

RAB HEADQUARTERS

ASHKONA, UTTARA, DHAKA

By

Aleya Farah Sinthee

10108005

SEMINAR II

Submitted in partial fulfillment of the requirements
for the degree of Bachelor of Architecture.

Department of Architecture
BRAC University

December 2014

Acknowledgements

First of all thanks to almighty Allah for everything I have achieved until now. I couldn't able to complete my work all by myself. I want to thank my instructors A. K. M. Sirajuddin, Abul Fazal Mahmudunnobi, Shakil Ahmed Shimul, Shams Mansoot Ghani and Nefsun Nahar Nipa for guiding & helping me through the project & this report. Without their support, I couldn't finish my architecture life properly.

Thanks to all my seniors & juniors, who were with me during my journey. If this thesis project was the most important chapter of my architecture student life, then it would not have been a success without the constant support of Eashna, Anisha, Rukaiya, Rayma, Priyanka, Sabri.

Also I would like to thank my friends Iffat, Shafiee, Abir, Maisha, Asad, Eshita, Shama(& many more) for being the relief during my tough times.

Last but not the least; I am grateful to my family for their immense support and help. Specially, thanks to my parents, for whom, I am what I am.

Abstract

From a bird's eye view of the present crime scenario of Bangladesh, one wouldn't require a keen pair of eyes to call it pathetic in one word. The mechanism and dynamics of crime are spreading briskly like wildfire. Various law enforcing agencies like Police, Ansar and VDP are losing their breath trying to cope with such level of crime in our country. They have failed on many occasions in discharging their duties alone as a single agency. Their failure has supposedly led them to put on a veil of apathy towards helping the mass people. This has resulted in low confidence and even lower reliance of mass people on these agencies. This apathy and lack of reliance has burnt the bridge of trust between the protectors and the protected. In order to fight this situation, an urge has come about which necessitates the blending of different agencies together. This is where the idea of a composite elite force has risen up to reinstate that bridge of confidence and trust.

CONTENTS:

CHAPTER 1: BACKGROUND OF THE PROJECT

- 1.1 PROJECT BRIEF**
- 1.2 PROJECT INTRODUCTION**
- 1.3 RATIONALE OF THE PROJECT**
- 1.4 AIMS & OBJECTIVES OF THE PROJECT**
- 1.5 PROPOSED PROGRAMME**

CHAPTER 2: SITE APPRAISAL

- 2.1 SITE**
 - 2.1.1 SITE BOUNDARY
- 2.2 SURROUNDING OF SITE**
- 2.3 PHOTOGRAPHS**
- 2.4 CLIMATE**
 - 2.4.1 CLIMATE GRAPH
 - 2.4.2 TEMPERATURE GRAPH
 - 2.4.3 PRECIPITATION RATE
- 2.5 SITE MAPPING**
 - 2.5.1 SITE SURROUNDING
 - 2.5.2 SOLID & VOID ZONE
 - 2.5.3 IMPORTANT STRUCTURES
 - 2.5.4 GREEN & WATERBODY
- 2.6 SWOT Analysis**

CHAPTER 3: LITERATURE REVIEW

- 3.1 CRIME**
 - 3.1.1 CLASSIFICATION OF CRIMES
 - 3.1.2 CLASSIFICATION UNDER PENAL CODE:
 - 3.1.3 CRIMES OF BANGLADESH:
 - 3.1.4 CRIMES STATISTICS OF BANGLADESH 2002-2012
- 3.2 TERRORISM**
 - 3.2.1 TERRORISM IN BANGLADESH:
 - 3.2.2 MAJOR TERRORIST INCIDENTS IN BANGLADESH
- 3.3 HEADQUARTER**
- 3.4 RAPID ACTION BATTALION**

- 3.4.1 MAIN ACTIVITIES
- 3.4.2 ARMED FORCES INVOLVED IN RAB
- 3.4.3 RAB MONOGRAM
- 3.4.4 12 BATTALIONS
- 3.4.5 BATTALIONS IN DHAKA
- 3.4.6 CHAIN OF COMMAND
- 3.4.7 RANK INSIGNIA
- 3.4.8 FUNCTION
- 3.4.9 TYPES OF WEAPON USED BY RAB
- 3.4.10 TYPES OF TRANSPORT USED BY RAB
- 3.4.11 TYPES OF DOGS USED BY RAB DOG SQUAD

3.5 SUSTAINABLE DESIGN

- 3.5.1 CONTEMPORARY OFFICE WITH SUSTAINABILITY
- 3.5.2 SUSTAINABLE APPROACH

3.6 SPACE REQUIREMENT

CHAPTER 4: CASE STUDY

4.1 LOS ANGELES POLICE DEPARTMENT (LAPD) HEADQUARTERS

- 4.1.1 INFORMATIONS
- 4.1.2 DRAWING
- 4.1.3 DETAILS & PHOTOGRAPHS

4.2 AIR NATIONAL GUARD HEADQUARTERS AND READINESS CENTER

- 4.2.1 INFORMATIONS
- 4.2.2 DRAWINGS
- 4.2.3 DETAILS & PHOTOGRAPHS

4.3 CITY POLICE HEADQUARTERS IN LLEIDA

- 4.3.1 INFORMATIONS
- 4.3.2 DRAWINGS
- 4.3.3 DETAILS & PHOTOGRAPHS

CHAPTER 5: PROGRAM & DEVELOPMENT

5.1 MAXIMUM GROUND COVERAGE

5.2 PROGRAM

- 5.2.1 PROGRAM LAYOUT
- 5.2.2 CONCEPTUAL DIAGRAM OF PROGRAMS

CHAPTER 6: DESIGN DEVELOPMENT

6.1 STUDY AND APPROACHES FROM THE SITE

6.2 CONCEPT DEVELOPMENT

6.3 KEY SPACES

6.4 CONCEPT FINALIZATION

- 6.4.1 CONNECTION CREATE
- 6.4.2 SPACE DERIVATION
- 6.4.3 FORM DERIVATION
- 6.4.4 CONCEPTUAL MONTAGE

6.5 FORM DEVELOPMENT

CHAPTER 7: FINAL DESIGN

- 7.1 SITE PLAN
- 7.2 PLANS
- 7.3 SOUTH-WEST ELEVATION
- 7.4 SECTION
- 7.5 SECTIONAL PERSPECTIVE
- 7.6 EXPLODED AXONOMETRIC DIAGRAM
- 7.7 PERSPECTIVES
- 7.8 MODEL PHOTOGRAPHS

CHAPTER 8: CONCLUSION

APPENDIX

REFERENCE

CHAPTER 1: BACKGROUND OF THE PROJECT

1.1 PROJECT BRIEF

Project Name_ RAB (Rapid Action Battalion) Headquarter

Function_ Center for RAB and Administration related programs

Site_ Ashkona, Uttara, Dhaka (Approved)

Site Area_5.3 Acres

Clint_ Ministry of Home Affairs, Bangladesh

1.2 PROJECT INTRODUCTION

Crime's devious bite has been throwing us on harm's way ever since our inception as a nation. We live in a developing country of the third world, where, perhaps the main curse behind the nation for still being under-developed even after so many years of liberation is the crime rate here. We were the leader in a list no nation wants to be a part of, "Corruption Perception Index". This list made by Transparency International has awarded us the same rank not just once or twice, but 5 years in a row from the year 2000. We were being deprived from having a good image in front of the other nations due to this high crime rate.

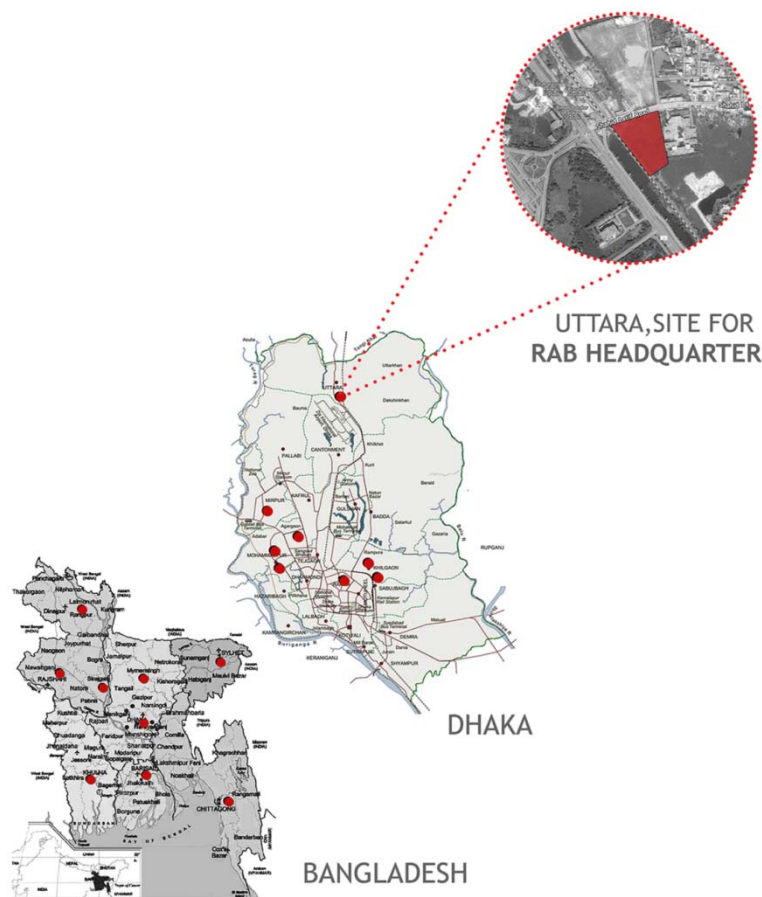
Even within the borders, people were dismayed in their day to day lives. Reports of rape, murder and other heinous crimes were found everyday on the newspapers. Women, children and even men wouldn't want to go out after dark by themselves. We had achieved independence long ago, yet, were living in fear. Condition of the nation was getting worse by the day. Some dire action was much needed.

There are still the other active armed forces in the country that are doing their fair share of work for this country like the Police, Army and others. They were too founded with one prime focus, maintaining law and order. However, Bangladesh is a country with a population of over sixteen crores. Those armed forces already had a lot on their plates with maintaining law and order of this massive population. The condition was only getting worse with every passing day. Rates of murder, rape, robbery and other heinous crimes were getting higher than ever. Some major action was needed to stop the briskly growing crime rate. Hence, The Ministry of Home Affairs founded Rapid Action Battalion.

In 2004, RAB came as a blessing for the People's Republic of Bangladesh. The crime rate had substantially come down since their inception and now, we are no longer in the top list of CPI, which shows much progress. RAB was introduced with prime focus on anti-corruption. It was formed with selected people from the other defense services of Bangladesh, like - Police, Army, Air-Force and others.

Due to their nation wide spread out 12 battalions, RAB require a central headquarter to manage all its activities in an organized manner. They need to be equipped with modern technology, intelligence and skilled man-power to take prompt action against crime. They need facilities to do their research and analysis to provide administrative commands to all their branches. They also require facilities for air-support, transport, emergency actions, drug-testing, conference and accommodation. The RAB HQ should have all these means and keep potential for future advancements.

1.3 RATIONALE OF THE PROJECT



In Dhaka, the capital city of Bangladesh, all types of administrative departments are run by their respective Headquarters. To name a few - Army HQ, Police HQ, Naval HQ and Air Force HQ. RAB is comparatively a newer unit in the sector of defense. As an instance they would require a fully fledged Head quarter to control the crime more proficiently. They would most certainly need a location where all their required facilities could be facilitated. If all requirements are met, this would definitely enhance their capability for responding accordingly.

RAB has 12 battalion size field units spread all over the map. Out of them, 4 are located in the capital city, Dhaka. In the Cargo Admin Building next to the Hazrat Shahjalal International Airport, the RAB Headquarter is running their operations, official activities and core curriculum under the Director General of RAB. RAB-1 office building is located in Sector 2 of Uttara, which is in close proximity to the RAB main office. Designing a Headquarter for RAB can be considered only as a rational initiative, for which, as a proposal has been already made to build RAB Headquarter in Ashkona area.

1.4 AIMS & OBJECTIVES OF THE PROJECT

In the context of multidimensional problems and complicity of urbanization and industrialization in Bangladesh, Government agency RAB appears to be sine qua non for a structured state, where people expect that law enforcing agency will be a brave commander for ensuring law and order while maintaining social stability. Since 2004, RAB has been performing their responsibilities to reduce anti-social activities. The crime statistics shows that in Bangladesh, during 2001 the crime had increased up to 78% heat. Since the introduction of RAB in 2004, it had reduced down to 36%, which effectively affects our laws and order scenario. Due to the lack of any head office or central hub, it is quite difficult to controlling such a big agency with discipline. The prime objective is to propose a Headquarter for this agency which would be the center for all 12 sectors while providing an appropriate location for their administration. Different wings within this center need to have individuality among them, as well as maintain good connection within. In order to dominate criminals and their dreadful crimes, RAB Headquarter is required to analyze the crime to detect the prime roots when taking necessary actions. In addition, RAB is an anti-crime branch, it has to keep records of secret information regarding its mission and investigation purposes, i.e. it needs a restricted safe zone. It also needs to create a better association with the local people for them to contact RAB without hesitation and with ease. To fulfill all its objectives and purposes, the RAB Headquarter requires some special and very specific requirements. Those objectives are enumerated below:

- Design a landmark for RAB.
- A Headquarter which respects the surrounding structures, environment and site forces
- Ensure an inviting ambiance for public throughout the landscape and a certain part of the building.
- The Headquarter aims to have different spaces for various purposes with modern facilities.
- Ensuring secured work place for each RAB personnel.
- Transparency and restriction both should be achieved through design.

1.5 PROPOSED PROGRAMME

Offices

Conference room

Meeting room

Seminar room

Operation Briefing room

Operation room

Arms and ammunitions space

Central co-ordination room

Operation Wing

R and d cell

Investigation and Forensic Wing

Air Wing

Intelligence wing

Training and orientation Wing

Legal and media wing

Communication Branch

Jail

Interrogation space

Complain Booths

Visitors Room

Library

Prayer Hall

Games Room

Cafeteria

Souvenir Shop

Multipurpose Hall (300 Person)

Parking

CHAPTER 2: SITE APPRAISAL

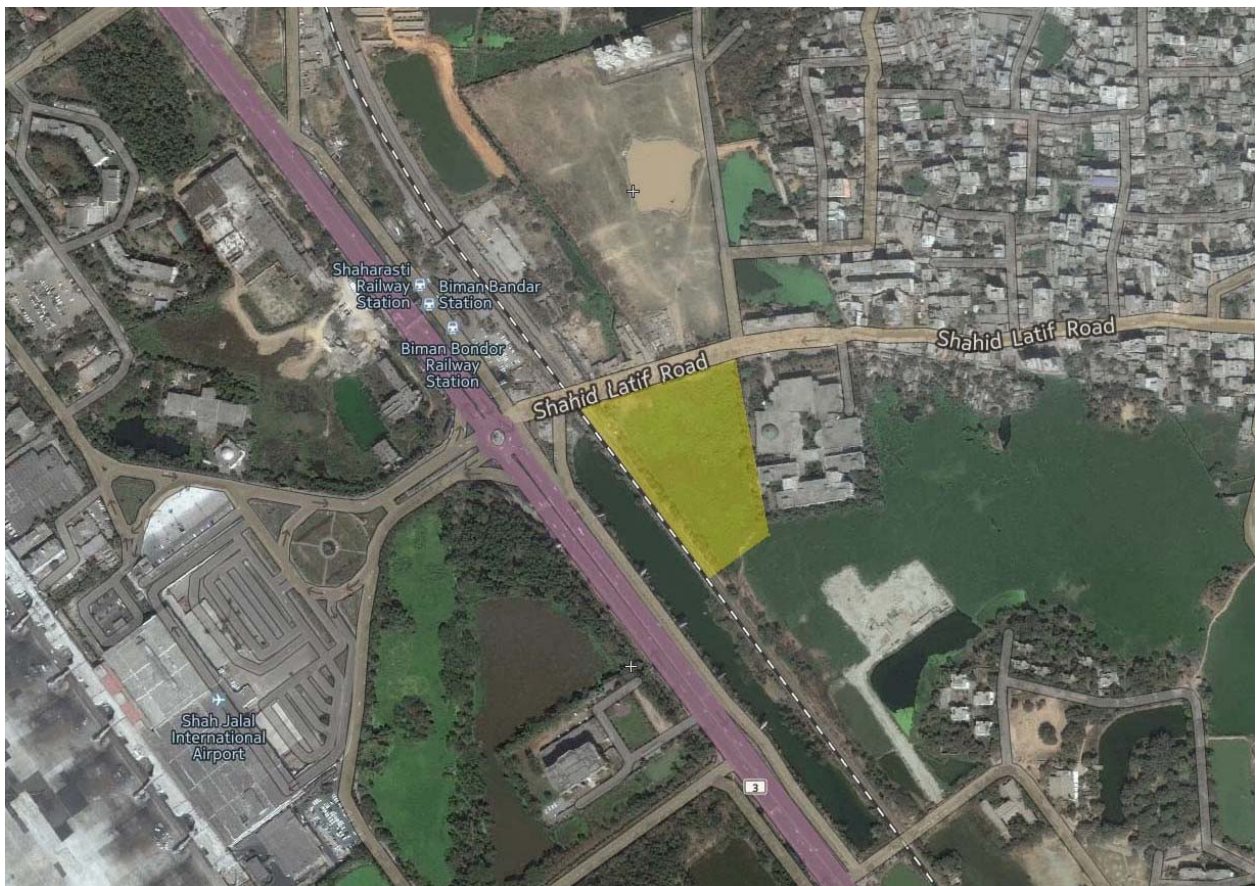
2.1 SITE

Approved By Government

Location_ Ashkona, Uttara, Dhaka

Site Area_ 5.3 Acres (2, 30,000 Sqft)

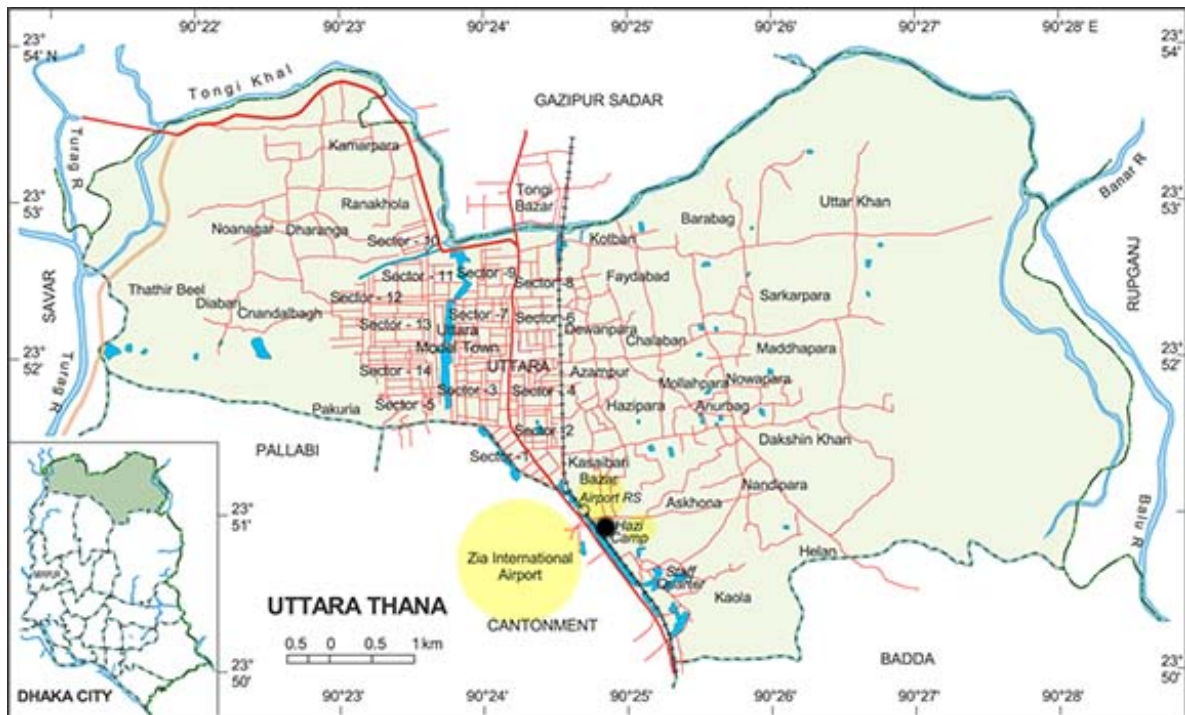
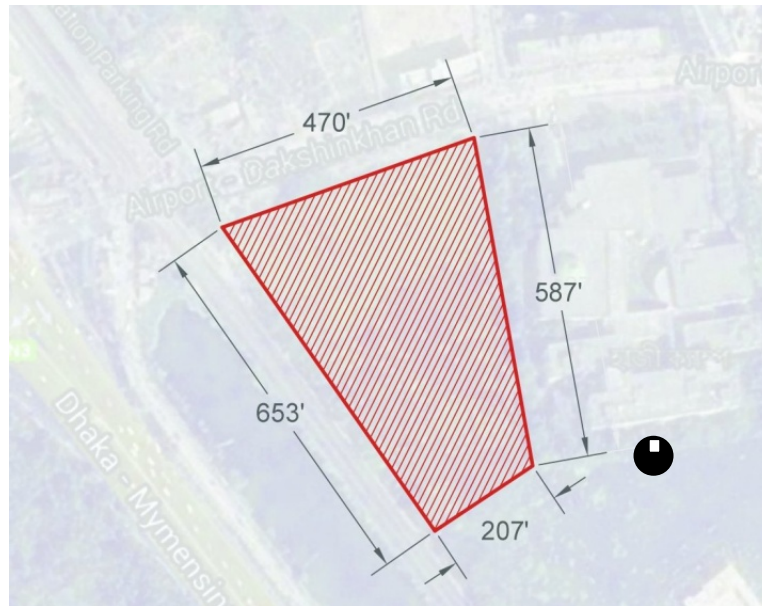
Coordinates_ 23°51 'N 90°24.4'E



Map: Ashkona, Uttara

2.1.1 SITE BOUNDARY

Site Area_5.3 Acres (2, 30,000 Sqft)



Map: Uttara Thana

2.2 SURROUNDING OF SITE

The site is located in a very significant point of Dhaka city. Hazrat Shahjalal International Airport is situated to its West and Airport Railway Station is placed to its North-West side. Hazz Camp is just adjacent to the East side of proposed site. 30 feet wide is used by local people placed on the North side of the site which is named Shahid Latif Road. Rail lines have defined the western boundary of the plot.



2.3 PHOTOGRAPHS



Existing condition of Site



Adjacent Road

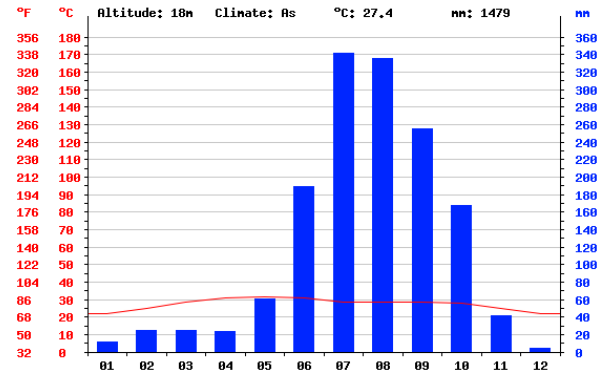
Basically total site was a part of huge water body. So it was entirely unused in construction sector. Recently land filling is processing by the RAB authority. Thus the land conditions of the site is totally flat and doesn't have any kinds of contours or level up or down.

2.4 CLIMATE

The climate is tropical in Uttara. In winter there is much more rainfall in Uttara than in summer. The Köppen-Geiger climate classification is As. The average annual temperature in Uttara is 27.4 °C. About 1479 mm of precipitation falls annually.

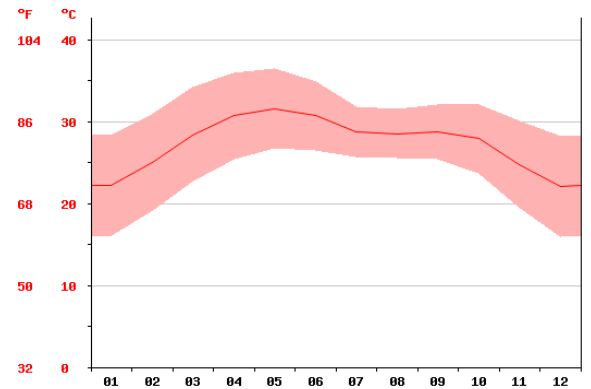
2.4.1 CLIMATE GRAPH

The driest month is December with 4 mm. Most precipitation falls in July, with an average of 341 mm.



2.4.2 TEMPERATURE GRAPH

The warmest month of the year is May with an average temperature of 31.6 °C. In December, the average temperature is 22.1 °C. It is the lowest average temperature of the whole year.



