ARSITEKTUR
UIN MALANG

LAPORAN TUGAS AKHIR

THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

FARID RACHMAN
17660025
DOSEN PEMBIMBING 1: Dr. Nunik Junara, M.T
DOSEN PEMBIMBING 2: Tarranita Kusumadewi, M.T

Jurusan Teknik Arsitektur
Fakultas Sains dan Teknologi
2022

LEMBAR PENGESAHAN PEMBIMBING

THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

Oleh:

FARID RACHMAN
17660025

Laporan tugas akhir ini telah diperiksa dan disetujui untuk diuji tanggal 15 Juni 2022

1. Dr. NUNIK JUNARA, M.T
   NIP: 19710426 200501 2 005
   (Pembimbing 1)

2. TARRANITA KUSUMADEWI, M.T
   NIP: 19790913 200604 2 001
   (Pembimbing 2)

Mengetahui:
Ketua Program Studi Teknik Arsitektur

Dr. NUNIK JUNARA, M.T
NIP. 19710426 200501 2 005

LEMBAR PENGESAHAN PENGUJI

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Oleh:

FARID RACHMAN

17660025

Judul Tugas Akhir : **THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH**

Tanggal Ujian : 15 Juni 2022

Disetujui oleh:

1. AULIA FIKRIARINI MUCHLIS., M.T
   NIP: 19760416 200604 2 001 (Ketua penguji)

2. Dr. NUNIK JUNARA, M.T
   NIP: 19710426 200501 2 005 (Sekretaris penguji)

3. PRIMA KURNIAWATY, ST. M.Si
   NIP: 19830528 20160801 2 081 (Anggota penguji)

4. TARRANITA KUSUMADEWI, M.T
   NIP: 19790913 200604 2 001 (Anggota penguji)

Mengetahui:
Ketua Program Studi Teknik Arsitektur

Dr. NUNIK JUNARA, M.T
NIP. 19710426 200501 2 005

LEMBAR PERNYATAAN LAYAK CETAK

Yang bertanda tangan di bawah ini:

1. AULIA FIKRIARINI MUCHLIS., M.T
   NIP: 19760416 200604 2 001 (Ketua penguji)

2. Dr. NUNIK JUNARA, M.T
   NIP: 19710426 200501 2 005 (Sekretaris penguji)

3. PRIMA KURNIAWATY, ST. M.Si
   NIP: 19830528 20160801 2 081 (Anggota penguji)

4. TARRANITA KUSUMADEWI, M.T
   NIP: 19790913 200604 2 001 (Anggota penguji)

Dengan ini menyatakan bahwa
Nama Mahasiswa : Farid Rachman
NIM Mahasiswa : 17660025
Judul Tugas Akhir : The City Oasis: Redesign of Blauran Market With Biophilic Architecture Approach

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KEMENTERIAN AGAMA REPUBLIK INDONESIA FAKULTAS SAINS DAN TEKNOLOGI PROGRAM STUDI TEKNIK ARSITEKTUR UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG

Dr. NUNIK JUNARA, M.T
NIP: 19710426 200501 2 005

PERNYATAAN ORISINALITAS KARYA

Saya yang bertandatangan di bawah ini:

Nama Mahasiswa : Farid Rachman
NIM Mahasiswa : 17660025
Program Studi : Teknik Arsitektur
Fakultas : Sains dan Teknologi

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THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

adalah benar-benar hasil karya intelektual mandiri, diselesaikan tanpa menggunakan bahan-bahan yang tidak diijinkan dan bukan merupakan karya pihak lain yang saya akui sebagai karya sendiri. Semua referensi yang dikutip maupun dirujuk telah ditulis secara lengkap pada daftar pustaka. Apabila ternyata pernyataan ini tidak benar, saya bersedia menerima sanksi sesuai peraturan yang berlaku.

Malang, 23 Juni 2022
yang membuat pernyataan;

Farid Rachman
17660025

KATA PENGANTAR

Assamulaikum Wr.Wb.

Puji dan syukur kehadirat Allah SWT., atas berkat rahmat serta ridhoNya sehingga penulis dapat menyelesaikan skripsi yang berjudul

"The City Oasis: Redesign of Blauran Market With Biophilic Architecture Approach"

Tujuan penulisan skripsi ini untuk memenuhi sebagian syarat memperoleh gelar Sarjana Arsitektur (S.Ars) bagi mahasiswa program S-1 Program Studi Teknik Arsitektur Universitas Islam Negeri Maulana Malik Ibrahim Malang. Penulis menyadari bahwa skripsi ini masih jauh dari kesempurnaan, oleh sebab itu penulis mengharapkan kritik dan saran yang bersifat membangun dari semua pihak demi kesempurnaan skripsi ini. Terselesaikannya skripsi ini tidak terlepas dari bantuan banyak pihak, sehingga pada kesempatan ini dengan segala kerendahan hati dan penuh rasa hormat penulis menghanturkan terima kasih yang sebesar-besarnya bagi semua pihak yang telah memberikan bantuan materil maupun immateril dalam proses penyusunan skripsi ini hingga selesai, terutama kepada:

1. Allah yang Maha Esa yang telah memberikan kesempatan hingga dapat menyelesaikan skripsi dan shalawat selalu kepada nabi Muhammad SAW;
2. Orang tua penulis yaitu Ayah dan Ibu saya yang selalu mendoakan, memberikan dukungan serta pengorbanan baik dari segi moril dan materil kepada penulis;
3. Teman-teman dan orang terdekat penulis yang selalu menemani dan membantu bila penulis mengalami beberapa kendala tertentu;
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Wassamualaikum Wr.Wb.

Malang, 23 Juni 2022

Penulis

THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

Nama Mahasiswa : Farid Rachman
NIM Mahasiswa : 17660025
Pembimbing I : Nunik Junara, M.T
Pembimbing II : Tarranita Kusumadewi, M.T

ABSTRAK

Pasar Blauran adalah salah satu hal yang tidak biasa ditemui masyarakat di kawasan CBD Surabaya. Merupakan pasar tradisional yang ada di pusat kota, tepatnya di depan BJ Junction Mall. Pasar tiga lantai ini menjual barang-barang seperti pasar tradisional pada umumnya: sayuran, makanan, buah-buahan. Beberapa dari mereka juga menjual barang-barang terkait sekolah seperti seragam, pakaian, alat tulis, dan buku.

Tujuan dari perancangan ini, selain untuk mengembangkan pasar, adalah untuk memberikan sedikit penghijauan di lingkungan perkotaan Surabaya, khususnya Blauran. Distrik perkotaan dan padat ini membutuhkan lebih dari sekadar tanaman dalam pot. Ketika orang-orang datang dan pergi dari tahun ke tahun, mereka hanya bisa melihat kendaraan memenuhi jalan-jalan dan asap mereka mencemari udara. Orang-orang tidak lagi menghirup oksigen, tetapi juga karbon monoksida.

Sebagai spesies yang telah hidup seribu tahun hingga sekarang, manusia memiliki hubungan khusus dengan alam. Keterkaitan ini muncul karena lingkungan sekitarnya adalah alam dan bukan dunia buatan atau buatan manusia. Sayangnya, banyak bangunan dan kota modern hanya melihat efektivitas dan fungsi dari bangunan atau kota itu sendiri, yang memisahkan penggunanya dari habitat asalnya.

Dengan menggunakan pendekatan desain Biophilic, proyek redesain ini diharapkan dapat menyelesaikan masalah asal-usulnya seperti banjir dan kebersihan di sekitar lokasi. Menggunakan banyak vegetasi di dalam bangunan, juga akan mengurangi polusi di sekitar lokasi. Masyarakat Surabaya tidak hanya akan memiliki pasar yang lebih baik untuk dikunjungi, tetapi juga langkah menuju kota yang lebih baik.

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Pembimbing I : Nunik Junara, M.T
Pembimbing II : Tarranita Kusumadewi, M.T

ABSTRACT

Blauran Market is one of uncommon thing that people can meet in Surabaya's CBD area. It is a traditional market that exist in the center of the city, specifically in front of BJ Junction Mall. This three stories market is selling stuffs like common traditional market: vegetables, foods, fruits. Some of them are also selling schools related stuff like uniform, clothes, stationaries, and books.

The purpose of this design, other than to develop the market, is to put a little of greenery on the urban environment of Surabaya, especially Blauran. This urban and crowded district needs more than a plant in a pot. As people come and go year by year, they can only see is vehicles overflowing the streets and their smoke polluting the air. The people are no longer breathing oxygen, but also carbon monoxide too.

As a species who has live a thousand years until now, human being has a special connection to nature. This connection appears because of their surrounding environment is a natural and not artificial or human constructed world. Unfortunately, many of the modern buildings and cities only sees the effectiveness and functions of the building or city itself, which separate its users from their origin habitat.

By using a Biophilic as a design approach, this redesign project is hopefully able to solve its origin problems such as flood and hygiene around the site. Using a lot of vegetation in the building, it would also reduce the pollution around the site. People of Surabaya will not only have a better market to be visited, but also a step towards a better city as well.

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ABSTRACT

سوق بلوران وه أحد الأشياء غير المألوفة التي يمكن أن يلتقي بها الناس في منطقة سي بي دي في سورابايا. إنه سوق تقليدي موجود في وسط المدينة ، وتحديداً أمام BJ Junction Mall. يبيع هذا السوق المكون من ثلاثة طوابق أشياء مثل السوق التقليدية الشائعة: الخضروات والأطعمة والفواكه. يبيع بعضهم أيضاً أشياء متعلقة بالمدارس مثل الزي والملابس والقرطاسية والكتب. الغرض من هذا التصميم ، بخلاف تطوير السوق ، وه وضع القليل من المساحات الخضراء على البيئة الحضرية في سورابايا ، وخاصة بلوران. تحتاج هذه المنطقة الحضرية والمزدحمة إلى أكثر من نبتة في إناء. عندما يأتي الناس ويذهبون عاماً بعد عام ، لا يمكنهم إلا أن يروا المركبات التي تفيض في الشوارع وأن دخانها يلوث الهواء. لم يعد الناس يتنفسون الأكسجين ، بل يتنفسون أول أكسيد الكربون أيضاً. كنوع عاش ألف عام حتى الآن ، للإنسان صلة خاصة بالطبيعة. يظهر هذا الارتباط بسبب البيئة المحيطة بهم وهو عالم طبيعي وليس عالماً مصطنعاً أو من صنع الإنسان. لسوء الحظ ، فإن العديد من المباني والمدن الحديثة ترى فقط فعالية ووظائف المبنى أو المدينة نفسها ، والتي تفصل مستخدميها عن موطنهم الأصلي. باستخدام Biophilic كنهج تصميمي ، نأمل أن يكون مشروع إعادة التصميم هذا قادراً على حل مشاكل أصله مثل الفيضانات والنظافة حول الموقع. باستخدام الكثير من النباتات في المبنى ، سيقلل أيضاً من التلوث حول الموقع. لن يكون لدى سكان سورابايا سوق أفضل لزيارتها فحسب ، بل سيكون لديهم أيضاً خطوة نحو مدينة أفضل.

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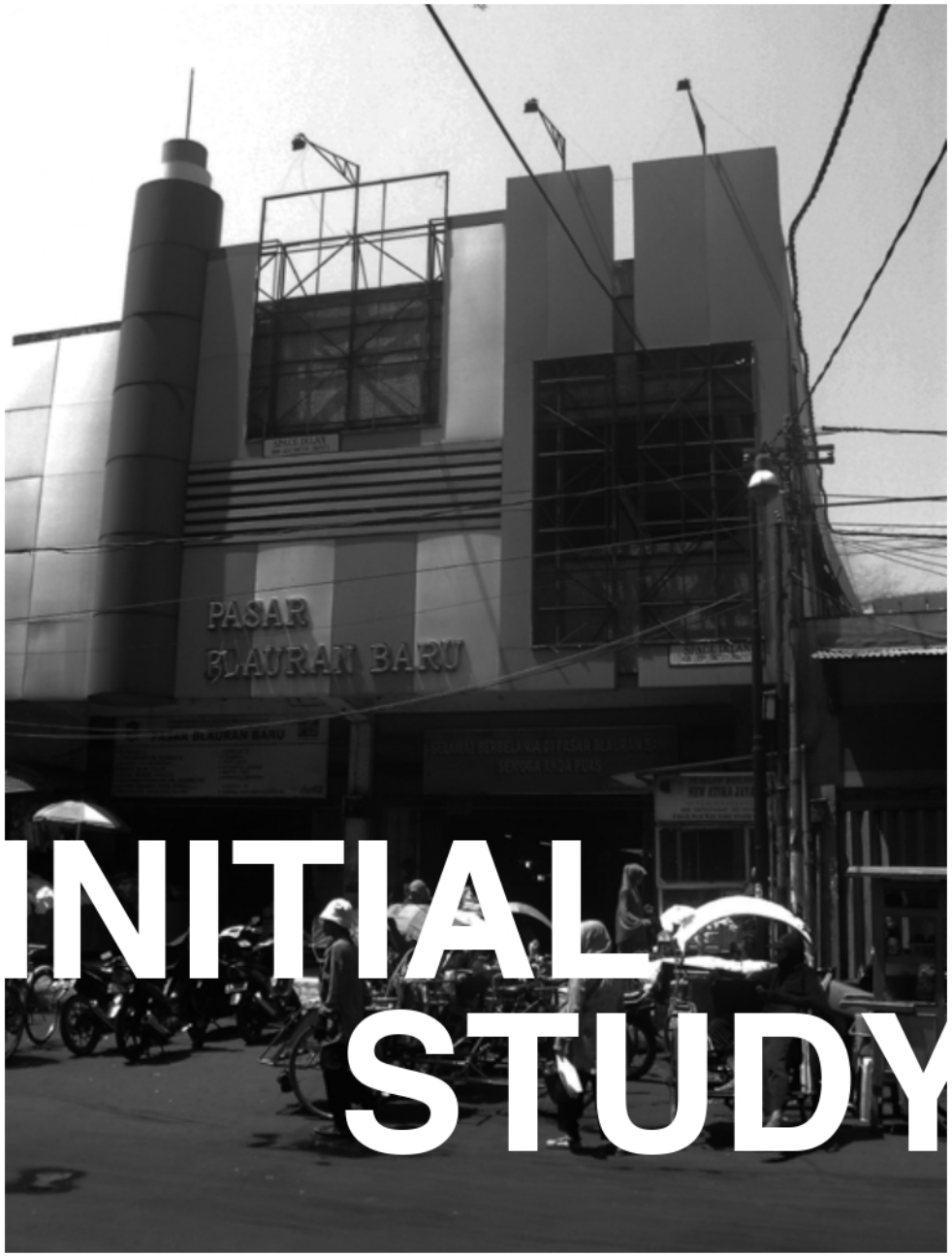


Surabaya, as a central city of East Java, is one of the biggest cities in Indonesia. The city has existed since the country is still being conquered by European countries. Despite the bloods of our ancestors and heroic stories we often told after, the European also left the city with numerous buildings, commercial buildings, such as the well-known Tunjungan Plaza that nobody doesn't know.

Indeed, time passed, and the city grows into a metropolitan city we know. The people and their culture also change too. The government had a great job for developing the city's infrastructure and facilities, especially parks and sidewalks. Blauran, Embong Malang, and Tunjungan are the streets known for their business and commercial district. These environments have become much busier as the time goes by. Especially, when these roads are located in the heart of the city and connecting a lot of different districts.

Unfortunately, this commercial and proposed CBD district are somehow surrounded with contrasting environments. Blauran, for example, known for its jewelry sellers for years. The streets are bordered with sidewalks and the sunlight can't reach them because of Empire Palace, a big castle-like building, rises in east side of the street. Straight to the north, there's a traditional market known as Blauran Market.

Blauran Market is one of uncommon thing that people can meet in those CBD areas. It is a traditional market that exist in the center of the city, specifically in front of BJ Junction Mall. This three stories market is selling

stuffs like common traditional market: vegetables, foods, fruits. Some of them are also selling schools related stuff like uniform, clothes, stationaries, and books.

This market has become on of public destination for culinary and daily supplies for years. Ironically, the facilities that this market have doesn't really support its users like parking area. As a result, the front street, Kranggan Street, become the one who bear the burden. Furthermore, the surrounding environment also being affected by the market. Buyers and sellers who are in and out the market aren't aware about their surrounding environment. Especially when there's a shopping centre in front of that market. As we all know, the street vendors are always come to a place where people are gathered. And this place is the perfect place for them to open their business. These vendors are also having their role for the environment's preservation. In the end, there's trash in every corner. The waterways are closed by them. When the water is having nowhere to go, the streets are flooded after every rain.

On the other hand, the government has put Blauran Market on their schedule. This building is planned to be renovated by the year 2021. This renovation plan was written in Medium Term Development Plan of Surabaya City Area Year 2016-2021 (RPJMD). This is one the main reason where this redesign project started. Furthermore, the issue that occur in those areas such as floods, hygiene, and parking problems hasn't been solved for years.

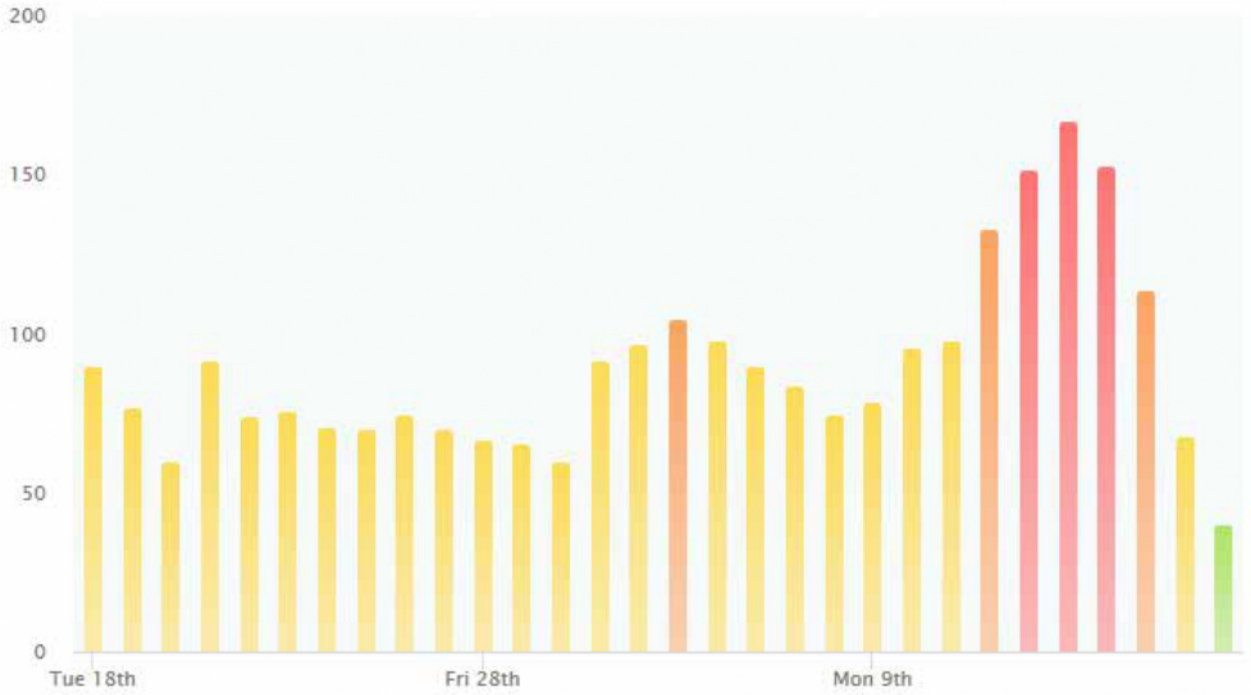
The expectation when this redesign project is done is there will be no more wild parking in Kranggan Streets. The market, which is massively closed from outside environment, will have its own natural light and air circulation so that this building can have lesser energy consumption. The people, especially buyers and sellers can do their activities in a more comfortable place and hopefully, they can be more aware about their surrounding environments, especially trash. When the people are well educated, their environment and quality of life will also better.

PURPOSE &

Recently, government had successfully done their missions. This effort can be seen in many aspects. Facilities and infrastructures become priorities in RIsma's schedule, perhaps. By putting more and more support for the sake of people's prosperity, especially those who like to roam the sidewalk by foot. One thing that the governments forget is, the more crowded the city, the harder it is for people to rest and find peace.

The purpose of this design, other than to develop the market, is to put a little of greenery on the urban environment of Surabaya, especially Blauran. This urban and crowded district needs more than a plant in a pot. As people come and go year by year, they can only see is vehicles overflowing the streets and their smoke polluting the air. The people are no longer breathing oxygen, but also carbon monoxide too.

An air quality data of Surabaya was taken from Air Visual. According to their statistics, Surabaya air condition is about 70-90 based on AQI (Air Quality Index). This level of air quality classified as moderately polluted. In other words, the city is moderately polluted, and this condition isn't good for people's health. Based on this fact, the people of Surabaya cannot again depend on their outdoor parks. The population is increasing, but Earth's land is staying the same.



Surabaya's air pollution chart

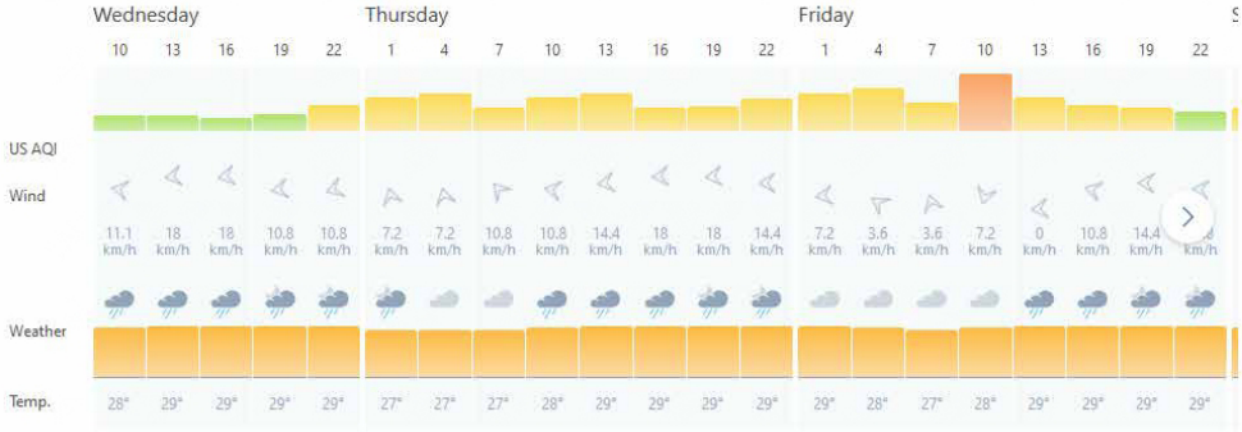
DESIGN CRITERIA

These charts were taken from Air Visual website shows the condition of Surabaya's air quality. The top charts show air quality from Tuesday, 18th February until nine days after Monday, 9th March. At first, the charts are shown with yellow colour, which means that it is moderately polluted. Straight to the right, the charts are slowly increasing until the colour become red. This changing tells that day by day, the air condition in Surabaya are slowly getting worse.

The second charts have more detailed measurement. It shows the air quality, wind speed and direction, temperature, and weather day by day. The one that should be considered is the air quality, which is mostly on yellow range. These two charts tells that if this condition are being left alone, there will be no clean air in the future.

The purpose of this design is to develop the market so that it can be a place where buyers and sellers can meet in a comfortable place. This development project is based on following key considerations:

1. Thermal comfortability
2. Visual appropriateness
3. Hygiene
4. Parking facilities
5. Nature aspects indoor and outdoor
6. Iconic
7. Accessible



Surabaya's air pollution chart

DESIGN SCOPE

The recent Blauran Market is characterized by overloading capacity of the visitors/buyers and insufficient amount of parking lot. The dirt from the road are spread across the floor and there is so many junks in every corner while there is no official trash can from the authority. The poor/the seller seems like being left alone with their economy business while modern mall and shopping centre are being built in the city. the government are busy because of their CBD plan in Blauran while the old Blauran market is getting empty from buyers.

a. USERS

The target user for this market is categorized by sellers and buyes. The sellers are mostly came from poor and less educated people. They're also dominated with old and adult person, which is about 30-50 years old. Most of them are also woman.

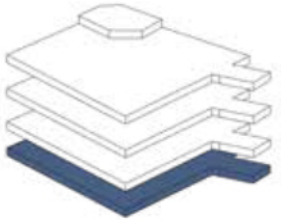
The buyers can be more variative. Because the market is selling daily supplies of almost all kind of people, the buyers can be a young, adult, or even old person. There is also no specific condition which affect the gender. All woman and man have almost same percentage to come.

b. FUNCTIONS

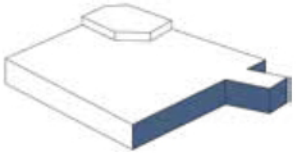
The main function of the building is still the same as before the redesign project began. It is still the same traditional market which sells foods, clothes, and other daily supplies. Because the purpose of this redesign project, other than to develop the market, is to add more greenery in those district, there will be an addition fuction for the building.

Rather than just a market, the buildings can be a new point of view on that district. It can get a lot of attention from people because of its strategic location. The roof can be replaced by a translucent material so that the indoor environment can have more sunlight. If the sunlight can reach the ground floor, then there can be added little park so that it suitable for the Biophilic approach.

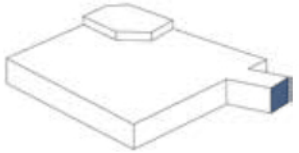
Another consideration of this redesign project is based on following aspects:



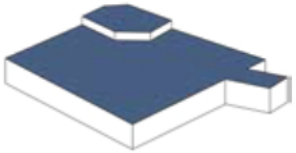
basement for parking area



Redesign of the facade



Entrance



Roofing

BASIC IDEA

Many people thinks that traditional market is highly different from modern supermarket. In much cases, they think it's worse. Perhaps, traditional market is identical with crowd of buyers and sellers, noise from people's chattering, smell of trash in every corner, and unbreathable air. Traditional market having a bad image because people have a better option to find their needs: supermarket.

