

## **SEMINAR 2**

ARC 512

**International Convention Centre**

**Cum**

**Commercial Complex**

By

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## **Abstract**

Mixed use high rise buildings tend to be tall and act as a landmark because of their heights. Some of these high rise buildings are causing many problems such as, contradiction with the landscape, disturbance of sunlight or view, privatizing the outdoor spaces etc. The project aims at creating a collaboration between the high rise and its surroundings. It also intends to create a harmony among the functions inside the buildings and relate them with the outside environment.

## **Acknowledgement**

I am grateful to the Almighty for making me able to develop the project in due time. I am thankful to my parents, family, friends and relatives for supporting me throughout my journey as an architecture student. I am also thankful to my course instructors for helping me to develop till the end of the project. Special thanks to my seniors and juniors to support me whenever I needed.

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# Chapter 1

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## Background of the Project

### 1.1 Project Brief

Title of the project: International Convention Center cum Commercial Complex

Statement: An area within which many functions will be synchronized and bring a change in the city. A new dimension will be brought to the city.

Client: Sena Kalyan Sangstha

Site location: The site is opposite to the Jamiatul Falah Masjid, beside VIP Tower shopping mall. Within walking distance there is a kaacha bazaar, a stadium, Chittagong Circuit House, a five star hotel, an amusement park and so the area remains busy most of the time.

Site area: 1,50,653 sft. (3.21 Acres)

### 1.2 Project Introduction

Now-a-days, people need a recreational space where they can also enjoy the beauty of the nature. Introducing public spaces throughout any building can make it livelier.

Cinema hall is a great part in the lives of people. They tend to watch movies whenever they get free time. The projects aims at bringing the people back to the cinema halls and also uphold the glory of cinema to the people. Now-a-days, many Bengali cinemas

are being made which are internationally appreciated. The Cineplex will play those Bengali cinemas, and side by side many international cinemas will be played.

At the convention center, various types of programs can be held. Weddings, meetings etc. can be held and this will occupy a good number of people with a view towards outside.

Commercial complex is aimed to be rented by various multinational companies and others. It will serve the economy of the country and help directly or indirectly by providing jobs to the people of the country. It will not be caged inside a building, rather it will be visually linked with the green environment.

The main idea of the project is to set a platform where the country will be served and people will be benefited, people will have a proper space for recreation and the cinemas of our country will reach to the people. Green spaces will be introduced at different levels of the complex so that it can connect the landscape of the plaza visually throughout the building. There are some public spaces around the site which have closed boundaries. The project aims at joining the whole community which are surrounding the site.

### **1.3 Proposed Program**

Being a mixed used building, it includes various types of supporting functions.

#### **Civic space:**

- Exhibition gallery

- Gym
- Restaurants
- Gaming zone
- Stationary shops
- Cyber café
- Shop
- Cineplex
- Convention hall
- Bank

**Office space:**

- Floor for office
- Meeting rooms
- Seminar halls
- Space for workshop

**Other spaces:**

- Kiosks
- Circulation
- Public and private washrooms
- Kitchen
- Information center
- ATM Booth

## **1.4 Project Rationale**

Bangladesh has been a country of songs, movies, theatres etc. for many years. And for entertainment purpose people have always been availing these. There used to be many open spaces where people would gather and spend their leisure time, hang out with friends and family.

But now, for the growth of population, open spaces can hardly be found where people will go, children will play. The public spaces which used to be open are now have boundaries which, after a certain time, get closed and the public place becomes lifeless. Those places do not connect the surroundings due to maintenance and security purpose.

Cinema has been playing an important role in our lives. The history of cinema is very old but enriched. People used to go to cinema halls to watch the movies. But in Chittagong, there is no modern cinema halls that will attract people. The present cinema halls, adjacent to the site, do not have facilities than the modern ones.

Chittagong is a port city. Many important offices and industries are here in this city. A proper commercial space is required for this city.

Restaurants, now-a-days, have become a part and parcel of the city people. They love celebrate any occasion in a restaurant. Students and other working people relax in a restaurant. If a restaurant can provide good food with open space and better view, then the space becomes lively with people.

The project basically aims at the fulfilling the lacking of the city mentioned above. This project will connect the whole surrounding community and hopefully emerge as a landmark of the city.

# Chapter 2

## Site Appraisal

### 2.1 Site Location



Figure 2.1: Site location . Source: Modified by author from Google (April, 2016)

The site is located near to the M.A Aziz Stadium and Radisson Blu hotel of Chittagong. The Site is surrounded by mixed used building, 2 cinema hall, a mosque complex, an area of middle income group. Nearby there is an International Stadium.

## 2.2 Analyzing the site

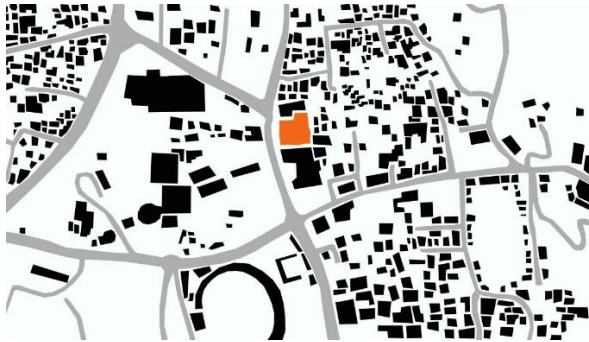


Figure 2.2.1: Solid void ratio



Figure 2.2.2: Existing green

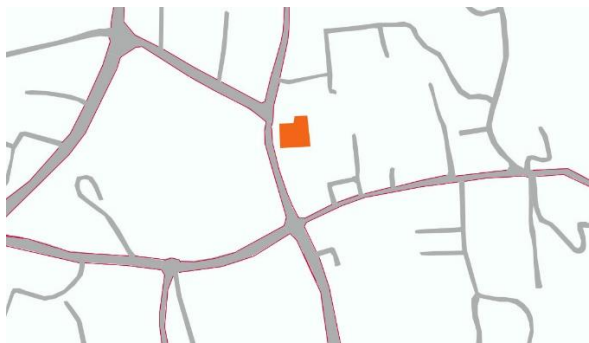


Figure 2.2.3: Pedestrian around primary road



Figure 2.2.4: Existing waterbody



Figure 2.2.5: Places for public entry



Figure 2.2.6: Diagram showing clear division of middle income housing and commercial space