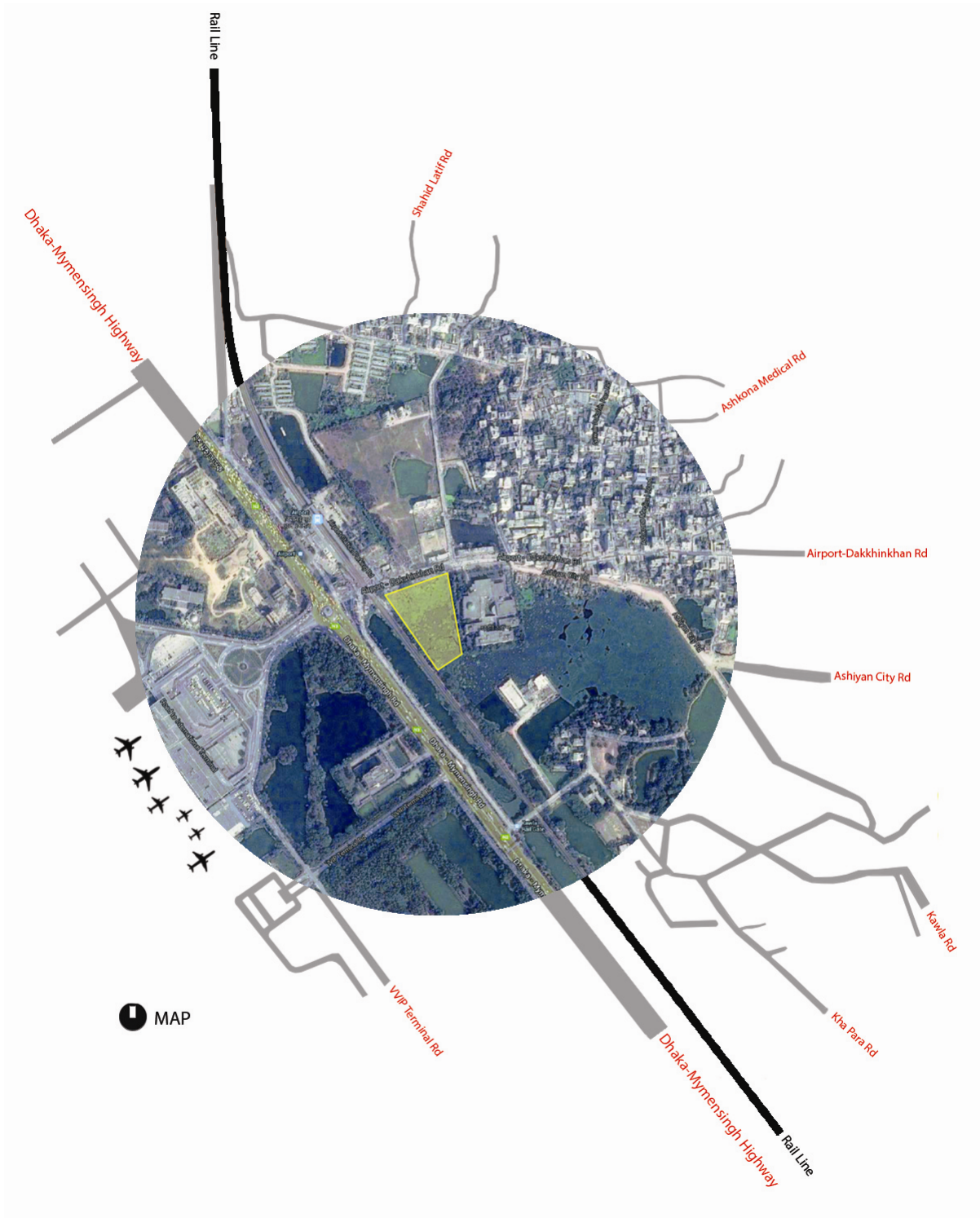
2.4.3 PRECIPITATION RATE

The difference in precipitation between the driest month and the wettest month is 337 mm. The average temperatures vary during the year by 9.5 °C.

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	12	25	25	23	61	189	341	335	255	167	42	4
°C	22.2	25	28.4	30.7	31.6	30.7	28.7	28.5	28.7	27.9	24.8	22.1
°C (min)	16.1	19.1	22.7	25.4	26.7	26.5	25.7	25.5	25.4	23.7	19.6	16
°C (max)	28.4	30.9	34.2	36	36.5	34.9	31.8	31.6	32.1	32.1	30.1	28.2
°F	72	77	83.1	87.3	88.9	87.3	83.7	83.3	83.7	82.2	76.6	71.8
°F (min)	61	66.4	72.9	77.7	80.1	79.7	78.3	77.9	77.7	74.7	67.3	60.8
°F (max)	83.1	87.6	93.6	96.8	97.7	94.8	89.2	88.9	89.8	89.8	86.2	82.8

2.5 SITE MAPPING

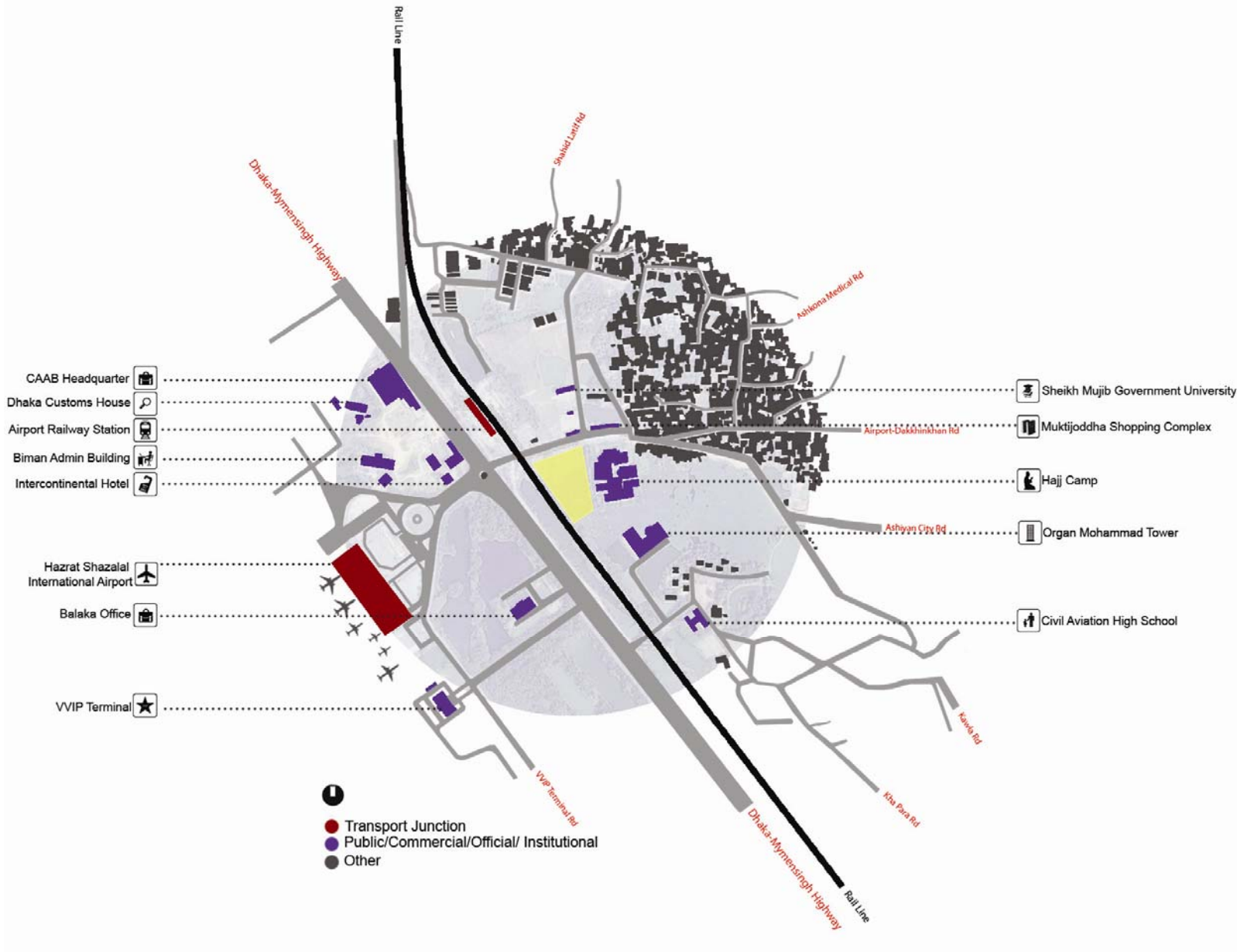
2.5.1 SITE SURROUNDING



2.5.2 SOLID & VOID ZONE



2.5.3 IMPORTANT STRUCTURES



2.5.4 GREEN & WATERBODY



2.6 SWOT Analysis

STRENGTH

- Site is situated in a remarkable place.
- Well Connected by Roads & Rail lines.
- Developing zone of the city.

WEAKNESS

- Narrow pitch less road without footpaths.
- Traffic congestion.

OPPORTUNITY

- The Headquarter can achieve a positive impression about Bangladesh from the international tourists and passengers of Airport.
- Crime rate will decrease in that area. Specially burglary, smuggling and anti-social activity in Airport and Railway station.
- Increase anti-crime actions.

THREAT

- During any unwanted situation, local people may be affected.
- Privacy of the HQ may hamper as the site has easy accessibility.
- Unplanned development can spoil overall effect of the project.

CHAPTER 3: LITERATURE REVIEW

3.1 CRIME

The word crime is derived from the Latin word *krinos* which means to accuse. It covers those acts which are against social order and deserve disapprobation and condemnation of society.

In General sense, crime means which violate law rules, regulation or which harmful or destroy human society or resources or which create problems in human life.

The word Crime has not been defined in the Bangladesh Penal Code. In its broad sense, however, it may be explained as an act of commission or omission which is harmful to the society in general. But all acts tending to prejudice the community are not crime unless they are punishable under the law.

3.1.1 CLASSIFICATION OF CRIMES

- Violent personal crimes;
- Occasional property crimes;
- Occupational crimes;
- Social Crimes
- Political crimes;
- Public order crimes;
- Conventional crimes, Organized crimes;
- Professional crimes;
- White collar crimes;
- Sexual crimes;
- Economic Crimes
- Crimes against property;
- Crimes against person;
- Crimes against decency;
- Crimes against public order

3.1.2 CLASSIFICATION UNDER PENAL CODE:

All other remaining crimes which are committed under local or Special Acts, are termed as miscellaneous crimes, for example, offences under the Prevention of Food Adulteration Act, 1954; Drugs Act, 1940; Consumer's Protection Act, 1986; Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 etc.

Classification of offences under the Penal Code:

- Offences against Person;
- Offences against property;
- Offences relating to documents;
- Offences affecting mental order;
- Offences against public tranquility;
- Offences against State
- Offences relating to public servants.

3.1.3 CRIMES OF BANGLADESH:

Bangladesh is a small and poor country. It has many problems like, poverty, illiteracy, unemployment, over population etc. So, many cases crimes are related or create to this problem. Such as Theft, Dacoity Terrorism, Juvenile delinquency, Smuggling, Fraud, Violation of human rights, Illegal drug manufacturing etc.

Now discuss in below some aspect of crime which happened in Bangladesh available:

- **THEFT:**

According to section 378 of penal code, theft means- whoever, intending to take dishonestly any movable property out of the possession of any person without that persons consent, moves that property in order of such taking said to commit theft.

- **AUTO THEFT:**

The purposes of the groups related to auto theft are numerous. The vehicles are not only stolen for their own sake; sometimes they are trafficked to finance other crimes. They can also be used as bomb carriers or in the perpetration of other crimes.

- **DRUG TRAFFICKING:**

Alcoholism and drug addiction maybe conceptualized as crime without vitamin addict himself is the victim who becomes a prey of its mires. Though alcoholism and drug addiction are victimless crime, they do carry with them secondary victims such as family dependents, friends, acquaintances etc. The drug trade invades growers, producers' couriers, suppliers, dealers and users, The global abuse of drugs and the drug trafficking situation in becoming more complex, in part due to political and economic changes around the world which have led to increasingly open borders between many countries.

- **TAX-EVASION:**

The complexity of tax laws in Bangladesh has provided sufficient scope for the tax-payers to evade taxes. The evasion is more common with influential categories of persons such as traders, businessman lawyers, doctors, engineers, contractors etc. It is often alleged that the actual tax paid by these persons is only a fraction of their income and rest of the money goes into circulation as black money. The main intention was to unearth black money so as to prevent further loss of government revenues.

- **CYBER CRIMES :**

In General since cyber crime can be defined as the use of computer technology to commit crime. There are some offences which can be committed by using computer only but with the assistance of information and communication technology the area of crime has become wider and various crimes can be included in this area of crime of twenty first century.

Some of the notable reasons of cyber crimes_

1. Expertise of offenders in technology
2. Difficulties for the commission of crimes in ordinary way
3. increasing dependence on computers and information technology
4. Carelessness and unskilled behavior of users of computers and internet
5. Problems in identification of offenders.

- **JUVENILE DELINQUENCY:**

The crime of Juvenile Delinquency is becoming more complicated and universal. According to criminologists, Juvenile delinquency encompasses all public wrongs committed by young people between the ages of 12 and 20. A great majority of young people commit some kind of petty offence at some point during their adolescence without this turning into a criminal career in the long term.

- **HUMAN TRAFFICKING:**

This illicit trade in persons is a multimillion-dollar, criminally organized global industry. Trafficking involves a process of using illicit means such as threat, use of force, or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability.

Bangladesh is identified as a source country from where about 10,000 to 20,000 women and girls are trafficked annually to India, Pakistan, Bahrain, Kuwait and the UAE for the purposes of sexual exploitation, involuntary domestic servitude and debt bondage.

- **DACOITY :**

According to section 391 of penal code when five or more persons conjointly commit or attempt to commit a robbery, or whoever the whole number of persons conjointly committing or attempting to commit a robbery, and persons present and aiding such commission or attempt, amount to five or more every person so committing, attempting or aiding, is said to commit "dacoity". The main reason of dacoity is poverty, illiteracy, drug addiction, etc.

- **BRIBERY :**

According to section 171 B of penal code-

Whoever –

-Gives a gratification to any person with the object of including him or any other person to exercise any electoral right or of rewarding any person for having exercised any such right, or

-Accepts either for himself or for any other person any gratification as a reward for exercising any such right or for inducing or attempting to induce any other person to exercise any such right.

- **VIOLATION OF CHILDREN RIGHTS:**

Violation of children rights are common crime in Bangladesh. Children are affected by terrorism, communal violence, riots, natural disaster, domestic violence, sex abuse, trafficking, maltreatment, torture and exploitation, pornography, prostitution etc. To protection of children rights should establish children rights accurately.

- **VIOLATION OF WOMEN RIGHTS:**

In the male dominated society, women have been victims of violence and exploitations. The role of women in Bangladesh is confined to that of a daughter, housewife and mother. Unfortunately women are not safe even within the four walls of their homes. Housewives are subjected to psychological and physical torture irrespective of their economic, status, religion, caste and creed. Women are vulnerable to acts of violence in the family which include feticide, infanticide, marital cruelty, dowry, murder, child abuse, incest, battering etc. At the community level, they face violence in the form of rape, sexual harassment, eve-teasing, trafficking and sexual discrimination. A murderer destroys the physical body of his victim but a rapist degrades the very soul of helpless female.

3.1.4 CRIMES STATISTICS OF BANGLADESH 2002-2012

Year	Dacoity	Robbery	Murder	Speedy Trail	Riot	Women & Child Repression	Kidnapping
2002	963	1397	3503	1693	1276	18967	1040
2003	949	1170	3471	2179	890	20717	896
2004	885	1207	3902	2053	754	13318	898
2005	796	898	3592	1814	570	11981	765
2006	795	843	4166	1638	568	11730	722
2007	1047	1298	3863	1980	263	15717	774
2008	885	1583	4099	1700	203	15246	817
2009	764	1301	4219	1817	112	13997	858
2010	656	1059	3988	1666	130	17752	870
2011	650	1069	3966	1863	109	21389	792
2012	593	964	4114	1907	94	20947	850
Total	8983	12789	42883	20310	4969	181261	9282

Year	Police Assault	Burglary	Theft	Other Cases	Recovery Cases	Total Cases
2002	281	3959	8245	68898	17394	127616
2003	271	3883	8234	66194	16785	125639
2004	280	3356	8605	67531	16534	119323
2005	240	3270	8101	70046	20960	123033
2006	337	2991	8332	76381	22073	130578
2007	278	4439	12015	93224	22802	157200
2008	296	4552	12188	87417	28993	157979
2009	357	3456	9171	87022	34037	157108
2010	473	3101	8529	87139	37535	162898
2011	581	3134	8873	88355	38886	169667
2012	659	2927	8598	96112	45642	183407
Total	4053	39068	100891	888319	301641	1614448

3.2 TERRORISM:

Acts of violence committed by groups that view themselves as victimized by some notable historical wrong. Although these groups have no formal connection with governments, they usually have the financial and moral backing of sympathetic governments.

Types of Terrorist Incidents

- Bombing
- Kidnappings and Hostage Takings
- Armed Attacks and Assassinations
- Aarons and Fire bombings
- Hijackings and Skyjackings
- Murder
- Robbery
- Rioting

3.2.1 TERRORISM IN BANGLADESH:

In general, - terrorism in Bangladesh is not as severe as that in some of the other countries in South Asia. This does not, however, mean that Bangladesh is quite free from terrorism. Bangladesh also has to bear a large cost out of terrorism. The most severe type of terrorism is associated with activities of the groups who are ideologically and politically motivated in Bangladesh. This includes:

- Activities of outlawed political parties,
- Threat from the terrorist group of fundamentalists and
- The terrorism in the Chittagong Hill Tracts.

Majority of the people in Bangladesh are basically peace-loving Muslims who do not support any terrorist activity. Despite this, a very small group of Islamic fundamentalist who had been alleged to be involved in many terrorist activities in the past few years also exists. This group is called Harkat-ul-Jehadie-Islami, who is committed to establish Islamic *hukumat* in Bangladesh. This extremist group is believed to have close links with Pakistan. They were also believed to have a close tie with Talibans.

The most common terrorism in Bangladesh is the terrorist activities of the miscreant that is associated with deterioration in the law and order situation. The '*mastans*' exerts threat, physical torture, and force on the innocent people to compel them to surrender to their unlawful will. Common people of Bangladesh have become captives by the miscreants.

3.2.2 MAJOR TERRORIST INCIDENTS IN BANGLADESH

Year	Month	Terrorist incidents
1992	September	Abduction and killing of 30 <i>bangli</i> people by a rebellion group of <i>shanti bahini</i> .
1993	October	Bomb blasting at the mosque of <i>Ahmadia</i> (Khulna)
1994	March	Bomb blasting in a cultural programme at Jessore.
1995	July	Attempt to kill former Prime Minister Sheikh Hasina at Gopalganj.
1996	April	Bomb blasting at Narayangonj <i>Awami League</i> office
1997	December	Series bomb blasting at four cinema hall of Mymensingh.
1998	September	Attacking police camp and killing 4 police personnel at Belkuchi of Sherajgonj by <i>Purba Bangla Communist Party</i> .
1999	March	Series bomb blasting at Khulna.
2000	March	Bomb blasting at International Trade Fair, Khulna.
2001	January	Killing of 8 villagers by bomb attack at Tangail.
2002	August	Grenade attack in the public meeting of former Prime Minister Sheikh Hasina. 19 persons were killed and another 200 were injured.
2003	May	Collision between <i>Purba Bangla Communist Party</i> and <i>Ganomukti Foitj Cadre</i> .
2004	May	Grenade attack on Anwar Hossain, the British High Commissioner at the shrine of Shahjalal (Rah), Shylhet.
2005	December	Suicidal bomb attack in front of the <i>Udichi Shanskritik Goshti</i> , Netrokona.
2006	November	Killing of two judges of Jhalakathi by the member of suicidal squad of JMB.
2007	October	Killing of 5 member of Bangladesh Nationalist Party by the member of <i>Purba Bangla Communist Party (Janajuddha)</i> .
2008	August, 17	Series bomb blasting in the 60 districts of Bangladesh at a time within the short span of 30 minutes. About 500 bombs were exploded by the member of JMB Qamatul Mujahidin Bangladesh).
2009	January	Grenade attack on former minister A M S Kibria at public meeting, Hobigonj.
2010	June	Collision between RAB and <i>Purba Bangla Communist Party</i> .

3.3 HEADQUARTER

Headquarters (HQ) denotes the location where most, if not all, of the important functions of an organization are coordinated. In the United States, the corporate headquarters represents the entity at the center or the top of a corporation taking full responsibility for managing all business activities. In the UK, the term Head Office is most commonly used for the HQs of large corporations. The term is also used regarding military organizations.

Military headquarters take many forms depending on the size and nature of the unit or formation they command. Typically, they are split into the forward, main and rear components.

The forward or tactical HQs (known as 'Tac' for short) are a small group of staff and communicators. Usually very mobile, they exist to allow the commander to go forward in an operation, and command the key parts of it from a position where they can see the ground and influence their immediate subordinates.

The main HQs (known as 'Main') is less mobile and is involved in both the planning and execution of operations. There is a number of staff assembled here from various staff branches to advise the commander, and to control the various aspects of planning and the conduct of discrete operations. A main HQ for a large formation will have a chief of staff (CoS) who coordinates the staff effort; in a smaller HQ this may be done by the second-in-command.

The rear or logistic HQs ('Rear') is some distance from the battle or front line in conventional operations. Its function is to ensure the logistical support to front line troops, which it does by organizing the delivery of combat supplies, materiel and equipment to where they are needed, and by organizing services such as combat medicine, equipment recovery and repair.

Special Forces or special operations forces are military units highly trained to perform unconventional, often high-risk missions. Special Forces, as they would now be recognized, emerged in the early 20th century, with a significant growth in the field during the Second World War.

3.4 RAPID ACTION BATTALION

Rapid Action Battalion or **RAB** is an elite anti-crime and anti-terrorism unit of the Bangladesh Police. This elite unit is subordinate to the Ministry of Home Affairs but consists of members drawn from Bangladesh Police, Bangladesh Army, Bangladesh Navy, Bangladesh Air Force, Border Guard Bangladesh and Bangladesh Ansar. It was formed on 26 March 2004 and commenced operations on 14 April 2004. Since its inception, the RAB has seized a total of 3,149 illegal arms and more than 36,000 rounds of ammunition. It has also had over 500 arrests.

3.4.1 MAIN ACTIVITIES



Main Activites of RAB

- **Counter-Terrorism:** RAB apprehended numerous terrorism suspects during the course of their tenure.
- **Anti Drugs:** RAB has been involved in the control of illegal substances such as Yaba, Phensidyle and Heroin.
- **Emergency Help:** RAB provides immediate response for situations such as armed robbery and kidnappings.
- **National Common or annual needs:** Many national needs are filled by RAB by providing extra duty during Eid-ul-Fitr, Puja, world Ijtema and Akheri Munazat, among other events. They also contribute resources during elections, such as the Narayangonj City Corporation Election.

3.4.2 ARMED FORCES INVOLVED IN RAB



Bangladesh Air Force



Bangladesh Army



Bangladesh Navy



Civil Service



Bangladesh Police



Answar & VDP



Border Guard Bangladesh



1. BANGLADESH ARMY

The **Bangladesh Army (BA)**, Bengali: বাংলাদেশ সেনাবাহিনী, *Bānglādēśh Sēnābāhinī*) is the land forces branch and the largest of the three uniformed service of the Bangladesh Armed Forces. The primary mission of the Army is to provide necessary forces and capabilities in support of Bangladesh's security and defense strategies including defense of the nation's territorial integrity against external attack. Control and operations are administered by the Department of the Army of the Armed Forces Division. The civilian head is the Prime Minister, who by law also holds the defense ministry portfolio. In addition to its primary mission the Bangladesh Army is also constitutionally obligated to assist the civilian government during times of national emergency. This role is commonly referred to as "aid to civil administration". The current strength of the army is around 300,000.



2. BANGLADESH NAVY

The **Bangladesh Navy (BN)**, Bengali: বাংলাদেশ নৌবাহিনী, *Bānglādēśh Naubāhinī*) is the naval warfare branch of the Bangladesh Armed Forces. It is responsible for ensuring the security of Bangladeshi maritime territory and vital shipping lanes in the Bay of Bengal. The Bangladesh Navy is also a key player in regional counter-terrorism efforts and UN peacekeeping missions in different parts of the world.



3. BANGLADESH AIR FORCE

The **Bangladesh Air Force (BAF)**, Bengali: বাংলাদেশ বিমান বাহিনী, *Bānglādēśh Bimān Bāhinī*) is the aerial warfare arm of the Bangladesh Armed Forces. Being the first line of defense of Bangladesh, the air force revealed their long-term advancement and procurement plan in Defence IQ 2011 International Fighter Aircraft Conference in London. The Bangladesh Air Force currently employs more than 14,000 personnel including 300+ pilots and navigators.



4. BANGLADESH CIVIL SERVICE

Bangladesh Civil Service (Bengali:), more popularly known by its acronym **BCS**, is the elite civil service of the Government of Bangladesh. It originated from the Central Superior Services of Pakistan which was derived from the colonial legacy of the former British Empire-controlled Indian Civil Service. Since independence it has been known by Act as Bangladesh Civil Service. The civil service system is the backbone of the administrative machinery of the country. In the parliamentary democracy of Bangladesh, the ultimate responsibility for running the administration rests with the elected representatives of the people which are the ministers. But the handful of ministers cannot be expected to deal personally with the manifold problems of modern administration. Thus the ministers lay down the policy and it is for the civil servants to carry out this policy.



5. BORDER GUARD BANGLADESH

Border Guard Bangladesh or **BGB** (Bengali:) (formerly known as the **Bangladesh Rifles**) is the oldest uniformed force in Bangladesh. It is a paramilitary force under the Ministry of Home Affairs. BGB is primarily responsible for the border security of the country, in Bangladesh the force is known as "The Vigilant Sentinels of the National Frontier". Since its inception over 216 years, duties and responsibilities of the force have been increased manifold, as well as operational strategies put on multi-dimensions.



6. BANGLADESH ANSAR & VDP

-

The **Bangladesh Ansar** (also known as the **Ansar Bahini**) is a disciplined force for the preservation of internal security and law enforcement in Bangladesh. It is administered by the Ministry of Home Affairs of the Government of Bangladesh. The name originates from the Arabic word of "Ansar", which denotes a "person who helps" and specifically refers to the companions of Muhammad, the prophet of Islam, during his exile from Mecca.

The **Village Defense Party** (VDP) is a law enforcement force in Bangladesh, organized in distinct units at the level of individual villages and urban towns. It is administered by the Home Ministry of the central Government of Bangladesh. Although domestic security is its main objective, the Village Defense Parties are also specifically charged with working on village development and welfare schemes. Their vision is to ensure safety and security of rural Bangladesh, mobilize the force for socio-economic development and work under operational control of Army during emergency/war.



7. BANGLADESH POLICE

-

The **Bangladesh Police** (Bengali: বাংলাদেশ পুলিশ) is the main law enforcement agency of Bangladesh. It is administered under the Ministry of Home Affairs of the Government of Bangladesh. It plays a crucial role in maintaining peace, and enforcement of law and order within Bangladesh. Though the police are primarily concerned with the maintenance of law and order and security of persons and property of individuals, it also plays a big role in the criminal justice system.