This redesign project came from a childhood memories where, in a couple of times, the market is highly involved and remembered. Without erasing its main function as a market, the redesign project aim to make a better place for buy-and-sell activities. Having Biophilic Architecture as a weapon to eliminate the issues, the buildings will be transformed into a less massive concrete box where sunlight and wind can still come across.

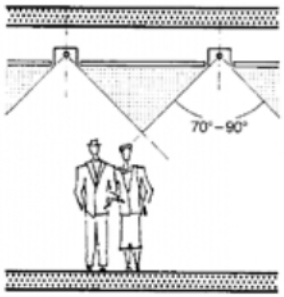
An additional function is also prepared to make the user more comfortable, such as indoor parks where the visitors or buyers could still relax their visual while strolling over the place. A room for the sellers also created so that they can sell in the same amount, and nobody can sell more than the others. This separation between sellers will also reducing the risk of cheating or stealing between sellers. If the visitors is already comfortable to take a longer walk, a resting facilities like bench or chairs and tables is considered a right choice to make them stay. Some part of the roof will also be erased so that if the rain season starts, the water can wet the indoor parks. This also can be a way to add more water receiving area for the city.

Tagline:
The City Oasis

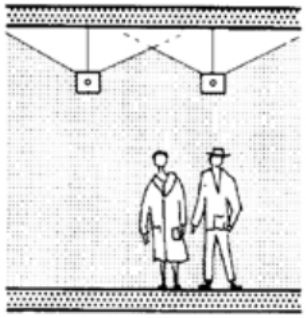
According to Cambridge online dictionary, urban means in a cityor a town, while oasis means a place in a desert where there is water and therefore plants and trees and sometimes a village or town. So, the urban oasis means that an oasis which is located inside a city.

The urban oasis also means that this re-design project, aside from its primary function as a market, is also expected to be a place of healing. The buildings alongside with its nature environment can help protect its users from busy life of the streets and provide them a space to relax and breath while enjoying another facilities inside the market.

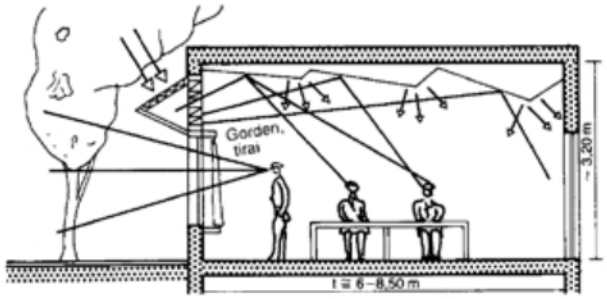
DATA



① Penerangan langsung simetris

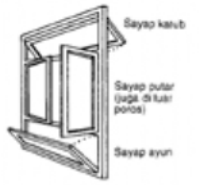


⑥ Penerangan tidak langsung

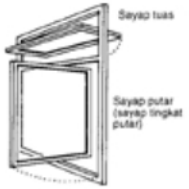


⑤⓪ Prinsip pemantulan cahaya

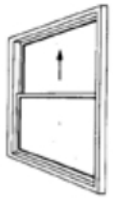
MACAM-MACAM JENDELA



① Sayap (ke luar dan ke dalam)



② Sayap putar dan sayap ayun

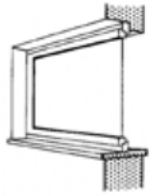


③ Jendela kaca vertikal

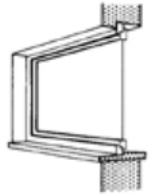
JENDELA →

④ Jendela kaca

PERKIRAAN BENTUK JENDELA



⑤ Perkiraan dalam dengan kusen jendela

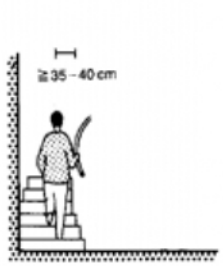


⑥ Perkiraan luar dengan kusen jendela

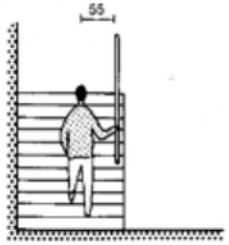
⑦ Bagian dalam yang tumpul dengan balok kusen jendela

⑧ Jendela yang diperuntukkan sebagai tempat pot-pot bunga

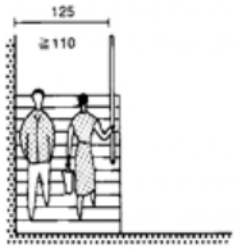
⑤ Ukuran tangga normal 17/29 Anak tangga yang agak lebar dibuat setelah maksimum 18 tingkat/anak tangga



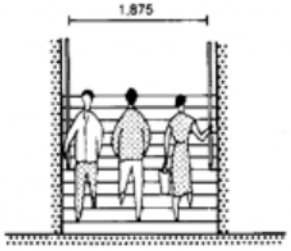
⑩ Pada tangga pilin jarak garis jalan dengan pegangan luar sekitar 35 – 40 cm



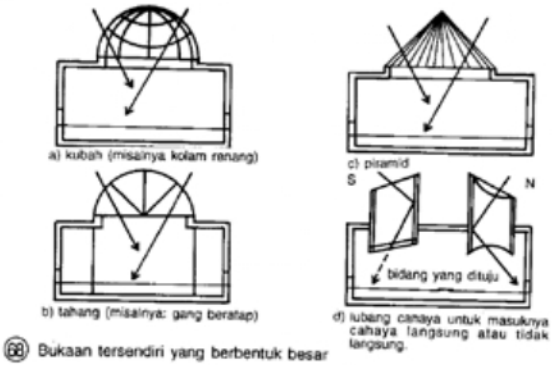
⑪ Jarak garis jalan dengan pegangan pada tangga lurus sekitar 55 cm



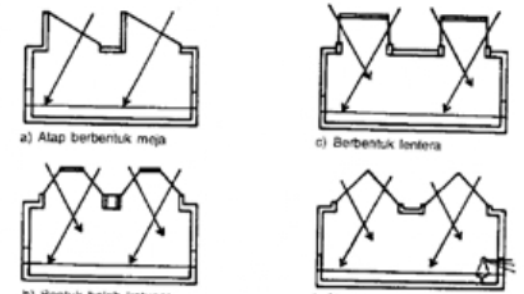
⑫ Tangga yang dapat dinaiki untuk 2 orang secara bersamaan/berdampingan



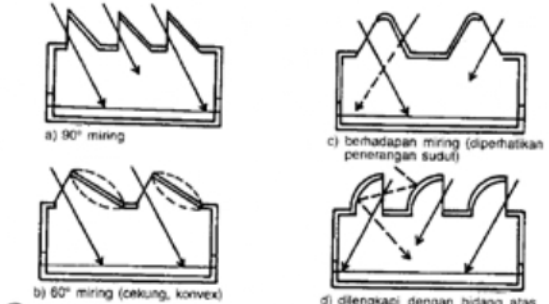
⑬ Tangga yang dapat dinaiki cukup untuk 3 orang atau lebih



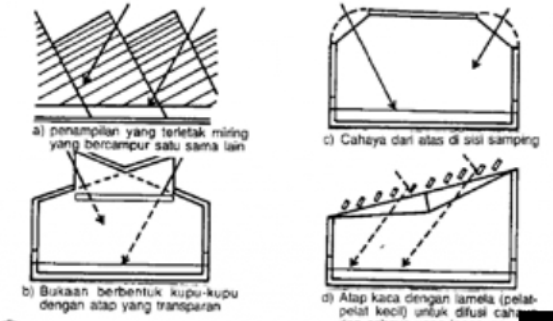
⑥⑧ Bukaan tersendiri yang berbentuk besar



⑥⑨ Bukaan atap dengan proses masuknya



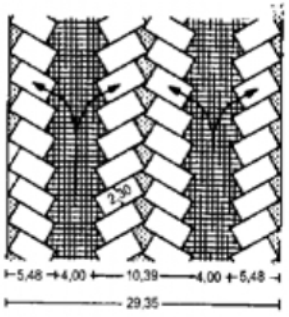
⑦⓪ Bukaan pada atap bermata gergaji



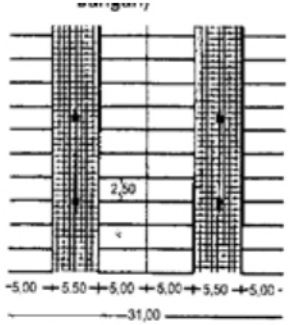
⑦① Bentuk khusus

Jenis kendaraan	Panjang (m)	Lebar (m)	Tinggi (m)	Radius putaran berbentuk lingkaran
Sepeda motor	2,20	0,70	1,00[2)]	1,00
mobil pribadi				
– Ukuran tertentu – mobil pribadi	4,70	1,75	1,50	5,75
– mobil pribadi ukuran kecil	3,60	1,60	1,35	5,00
– mobil pribadi ukuran besar	5,00	1,90	1,50	6,00
Truk				
– pengangkut	4,50	1,80	2,00[1)]	6,00
– ukuran tertentu – Truk	6,00	2,10	2,20[1)]	6,10
– Truk 7,5 ton	7,00	2,50	2,40[1)]	7,00
– Truk 16,0 ton	8,00	2,50	3,00[1)]	8,00
– Truk 22,0 ton (+ 16,0 ton)	10,00	2,50	3,00[1)]	9,30
Mobil pengangkut sampah				
– mobil terkecil	7,64	2,50	3,30[1)]	7,80
– mobil terkecil	1,45	2,50	3,30[1)]	9,25
Mobil pemadam kebakaran	6,80	2,50	2,80[1)]	9,25
Mobil *furniture*	9,50	2,50	4,00[1)]	9,75
(dengan gandengan)	(18,00)			
Bus standar I	11,00	2,50[3)]	2,95	10,25
Bus standar II	11,40	2,50[3)]	3,05	11,00
Mobil standar – bus trayek	11,00	2,50[3)]	2,95	11,20
Bus gandeng	17,26	2,50[3)]	2,95	10,50 + 11,25
Truk	18,00	2,50[4)]	4,00	12,00[5)]
Truk		2,50[4)]	4,00	
gandengan		2,50	4,00	
Höchs twerte der stVZO:				
Mobil dengan 2 poros	12,00			
Mobil dengan lebih dari 2 poros	12,00			
Kendaraan berpelana	15,00	2,50[4)]	4,00	12,00
Bus angkutan seperti bus gandeng	18,00			
Truk	18,00			

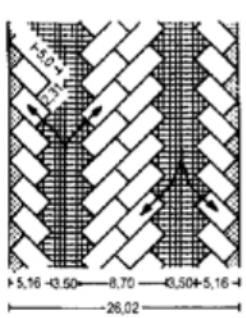
Catatan: Untuk bagian 10 & 11 masih ada kata-kata dalam b. Jerman tapi kata-kata tersebut tidak lengkap jadi tidak diterjemahkan



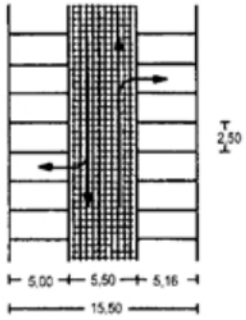
⑨ Parkir dengan 60° arah lalu lintas



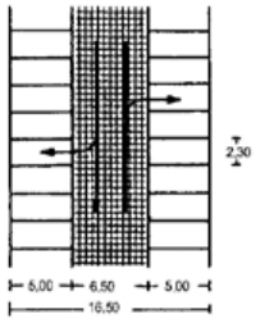
⑩ 90°, lebar jalan 5,50 m, lebar tempat parkir 2,50 m



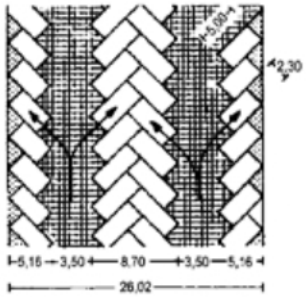
⑫ Susunan diagonal

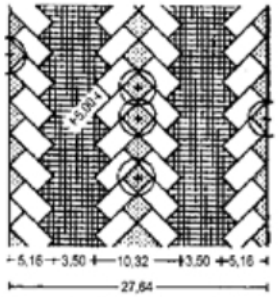


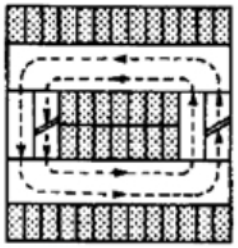
⑤ 90° keluar-masuk parkir dari dua arah. Lebar tempat parkir 2,50 m

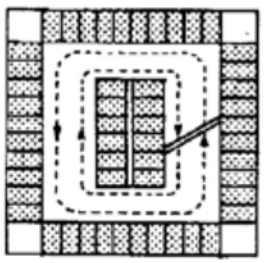


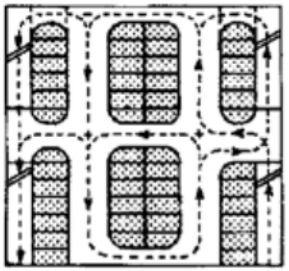
⑥ 90° keluar-masuk parkir dari arah. Lebar 2,30 m

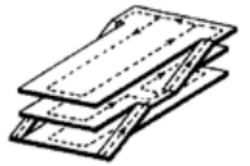




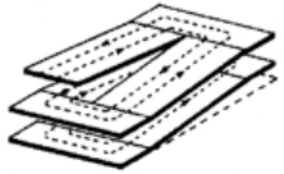




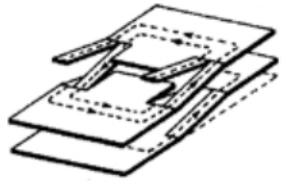




⑦ Tanjakan satu lantai penuh ⑧

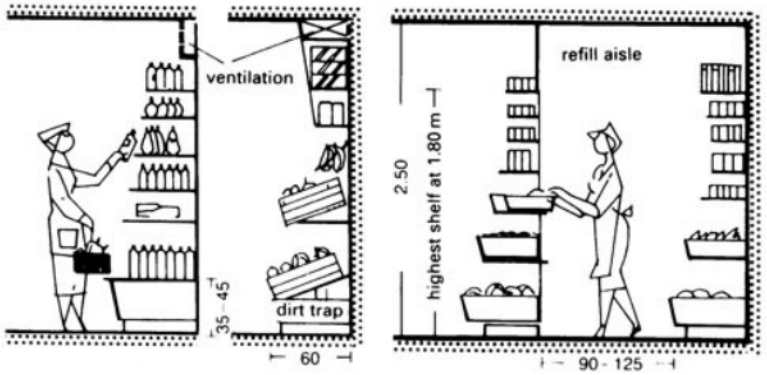


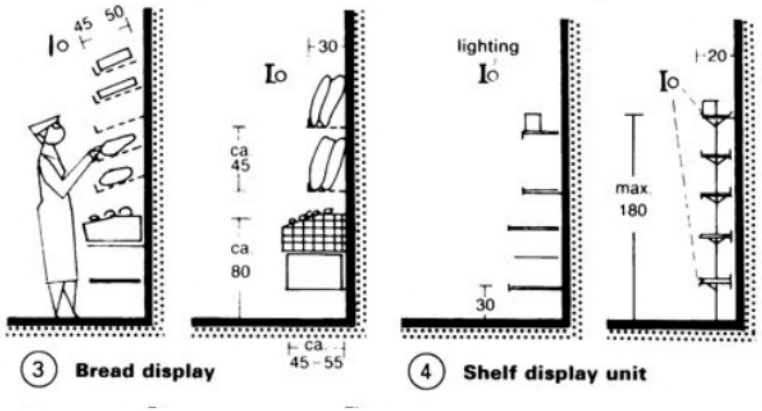
⑨ Tanjakan berefisiensi tinggi, kemiringan ≦ 6% ⑩



There are so many references about market. These references are taken from Neufert's Architect's Data 1, 2, and 3. The references which taken are including artificial lighting, windows, stairs, sunlighting from the roof, parking areas, and related furnitures.

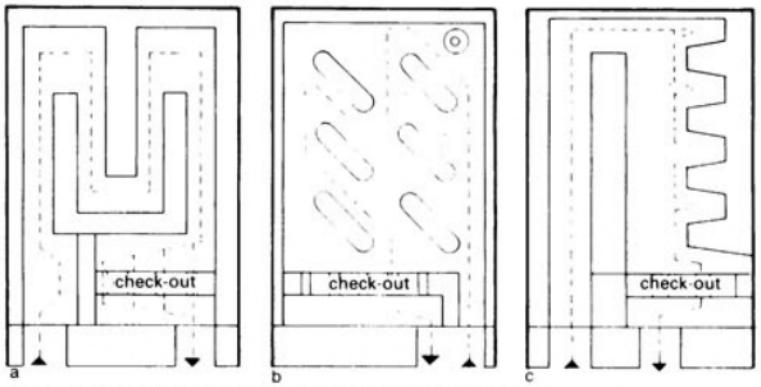
DESIGN OBJECT REFERENCES





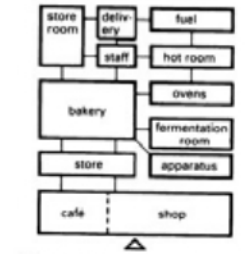
3 Bread display

4 Shelf display unit

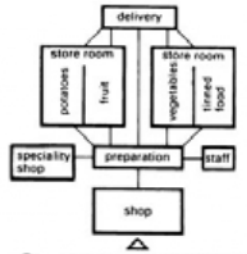


1 Functional diagram for fishmonger's

3 Functional diagram for poultry and game shop



5 Functional diagram for a bakery: good ventilation needed, possibly dehumidify



7 Functional diagram for fruit and vegetable shop: little storage provision as most goods delivered daily

DESIGN APPROACH REFERENCES

Design approach: Biophilic

As a species who has live a thousand years until now, human being has a special connection to nature. This connection appears because of their surrounding environment is a natural and not artificial or human constructed world. Unfortunately, many of the modern buildings and cities only sees the effectiveness and functions of the building or city itself, which separate its users from their origin habitat.

In his introduction of his book, Kellert indicates the need for biophilic design, not as a replacement for environmentally conscious design, but simply acknowledges that "low environmental impact design fails to address the equally critical needs of diminishing human separation from nature." (Kellert, 2008:4). Biophilic design focuses on healthy community and healthy individual outcomes. As a result, it is evidence-based and relies heavily on empirical research and experience (Naderi, 2009:264).

This architecture approach can also be seen from the implementation of materials that come from nature. These natural materials such as woods, stone, brick, could make humans gain that lost connection towards nature itself. Biophilic design can also be implemented into forms, patterns, or ornamentation. For example, the ornamentation inside cathedrals or mosques are also considered as a implementation of nature aspect into buildings. Any other aspects or factors that can make people feel closer to nature shown in these two tables.

The implementation of this approach can be seen on these two tables. The first table mentioning about kinds of lighting that can be used inside a building. The relation of the buildings with its surrounding environment can also be applied. The second table mentions about environmental features and natural aspects such as water, plants, views, even buildings form or geometry.

LIGHT AND SPACE		PLACE-BASED RELATIONSHIPS		EVOLVED HUMAN-NATURE	
Natural light	Light as shape and form Spatial variability	Geographic connection to place	Indigenous materials	Prospect and refuge	Attraction and beauty
Filtered and diffused light	Space as shape and form	Historic connection to place	Landscape orientation	Order and complexity	Exploration and discovery
Reflected light	Spatial harmony	Ecological connection to place	Landscape ecology	Curiosity and enticement	Information and cognition
Light pools	Inside-outside spaces	Cultural connection to place	Integration of culture and ecology	Change and metamorphosis	Fear and awe
Warm light		Spirit of place	Avoiding Placelessness	Security and protection	Reverence and spirituality
Spaciousness			Building form defined by landscape	Affection/attachment	Mastery and control

ENVIRONMENTAL FEATURES		NATURAL SHAPES & FORMS		NATURAL PATTERNS & PROCESSES	
Color	Views and vistas	Botanical motifs	Shapes resisting straight lines and right angles	Sensory variability	Integration of parts to wholes
Water	Façade greening	Tree and columnar supports	Simulation of natural features	Information richness	Complementary contrasts
Air	Geology and landscape	Animal motifs	Biomorphy	Fractals	Dynamic balance and tension
Sunlight	Habitats and ecosystems	Shells and spirals	Geomorphology	Growth/efflorescence	Hierarchical ratios and scales
Plants	Fire	Egg, oval, and tubular forms	Biomimicry	Central focal point	Age, change, patina
Animals		Arches, vaults, domes		Patterned wholes	
Natural materials				Bounded Spaces	
				Transitional spaces	
				Linked series/chains	

REFERENCES OF ISLAMIC VALUES

In Al-Hijr verse 45th-48th it is told that, "***Indeed, the righteous will be within gardens and springs. [Having been told], "Enter it in peace, safe [and secure]. And We will remove whatever is in their breasts of resentment, [so they will be] brothers, on thrones facing each other. No fatigue will touch them therein, nor from it will they [ever] be removed***".

According to the interpretation by Al-Mukhtashar, a book published in Riyadh under the control of Syaikh Dr. Shalih bin Abdullah bin Humaid (Masjidil Haram Imam), these verses above means that people who keep their faith to Allah and do what He asked for and stay away from what He told to stay away from, will be provided with gardens and rivers up in heaven. As told towards them "Enter it in peace, safe [and secure]. And We will remove whatever is in their breasts of resentment".

These verses are clearly explained about a portrait of human life in heaven. However, there are a few conclusions that can be taken from the interpretation above. Allah has showed for His people that they should living side by side with natural aspects such as gardens and springs. It is also told that natural environment has an impact towards human's health and well-being. Furthermore, a good building must have a place for its user to interact with each other because we are created as a social creature and we always long for companions.

These aspects such as gardens, springs or water, are part of Biophilic Architecture. The market, which is located in an urban environment, become a suitable place to be added with this kind of architecture approach. With biophilic architecture, the market is expected to solve the issues occur on site and teaches the citizen to live side by side with nature, hopefully.

In conclusion, this development project is based on following key considerations:

1. Implementation of natural aspects
2. Supporting people's need to socialize
3. Adding religious function such as musholla
4. Easily accessible
5. Safety

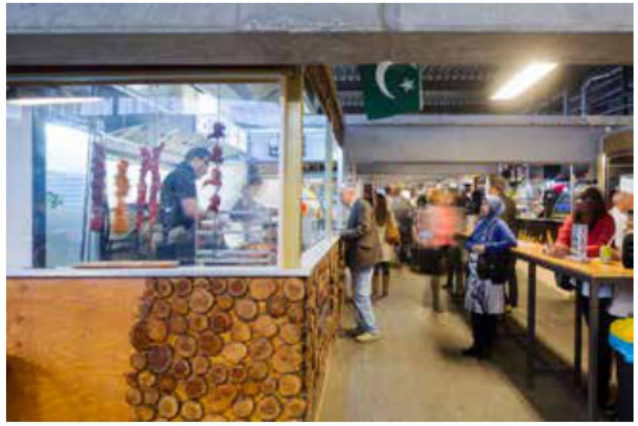
إِنَّ ٱلْمُتَّقِينَ فِى جَنَّٰتٍ وَعُيُونٍ ﴿٤٥﴾

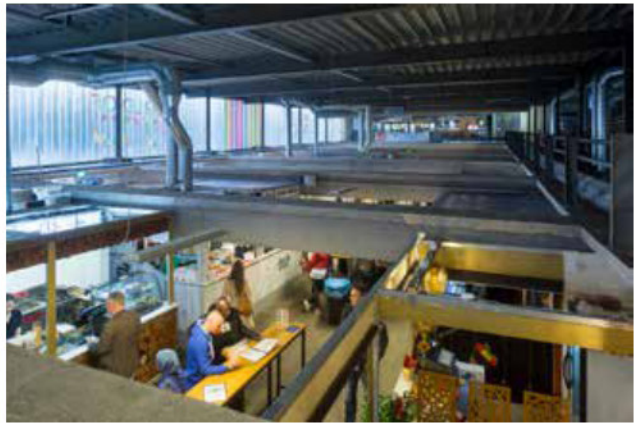
ٱدْخُلُوهَا بِسَلَٰمٍ ءَامِنِينَ ﴿٤٦﴾

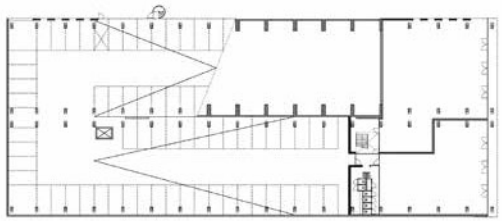
وَنَزَعْنَا مَا فِى صُدُورِهِم مِّنْ غِلٍّ إِخْوَٰنًا عَلَىٰ سُرُرٍ مُّتَقَٰبِلِينَ ﴿٤٧﴾

لَا يَمَسُّهُمْ فِيهَا نَصَبٌ وَمَا هُم مِّنْهَا بِمُخْرَجِينَ ﴿٤٨﴾

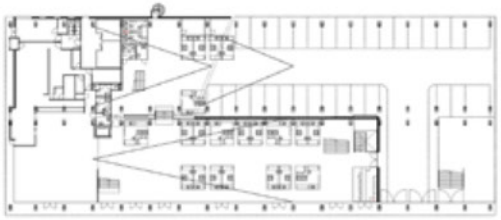
PRESEDENT STUDIES



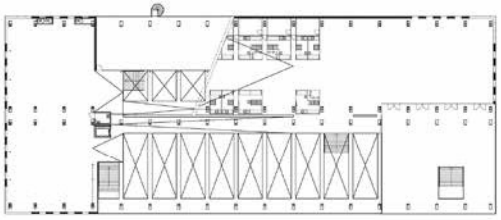




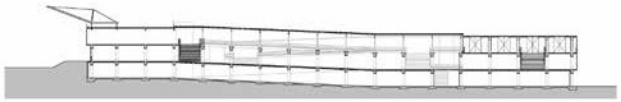
1ST FLOOR PLAN



2ND FLOOR PLAN



3RD FLOOR PLAN



SECTION

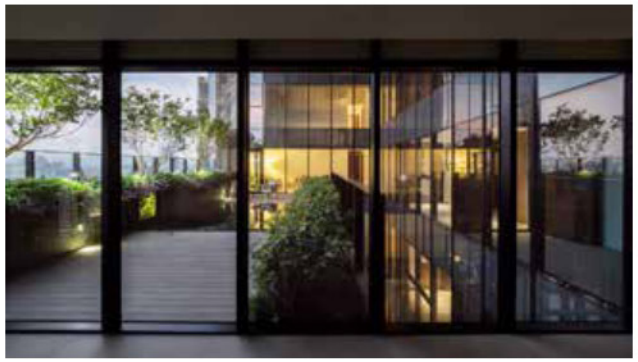
a. OBJECT PRESEDENT

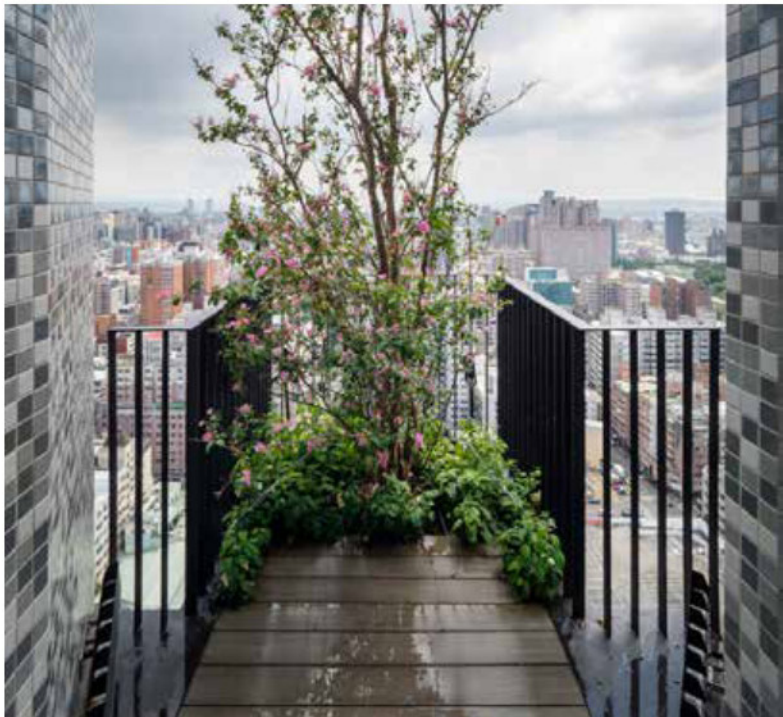
Object: World of Food
Year: 2015

World of Food is a food market located in southeast Amsterdam. This market is a transformation of old garage into an exotic market which sells any kind of food from different culture and countries. From Armenian, Armenian, Egyptian, Liberian, Thai, Caribbean and Indonesian best cuisines are ready to be served in this place. Architects Ted Schulten and Harvey Otten took the initiative to accommodate this long-awaited wish of the local authorities.

