A POLITICAL PARTY NATIONAL HEADQUARTERS (GNPP) ABUJA

BY

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(GNPP) ABUJA

IN

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APPROVAL SHEET

This thesis has been read and approved for the requirement of the award of Master of Science (Architecture) in the Department of Architecture, Ahmadu Bello University, Zaria.

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THESIS SUPERVISOR

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DATE

PREAMBLE

. Politics might be a sort of investment to some people in which case the more you put the more you get while to some people it is a sort of servitude. It is both investment and servitude to some other people. There is always two sides to a coin in any form of investment - you either loose or you win. As far as I am concerned I belief that if a political party puts in what it really takes to win political power in a country - like doing their homework thoroughly, having a well organised party, having an adequately well designed building in which all the different activities of a political party could take place and above all having a good program especially taking good care of the general masses - then there won't be any compromise for the electorate other than to vote the said Party into power.

There are a lot of difficulties involved in renting office space and more so spaces for conferences and conventions. Besides the financial shortage, the hostility of the individuals, companies or local authorities who may own such facilities may demoralize the activities of a party which makes the construction of the said building very important especially now that the federal capital is moving to a new location - Abuja.

DEDICATION

To my parents and sister for their love and encouragement and my brother without whom I would have gone into another field entirely. And lastly to my wife whose assistance I enjoyed almost throughout the course.

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I gratefully acknowledge, with sincere thanks, the keen interest, constant encouragement, advice and helpful criticisms of my supervisor in person of Mr. Jide Solanke. The helpful advise of Professor E.A. Adeyemi, the Head of Department and Mr. J.S. Gniadzik are really appreciated.

The cooperation of the following people were greatly appreciated though they still preserve most of the necessary informations as secret - people like Alhaji Takuma (N.P.N. National Secretary), Gwam Chomo Dr. Alex L,M. Davou Fom, (N.P.P. National Secretary) and Mr. A. Idris Kusada (G.N.P.P. National Administrative Secretary).

I owe a lot to members of my crit. group and a number of people who in one way or the other help to bring the work to fruition.

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CHAPTER 1

SITE APPRAISAL

The Site:-

The site 300m from North to South and 400m from East to West. The area is about 10 Hectares in size. The central area of the new city is to the North East of the site. Low density area with an average minimum of 10 dwellings per hectare.

Suitability of site is defined by a combination of environmental factors, including soils characteristics, vegetation quality, geologic characteristics, probable conservation zones, quality of climate and suitability of terrain.

Drainage/Landform:-

- Retention of the stream valley water course is for both aesthetic and drainage purposes. The stream is a tributary to the main water course way which lies to the north and serve as one of drainage catchments in the central area.

The bulk of the site is the flat high land of the plain with gradient of about 6%.

Landscape:-

The landscape of the area is a park savannah sloped to a valley with stream. The site is covered with trees and bush which varies in intensity and restricts long range views. Towards the stream the vegetation is very dense and typical of the tropics. The surrounding area is generally undulating with streams along the valleys.

Vegetation:-

Generally the vegetation on the site is characterized by park savanna. Riverine depressions are typically skirted by fringes of thickets and high trees. (Mass of trees, shrubs, undergrowth growing thickly together). The forest or vegetation along the riverine areas has some value in maintaining watershed hydrology and as an aesthetic resource. The vegetation has a medium density - extreme density represents moderate development constraints because of clearning difficulties.

Physiographic obstructions:-

The natural elements that occur on the site are not the type that can cause obstructions to any type of development. Such elements are trees, shrubs - which causes minimum constraint, slope of less than 6% - no constraint, stream - though no development can go over it without difficulties but it is better retained for aesthetical purposes and drainage.

Geology:-

The plains of the site contains Igneous Rock including Biotite (coarse porphyritic). It also contains Sedimentary Rock including Alluvium, located in stream beds on the site and its surroundings. The rock structure presents no major geotechnical constraints to the type of structure proposed for the site - because they are of medium strength.

Surface Water (hydrology):-

The site has a stream to the Northeast and contains a poorly drained alluvial deposit. The drainage texture is medium to coarse. The stream is one of the drainage catchments that empties into the main one Northwards.

Soils:-

The soil on the site is deep and well drained. The soil is also a good agricultural land which is an advantage for successful landscaping and planting of trees for various effects.

Existing Land Use:-

The site is completely a virging land where no damage is done to any structure except physiographic elements like trees etc.

CHAPTER 2

POLITICS IN NIGERIA

The first major political parties in Nigeria were Northern People's Congress, (N.P.C.); National Council of Nigerian Citizens (N.C.N.C.) and the Action Group (A.G.).

From the History and Constitutional Development of Nigeria we know that the people of Nigeria migrated from other places in and outside Africa. The Hausas claim Mecca as their origin while the Yorubas claim to have migrated from the East, the Sudan and Egypt. It has been suggested that the Ibos and other peoples of the Eastern Nigeria might have migrated into Nigeria from North, East and Central Africa. Written records of Nigeria go back as far as A.D. 900. The first European adventurers to visit the country were the Portuguese who arrive in Benin around 1477. Later in 1553 the English followed. Early in the C19th a Fulani, Usman Dan Fodio, swept across Northern Nigeria and established a Fulani Empire over the Hausa Kingdom. Dan Fodio's descendants are the present traditional rulers of Northern Nigeria.

Lagos was first occupied by the British in 1861. In 1900 the well known imperialist protectorate was placed over Northern and certain parts of Southern Nigeria. In 1914 the Northern and Southern Protectorates were unified. A Legislative Council was established in Nigeria during 1923, but it did not legislate for the Northern Provinces until a constitution was introduced in 1946, providing for a central legislature for the whole of Nigeria. As a result of constitutional conferences held in 1953 and 1954, a new constitution came into force on October 1st 1954. Another constitutional conference, held in May and June 1957, decided upon immediate self-government for the Eastern and Western Regions, the North following 1959.

The Federation of Nigeria became independent on October 1st 1960 and on the third anniversary, it became a Republic with Dr. Nnamdi Azikiwe as the President. The Federation is now made up of four regions (Northern, Western, Eastern and Mid-West).

Each region has a Governor as the Head of the Region and a Premier with Executive powers.

On the 15th of January 1966, the Government of Nigeria handed over power to the Army and Major-General J.T.U. Aguiyi-Ironsi became head of the Military Government and Sypreme Commander of the Nigerian Armed Forces.

However the Army ruled for good thirteen years before handing over power to the Civilians on October 1st 1979 with Alhaji Shehu Shagari as the Executive President - being the flag bearer of National Party of Nigeria (N.P.N.). Other registered political Parties are the Unity Party of Nigeria (U.P.N.), the Nigeria People's Party (N.P.P.), the Great Nigeria Peoples Party (G.N.P.P.) and the Peoples Redemption Party (P.R.P.).

Politics is essentially a contest among people and groups for influence over the policies of government. Several different types of groups engage in this contest including such "Unorganised interest groups" as consumers and women and such "Organised interest groups" and "Pressure groups". Each type of group pursues its objective by means that differ somewhat from those used by the other types.

Political Parties are a kind of Political group and they can be differentiated from other forms of political organisations.

In any democratic or dictatorial system a political party has at least the following characteristics:-

1. It is an aggregation of people to whom a label - Republicans, Communists, Social Democrats or Whatever - is generally applied by both themselves and others.
2. Some of these people are organised; they deliberately act in concert to achieve whatever goals their party has.
3. The larger society recognizes as legitimate the right to organise and promote their party's cause.
4. Some of the party's goal-promoting activities work through the mechanisms of representative government.

5. A party's key activity is thus selecting candidates and nominating for public office.

A political party therefore differs from other groups in that it is organised, it nominates candidates directly, its selection usually go on the ballots under its name. They are more concerned with who holds the office.