3.4.3 RAB MONOGRAM

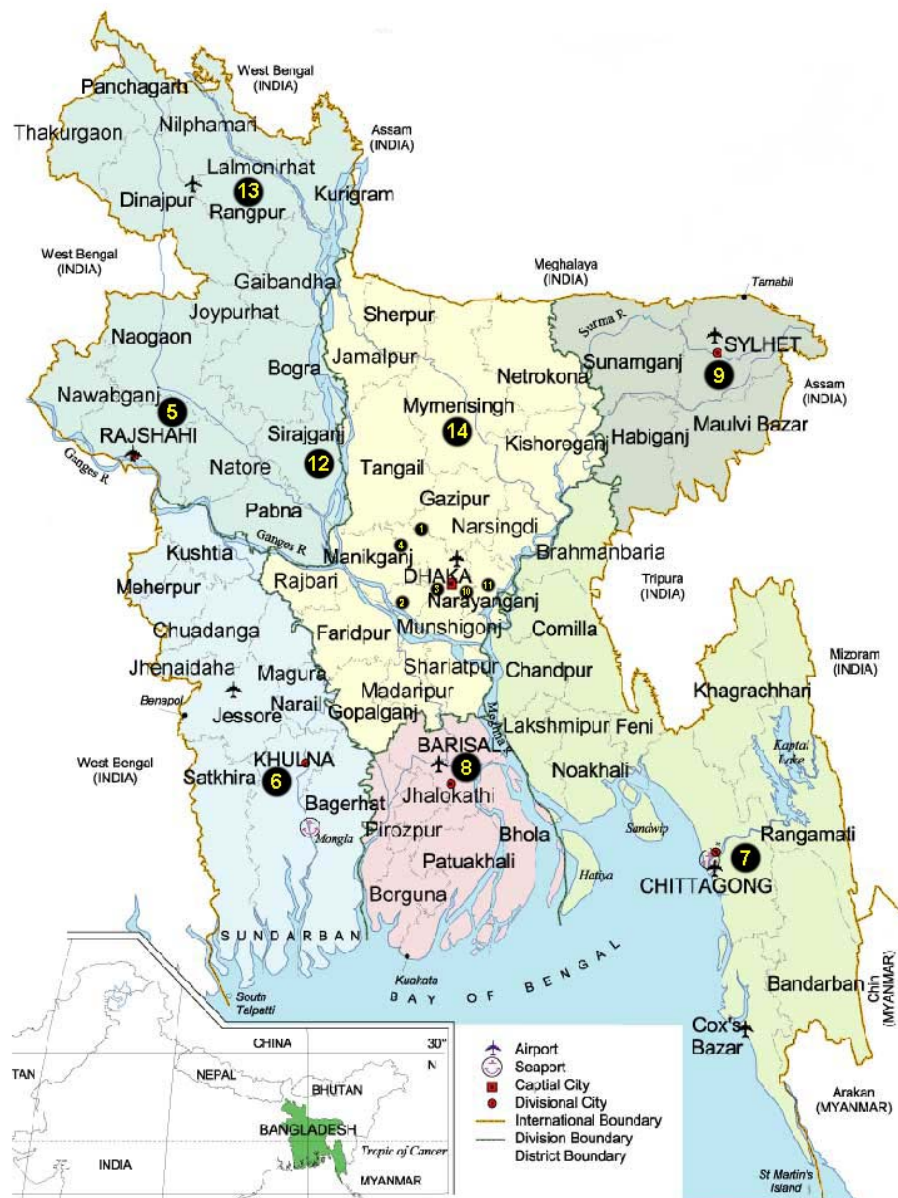
At two sides of the n
Plants which erribler
based country

At the middle **NATIONAL**
placed to show respect to
the martyrs which will ern
work m

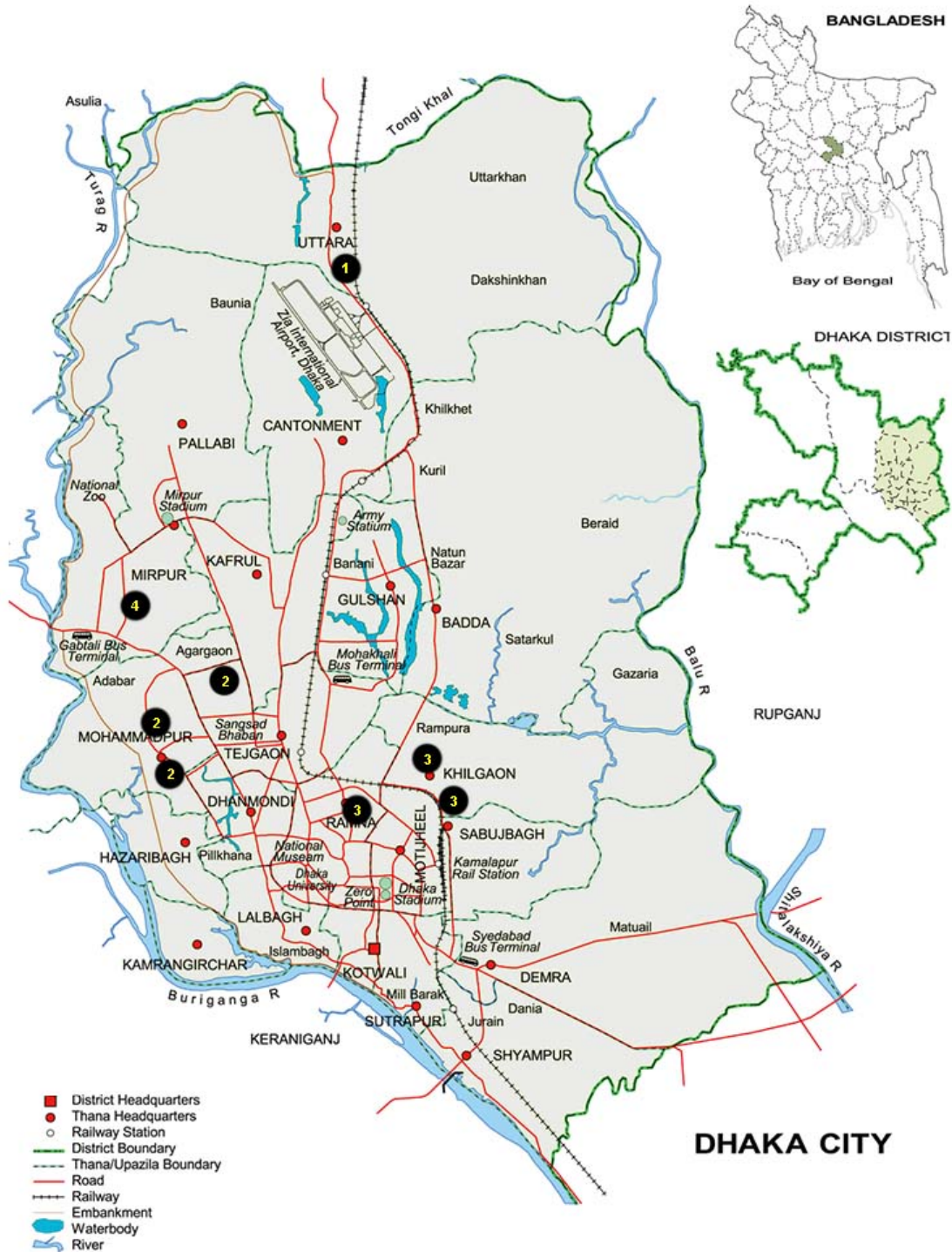
The main **MOTIO**
Pride' & it is stric

3.4.4 12 BATTALIONS

- Rapid Action Battalion 1 (Dhaka)
- Rapid Action Battalion 2 (Dhaka)
- Rapid Action Battalion 3 (Dhaka)
- Rapid Action Battalion 4 (Dhaka)
- Rapid Action Battalion 5 (Rajshahi)
- Rapid Action Battalion 6 (Khulna)
- Rapid Action Battalion 7 (Chittagong)
- Rapid Action Battalion 8 (Barisal)
- Rapid Action Battalion 9 (Sylhet)
- Rapid Action Battalion 10 (Dhaka)
- Rapid Action Battalion 11 (Narayanganj)
- Rapid Action Battalion 12 (Sirajganj)



3.4.5 BATTALIONS IN DHAKA CITY



DHAKA CITY

a. Rapid Action Battalion 1 (R R F Bhaban, Uttara)

The Rapid Action Battalion-1 emerged on 26th March, 2004 by participating in the national Day Parade. RAB-1 started its operational journey on 14th April 2004 by attending security duties in "Ramna Botomul" on the occasion of Bangla New Year.

Communication: It is located on the Northern Periphery of Dhaka City by the side of Dhaka-Mymensing highway and about 800 meters north of Dhaka Airport Railway Station.

Area of Responsibility: Uttara, Airport, Turag, Gulshan, Khilkhet, Badda, Uttarkhan, Dakkhinkhan Thana areas (08 P.S of DMP Total 06 wards)

Establishment: Four- storied admin building, four stories and tin-shaded barrack, transport facilities.

b. Rapid Action Battalion 2 (Sher-E-Bangla Nagor Comunity center, Agargoan)

The Rapid Action Battalion-2 emerged on 26th March 2004 by participating in the National Day parade. Later this Battalion was raised at Adamjee, Narayanganj and continued its all operational and Administrative activities from there. Later on 16 Aug 2004 RAB-2 shifted its one company and the battalion HQ at Maghbazar. Mohammadpur camp and Satmosjid camp was established on 14 July 2005 and 15 October 2005 respectively.

Communication: Bn HQ of thid Unit is located at Sher-E-Bangla Nagor Comunity center, Agargoan, Dhaka-1207. Beside, Battalion is deployd at three different places with in AOR. These are 653, Boro Moghbazar, Mohammadpur Sia Mosque and Shat Moshjid road.

Establishment: 3- storied admin building [01],1 storied and tin-shaded barrack, transport facilities.

Area of Responsibility:This Batallion covereded 7 Police stations of DMP which are Hazaribagh, New Market, Dhanmondi, Mohammadpur, Adabor, Tejgaon & Tejgaon Industrial area.

c. Rapid Action Battalion 3 (Muktijudda Murad Community Centre, Hatkhola Road, Tikatuli)

The Rapid Action Battalion-3 emerged on 26th March, 2004 by participating in the national Day Parade. This Battalion initially launched its journey on 2 April, 2004 from the abandoned Adamje jute mill, Adamjenagar, Narayangonj. At present it has been mostly shifted to the above mentioned Hatkhola Road, Tikatuli, Dhaka and it has got a camp in Khilgoan also. From the very beginning of this establishment, thought the untiring efforts of the members of this Battalion, it has achieved a glorious success in various aspects. For this success in controlling Crime and Criminals, law and order situation of the responsible area of this Battalion has become mention ably better than before, therefore a great enthusiasm and sprit is prevailing in the mind of the people.

Communication: It is located near Sayedabad bus station, Northern side of Hatkhola Road, Dhaka

Establishment: 3- storied admin building with barrack and transport facilities.

Area of Responsibility: DMP Khilgoan, Ramna, Shahbag, Sabujbag, Motijhil, Palton Police Stations (20 Wards from 6 Thanas under DMP)

d. Rapid Action Battalion 4 (Paikpara, Mirpur-1)

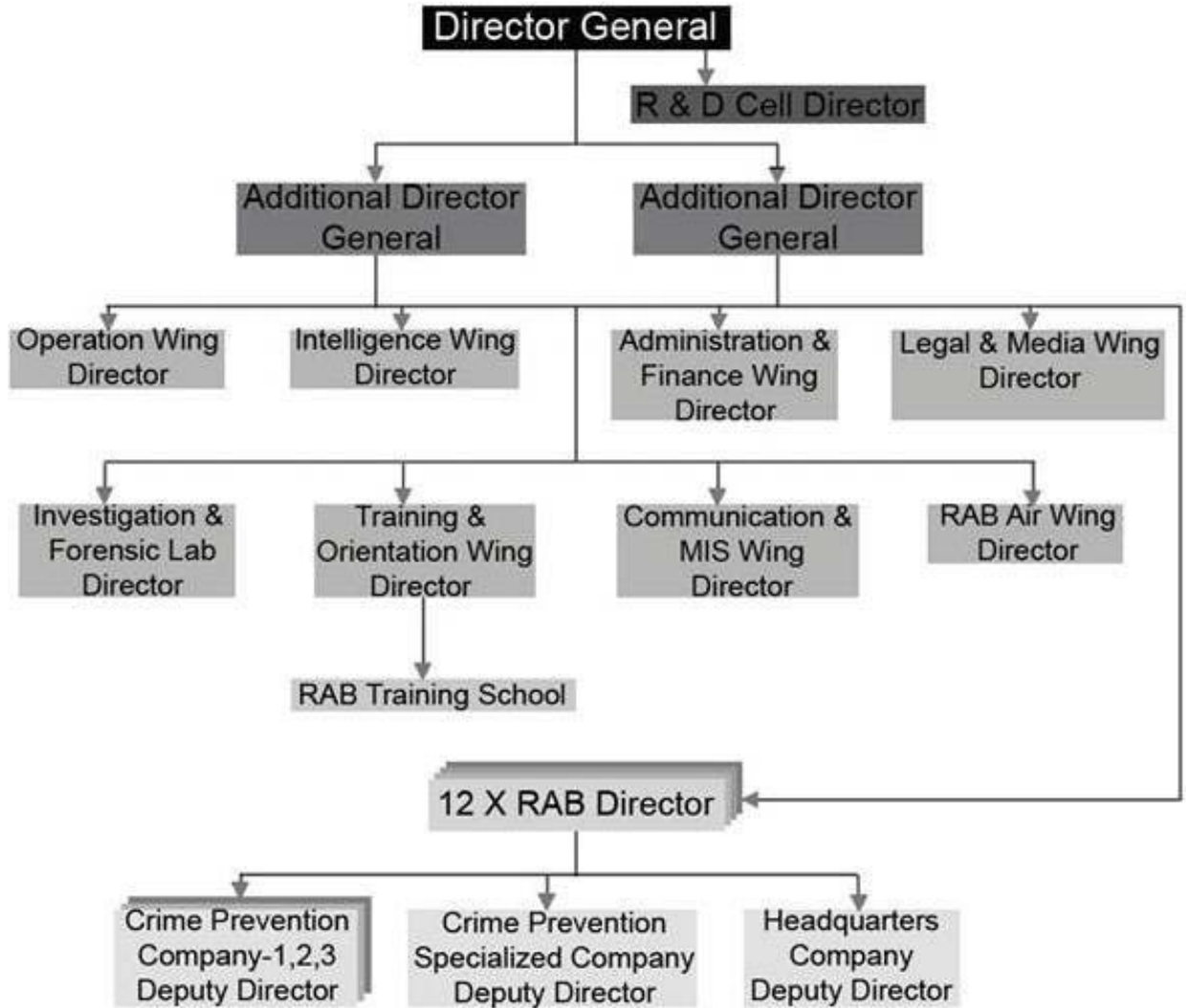
The Rapid Action Battalion-4 emerged on 26th March, 2004 by participating in the National Day Parade.

Communication: It is located on the 1 km East side of Gabtali Bus Terminal.



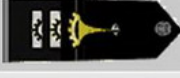



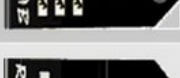
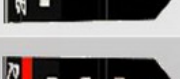
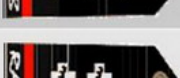



Establishment: 3- storied admin building, with barrack and transport facilities.

Area of Responsibility: Pallabi, Mirpur, Shah Alibag, Cantonment & Kafrul thana (15 ward from 05 thana in DMP)

3.4.6 CHAIN OF COMMAND



3.4.7 RANK INSIGNIA

Rank	Appointment In RAB	Equivalent in Armed Forces	Equivalent in Bangladesh Police
	Director General	Brigadier General/ Air Commodore/ Commodore	Additional Inspector General
	Additional Director General	Colonel/ Group Captain/ Captain	Deputy Inspector General
	Director/CO	Lt Col/ Wing Commander/ Commander	Additional Deputy Inspector General
	Deputy Director/2IC/Company Commander	Major/ Squadron Leader/ Lt Commander	Superintendent Of Police
	Senior Assistant Director	Captain/ Flt LT/ LT (More Than 7 years of Service)	Additional SP
	Assistant Director	Captain/ Flt LT/ LT (Up to 7 years of Service)	Senior ASP/ ASP
			
	Deputy Assistant Director	Senior WO/ WO/ PO	Inspector
	Sergeant/ Sub Inspector	Sergeant/ Corporal	Sergeant/ SI
	Assistant Sub Inspector	Lance Corporal	ASI
	Naik	-	Naik
	Constable	Shainik/Seaman/Airman	Constable

3.4.8 FUNCTION

a. Operation Wing

Operation wing is one of the major wings in RAB force. It is under the D.G of RAB and additional DG of RAB.

Functions

Central operation
 Planning and monitoring
 Dog squad
 Bomb squad
 Transport facilities

b. Intelligence Wing

Intelligence wing is one of the strong spy wings of the country. It is under the command of additional DG [Operations].

Functions

Tracking the terrorist
 Rapid action against terrorism
 Interception branch

c. Legal and media Wing

This wing ensures all kinds of legal assistance, questionnaire and human rights issues. The wing is under the command of additional DG and assistant director.

Functions

Legal cell- Court issue
 Legal issue
 Media cell- Electronic and media section
 Monitoring section
 Active and photography section
 Human rights cell- Monitored human rights issues under the jurisdiction of RAB.
 Internal investigation cell
 Video graph

d. Communication and MIS Wing

To pass information between different RAB battalions from the main headquarter with safety and speedy way. A fully fledged MIS wing is established in 14 July 2005. Manpower-195 person. The wing is under the command of additional DG [Admin].

Functions

Communication Branch
 Tracking Radio system
 Line departure terminal system
 Mobile data terminal system
 Video conferencing
 HF interface
 Fax and data communication
 VHF link
 Information delivery to different part of the country
 Remote control close circuit surveillance
 MIS branch
 Optical Fiber Backbone used to enhance networking system
 World class software used by MIS
 Important hardware collection,
 Trouble shooting and keep safe.
 Biometric criminal database with criminal photo, fingerprint and iris.
 E-Governance maintenance
 Domain used by them to send E-Mail safely.
 Maintain the domain website of RAB [www.rab.gov.bd.]
 Cyber crime investigation and digital
 Forensic lab.
 IT consultancy.

e. Investigation and Forensic Wing

From the very beginning of the RAB investigation and forensic unit started their work.
 The wing is under the command of additional DG [Admin].

Functions
 Investigation Branch
 Forensic lab

f. Air Wing

RAB air wing established 02 July 2006. It surveillance the movement of terrorist from the air, gives protection to VIP. The wing is under the command of additional DG [Operations]

Functions
 Investigation and rescue
 To carry injured and killed person safely from one place to another.
 To take still snapshots from sky.
 To surveillance from the sky.
 To shift the RAB personnel and important ration from one place to another.
 To maintain the riot from the sky
 To transported the soldiers to the targeted area.
 To transport courier for RAB.
 To ensure safety of the VIP.

g. Admin and finance Wing

RAB headquarter Admin and finance wing maintains all the administrative and financial works. It was fluently done by four main branches. The wing is under the command of additional DG [Admin].

Functions

Admin section
 Finance and development branch
 Personnel and discipline branch
 Health unit
 Central workshop
 Logistic unit
 Transport unit

h. Training and orientation Wing

This wing ensures training and orientation of RAB personnel both home and abroad. It established in 1 June 2005 in Gazipur, Simultali area on 21 acres of land. The wing is under the command of additional DG [Admin].

Functions

Introduction with RAB.
 Anti terrorism course
 RAB basic intelligence course
 RAB basic investigation course
 Basic driving course.
 Basic computer course.

i. R and D Cell [RAB]

It is a part of RAB research unit where different operation of RAB, crime, crime syndicate, counter terrorism, acid terrorism and many important issues were analyzed and making documents were the main work of this department. This cell is under the direct command of DG of RAB.

Functions

Research on different kinds of terrorism activity
 To bring out solution against the terrorism implemented by the RAB.
 To bring out the jest of crime.

3.4.9 TYPES OF WEAPON USED BY RAB

1. AK-47 rifles (both with fixed and folding butt stock)
 2. Heckler & Koch MP5K submachine guns (usually with 20 round magazine)
 3. Uzi submachine guns
 4. FN HP pistols
 5. Colt M1911 pistols
 6. Dragunov sniper rifle (actually China made copy) - Very rarely issued
- Also when employed for crowd control purpose RAB members use traditional weapons like sticks or batons.

3.4.10 TYPES OF TRANSPORT USED BY RAB

RAB members are well equipped compared to other law enforcement agencies in Bangladesh. The following transports are generally issued to them:

1. Nissan patrol
2. Hundai terracan
3. Zong sheng police patrol motorcycle
4. Mitsubishi Pajero
5. Ford Ranger
6. Toyota pickup
7. American armored vehicle
8. Bell 407 Helicopter
9. Mitsubishi Microbus

3.4.11 TYPES OF DOGS USED BY RAB DOG SQUAD

RAB members are well equipped compared to other law enforcement agencies in Bangladesh. The following dogs are generally issued for their investigation:

1. German shepherd
2. Sniffer
3. Alsatian

3.5 SUSTAINABLE DESIGN

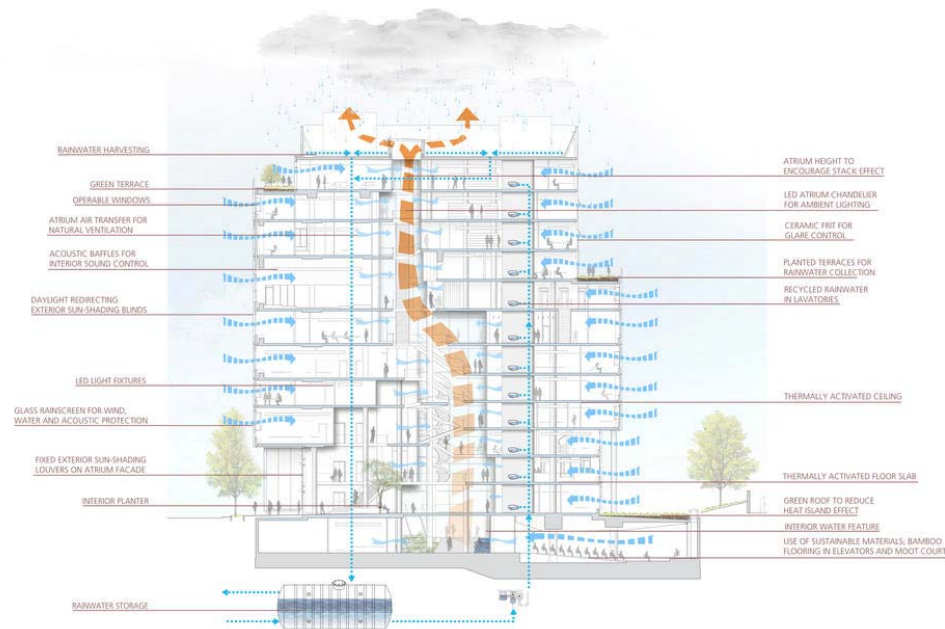
Sustainable design is an exciting area of contemporary architecture and building which is moving into the mainstream. And there's a good reason that 'green' or sustainable buildings are also known as 'high performance buildings': they not only tend to save on running costs, there is also growing evidence that they can increase productivity and well-being for occupants through improved lighting and air quality. Where office buildings have been designed or refurbished to be more sustainable, productivity gains in terms of better quality of work and reduced absenteeism can often dwarf the reductions in energy bills. Refits which are more sustainable can therefore yield faster returns on investment than is commonly expected.

In more recent times, the importance of the changing climate and its effects on the environment are being given more attention in regard to design practices. As a result, sustainable work spaces are becoming more prominent and some may even argue that a more energy efficient building correlates to a more efficient and productive work environment. With a growing demand for energy efficient buildings comes a greater responsibility of architects today and in the future. In turn, officer owners and managers are also placed under increasing obligations to be focused on cutting down on productivity costs and to find more sustainable ways of going about their business endeavors. Companies are coming to the realization that investing in 'green' principles is more profitable in the long run.

3.5.1 CONTEMPORARY OFFICE WITH SUSTAINABILITY

Contemporary office is definable broadly as the building style of the present day. Examples do not necessarily have similar or easily recognizable features, however, because the "style" is really quite varied and has a number of different influences. Contemporary office buildings typically include an irregular or unusually shaped frame, an open floor plan, oversized windows and the use of "Green" and repurposed components. Such office buildings also often have an organic design, fitting into the surrounding space and meeting an immediate need in the area. The definition of typical office building has changed due to requirement, preference, demand and sustainability. Sustainable office design can deliver higher performance in energy and other resource use, and higher productivity in human terms. People simply work, see and think better in offices that have more natural lighting, fresher and cleaner air, and where they have more control over their immediate lighting or temperature levels. At a practical level, it simultaneously minimizes the:

- number
- amount
- volume
- weight
- toxicity
- and use of materials, energy and water



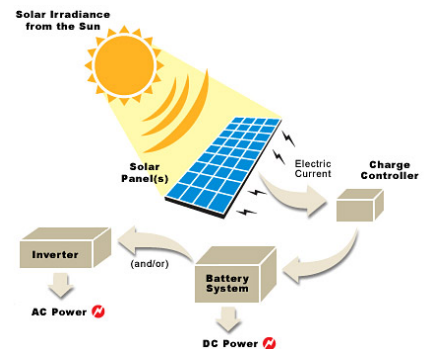
While maximizing the use of materials, energy and other components that are:

- clean and safe
- renewable
- easy to repair, reuse, recycle or refurbish
- and benign towards the environment

3.5.2 SUSTAINABLE APPROACH

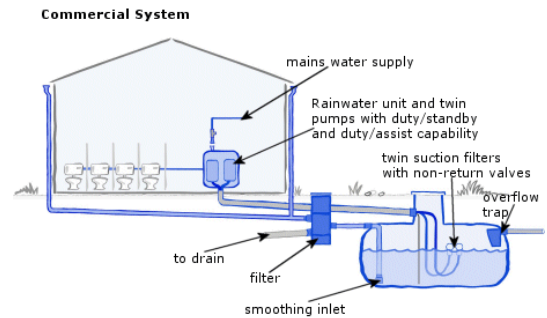
- **Solar panels**

Active solar devices such as photovoltaic solar panels help to provide sustainable electricity for any use. Electrical output of a solar panel is dependent on orientation, efficiency, latitude, and climate—solar gain varies even at the same latitude. Typical efficiencies for commercially available PV panels range from 4% to 28%. The low efficiency of certain photovoltaic panels can significantly affect the payback period of their installation.



- **Rainwater Harvesting**

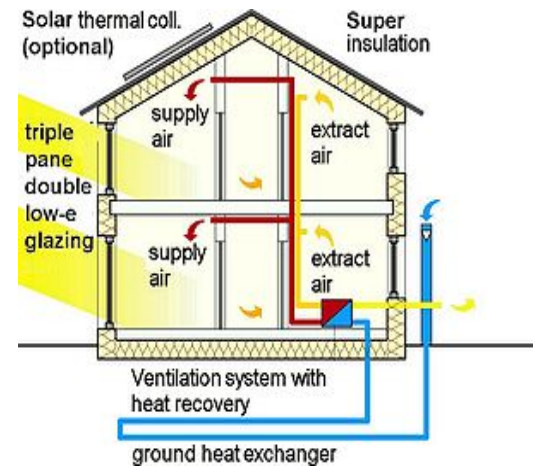
Rainwater harvesting is the accumulation and deposition of rainwater for reuse before it reaches the aquifer. Uses include water for garden, water for livestock, water for irrigation, and indoor heating for houses etc. In many places the water collected is just redirected to a deep pit with percolation. The harvested water can be used as drinking water as well as for storage and other purpose like irrigation.