The buildings are separated into two main functions: parking area and the market itself. The existing building, which is the parking garage is in the first floor, while the market is in second and third. These floors are vertically connected with stairs and sloping floor.

The coloumns and floors are made from polished concrete while the ceilings are exposing its service utilities. The spaces between these coloumns are used as room for the merchant. Each room can sell different kinds of food. The circulation for the visitors or buyers are added some wooden table so that they can buy and enjoy their food without walking too far from the first place.





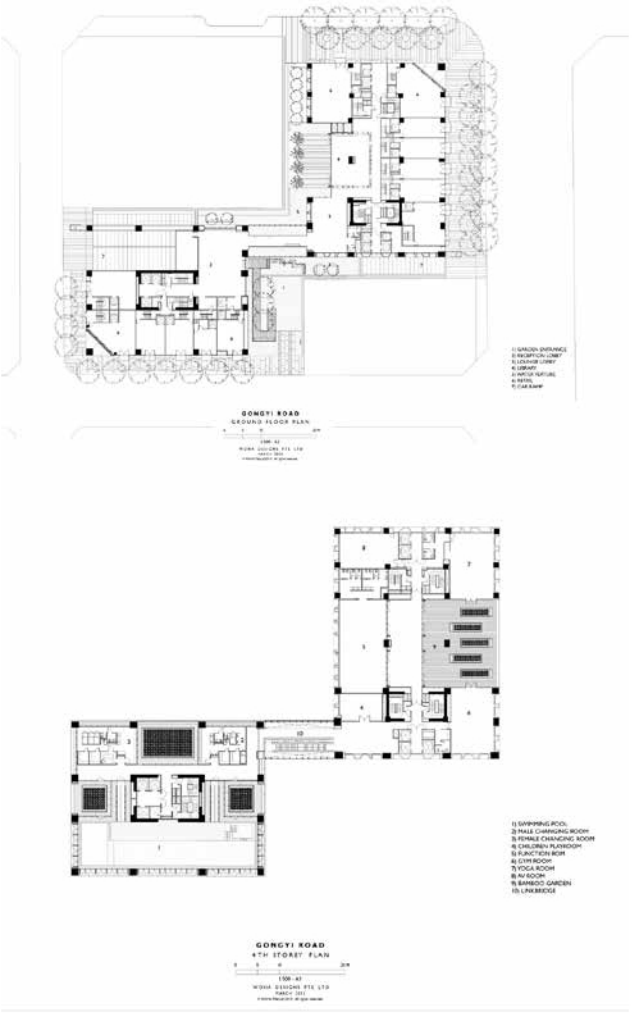
b. DESIGN APPROACH PRESEDENT

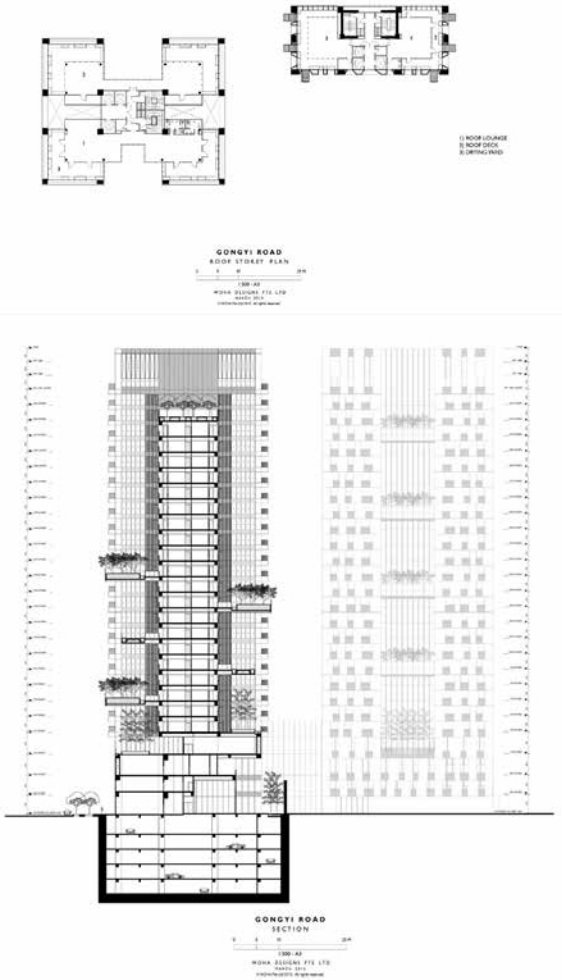
Object: Sky Green Residential & Retail Tower
Year: 2019

Sky Green is a mix-used buildings in Taiwan. The buildings are separated into two towers. One towers facing the crowded street, and the other tower facing the quitter street. The 4th floors and upwards are used as a residential, while the rest of others used as a retail areas.

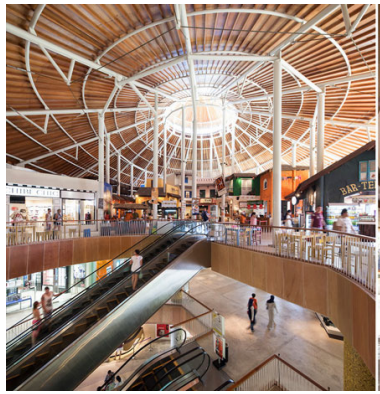
Away from a busy life and crowds of the streets, the residents will be greeted with intimate and serene landscaped courtyard as they return home. Above the retail podiums, the two residential towers stand with a lot of facilities the residents can use. Both towers have a façade of small balconies layered with plants and trees. There is also sky gardens and steel mesh that used as a place to put the vines. These landscaping and plants act as a sunshading, greenery, and living interface between indoor and outdoor environment.

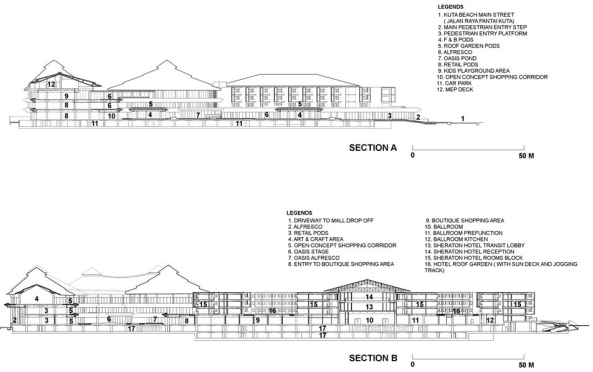
Wide sky terraces at every five floors inside the towers increasing the quality of living space of residents from indoors to outdoors. It is also creating a biophilic environment inside the towes. Every apartment unit is visually connected to the greenery outside the apartment windows. A lot of open and sheltered sky gardens, terraces, balconies, and plants together creating a visual interest on the façade.

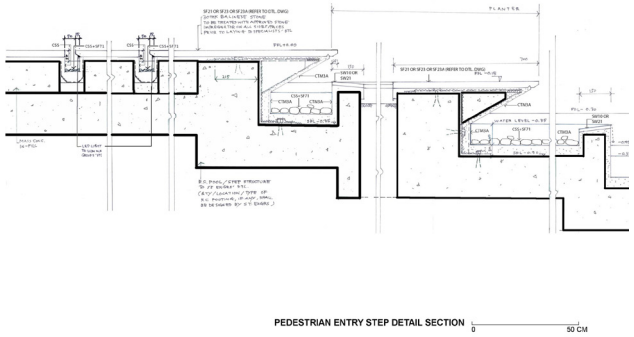


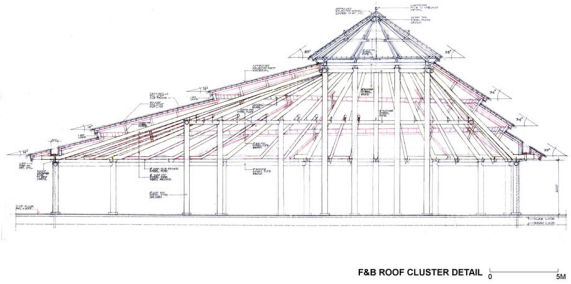



HARRIS
HOTEL





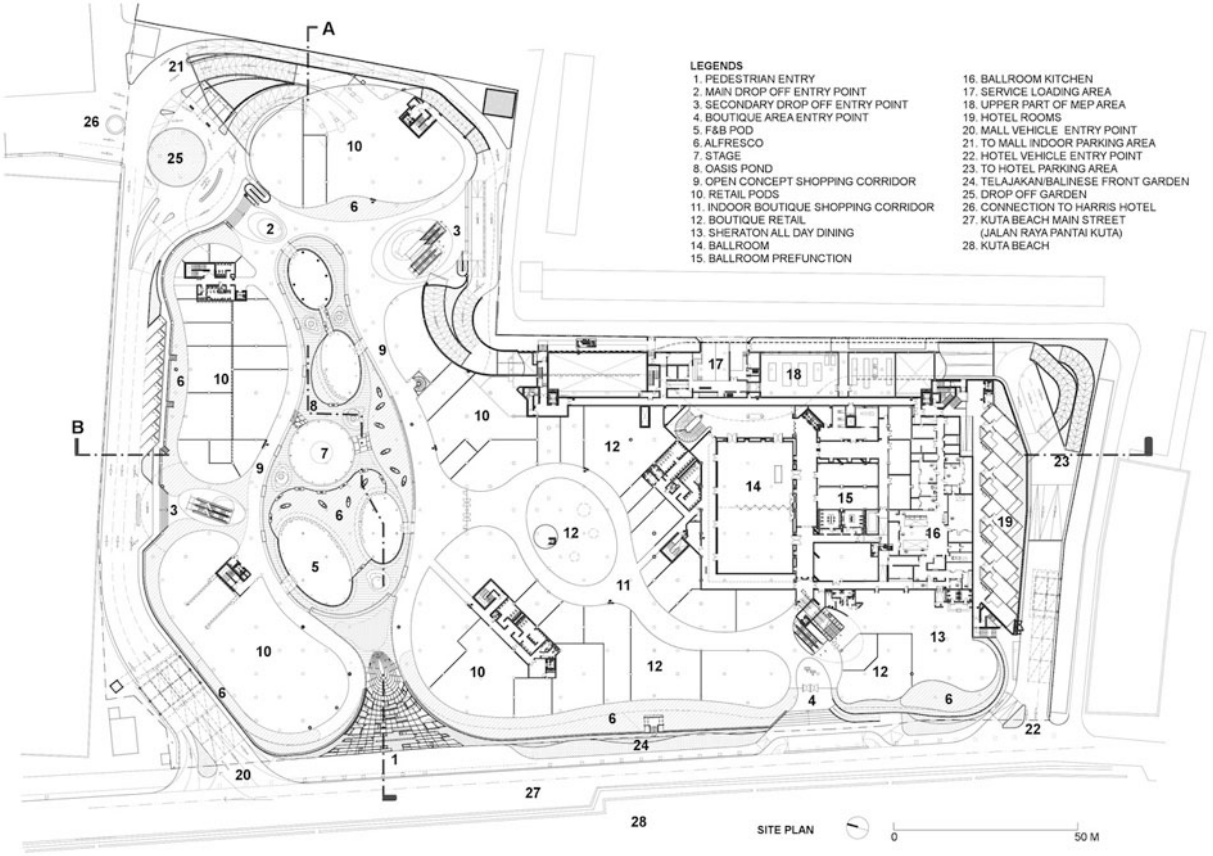


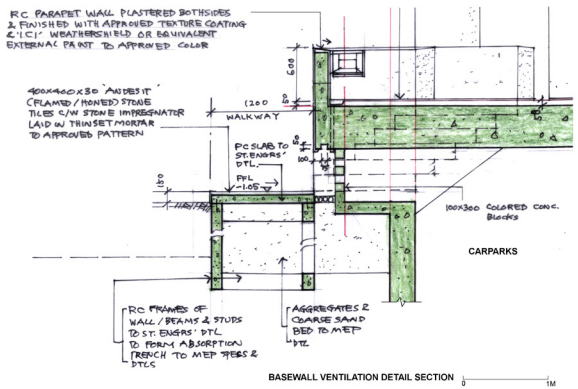


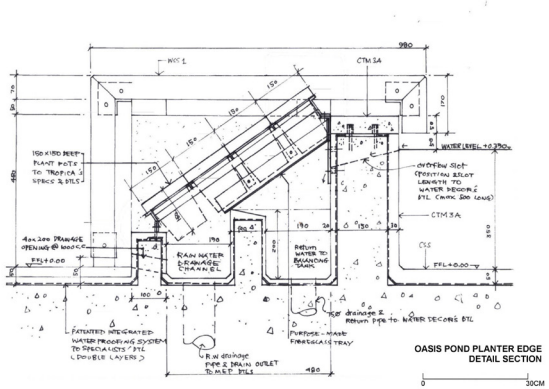
Object: Sahid Kuta Lifestyle Resort (Beachwalk)
Year: 2012

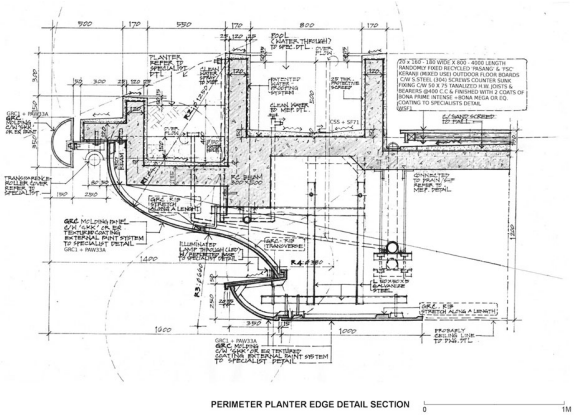
Sweeping 250 metres along a bustling beach side street, the Sahid Kuta Lifestyle Resort offers a new Lifestyle hub typology. The project covers 3.2 hectares, contains two zones: the ‘Beachwalk’ retail lifestyle hub and the 5-star Sheraton Hotel Kuta Bali Resort. The design concept was inspired by the terraced paddy fields that dot the Balinese landscape.

The name ‘Beachwalk’ is suggestive of a sensory dimension. Semi-open and naturally ventilated, Beachwalk consists of a series of terraced landscaped plates that create a ‘soft’ environment and serve as viewing decks. The looping circulation eliminates dead-end spaces. Roofs take the shape of a local farmer’s hat. Hanging vines and water channels contribute to the resort atmosphere.



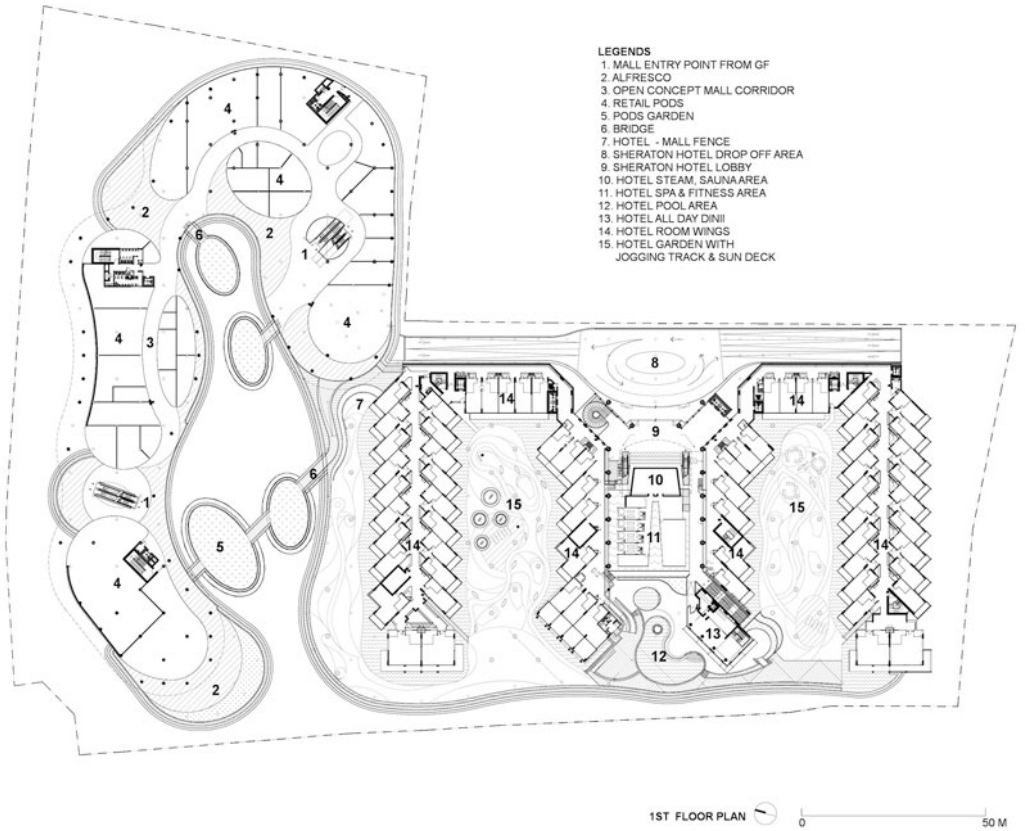






A traditional Balinese atmosphere is underlined by the incorporation of locally and environmentally friendly materials along with a rainwater collection and water recycling system for landscaped areas. Beachwalk's indoor retail alfresco areas are lined with locally produced terracotta floor tiles that mimic timber and juxtaposed against colour-stained exposed stone aggregate concrete flooring that features an abstracted floral 'lotus' motif. The use of traditional rattan weaving techniques, or anyamen, for ceiling treatments underpin the ambience of this area. For long-term functionality and maintenance, the anyamen ceilings are made from a non-toxic biodegradable polymer that is aesthetically similar to the natural material. Timber features in recycled ulin and teak contribute to the tropical look and feel. Every effort was made to avoid the unnecessary cutting down of trees.

Another notable feature is the set of 'sky gardens' above the garden island pod in the oasis. On the first level, one can submerge oneself in garden spaces filled with various species of Balinese flora. It linked by sky bridges that connect the farthest reaches of level one.



RULES AND OBLIGATION

According to Local Regulation of Surabaya Number 12 Year 2014, Blauran district is a area where culinary-based tourism should be improved. This kind of tourism is an effort to increase the quality of informal entrepreneurship sector such as street vendors.

The market is also mentioned in Medium Term Development Plan of Surabaya City Area In 2016-2021 (RPJMD). It is said that one of the development and revitalization plan of traditional market is to develop Blauran Market in Kranggan Street. This plan has a due date in year 2024.

Furthermore, there is also few aspects that should be considered when designing in this region:

a. Maximum KDB allowed: 60 %
b. Maximum KLB allowed:
   a. For streets more than 10 meter width: 1,8
   b. For streets 6 to 10 meters width: 1,2
c. Maximum building height allowed:
   a. For streets more than 10 meters width: 15 meters
   b. For streets 6 to 10 meters: 10 meters
d. Minimal KDH allowed: 10 %
e. Maximum basement floor allowed: 1 floor

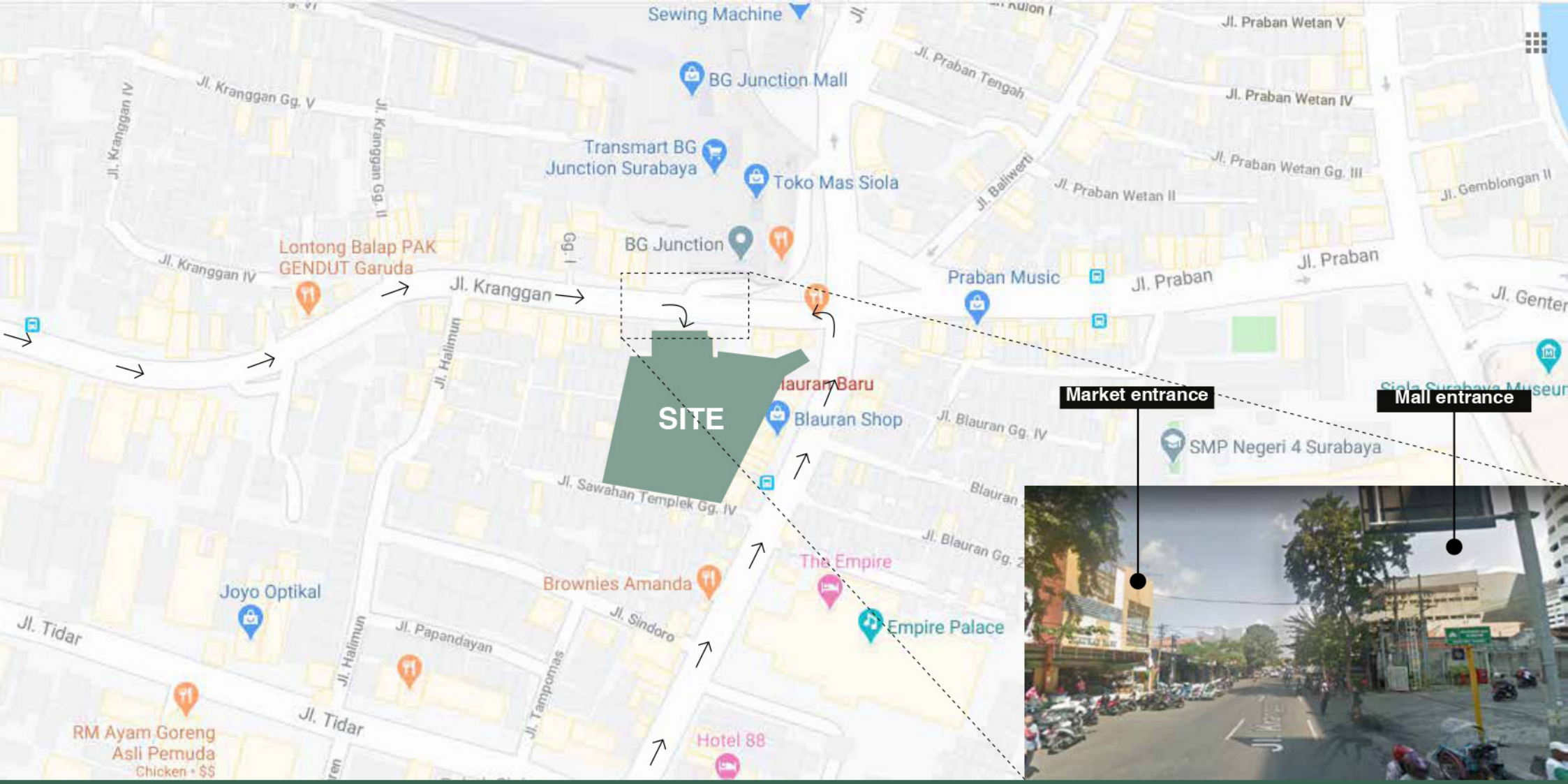
REGION
DATA

WEATHER & CLIMATE

According to the data that are taken from Meteorology, Climatology and Geophysics Agency (BMKG), Surabaya have a high rain percentage. On the first day, Surabaya is poured by rain almost all day long from 7 AM to 10 PM. This rain also occur in the next two days. this is caused by the rain season which is happen when this data was taken. Unfortunately, more rain doesn't mean colder air temperature.

