

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI**

**COLLEGE OF ARCHITECTURE AND PLANNING**

**FACULTY OF ARCHITECTURE AND BUILDING TECHNOLOGY**

**DEPARTMENT OF ARCHITECTURE**

**KNUST**

**DESIGN THESIS**

**WATER FRONT RESORT**

**AKOSOMBO**

**AUTHOR**

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**(POST GRADUATE DIPLOMA)**

**(2009)**

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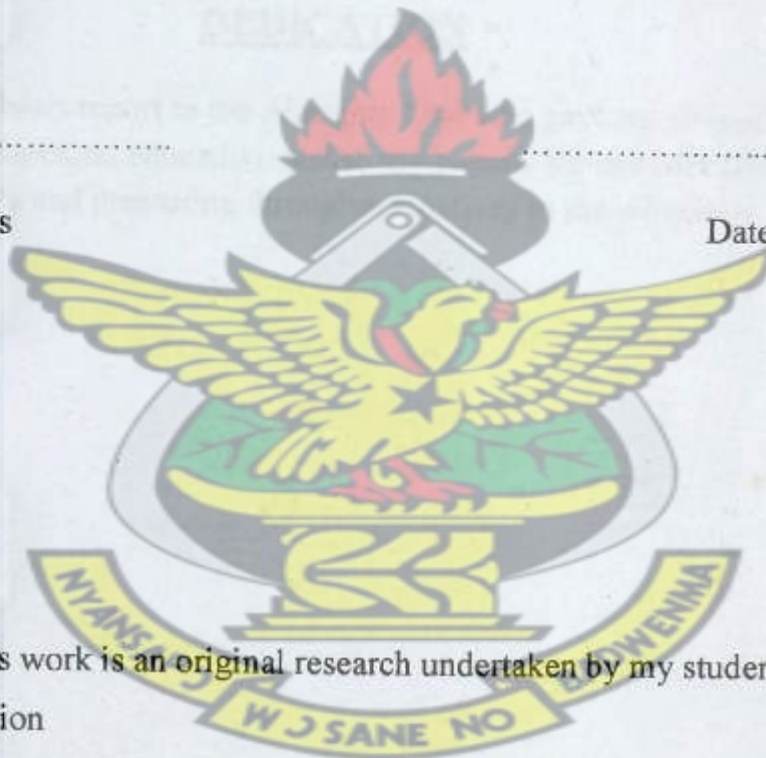
## DECLARATION

I hereby declare that this thesis report has been undertaken solely by me and is an original and not a duplicate or plagiarised work. It has resulted from thorough research and logical analysis and synthesis under department staff supervision.

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Lorraine Kuntua Dennis

Date



I hereby declare that this work is an original research undertaken by my student and has been done under my supervision

Mr. S.O.Afram

Date



## ACKNOWLEDGEMENT

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## DEDICATION

I dedicate this design thesis report to the Almighty God who gave me strength to go through the six years of architectural education, and to my parents Mr and Mrs Dennis for their guidance and mentoring throughout my stay in the university.



## ACKNOWLEDGEMENT

*At times our own light goes out and is rekindled by a spark from another person.  
Each of us has cause to think with deep gratitude of those who have lighted the flame within us.*

The realisation of this dissertation has many told and untold stories, but through thick and thin, sleepless nights and travelling mercies it has become a reality.

My utmost thanks goes to the almighty God, who sat in the driver's seat, and rode me through the journey.

To my parents Mr. and Mrs Dennis, I couldn't ask for a replacement, I am so grateful

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To my Architectural father and mentor, Architect William Nii Teiko Evans Anfom, you nurtured me throughout my six years in school, and for that, I am very grateful.

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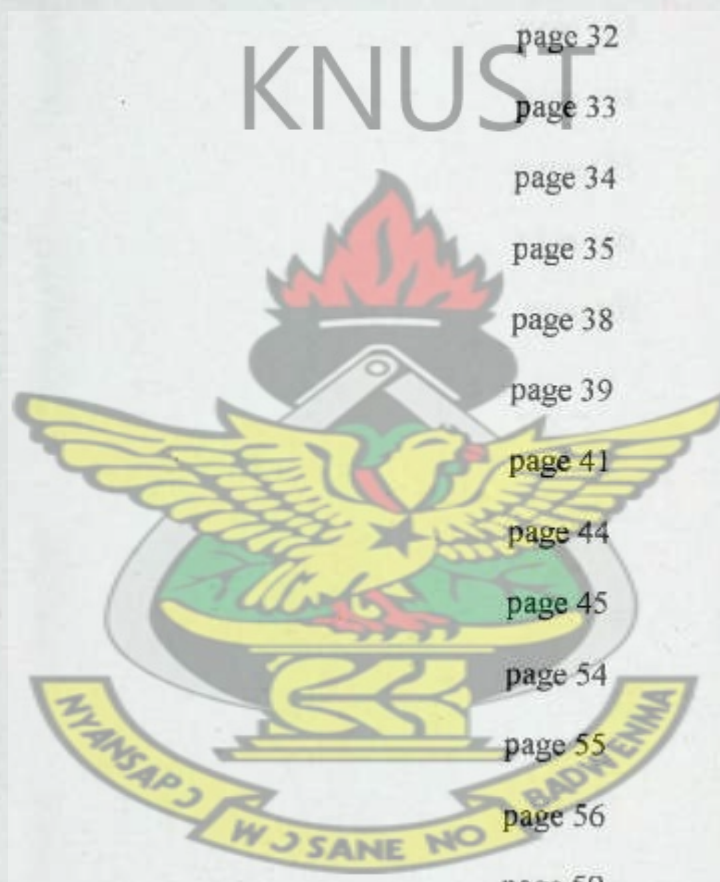
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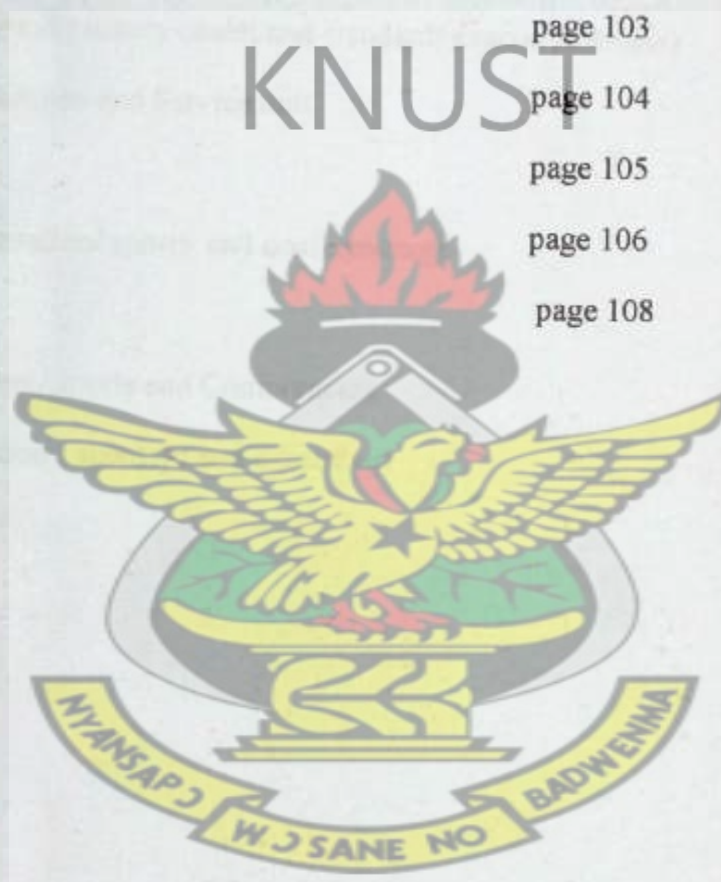
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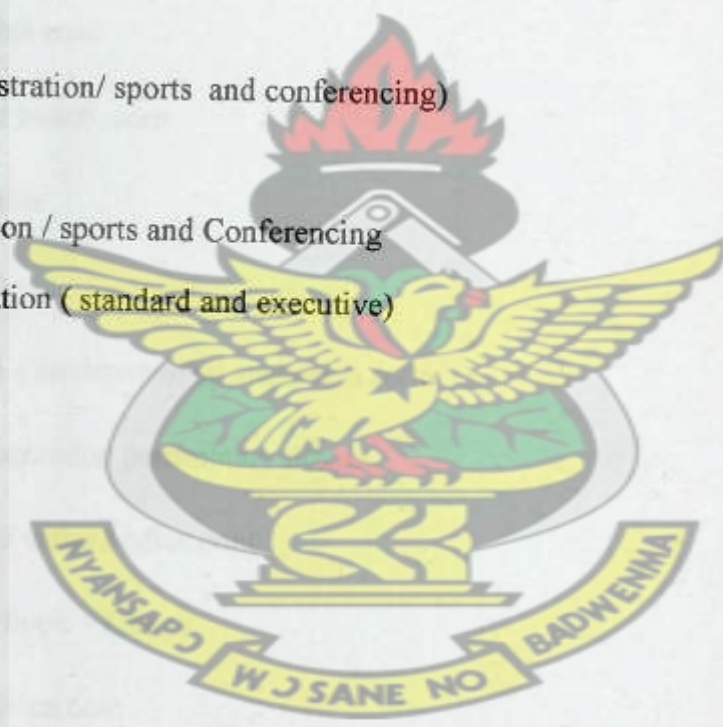
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## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 PREAMBLE:

*"It has become apparent that urban waterfronts, whether natural or artificial, are now prime pieces of real estate, essential ingredients in forming a community image, valuable stages for architectural display and great places for public recreation."* GRADY CLAY, 1998

A quick glance at tourist attractions in Ghana reveals our beautiful coastal and water bodies e.g. rivers, lakes lagoons and smaller water bodies like the waterfalls and ponds. Though these features play a vital role in promoting tourism in Ghana, little or no attention is given towards their development and maintenance.

On any major public, religious holiday or general celebration and most Ghanaians will be heading towards the beaches and other waterfronts to recreate.

One cannot talk about entertainment in the central, western and even the Volta, without mentioning their water fronts, but yet do we give them the same respect, care and attention as these are but a few of the natural bodies bestowed on Ghana is endowed with.

Ghana is very much endowed with water resources, but there is a high variability in the amount of available water within the year and over the years. About 70 percent of the total land area of Ghana is drained by the Volta river system, which flow directly into the sea. The Volta Lake covers approximately 8482 square kilometers. The areas outside the Volta drainage basin are the southwest and the southern coastal part of the country, which are drained by a number of rivers and streams flowing directly into the sea. These are 22 and 8 percent respectively of the total area of Ghana.



These water bodies are utilized for drinking, fishing, agricultural and industrial purposes. Water bodies in Ghana experience a high level of pollution, particularly where they are located near human settlements, industrial including mining, estates and agricultural activities. The same goes to affect our beautiful beaches surrounding Ghana. These have also been left to the filth from surrounding settlements. A good example is how the Densu River and Korle Lagoon are suffering from immense pollution from surrounding settlers.

People are inherently drawn to water. Hence the importance of waterfront development. There have been many great waterfront developments, such as the **Coeur d'Alene Resort** and **North Idaho College**. Others like the **Hans cottage**, **The Elmina Beach Resort**, the **Coconut Grove Hotel**, the **Biriwa Beach** and the **Volta Hotel** along the lake.

Waterfronts provide an excellent opportunistic place to live, enjoy art, recreate, shop, or relax by the water. Waterfront areas provide multiuse activities; improve social interaction and a sense of community.

## 1.2 DEVELOPMENTS SO FAR:

### 1.2.1 PROBLEM STATEMENT:

Ghana's water front has totally been underutilized and developed as compared to non water front areas. This has gone to prove the value of land around water bodies in Ghana compared to other European countries. Whereas land value around water front which are privately owned are for the very affluent in society and the public areas under severe demand a pressure because, the bulk of the populace will have to depend on the public water development to also experience it, in Ghana the scenario is totally different. Plot of land close to water front's are described as water logged areas, or in other words, having a very high water table.

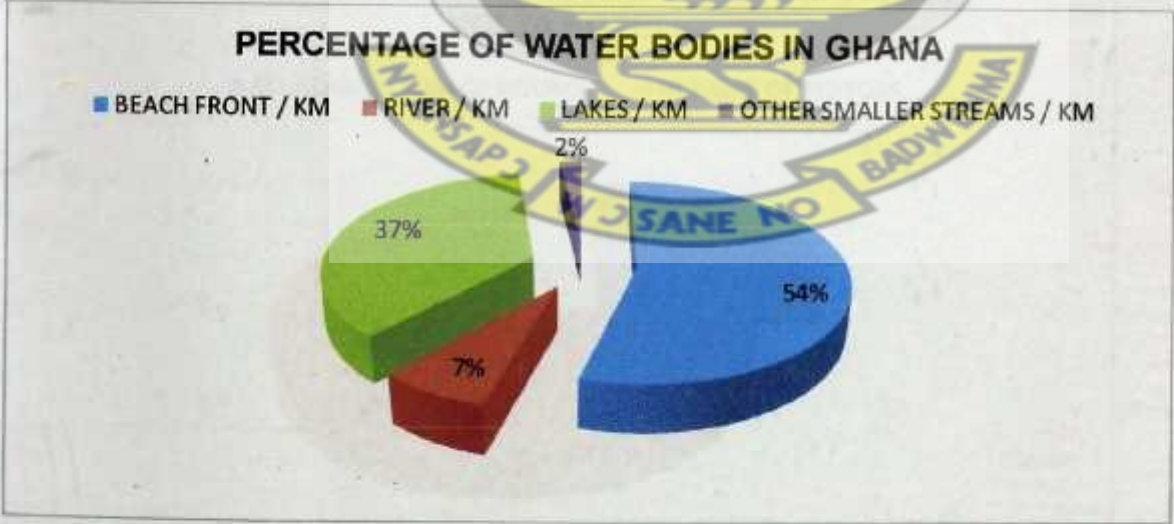
Lands value along water bodies are very cheap in the Ghanaian setting due to such notions raised earlier. Beach front in Ghana has along the years shot up in relations to value as compared to other waterfront developments. Ghana can boast of other water bodies such as the lakes, rivers,

waterfalls and lagoons only to mention a few, So why are these other water bodies given less value.

These other water bodies either have received very little or no attention at all. Speak of the beautiful river Densu, the Volta River, waterfalls such as the Wli water fall, the Kintampo water fall and our very dear Korle lagoon which have been left to be polluted by our own dear country men...

The Volta lake, together with lake Bosomtwe are the only existing lakes in Ghana, of which the former, was created by the damming of the Volta river to create the Akosombo dam, which receives volumes of tourist and holidays makers all year round, from regular weekends, through to festive occasions and holidays. This area also served as a good hide out for conference holders who want a quick getaway from the capital.

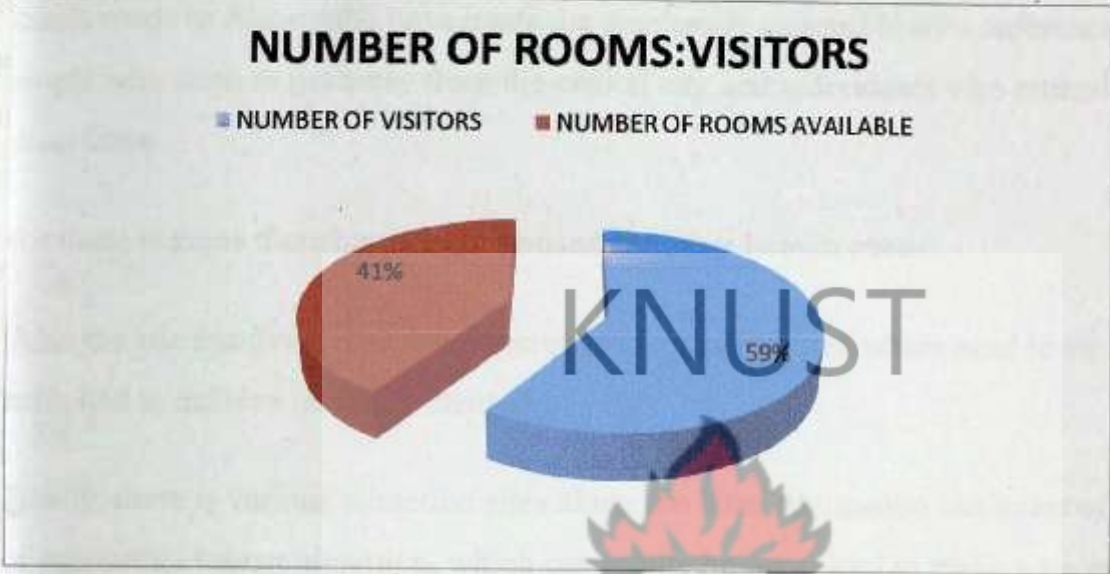
**TYPES OF WATER BODIES IN GHANA**



**FIG. 1 (source: [www.friendsofwaterbodies.com](http://www.friendsofwaterbodies.com))**



**RATIO OF VISITORS TO AKOSOMBO TO ACCOMODATION FACILITIES  
AVAILABLE AT AKOSOMBO.**



**FIG. 2(source : Ghana Tourist Board)**



**FIG. 3 (source: Volta Hotel – Akosombo)**

### 3 JUSTIFICATION:

Akosombo has developed into a great tourist site both locally and internationally. Good access roads to Akosombo have made the area easily accessible for conference holders, people who want to get away from the capital city and individuals who embark on excursions.

For these reasons there has been a demand for other human needs.

Also the site has developed other recreational opportunities which need to be further exploited to achieve its total potential,

Finally, there is various attraction sites along the lake, Akosombo can boast of a number of supporting tourist attraction, which can jointly be organized to make a vacation at Akosombo very interesting and pleasant.

There is the need to also further develop the transportation and other circulation lines to make navigation more enjoyable, less risky and simple.

Primarily, the accommodation situation at Akosombo is very poor. Tourist always spill over during the peak periods, and some end up staying at Akuse and beyond and transport daily to the lake side. This breaks the fluidity in the excitement of the trip. Apart from Volta Hotel, which can boast of about 35 rooms, the four others hotels along the lake put together, are unable to meet the accommodation facility required along the lake, hence the need to provide more accommodation facilities to meet the demand.

Secondly, Akosombo can be divided into two areas. The part controlled by VRA and the stool lands. The part controlled by VRA, does not have any water front development, due to initial proposals of the possibility of the overflowing of the dam. The only hotel there is located on the hill, which only provides guests of only a distant view of the Dam. The other smaller hotels, though relatively far from the dam site, still control the bulk of the



visitors, because they provide immediate access to the lake front and a beautiful and clearer view.

Thirdly, considering the distance and excellent access route from the capital, it has become very convenient for companies and organizations to make Akosombo their first choice when it comes to conferencing... unfortunately all the resorts along Akosombo, concentrate on either recreation or Housing of the visitors and visitor always have to change locations to when they want to experience the other. It has therefore become very necessary to build a one stop resort, which accommodates, recreates and conferences at the same spot.

There is therefore the need to develop a new resort along the lake at Akosombo to meet all these needs.

#### 1.4 OBJECTIVES:

- To help create more recreational and accommodation facilities for the Volta lake to meet demands of tourists and visitors who patronize the facility.
- To create a recreational lakefront development, with the image of the people and the identity of the people taken into consideration.
- To create a good, affordable and refreshing getaway for all Ghanaians at large, tourist and citizens who often need a break from the hustle of life.
- To develop other less developed water body such as the lake fronts, river fronts and waterfalls.
- To help meet the planning and developmental goals of Kwame Nkrumah and the VRA at large.
- Finally to help save the community image of Akosombo, at the same time, creating and generating some revenue for the locals.

## 1.5 CLIENT:

The client for the proposed project is the Volta River Authority (V.R.A)

## 1.6 FUNDING

Funding of this project is 40% by V.R.A and 60% by the Ghana Government.

## 1.7 SCOPE OF STUDY:

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After thorough and careful analysis of the site and its environment, taking into consideration its strengths and weaknesses the proposed water front resort developments shall include in its design, the provision of the following facilities to reach its target of a 4 star hotel according to Ghana Tourist Board standard:

- Accommodation
- Conference facility
- An outdoor open terrace and enclosed eatery
- Pub (night club)
- Sport Facilities
- Therapeutic areas
- Commercial area
- Administration
- Car park
- Accommodation for staff
- Health post
- Laundry
- Self waste treatment unit





## 1.8 TARGET GROUP:

They include:

- Tourist
- Ghanaians on holidays / honeymoon
- Ghanaians living in the capital and all other regional capitals as a first point of call for holidays
- The inhabitants of V.R.A community

## 1.9 LOCATION AND SITING:

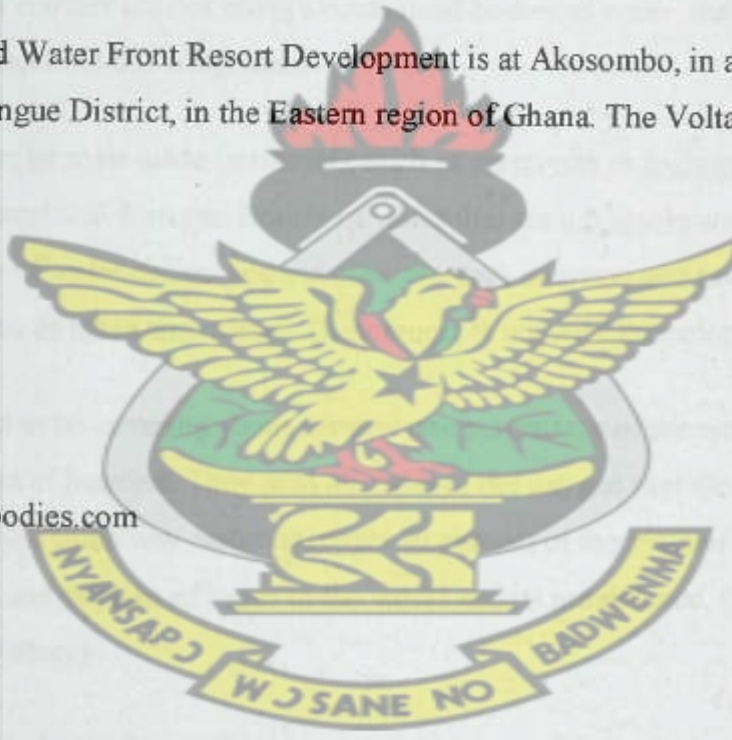
The site for the proposed Water Front Resort Development is at Akosombo, in a small town call Abome, in the North Tongue District, in the Eastern region of Ghana. The Volta River bounds one sides of the site.

### References:

Volta River Authority

Ghana Tourist Board.

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## 2.0 CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 WATER FRONT DEVELOPMENT: - *what is it ?*

A **BODY OF WATER** is any significant accumulation of water, usually covering the Earth or another planet. The term *body of water* most often refers to large accumulations of water, such as oceans, seas, and lakes, but it may also include smaller pools of water such as ponds, puddles or wetlands. Rivers, streams, canals, and other geographical features where water moves from one place to another are not always considered bodies of water, but are included here as geographical formations featuring water

Some bodies of water can be man-made (artificial), such as reservoirs or harbors, but most are naturally occurring geographical features. Bodies of water that are navigable are known as waterways. Some bodies of water collect and move water, such as rivers and streams, and others primarily hold water, such as lakes and oceans. (Reference: Wikipedia Encyclopedia)

Water as such is believed to be covering about seventy one percentage of the world's surface; the oceans are the life support of humans. They provide most of the oxygen that we breathe and much of the food we eat the same way water occupies 70 percent of the mass of the human. That indicates the importance and relation of water to the world and its inhabitance. (Ref: FAO corporate document repository)

Development refers to any form of growth, expansion, progress, advance, improvement or enlargement. Land developments can therefore refer to all forms of infrastructural growth on that piece of land, in a similar context, a water front development refers to all infrastructural growth opposite, adjacent or within the water. (Reference: Wikipedia Encyclopedia)

Water front developments, due to the harmony, peace and tranquility nature of water, have over the years been perceived as a form of luxury and recreation. With this notion, water front



developments are never seen as complete without a pinch of recreation, recreation not just for the outsiders to come in and enjoy, but recreation, which gives the **community** some **identity**.

## 2.2 HISTORY OF WATERFRONT DEVELOPMENTS

Over the years, value of water front property have quadrupled and is still rising. Water front development which used to be mainly for recreational facilities and some domestic homes have drastically shifted to all other types of infrastructure, thereby, adding value and making building more multi or mix useable.

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Waterfront developments around the world developed mostly from sites which are in very deplorable states and nothing to write home about. Most of these sites have suffered excavations, reclamations, etc.

These internationally acclaimed waterfronts are usually abandoned sites and it usually takes the interest of one person or a family to discover and revitalize that asset.

All around the world, in places like Cape Town, Ocean City in Maryland, USA, Sun City in South Africa and a host of others this has been how they evolved.

## 2.3 BURO HAPPOLD CONTRIBUTION TO WATER FRONT DEVELOPMENT

Waterfront developments present a variety of complex challenges as well as offering attractive commercial opportunities. Projects cover a very broad spectrum, from the planning and design of coastal developments, harbours and marinas to the regeneration of docks, wharfs and riverside locations.

Buro Happold is at the forefront of design in the coastal sector. To create engineering solutions specifically tailored to these unique waterside environments we employ a wide range of relevant



disciplines such as master planning, rivers and coastal engineering, infrastructure planning, transport and environmental impact assessment.

The coastal zone is a highly sensitive environment that is in a constant state of change. Wave, current and tidal conditions can vary widely along short stretches of coastline, so the introduction of structures such as breakwaters and groynes can affect the physical balance. Careful parameters therefore have to be set for their design.

Because we recognise and understand the marine processes involved, we are able to use these structures to great effect to improve coastal protection and develop beaches for tourism. We also draw on other specialist engineering services such as wave and tidal analysis, littoral drift assessment and shoreline management planning.

One of the most complex aspects of waterfront development is the integration of water with site infrastructure. Utility supply, transport, site access and pollution issues can be key constraints to development in the planning of marinas and harbours or on difficult regeneration projects based around lagoons or river basins.

Buro Happold has the skills and experience to create thoughtful and sustainable master plans, including Environmental Impact Assessments (EIAs). As part of our commitment to develop the science of coastal engineering, Buro Happold invests in an ongoing marine R & D programme and maintains close links with academic institutions. (Reference: Buro Happold mht website)

## 2.4 HOW VARIOUS WATERFRONTS EVOLVED.

### 2.4.1 OCEAN CITY:

**Ocean City** is an Atlantic Ocean resort town in Worcester County, Maryland, United States. Ocean City is widely known in the Mid-Atlantic region of the United States and is a frequent destination for vacationers. The population was 7,173 at the 2000 census.



The land the city was built on, as well as much of the surrounding area, was once owned by Englishman Thomas Fenwick. Today, the land is sometimes still referred to as Fenwick Island, which runs from the Ocean city inlet north to Indian River Inlet in Delaware.

In 1869, businessman Isaac Coffin built the first beach-front cottage to receive paying guests. During those days, people arrived by stage coach and ferry. They came to fish off the shore, to enjoy the natural beauty of the Atlantic Ocean pounding against the long strip of sandy beach, to collect seashells, or just to sit back and watch the rolling surf.

Soon after, other simple boarding houses were built on the strip of sand, with the activity attracting prominent businessmen from the Maryland Eastern Shore, Baltimore, Philadelphia, and Wilmington. They came not so much to visit as to survey the spit. A decision was made to develop it and 250 lots were cut into it, and a corporation was formed to help with the development of the land. The corporation stock of 4,000 shares sold for \$25 each.

Prior to 1870, what is now Ocean City was known as "The Ladies' Resort to the Ocean?"

The Atlantic Hotel, the first major hotel in the town, opened July 4, 1875. Besides the beach and ocean, it offered dancing and billiard rooms to the visitors of its more than 400 rooms, and for years it was the northern-most attraction in Ocean City. By 1878 tourists could come by railroad from Berlin to the shores of Sinepuxent Bay across from the town.

The Ocean City Inlet was formed during a major hurricane in 1933, which also destroyed the train tracks across the Sinepuxent Bay. The inlet separated what is now Ocean City from Assateague Island. The Army Corps of Engineers took advantage of nature's intervention and made the inlet at the south end of Ocean City permanent. The inlet eventually helped to establish Ocean City as an important Mid-Atlantic fishing ports as it offered easy access to the fishing grounds of the Atlantic Ocean.

Rapid expansion of Ocean City took place during the post-war boom. In 1952, with the completion of the Chesapeake Bay Bridge, Ocean City became easily accessible to people in the Baltimore-Washington Metropolitan Area. In 1964, with the completion of the Chesapeake Bay

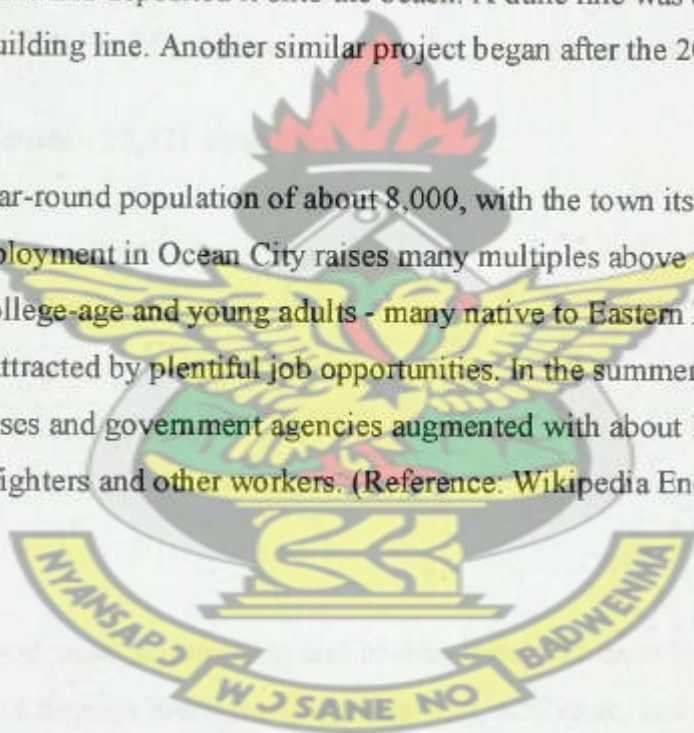


Bridge-Tunnel, a whole new pathway to the south was opened. Ocean City became one of the largest vacation areas of the East Coast.

