

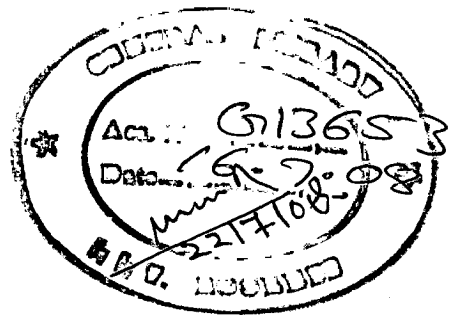
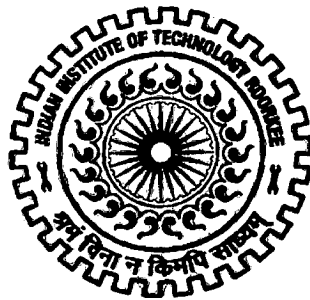
TRANSFORMATION OF ARCHITECTURE IN DEFENCE OFFICER'S MESSSES

A DISSERTATION

*Submitted in partial fulfilment of the
requirements for the award of the degree
of*
MASTER OF ARCHITECTURE

By

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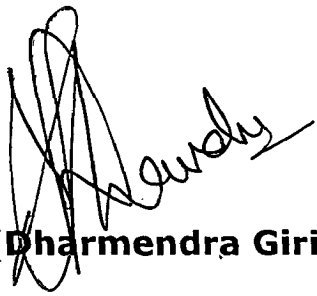
CANDIDATE'S DECLARATION

I hereby declare that the work which is being presented in the thesis titled "**ARCHITECTURAL TRANSFORMATION IN INDIAN DEFENCE OFFICER'S MESSSES**", in partial fulfillment of the requirement for the award of the degree of **MASTER OF ARCHITECTURE**, submitted in the Department of Architecture and Planning, Indian Institute Of Technology, Roorkee is an authentic record of my own work carried out during a period of July 2006 to June 2007 under the guidance of **Prof. P.K. Patel**.

The matter embodied in this dissertation has not been submitted by me for the award of any other degree.

Dated:

25 June 2007



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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.



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Dharmendra Giri
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ABSTRACT

To the common man in the civil street, an army officers' mess conjures vision of glamour and glitter, little realizing that it is one of the most vibrant and significant institutions of the Indian Army, which zealously propagates and upholds the customs, traditions and values of armed forces. It is here that a newly commissioned officer receives his initial grooming on etiquettes and manners, inherits the values which sets an army officer in a class apart, and imbibes the heritage, ethos and traditions of his regiment. It is in the mess that the virtues of loyalty and esprit de corps are fostered and lifelong bonds established amongst the officers, families and the '*paltan*' (*unit*).

Though all messes are meant for a common purpose, each mess has a unique character of its own. With the winds of change affecting every segment of our society, there has been transformation in the functioning of the messes, in keeping with the demands of present times. With changes in technology and global scenario there has been a significant change in the role of the army and it has adversely effected in the architecture of these messes.

The changing global scenario has affected the thought process of the policy makers. The Changes are resulting to a large extent in diminishing effect on ethos of Army or other fighting forces. The problem lies with policy makers, their thought process and the global factors from which even Army is not left untouched. Changing role of army and increasing interaction among the top brass of neighboring Nations has affected the architecture as well. Even the army and the messes are not left untouched by modern technology and new building materials.

The dissertation adopts a study into development of messes from the times of the states forces and tries to investigate the architectural development of Indian Defence Officer's Messes through the 19th and twentieth centuries. Stress is given on practical aspects rather than going towards the theory part.

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CHAPTER-1
INTRODUCTION

1.1 INTRODUCTION

The dictionary describes 'mess' as a place where a group of persons take their meals together and a venue for collective recreation. Medieval English and old French define 'mess' as portion of food. In Latin the word 'missus' means courses at dinner.

The concept of officers' mess in the British armed forces owes its origin to the British Navy. The 'ward room' on ships served as an officer's mess where the officers congregated to have a chat and take their meals together.

In the case of the army, as the saying goes, in early 18th century, a commanding officer after realizing that his subalterns were regularly dining out and paying heavily for their meals, decided that they eat and drink together and share the cost in proportion to their pay. In away it can be said that the concept of officers' mess was introduced in the army to fulfill the needs of companionship, comfort, convenience and provide a home away from home for the single officers of the regiment.

The first documented evidence of the mess can be found in the 'Military Guide for Young Officers' published in 1772 in Britain. It talks about the principles of establishing a mess in the field. It laid down that each field officer and captain should contribute six guineas, a subaltern and staff officer one days pay, to purchase a tent (to serve as a dining hall), a cart and two horses, table linen and kitchen accessories. In those days the subalterns were in majority in the mess and formed a close knit society of their own. Many of the subalterns had over ten years of service. Marriage allowance being admissible only at the age of thirty, late marriages were the order of the day, and the strength of permanent dining members was invariably large. The need for a peacetime mess was never felt at that time. It is believed that during field maneuvers and operations the entourage which accompanied the mess baggage train included women folk to boost the morale and look after their comforts.

The concept of officers' mess was very much in vogue in the Indian State Forces much before the British arrived on the scene. To cite a few examples, the armies of the Rajputs followed a custom that required the senior officers to share their '*thai*' with their junior officers and even their sovereign on certain occasions. Though the literary meaning of '*thai*' is a big brass or silver plate, but here it implied tiffin. This custom provided an opportunity to the seniors to acquaint themselves with the junior officers and keep a watchful eye on their conduct. The Marathas during long marches carried the '*Senapatis Pandal*' (commander's tent), which was erected during halts. These '*pandals*' functioned as a conference room cum mess. The Mughal army had its '*dastarkhan*'.

1.2 PRESENT SCENARIO

As the time passed by the modus operandi of the Army also changed. The warfare pattern changed from the time of Marathas and Mughals. The mode of transport and weapon technology has made it imperative for nations to have permanent guard on the LOCs of nation. A large number of training centers and institutes have emerged to give warfare, technological and tactical training to the officers and Jawans of the army. Number of regiments has increased drastically to cater for increasing threat from the neighboring nations

All these circumstances resulted in transformation of Officers messes also. Now instead of make shift arrangement permanent type of messes came into being. It was late nineteenth century which saw the emergence of permanent type of structures in the messes. Now there are large numbers of messes all over India. Depending on number of officers to be catered the size and location of the messes is decided.

Presently Indian army is having large number of officers messes spread all over India. Some of these messes are old, established by British forces where as others were constructed during 1970 and 1980s when a major expansion in army took place. There are new and modern messes also coming up which clearly show transition in architecture from old times to new. These messes are landmark in construction technology and materials but some how lack in basic army ethos and environment.

1.3 FUNCTIONS OF ARMY MESSES

Officers are considered to be the leaders on all fronts. Whether it is war or peace time the officers have to set an example on all fronts. This elite lot has to be treated in way which has to show grandeur, richness and manners even in the rest times.

The officer's mess is one of the most important institutions of the Indian Army. It epitomises the art of graceful, dignified and aesthetic living. It is the nursery where an officer receives his initial grooming and the virtues of discipline, punctuality, courtesy chivalry and service etiquettes permanently ingrained into him. It is here that he is exposed to a host of customs and traditions which have been handed down from one generation to the other. Mess customs and traditions may look trivial to a civilian and out of tune with present times. But these have since times immemorial acted as a unifying and driving force which motivates an individual to rise to the occasion for protecting the honor, *izzat* and interests of his regiment, arms or service and the nation. They are the binding force which promotes esprit de corps and cements lifelong bonds within the services fraternity. The mess influences all aspects of an officer's behavior. Here officers share stories of valour, honor and pride mixed with light-hearted moments.

1.4 CONDUCT IN A MESS:

Courtesy is one of the virtues instilled in an officer from day one of his joining the army. It is a part of the Indian tradition to respect the elders. An officer is expected to stand up and greet his seniors or guest as a matter of normal courtesy.

The tradition of hospitality extended at officers' mess has a long past. The experiences of visitors 'calling on' or 'just dropping in at an army officers' mess have been described by many as their most memorable moments.

1.5 ACTIVITIES PERFORMED IN A MESS

- Lunch dinner and breakfast.
- Social get to gathers.
- Dinning in and dinning out of officers.
- Accommodation for officers in transit.
- Accommodation for guests.
- Annual organizational functions.
 - Dinner nights
 - Regimental Day celebrations.
 - Corps Day celebrations.
 - Station Functions.
 - Ladies Meets etc. and

War time role of Officers Messes

1.6 ESSENTIAL COMPONENTS OF A MESS

- Anti room.
- Dinning Hall.
- Reading room or TV Room.
- Bar
- Dinning room for Guests.
- Guest rooms.
- Toilets.
- Kitchen.

- Lawns / Open area.
- Parking Space.
- Ladies room. etc

1.7 **DIFFERENCE BETWEEN A CLUB AND A MESS:**

Messes are usually confused as clubs for army officers by the civilian counterparts. But as matter of fact messes are totally different from the clubs on usual days, and the characteristics which make a mess different from the clubs are:

- **Mess Rules.**
- **Etiquettes and**
- **Decorum.**

These three words are self explanatory and explain well the character of a mess. Officers are bound to follow decorum of a high order with stringent rules and etiquettes. Unlike civil clubs messes are meant for specific purpose and they maintain their character under all circumstances.

Peter (29-4-1933 to 26-1-1987)

Become No. 1, a post that Peter was inducted into the Officers' Mess, as a plate mate in 1949. He rose to the post of No 1 and he held for nearly three decades. He is remembered by generations of officers for his humility, politeness and service as much as for his trademark smile. He exercised dignified authority over the Mess Staff and was particular about observance of Mess Rules, etiquette and decorum by officers. Violation of these fetched a tactful rebuke, irrespective of rank. Efficient till the end, he passed away while serving officers, on Republic Day in 1987.

1.8 **PROBLEM IDENTIFICATION**

History of Indian Army is very old. Concept of formal Officers Mess was brought in by British in India. The architecture of the messes established by the British clearly indicated the Ethos of the army. The planning and choice of materials clearly indicated the spirit of grandeur, valour and richness. The rich

display of articles procured during war form an inherent part of the culture and architecture of the mess.

With changes in technology and global scenario there has been a significant change in the role of the army and it has adversely effected in the architecture of these messes.

The changing global scenario has affected the thought process of the policy makers. The Changes are resulting to a large extent in diminishing effect on ethos of Army or other fighting forces.

The problems at present are many fold. Army has started racing with the modern culture and in persuade of glittering modern materials and comfort levels a compromise is being made on basic aspects of architecture. The world around has started moving on the path of conservation of energy and sustainability but in army we have started racing for modernism with no regard for climate, sustainability and green architecture. There is a complete absence of rich army culture and heritage in new and coming up prestigious buildings of Army.

1.9 AIM

The dissertation aims to understand the changing trends in architecture of officer's messes in India and examines how these changes have taken place with time in the advancing technology.

An attempt is made to find out that what are the changes which can be avoided and the future path of mess architecture in army can be decided.

In designing and planning it is also necessary to understand the needs of the users, effect of climate and effect of structure. Keeping in mind the restrictions of budgetary allocations and typical requirements for army messes an attempt is made to work out how appropriate are modern concepts of Energy conservation, Sustainability and Green Architecture.

1.10 OBJECTIVE:

As the army is expanding the need for land, food and housing is also increasing with the rest of mankind. Appropriate Architecture. The concept of development then needs to be re-examined to be able to meet the demands. We need to create and promote new approaches for more sustainable and

1.13 **LIMITATIONS:**

Army as an organization holds its roots since ancient past. There is a lot of written record available about various wars and war heroes but unfortunately there is not much of documentation available on development of architecture in these forces. Probably reason behind is no construction of permanent buildings in the past for the moving army. There is little or no document available on development of architecture of messes.

Most of the information in army is restricted or confidential so it is not available for production in civil masses.

It is not possible to question and argue with top brass on their decisions and policies on architecture for messes because of discipline and strictness in army.

Most of the old messes of army were established in existing buildings and there were subsequent changes which were carried out in the planning and form. There is no written documentation on as to why and how these changes were carried out.

CLASSIFICATION OF OFFICERS MESSES.

The aura and significance of the officers' mess lies not only in the decor or the war trophies it displays, but also on the architectural theme of the building it occupies. Through the medium of architecture one can communicate with ways of life in the army, past and present. As this section unfolds, it would reveal that mess buildings blend with the local architecture and reflect the aesthetic aspirations and more generally the cultural ideologies of the region. Great care is taken in landscaping, so as to merge with the flora and fauna of the place.

All though role of officer's messes has remained same since the time of inception yet there has been a regular change in the architecture of these messes. Changes in technology and the local topographical and climatic factors have resulted in continuous modification in various architectural elements. For the ease of understanding and better comprehension I am dividing these messes in three periodic zones. These can be termed as

2.1 STATES MESSES

These belong to period prior to colonization by Portugese, French or British Forces. These were basically war time messes established only during war for interaction of Senapati and other subordinate officers of the army. To cite a few examples, the armies of the Rajputs followed a custom that required the senior officers to share their '*thal*' with their junior officers and even their sovereign on certain occasions. Though the literary meaning of '*thal*' is a big brass or silver plate, but here it implied tiffin. This custom provided an opportunity to the seniors to acquaint themselves with the junior officers and keep a watchful eye on their conduct. The Marathas during long marches carried the '*Senapatis Pandal*' (commander's tent),

which was erected during halts. These '*pandals*' functioned as a conference room cum mess. The Mughal army had its '*dastarkhan*'.

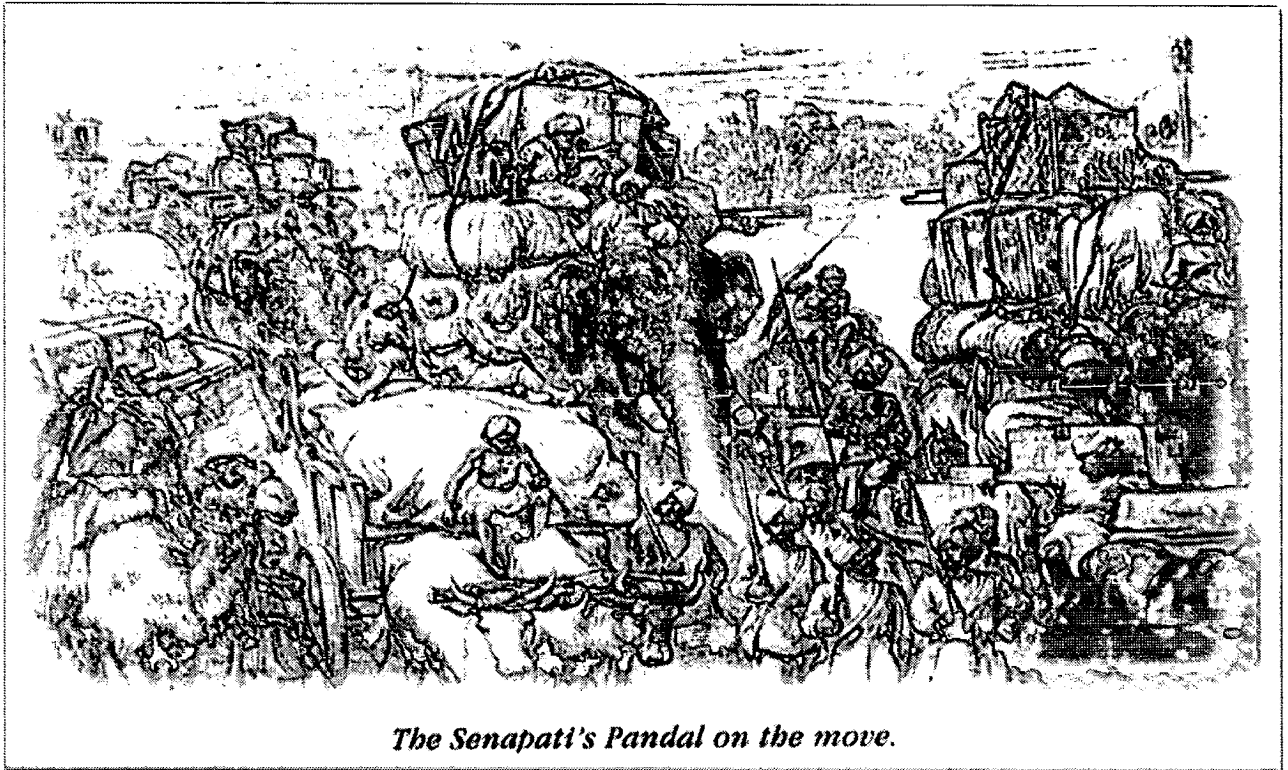


PLATE-1 *Make shift arrangement of Rajputs during move on war.*

2.2 POST COLONIZATION MESSES

The concept of cantonment started late in the 18th century by East India Company in order to protect its holdings from local hostile rulers and other competing foreign powers like the French and the Dutch. Thus, military camps came up all over India. Dum Dum and Barackpur were the first to be developed as cantonments way back in 1770 and 1780, respectively. Some of the buildings of those times, having

survived vagaries of weather and time, now house some of the finest messes of Indian Army.

During those times designers of most of the buildings were military engineers. The Public Works Department (PWD) of British East India Company, though formalized only in 1854, was actually started in 1760s as the Companies Engineering Offices. Before 1855, the Military Boards of Three Presidencies had been responsible for all the infrastructure and building requirements of East India Company.

2.2.1 BARRACKS AND BANGALOWS

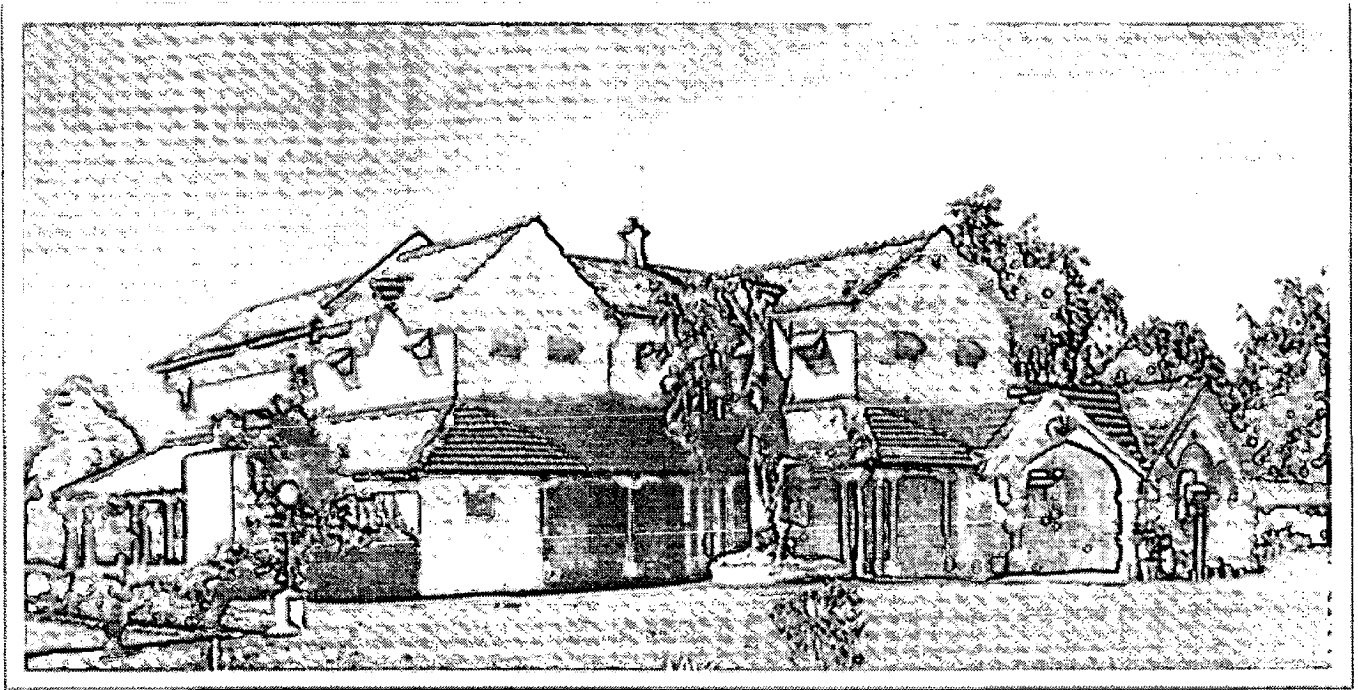


PLATE-2 *A typical bungalow of Indo Aryan architecture, housing the Officers Mess of College of Material Management, Jabalpur.*

Officer's messes of olden days were housed in bungalows and barracks, suitably modified and restructured to meet their specific demands. The bungalows design evolved as a type over a hundred years. While the

actual model for the bungalows is unknown, it appears to have dual origin – the detached rural Bangla House, sited in a compound (Bangla means something belonging to Bengal) and British suburban villa. Its development in India certainly parallels the European rural prototypes of 18th century.

At many places the officers' messes simply acquired the available buildings due to prevailing circumstances. Whatever the compulsions of availability, most of our old permanent messes now derive meaning and identity from these buildings. Due to their long association with these buildings and the people who inhabited them, these messes carry nostalgic memories of the days gone-by.

The first bungalows inhabited by East India Company agents were essentially the *Kutch* local building, but the type that got evolved later, was something more pompous. It was used in cantonments for billets, offices, residences and other diverse uses. The bungalow was cheap in construction and suited to hot and humid climate. The thick walls, sloping roofs and verandahs, decreased the effect of severe climatic conditions. Atypical residential bungalow for the wealthy was set back from the road in a walled compound with a garden and tall trees around it. Behind the house were the kitchens and servant quarters.

The early bungalows had long, low classical lines and details. The heyday of the Gothic revival period in bungalows' design was from the 1880s to the 1930s. It produced bungalows with pitched roofs and richly carpentered details.

2.2.2 COLONIAL BUILDINGS

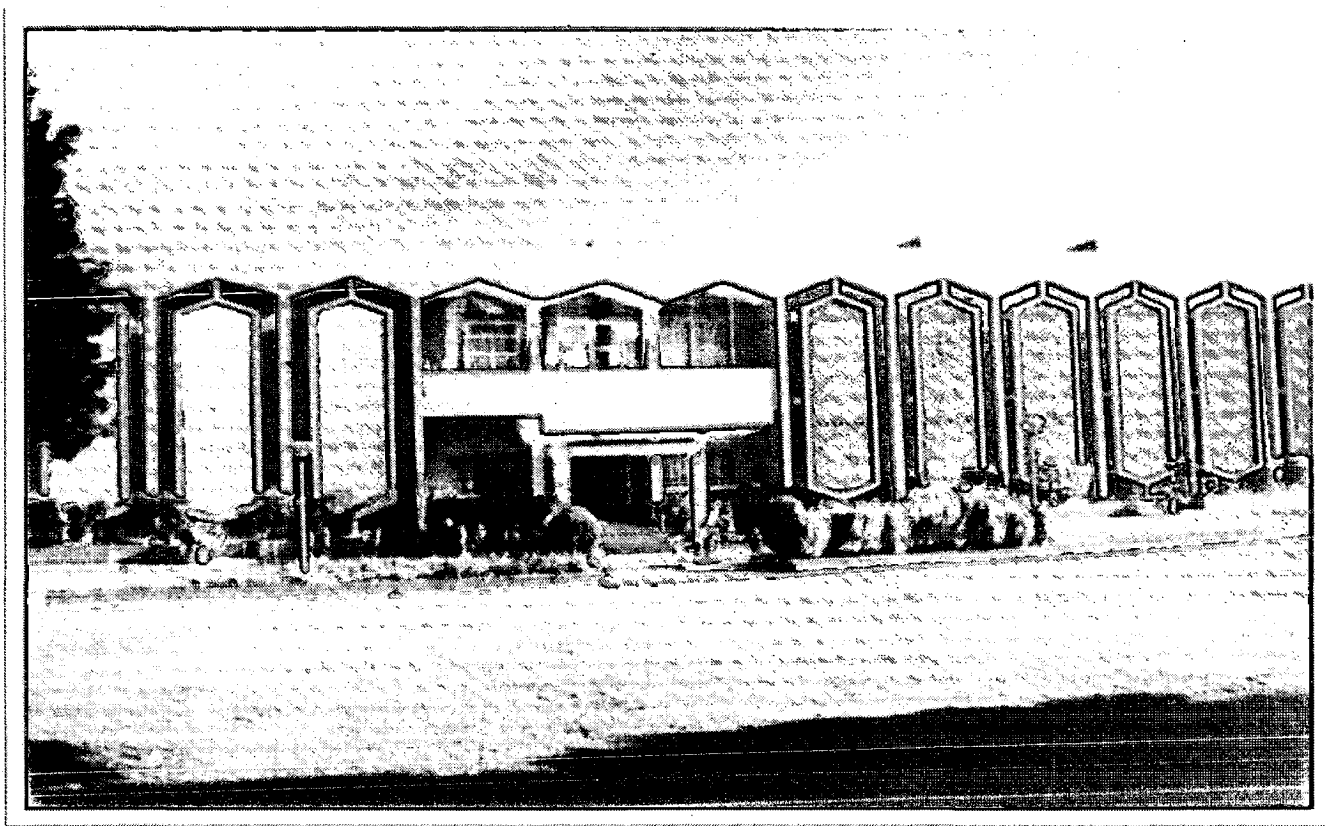


PLATE-3 Officers Mess of H Q Bengal Area, known as the Katchner House was made in 1771 in Kolkata. This Building is a combination of two different types of architecture, the railing and corbelling are of British Design and columns are of Greek Ionic order.

Some of the officers' messes are established in old buildings of pre-independence days, which were in earlier days used by British troops or were residences of Maharajas/princes. When the British replaced the Mughals, the palaces began having drawing/ dining rooms and guest-rooms for the European guests instead of Durbar halls. The fireplaces, marble fountains/ statues, oil paintings and stuffed animals began to be displayed in the halls and drawing rooms. The introduction of

new social demands and new engineering designs, led to a new architectural style, created by the British architects, British Army Engineers and often the princes themselves.

2.3 POST INDEPENDENCE MESSES



evered windows, reminiscent of Le Corbusier architecture in the Western Command Officers Mess, Chandimandir.

The history of the modern architecture for messes in India is often assumed to have begun with the arrival of Le Corbusier. Most of the construction of mess buildings during post-independence era was undertaken by either the CPWD (Central Public Works Department) or the MES (Military Engineers Service). A major concern in all their work was the standardization and control of the building environment based on the design. During the 1950s the influence of the international style began to be widely evident in the buildings.

Horizontal bands of large glass windows, free standing staircases and cantilevered porches, were the main features of the Indian interpretation of the oeuvre.

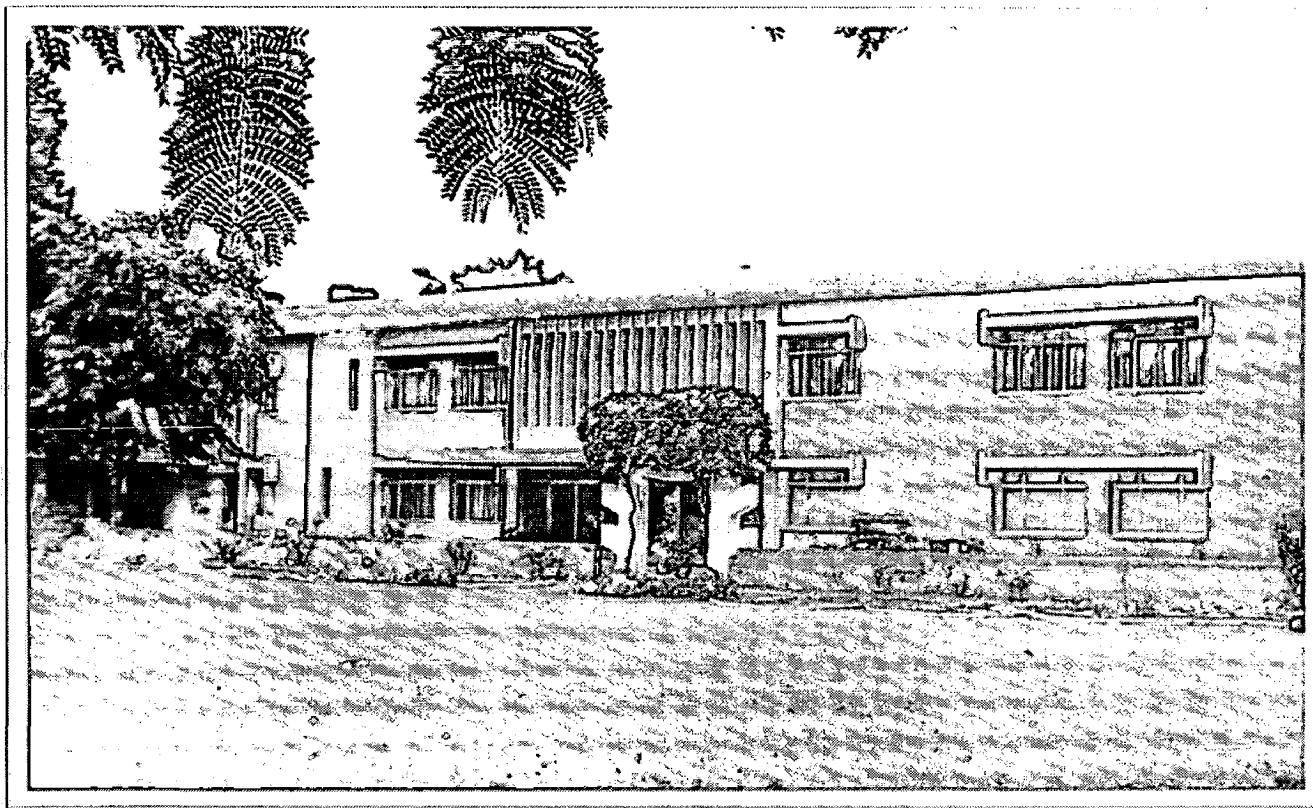


PLATE-5 R.C.C projections, cantilevered windows as a mark of modern architecture in Kharga Officers Mess at Ambala.

2.4 STANDARDIZATION IN MODERN MESSES

In late 1970s with the expansion of Indian Army the number of messes in the Indian Army increased drastically. To allocate area and funds for the new mess's standardization became very important. After a detail work out on area requirements scale of accommodation for officers messes were worked out and norms for area to be allocated were worked out based on strength of officers required to be served in mess. An extract from scale of accommodation is given in **Table -1** below.

2.5 SCALE OF ACCOMMODATION FOR SERVICE OFFICERS

TABLE -1 SHOWING AREAS ALLOTTED

Description of Item	Floor Area(SM) Scale				Special Fascilities
	Strength of Officers				
	5-10	11-18	19-28	29-40	
1 Mess Room	32.00	40.00	58.00	70.00	
2 Ante Room	44	49	52	55	Display shelves
3 Bar	-	14	16	18	Bar Counter
4 Library	-	18	26	30	Book Racks
5 T V Room	-	20	24	28	
6 Private Dinning	-	18	20	22	
7 Card Room	-	16	16	24	Cupboards
8 Billiards and Indoor games Room	-	46.5	46.5	46.5	Cupboards
9 Kitchen	35	45	56	66	Towel Rail, Hot Closet, Sinks
10 Stores	10	12	14	16	Meat hooks and rail
11 Havildar Room	10.2	10.2	10.2	10.2	
12 Cooks Room	6.5	6.5	6.5	6.5	
13 Mess Sec Office	-	-	11.0	11.0	
14 Mess Office	9.0	11.0	11.0	11.0	
15 Silver Room	-	-	-	8.00	
16 Cloak Room	14	16	18	20	Hat and Coat pegs
17 Guest Rooms	-	26	34	60	Attached toilets

18 Wine Store	9	9	9	9	
19 Plate Room	9	11	15	18	
20 Bearer Room	6.5	7.5	7.5	8.5	
21 W C for Staff	1 no	1 no	1 no	1 no	
22 Servant Quarters	5	9	11	14	
23 Open Garages	1	2	3	4	
24 Hard standing for Cars	1 no	1 no	1 no	1 no	
25 Open paved area				50.00	Suitable Lighting,

Scales of Accommodation played an important role in deciding the character of messes. More importantly not only areas but designs also were standardized after this. This resulted in evolution of a typical design for messes. This typical design was adopted in all new messes with minor modification and changes as may be required as per site. Local MES Office carried out changes in the typical design on request of the user regiments.

2.6 UTOPIAN MESSES

Advance in technology and Globalization are two important factors which have affected all sectors of architecture. Even Army is not left untouched by

these two. There has been a significant advancement in designs of Officers messes. Use of steel and glass in officer's messes is not a taboo anymore. Designers are no longer thinking in terms of cultural heritage or standardization. The laid down norms and standards are being compromised on pretext of revolutionary materials and new concepts. One such example is the 'Param Veer Mess' coming up in Delhi cantonment. Although there are not too many examples of these type of messes yet this mess is going to act as a foundation stone laid in this direction. This is just a beginning which shall lead to subsequent new ideas and designs being adopted more frequently.

The design for the mess has been short listed from various entries on pretext of being a modern 21st century design depicting progressive Indian Army. Materials Used are world class and new.

These types of designs are yet to convince the majority of users as they are no where close to presenting the rich cultural heritage of Indian Army. These designs are neither suitable for Indian climate nor do they show any efforts for energy conservation and sustainability. As the work has already been started on ground the comments of end users shall soon be available as eye openers for the policy makers and decision takers for such projects.

