THE 4TH PLACE
FOR PEOPLE'S HAPPIER LIFE

Paweena Kuptanon

A Thesis Submitted in Partial
Fulfillment of the Requirements
for the Degree of

Bachelor of Architecture

Department of Architecture School of Architecture and Design
ASSUMPTION UNIVERSITY
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Bangkok society nowadays is more convenient and comfortable, making people speed up their life until they do not notice the changes of the surrounding environment. Moreover, the size of the living area is getting smaller and therefore there is a lack of space for family activities which leads to unhappy living.

Architecture is a tool to connect between humans and a new community. Therefore, architectural spaces are very important elements that influence to users' behavior. In order to suit with every kind of users, this project needs to combine many programs together to make everyone happy here.

This thesis is scoped to study how to stimulate a new environment based on the different five senses of human. Therefore, this building provided more interaction space between people in each program and the sky light that go through the ground floor to create warming space also many kinds of tree and waterfall to fulfill community where lack of nature's elements. However, all the design and programs are based on the existing users' behavior to meet their demand.

Acknowledgement

The success and final outcome of this thesis required a lot of guidance and assistance from many people. There are a lot of things that I do for this thesis for one year long and I have learned so many things that I can use in my life after graduate. However, I am not forgot to thanks all guidance and assistance.

First, I would like to thank my thesis advisor A. Nattapol Suphawong, who has been together with me for one whole year, providing me a lot of knowledge that guide me to the right track of work and always support me.

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Paweena Kuptanon

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Chapter 1: Thesis Introduction

1.1 Background of Interest

Bangkok is one of the very busy cities around the world nowadays which makes Bangkokians have to live faster in order to race against time for their fastest success in their life. This includes using too much of the non-renewable recourses without notice that nature is damaged by the human behavior. So, the health of the people in the city is getting worse because of the bad eating behavior which is very fast and the weather that is full of pollution. Moreover, they also lack relationships with the surrounding people and that is why they might be missing something important because their life is too fast to capture and notice the moment.

Moreover, people outside the city always move in to live in Bangkok which makes the city have more density. In order to meet the demand, most developers build more housing developments and condominiums, which reduce public spaces for Bangkokians to less than before. Normally, people live in a house called 1st place, the work place will be the 2nd place so, the 3rd place is the place in between house and work where people can chill and relax. Sometimes, it is not enough or does not meet the need of the users.

Therefore, this thesis aims to provide more public space and a place for people to relax by using architecture space to let them experience the environment.

1.2 Issue of Interest

People in Bangkok have such a very compact space for living such as a small room in a condominium. So, this thesis will provide a place where people can relax and have activities with their family or other people. Architectural space will be the tool for creating environment to give new experiences to the users. Moreover, the change of environment could affect human behavior.

1.3 Objective of Proposal

To study new typology of public architecture in which new programs would emerge from the site study, in order to welcome people in Bangkok to come and join the place.

To study architectural space that would affect human perception such as space and volume in order to let people notice the surrounding.

To redesign the living mall to meet the users' demand around the site.

1.4 Hypothesis of Proposal

A simple building look can be complex by the function and create new interesting spaces that impress the users realized difference experiences from other places in the city.

1.5 Thesis Statement

This project aims to stimulate a new environment based on the different five senses of human to let the users have a chance to realize their life and try to balance their everyday life. Moreover, the programs in this project are based on the existing users' behavior during both day and night time to meet the demand of the users.

Chapter 2: Literature Review

In the present day, people in Bangkok live with a very fast lifestyle. Therefore, it harms both the humans and the city; the humans get worse health because of the bad food and the city is covered by pollution which humans have created, CO_2 emitted from cars and factories. From those problems, why don't we stop and think about how to make Bangkok better than the past? Slowing down yourself and thinking of things around you, all of them have meaning within themselves and how to live with them happily.

2.1 Slow Movement

Slow Movement blends fast and slow lifestyles to help people work, live and play better in the modern world. Started in Italy in the early 1990s, the Slow Food Movement helped recapture the word 'slow' as something positive. But they concentrated on food. It is actually about a cultural revolution against the concept of faster is better. Carl Honoré wrote a book about slow in modern world and described the word slow as, "The Slow philosophy is not about doing everything at a snail's pace. It's about seeking to do everything at the right speed."[1] Let people relish the time rather than just counting them. It is emphasized on the quality more than quantity of work and also the quality of life. More recently slow has become a universal label to explain the benefits of doing everything at the right speed.[2]

2.2 Slow Life

There are many people thinking about slow life during their holidays, but do they know what the slow life really is in everyday life?

From the book "Small is Beautiful: A Study of Economics As If People Mattered" by E. F. Schumacher,[3] he wrote about the way to live in middle way. He is the founder of "Buddhist economics"[4] which is based on the Buddha's Noble Eightfold paths. In his point of view, it is better to work in local area as a self-sufficient local community which does not violate the environment, mostly using renewable energy for working in order to preserve the world's energy. E. F. Schumacher is the first person who talks about slow life or self-sufficient life which is trying to save the world's energy. As in his saying that "Production from local resources for local need is the most rational way of economic life, while dependence on import from afar and the consequent need to produce for export to unknown and distant

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[1] Carl Honoré, "In Praise of Slow", Carlhonore, accessed September 2, 2016, http://www.carlhonore.com/books/in-praise-of-slowness/.

[2] Ibid.

[3] E.F. Schumacher, *Small is Beautiful: A sSudy of Economics As If People Mattered (* London: Sphere books Ltd., 1974), page number.

[4] Ibid., 32-39.

people is highly uneconomic and justifiable only in exceptional case and on a small scale."[5] Meaning that he encourages people to live in local community independently, using what you can produce yourselves, not wasting transportation's energy, and moreover, getting fresher products.

2.3 Slow Design or Slow Architecture

Slow design or slow architecture is the way to design which does not just focus on function or result but including the cultural value and historical characteristics of the area. Moreover, the architect and designer should use eco-friendly or local materials and minimize the artificial elements to make it as simply as the local culture.[6] In addition, slow architecture aims to harmonize with the surrounding environment to fill the existing urban spaces and also maximize the natural resources that come through the building such as light and wind.[7]

Another important thing about slow architecture is the slow perception that people need to come to the space to feel and understand the space by moving there or standing still.[8] In order to integrate building and landscape, the architect often creates an empty space that is contained by the built forms. This empty space is the heart of the project.[9] Normally, a human eye scans panoramically and then suddenly focuses down on a tiny point. There are the boundaries of what human chooses to perceive which are constantly expanding and contracting. Sometimes, your brain will call up images or memories when you see colors and shades at the actual space. There are sounds, smells, shifting light and conversation of the passers-by which can happen only when you are there and that is why photography cannot demonstrate all of the space.

2.4 The Happiness

Most people are seeking a happy life. Some people think that by having a lot of money they will be happy with their life. In contrast, in the ancient Greek era, Epicurus spent lot of time to think about the permanent happiness in human life. Called Epicureanism, it is a way to live by being against the materialism of the rushing city life in that period of time. The important 3 ingredients to have a happy life following Epicurus's philosophy are:

2.4.1 Good friends – ones who always stay besides you. It is your benefit to live with them permanently.

2.4.2 Freedom – financially independent and self-sufficient, freedom to do anything you want and not make bad effect to other people.

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[5] Ibid., 35.

[6] Paul Petrunia, "Slow Architecture", Archinect, accessed date September 15, 2016, http://archinect.com/news/article/2852/slow-architecture

[7] Chaya Kurtz, "What is slow architecture?", Networx, accessed date October 20, 2016, http://www.networx.com/article/what-is-slow-architecture

[8] TOD WILLIAMS, "On Slowness" , TOD WILLIAMS BILLIE TSIEN Architects | Partners, accessed date October 20, 2016 , http://www.twbta.com/3031

[9] Ibid.

2.4.3 Analyzed life – take time to analyze what is troubling us and reflect on worries. Our anxieties diminish because we have confronted to problems.[10]

To follow his thinking then he migrates from Athens back to his hometown and opens his garden for gathering friends and interested people to come and have some meals or exchange their opinions.[11] This is the first time the world called "garden community"; the place that everyone can talk together and share good things.[12]

2.5 Thesis Book Reference

2.5.1 Architecture As a Construct of Happiness, Masters of Architecture: Savannah College of Art and Design, by Raquel Guzman Geara.

The project intends to make people in New York City have a happier life and to slow down their life by using architecture as a tool. To create a new archetype, this will be used as a transitional space or destination. The architectural strategy is to elevate people off the ground and start creating "above" and "below" conditions. By creating multiple paths, the user's experience becomes varied and unique based on the chosen path. With little pockets and surprises, the paths create experiential phenomena that will transform user's daily routines. Furthermore, the site becomes a work of public art, not only relevant to people in it, but to people from a distance.[13]

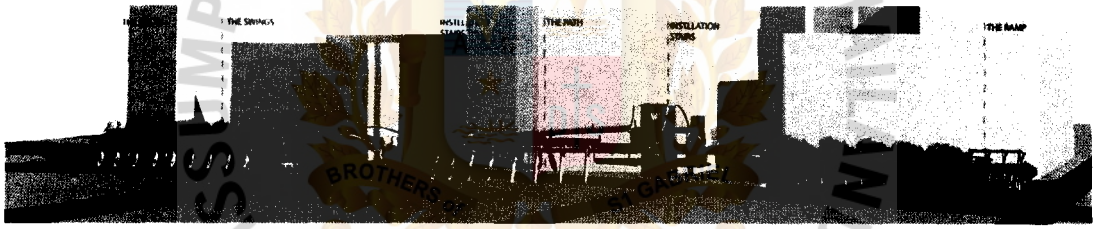

Figure 2.1 Diagram showing the project's sequence of functions
(Image Source: https://www.behance.net)

[10] "สุขนิยมแบบ Epicurus", Coziplace, accessed date October 15, 2016, http://www.coziplace.com/archives/34332

[11] "02 - Epicurus on Happiness - Philosophy: A Guide to Happiness", Youtube video, 23.59, from This six part series on philosophy is presented by popular British philosopher Alain de Botton, posted by "spookybuk", accessed date November 1, 2016, https://www.youtube.com/watch?v=irornIAQzQY

[12] DR-K unlockmen, "Refresh ชีวิตคนเมือง เปลี่ยนความเครียดด้วยแนวคิดแบบ'สุขนิยม'ของ Epicurus", Unlockmen, accessed date November 20, 2016, http://www.unlockmen.com/refresh-epicurus-thinking-by-ap-the-city/

[13] Raquel Guzman Geara, "Architecture As a Construct of Happiness", Behance, accessed date November 20, 2016, https://www.behance.net/gallery/17475425/Thesis-Architecture-as-a-Construct-of-Happiness

Architecture as an important instrument of human happiness.

When thinking about happiness in architecture there are different key elements that can affect how people experience spaces and how their emotions will be tapped, and without these architecture does not completely fulfill human happiness.

FREEDOM

Giving people the freedom to choose their experience because they like to feel that they have control over what steps they take in their life. Where they go, how they do it and to what extent they control it.

UNEXPECTED

Elements that surprise people. They change the status quo of the architecture that surrounds them.

COMFORT

A person needs to feel a certain level of comfort and safety in order to stay in a place.

NATURE

Exposuretonaturedirectlyimproveshappinessandproductivity rates.

INTIMACY & INTERACTION

People need moments to be alone; moments of refelction. Yet Humans are social beings and our happiness depends on the quality of our relationships with each other. How we interact with others influences our well-being.

All of these together create an architecture that **slows** people down.

I understand that happiness is subjective, yet I've come to realize that if people don't pause and enjoy what their surroundings have to offer to them, the feeling eventually fades. That's why I wanted to create an intervention in the middle of New York and bring happiness to people. Creating these relaxing or unexpected moments in architecture that people stumble upon on can enhance their levels of happiness, and can increase productivity rates throughout the day.

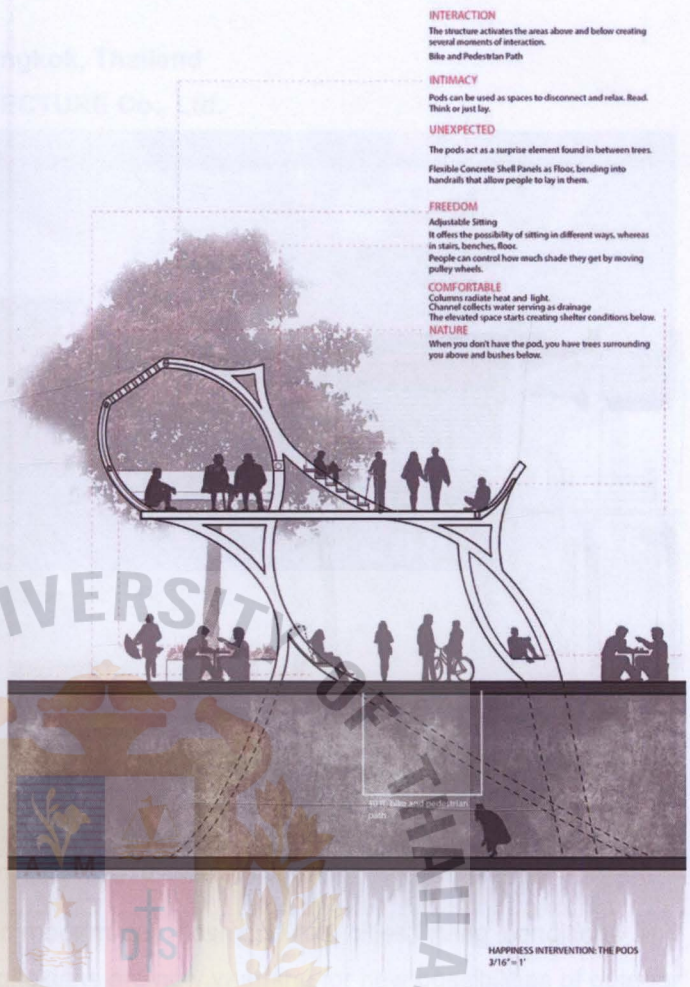

Figure 2.2 Section showing relationship of the project
(Image Source: https://www.behance.net)

THE RECESSED AREA:
The area that leads to the stairs serves as a resting place giving the freedom to people of either sitting to wait for their bus or train, eat, and relax, instead of only giving them the option to wait standing up. It has a recessed space for a more intimate environment.

THE RAMP:
At the entrance of 32nd st. a ramp serves as the medium to go above the path. The intention of the ramp was to create unexpected seasonal experiences. During Spring and Summer it will become a water wall. The reasons to use water are: it is refreshing and helps clean the surrounding environment giving comfort to the people around it and provides a different sound to the one usually heard in the city. During Fall and Winter it will become a musical element: a harp. This harp will be created by adjusting string pressure that goes around the stairs. The harp has two purposes, aside from being fun: it makes people work together to create sounds providing the element of interaction.

Figure 2.3 Perspective of recessed area and the ramp
(Image Source: https://www.behance.net)

2.6 Case Study

2.6.1 The Commons, Bangkok, Thailand

By Department of ARCHITECTURE Co., Ltd.

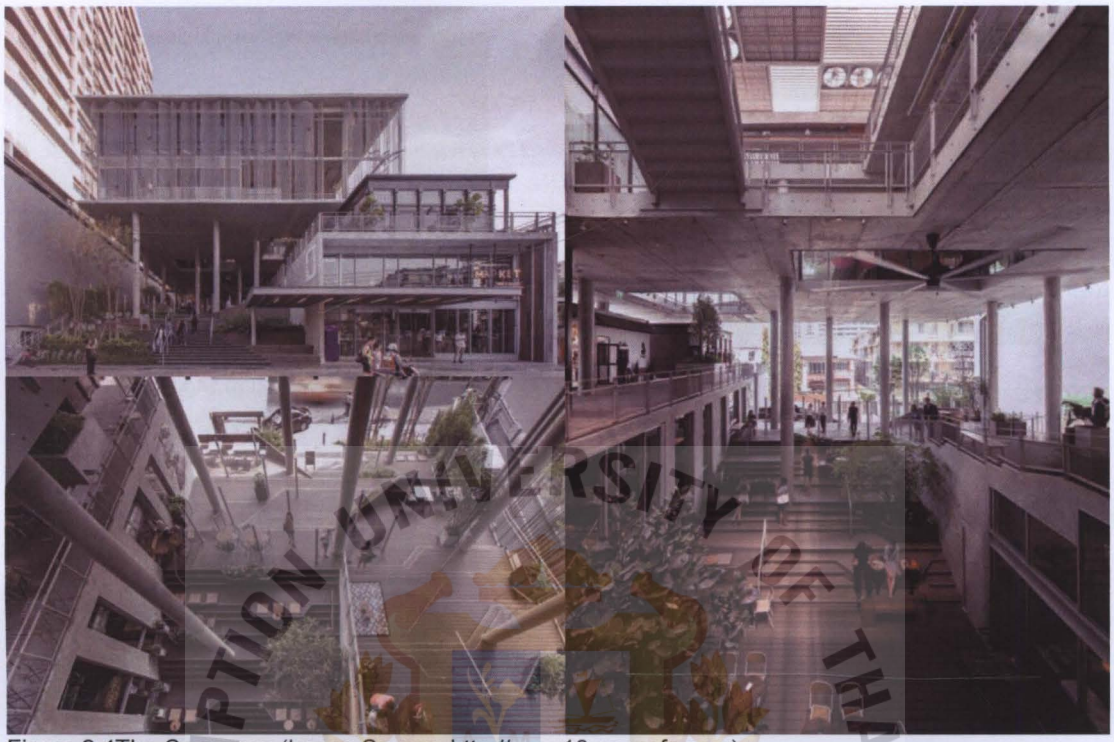

Figure 2.4The Commons (Image Source: http://www10.aeccafe.com)

"For Bangkok, or any other modern-day cosmopolitan cities, living conditions and spatial form continue to evolve. Bangkokians are now yearning for new possibilities of outdoor living space that can effectively answer to the tropical heat and its dense living condition where there is not much space for the outdoor. 'The Commons', a small retail development in the city center, is an attempt to create a new active outdoor space where people can comfortably enjoy it at any time of the year."[14] The owner aimed to build this project as the terrace of Thong-lor area providing space for activities, gathering and living close to the nature in the city under the concept of "wholesome living" for good health and happiness.