By the 1970s, big business flourished and gave birth to the construction of more than 10,000 condominium units, creating a spectacular sight of high-rise condominiums that assured every investor of a glimpse of the ocean and pounding surf. However, throughout the 1980s and into the early 90's, the width of the beach began to shrink, prompting the first of a series of beach replenishment projects.

In 2002, Ocean City undertook the most recent of many, multi-million dollar, beach restoration programs, in an attempt to slow the westward migration of its beaches. The program pumped tons of sand from offshore and deposited it onto the beach. A dune line was also re-established in front of Ocean City's building line. Another similar project began after the 2006 tourist season closed.

The town supports a year-round population of about 8,000, with the town itself being a major employer. Summer employment in Ocean City raises many multiples above that level, supported by a large number of college-age and young adults - many native to Eastern Europe and the United Kingdom - are attracted by plentiful job opportunities. In the summer, the town bursts at the seams, with businesses and government agencies augmented with about 100 seasonal police officers, plus extra firefighters and other workers. (Reference: Wikipedia Encyclopedia)



## 2.5 CEAGO

### 2.5.1 CEAGO WATER FRONT RESORT:

North of Napa County and east of Sonoma and Mendocino counties, Lake County's 8,500 acres of vineyard border three of California's most influential viticulture regions. The Ceago property is situated between the villages of Lucerne and Nice, on the northwest shore of Clear Lake, California's largest freshwater lake and the oldest natural lake in North America. The lake



stretches 20 miles in length, and includes over 100 miles of shoreline. Lake County enjoys a dry, Mediterranean climate that receives less than forty inches of rainfall a year.

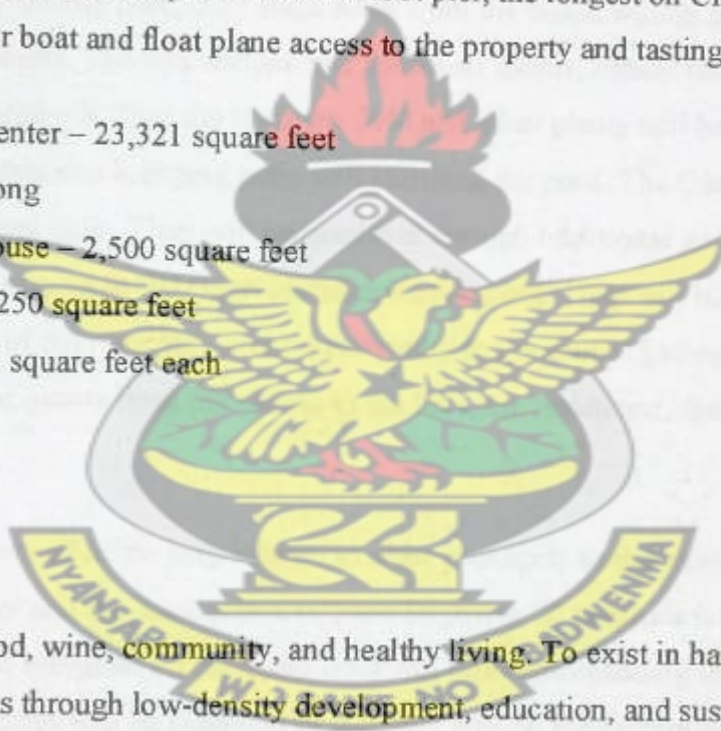
### 2.5.2 The Site

The existing buildings at Ceàgo will be the central gathering place for visitors, guests, and residents alike. Situated in the center of the property on the lakeside, these buildings are both the gateway to and the heart of the project. Inspired by the Spanish/Mediterranean architecture with influences of Early California and Mexico, the compound of buildings offers over 28,000 square feet of tile-roofed hacienda, designed around two large courtyards. The compound includes a wine tasting room, barrel rooms, event rooms, kitchens, offices, two homes, and three guest rooms. Directly across from the compound is a 340-foot pier, the longest on Clear Lake, providing dock space for boat and float plane access to the property and tasting room.

- Ceàgo Visitor Center – 23,321 square feet
- Pier – 340 feet long
- Winemaker's House – 2,500 square feet
- Lake House – 1,250 square feet
- Casitas (2) – 625 square feet each

### 2.5.3 Core Values

To celebrate life with food, wine, community, and healthy living. To exist in harmony with the land and nature's systems through low-density development, education, and sustainable operating practices. To embody an experience and lifestyle that promotes a unique interaction of recreation, rejuvenation, and appreciation for the land. To support Lake County by creating jobs for the local population, and to capture its essence through programming.





#### 2.5.4 Proposed Development

Current plans call for the proposed development to be phased, leading with the hotel/café, spa, and restaurant in Phase I, with 50 lakeside casitas in Phase II, and the residential mountainside units in Phase III. Due to the timing of this offering and existing approvals, the opportunity remains for an investor/partner to participate in final density, siting and phasing decisions. It is a unique chance to work with the existing development team to influence the final character of the project. The Hotel and Café will overlook the lake on the west side of the property and is approved for up to 50 guest rooms. Guest rooms will be well-appointed, spacious in size and oriented to take full advantage of the lake and vineyard views. Balconies, outside patios, and other outdoor spaces will enhance the lodging experience. The café will provide patio and room service. The Spa and swimming pool, only steps away from the hotel, will be available to overnight and day use guests. The Spa will include treatment rooms, fitness facilities, and a movement studio. Essential oils from the lavender field and other plants will be integrated into the body treatments. A spacious lounging patio will surround the pool. The Casitas will include both attached and detached units. They will be available through traditional and high-end fractional ownerships for rental in the resort accommodation pool. They will be clustered around the south, lakefront side of the property, in close proximity to the central gathering facilities. Pedestrian paths will lead guests from the casitas to the lake, the restaurant, shops, and spa facilities.

The Villas call for a variety of home sites located in close proximity to the existing development. The nature of the property and the intersection of State Highway 20 preclude lakefront home sites, but due to increased elevation all the home sites will offer commanding views of the lake and vineyards. The 70 homes will be clustered in the open area on the easternmost section of the north parcels. Homes will range in size from 1,200 to 1,800 square feet. The Restaurant and the retail shops will be located in the existing Ceàgo Visitor Center. Both will be open to overnight guests, residents, and day visitors. The restaurant menu will incorporate as many on-site ingredients as possible, and will promote healthy, organic cuisine that supports the artistry and practices of Slow Food. The retail shops will be designed after the old general store model with a mix of sundries, produce, wine, and fine gifts created by local artisans. Lake Access the two additional piers and marina will be located on the north and south shores of the property. Many



visitors will travel to Ceàgo by boat, and many home and Casita owners will use boats for recreational purposes. The piers will also provide easy floatplane access to Ceàgo from the San Francisco Bay Area and the Sacramento Delta.

### 2.5.5 The Program

Visitors to Ceàgo will leave behind the complexity of their daily lives for an authentic agrarian living experience that balances active lifestyle with a contemplative retreat. The quieter side of Ceàgo will be experienced in the spa where the Ceàgo philosophy of natural rhythms, nutrition and the use of plants and their oils will infuse wellness seminars and treatments. Products from the farm such as wine, olive oil, walnuts, and lavender oil will be available in the general store. Continued operations of the Ceàgo vineyard, **tasting room**, and farm functions will allow guests and residents to participate in programmed events.

While there are advantages in escaping from the bustle of an urban setting, Ceàgo will also work to connect with the cultural aspects of Lake County - with the exhibition of local artists, unique culinary experiences, and engaging dialogue and lectures. Ceàgo will highlight a celebration of wine, food, the growers, and the community, seamlessly weaving the principles of agritourism, prevalent in European countries, into the guest experience. Agritourism aims to increase farm revenues through tourism while increasing overall appreciation for the region's agricultural and natural heritage. Agritourism is a new interpretation of old-world values that celebrates community, connection to the land, and the pleasures of food, wine, and dining.

### 2.5.6 Recreation and Programs

Ceàgo is a gateway into discovery of self, others, and the natural environment. Recreational opportunities can be enjoyed in a guided class or through individual exploration. Throughout the year, guests can participate in a variety of programs offered on a weekly basis such as Biodynamic farming, olive oil production, winemaking, essential oil distillation, birding and

fishing. Special events and programs led by respected presenters will also be available to overnight guests. The resort's concierge will be centrally located in order to arrange activities throughout the year.

### 2.5.7 The Hotel and Casitas

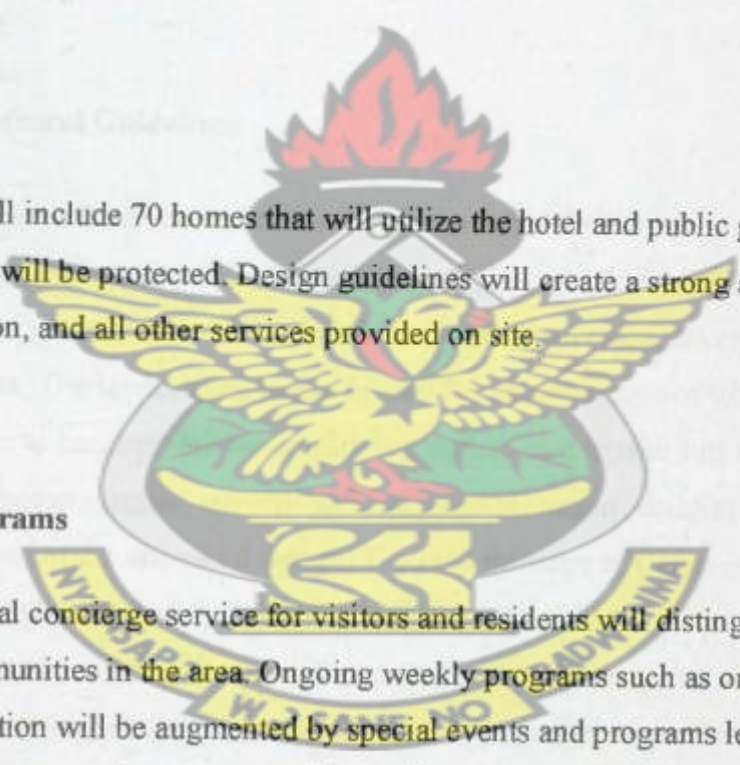
The plan calls for 50 keys in the Hotel and 50 Casitas that will be privately owned and shared through a rental pool. Most Casitas will have 2 bedrooms. The Hotel will include large public spaces for guests, gatherings, events, as well as conference facilities.

### 2.5.8 Residential

The Ceàgo property will include 70 homes that will utilize the hotel and public gathering spaces. Future property values will be protected. Design guidelines will create a strong amenity base with the hotel, recreation, and all other services provided on site.

### 2.5.9 Services / Programs

Warm, friendly, informal concierge service for visitors and residents will distinguish Ceàgo from other lodging and communities in the area. Ongoing weekly programs such as organic gardening and essential oil distillation will be augmented by special events and programs led by known presenters. Conference areas and open space will provide an event venue for the greater Lake County community.





### 2.5.10 The Spa

The Spa at Ceàgo will be an integral part of the program mirroring the strong appeal of health and wellness in the California market. The spa will include treatment rooms, yoga studio, and fitness facilities, and will be attractive to both men and women.

### 2.5.11 Restaurant and Retail

Ceàgo will include a culinary arts center where wine club events will be sponsored. The restaurant and retail store will carry merchandise from the farm such as essential and cooking oils, produce, and wine.

### 2.5.12 Architectural Guidelines

The architecture of Ceàgo reflects the agricultural regions in the Mediterranean. Stylistic features of the existing compound include cap and pan red tile roofs, heavy wooden timbers and beams, ornamental wrought iron gates and fixtures, ceramic floor tiles, balconies, courtyards, fountains, and heavy wooden doors. The landscaping aesthetic will be representative of what already exists on the property. In order to heighten the sense of living outside and to take full advantage of the sunny and dry Mediterranean climate, covered porches, outdoor rooms, exterior fireplaces, and courtyard fire pits are part of the structural design. The lake frontage of Ceàgo is the single most distinguishing feature of the site, and the buildings will be positioned to capture the views. Many of the open spaces and trails will be left undeveloped so that the serene, quiet, and reflective nature of the site can be maintained and enhanced for the community's use. The use of materials and character of the buildings currently on-site will be celebrated in the new resort buildings by using reclaimed materials where possible, and integrating resource and energy-efficient systems. Establishing green building practices and writing architectural controls advocating "smaller is better" will reinforce the development's commitment to the environment. Sustainable energy resources like solar, wind, and geothermal power will be implemented as it appeals to the buyer preferences of the desired market. (Reference: [www.ceagobay.com](http://www.ceagobay.com))



## 2.6 Market Trends

A majority of the visitors and homebuyers in Lake County come from the San Francisco Bay Area or Sacramento Metropolitan Area. The region's dry, sunny climate, beautiful scenery, and outdoor recreation draw nearby city dwellers to the area. Driven by values-based experiences, long-term ecological and aesthetic protection, design control, and protection of both natural and built environments, Ceàgo will be an attractive new offering in the resort community market. At present, the region is primarily a summer/fall travel destination for the outdoor enthusiast; although some of the most peaceful and picturesque times at the Lake occur during the off-season. It is the intent of the project planners to offer extensive programming during these periods to maintain occupancy in the low season. Known as the Bass Capital of the West, Lake County currently draws thousands of fishing enthusiasts and spectators each year. Others enjoy the trails, swimming, wine tasting, antiquing, and overall slower pace of life. More and more Americans are seeking values-based experiences that foster connection, create a sense of community and place, and enrich the quality of life. Consumers are searching for more than commodities – they want experiences that will transform them and help to sustain their transformation. They want to experience travel that does more than give them rest and a getaway; they want to combine travel with knowledge-gathering, acquiring new skills, and collecting memorable experiences while still having access to the best hospitality services. The guest experience programs, amenities, and services at Ceàgo are designed for visitors and residents alike, and reflect the personal values of Jim Fetzer and the Ceàgo design team.

The Development surrounds a Hacienda-style compound of buildings with vegetables, fruits, herb gardens, grapes, kiwis, olives, walnuts, figs, and lavender, as well as a variety of seasonal plantings such as sunflowers and wheat. Wine grapes are the primary production crop with plantings of Cabernet Sauvignon, Cabernet Franc, Malbec, Syrah, Muscat Canelli, Chardonnay and Sauvignon Blanc. Domestic and wild animals are incorporated into the project to demonstrate how the animal and plant kingdoms can work best together in an agricultural environment. The buildings consist of a premium tasting room, conference facilities, as well as shop and equipment storage. (Reference: [www.ceagobay.com](http://www.ceagobay.com))



## 2.7 HOW WATERFRONT CONTRIBUTE TO HISTORY:

The design of a waterfront reflects the character of a city. The edge of a city on the water is a complex space that not only portrays the image of the place, but at the same time the edge itself is a reflection of the history of the city and how it has transformed over the years.

## 2.8 London Waterway

### *Evolution*

The waterways of London have long served the purpose of trade. Companies such as the West India Company began building docks to allow their ships to tie up next to their warehouses. Throughout the nineteenth century, many other companies were also very successful and increased the number of docks being built, such as the London Docks and the East India Docks. With the increased supply of docks there seemed to be increased demand and ships kept coming into London, and making the existing yards too small to handle the volume of trade.

During the industrial revolution, England was producing a wide variety of goods which were built throughout their thriving factories. These goods were sold throughout the world, and this meant the docks of London were being used to their maximum capacity. At the same time, the reach of the empire was also growing, and goods were also coming into London from around the world. This would prove to be an enormous strain on the capacity of the docks, which soon would not be able to cope with the increased volume of trade. The solution was to expand the docks and build more yards downstream. These were the Royal Docks, beginning with the Royal Victoria dock, which opened in 1855. The Royal Albert dock was finished in 1880, and the last was George V, opened in 1921.

The creation of the docks not only meant higher trade volume for the city of London, it also meant the creation of thousands of jobs for Londoners. (JC Ayala Brian and Semel Thomas Toepke CRP 649 3/6/07)

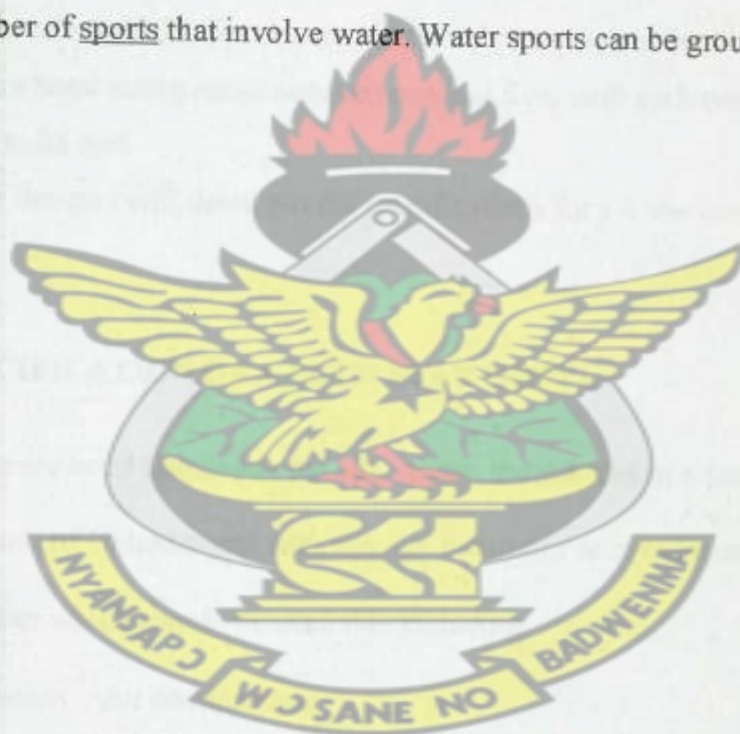
The River Thames and the docks located on the river continued to operate, but the river docks were proving to be difficult and too crowded to accommodate larger ships which carry

containers. The seaports were not constrained by poor infrastructure and the crowding of a large city. This led to the gradual obsolescence of the London docks along the river Thames. By 1967, the East India dock had closed followed on each subsequent year by the closing of the London Dock, St. Katherine's Dock and the Surrey Docks in 1970. One decade later, both the West India Docks and the Millwall Dock closed their operations. A year later, in 1981, the Royal docks closed. JC Ayala Brian Semel Thomas Toepke CRP 649 3/6/07 (Reference: [www.Your place – in the grand traverse region](http://www.Your place – in the grand traverse region)).

## 2.9 HOW WATER AND SPORTS ARE INTERTWINED:

There are a large number of sports that involve water. Water sports can be grouped under three main heading.

- In the water
- Underwater
- On the water





**2.10 COMMUNITY IDENTITY:** Community identity is the specific characteristic which distinguishes one community from the other. Communities that maintain and enhance their unique sense of place offer better quality of life for residents and visitors.

## **2.11 HOTELS AND THEIR RATINGS**

Most countries have their own rating systems, and although these rating systems are similar, they aren't consistent. Also, many of them include the number and size of lobbies, meeting rooms, and other facilities in their scoring system, even though most travelers couldn't care less about such features. Even in a country that doesn't have its own rating system such as in Germany, tour operators and hotels often describe their hotels as "five-star".

Ghana is one of the countries with its own standard of hotel rating supervised by the Ghana Tourist Board. In Ghana hotel rating range between one and five, with each one having its own detailed specifications to be met.

For the purposes of my design i will detail out the specifications for a 4 star hotel which i aim to design.

## **2.12 DETAIL SPECIFICATION OF A FOUR STAR HOTEL**

A four star hotel is a luxury hotel situated in the city centre, the suburbs or a tourist centre.

It should have a minimum of 10 bedrooms with ensuite bathroom with excellent fittings.

Other supporting facilities which should be available including:

- Excellent ventilation – Air conditioning
- Services – tv, telephone, radio, automatic wake up service and internet.
- Security – security locks and spy holes should be installed on each door
- Corridors and exit – the hotel should have an emergency exit, with floor covered with carpet to absorb most noise from that area.
- Left luggage – the hotel should have left luggage facilities

### **Public areas –**

Reception

Lobby

Restaurant

Bar

Conference rooms

Public conveniences

Sports recreational facilities

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### **Technical installations:-**

Air conditioning

Electrical fittings

Reserve water

Communication facilities



### **Hotel services:-**

24 hour wakeup call service

Breakfast

24 hour drink service

24 hour room service with priced menu

24 hour kitchen service

Express dry clean and laundry service

Shoe cleaning service



Mail and messaging services

Bed lined should be changed everyday or after each guest departure

Nightly turn down service

Daily news paper

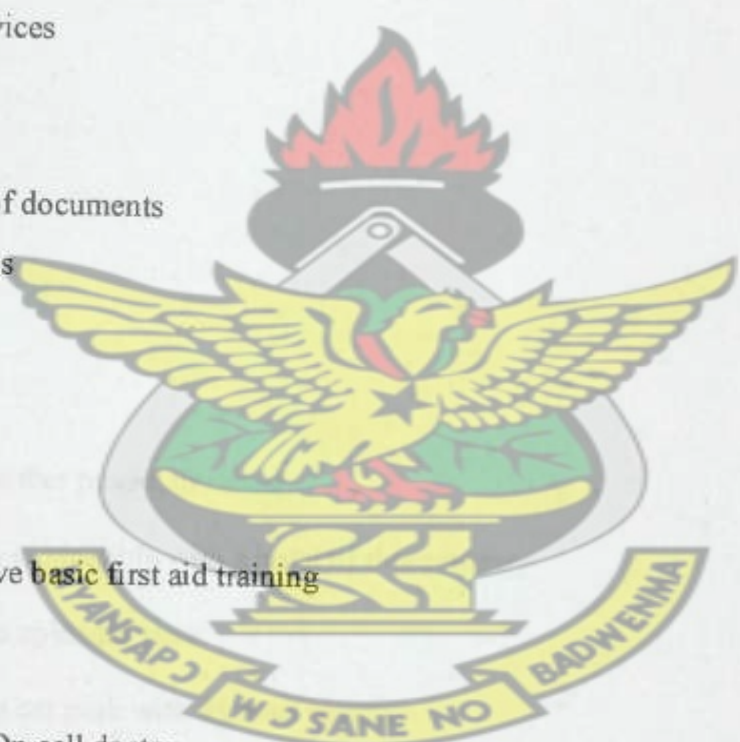
Adequate supply of unexpired condoms should be placed in all the rooms

Directory services

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## **Business centre:-**

- Secretarial services
- E – mail
- Tele fax
- Reproduction of documents
- Internet services



## **Health services:-**

- First aid box
- Staff should have basic first aid training

## **Hotel must have:-**

- On call doctor
- A clinic with treatment room and sick bay
- A resident nurse

News stand and gift shop

Courtesy bus

Hairdressing salon

Car hire

Safe deposit

Safe hygiene insurance

Guest safety and protection

### **For staff**

Staff recruited should be of sufficient number and well trained

Medical status of staff should be well disclosed to authority

Staff registration

Staff uniforms

Staff conveniences

Staff training

### **Hotel environs:-**

Access to the hotel be either paved, or tarred

The environs should be compatible with a hotel of this category

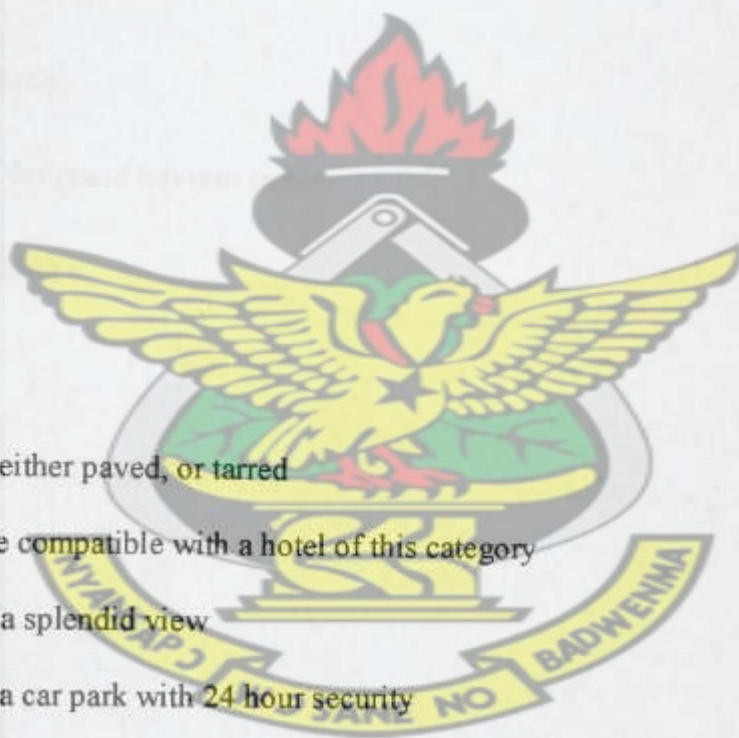
The hotel should offer a splendid view

The hotel should have a car park with 24 hour security

Parking for 75% of guest room capacity

Adequate lighting for the car park and gardens

A special parking lot for buses and other commercial vehicles





## References:

Www. Ceogo bay.com

Google search

Google maps

Wikipedia world encyclopedia

Ghana Tourist Board

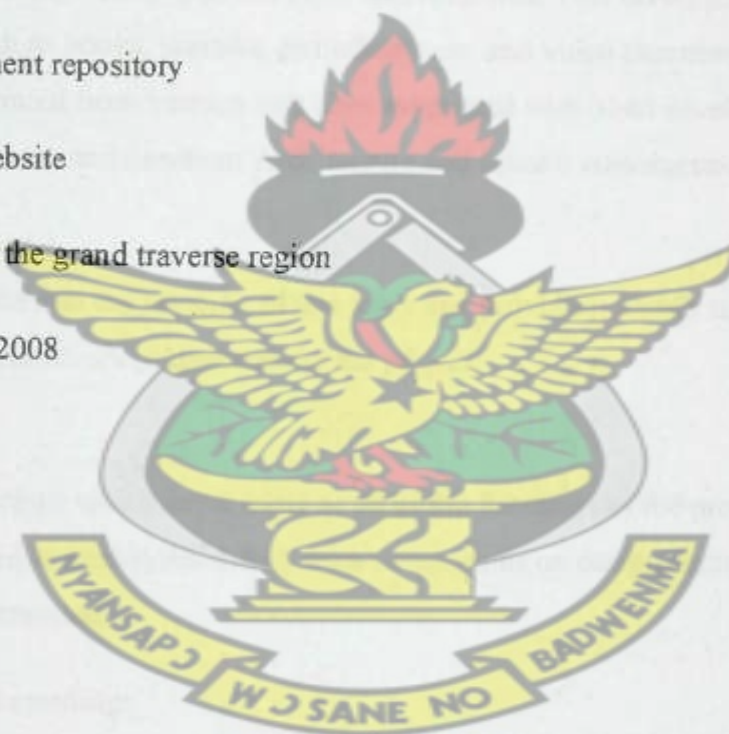
FAO corporate document repository

Bupo Happold mht website

www.Your place – in the grand traverse region

Encarta encyclopedia 2008

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### 3.0 CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 RESEARCH TOOLS

The information used to write this thesis was acquired through the adoption of a number of tried and tested research methodologies stated below.

- Literature Reviews

Published and unpublished literature on the topic was reviewed. This involved the examination of written material such as books, journals, periodicals etc. and video recordings. A lot of literature was also gathered from various web sites associated with hotel development, resort design, Ghanaian Northern and Southern Architecture and aquatic construction.

- Internet Searches

Various websites helped into the research of this topic and providing a wide range of answers to some problems encountered whilst undertaking the project.

- Case Study

Local and foreign buildings which serve some or all of the functions of the project to be undertaken were studied to enable the author draw conclusions on design decisions. These case studies have been documented.

- Photographic Recordings

Photographs of critical and important facilities and activities that will aid the completion of the project at hand were taken.

- Interviews

People with a lot of knowledge on resort design and experts on hotel were interviewed. Others from the tourism ministry as well the main target groups were also interviewed.

Interviews of clients and developers of the project – Volta River Authority -to know their policy direction with respect to the project and brief development was also done.



- Personal Observations

Some of the information used came about through careful personal observations made by the author. This was important because the taking of photographs was not allowed in some areas visited.

### 3.2 AFRICAN ARCHITECTURE

Most water bodies are surrounded by communities, because water bodies are sources of transportation exchange of different cultures occur unnoticed. At Akosombo for instance, because of its location between the north and the south, architecture present is a mixture of the North and South, as such a further study of the African architecture was very important.



FIG 4 columns embossed with adinkra symbol (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

Akan architecture is not only elaborate in terms of function and building technology. It also presents, as a reflection of the people and their spirit of independence, a variety of forms and design principles that encode expressive messages which continue to astonish foreign observers. Various symbols are used as base relief or plinths, banisters, and walls in Akan architecture.



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Fig 5 Adinkra symbols used to celebrate the entrance of buildings. (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

The *fihankra* (compound house) style of building consists of a central quadrangle which is enclosed on all four sides with rooms.