- **Heating, ventilation and cooling system efficiency**

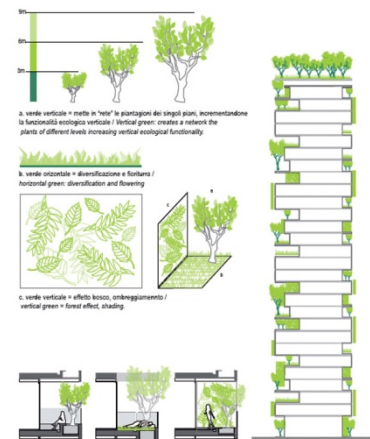
The most important and cost-effective element of an efficient heating, ventilating, and air conditioning (HVAC) system is a well-insulated building. A more efficient building requires less heat generating or dissipating power, but may require more ventilation capacity to expel polluted indoor air.

Significant amounts of energy are flushed out of buildings in the water, air and compost streams. Off the shelf, on-site energy recycling technologies can effectively recapture energy from waste hot water and stale air and transfer that energy into incoming fresh cold water or fresh air. Recapture of energy for uses other than gardening from compost leaving buildings requires centralized anaerobic digesters.



- **Green Building**

Green building (also known as green construction or sustainable building) refers to a structure and using process that is environmentally responsible and resource-efficient throughout a building's life-cycle: from sitting to design, construction, operation, maintenance, renovation, and demolition. This requires close cooperation of the design team, the architects, the engineers, and the client at all project stages. The Green Building practice expands and complements the classical building design concerns of economy, utility, durability, and comfort.



3.6 SPACE REQUIREMENT

- Work Station

Offices

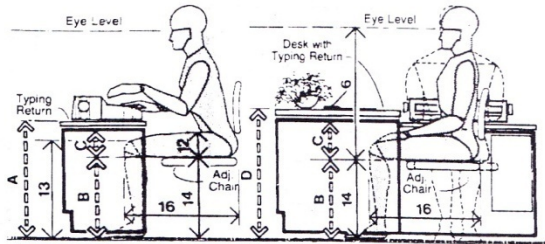


Fig. 12. Keyboard return and desk / male user

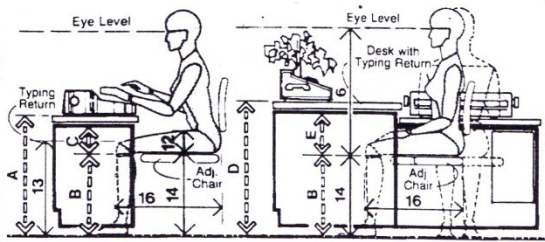
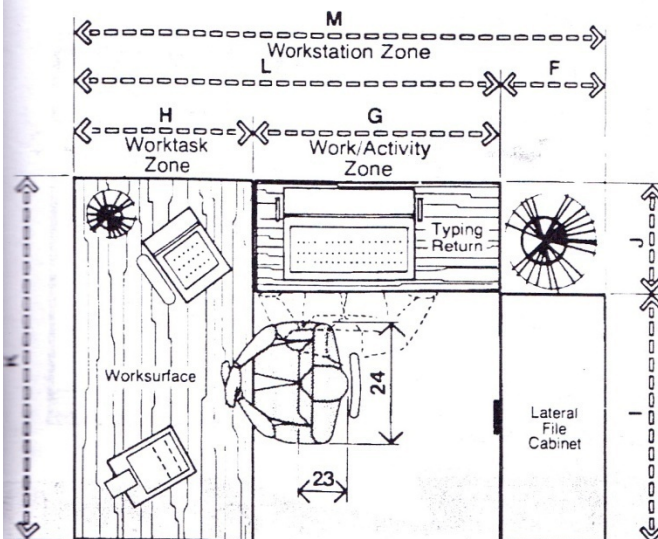


Fig. 13. Keyboard return and desk / female user



	in	cm
A	26-27	66.0-68.6
B	14-20	35.6-50.8
C	7.5 min.	19.1 min
D	29-30	73.7-76.2
E	7 min.	17.8 min.
F	18-24	45.7-61.0
G	46-58	116.8-147.3
H	30-36	76.2-91.4
I	42-50	106.7-127.0
J	18-22	45.7-55.9
K	60-72	152.4-182.9
L	76-94	193.0-238.8
M	94-118	238.8-299.7

Fig. 14. Basic U-shaped workstation

• Interrogation & Investigation Room

7 GOVERNMENTAL AND PUBLIC

service to the base station to insure its continued operations; therefore, the base station should be equipped with an emergency power source. This equipment should be capable of supporting not only all communications equipment, but also lighting requirements for the command center and primary operational portions of the building.

Figure 6 is intended to provide the reader with a visual display of a conceptual design model for a communications command center where telephone reception and dispatching are performed by the same person.

CRIMINAL INVESTIGATION AREA

Several design features should be considered when allocating floor space for criminal investigators (Fig. 7). Investigators make extensive and constant use of records; therefore, it is practical to place investigators as near as possible to the records center. A great number of people coming to the police facility do so in order to confer with investigators; public access is an important feature that must be considered when physically locating detectives.

The area allocated to detectives should provide for individual work space and a degree of privacy for each officer. Collectively, however, detectives should be in constant contact with one another. Therefore, a single spacious room is recommended to house all detectives. The room could then be divided into individual office areas by movable partitions.

Interrogation rooms (Fig. 8) are another important feature that should be located near the detectives.

Again, in the same general vicinity, the architect should provide for office space for both the unit commander and supervisors.

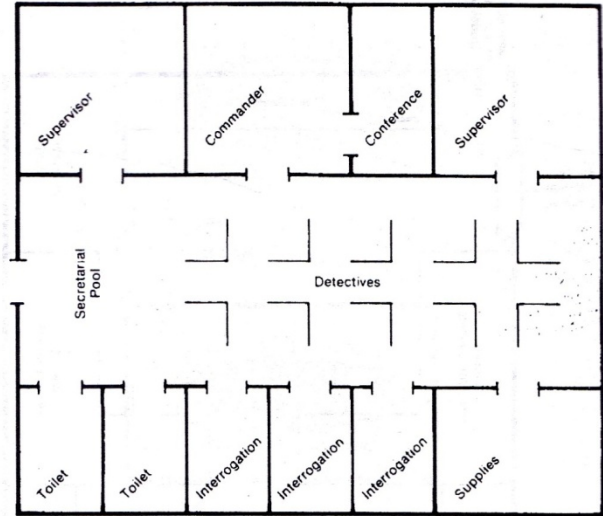


Fig. 7. Model criminal investigation area

UNIFORMED OPERATIONS AREA

Although uniformed operations requires the largest number of officers, the physical space needs in a police facility for uniformed personnel are substantially less than those of other departmental units. Uniformed officers, of necessity, must remain to a great extent in the field. They require the use of locker rooms, toilets, squad room, physical exercise area, briefing room, and writing area.

Commander/Supervisor

The patrol commander and/or shift supervisor should have an office accessible to the public, uniformed personnel, and the communications center. The close proximity to the communications center is important so that the commander can assist dispatchers, or take over the operation when necessary, under emergency conditions.

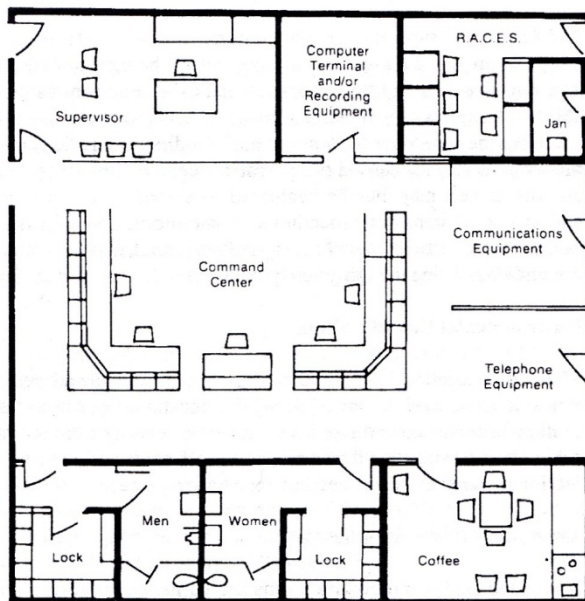
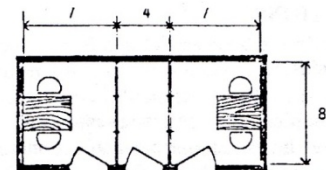
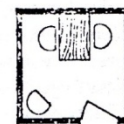


Fig. 6. Model communications command center



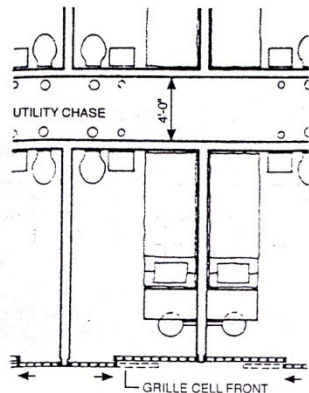
8 X 18 = 144
+29
173 S/F
TWO INTERROGATION ROOMS WITH MONITOR



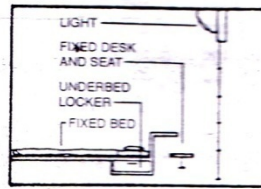
8 X 8 = 64
+13
77 S/F
INTERROGATION ROOM FOR TWO OR THREE PERSONS

Fig. 8. Interrogation rooms

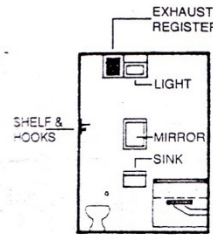
• Prison



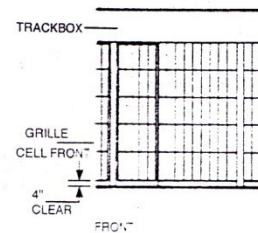
MAXIMUM SECURITY CELL



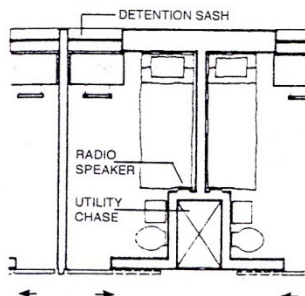
SIDE



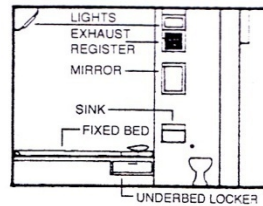
BACK



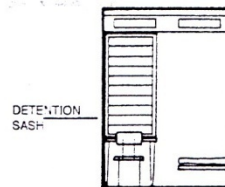
FRONT



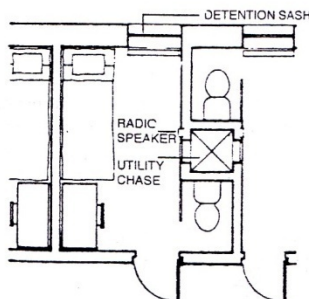
MEDIUM SECURITY CELL



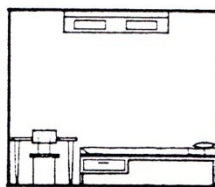
SIDE



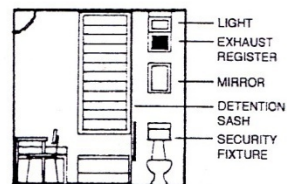
BACK



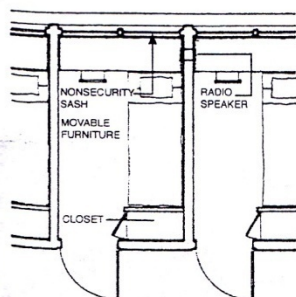
MEDIUM SECURITY CELL



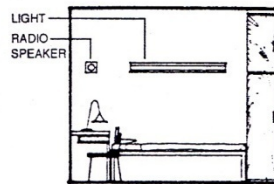
SIDE



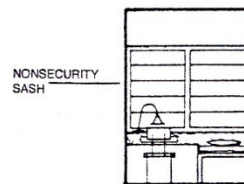
BACK



INMATE ROOM



SIDE



BACK

Fig. 16. Plans and elevations of various living spaces. Layouts and materials should reflect a concern for security, durability, and low maintenance.

CHAPTER 4: CASE STUDY

INTERNATIONAL

4.1 Los Angeles Police Department (LAPD) Headquarters

4.1.1 Information

Owner-City of Los Angeles

Architect-AECOM | Roth + Sheppard Architects JV

Site Area-3.742 acres

Area of building-491,023 SF

Total cost of construction-\$245,000,000

Status of Project-Completed

Structural engineer-Nabih Youssef & Associates, TMAD Taylor & Gaines

Civil engineer-Delon Hampton & Associates, VCA Engineers

Landscape architect-Melendrez Design Partners

Signage and graphics-Kaminski Kaneko Design

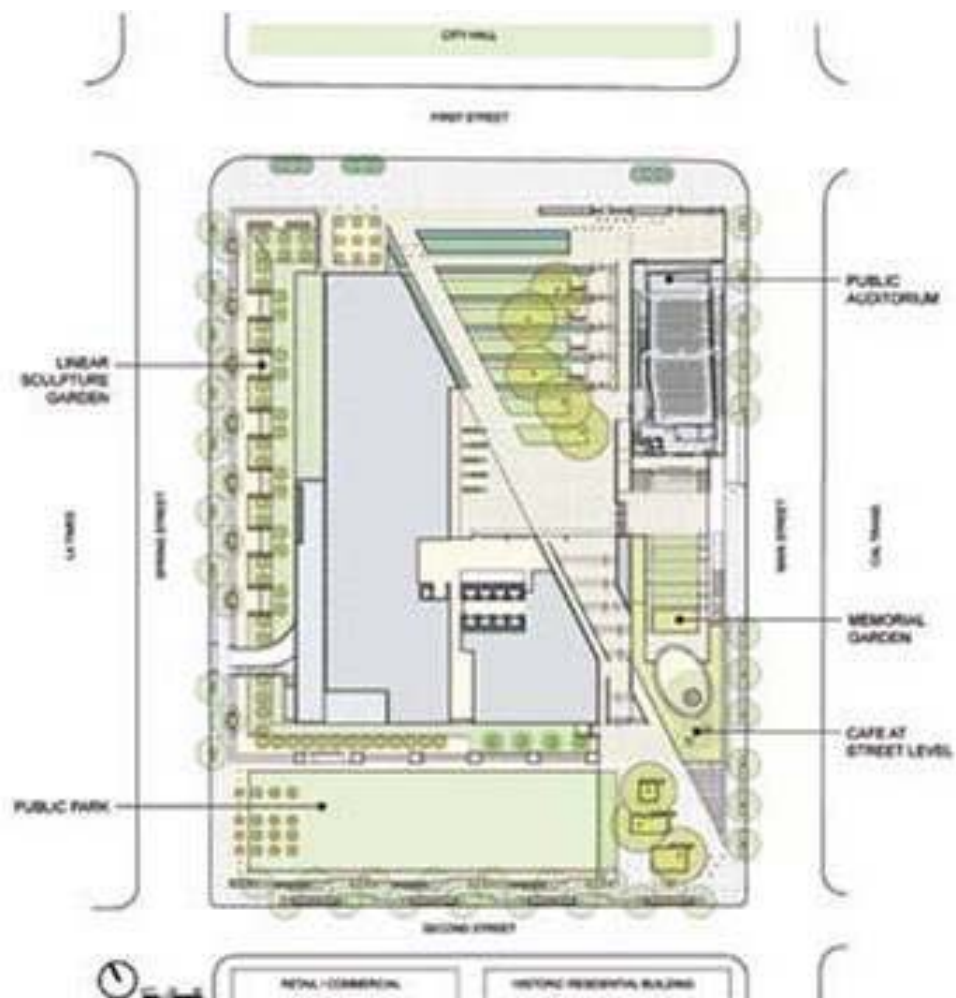
Exterior enclosure consulting-JA Weir Associates

Roofing and waterproofing consulting-D7 Consulting



The new Los Angeles Police Department Administration Building in downtown Los Angeles was built to replace the nearly 60 year old Parker Center, the former headquarters of the LAPD. In designing the replacement for their aging and unsafe headquarters, the main Goal of the LAPD was to make manifest their desire for increased transparency while at the same time maintains a secure and safe environment for the building's users and visitors. Located at the threshold between the civic core and the historic district, the building site offered a unique opportunity to link between the center of government at City Hall, and the nearby growing residential population. At nearly 500,000 SF and 10 stories above grade, the New Police Administration Building responds to the department's functional needs and also offers the surrounding community much needed public open space and freely accessible amenities throughout the site.

4.1.2 DRAWING



Site Plan

4.1.3 DETAILS



4.2 Air National Guard Headquarters and Readiness Center

4.2.1 Information

Owner: U.S. Air National Guard

Base architect: DMJM Architects and Engineers, N.Y., now AECOM, Arlington, Va.

Size: 170,000 square feet

Location: Joint Base Andrews,

Date completed: August 2010

Design manager: CH2M Hill, Chantilly, Va.

Interiors architect: Gensler, Washington, D.C.

Landscape designer: Land Planning and Design Associates; Charlottesville, Va.

General contractor: Clark Construction Group, LLC, Bethesda, Md.

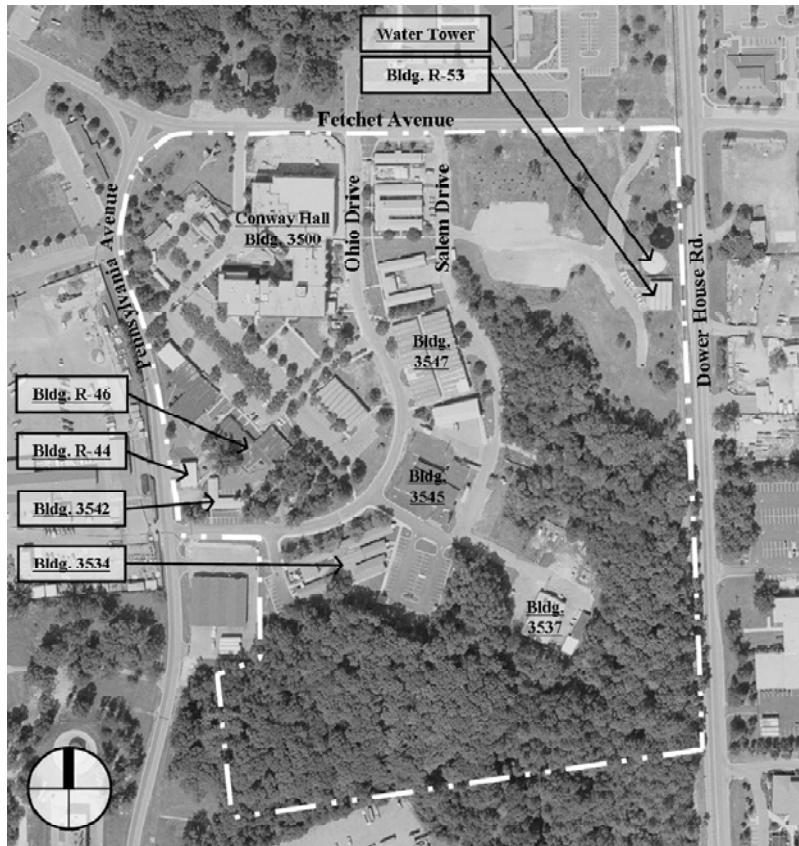


Air National Guard Headquarters and Readiness Center, Andrews Air Force Base, was designed by AECOM that located in United States, The building is designed with a concrete frame structural system. Phase I follows the stringent requirements and design criteria for progressive collapse to meet Anti-terrorism and Force Protection guidelines. Phase 2 follows standard design practice. Insulated metal panels will be used on part of the west façade, and major portions of the east façade's spandrel panels will be composed of horizontally subdivided sections of flat and ribbed metal panels. Approximately 57% of the overall roof area of the new building will be a vegetated extensive green roof application, ideal for this structure where very minimal maintenance is preferred.

The design consists of a four-story office wing (Phase 1) with an adjoining two-story conference centre (Phase 2). The two phases will be connected by a three-level atrium that ties back to Conaway Hall on the second level. The ground level connection will be an exterior, open air path, protected by the enclosed second floor connector above.

A formal plaza to the southeast of the building will define the new south entry for the ANG campus. The building façade will use a combination of glass, metal panels and a minimal use of stone and masonry features to create an image that is distinct and substantial, yet harmonious with the surrounding context.

4.2.2 DRAWINGS



Site Boundary



Site Plan

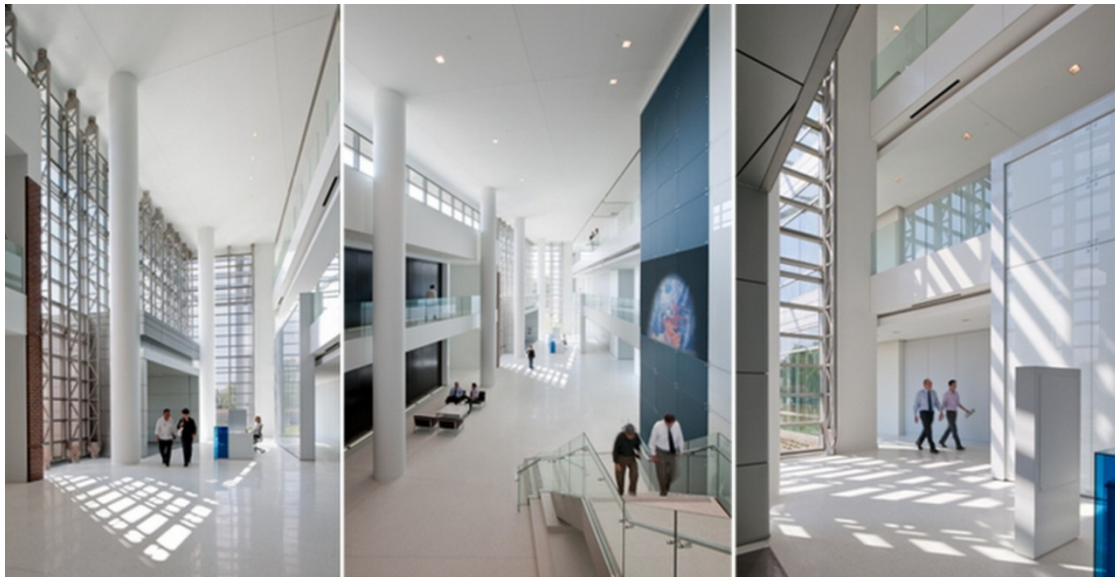


Elevation



Perspective

4.2.3 DETAILS & PHOTOGRAPS



4.3 City Police Headquarters in Lleida

4.3.1 Information

Architects: Mestura Arquitectes

Location: Lleida, Spain

Project Year: 2010

Photographs: Jordi Clariana, David Capellas, Francesco Soppelsa

Project Area: 5,293.93 sqm

Budget: €8,989,212.35

Promotor: Edificio PGU Lleida S.A.



The volumetric proposal responds to the urban needs through a single body U-shaped around a courtyard that opens onto the landscaped areas protected from the street Salmeron. The building is positioned according to the road alignments Round the Old Cathedral and Pallars street, in order to free up space in the area of the main access from the junction Prat de la Riba – Salmeron. There is here a big protected green area that represents a counterpoint to the building and simultaneously acts as a visual reference from the inner courtyard. This court articulates and prioritizes the various uses within the center and at the same time filled with light all the rooms.

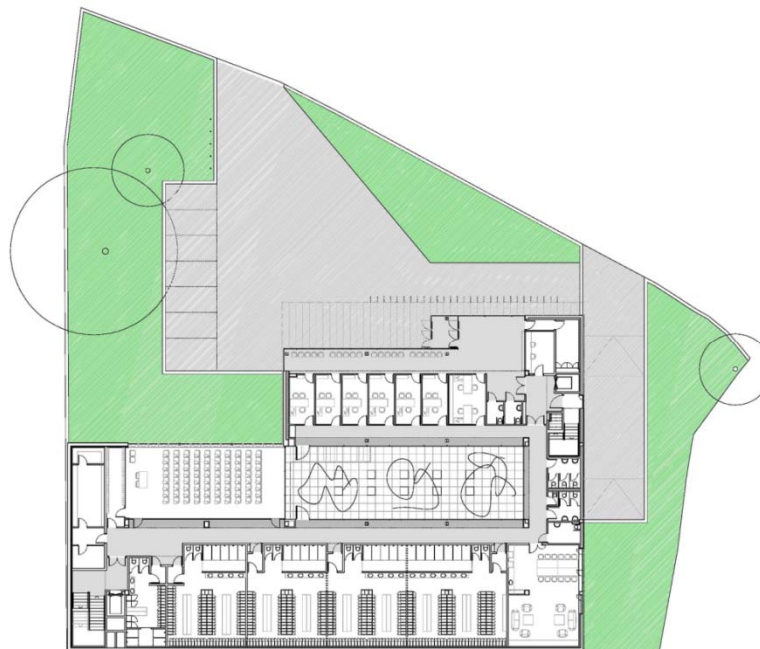
The general appearance is that of a compact body with a stone treatment of the exterior walls, high above the ground by a concrete base, but also light and transparent where it is necessary to open, outdoor areas of access and attention span citizens, as well as the facades that open into the courtyard.