The principal activities of a political party are selecting of candidates, contesting of elections, organising the Government and other auxillary activities like social interaction whereby the rank and file (of party members) can mingle with the leaders. A political party secretariat therefore is a properly designed environment conducive for proper organisation of the above different activities of a political party.

The new system of Government(Presidential System) prompted the selection of my thesis topic because there is no single party at present that has a properly designed environment to carry out their normal (different activities. Secondly the Federal Capital is about to be moved from her present seat (Lagos) to a new place (Abuja) and the Federal Government require every

Political Party to have its Headquarters in the Federal Capital which is the reason why I decided to make the design of a National Secretariat my thesis topic.

The major aim is to provide a standard design that would encourage a well organised party as a result of which the votes of the electorate would be worn - i.e. that the party may win political power in the country (Nigeria).

The new National Secretariat for a Political Party (G.N.P.P.) will house the representatives of the party and it will be the centre of most political activities.

Space Requirements:-

1.	Large Auditorium for about 2000 people	2000 m^2
	Conference Hall for about 300 p 300 peole	300 m^2
		2300
2.	Office for Party National Chairman	100
	Office for 5 Deput National Chairman 60m^2 each	300 m^2
	Office for Press Secretary	30
	Office for Confidential Secretary	30

2(contd)

Office for Political Secretary	30
Office for 2 Political Advisers	50
Office for Secretary/Typists and Messengers	40
Visitors Waiting Room	60 m^2
	760
Office of State Assistant Chairman (19) (40 each)	1400

3.

Office for National Secretary	60 m^2
Office for 2 Deputy National Sec. Secretary 40 each	80
Office for 8 Assistant National Secretary 20 each	160
Office for Confidential Secretary	30
Office for Secretary/Typists and Messengers	30
Visitors Waiting Room	40
	400

4.

Office for National Finanaial Sec.	60
Office for 4 Deputy National Financial Sec. (30 each)	120
Office for Clerks and Typists and possibly visitors waiting	40
	220

5.	Office for National Treasurer	50
	Office for 4 Deputy National Treasurer (30 each)	120
	Office for Clerks and Typists and Messengers	60
	Office for 2 National Auditors (40 (40 each)	80
		310

6.	<u>Publicity Department</u>	
	Office for Director of Publicity	60 m^2
	Office for 4 Deputy Director of Publicity (30 each)	120 m^2
	Office for Confidential Secretary	30 m^2
	Office for Secretary/Typists and Messengers	30 m^2
	Machine Room	20 m^2
		260

7.	<u>Department of Research and Planning</u>	
	Office for Director of Research and Planning	60 m^2
	Office for 4 Deputies (30 each)	120
	Office for Confidential Secretary	30
	Office for Secretary/Typist and Messengers	30

7 (contd)

Library	120
Office of Librarian	20
	380

8. Department of Organisations

Office for Director of Organization	60 m^2
Office for 3 Deputies (Managers) (30 each)	90
Office of Confidential Secretary	30
Office for Secretary/Typists and Messenger	30
	210

9. Administrations Department

Office for Director of Administration	60
Office for 5 Managers Admin. (30 each)	150
Office for Confidential Secretary	30
Office for Secretary/Typist and Messengers	60
	300

10. Department for Legal Services

Office for Director of Legal Services	60 m^2
Office for 4 Managers (30 Each)	120 m^2
Office for Confidential Secretary	30
Office for Secretary/Typist and Messenger	30
	240

11. Department of Maintenance

Building, Mechanical Elect Electronics, General	
Managers Office, spare part store etc.	250 m^2
Petrol filling station	100
Parking for 1000 cars (2 Hacres)	20000 m^2
	20350

12. Security Section

Office for Chief Security Officer	30 m^2
Office for other officers and	40 m^2
General Office	40 m^2
	110

13. Hotel accommodation that could be used by the by the general public when not in use by the party for about 500 people and carved out of the Headquarters. It could be given out on contract to a strong member of the party. 19000 m^2

14. Generating Plant Room 120 m^2

CHAPTER 3

AIM, OBJECTIVE AND MOTIVATIONS

Aim:-

The aim is to walk the Party towards winning political power in the country.

Objective:-

The objective is to provide a symbolic type of building with strong identity and adequate space - both covered and open for all the different activities of a political party that would enhance good planning, high accessibility so that the party in question (GREAT NIGERIA PEOPLES PARTY) may achieve her aims i.e. to win political power in the country.

Motivations:-

1. Lack of adequate space for the various activities of a political party in Nigeria - hence no coordination.
2. In compliance with Federal Government's directive that every registered political party must have

its headquarters within the Federal Capital city - and since the seat of the Federal Government is going to be moved from Lagos to Abuja by September 1982.

3. G.N.P.P. is particularly chosen because of her principle of POLITICS WITHOUT BITTERNESS and because of the fact that it is about the least voted for in the last Presidential election with 1,686,489 votes.

   OTHERS ARE: N.P.N.:- 5,688,857.
   U.P.N.:- 4,916,651
   N.P.P.:- 2,822,523.
   P.R.P.:- 1,732,113.

Party Identification and Membership:-
Identifiers, Supporters, and Members

All but a small fraction of the citizens of most modern democratic systems have some party identification; that is they feel "some sense of general attachment or belonging ..... toward a given party". Most people also acquire such attachments early in life, that the identifications grow stronger as they grow older, that they exert a major influence on voting behavior and they are one of the most stable and powerful factors affecting the outcomes of free elections.

Being a member of an organisation usually means something different from being an identifier or even a supporter. The National football team "Green Eagles fan who attends all the games, cheers his side and jeers the opposition, and offers free (though unheeded) advice to the coach and players is a team identifier and supporter, but no one would call such a person a member. Membership implies both the assumption of obligations to the organisation and guaranteed direct access to its decision-making processes. Accordingly, the survey respondent who tells an interviewer "I am a Democrat" but never contributes money, rings doorbells, addresses envelopes, attends rallies, or makes any contribution to the party other than occasionally voting for its candidates is like our Eagles fan, an identifier and occasional supporter but never a member.

A person becomes a party member, usually of a ward or branch organisation near where he lives by formally applying and being approved by a local party council or leader. He assumes some obligation to the party, mainly to pay annual dues. The main privilege that he receives is participation in party activities, notably selection of candidates for public office.

Party's Militants or Activists - feel particularly strongly about the party's goals, devote much time and energy to its operations and consequently have the most to say about what it does.

CHAPTER 4

SITE SELECTION CRITERIA

In compliance with the Federal Government directive, the Headquarters must be sited within the Federal Capital Territory. In the process of my research I was at the Federal Capital Development Authority (FCDA) Abuja where I was made to realise that though letters had been sent to the different Political Parties to apply for land for their Headquarters, not a single one of them (the Political Parties) had applied up till March when I made my last visit to FCDA in Abuja. However I was told that there is no particular place reserved for any Political Party until the application is put in and that the site has to be within the Federal Capital City (around Gwagwa Plains).

The site should be as close as possible to the seat of the government the more reason why the Federal Government directed that it should be within the Federal Capital so that there would be easy communication bet een each politi al party and the Government. Since the capital city had been zoned into different land uses like Residential, Industrial, Institutional, Commercial and so on, I decided to site the Head quarters within the institutional zone being the most relevant in all the different zones available to enhance good relations with other land uses.

Within the institutional buildings zone I choose 4 different alternatives whose advantages and disadvantages (characteristics) I considered before I eventually decided on one. Such characteristics include Good soil, Buildable Geology, Climate - all these they have in common because they are not too far from each other. Other characteristics they don't have in common are Topography, Hydrology, Vegetation.

The Selection is eventually based on the following CRITERIA:-

1. Size to accommodate future expansion, reorganization and transition (for flexibility).
2. Minimum constrains by topography drainage wise (for efficiency).