"'The Commons proposes a vertical open-air public space folding upward as a backbone of the building. It starts with 'the Ground' which is a landscape of steps and ramps integrated with platforms, settings, planting and small kiosks. The area is well shaded by the third and the fourth-floor structure above protecting the entire space from the sun and the rain. 'The Ground' vertically opens up through large voids on the upper floors, connecting to a large public open-air area occupying nearly thirty percent of each of the third and the fourth-floor plate. The space vertically and horizontally flows in and out the entire building and allows for natural ventilation throughout. Two sets of industrial fans are incorporated into the ceiling screen below the skylight. One set draws hot air upward and out; the other set blows the wind

[14] Sumit Singhal, "The Commons in Bangkok, Thailand by Department of ARCHITECTURE Co., Ltd.", Aeccafe, accessed date October 30, 2016, http://www10.aeccafe.com/blogs/arch-showcase/2016/08/25/the-commons-in-bangkok-thailand-by-department-of-architecture-co-ltd/

downward to effectively increase the air movement in extra hot days. This airy semi-outdoor space is well incorporated with gardens on all levels. It becomes an active vertical urban living area. It is a place for strolling and relaxing at any time and in any seasons."[15]

Figure 2.5 Interior spaces on first floor
(Image Source: https://dsignsomething.com)

Figure 2.6 Common area on third floor
(Image Source: https://dsignsomething.com)

The Commons has a building area of 5,000 sq. m. but the sales area is only 2,000 sq. m., in order to give more common space for all users and also to reduce density of the area and the rushing lifestyle of people in the city.[16]

2.6.2 Habito Mall, Bangkok, Thailand by CONTOUR COMPANY LIMITED

Figure 2.7 Habito exterior perspectives
(Image Source: http://www.contour.co.th/en/portfolio/habito/)

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[15] Sumit Singhal, "The Commons in Bangkok, Thailand by Department of ARCHITECTURE Co., Ltd.", Aeccafe, accessed date October 30, 2016, http://www10.aeccafe.com/blogs/arch-showcase/2016/08/25/the-commons-in-bangkok-thailand-by-department-of-architecture-co-ltd/

[16] "The commons สวนหลังบ้านของคนเมือง", DsignSomething, accessed date October 30, 2016, https://dsignsomething.com/2016/03/20/the-commons-%E0%B8%AA%E0%B8%A7%E0%B8%99%E0%B8%AB%E0%B8%A5%E0%B8%B1%E0%B8%87%E0%B8%9A%E0%B9%89%E0%B8%B2%E0%B8%99%E0%B8%82%E0%B8%AD%E0%B8%87%E0%B8%84%E0%B8%99%E0%B9%80%E0%B8%A1%E0%B8%B7%E0%B8%AD/

Habito Mall was designed under the concept of "the heart of good living" to create a lifestyle hub for the surrounding Sansiri residential properties. The architect aimed to create a 'third space' where the local people could have a relaxing spot to work, shop and enjoy fantastic cuisine on their doorstep.[17]

More than just a local shopping mall, Habito provides a true sense of community in its lush, green environs with a wholesome range of organic option.

This project has combined programs of selected restaurants, cafe, co-working space, fitness, supermarket and activity areas that can make the visitors live here all day happily.[18]

2.6.3. Bann Kang Wat, Chiang Mai, Thailand

Figure 2.8 Bann Kang Wat exterior perspectives
(Image Source: http://www.banidea.com/bann-kang-wat/)

The site of this project is in the middle of two temples (wat) that by the law the owner cannot build any big building. Moreover, this area still has the essence of local Chiang Mai including the way of life and the state of society that will be here for longer time. To create this community, the architect intends to create a simple community by using local materials and the most important is to connect the new community with the old community in a harmonized way.

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[17] "A COMMUNITY MALL CREATING 'THE HEART OF GOOD LIVING' ON SUKHUMVIT 77", Contour, accessed date November 22, 2016, http://www.contour.co.th/en/portfolio/habito/

[18] "habito the heart of good living", Sansiri, accessed date November 22, 2016, http://www.sansiri.com/commercial/habito/download/Brochure.pdf

This project contains a sunken court in the middle and 11 houses for different activities that focus on art and interactive activities. For instance, a library, art class, needle work, home stay, coffee café and other handmade shops. They emphasize on the relationship between buyer and seller and the relationship between seller and seller which makes it a real community because almost all of the sellers live here and grow some vegetables for their meals.[19]

[19] Abhisit Suthapradit, "บ้าน "ข้างวัด" ประติมากรรมแห่งชุมชนไทย", Ban idea, accessed date November 25, 2016, http://www.banidea.com/bann-kang-wat/

Chapter 3: Contextual Proposition

3.1 District Selection

Figure 3.1 District criteria (Image Source: Author's image)

District and site selection would be determined by: the district should be in the heart of the city, the density of people in the district and connection with transportation network, in order to easily connect with Bangkokians.

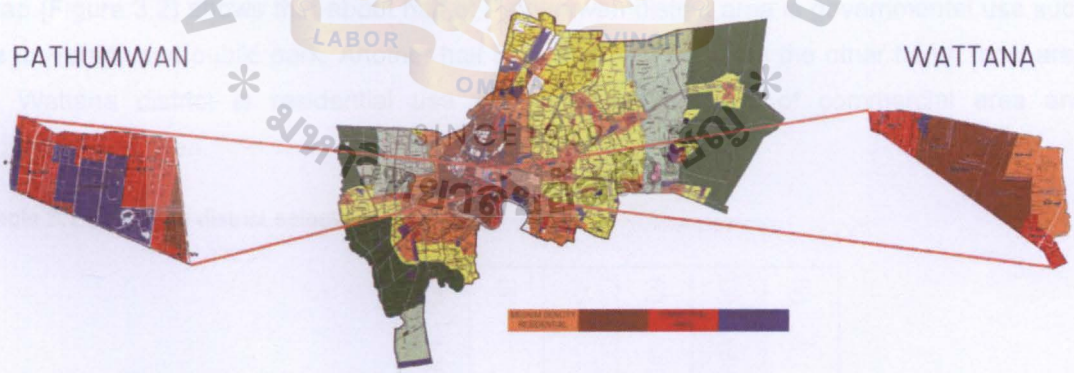


Figure 3.2 Land use map showing area of Pathumwan district and Wattana district.
(Image Source: Author's image)

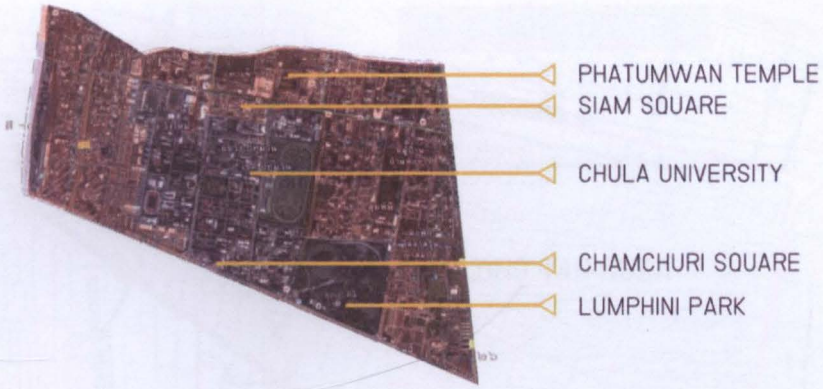


Figure 3.3 Map showing nodes of Pathumwan district. (Image Source: Author's image)

Figure 3.4 Map showing nodes of Wattana district. (Image Source: Author's image)

From the criteria, Pathumwan district and Wattana district are both in the city, have comfortable transportation network and are also near community areas as shown in the above figures (Figure 3.3 and Figure 3.4) which show the nodes of each district. The land use map (Figure 3.2) shows that about half of Pathumwan district area is governmental use such as university and public park. Another half is commercial area. On the other hand, most area in Wattana district is residential use with only small space of commercial area and governmental area.

Table 3.1 Criteria of district selection

5 VERY GOOD
4 GOOD
3 FAIR
2 POOR
1 VERY POOR

	TRANSPORTATION (4)	HOUSE AREA (5)	SCHOOL AREA (3)	BUSINESS AREA (2)	COMMUNITY AREA (5)	LAND AREA (3)	
WATTANA	5	5	4	5	4	4	99
PATHUMWAN	5	2	5	4	4	3	82

This table shows that Wattana district gets more in total score because Wattana district has more housing area and more empty land area than Pathumwan district.

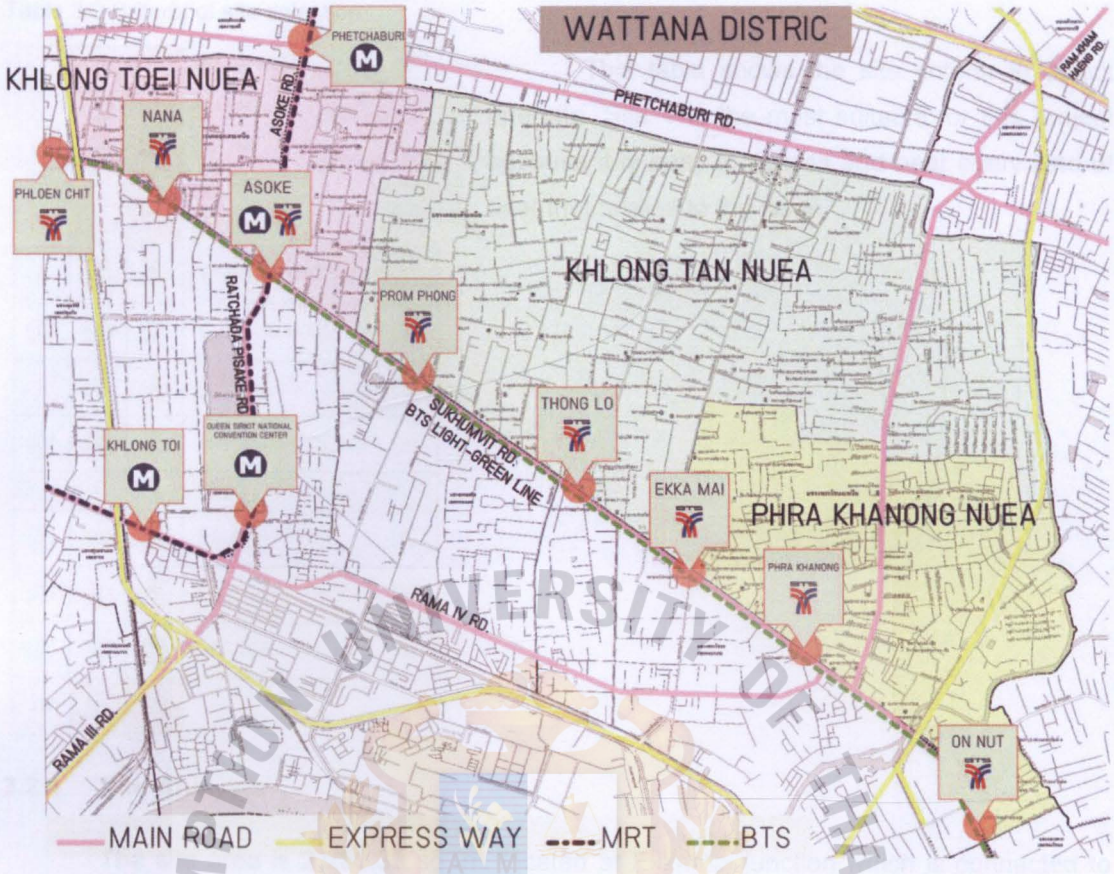


Figure 3.5 Map showing transportation network and sub-districts in Watthana district. (Image Source: Author's image)

3.2 Site Selection and Site Analysis

There are three interesting sites in Watthana district around Thong Lor and Ekkamai area.

Figure 3.6 Sites 1-3 (Image Source: Author's image)

Table 3.2 Criteria of site selection

SITE 3	SITE 2	SITE 1	5 VERY GOOD / 4 GOOD / 3 FAIR / 2 POOR / 1 VERY POOR	
3	4	5	TRANSPORTATION	(5)
4	5	3	SIZE AND FORM	(5)
2	3	4	SITE VISION	(3)
3	4	5	SITE SURROUNDING	(4)
			USER	
3	5	5	FAMILY	(5)
3	4	5	STUDENT	(3)
3	3	5	OFFICER	(3)
74	116	127		

This table shows the site criteria to select one site. Site 1 is the most suitable for this project because it is easy to access and near every kind of user that relates to the issue.

3.2.1 Site Analysis

The site area is 2,230.33 sq. m. located at Ekkamai junction which is connected to Sukhumvit road and Ekkamai road and is also near BTS Ekkamai station. The main context is in the city area surrounding by shopping malls, offices, hospital, school and temple.

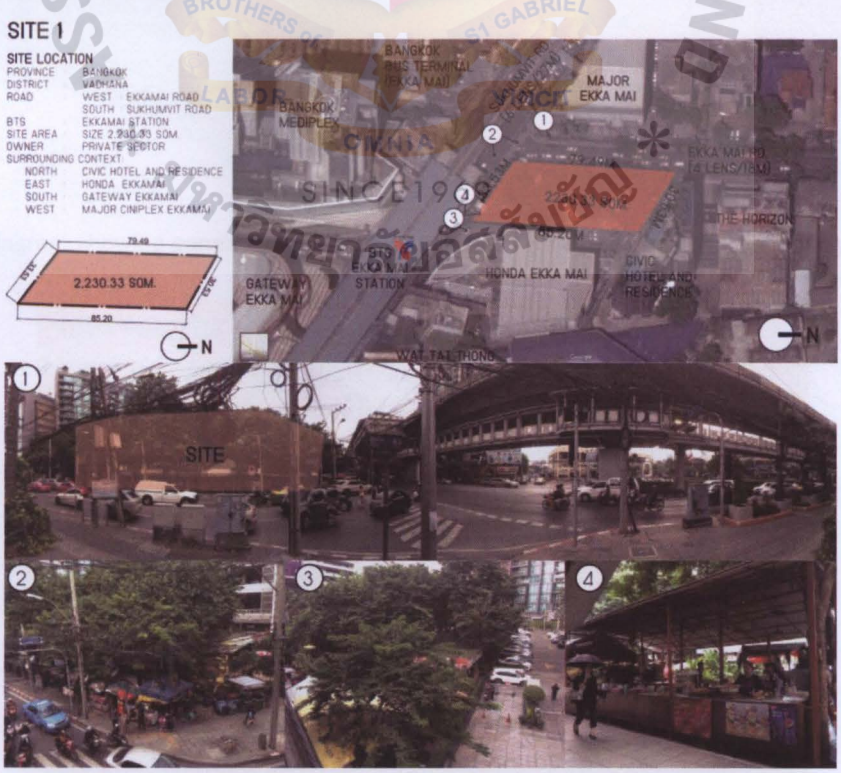


Figure 3.7 Site location and surrounding area (Image Source: Author's image)