It will be difficult to forget the rich and glorious past of the Indian Army in the glittering lights of steel and glass. It will be a difficult job to maintain decorum and discipline for which the army is famous, in glass enclosures. Huge cost of air-conditioning and lighting will be a burden on the authorities. Costly materials are surely going to increase the cost of maintenance too. Biggest question mark will be placed on identity of spaces.

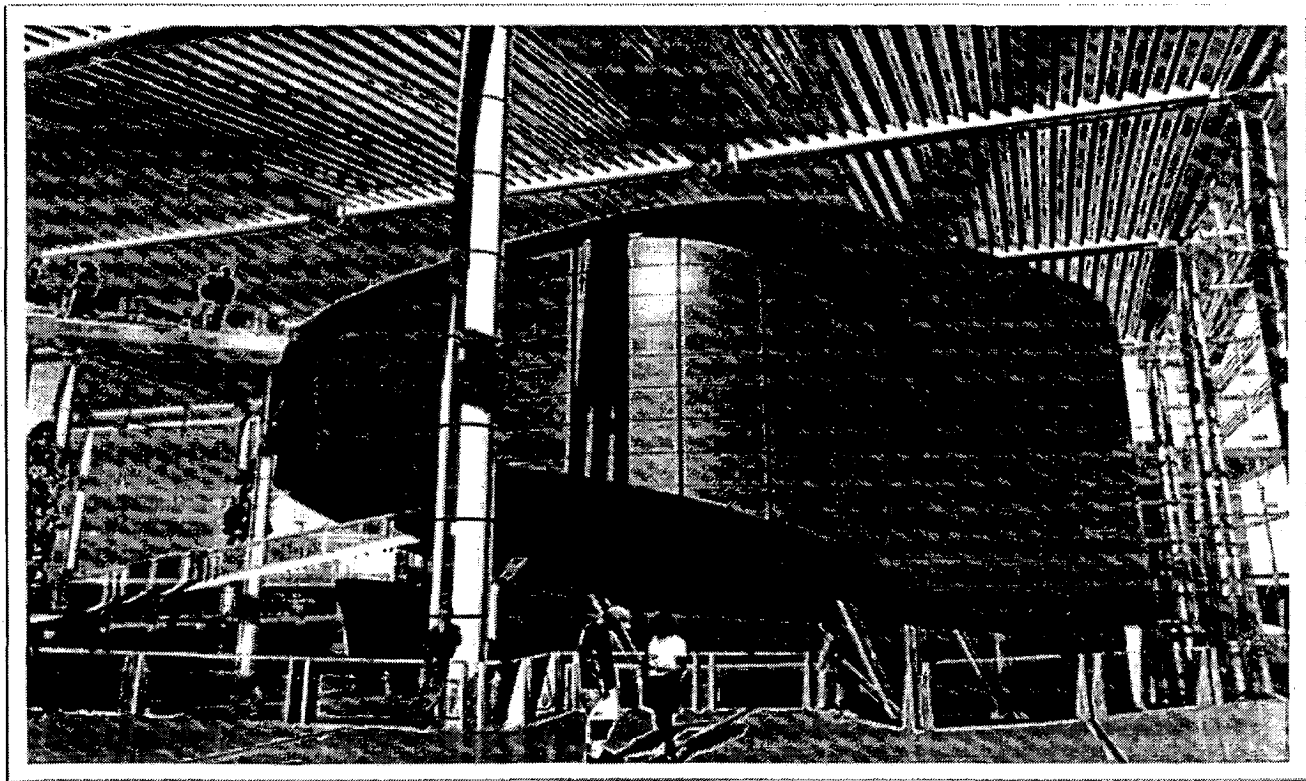
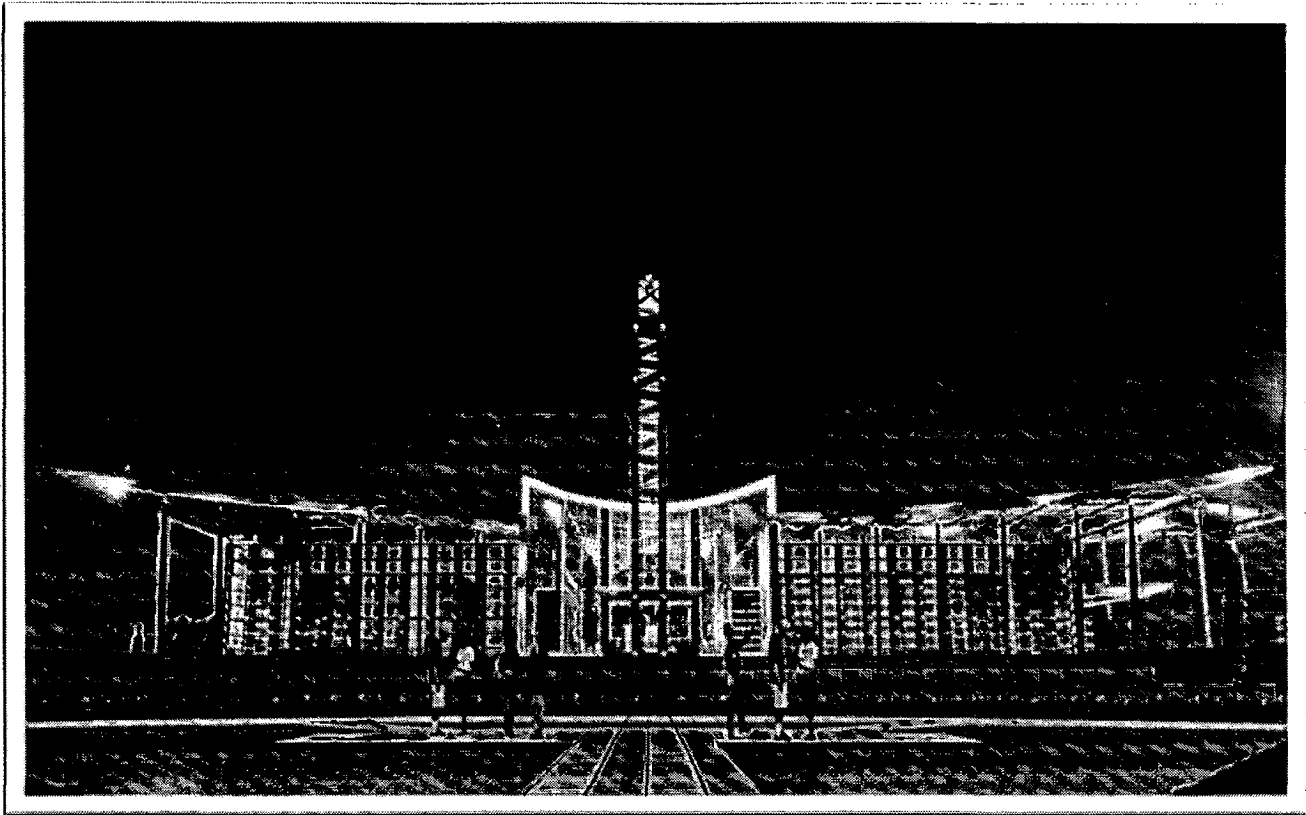


PLATE -6 Views of Param Veer mess showing exterior (top)and interior (below) of the mess. Dominant use of steel, glass, and aluminum is visible in the views.

CHAPTER-3

STATES MESSES AND POST COLONIZATION MESSES

3.1 AN INTRODUCTION TO STATES MESSES:

The states messes were in vogue much before the British arrived in scene. These messes were make shift war time arrangement for the leaders of the force. There was not much to contribution of these messes to architectural development of modern messes. Yet it is worth to mention that these messes laid the foundation for the modern messes.

3.1.1 PURPOSE

Purpose of these messes was very definite. These messes use to serve as resting and conference and dinning space for the senior most leaders in the times of war. War strategies were discussed and finalized here only on day to day basis.

3.1.2 PLANNING OF THE MESS

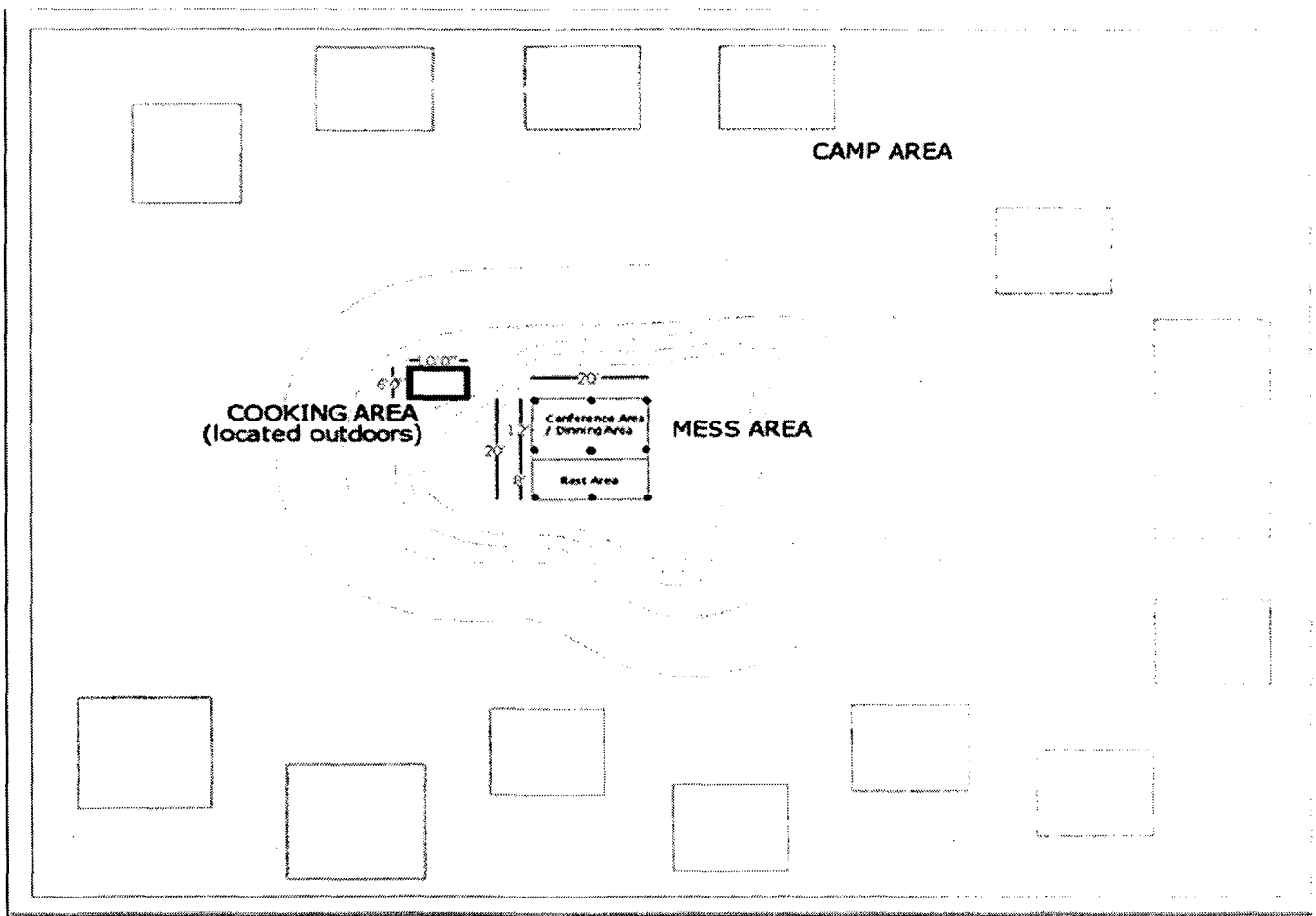
Mess constituted of only one tent type shelter, which was usually divided into common area and sleeping area. Mess was located at a central location in the CAMP for the purpose of security and good command and control. A large open area all around the mess was left to maintain privacy from other tents.

As the messes were temporary in nature and used only in war time they did not carried extra luggage other than those essentially required.

Tents were made of thick cloth and curtains formed inherent part for the openings. Resting or the conference area used to be of the order of 12' x 20' and served as a multipurpose space for the commander.

All important discussions and meetings were held in this area only. In the leisure time was used for resting or entertainment as well.

Sleeping area was separated from the common area by a curtain only. This area accommodated bed for the commander along with his armor. Size of this area used to be about 8' x 10'.



DR-1: Showing general layout of mess in the Army Camp of Mughals.

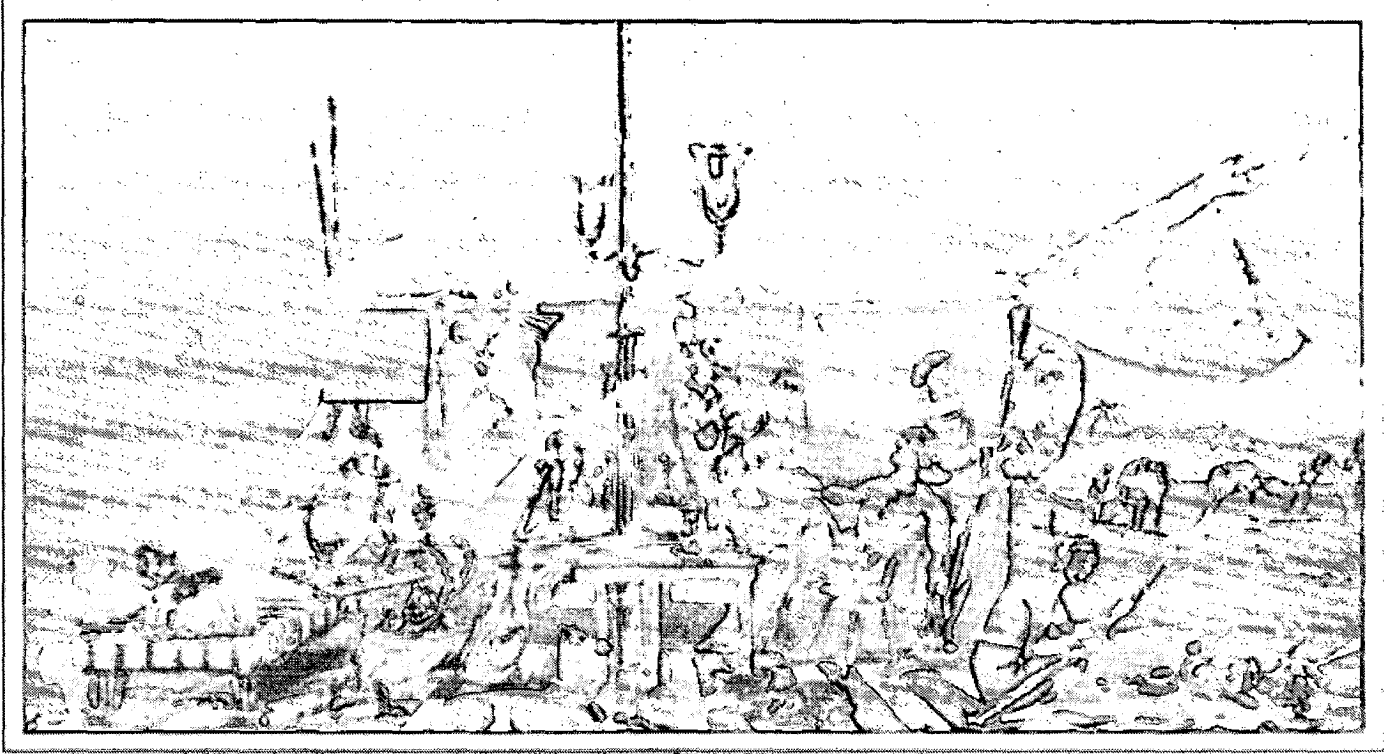


PLATE - 7: Picture showing commanders tent common area often used as a mess during 17th and 18th century.

3.2 POST COLONIZATION MESSES

3.2.1 GENESIS OF BRITISH MESSES IN INDIA

As given earlier in classification of mess the concept of cantonment started late in the 18th century by East India Company in order to protect its holdings from local hostile rulers and other competing foreign powers like the French and the Dutch. Thus, military camps came up all over India. With the coming up of military camps and cantonments came in the concept of permanent messes in these camps. This was the time when the messes underwent a drastic change in character, purpose and architecture.

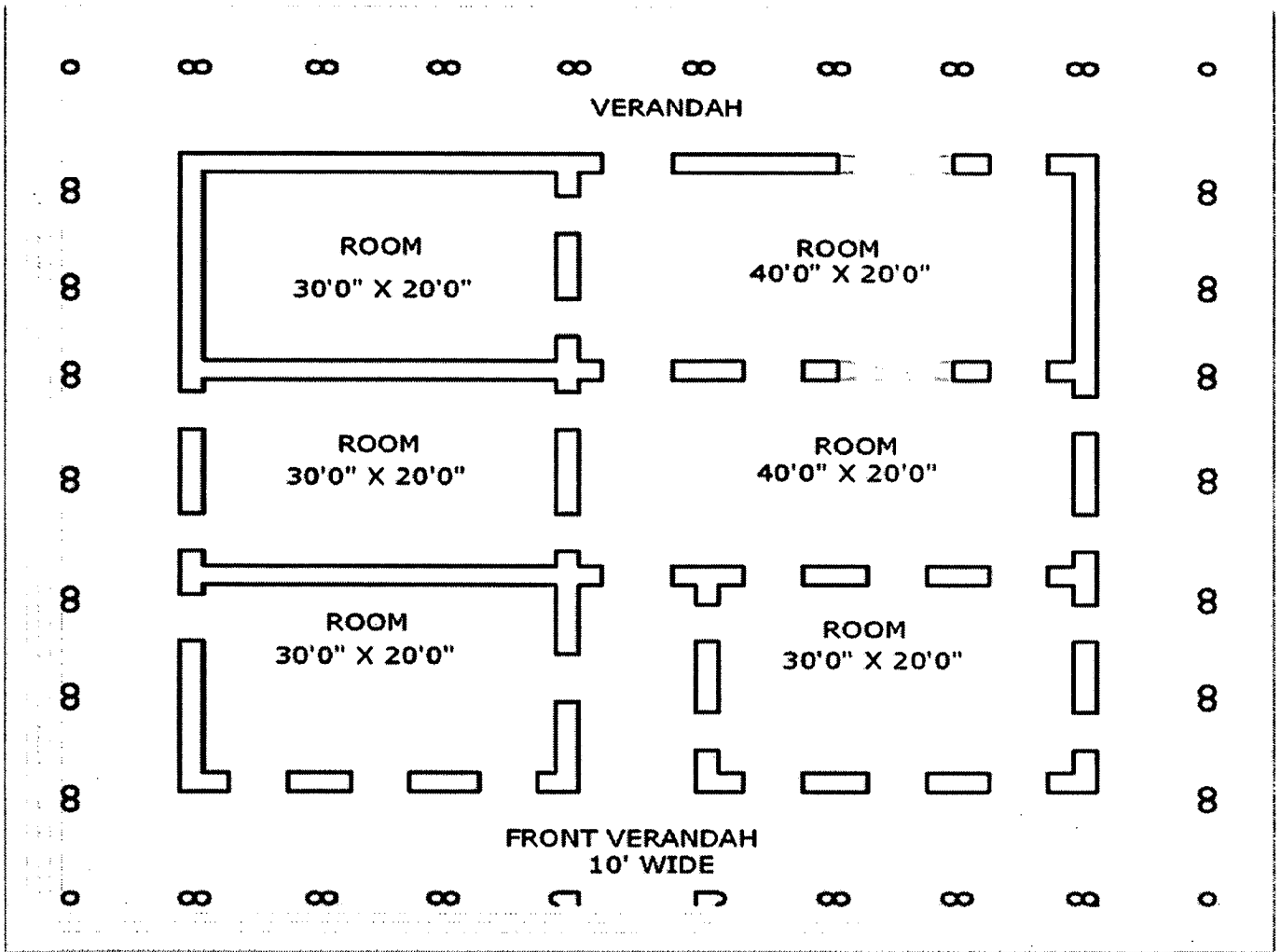
In early 18th century, a commanding officer after realizing that his subalterns were regularly dining out and paying heavily for their meals decided that they eat and drink together and share the cost in proportion to their pay. In a way it can be said that the concept of officers' mess was introduced in the army to fulfill the needs of companionship, comfort, convenience and provide a home away from home for the single officers of the regiment.

The origin of the present day Indian Army officers' mess can be traced to the 'Queen's Regulations for the Army,' which was published after the British Crown took over the East India Company, and the three Presidency Armies were amalgamated to become one Indian Army. The Queen's Regulation formally introduced the mess system for the Indian Army Originally it was meant only for the British officers and it catered for their special cuisine needs and for them to be together during off-parade hours. With the induction of Indian officers after the First World War, they also became members of the officers' mess.

3.3 CASE STUDY - 1

OFFICER'S MESS: BENGAL ENGINEERING GROUP AND CENTRE.

This mess is located in the cantonment and is a classical example of bungalow type of officers' messes which laid the foundation of officers' messes in Indian cantonments. The land on which the mess stands today was leased to Lieutenant Newmarch by Government for his private residence in the year 1853. The Bengal Sappers moved to Roorkee in 1853 and they were without an officer's mess since then. Looking at the requirement of a mess the residence of Lieutenant was purchased from him even before it was completed and thus came in the mess.



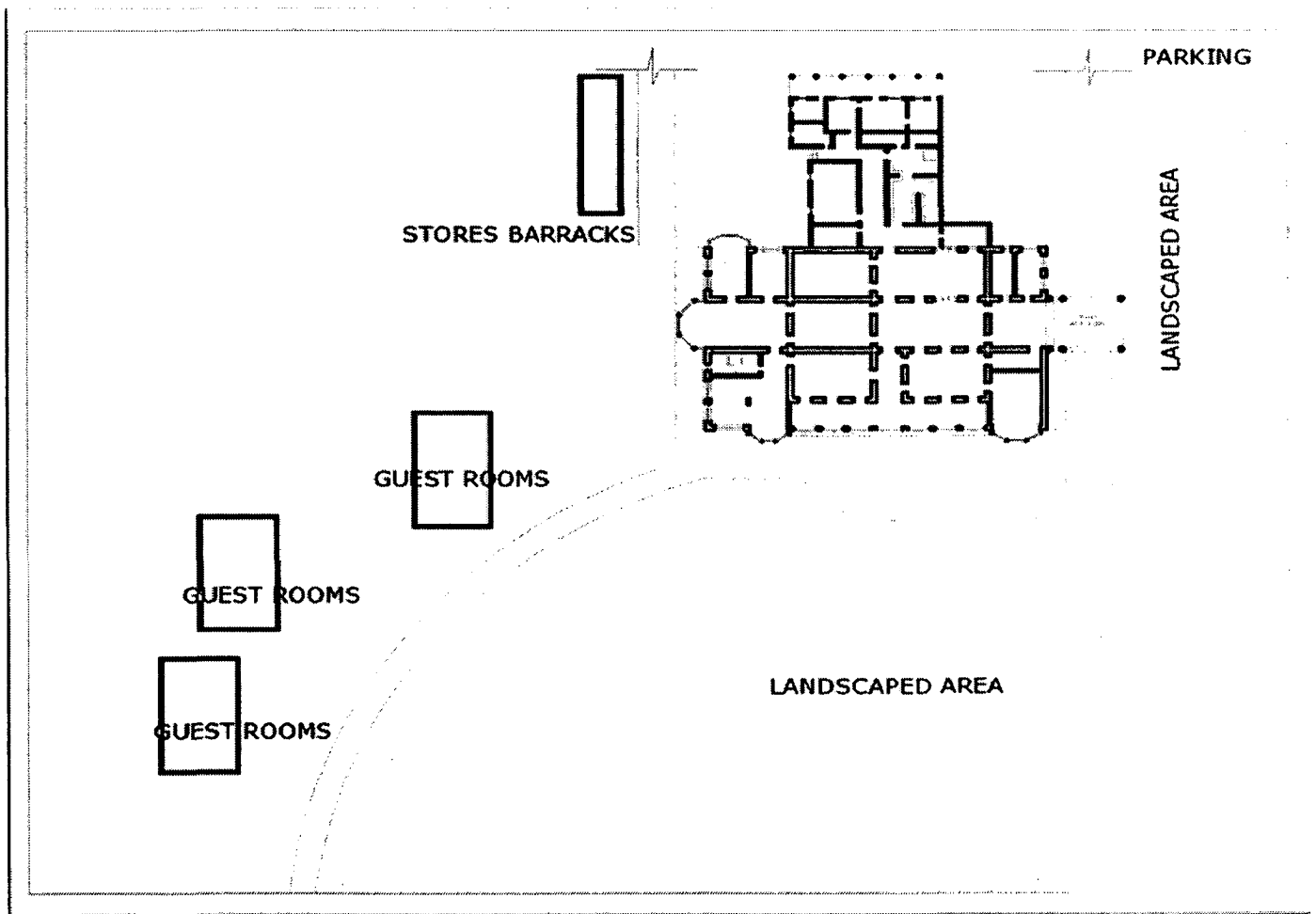
DR-2: Residence for Lieutenant Newmarch constructed in 1856.

3.3.1 ARCHITECTURAL FEATURES

As given earlier this mess was originally conceived as a bungalow. It is characterized by a combination of Mughal segmental arches and Gothic order columns. The building was designed in a typical bungalow style keeping in mind local climate and construction methods available at that time.

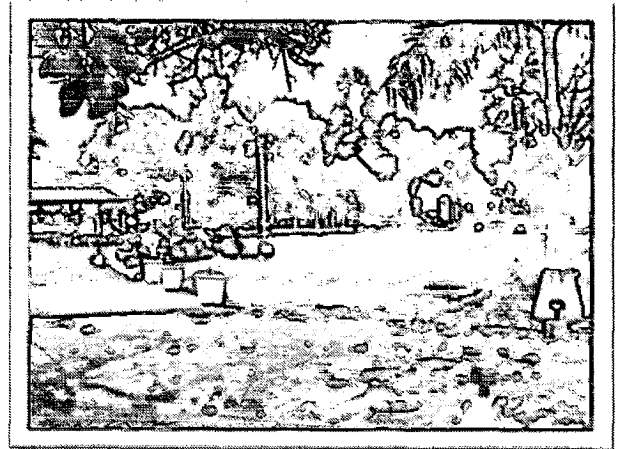
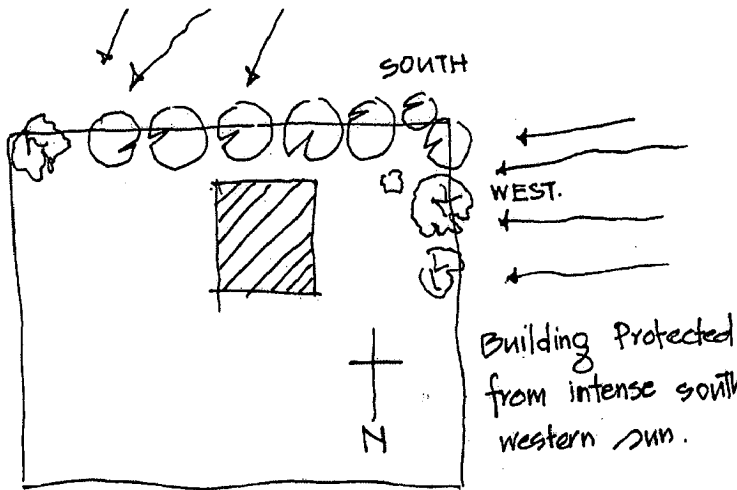
3.3.2 SITE PLANNING

The mess was planned over a huge area of land providing large landscaped gardens and green area all around the building. Original Planning of the cantonment is not known but at present the mess is connected to two main roads providing entry and exit to the site. The location of the building was very suitable as to maintain a central location between cantonment and the coming up Thompson College of engineering. At that time army was looking after college of engineering and the Ganges canal construction.



DR-3: Present layout of the Officers mess B. E. G. and Centre Roorkee.

Building is planned facing north direction with a huge chunk of land on to the right and left of the building. Areas all around have been utilized for landscaping purposes so as to add to the over all grandeur of the



building. The
**PLATE-8: A view of the front
 Lawns of the mess**

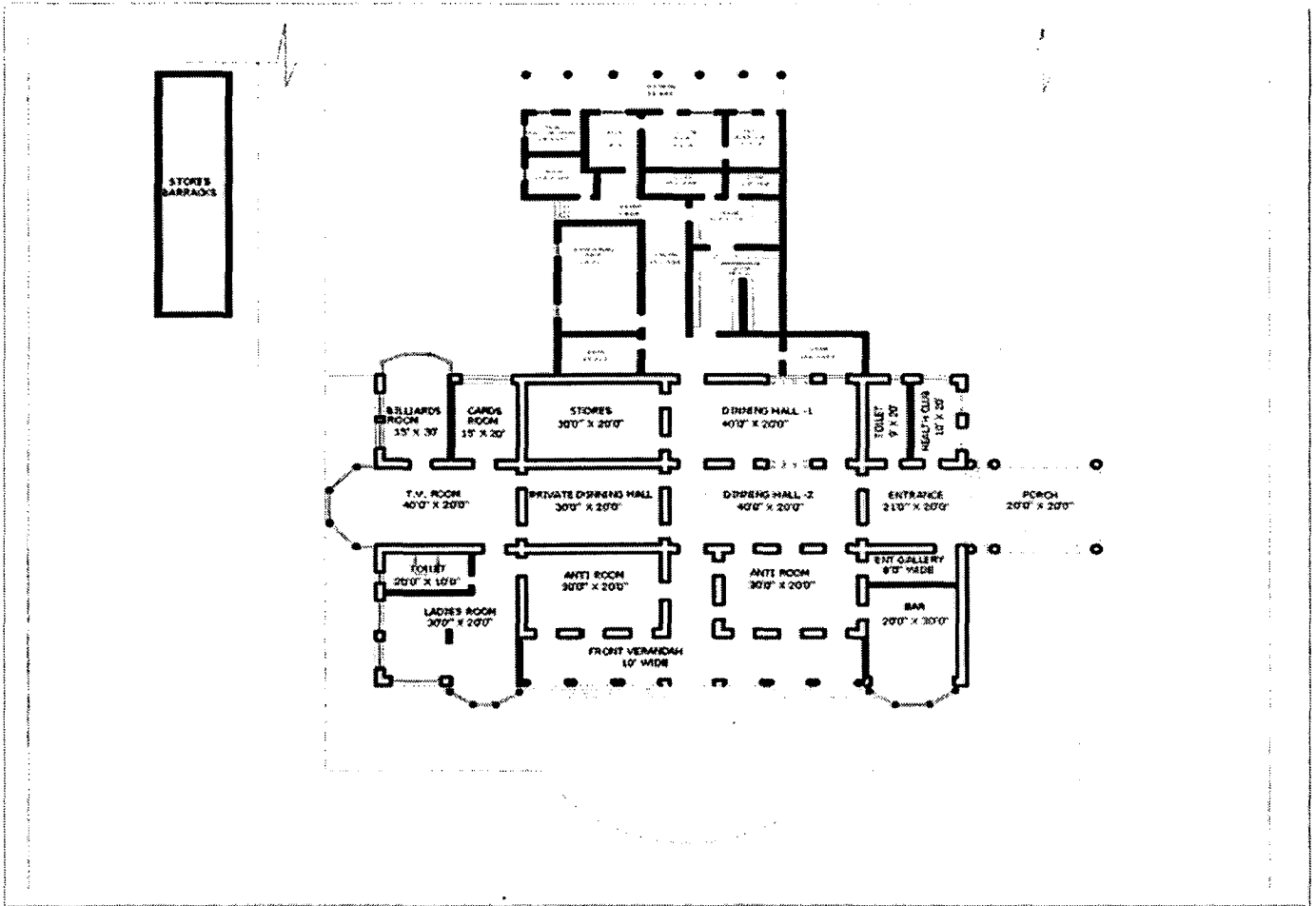
original building was a set of six rooms which later on was extended and modified to give

**DR-4: Sketch showing impact of
 Wind and sun on building.**

present shape. The present cook house was a later on addition which was done by MES as per norms laid out. The guest rooms as seen on the site plan are also added later on in 1970s.

The layout of the building is towards the south western corner of the site so that the trees planted on the periphery can be utilized for blocking the sun and an optimum utilization of space in north is made for having green lawns and flower beds.