3. Exploitable natural features - good soil for landscaping - stream for irrigation (for efficiency).
4. Easy accessibility from the airport (for efficiency).
5. Easy accessibility from the transportation centre (for efficiency).
6. Proximity to the seat of Government (for efficiency).
7. Easily accessible to neighbourhood Residents (for efficiency).
8. Easily seen by passers by.

The site should enhance monumentality in the building with strong identity. It should be easily accessible from important directions (Residences, Airport, Transportation centre and the seat of Government.

	ALTERNATIVES			
	A	B	C	D
1. Size	◐	●	◐	●
2. Proximity to Growth Seat	●	◐	◐	◐
3. Proximity to the people (Residences)	◐	○	◐	●
4. Hydrology (Natural characteristics	◐	○		●
5. Access from transportation centre	●	◐	●	●
6. Access from the Air-port.	◐	◐	◐	●
7. Site drainage	◐	●	●	●
8. Flexibility (accommodate Uncertainty, Re-organisation & Growth)	○	●	○	●
9. Soil strength	●	●	●	●

Key:-

● Fulfills Criteria

◐ Somewhat meets Criteria

○ Presents Problems based on Criteria.

CHAPTER 5

COMFORT ON SITE AND INSIDE SECRETARIAT BUILDING

<u>Head Gain</u>:-

Heat gain is complex, unlike heat loss it involves not less than 14 major considerations. They include:-

a) Time of day
b) Orientation
c) Latitude
d) Solar gain (glass)
e) Thermal lag
f) Shading
g) Ventilation
h) Occupancy
i) Lights
j) Heat producing equipment
k) Sensible/Latent head gain
l) Daily range (temperature)
m) Undersizing
(n) Swing

After the completion of the architect's preliminary design of any house or building, it is usually the responsibility of the consulting engineer or the air conditionning contractor to evaluate the heat gain in BTUH (British Thermal Unit per hour) or Watts of refrigeration. (Btuh x 0.2929 = Watts).

a) Time of Day:-

The heat gain is primarily expected to occur during the hottest hours of the day. Strangely enough, it may actually occur at 10 a.m. or 4.00 p.m. instead of at about noon when the sun is highest and most intense. The principal reason for this could be that the major areas of glass (a most effective heat transmitter) could, if placed on the east, dominate the heat gain at 10.00 a.m. If the design located most of the glass facing West, then r 4.00p.m. could show the greatest heat gain. For a complex structure where a central plant is going to be used it is better to calculate the heat gain at assumed 2hr intervals from 8.00 a.m. to 6.00 p.m. - the size of the plant could be determined by the maximum gain. The hourly figures could be used to determining the decentralized (unit) package.

b) Orientation:-

A proposed building with a completed architectural design can be rotated slightly to reduce the heat gain. Better still if could be sensibly designed to reduce it. For example in long narrow buildings, the gain can be drastically reduced by arranging to point its narrow ends East and West to present minimum area to the orbit of the sun and locate glass on the North and South with shading.

c) Latitude:-

The heating effect of the sun on buildings is less at locations remote from the equator. Also, the angle of the sun is different, and this will affect the arrangements for shading the glass and other surfaces of the structure.

d) Solar Gain Through Glass:-

British Thermal Unit is the quantity of heat required to raise one pound of water one Fahrenheit degree. The unit (rate) of heat flow through walls, roofs and glass is expressed as(Btu.) per hour (Btuh) for one square foot of surface for one fahrenheit degree difference in temperature between the air on the two sides, and is based on a wind velocity of 15 miles per hour (24 kmph). It is known as the U coefficient of transmission. Thus the rate of heat passing through a glass for instance, of given area would be the product of the area in square feet, the U coefficient and the actual temperature difference (Δ t) between the room and the outdoors.

area x U x Δt + Btuh.

We found that the transmission is the product of the glass area, the U coefficient and the difference between indoor and outdoor air temperatures. Heat gain is the same for North glass or any other glass not penetrated by the sun's rays.

When glass is indirect sunlight, another heat gain item is added to the above. It is called "solar gain" (warming effect of the sun). During periods when indoor cooling is require, it is most desirable that solar gain be minimised especially by locating glass where the sun's rays do not strike it or by shading it exteriorly.

e) Thermal Lag:-

The rate of transmission of heat through a structure depends on the mass of the construction i.e. it varies directly with the weight. For instance the heat may not get to the interior of a heavy construction until about 8.00 p.m. - 10 p.m. whereas with a light construction it may get into the interior around 3.00 p.m. or before.

f) Shading:-

Glass has a pleasant architectural effect but the disadvantage is in its solar gain. Transfaring heat out is more expensive than preventing it from getting into interior which is possible by three kinds of shading.

(a) Exteriorly: over hangs, baffles, trees, and ownings.

(b) Interiorly: shades, drapes and venetian blinds.

(c) Intrinsically: reflective glass, and heat absorbing glass.

Here in the tropics where the sun is distinctly overhead, roofs are especially vulnerable. "Roof shade" (a second roof or "sun-intercepter") is commonly provided some distance above the principal roof with a fully ventilated air space between.

g) Ventilation:-

It is necessary to introduce some fresh outdoor air to enclosed spaces to reduce odours resulting from human occupancy. Much energy is required for this operation. The air must be cooled from 95° or more to about 75°f. It is also necessary to reduce the moisture that this outdoor air carries with it.

h) Occupancy:-

Humans in sedentary or mildly active situations each gives off about 400 to 600 Btuh. A place of assembly such as an auditorium deep within a building, a location where the sun effect has no influence, can have as its major heat gain item the heat given off by its occupants.

i) Lights:-

Every wall of electricity is equivalent to 3.412 Btuh. Office lighting, for instance, puts a great amount of energy in the form of unwanted heat into the space it serves.

j) Heat-producing Equipment:-

Kitchens and great computer banks produce a lot of heat. From kitchens the heated air is often thrown away because of the difficulty of reducing the odours that would be spread by recirculation. Computer installations often need an air cooling system of their own even when the heat gain load is not much burdened by personnel, sun or lighting.

k) Sensible/Latent Gain:-

Very often one third or more of the refrigeration energy supplied to condition a space is not for the purpose of reducing the air temperature but to condense the moisture in the air so that the relative humidity in the occupied space will not be excessive. Moisture that is given off by people through breathing and perspiration represents, in warm weather like ours a large part of the 400 to 600 Btuh attributable to each person. Ventilation by outdoor air also contributes unwanted moisture that must be removed. Thus the heat gain load is usually expressed as:-

1. Sensible heat, requiring energy to reduce th the air temperature.
2. Latent heat, requiring energy to condense moisture.

1) Daily Temperature Range:-

This is the temperature difference between the maximum in the afternoon and the minimum in the night within a day. 30^{o}f is known as high daily temperature range and 15^{o}f could be considered as low while in btween is medium. Under certain weather conditions, some cooling might be needed all through the day and night in all these locations. But the low range locations where the temperature did not drop much during the night would demand the greatest cooling capacity.

m) Undersizing:-

In the early cooling systems, cooling units of larger capacity were used the result of which was blasts of cooling with long periods of shot down which permitted humidity to accumulate to the discomfort of occupants. Thus in more recent practice cooling units especially in residences, are undersized by a small amount that assures reasonably continous operation.

n) Swing:-

Swing is the term used for about an hour indoor temperature rise as a result of undersizing due to long operation in hot weather (an occurs in the hottest part of the qafternoon). This is considered acceptable because of an advantage of continous action.