Another data was taken from The Weather Channel, which is the most popular weather and climate provider internationally. Those two satellite picture is showing an average temperature in the surrounding environment of the market. The left side is showing the temperature of the region. The orange color means that this region is averagely hot, while the right picture is showing "how it feels like" in that area.

This picture is reddish than the first because the area is feels hotter than the shown data. If the temperature is 25 degrees, than in reality it can feels like around 30 degrees.



ACCESS

The market can be accessed from two directions: Kranggan street and Blauran street. The main entrance of the market is located across the entrance of BG Junction Mall.

INFRASTRUCTURE

The site is located in the heart of the city. Therefore, it is easy to find infrastructures around the market. Blauran road is famous of its jewellery store. This street is already had sidewalks since the colonial era. There is also four zebra cross in every side if the intersection equipped with traffic lamps, make it easier for people to walk around. Furthermore, there is also two Junior High School around the site.

The first is Junior High School 3 which is located in Praban street. behind that school, stands Junior High School 4, which is my school about 7 years ago. The streets are getting pretty crowded when these schools over. Some of the students sometimes goes for a walk into BG Junction Mall. These students can be a target user for the market.

GENERAL DATA & BOUNDARIES

LOCATION:
Kranggan Street, Tembok Dukuh, Surabaya

SITE VOLUME:
5500 m²

SITE DATA

DEMOGRAPHY

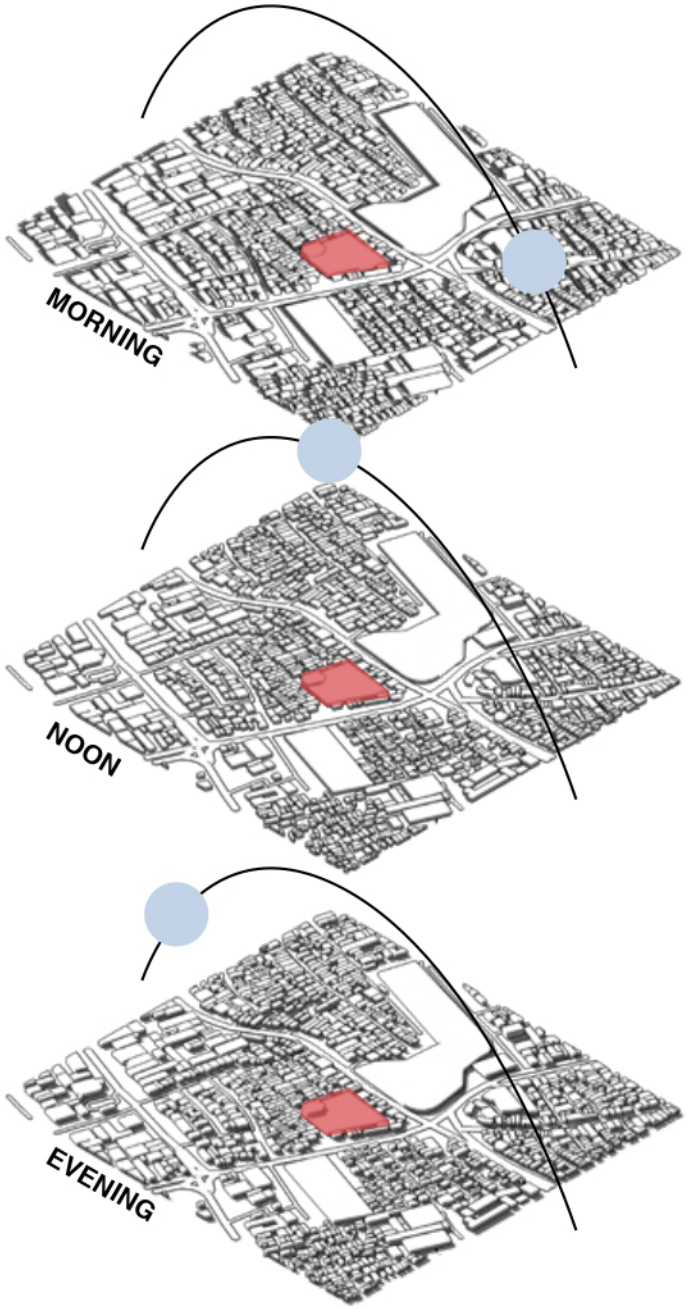
The location of the market is in the centre of the city, which is near proposed CBD area of Surabaya. As a result, most of the buildings beside the streets are a commercial building. Blauran known for its jewelry store, while Praban for its shoes store. Kranggan streets also have many food vendors.

Behind these commercial buildings, there are hidden residential areas. These high density residentials are mostly owned by people categorized in averagely well funded. Some of these people also live in a poor condition and some of them are also a sellers in this region.

EDUCATION

COMMERCIAL

RESIDENTIAL

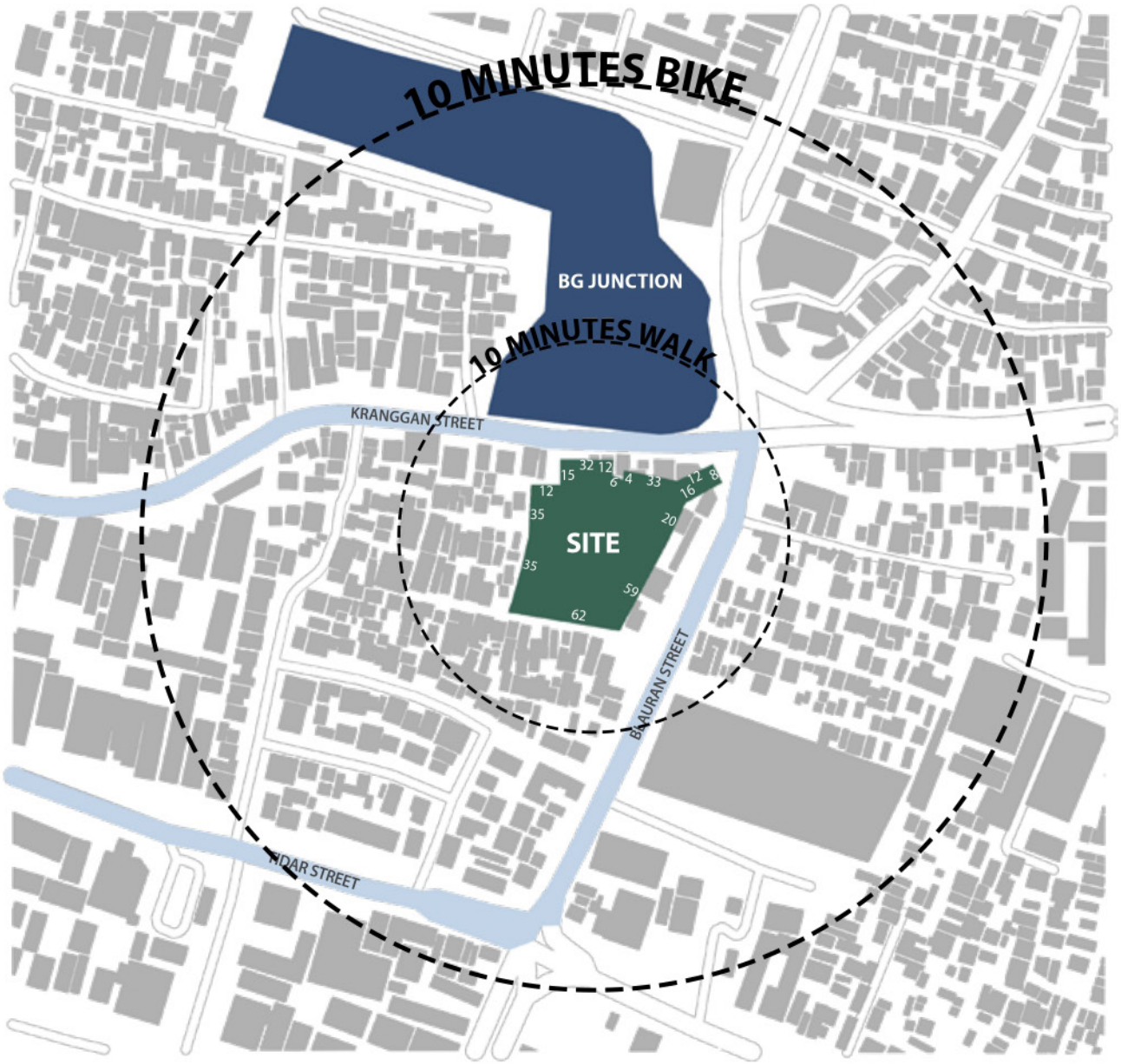


CLIMATE AND WEATHER

The site is located in tropical country so there's only two seasons here: summer and rainy. Surabaya is located in a coast of Java Island. As mentioned before, the temperature in this city is averagely high. This condition also supported by pollution and the decreasing of green areas in the city.

Fortunately, the site is located in front of medium high rise building, which is BG Junction Mall. The advantage of this condition is, when it is comes to evening, the entrance and most of the market will be covered from the sun by the mall.

The other good thing is that there are enough amount of trees to cover the entrance of the market from direct sunlight. These trees also take part for reducing the temperature inside or outside the market.



ACCESS

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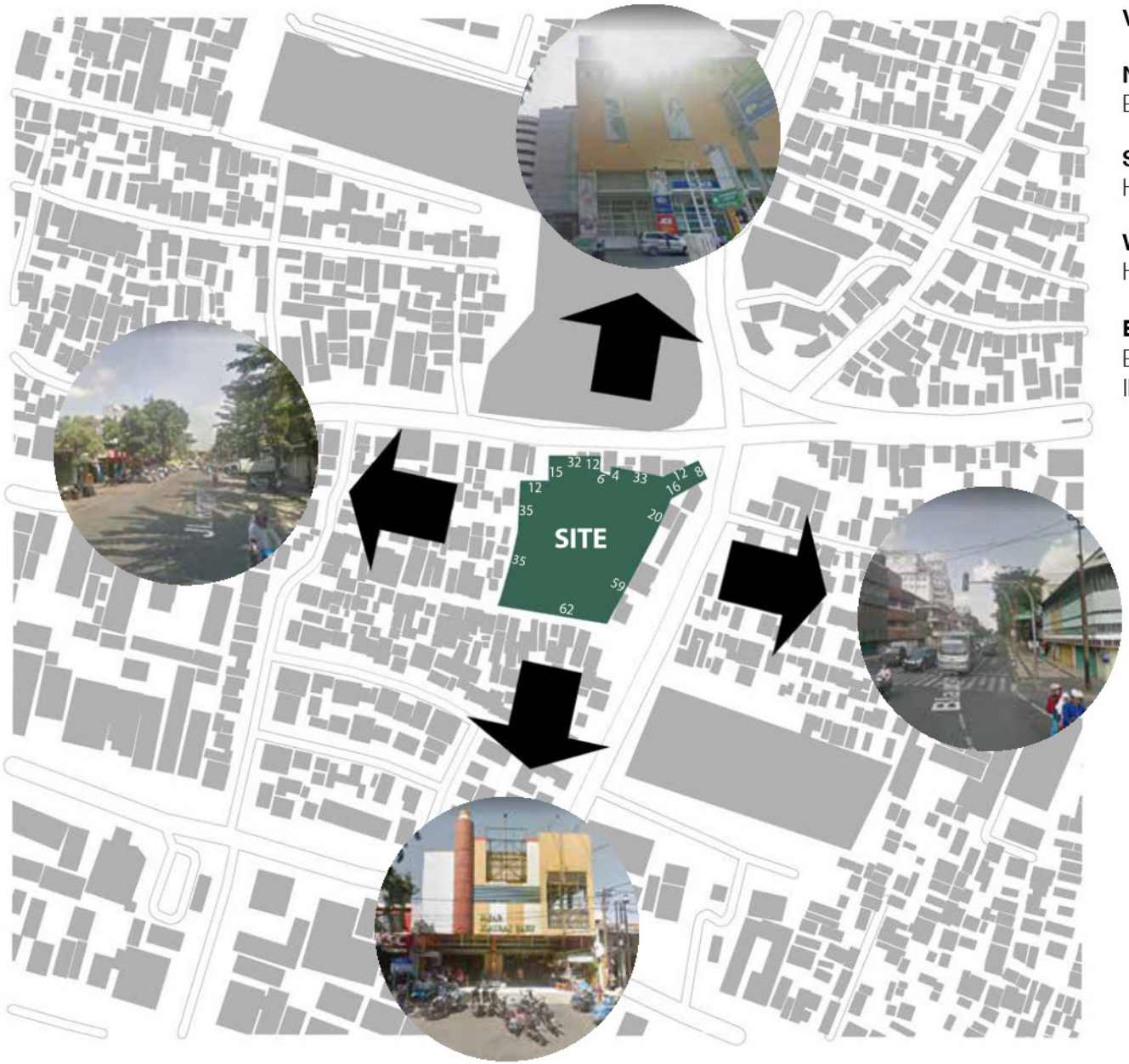


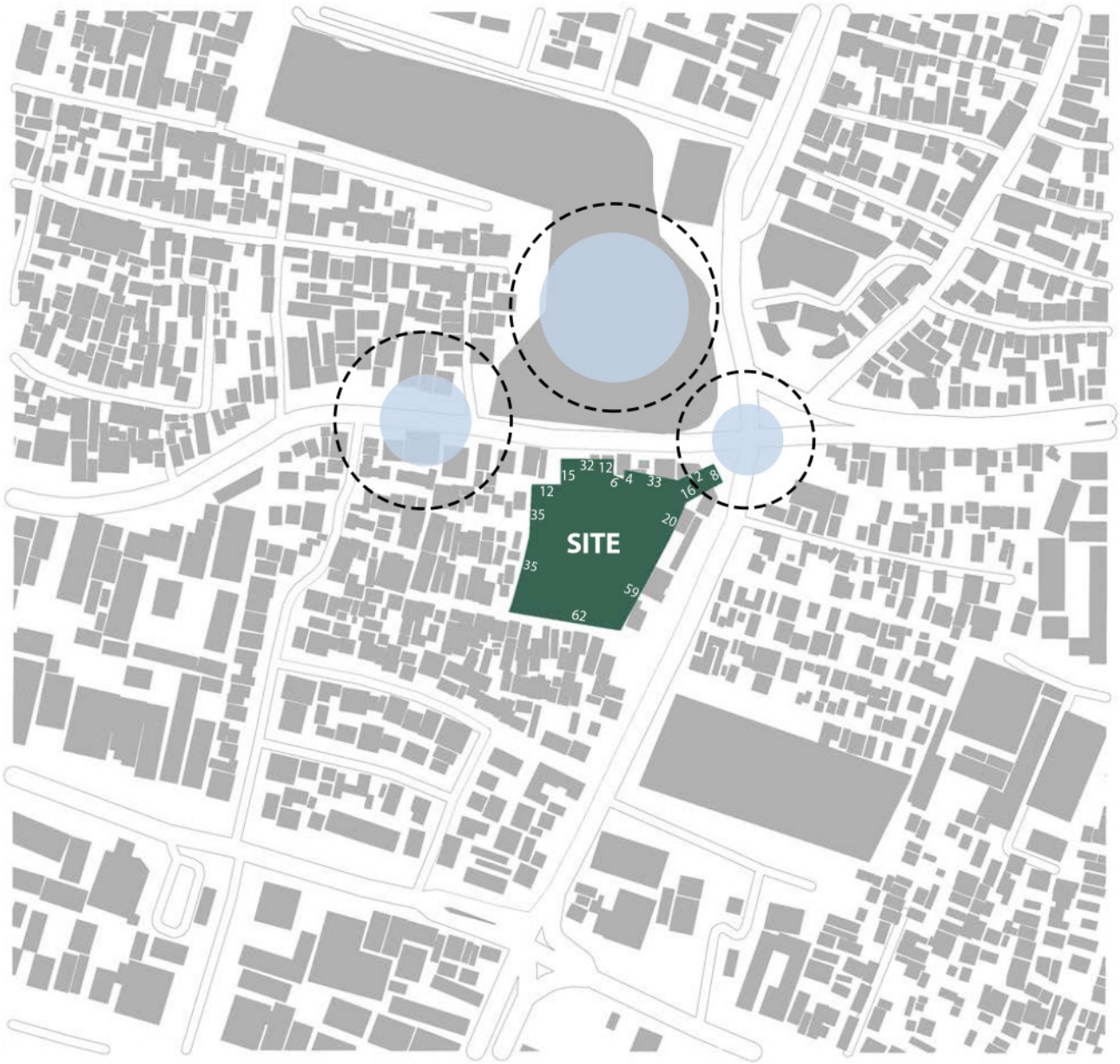
VIEW

NORTH:
BG JUNCTION MALL AND KRANGGAN STREET

SOUTH:
HOUSES AND VILLAGES

WEST :
HOUSES AND VILLAGES

EAST :
BLAURAN STREET, JEWELLERY STORE, INTERSECTION



NOISE

The first noise came from the BG Junction Mall which is literally a place where people in and out of the building. The mall and the market in one place are a perfect combination to make those street crowded in a second.

Second is came from the streets itself. Kranggan street has become a place to contain the vehicles which should be parked inside the mall or the market. The motorcycle engines, the people yelling each other, the sellers, the whistle of those parking guards can be so annoying to hear at the same time.

The third is the intersection where bikes and cars, and sometimes policeman also can be heard from the distance.

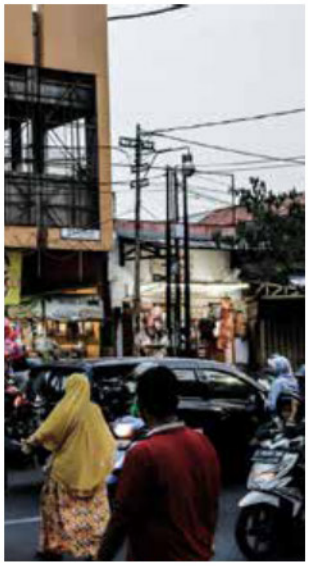
VEGETATION

There are three main vegetations around the market. The others vegetation or plants is belong to the BG Junction Mall, while trees are growth wildly on the streets.

The first big tree is Filicium decipiens, or in Indonesian known as Kiara payung. This tree has grown across the border of Kranggan street. Many wild parking areas, street vendors, or civilian uses this tree to protect them from the sunlight.

The second one is mahogany which is grow in the west side of the market. There are only one from this kind of tree around those area.

The last one is Spanish cherry or in Indonesian known as Pohon Tanjung. This big tree is grow in front of the mall, right next to the zebra cross. Most of the mall visitors stop under this tree to walk across the street or to wait another public transportation.



SOCIAL & CULTURE

The site is located in the centre of the city, pretty far from the nearest residential area. People who come here, like the sellers of the market, waiter, parking guards, drivers, and most of those who pass by the streets are going to work. This is one of the main reason why there is not much traditional culture can be found.

There is only a few and, unfortunately, a bad culture here, which is the parking issues itself. People who come to mall, market, or just eat in the street vendors always park their vehicles in the side of the streets. Even if there is still a space left inside BG Junction Mall, they still prefer to park outside rather than inside the mall.

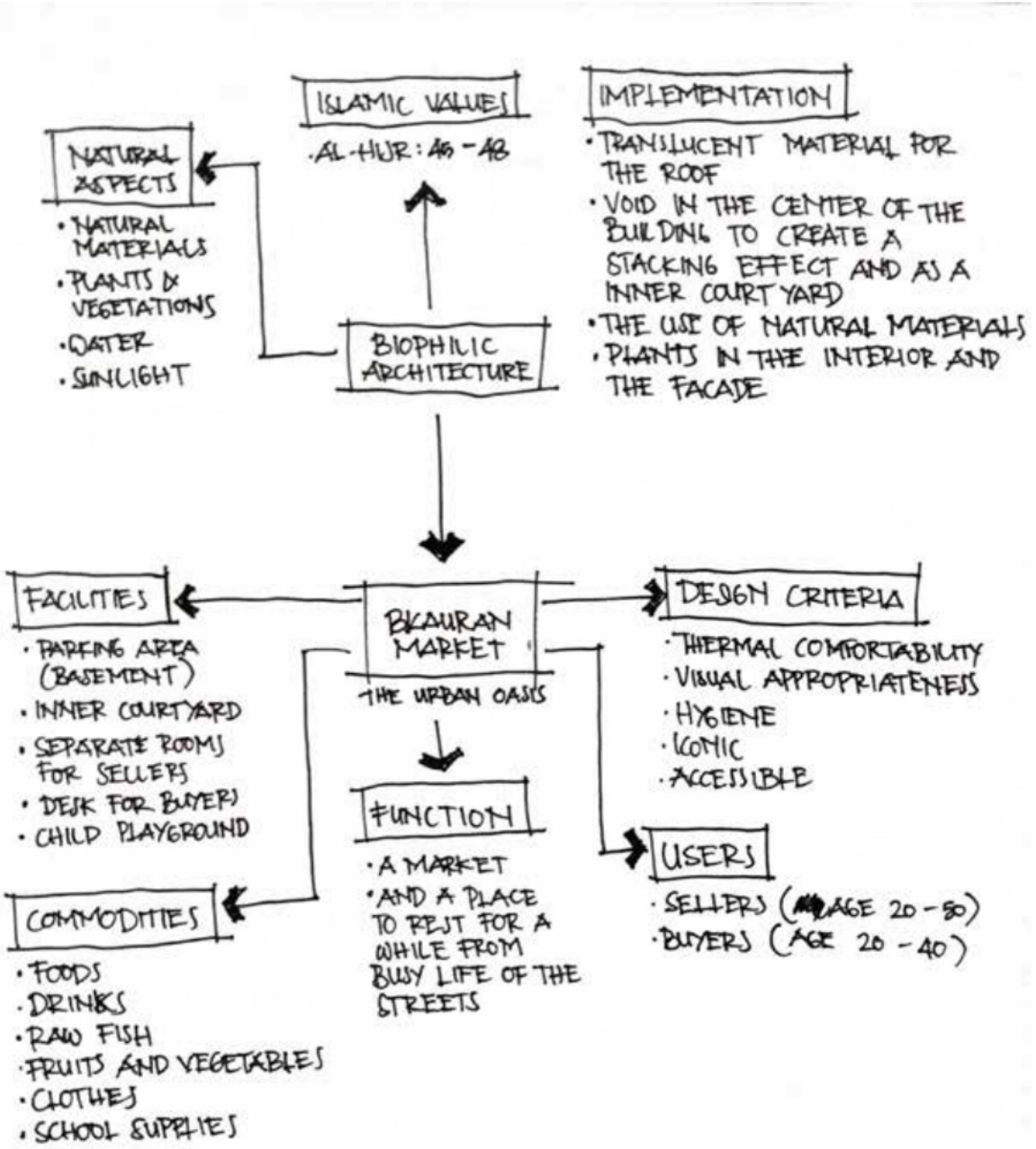
Another culture is yearly event called Cross Culture. Last year, this parade is held in Tunjungan, Blauran, Praban, and Gemblongan. This event can cause the streets get crowded in a second. With the condition of the Kranggan street now, the problem will also get worse.

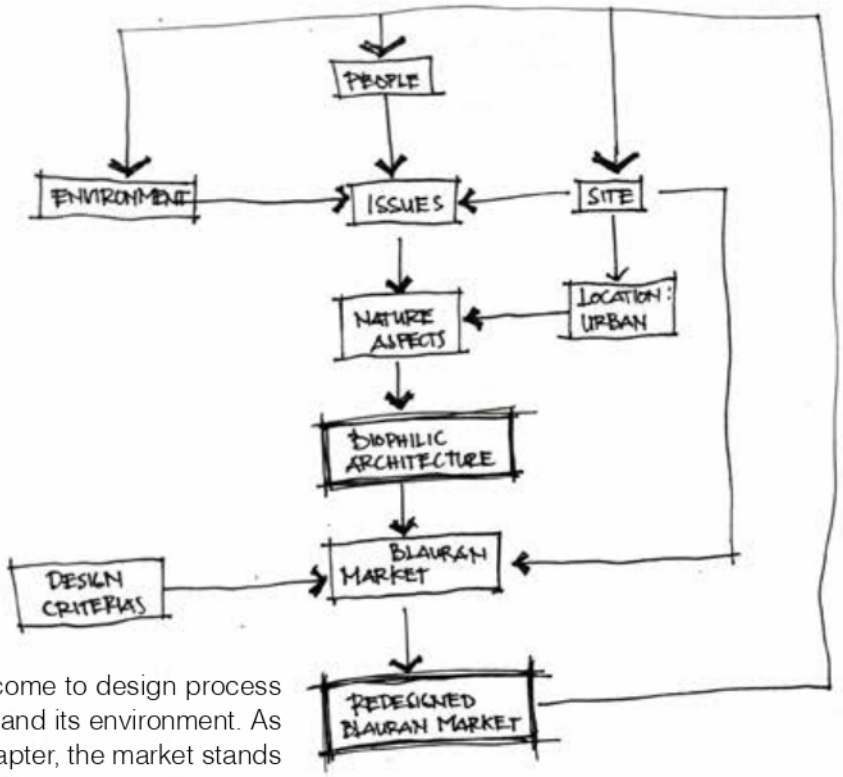
DESIGN PRO-CESS

The market is using Biophilic as its re-design approach. The main function of the building stays the same. To differentiate this market with any traditional market in the city, the buildings alongside with its natural aspects can also be used as a place to relax. Biophilic architecture uses natural aspects to create a long-forgotten connection between human and nature. Therefore, this connection will unconsciously remind them of their true habitat, which is also good for their psychology.

Furthermore, other facilities such as inner courtyard and separate room for each seller also be applied, which make this market more "natural". Another implementation of this approach is coming from the roof, which some of them is using translucent material so that it can let the sunlight get into the building, reducing the use of artificial lights which also lead to lesser electric use.