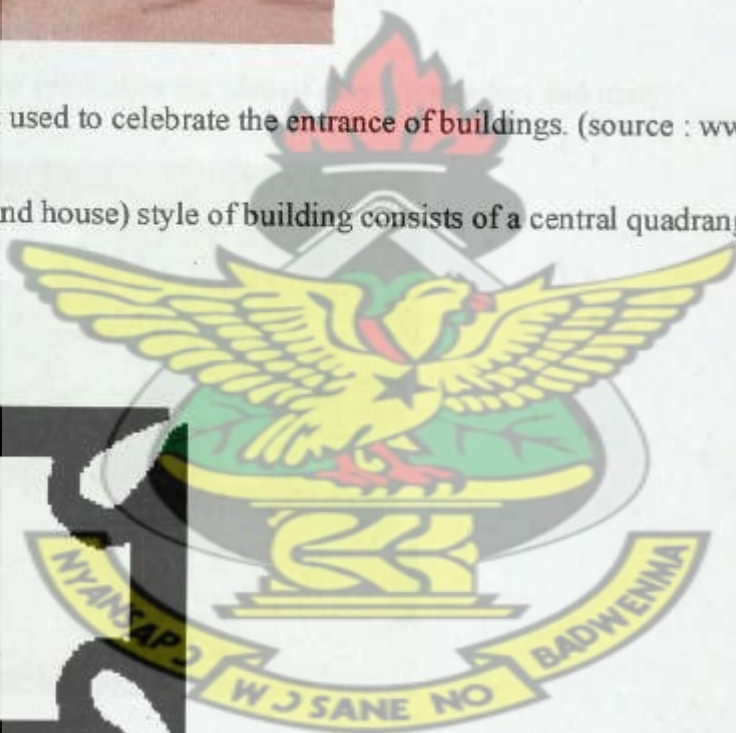


FIG 6 Fihankra – the compound house (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

The multi-room rectangular building with an open courtyard found in Akan houses, as captured by the *fihankra* symbol, marks the Akan concept of private and public space. The Akan *fihankra* building used as a home demarcates between the *fie* (inside, private) and *abonten* (outside, public).



The *fihankra* symbolizes protection, security and spirituality. In front of the house is placed a stump called the *Nyame dua* - God's altar which represents God's presence and protection. When one enters the house, the open courtyard (*adiwo* in Twi; Fantse call it *paado*) represents the public space within the house. This open courtyard has multiple uses. It is usually surrounded by a verandah where guests may be received. A bigger group of guests will usually be received in the *dampan*. The *dampan* (literally, empty room) is semi-private and has multiple uses: from receiving guests, and holding court to laying the dead in state during funerals. Then, there are the private rooms: living room, bed rooms, bathrooms, etc. There is also the kitchen, which very often extends into the open courtyard. In a big Akan house, there are the women's quarters (*nunaa mu*) which will have its own open courtyard and a number of private rooms. The kitchen and the bathrooms will usually be in these quarters. In the Asantehene's Palace the women's quarters is called *Hia* or *Hyia*.

The concept of *fihankra* reinforces the idea of close family ties and unity.



FIG 7: Showing a traditional courtyard house (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

The Akan house is not only well ventilated, it is resilient and can withstand the hazards of storms, rainfall and the tropical hot weather. This is encoded in the symbol *mframadan* - well ventilated or breezy house shown below.

*Nyame dua* (God's altar) is a tree stump that may be found in front of houses or in the open courtyard of the *fihankra* (compound house). The symbol signifies God's presence and God's protection. The tree stump may

hold a pot to catch direct rain water considered as holy water for religious ceremonies.

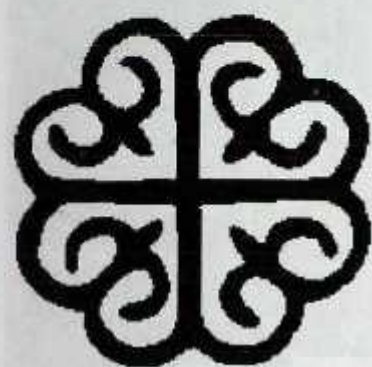


FIG. 8 *Nyame dua* (God's altar) (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))



FIG. 9 *Nyame dua* (God's altar) (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

Different symbols are used as base relief or plinths and walls. They may be used to give a honeycomb effect or serve as screen walls providing openings for ventilation while at the same time serving as protection against visual intrusion.





FIG. 10 adinkra symbols used on a religious building (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

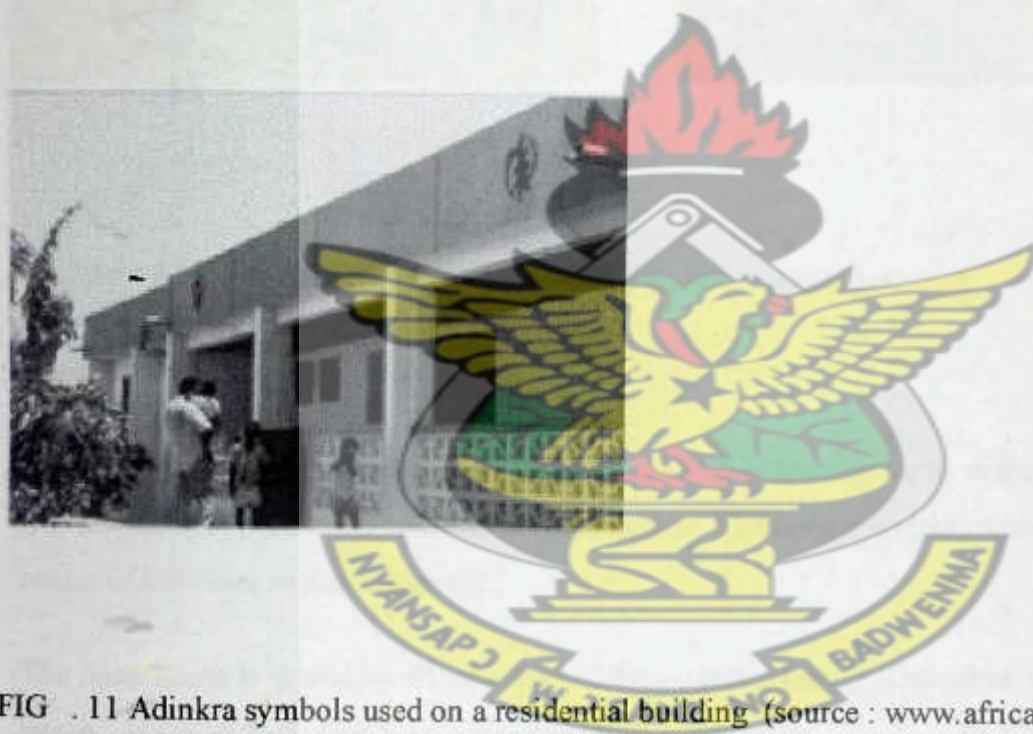


FIG . 11 Adinkra symbols used on a residential building (source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

The incorporation of symbols in Akan architecture was traditionally limited to public buildings such as the king's palace (*ahemfie*) and shrine building (*abosom dan*), and, in some cases, the homes of high ranking community leaders. In contemporary times the symbols are incorporated in both private and public building in order to emphasize Akan aesthetics as well as the social significance of the buildings.



FIG. 12/ FIG. 13 Adinkra symbols embossed on some public buildings

(source : [www.africanarchitecture.com](http://www.africanarchitecture.com))

Fihankra symbol depicts the Akan family house which is rectangular in shape and has a central courtyard. It is a symbol of protection, security and spirituality. The open courtyard within the house serves as the center of activities in the household.

The Akan home is shared by all members of the extended family. Therefore, the concept of *fihankra* reinforces the idea of close family ties and unity.



### 3.3 CASE STUDIES

There are various waterfront resorts all over the world, springing up for different reasons and interest. Water fronts, though have a common binding factor, which is the water body, they differ all over the world in terms of standards, interesting amenities and target group. For the purpose of this study, 4 different types of resorts were studied, with locations all over the world.

Development of Resort, motels and other tourist accommodation is subject to many influences. In the first place, it depends on the demand for different types of accommodation. Demands which may stem from tourism, recreation, business and other activities, and which are much influenced by local attractions and political attributes

### 3.4 OCEAN CITY

Ocean city is one of the most popular resort towns in America. It developed naturally like all others. I chose ocean city because it is one of the first waterfront resorts to be developed in the world. Because of this, it serves also as a conservation site.

#### 3.4.1 ATLANTIC BEACH RESORT:



FIG. 14 Aerial view of Ocean city (source: [www.oceanity.com](http://www.oceanity.com))





FIG. 15 Atlantic Resort, (one of the hotels found at ocean city) (source: [www.atlanticresort.com](http://www.atlanticresort.com))

The original ATLANTIC HOTEL built in 1875 was the founding establishment of the Grand Boardwalk Hotels that started Ocean City's hospitality industry. The Atlantic Hotel was called "a marvel in architectural beauty & excellence" and was said to be the equal of any of the east coast's finest hotels. According to some, the Atlantic was built so far above the beach that a team of horses could be driven underneath its porches.

Opening July 4, 1875, the Atlantic Hotel was originally owned by the Atlantic Hotel Company until it was purchased 15 years later by the Sinepuxent Beach Company and finally purchased by Dr. Charles W. Purnell in 1923 and is still family owned and operated today by the Purnell family. Accommodating 400 guests the four-story wooden frame building stretched from Baltimore Avenue to the Boardwalk. The tourists and vacationers of Ocean City's early Boardwalk hotels were described as "the financially elite" or "people of refinement." Many fond memories are of the ballroom at the Atlantic where one had to pay 10 cents to dance under the crystal ball.

The Boardwalk began as a walkway placed in sections in the sand by the individual hotel owners and stored on the porches at night or when the tide was high. The first permanent boardwalk was built high enough for the tides to wash under it. During the day bathers sat under the Boardwalk



to get out of the sun & picnics were also enjoyed. Resting strollers would simply sit with their legs dangling over the side of the Boardwalk watching the bathers. The Pier with its many attractions such as a Silent Movie Theater, Dance Theater, Bowling Alleys, & a Roller Skating Rink would entertain the vacationers. Marksmen from near and far would come to Ocean City's week long Trapshooting competition on the Pier. The clay pigeons would be released and shot over the ocean.

In December of 1925, the great Ocean City fire destroyed three blocks of old downtown and the Pier. Starting around 7:30 am at the ESG & Electric company which were located on Somerset Street & Baltimore Ave the fire was driven by the northwest wind. Everything went wrong, the freezing temperatures, the fire engines broke down, the fireman had to cut holes in the ice and pump water from the bay. The smoke could be seen 10 miles away. By the end of the day losses included The Atlantic and The Seaside Hotels, two blocks of the Boardwalk, Dolle's Candyland, the Casino Theater, & the C. W. Purnell Cottage.

After the fire the Atlantic was rebuilt in 1926, and is still in operation today combining historic architecture with modern conveniences. Situated in downtown Ocean City, with the widest public beach in town the Atlantic Hotel retains its heritage offering conveniences found in the best hotels including heated swimming pool, large parking lot, elevator service and personal telephone service. All rooms come with private bath, air-conditioning and cable TV with HBO. Having one of the best locations in Ocean City, the Atlantic Hotel offers a roof top deck overlooking the Boardwalk. Spectacular views of the Ocean can be enjoyed. Just steps away from famous Boardwalk shopping, restaurants and night-life.

### 3.5 VOLTA RIVER AUTHORITY:

Nearly half a century ago in 1915, Mr. E.A. Kitson of the Gold Coast Geological Survey Department drew attention to the potentialities of the Volta River as a source of hydro-electric power. Upon completion of the project, an authority was established **Volta River Authority**. This body which provides and manages the Volta lake and all other facilities which come with the area.

The Volta River Authority (VRA) was established on 26th April 1961, under the Volta River Development Act, Act 46 of the Republic of Ghana.

The Authority's primary function is to generate and supply electrical energy for industrial, commercial and domestic use in Ghana.

The Authority is also responsible for safe-guarding the health and socio-economic well being of the inhabitants of the communities alongside the lake, and management of any incidental issues including maintenance of the environment.

VRA started with the development of the hydroelectric potentials of the Volta River and the construction of a nation-wide grid transmission system. Today, it has assumed responsibility for the development of other energy potentials of the Country.

In the course of the construction, the foreign engines and contractors had to be accommodated, this need brought up the construction of the now Akosombo hotel.

After the Dam was completed, the facility was converted to an accommodation facility upon demand from tourist who frequented the lake area and had nowhere to sleep.



### 3.5.1 VOLTA HOTEL

**Volta Hotel** is a prestigious and luxurious 3- star hotel located in Akosombo, the home of Ghana's hydroelectric power generation plant. Volta hotel offers visitors the real opportunity to relax and enjoy nature while experiencing a unique hospitality.

The hotel has a first class restaurant that serves both Ghanaian and Continental dishes, a main bar and a terrace. The uniqueness of the hotel is its location. The picturesque of Volta hotel is located on a hill, 110 meters above sea level and offers a breath taking view of the dam and the largest man- made lake in the world and its surrounding hills. Guests would have the opportunity to enjoy this scenic view right from the balcony of their rooms.



FIG 16 Main reception of hotel ( Source : [www.voltahotel.com](http://www.voltahotel.com))



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Fig 17 Main entrance to hotel

Fig 18 View of the Dam

(source: author )

(source; author)

Volta hotel has 35 rooms, comprising 31 standard rooms and 4 suites and a private villa. Each of the rooms has a mini bar, satellite television and a private balcony with a scenic view of the largest man-made lake, the Volta hotel.

Apart from the accommodation, The Volta hotel has other supporting ancillary which helps enhance it.

### 3.5.2 ANCILLARY FACILITIES:

#### PUBLIC AREAS

**ENTRANCE LOBBY AND RECEPTION:** about 80 meter square and contains the front desk, toilets, a gift shop and phone booth.

**COCKTAIL LOUNGE:** an extension of the entrance lobby with a bar, 100 meter square.

**TERRACE :** an extension of the lounge

**ADMINISTRATION:** 100 meter square, with the front desk manager, manager, secretary, finance, accounts officers, record keeping and circulation.



**RESTAURANT:** 50 meter square, accommodates 40 guests.

**CONFERENCE HALLS :** 3 number accommodating a total of 120 conference guests, each with car parking for up to 15 cars, toilets facilities, storage, foyer.

**NIGHT CLUB:** operates only on weekends, 100 capacity, with toilet facilities, bar and car park.

#### **SERVICE AREAS**

**KITCHEN:** 80 meter square, washing area, hot kitchen, cutting, freezer, cold room.

**STORAGE:** 70 meter square of general storage, 25 meter square for kitchen, 10 meter square for laundry and other storage areas for bars, halls etc.

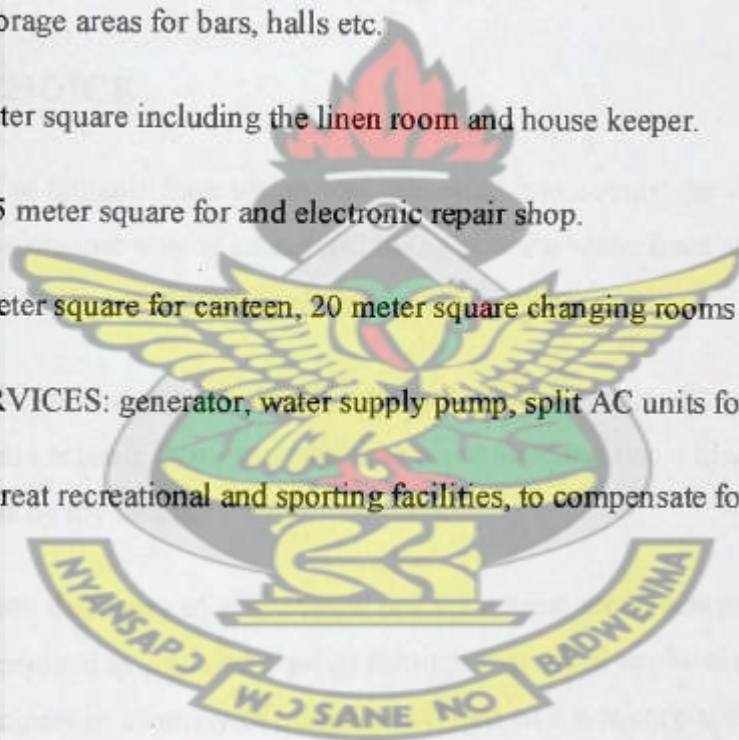
**LAUNDARY:** 32 meter square including the linen room and house keeper.

**MAINTENANCE:** 15 meter square for and electronic repair shop.

**STAFF AREA:** 35 meter square for canteen, 20 meter square changing rooms and toilets.

**ENGINEERING SERVICES:** generator, water supply pump, split AC units for all areas.

Volta hotel also has great recreational and sporting facilities, to compensate for the absence of the lake front.



### 3.6 CEAGO:



FIG 19 General overview of resort ([www.ceagobay.com](http://www.ceagobay.com))

#### REASON FOR CHOICE

Ceago was originally an Organic farm which was converted into a resort. Its fundamental purpose was to use the organic way of eating and living plus the water front as a therapeutic healing resort for visitor who were already patronising the organic farm.

I chose Ceago, to guide me through my design, since it had the concept of merging a waterfront resort with a therapeutic organic farm, spreading the accommodation on a low density area like that which is proposed by my client.

Ceago is a gateway into discovery of self, others, and the natural environment. Recreational opportunities can be enjoyed in a guided class or through individual exploration. Throughout the year, guests can participate in a variety of programs offered on a weekly basis such as Biodynamic® farming, olive oil production, winemaking, essential oil distillation, birding and fishing. Special events and programs led by respected presenters will also be available to overnight guests. The resort's concierge will be centrally located in order to arrange activities throughout the year.



### 3.6.1 The Hotel and Casitas

The plan calls for 50 keys in the Hotel and 50 Casitas that will be privately owned and shared through a rental pool. Most Casitas will have 2 bedrooms. The Hotel will include large public spaces for guests, gatherings, events, as well as conference facilities.

### 3.6.2 Residential

The Ceago property will include 70 homes that will utilize the hotel and public gathering spaces. Future property values will be protected. Design guidelines will create a strong amenity base with the hotel, recreation, and all other services provided on site.

To celebrate life with food, wine, community, and healthy living. To exist in harmony with the land and nature's systems through low-density development, education, and sustainable operating practices. To embody an experience and lifestyle that promotes a unique interaction of recreation, rejuvenation, and appreciation for the land. To support Lake County by creating jobs for the local population, and to capture its essence through programming.

Ceago is derived from a Pomo Indian word (spoken "Shee-ye-ho") that meant "grass-seed valley". Like the Native Americans who were here before us, we believe that people must interact with the land in an essential, nurturing fashion, to assure long-term quality and prosperity.

At Ceago, their mission is to craft small lots of wine from estate grown organic and biodynamic grapes using the best of Old and New World winemaking techniques.

They believe that the first and foremost step in making great wine is growing top-quality grapes without cutting corners. Ceago concentrates on sound farming practices using Biodynamic and organic methods which balance the needs of the grape with the capability of the land to produce distinctive, high quality fruit. The character of the grapes and the taste of our wines must be experienced to be understood and appreciated. We feel that our world class wines are a living testament to our strict but ultimately important farming standards.



### 3.7 SUNCITY – SOUTH AFRICA

#### REASON FOR CHOICE

Sun City is a water front resort in South Africa consisting of a cluster of four hotels. Sun City is a historic resort town and well known for its casinos and other historic recreational facilities.

I chose Sun City as a case study, due to my aim of turning Akosombo into a Historic resort destination. Akosombo and the Eastern region at large can boast of the highest tourist attraction in Ghana, for this reason, quite a number of accommodation facilities have sprung up to meet the needs of these tourist. With this as background knowledge, and studying Sun City, I aim to liaise with all the other hotels and other accommodation facilities at Akosombo, so together, a great Destination Historic Resort is built.

Sun City is a luxury South African casino resort, situated in the North West Province. It is located about two hours' drive from Johannesburg, near the city of Rustenburg. The complex borders the Pilanesberg National Park.

Sun City was developed by the hotel magnate Sol Kerzner as part of his Sun International group of properties. It was officially opened on 7 December 1979.

At the time it was located in Bophuthatswana. As Bophuthatswana had been declared an independent state by South Africa's apartheid government (although unrecognized as such by any other country), it was allowed to provide 'immoral' entertainment (in the eyes of the South African government) such as gambling and topless revue shows, which were banned in South Africa.

These factors, as well as its relatively close location to the large metropolitan areas of Pretoria and Johannesburg, ensured that Sun City soon became a popular holiday and weekend destination.



The resort has four hotels:

Sun City Hotel

Cascades Hotel

The Cabanas

The Palace of the Lost City.

In addition to the four hotels, the complex includes time-share facilities called "The Sun City Vacation Club" which is a popular self catering facility.

Sun City also has two international-standard 18-hole golf courses:

the Gary Player Country Club

the Lost City Golf Course,

Both designed by Gary Player.

The Gary Player Country Club is home to the prestigious Nedbank Golf Challenge (formerly the Nedbank Million Dollar Golf Challenge), while the Lost City Golf Course is noted for the 38 real crocodiles in the water feature of the 13th hole. The resort was also the site of the Sun City Agreement.



FIG 20 General overview of Sun city ( source: [www.suncity.com](http://www.suncity.com))

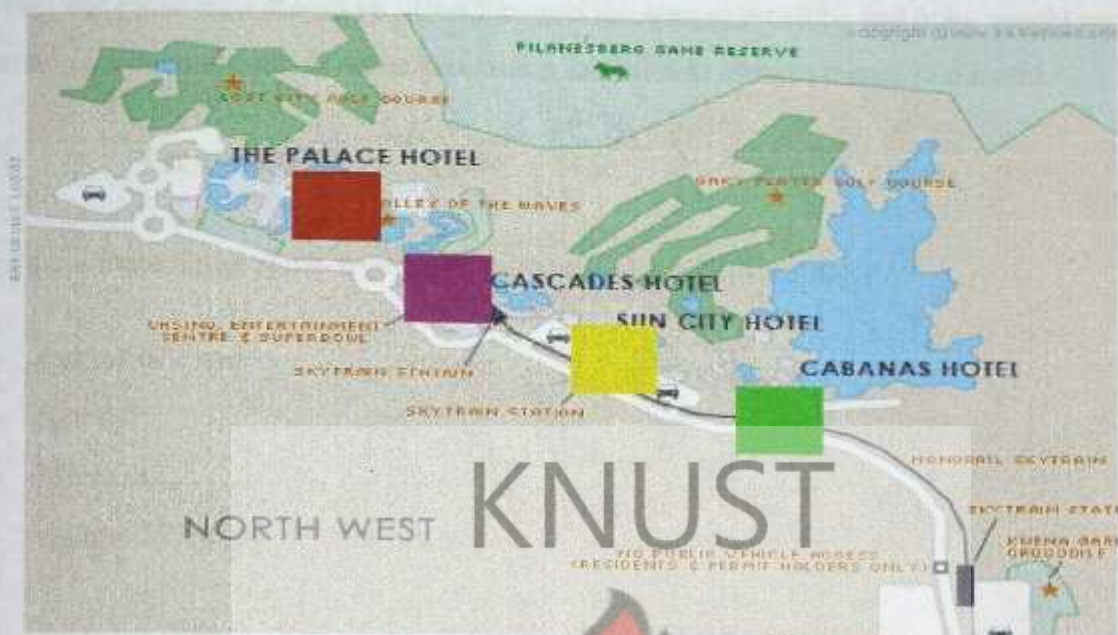


FIG. 21 Layout of the four hotel which forms the Sun city resort (source: [www.suncity.com](http://www.suncity.com))



FIG 22 view of all four hotels (source: [www.suncity.com](http://www.suncity.com))



Sun City has other recreational facilities like golf courses, night clubs and pubs, gambling areas and historic attractions which act as supporting facilities to attract visitors to the area.

### 3.7.1 TRANSPORTATION:

There are 4 main types of transportation systems in the area. They are:-

- Car rental / taxi
- Sky rail
- Mono rail
- shuttle

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### 3.7.2 SECURITY:

- 24-hour security of the whole territory of the complex.
- Video intercom system on public spaces.
- Control system of entry into residential territory.
- Emergency isolated power supply and unmanned system of fire extinction.
- The project includes evacuation exits.

### 3.7.3 ARCHITECTURE:

Sun City – is a mix of classical and modern architecture. Strict geometric and dome-kind shapes, light colors of the building exterior excellently conform to the architecture of the resort town.

Sun City is unique for the quality of architecture and construction.

The building is constructed with vertical and horizontal cast-in-place fabric.

High quality of the construction grants Sun City a pompous look.

Climate peculiarities were taken into consideration while performing construction-and-designing operations.

The facade of the building is faced with venting facing material calculated on damp climate to maintain thermal balance in the building

### 3.8 SUNCITY HOTELS

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The Sun City Hotel is the 4 star hotels at the Sun City Resort in the North West Province of South Africa. The Sun City Hotel puts guest's right where the action is - alive with activity from casinos, nightclubs, bars and theatre to restaurants, the Sun City Hotel buzzes around the clock with excitement and adventure. The Sun City Hotel was the first hotel to open its doors at the Sun City Resort in South Africa on 7. December 1979.

The central area of the foyer has been transformed into a jungle of lush foliage, cascading water and life-like boulders, encircling fast moving slot machines. The hotel's view comprises a magnificent landscape of subtropical gardens and the swimming pool.

#### 3.8.1 Accommodation

The Sun City Hotel features a total of 340 rooms, which either faces the Gary Player Golf Course or the swimming pool area, with gardens stretching down to Sun City's exciting Water world.

The Standard Rooms at the Sun City resort provide the following facilities:

- Air-conditioning
- Hairdryer
- Mini-bar
- 24-Hour in-room dining



- International direct dial
- Telephone
- Television
- Voltage 220V
- Safe
- Paraplegic rooms
- Tea / Coffee

All rooms are equipped with the standard amenities plus their upgrades

Presidential suite = 2

Standard suites = 6

One bedroom with king size bed

King size bed

Bathroom en-suite

Guest Powder Room

Guest powder room

En-suite bathroom

Lounge

Lounge

Dining Area

Private Balcony with loungers

Private balcony with sun loungers

Luxury rooms = 3 Standard family rooms = 96

King size bed or twin beds

Twin beds

Sleeper couch (for children only)

Sleeper couch (for children only)

Luxury family rooms = 82

King size bed

Sleeper couch (for children only)

## RESTAURANTS

### Setta Bello

### The Orchid

The Orchid features a menu, offering a range of authentically prepared dishes, flavours and textures from many Asian countries.

### The Calabash

The Calabash offers traditional South African fare, featuring freshly-prepared salads, a South African cold table, succulent roasts and casseroles, not forgetting our sweet sensations.

### Sun Terrace

Extensive lunch buffet featuring specialty counters from around the globe. Capacity: 380 people

Sun Cafe serving wholesome breakfast.

Harlequins Cocktail Bar Located in the Casino. This exciting bar features a great selection of traditional cocktails and shooters, and is ideal for pre-dinner drinks.

### Kingfisher Bar

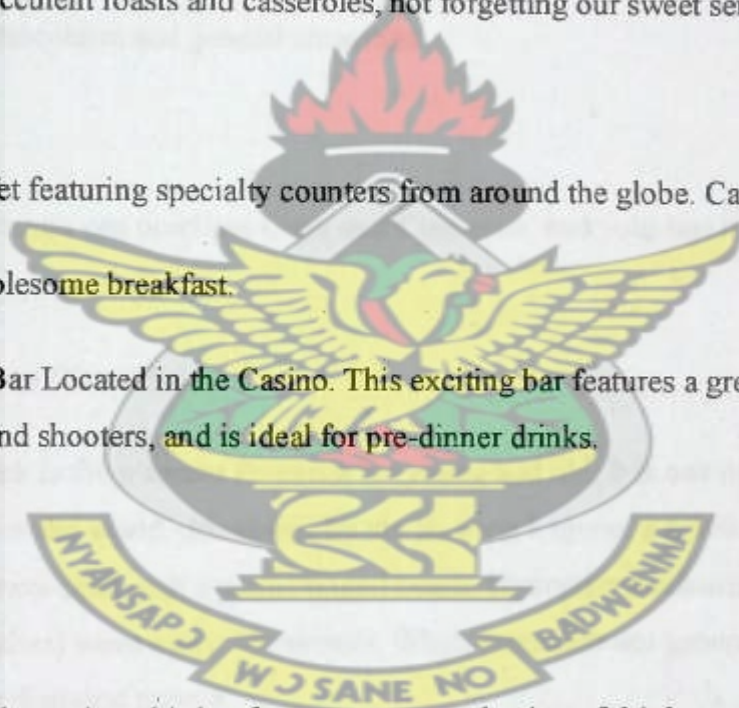
### Casino Bar

At the very centre of the casino, this bar features a great selection of drinks served with speed and style.

### Pool Bar

### Swimming Pool

The Sun City Hotel has a large swimming pool and a children's pool





Sun City Theater

Jogging and Cycling Trails

3km - 5km tracks are laid out along The Gary Player and Lost City Golf Course. The scenic trail is marked according to distance and direction.

Tiger's eye

African gifts and souvenirs available for your Sun City memento.

Heaven Kiosk

Sweets, cold drinks, chocolates and general amenities.

Heaven Express

A 24 hours shop where you can purchase Cigar and Cigarettes, and your last minutes amenities such as ties and socks.

The Valley of the Waves Water Park

This exciting water park is the ultimate favourite for young and old. It is one of the most advanced water parks in the world, dominated by the Roaring Lagoon, a 6 500-square metre (7560-square yards) wave pool with a palm-fringed beach. Hydraulic mechanisms can generate a 1, 8 metre (5 feet 8 inches) wave every 90 seconds. When waves are not generated, a bobbing cycle is generated in a diamond pattern.

Casino

Golf course

Conference

### 3.9 PRECEDENT STUDIES

#### 3.10 LESEDI AFRICAN LODGE AND CULTURAL VILLAGE:

##### REASON FOR CHOICE:

Lesedi is a typical traditional hotel facility. Lesedi's aim was to create a tourist attraction area, incorporating the four main ethnic groups in South Africa, using their raw materials, motifs, traditional architecture and setting.

Lesedi was chosen as a precedent study because of its cultural inclination and setting. Though it provided all the facilities of a five star hotel, it still succeeded in the use of raw materials and setting to achieve that.

Lesedi and its cultural experience of old and new Africa were co-founded by African explorer, Kingsley Holgate, who ensures that every attraction is not only fascinating, but enriching. One of Lesedi's many differentiating factors is the village's natural and tasteful incorporation into the surrounding heart of the bushveld and rocky hills.

With five traditional homesteads including Zulu, Xhosa, Pedi, Basotho and Ndebele. Local families live permanently in each of these five homesteads and visitors are invited to observe the African way of life by either enjoying a short tour of the villages or actually living among these families in guest accommodation, offering all the necessary modern day amenities and comforts discerning visitors are accustomed to.

##### 3.10.1 CONFERENCING:

Most conference venues are very predictable and offer more of the same: comfortable seating arrangements around a boardroom table coupled with conventional snacks and beverages.