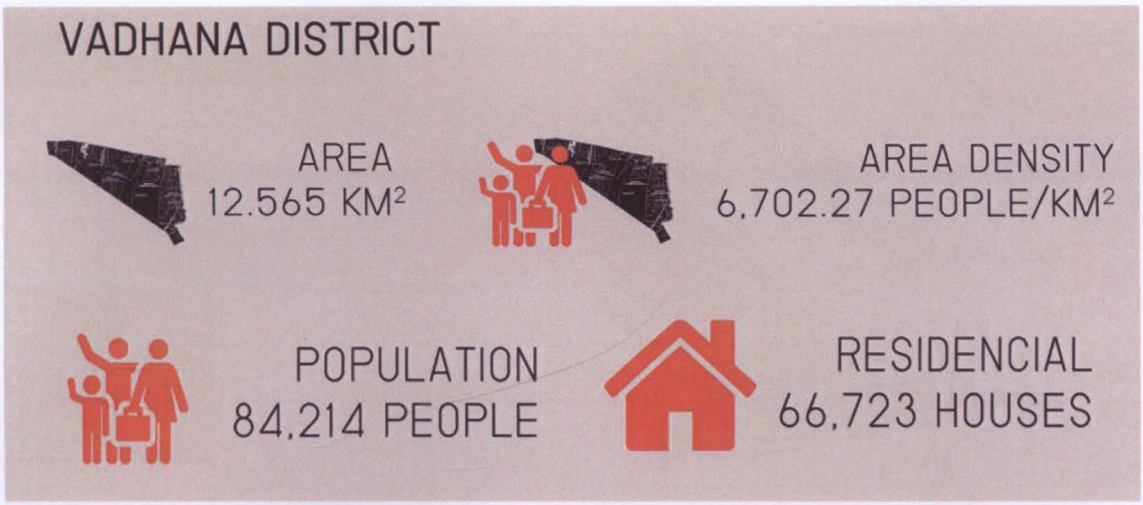


Figure 3.8 Diagram showing general information of the district (Image Source: Author's image)

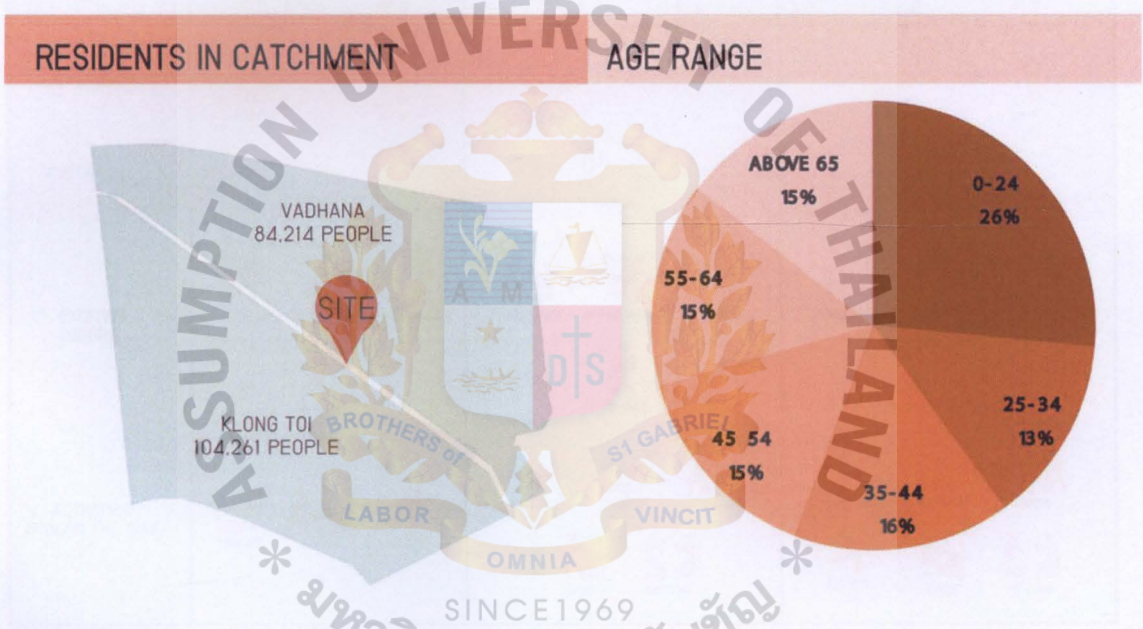


Figure 3.9 Diagram showing general information of the district (Image Source: Author's image)

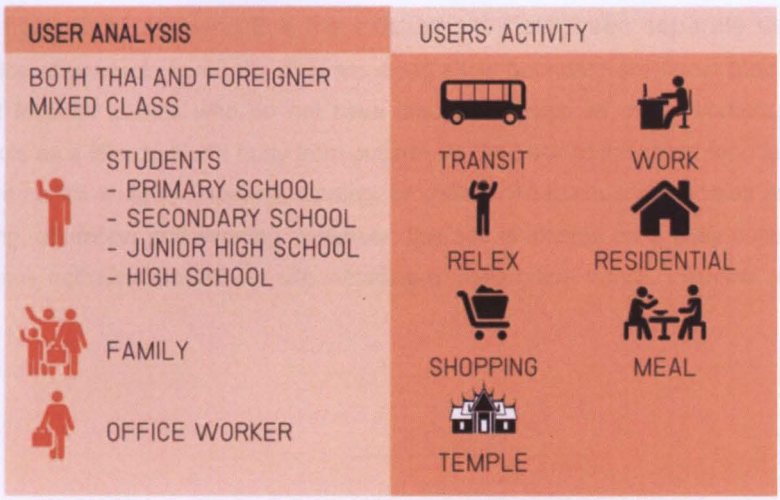


Figure 3.10 Diagram showing user analysis and users' activity (Image Source: Author's image)

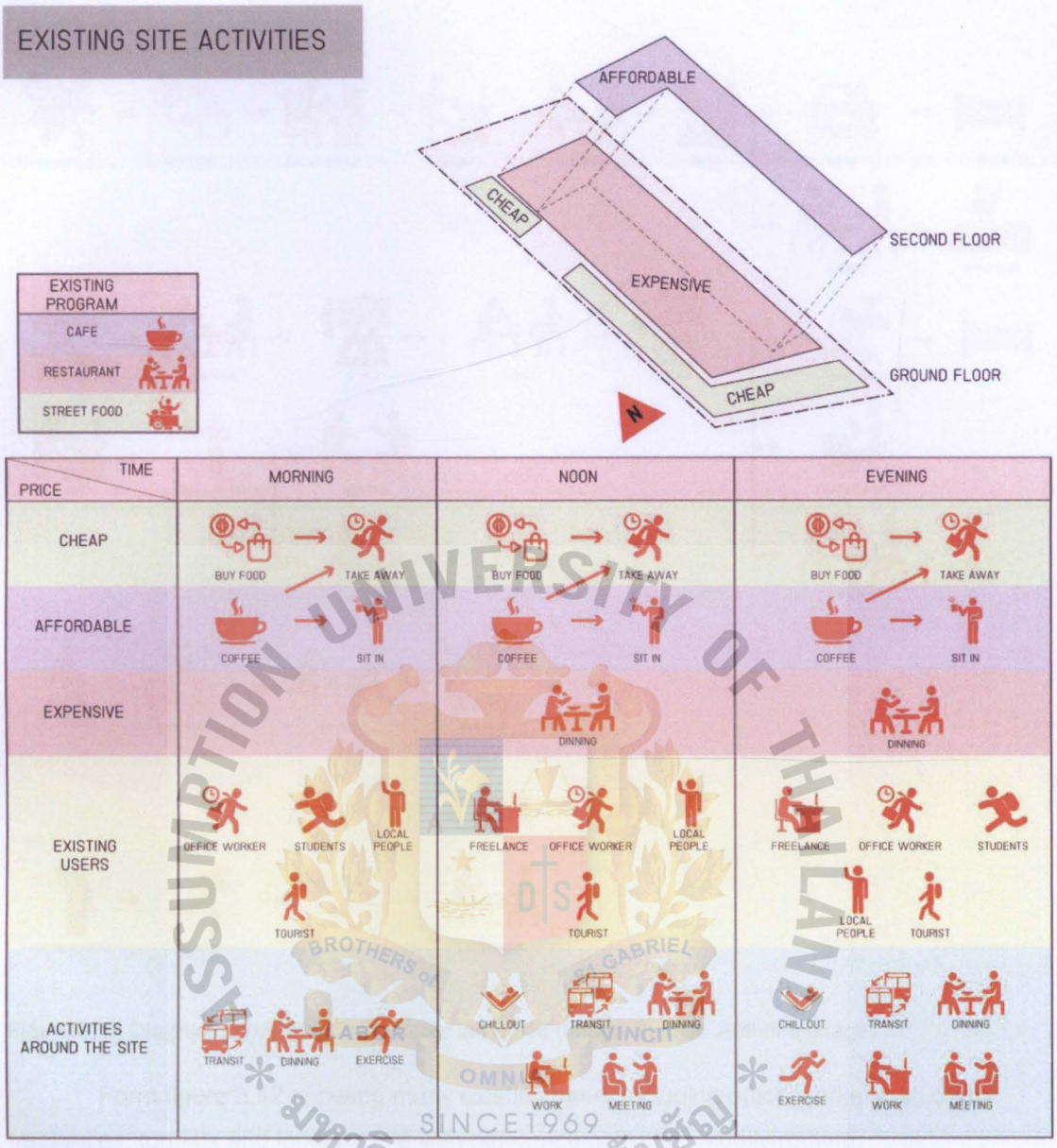


Figure 3.11 Diagram showing existing site activities (Image Source: Author's image)

From figure 3.11 showing that the existing site have been separate user by location, function and price of product. As on the diagram along site's boundary are street food kiosks that sell cheap and fast food for people who do not have much time such as office workers, students. This program also acts as a filter to blend hurly from outside. At the back of the street food layer, there are a restaurant and a coffee shop for meeting, dinning, or chillout. All users and activities are difference by the time morning, afternoon and evening. However, this site is located on a busy community area so, there are so many activities around the site including transportation transit, exercise, working, chillout and dinning.

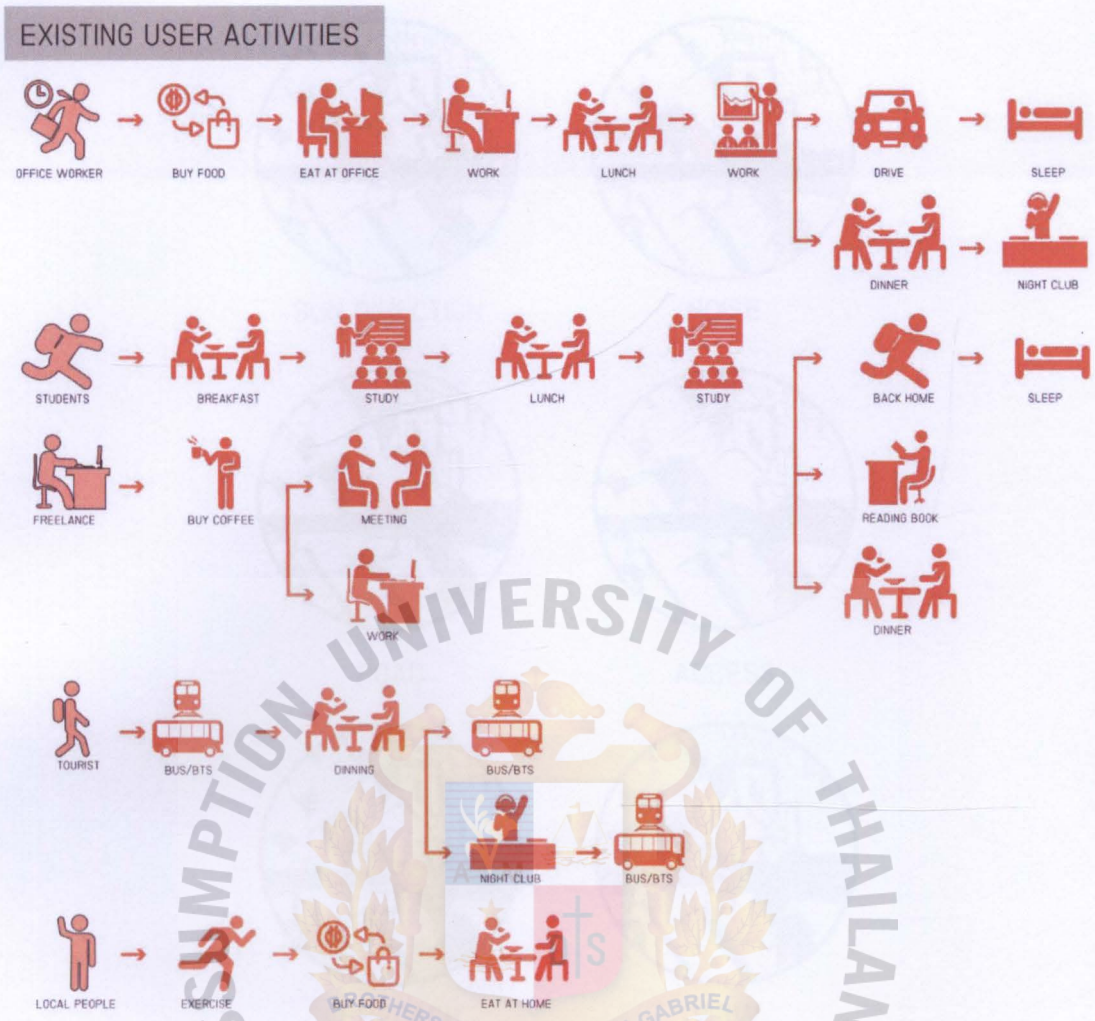


Figure 3.12 Diagram showing existing users' activities (Image Source: Author's image)

Form figure 3.12 showing many existing users including office workers, students, freelances, tourists and local people with difference activities in daily routine.

Figure 3.13 Diagrams showing sun direction, noise, road, access to site, approach, view, footpath, parking, BTS station and existing trees (Image Source: Author's image)

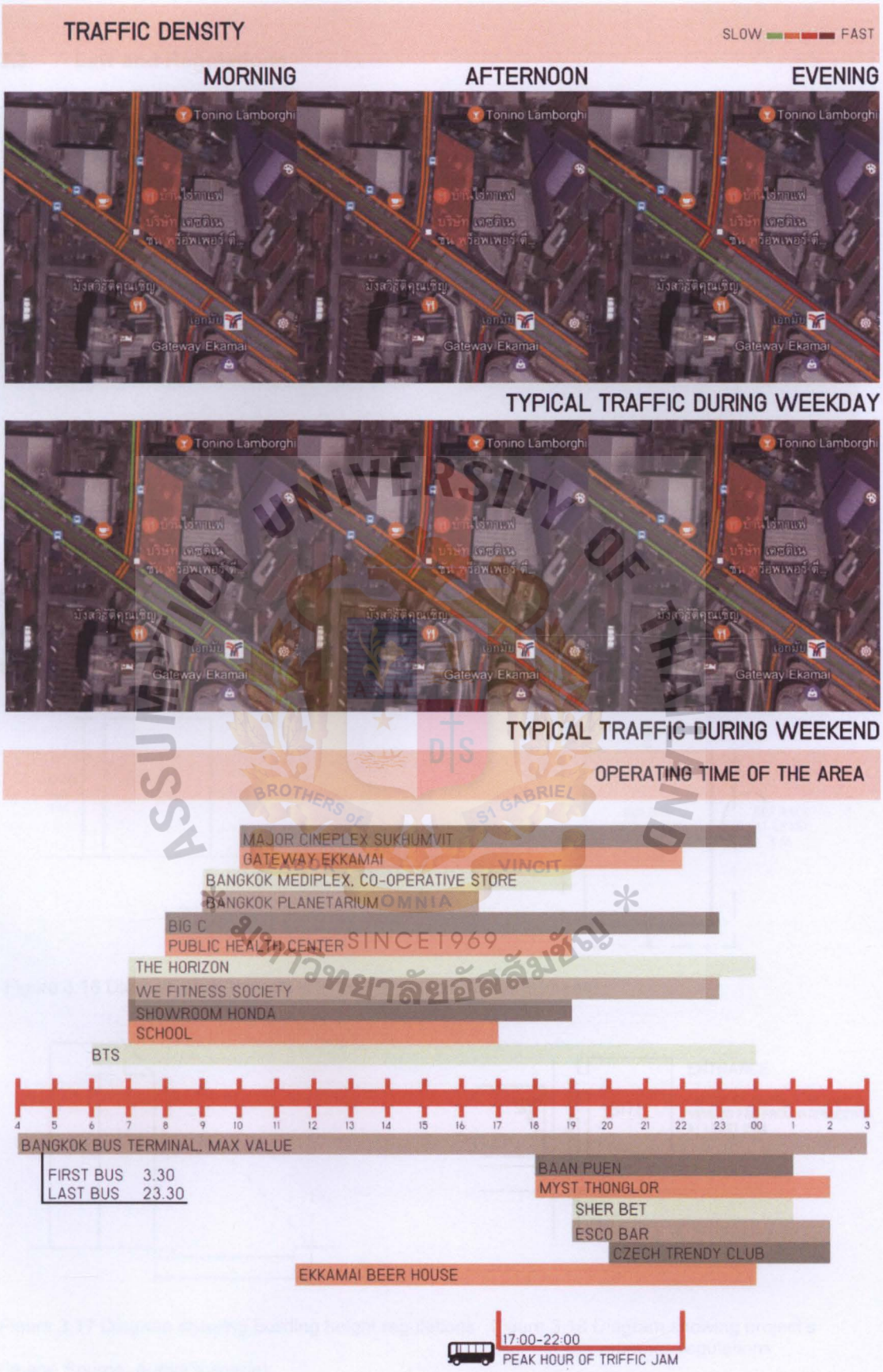


Figure 3.14 Diagrams showing traffic density and operating time of the area
(Image Source: Author's image)