## 2.3 Site surroundings, photographs, environmental considerations

### 2.3.1 Site surroundings

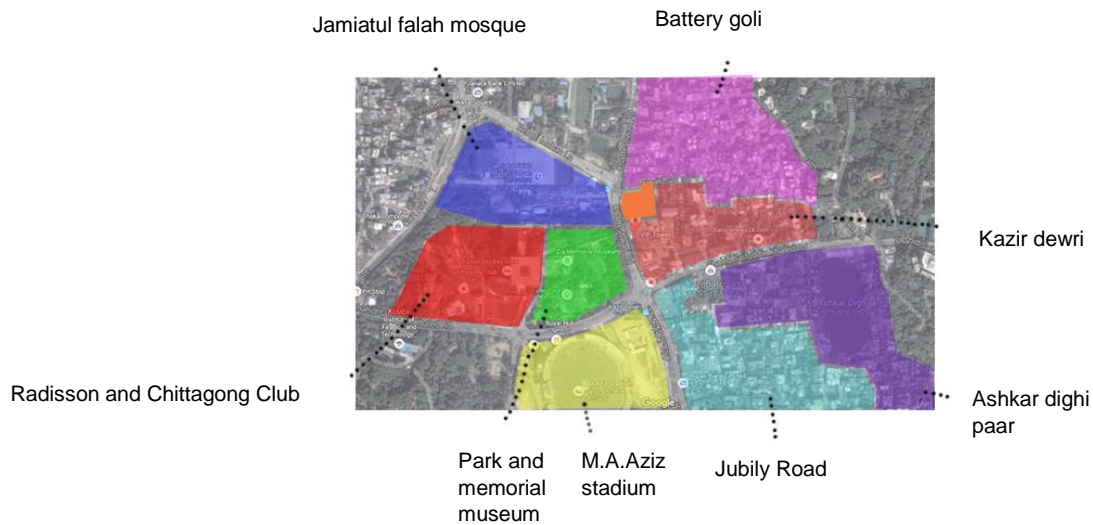


Figure 2.3.1: Area surrounding the site

Jamiatul Falah mosque has a vast area where many other structures are going to be built for some of their programs. It has a vast open area where people gather for jumua prayer, prayer for eid or other mahfils.

Radisson Blu hotel and Chittagong club are both at the nearest distance. People of a group come here and many social programs are held in the halls of this two place.

The amusement park and the memorial museum is open for all class of people. This area is surrounded by various types of trees.

M.A Aziz stadium is a great gathering place for the people. Cricket and various types of concerts are hold in this stadium. There are many restaurants and sports shop



surrounding the stadium. People play various types of games and sometimes fairs are organized in the field outside the stadium.

Jubily road serves as a mixed use area. It contains housing for middle income group and shops offering different services. The area has very less green and open space.

Kazir dewry is also a mixed use area. This area has a raw market and also a housing of middle income group. There is also a large shopping mall adjacent to the site. A cinema hall is there where the people don't go much because of another cinema hall at a walking distance and it's not being beside the main road.

Ashkar dighi paar is an area where there are furniture shops and middle income housing. This area has open spaces than the areas mentioned above. This area has a water body named "Ashkar dighi". The size of the water body is shrinking because of the increasing population.

Like Jubily road, Battery goli is an area of mixed use. The only difference is it is small in volume , but the characteristics are as same as the jubilee road.

### 2.3.2 Photographs



Courtesy:  
Google image

Figure 2.3.2: Photos of site surrounded structures



Figure 2.3.3: Photos of site surrounded narrow road

In figure 2.8, the road around the site is very narrow. It's width vary from 2' to 5'. The road leads from kazir dewri to the site through the local area.

**2.3.3 Environmental Considerations**



Figure 2.3.4: Sunpath diagram

The site has 14storied building on the south which creates a shadow on most of the area of the site. It also hinders the free flow of the wind from south east. The west site is open, facing the main road.



Figure 2.3.5: Windflow diagram

## 2.4 SWOT Analysis

### Strengths

- Site is beside a wide road
- Mixed use areas are surrounded
- Important landmarks around the site

### Weakness

- South side has 14 storied 2 buildings which prevent free flow of wind and cover a large area of site with shadow
- West side is fully open

- Vehicles are parked here and there which creates traffic congestion

### Opportunities

- The small street around the site can connect the locality with the site
- The less used cinema halls near the site can be brought under consideration for design purpose

### Threats

- Noise pollution due to heavy traffic
- Unplanned settlement around the site

# Chapter 3

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## Literature Review

### 3.1 Introduction:

When the work 'civic space' comes to our mind, we think of a place where people can gather with their friends and families, meet them, spend together some quality times which does not have any private authority. To be more specific, according to Carmen Malena, writer of the book 'Improving the Measurement of Civic Space', "Civic space is defined as the set of conditions that determine the extent to which all members of society, both as individuals and in informal or organized groups, are able to freely, effectively and without discrimination exercise their basic civil rights'. While designing a project for the people which also includes a fully commercial space, it is better to maintain the individual needs. International Convention Center cum Commercial Complex has both opposite proposals.

Disruption the entity of these two types and view towards the landmark , a place for people is the main concern.

## 3.2 Case Studies

### Case Study 1: Signature Tower, Kuala Lumpur

Near the Petronas Twin Tower, BIG was invited to design to design the landmark for a new central business district. The site is surrounded by many tall buildings. Creating a landmark competing the Petronas Twin Tower has been a challenge. So BIG decided to respect the Petronas by creating a silhouette of it which will not lose its being a unique landmark and in a congested site give the people a sense of openness.



Figure 3.1: image signature tower

Rather than a traditional podium and spire, they proposed the design with minimum footprint and also allows the daylight and the views into the lower floor. The Signature Tower appears to fill the void of the Petronas.



Figure 3.2: green space

### Findings:

The green area shows the space that are designed for the public. The design also includes minimum allowance of car inside the site. The upper part of the building allows the people to have a view of the city. The design of the rooftop includes greenery that will give the people a sense of enjoying the city view along with the nature. The building is placed on that specific corner so that the landmark can perfectly fit the void view between the Petronas Twin Tower. The spaces between the box shaped structures provides the viewers a view of the beautiful city.