Comfort Inside the Secretariat Building:-

People living or working in fully enclosed parts of houses or buildings will expect to be provided with comfortable conditions. Although the requirements can vary greatly, depending on occupancy, outdoor climate, the season and geographic location, a complete system of indoor comfort control demands many desirable characteristics. These could include:-

a) A uniformly cool indoor temperature during hot weather.

b) Regulating the humidity + in winter
- in summer.

c) Recirculating interior air and filtering out airborne dust.

d) Controlling the speed of the recirculated air, fast enough.

e) To provide freshness and slow enough to avoid drafts.

f) Exhausting odour-laden air from rooms such as kitchens.

g) Introducing appropriately tempered (warm or cool) make up fresh air from outdoors to reduce indoor stuffiness and to replace the air exhausted as mentioned in (f) above.

In densely occupied buildings of the commercial or institutional type, all of the foregoing amenities may be provided. However, in some structures of lesser demand, such as houses, it is not often considered necessary to include all the terms listed in (a-g), which comprise a complete air conditioning facility. In the case of institutional type like a big auditorium there is no compromise but to have it air conditioned because before the fresh air travel or move from one end of the building to the other end the oxygen content is been used up therefore leaving the people there in an uncomfortable condition that could eventually lead to suffocation.

Temperature and Relative Humidity:-

Normal Temperature	=	$75^{o}f$	=	$23^{o}c$
Normal Relative Humidity	=	between 30 and 50%		

Dessicating effect in dry season as a result of low R.H. and high temperature. This could be taken care of by the green landscaped area which is keept permanently gree bt irrigation from the stream on site.

There is a concentration of about 60% of annual rainfall within the months of July, August and September which is taken care of by the good gradient of the site towards the stream.

The use of laminated coloured glass in this type of situation has lots of advantages because of the following properties:-

- The coloured glazing allows generous but controlled light penetration.
- A safe working environment and permanent weather protection are ensured by the use of laminated glass for walls and windows.
- Under a severe impact laminated glazing retains its integrity in the event of crazing or fracture and fragments adhere firmly to the Saflex inter-layer instead of splintering and dropping this drastically reduces the risk of accidents, cuts and lacerations.

- Coloured laminated glass, using a tinted Saflex interlayer, enables precise control of solar glare and heat for improved comfort and reduced air conditioning costs. Saflex colours can also enhance a building's beauty, while maintaining visibility and protecting privacy. The interior is also insulated from exterior airborne noise by the sandwich construction of the laminated glass, together with all the recognised beauty, durability and economy of glass as a construction material. The laminated glazing even endows the building with a measure of security against vandals and burglars, which normal glass cannot provide.

CHAPTER 6

ACCESSIBILITY

The site being very close to the central area could be easily accessible from any direction of the city. It is a straght forward journey of about 25 km from the International Airport Abuja and about 1km to the transportation centre. A bus stop is also proposed very close to the site - as a result of all these the site is easily accessible by all the organs of the Federal Government, the neighbourhood residents and in fact everybody from all the nooks and corners of the country . The hotel too is easily accessible being on the same site with the Headquarter building but located towards the central area and it is along the adjacent road that the bust stop is sited.

For the suitability of the site refer to site selection criteria.

Orientation:-

For the fact that this building has to be seen from all directions - the site being surrounded on three sides by roads and the fourth side by a stream - there is the need for the building to have good elevations on almost all the sides especially the front elevation which has to face the major road, that is ring Road 1-South, which is towards the Western part of the site. It is the main entrance of the building that is facing the West while the rest part of the frontage is inclined. The main auditorium for two thousand delegates is towards the South while the conference hall for three hundred is toward the North - closer to the hotel than any other building.

The hotel is carved out of the entire site with fence and linked with a gate for members only which is manned by security men. A ramp starting after about 5m. after the gate leads one straight to the hotel reception. The delivery road for the hotel goes under the ramp. The hotel has its own main entrance for the public.

The Design:

The design is basically a geometrical shape with the frontage facing the Ring Road 1-South and the back towards the stream. There are three sides towards the frontage with a very small strip directly facing the west and the other two sides inclined. The inclined lines are at an angle of 45^{o} and the others are vertical and horisontal lines in which case the lines are in four directions (4-directional 
simply a square and its diagonals. 
The square in 2 directions and the giagonals in another two directions).

Because of the slope of the site there are three levels in the complex each level taking care of a strip of building. The highest level taking care of the general administration which is the public zone. The second level takes care of the semi public while the third level takes care of the block tending towards a private zone - It is the closest block to the stream.

The whole set up has two major courtyard and 2 minor ones for effective natural cross ventilation when the artificial one fails.

In the bigger auditorium, there is no way by which natural ventilation can be effective therefore the use of artificial means of ventilation is a must. The service ducts are hiden inside the suspended ceiling for the suply of cool air to the auditorium while it is sucked away through the grille from under the steps (rake). The type of glass used for the openings (laminated coloured glass) has very good qualities to take care of weather and air borne constraints.

MAP OF NIGERIA SHOWING FCT.

Figure 2-1. The National Context

largest of the four rivers, the Kaduna. Other than the Benue, it is the largest tributary to the Niger. A new dam is being constructed on this river, at Shiroro, at the junction of the Dinya and Kaduna Rivers approximately 100 kilometers north of the Federal Territory boundary. Several ridges of low mountains or high hills lie between the Shiroro dam site and the Federal Territory. Between the Kaduna River and the Federal Capital Territory lies the Jatau River. East of the Territory lies the Okwa River.

A high ridge of hills lies between the Territory and the Okwa Valley. Large, relatively uninhabited or sparsely inhabited areas lie between Kaduna and the Federal Territory and to the west of the Territory. Immediately north and northwest of Abuja toward Minna are farming areas. Over the ridge to the east in the Okwa Valley are extensive farming areas in the vicinity of Keffi.

Within this general geographic context, the Federal Capital Territory itself consists of a tilted plain rising from elevation 300 feet in the southwest corner to above 2,000 feet at the northeast corner. Rising out of this tilted plain are numerous rocky knobs and inselbergs and several ranges of low mountains. This kind of landscape also characterizes large areas of the region surrounding the Territory. In the areas overlooking the Niger-Benue lowlands the hills change to flat-topped lateritecapped mesas.