3.3 Law and Regulations

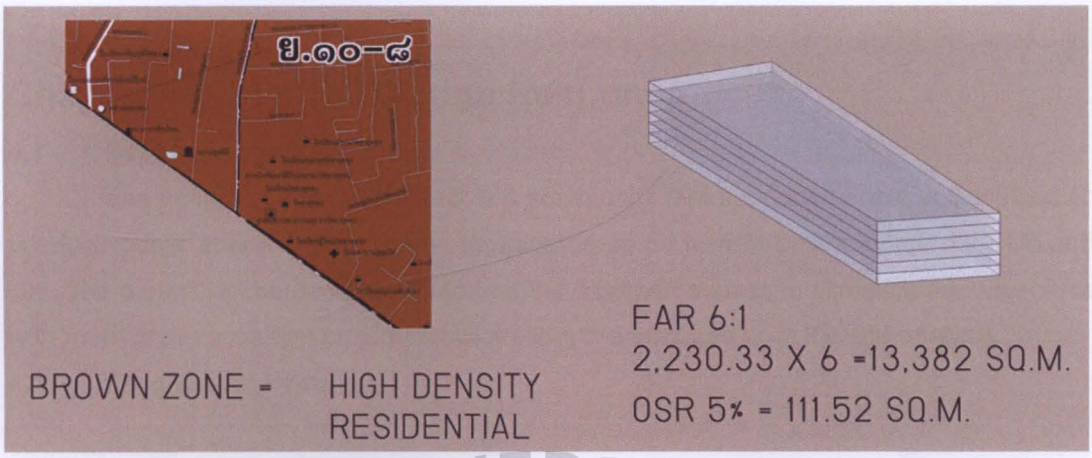


Figure 3.15 Land use map of the site and FAR calculation (Image Source: Author's image)

This site is in the brown zone or high density residential zone. FAR is 6:1 and OSR is 5%. According to the law, this site is possible to build commercial operation with area of more than 10,000 sq. m. located on a road with no less than 30 m right of way or within 500 m of the operated BTS or MRT station.[20]

Figure 3.16 Diagram showing setback (Image Source: Author's image)

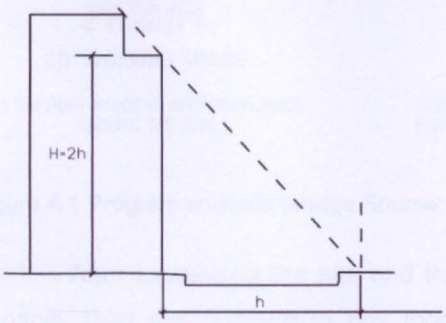


Figure 3.17 Diagram showing building height regulations (Image Source: Author's image)

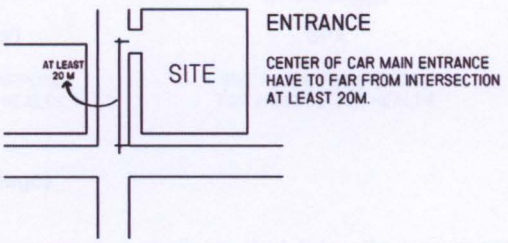


Figure 3.18 Diagram showing project's entrance regulations

[20] Department of city planning, accessed date October 12, 2016, http://cpd.bangkok.go.th:90/web2/NEWCPD2556/06_cpd56.pdf

Chapter 4: Potential Design Response

4.1 Design Scope

The design of this new project is a community that supports people in Bangkok. This provides public space and programs to guide users on how to balance their daily life in the city. The project will be designed based on the 5 human senses to stimulate the environment with more green area and provide functions that are analyzed from the site analysis.

4.2 Program Analysis

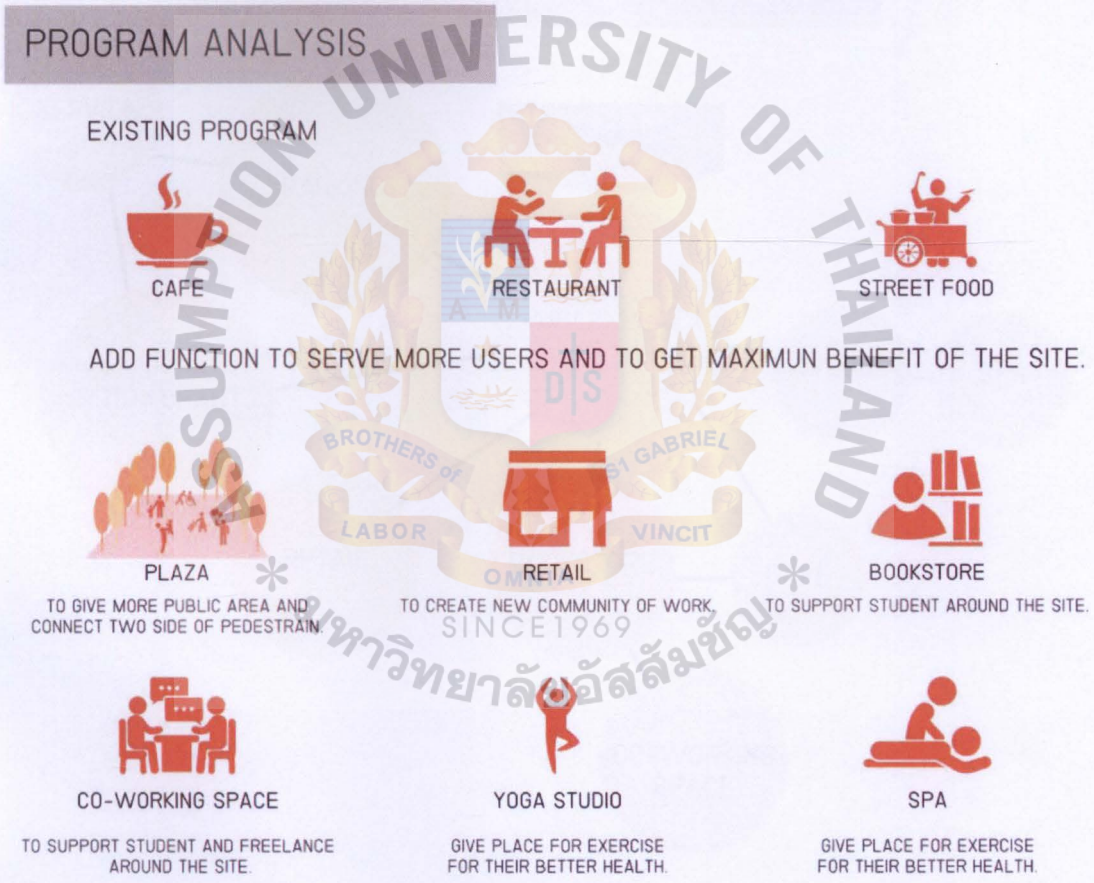


Figure 4.1 Program analysis (Image Source: Author's image)

After I analyzed the site and the existing program, I realized that this site has more capacity than just a place to buy food. Because from the site analysis showing that the operating time of function around this site have almost 24 hours a day in order to serve more users and give more public space for people in this compact community. Moreover, this project also provides more programs to fulfill the users need.

4.3 Organization Structure

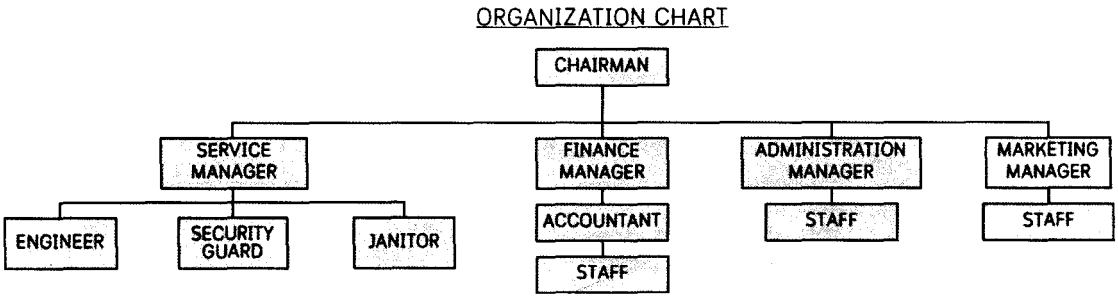


Figure 4.2 Organization chart (Image Source: Author's image)

4.4 Activities/Space

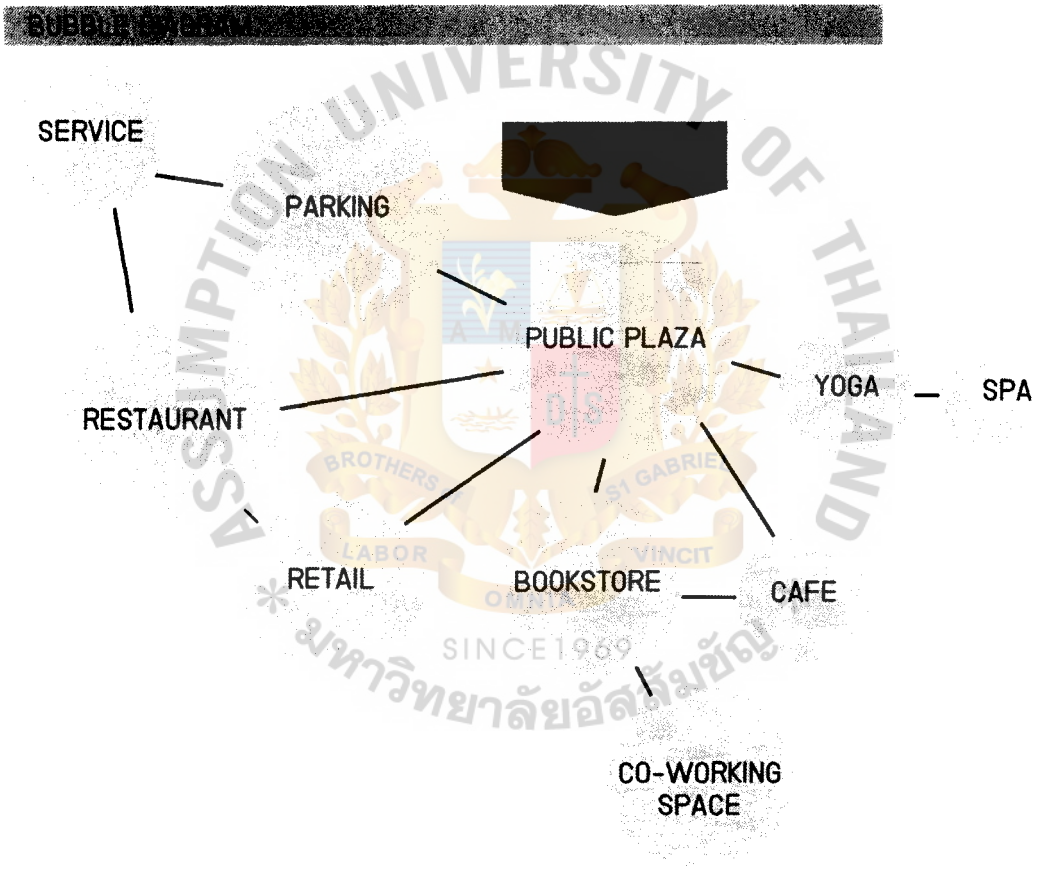


Figure 4.3 Bubble diagram (Image Source: Author's image)

From above diagram showing the relationship between each program that people flow from public plaza to access every function in this project.

4.5 Space Summary

Table 4.1 Space summary of the project

SPACE SUMMARY		
PUBLIC AREA		3520 SQM.
	PLAZA	900 SQM.
	SUNCKEN PLAZA	300 SQM.
	STAIRCASE	185 SQM.
	2ND FLOOR PLAZA	415 SQM.
	RETAIL	700 SQM.
	RESTAURANT	1,100 SQM.
	W.C.	200 SQM.
	TREATMENT AREA	620 SQM.
	RECEPTION & STAFF AREA	50 SQM.
	YOGA STUDIO	300 SQM.
	SPA	130 SQM.
	W.C.	140 SQM.
PARKING		3,360 SQM.
	AUTOMATIC PARKING	3,270 SQM.
	CAR LIFT LOBBY	60 SQM.
	WAITING AREA	30 SQM.
OFFICE & SERVICE		270 SQM.
	OFFICE	30 SQM.
	W.C.	4 SQM.
	PUMP & TANK ROOM	45 SQM.
	TRANSFORMER ROOM	30 SQM.
	GENERATOR ROOM	30 SQM.
	MDB	15 SQM.
	LOADING AREA	60 SQM.
	GARBAGE ROOM	16 SQM.
	STORAGE	40 SQM.
TOTAL		7,150 SQM.
CIRCULATION 30%		2,145 SQM.
GRAND TOTAL		9,295 SQM.

Chapter 5: Building Technology

5.1 Building Structure

To make the building look light, the project uses post tension system for floors to make it thin and simple.

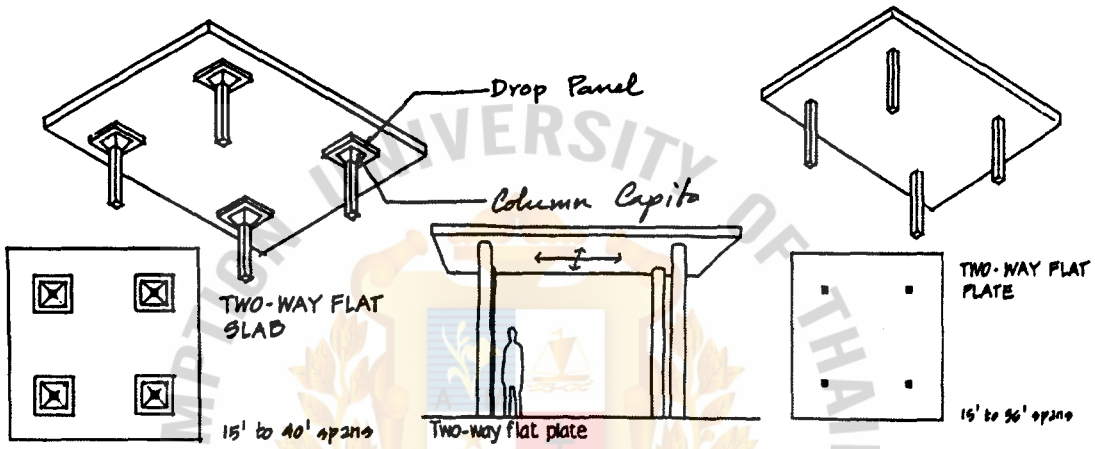


Figure 5.1 Diagram of post tension structure system
(Image Source: http://p-span.wix.com/home#!structural-applications)

This project will provide automatic car parking under this building to make the space efficient. The system is used with RC slab and can be on ground or underground.

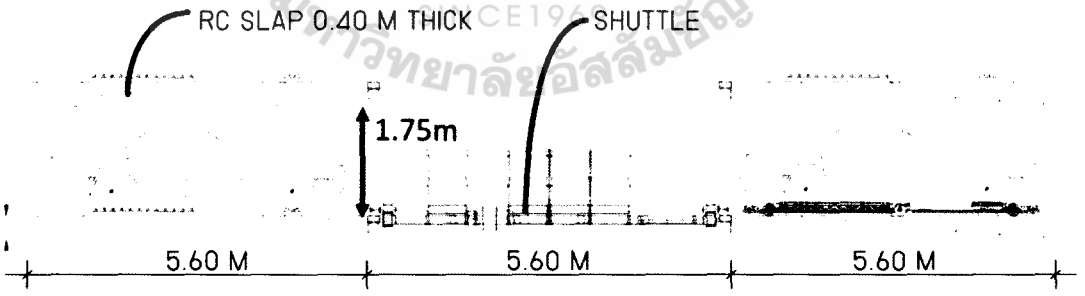


Figure 5.2 Diagram showing the dimension of space and structure
(Image Source: http://www.smartparkthailand.com/products/view.php?id=9)

This project uses 1.00*0.50m I steel columns and beams hanging structure for hanging the yoga room.