### **Case study 2: Pittsburgh Lower Hill masterplan**

BIG proposes a new neighborhood which provides a highly walkable and dynamic community while linking neighborhoods. For their proposal of walkable space, they



proposed a park that continues throughout the proposed projects and also spreads outside the site area to link the surroundings with it.



Figure 3.3: image pittsberg

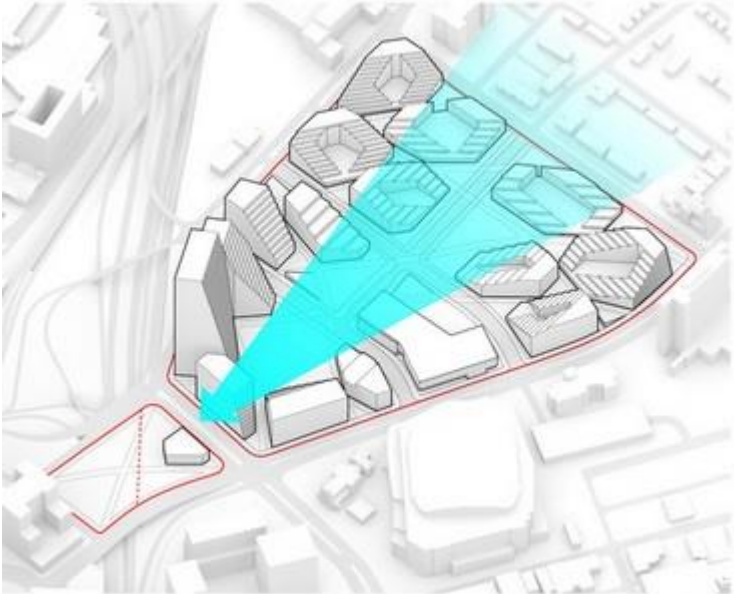
lower hill masterplan



Figure 3.4: Road network

A fully accessible networks of paths optimizes the site topography, supplementing the existing street grid, linking important corners and ensuring connections to neighboring districts and throughout the site. (<http://www.big.dk/#projects-pitt>)

The bowl shaped rooftop preserve views from Crawford street in the hill district towards downtown.



View from one side

Figure 3.5: View from one side



Greenery of the site

Figure 3.6: greenery

## Findings:

The project provides a highly walkable and dynamic community while linking the separated neighborhoods. Accessibility, topography, and civic mindedness are merged to create a socially vibrant new heart of Pittsbergh. The greenery spreads outside the area so that one finds a continuation towards the area. Height of every building is different so that view from any of the building is not blocked by another building.

### **Case study 3: The Leadenhall Building**

Architect Richard Rogers designed The Leadenhall Building as one of the landmarks of London. The specialties of the building contain it's tapering shape angled at 10 degrees, protecting views of major London landmarks especially St. Paul's cathedral in the city and the palace of Westminster. 80% of the components were prefabricated off-side and then assembled. The service core is in the north which results an unobstructed view from each floor.



Figure 3.7: Leadenhall building

The highest point of the public space is 28 meters which is higher than six new routemaster buses stacked on top of one another. The space provides escalators that gives direct access to the reception of the office.

Findings:

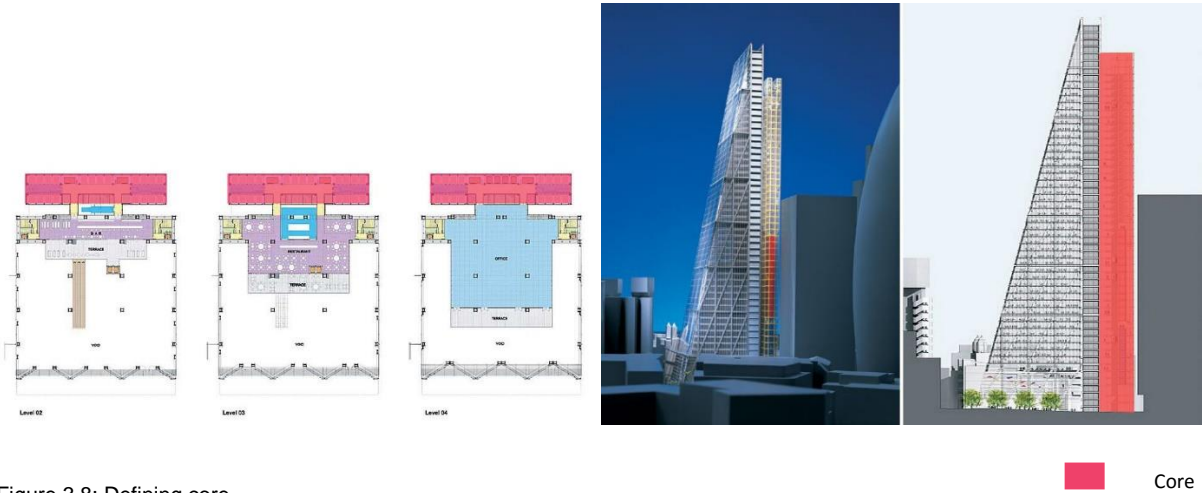


Figure 3.8: Defining core

Most of the buildings have the core in the center to ensure the strenght. This building gains it's strengths from the steelframe. It also has very less internal columns which gives the viewers an uninterrupted view and also ensures the flexibility of the use of the space.



Figure 3.9: public space

The building allows the uninterrupted flow of the public space which is, may be, an inspiration from Vila Savoye, but in a greater scale.

#### **Case Study 4: Multimedia Center**

Multimedia Center, designed by sir Norman Foster, houses mixed use functions. It is situated in Hamburg, Germany. The building includes offices and studios for multimedia companies in a block to the north, with proposed shelter accommodation for elderly people to the south.