4.3.2 DRAWINGS



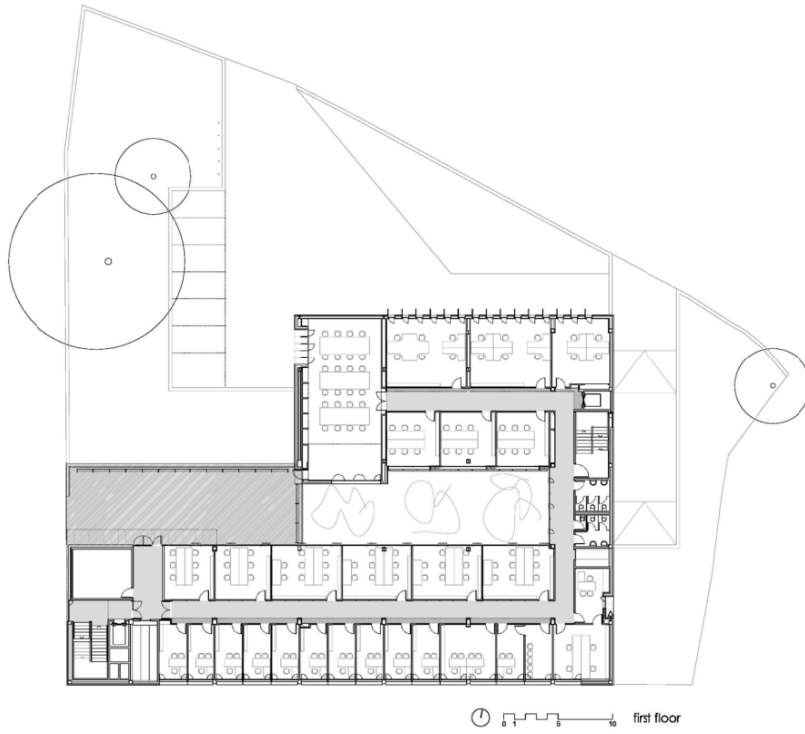
site plan

Site Plan

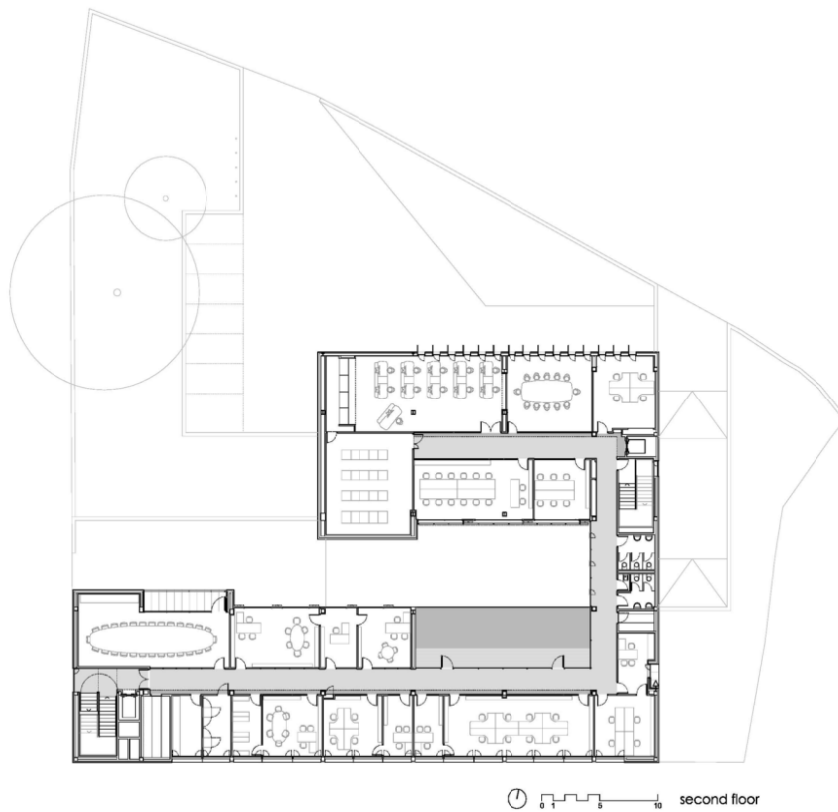


ground floor

Plan

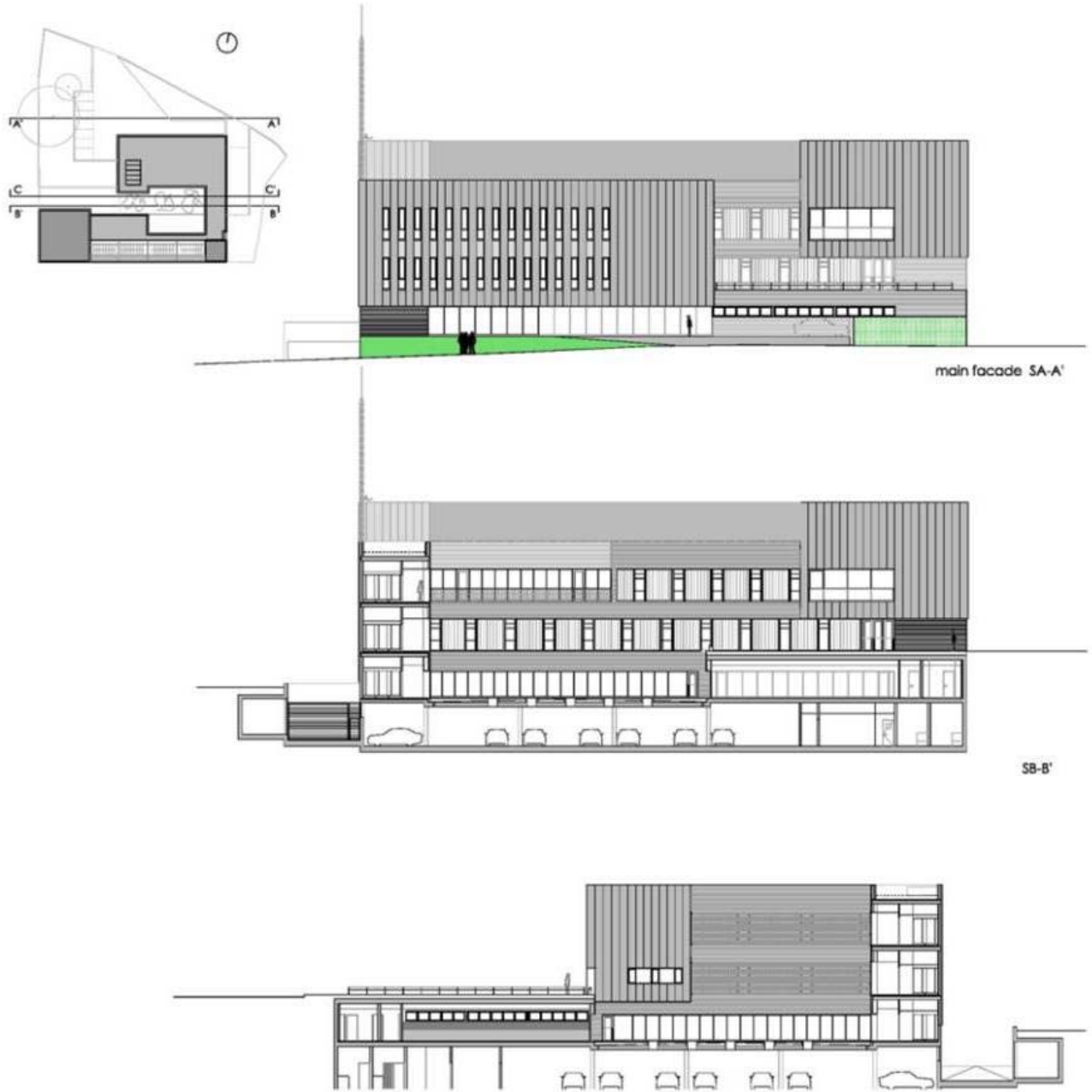


1ST Floor Plan

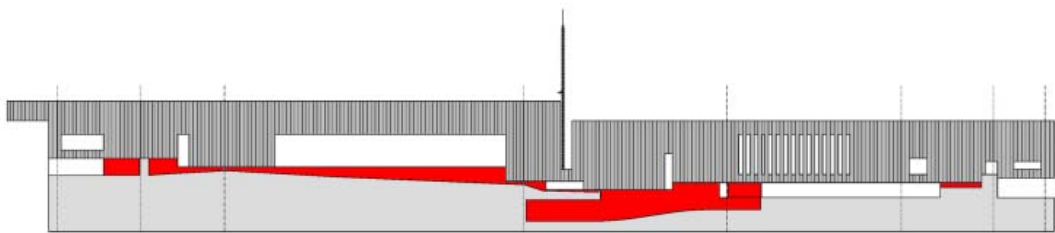
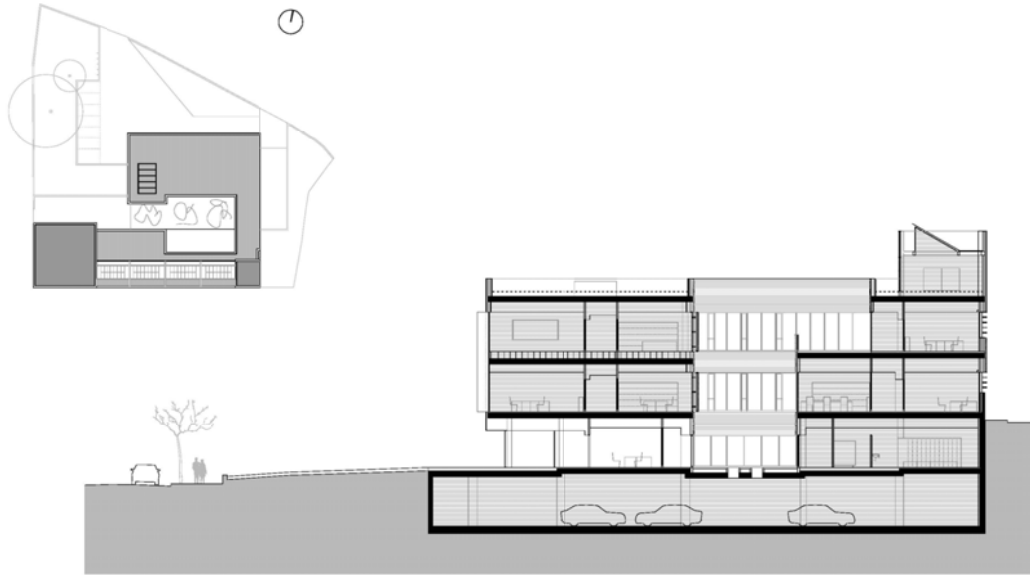


2ND Floor Plan

Elevations

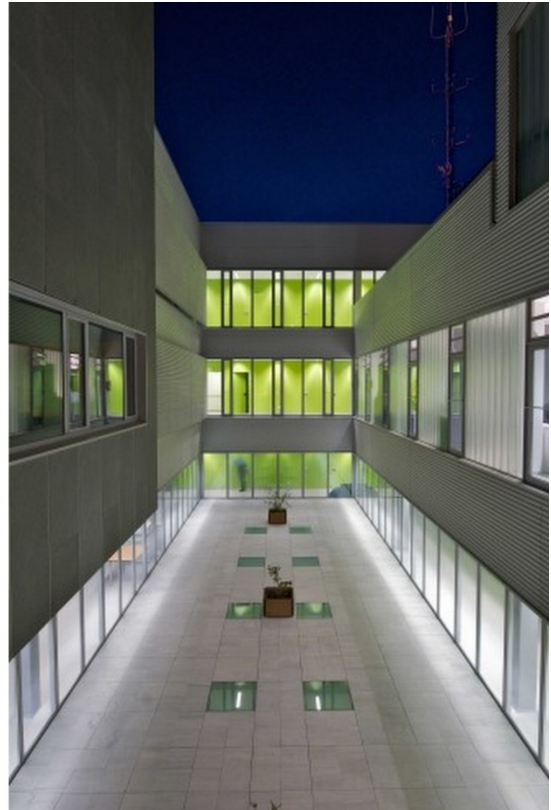


Sections



deployment of the facade

4.3.3 DETAILS & PHOTOGRAPS



CHAPTER 5: PROGRAM DEVELOPMENT

5.1 MAXIMUM GROUND COVERAGE

Site Area, A = 5.3 acres = 228960 sqft

Road width around the site = 70 ft (highest) = 21 m

So, for public spaces, FAR = 5.5

MGC = 50% of A = 114480 sqft

Total Built Area, TBA = FAR x Site area = 5.5 x 228960 = 1259280 sqft

With 30% circulation = 1259280 + (1259280 x 30/100) = 1637064 sqft

Total floors can be built (maximum) = TBA/MGC = 11

Setback for the site :

Front = 1.5 m

Back = 3 m

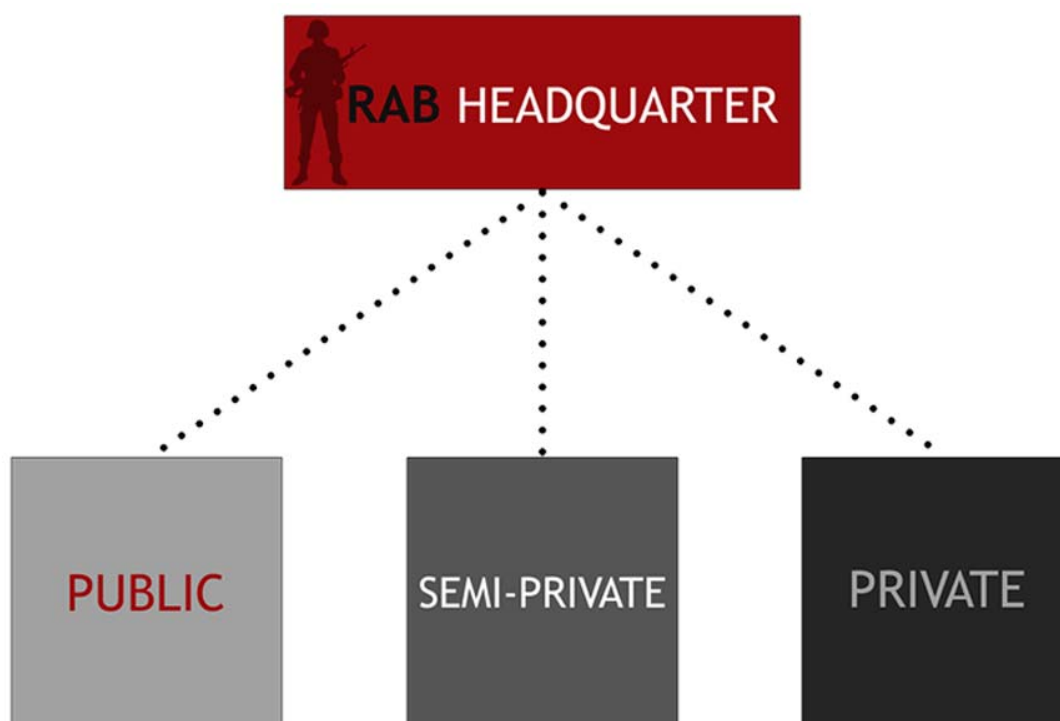
Each side = 3 m

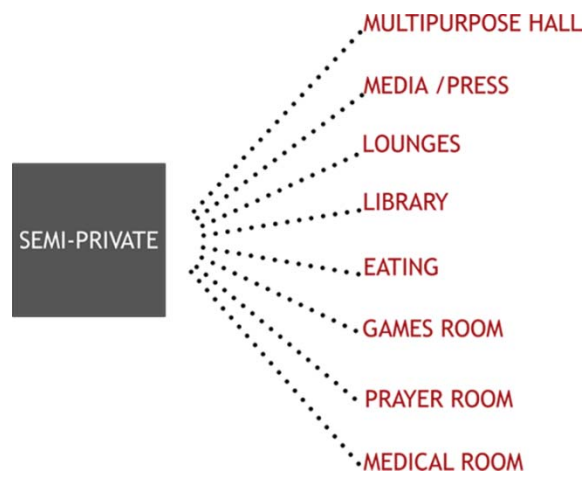
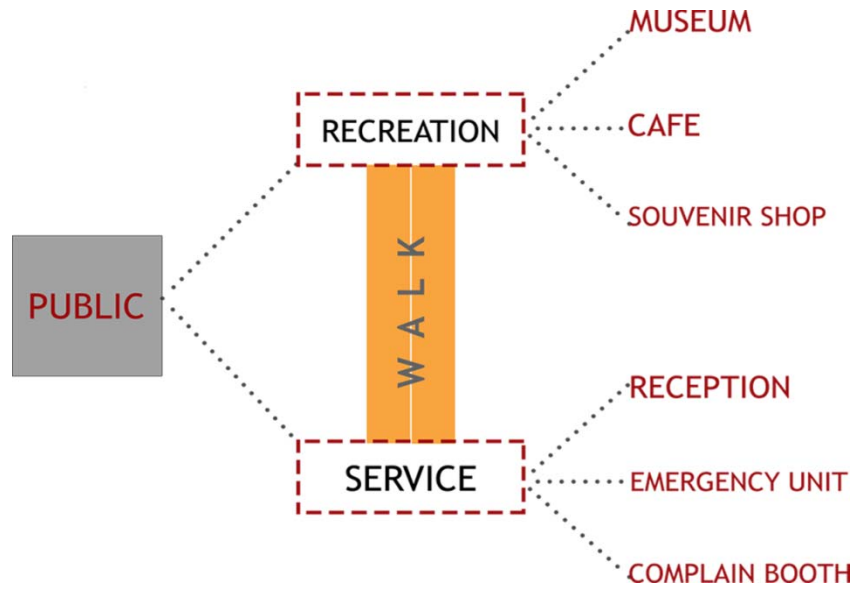
5.2 PROGRAM

Main program	Program	No.	Per sqft	Total sqft
Administration	1. Waiting	1	15x20	300
	2. Director room	1	20x30	600
	3. Additional director	2	200	400
	4. Assistant additional director	4	10x10	400
	5. Meeting room	4	20x20	1600
	6. Conference room	3	30x20	1800
	7. Operation Briefing room	1	30x20	600
	8. Staff	16	5x8	3200
	9. Toilet [Both men and woman]	10	4x5	300
	10. Deputy director	4	100	400
	11. Deputy assistant director	6	100	600
	12. Budget officer	4	60	240
	13. Operation room	2	400	800
	14. Complain Booths	6	25	150
	15. Arms and ammunitions space	1	1000	1000
	16. Central co-ordination room	1	800	800
	17. Library	1	2000	2000
	18. Logistics department	1	1200	1200
	19. Recruit department	1	2000	2000
	20. Seminar room	2	1500	3000
Operation wing	21. Central operation	1	1200	1200
	22. Planning and monitoring	1	1000	1000
	23. Bomb squad	1	1500	1500
R and D cell	24. Evidence room	1	1000	1000
	25. Research space	2	800	1600
Investigation and Forensic wing	26. Investigation Branch	1	1200	1200
	27. Forensic lab	1	1200	1200
	28. Cipher Unit	1	500	500
	29. Interrogation space	2	800	1600
	30. Jail	5	25	125
Air Wing	31. Helipad with Helicopter	1	500	500
	32. Control room and communication	1	1600	1600
Communication Branch	33. Tracking Radio system	1	1000	1000
	34. Line departure terminal system	1	1200	1200
	35. Video conferencing	1	500	500
	36. Communication VHF link	1	1000	1000
	37. Remote control close circuit surveillance	1	1000	1000
	38. MIS	1	1000	1000

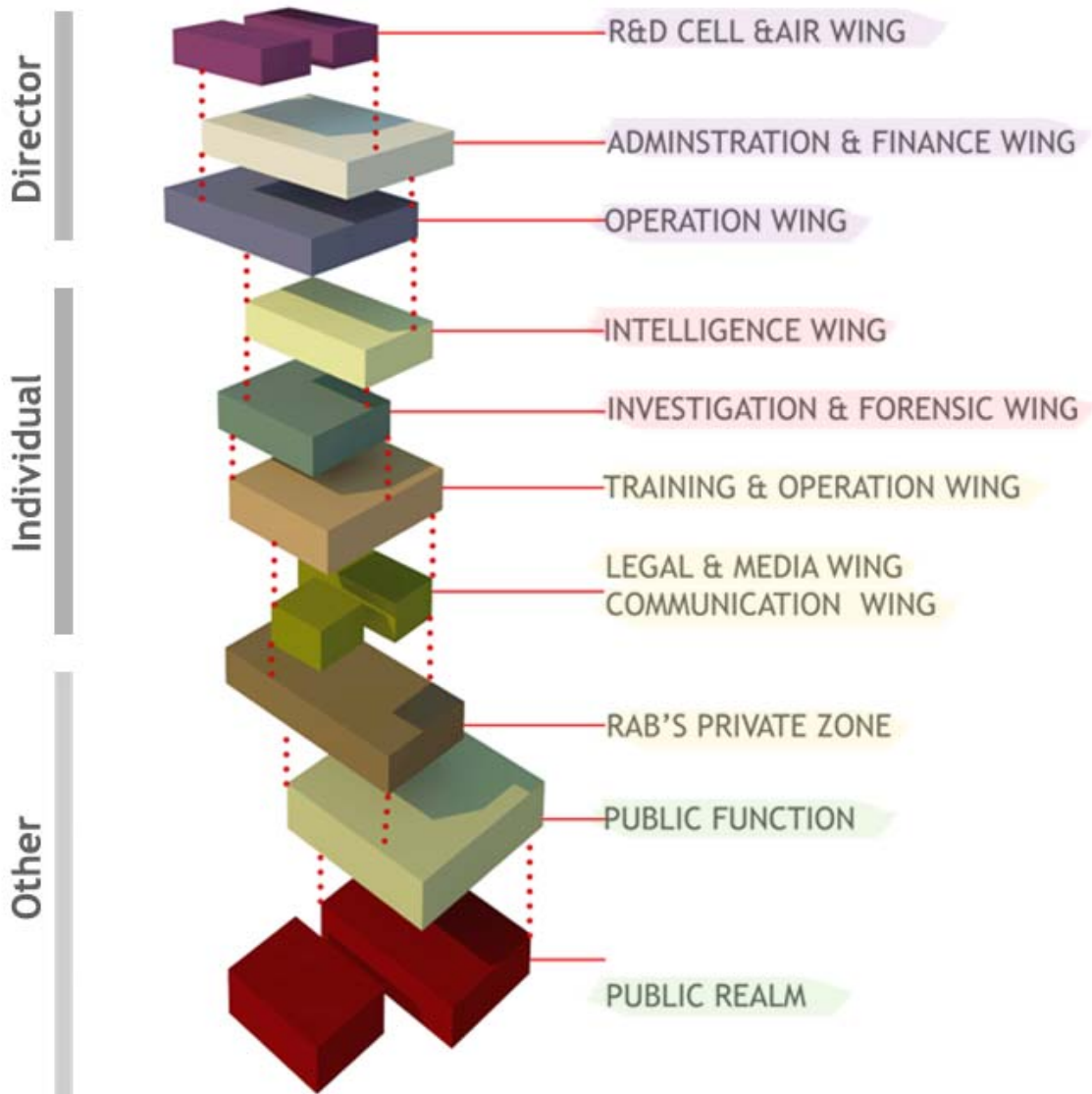
	39. Communication Department	1	4000	4000
Legal and media wing	40. Legal department	1	1600	1600
	41. Video room	1	1000	1000
	42. Media press	1	1600	1600
Training and orientation wing	43. Classrooms	4	180	700
	44. Teachers room	3	100	300
	45. Consulting room	1	140	140
Recreational	46. Multipurpose hall	1	4000	4000
	47. Games room	1	1000	1000
	48. Prayer space [30 person]	1	3600	3600
	49. Restaurant	1	2400	2400
	50. Souvenir shop	1	180	180
	51. Gymnasium	1	1500	1500
Transport facility	200 cars including Multipurpose hall	200	120	26000
	Total Sqft.			88135
	With 30% circulation			114575