DESIGN PROCESS SCHEME

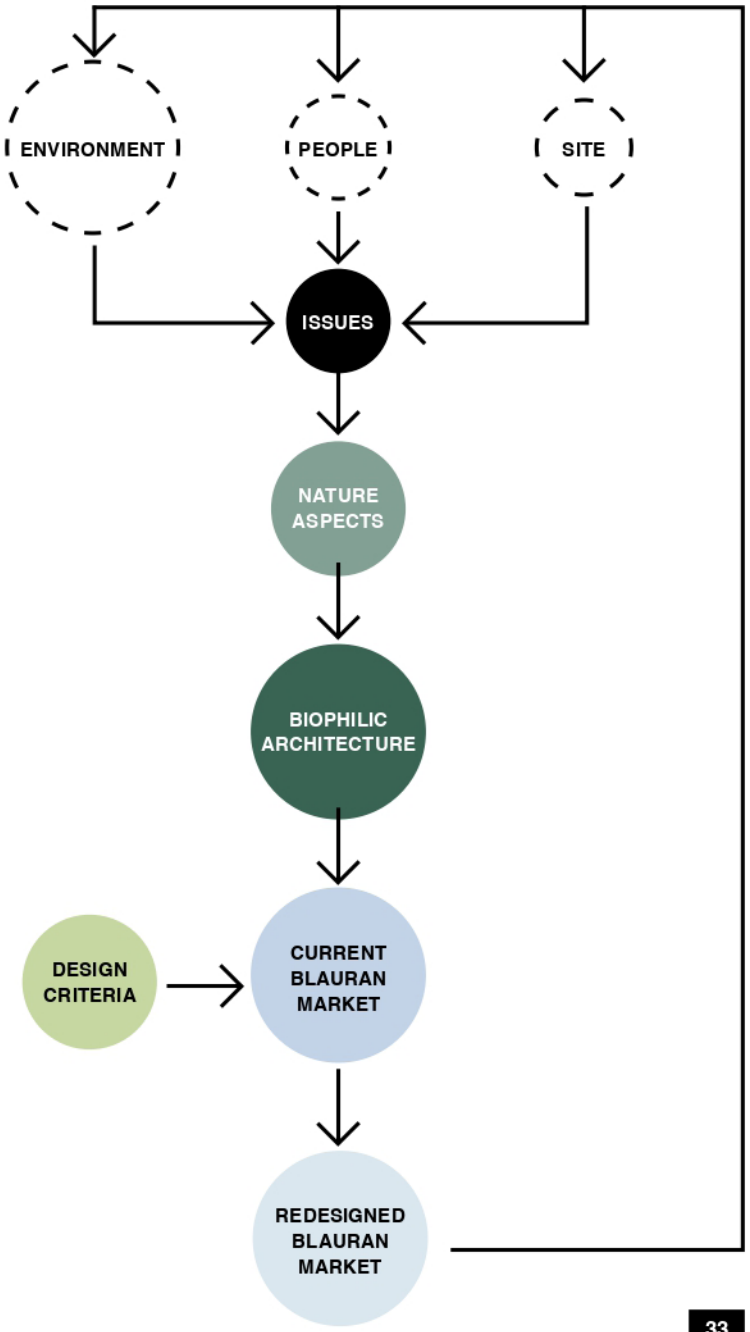




The first thing when it's come to design process was the issues from site and its environment. As mentioned in the first chapter, the market stands in the heart of urban environment. Its insufficient facilities, especially parking areas, has made the streets become its victim. The location of this market, which is in front of a shopping centre, also making the first problem worse.

To counter this mess, an additional facility like parking areas are added into the market. The redesigned market is expected to have a basement for its parking area so that Kranggan street will, hopefully, gain a better condition. Another issues like climate, weather, or the needs of green areas for the city will be countered by the design approach. That is one of the reasons why this redesign project is using Biophilic as a design approach.

When the redesign is done. The new market will still have its main function as a traditional market. With the new building, the sellers, buyers, and people who uses this building will also learn how to live side by side with nature. After all, this whole process is also beneficial for the city and the people itself.



ANA-
LYSIS

MARKET

ICON OF THE SURROUNDING AREA

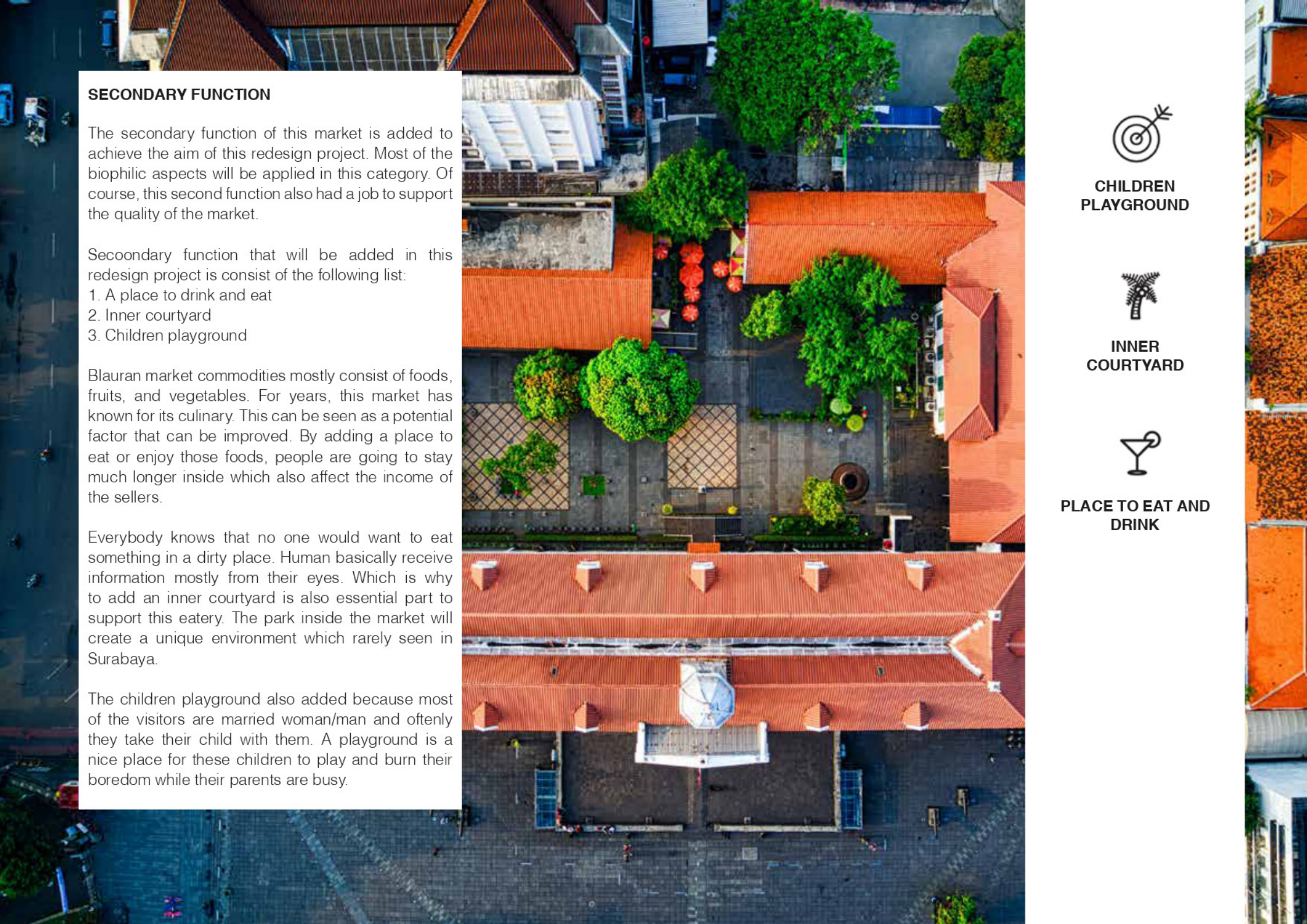
OPEN GREEN SPACE (RTH)

PRIMARY FUNCTION

The original function of the building will stay the same, which is a traditional market. The biophilic aspect would only improve the quality, and probably the quantity, depends on how the design process would affect the design outcome. Because the aim of this redesign project is only to solve the issues on site with the design approach, not to create a whole new building from zero.

This primary function will also supported by two other aditional function category, which is secondary and supporting function. As mentioned before that the primary function will only being improved on its quality, these two other function is the on who will make this improvements work.

FUNCTION ANALYSIS



SECONDARY FUNCTION

The secondary function of this market is added to achieve the aim of this redesign project. Most of the biophilic aspects will be applied in this category. Of course, this second function also had a job to support the quality of the market.

Secoondary function that will be added in this redesign project is consist of the following list:
1. A place to drink and eat
2. Inner courtyard
3. Children playground

Blauran market commodities mostly consist of foods, fruits, and vegetables. For years, this market has known for its culinary. This can be seen as a potential factor that can be improved. By adding a place to eat or enjoy those foods, people are going to stay much longer inside which also affect the income of the sellers.

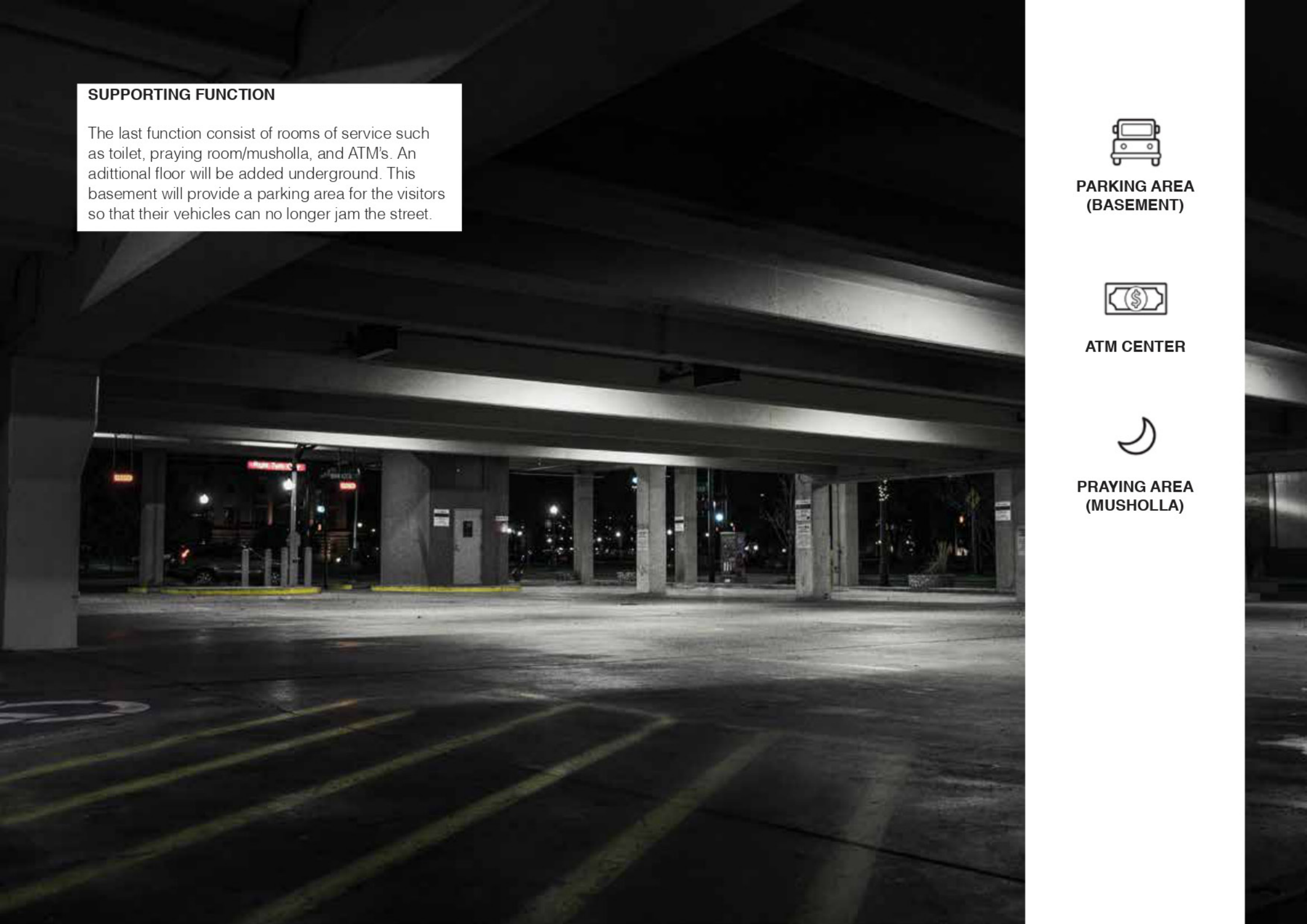
Everybody knows that no one would want to eat something in a dirty place. Human basically receive information mostly from their eyes. Which is why to add an inner courtyard is also essential part to support this eatery. The park inside the market will create a unique environment which rarely seen in Surabaya.

The children playground also added because most of the visitors are married woman/man and oftenly they take their child with them. A playground is a nice place for these children to play and burn their boredom while their parents are busy.

CHILDREN PLAYGROUND

INNER COURTYARD

PLACE TO EAT AND DRINK



SUPPORTING FUNCTION

The last function consist of rooms of service such as toilet, praying room/musholla, and ATM's. An adittional floor will be added underground. This basement will provide a parking area for the visitors so that their vehicles can no longer jam the street.

PARKING AREA (BASEMENT)

ATM CENTER

PRAYING AREA (MUSHOLLA)

USER ANALYSIS

ADULT MALE

CATEGORY
Visitors

ACTIVITY
Parking a vehicle, walk into building, taking photos/selfies, buying stuffs, sitting, eating/ drinking, talking, taking care of children, bargaining price, urinating, wudhu, praying, taking cash from ATM's

CATEGORY
Sellers

ACTIVITY
Parking a vehicle, walk into building, prepare to sell, selling stuffs, bargaining price, sitting, talking, throwing garbage, tidying up kiosk, praying, urinating, wudhu

CATEGORY
Building caretaker

ACTIVITY
Parking a vehicle, walk into building, cleaning up rooms, buying stuffs, sitting, eating/ drinking, talking, eating/ drinking, urinating, wudhu, praying

CATEGORY
Security

ACTIVITY
Parking a vehicle, walk into building, guarding the building entrance, walking around, watching TV's, urinating, praying, wudhu, sitting, eating/ drinking

CHILDREN

CATEGORY
Visitors

ACTIVITY
Following parents, eating/ drinking, walking around, playing, running, urinate, wudhu, praying

ELDERLY FEMALE

CATEGORY
Visitors

ACTIVITY
Parking a vehicle, walk into building, taking photos/selfies, buying stuffs, sitting, eating/ drinking, talking, taking care of children, bargaining price, urinating, wudhu, praying, taking cash from ATM's

CATEGORY
Sellers

ACTIVITY
Parking a vehicle, walk into building, prepare to sell, selling stuffs, bargaining price, sitting, talking, throwing garbage, tidying up kiosk, praying, urinating, wudhu

ADULT FEMALE

CATEGORY
Visitors

ACTIVITY
Parking a vehicle, walk into building, taking photos/selfies, buying stuffs, sitting, eating/ drinking, talking, taking care of children, bargaining price, urinating, wudhu, praying, taking cash from ATM's

CATEGORY
Sellers

ACTIVITY
Parking a vehicle, walk into building, prepare to sell, selling stuffs, bargaining price, sitting, talking, throwing garbage, tidying up kiosk, praying, urinating, wudhu

CATEGORY
Building caretaker

ACTIVITY
Parking a vehicle, walk into building, cleaning up rooms, buying stuffs, sitting, eating/ drinking, talking, eating/ drinking, urinating, wudhu, praying

TEENAGE MALE

CATEGORY
Visitors

ACTIVITY
Parking a vehicle, walk into building, taking photos/selfies, buying stuffs, sitting, eating/ drinking, talking, taking care of children, bargaining price, urinating, wudhu, praying, taking cash from ATM's

CATEGORY
Sellers

ACTIVITY
Parking a vehicle, walk into building, prepare to sell, selling stuffs, bargaining price, sitting, talking, throwing garbage, tidying up kiosk, praying, urinating, wudhu

CATEGORY
Building caretaker

ACTIVITY
Parking a vehicle, walk into building, cleaning up rooms, buying stuffs, sitting, eating/ drinking, talking, eating/ drinking, urinating, wudhu, praying

TEENAGE FEMALE

CATEGORY
Visitors

ACTIVITY
Parking a vehicle, walk into building, taking photos/selfies, buying stuffs, sitting, eating/ drinking, talking, taking care of children, bargaining price, urinating, wudhu, praying, taking cash from ATM's

CATEGORY
Sellers

ACTIVITY
Parking a vehicle, walk into building, prepare to sell, selling stuffs, bargaining price, sitting, talking, throwing garbage, tidying up kiosk, praying, urinating, wudhu

ELDERLY MALE

CATEGORY
Visitors

ACTIVITY
Parking a vehicle, walk into building, taking photos/selfies, buying stuffs, sitting, eating/ drinking, talking, taking care of children, bargaining price, urinating, wudhu, praying, taking cash from ATM's

CATEGORY
Sellers

ACTIVITY
Parking a vehicle, walk into building, prepare to sell, selling stuffs, bargaining price, sitting, talking, throwing garbage, tidying up kiosk, praying, urinating, wudhu

SHOPPING

CATEGORY
Buying, selling, bargaining, paying, preparing comodities, packing, talking

PRIVACY:
Public

ROOM NEEDS:
Kiosk, chair, hallway (for circulation)

PARENTING

CATEGORY
Talking, feeding, joking, eating and drinking, watching kids,

PRIVACY:
Public

ROOM NEEDS:
Hallway, chair and table, playground

PRAYING

CATEGORY
Washing hands, taking off shoes, taking wudhu, praying, wearing shoes, wearing muslim clothes for women

PRIVACY:
Private

ROOM NEEDS:
Wudhu area, restroom, musholla/mosque

EATING AND DRINKING

CATEGORY
Buying, selling, packaging, paying, sitting, eat and drink, resting, talking, taking care of children (for parents), throwing garbage

PRIVACY:
Public

ROOM NEEDS:
Kiosk, chair, table, eating area/foodcourt

PLAYING (CHILDREN)

CATEGORY
Playing with friends, talking, laughing, running, sitting/resting

PRIVACY:
Semi-private

ROOM NEEDS:
Playground

PARKING

CATEGORY
Arriving, parking the vehicles, taking off helmet, bringing stuffs, locking the vehicles, paying parking fee

PRIVACY:
Public

ROOM NEEDS:
Security post, parking area

RECREATION

CATEGORY
Buying, selling, paying, sitting, eat and drink, resting, talking, taking care of children (for parents), throwing garbage, taking photos, walking around

PRIVACY:
Public

ROOM NEEDS:
Chair, table, hallway, foodcourt, inner courtyard

URINATING

CATEGORY
Urinating, washing hands, cleaning, changing/ taking clothes off

PRIVACY:
Private

ROOM NEEDS:
Restroom

ACTIVITY ANALYSIS

KIOSK

ACTIVITY
Selling, buying, preparing the kiosk, talking, bargaining, sitting, packaging
NATURAL LIGHT ●●●○○
ARTIFICIAL LIGHT ●●●●○
ACOUSTIC ●●○○○
VIEW ●●○○○
CIRCULATION ●●●●○
ACCESSIBILITY ●●●●●
TEMPERATURE ●●●○○
AIR VENTILATION ●●●○○
PRIVACY
Public

INNER COURTYARD

ACTIVITY
Walking, looking around, taking photos, playing with plants (for kids), looking at plants
NATURAL LIGHT ●●●●●
ARTIFICIAL LIGHT ●●○○○
ACOUSTIC ●●○○○
VIEW ●●●●○
CIRCULATION ●●●○○
ACCESSIBILITY ●●●○○
TEMPERATURE ●●●●○
AIR VENTILATION ●●●●○
PRIVACY
Public

HALLWAY/CORRIDOR

ACTIVITY
Walking around, running (for kids), looking for desired kiosk, talking
NATURAL LIGHT ●●●○○
ARTIFICIAL LIGHT ●●●●○
ACOUSTIC ●●○○○
VIEW ●●●○○
CIRCULATION ●●●●●
ACCESSIBILITY ●●●●●
TEMPERATURE ●●●●○
AIR VENTILATION ●●●●○
PRIVACY
Public

PLAYGROUND

ACTIVITY
Playing, running, walking, joking
NATURAL LIGHT ●●●○○
ARTIFICIAL LIGHT ●●●●●
ACOUSTIC ●●○○○
VIEW ●●●○○
CIRCULATION ●●●○○
ACCESSIBILITY ●●●○○
TEMPERATURE ●●●●○
AIR VENTILATION ●●●●○
PRIVACY
Semi-private

FOODCOURT

ACTIVITY
Eating, drinking, talking, taking care of kids, taking photos, looking around, joking, resting
NATURAL LIGHT ●●●○○
ARTIFICIAL LIGHT ●●●●○
ACOUSTIC ●●○○○
VIEW ●●●●○
CIRCULATION ●●●●○
ACCESSIBILITY ●●●●○
TEMPERATURE ●●●●○
AIR VENTILATION ●●●●○
PRIVACY
Public

RESTROOM

ACTIVITY
Urinating, taking off clothes, washing hands, self cleaning
NATURAL LIGHT ●○○○○
ARTIFICIAL LIGHT ●●●●●
ACOUSTIC ●○○○○
VIEW ●○○○○
CIRCULATION ●●●○○
ACCESSIBILITY ●●●○○
TEMPERATURE ●●●●○
AIR VENTILATION ●●○○○
PRIVACY
Private

ROOM QUALITATIVE ANALYSIS

PARKING AREA

ACTIVITY
Arriving, parking vehicles, locking vehicles, taking off helmet, bringing stuffs, going home
NATURAL LIGHT ●●○○○
ARTIFICIAL LIGHT ●●●●○
ACOUSTIC ●●○○○
VIEW ●○○○○
CIRCULATION ●●●●○
ACCESSIBILITY ●●●●●
TEMPERATURE ●●●○○
AIR VENTILATION ●●●○○
PRIVACY
Public

SECURITY POST

ACTIVITY
Guarding the parking area, sitting/resting, talking, watching CCTV's
NATURAL LIGHT ●●●○○
ARTIFICIAL LIGHT ●●●●○
ACOUSTIC ●○○○○
VIEW ●●○○○
CIRCULATION ●●●○○
ACCESSIBILITY ●●●○○
TEMPERATURE ●●●○○
AIR VENTILATION ●●●●○
PRIVACY
Semi-private

MUSHOLLA

ACTIVITY
Taking wudhu, taking off shoes, praying, reading Al-Qur'an
NATURAL LIGHT ●●●○○
ARTIFICIAL LIGHT ●●●●●
ACOUSTIC ●●●○○
VIEW ●●○○○
CIRCULATION ●●●●○
ACCESSIBILITY ●●●●○
TEMPERATURE ●●●●○
AIR VENTILATION ●●●●○
PRIVACY
Private

KIOSK

PLANTATION ●○○○○
PRESENCE OF WATER ●○○○○
BIOMORPHIC FORM & PATTERN ●●●●○
NATURAL MATERIAL ●●●●○

HALLWAY/CORRIDOR

PLANTATION ●●●●○
PRESENCE OF WATER ●●●○○
BIOMORPHIC FORM & PATTERN ●●●●○
NATURAL MATERIAL ●●●○○

FOODCOURT

PLANTATION ●●●●○
PRESENCE OF WATER ●●●●○
BIOMORPHIC FORM & PATTERN ●●●●○
NATURAL MATERIAL ●●●●○

INNER COURTYARD

PLANTATION ●●●●●
PRESENCE OF WATER ●●●●○
BIOMORPHIC FORM & PATTERN ●●●●●
NATURAL MATERIAL ●●●●●

PLAYGROUND

PLANTATION ●●○○○
PRESENCE OF WATER ●●○○○
BIOMORPHIC FORM & PATTERN ●●●●○
NATURAL MATERIAL ●●●○○

RESTROOM

PLANTATION ●●○○○
PRESENCE OF WATER ●●●●●
BIOMORPHIC FORM & PATTERN ●●○○○
NATURAL MATERIAL ●○○○○

PARKING AREA

PLANTATION ●●●○○
PRESENCE OF WATER ●●○○○
BIOMORPHIC FORM & PATTERN ●●○○○
NATURAL MATERIAL ●○○○○

SECURITY POST

PLANTATION ●●●○○
PRESENCE OF WATER ●○○○○
BIOMORPHIC FORM & PATTERN ●●●○○
NATURAL MATERIAL ●●●○○

MUSHOLLA

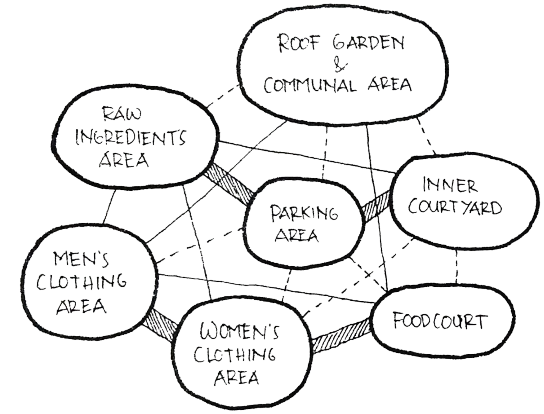
PLANTATION ●●●●○
PRESENCE OF WATER ●●●●○
BIOMORPHIC FORM & PATTERN ●●●●○
NATURAL MATERIAL ●●●●○