This conference venues, while offering all modern technology necessary, provides a distinctively different approach to hospitality and African professionalism, with the people of Lesedi, 'place of light', offering a warm welcome to delegates by way of passionate song and vibrant dance



### 3.10.2 UNIQUE TRADITIONAL CONFERENCE VENUE

The conference facilities are equipped with state-of-the-art digital equipment and all the modern conveniences delegates deserve.

Lesedi offers a full range of both day conference packages, as well as highly recommended and totally unique overnight experiences in the luxury themed accommodation, located in one of their five traditional out of Africa villages.

Sumptuous eating experiences and energetic evening entertainment are additional value adds to the overnight packages.

Truly African teambuilding activities compliment the conference packages. These “Masakane Games” include Spear Throwing, Tribal Dancing Competitions, Treasure Hunts, Stick Fighting and African beer drinking Games which are guaranteed to take the edge off a heavy day of strategising and make sure that each delegate leaves with an unforgettable experience.

Lesedi has a selection of five conference venues to choose from.

A new conference facility called Sensakhakona which is perfect for small break away sessions and can hold up to 25 delegates. It is built around the theme of Shaka Zulu’s father and includes vibrant paintings on his life around the walls of the room.

Other new additions to the village and African Lodge are the luxury Nguni rooms which include richly decorated double suites. These carry the same vibrant colours and energy as the other guestrooms in the village and are also unique to the Zulu tribe they represent, adding to the already numerous accommodation options.

This lapa can seat up to 120 people, lit up with burning fire pots which surround the walls of the lapa and a huge bon-fire in the middle. The floor is soft white river sand creating a unique outdoor feeling. The menu is a true African braai, served along with a buffet of African dishes. As well as a fully stocked bar.

### **3.10.3 DINING – RESTAURANT AND BAR:**

#### **NYAMA CHOMA:**

An integral element of African culture is the way in which they celebrate life and their eclectic mix of cultures. Nyama Choma, one of the restaurants, which means the Great African Feast. The 160-seater restaurant offers meat delicacies ranging from ostrich to unusual fare such as crocodile. The restaurant is divided into three sections, namely East Africa, South Africa and the North African Nile Room, affording visitors a selection of dining experiences where they can absorb the variety of colours, sights, smells, tastes and sounds of different African customs. All this is complemented by the restaurant's authentic setting and vibrant décor, which includes murals illustrating African heritage and legends.

#### **MA THABELENG'S SHEBEEN:**

Lesedi's Ma Thabeleng's Shebeen offers a lively location to socialise and enjoy drinks with friends and colleagues.

#### **TSWANA LETSATSI:**

This lapa can seat up to 120 people, lit up with burning fire pots which surround the walls of the lapa and a huge bon-fire in the middle.

#### **NORTH AFRICAN NILE ROOM:**

Set in the style of the people of the North who drink from the Nile River. When they relax, they sit crossed legged on floor cushions at low tables smoking hubbly-bubbly.

#### **INGOMA (DANCE) BOMA:**

This is the traditional Isibaya or Great Hut and can cater for buffet or barbeque ("braai") style. Functions for up to 50 guests.





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FIG. 23 Interior view of traditional kitchen (source: [www.lesedi.com](http://www.lesedi.com))

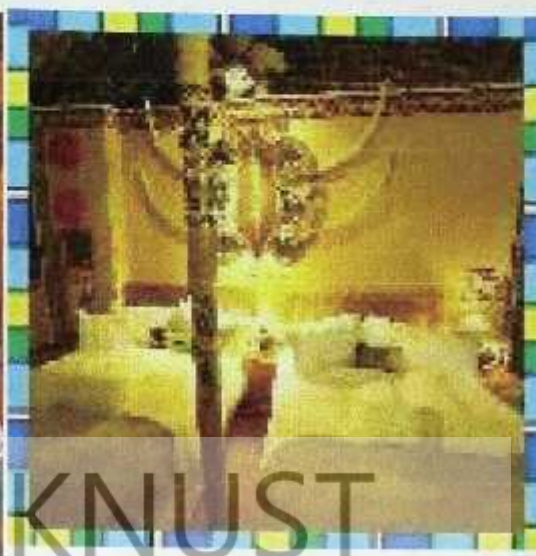
#### ACCOMODATION:

Lesedi can boast of 4 different village settings representing the different homesteads in South Africa, which are Zulu, Basotho, Xhosa and Pedi.

#### THE NORTH AFRICAN NILE ROOM

The Serengeti - The Nile room art history from the source of the mouth of the mighty Nile.

The décor and murals on the walls represent the traditions and history of Northern neighbours, the slave trade, the explorations of David Livingstone and the traditions, cultures and food with the influence of Arabia enrich the Nile Room experience.



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FIG. 24 Interior of Executive suite

FIG. 25 Interior – Executive room

(source: [www.lesedi.com](http://www.lesedi.com))

(source: [www.lesedi.com](http://www.lesedi.com))

Guestrooms have been built and decorated by local Zulu craft man.

Kwa-Zulu Natal is an area bordered by the Drakensburg, Mozambique and the Eastern Cape.



FIG 26 Typical Sanitary facility

FIG. 27 Interior Standard room

(source: [www.lesedi.com](http://www.lesedi.com))

(source: [www.lesedi.com](http://www.lesedi.com))



## LOCAL ATTRACTIONS:



FIG. 28 A typical traditional welcome at Lesedi. (source: [www.lesedi.com](http://www.lesedi.com))



FIG. 29 Entertainers at Lesedi (source: [www.lesedi.com](http://www.lesedi.com))

Situated close to the Hartebeespoort dam in the Magaliesberg mountain range, there is an abundance of activities available which include game drives, walking trails, guided Anglo-Boer history tours, craft markets, horse-riding, bird-watching, tennis, bowls and two excellent golf courses. There is a scenic cableway ride to the top of the Magaliesberg, and aquarium, bird-park and local zoo also in close proximity. The famous De Wildt Cheetah breeding farm is situated

on the northern slopes of the Magaliesberg, and a Cape Vulture colony may be seen on the southern cliff face. There are many restaurants and special pubs in the area, including a floating restaurant on the dam. Ox-wagon trails are available and the well-known Sterkfontein and Wonder caves, together with the Rhino reserve are situated a few kilometres to the south of Lesedi.

The area around the Hartbeespoort dam is a favourite locality for artists, and paintings, sculptures, hand-made dolls, furniture and a wide variety of original clothing may be purchased.

#### ABSEILING

Abseiling is an exhilarating experience from the complete novice into the corporate teambuilding. No experience needed!

#### HIKING

Various hiking trails is available from the novice to the experienced hiker.

#### GAME DRIVES

Various game drives on offer.

#### RIVER RAFTING

Rafting through fantastic rapids down the Crocodile River.

#### CANOEING

Enjoying fun on the dam.

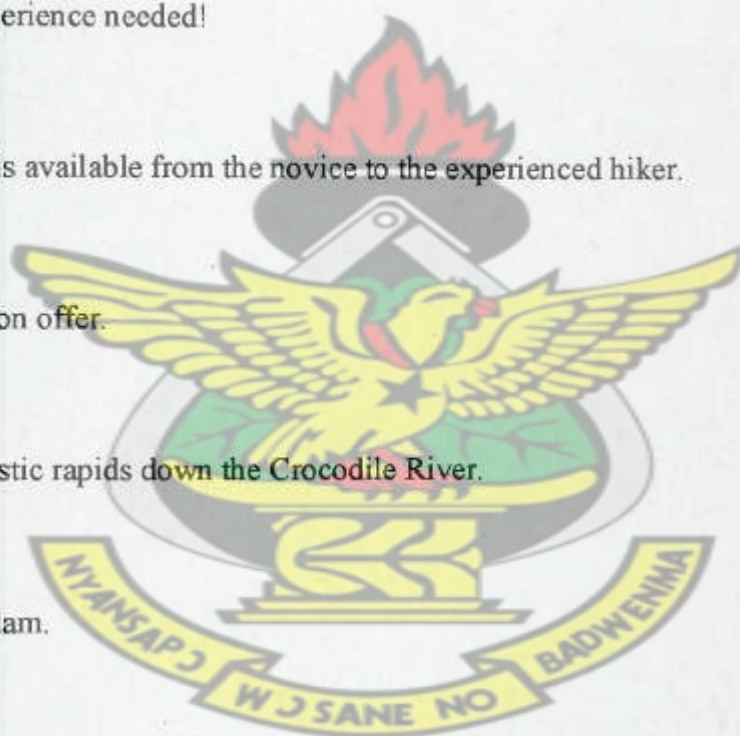
#### HORSE RIDING

An awesome experience which offers game viewing from horseback. Even the Big 5 on a two-day trail.

#### QUAD BIKING

Accelerating fun. Min of 10 people required.

#### MICROLIGHT FLIPS





## HOT AIR BALLOONING

Witnessing a spectacular panoramic view with a glass of champagne.

## INTERACTION WITH ELEPHANTS:

Come up-close and personal with Elephants.

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### 3.11 AFRIKIKO RESORT – AKOSOMBO

Akosombo Afrikiko, is a typical recreational waterfront resort. The architecture type was pure Ghanaian, which was greatly influenced by the surrounding communities and raw materials. Because Akosombo, is a central location of the Volta river, there is a lot of dynamism in relation to architecture forms and materials, and cultures. Most inhabitants of Akosombo are migrants unto the land, either for farming purposes, tourist guides or hands men for V.R.A. as such one will find very tiny villages migrating from the north and south to settle.

Afrikiko's aim was to provide for the tourist the rustic and cultural experience they want. Thus the introduction of local forms and materials to create a traditional setting.



Fig 30, 31 introduction of pergola at the entrance, a way of saying welcome therapeutically.

(source: author)



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Fig 30, 31 introduction of pergola at the entrance, a way of saying welcome therapeutically.

(source: author)



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Fig 32 The use of tradiotal materials at pool area of facility (source: author)

Fig 33 The use of raw materials in construction (source: author)



Fig 34 The use of thatch as roofing , a traditional roofing material (source: author)

Fig 35 The use of bamboo, a local material (source: author)





Fig 36 Use of traditional materials

(source : author)

Fig 37 Lighting was even treated traditionally

(source: author)



Fig 38 the treatment of water banks to reduce erosion.

(source: author)

### 3.12 AKOSOMBO CONTINENTAL

Akosombo continental was a typical conferencing cum recreational and accommodation faculty. It was an ideal place for tourist and conference organiser, but had a great problem which was capacity. They also incorporated the use of local materials to create the traditional setting. One great advantage Continental had over the rest of the resort was the introduction of a mini zoo. Akosombo is noted for certain distinct animals, and quite a number of tourist tour the area for that reason. As such, they have tried to create a one stop shop for tourist.

A place to live and have the cultural setting

A great water front and a cruise on the lake to the dam site

The mini zoo ( especially various species of monkey known to be in Akosombo)

Conferencing facilities

Therapeutic garden



Fig 39 improvised bench made of log  
(source: author)



Fig 40 Bridges made of timber  
(source: author)





Fig 41 introduction of local animals

Fig 42 an improvised island for eatery

(source : author )

(source : author)

Into the resort



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## 4.0 CHAPTER FOUR

### FINDINGS AND DISCUSSIONS

Water fronts in Ghana, have been far underdeveloped and given no attention, despite their great contribution towards the tourism industry in Ghana.

Among all these water bodies, most of which have been subjected to immense pollution and poisoning.

Despite the little development given the bodies of water in Ghana, it has been realized that, they are the primarily source of recreation to Ghanaian and the thousand of tourist who visit.

But one may ask, if all the water bodies have been developed equally. Obviously, much attention has been given to the beach fronts and some waterfalls.

Upon proceeding to design this water front a careful analytic study was conducted of several other resorts, both local foreign, at Akosombo and beyond, to help review some of the other demands of clients, what is lacking, what is being done well, to enhance upon that in order to design an thought of, all incorporate design to meet the demands of my target group.

Firstly, because of the location of these water bodies, tourist often throngs the area to have an experience of the local setting. Thus there is the need to provide facilities in this dimension. This often comes at a great cost because combining comfort with these traditional forms of construction increases the cost of construction and maintenance as compared to the regular masonry construction, and this in a long, goes to affect the rating of these hotels.

In my proposed design, I intend to use local forms of construction and materials to meet the demands of my visitors (clients).

Also in relation to choice of materials, one limiting factor for resorts along the sea is the excessive corrosive nature of the sea. But with my intention to develop my resort along a river body, I shall not be limited by the corrosive nature of the water, and that is a plus for developing along river bodies.



Secondly, one problem raised by users of these facilities was the desire to have a one stop shop for all their needs. Organizations move from the bustle of the capital to hold conferences to help reduce the tension and also have some recreation attached to it. A lot of these resort studied were either purely for conferencing or recreational, and users had to commute for the other. In the instance where users were not mobile, an extra expenditure on transportation is introduced. These commercial vehicles do not work 24 hours, as such patrons are limited to the number of hours they can be mobile and this creates inconveniences for the patrons.

Thirdly, another problem is the need to keep the hotel or resort running all year round. Because most of these resorts were either purely for conferencing or recreational, they had a problem maintaining 100 percent patronage year round. This is because; only 4 out of the twelve months are vacation months in the calendar which constitutes only 30 percent. This other 70 percent is taken over by conferencing, as such it can be deduced that, resort which are purely conference inclined are busy seven out of the twelve months, and four out of twelve months for the resorts, which are purely recreational. So what happens to the other months of the year, when staff are still being paid, but no revenue is generated.

This is what goes to affect the high cost of overhead in the hotel and resort industry, as such, if a resort is able to incorporate recreation and conferencing, the probability of 100 percent turnover is possible, thereby reducing the prices of facilities, at the same time maintaining the standards and quality and increasing patronage.

Fourthly, another problem in relation to waterfront development is the absence for non polluted water. Because these areas are surrounded by smaller villages, the water bodies are polluted with waste and diseases, as such unhygienic and unfriendly for tourists who patronize the facility. Swimming pools often serve as substitutes but they are always the second choice for tourist who would rather have the natural water bodies.

Finally, because of the low economic standards of the surrounding villages, theft around these areas is on the high side. These inhabitants often dupe this tourist and rob them off their assets. It is therefore very necessary to super increase security around facility to create a congenial environment for visitors.



Based on knowledge and ideas developed with the study of literature and other related facilities, a criteria was drawn with the fundamental concept and ideologies of the client in mind.

#### **4.1 CRITERIA:**

In the selection of a site, various subjects were considered to help in the selection.

These were:

- Proximity
- Maximization of water body / Need / demand
- size
- Supporting recreational facilities to aid in developments

##### **4.1.1 PROXIMITY:**

Proximity was developed with transportation in mind. Since the resort was aimed at being a getaway from all the hustle and bustle, and serve as a relaxation point, it was very important to develop an access to the area, so patrons will arrive and exit with no trouble.

##### **4.2.2 MAXIMAZATION OF WATER BODIES/ NEED / DEMAND**

The choice of site was very important in terms on investment. It was very important for the site to be an area of demand, need and popularity, in order to create a profitable investment.

##### **4.3.3 SUPPORTING FACILITES:**

One of the secrets to a successful resort development is the existence of other supporting recreational edifice or historical sites. The existence of other recreational activities will automatically create some popularity in the area and a natural crowd puller to the area.

#### 4.3.4 SIZE

The size of the site was very important due to the constant increase in the number of tourists in Ghana, and the regular Ghanaian realization of the value of water not only for recreation, but for health and fitness.

From the above criteria, several sites were considered and finally narrowed down to two.

They were:

#### 4.4 The VOLTA RIVER:

Lake Volta (located at  $6^{\circ}30'N$   $0^{\circ}0'E$  / 6.5, 0) is the largest reservoir by surface area in the world, lying in Ghana and covering almost 8,502 km<sup>2</sup> (3,275 square miles). Its northernmost point is at the town of Yapei, and southernmost at the Akosombo Dam, 520 kilometers downstream. The dam holds back the White Volta River and the Black Volta River. These two rivers formerly converged to form the Volta River; this river now flows from the dam to the Atlantic Ocean.

The lake was formed in 1965 when the Akosombo Dam was built. Owing to the formation of Lake Volta, 78,000 people were relocated to new townships, along with 200,000 animals belonging to them.



FIG 43 aerial view of the Volta river (source: Google earth maps)



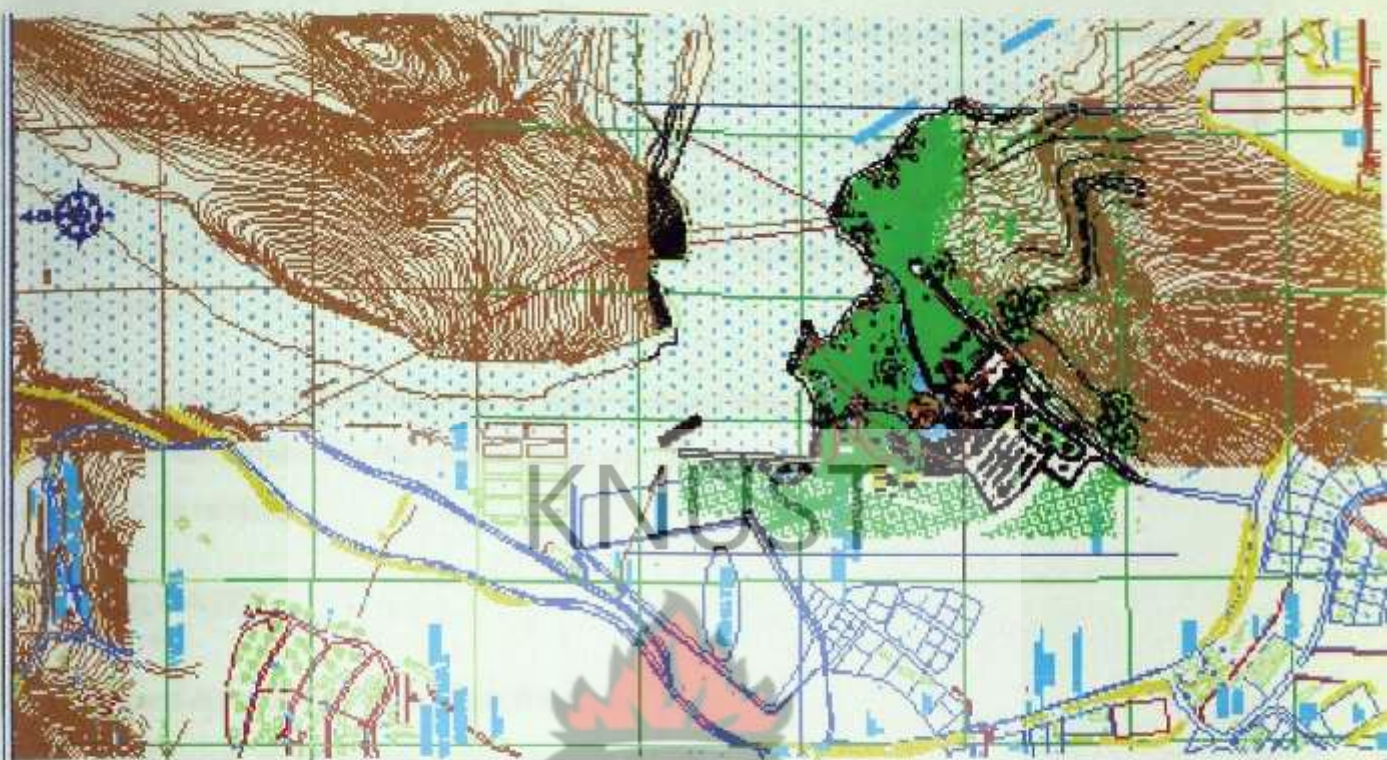


Fig 44 location map (source: V.R.A Ghana)



FIG. 45 Aerial view showing Adome bridge

(source : [www.vra.com](http://www.vra.com))

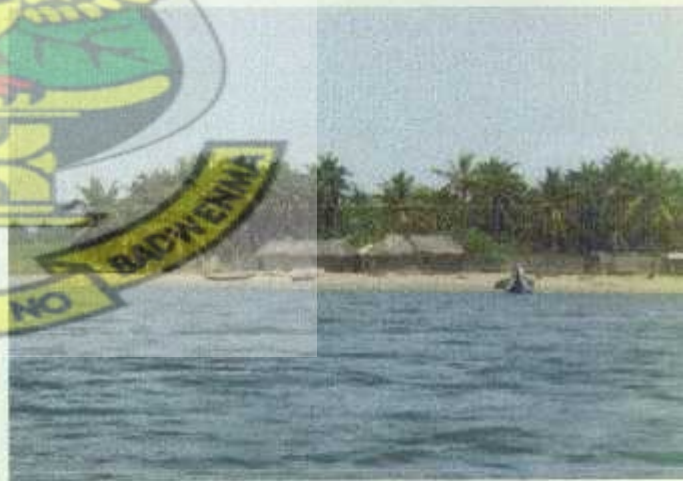


FIG. 46 Shore line

(source: [www.vra.com](http://www.vra.com))



The Volta River is very popular because of the existence of the Dam primarily. The Akosombo dam is a historical site, and thousands of tourists from all over the world visit the area, to see the world's largest man – made lake. In addition, the Eastern region is said to be the most populated in terms of tourist attractions in Ghana, and therefore, the Volta Lake, apart from the dam, has other supporting recreational site, which help enhance it. Various islands and hills can be located along the lake.

Upon several visits to the site, in order to make a choice which will both meet the needs of the client and the total theme for the project, there was the need for a careful and analytical study of the area and its environs.

#### 4.4.1 STRENGTH

- Immediate access to large water front.
- Land slopes gradually encouraging great views.
- Flora present help create serene atmosphere
- Serviced plot: sites at Akosombo especially, areas within the supervision of the Volta River Authority were fully serviced. Service amenities such as water, electricity, telecommunication, tarred access roads, and sewage disposal.

#### 4.4.2 WEAKNESS

- Valley: Due to the level of the land, and because no vegetation had been grown on it, the land has been subjected to various levels of erosion and leaching.
- Other facilities such as banks, post offices, health post and commercial transportation zones are within immediate reach.

#### 4.4.3 OPPORTUNITIES

- Excellent road access
- Security from VRA
- Other supporting resorts close



**4.4.4 THREATS**

- Great competition from Volta hotel
- Noise from school and staff housing
- Urbanisation could lead to destruction of natural micro climate.



4.5 LAKE BOSOMTWI:

Lake Bosumtwi, the only natural lake in Ghana, is situated about 30 km south-east of Kumasi within Ghana's Ashanti region. The lake is approximately 8 km across. This large Crater Lake (a lake that forms in a volcanic crater or caldera after a volcano has become inactive for some time. Incoming precipitation fills the depression to form a deepening lake.



FIG Aerial view Lake Bosomtwe ( source: Google maps)



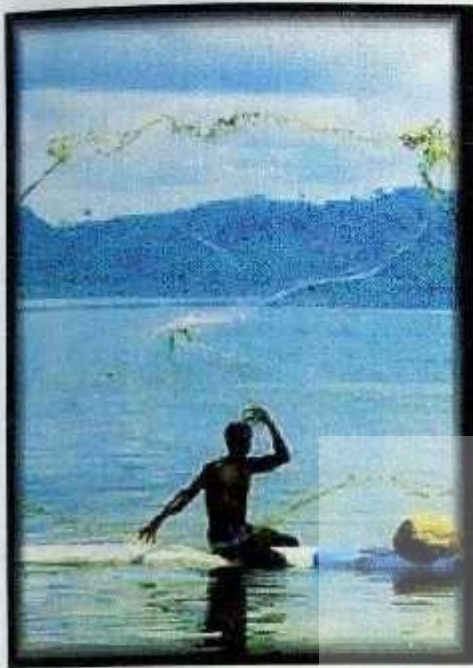


FIG 48 Traditions at the lake

FIG 49 Shoreline view

(source : [www. Google.com](http://www.Google.com))

(source : [www. Google.com](http://www.Google.com))

Although, the Volta Lake has gained a great amount of popularity as compared to the Lake Bosomtwi, coming from my perspective of giving all water bodies, an equal growth rate, there was the need, to also take a look at the only natural lake in Ghana.

#### 4.5.1 STRENGTH:

- Vegetation on the site is very healthy and this can be deduced through the richness of the soil.
- Access from many areas of Ghana.
- Cheap labour
- Access to services

#### 4.5.2 WEAKNESS:

- Levels of water not permanent

- No other recreational, historical site, supporting facilities.

#### 4.5.3 OPPRTUNITIES

- Access route to site encourages patronage
- Beautiful greenery

#### 4.5.4 THREATS

- Interest of in habitant lacking at the site, as compared to Akosombo. Whereby the activity of the inhabitant is included in the total tourism package, that cannot be said of Lake Bosumtwi. Apart from private business men, erecting accommodation facilities for tourist, and the presence of the lake, there is nothing else bridging these two.
- The water level is known to be reducing in the past 15 years. The diameter of the lake has reduced by about 120 meters. This is attributed by activities like farming and deforestation that goes on around the lake.

Upon carefully selecting a site for the project, in accordance to the client's scope, the site located at Akosombo, at the river front was chosen and a refined brief was developed.

#### 4.6 DEVELOPED BRIEF:

100 standard bedrooms

30 twin be'ds

24 suites

Conference facility 2– seating a capacity of 200 guests for conference and 150 for parties, One raked and designed purposely for conferencing and the second one, not raked to serve the purpose of a multipurpose hall.

2 mini conference rooms seating a max of 30 for conferences.



An outdoor open terrace (island bar and restaurant (Aqua bar and restaurant) overlooking the lake and viewing decks

An enclosed restaurant and bar overlooking the lake seating the maximum occupancy level of the hotel.