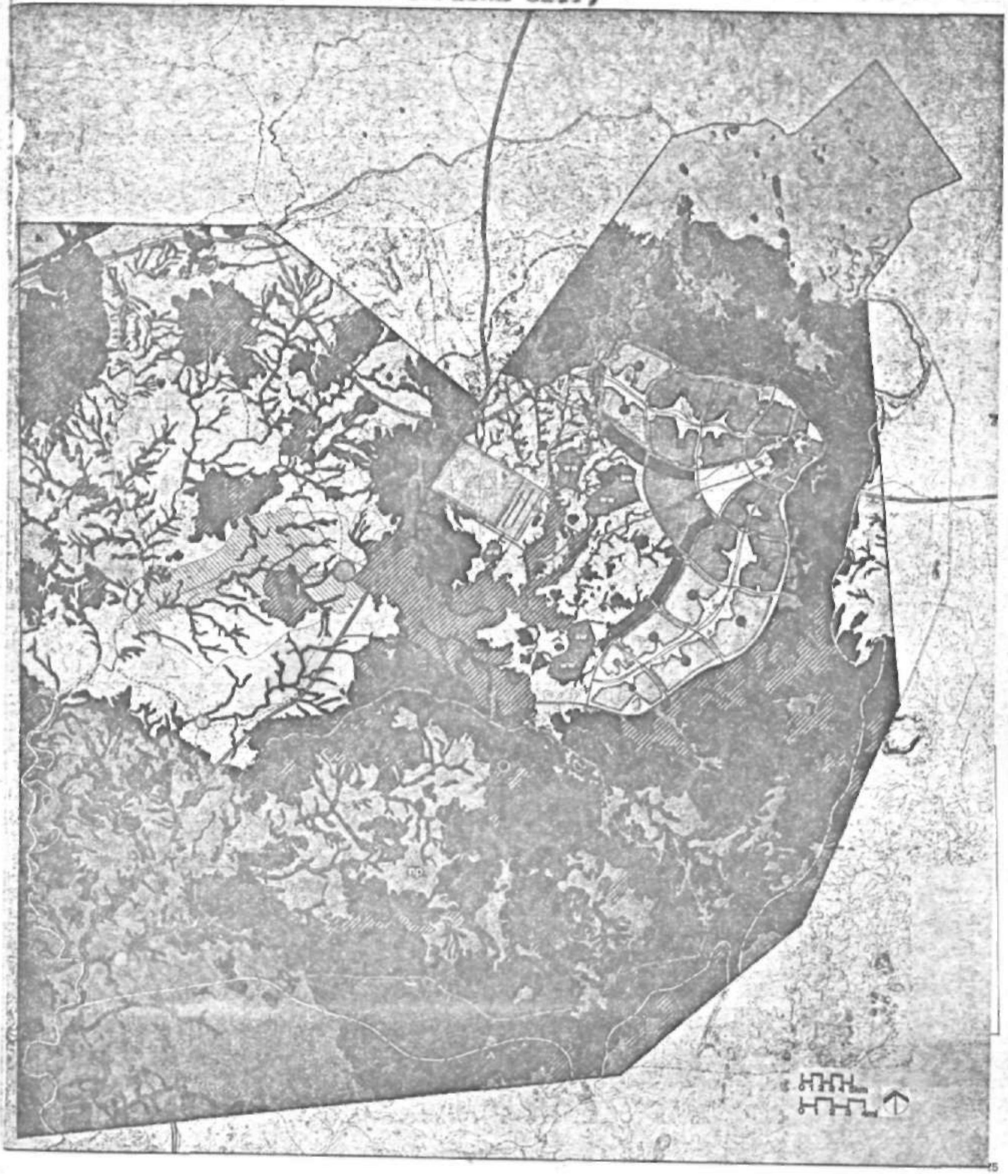
NATIONAL DEVELOPMENT CONTEXT

The Federal Capital Territory is located in the less developed Middle Belt of the country as shown in Figure 2-2. However, projects underway and planned will provide the necessary transport, power, and water supply infrastructure.

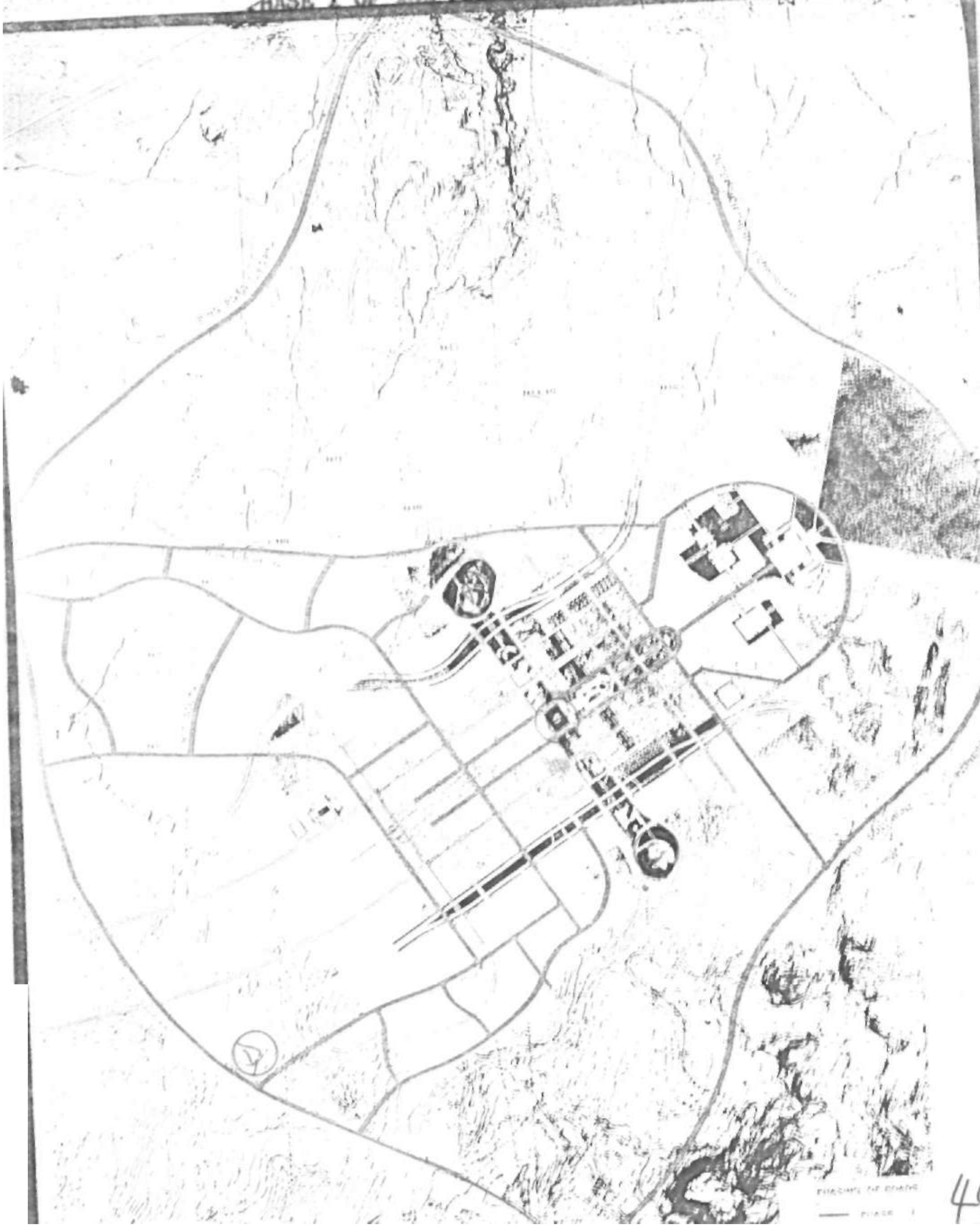
Highway Service

The national highway system in Nigeria is being developed in the form of a north-south/east-west grid of major highways, interlaced with smaller local roads. The Federal Capital Territory is located

FEDERAL CAPITAL TERRITORY SHOWING THE FCC (FEDERAL CAPITAL CITY)



PHASE I OF THE FCC DEVELOPMENT.



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Another weather phenomenon is associated with the presence of inselbergs. These features exert an influence on local weather greater than their size. These inselbergs start off convectional activity and cause intense relief rain in their immediate surroundings.

- *Wind-Dust*—Two major air masses dominate the climate of the FCT. These are the tropical maritime air mass and the tropical continental air mass. The tropical maritime is formed over the Atlantic Ocean to the south of the country and is therefore warm and moist. It moves inland generally in a southwest to northeast direction. The tropical continental air mass is developed over the Sahara Desert and therefore is warm and dry and blows in the opposite direction, northeast to southwest. The oscillation between these two air masses produces the highly seasonal characteristics of weather conditions in the country. The tropical continental mass is associated with the dry season, and the tropical maritime mass creates the wet season.

The presence of these two air masses are indicated by the characteristics of prevailing winds illustrated in Figure 2-18.

The tropical continental mass is associated with the northeast trade winds and the tropical maritime mass gives the southwest monsoon winds. The intensity and duration of each type of wind over a particular place vary due to the interface of these two masses.