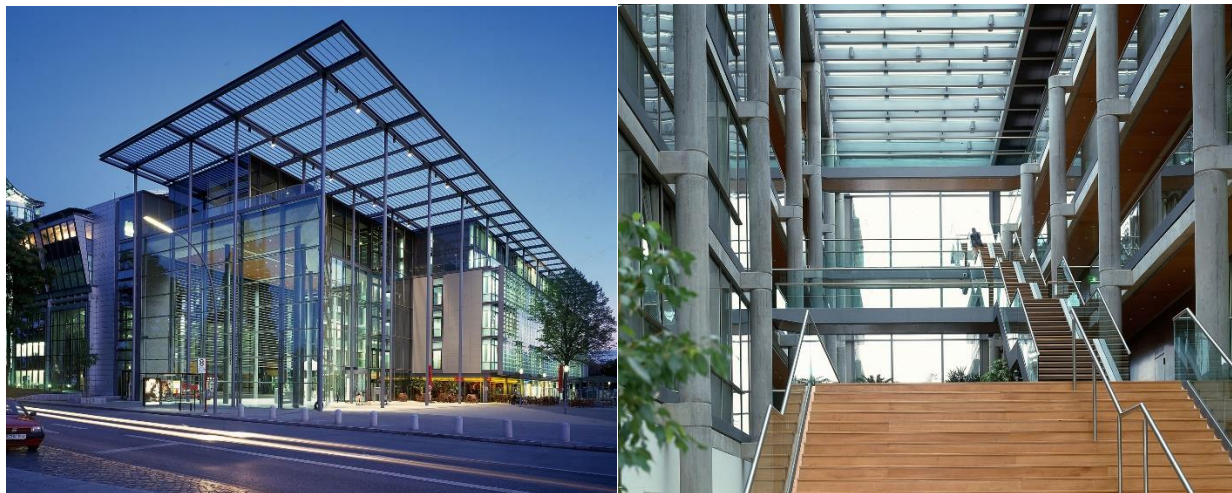


Figure 3.10: Multimedia Centre

Access to this atrium is via a broad staircase from the Media Circus, which forms a central meeting place. Perimeter offices are naturally ventilated, while those lining the atrium are ventilated with displacement air, introduced through floor outlets.

Findings:



Figure 3.11: Space arrangement

The office spaces are placed on the both sides so that they are naturally ventilated. The west façade is protected from the direct sunlight and heat by adjustable louvers.

# Chapter 4

## Functional Flow

### 4.1 Diagram

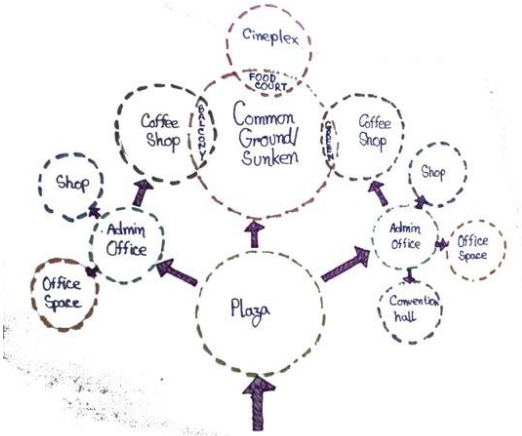


Figure 4.1.1: Bubble diagram

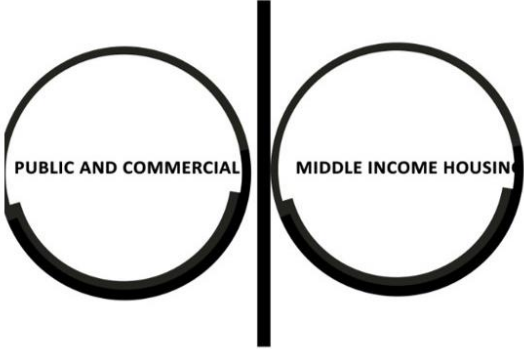


Figure 4.1.2: Diagram showing division of two types of areas

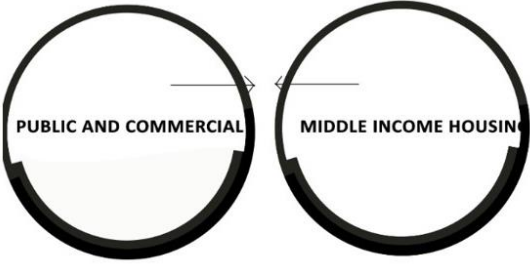


Figure 4.1.3: Diagram showing purpose of the project

## 4.2 Addition to Program

A rooftop restaurant can be proposed so that people can have a view of the area from the top. Addition of gym can make the building even more lively. The corridor towards the Cineplex can also be used as a cine archive so that people get to know about the evolution and history of our cinema.

## 4.3 Final Program

### Civic space

- Exhibition gallery                      15,936 sft
- Gym    8,022 sft
- Restaurant                                  varies from 5,257 to 11,405 sft
- Gaming zone                                1,874 sft
- Stationary Shop                            2,232 sft
- Cyber Café                                 2,732 sft
- Shop    varies from 3,269 to 9,446 sft
- Cineplex                                      5,000 sft and 4,500 sft
- Convention hall                            25,500 sft
- Bank    2,000 sft



**Office Space:**

- Floor for office varies from 11,770 to 15,450 sft
- Meeting room 1,500 sft
- Seminar hall 3,000 sft
- Space for workshop 2,000 sft

# Chapter 5

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## Design Development

### 5.1 Progress of design:

Design development phase is very important because the process includes the transition from intangible concept to a rational built form. This chapter will potray the development through diagram, sketches, dummy models and drawings.



Figure 5.1.1: Difference between middle income housing and commercial space

The primary road is dividing middle income housing and the commercial space. The concept was to build a space that can ensure public flow among these two types of functions and make the entire spot livelier rather than totally blocking the view.

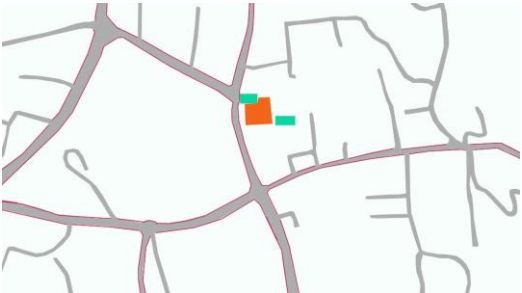


Figure 5.1.2: Adjacent cinema halls



Figure 5.1.3: connection of the existing cinema halls

Connecting cinema halls can make the public flow from one side to another. The small road surrounding the site can be used as an active footpath.