3.3.3 MESS PLAN

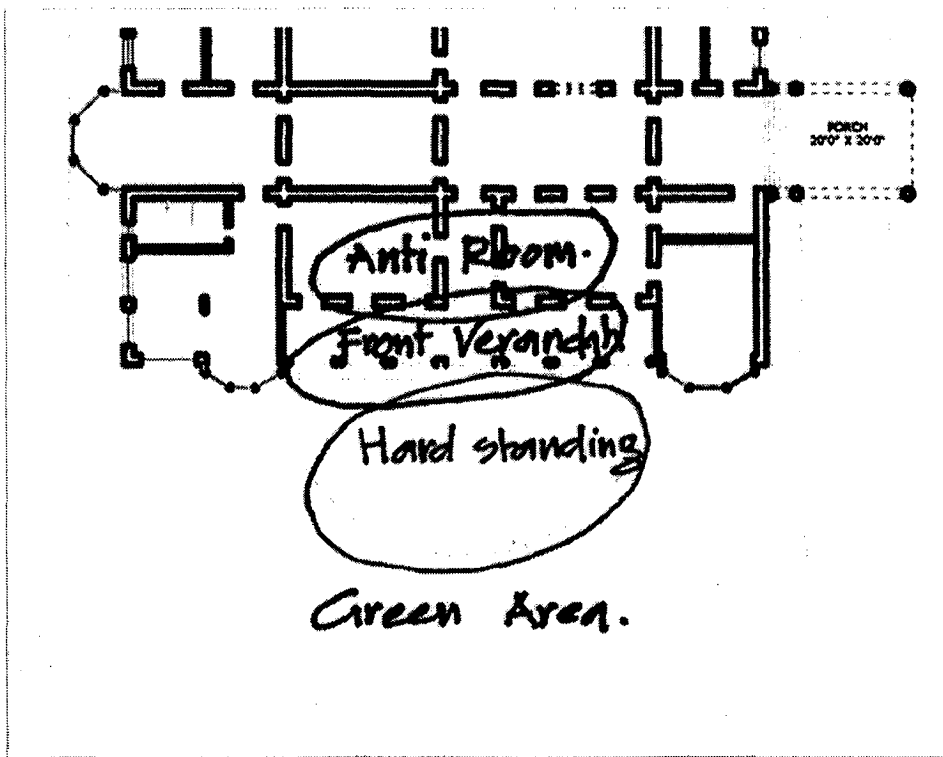


DR-5: Present plan of the Mess and the Cook house

Presently the mess stands as a cultural heritage presenting the rich and historic past of Bengal Sappers. After going through a number of changes, addition and alterations in plan it stands in its final shape.

The present plan of the mess includes all present day requirements of the Indian defense officer's Messes. Main spaces that are provided in the mess are:-

- (a) Anti Room.
- (b) Dinning Halls.
- (c) Bar.
- (d) Ladies Room.
- (e) T. V. Room and Library.
- (f) Cards Room.
- (g) Billiards Room.
- (h) Private Dinning Room.
- (i) Health Club
- (j) Cook House.
- (k) Toilets
- (l) Stores.
- (m) Office
- (n) Kitchen Stores etc.



As the mess is not as per standardized scales the areas are not provided in confirmation to scales but best possible utilization of available space has been made. The entrance has been placed to the western side so as to maintain a leaner flow of traffic from one main road to another.

DR-6: Drawing showing merging of spaces to give better environment and circulation during parties.

The location of Anti Room Front Verandah, Hard Standing and Green Lawn complements each other perfectly for a large gathering. Spaces are so well merging with each other that if required six doors of anteroom can be opened to give a free access to the opened areas.

Although out here the spaces are introvert in nature but nothing better could have been done to improve the situation. I am using introvert in this case simply because approaches to various spaces are linked through each other. For example to visit billiards room you have to pass through anti room, Ladies room, and TV Room or Dinning hall, Private dinning Hall and T V room. There are other spaces also which do not have a direct access and require going through other areas to visit them.

3.3.4 CLIMATIC CONSIDERATIONS

British have been very practical in planning their buildings so as to achieve maximum comforts in Indian conditions. Various measures taken by them to tame the inclement weather were:-

3.3.4.1 ORIENTATION OF BUILDING

The building is so oriented so as to achieve maximum out of the prevalent climate. The main sitting areas in the original building were in north eastern direction so as to escape the harsh sun rays. Building has been placed in south western corner of the site so as to make full use of tall trees planted on the periphery of the complex. These trees helped in blocking the south western sun.

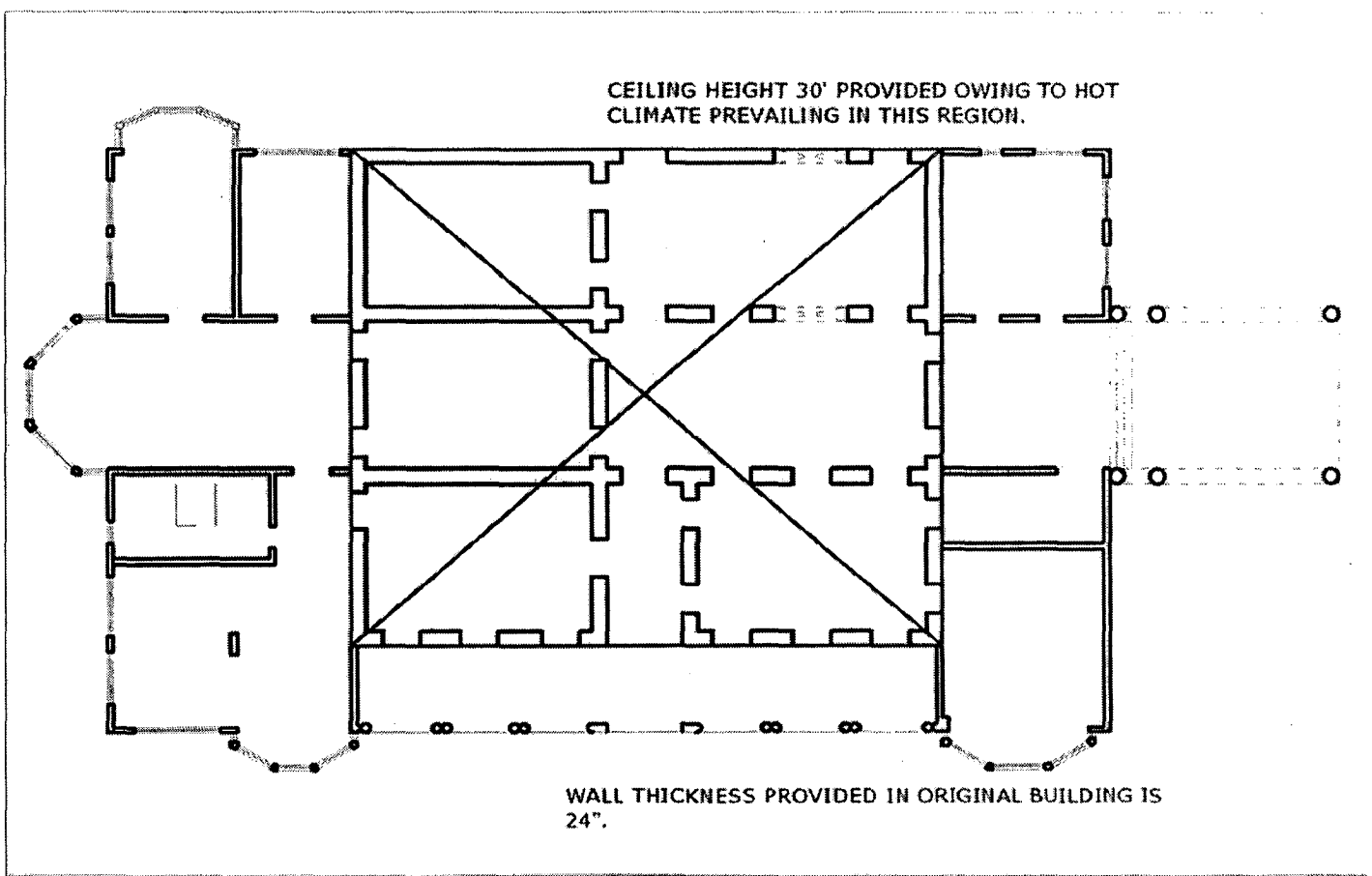
3.3.4.2 USE OF LIME MORTAR

British used lime mortar in construction of building which is considered to be an effective material for checking heat. This material was available in

abundance in India at that time. It was used with surkhi which was a fine aggregate used instead of sand. Lime mortar construction of that period is still standing erect and magically strong.

3.3.4.3 THICK WALL CONSTRUCTION

Although the walls were made 18" and 24" thick for the purpose of load bearing yet they served dual purpose by checking effect of sun.



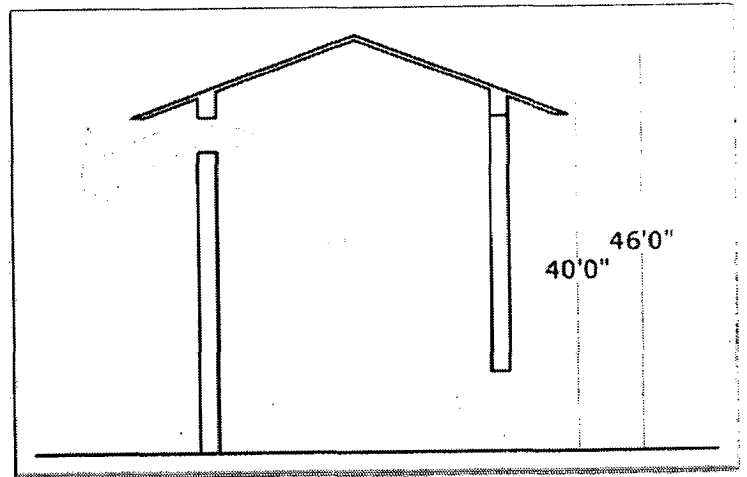
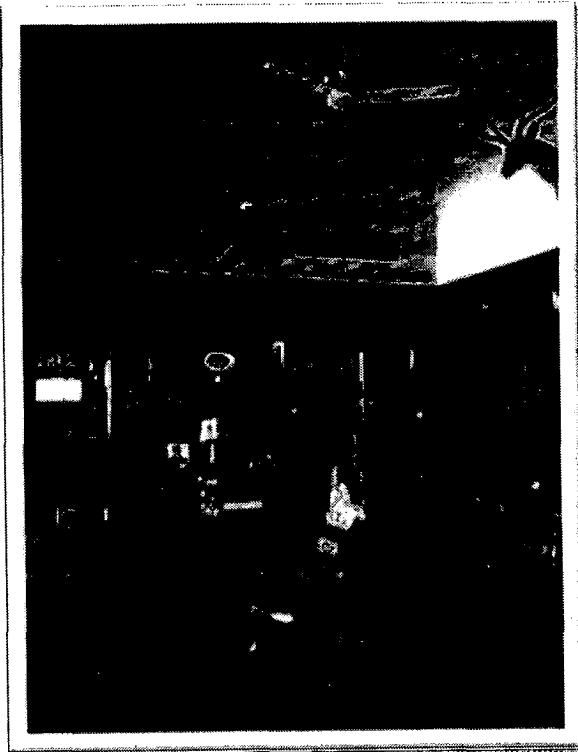
DR-7: Plan showing the original part of building planned in double height.

Later additions are though in 9" thick wall and beam and column structure do not show the respect as it was given by the British planners. The sketch on top

clearly shows that the original building is given double height and is made in 24" thick masonry work.

3.3.4.5 AIR MOVEMENT INSIDE THE BUILDING AND THE CEILING HEIGHT

Ceiling heights in the British buildings were kept high. The ventilators were located close to the ceiling so as to facilitate outward movement of hot air.



DR-8: Sketch showing air movement pattern inside the building.

PLATE-9: Picture showing double height room better air movement and protection from heat.

The air intake points in the form of doors and windows are located at lower level. The heated air in the room gets lifted up being light and moves out through ventilators. Thus convection current is maintained in the rooms which continuously lowered the temperature of the room.

It can be seen that British Planners were very much considerate about passive cooling methods to be adopted for maximum climatic comforts. They utilized their technical knowledge and skills to make the building climatically suitable for their requirements. Use of local material, sun and wind direction they tried to work out most effective solution for comfort and good living conditions.

3.3.5 INTERIORS

Interiors of the mess are rich and display the grandeur of the army from the times of British rule to the present. Various aspects of the interior are dealt in detail and lot of efforts and planning has gone in reviewing and rearranging various sections of the mess from time to time.

3.3.6 WALLS

Walls of the anti room are have been done up in wood paneling, giving it a rich and grand finish up to a height of 10' 0". Above that the walls have been painted in white paint.

In dinning halls the paneling has been reduced to a height of 5'0". In new construction the wall paneling has been done

with laminates instead of wood. This is in confirmation to Government policy to reduce use of wood.

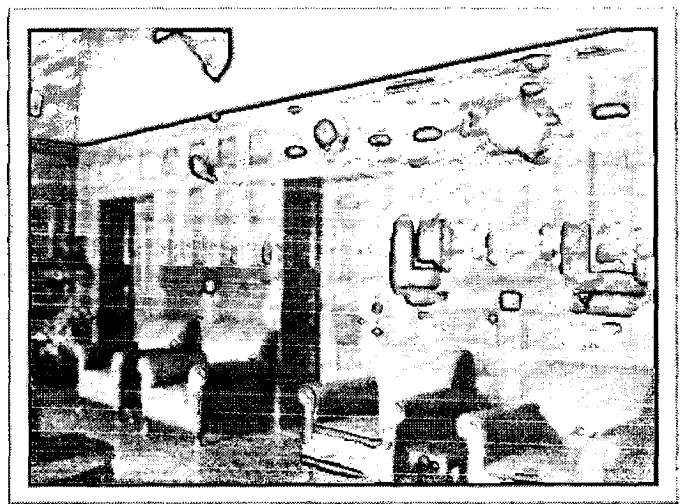


PLATE-10: Pictures showing wooden paneling and laminate paneling on walls

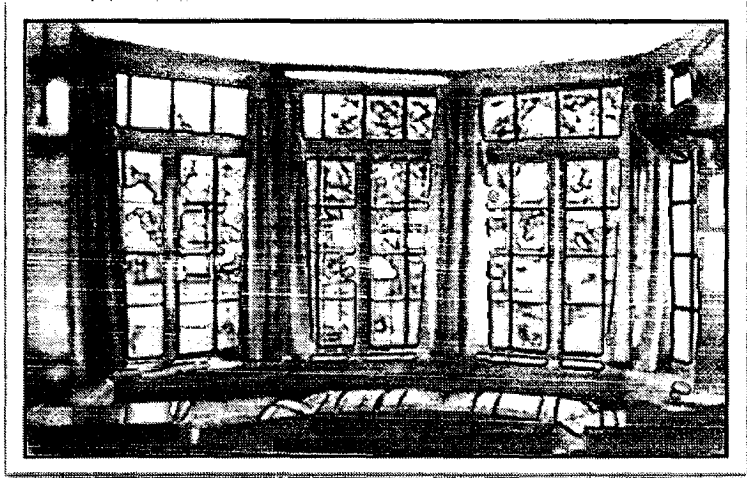
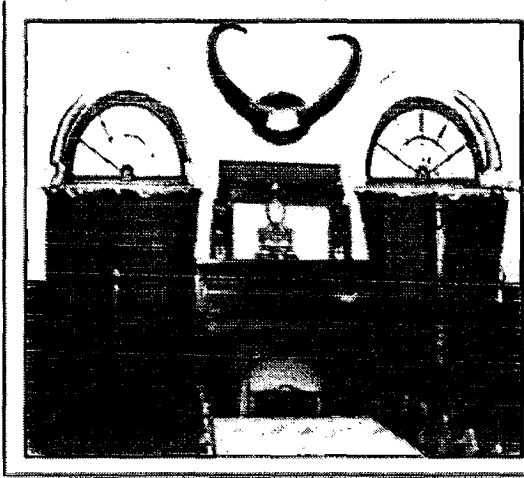


PLATE-11: Pictures showing modern drapery used on the doors and windows.

3.3.7 TAPESTRY AND UPHOLSTERY AND DRAPERY

There are no items of furniture showing original upholstery. The existing upholstery on ante room furniture is of foam leather and is changed frequently as per requirement of the users. Upholstery shows taste and modern mix in the fabric being used for the curtains. Although in this case the upholstery is not as rich as it is conventionally in the messes. There is a marked graduation of the users from the old pelmets to new and trendy curtain rods.

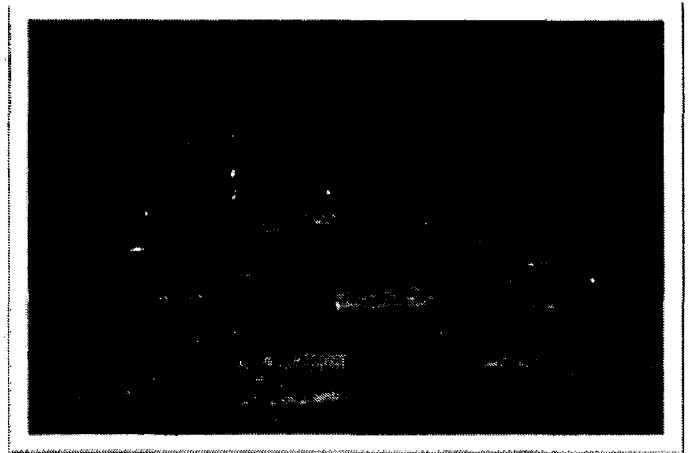
In bar room, Ladies room and billiards room a matching combination of tapestry and upholstery has been used. This combination is changing the ambience of these spaces and giving them a slightly more informal look.

3.3.8 FLOORING

Flooring in the mess is adding to the over all ambience of the mess to a great extent. Most of the indoor spaces have been provided with wooden flooring where as the out door spaces and toilets are having marble flooring. There are two type of wooden flooring laid in the mess which clearly indicates that complete

flooring is not laid in one go and extensions in the building are done up later. Other than marble and wooden the external hard standing can be seen in modern terracotta tiles.

PLATE-12: Wooden flooring has been used in the mess to give rich look to the flooring.



3.3.9

ARTIFACTS AND DISPLAYS:

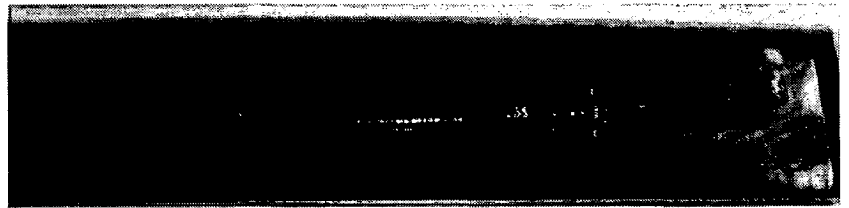
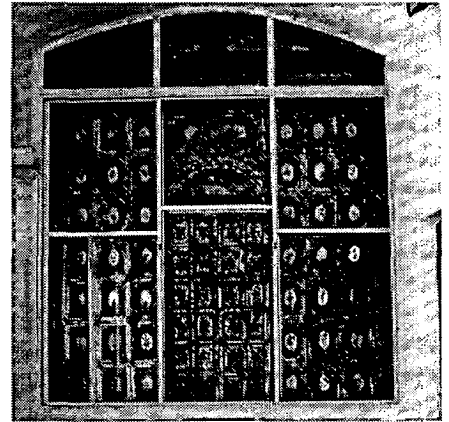
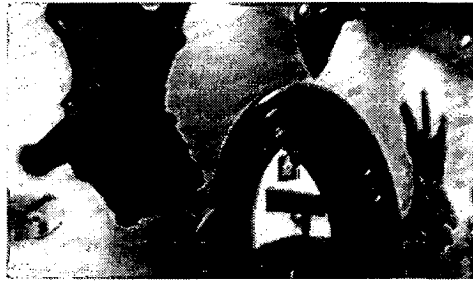


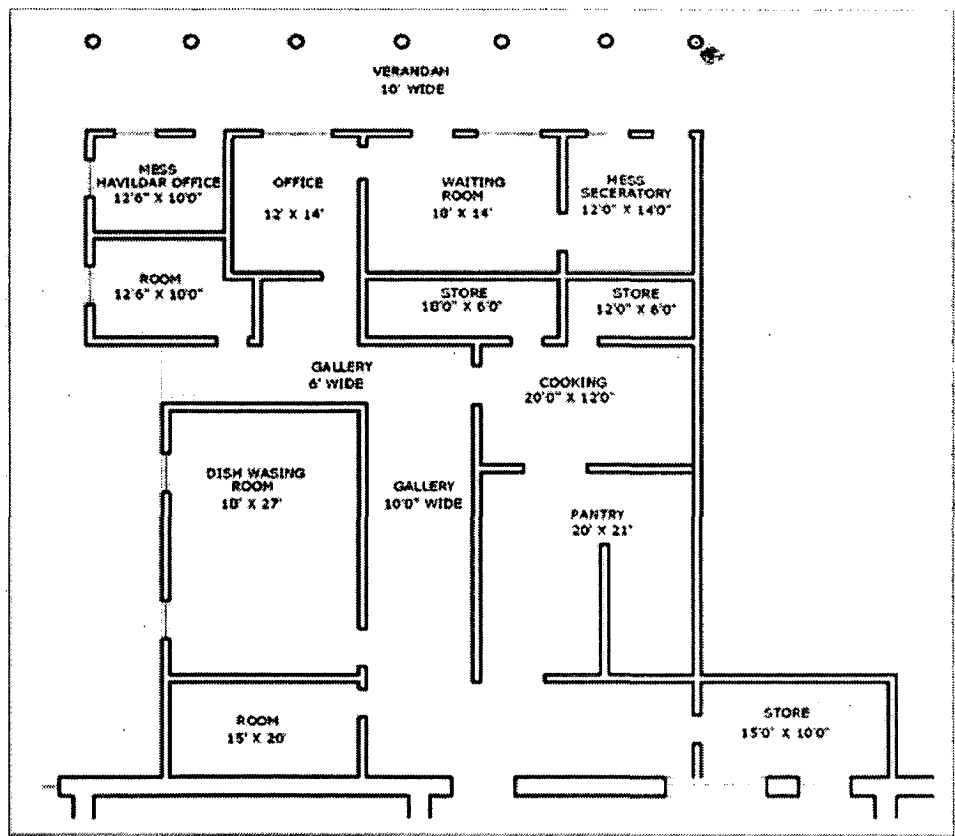
PLATE-13: Various artifacts displayed in the mess give out the glorious past of the Bengal Sappers.

Mess is full of artifacts and displays which have been brought from all over world. These displays are memories of various wars which the Bengal Sappers have fought since the days of their raising. Displays include bell from china, door from the palace of king of Burma brought after World War II. There are guns from the British times which have been displayed in the rooms. There are various pieces of tiger skins and heads and horns of wild cows which are preserved from the times of British. There are number of swords which have been displayed in the rooms. These swords belonged to various commanders of the Bengal Sappers or kings which had lost wars against the Bengal Sappers.

3.3.10 THE COOKHOUSE

A completely new and modern cookhouse and office complex has been added to the mess to serve day to day administrative requirements. This new addition is a well planned structure to suit modern requirements.

Cook house has been added on the southern side of the mess. The pantry is placed adjacent to the dining hall so that serving is quick. All requirements including stores wash area room for mess Havildar etc have been provided. The office includes office room for clerks, a waiting room and office for Mess secretary. Other than this lot of space has been provided for storing fresh ration and dry ration in the mess.



DR-9: Plan showing the new Cookhouse added to the building.

3.3.11 DOOR WINDOWS AND OTHER ARCHITECTURAL DETAILS

Existing windows used in the building are added later on. These include few bay windows as well. Bay windows are added keeping in mind the interior requirement of the users. The windows are placed in a fashion so that the area

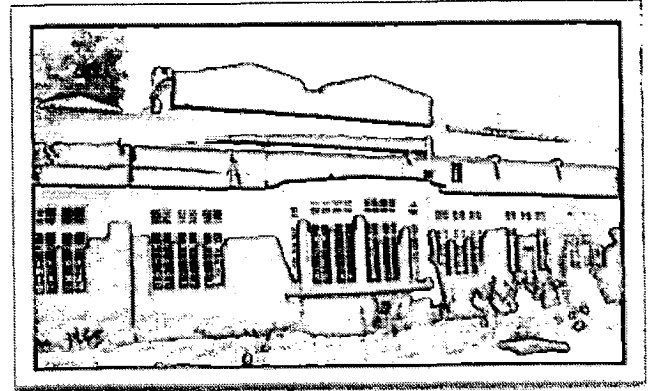
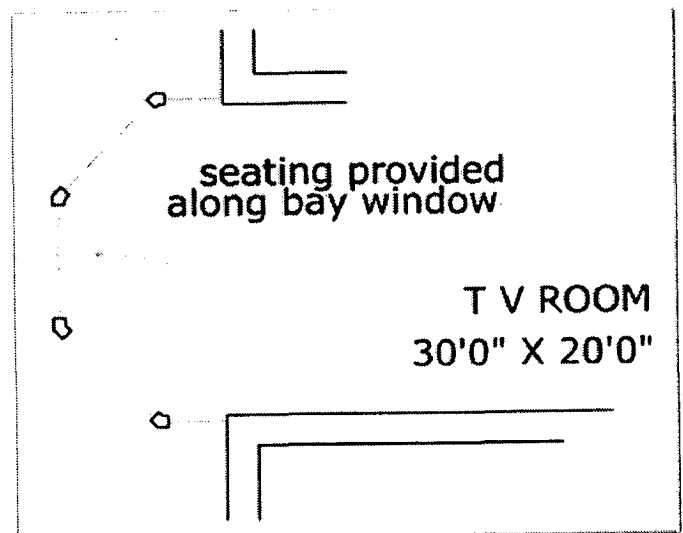


PLATE-14: Picture showing bay window added later on to the building

generated inside can be used for seating. This is typical in all cases where ever the bay window has been constructed. Other windows are having wooden frames and partitions. All windows are having top portion fixed and lower portion open able.

Doors do also not exist in the form as they were used in the original building. Presently all outer doors are 10'0"high with 8' height of leaf. Doors are single leaf or double depending upon the width of the door. Above leaves a semicircular arch has been provided with fixed glazing. There are no grills or Jalis used in doors and windows.

This design of doors has been changed in the interiors. Now instead of glazed portion wooden panels can be seen. This type of arrangement has been chosen to provide privacy from one room to another as all rooms are interlinked with each other.



DR-10: Plan showing bay window.

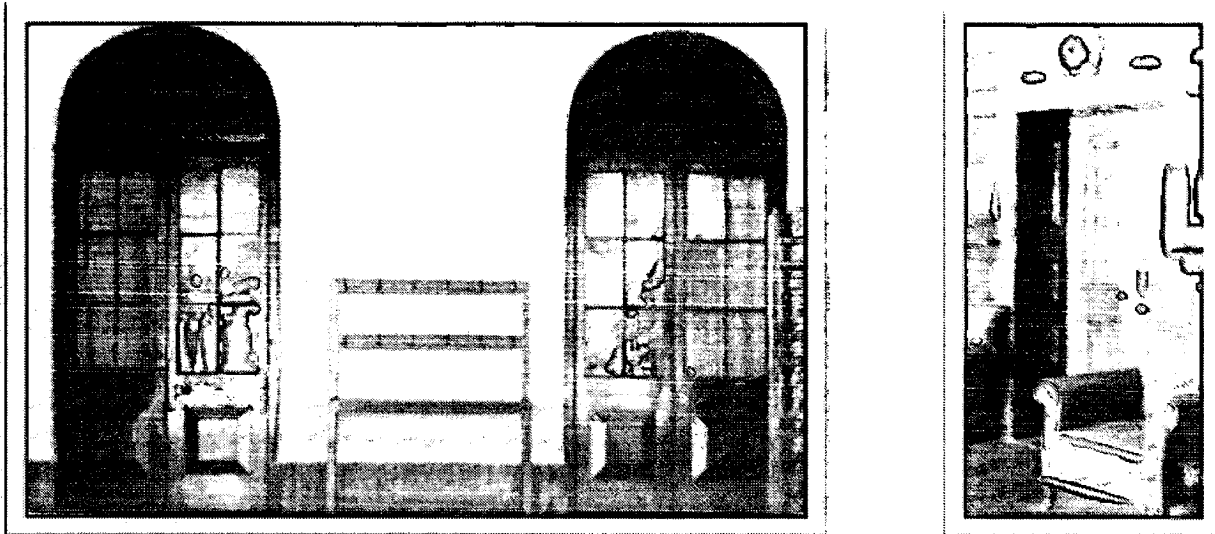


PLATE – 15: Pictures showing glazed and paneled doors used in interiors and exteriors of the building.

3.3.12 ELEVATION DETAILS

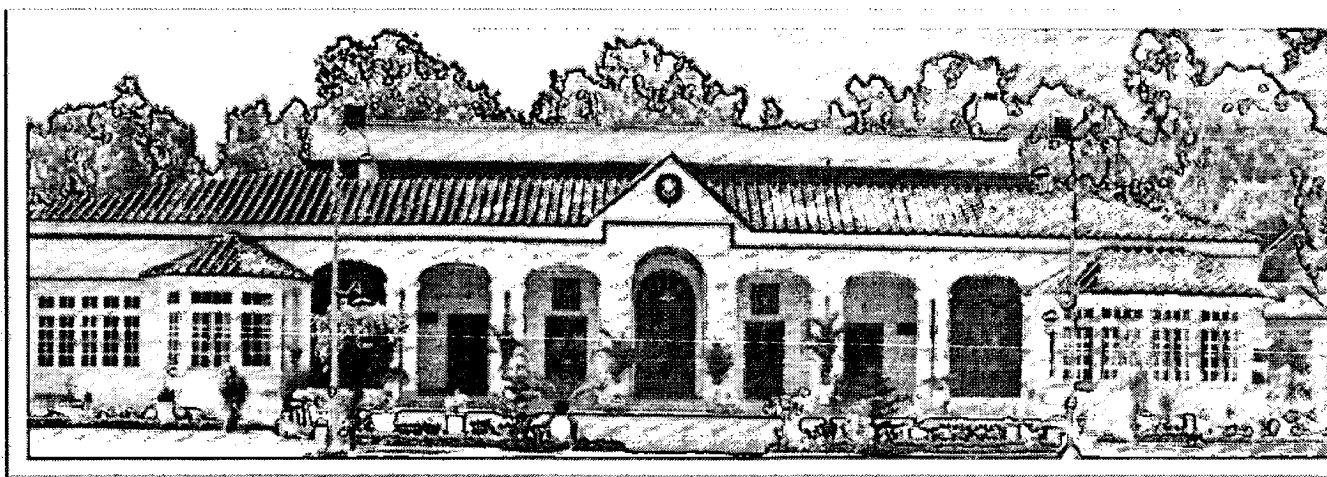
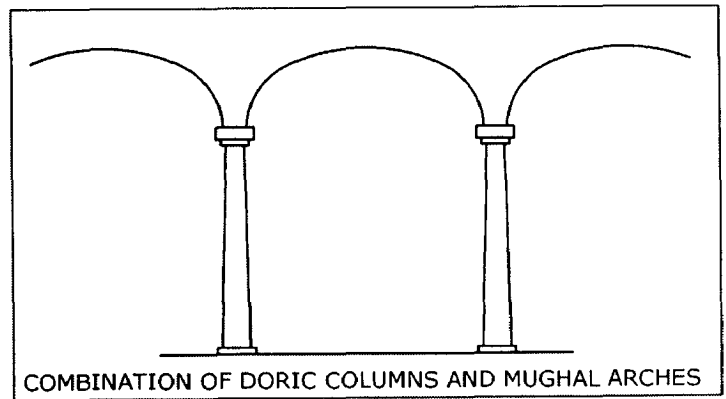


PLATE – 16: Showing front elevation of the Mess with verandah, hard standing and the lawn.

Existing elevation is a result of numerous changes and addition and alterations that have been carried out in the building. Bay windows and prominent bands running in the front have been added copying the suburban features from

British Villas of 18TH century. The Doric columns, sloping roofs and segmental arches are typical of Bungalow type architecture of early British Messes.

Symmetry in the elevation is making the building more imposing. Although the size of bay windows is not equal on the either side of the central axis yet it has not reduced the over all impact of the elevation. Combination of Doric Columns and segmental arches is adding to the aesthetics of the building.



DR - 11: Sketch showing sequential layout of Doric columns and Mughal arches in the front elevation of the building

The central entrance door to the mess has been kept larger than the adjacent doors to highlight the main entrance. Main entrance encased by semi circular arch and double columns is adding to the elevation of the building.

3.3.13 MATERIALS USED FOR CONSTRUCTION

British used bricks and lime mortar for construction of their buildings. Still the main part of the building stands in original materials only. Walls are load bearing and have a thickness of 18".

Door Lintels: Door lintels are provided in brick arches. New construction is having RCC lintels and beams for transferring the load.

Doors and windows: are made of timber. Few doors are having wooden panels where as others are having glazed panel fillers.

Flooring: Wooden flooring in indoor areas and marble in bath rooms has been provided.

Works Painting and polishing: Ceilings are done up in POP with OBD coating provided on top. All wood works are finished in lacquer. All walls are finished with Oil bound Distemper.

Electrical works: All wiring existing at present is concealed conduit type. Because of high ceiling height fans are hung with long rods. Fluorescent lights and decorative wall lightings have been used in all rooms.

Roofing: All roofing at present is in corrugated asbestos cement sheet on top. Below it a false ceiling has been provided in the entire mess.

3.4 COLONIAL BUILDINGS OF 18TH CENTURY

Some of the officers' messes are established in old buildings of 18th century, which were in earlier days used by British troops or were residences of Maharajas/princes. When the British replaced the Mughals, the palaces began having drawing/ dining rooms and guest-rooms for the European guests instead of Durbar halls. The fireplaces, marble fountains/ statues, oil paintings and stuffed animals began to be displayed in the halls and drawing rooms. The introduction of new social demand and new engineering designs, lead to a new architectural style created by British architects.

British Army Engineers and often the princes themselves played an important role in developing this style of architecture. This architectural style flowed in and clearly reflected in the bringing up of the army messes in those days.