5.2.1 PROGRAM LAYOUT



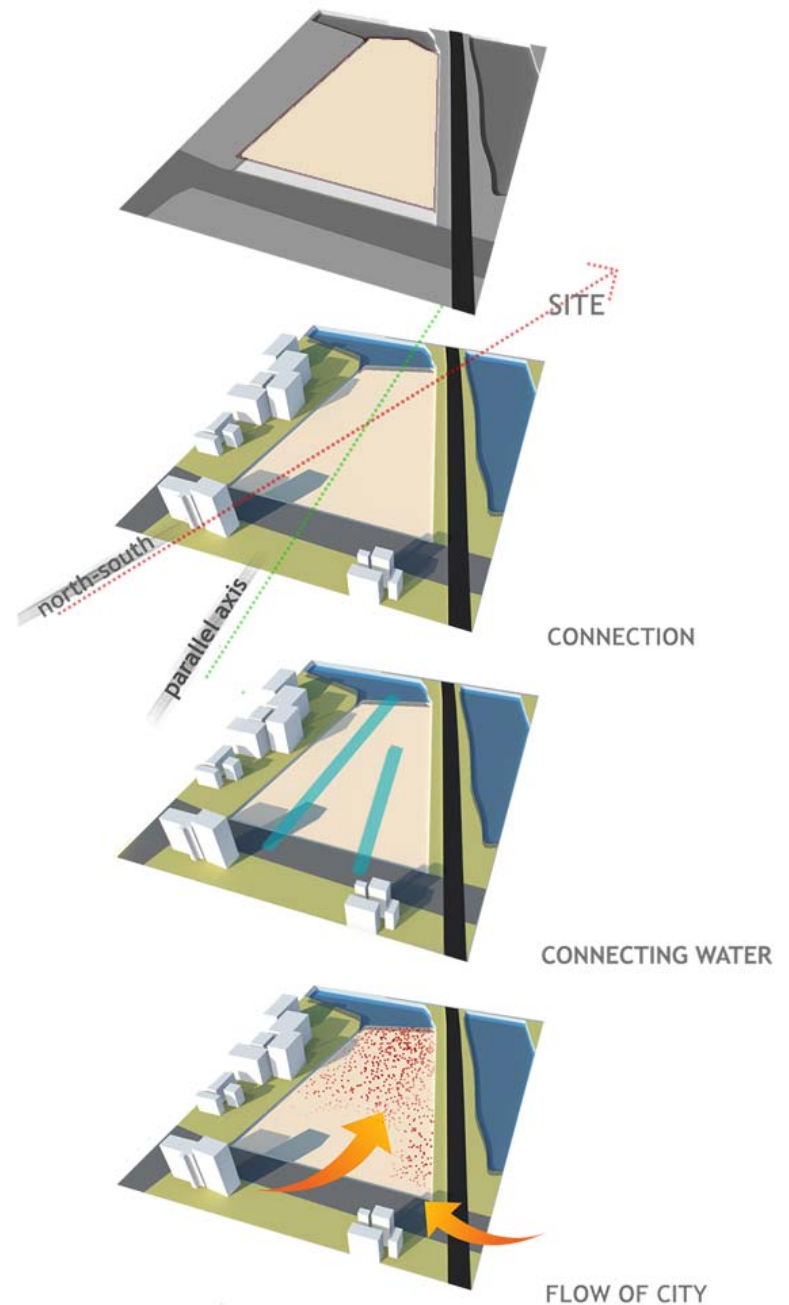


5.2.2 CONCEPTUAL DIAGRAM OF PROGRAMS



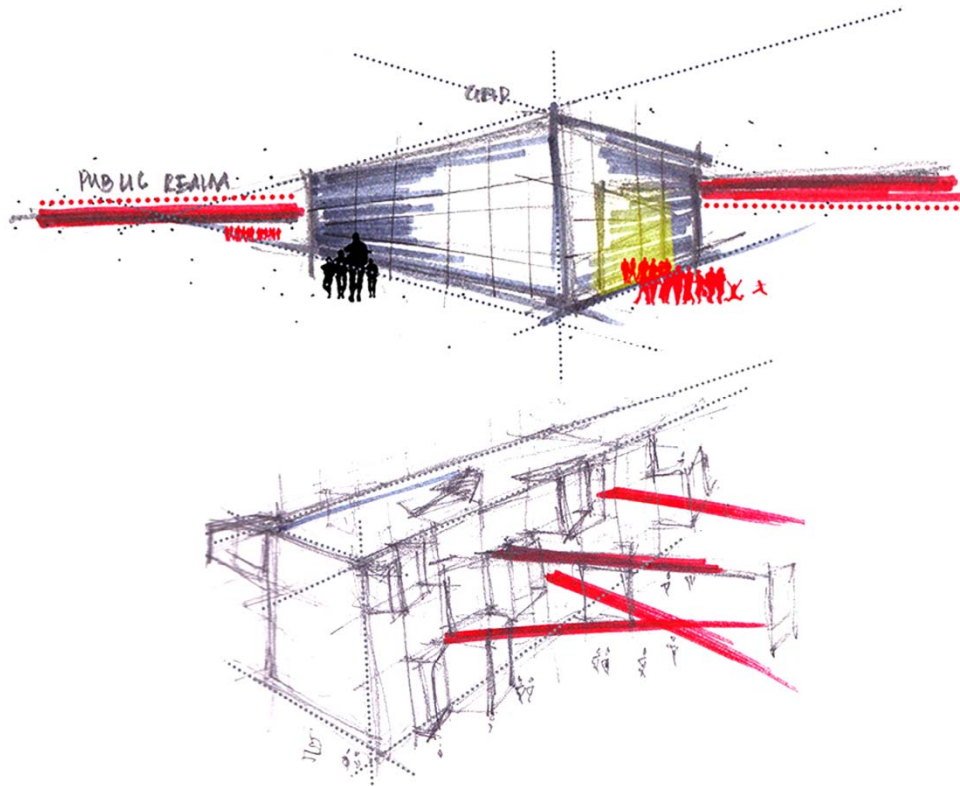
CHAPTER 6: DESIGN DEVELOPMENT

6.1 STUDY AND APPROACHES FROM THE SITE

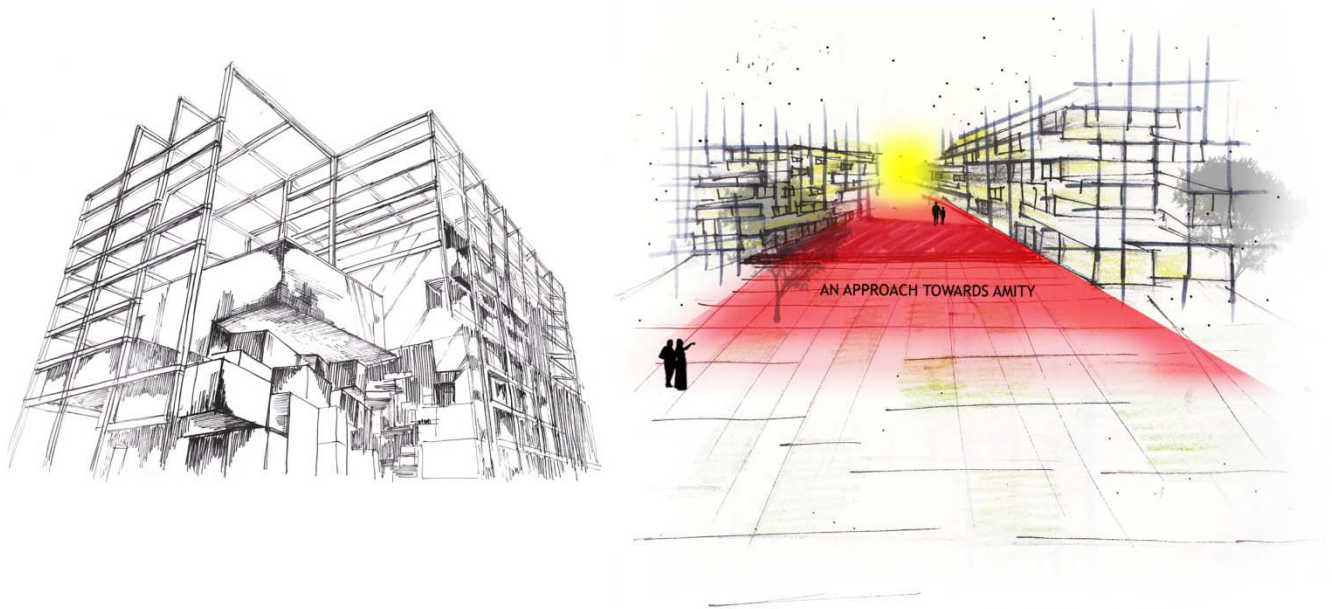


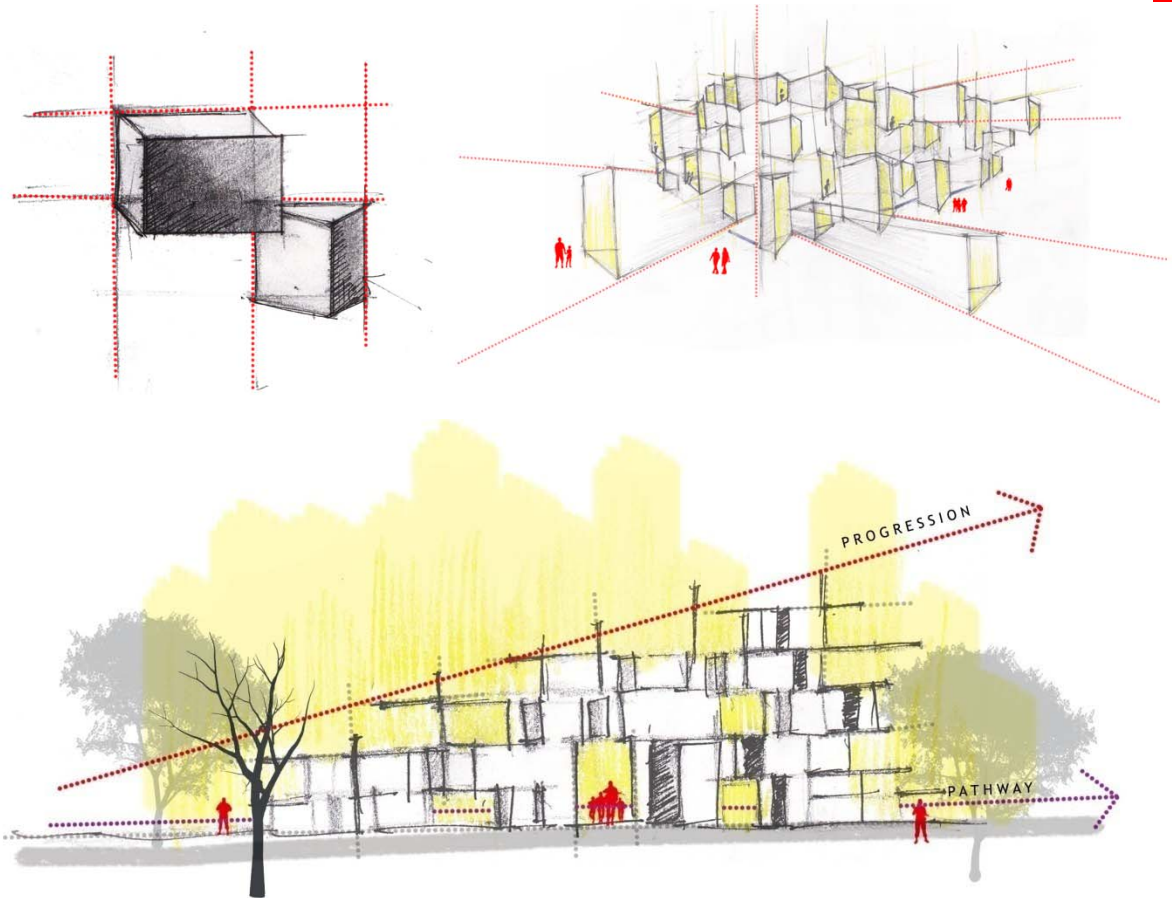
Design of a Headquarter requires a functional progression. Before that functional development, the prime concern was to understand the site surrounding & site forces. After the study and analysis, I had decided to focus on some important site factors. To create a connection between the site and surrounding I choose north-south axis for climatic purpose and the central axis of the site. The main objective of these lines was to produce a pathway towards the waterbody so that the city flow can have an opportunity to utilize that space as a public realm.

6.2 CONCEPT DEVELOPMENT



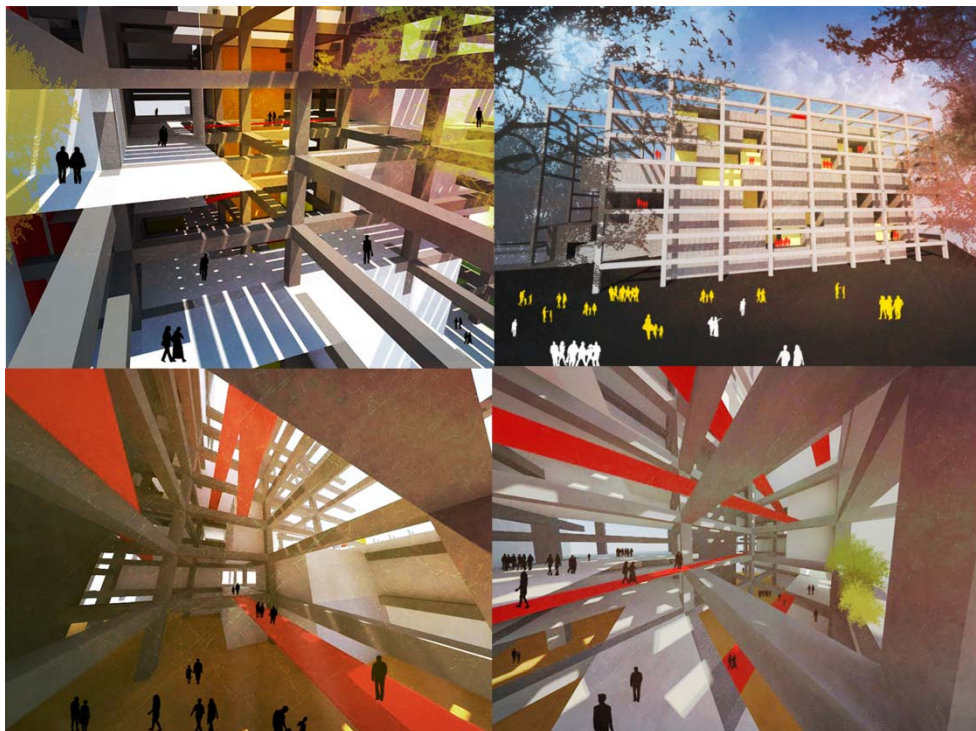
The main conceptual idea of this project was to break the rigidity of RAB and introduce a public pathway which can connect the people & RAB. Grid pattern of the entire building will show the discipline with a relief inside the order which will act as an urban corridor of our city.





6.3 KEY SPACES

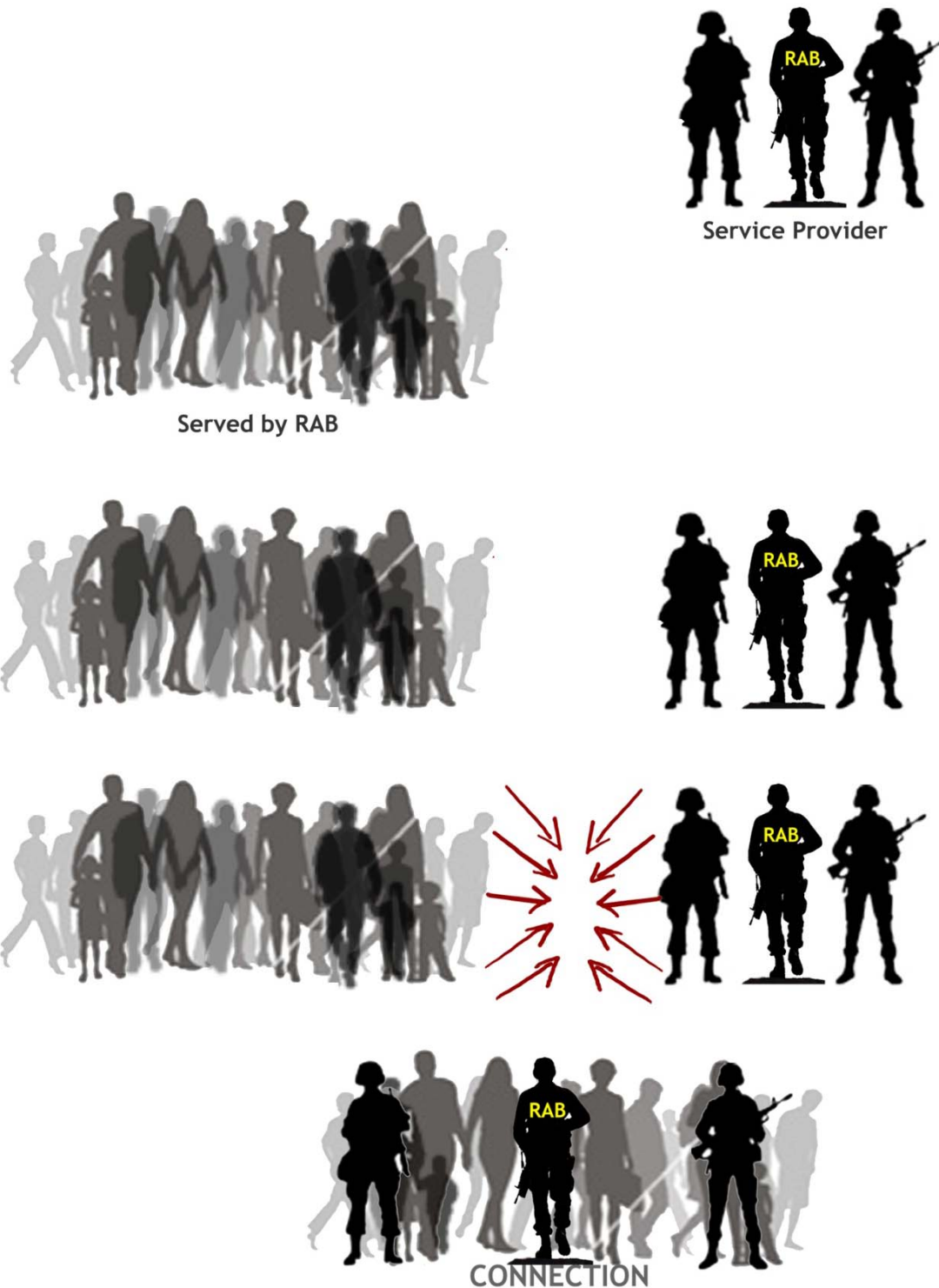
Initially the main objective was to generate some heterogeneous spaces where people & RAB will interact. At the same time my intension was to design double height spaces, interlinked bridge, interactive spaces etc.



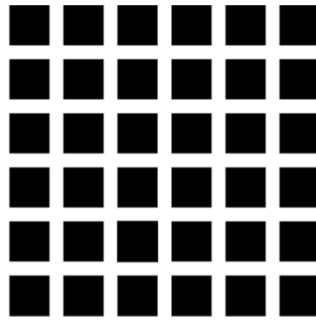
6.4 CONCEPT FINALIZATION

6.4.1 CONNECTION CREATE

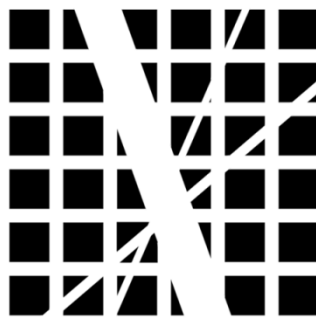
RAB are the service provider and People are the service consumer. But they have no connection due to lack of transparency, controversy, security issue, fear etc. I want to break that barrier and provide them a common place where they can communicate properly.



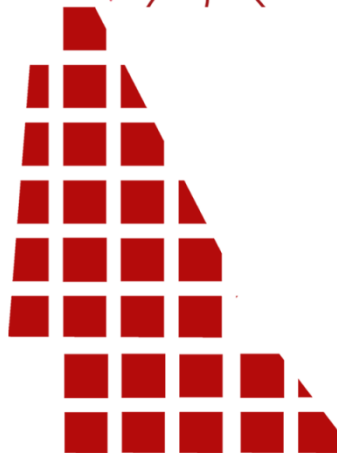
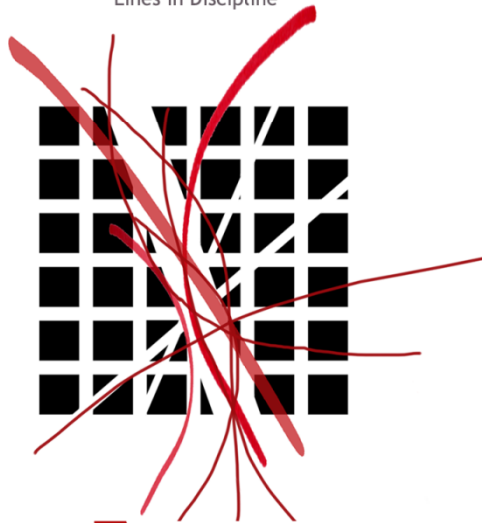
6.4.2 SPACE DERIVATION



Discipline

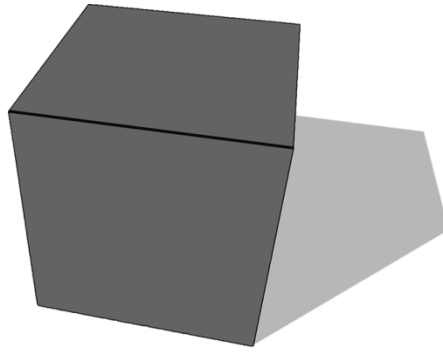


Lines in Discipline

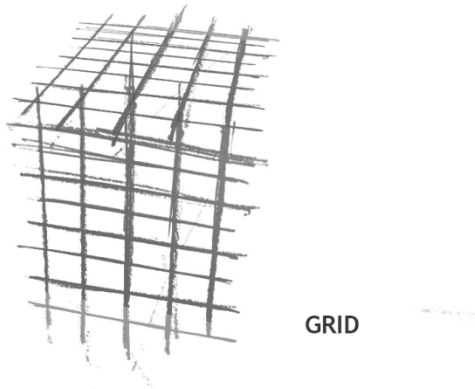


Space With Discipline

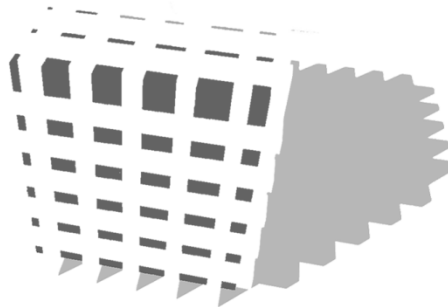
6.4.3 FORM DERIVATION



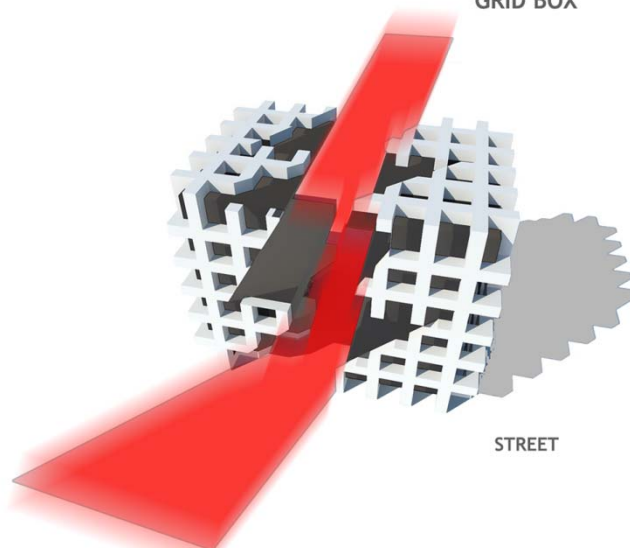
SOLID BOX



GRID



GRID BOX



STREET

6.4.4 CONCEPTUAL MONTAGE



Split Inside The Form



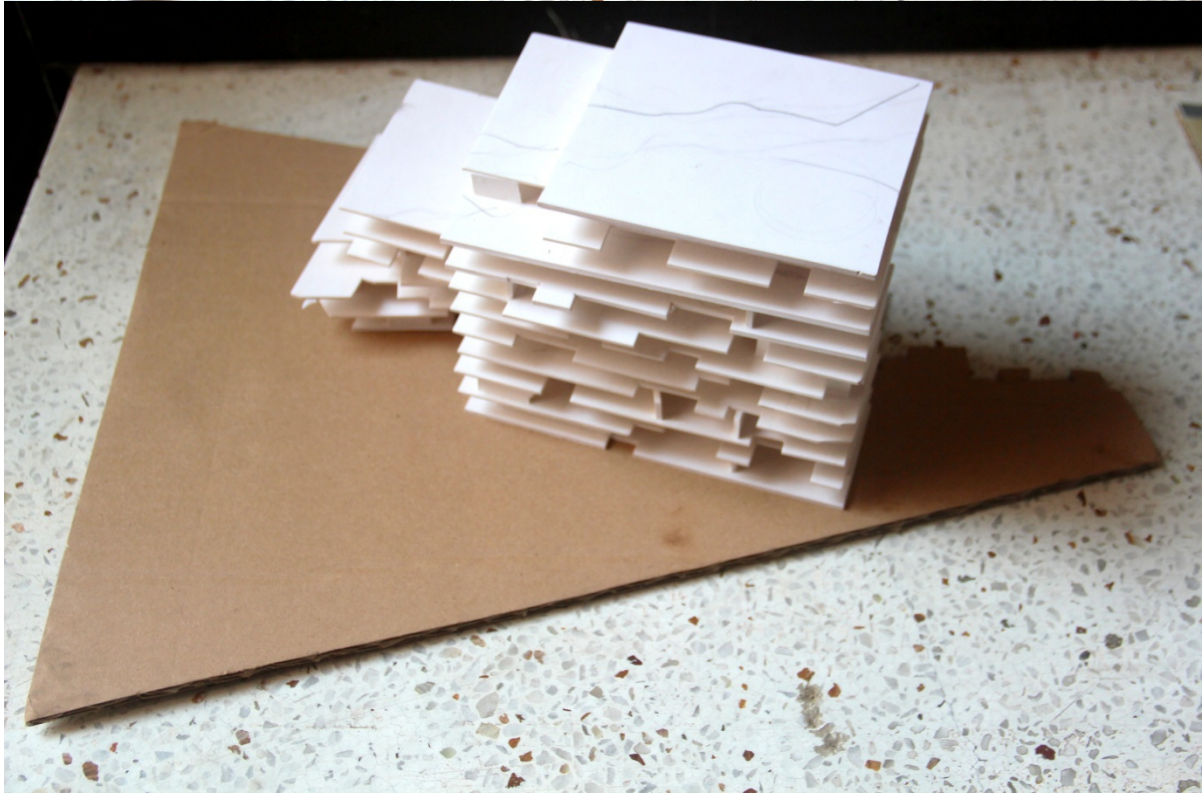
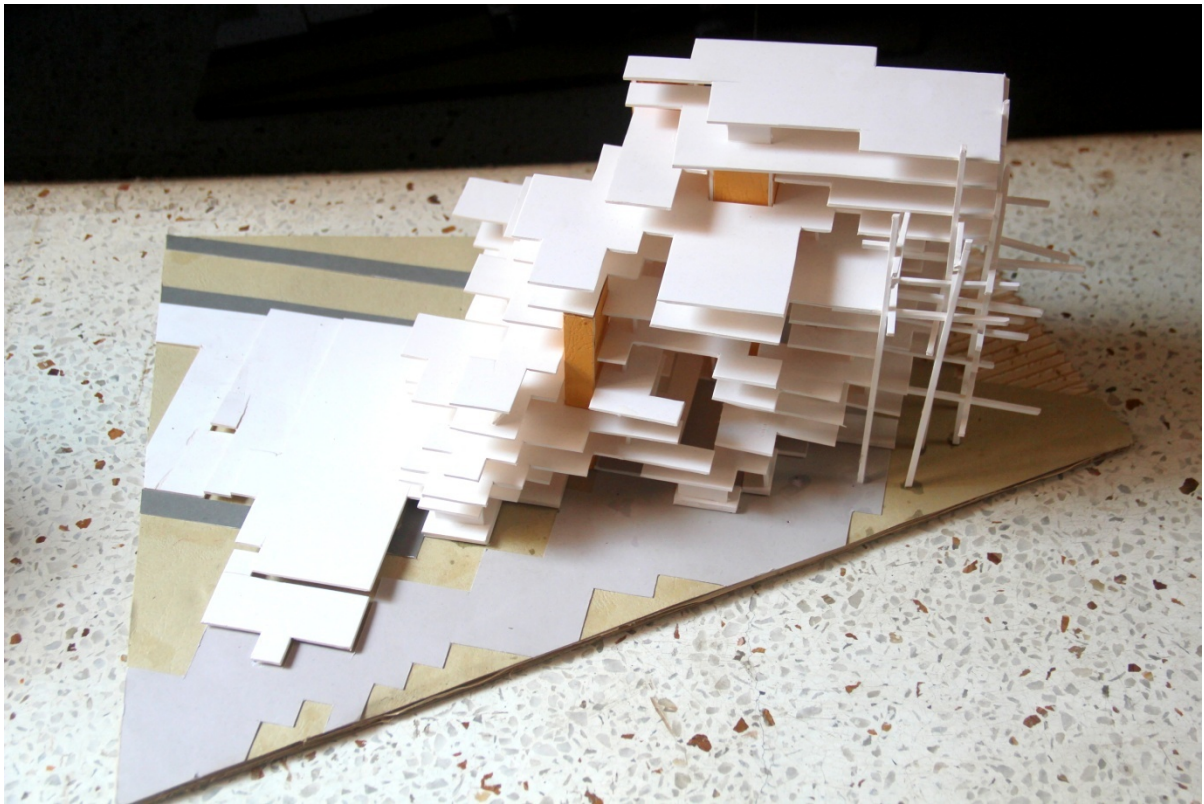
Street Activity



Activity inside the Form

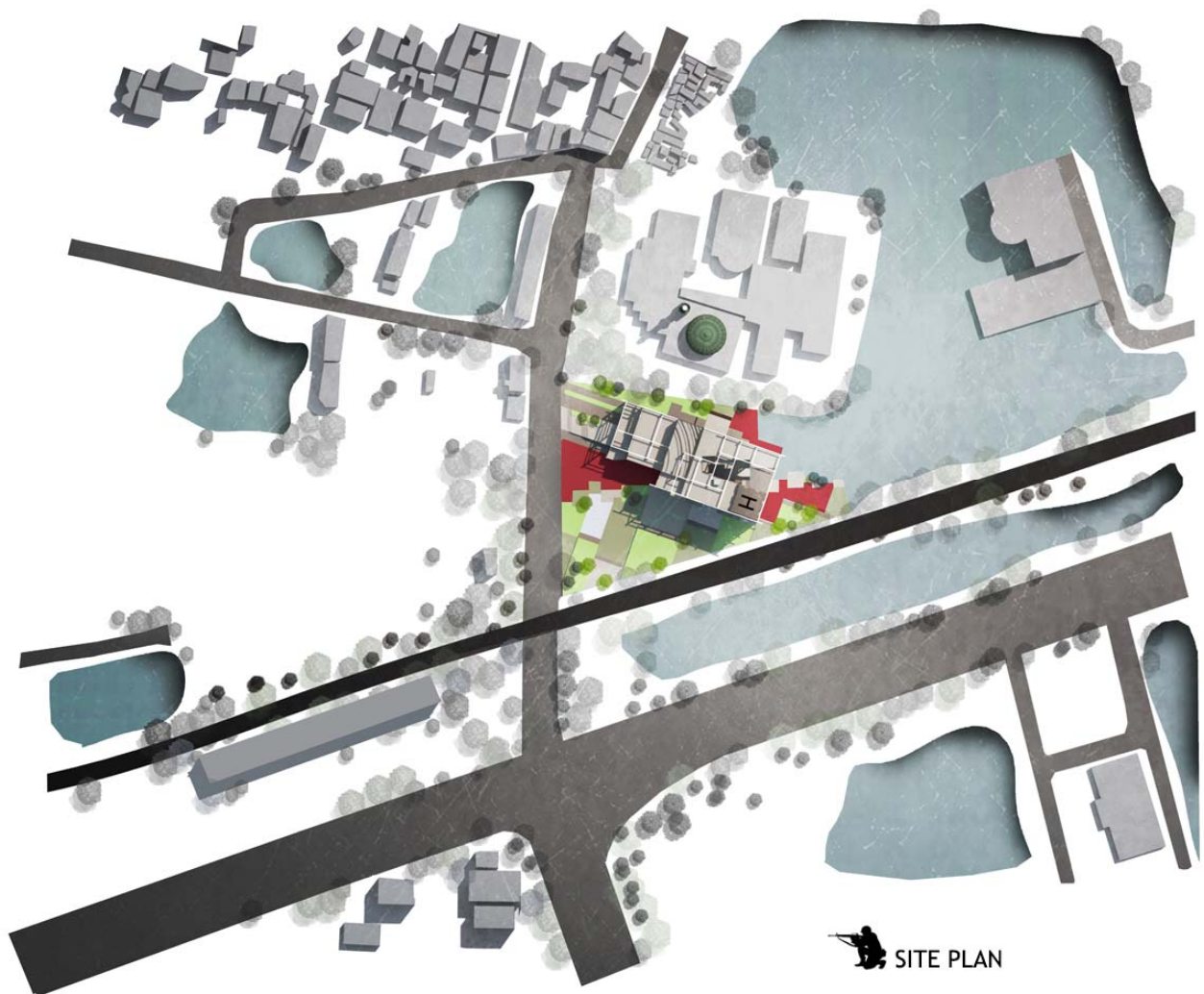
6.5 FORM DEVELOPMENT

Basic idea was design two solid mass with an upper connection. Gradually the shape of the form has changed based on climatic consideration, functional requirement and aesthetic purpose. Ultimate form was developed throughout some different types of experiments. After finalizing the form, exposed column beam structure was designed and composed as it was a vital part of that building.