In June, the northerly flow of air component has weakened and only the southerly flow predominates. Being moisture-laden, it brings a lot of rain. In September, the tropical continental

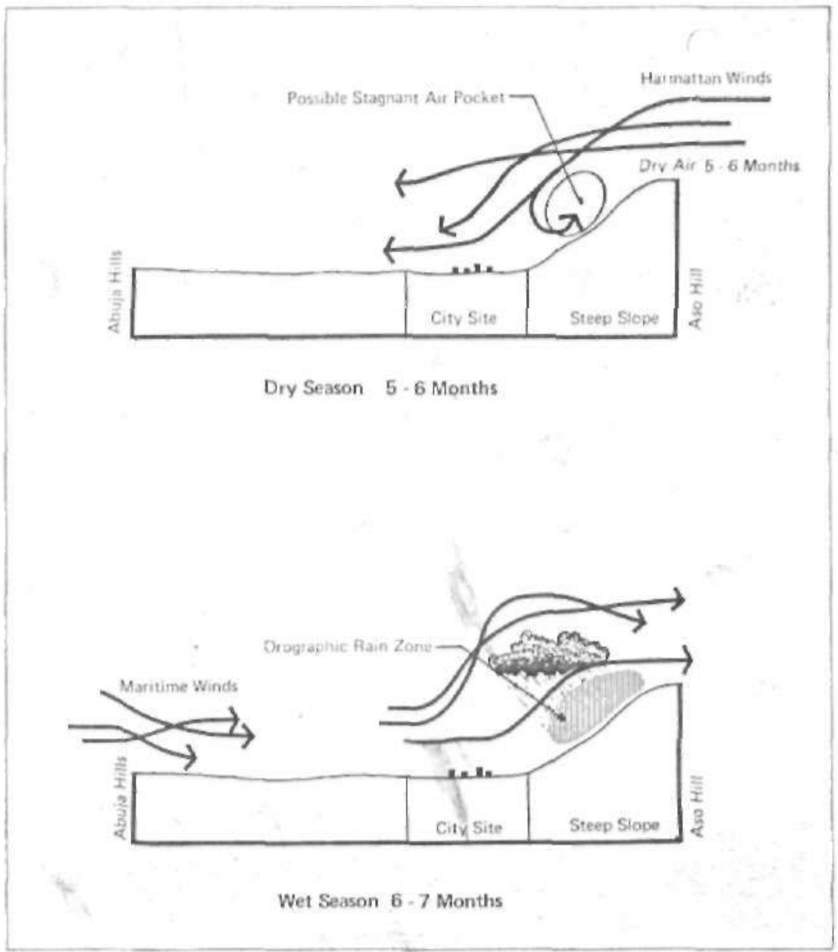

Figure 2-18. Seasonal Wind Pattern

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Table 2-4. Vegetation

CLIMATIC AHRT

Feature	Selected Characteristics	Hazard	Resource Protection	Development Constraint	Comment
FOREST	Riverine Complex	†	***	†	Value in maintaining watershed hydrology and as an aesthetic resource; disturbance along streams may result in accelerated erosion and degradation of water quality
	Rain Forest	†	***	**	Value as forest product and scenic resource and in maintaining watershed hydrology; extreme density represents moderate development constraint because of clearing difficulty; disturbance along streams may result in accelerated erosion and degradation of water quality
SAVANNA	Savanna Woodland	†	*	†	Variable value as a forest product and aesthetic resource depending upon uniformity of canopy and canopy tree species
	Park Savanna	†	*	†	Slight value as a forest product and scenic resource where commercially valuable tree species occur
	Shrub Savanna	†	*	†	Slight value as a forest product resource where commercially valuable trees occur

LEGEND

† No constraint

* Slight constraint, hazard, potential resource

** Moderate constraint, hazard, potential resource

*** *Severe constraint, hazard, potential resource*

Climate

A comfortable living environment will depend on maximizing the aspects of the environment which reduce heat and the effect of humidity, and protect from rain and dust. Planning with climate should take place at all scales. While detailed climatic information is not yet available, extrapolations from existing airport meteorological stations have been used to develop the basic description of climatic parameters presented in the Site Selection Report. These factors and their planning implications are discussed below:

- *Temperature-Humidity*—In human terms, net radiation is felt as air temperature, the response to which is greatly influenced by the humidity conditions in the air. The FCT records its highest temperatures during the dry season when there are few if any clouds. Changes in temperature of as much as 17°C have been recorded between the highest and lowest temperature in a single day. During the rainy season, the maximum temperature is lower due to the dense cloud cover. Diurnal annual range is also much lower, sometimes no more than 7°C in July and August.

  Human sensibility to temperature is greatly affected by relative humidity. Figure 2-16 shows the monthly variation in temperature and humidity for the FCT taken at 0700 hours and 1600 hours. During the dry season, relative humidity falls in the afternoon to as low as 20 percent in the City site zone. This low relative humidity, coupled with the high afternoon temperatures, account for the dessicating effects of the dry season. In the rainy season, the relative humidity is much higher, especially in the morning hours when it can reach as high as 95 percent. Even though the temperature is slightly lower, the effect is to create a heat trap. When this situation occurs, the general feeling is to be uncomfortably hot.

- *Rainfall*—The start of the rainy season in northeastern FCT is around the 10th of April. The rain tapers off very rapidly after the 20th of October. Thus, the duration of the rainy season is between 180 days to 190 days. Figure 2-17 shows the mean monthly rainfall for the Abuja area. The mean monthly distribution shows a tendency for concentration in three or four months. In the Abuja area 60 percent of the annual rainfall is in the months July, August and September. This concentration of rainfall shows the needs for drainage systems that can handle large volumes of water very quickly.

  The FCT has frequent occurrences of squall-lines, which begin with dense, dark, cumulo-nimbus clouds with thunder and lightning, followed by strong winds and intense rainfall. The intense rain may last for up to one-half hour and is then followed by drizzle of several hours duration. This condition is then replaced by a few days of bright, clear skies. It is thought to originate from the Jos Plateau region and to travel from east to west across the site. It is most common in the late afternoons at the beginning and ends of the rainy season, and often causes serious property damage.

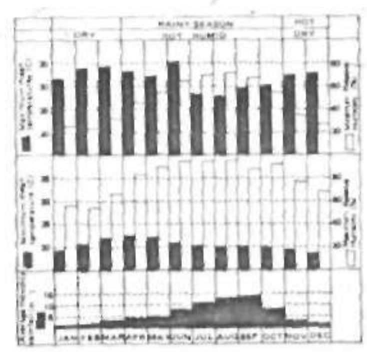


Figure 2-16, 17. Mean Monthly Temperature, Humidity and Rainfall begins to intensity over the Territory and the northeast trades become the dominant wind from October to March bringing with it dry, cloudless but dust-laden conditions associated with the harmattan.

The days are very hot but the cloudlessness means that at night there is considerable loss of heat by radiation from the earth. The temperature drops sharply often to dew point, giving rise to early morning temperature inversions and to early mist or fog.

This is further complicated by settling dust particles which have the effect of reducing visibility to a few hundred meters. With daylight, renewed insolation clears the mist or fog although the dust particles continue to float in the air or to settle as a thin film over furniture and other objects.

- *Sun and Cloud Cover*—In Nigeria, there is a general increase in the total hours of sunshine further north from the Atlantic coast. The amount of sunshine ranges from a minimum of 1,300 hours in the Niger Delta to over 3,200 in the extreme northeast of the country. The NFCC City site is exposed to 2,500 sunshine hours annually (Mabogunje 1977).

The monthly pattern of variation shown in Figure 2-18 is the critical issue. During the dry months (November-April), the monthly variation in the amount of sunshine follows the general trend of an increase from over 275 hours on the City site. As the rainy season approaches, the trend is to increased cloudiness. The decline in sunshine hours becomes more intense as the rainy season progresses and reaches its lowest values in the month of August. At this time, there is actually an inversion in the City site area where there is less sunshine hours than in the southern parts of the FCT.