African pub

Swimming pool

Tennis court

Spa area / salon and barbering shop

Therapeutic garden

Internet café

Gift shop (traditional artifact market)

Gym / squash area / table tennis

Administration

Mini zoo

Water sports games

Storage facilities

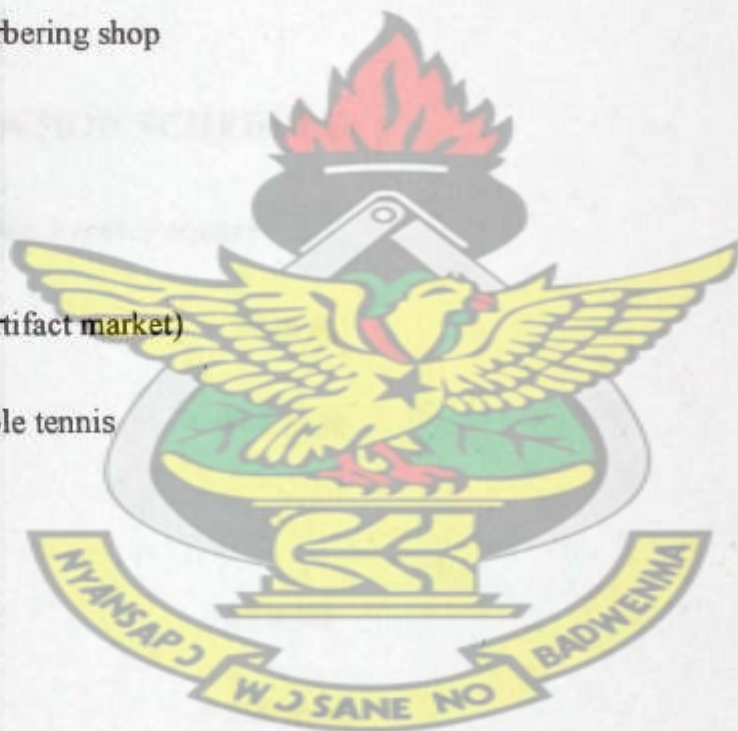
Car park

Accommodation for staff

Sanitary for staff

Mini first aid unit

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reception

religion room

laundry

forex bureau

comer store

pharmacy

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## 4.7 ACCOMODATION SCHEDULE:

**Administrative area:566.5 meter square**

Reception

= 50 m sq

Administration

= 37.5 m sq

Covered driveway +

Entrance

= 35 m sq

Main lobby

= 200 m sq

Shop

= 97 m sq

Internet café

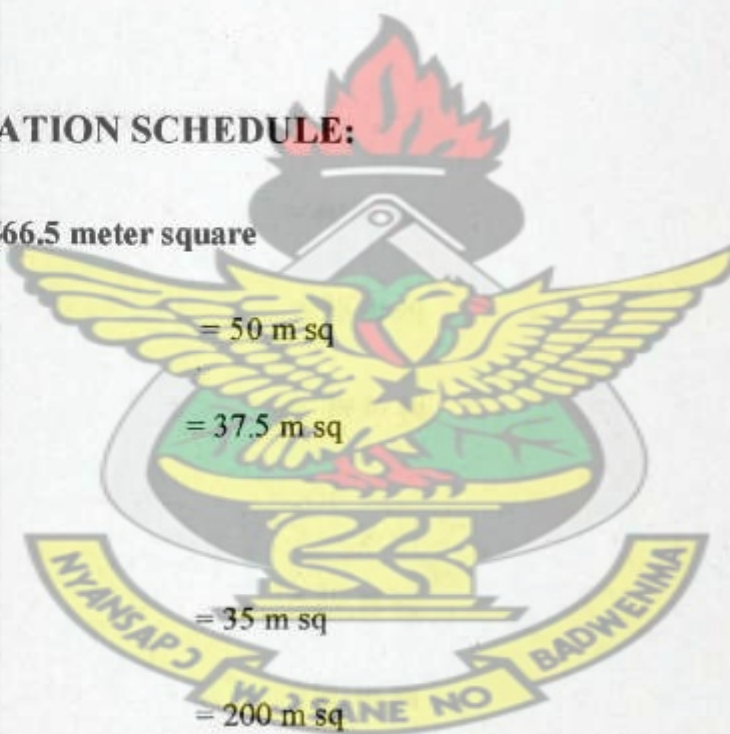
= 75m sq

Reading area

= 60m sq

First aid unit

= 12 m sq





## ACCOMODATION: 3982.5 meter square

Standard bedrooms 96	=1435msq
Executive Bedrooms 24	= 287msq
Luxury suites 10	= 170msq
Family Apartments	= 75.5 * 4 * 10 msq
For staff	= 102msq

## SPORTS COMPLEX: 2146 square meter

Cleaning and storage	= 40 m sq
Changing rooms	= 18 m sq
Sanitary Facility	= 30 m sq
Pub +	
Entrance lobby	= 30 m sq
manager office	= 20 m sq
supervisor area	= 16 m sq
Table tennis	= 1150 m sq
Squash	= 74 m sq
Gym	
-aerobics floor	= 100 m sq



-workout area = 195 m sq

-indoor swimming = 180 m sq

### Spa and sauna

-salon = 70 m sq

-barbering shop = 30 m sq

-massage area = 24 m sq

-sauna = 48 m sq

-hydrotherapy area = 24 m sq

-body treatment area = 24 m sq

-beauty therapy area = 20 m sq

### EATERY: 19194 meter square

#### Island Bar

-kitchenette = 84 m sq

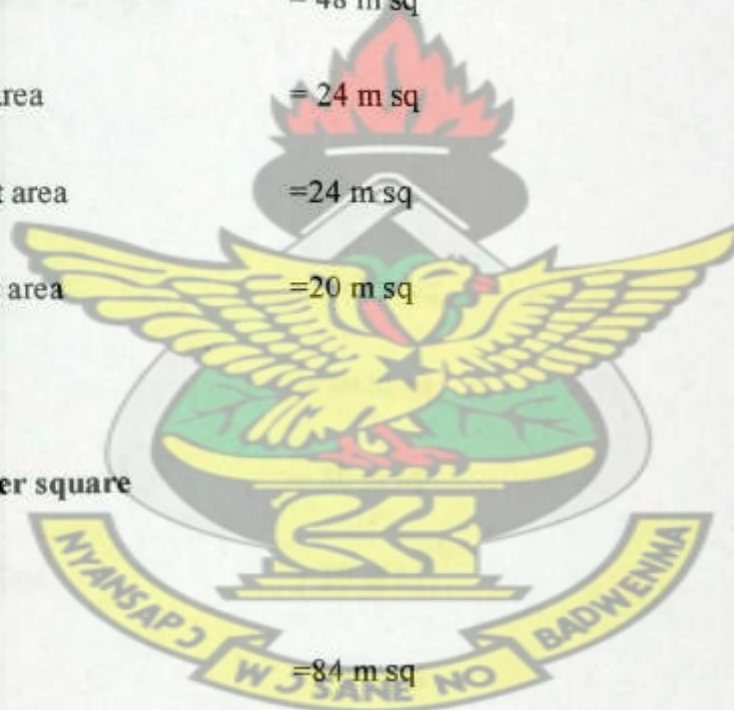
-storage = 24 m sq

-sanitary = 9 m sq

-bridge space = -

-game area = 219 m sq

-platform space = 16\*8





-night club =450 m sq

#### Continental restaurant and bar

-restaurant space = 320 m sq

-kitchen = 120 m sq

-bar = 40 m sq

-storage = 48 m sq

-supervisors office =20 m sq

-sanitary = 30 m sq

#### Aqua Bar

-restaurant space = 192 m sq

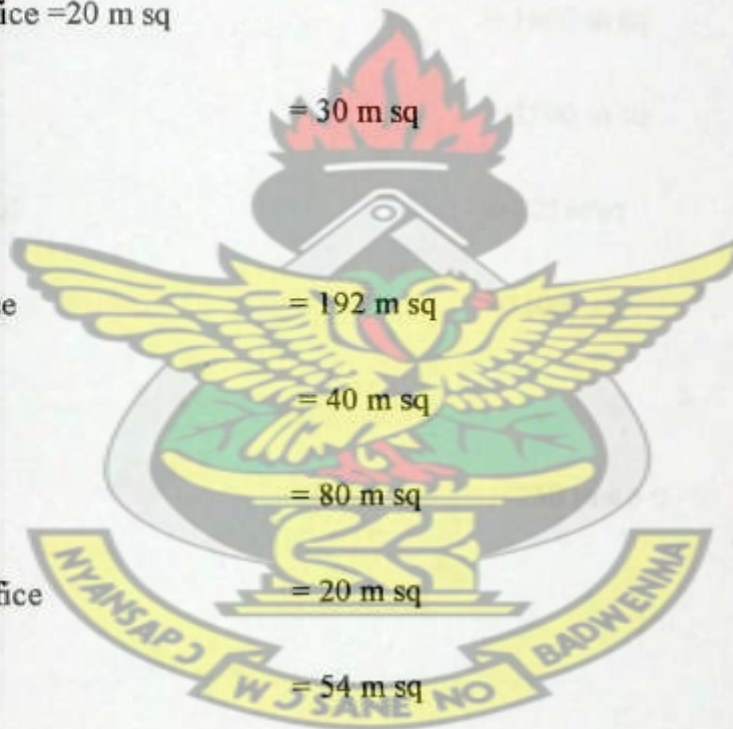
-bar = 40 m sq

-kitchen = 80 m sq

-supervisors office = 20 m sq

-sanitary = 54 m sq

-storage = 36 m sq



**CONFERENCING: 950 meter square**

Conference facility:

( 2) -200 capacity for conference, 150 for banquet = 390 m sq

Executive meeting rooms for 30 capacity = 160 m sq

**ANCILARRIES: 3832 meter square**

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Parking = 1800 m sq

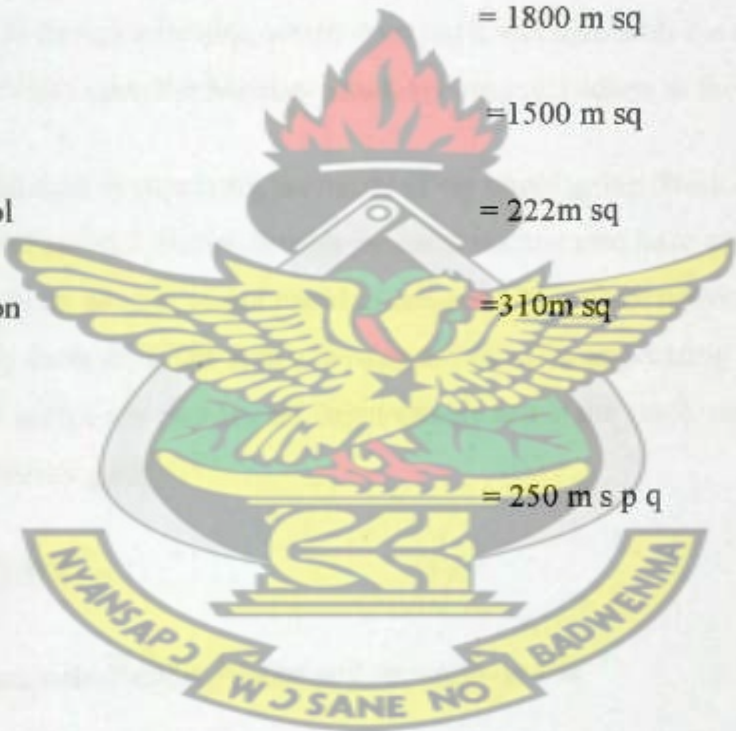
Therapeutic garden =1500 m sq

Outdoor swimming pool = 222m sq

Corridors and circulation =310m sq

Water sports

Lake pool = 250 m s p q





## 5.0 CHAPTER FIVE

### 5.1 PHILOSOPHY:

Based on a combination of challenges on the site, and the demands of the clients brief, a philosophy was developed for the design.

The philosophy for the project is **recreating with a therapeutic and cultural touch**. this concept was developed because of the location of the site. A lot of the activities which happens on the site, are culturally inclined. Again, most of the tourists who comes into the area, do so because of the culturally inclined facilities they are privileged to see and experience. It will therefore be unrealistic to design a facility, which does not harmonize with the other facilities like Adome bridge, the Volta lake, the Monkey sanctuary amongst others in the area.

Secondly, there is a great split in supplying the needs of my target group. Bulk of this target group constitutes the international tourist, though the local visitors also have needs to be met. It is also important to create an all year round resort to achieve 100 percent patronage all year round, creating getaway from the CDB with a therapeutic relief incorporating the rich culture present at site will help merge my two largest target groups and at the same meet their total needs and achieve the clients goal.

### 5.2 THE CONCEPT:

Use of existing local materials, building forms and concepts on site

Incorporate the cultural values of all settlers along the route of the Volta river, from the northern areas of Ghana to Ada foah

Use of flora and fauna

Introducing the river into the site to increase views and access, since the site is the central portion of the Volta lake in Ghana, architecture in the area is a mixture of both the North and the South, as such, the searching out for binding element from both sectors will help create a harmonious environment.

Elements used were the drum, adinkra symbols, and materials like mud, clay and thatch.

Based on all these concepts, a site was developed and planned.

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5.3 CONCEPTUAL SITE PLANNING: -

4.10.1

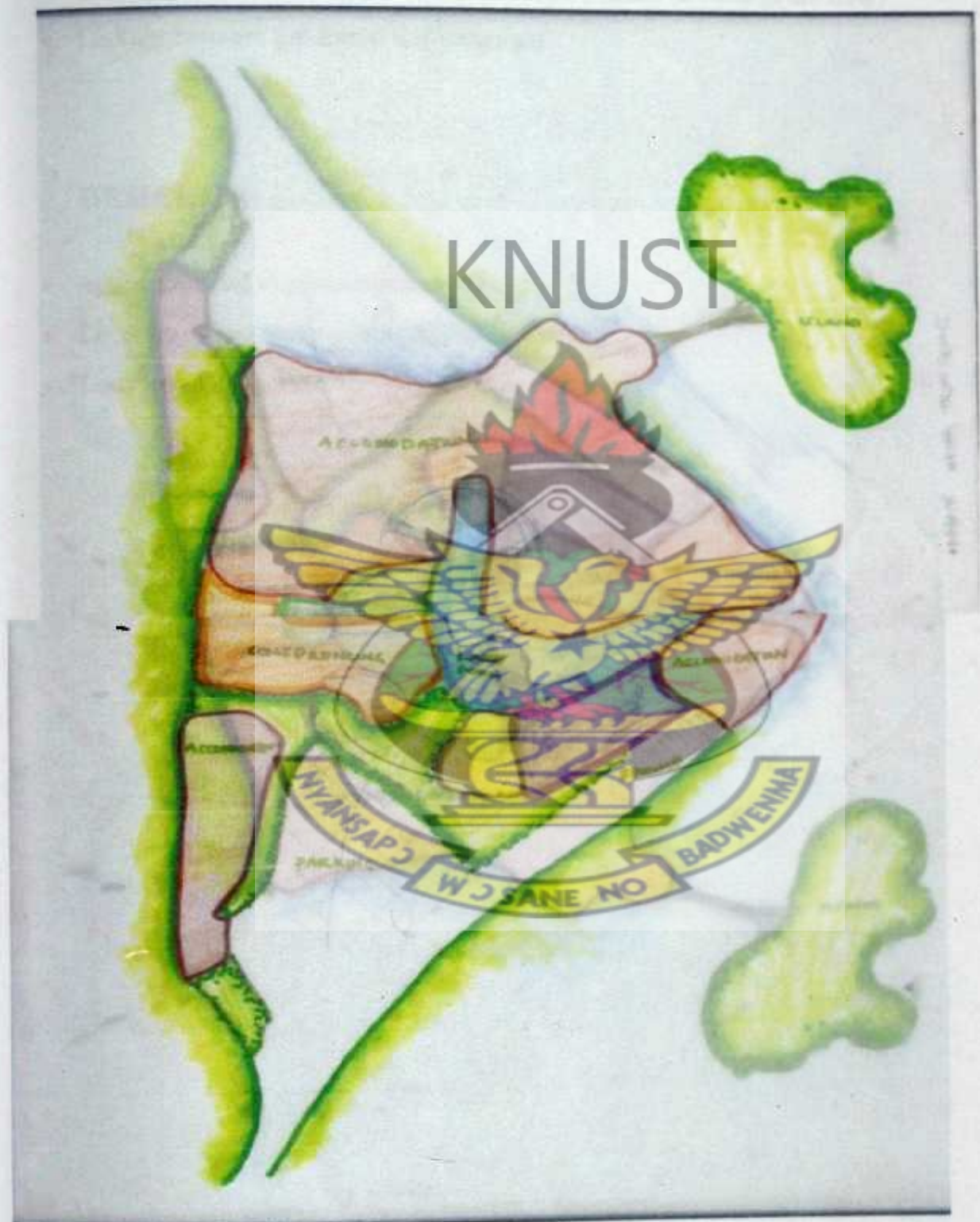


FIG 50 Conceptual site planning (alternative 1)

5.3 CONCEPTUAL SITE PLANNING: -

4.10.1

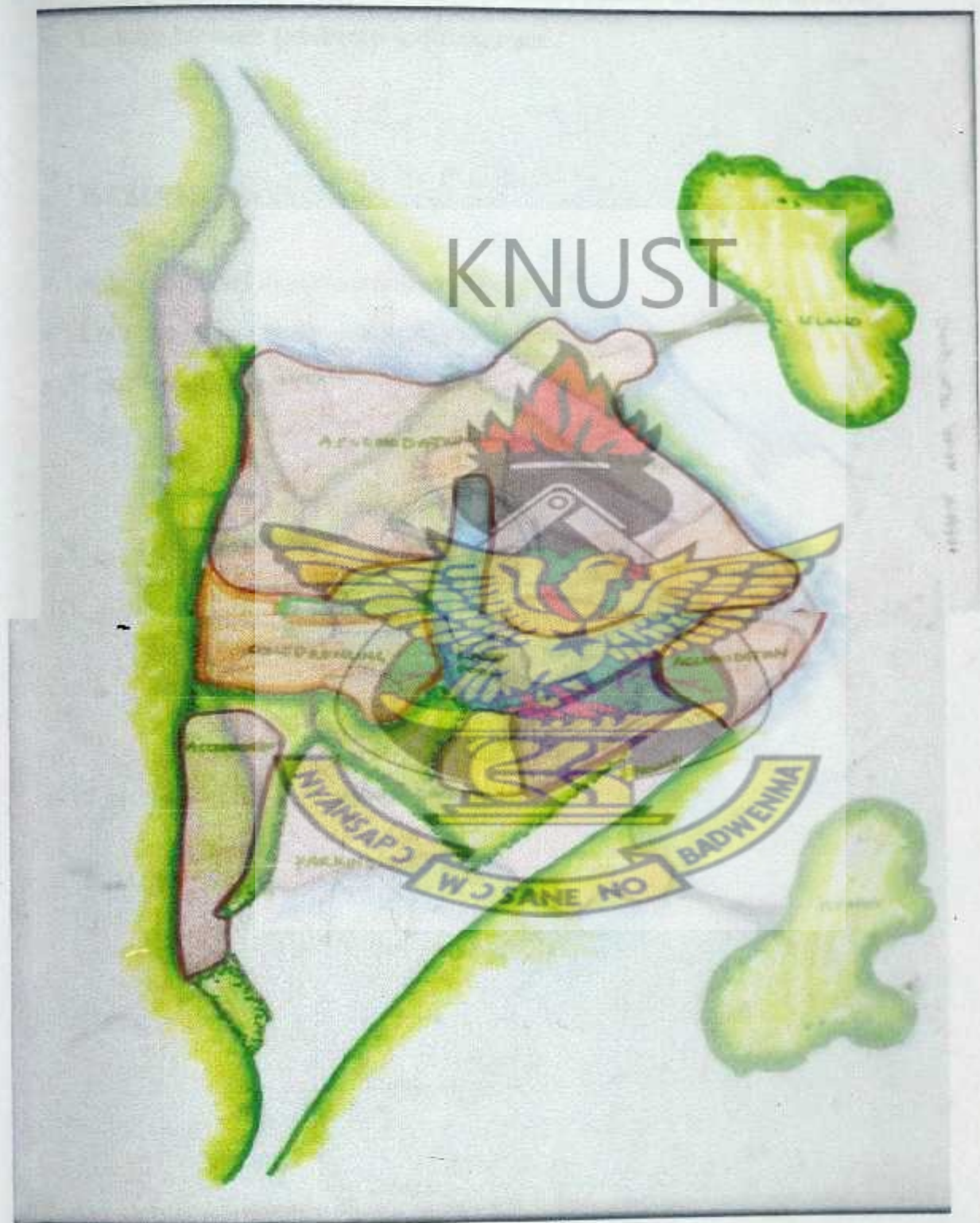


FIG 50 Conceptual site planning (alternative 1)



## **MERITS:**

- Location of residential facilities at water front is excellent
- Introduction of the river into the site to enable patrons to swim in the river,
- Linkage between residential and restaurant

## **DEMERITS**

- Space allocated to administration too big
- Location of one sector of accommodation poor
- Location of car park too far from main entrance.



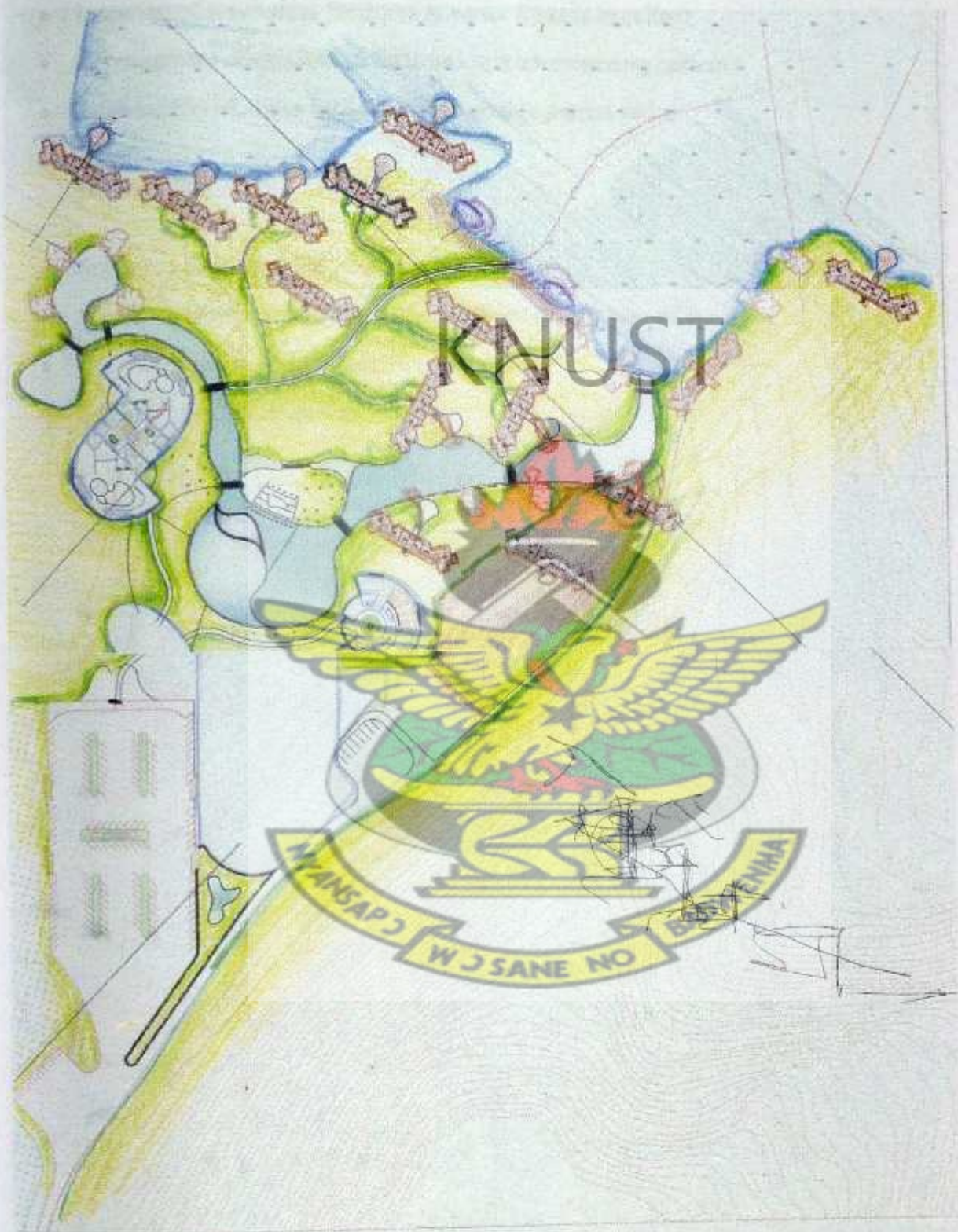


FIG 51 Conceptual site planning (alternative 2)



### MERITS:

- Location of residential facilities at water front is excellent
- Arrangement of residential facilities in a harmonizing pattern
- Introduction of water into the site to enable patron swim

### DEMERITS

- Scattered forms on site
- Some residential buildings suffering from direct view of the river
- Car park too far from the main entrance
- Lack of covered driveway



## 5.5 ALTERNATIVE 3

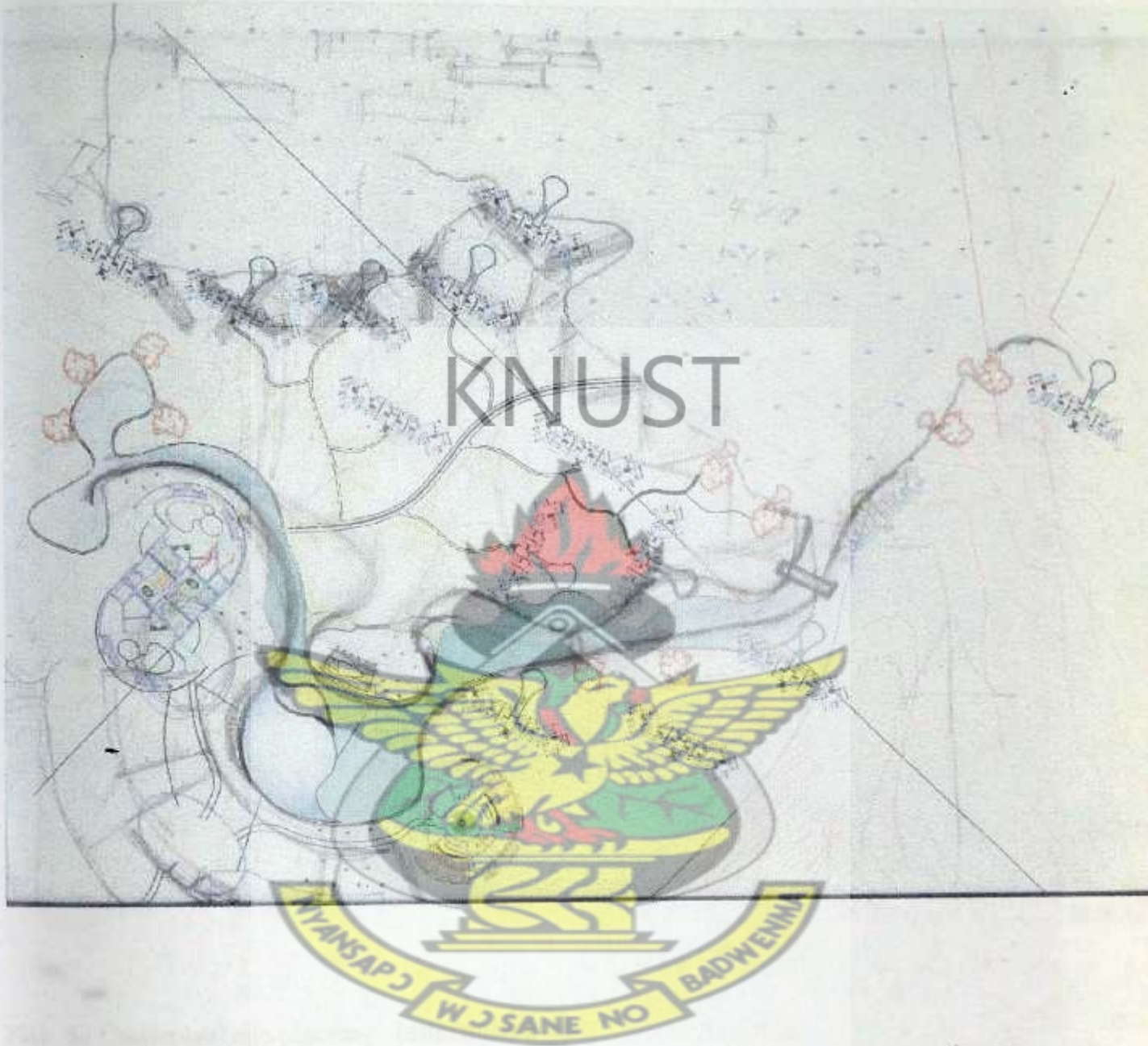


FIG 52 Conceptual site planning (alternative 3)



## 5.6 ALTERNATIVE 4



FIG 53 Conceptual site planning (alternative 4)

### MERITS:

- Location of residential facilities at water front is excellent
- Introduction of the river into the site to enable patrons to swim in the river,
- Linkage between residential and restaurant.

## EMERITS

- Space allocated to administration too big
- Location of one sector of accommodation poor
- Location of car park too far from main entrance.





## 5.7 FINAL SITE LAY OUT

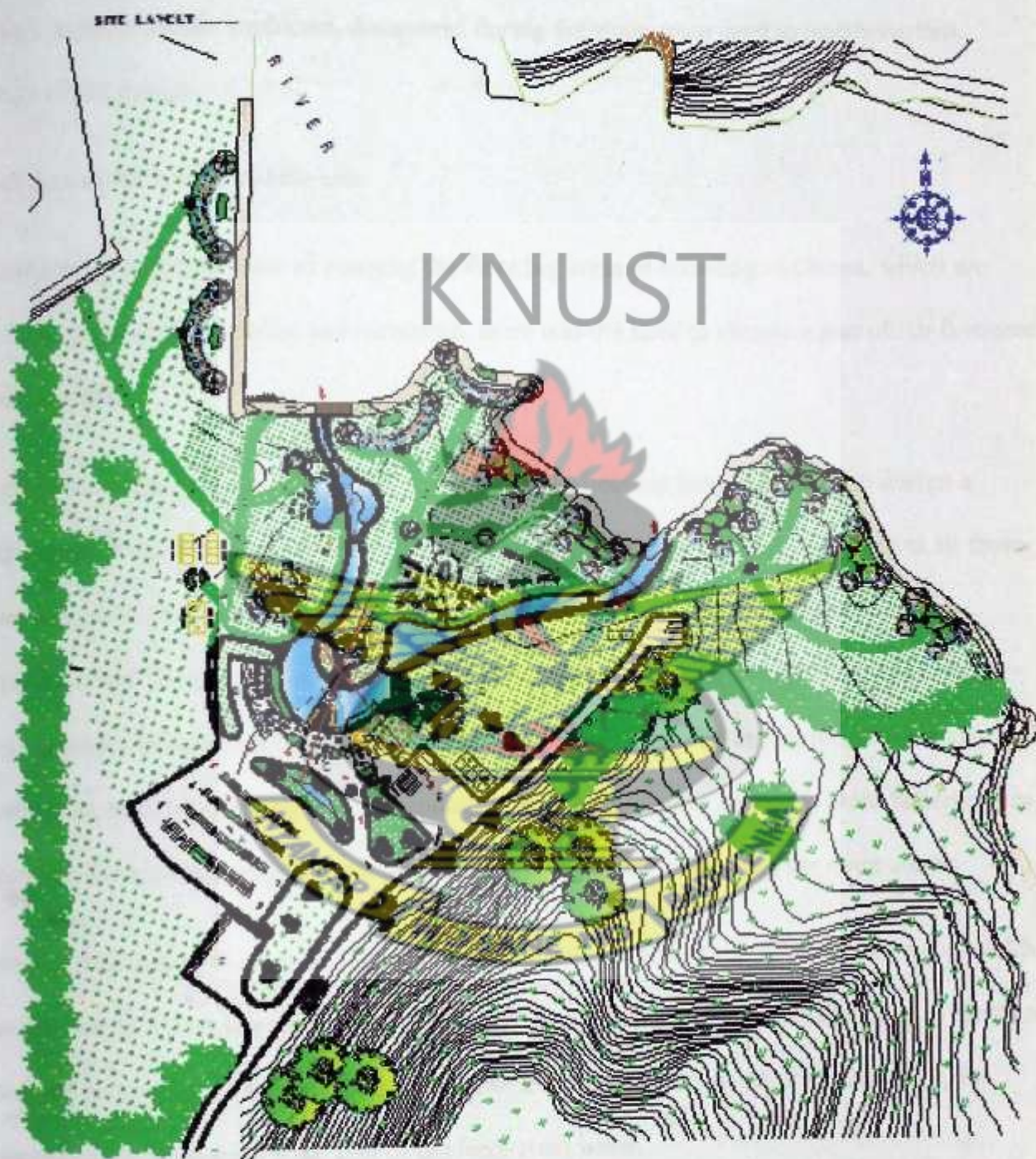


FIG. 54 Conceptual site planning (FINAL LAYOUT)



## 5.8 THE DESIGN

In the design of the resort, certain elements from other resorts studied, ideas development , and the task to solve certain problems, discovered during the study were used to justify certain aspects of the design ,

In relation to the location of the site:

In order to solve the problem of merging the three big areas of hotelling in Ghana, which are conferencing, accommodation and recreation, there was the need to choose a site which favoured all these areas.

Also upon successfully selecting a site at Akosombo, it became more necessary to design a facility, which catered for all the three areas. Therefore the design sought to harmonise all these areas, in a creative, rejuvenating way using the water and vegetation as the fundamental therapeutic tool. Being a resort catering for all the three major sectors of the hotel industry, it is very necessary to create unique spaces to satisfy each individual and the purpose at that very location. As such from the genesis, the zoning of the site into noisy and quite areas became very necessary, further enhancing the site with trees to create noise buffers for the quite zones.

Secondly, because of the constant interest of tourist and patrons in swimming in the river, which is prohibited by E.P.A,(Environmental Protection Agency) and presence of bilharzias in the river it was necessary to introduce the site, and further treat it, to create an artificial lake pool, for visitors and tourist to have a fair feel of the fresh river water.

The river is introduced into the site from the highest point of the land to allow the natural gradient to work on the flow and pressure of the water.