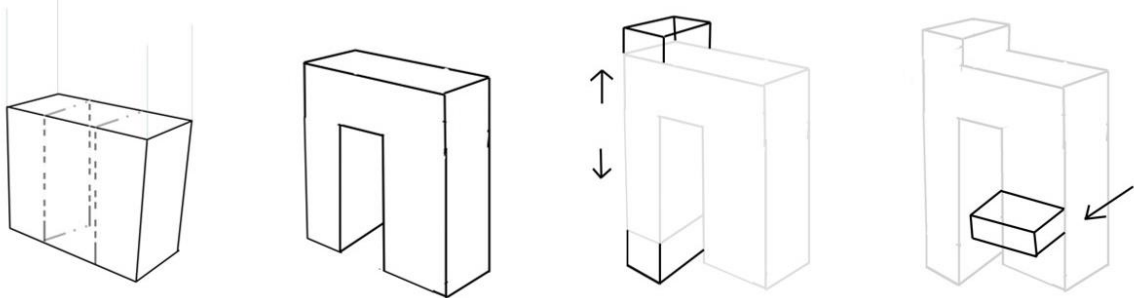


Figure 5.1.4: Derivation of form

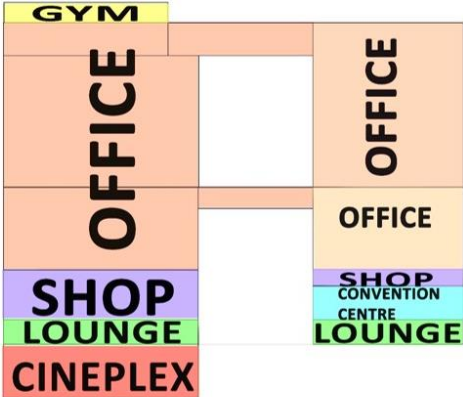


Figure 5.1.5: Distribution of function



Figure 5.1.6: Phase 1



Figure 5.1.7: Phase 2

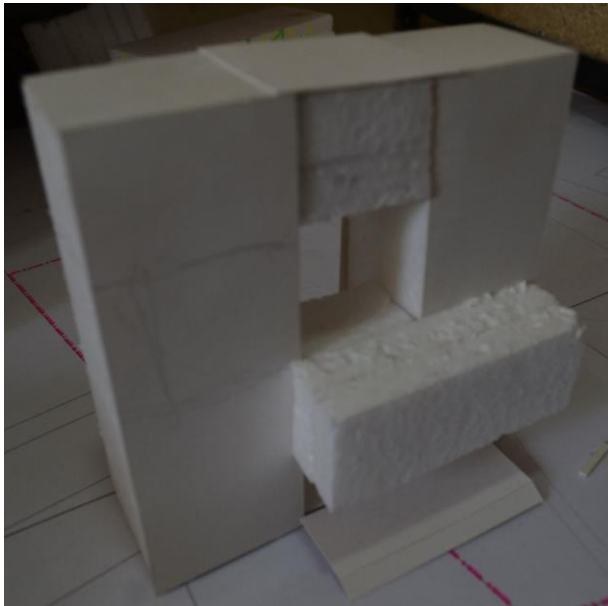


Figure 5.1.8: Phase 3

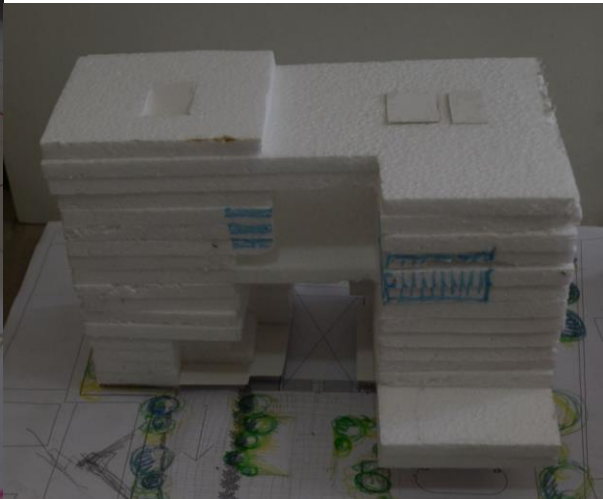