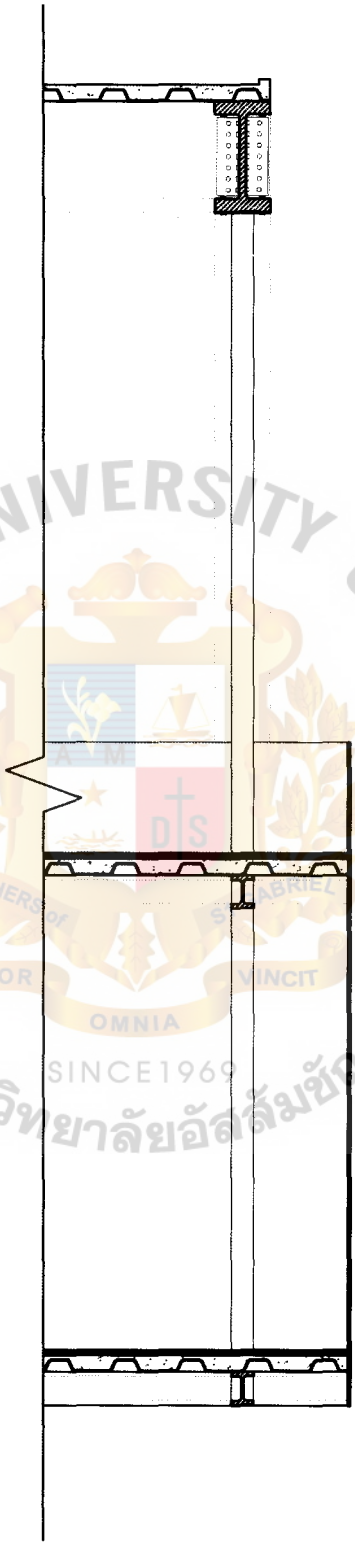


Figure 5.3 Detail section of steel structure (Image Source: Author's image)

5.1 Building System

The building uses electricity from MEA, water from MWA, and uses split type unit for air conditioning system.

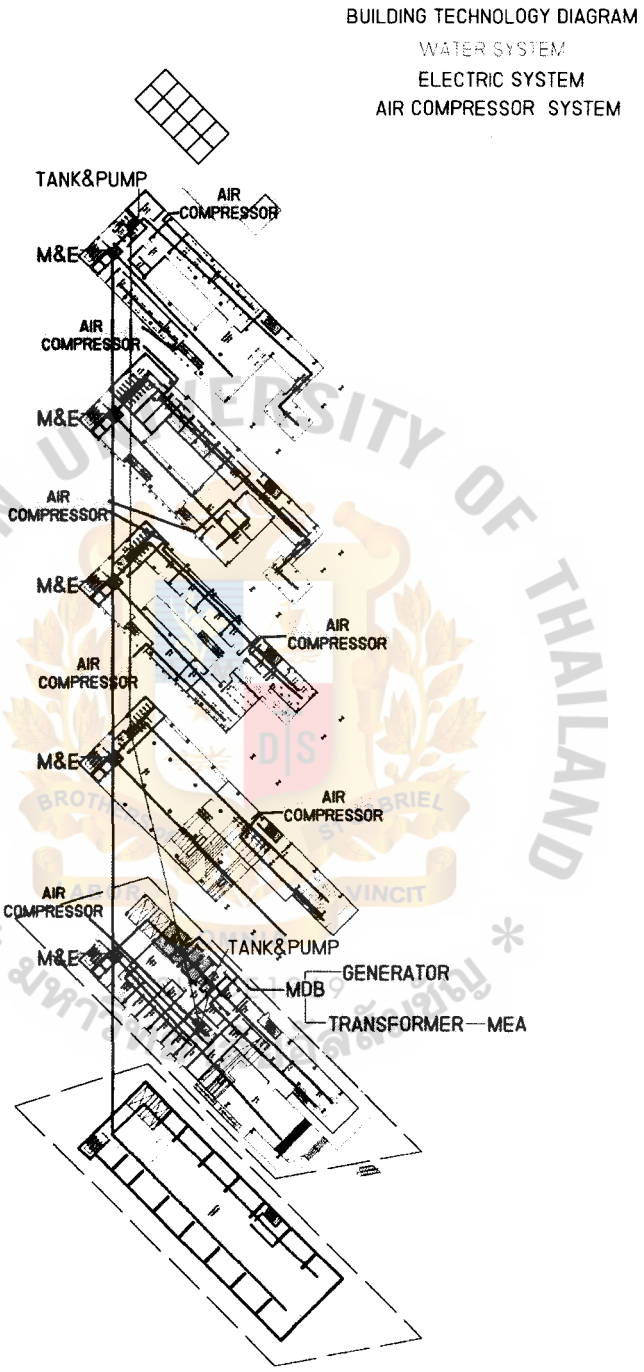


Figure 5.4 Diagram showing building systems (Image Source: Author's image)

The figure above shows the building systems categorized into water system (blue color), air conditioning system (purple color) and electrical system (red color). All systems are located at the back of the building. The building operates with up-feed and down-feed water system. Water pumps and tanks are located on both ground floor and 5th floor.

Chapter 6: Design Schematics

6.1 Concept Development

To make the users come to relax here, I have to deal with busy condition around the site. So, the programs are arranged from high to low dynamic of users of each program and also based on time. Each program works as a filter that gives new experience to the users.

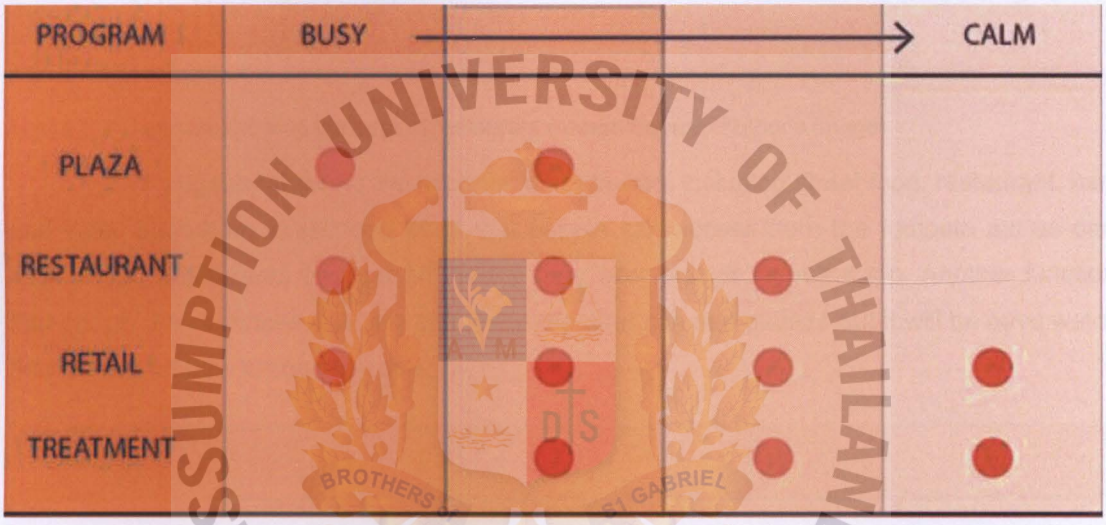
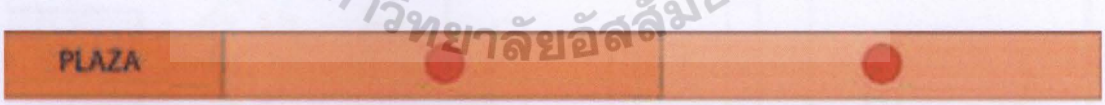


Figure 6.1 Concept diagram (Image Source: Author's image)

The above diagram showing that in one program can have many kinds of space from a busy space to calmness space.



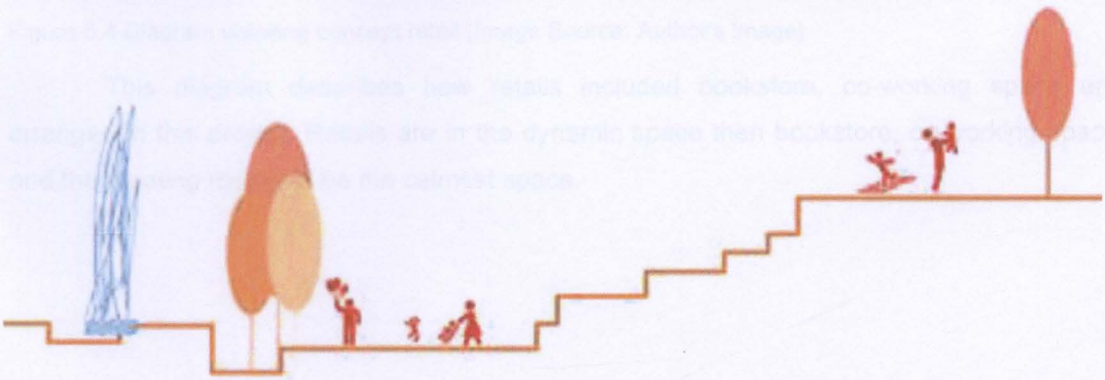


Figure 6.2 Diagram showing concept of Plaza area (Image Source: Author's image)

This diagram showing how the layer of space filter the busy outside. The first layer is the waterfall then come to the sunken court that connect to the 2nd floor plaza.

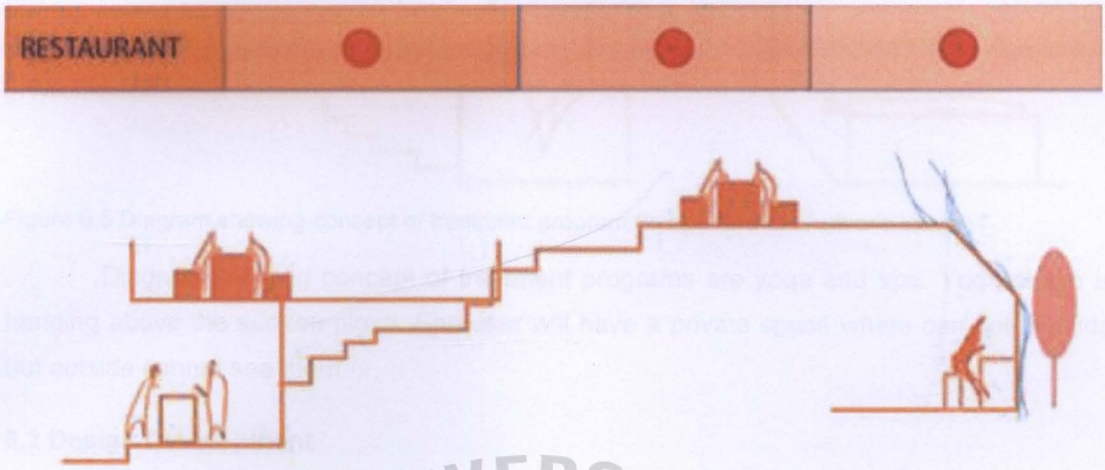


Figure 6.3 Diagram showing concept of restaurant (Image Source: Author's image)

This diagram showing the dynamic of restaurant including street food, restaurant, bar, and café. Start from street food shop that people can access from the footpath act as one layer. Next, restaurants and bar on the top floor filter outside from the top. Another function that put on the calmness space is café even the user can see outside but it will be have water flow on the window around the café.

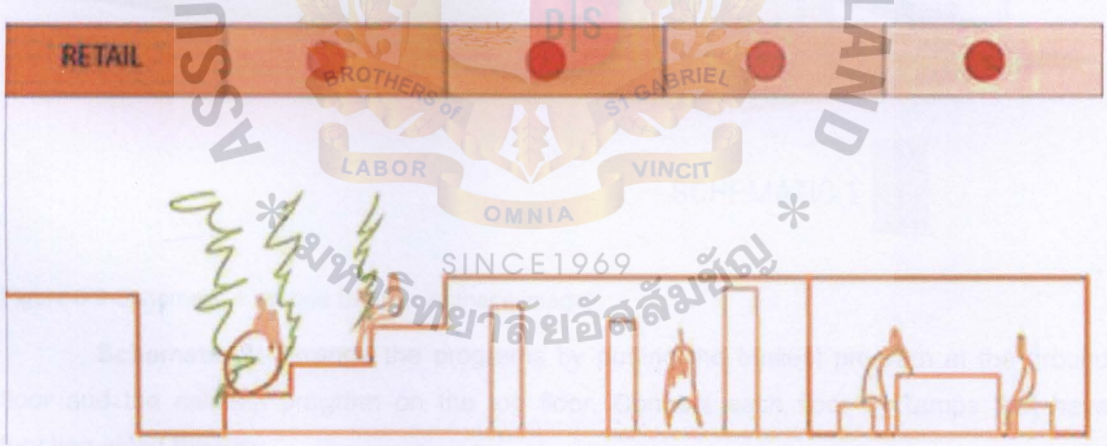


Figure 6.4 Diagram showing concept retail (Image Source: Author's image)

This diagram describes how retails included bookstore, co-working space are arranged in this project. Retails are in the dynamic space then bookstore, co-working space and the meeting room will be the calmest space.

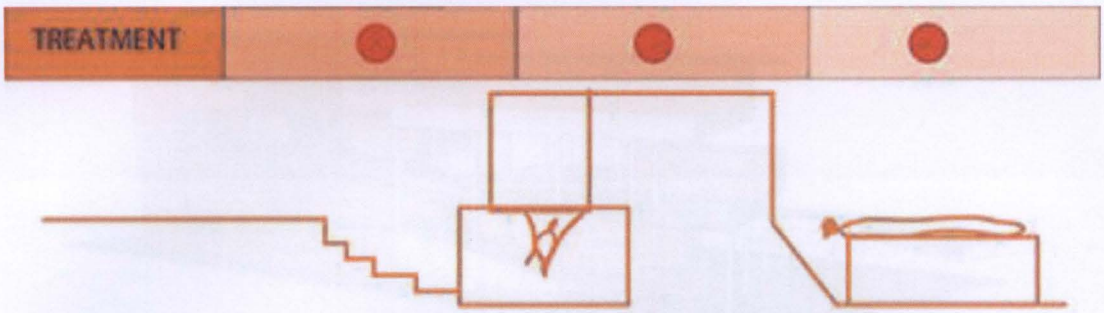


Figure 6.5 Diagram showing concept of treatment program (Image Source: Author's image)

Diagram showing concept of treatment programs are yoga and spa. Yoga studio is hanging above the sunken plaza. Spa user will have a private space where can see outside but outside cannot see them.

6.2 Design Development

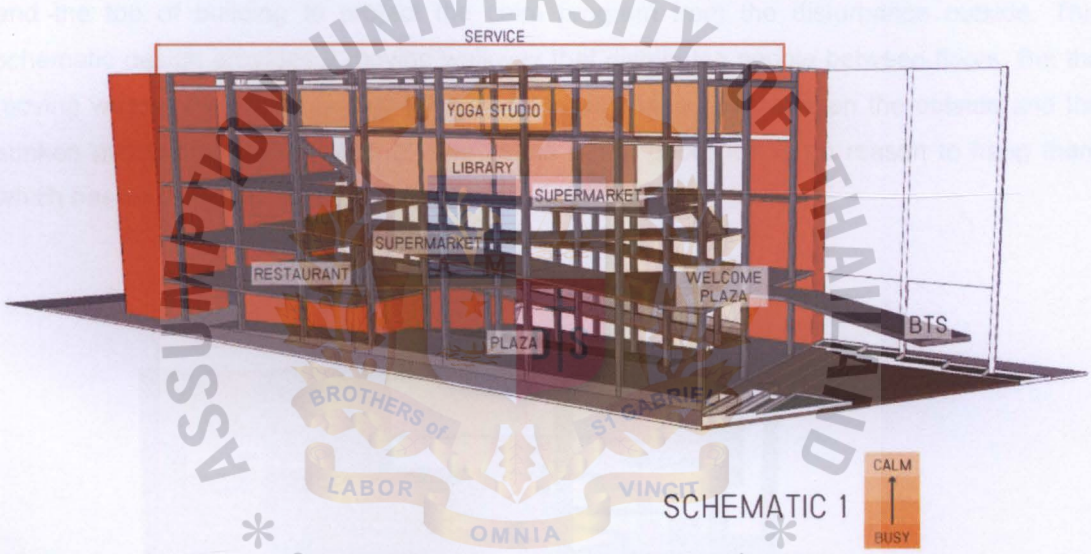


Figure 6.6 Schematic 1 (Image Source: Author's image)

Schematic 1: Arrange the programs by putting the busiest program at the ground floor and the calmest program on the top floor. Connect each floor by ramps that have function along the way.