One is introduced to the resort from the main entrance into V.R.A unto the car park. A first hand view of the water front is an appetizer for every visitor as such an effort to create that view first from the car park, and directly from the main lobby.

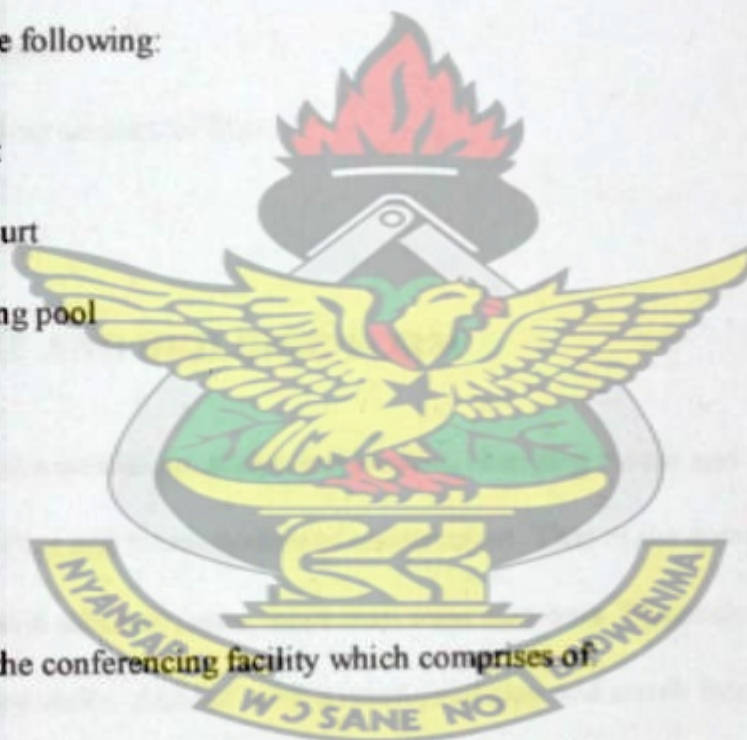
Great therapeutic gardens enhanced with a fountain welcomes one into the facility.

The first point of call to my facility is the main entrance lobby flanked by the Administration to the left and restaurant facilities on the right. Both of these facilities have a great view of the river.

Further on the left is the Sports Complex which can boast of the state of the art sports facilities.

They are made up of the following:

- A Squash Court
- Table tennis Court
- Indoor swimming pool
- Spā area
- Pool tables
- Gymnasium



Further on the right is the conferencing facility which comprises of

2 (200) seated capacity conference rooms– one not raked for multi purpose

2 (20) seated capacity meeting rooms

Secretarial facilities

Multipurpose sitting area

Through the entrance lobby one is transported over the bridge into the main facility.

The concept was to incorporate the court yard system in the Ghanaian architectural style (Aban) thus enveloping the accommodation section of the facility with the administration section, to serve as an ideological protection.

In the court yard is the African open kitchen (Restaurant) , the Therapeutic Garden, swimming pool and a lake pool.

Beyond these facilities are the accommodation facilities consisting of:

- 96 standard rooms
- 24 executive rooms
- 20 luxury chalet, in clusters of four.

## 5.9 STRUCTURE AND BUILDING FORM

The structure for the accommodation, traditional kitchen, changing rooms and structures at the therapeutic garden is a Post and Beam system of construction. That of the sports facility, conferencing and the main administration have steel truss members. Materials used for construction are masonry walls, cladded with a mixture of clay and starch from sill level. Areas below the sill level are cladded with clay bricks.

Roofing materials is of artificial thatch.

The introduction of traditional adinkra symbols was incorporated in the design of the columns, railings and opening of the building.

Hue rendered on the walls was of the earth tones.



## 5.10 BUILDING ORIENTATION AND NATURAL VENTILATION

The site is oriented naturally with the north towards the river, as such building was correctly oriented with the wider areas facing the north – south direction.

The longer and wide, correctly placed operable windows allow natural ventilation (cross ventilation).

This orientation restricts solar exposure of the interior spaces in terms of the sun path but maximizes the prevailing wind for natural ventilation.

## 5.11 NATURAL LIGHTING

Natural lighting is maximized in the facility. The introduction of court yards within the sports and conferencing facilities go to enhance and light up the corridors

Cross section span of accommodation and administrative building are a maximum of 8 meters into the core, therefore allowing great amount of lighting into the core of the facility.

## 5.12 MATERIALS USED (WALLS, CEILINGS AND FLOOR FINISHES)

In resort design, the effect of colours on the psyche of the individual is very important. Since most people come there to relax, it is important to use very cool colours such as the tints and shades of blue, green or violet, or equally play with the earth tones.

Exterior walls were finished with the earth tone matt acrylic paint to blend in with the sill height level cladding of brick.

In the interior depending on the space, the appropriate colour was rendered on the wall.

All bedrooms were painted in very light tints of blue and white.

The restaurant areas were rendered with very hot colours in the tints and shades of red to create an exciting psyche on visitors.

The main entrance was treated with tints and shades of green.

### 5.12.1 CEILINGS

Ceilings were treated with natural cane and raffia, which was abundant in the vicinity. Construction details have been provided.

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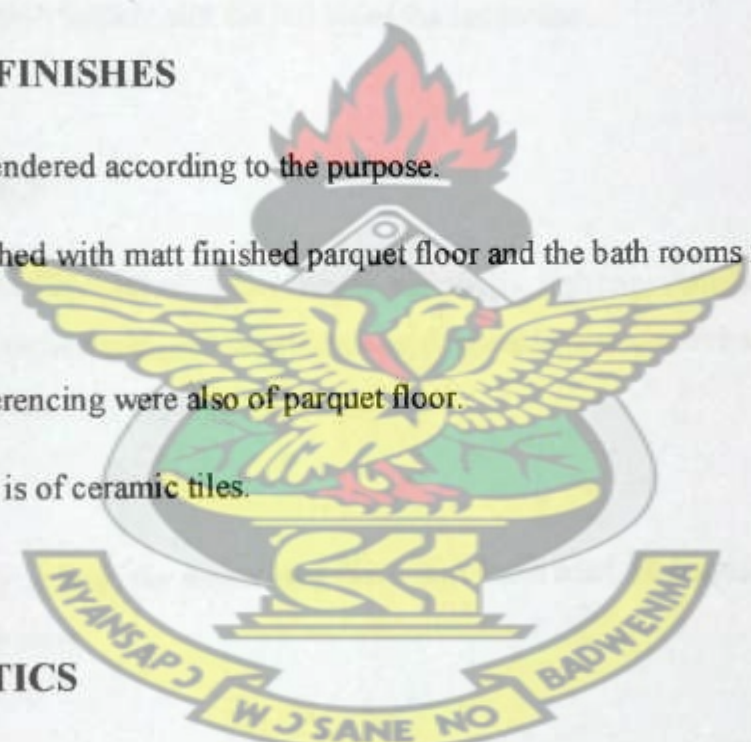
### 5.12.2 FLOOR FINISHES

Floor of the resort were rendered according to the purpose.

Bedroom floors were finished with matt finished parquet floor and the bath rooms finished with ceramic tiles.

Restaurant floor and conferencing were also of parquet floor.

Flooring around pool area is of ceramic tiles.



### 5.13 ACOUSTICS

Noise control is very essential in any conferencing facility. Acoustic tiles have been recommended for use where necessary, keep noise from bouncing off walls by installing products with high noise-reduction coefficient ratings. These include Mylar -faced acoustic ceiling tiles, Mylar-faced sound baffles, and sound-absorbing, fabric-wrapped wall panels.



## 5.14 PHASING PLAN

The brief of the design shows that the project when is undertaken will require extensive planning and financial management, thus the construction will be put into two phases as follows.

### Phase 1

The first phase will comprise of the main Administration, Restaurant, Conferencing, two block of the standard rooms, all the chalet and the frontage part of the landscaping, service and sewage area and the swimming pool.

The second phase comprise of the Commercial Area, the Sports Facility, the traditional kitchen, the rest of the accommodation facility and the last bit of the landscape.

## 5.15 SERVICES

Services provided for the facility include water supply, electricity, lighting, ventilation, security controls, telecommunication facilities, gas supply, refuse disposal, storm water drainage, waste soil drainage and fire fighting.

### WATER SUPPLY

Water supply to the facility is from the mains long the V.R.A main road. Hot water would be provided from overhead heaters.

### ELECTRICITY

Power will be tapped from the mains along the V.R.A road and stepped down by a 500KW transformer before being sent to a switchboard and then distributed to the panel boards. A standby generator set with automatic switches will be provided and would be part of the distribution cable which will be loaded.

### LIGHTING

Lighting in the facility was very important especially in the garden and outdoor spaces. Garden solar light were distributed all along the garden.



## EMERGENCY EXITS

Emergency exits have been provided for escape routes. Fire alarm call points and firefighting equipment have also been used.

## TELECOMMUNICATION FACILITY

Hotels guides shall use radio phones to communicate. All areas shall be coded up to room levels to make communication easy. Intercoms and intracoms will be utilized.

## FIRE DETECTION

The fire alarm system shall be an automatic 1-24 zone single loop addressable fire detection and alarm system, utilizing conventional detection and alarm sounders.

Detection shall be by means of optical and heat detectors located throughout the hotel facility building with break glass units on the corridors.

## WASTE DISPOSAL

In draining the facility, the natural terrain was taken advantage of. The open system of drainage requiring covered drains will carry all surface water to the lowest section of the north slope where it joins the water in the storm drain.

Human excrement is washed down water closets, urinals and flushing sinks. Sewerage from various facilities take their outlets at manholes provided apart. From the manholes the sewerage and waste water will be channeled into water tight (treatment plant) septic tanks and a soak away, where they would be separated. The liquid waste would be recycled for watering plants whereas the solid waste would be packed and disposed off as manure.

## STORM MANAGEMENT

Storm water on the roofs would be directed to the underground tanks through drain pipes attached to columns. Surface runoff water would be directed to the tanks through surface drains to be used later to the lawns and flower gardens.



## 5.16 LANDSCAPING

Extensive landscapes such as greenery, rockeries, fountains, sculpture pieces, and pavers were used. This is due to the fact that a serene and environmentally interactive space is needed in such a facility to promote and enhance a therapeutic healing. At the frontage of the facility, precisely at the main entrance is a welcoming fountain. This water feature at the frontage would psychologically work on the mind sets of the visitors. Stone finished walkways at different levels help users to move round the fountain.

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Inside the core of the facility is a therapeutic garden with a vast variety of flora. Plant was used for various purposes:

- direct circulation
- create privacy, serenity and quiet zones
- modify climate and
- generally add to the aesthetic appeal of the facility.

Plants that will be used include the following:

Ficus benamina (yellow and green leaves)	ornamental and screen
Eucharia (all green tree)	ornamental and wind break
Yellow duranta (yellow and green leaves)	defining walkways and for aesthetics
Royal palm	ornamental

### Plants for visual impact

- Flowers: camellia, magnolia, orchid, peony, forsythia
- Leaves: weeping willow, maple, palm, privet

-Seeds: clematis tangutica, physalis, everlasting pea, eryngium.

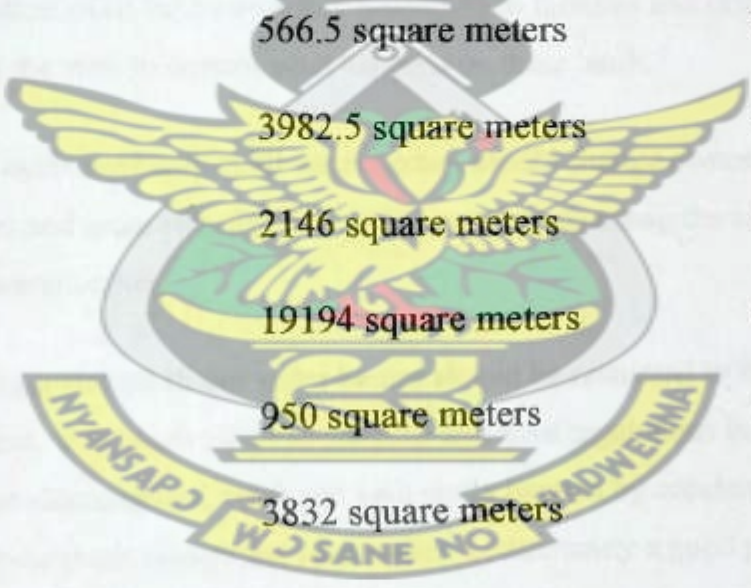
The lawns will be planted and covered with paspolon grass, carpet grass and some artificial grass where needed.

## 5.17 COSTING

For the sake of affordability and time savings, the construction has been put into two faces. A dynamic value of 400 dollars per square meter has been developed.

The total surface area being constructed = 1,440,000 square meters.

1 square meter = \$400



Administrative area	566.5 square meters	\$226600
Accommodation	3982.5 square meters	\$1592800
Sports complex	2146 square meters	\$858400
Eatery	19194 square meters	\$7677600
Conferencing	950 square meters	\$380000
Ancillarries	3832 square meters	\$1532800
		.....
		\$12,268,200

Therefore the total cost of construction = \$12, 268,200

Therefore, the amount due to complete phase one is \$9,004,200

And that of phase two is \$3264000



## 5.18 RECOMMENDATIONS AND CONCLUSION

### 5.18.1 RECOMMENDATIONS:

Water bodies in Ghana have a bigger potential than what is given to it. Gambia for instance has just a stretch of beach front, and that alone creates the bulk of its revenue from tourism, is it not therefore heartbreaking and a big waste to see such wonderful resources go to waste.

Even though there is a huge body such as the water resources management, one will actually ask, what clearly their role is. If one institution manages the water bodies and has nothing to do with the land around, how there can there be any impact of work done on these facilities.

Since Ghana, has most of its land ownership belonging to families and stools, it really becomes very difficult for the state to control what happens on these lands.

In resolving this conflict, lands surrounding all water bodies should change ownership to Government so that proper and more effective decisions are taken regarding the safety and maintenance of our dear water bodies.

Secondly, settlements around all our water bodies should be restricted in their rate of expansion and development. It is much easier to pre-plan and have regulations in place before rapid growth occurs. Great places to live, work and visit rarely happen by accident. Too much or the wrong kind of development can undermine what makes a community a good place to live or visit.

Environments with a strong sense of place are distinctive. They've got personality. They connect residents and visitors with what is unique about their setting and history. These places tell you stories; they invite you to linger and learn about landform, soil and climate, about what good food is produced locally. They tell you about the people that live there, what they've done with their lives, and what they think is important, and all these attributes, brought together can help promote tourism and reduce congestion in other human settlement areas.



Thirdly, some water bodies seem to given more attention than the others. Talk of the water front and most people are thinking in the direction of our beaches. They all too soon forget that Ghana is endowed with other wonderful water bodies, which can play similar roles as that of our beaches. Good education is important to both the people of Ghana and more importantly too settlements around it.

People are inherently drawn to water. Hence the importance of waterfront development. But these water front developments do not stand alone as an entity, they come along with other facilities such as accommodation, Paths and Promenades, Basic Human Needs like (Safety: lighting & clear sight lines, Rest rooms, Water & Food: drinking fountains, food vendors at mealtimes & weekends, Seating: views, people watching, sense of safety, moveable seating and tables, Views emphasizing waterfront from all vantage points and Parking structure preferable to parking, transportation and roads and other recreational facilities.

In relation to resort design, construction and management, it is very advisable to construct resort which accommodates, recreates and provide conferencing facilities. Though this my come with an initial huge cost of opening, in the long term, one would benefit from an all year round turn out, which will enable them to generate more income, as such no reason to purge their rates so high to meet costs and maintenance.

### 5.18.2 CONCLUSSIONS

In every rule, there are rules and regulation, and above all principle. Ghana is advantaged with such a beautiful shoreline and other water bodies. With careful analysis and consideration, the resort industry could be developed into a multi billion industry to raise more revenue for Ghana at large.



5.19 3D IMPRESSION OF THE RESORT



Fig 55 Aerial view of resort from the northern point

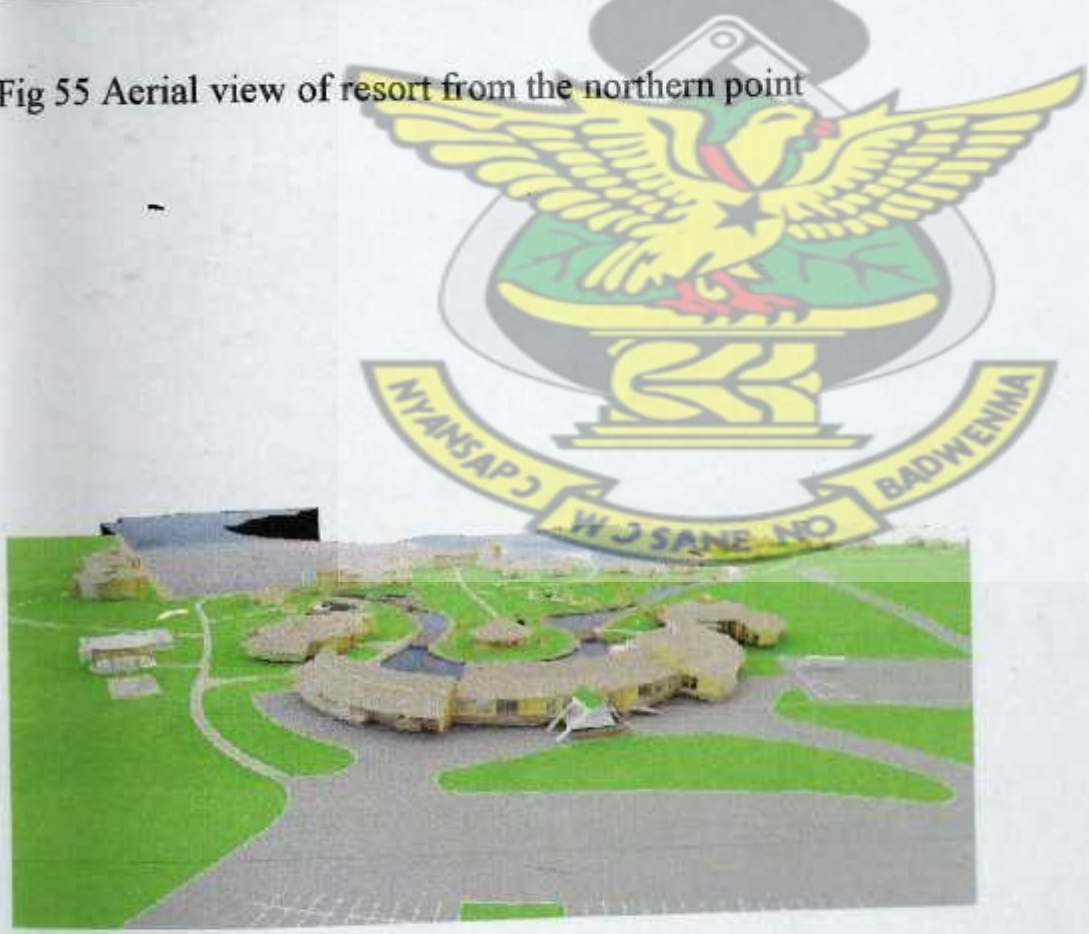


Fig 56 Aerial view of resort from the southern point



Fig 57 View towards the Conferencing area



Fig 58, View towards accomodation





Fig 59, View of pool area



Fig 60 A typical standard room



Fig 61 Aerial view of room



Fig 62 Interior of executive room





Fig 63 View of reception

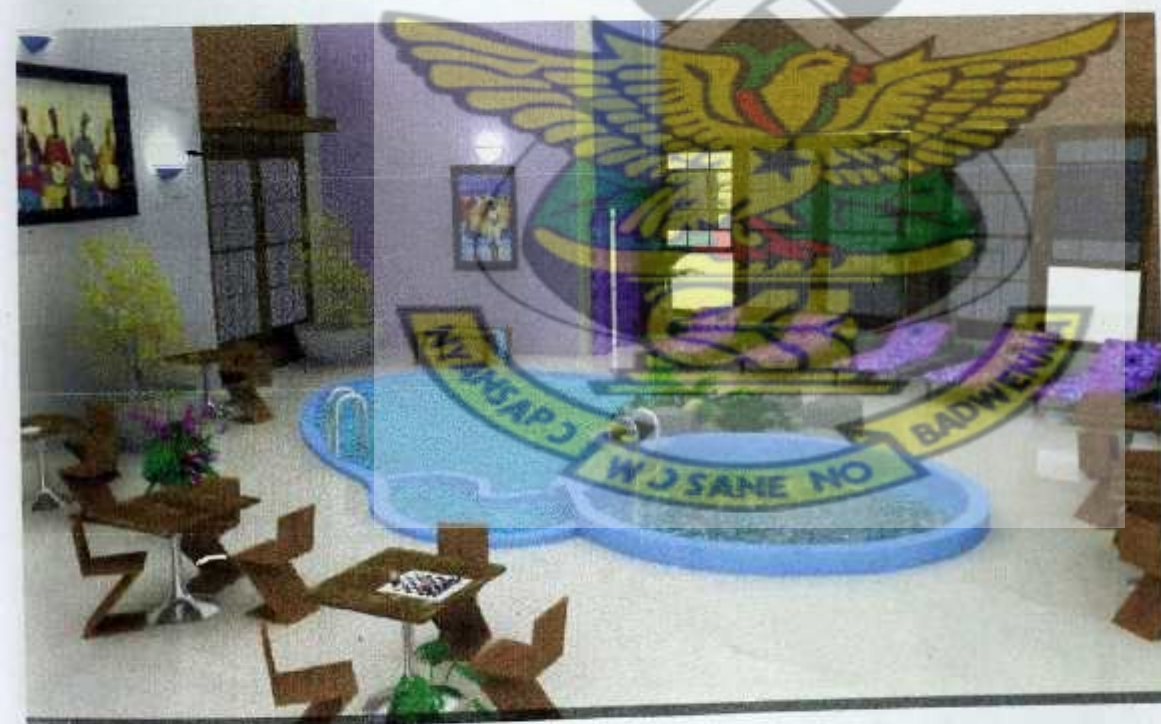


Fig 64 Interior view of swimming area





Fig 65 View of court yard



Fig 66 View of African kitchen





A MAIN CAR PARK  
B COMMERCIAL AREA  
C MAIN ADMINISTRATION AND FOOD / RESTAURANT  
D CONFERENCE AREA  
E GOLF CAR PARK  
F TAXI AREA / PARKING

WATERFRONT RESORT APOSCOMED...

G THEATRELAND CASINO  
H SPORTS COMPLEX  
I ACCOMMODATION AREA  
J GOLF COURSE  
K ACCOMMODATION AREA  
L GOLF COURSE

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100. BR



ROMAN CATHOLIC CHURCH

RESERVOIR

WATER WORKS

OXIDISATION

OXIDISATION

VETERINARY SERVICE

COMMUNITY A.I.

SHAWA-TELECOM

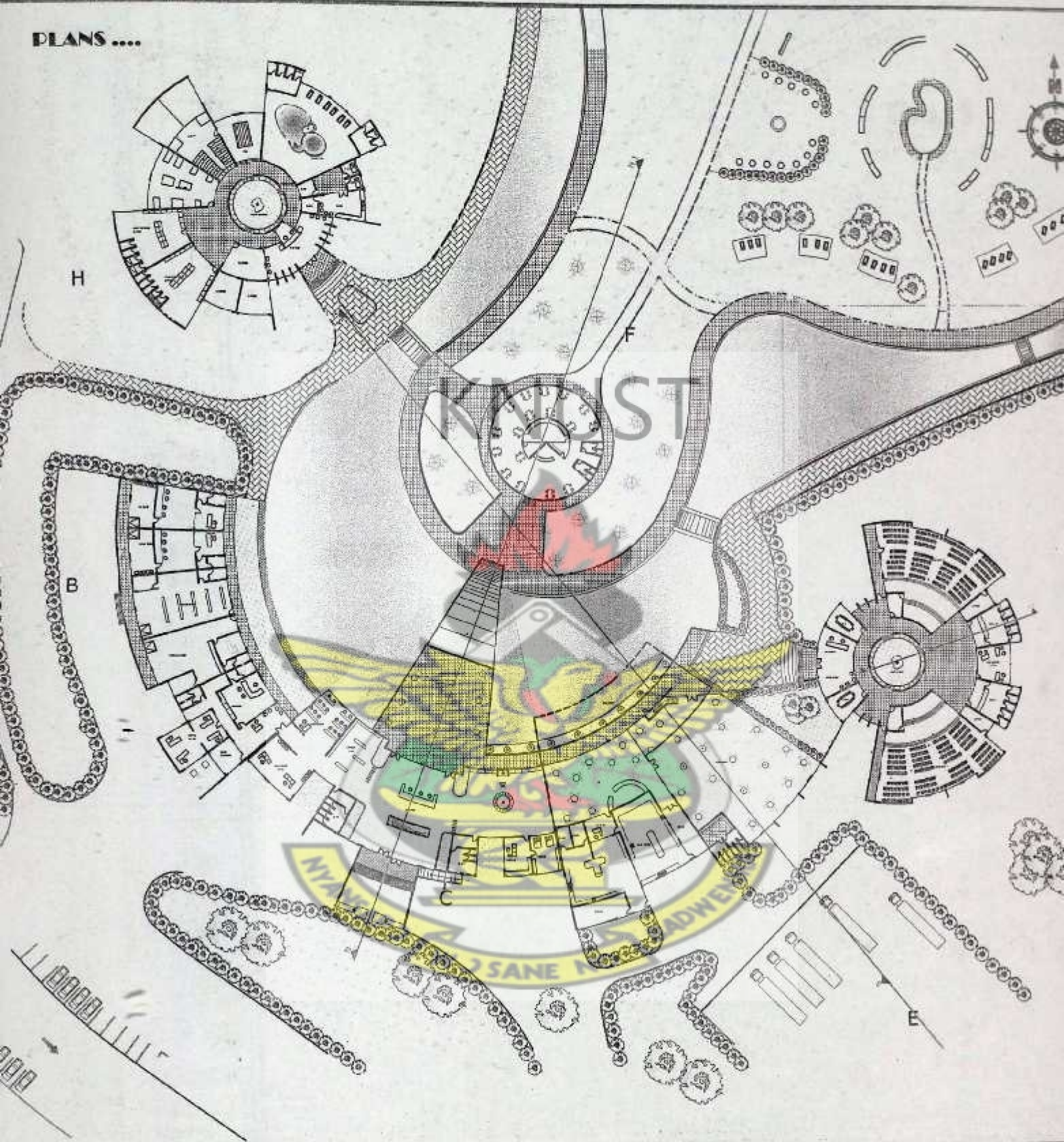
KNUST

NYANSAP

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PLANS ....