3.5 ARCHITECTURAL FEATURES OF BLACK ELEPHANT DIVISION OFFICERS MESS, PATIALA

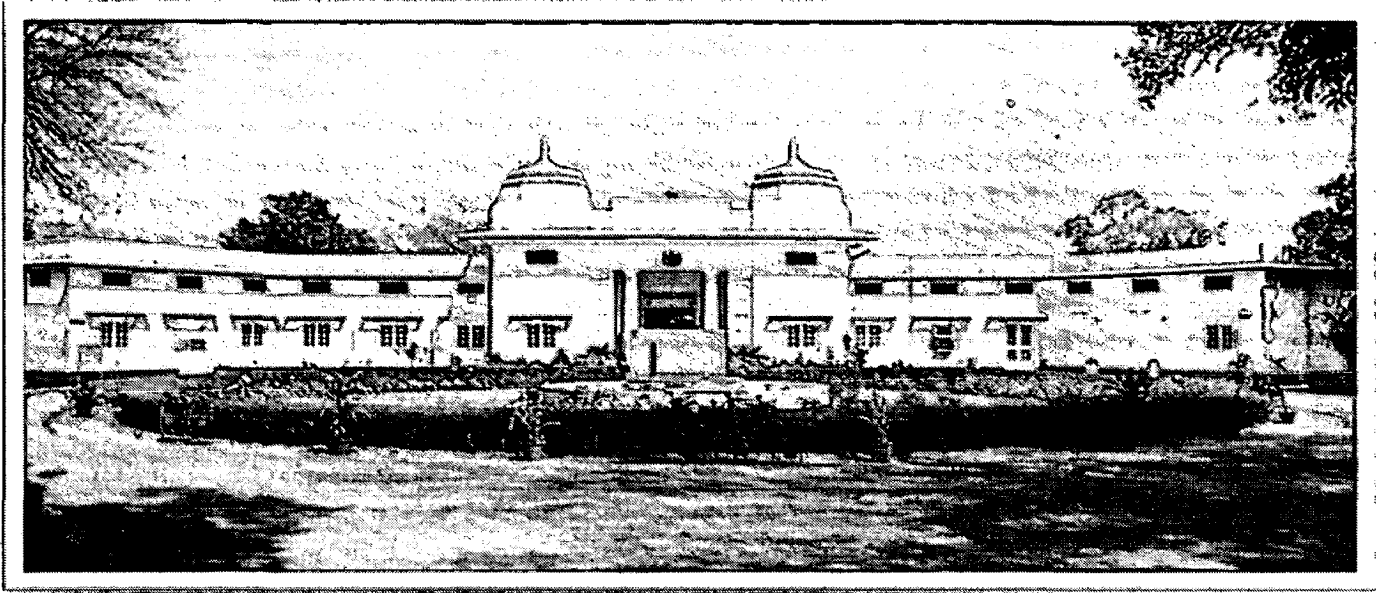


PLATE - 17: Picture showing front elevation of the Mess highlighting the colonial elements used in the building.

This mess was constructed after Second World War during the times of Maharaja of Patiala, as a soldiers Club. This building is a classical example of a mix of Indian, British and Mughal architecture. Main architectural features of this building are:-

- (a) Complete building has been designed in European style picking up some prominent features from Mughal and Indian architecture.
- (b) All rooms are given high ceilings so as to reduce the effect of sun heat during summers.
- (c) Doors and windows are in European style with rectangular glazed panels. Doors and windows were having top ventilators and bottom open able frames.

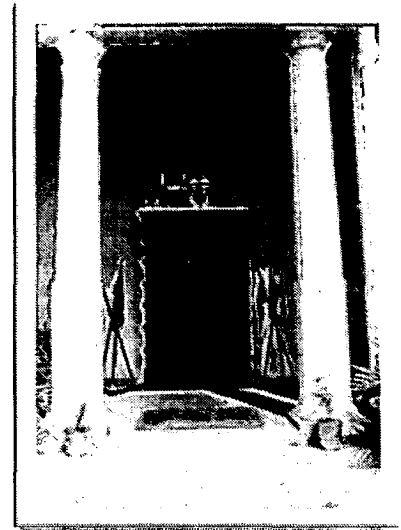
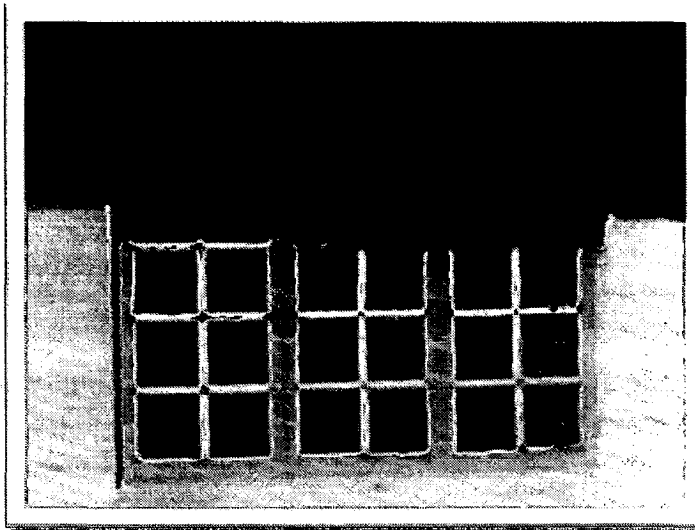


PLATE - 18: Picture showing European style windows with rectangular glazed panels and Ionic order columns used at the Entrance.

- (d) All walls are constructed 24" thick which are load bearing in nature. Lime mortar has been utilized for construction.
- (e) Mughal domes have been used to enhance the elevation of the entrance.
- (f) Ionic order columns have been used to make the entrance majestic.
- (g) Main entrance door has been highlighted by its size and rendering in lime mortar.
- (h) Corbelling around projections at roof level is provided.
- (i) As the building is re appropriated for its present use there are number of changes that have been carried out in the original building to suit the present day requirements. This includes changes in internal spaces, additions and alterations etc. Still an effort has been made to preserve the original elevation of the building.
- (j) Later changes include addition of cookhouse and office building to the mess. Similar to Officers Mess at B E G and Centre other changes are also carried out to meet the present day requirements of the users.

- (k) Like all other messes lawns and landscaped area form inseparable parts of this mess also.

- (l) Chajjas have been used to protect windows from rain and sun. These chajjas are pure requirement based and no rendering has been provided to enhance the elevation.

- (m) High ceiling has been provided typical of British elements. Ventilators close to ceiling are provided so as to facilitate exit of hot air from the rooms. Now a day's false ceiling are being used to enhance the interiors.

DEVELOPMENT OF MODERN URBAN MESSSES

4.1 INTRODUCTION

History of modern Indian Architecture in India is assumed to have begun with the arrival of Le Corbusier. Use of RCC changed the shape of architecture in India. A revolution that started with city planning, affected the planning of cantonments also. After independence and formation of Pakistan the importance of Army assumed new dimensions. Expansion of Indian army resulted in raising of new regiments and thus, more infrastructure for them. This infrastructure included offices, training areas, residential areas, messes for Jawans and messes for Officers.

During 1950s major concern for Government and planners was standardization of areas depending on number of users and authorized strength of regiments. Building design and construction in post independence era were taken up by CPWD (Central Public Works Department) and MES (Military Engineers Services). Both of these organizations had qualified architects to work on new designs and solutions for upcoming problems at that time. A major concern in all their work was the standardization and control of building environment. Over all concern for these designers was to adopt the international style with relevance to Indian context. Maintaining the ethos of army and still providing them with new and modern designs was a challenge for the designers of that time.

4.2 INTRODUCTION TO SCALES OF ACCOMMODATION

One of the major advancement with the increasing demand of infrastructure was standardization and fixing of scales of accommodation in the army. These scales of accommodation there after became bible for the designers and planners in army for all of their future works.

Scales of Accommodation gives complete details of area and authorization depending on number of users for whom structure is to be designed. Not only area but Scales also provide details of extra features or furniture that are to be provided with a special type of building. These scales of accommodation form basis for sanctioning a project by Government. Chapter -6 of Scales of Accommodation give out in detail scale of Officers Messes for Indian Defence Forces.

TABLE-2**SCALES OF ACCOMMODATION OF MESSSES, FOR SERVICE OFFICERS.**

SER NO	Officers STR (Nos)	SERVANT QRs (Nos)	PLINTH AREA (sm)		
			Officers MESS	SERVANT QRs	TOTAL
1.	LESS THAN 5	-	-	-	-
2.	5-10	5	331.10	162.58	493.68
3.	11-18	9	667.10	292.63	959.73
4.	19-28	11	808.85	357.67	1166.52
5.	29-40	14	961.10	455.21	1416.31
6.	41-50	15-16	FLOOR AREA ADMISSIBLE FOR 40 Officers PLUS 7.5 sm PER ADDL OFFR BEYOND 40.		
7.	51-100	17-26	FLOOR AREA ADMISSIBLE FOR 50 Officers PLUS 6.3 sm PER ADDL OFFR BEYOND 50.		

Source: Scales of Accommodation 1976.

4.3 ROLE OF MES (Military Engineers Services)

MES (Military Engineers Services) is the premier design and construction organization for Indian army. This organization has played a significant role in evolution of messes from British period to the modern times. After looking into various aspects of messes and discussion at various levels MES made standard designs for mess buildings.

4.4 FEATURES OF STANDARD DRAWINGS BY MES.

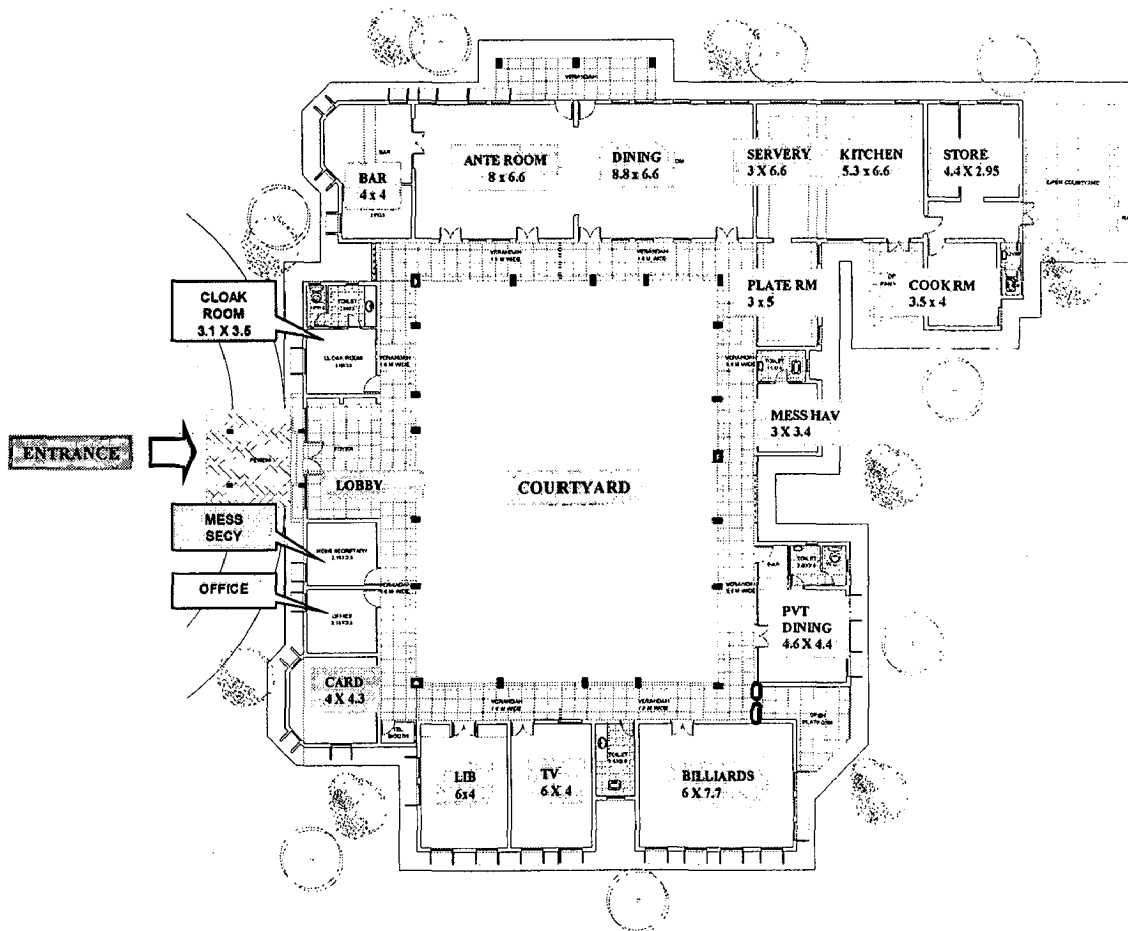
These standard designs were used all over India in coming up cantonments. Where ever required changes were made in the drawings so as to suit the special requirements of site or users.

Various special features of messes designed by MES are given below:-

- (a) For the first time grid system was adopted in planning of messes.
- (b) RCC beam and column system was the construction system adopted for coming up buildings.
- (c) Court yard planning was taken up in designing of messes to suit the Indian climatic conditions.
- (d) Flexibility in plan was given more importance so as to suit requirements of all type of users.
- (e) Entrance Lobby is spacious and well defined to accommodate the additional facilities e.g. reception, visitors book and place for internet.
- (f) Dining area opens into spacious verandah leading to the lawns. Ante room and dining area can easily be clubbed by providing folding partitions for large gatherings.
- (g) Bar with its essential facilities connected with ante room to serve drinks before formal dinning.

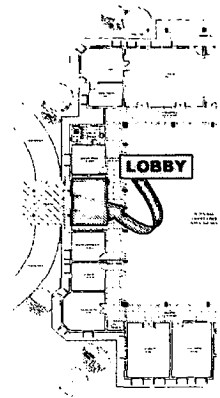
- (h) The toilets are appropriately located and well distributed to serve formal areas i.e. Dining room, Ante room on one side and other facilities/ informal areas i.e. Cards, TV, Billiards and Library on the other side

A TYPICAL MES DESIGN
(PLINTH AREA 749.01 sm)



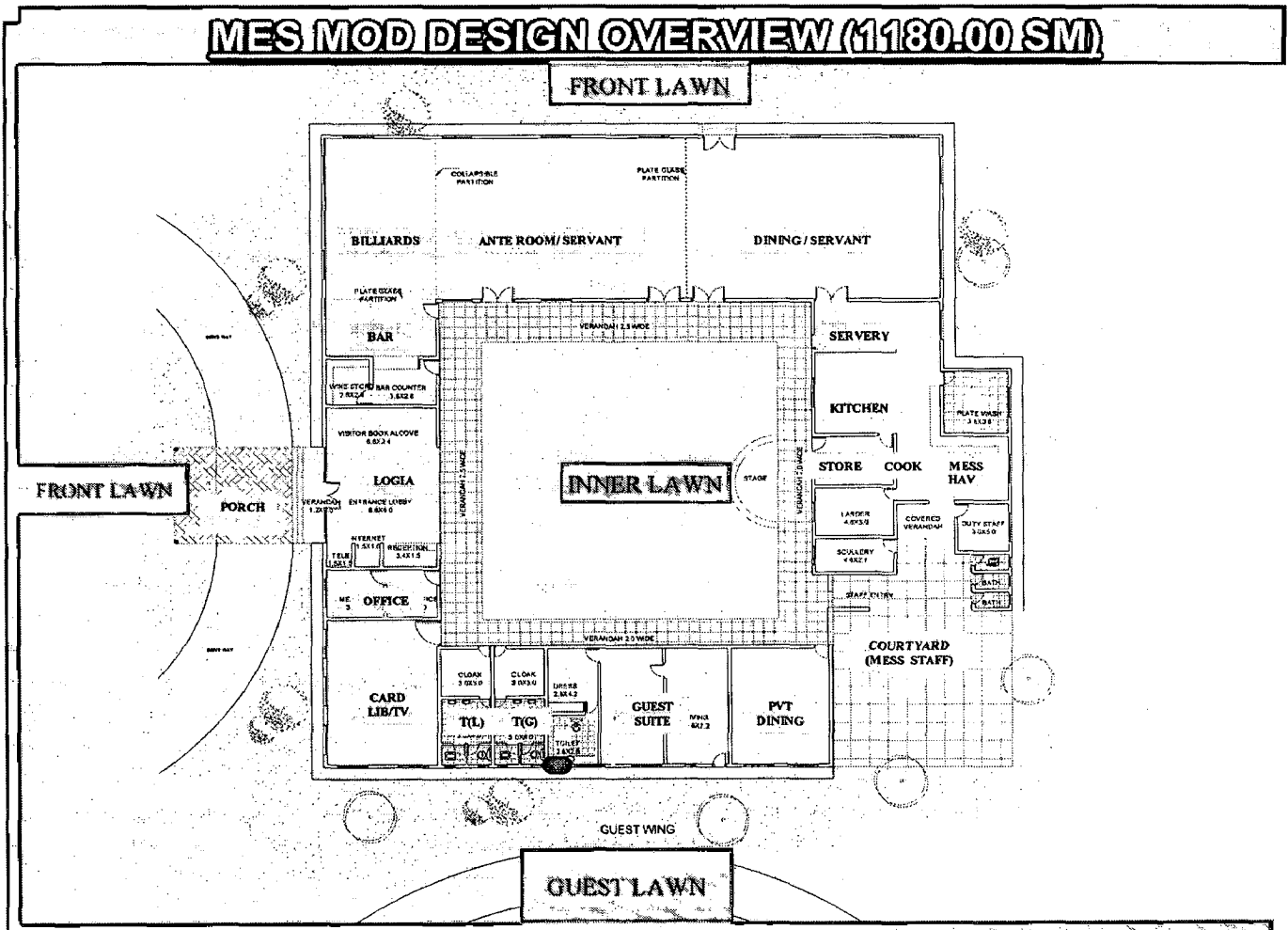
DR - 12: Showing a typical MES drawing for Officers Mess for a Battalion.

- (i) There is a clear segregation of public and service circulation, kitchen being tucked in the rear with separate entry and exit.
- (j) A separate service court is provided for entry and other outdoor activities (washing etc).
- (k) Small stores are provided which can be clubbed to form one central store and open mechanized kitchen can be adopted.
- (l) No negative spaces are generated due to rectangular module adopted.
- (m) Simple rectangular form adopted as it is a standard line plan and because of its flexibility, the same can be modified as per requirements.
- (n) Continuous movement of regiments from one location to another checked extra money input by regiments into the messes. A new concept of messes evolved in which users had more sense of belonging for their regimental artifacts and displays rather than buildings.
- (o) Electrical, water supply and sanitary services started gaining more importance. New buildings were designed keeping in view anticipatory load of the various services required in the building.



4.5 MODIFICATION IN DESIGN BY MES

Based on requirements of the users and time to time suggestions MES carries out changes in the typical design so as to make plans more user friendly and in tune with the changing times.



DR-13: Modified Design for Mess by MES

- (a) Plan above shows a modified design by MES. Design was developed by MES keeping in view users requirement of more flexibility in areas and merger of certain spaces which were existing in earlier plans but were not being used in the constructed messes.

- (b) In this plan extra flexibility is given rooms are separated by folding type partitions which can be opened in case of large gatherings.
- (c) Lawns are provided on three sides so that option of extending mess in all direction is possible, in case required.
- (d) Rear side open space is used as kitchen garden and provides fresh vegetables for the mess and employment for mess staff in idle hours.

4.6 SOME IMPORTANT ELEVATION FEATURES OF MODERN MESSES

Most of the modern messes which were constructed during 50s to 70s were quite alike in form and functioning. These messes displayed commonness in all spheres of architecture starting from site planning to building plan and elevational treatment provided to the building.

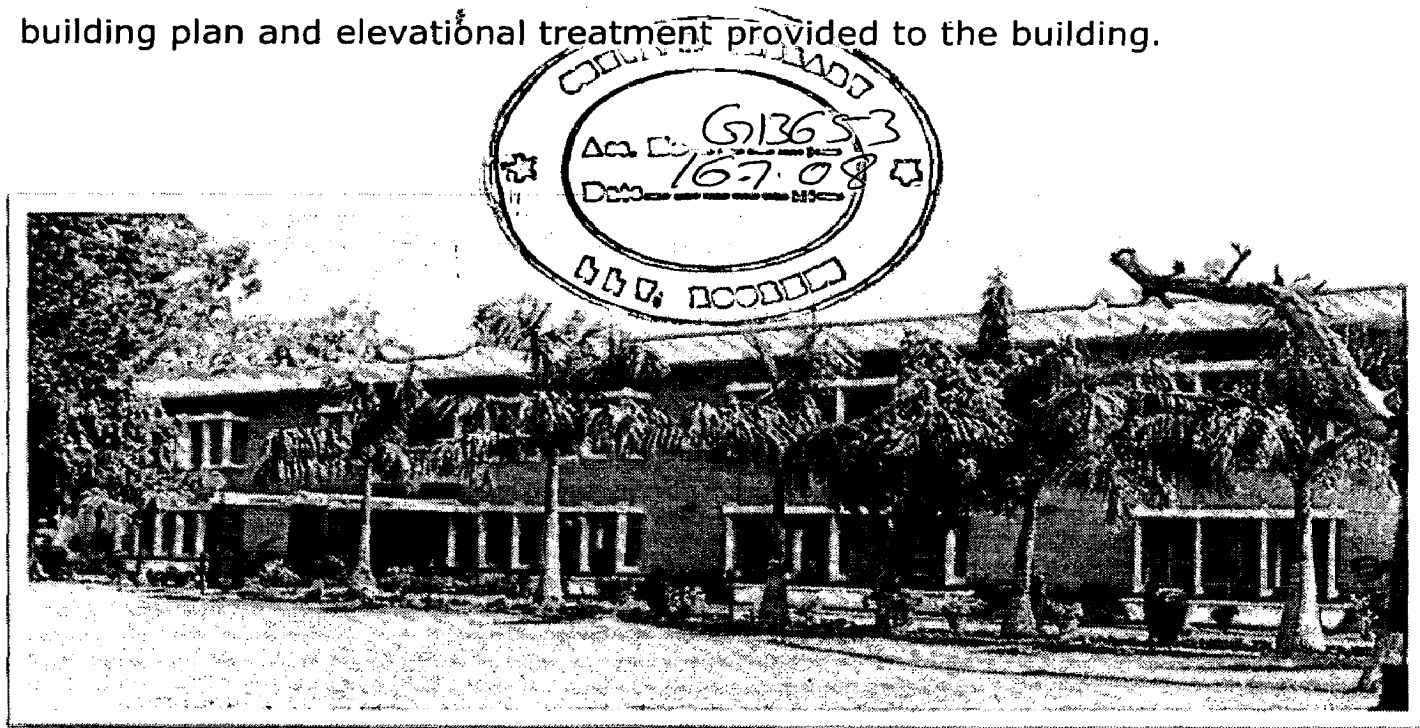
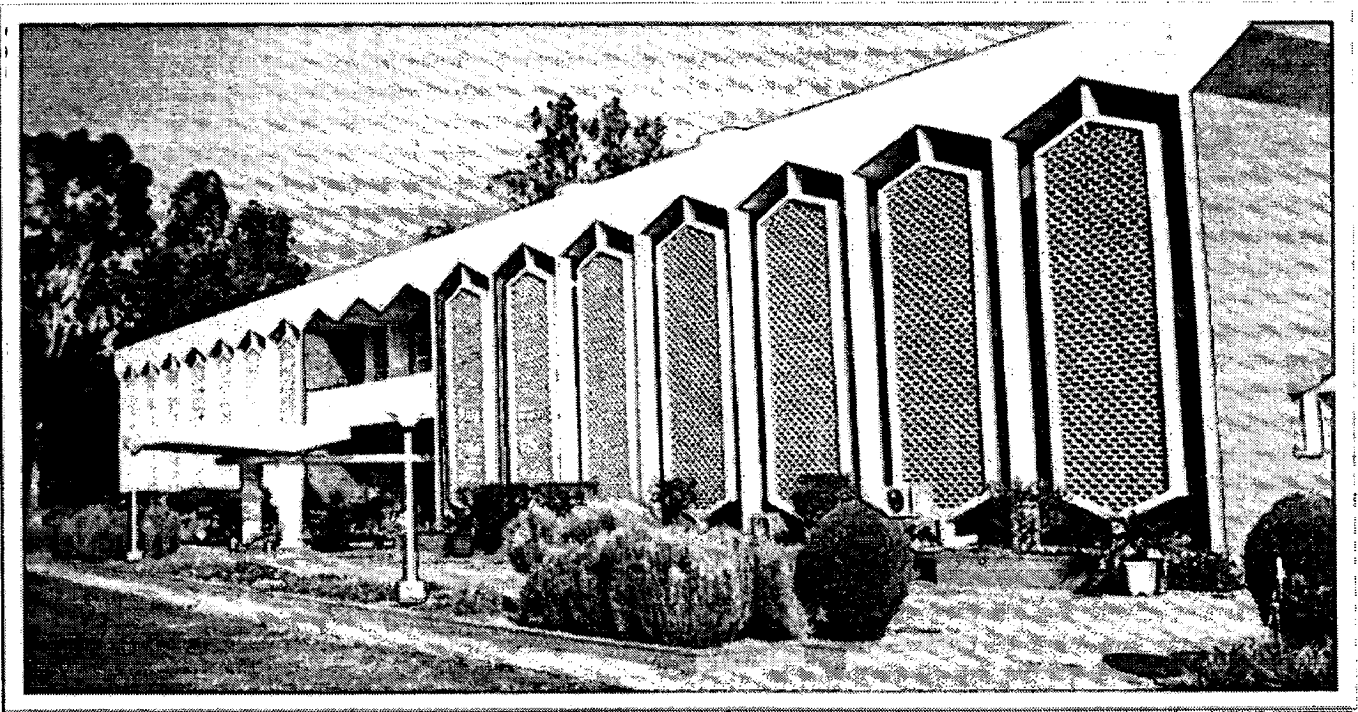


PLATE-19: Vajra Officers mess Jalandhar.



KHARGA OFFICERS MESS AMBALA

OFFICERS MESS HEAD QUARTERS WESTERN COMMAND CHANDIMANDIR.

PLATE-20: Showing Officers Messes constructed during 80s and impact of Le Carbusier's architecture on the forms of Messes.

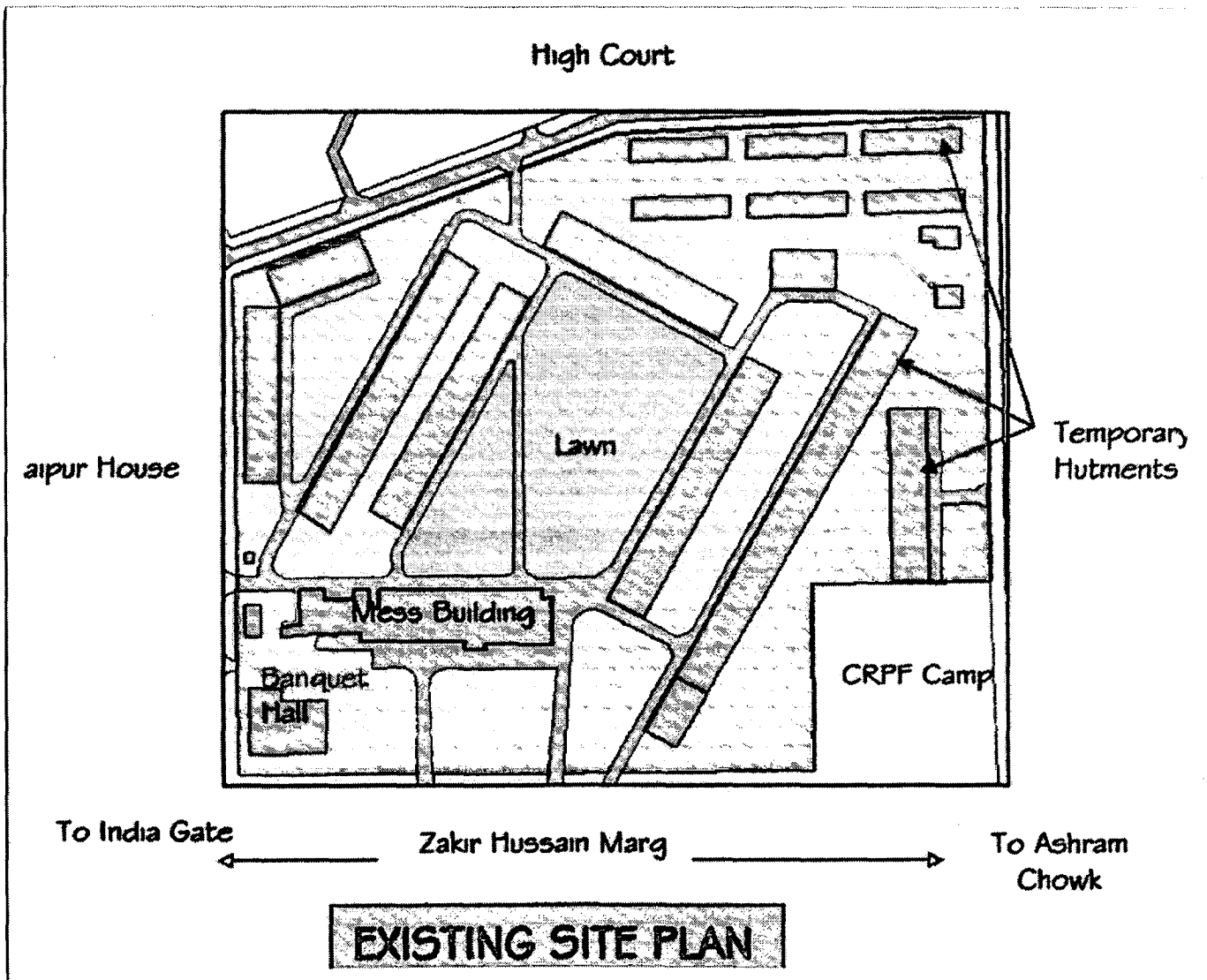
Looking carefully it can be seen that all the three buildings are quite similar in form and elevational treatment. Various elements which are evidently making them similar are:-

- (a) All the three buildings are having front fascia treatment of similar type. All the three buildings are having vertical and horizontal combination of RCC bands.
- (b) The entrance has been highlighted by a large cantilevered porch
- (c) Mess at Ambala and Jalandhar are having chajjas projections which are cantilevered and form a horizontal mass trying to balance the over all composition of the building.
- (d) Mess at Chandimandir is having vertical Jalis covering the windows firstly to curtail the southern sun and secondly to counter the linear front facade.
- (e) All the buildings are having front open lawns which compliment the building and add to the imposing looks and aesthetics.
- (f) Buildings are similar in planning with a rectangular plan and central open court yard.
- (g) Mess at Ambala shows shape of roof projection directly copied from Le Corbusier creations at Chandigarh.
- (h) All the buildings are having combination of plastered concrete and exposed brick work. Painting scheme followed in all the building makes them look more similar. Exposed brick work has been painted in terracotta color where as the RCC work has been painted in off white color.

4.7 CASE STUDY – 2 AKASH OFFICERS MESS, NEW DELHI.

Officers Mess provides for living Accommodation and other related facilities for AIR FORCE OFFICERS who are not joined by their families.

It was functioning at Dr. Zakir Hussain Marg in a very old single storied structure which had outlived its life. A new mess complex was proposed to be re-built at the same location after demolishing existing structures.



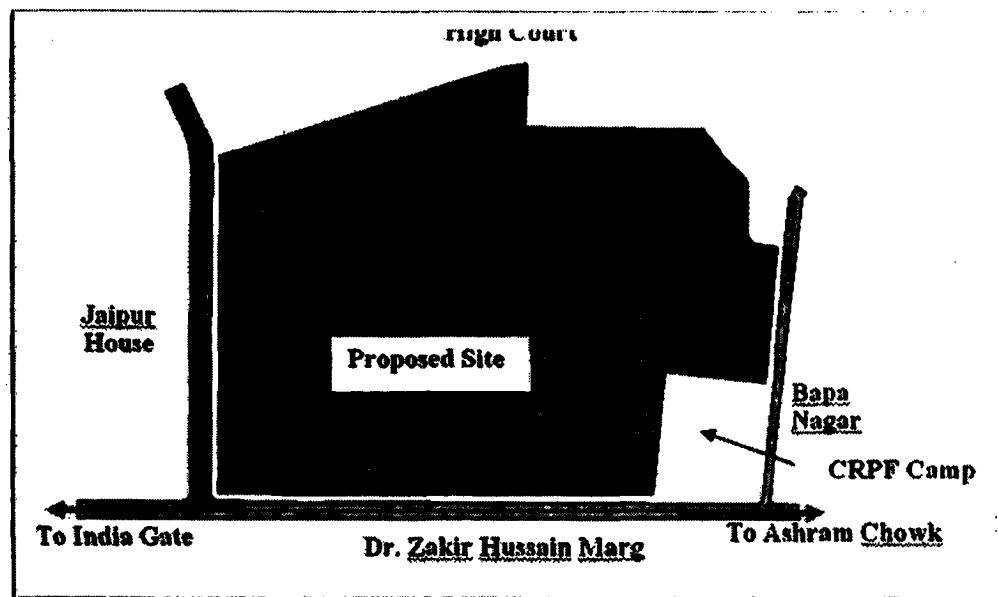
DR-14: Site Plan showing the layout of Akash Officers Mess in Delhi.