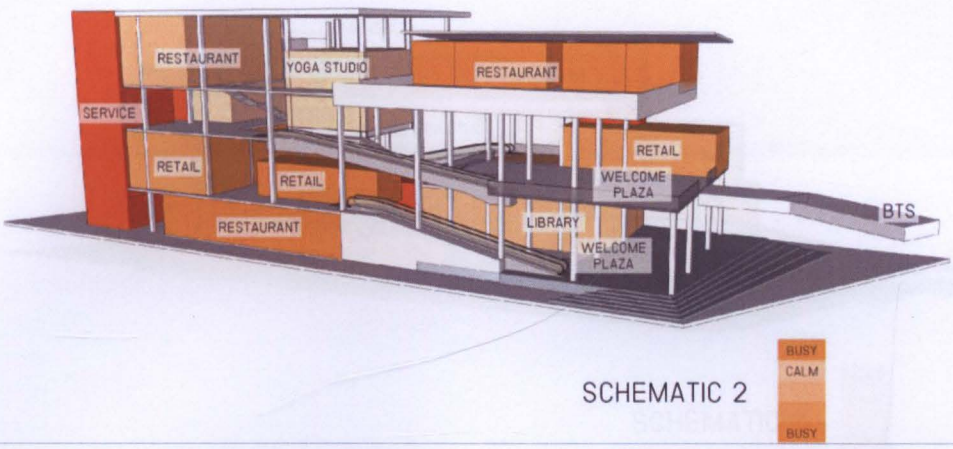


Figure 6.7 Schematic 2 (Image Source: Author's image)

Schematic 2: Arrange the programs by putting the busiest program at the bottom and the top of building to protect the calm program from the disturbance outside. This schematic design provides a moving walkway that distributes people between floors. But the moving walkway machine is very thick so it blocks connection between the outside and the sunken plaza. The location of the yoga studio is not good; it has no reason to hang there which has no view and not outstanding.

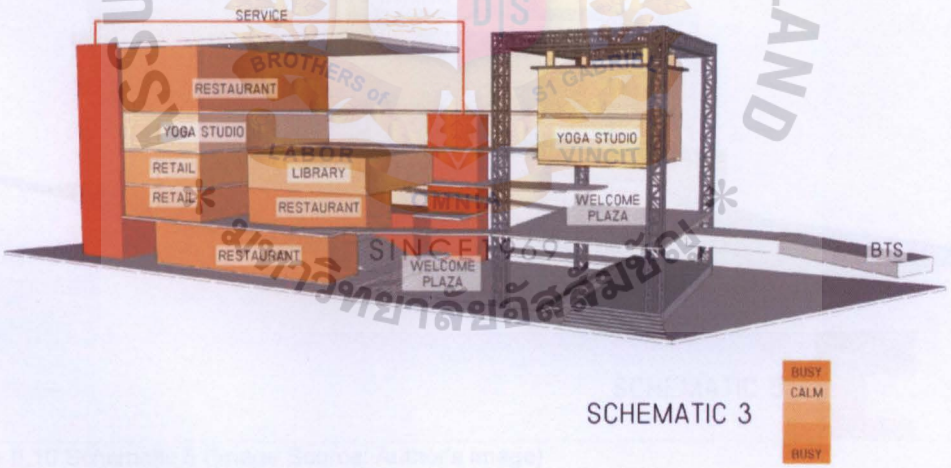


Figure 6.8 Schematic 3 (Image Source: Author's image)

Schematic 3: Arrange the programs by putting the busiest program at the bottom and the top of building to protect the calm program from the disturbance outside. There is nothing to block the connection between outside and inside on both sides of the site. However, the hanging structure is too big.

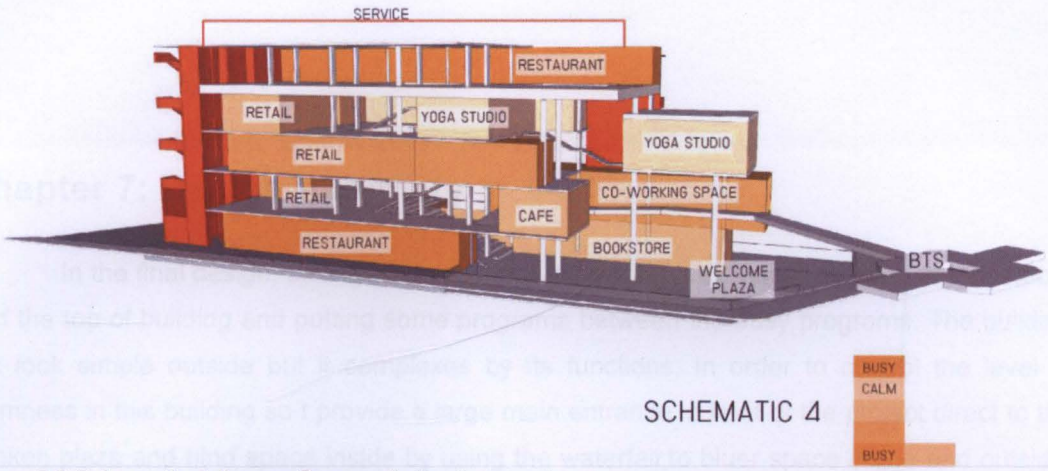


Figure 6.9 Schematic 4 (Image Source: Author's image)

Schematic 4: Arrange the programs by putting the busiest program at the bottom and the top of building and putting some programs between the busy programs. Nothing blocks the connection between outside and inside on the street side. The yoga room is not hung but uses the normal columns to hold the room and they are hidden by using a waterfall in front of the columns. On the top floor, there is a glass pool that light can pass through to the plaza.

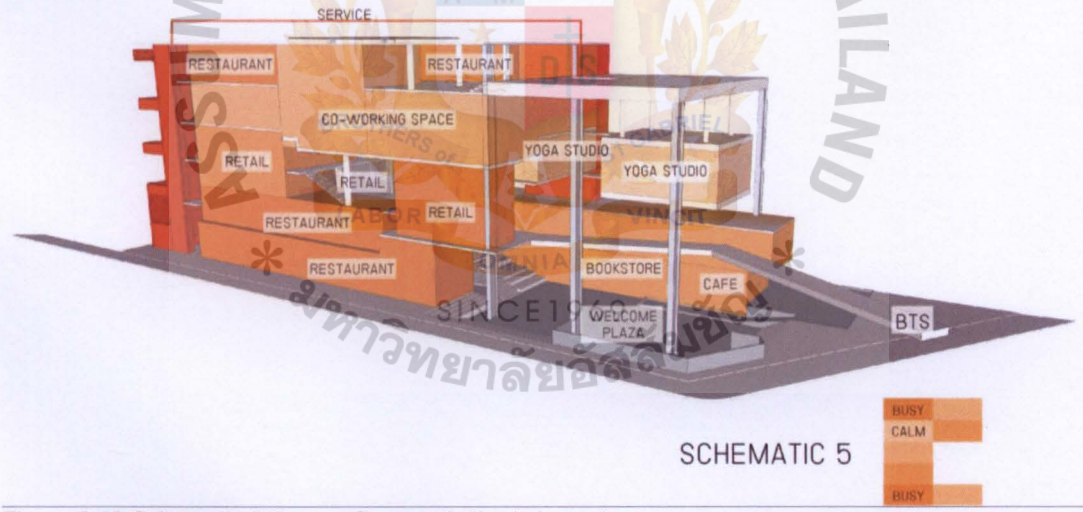


Figure 6.10 Schematic 5 (Image Source: Author's image)

Schematic 5: Arrange the programs by putting the busiest program at the bottom and the top of building and putting some programs between the busy programs. Another steel structure has been designed to hang the yoga room.

Chapter 7: Design Summary

In the final design, arrange the programs by putting the busiest program at the bottom and the top of building and putting some programs between the busy programs. The building will look simple outside but it complexes by its functions. In order to control the level of calmness in this building so I provide a large main entrance in front of the project direct to the sunken plaza and hind space inside by using the waterfall to bluer space inside and outside. From the sunken plaza, it has a large stair that connect to the 2nd floor plaza and bookstore. I combine co-working space inside the bookstore and also the café. On the 3rd floor provide restaurants and retails. Next, 4th floor is treatment function area yoga studio and spa. Then on the 5th floor have restaurants and bar. Cover façade on the west side of the building by random vertical garden from the 3rd floor to the roof top and put large trees on the ground floor to make it as a filter from outside. the hanging structure in front of the project cover by reflexive glass to reflex trees that illusive people look like have a lot of trees.

7.1 Layout Plan

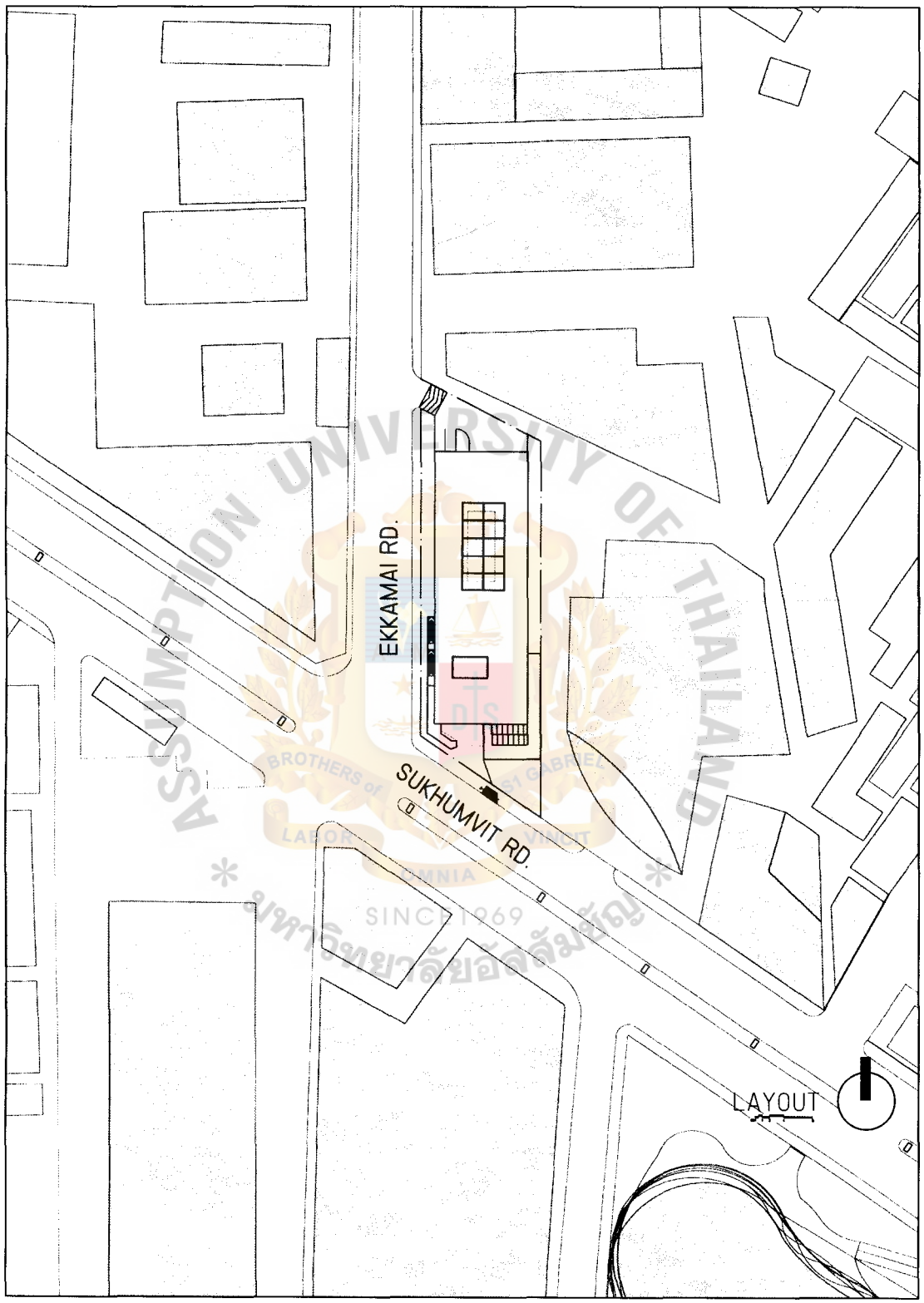


Figure 7.1 Layout plan (Image Source: Author's image)

7.2 Plan

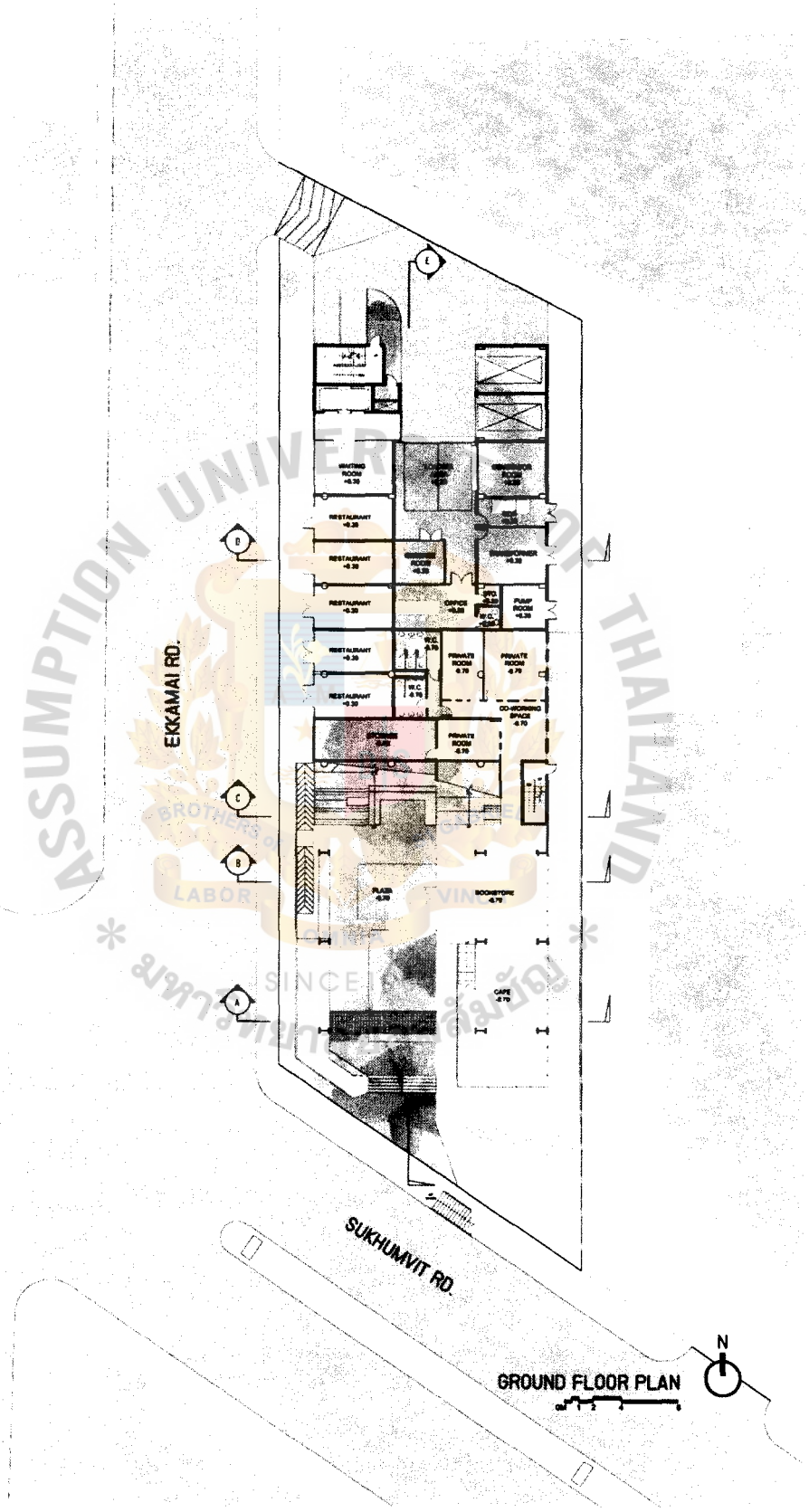


Figure 7.2 Ground floor plan (Image Source: Author's image)