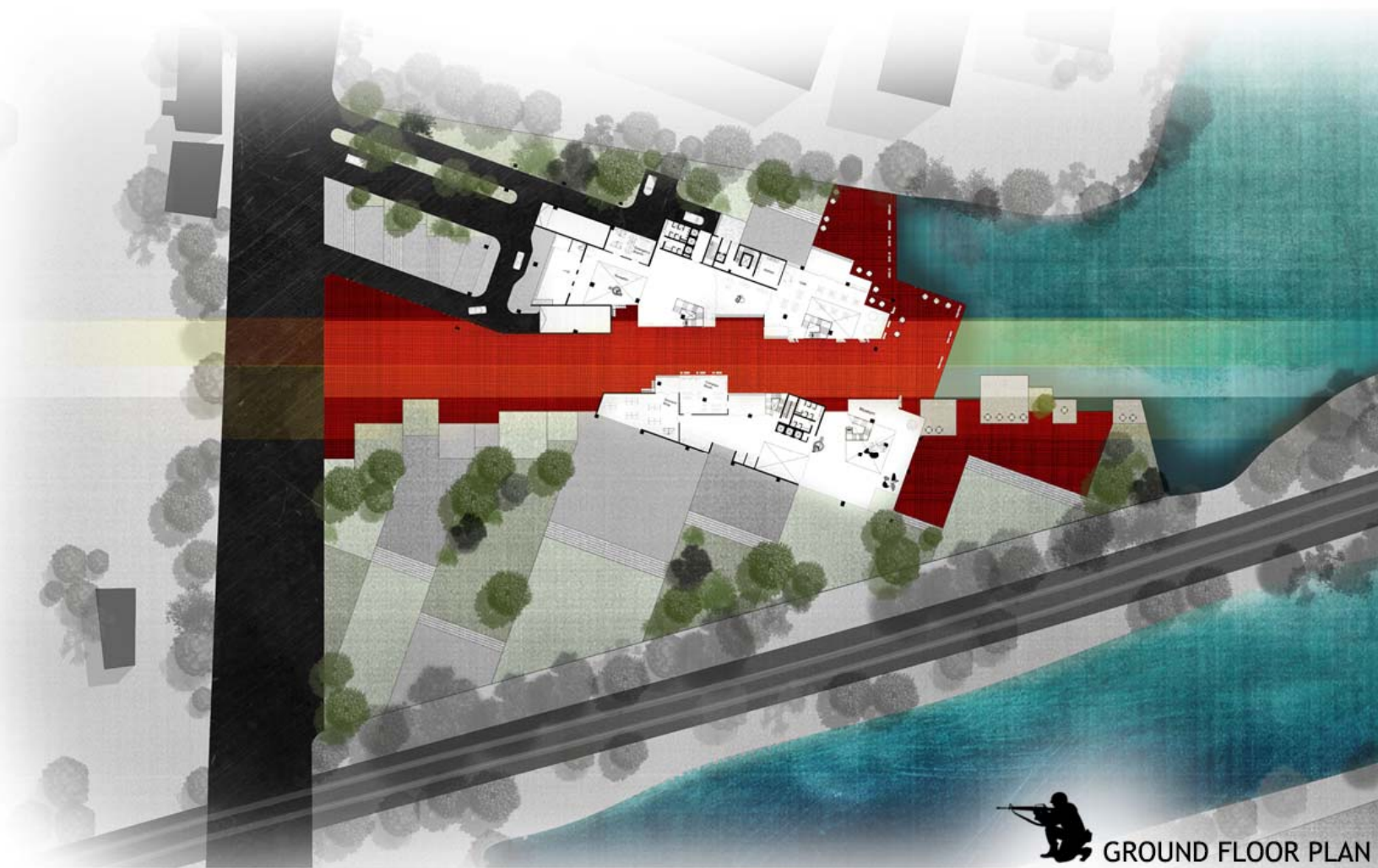
CHAPTER 7: FINAL DESIGN

7.1 SITE PLAN



 SITE PLAN

7.2 PLANS



GROUND FLOOR PLAN



BASEMENT



1ST FLOOR
PUBLIC FUNCTION



2ND FLOOR
PRIVATE FUNCTION (RAB)



3RD FLOOR
LEGAL & MEDIA WING
COMMUNICATION WING



4TH FLOOR
TRAINING & ORIENTATION WING



5TH FLOOR
INVESTIGATION & FORENSIC WING



6TH FLOOR
INTELLIGENCE WING



7TH FLOOR
OPERATION WING



7.3 SOUTH-WEST ELEVATION



7.4 SECTION

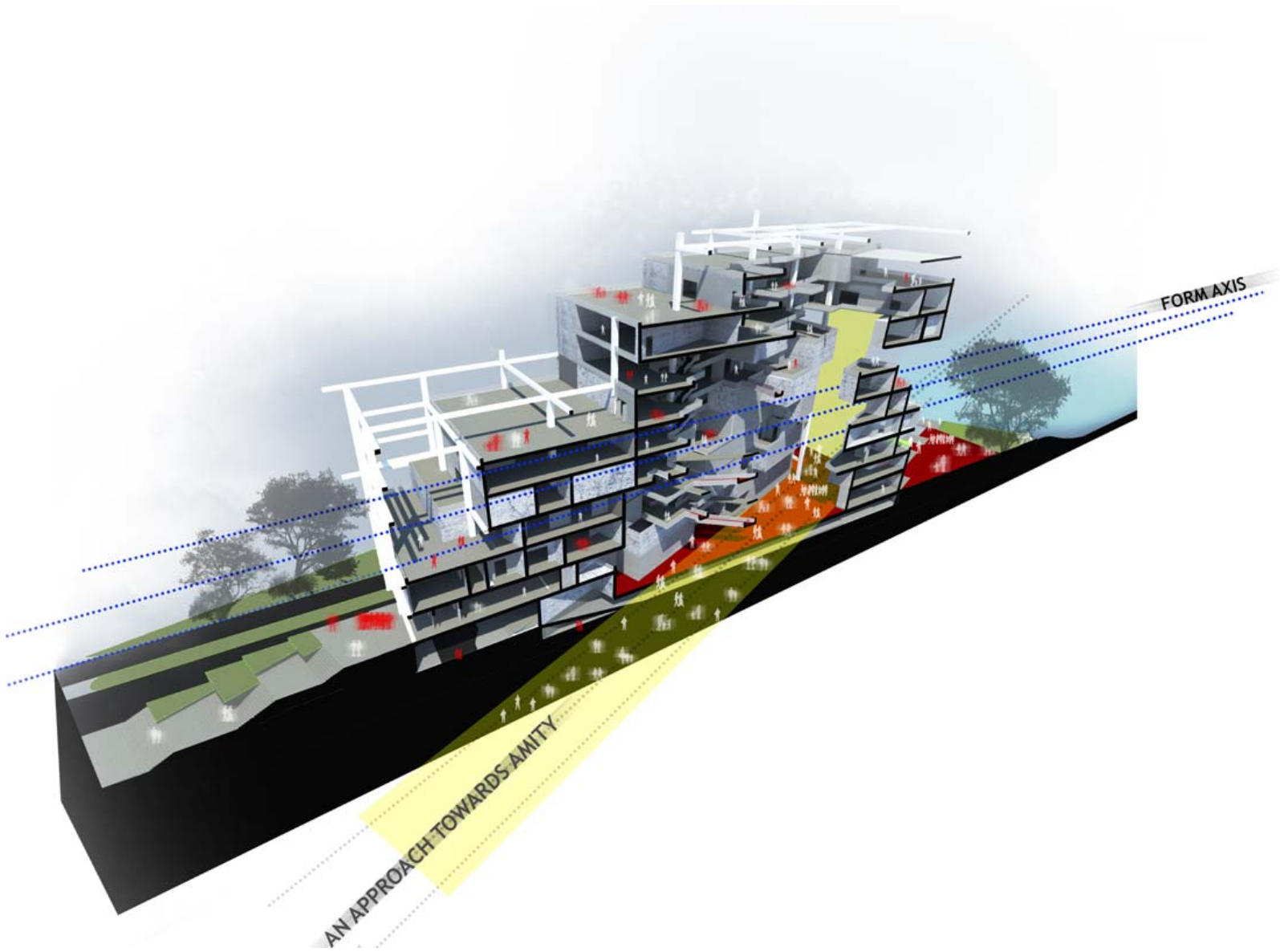


SECTION BB'

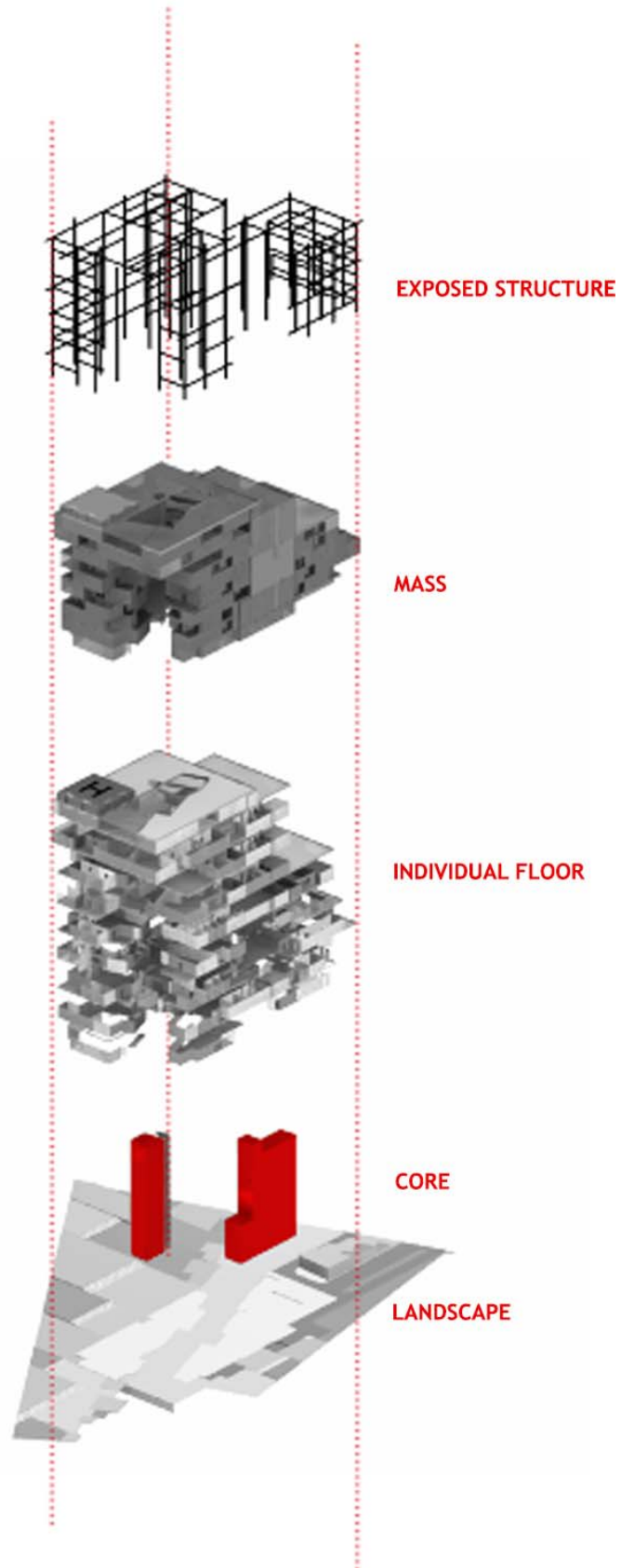


SECTION AA'

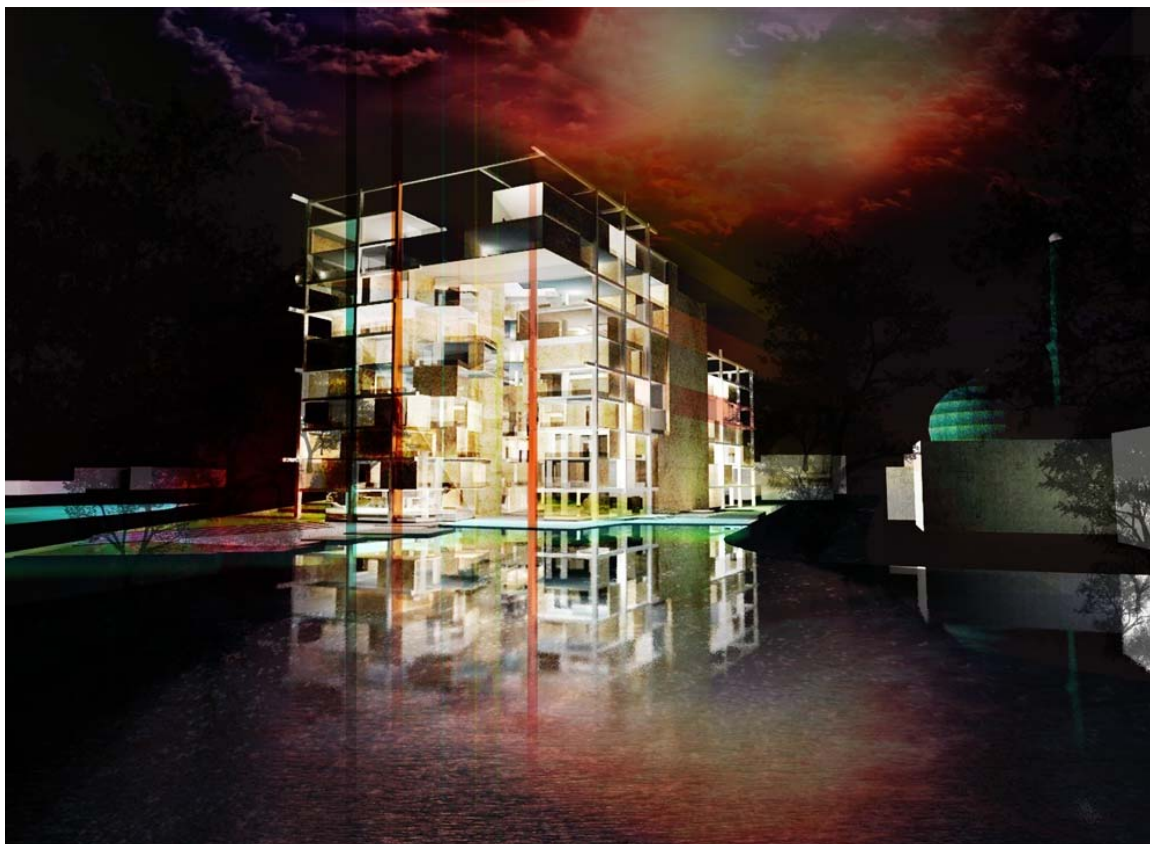
7.5 SECTIONAL PERSPECTIVE

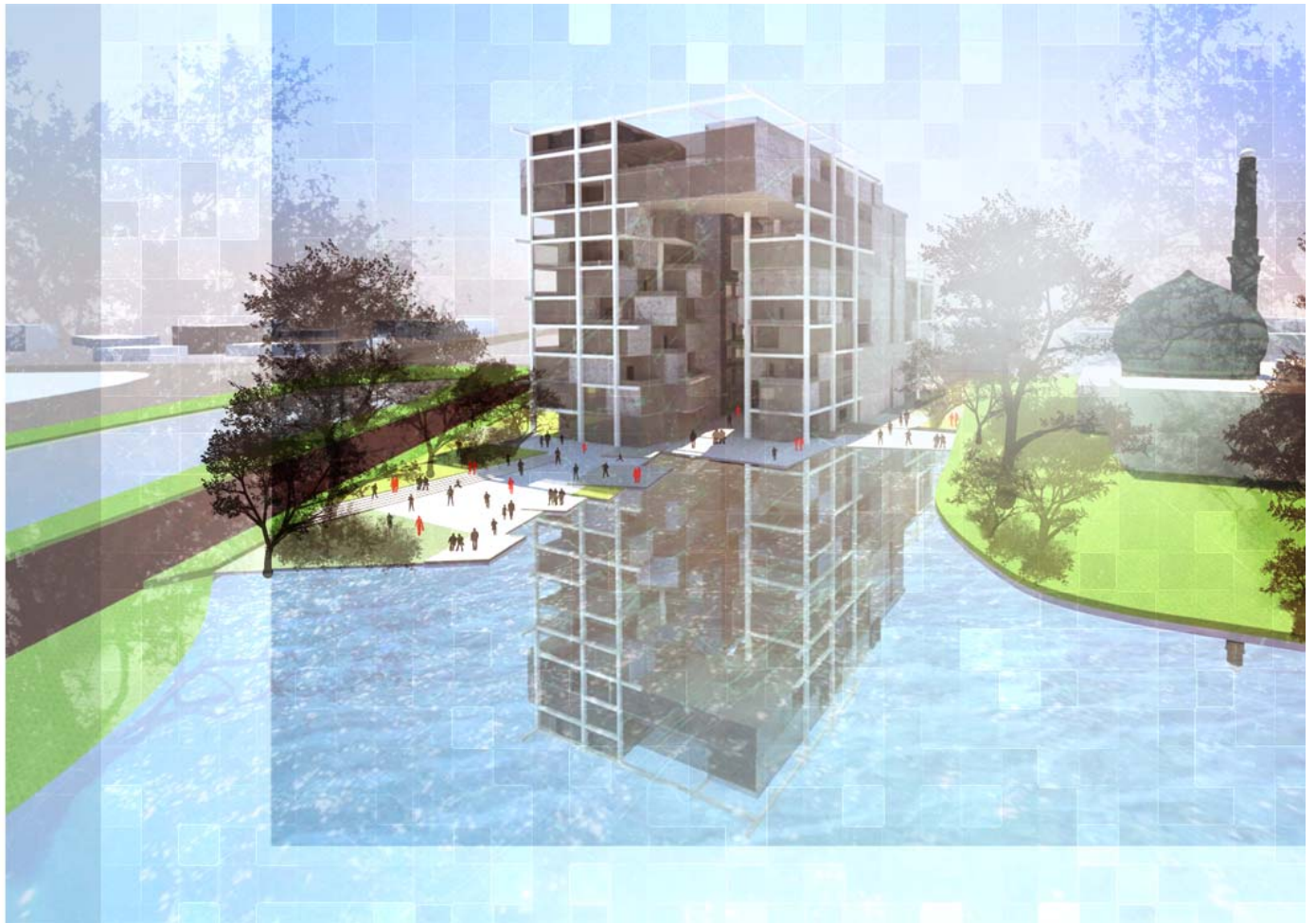


7.6 EXPLODED AXONOMETRIC DIAGRAM

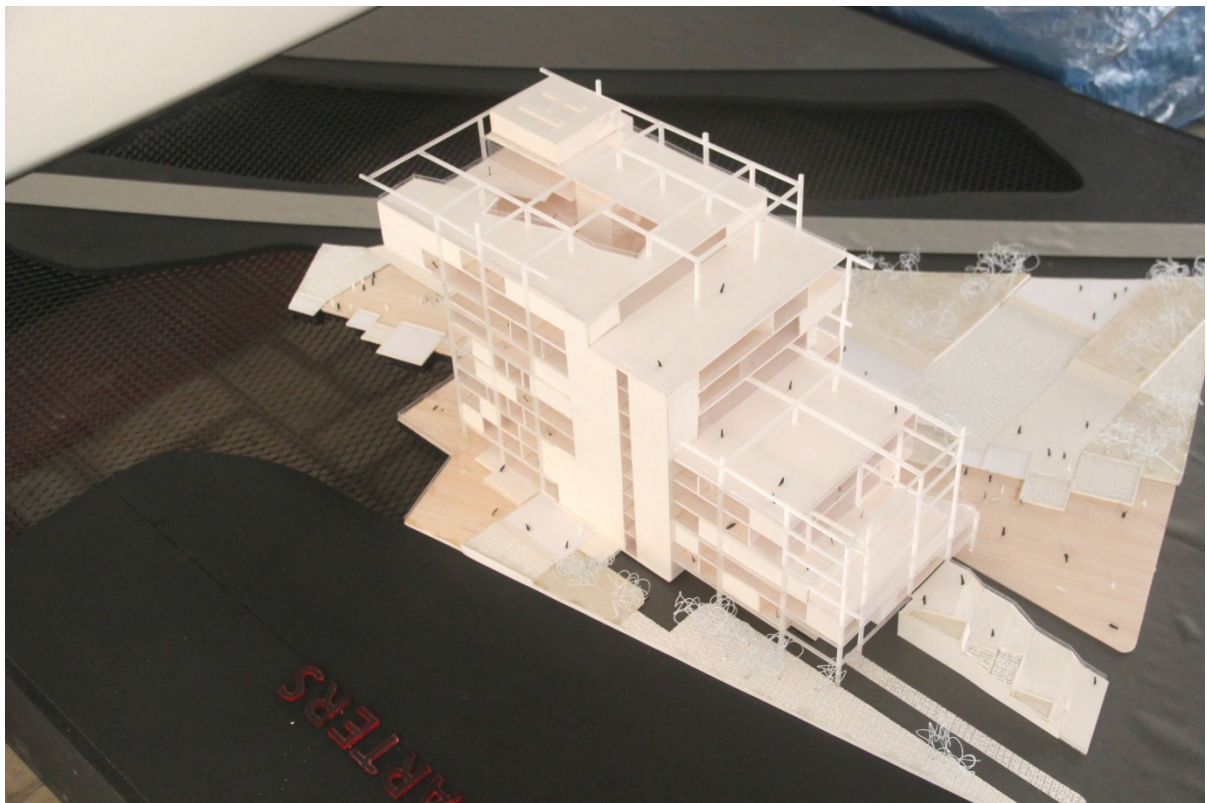
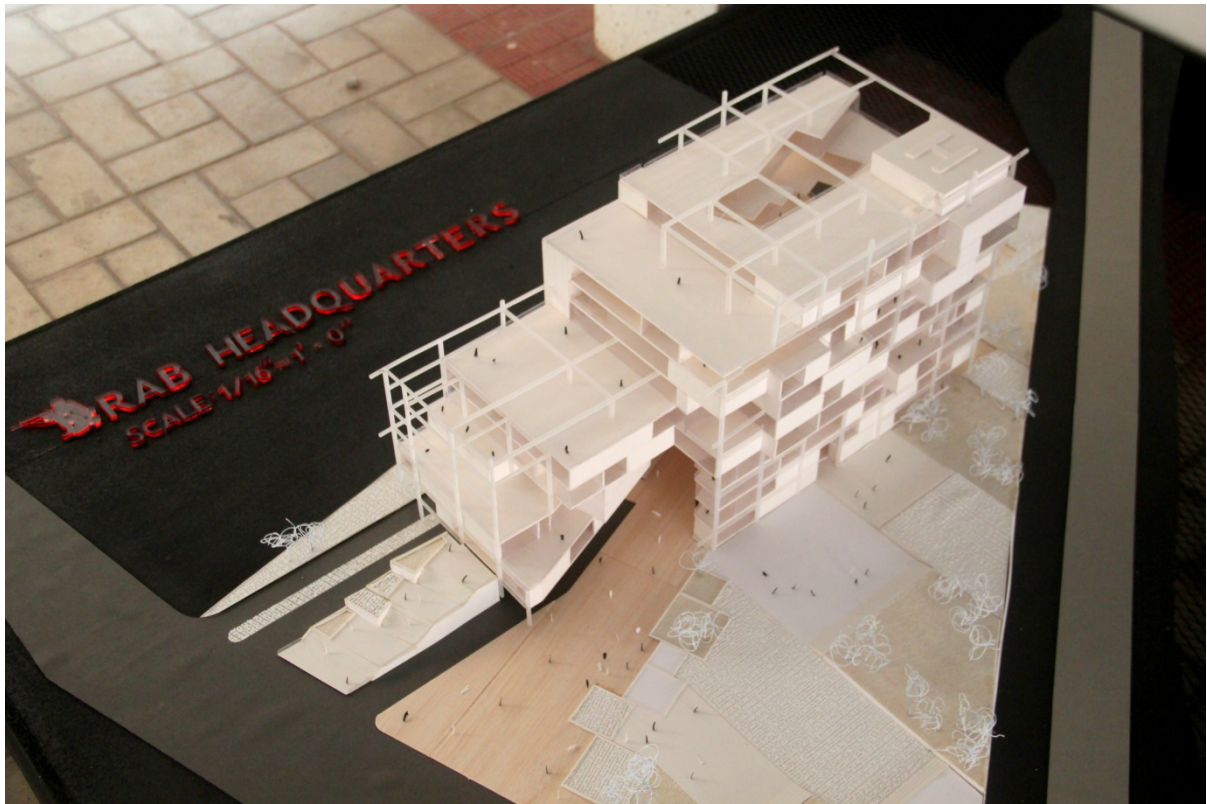