4.7.1 SITE

Area of the site is 5.7812 acres. The site is bound by roads on all sides. A small corner of the site has encroachments which were removed following a High Court order. The area vacated is left as green area. The site is situated on Dr. Zakir Hussain Marg adjacent to Jaipur House which is on its North. On the Southern side are Bapa Nagar residential quarters for Government officers. At the rear of the site, i.e. on Eastern side is the back of Delhi High Court. Opposite the site, across Dr. Zakir Hussain Marg are residential bungalows for senior Government Officers.

The site falls within LBZ Lutyen's Bungalow Zone which has its own parameters.

Because of the location of the site and its proximity to Rajpath the project was declared prestigious as per Government norms.



DR-15: Showing surrounding locations of the Site

4.7.2 AREA RESTRICTIONS

The Mess bldg was to be designed to cater for 840 officers. Plinth area as per scales of accommodation for strength of 840 officers works out to approx 8680

SqM. However, due to certain restrictions on ground coverage, plinth area provided for the mess is restricted to 63% of the authorized area.

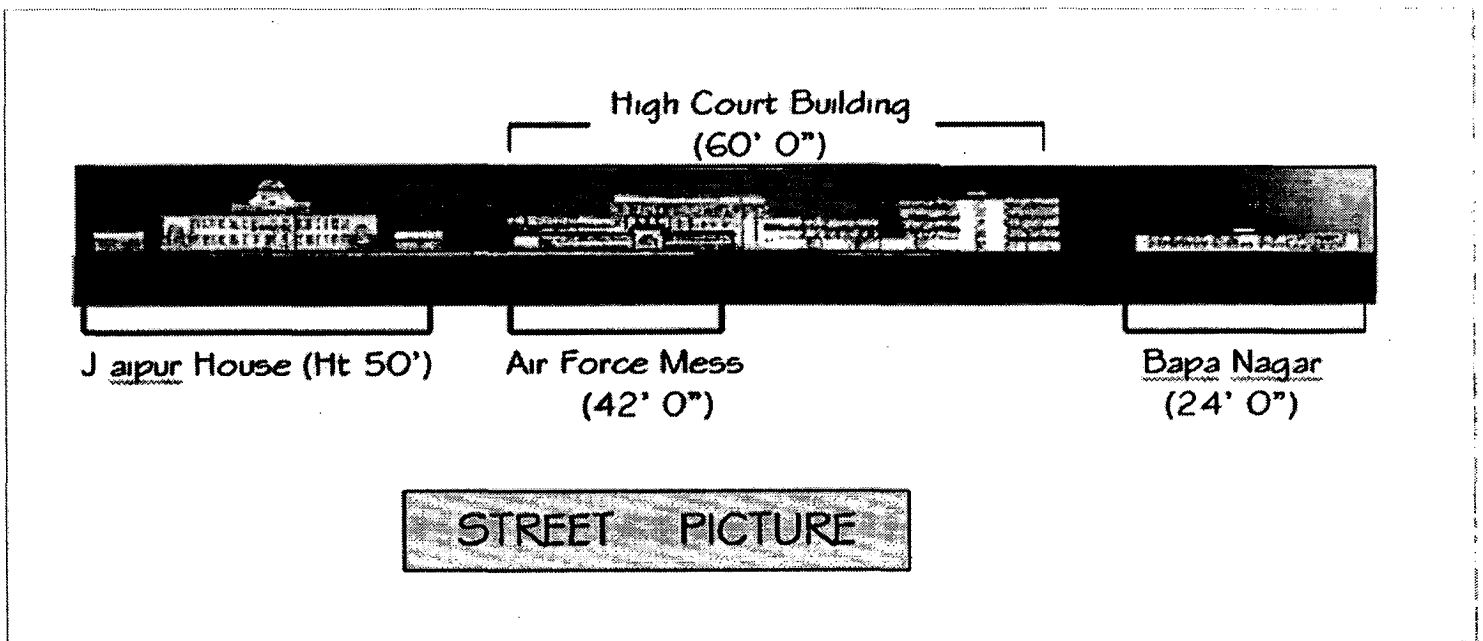
4.7.3 NDMC REGULATIONS GOVERNING THE AREA

FAR - 0.75

Ground Coverage (%) - 25

4.7.4 PERMISSIBLE HEIGHT LIMIT

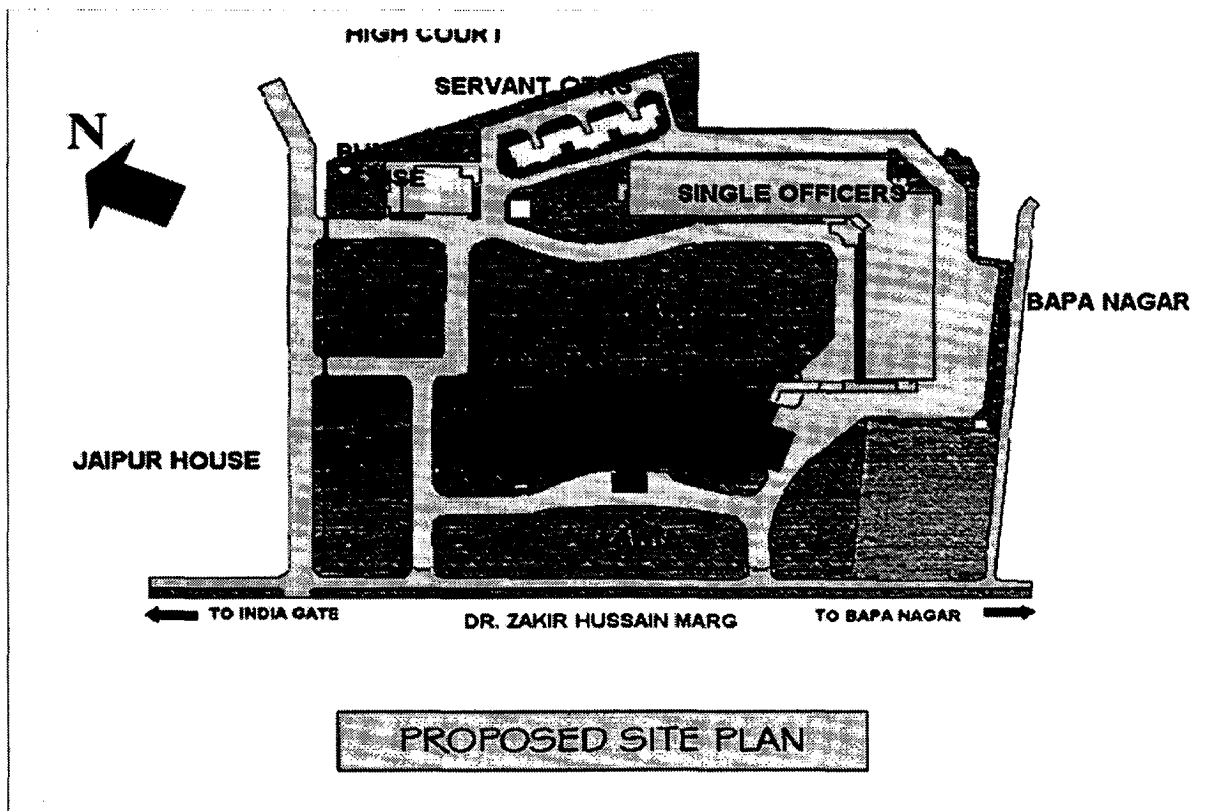
There were no norms laid down by NDMC/DDA/Central Vista Committee specifying the height limits. Proposal was made with the help of a street picture of that area showing the ht of the proposed bldg to be 12.8 M high and was submitted to Ministry of Urban Development. Finally the approval was given for the maximum ht of 11.75 M. Criteria being that the bldg should not go beyond the height of the base of the dome of Jaipur House.



DR - 16: Elevation showing the Zakir Hussain Marg.

4.7.5 AREA REQUIREMENTS

- (a) Main Mess Bldg including 6 V VIP suites, recreational areas etc.
- (b) Single Living Accommodation for 96 officers.
- (c) Servant Qtrs.
- (d) Ancillary facilities like generator room pump house.
- (e) Sizeable rear lawn – so that parties for big gatherings could be arranged.
- (f) Covered parking.
- (g) Gate office bldg



DR-17: Drawing showing final layout of building on the site.

4.7.6 FINAL SITE PLANNING: CAS, Air Marshall SK Sarene desired that the mess bldg was to be given the utmost importance. Hence, it was decided that the centre of the bldg should align

with the centre line of the front segment of the plot. The main Mess building is placed towards the front area thus revealing its imposing front and forming the focal point.

The Single living accommodation is placed towards the rear right side with a huge lawn space forming a buffer between the recreational and the residential zone areas. The servant quarters are tucked on the left hand side of the rear space remaining between the single living accommodation and the boundary wall.

4.7.7 SHAPE AND ORIENTATION OF BUILDING

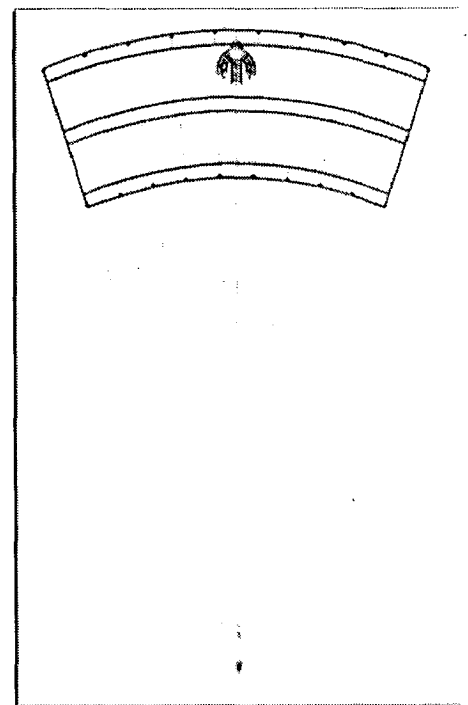
(a) In order to have a symmetrical plan, a central entrance hall with two equal flanges on both sides was planned.

(b) Strong sense of axis was achieved by having equal distribution of spaces along a central spine.

(c) Bldg was given a slight curvature to give an inviting look.

With the above mentioned parameters/criteria the following shape for the main Mess bldg was derived.

DR- 18: Shape of the building developed from a sector.



To harmonize the bldg with the Lutyen's character it was decided to give a double ht colonnaded facade, which will impart the imperial look as well as provide shade to the bldg which was facing west.

4.7.8 SPATIAL DISTRIBUTION

The Mess Bldg requirements were grouped under two categories:

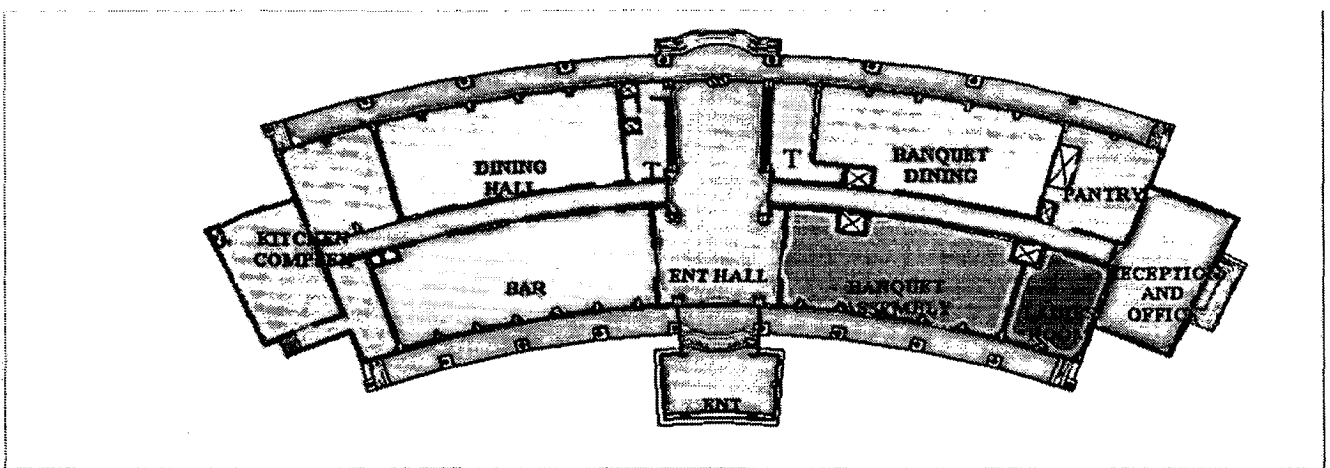
01 **Areas to be frequented very often by the Air Force Officers like their Dining Hall, Bar, Billiards room, Ante room, Library etc.**

02 **Areas with restricted accessibility like Banquet assembly, Banquet Dining and the VVIP Suites.**

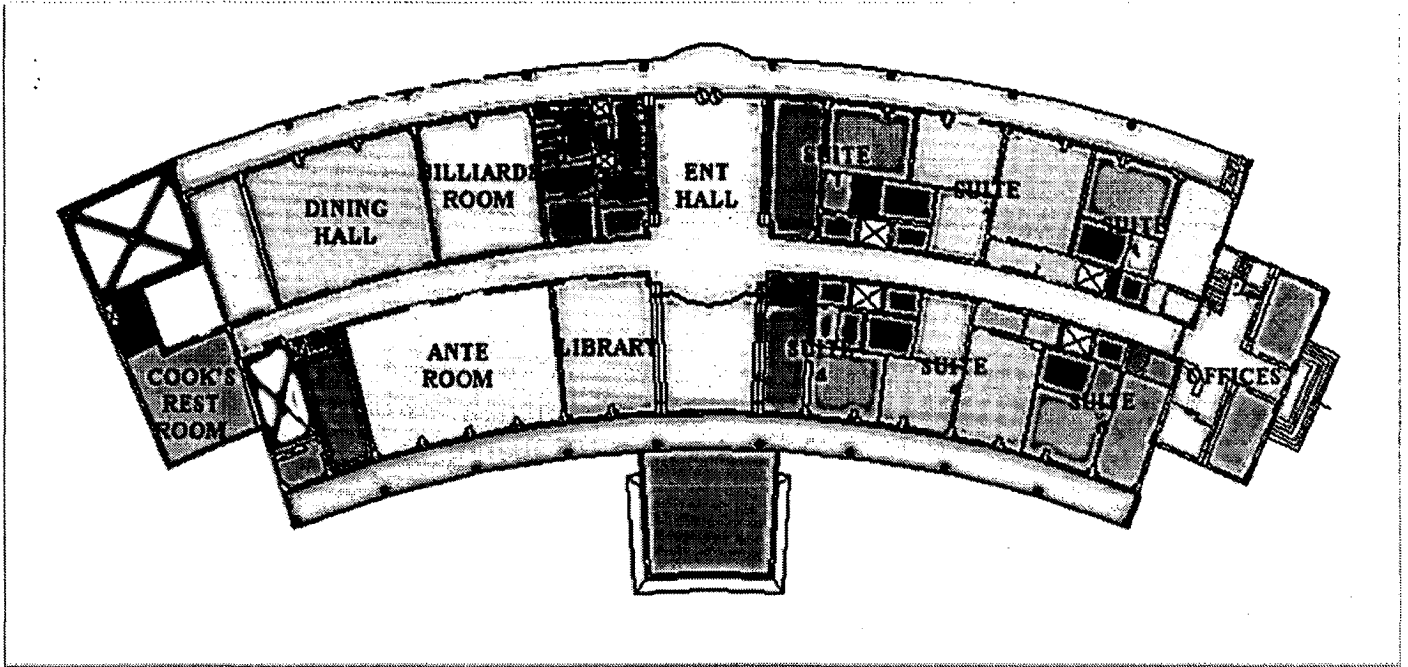
(a) Areas listed at 01. were placed on the left side of the entrance hall. Their distribution on two floors was guided by the degree by which the areas were going to be used.

(b) Areas requiring restricted access were placed on the right side of the entrance hall.

A modular grid system was adopted to design the building.



DR - 19: Ground floor Plan showing layout formal and informal areas.



DR - 20: Plan showing layout of various spaces of mess and guest suits.

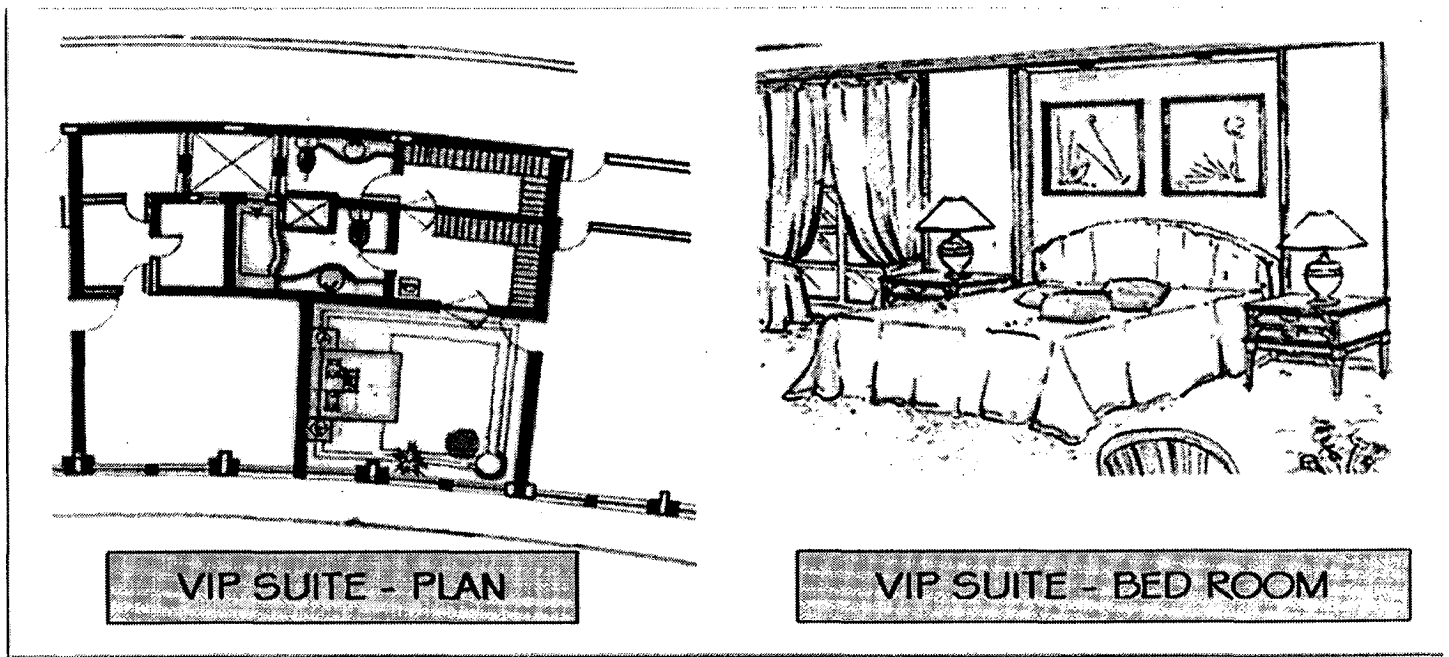


PLATE - 21: Sketches showing plan of VIP Suite and 3D of interior.

4.7.9 V V I P SUITS

VVIP Suites were planned on first floor with an independent side entrance and reception area.

VVIP suites were designed with a spacious living room and bed room. The suites have been given the luxury of two toilets and a dress attached to it. Bed room and Living room of the suites open out to breathtaking views of sprawling landscaped front and rear lawns. A waiting area with a pantry has also been planned in a way so that they have independent access without disturbing the suites

4.7.10 UPHOLSTERY AND TAPESTRY

It can be seen from the picture that rich upholstery has been provided in the room. Furniture used matches the decor and suits the requirement and status of the users who shall be using them.

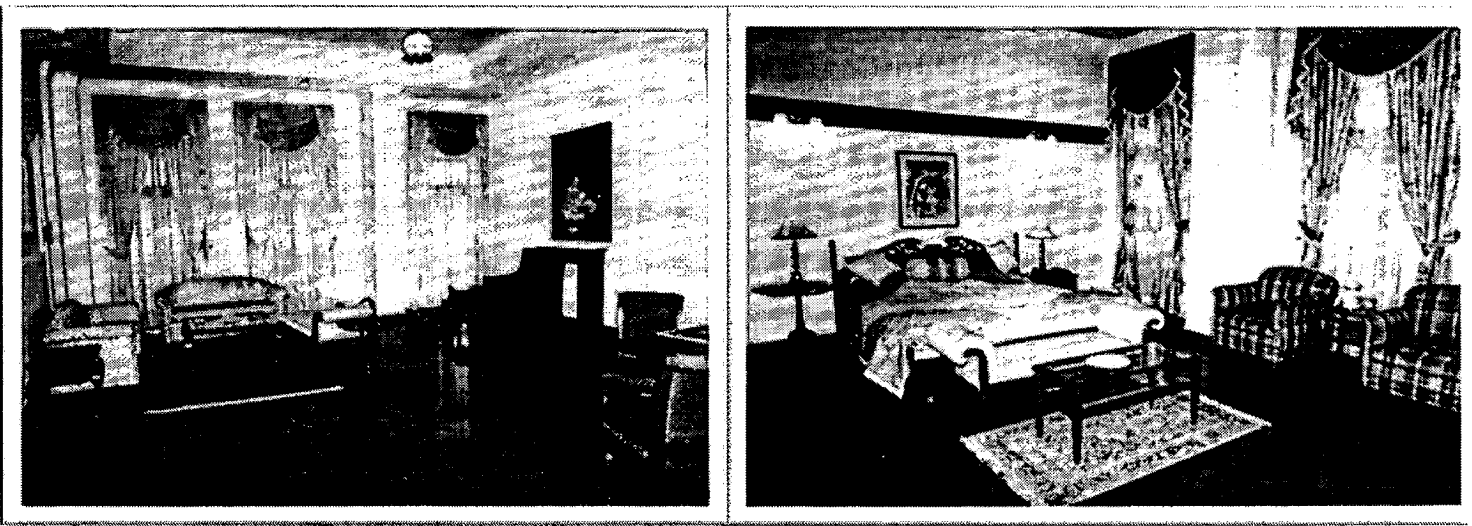


PLATE – 22: Photographs of rooms showing rich drapery and tapestry used in rooms to improve the ambience.

4.7.11 ELECTRICAL FITTINGS

Electrical fittings and fixtures used in the rooms are beyond the usual expenditure that is done in officers' messes, but here the special sanctions from the Government made it possible to use latest and world class gadgets and fixtures.

4.7.12 **FURNITURE**

Furniture used in the VVIP Suites is world class and rich. It exhibits a class and matches the standards of furniture used in five star hotels.

Sofas and settees are placed in a serene and cozy layout without any cluttering.

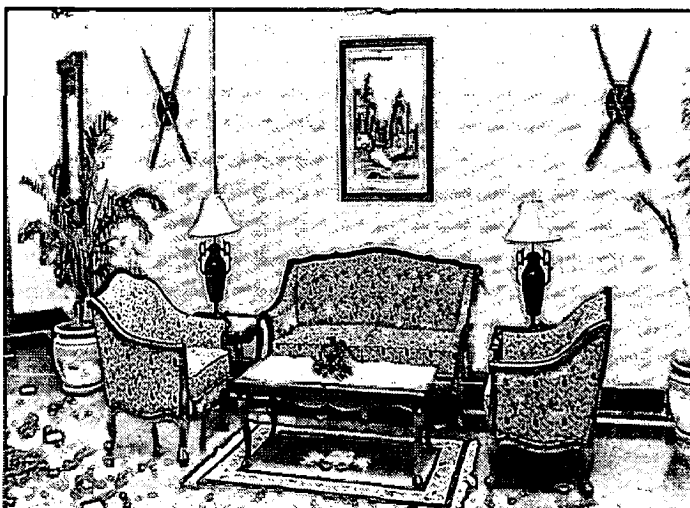


PLATE- 23: VVIP Suite lobby showing ethnic but rich furniture.

4.7.13 **CIRCULATION SYSTEM**

A simple linear horizontal and vertical circulation system has been conceived for this bldg. One grand central staircase and two secondary staircases on both sides of the bldg have been provided.

The staircase provided within the kitchen complex is also acting as the service staircase leading to the terrace. The maximum distance between two stairs is approx 25 M, which is quite within the norms.

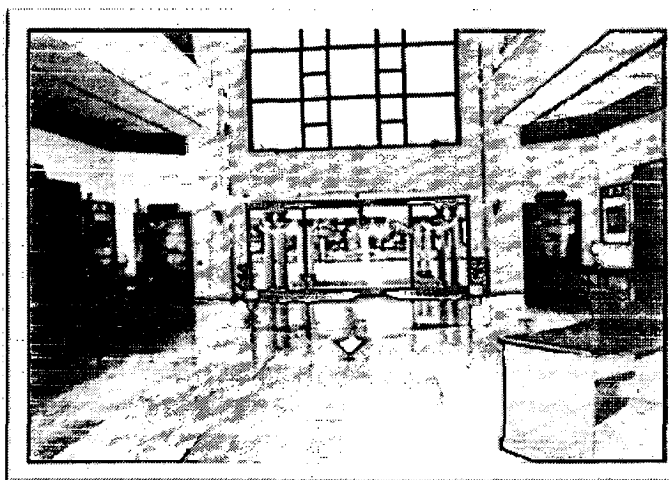


PLATE-24: Showing double height Entrance lobby.

4.7.14 **INTERIORS**

As the bldg was declared "Prestigious" special sanctions were granted by the Government for superior specifications and aesthetics, such as:-

(a) Granite floor for the whole mess.

(b) False ceiling in all rooms with concealed lights (as the major areas were air conditioned).

(c) POP finish on walls with plastic emulsion paint.

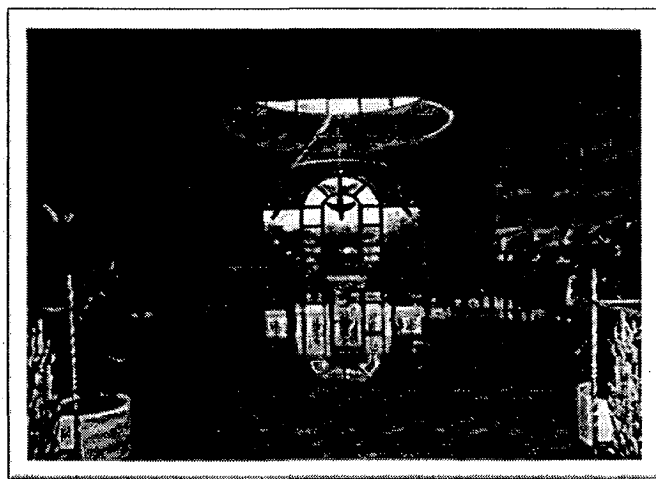
(d) Teak wood doors and windows to enhance the regal ambience of the bldg.

(e) Modular switches.

Few items were included on the users demand and the payment of which was done from Non Public Fund. e.g. Use of Italian Marble for the flooring on ground floor in place of the sanctioned granite floor.



VIEW OF CORRIDOR



VIEW OF LOBBY AT FIRST FLOOR

PLATE-25: View of entrance lobby at first floor and view showing dome in the multifunctional lobby with various seating areas. The bomb buster formation of the Air Force fighter planes has been created with the help of Polycarbonate tubes giving a stately and official look.

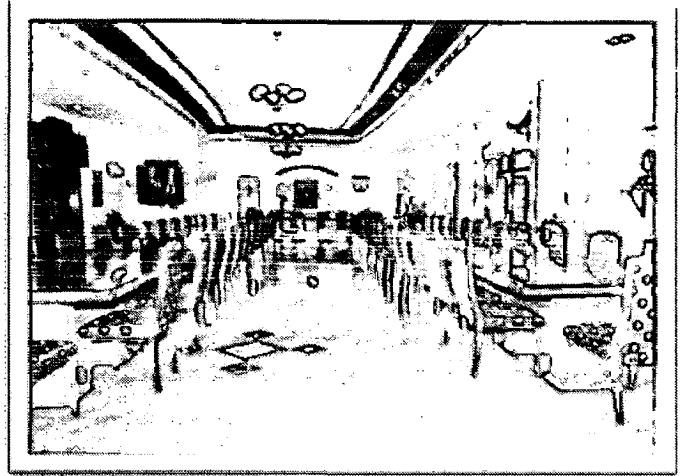


PLATE- 26: Views showing Banquet Assembly hall.

The Banquet Assembly hall is having a coordinated colour scheme which adds to the aesthetic settings. Interiors are meticulously planned with texture paints and paintings on the walls. Contrasting furniture and well designed lighting system adds to the over all ambience of the hall.

The entrance to the bar is through a grand doorway with etched glass. The bar counter is placed opposite to the doorway creating a comfortable, cozy and colorful seating arrangement in the centre. The library has been planned for a quiet and well stacked space in the mess.

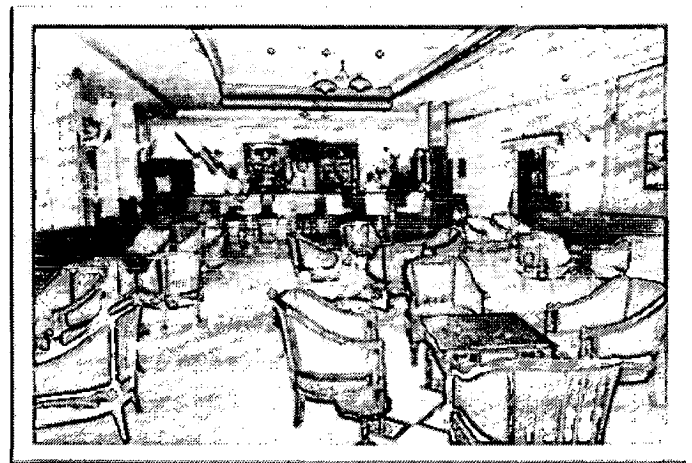
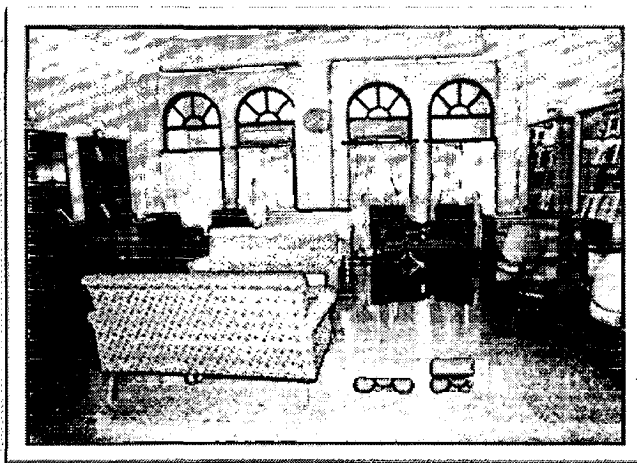
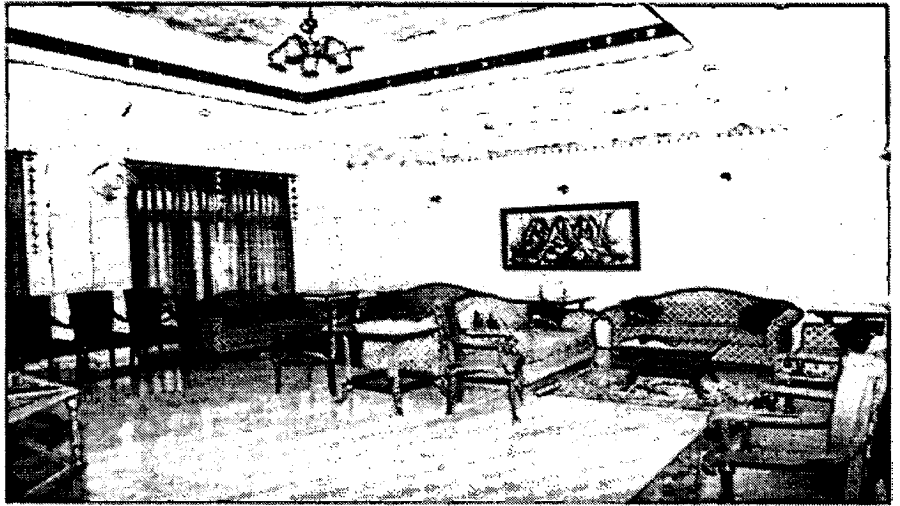


PLATE-27: Showing interiors of Library and Bar.



VIEW OF LADIES ROOM

A CLUSTER FORMED BY FULLY UPHOLSTERED SOFAS COMPLEMENTING THE GLASS TABLES FORM AN ATTRACTIVE SITTING AREA. A CHEERFUL ATMOSPHERE IS CREATED BY MONOCHROMATIC COLOUR SCHEME. THE CEILING IS IN CONTRAST WITH OTHERWISE DRAMATIC SETTINGS.



VIEW OF GENERAL TOILET

A NEAT COUNTER WITH A SERIES OF WASH BASINS ALONG THE WALL WITH A WIDE MIRROR GIVES A SPACIOUS LOOK

PLATE – 28: Pictures showing Ladies room and General Toilet.