Figure 5.1.9: Phase 4

5.2 Final Drawing



Figure 5.2.1: Ground floor plan

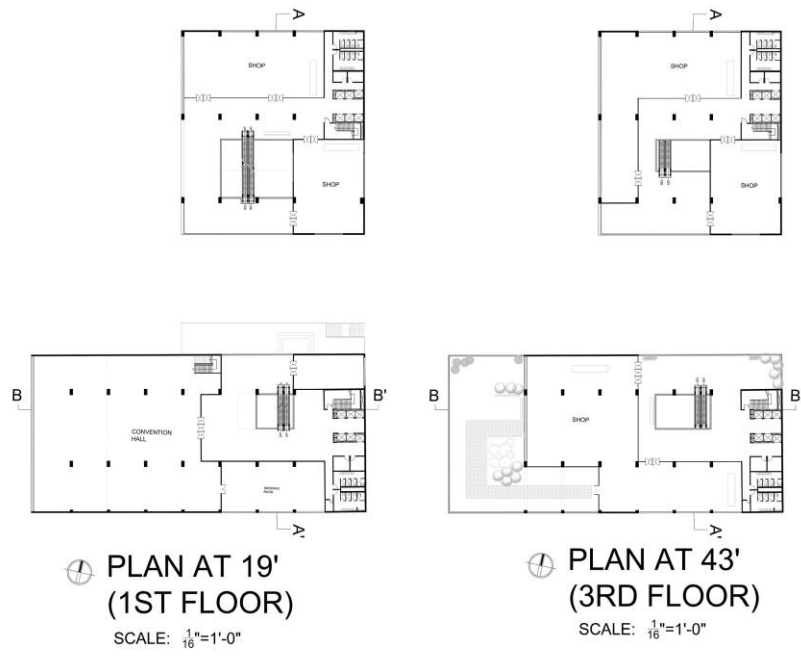


Figure 5.2.2: 1<sup>st</sup> and 3<sup>rd</sup> floor plan

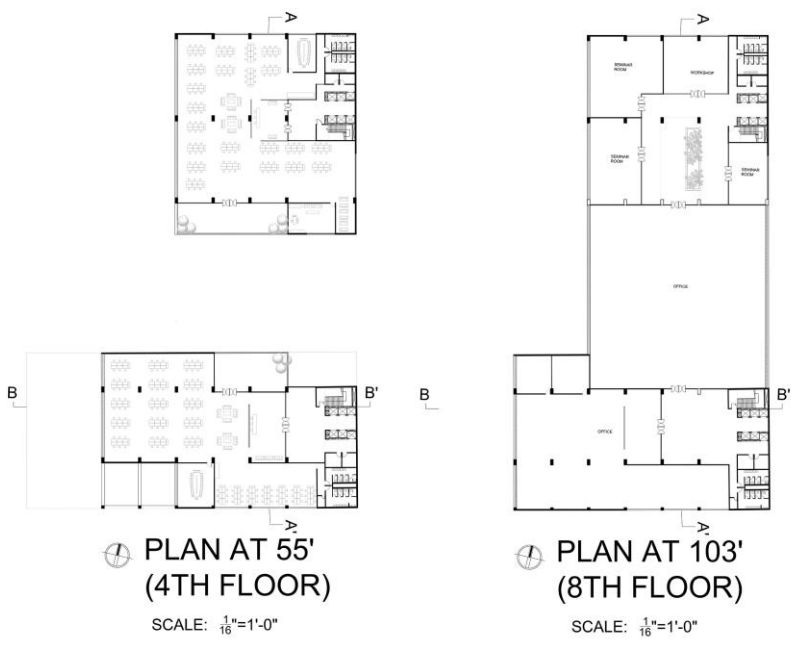


Figure 5.2.3: 4<sup>th</sup> and 8<sup>th</sup> floor plan

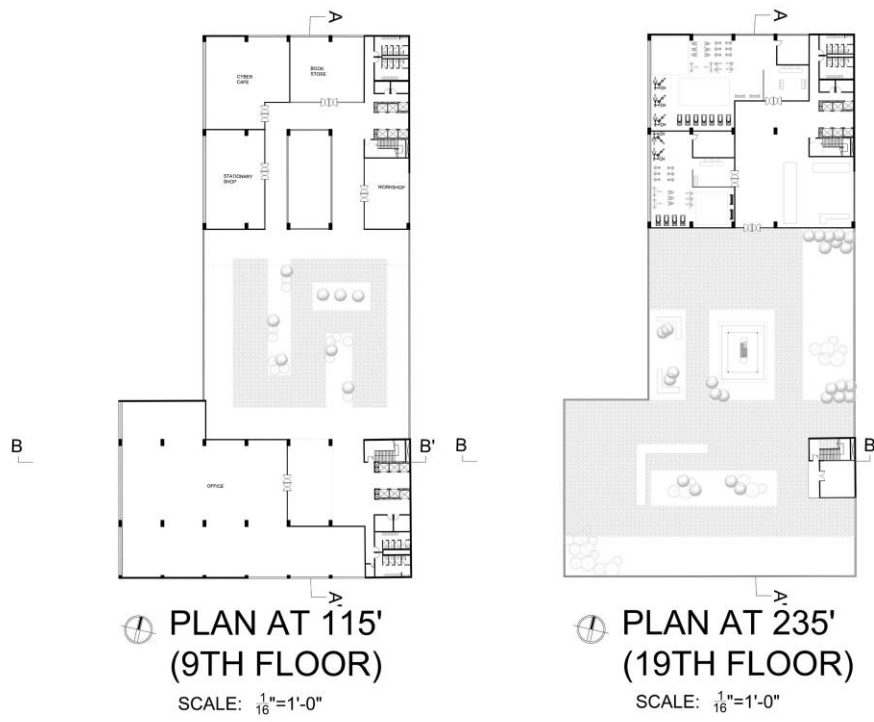