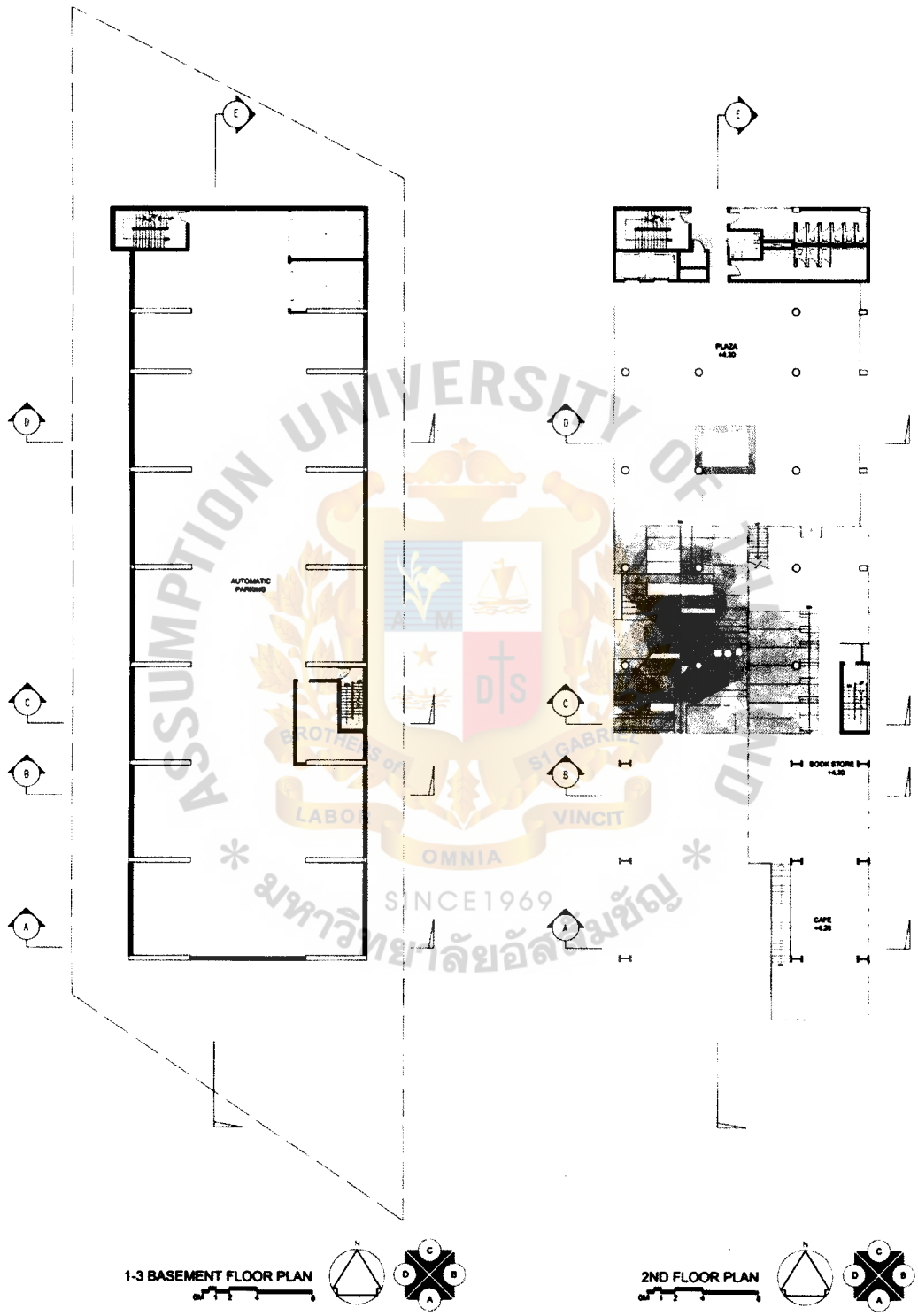


Figure 7.3 Basement floor plan and 2nd floor plan (Image Source: Author's image)

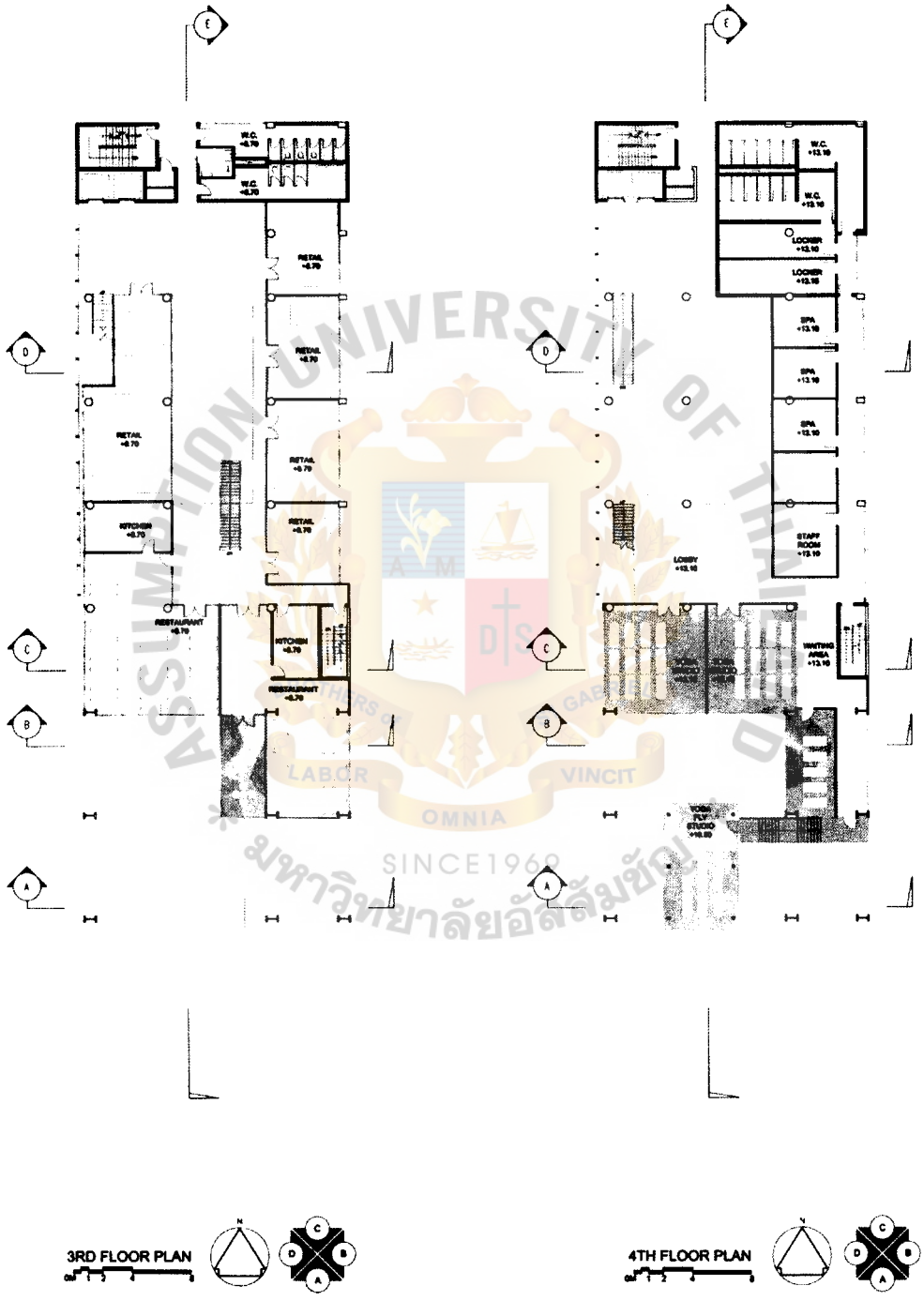


Figure 7.4 3rd floor plan and 4th floor plan (Image Source: Author's image)

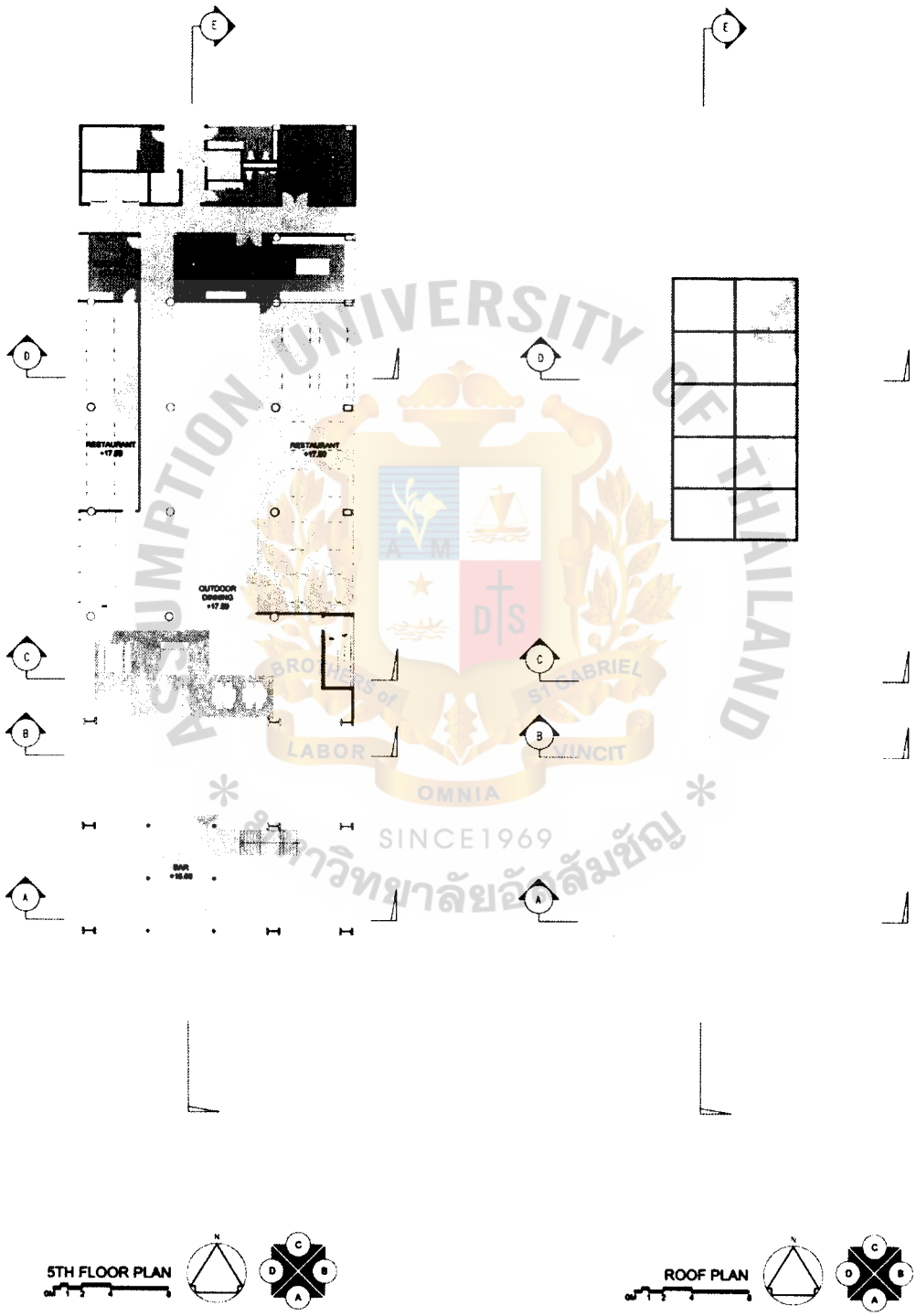


Figure 7.5 5th floor plan and Roof plan (Image Source: Author's image)

7.3 Section

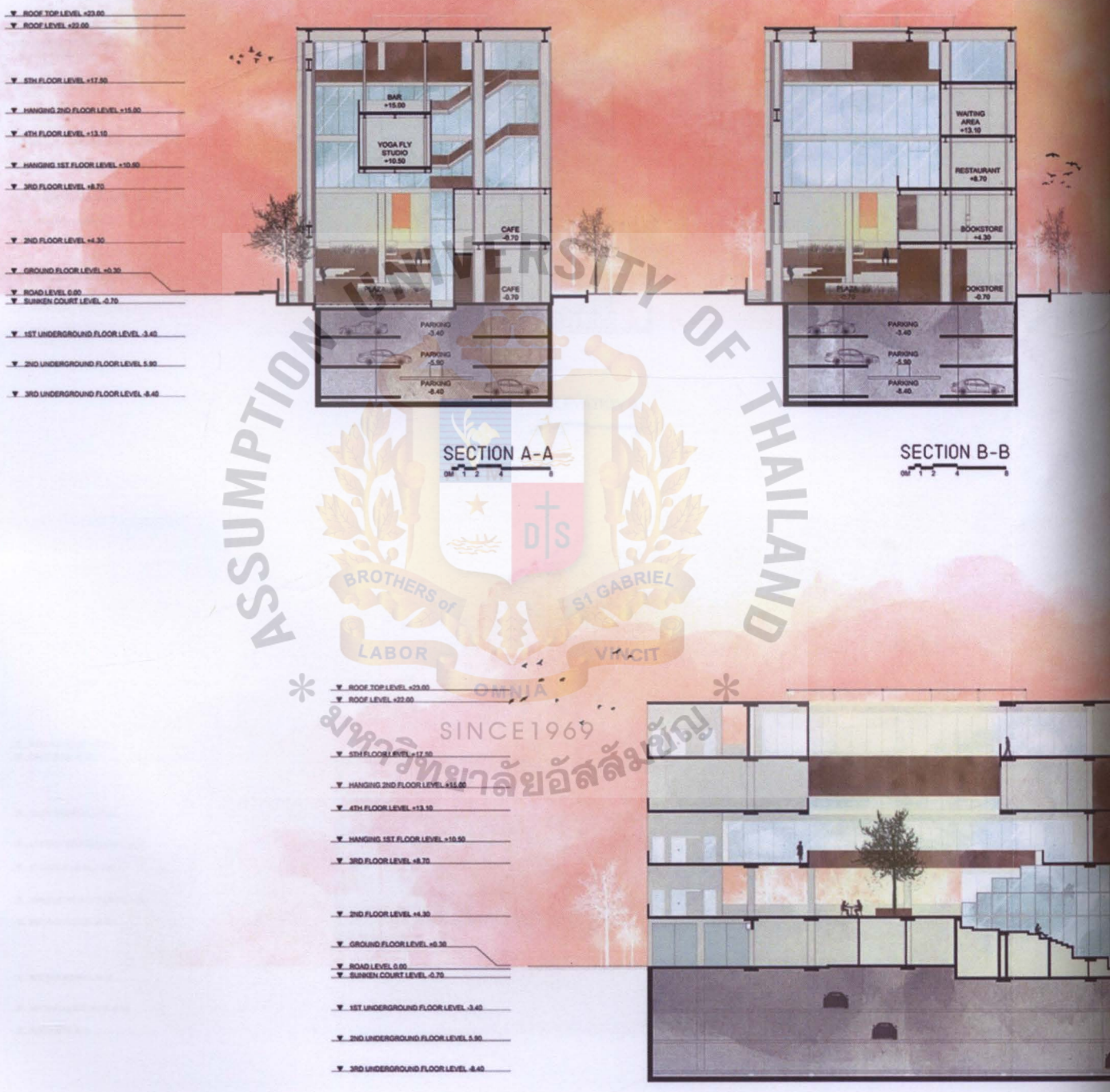
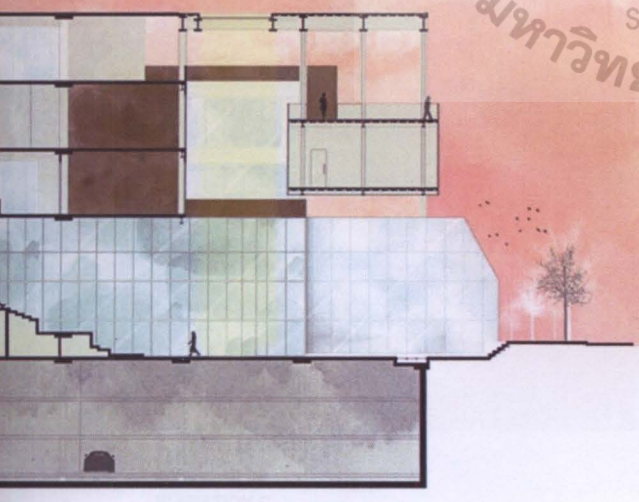


Figure 7.7 Sections A-E (Image Source: Author's image)

SECTION C-C

SECTION D-D

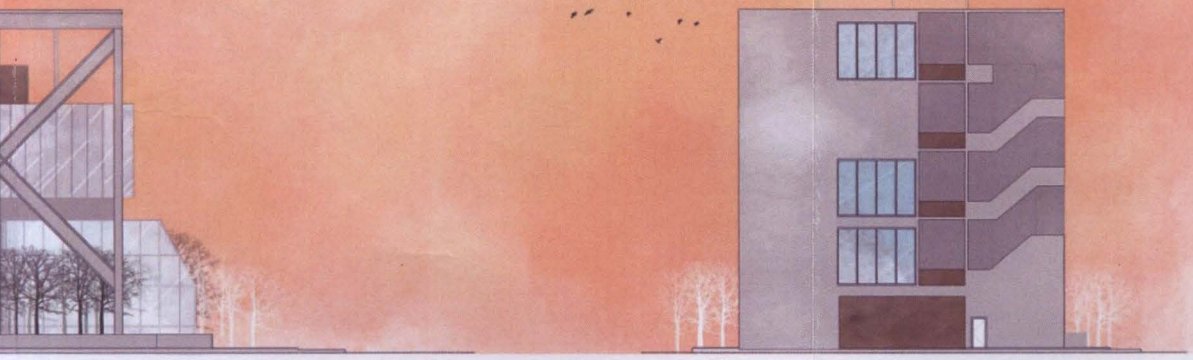


SECTION E-E

7.4 Elevation

Figure 7.6 Elevations A-D (Image Source: Author's image)