4.7.15 FACADE TREATMENT

External facade of this bldg was treated with the combination of pink Dholpur stone and red Agra stone, so as to match with the surroundings. Circular columns were given the heritage finish to match the color of the Dholpur stone.

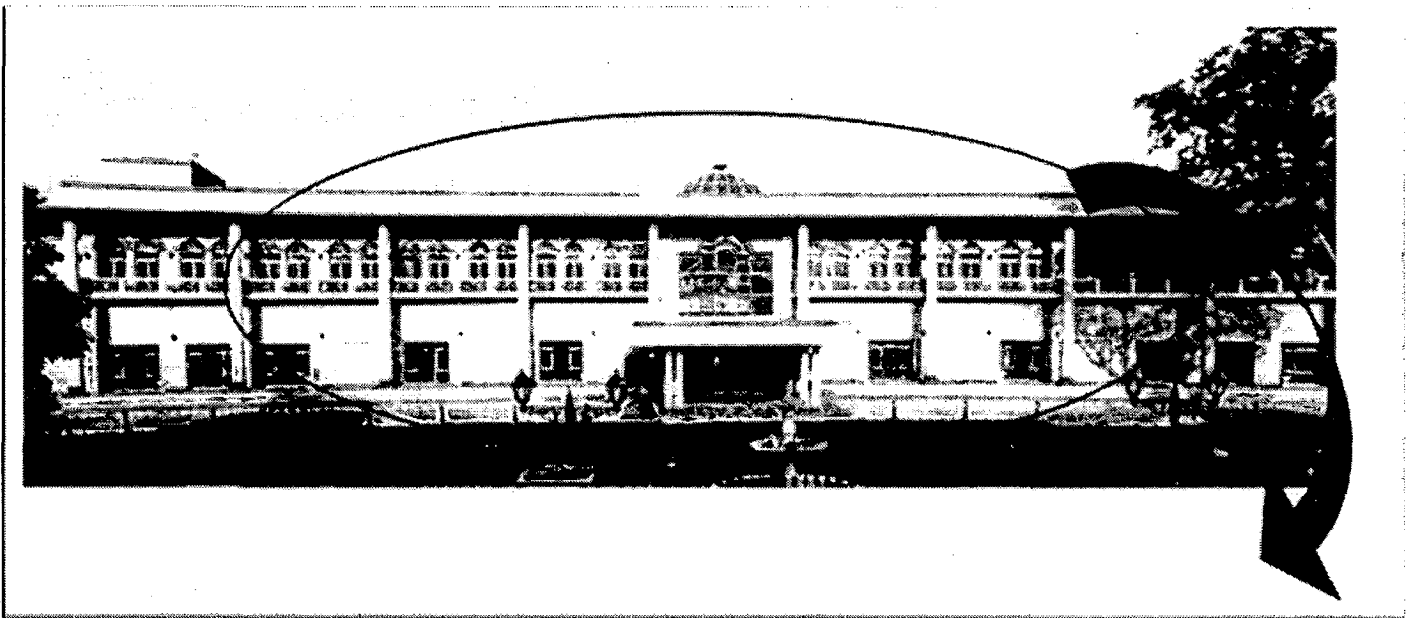


PLATE – 29: A huge dome of 5 M dia has been planned above the entrance hall to give it an imposing look.

The series of arched windows at first floor balance well with the wide rectangular openings on the ground floor gives a strong character of the Lutyen's zone. The centrally place low height porch supported by double columns emphasizes the entry to the Mess.

The double height columns give an imposing look and a play of masses is created by staggering the side blocks.

Jalis carved out of red Agra stone were provided on the first floor. RCC sloping chajjas treated with weather proof paint were also provided to harmonize the building. A well composed colonnaded entry connects the main building with the Single living accommodation block and also forms a grand entry to the rear lawn area.

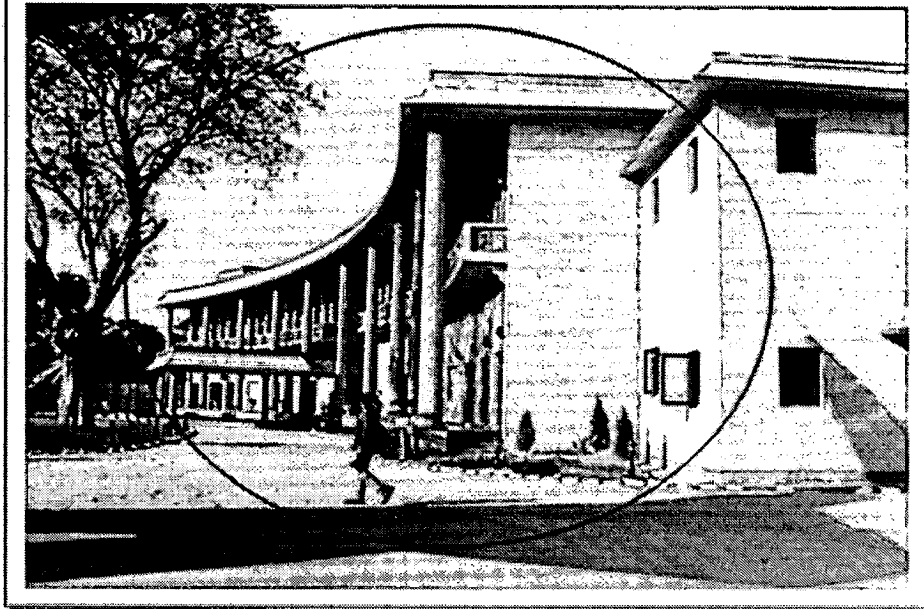
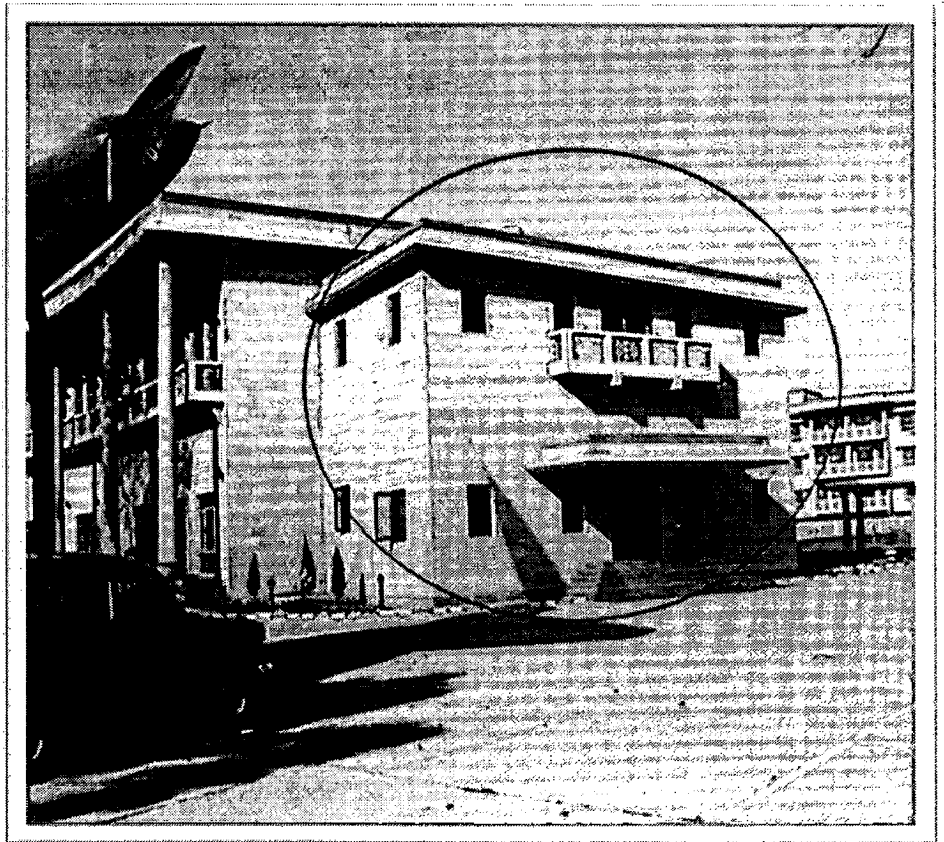


PLATE - 30: Views showing the front and right side elevation of the building.



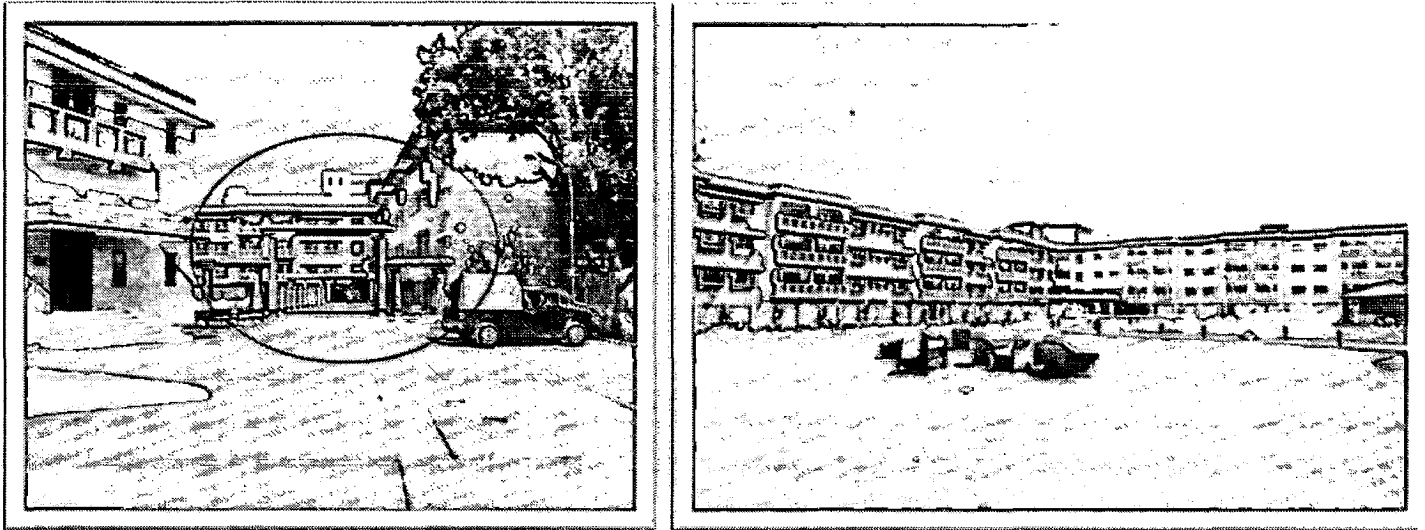


PLATE - 31: Picture showing colonnaded side entry to the single officers living block, and view of the single officers block.

4.7.16 SINGLE LIVING ACCOMMODATION

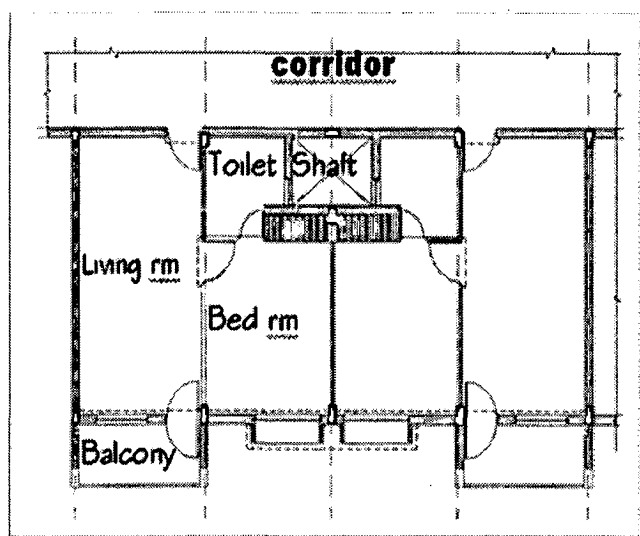
4.7.16.1 SHAPE AND ORIENTATION OF BUILDING

The requirement of a big rear lawn was the guiding factor to evolve the shape of the building. Building was pushed towards the boundary wall, leaving the minimum required set backs to achieve the much desired open space between the two buildings.

Other highlighting features of the Single Officers Living Accommodation:

- (a) Single living accommodation was planned on stilts + 3 floors above as the maximum ht permitted was 11.75 M.
- (b) Stilts were planned to accommodate the covered parking.

- (c) Spaces between the two parking bays were judiciously planned to accommodate stores to keep luggage boxes of the single officers.
- (d) Single officer's suite plan was evolved with a criterion to give maximum frontage/view to the rooms. Toilets were given ventilation through internal shafts.



This type of unit plan helped to have similar kind of big openings which were clubbed together.

Open spaces were designed in front of the stair case where the officers can come out and interact with each other.

Strong sense of axis was maintained in this bldg also as the distribution of suites is across the central spine.

DR- 21: Drawing showing plan of Single officers living.

4.7.16.2 CIRCULATION SYSTEM

Linear horizontal and vertical circulation system has been achieved for this building. Government sanction was given to provide two lifts in addition to fire

stair cases. All staircases are 6' wide, well equipped with natural light. Two fire escape staircases are provided in the ends.

4.7.16.3 INTERIORS

Special sanction was granted by the Government to provide ceramic tiles in all rooms. Vitrified tiles have been provided in the corridors to give shining and lustrous corridors. Staircase has been provided granite finish on terrazzo to give lustrous appearance on the central spine of the building.

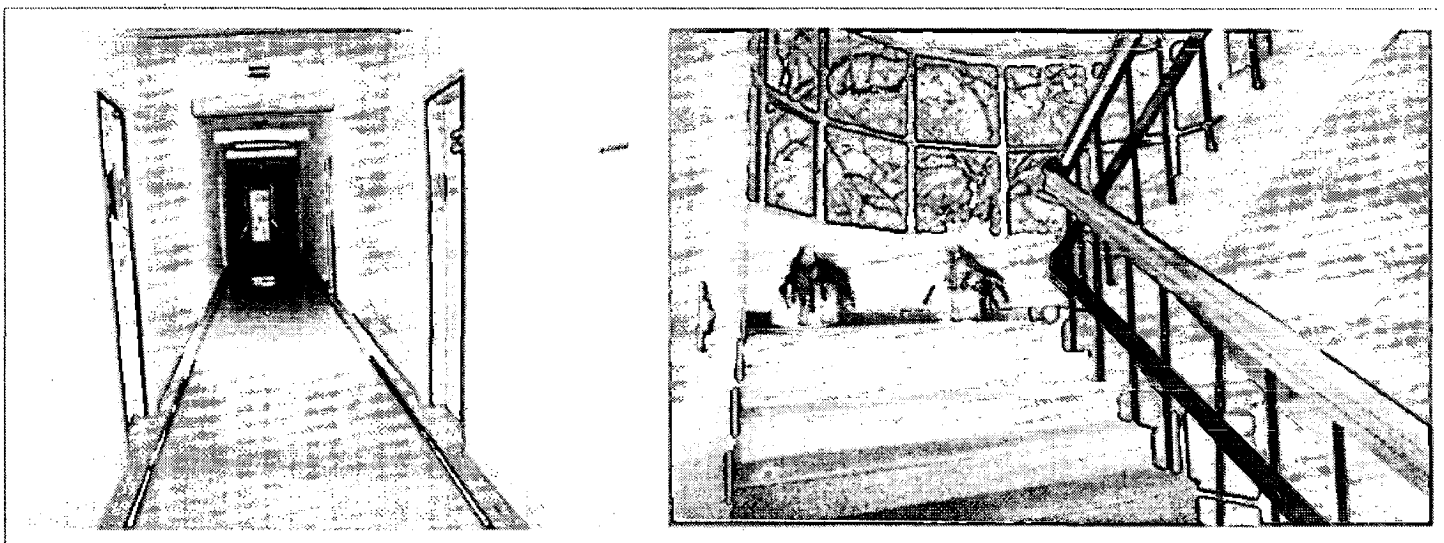


PLATE – 32: Views showing corridors and staircase.

Toilets have been given special attention. Unlike normal messes here latest gadgets and bath fittings have been used

- (a) Basin with granite top counter.
- (b) Big size mirror with built in cupboards to keep toilet accessories.
- (c) Toilet door is partly glazed (frosted glass) to get the borrowed light from the room.

4.7.16.4 HIGHLIGHTS OF ROOMS

- (a) Special window sills were designed to keep the window desert coolers. Water inlet pipe going to the cooler is concealed in the wall and a control knob is given inside the room to control the water going in the cooler.
- (b) Built-in cupboard has been provided-where dressing table has been made part of the cupboard.
- (c) All the walls have POP finish with cornices and moldings on ceiling and wall with plastic emulsion paint.
- (d) Special furniture has been designed for the single officers for which an interior designer was engaged by the users.



PLATE – 33: Views of single officer’s bed room and living room showing rich and elegant choice of flooring, furniture and treatment given to walls.

4.7.16.5 **FAÇADE TREATMENT**

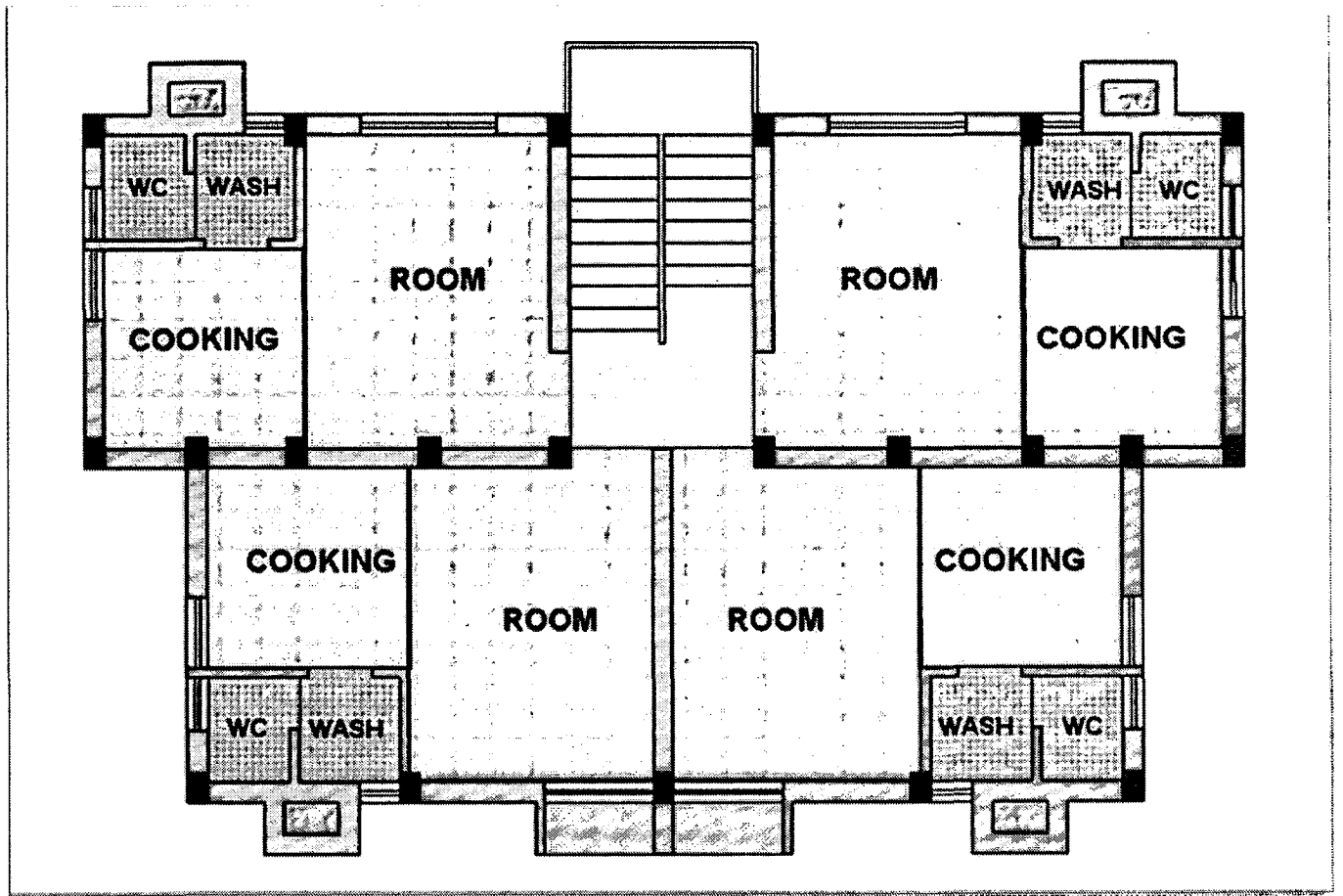
This bldg has also been cladded with a combination of pink Dholpur and red Agra stone. The monotony of the linear facade is broken by a composition of protruding balconies and box windows. The total building is bound by a continuous chajjas at the roof level.

4.7.17 **SERVANTS QUARTER**

4.7.17.1 **DESIGN CRITERION**

This bldg has been designed keeping in mind following important considerations :-

- (a) As servant quarters block was partly being over lapped by the single living officers' block (because of the site constraints) their windows were designed in the shape of jharokhas where their activities are not visible.
- (b) **Facade:** Plastered finish with grooves to match the stone cladding on the other two buildings.
- (c) **Jalis:** RCC Jalis were provided in lieu of stone jalis to economize on cost aspect and at the same time harmonizing it with the surroundings.



DR - 22: Plan showing a cluster of four units of servant quarters.

4.7.18 DESIGN AND CONSTRUCTION HIGHLIGHTS OF THE PROJECT

This project is considered to be a show case of Indian Air Force, so it has been dealt with utmost care and best possible construction technology. MES played a major role in designing and planning of the project for which this project was awarded for excellence in architecture.

The construction of the project was done by a private agency under supervision of CE Delhi Zone. Major highlights of this project are:-

- (a) Total construction is beam column based.
- (b) For the limitation of space the design was taken in to double storied structure. Another reason for a double storied structure was making the building imposing in elevation.
- (c) External walls are taken 9" thick where as inner walls or the partition walls are taken as 4.5" thick. Cladding of Dholpur stone is provided on the entire building except servant quarter block.

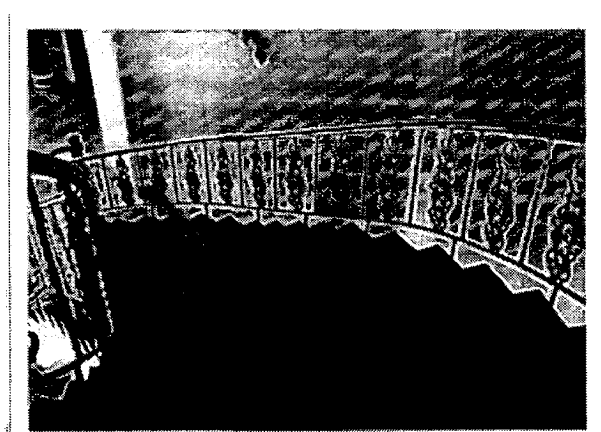


PLATE – 34: Views showing dome with planes, staircase and lighted corridors at night.

- (d) Stair case wider than the norms are provided to add to the grandeur.
- (e) Segregation of spaces has been given due importance.
- (f) Similarly areas used regularly are provided on left side of main axis where as areas used once in a while are provided on right side of the main axis.
- (g) Mughal Jalis are provided in the balconies to add to the elevation. These are carved jalis in red Agra stone.
- (h) Mughal dome is used with new technology to add to the elevation of the building.
- (i) Dome provided on top entrance lobby is used to light up the entrance lobby.
- (j) Large free moving RCC staircase in the main lobby is giving a grand look to the interiors.
- (l) Concealed lighting in POP roof adds to the ambience of the long corridors. Hanging lights at regular interval gives a play in lighting. Over all effect of lighting provided is very pleasing.

- (m) Etched glass doors are provided in Entrance lobby, Banquet halls etc, where as wooden doors are provided in the suits and single officers rooms.

- (n) Etched glass doors are provided in Entrance lobby, Banquet halls etc, where as wooden doors are provided in the suits and single officers rooms.

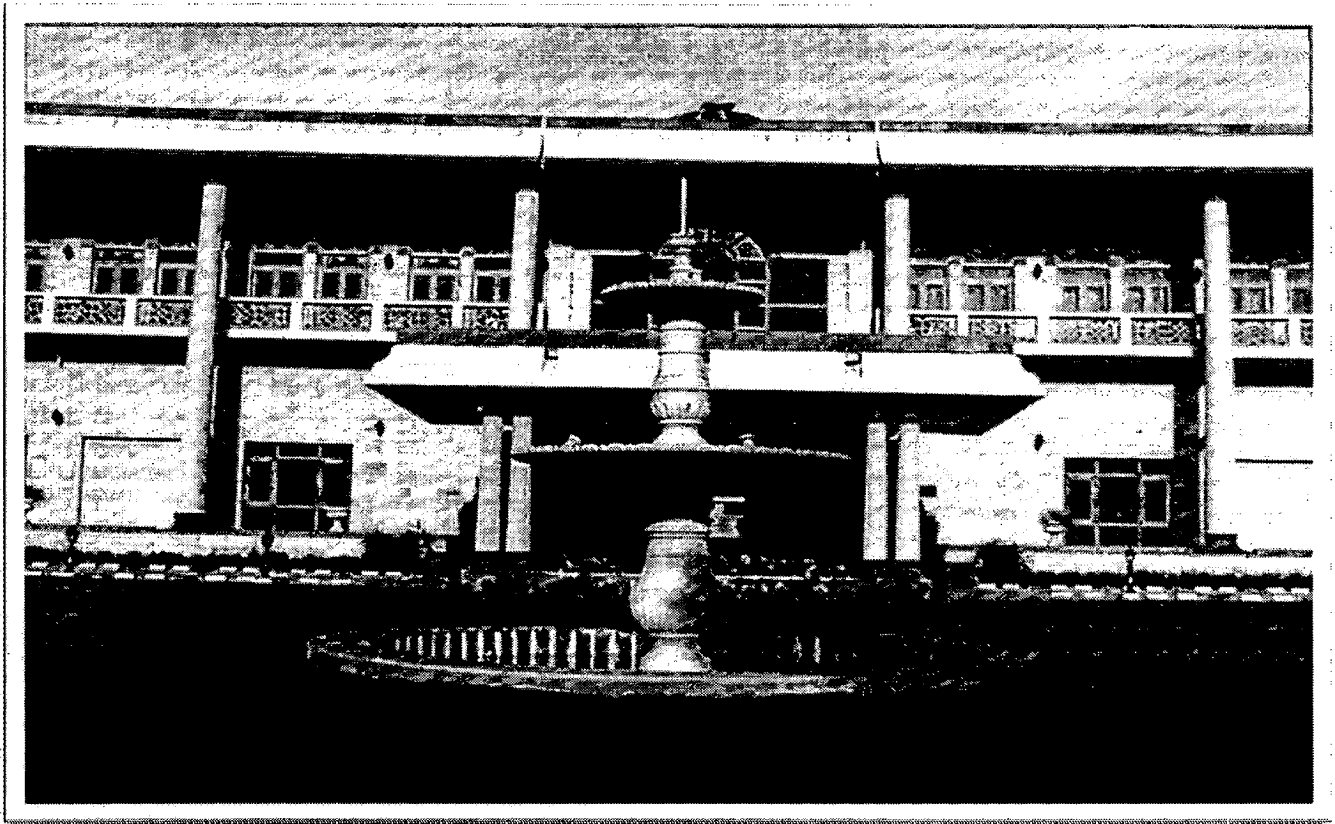


PLATE – 35: A majestic view of front façade with landscaped front lawn and fountain provides an imposing look of the Officers Mess to the people passing by on Zakir Hussain Marg.

CHAPTER - 5

UTOPIAN MESSES

CASE STUDY: PARAMVIR MESS AT DELHI

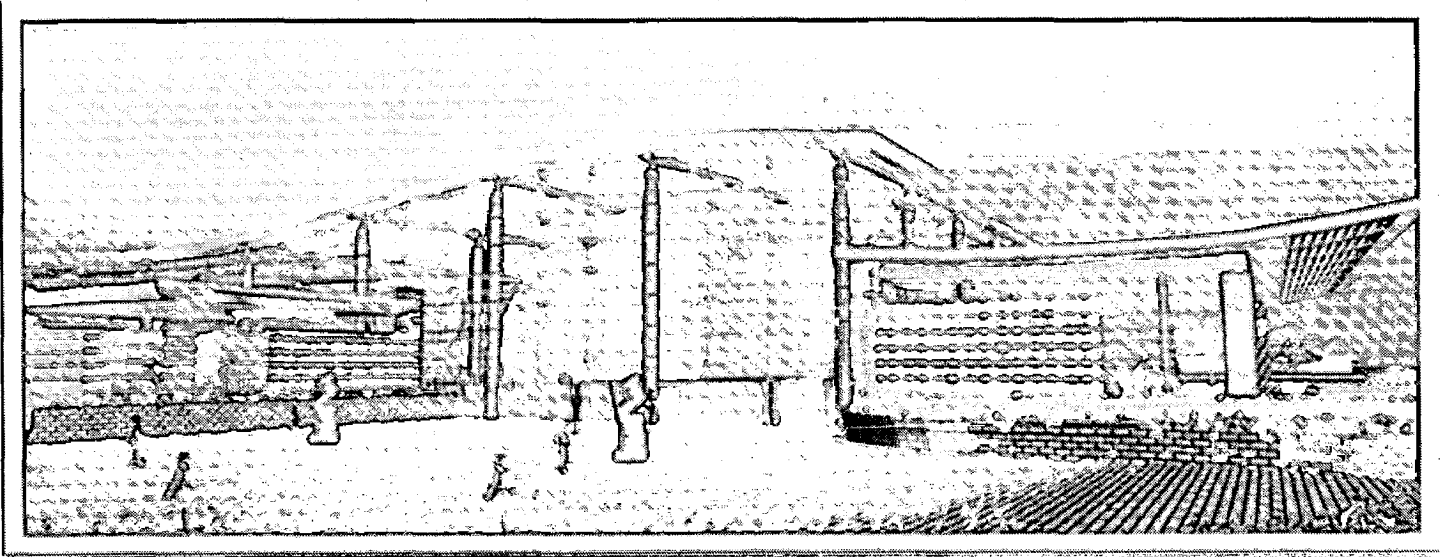


PLATE – 36: 3D View of proposed Paramvir Mess at New Delhi.

5.1 INTRODUCTION TO PROJECT

With the winds of change and globalization the world is becoming smaller. The impact of globalization has affected all spheres of life and all sectors of community. The changes that have come in the field of construction are the most significant ones. The technology has made it possible to give never before forms to the buildings. The services have become highly advanced and transportation system has made it possible to construct buildings 120 storied high.

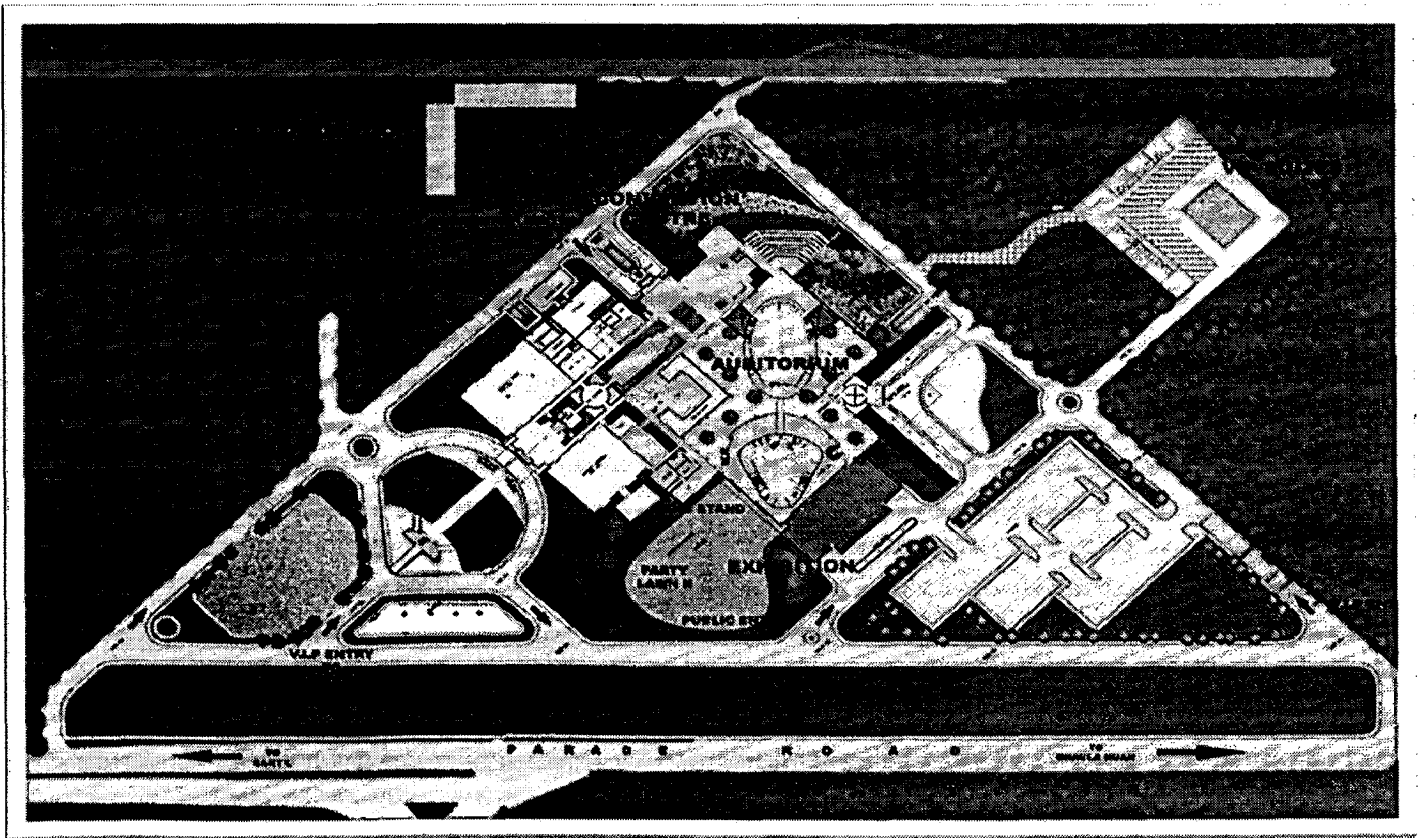
Change in technology and materials for construction have lead to all the significant changes in the field of architecture. The variety of new construction

materials has flooded the markets. These materials are less costly, more durable and more environment friendly. Latest is the nano-technology which if explored to its complete potential shall give architecture a new dimension.

