walk or are conveyed through a theatrical sequence. "Dark rides" are highly specialized, and the architecture generally consists of a raw enclosure within which the exhibit is constructed.

Temporary Exhibition Galleries

Architectural enclosures for temporary exhibitions depend on the museum's design philosophy and resources. Some construct new interior environment - walls, ceilings, lighting, and floor coverings - for each exhibition. Others have permanent floors, walls, and ceilings; a few movable panels accommodate varying exhibition requirements. Between these extremes are many temporary exhibition galleries equipped with flexible modular floor and ceiling systems and movable floor-to-ceiling wall panels



that can be rearranged to form new spaces. The museum staff must determine the level of new construction desired for each temporary exhibition and advise the architects accordingly.

Administration and Curatorial Staff Services

The biggest problem presented by the design of the offices is predicting the size of staff required to operate the projected institution. Operating costs will be on everyone's mind, and staffing needs are often underestimated. The goal is to project facilities into which the institution can grow.

Offices

The amounts and kinds of work space required for each projected staff member must be described, as well as areas for volunteers, files, and general work space.

Support Functions

Space must be allocated for telephone equipment, photocopier, office supplies, mail room, and other general staff functions, including a lunchroom or lounge.

Library

Location of the library depends on whether it is intended primarily as a staff or public function. The number of volumes must be carefully projected; it will probably grow even if the staff does not. There should be space for reading and reference, office and work areas for receiving and processing books, and storage.



Collections Management Services

These functions are most often inadequately planned for by museum staff and misunderstood by architects. The interrelationship among departments is crucial for security and efficiency.

Shipping and Receiving

This facility is especially important if an active temporary exhibition program is anticipated. Access for semitrailers is essential. The degree of protection for loading and unloading will vary with museum size and prevailing weather. Facilities for crating, uncrating, exhibition staging, and temporary storage for incoming and outgoing objects will be needed, and security considerations are critical.

Registration

Space will be needed for files, examination of objects, preparation of condition reports, temporary storage, and possibly for a computer. The registration department is usually located near shipping and receiving functions, but sometimes with other staff offices.

Photography Studio

Objects may be photographed regularly for registration, condition reports, insurance, conservation, and publication. Facilities may include a studio, darkroom, storage for equipment and supplies, storage for objects being photographed and for slides, negatives, and prints.



Conservation Laboratory

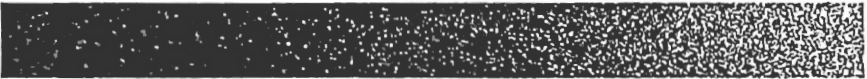
Museum policy will determine the extent of in-house conservation services. At the least, a clean, separate space must be provided to store and examine objects and carry out simple conservation procedures. A complete laboratory may include work areas for various types of objects and special equipment such as fume hoods and fumigation chambers and storage for flammable and noxious chemicals. A separate photographic studio and darkroom may be involved. Office functions may include a reception area, reference library and files for photographs and archival material.

Security Services

These space must relate to overall plans for guard staffing, staff and police procedures, electronic alarm systems including location of the monitor, shipping and receiving and registration. Guards will need lockers and changing areas, and larger museums may require guard lounges and training areas.

Collection Storage

Estimating the amount of each kind of storage requires careful inventorying of the collection and its current space requirement, then projecting expansion. Money spent on raw open building area that can be developed into storage is an excellent use of construction dollars. Careful consideration must be given to ceiling height, movement routes, construction and finish materials, mechanical equipment and climate control, lighting, doors, security and fire prevention, detection, and suppression. As most general



practice architects and engineers will not be familiar with specialized requirements and equipment, consultation may be necessary.

Closed Storage

There are the tradition object storerooms or vaults arranged for staff use only. They may be subdivided according to curatorial responsibility and climate control requirements.

Open Storage

If storage of some three-dimensional objects is to be open to the public, glass cases must be installed to permit visibility while ensuring security.

Study Room

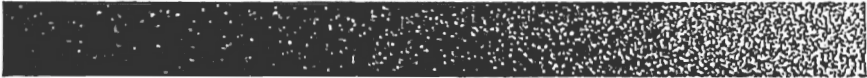
To minimize the need to work on the collection in the storerooms, an adjacent room for examination and research may be appropriate.

Oversize Storage

A small amount of oversize storage may reduce the ceiling height and access requirements for the rest of the storage area.

Security Vault

Special security provisions may be appropriate for objects that are particularly valuable or vulnerable.



Inventory Control

Room arrangement in collection storage should facilitate monitoring access, and larger museums may require a separate office for personnel responsible for the movement of museum objects and key control.

General Storage

Museum operations involve large amounts of storage unrelated to the collection. These utilitarian rooms, with few special requirements, should be separate from collection storage.

Exhibition Furniture and Equipment

The legitimate storage requirements for pedestals, vitrines, cases, stanchions, and exhibition panels and furniture are generally much larger than anticipated.