Figure 5.2.4: 9<sup>th</sup> and 19<sup>th</sup> floor plan

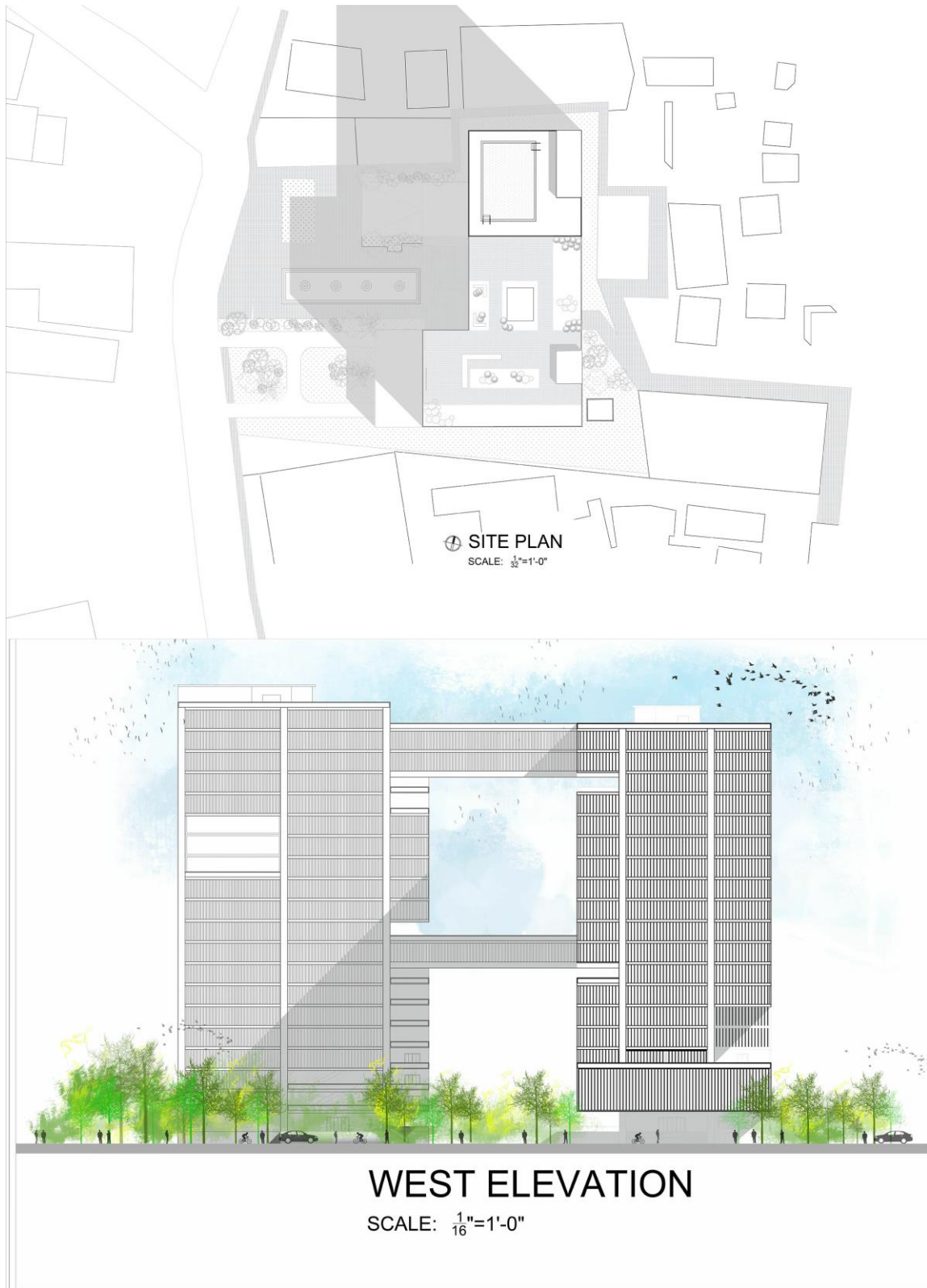
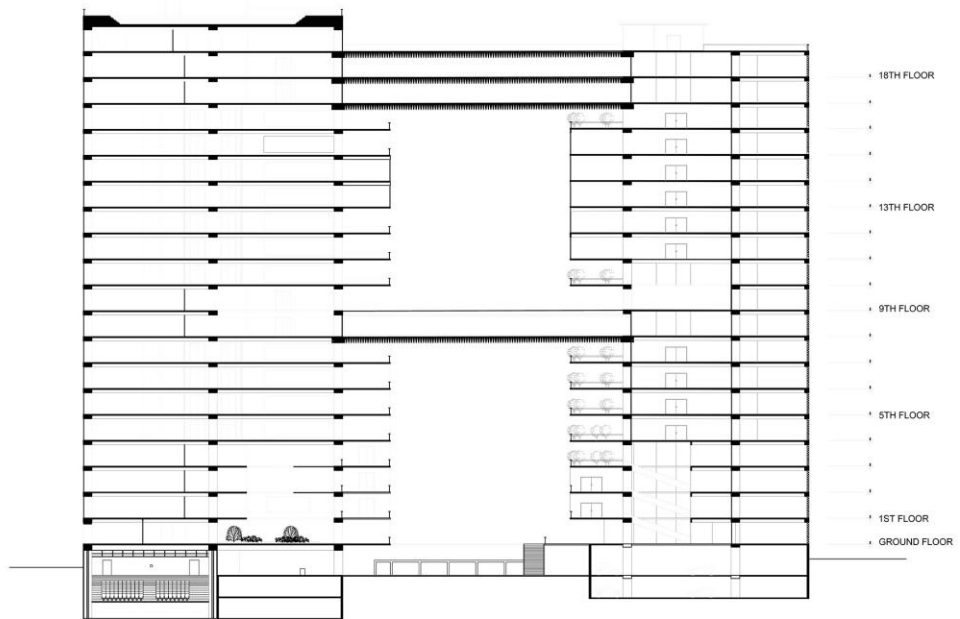
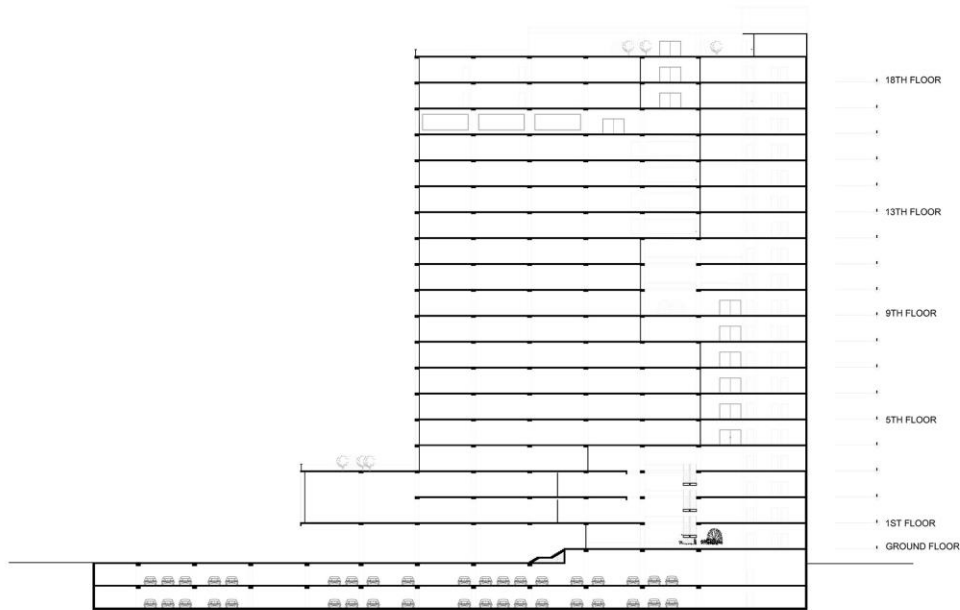


Figure 5.2.5: Site plan and west elevation





SECTION A-A'



SECTION B-B'

Figure 5.2.6: Section A-A' and Section B-B'