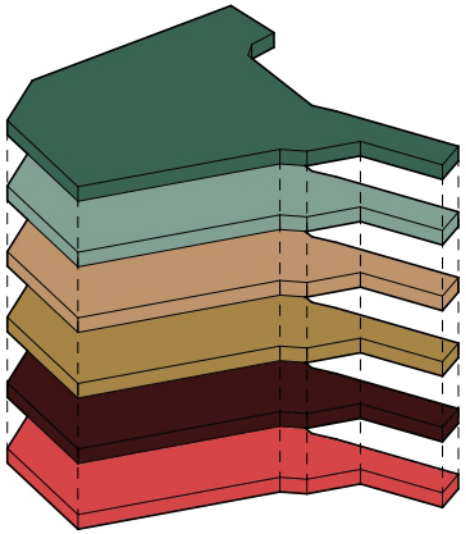
ROOM ANALYSIS

BIOPHILIC
QUALITATIVE

Num	Zone	Room Name	Dimension	Room Quantity	User Capacity	Width Result	Width Total
1	Public	Seller kiosk	0,6 x 1,2 m (Human) 0,7 x 1,25 m (Wall Shelf) 1,4 x 2,2 (Table) 0,6 x 0,7 (Chair)	150/floor	2 people 2 shelfs 1 table 2 chairs	2(0,6 x 1,2) + 2(0,7 x 1,25) + 1(1,4 x 2,2) + 2(0,6 x 0,7)=**7,11 m²**	(6,27 x 150) + ((6,27 x 150) x 30%)=**1386,45 m²**
2		Hallway/Corridor	0,6 x 1,2 (Human)	1	200 (per floor)	0,6 x 1,2= **0,72 m²**	0,72 x 200 = **144 m²**
3		Foodcourt	2,0 x 1,3 (Dining table 4 people) 2,4 x 5 (Kiosk Kitchen) 1,4 x 2,2 (Kiosk Table) 0,6 x 1,2 m (Human) 0,6 x 0,7 (Chair)	1	120 visitor 20 kiosk 4 seller/kiosk 4 chair	120(2,0 x 1,3) + 20(2,4 x 5) + 20(1,4 x 2,2) + 4(0,6 x 1,2) + 4(0,6 x 0,7)=**618,16 m²**	618,16 + 30% x 618,16= **803,6 m²**
4		Inner Courtyard	10% x Floor width (KDH) 0,6 x 1,2 (Human)	1	150 people	10% x 6636 = **663,6 m²** 150(0,6 x 1,2)= **108 m²**	663,6 + 108 + (30%(663,6 + 108)) = **1002,48 m²**
5		Parking area	2,3 x 5,0 (Car) 2,2 x 0,7 (Motorcycle)	1	30 car 150 motorcycle	30(2,3 x 5,0)=**345 m²** 150(0,7 x 2,2)=**231 m²**	345 + 231 + (80%(345 + 231))= **1036,8 m²**
6	Semi-Private	Security post	0,6 x 1,2 (Human) 1,4 x 2,2 (Table) 0,5 x 2,0 (Locker) 0,6 x 0,7 (chair)	2	3 people 2 table 1 locker 3 chair	3(0,6 x 1,2)= **2,16 m²** 2(1,4 x 2,2)= **6,16 m²** 1(0,5 x 2,0)= **1 m²** 3(0,6 x 0,7)=**1,26 m²**	2((2,16 + 6,16 + 1 + 1,26) + 30%(2,16 + 6,16 + 1 + 1,26))=**13,75 m²**
7		Playground	0,6 x 1,2 (Human) 0,5 x 2,0 (Locker)) 1,4 x 2,2 (Table) 1,0 x 4,0 (See saw) 3,2 x 5,7 (Toy house) 2,5 x 3,8 (Swing) 2,5 x 5,5 (Surfing board) 0,6 x 0,7 (chair)	2	20 children 15 parents 4 staff 2 table 2 locker 3 see saw 2 toy house 4 swing 3 surfing board 5 chair	49(0,6 x 1,2)=**35,28 m²** 2(1,4 x 2,2)= **6,16 m²** 2(0,5 x 2,0)=**2 m²** 3(1,0 x 4,0)=**12 m²** 2(3,2 x 5,7)=**36,48 m²** 4(2,5 x 3,8)=**38 m²** 3(2,5 x 5,5)=**41,25 m²** 5(0,6 x 0,7)=**2,1 m²**	2(35,28 + 6,16 + 2 + 12 + 36,48 + 38 + 41,25 + 2,1) + 30%(35,28 + 6,16 + 2 + 12 + 36,48 + 38 + 41,25 + 2,1)=**225,251 m²**
8	Private	Restroom (Man)	0,9 x 1,75 (WC cabin) 0,8 x 0,6 (Wastafel)	5 cabin/floor	1 person/cabin	5(0,9 x 1,75)=**7,875 m²** 4(0,8 x 0,6)=**1,92 m²**	(7,875 + 1,92) + 30%(7,875 + 1,92)=**12,734 m²**
9		Restroom (Woman)	0,9 x 1,75 (WC cabin) 1,0 x 0,6 (Wastafel)	10 cabin/floor	1 person/cabin	10(0,9 x 1,75)=**15,75 m²** 4(0,8 x 0,6)=**1,92 m²**	(15,75 + 1,92) + 30%(15,75 + 1,92)=**22,971 m²**
10		Praying area / Musholla	0,6 x 1,2 (Human) 0,7 x 1,25 m (Wall Shelf) 0,6 x 0,7 (chair)	2	60 people 4 wall shelf 1 chair	60(0,6 x 1,2) + 4(0,7 x 1,25) + 1(0,6 x 0,7)=**47,12 m²**	2(47,12 + 30% x 47,12)= **122,51 m²**

QUANTITATIVE ROOM ANALYSIS





ROOF GARDEN

FOODCOURT

CLOTHING AREA (WOMEN)

CLOTHING AREA (MEN) & PARKING AREA (MOTORCYCLE)

RAW INGREDIENTS & PARKING AREA (MOTORCYCLE)

PARKING AREA (CAR)

Side by side/very close

Easy to access

Far

MACRO

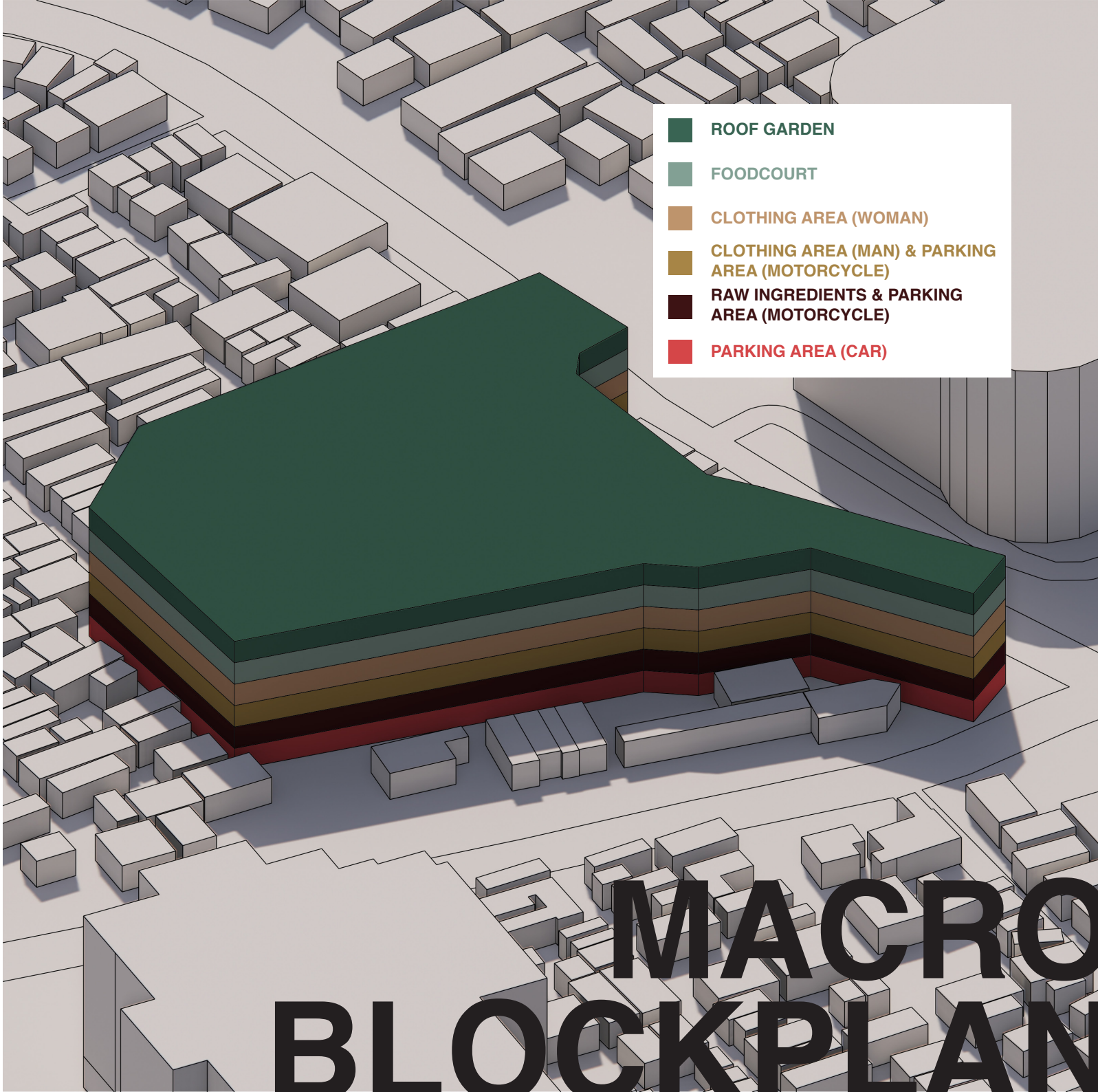
CONNECTIVITY DIAGRAM

The existing building is cosists of five floor. In this redesign project, these floors will not be changed. The only floor that will be changed is the first, second, and third floor, which will become a parking area of the market. This change of function is one of the way to reduce wild parking in Kranggan streets and reduce the intensity of people in front of the market which will lead to traffic congestion. The main entrance is moved inside the parking area so that the concentration of the people are also inside the building, not outside it.

The market will also be separated according to the categories of commodities. Second floor is a place to sell raw ingredients like fish, vegetables, and fruits. This kind of commodities are oftentimes create the most of waste than any other kind of commodities, so it should be placed in the second floor to ease the maintenance.

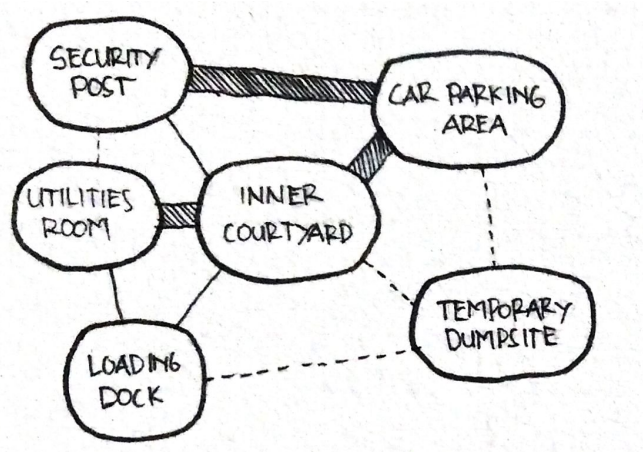
The third and fourth floor is a clothing area. T-shirts, trousers, shirts, pants, shoes for both men and women are available in this floor.

While the second floor is used as raw ingredients, the fifth floor is used as processed ingredients which is foods and drinks. And the highest floor is used where communal space and roof garden.

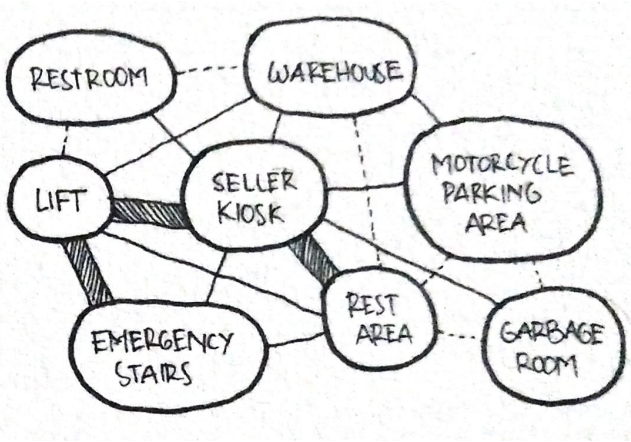


MACRO BLOCKPLAN

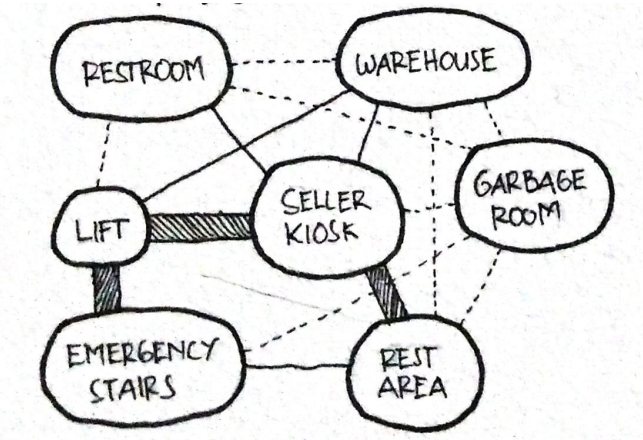
1ST FLOOR



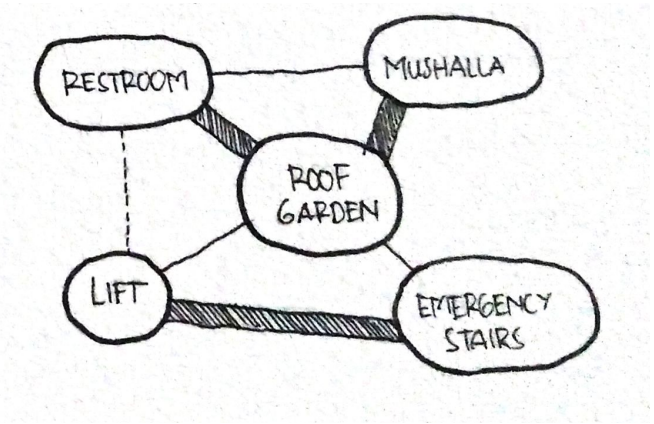
2ND & 3RD FLOOR



4TH & 5TH FLOOR

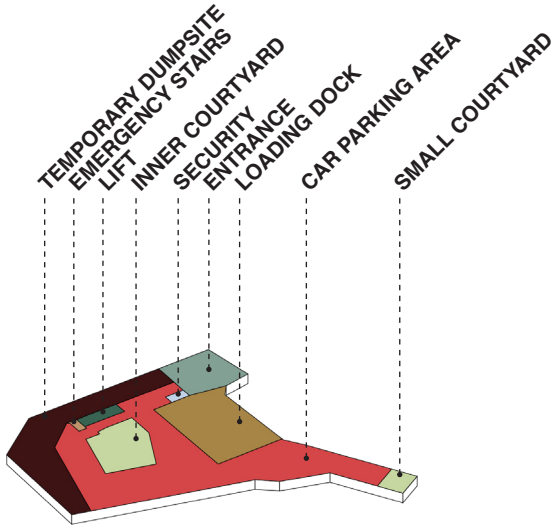


6TH FLOOR

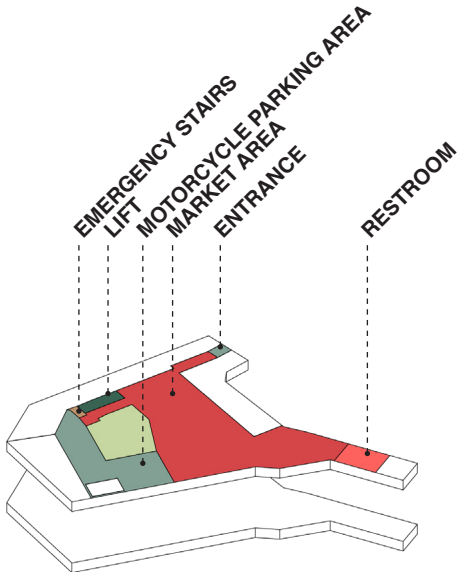


MICRO

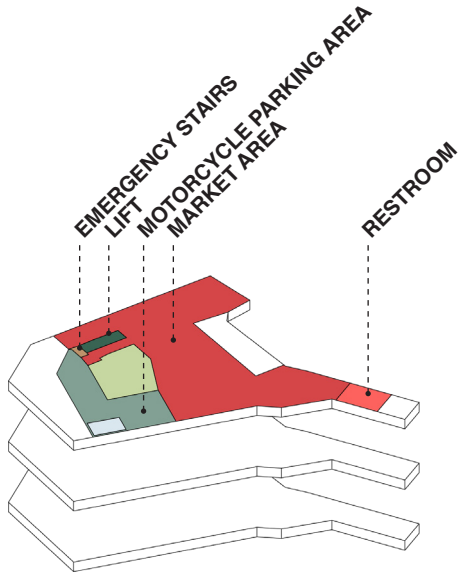
CONNECTIVITY DIAGRAM



1st FLOOR

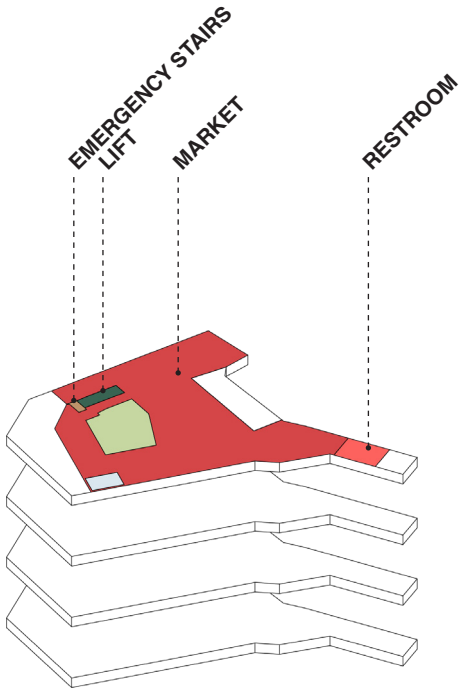


2nd FLOOR

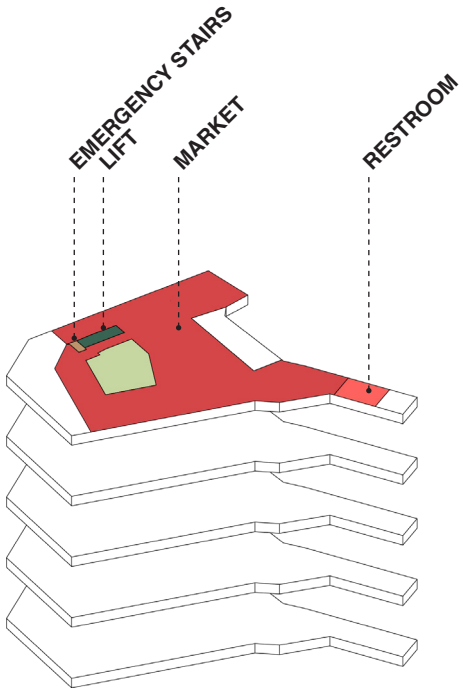


3rd FLOOR

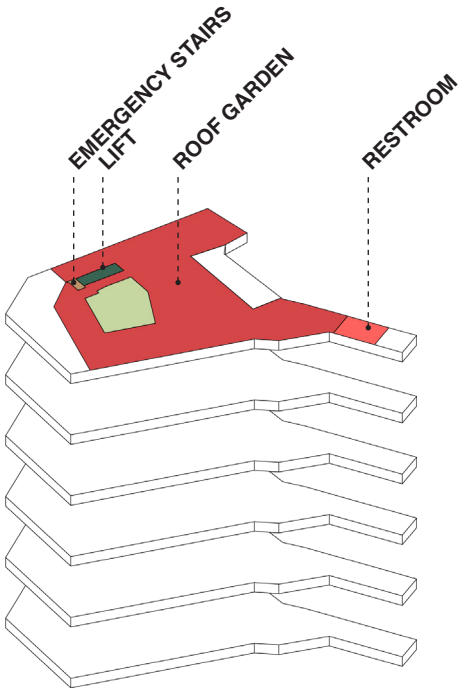
MICRO BLOCKPLAN



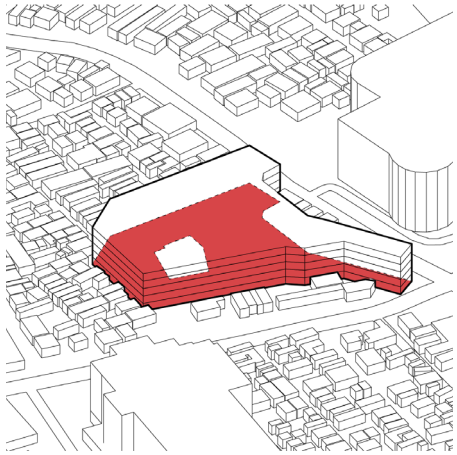
4th FLOOR



5th FLOOR

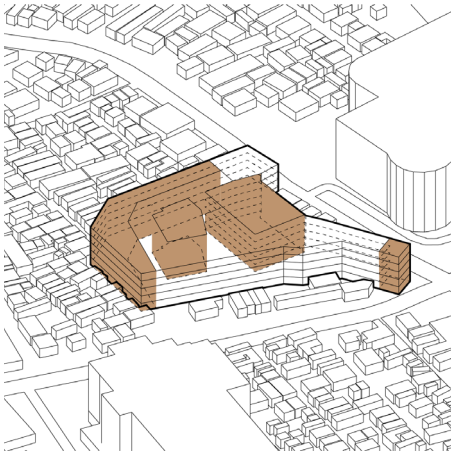


6th FLOOR



BCR

The building coverage ratio (KDB) for commercial building on that area is about 60%. The total width of the site is about 6636 M^2, and that means 60% of 6636 M^2 is 3981 M^2



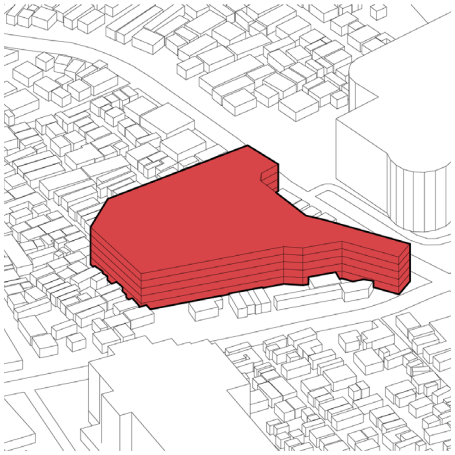
FAR

The building's floor area ratio (KLB) regulation is divided into two categories. If the streets is larger than 10 meters, than the KLB is 1,8 and if the streets is around 6 until 10 meters, then the KLB is 1,2.

While the Kranggan Streets is about 12 meters, that means the KLB applies into the site is 1,8.

5550 **x 1,8 = 9.**990 **m^2**

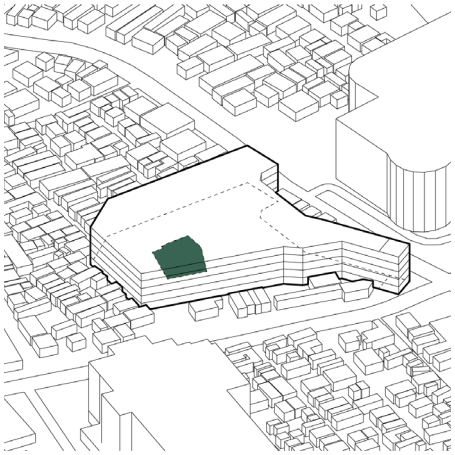
That means the total width of all floors allowed are 11.944 m.



BUILDING HEIGHT

The regulation about commercial building height is also divided into two categories. First, if the street is wider than 10 meters, the maximum building height allowed is 15 meters. If the street is between 6 until 10 meters, the building height allowed is 10 meters.

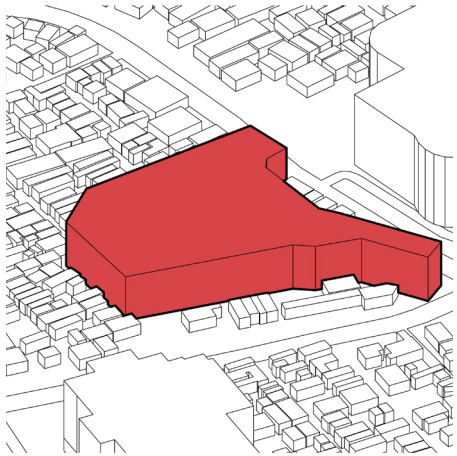
Kranggan street have a width of 12 meters, so the building is allowed to be 15 meters high.



KDH

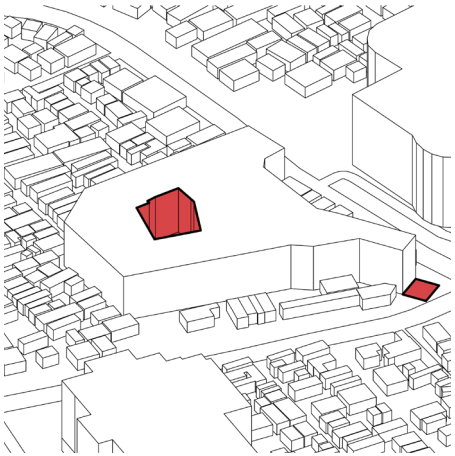
The green basic coefficient (KDH) on site is 10% (minimum). If the site is 5550 m^2 wide, then the minimum KDH is about 555 m^2.