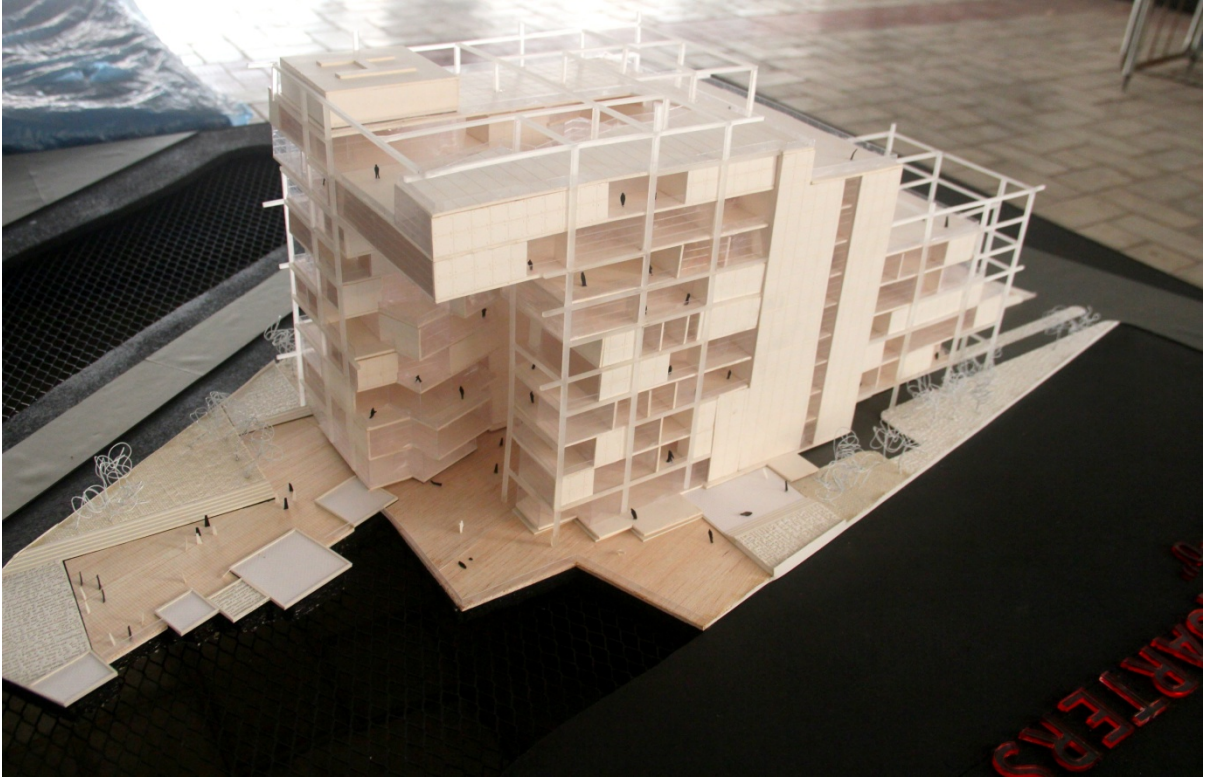
7.7 PERSPECTIVES





7.8 MODEL PHOTOGRAPHS





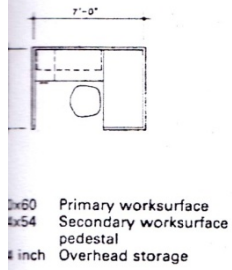
CHAPTER 8: CONCLUSION

RAB Headquarters should be a place where people can go without hesitation and share their thoughts and opinion with RAB. It can achieve the ultimate goal if these two groups of people communicate properly and experience their journey towards the Amity. City demands an inviting approach from Rapid Action Battalion.

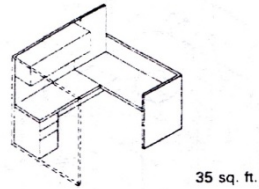
APPENDIX

SPACE STANDARDS

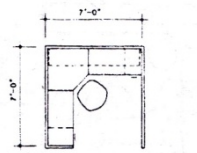
Offices



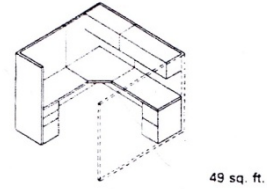
WORKSTATION TYPE A



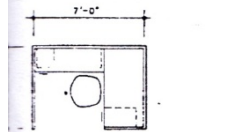
TASK PROFILE:
Wordprocessor as primary tool
Limited storage capacity
Partial visual privacy



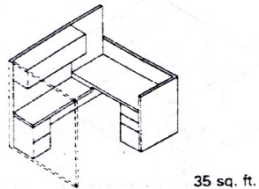
WORKSTATION TYPE E



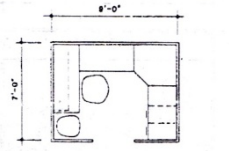
TASK PROFILE:
EDP equipment as primary tool
limited storage capacity
full visual privacy



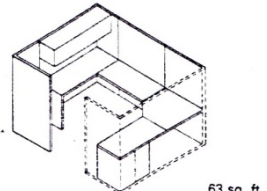
WORKSTATION TYPE B



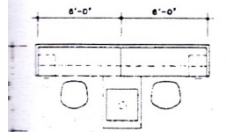
TASK PROFILE:
Nonautomated task
Limited storage capacity
Partial visual privacy



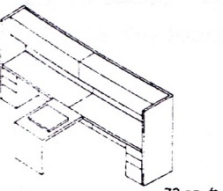
WORKSTATION TYPE F



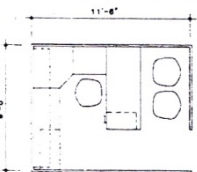
TASK PROFILE:
Limited conference capability
ADP equipment as secondary tool
Limited storage capacity
Full visual privacy



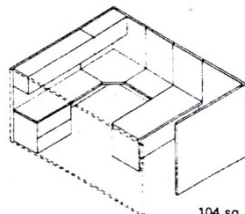
WORKSTATION TYPE C



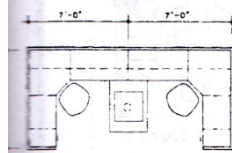
TASK PROFILE:
Shared tasks
Limited storage capacity
Partial visual privacy



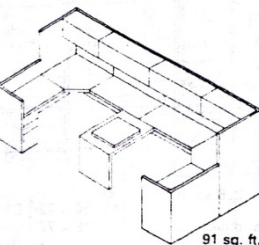
WORKSTATION TYPE G



TASK PROFILE:
Extended conference capability
EDP equipment as secondary tool
Moderate storage capacity
Full visual privacy



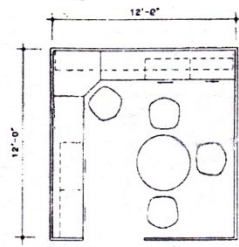
WORKSTATION TYPE D



TASK PROFILE:
Individual EDP equipment
additional shared tasks
limited storage capacity
partial visual privacy

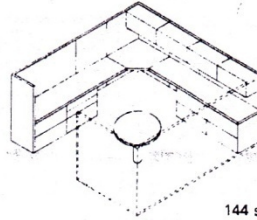
Fig. 11. Workstations types A-L

COMMERCIAL



- 3 Guest chair
- 42 dia. Conference table
- 44 sq. ft. Worksurface
- 8 Lateral drawer
- 144 L. inch Overhead storage

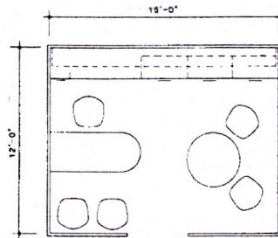
WORKSTATION TYPE H



144 sq. ft.

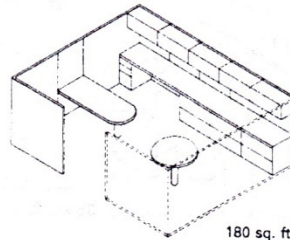
TASK PROFILE:

- Extensive conference capability
- DP equipment as secondary tool
- Extensive storage capacity
- full visual privacy



- 4 Guest chair
- 42 dia. Conference table
- 30 x 72 Primary worksurface
- 30 sq. ft. Secondary worksurface
- 1 Pedestal
- 6 Lateral drawer
- 180 L. inch Overhead storage

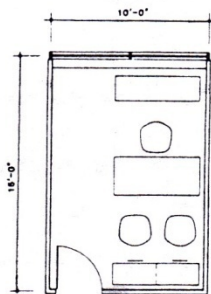
WORKSTATION TYPE I



180 sq. ft.

TASK PROFILE:

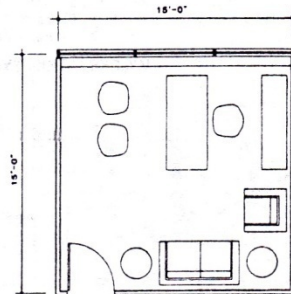
- Extensive conference capability
- ADP equipment capability
- extensive storage capacity
- full visual privacy



150 sq. ft.

- 30 x 66 Double pedestal desk
- 18 x 66 Credenza
- 2 Lateral file
- 1 Desk chair
- 2 Guest chair

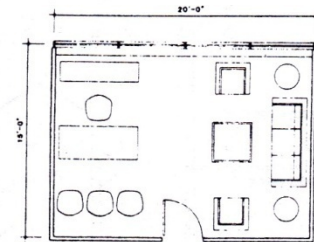
WORKSTATION TYPE J



225 sq. ft.

- 30 x 72 Double pedestal desk
- 18 x 72 Credenza
- 1 Desk chair
- 2 Guest chair
- 1 2-Seat sofa
- 1 Lounge chair
- 2 End table

WORKSTATION TYPE K



300 sq. ft.

- 30 x 72 Double pedestal desk
- 18 x 72 Credenza
- 1 Desk chair
- 3 Guest chair
- 1 3-Seat sofa
- 2 Lounge chair
- 36 x 36 Coffee table
- 2 End table

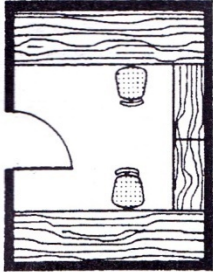
WORKSTATION TYPE L

Fig. 11. (cont.)

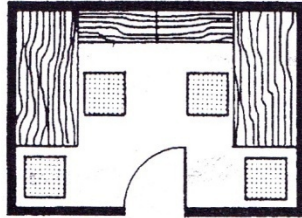
GENERAL OFFICES AND MULTIPLE WORKSTATIONS

It is not unusual to have two or more persons share an enclosed office space. In planning shared office space, both circulation and clearance

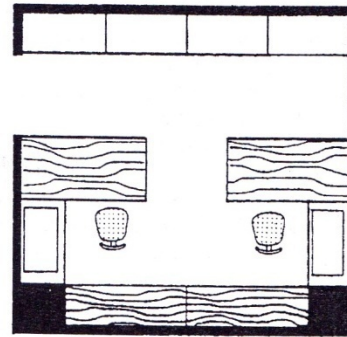
become critically important. Door swings, the extension of file drawers and points of entry must all be carefully considered.



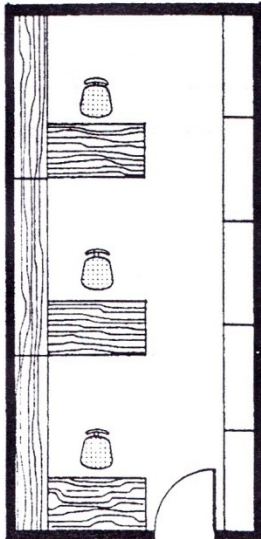
9 ft × 12 ft, 108 ft².



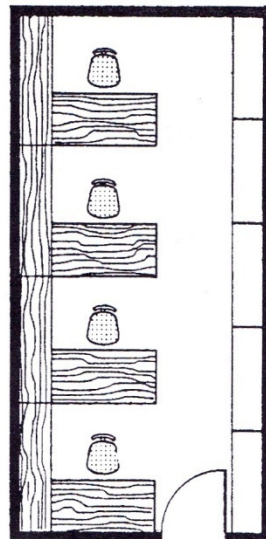
9 ft × 14 ft, 126 ft².



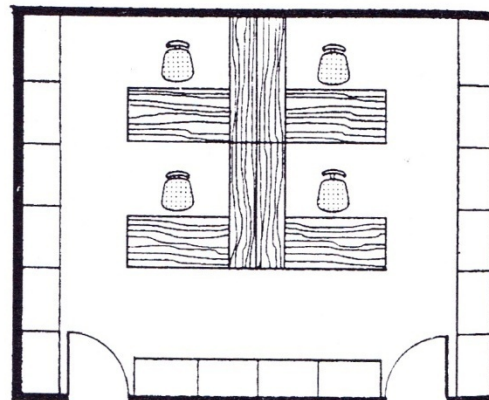
15 ft × 16 ft, 240 ft².



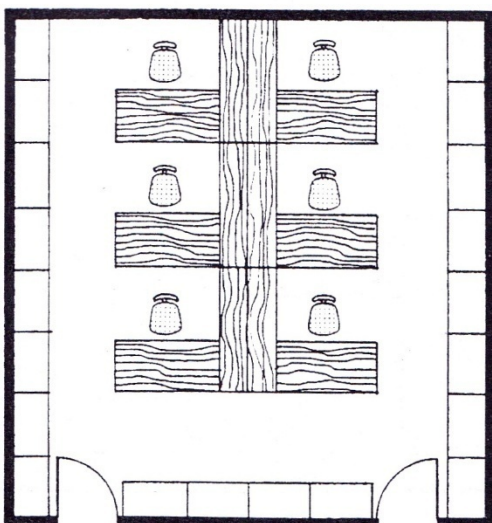
12 ft × 25 ft, 300 ft².



12 ft × 25 ft, 300 ft².



18 ft × 25 ft, 414 ft².



24 ft × 23 ft, 552 ft².

Fig. 17. Shared enclosed office arrangements

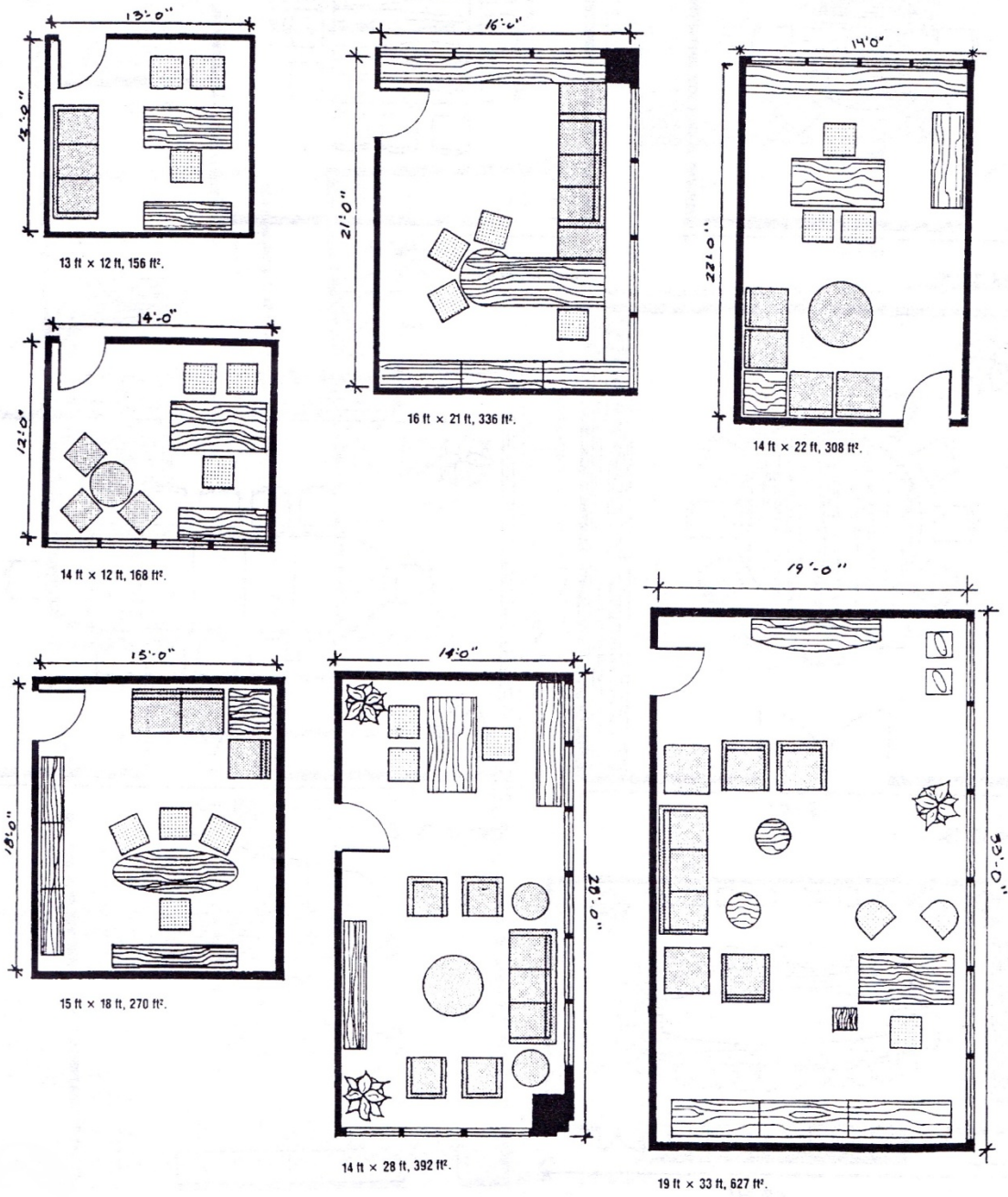


Fig. 15. (cont.)

SPACE REQUIREMENTS

The program statement, which includes objectives, activities, and requirements, will spell out total needs in terms of square feet of floor space. Generally speaking, the total need may be divided into five categories: space for (1) books, (2) readers, (3) staff, (4) group meetings, and (5) mechanical operations and all other (stairways, elevators, toilets, etc.). Actual space allocations will tend to vary in accordance with the library service program in relationship to community needs.¹ Table 1 provides general guidelines for programming the total building, and Table 2 provides guidelines for interior space in relation to population and size of the book collection.

Space for Books

To a large extent the amount of book shelving required will depend on the size of the library service area and whether the library is a member of a library system. Most library planners, when estimating the size of the book collection, apply a standard which ranges from three books per capita (smallest communities) to one and one-half books per capita (largest cities). In any event enough book shelving should be provided to plan for 20 years' anticipated growth.

The program statement should also include a detailed analysis of the amount of shelving needed. It should be presented in terms of category, location, and linear feet. Categories found in nearly all public libraries include adult fiction and nonfiction; children's books; books for young adults; reference books; bound, unbound, and microfilmed newspapers; bound, unbound, and microfilmed periodicals; local history books; less used books for the bookstacks; and special subject collections. Allowances should be made also for nonbook materials (i.e., phonograph records) which are often accommodated on library shelving.

Despite the fact that there is considerable variation in the size of books, there are several reliable formulas which may be used to estimate the amount of space required for books. These are: open reading rooms, 7 volumes per lineal foot, or 50 books per foot of standard height wall shelving, or 100 books per foot of double-faced shelving; bookstack areas, 15 books per square foot (includes aisles), or 2

¹Local Public Library Administration, International City Managers Association, Chicago, Ill., 1964. With illustrations from Harold L. Roth, Ed., *Planning Library Buildings for Service*, American Library Association, Chicago, 1964.

²Much of the discussion on space standards is based on Joseph L. Wheeler, *The Effective Location of Public Library Buildings* (Urbana: University of Illinois Library School, Occasional Papers, No. 52, 1958), 50pp.; Joseph L. Wheeler and Herbert Goldhor, *Practical Administration of Public Libraries* (New York: Harper and Row, 1962), pp. 553-60; American Library Association, Subcommittee on Standards in Small Libraries, *Public Library Association: Interim Standards for Small Public Libraries: Guidelines Toward Achieving the Goals of Public Library Service* (Chicago: The Association, 1962), 16pp.; and Russell J. Schunk, *Pointers for Public Library Building Planners* (Chicago: American Library Association, 1945), 67pp.

Figures 1 to 9 by Francis Joseph McCarthy, FAIA.

books per cubic foot. Approximately 50 long-play phonograph records may be shelved in one lineal foot of wall shelving. It is important to note that these formulas are given for full capacity. Under normal conditions, one-third of each shelf should be left for future expansion. (See Figs. 1 to 3.)

Space for Readers

Reader seating requirements should be determined for at least 20 years ahead. Two principal sources of information which library building planners will find equally useful for this purpose are first, a careful analysis of

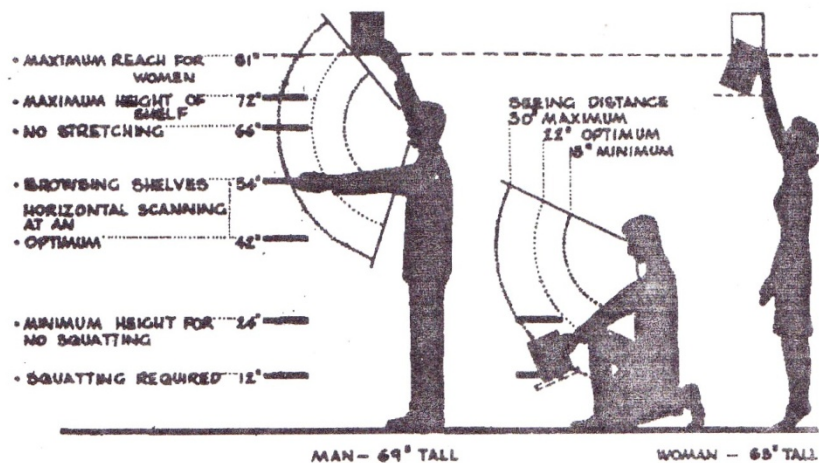


Fig. 1 Optimum shelving conditions for adults.

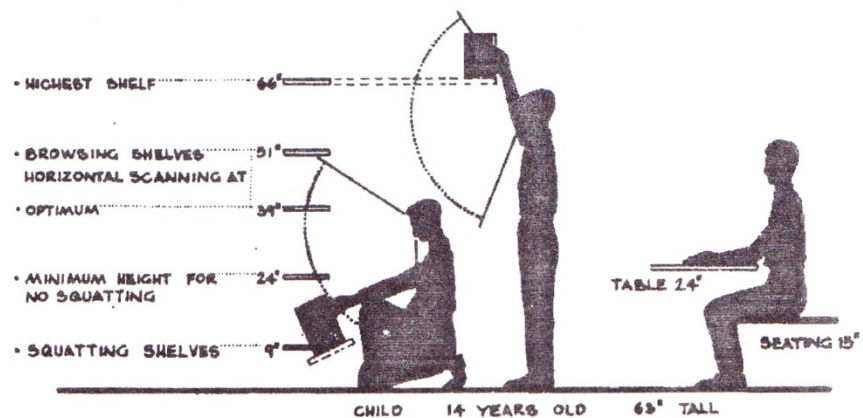


Fig. 2 Optimum shelving conditions for teen-agers.

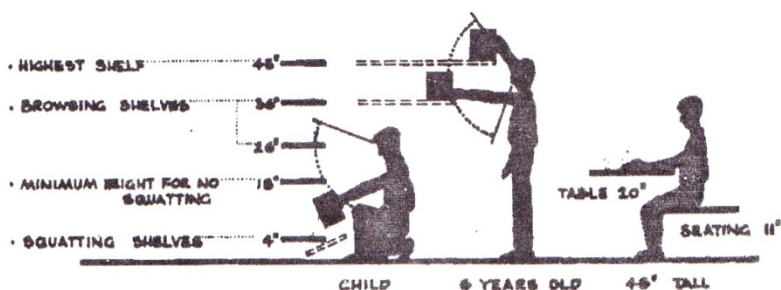


Fig. 3 Optimum shelving conditions for children.

REFERENCE

- <http://www.alternative-energy-news.info/technology/solar-power/>
- http://en.wikipedia.org/wiki/Sustainable_architecture
- http://commons.wikimedia.org/wiki/File:Simple_Diagram_to_show_Rainwater_Harvesting.png
- <http://www.police.gov.bd/Crime-Statistics-comparative.php?id=208>
- <http://www.rab.gov.bd/>
- <http://en.wikipedia.org/wiki/Headquarters>
- www.archdaily.com
- https://archive.org/details/Architectural_Standard_Donald_Watson_Time_Saver_Standards_for_Architectural_Design
- <http://architecture.about.com/od/greenconcepts/g/green.htm>
- http://www.aecom.com/What+We+Do/Architecture/_projectsList/Los+Angeles+Police+Department+%28LAPD%29+Headquarters
- http://www.aecom.com/What+We+Do/Architecture/_projectsList/U.S.+Air+National+Guard+%28ANG%29+Readiness+Center+Expansion
- http://www.academia.edu/2651564/Terrorism_in_Bangladesh
- <http://www.army.mil.bd/>
- <http://en.climate-data.org/location/711687/>
- <http://www.citypopulation.de/php/bangladesh-dhaka.php?cid=2695>
- <http://wikimapia.org/#lang=en&lat=23.723100&lon=90.408600&z=12&m=b>

BOOK

- RAB Journal