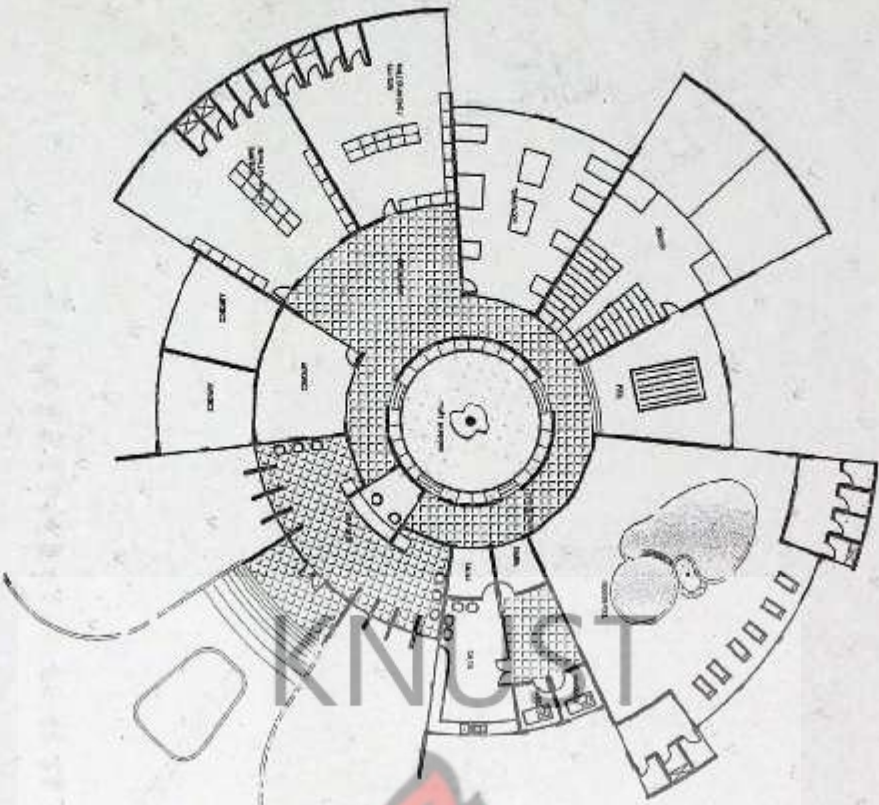


B COMMERCIAL AREA  
C MAIN ADMINISTRATION AND  
FOYER / RESTAURANT

**WATERFRONT RESORT ARCOSOMBU...**

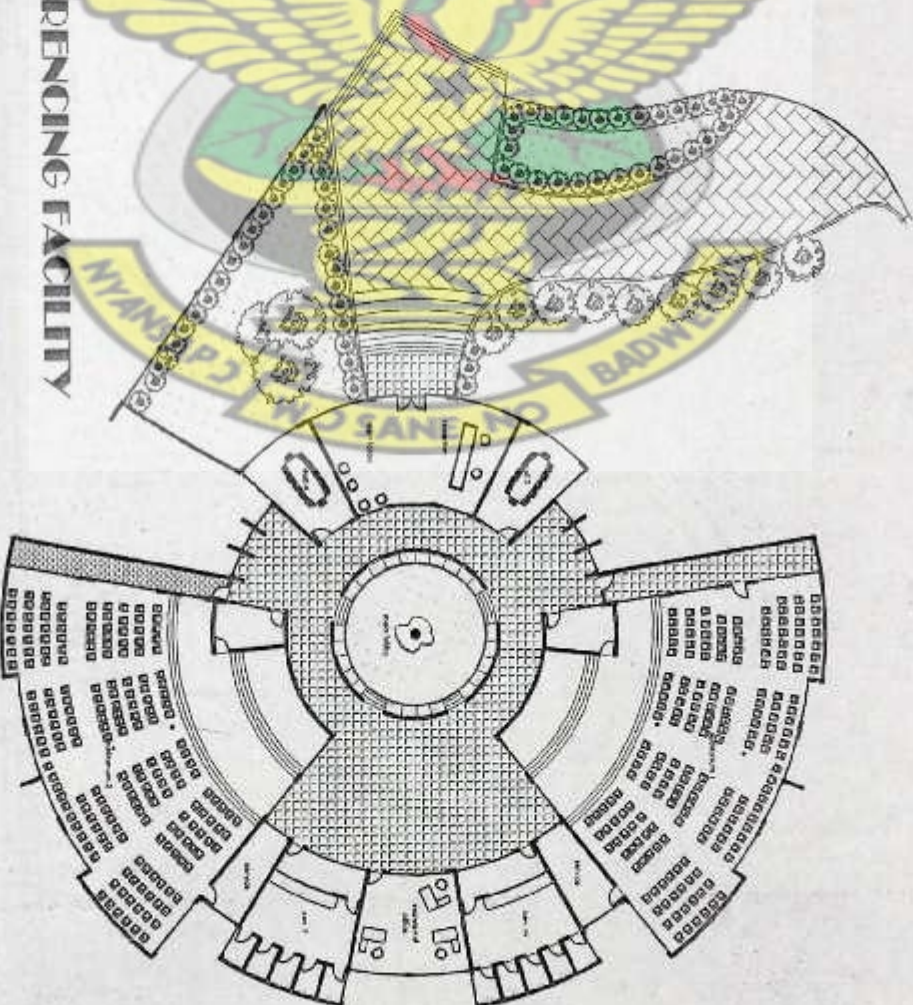
D CONFERENCE AREA  
E SERVICE CAR PARK





SPORTS COMPLEX

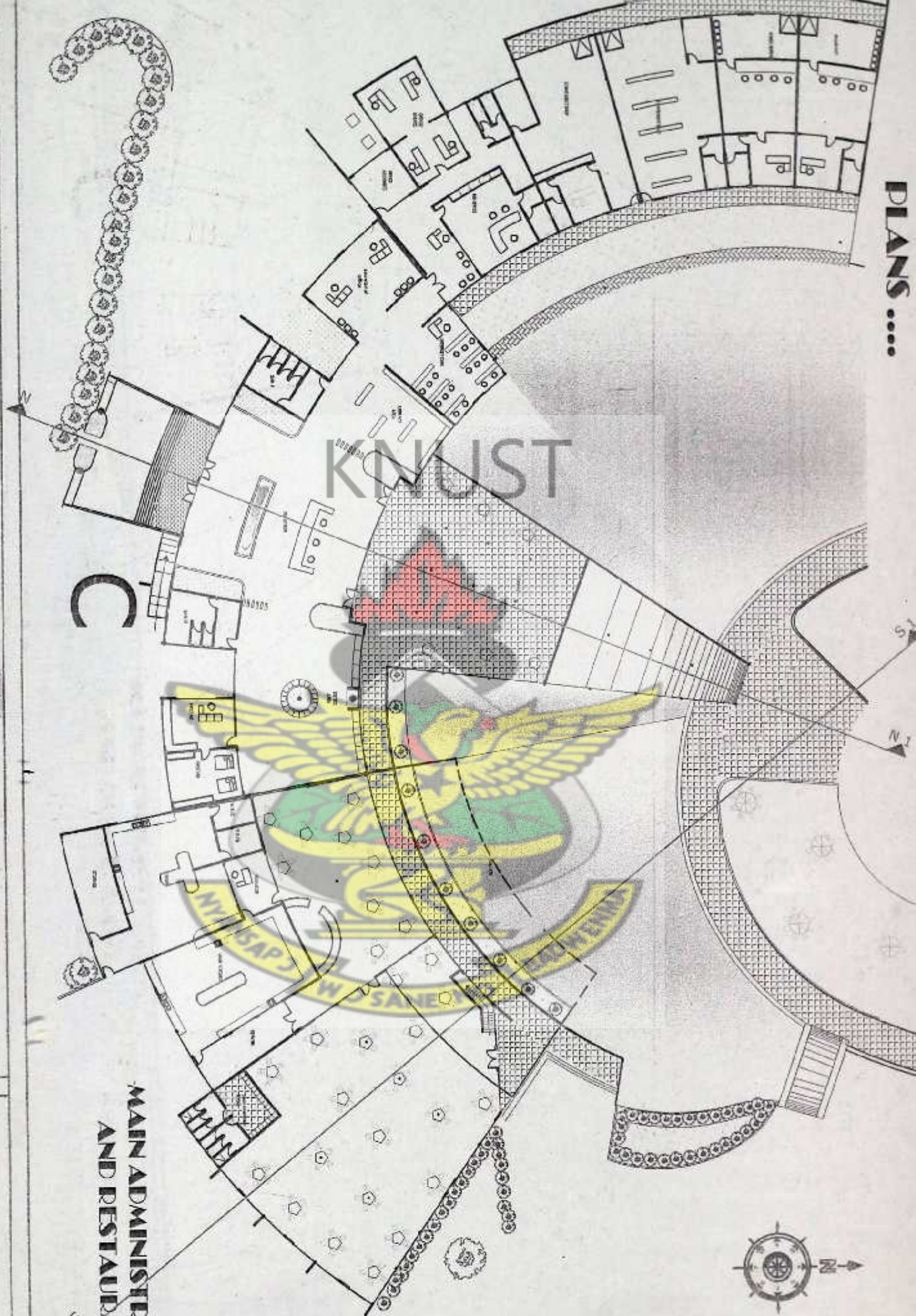
CONFERENCE FACILITY





# WESTPORT REPORT AKOSOMBO...

## MAIN ADMINISTRATION AND RESTAURANT





# ELEVATIONS .... Administration area



WESTERN ELEVATION ....

EASTERN ELEVATION ....

VIBERT RANT RESORT ALOSOME...

LOCATION: ...  
...  
...  
...

Scale : 1 : 200



# ELEVATIONS .... Administration area



SOUTHERN ELEVATION ....



NORTHERN ELEVATION ....

KNUSI



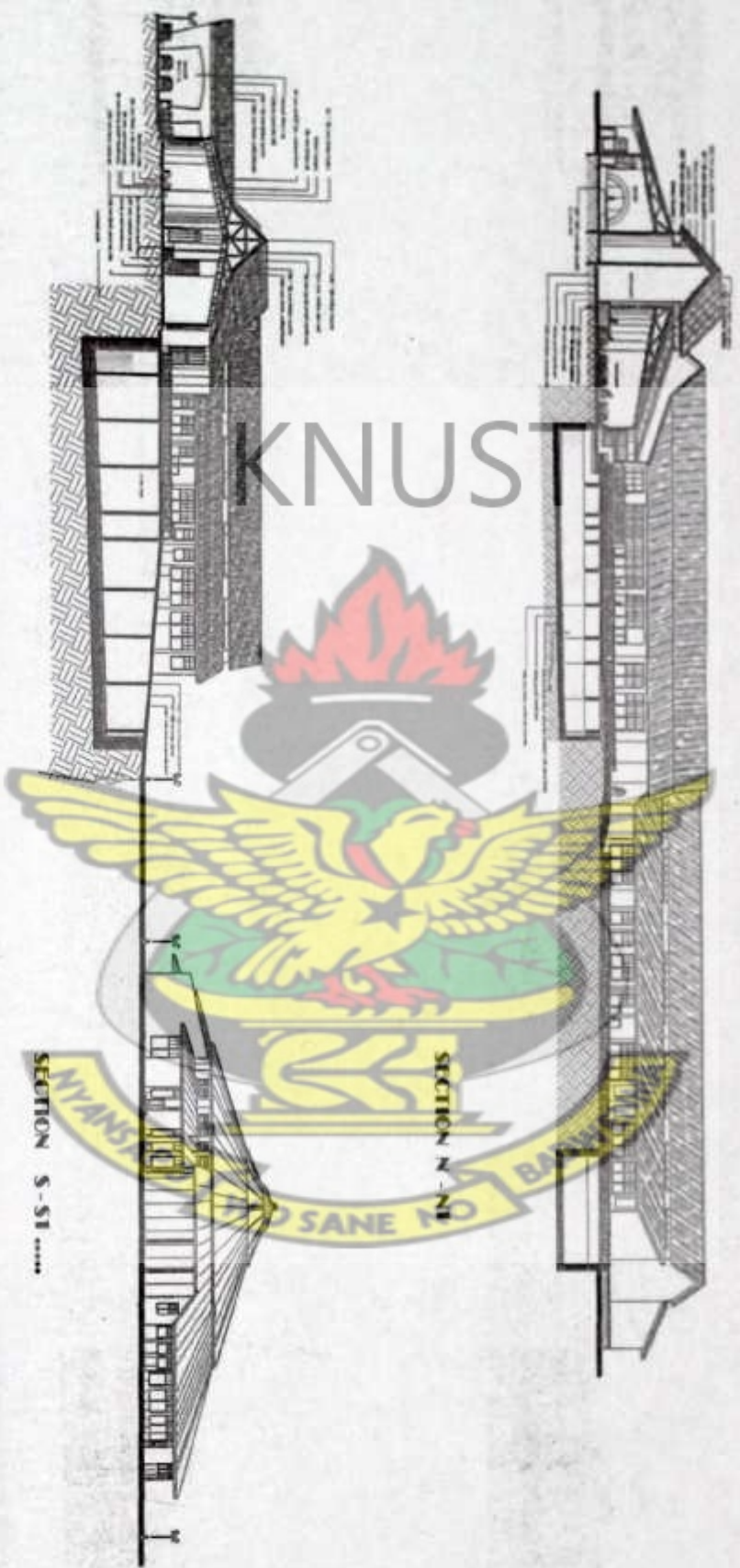
WATERPORT ROAD ALUSOMED...

LOCALITY MAP  
ALUSOMED  
WATERPORT ROAD  
ALUSOMED  
ALUSOMED

Scale : 1 : 200



**CTIONS ...**  
**Administration area**

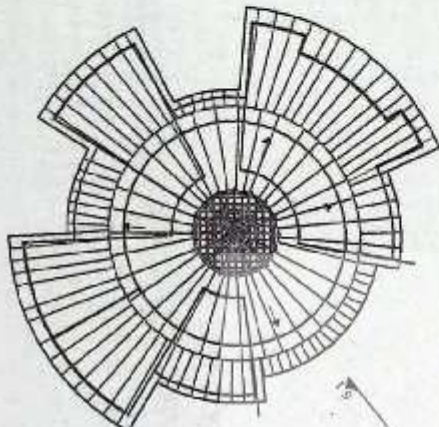


**WATERBURY REPORT ARCHITECTS...**

**Scale 1/4" = 1'-0"**

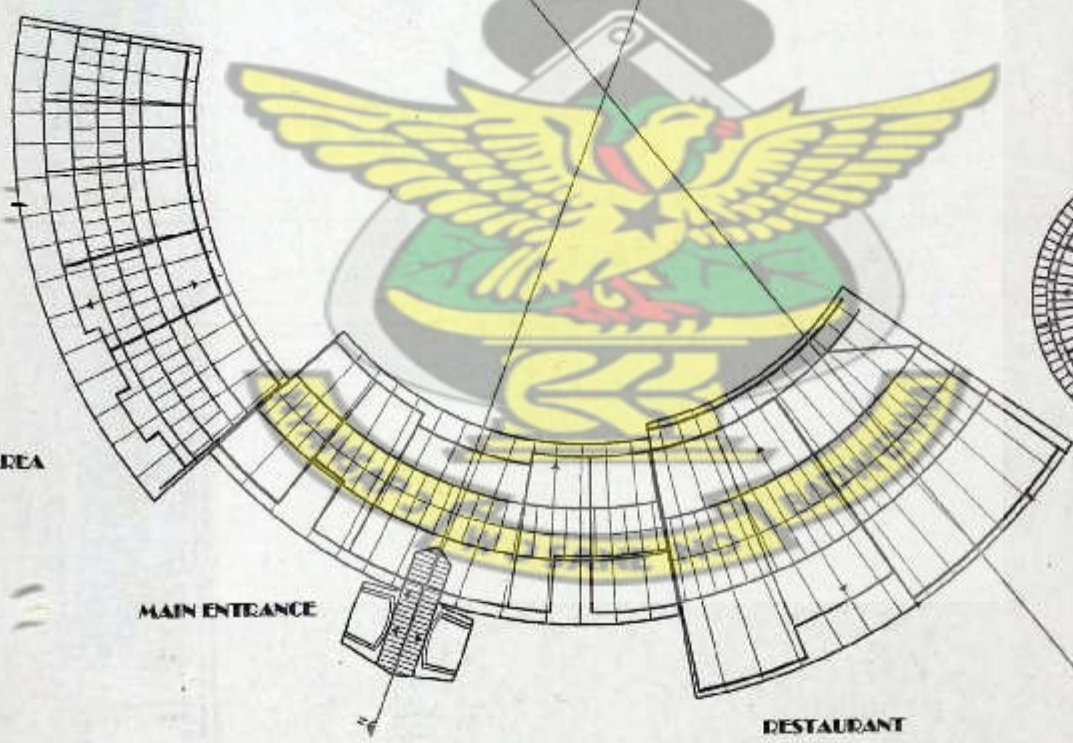


ROOF PLAN....



SPORTS COMPLEX

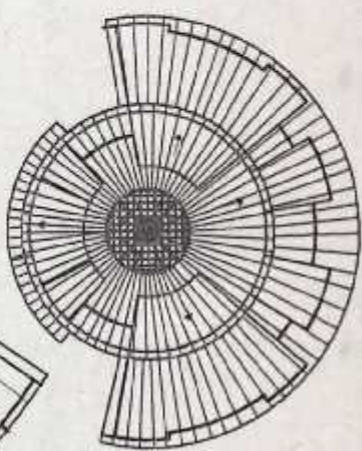
KNUST



COMMERCIAL AREA

MAIN ENTRANCE

RESTAURANT



CONFERCING FACILITY

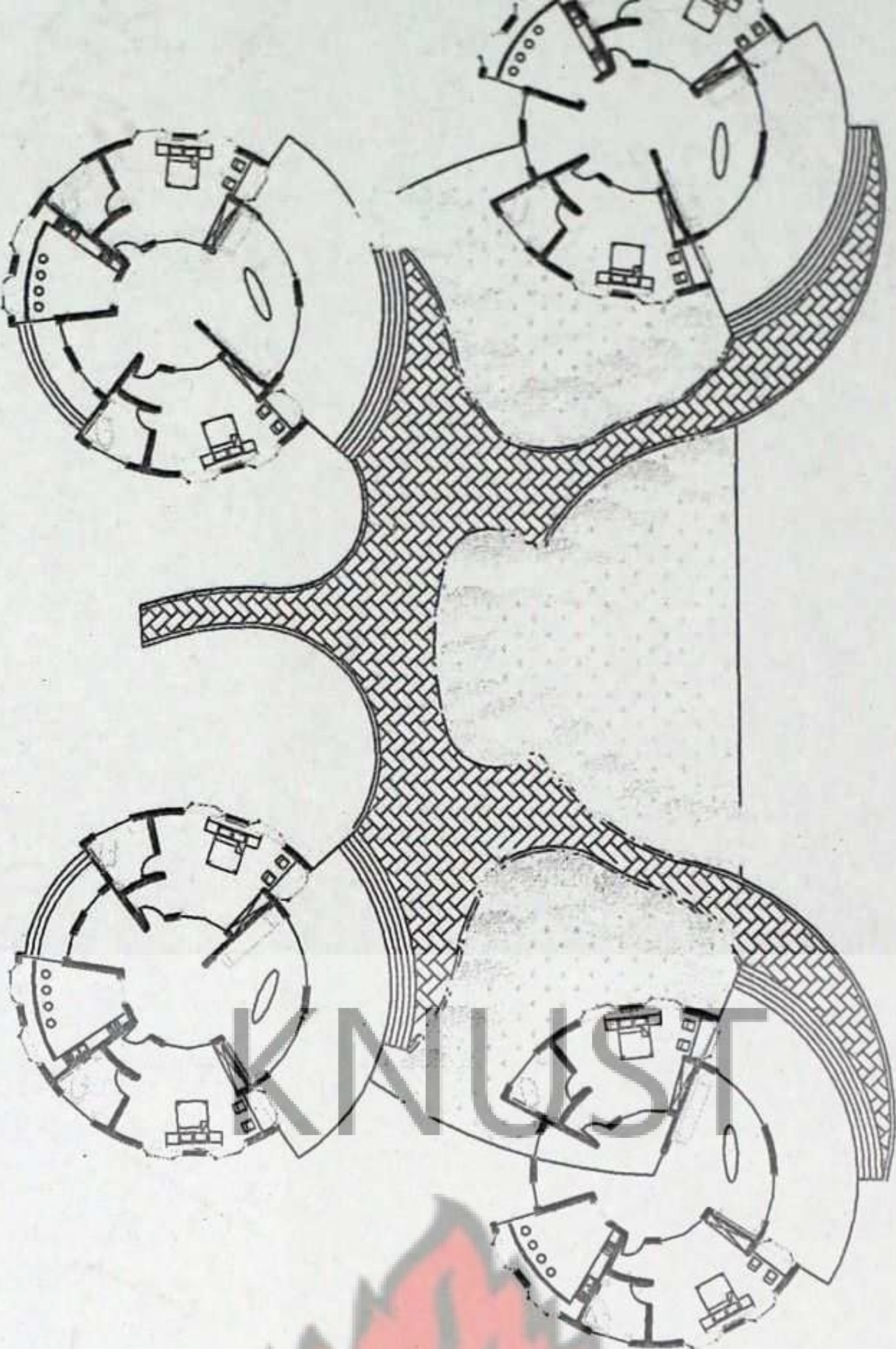
B COMMERCIAL AREA  
C MAIN ADMINISTRATION AND  
FOYER / RESTAURANT

WATERFRONT RESORT AKOSOMBO...

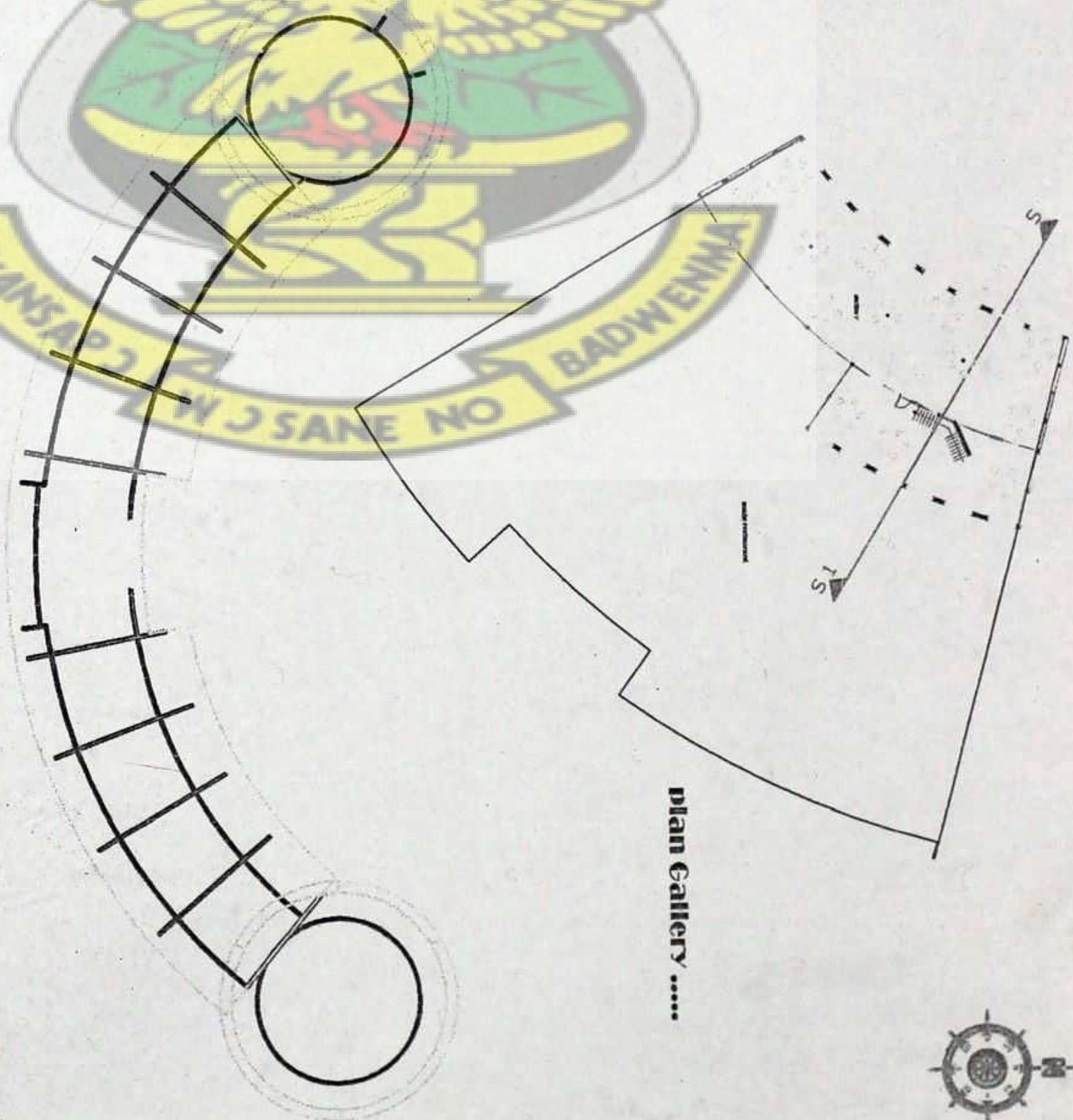
D CONFERCING AREA  
E SERVICE CAR PARK



# PLANS AND ROOF PLAN....



Cluster Luxury Apartments.....



plan Gallery .....

Roof plan accomodation.....

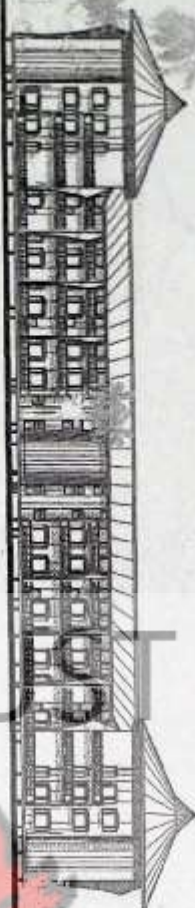
WHERPORT RESORT ACCOMMOD...

LORECANIE DENNIS  
DIRECTOR OF ARCHITECTURE  
KNUST  
NOT FOR SALE  
THIS IS A PLAN - 200



# ELEVATIONS .... acomodation - standard and executive rooms

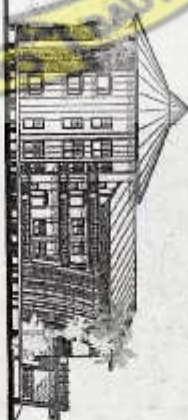
NORTHERN ELEVATION .....



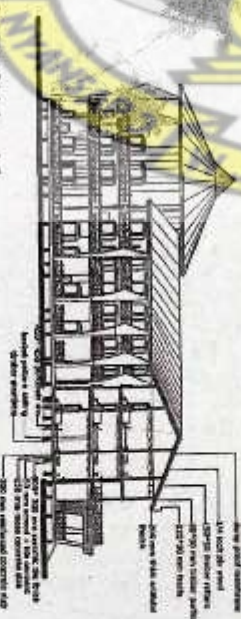
SOUTHERN ELEVATION .....



EASTERN ELEVATION ELEVATION .....



SECTION A - A1 .....

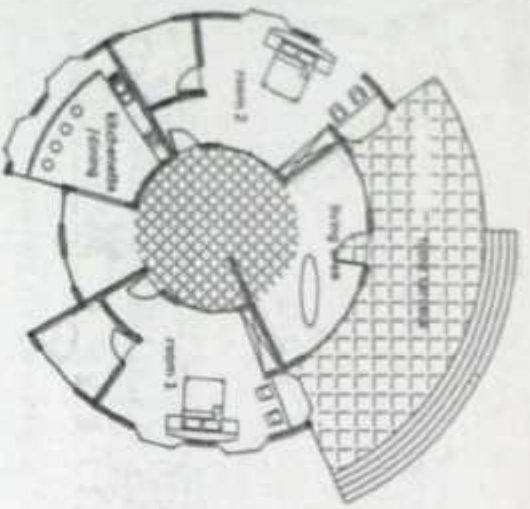


VIENTIANE RESORT ACCOMMODATION...

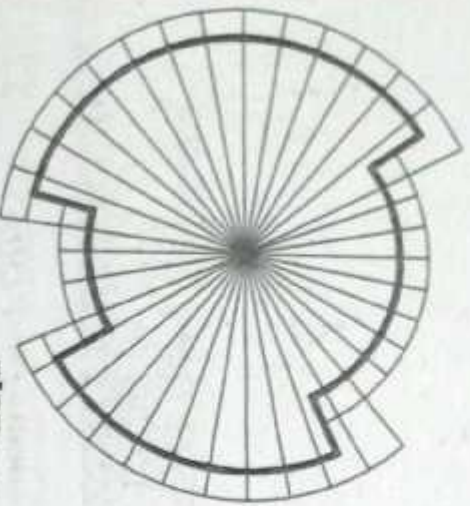
DESIGNED BY: [Name]  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
DATE: [Date]



# PLANS accommodation .... luxury chalet



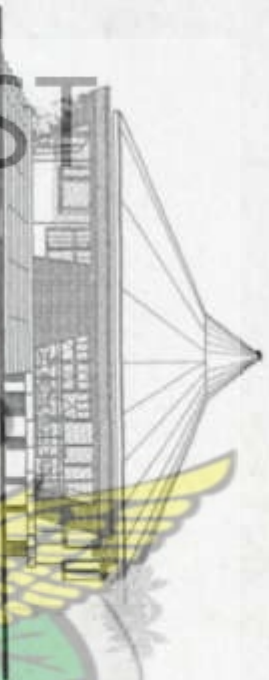
plan.....



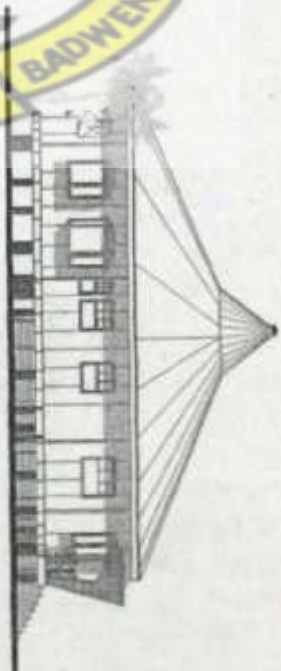
plan.....

KNUST

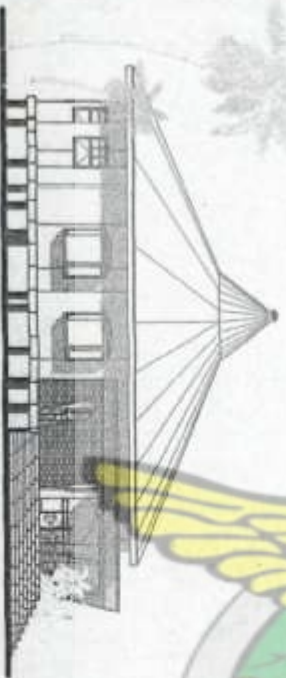
northern elevation.....



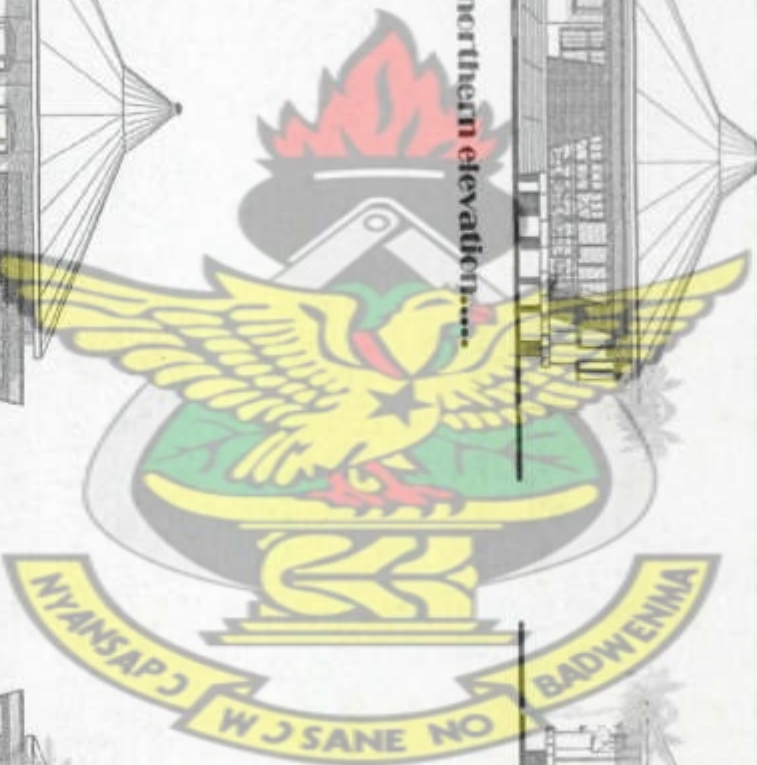
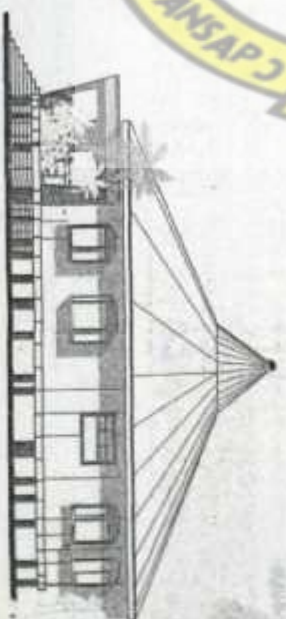
southern elevation.....



eastern elevation.....



western elevation.....