REGULATIONS



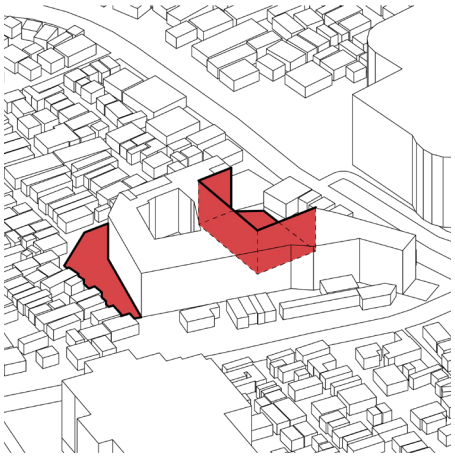
EXISTING MASS

The form analysis begins from the building's existing mass



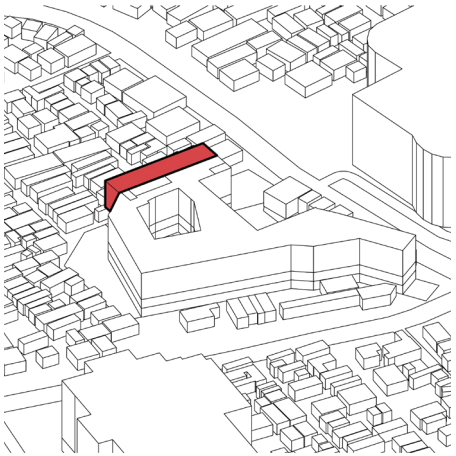
GREEN AREAS

Create a void in the center of the building as a path for sunlight and enhance the wind circulation. Also add small courtyard in the corner of the restroom to prevent the areas from high humidity.



UTILITIES

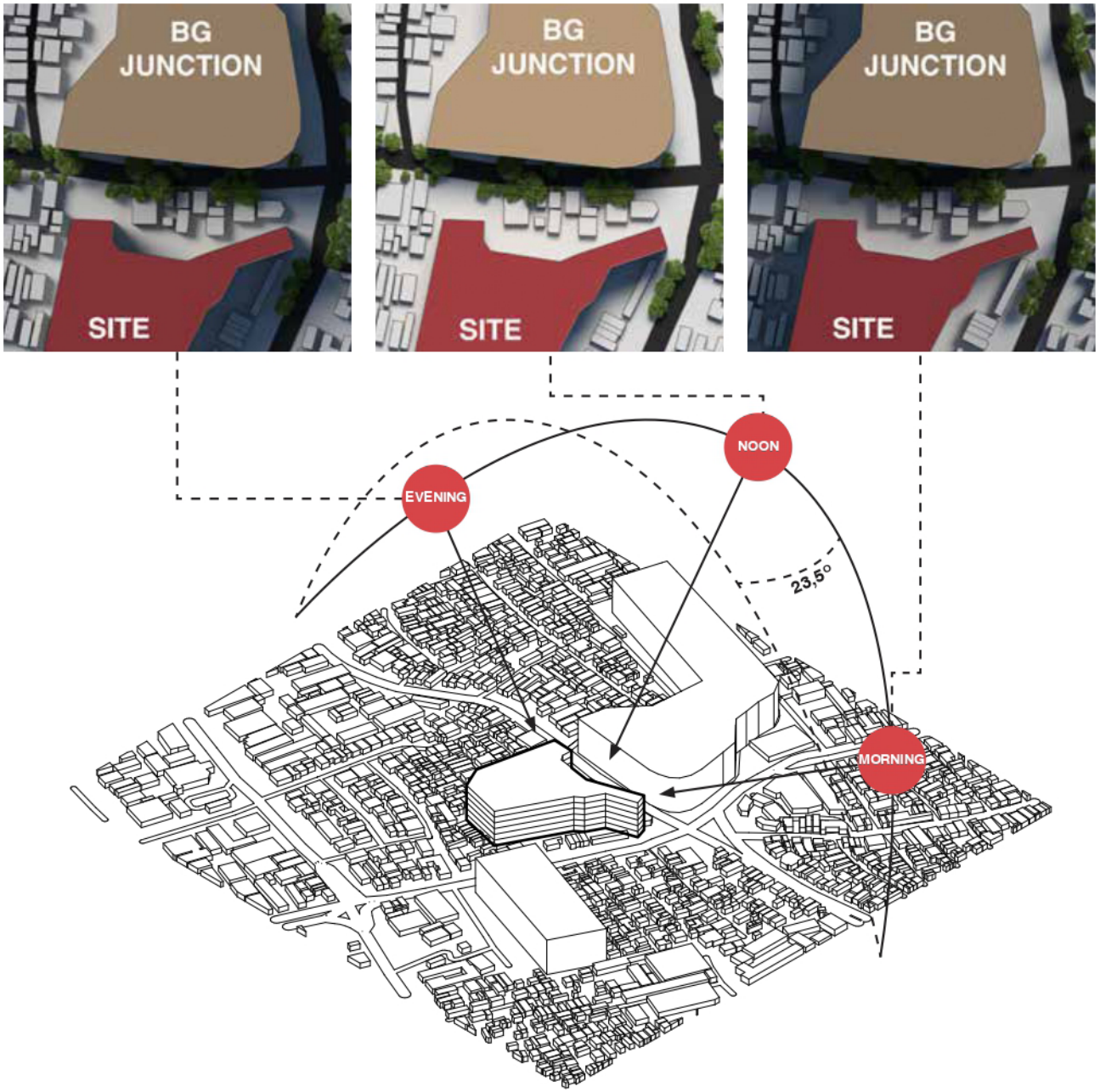
Reducing building's mass to create a outdoor space for temporary dumpsite behind the building and loading dock near the entrance.



EXTENDING FLOOR AREAS

Extending the 3rd until roof floor to add space for the market and the green roof.

FORM TRANSFORMATION

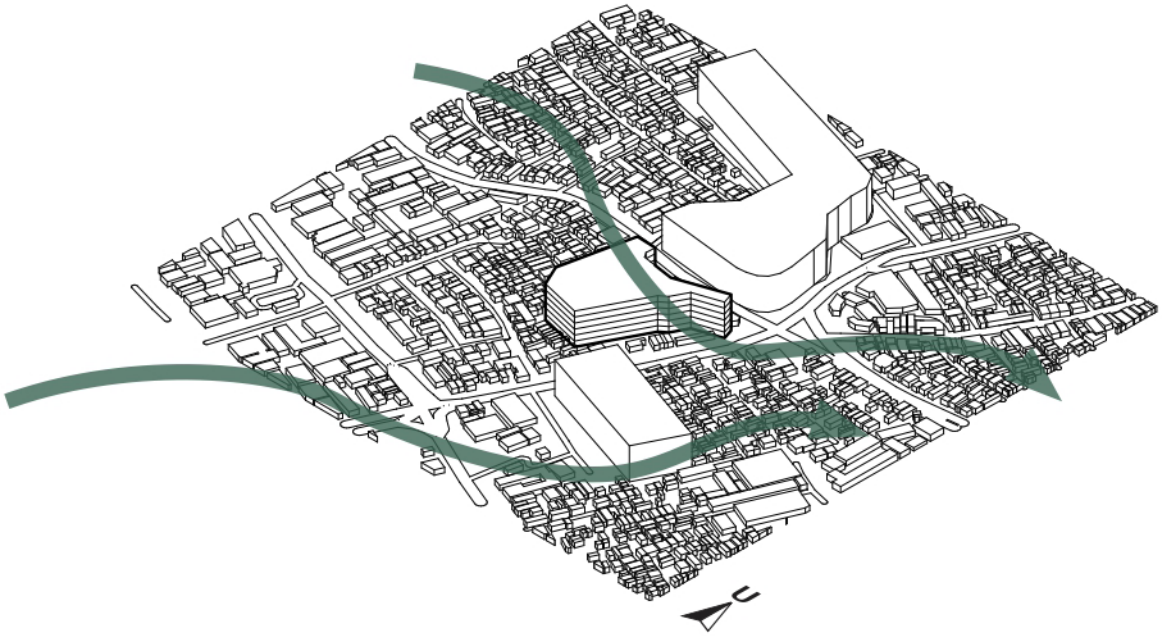


The best day, or the day where the sun is little bit friendly towards the site, is in June. In June (or somewhere around it), especially in its 21st, the sun direction is 23,5 degrees north. This sunlight is being blocked by BG Junction which is about 20 meters high. The trees are also taking part of this.

There are a couple of trees beside the street and they are too, play some roles here. The trees beside the entrance of the market is, even just a little, also blocking the sunlight in the morning. The sun is going from the east while the tree are also in the east side of the entrance.

Any day or month other than June 21st, the BG Junction Mall play such a big role when it comes to covering the sunlight, except in the midday where the sun is right above people's head. But, the higher floor of the market would not be covered by BG Junction and that can be solved by adding some shading or secondary skin to protect the buildings interior from direct sunlight.

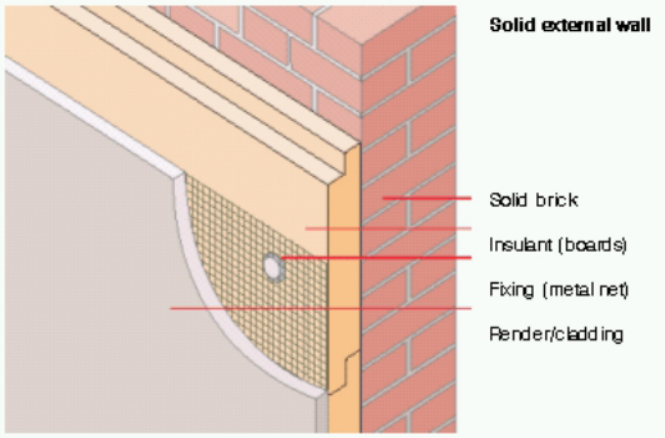
SUNLIGHTING



According to a climate data taken from The Weather Channel, most wind in Surabaya is coming from the West and South direction. This wind can be an advantage aspect for this design as a natural cooling effect because Surabaya have a pretty high temperature.

On the other hand, these winds can be a serius problem because they are also transferring heat from the outside to the inside of the building if these winds keep blowing the same part of the building. To prevent this situation, the west and south wall will be insulated to prevent the increasing value of heat transfer into the building. The insulation material which will be considered is polyester because it has a low R-value which is R 2,194 and the company who sell it is exist in Surabaya.

Mon 12	35°/25°	Partly Cloudy	10%	ESE 22 km/h
Tue 13	34°/26°	Mostly Sunny	10%	ESE 27 km/h
Wed 14	35°/26°	Mostly Sunny	10%	ESE 21 km/h
Thu 15	35°/26°	Partly Cloudy	20%	E 16 km/h
Fri 16	34°/26°	Partly Cloudy	20%	E 14 km/h
Sat 17	34°/26°	Partly Cloudy	20%	ESE 17 km/h
Sun 18	34°/26°	Partly Cloudy	20%	ESE 19 km/h



Insulation diagram

polyester insulation

WIND

The first floor which is used as parking areas and inner courtyard, is the only floor where people can get into the building. The main entrance is still at Kranggan street. Unlike before, this main entrance is the entrance for vehicle and pedestrian walker.

LOADING DOCK

CAR PARKING AREA

TEMPORARY DUMPSITE

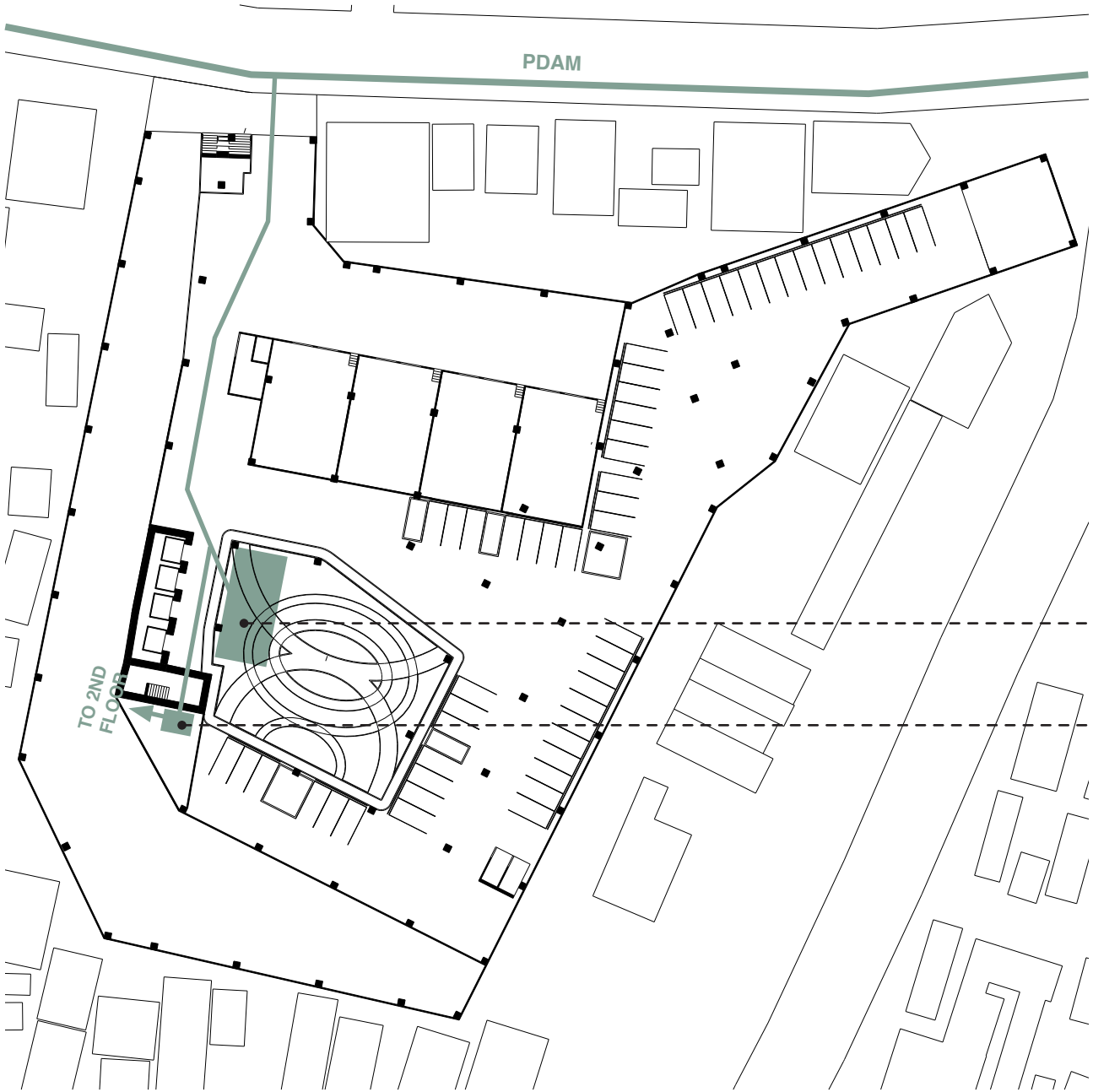
GARBAGE TRUCK'S CIRCULATION

CAR'S CIRCULATION

MOTORCYCLE'S CIRCULATION

PEOPLE'S CIRCULATION

ACCESS & CIRCULATION



CLEAN WATER

The clean water are taken directly from city's water pipes. This water are streamed to underground water tank which located under the courtyard. After filling the tank, the water are pumped up until it reaches sixth floor.

UTILITIES

BLACK WATER

The human black water a.k.a human waste are taken directly from the restroom pipes which lead to the septic tank. Then, the remaining water are streamed to the control tank which will lead to the city's underground sewer.

UTILITIES

ELECTRICAL

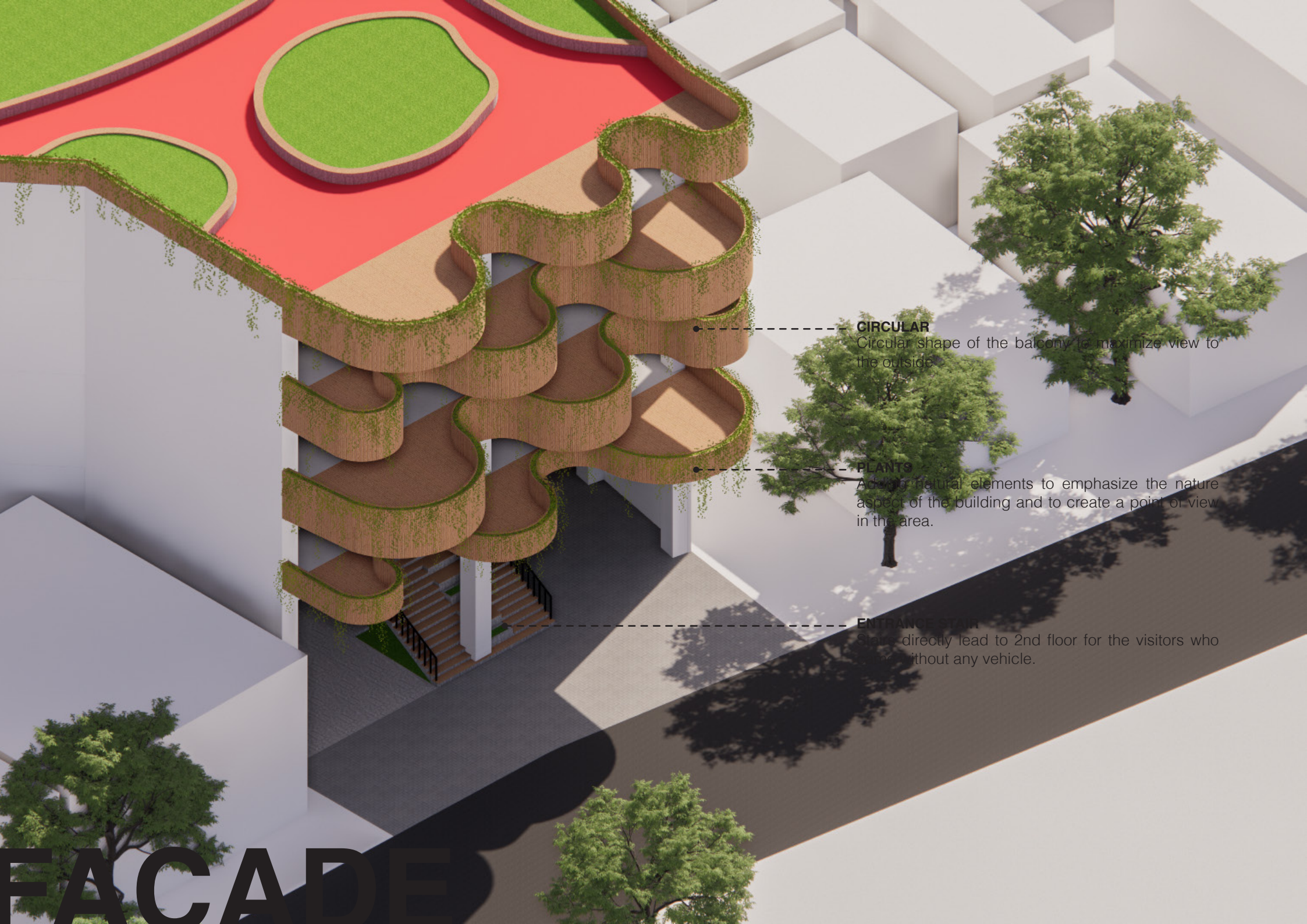
The electricity are taken from city's main cable. This electricity are taken from PLN and streamed directly to all the electrical facilities inside building. There is also electrical generator which will be useful when there are blackout on the site.

UTILITIES

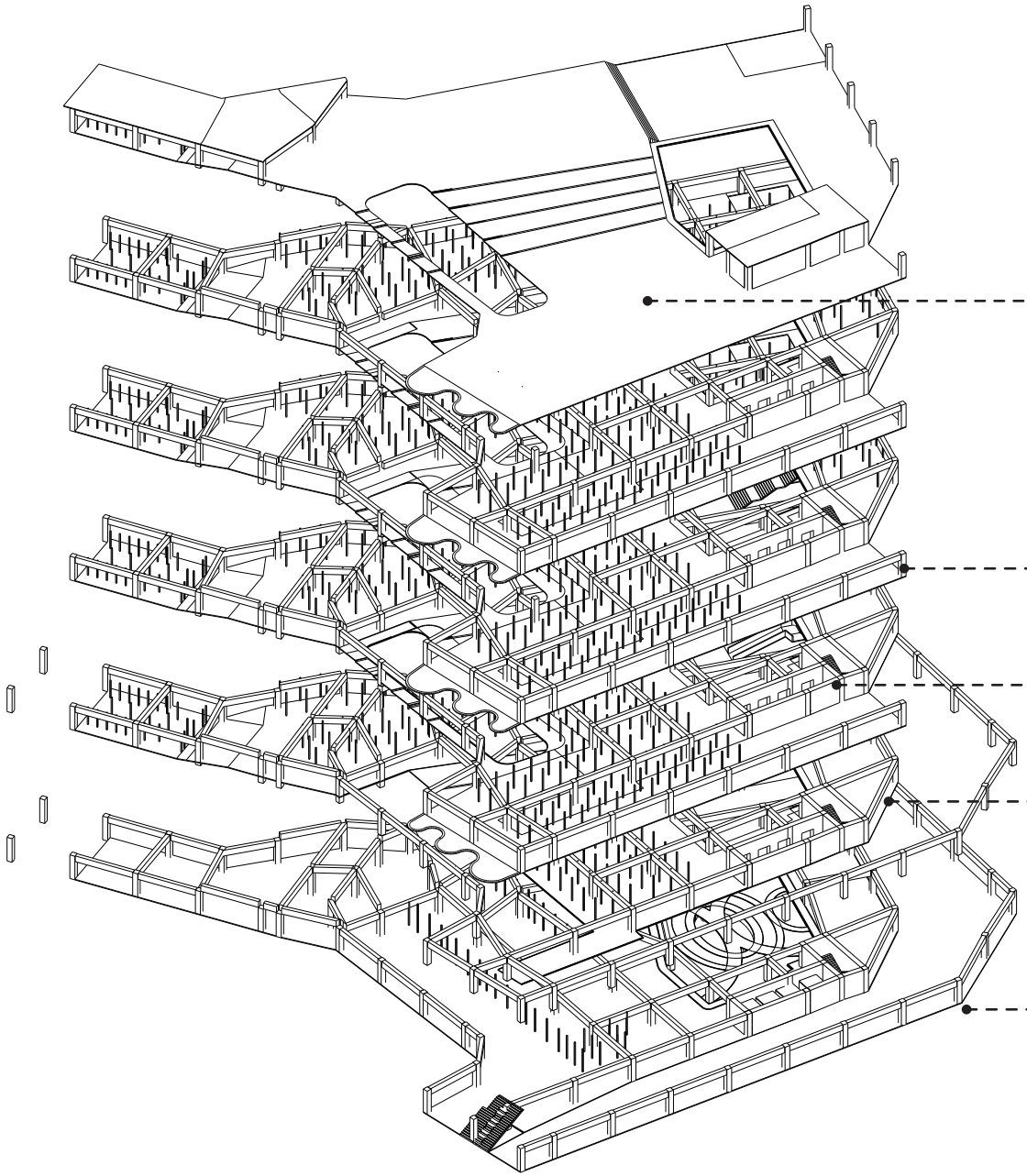
WASTE

There are small temporary dumpsite which will collect all the waste from the building. This dumpsite will have their own room so the smell won't disturb other facilities such as parking area or the courtyard.

UTILITIES


CIRCULAR
Circular shape of the balcony to maximize view to the outside.
PLANTS
Adding natural elements to emphasize the nature aspect of the building and to create a point of view in the area.
ENTRANCE STAIR
Stairs directly lead to 2nd floor for the visitors who arrive without any vehicle.

FACADE



ROOF GARDEN

The roof of this building is being changed to be a roof garden and as a communal area for the visitors

CONCRETE COLOUMN

The main coloumn is 50 cm x 50 cm and made of reinforced concrete.

STRUCTURAL WALL/BUILDING CORE

The building elevator/lift and emergency stairs is surrounded by structural walls/core.

FLOOR PLATE

The floor plate is made of reinforced concrete.

FOUNDATION

The foundation used is the existing foundation of the building itself, which is a foot plate foundation.

STRUCTURE

CON-
CEPT

THE CITY OASIS

“to give people a proper marketplace and changing the way they live by bring them closer to natural environment”

OUTSIDE IN

A market is a place full of people. This limitation of space can cause a health, temperature, and visual comfortability issue. To solve this, instead of using a walls as a separator between interior and exterior space, the buolding will use other architectural element such as wooden panel.

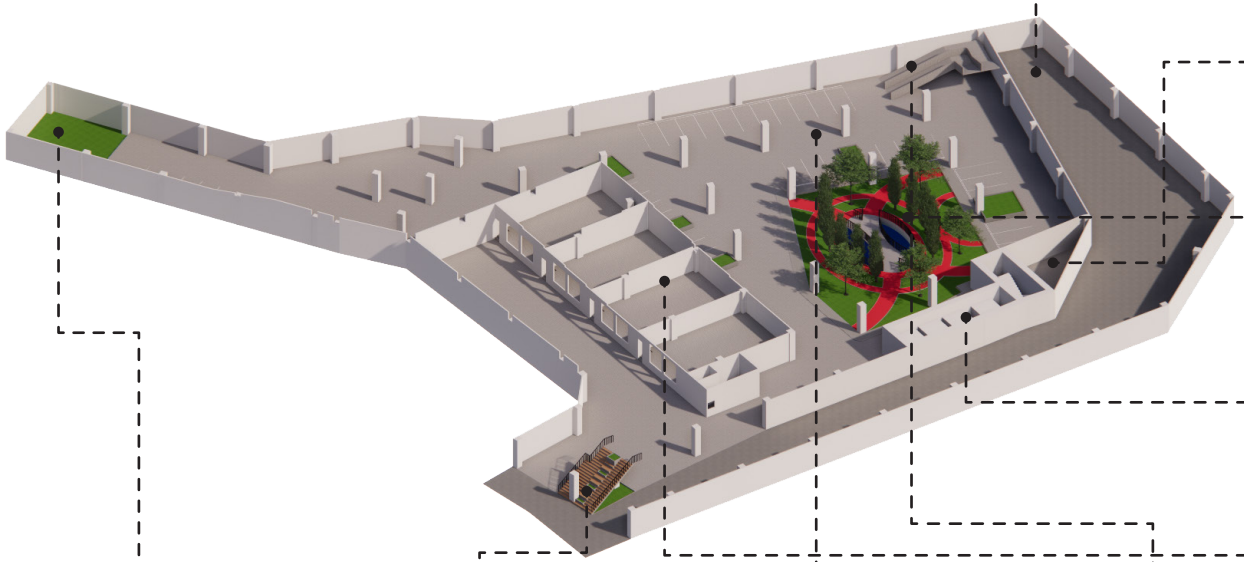
PASSIVE COOLING

As mentioned before, market is a very crowded place which will affect the air quality and temperature inside. The courtyard can be a problem solver when it comes to air circulation.