With all these changes coming in International and National architecture scene even army is not left untouched. Now the scene in army is also changing. Nations are having more interaction with each other and armies are having joint operations and training sessions. These have resulted in frequent interaction of top army officers of India and various other nations including USA, Britain and Russia.

Thus it is become important for army to have infrastructure which is world class and can accommodate large gatherings and different type of requirements which have resulted due to changing culture and requirements of Indian Army.

5.2 LOCATION



DR-23: Plan showing the site plan of the mess complex.

The entire complex is being developed near junction of NH-8 with the parade road. Complex is accommodated inside a triangle with its longest side parallel to parade road. There are two main entrances from this road. Western entrance shall be reserved for V I P / V V I Ps and eastern side road will be used for other officers and visitors. Mess faces the Delhi Jaipur highway and will give a panoramic view from the over bridge existing close to site on the high way.

With time the nature and requirements of a mess have changed a lot. This mess is a unique one which is required to accommodate official functions, social gala affairs, conferences, exhibitions and media briefings on behalf of top army officials. This mess is designed to host all official functions on behalf of Army Chief, which are at times attended by the president of India, Prime Minister, and Foreign military delegations.

At present all these functions and meetings were being held at Army Battle Honors Mess located at Sardar Patel Marg, New Delhi. But looking at increasing requirements for a mess exclusively for this purpose it was felt that that ABHM should be relieved of these duties and an exclusive mess for the purpose should be designed.

5.3 FACILITIES PLANNED

(a) Auditorium:

- Auditorium for 1200 persons.

(b) Convention hall

- Convention hall for 200 persons.

(c) Conference rooms

- Conference room for 100 persons.
- Conference rooms for 40 persons.
- Conference room for 30 persons.
- Conference room for 30 persons.

(d) Banquet hall

- Banquet assembly for 400 persons.
- Banquet dining for 200 persons.

(e) Party hall

- Party hall for 100 persons.
- Party hall for 70 persons.
- Party hall for 30 Persons.

(f) VIP Area

- VIP dining for 30 persons.
- VIP lounge for 50 persons.
- VIP bar for 25 persons.

(g) Kitchen

- Pantry for VIP dining.
- Kitchen for banquet dining.

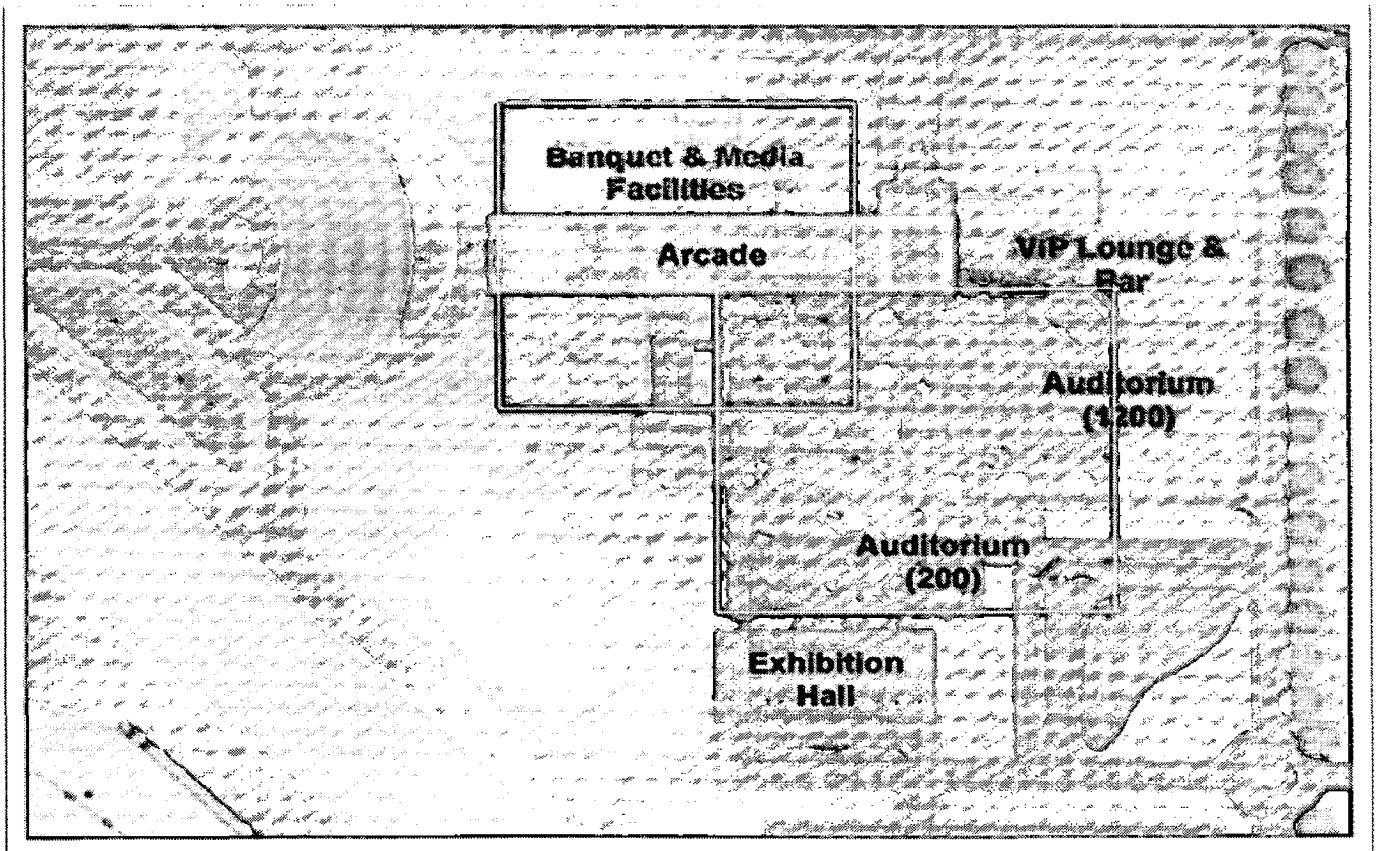
(h) Parking

- Parking in stilts for 140 cars.
- Open parking for 200 cars.
-

5.4 PLANNING OF THE MESS COMPLEX

The complex has been divided in to four main parts. These are:-

- (a) The mess complex with Banquet halls, Media facilities, and Kitchen etc.
- (b) The V I P Lounge, Bar, and Dining area.
- (c) The Auditorium Complex.
- (d) The exhibition area and surrounding lawns.



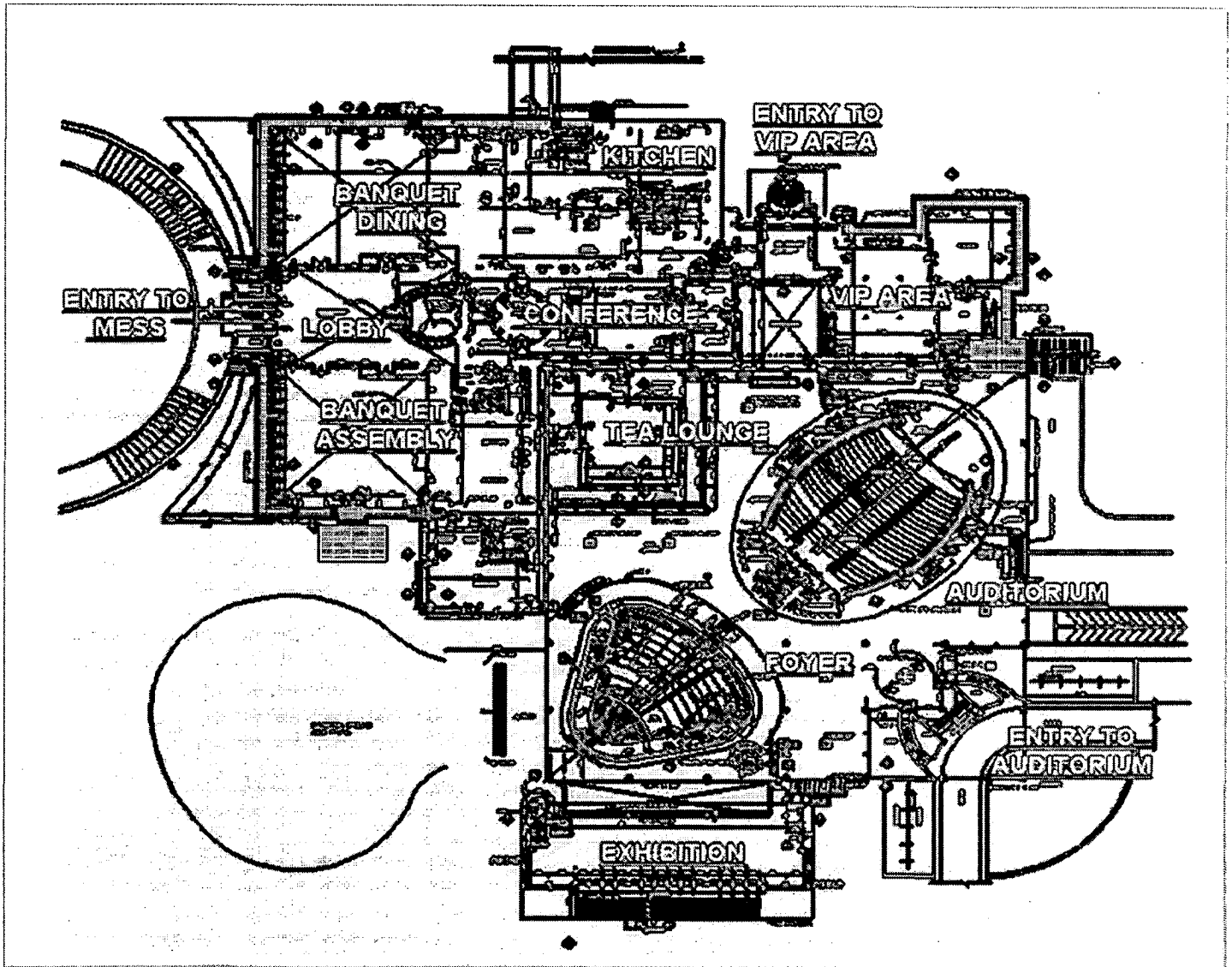
DR-24: Plan showing the parts of the mess complex.

It can be seen that it has become a complex planning activity out here where not only army personals but even outsiders are going to be part of the mess. Arrangements for these different sectors of users are planned in different groups. Division of these groups is given above. Main features of the plan are:-

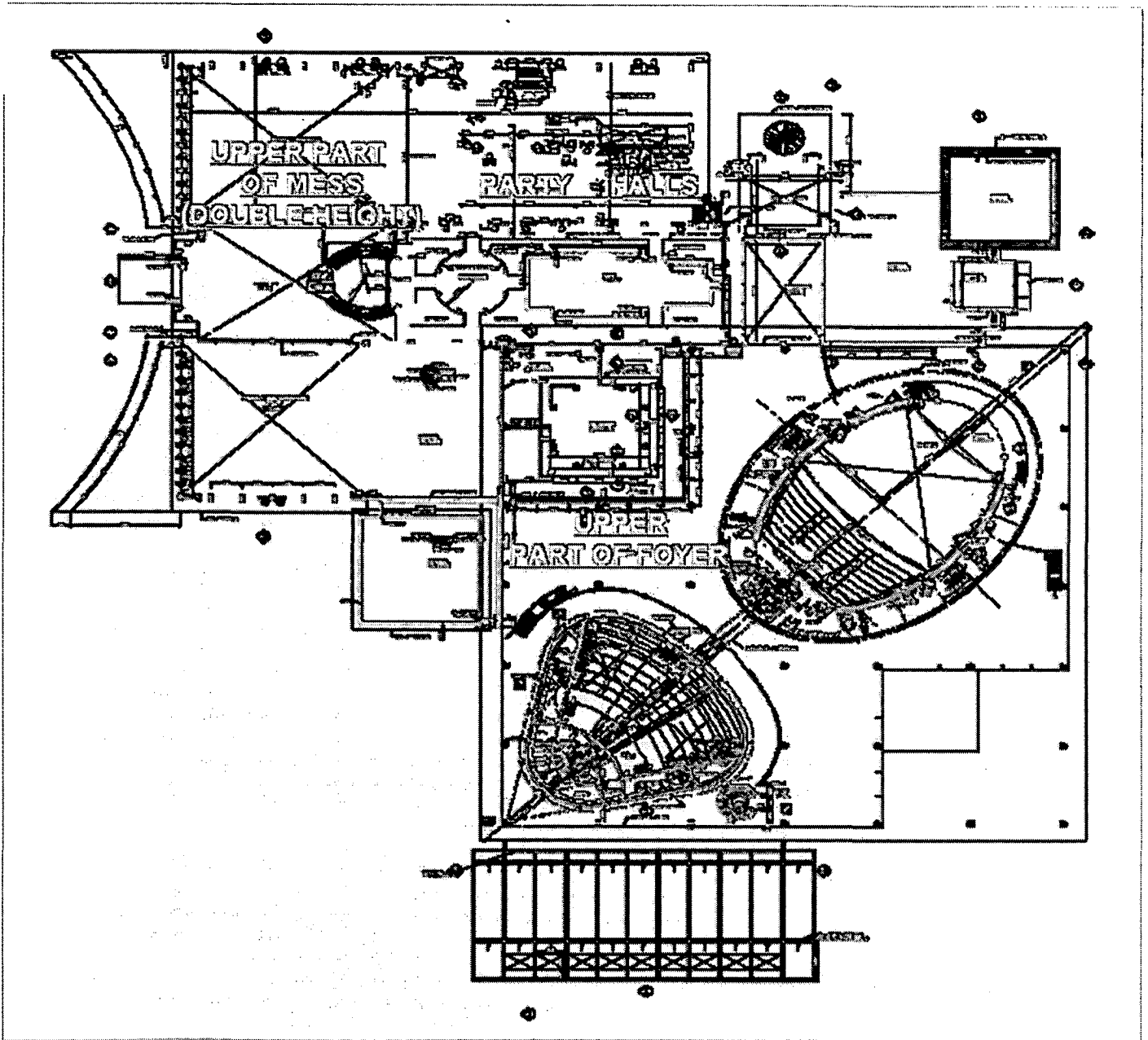
- (a) The planning activity involved architects from private sectors also so that a new unconventional design can be evolved for this prestigious project.
- (b) A new concept for the officers mess complex is evolved to fit in daily army requirements as well as occasional civil affairs.
- (c) The plan of the mess is not a conventional one. Banquet halls have been provided for general dining requirement.
- (d) There is no Ante room provided in the mess area. For VIPs and VVIPs a different lounge has been provided which meets the requirement of anti room.
- (e) Kitchen is located in between banquet halls and VIP lounge so that both areas can be served together.
- (f) There are two auditoriums to serve for requirement of addressing a gathering or presenting film to the visitors.
- (g) Out door exhibition area has been provided to so that the exhibits can be displayed in open and can be moved out of the site with ease once the exhibition is over.
- (h) We can see there is an elaborate arrangement of band stands in almost all areas of the mess complex. This arrangement is to bring the spirit of army which can be well associated with its bands and music. There is one centrally located band stand and two out door stands created in the design. There are planned to be used as and when required for different occasions.

- (i) There is an elaborate arrangement of parking looking at the amount of gathering that is anticipated in the mess. Parking areas are split in to three lots so that there is no confusion at the time of entry and exit in to the site. There are two out door parking lots and one under stilts.
- (j) An elaborated landscape plan has been prepared to complement the site well. Plan shows greenery, water bodies and walkways. A combination of Jet fountains and water falls is used to create interest in the landscape plan.
- (k) Traffic plan has been given lot of importance. The location of parking are kept so that there is no cluttering up of vehicles at any point of time. The entry and exits from main road are kept so that VIPs and routine traffic can be segregated.
- (l) The service block is co located with main building but segregated from the main block by a road in between.

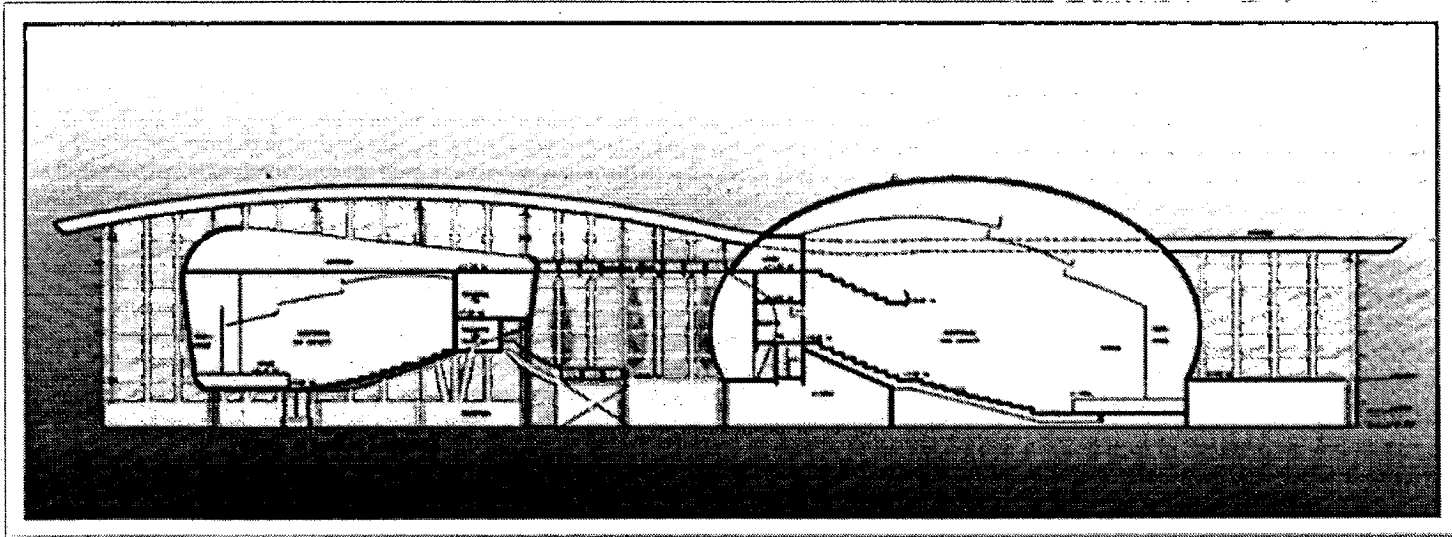
Complete planning is done on various levels so that best possible use of the existing contours can be made. All the three entry points are having a water body which can increase the beauty of the entry points at night when all fountains are running and proper lighting effect is provided.



DR - 25: Ground floor plan showing the three entry points to the complex. Three entries are provided for auditorium, VIP entry, and entry for the mess. Mess is having banquet dinning, lobby, conference and kitchen areas, other areas provided are VIP area, auditorium with foyer and exhibition area.



DR-26: First floor plan showing party halls which are a part of the mess area. Party halls are connected to the kitchen through a stair case. For visitors party halls are having a spiral stair case from out side only. As most of the areas are double heighted there is not much utilization of the space.



DR -27: Section showing the interconnecting bridge between auditorium and convention hall. The roof of the auditorium is projecting out of the foyer roof, can be seen in the section.

S.NO	PRELIMINARY FINISHES	FINISHES AT TENDER STAGE
1	Main Auditorium Copper Tiles	Plastic Emulsion Paint
2	Convention Center Sisazza Tiles	Plastic Emulsion Paint
3	Flooring Granite, Marble, Vitrified, Baroda Green, Wooden flooring	Ceramic, Kota Stone, PCC, Vitrified Flooring (Annex - I)
4	External Finishes Aluminium Cladding	Remove Plaster
5	Stone Cladding	Remove Plaster
6	Wall finishes (Internal) Acrylic Emulsion, 2 Tone Paint, Glass Mosaic, Murano Glass, Wooden Paneling, etc.	Plastic Emulsion Paint, Glazed Tiles, White Wash

TABLE - 3

Table showing important items of finishes, which were proposed by the architect and the one which were accepted by Army Authorities.

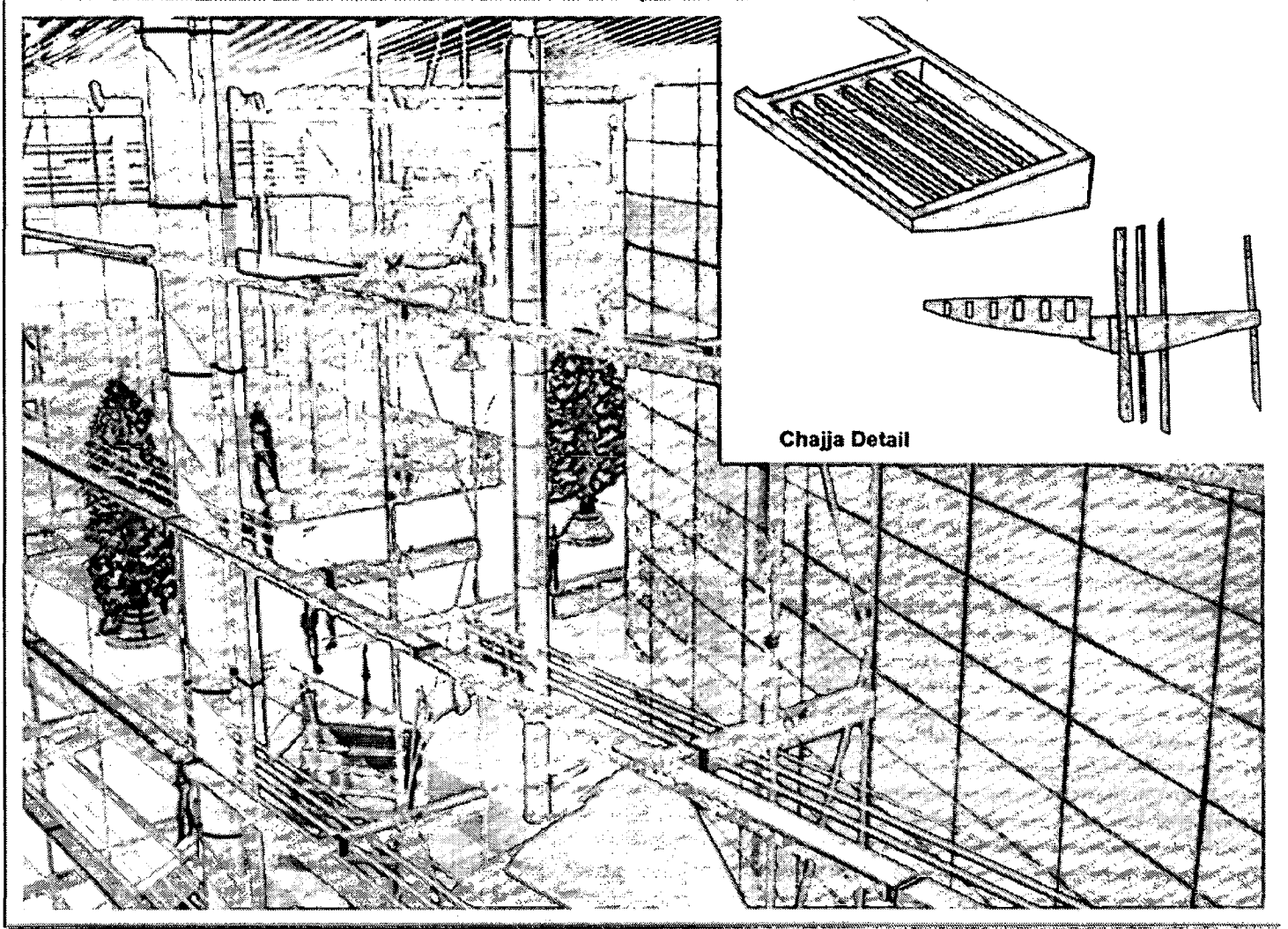


PLATE - 37: A view from ceiling height into the auditorium foyer. Detail showing specially designed chajjas for the building. These were planned to be provided on the external face of the building to block sun rays. Structure shown is in steel, Aluminum and glass partition are provided for segregation of spaces.

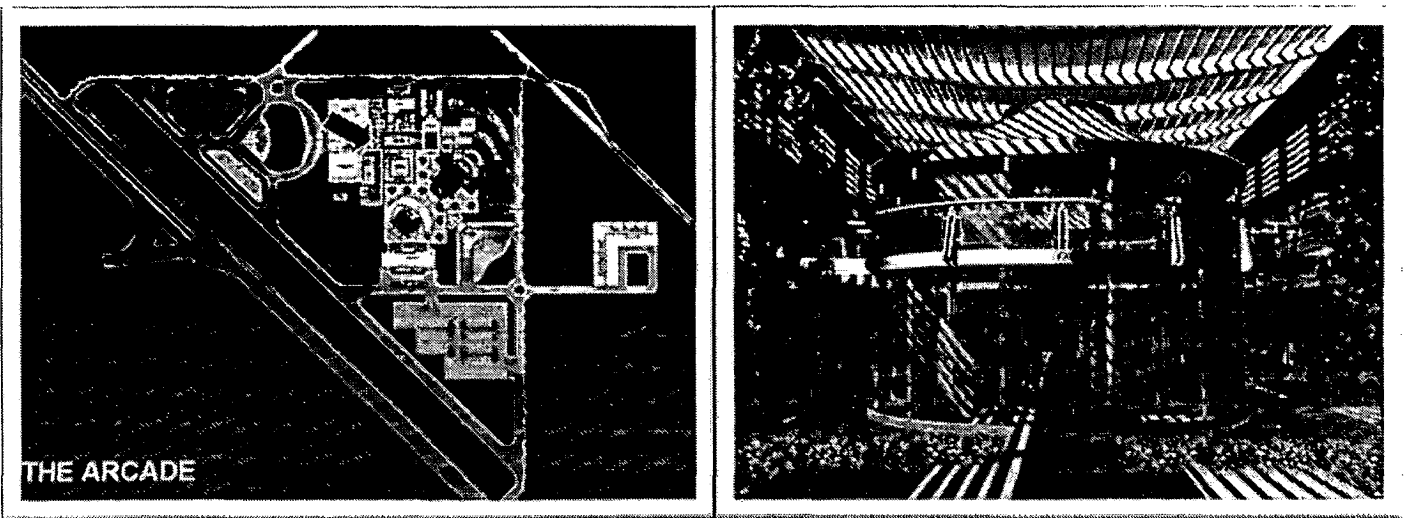


PLATE-38: Picture showing central arcade accommodating the band stand.

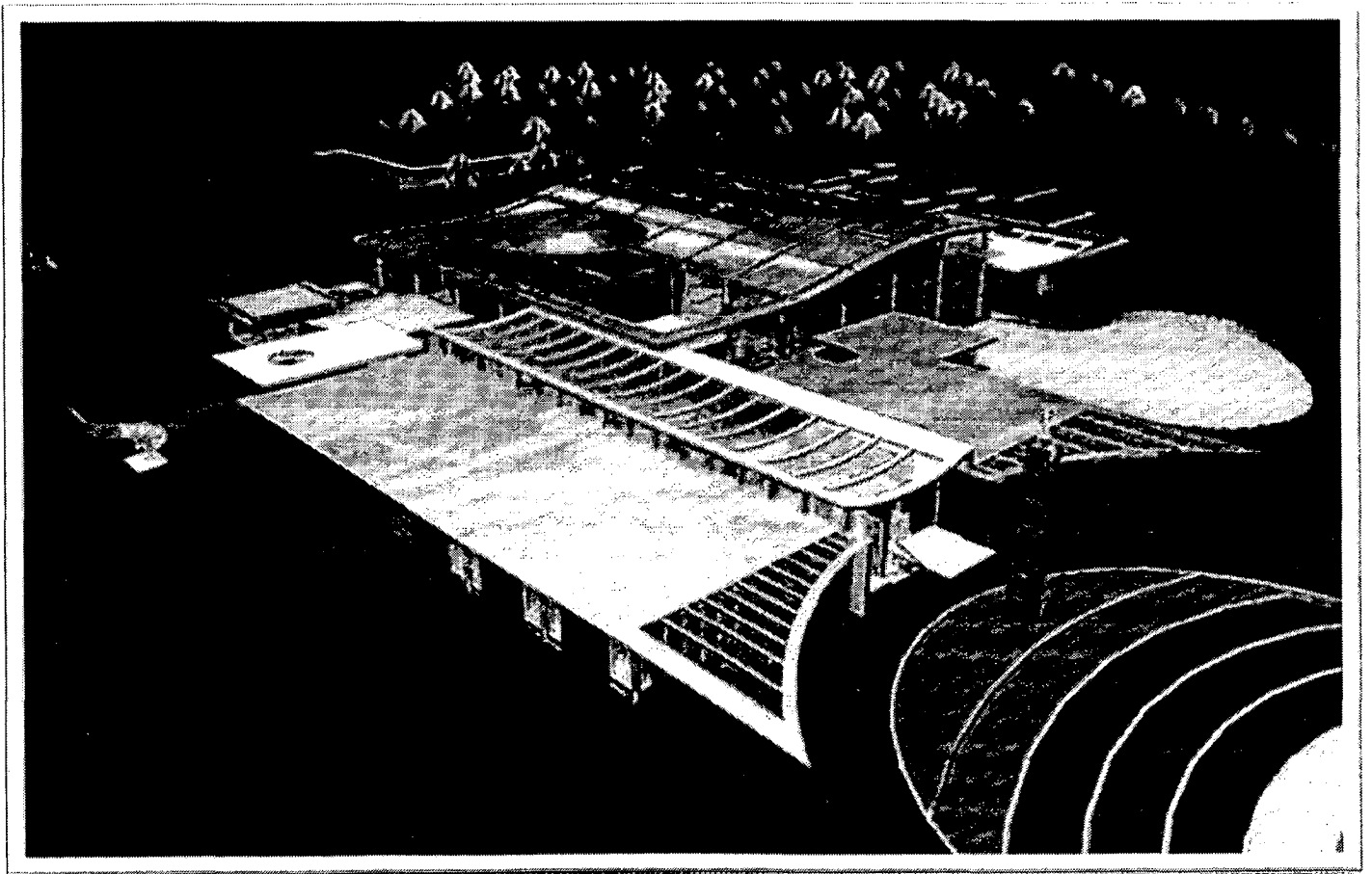
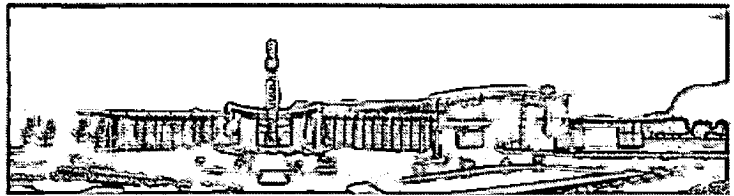
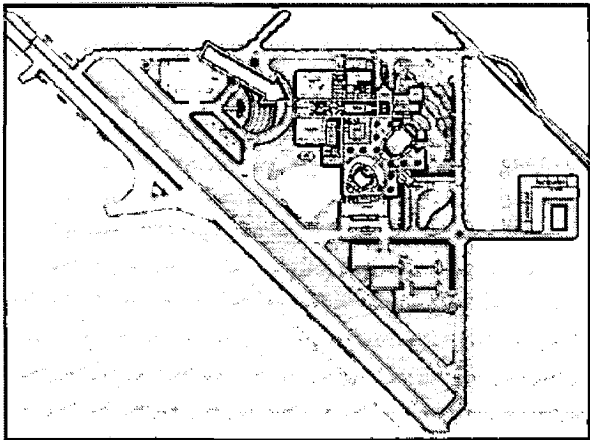
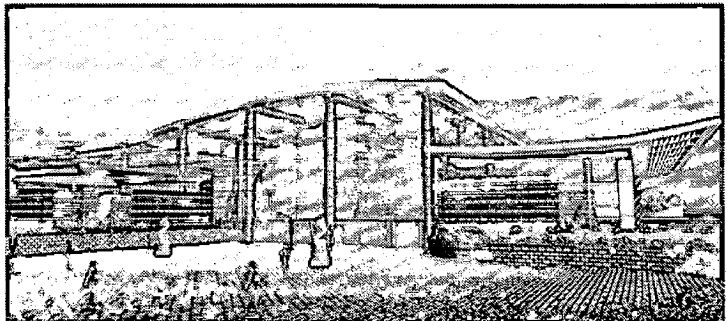
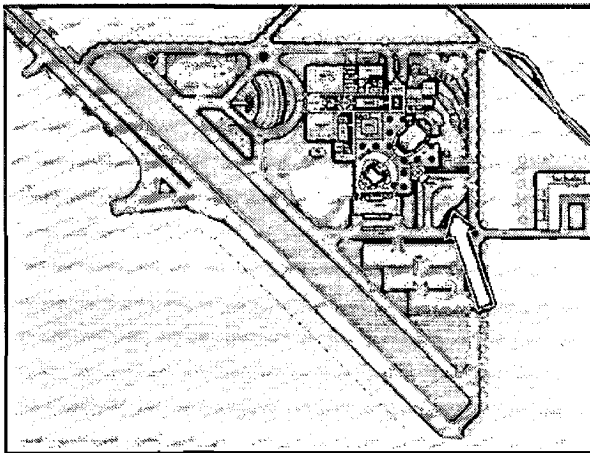


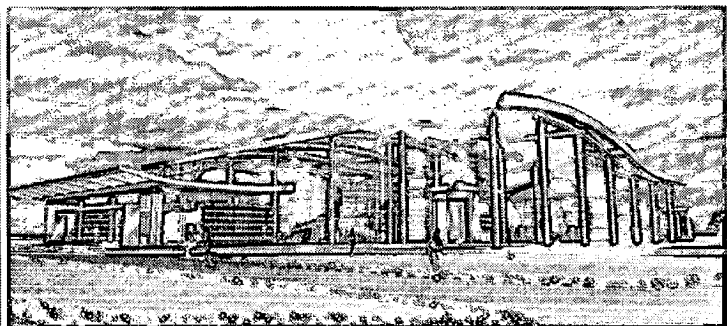
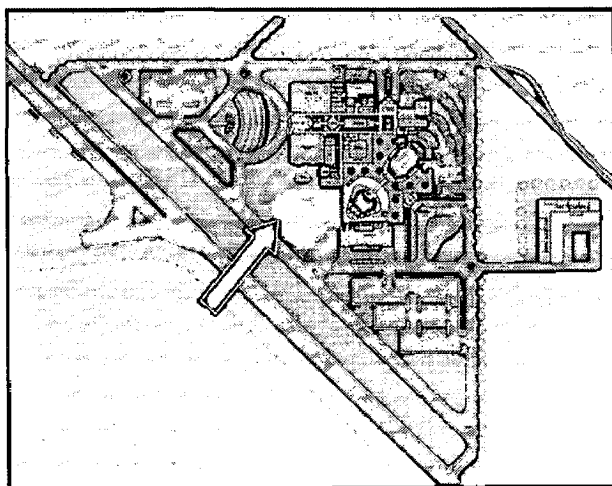
PLATE-39: A bird's eye view of the entire mess complex.