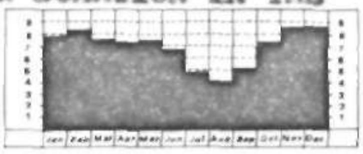
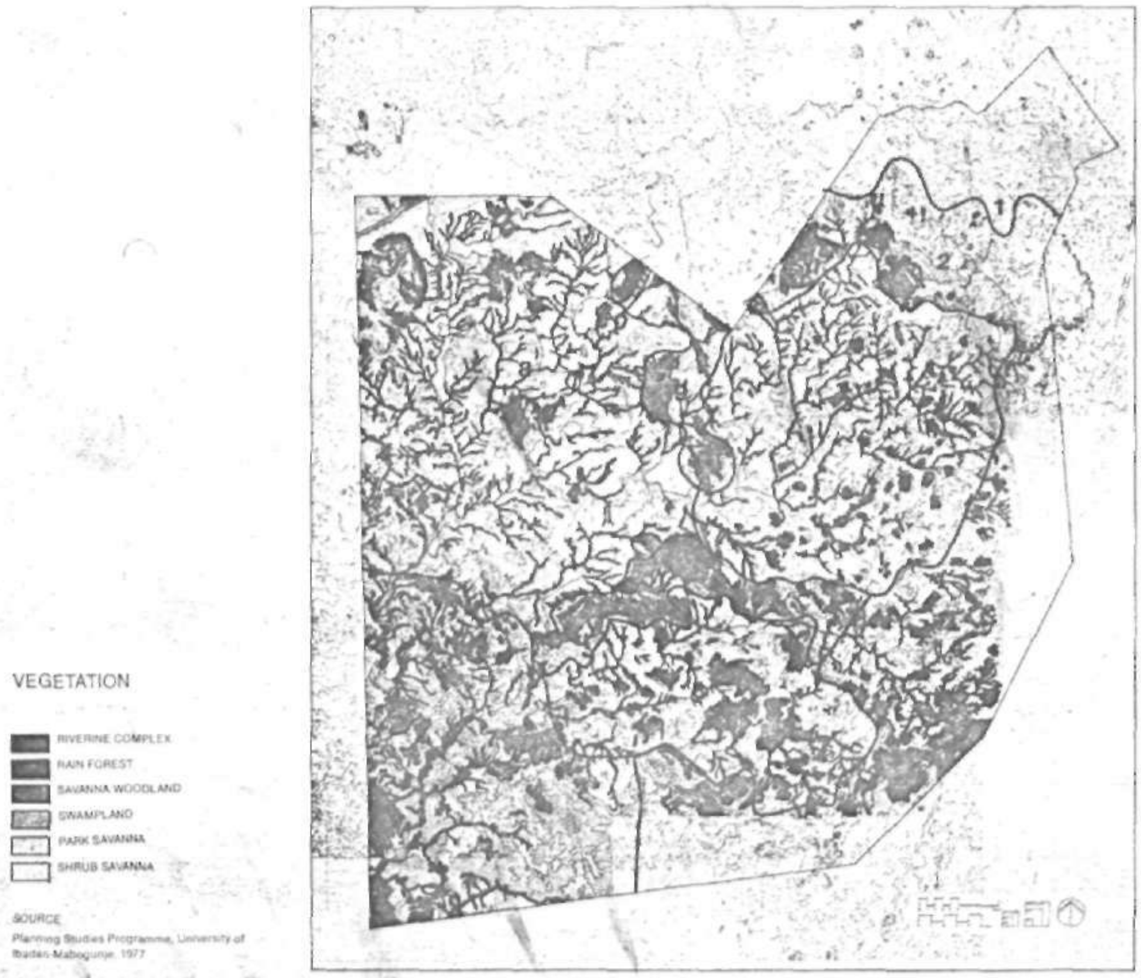


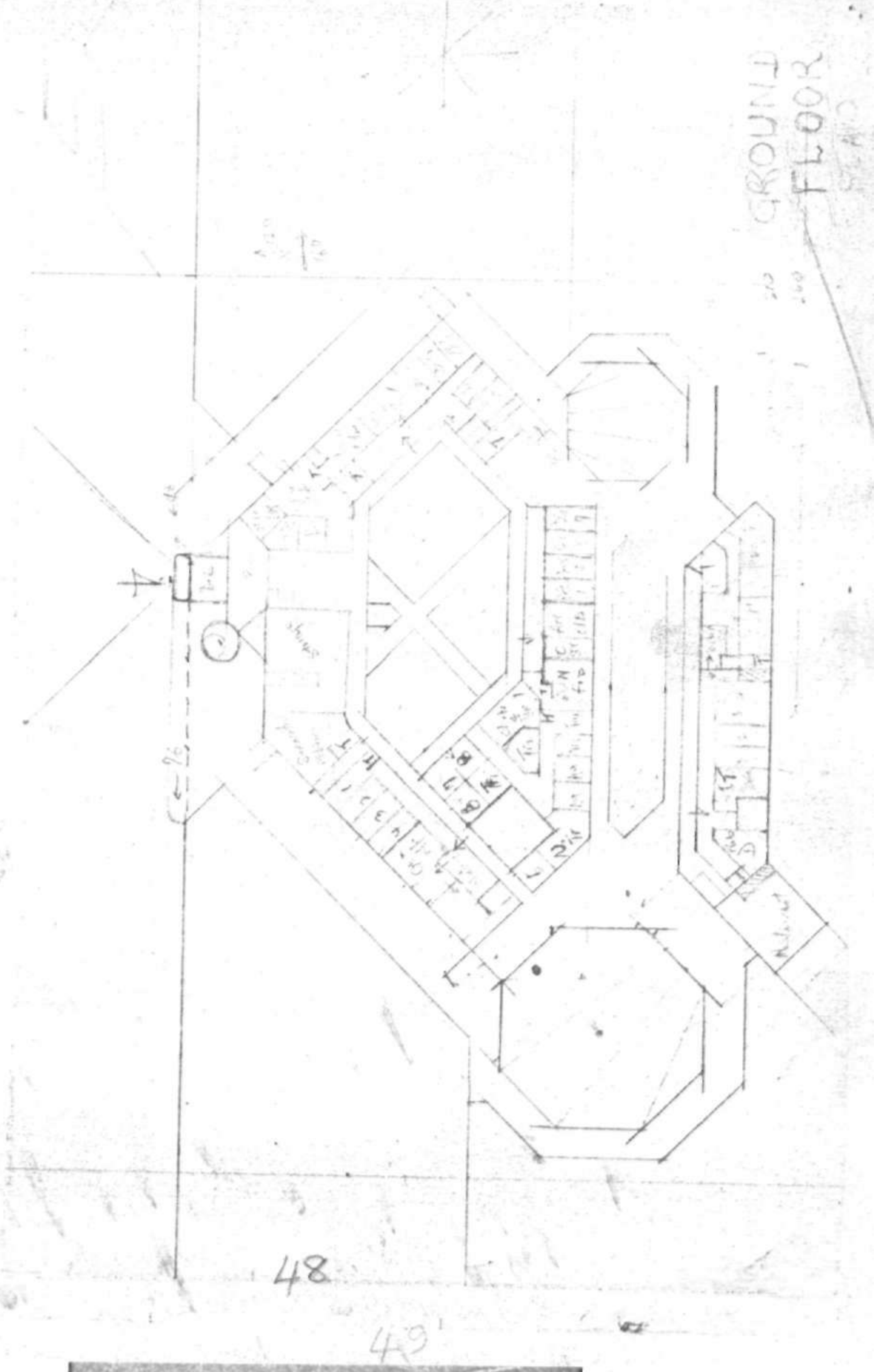
Figure 2-19. Mean Monthly Sunshine Duration

Figure 2-15.