ELEVATION B



ELEVATION C

ELEVATION D

7.5 Perspective

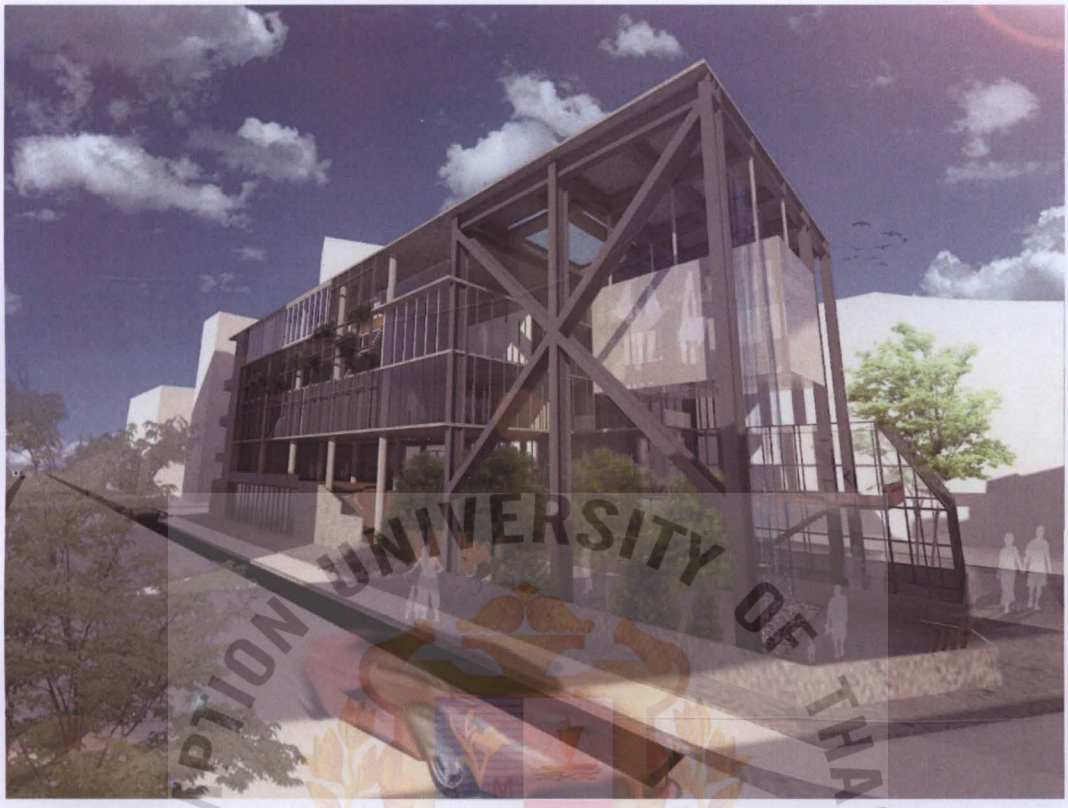


Figure 7.8 Exterior perspective (Image Source: Author's image)

Figure 7.9 Interior perspective (Image Source: Author's image)

7.6 Model

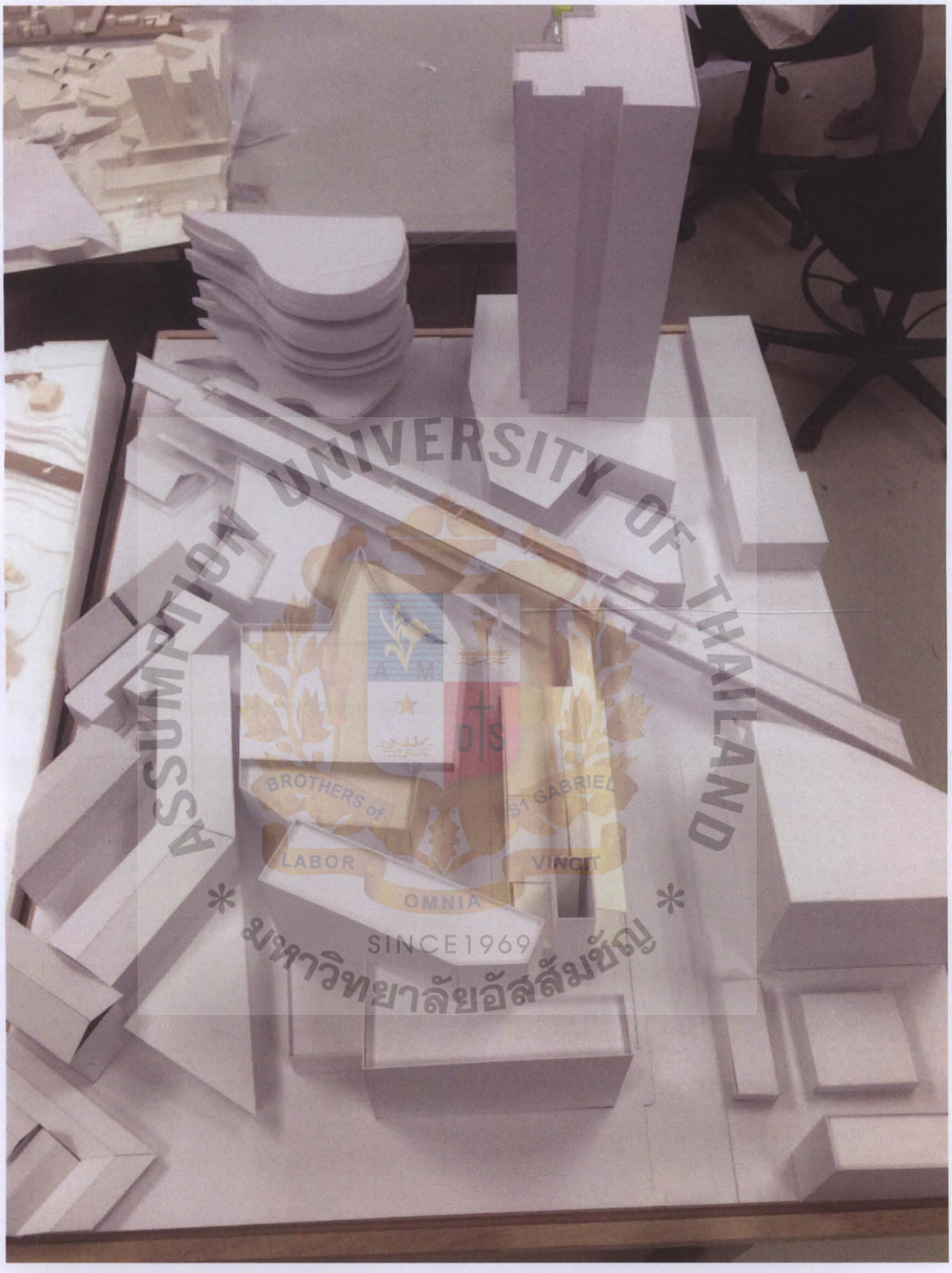


Figure 7.10 Site model (Image Source: Author's image)

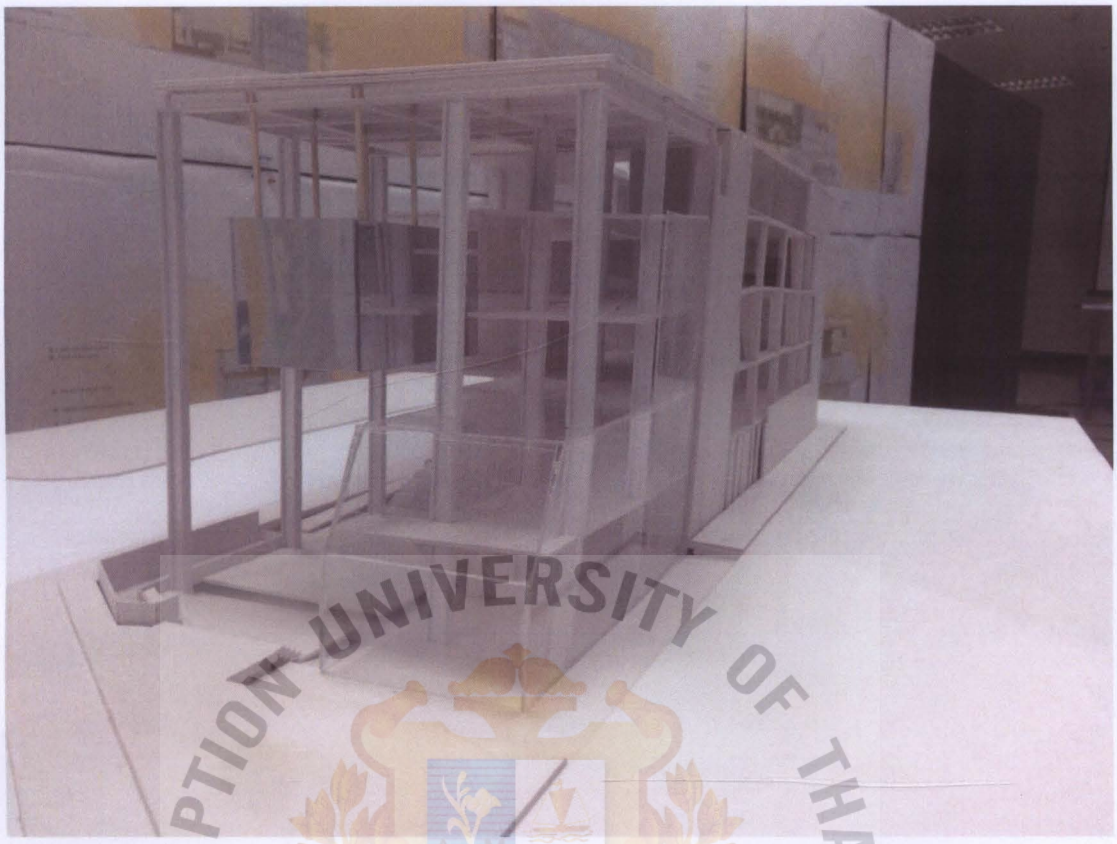


Figure 7.11 Final model (Image Source: Author's image)

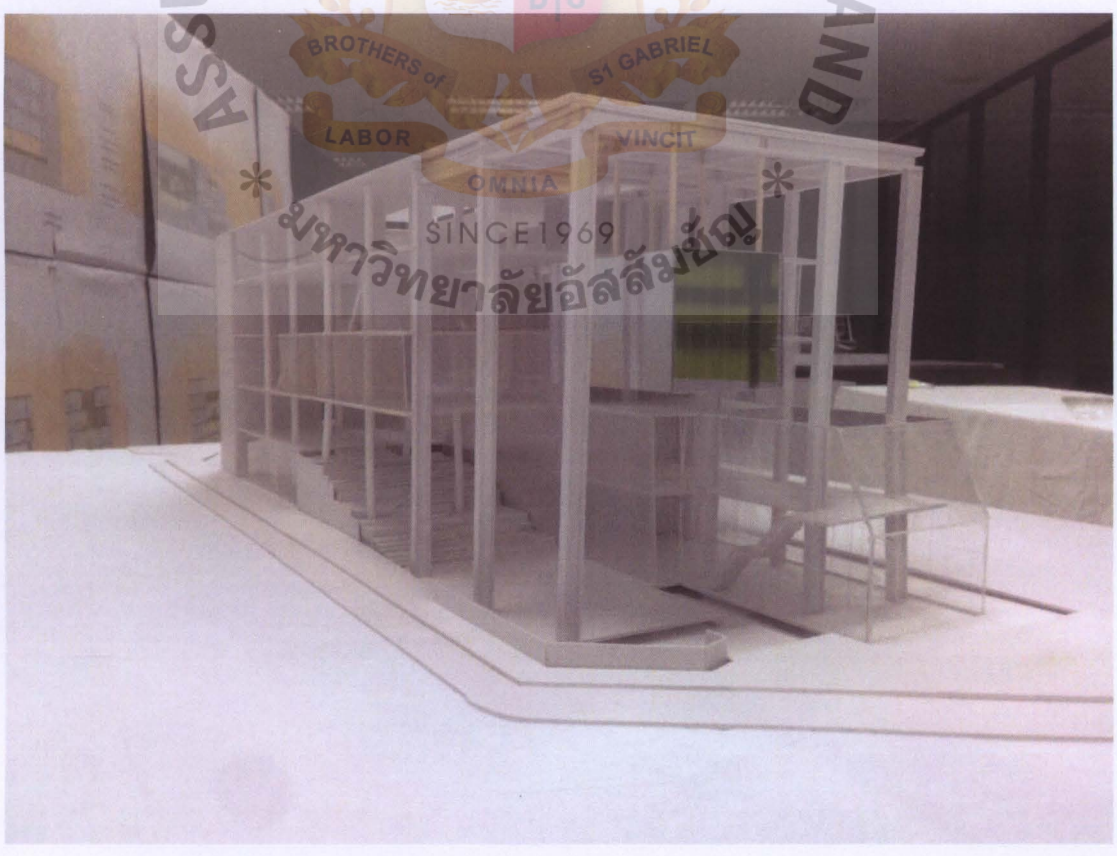


Figure 7.12 Final model (Image Source: Author's image)

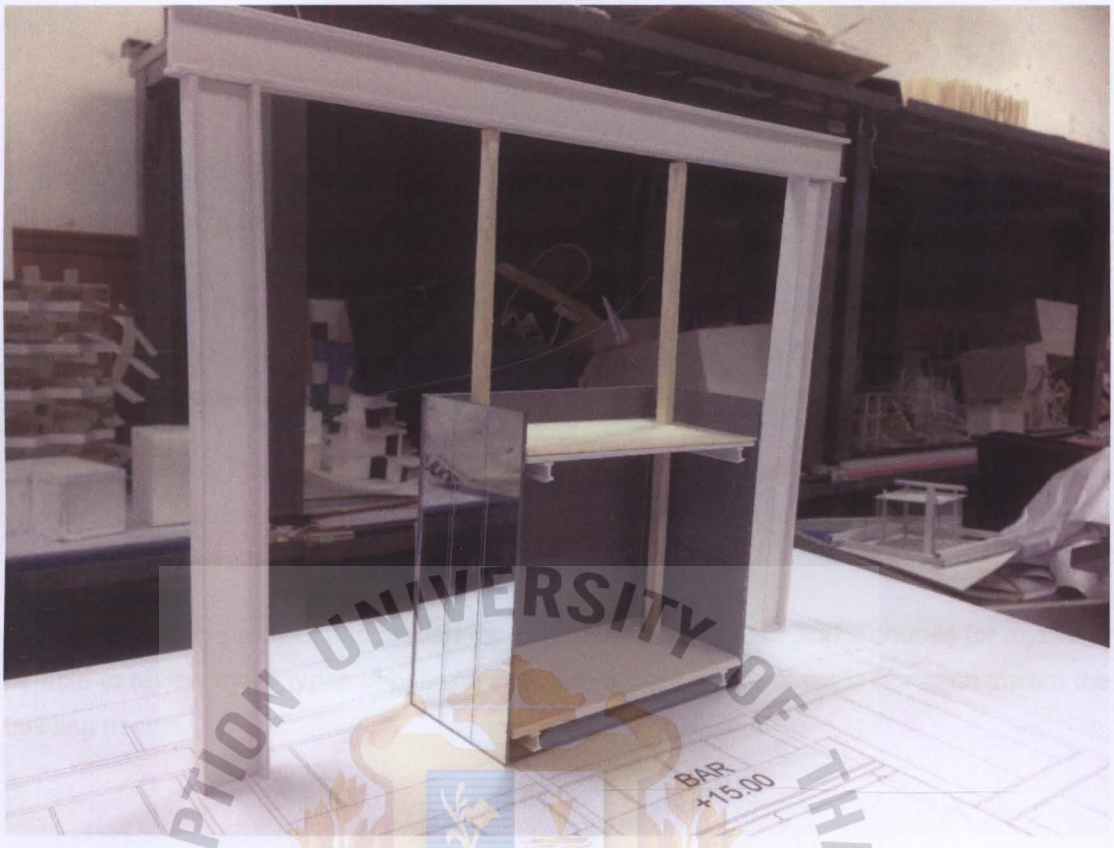


Figure 7.13 Structure model (Image Source: Author's image)

Chapter 8: Thesis Conclusion

"The 4th Place" - This project tries to combine all the programs that people need in daily life base on the existing users' behavior but are provided in a different approach to let the users get new experiences when they come to this project.

Moreover, I hope this project will be the oasis of the Ekkamai junction because people can come at any time; it will have some programs open for them and also be the green pocket among the high-rise buildings.

Finally, the project has fulfilled my objectives of this thesis and a chance for myself to be able to review many types of building structure and be aware of the importance toward the building design.

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