Publications

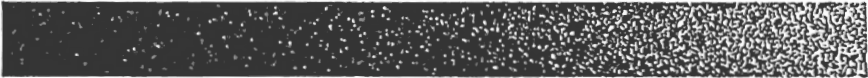
An active publications program will require extensive, secure storage for catalogs, posters, and other materials.

Museum Store

Retail functions involve inventory storage that may be as large as the museum store itself.

Special Events

Here will be stored the folding tables and chairs and all the paraphernalia needed for periodic social functions.



Audiovisual Equipment

A relatively small but secure space with good shelving lighting and perhaps a small work area may be required.

Light Fixtures and Bulbs

Lighting is a surprisingly big function in an active museum; plenty of shelving in a convenient location should be provided.

Grounds and Maintenance Equipment

Lawn mowers, wheelbarrows, carts, and other vehicles should have their own storage area.

Shops

Exhibits preparation and maintenance shops may be combined. Work space for museum objects should be separate.

Exhibits Preparation

Carpentry will be required for the installation of temporary exhibitions, in some museums exhibits preparation may involve the special techniques. Requirements will vary according to how much work will be done in-house and how much by outside contractors.

Maintenance and Building Trades

A large museum will need separate areas in maintenance supply storage and for carpentry, electrical work, sheet metal work, masonry, plumbing, electronics, locksmithing, and caring for indoor trees and plants.

Site Development

Public Transportation and Parking

Many museums have an architecturally prominent, monumental front entrance, while most people enter by a side or back entrance more convenient to the parking lot. This strikes at the heart of the esthetics of the visitor's museum experience. Addressing this dilemma should be a prime charge to the architects. Areas for unloading and parking buses may require special attention.

Deliveries

Most daily deliveries will be by small vehicles, but some museums will need access for semitrailers.

Landscaping

The museum experience often begins before the visitor reaches the building, and certainly the grounds are important to the museum's relation to the community. Plants, fountains, a sculpture garden or outdoor interactive exhibits may be appropriate.

Movement of the Public within the Museum

Control of public access at the entrance is critical. Cost and parcel checking, information desk, telephones, guard's station, museum store, lecture hall, auditorium, lecture room, toilets, drinking fountains and sometimes food services must be accessible to visitors without their going through galleries.



Circulation

Museums built in several stages are often architecturally and discomfort run counter to the museum's esthetic and intellectual purpose. Architectural improvement programs should address this problem as a primary objects.

Handicapped Accessibility

Access for the handicapped is a serious problem in many existing museum buildings, but one with which most architects are familiar.

Security

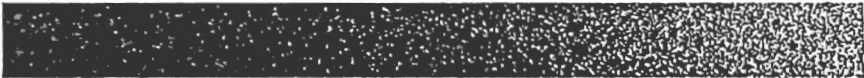
Museum functions must not put the collection in jeopardy or require expensive security staffing. It should be possible to close off the galleries from public areas during meetings, performances or social functions and to close off permanent galleries during openings of temporary exhibitions.

Separation of Public and Staff Areas

Public and staff functions generally operate on different schedules. Public access to staff areas must be limited and controlled, as museum objects in these areas are extremely vulnerable.

Movement of Objects

Architectural accommodations for the safe and efficient movement of objects are particularly important in museums with active temporary exhibition schedules.



Shipping and Receiving Functions

These include loading dock and freight elevator and spaces for crating and uncrating, staging, registration, conservation, photography, collection storage, and temporary exhibition galleries. The architects must understand and accommodate the interrelationships of these functions -the operating efficiency of the museum and security of the collection are at stake.

Avoiding Bottlenecks

The openness of routes along which objects will travel must be ensured from planning through completion of construction. Consideration should begin with truck access, size and configuration of loading dock, and size of door and elevator openings. The architects must monitor the work of mechanical engineers and construction contractors to prevent overhead constrictions from ducts and pipes.

Separation of Functions

Public areas should be separate from staff areas and museum object receiving and processing separated from delivery and distribution of construction supplies and from food services and trash removal.

Security

Protecting the collection against theft and vandalism involves not only proper staff procedures, alarm systems, and police support, but also the basic architecture of the building. Security is a primary planning and design consideration, not a detail to be relegated to locks and protective devices. Security systems basically serve to inform the museum staff that something has been stolen or damaged; it is better to eliminate temptation through security-conscious planning and design.

Building Plan Arrangement

The design and location of public and service entrances, security stations, corridors, fire exits and windows, and the interrelation of spaces are fundamental to good security.

Construction Methods

Many common construction methods are surprisingly easy for an experienced and uninhibited burglar to penetrate. Architects and engineers must be cautioned against using these methods in areas requiring special security.

Gallery Access

Galleries should be designed so that they can be closed, secure, and alarmed during public events elsewhere in the museum.

Gallery Configuration

Sight lines should facilitate guard surveillance. Where they are



obscured, objects should be protected by cases and vitrines.