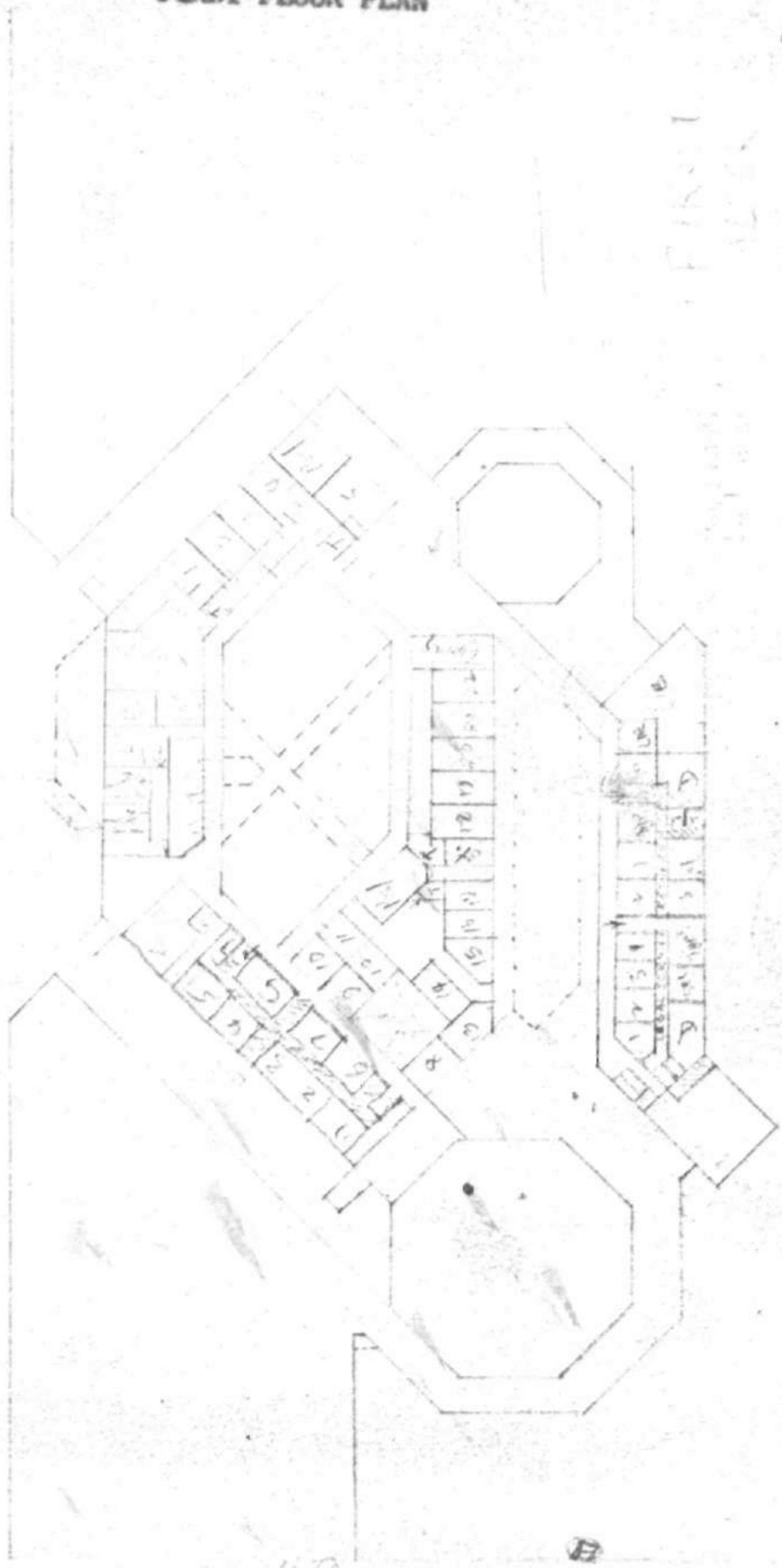


SOURCE
Planning Studies Programme, University of Ibadan-Mabogunje, 1977

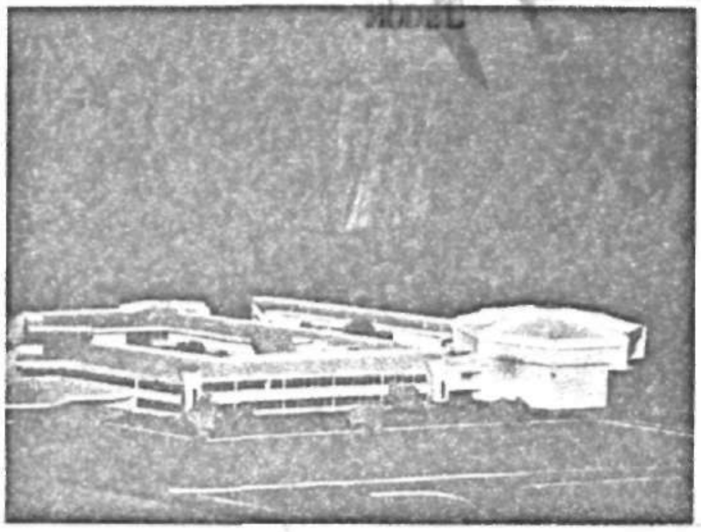
GROUND FLOOR PLAN

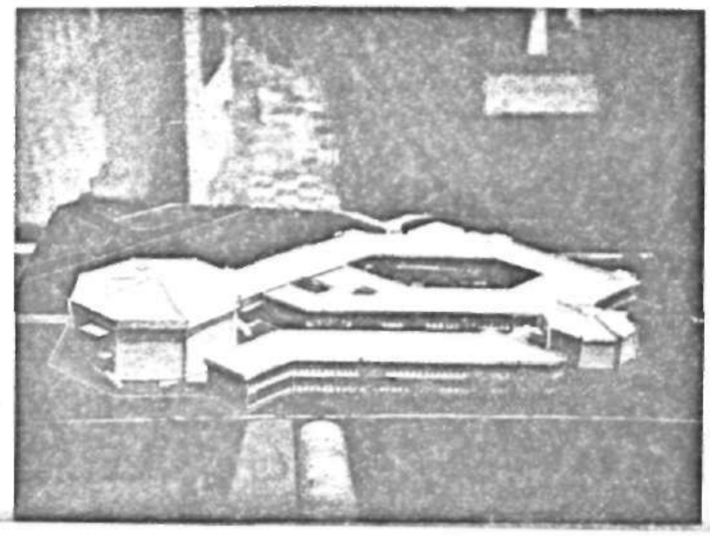


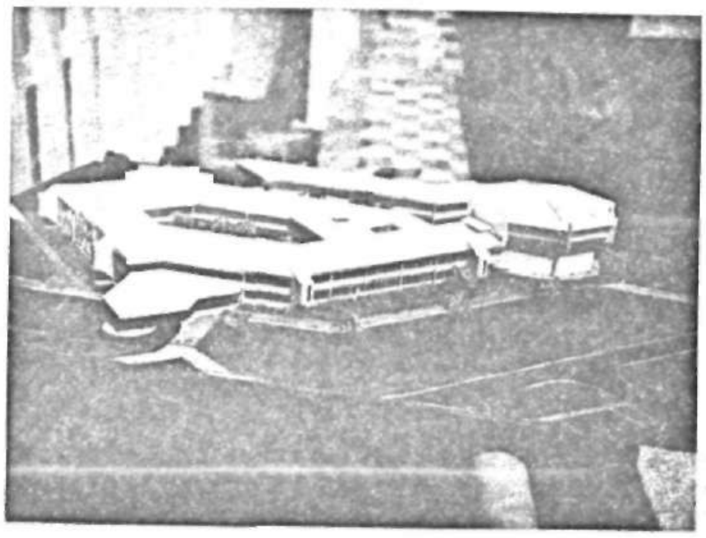
FIRST FLOOR PLAN



DIFFERENT VIEWS OF THE PROPOSED HEADQUARTER MODEL







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