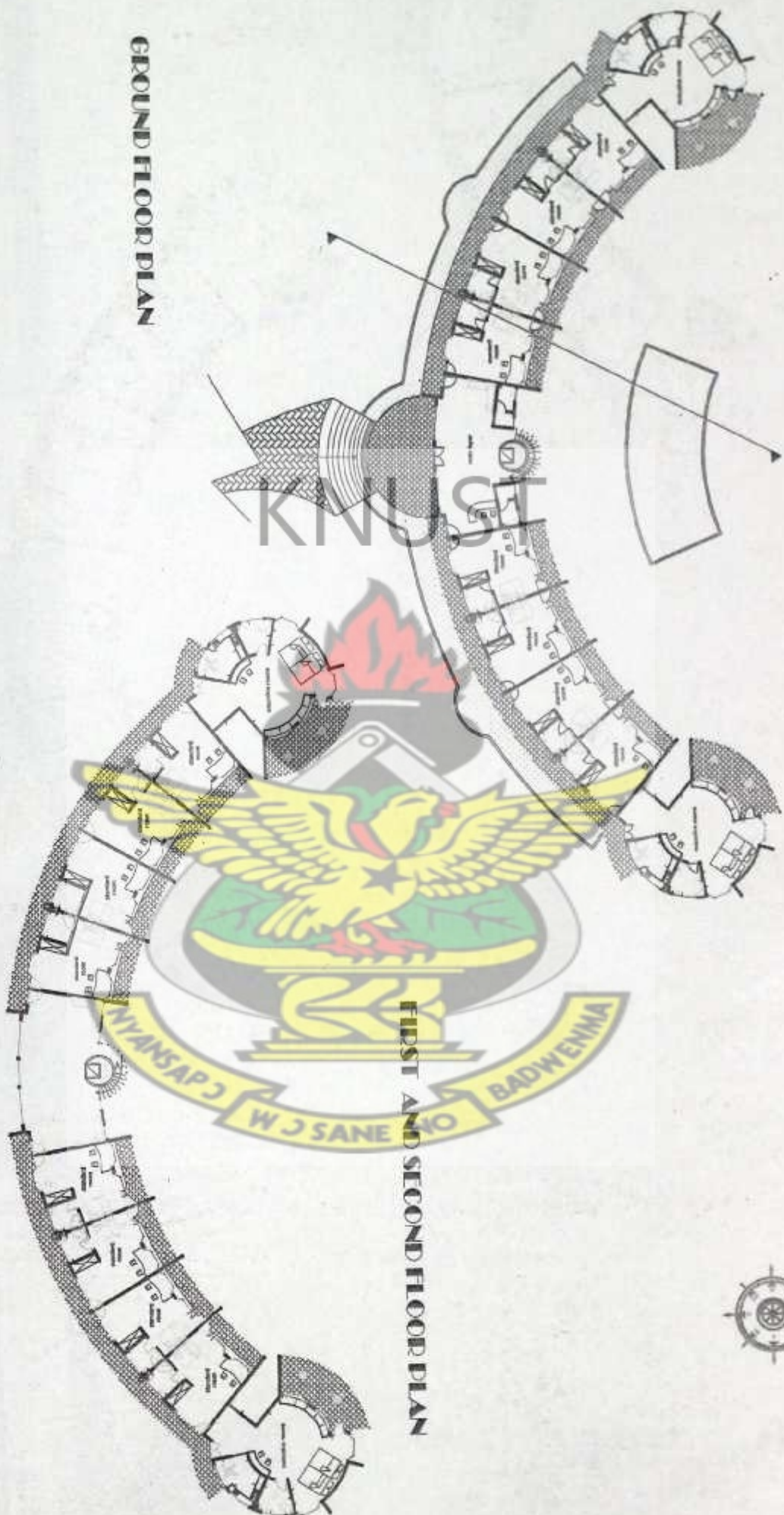
WATERPANT RESORT ACCOMMODATION...

LOCALITY: 1000000  
SCALE: 1:1000  
DATE: 2000  
DRAWN: 2000



# PLANS accomodation .... disable friendly

GROUND FLOOR PLAN

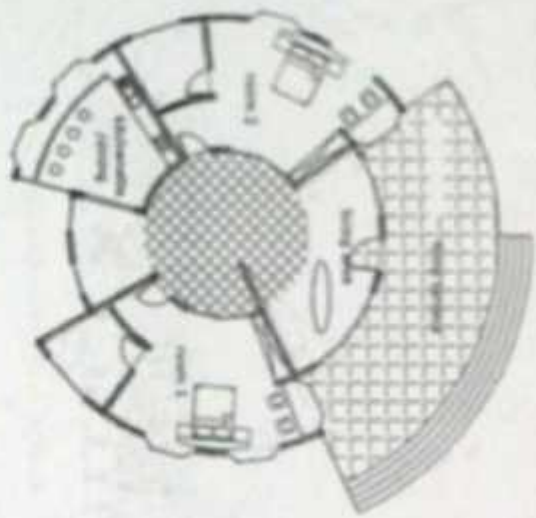


FIRST AND SECOND FLOOR PLAN

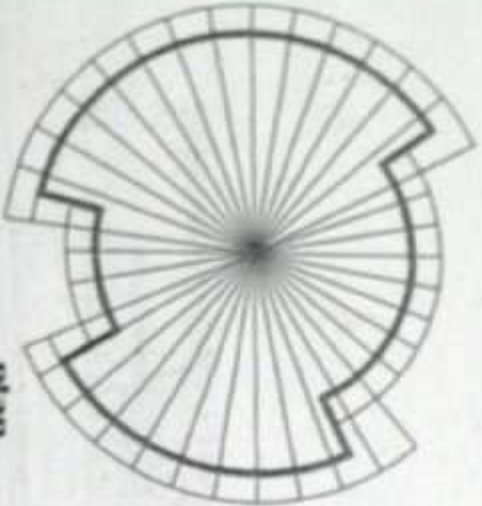
WATERPORT RESORT AROSOMBO...

LOCAL AUTHORITY  
DEPARTMENT OF ARCHITECTURE  
NO. 100, 101, 102, 103  
104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

# PLANS accommodation ... luxury chalet



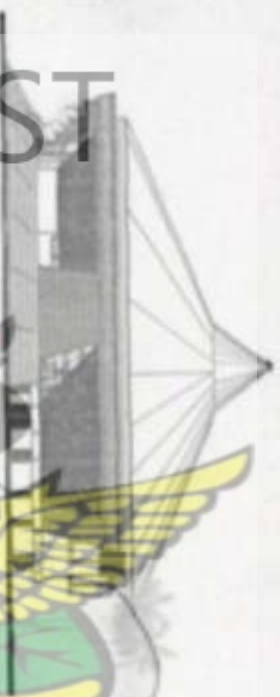
plan.....



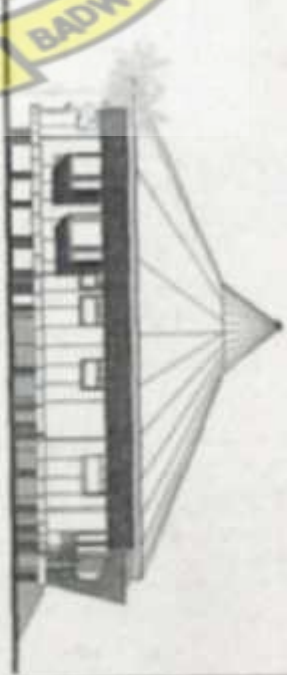
plan.....

KNUST

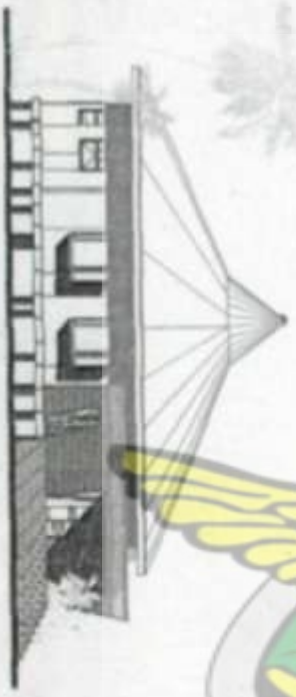
northern elevation.....



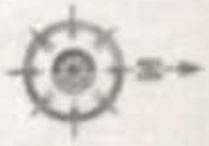
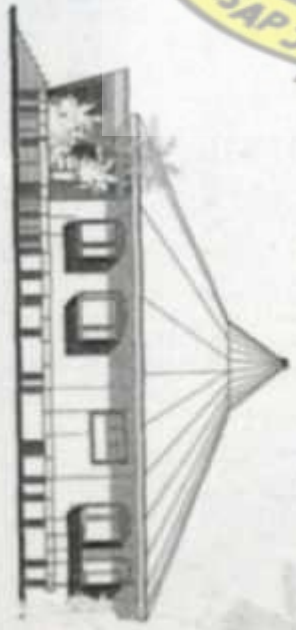
southern elevation.....



eastern elevation.....



western elevation.....

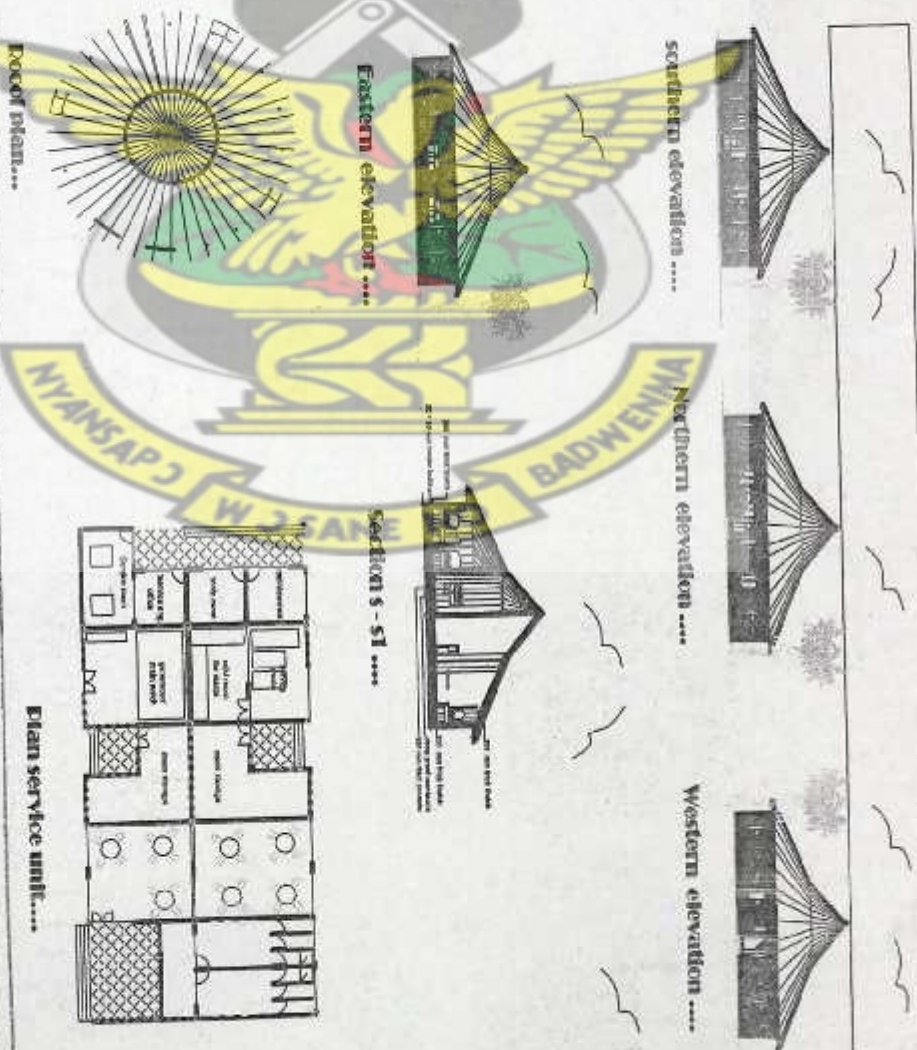
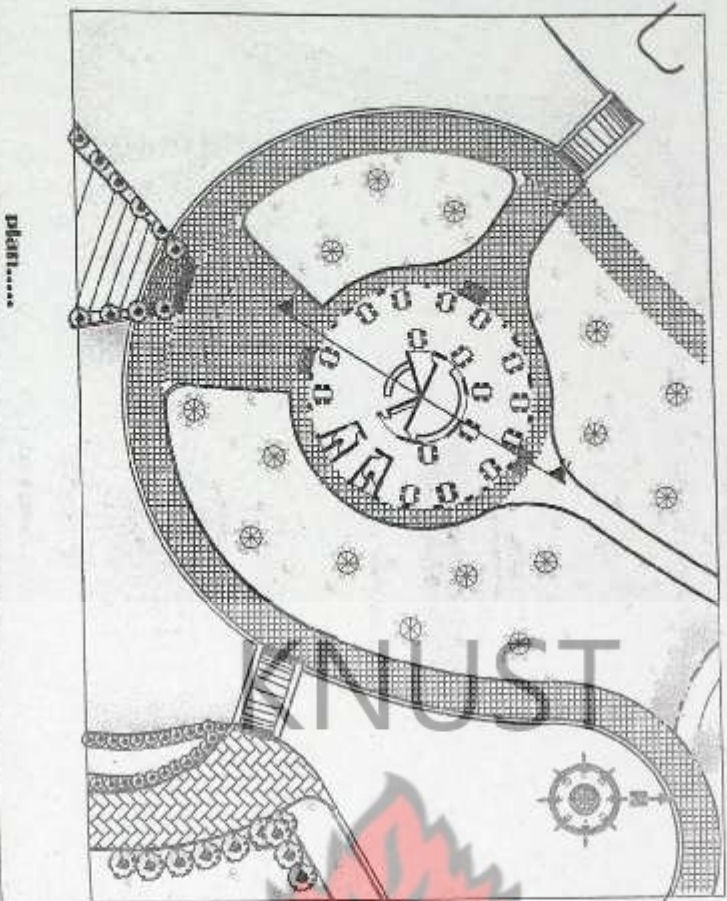


WATERBURY REPORT ARCHITECTS

Scale : 1 : 200



# PLANS AND ELEVATIONS.... african kitchen

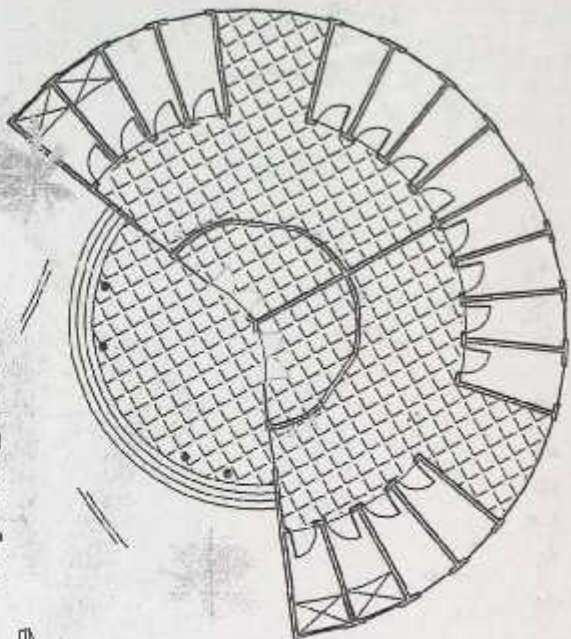


WESTERN RESORT ACCOMMODATION...

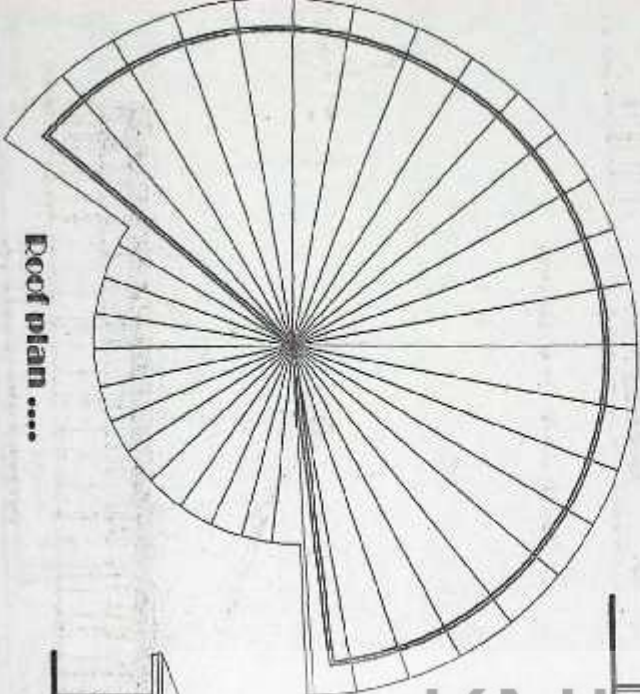
Scale : 1 : 200



# PLANS & ELEVATIONS - CHANGING ROOMS ....



Ground floor plan ....

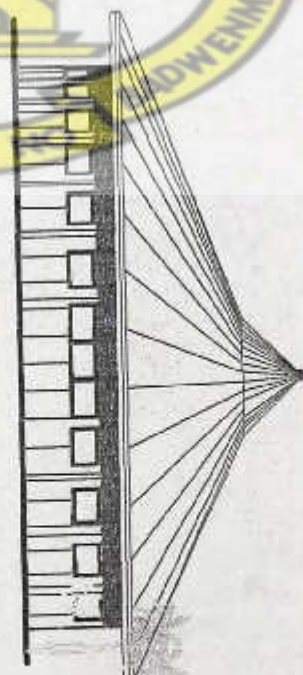


Roof plan ....

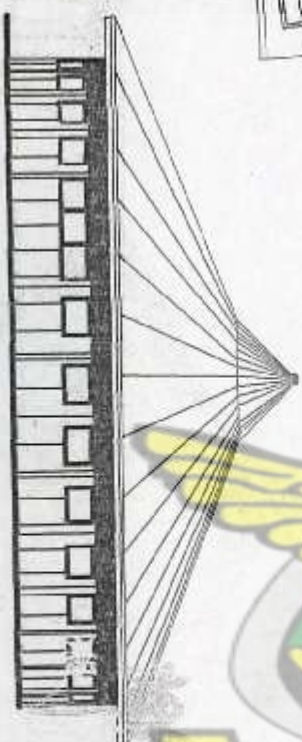
KNUST



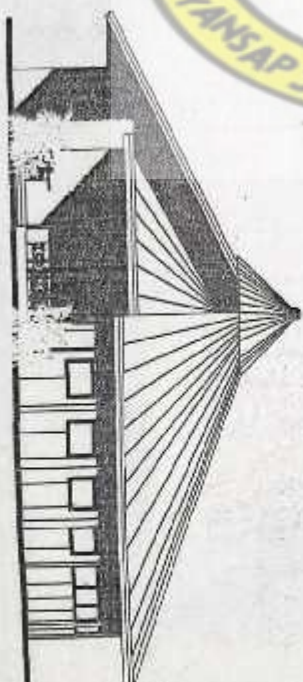
southern elevation ....



northern elevation



western elevation ....



eastern elevation

KNUST REPORT ARCHITECTURE...

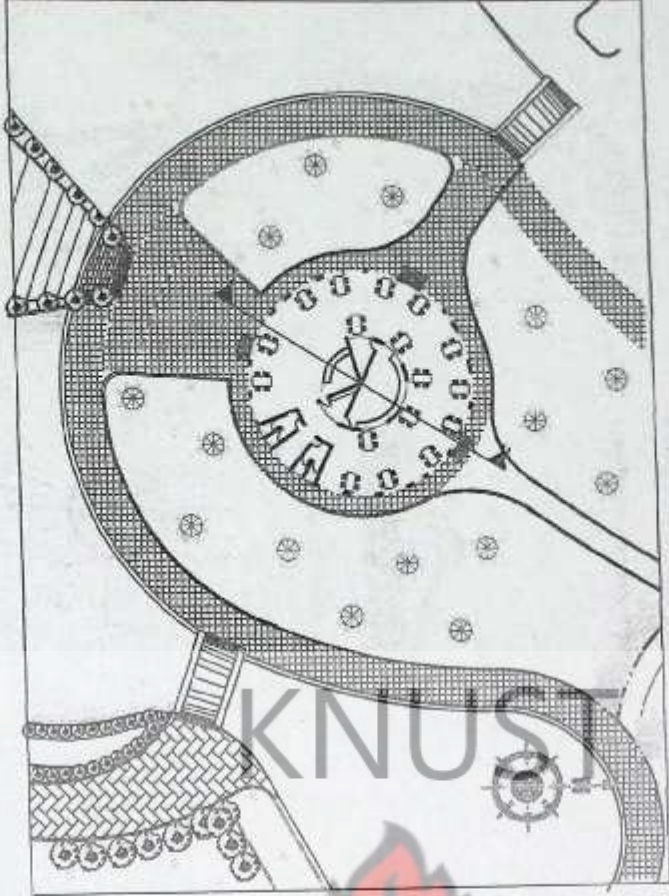
KNUST  
ARCHITECTURE  
DESIGN  
DEPARTMENT

Scale : 1 : 100

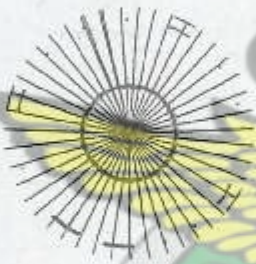


# PLANS AND ELEVATIONS.... african kitchen

plan....



Excess plan....



Eastern elevation ....



southern elevation ....



Northern elevation ....



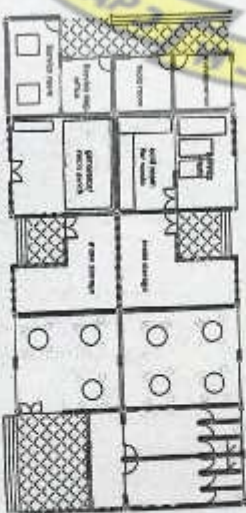
Western elevation ....



Section 5 - 51 ....



Plan service unit....



WESTERN RESORT ATOMCO...

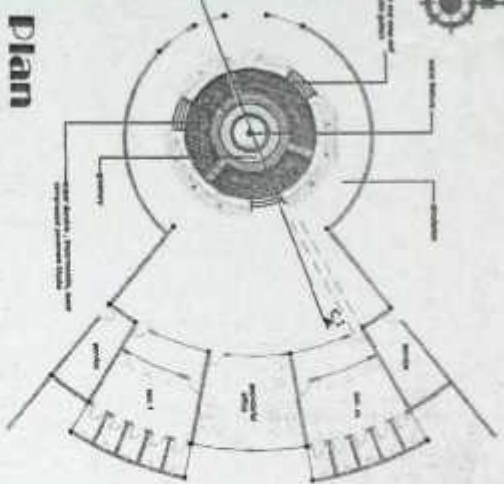
ARCHITECTURAL  
DRAWING  
BY  
ARCHITECT  
ATOMCO  
1980

Scale : 1 : 200



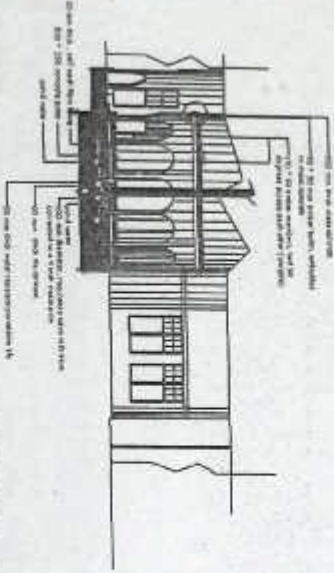
# DETAILS ....

Detail through open common area ....

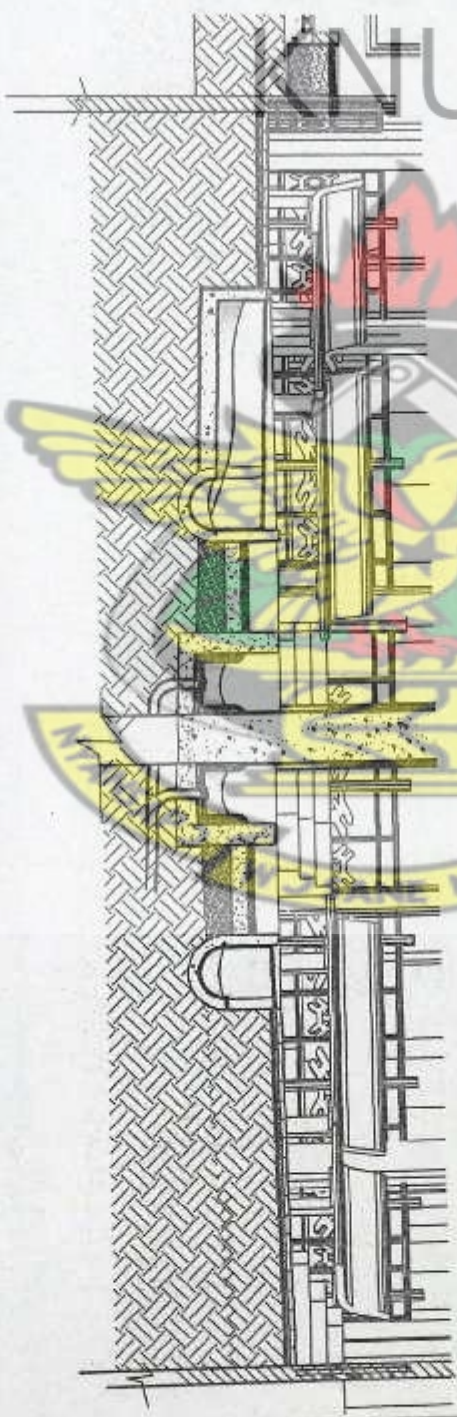
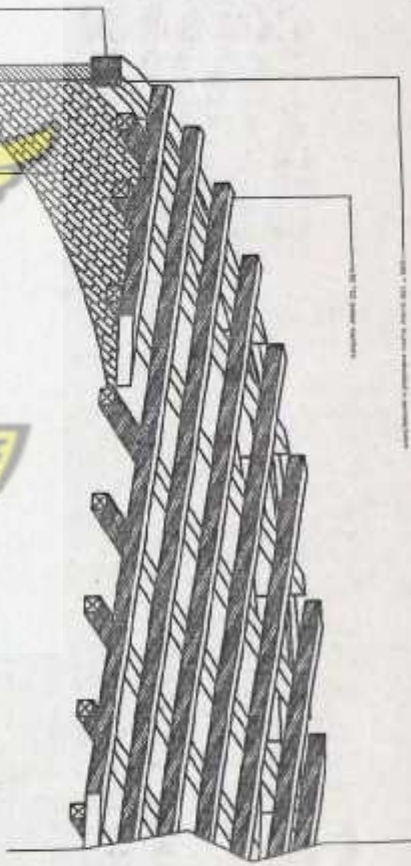


Plan

## Section C - C1 ....



Scale : 1 : 200



....Detail through percola  
Scale : 1 : 40

Drainage detail for open area  
Scale : 1 : 40

WATERPROOF REPORT AROSOMBO...

COMPANY'S DETAILS  
ADDRESS: ...  
CONTACT: ...  
THREATS: ...

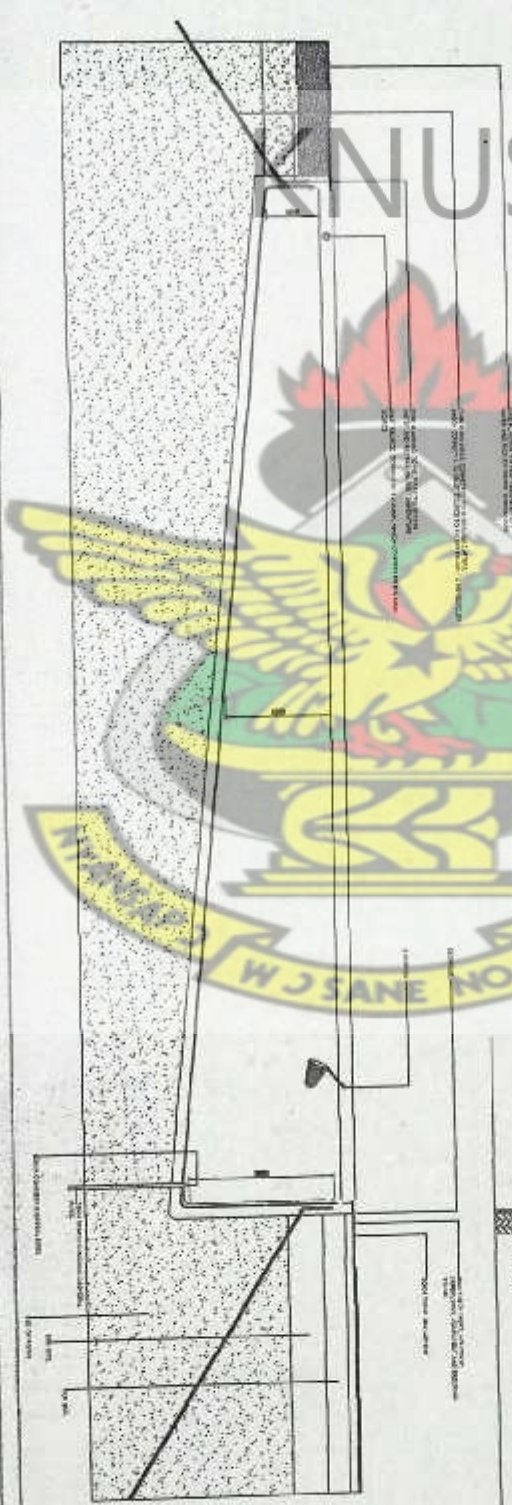


[illegible]

WATER INTO THE LAKE POOL IS FACILITATED BY THE USE OF A PUMP.

WATER IN LAKE POOL REGULATED AND TREATED AT REGULAR INTERVALS

POOL WATER EMPTIES AT LOWEST PORTION BACK INTO THE DAMMED LAKE WATER



Scale: 1:200



**DETAIL OF THE BRIDGE AND OTHER SUPPORTING FACILITIES**

Scale : 1 : 75





WIKI-REPORT REPORT AROSCHE...

100% Satisfaction  
Guaranteed  
or Your Money  
Back