VIEW OF THE BUILDING LOOKING AT THE MESS ENTRANCE, ENTRY BEING HIGHLIGHTED BY THE HIGH MAST.

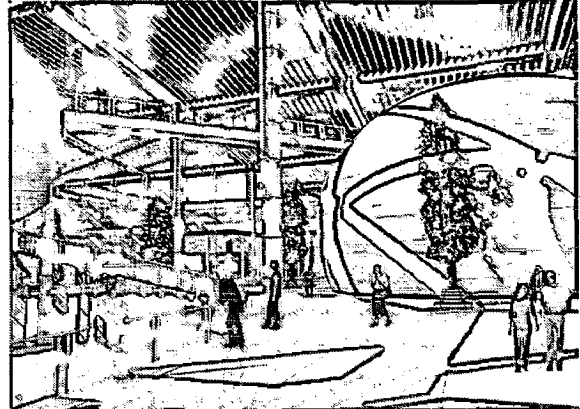
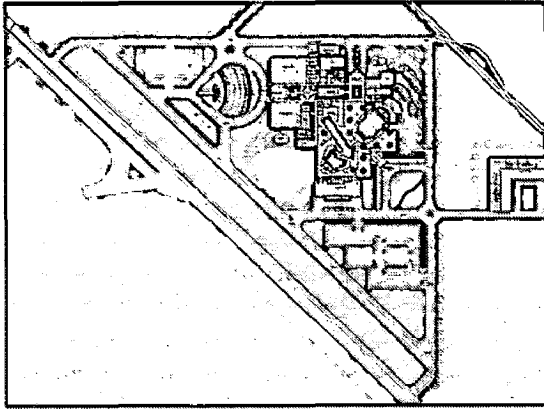


VIEW SHOWING AUDITORIUM FOYER AND THE PAVED SPACE FOR EXHIBITION.

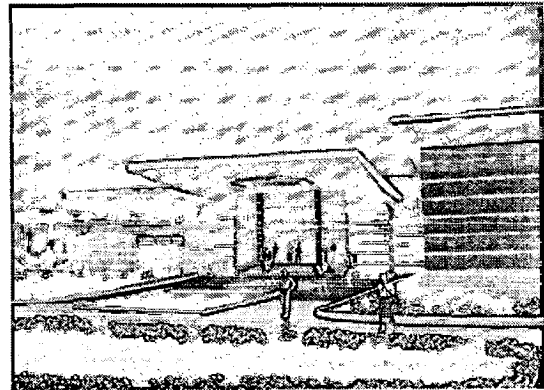
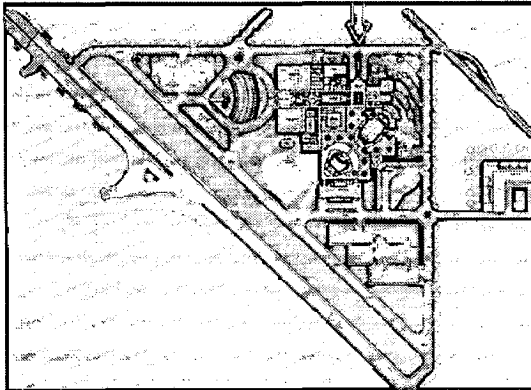


VIEW SHOWING ENTRY TO THE AUDITORIUM FOYER. OPEN PARKING IS PROVIDED ON THE LEFT HAND SIDE.

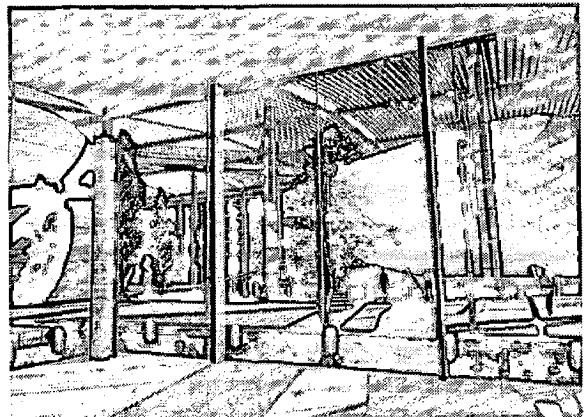
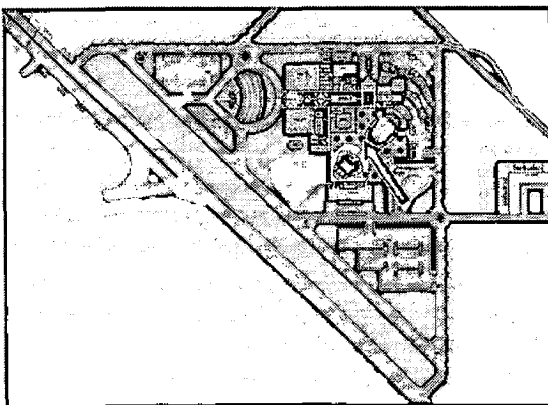
PLATE - 40: Showing various views of the mess complex.



VIEW OF THE AUDITORIUM FOYER



VIEW SHOWING ENTRANCE TO THE VIP AREA. IT IS PROVIDED AT THE REAR SIDE SO THAT ONLY REQUIRED VEHICLES GO UP TO THIS PLACE.



VIEW FROM TEA ROOM LOOKING INTO AUDITORIUM FOYER.

PLATE - 41: Showing various views of the mess complex.

S.NO	ITEM	AMOUNT IN LACS
1	BLDGS INCL INT SERVICES	3051
2	AIRCONDITIONING	432
3	EXTERNAL SERVICES	543
4	ARBORICULTURE	21
5	FURNITURE	43
6	FIRE FIGHTING & DETECTION	117
7	MISC INCL SPL LIGHTING, SOUND SYS, SECURITY SYS & DG SETS RAIN WATER HARVESTING ETC	161
8	CONTINGENCY	30
9	CONSULTANCY CHARGES	70
	TOTAL	4418

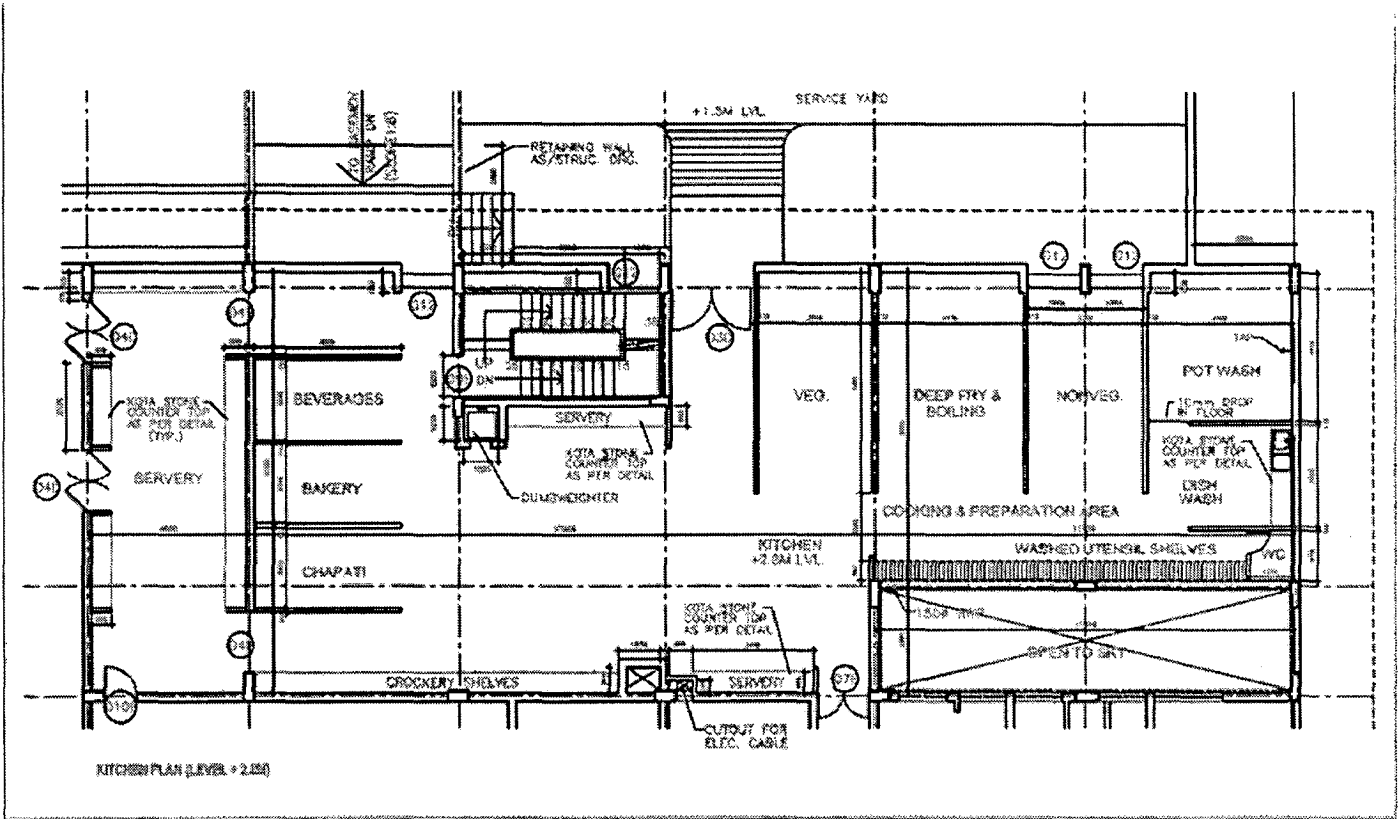
TABLE -4: Showing the estimated cost of various components of building.

5.5 COST FACTOR

The cost factor has played a major role in deciding and redefining of the final finishes and material to be used for the construction of the project. Presently the roofs and columns are going to be in RCC but the initial planning was conceived with steel and glass.

Architect has conceived the project with an international approach and tried to provide all materials of international standards. The cost factor plays an important role as the funds are to be provided by the government and not much of play can be given to the authorizations and requirements. Still for this kind of project Government has given special sanctions keep in view over all cost of the project.

5.6 THE KITCHEN



DR - 28: Plan showing kitchen layout.

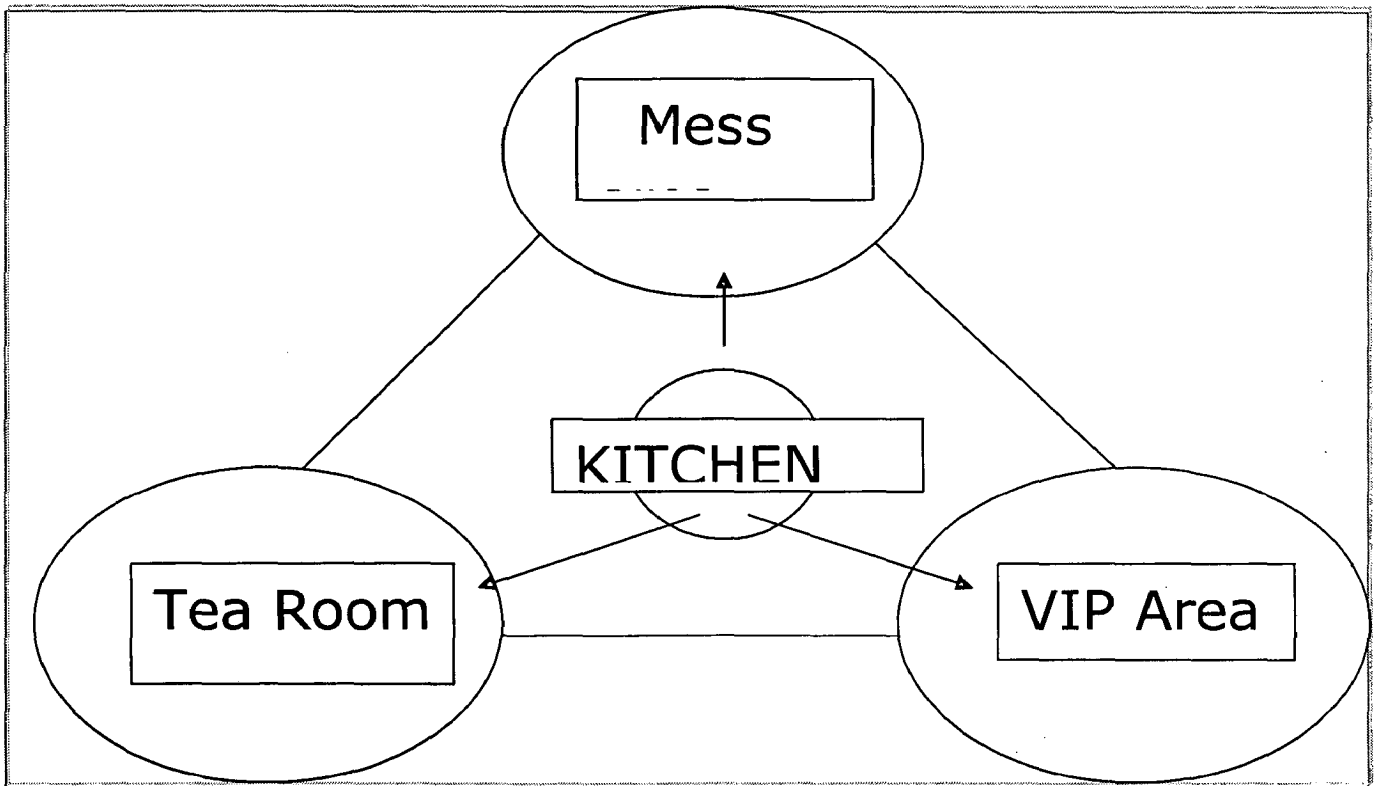
5.6.1 KITCHEN PLANNING

Kitchen planning has been given due importance because the Kitchen has to serve three important locations. These are.

- (a) The Banquet Halls and Bar.
- (b) The VIP Area.
- (c) Tea Room.

Looking at this the mess has been placed at the centre of the triangular plan so that the three places of service are easily approachable.

Kitchen is given sufficient of room to accommodate all functions which are required to be carried out in the kitchen. The layout of the kitchen is such that all



SKETCH SHOWING FUNCTIONAL LAYOUT OF KITCHEN

Functions are in proper sequence and there is no confusion in any section.

5.7 INTERIORS OF THE MESS

Interiors of the mess have been designed to give it an ultra modern look. The materials to be used are steel, Aluminum, glass etc. The concept look is similar to western buildings using building envelops. The main features of the interiors are:-

- Complete building is enclosed in a single envelope. The form of the building is decided by this envelop. Interiors of the building are also effected by this envelop.

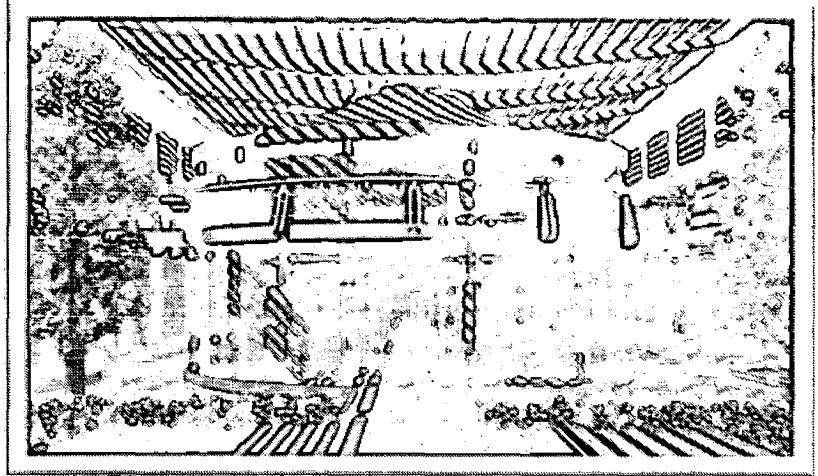


PLATE- 42 Showing band stand

- Flooring proposed to be used is vitrified tiles. The columns and walls of auditorium are planned to be cladded with aluminum sheets.
- Railings are proposed in stainless steel so as to give a plush look to the interiors.
- Volumes inside are going to make the visitors feel small.
- Interiors are catered for greenery inside so as to improve the aesthetics and the ambience of the place.

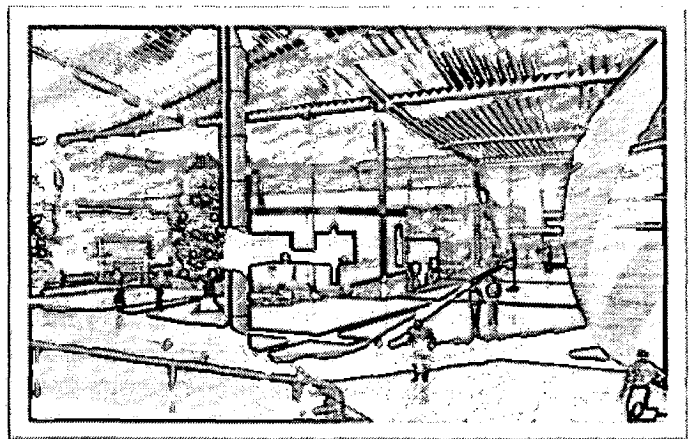
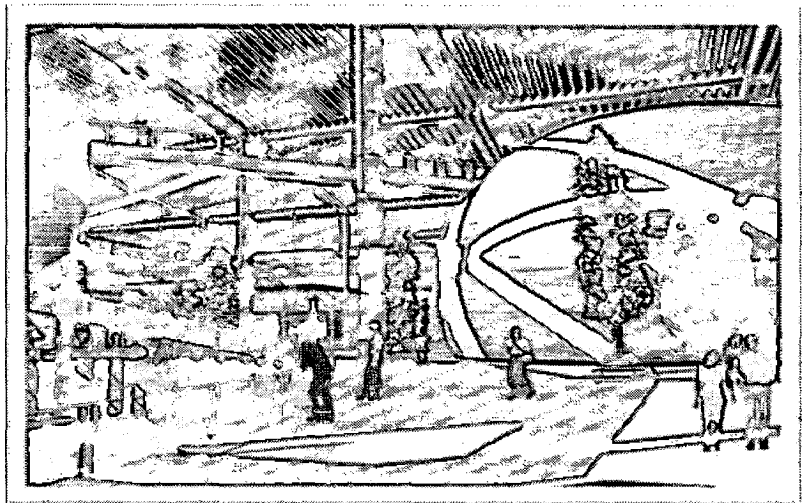


PLATE - 43 Views of auditorium foyer.

- The inter visibility of spaces is going to be there due to glazed partition planning.
- Water bodies are planned inside so as to bring the nature inside to possible extents.
- The blend of greenery and water bodies is going to increase the aesthetical quality of the spaces planned inside.

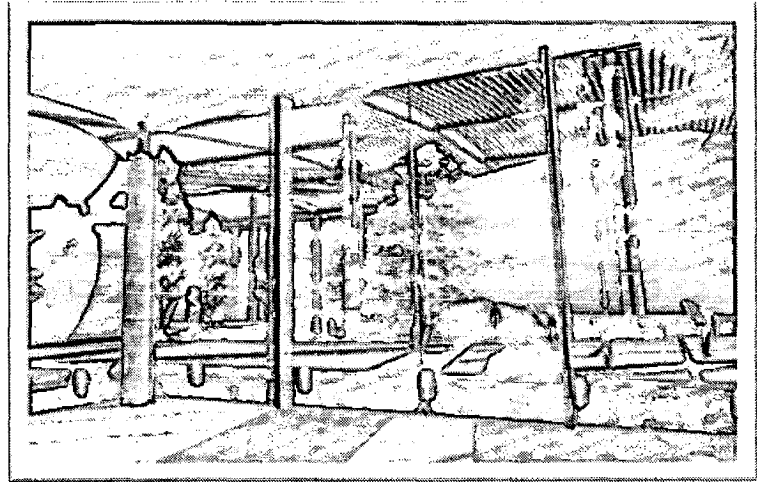


PLATE - 44 View showing water body in the interiors.

5.8 SERVICES

Highlights of the services being provided are:

- Elaborate cooling and heating is required for which detailed planning for electrical and mechanical services has gone in
- Separate power room and generator rooms are planned on the site so as to maintain a constant supply of electricity.
- Separate generator rooms are provided to cater for electricity failures.
- To meet requirement of fuel for gen set an oil tank is also planned in the campus of the mess.
- An elaborate fire fighting plan has been prepared and for it suitable equipments are planned at predefined locations.
- Water supply for the building has been given due importance so as to maintain adequate supply for building.

- An advanced security system with proper alarms and emergency exits has been planned as the building will be occupied by VVIPs at most of the time.

6.1 INTRODUCTION

To the uninitiated and misinformed, officers' messes may seem to be the legacy of our colonial past, out of sync with the demands of modern times. They may also be intrigued at Army's persistence in perpetuating an institution which, in their perception, has long lost its relevance.

It will be interesting to note that the armed forces, during the past fifty years, have been able to preserve their work culture and ethos when everything around them is declining and crumbling. One amongst the many reason is that they have zealously maintained the sanctity of their institutions against constant social and economic pressures.

Officers' messes — as we have seen - play an important role in training and development of officers. They foster in them the high moral values, social etiquettes, gentlemanly qualities and pride in themselves and their organisation. They infuse in them a profound sense of camaraderie, esprit de corps and regimental spirit which make them better leaders of their men.

It is also worth noting how little it costs to maintain and run the officers' messes. These are funded - except for token contribution from public money in the form of mess maintenance allowance - solely from private resources of the officers and units. It is amazing how little it costs to sustain the high standard of the messes - thanks to honest and efficient management of limited funds.

But with the passage of time the messes which we look at as standing evidences of culture and heritage are turning into pieces of architecture showing passion for modernism rather than love for glorious past. An inclination towards the modern technology and materials has forced the designers to deviate from the basic values and search for sustainability, low maintenance costs and climate control through passive means.

There is a distinct transformation in architecture of the messes from the times of Marathas and Mughals and to what exists now. There are marked changes that have come up in the past 30 to 40 years in the construction technology and materials. The socio economic effects have also made lot of difference in the style of living and comfort levels of all sectors. Army is also witnessing these changes by means of new and coming up messes, residential buildings and other office buildings. In particular the living standard and comfort levels in mess have affected the architecture of messes drastically.

After going through various case studies we can study the transformation under following heads:

(1) Planning of the Messes:

Site Planning: Factors affecting site planning.

Basic plans: Changing requirement of Users.

(2) Interiors of messes:

Interior decoration.

Furniture.

Upholstery / tapestry.

(3) Materials used for construction

Structural system

Finishes.

(4) Use of active and passive climate control systems.

(5) Transformation in services.

6.2 PLANNING OF MESSES

6.2.1 SITE PLANNING

As seen during the times of Marathas and Mughals there were stress given onto planning of messes in a way so as to have centralized command and control system on the entire camp. These messes were made and shift arrangements for short durations. **Tactical** planning of the site was given due importance to keep the camp safe from attacking forces.

As the time moved ahead and British forces entered the scene a concept of permanent cantonments came into being. They planned permanent locations for their officer's messes. These messes were established in existing buildings and minor changes to suit their requirements were made to the original structure. These messes were chosen with lot of deliberation to suit the climatic requirements and to get best out of the existing structure. British forces constructed new structures where ever there were time and resources available to them. All the structures either new or old of British times are characterized by an excellent site planning with wide roads and large open lawns. Orientation of the building was emphasized to make best use of sun and wind direction available in the Indian sub continent.

As time progressed the Indian forces saw a new era of development after war with Pakistan and China. Due to expansion in army large number of new regiments came in to being. With expansion of army infrastructure requirements also increased. This was the time when new plans for complete new cantonments were planned. Here allocation for areas for various units and there messes were made in advance. This left planners with little scope for site planning. Areas for messes were standardized and standard plans for messes came into being. These plans were adopted for all messes weather in deserts or in hills. Site planning was left with little scope because the road network in the

cantonment was already prepared in advance and nothing much could be done to re orient the buildings.

Other than regimental messes new type of messes came in to being which catered for requirements of officers posted at formation head quarters. Locations of these messes were selected so as to keep them centrally in the cantonments. Site planning was modulated as per existing or planned road network in the area. Proper entry and exit and parking areas are provided depending on strength of officers expected to visit the mess.

In twenty first century there are substantial changes going to be incorporated in the planning of the messes. There are new concepts for messes coming up with new dimensions to sitting and site planning. This can be seen in the Paramvir Mess and Akash Officer's Mess.

6.2.2 FINDINGS

- Location in states messes were given importance in the respect that the commanders tent or the mess tent were laid at a central location so as to have a central position for good command and control as well as for safety of the leader.
- Post colonization messes: These had little to do with respect to the entire cantonment. Location of the mess was usually governed by the distance of place of work of officers.
- Modern Officers messes had little change or almost no change from previous mode of deciding location of mess in the cantonment.
- Now as the sizes of cantonments have increased and there are number of units in a cantonment.
- The location of messes is kept close to the unit location so that the officers spend least time in traveling from mess to unit and back.

- Location in respect of Utopian Messes has little to do with layout of units or cantonments. As the idea of utopian messes is new and being planned in capital of country it has been given available chunk of land from the A-1 Defence Land. As this place is to be visited by Civilians as well as Military people its location is on the periphery of the cantonment.

6.3 ORIENTATION OF BUILDINGS

- In the states messes the orientation of building was not given importance in respect to climate or sitting as these were make shift arrangements for nights.
- In post colonization messes the orientation of buildings was given importance on the climatic aspects. The major concern of British was to make messes most suitable in Indian climate. For this they oriented their messes in north south direction.
- In modern or post Independence cantonments, planning of cantonments decides the orientation of the messes. The location of the major road serving the mess decides the front of the building.
- In case of modern and Utopian messes the orientation of the building is again based on plot orientation and location of main serving road.

6.4 UNIT PLANS FOR MESSES

Unit plans for the messes have undergone lot of changes through past 150 years of history of defence officers messes. Messes started with tent type accommodation of limited size for commander only, which served the purpose of a conference hall as and when required during times of wars. British developed mess plans which were introvert in nature and redistricted too much of light

penetration so as to avoid heating up of buildings. Later with standardization of messes courtyard planning which is characteristic of Indian Vernacular architecture was adopted by the planners in Army as well. This type of unit plans with elaborated facilities marked the beginning of a new era. Slowly with advancement in technology and better socioeconomic structure use of new construction material which emphasis on aesthetics were adopted. Planning of the units was effected by use of new materials and technology. Paramvir mess is a classical example for new type of requirements coming up for army messes and their impact on the planning of the messes.

6.4.1 BASIC PLANS OF MESSES

- States messes had the least requirements in terms of spaces because their purpose was limited to resting at nights or holding meeting and having food.
- Post colonization messes were most of the times established in existing structures of that time which were re appropriated as per the requirements. These structure either bungalows of that time or the palaces of Mughal kings or Maharajas.
- Basic building plans were suited for residences but were re appropriated for use as messes. These messes had suitable places for resting entertainment and formal dinning. Cooking space was not given place inside the building.
- With the development of army, advancement in technology, and development of Cantonments we find a drastic change in the basic planning of messes.
- Modern messes show a concept of courtyard planning so as to make best use of light and sun in the Indian climatic conditions.

- Utopian mess is using all active means of climate control so planning is very much like a mall or commercial complex. A new concept is evolved which does not show respects for cultural heritage of Army or means of energy conservation or green architecture.

6.5 INTERIORS OF THE MESSES

Unlike the basic plans the interiors of the messes have not undergone much of the transition until coming up of Utopian mess . The messes have continued to show the spirit of valour, richness, and grandeur through their décor, furniture and artifacts.

Although the number of active operations has decreased during the time, still the army is playing an important role in maintaining peace in various parts of the nation. There are number of newly raised regiments which do not possess a rich and historic past, yet they have maintained standard in the messes. They have mess silver gifted by various veterans and has been displayed in the messes with great pride and honor.

In the Utopian mess although the final interiors are not yet decided , and it will be too early to comment upon yet, the fact is there are no walls which can be used to display the rich heritage of Indian forces. There are no blank walls to take on the displayed artifacts.

6.6. MATERIALS USED FOR CONSTRUCTION

Construction techniques and materials used have undergone a substantial change with the passage of time. Army is also not left untouched from these changes. If we see the development of messes the history shows use of bamboo and tents for stay of commanders at night. Construction of permanent structures in brick was taken up by British forces in the late nineteenth century. That was the time when brick work in lime mortar was used for construction of

buildings. Interiors were plush with use of expensive linen and upholstery from England. As the time passed modern messes started coming up with use of trebeated type of construction in which RCC beams and columns played an important role. Construction mostly was in single story because of availability of land. Interiors were done up with wood and rich upholstery, with display of silver. In the present time most of the messes still follow pattern of modern messes with exception of Paramvir Mess which has been given a futuristic look and planning with use of steel, glass, aluminum and membranes for roofing.

Materials used for construction are listed below in a tabular form.

STATES MESSES	POST COLONIZATION MESSES	POST INDEPENDENCE MODERN MESSES	UTOPIAN MESSES
Bamboo poles	Brick	R.C.C	R.C.C
Tents.	Lime mortar	Steel	Steel
Cloth	Wood	Cement	Cement
Local materials	Glass	Wood	Wood
	Cloth	Glass	Glass
	Local materials	Bricks	Bricks
		Cloth	Cloth
		Distemper/Paints	Distemper/Paints
			Aluminum
			Membranes etc.
			Polycarbonate sheets
			Stainless Steel

TABLE -5 : Table showing use of materials with development of Messes.

6.7 USE OF ACTIVE AND PASSIVE CLIMATE CONTROL AND ENERGY SAVING METHODS

Extravagant use of energy had been a feature of the past century. Little consideration has been given to resource depletion; now that the energy costs are rising and reserves of some energy sources are causing concern, it is pertinent to evaluate proposed energy systems as to the effectiveness of their energy use. In other words, it would appear rational to reduce energy wastage before adopting any alternative energy source, since all energy is likely to be relatively expensive.

If we see the past, post colonization messes show methods adopted for passive climate control. Use of orientation (north south), High ceiling height, Ventilators on top, Use of landscaping for reducing the impact of harsh climate were common practice.

Post independence messes have shown due care for use of passive devices for climate control. The messes of this time show court yard planning which is to some extent a passive measure for climate control. Landscaping form an inherent part with water bodies for evaporative cooling. Use of RCC to some extent does not go as far as climate control is concerned.

Utopian messes are showing total disregard for the passive climate control methods. The choice of construction materials is such that it will necessitate the heavy requirement of energy for cooling and heating of building. Use of air conditioning in summers and heating in winters will be required for this building.

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