Protective Devices

The relative value and vulnerability of individual objects, the cost of protective devices and the conflicting demands of protection versus exhibition must be considered,

Locks

A hardware consultant should design locking and keying systems to accommodate staff and building usage patterns.

Electronic Security Alarm Systems

Alarm systems must be designed to suit security and other staff procedures, public usage patterns, and staff and police response capabilities. They do not reduce the need for good building planning and design and proper staff procedures.

Fire Prevention & Control

Fire is potentially more devastating to most collections than is theft or vandalism. Here, too, prevention depends on building design and construction as well as staff procedures, alarm systems, and staff and fire department response capabilities.

Building Construction

New buildings or improvements to existing buildings should be of fireproof construction. Containment of fire will depend on the building's design, construction, and air-handling systems.



Emergency Exits

Exits are key factors of public safety, but their location should minimize potential use as escape route of burglars. Close cooperation will be needed among the architects, the museum's chief of security, the hardware consultant, and the fire marshal. Code variances may be required.

Electronic Fire Alarm Systems

Design of these systems is technically complex and may be handled either by the designers of the electronic security alarm systems or by other consultants.

Extinguishing Systems

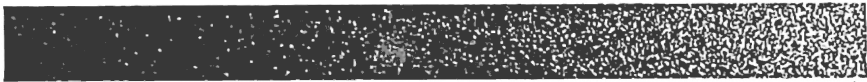
Selection and design for extinguishing systems require a balanced concern for life safety, for damage of the building and to the collection—from fire, heat and smoke as well as water damage from sprinkling systems themselves.

Conservation & Climate Control

Photochemical degradation occurs in objects exposed to improper atmospheric and light conditions. The architects and engineers must understand the importance of technical requirements to minimize this process.

Building Construction

Provision of proper temperature, humidity and air cleanliness for the museum collection starts with basic building design and



construction; it cannot be delegated to mechanical engineers. Requirements for control of atmospheric conditions far exceed those for most public buildings and will affect the building's basic plan, climate control zoning, and design of insulation and vapor barriers in wall and roof construction.

Temperature

Museum temperature are generally controlled for human comfort and for the storage of certain objects. Fluctuations must be avoided in areas where conservation standards are being maintained, primarily because of the effect on relative humidity.

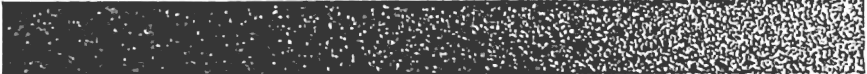
Humidity

Maintaining humidity levels throughout the museum in accordance with conservation standards appropriate for different objects is one of the most difficult technical problems facing the museum and its architects and engineers. The assistance of conservators is required. Defining humidity standards that meet conservation requirements and are at the same time technically and financially realistic may be difficult, requiring close coordination among the architectural and engineering design process, the exhibition and collections management policy, and the financial capability of the museum.

Air Cleanliness

Conservators should assess the extent of atmospheric pollution and work closely with architects and engineers to provide for proper





filtration and air circulation systems. A simple system that works reliably is often better than a sophisticated one that may be costly or complicated to maintain.

Zoning and Microclimates

It is not necessary and often impossible to maintain conservation climate control standards for all parts of the museum, but areas containing the collection must be controlled. Use of microclimate exhibition or storage cases for especially sensitive objects may reduce the need of precise control throughout the collections areas.

Lighting

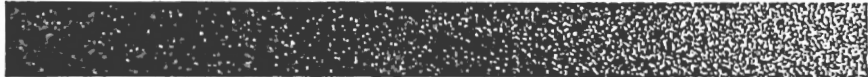
Standard engineering design practices for lighting will not be adequate. The need to see the objects and protect them must be balanced. This is a complex issue involving light intensities, types of light sources, duration of exposure, ultraviolet filtration and the relation between infrared radiation and maintenance of constant temperature and humidity conditions. Careful coordination is required among curators, exhibit designers, conservators, architects, and electrical engineers.

Exhibition Effectiveness

The need for dramatic effect and visual discrimination make this is a job for an experienced gallery designer.

Windows and Skylights

Recent technical advances in ultraviolet filtration and absorption



through reflectance and a concern for energy conservation have re-kindled interest in natural lighting.

Energy Conservation

Most building owners, architects and engineers are energy conscious. Museum buildings designed for conservation standards will probably be energy efficient, but the mechanical systems required to maintain these standards may not be. Design of the systems to achieve both operating economy and proper control may be difficult, and initial costs high.

Construction Materials

These may be deleterious to museum objects: cement is alkaline, certain woods are acidic, and many synthetic products contain harmful chemicals. All materials to be used in the vicinity of objects should first be approved by a conservator. In many cases this will mean that the contractor will have to submit samples of approval during construction in a way that departs dramatically from standard practice, a situation which will require careful monitoring by the general contractor and architect in charge.