### 5.3 Rendered Images

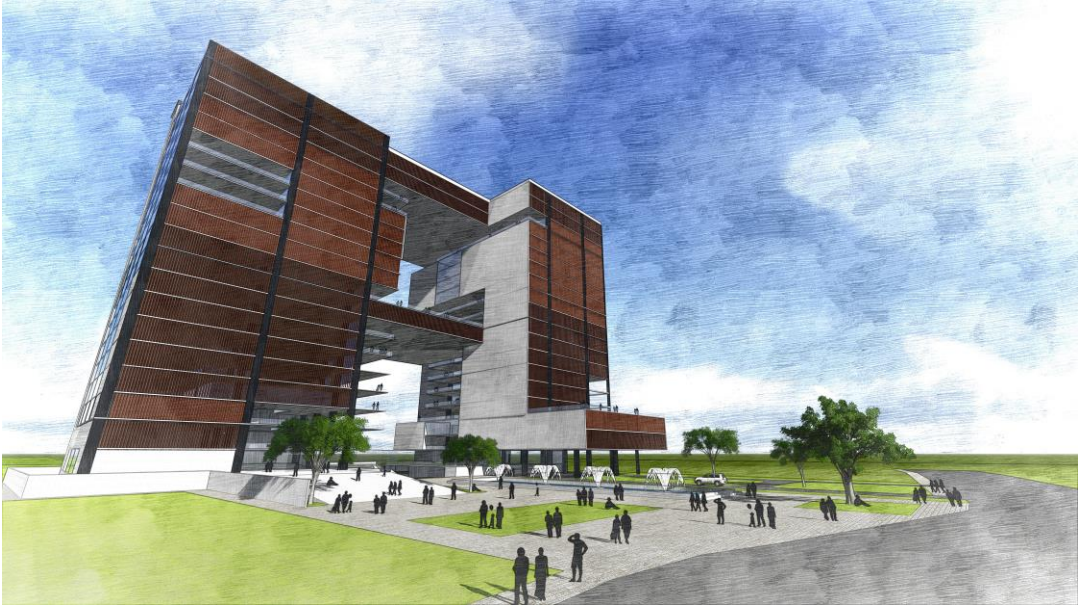


Figure 5.2.7: Perspective 1



Figure 5.2.8: Perspective 2

# Chapter 6

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## Model Photos

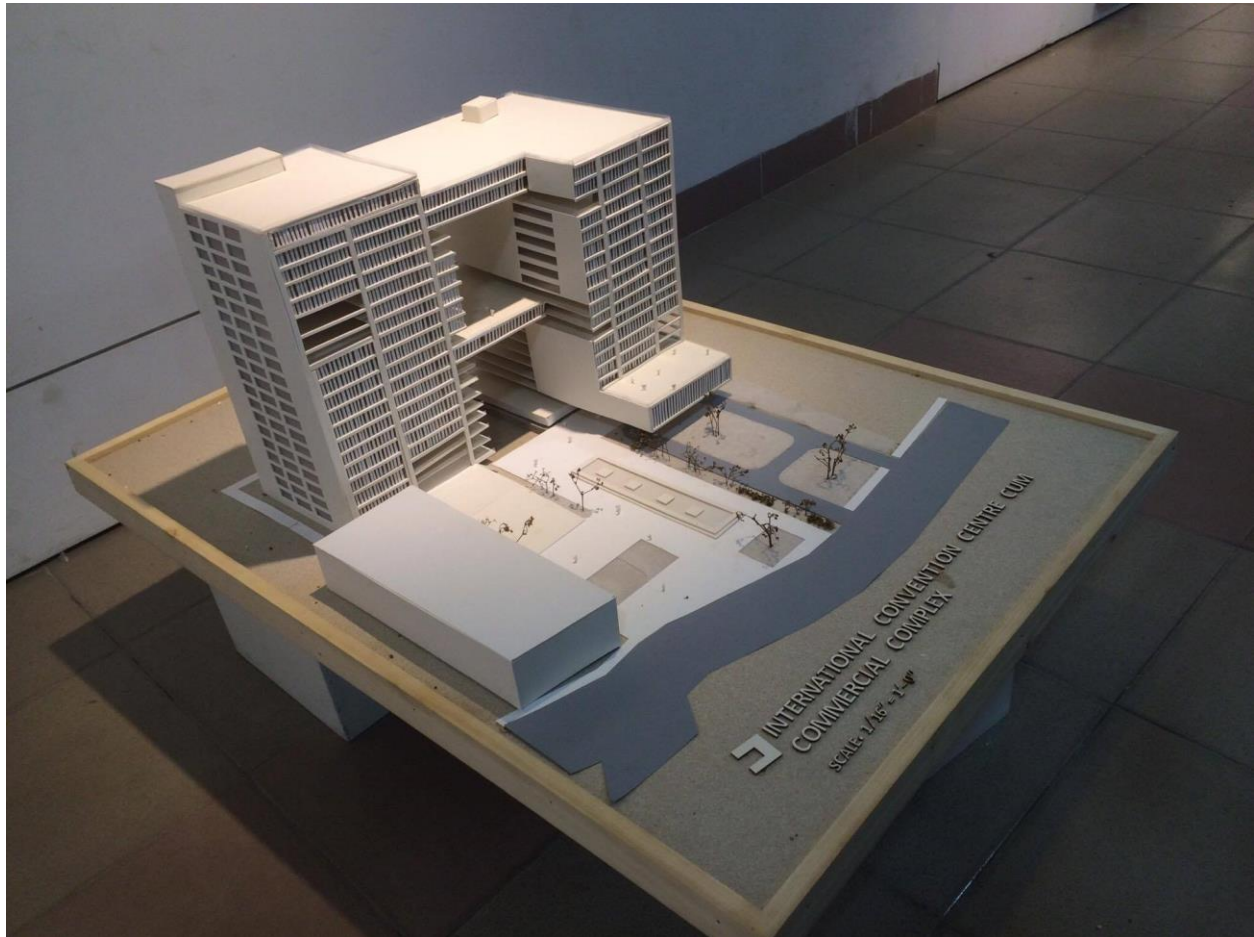


Figure 6.1: Model Photo 1



Figure 6.2: Model Photo 2

## **Conclusion**

International Convention Centre cum Commercial Complex is a project where two different types of functions will be brought into one site. A public space will be included which will be connecting the surroundings with the site. It is hoped that the lackings in this city mentioned before will be fulfilled. A new landmark will hopefully be added to the city through the design.

## References

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<http://www.rsh-p.com/projects/the-leadenhall-building/#>

<http://www.googlemap.com>