SENSORY STIMULATION

The natural integration on the building isn’t just on the visual aspect. Human have a five senses which can be stimulated with natural element. The main important senses included is visual, sound, and texture.

MAIN CONCEPT



TEMPORARY DUMPSITE

The temporary dumpsite is a place to store the waste from the market before the waste truck come over and took the job.

UTILITIES ROOM

This room is used to keep and maintain utilities machine and tools such as electricity, water pump, hydrant, etc.

INNER COURTYARD

The courtyard is the main focus of the first floor. This place has many impact such as green areas, passive cooling, rainwater absorbtion, or even visual aesthetic.

ELEVATOR

The elevator is extend across all floors and become the primary circulation facilities. The second facilities for floor-to-floor circulation is the ramp.

LOADING DOCK

Small loading dock for distributing and transporting commodities in the market.

SMALL COURTYARD

This small park located in the corner of the building is to prevent this corner to become humid and keep the air flows.

ENTRANCE STAIR

This stairs exist to welcome the visitors and as a access for people who don't bring a vehicle so that they can enter the market without entering the parking area.

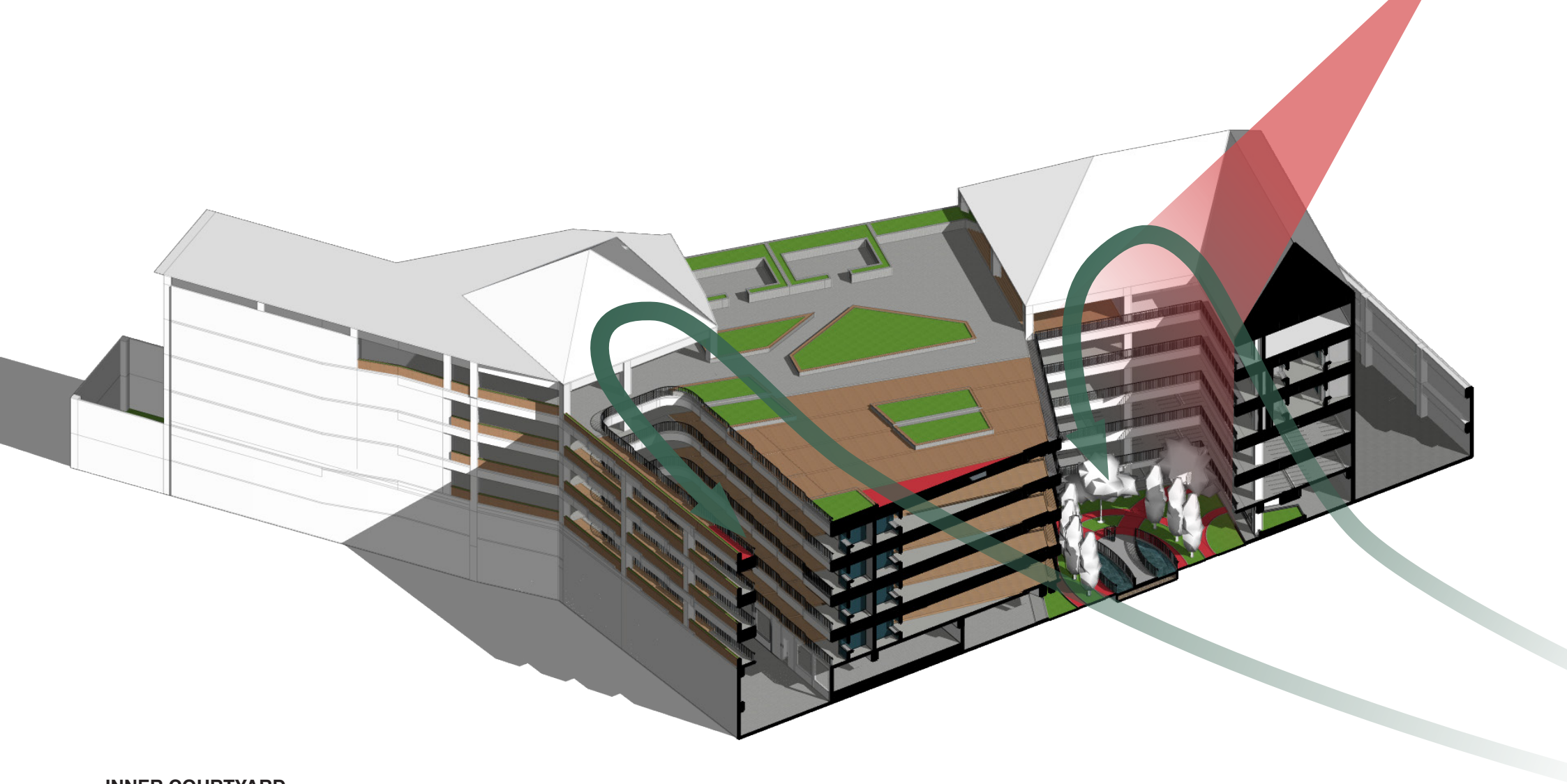
CAR PARKING AREA

Car parking area is located in first floor to ease the access for this big vehicle.

RAMP TO SECOND FLOOR

The motorcycle parking area is located in the 2nd and 3rd floor. This ramp is how these people with motorcycle have access to park their bike.

SITE CONCEPT



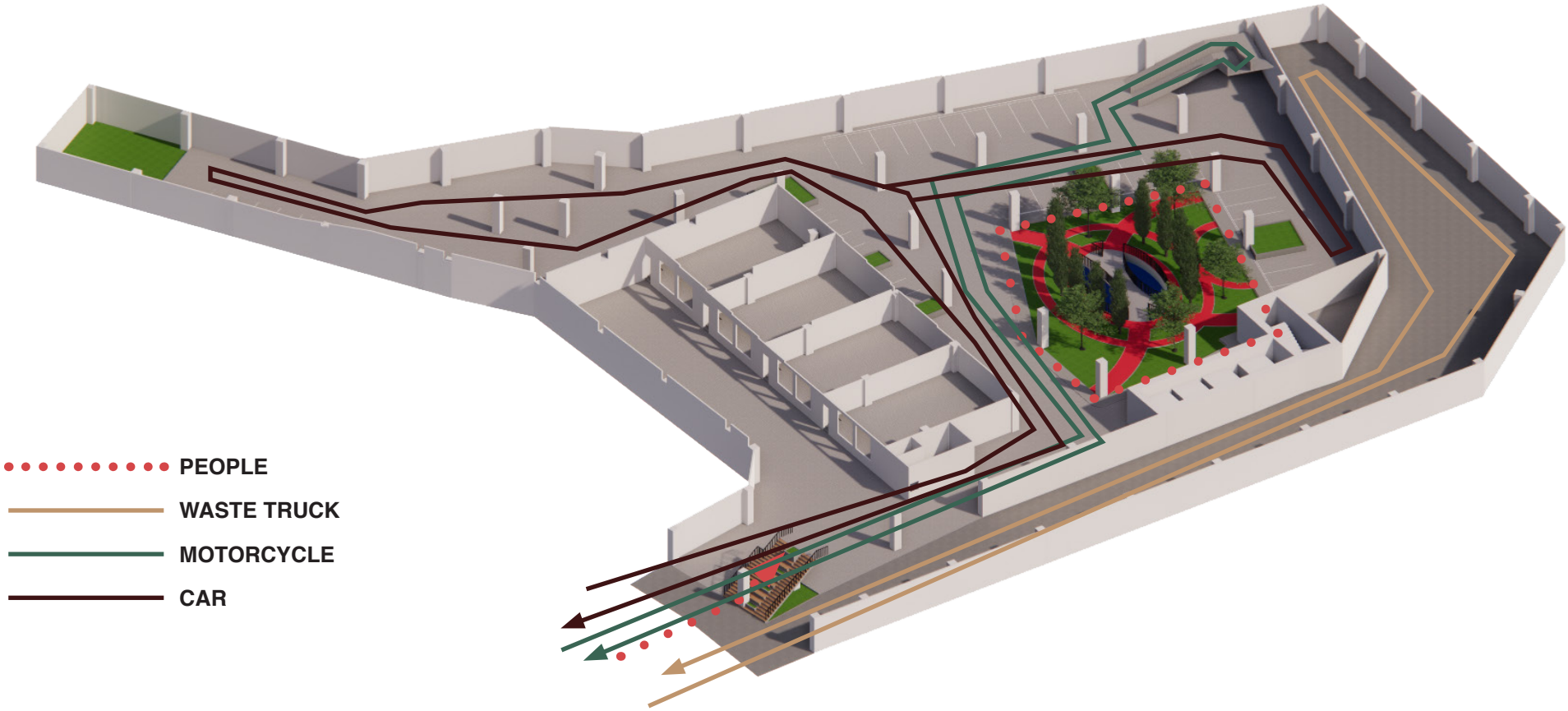
INNER COURTYARD

Market is oftentimes considered as a dirty and nasty place. Outdoor market, which is well known in a coutry like Indonesia, is already a not-so-cozy place to buy or sell something. When a place like market is put inside closed room or building, the situation is most likely getting worse.

Aside from being a visual aesthetic, the courtyard hopefully could reduce the humidity and temperature inside the market. This also eliminate the impression of dirty market which most people would likely to think.

This courtyard is also can be used as a green areas for the dense metropolitan city like Surabaya. The rainwater would be absorbed into the ground so that the water flooded issue which often happens around the site will slowly dissapear.

SITE CONCEPT

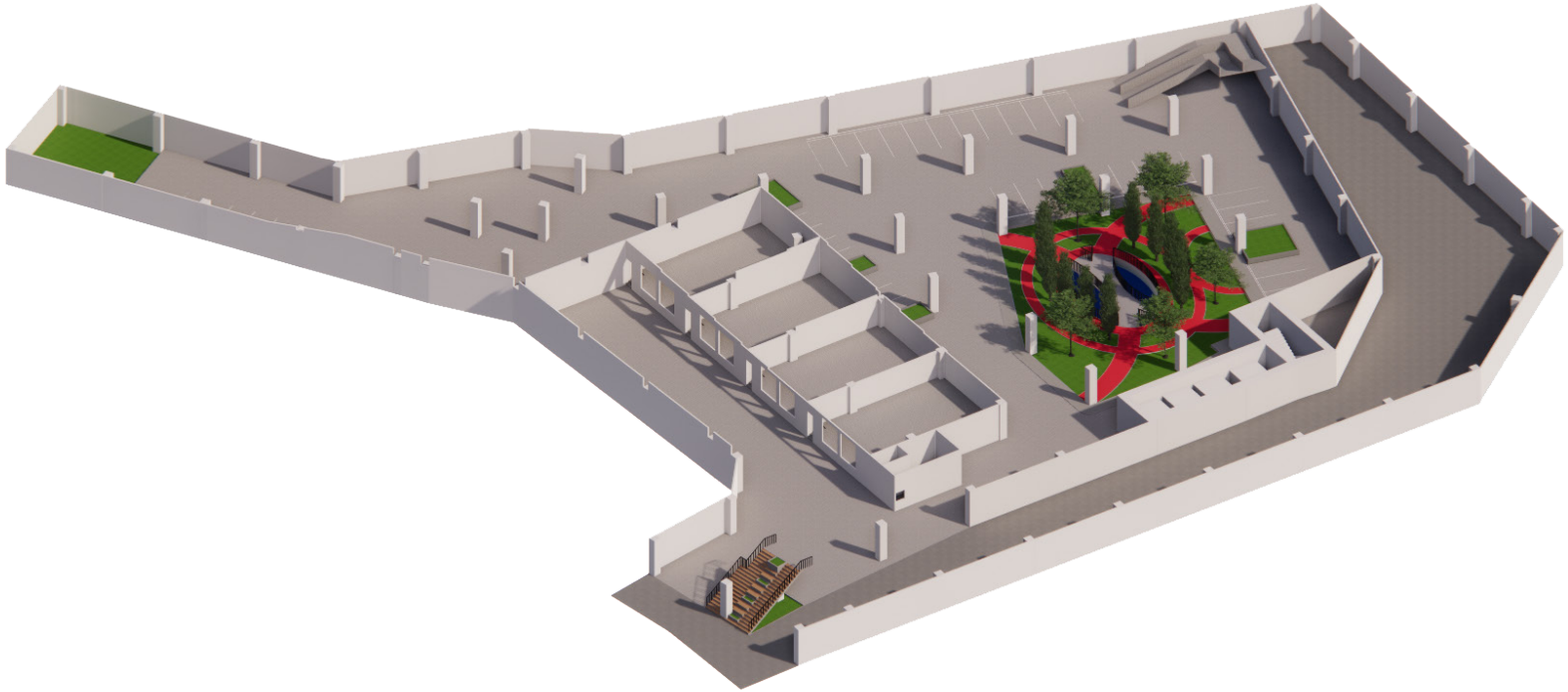


ACCESS & CIRCULATION

The main entrance is divided into three categories: people, motorcycle, and car. The parking areas mostly contain a lot of motorcycle because most user of this building is a not-so-rich person who could afford a car.

There are also pedestrian way for the people in this first floor. The pedestrian are marked with different material so that they can see which one is used for pedestrian ways and which one is for vehicle areas.

SITE CONCEPT



Ketapang kencana (Terminalia mantaly) is chosen because of its brach spread out like an umbrella and it is suitable for blocking the direct sunlight.

Glodokan tiang tree (Polyalthia longifolia) is added to create a sense of enclosed space in the courtyard.

Korean lawn grass (rumput jepang) to prevent a puddle in the courtyard and as a aesthetic element.

SITE CONCEPT

GREEN AREA

The courtyard of the building can be used as green areas where rainwater will be absorbed into the ground. This method is expected to solve flooding problem around the site, especially in Kranggan street.

Other than that, the courtyard can become a natural element in visual aspect of the users. This is also one of the implementation of the Biophilic approach in this redesign project. The trees in the courtyard can be used as hearing stimulation for the user. The sound of branches being hit by wind can make the atmosphere inside the building more natural.

LOADING DOCK

The sellers in this market sometime need to distribute their commodity to other cities. This small loading dock will allow them to transport their stuff from the market to the pickup car. The loading dock are located in the corner of the 1st floor and can contain at least three pickup cars.

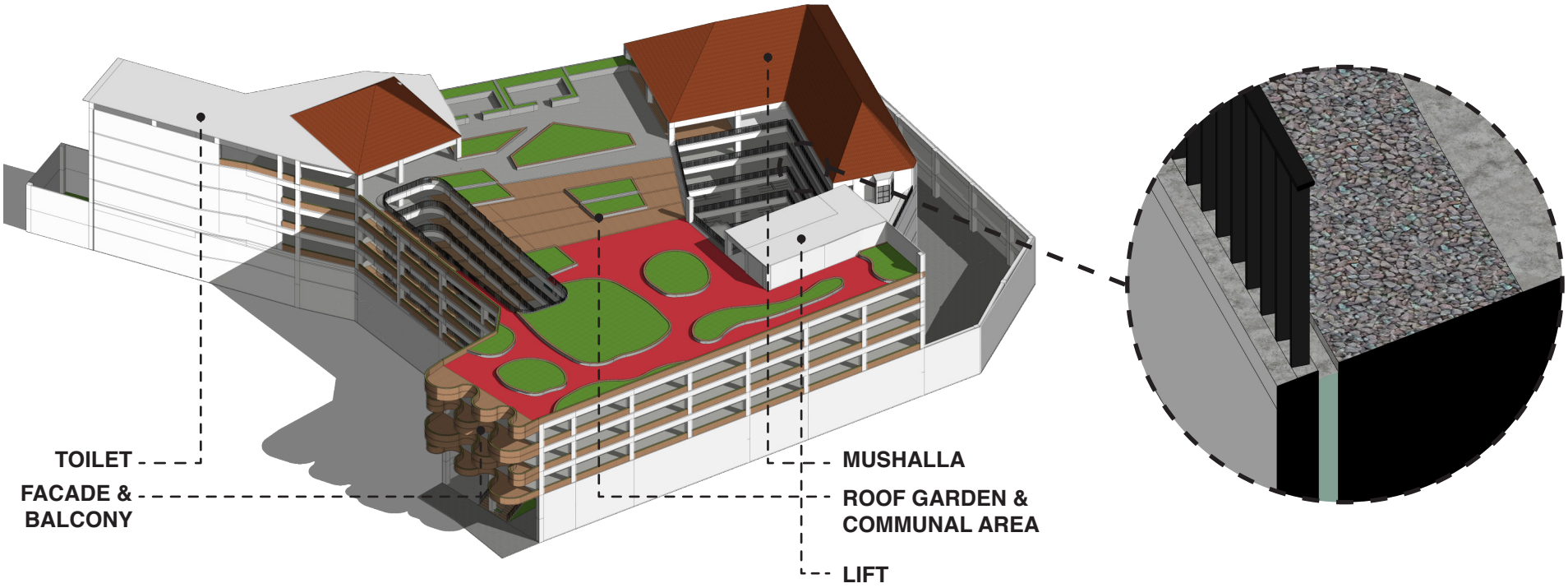
PEDESTRIAN WAY

The parking area is divided by pedestrian ways so that people can differentiate which one is for vehicle and which one is for people to walk. The difference between two of them is, the pedestrian is using concrete tiles and the parking area/vehicle area is using bare concrete plaster.

This different materials is also to solve most common problem in parking area where vehicle and people circulation are collide to each other because of unclear areas of circulation.

POND

The oval-shaped pond in the center of the courtyard have a role as a passive cooler of the air circulation. This pond will be added a small water fountain around it to generate a water splash sound. This water sound is a implementation of Biophilic approach, which is to stimulate the senses of user with natural aspect.



ROOF GARDEN

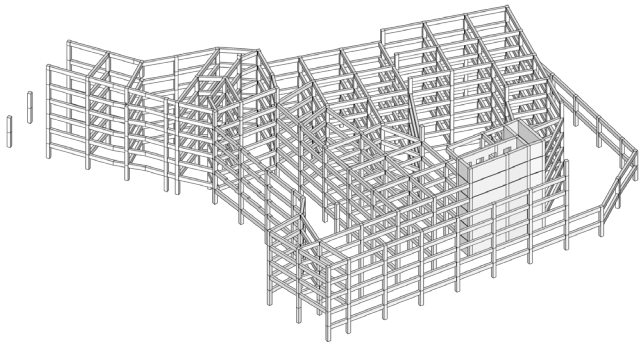
The top floor of this building, which is the 6th floor, is changed into a roof garden. This roof garden can be the point of view and uniqueness of the market other than its inner courtyard. Here, people can enjoy a situation that feels like they're in a park in the middle of an urban environment, which is also an implementation of the concept.

There is also a small mushalla for both man and woman in this floor. The mushalla is placed on the uppermost floor so that people will have to pass through the market in order to get up there, which also a strategy to attract people to buy in this market.

GRAVEL & WATER DRAIN

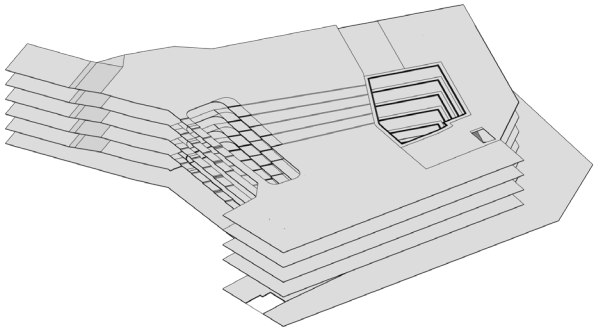
The oval-shaped pond in the center of the courtyard have a role as a passive cooler of the air circulation. This pond will be added a small water fountain around it to generate a water splash sound. This water sound is a implementation of Biophilic approach, which is to stimulate the senses of user with natural aspect.

FORM CONCEPT



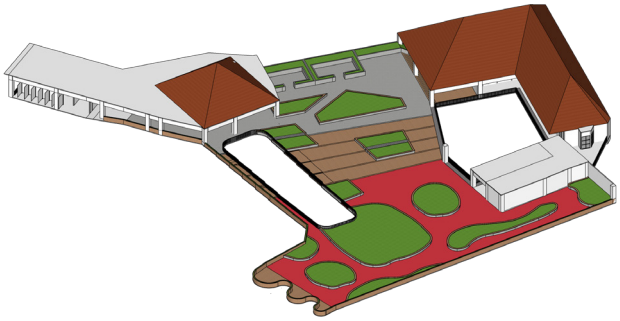
COLOUMN AND BEAM

The building uses existing coloumn which is 80/80 cm and 70/100 cm beam for its structure. There is also structural walls/core which is used for lift and emergency stairs.



FLOOR PLATE

Floor plate is made of concrete with 12 cm thickness.



ROOF

6th floor is a roof garden and wide communal area with certain facilities like mushalla and restroom. People can access the roof by lift.

STRUCTURE CONCEPT

CAR PARKING AREA

This area is located in the first floor and can contain up to 20 cars. The parking area is designed to be an open parking area which allows natural elements to come into the building.

This natural elements can be air, rainwater, or sunlighting which is also an implementation of Biophilic approach which is to insert natural element into the building.

ROOM CONCEPT

VISUAL CONNECTION WITH NATURE

One of the elements of biophilic approach that applied to this parking area is visual connection with nature. It is already achieved by creating a courtyard inside the parking area so that these people can see and enjoy the rare moments where parking areas are close with natural elements.

THERMAL & AIRFLOW VARIABILITY

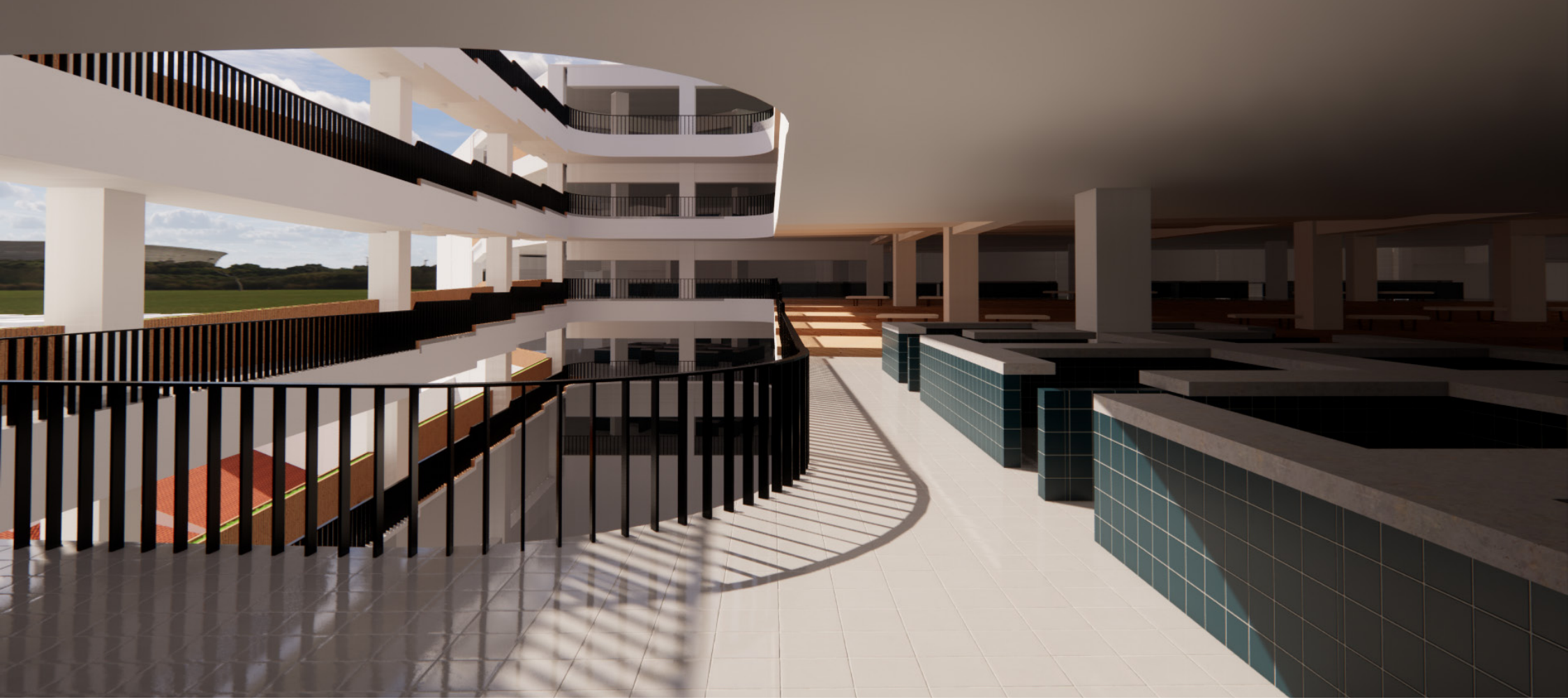
The first floor is created for parking and main entrance into the building. Large void in this parking will create an enough room for ventilation so that the air inside this room will not be trapped inside. When the air is flowing nicely, the temperature will slowly decrease.

PRESENCE OF WATER

The courtyard have a small circular pool at the center of it. This pool will be installed with a couple of small water fountain so that the sound of splashing water will enhance natural atmosphere around them.

CONNECTION WITH NATURAL SYSTEM

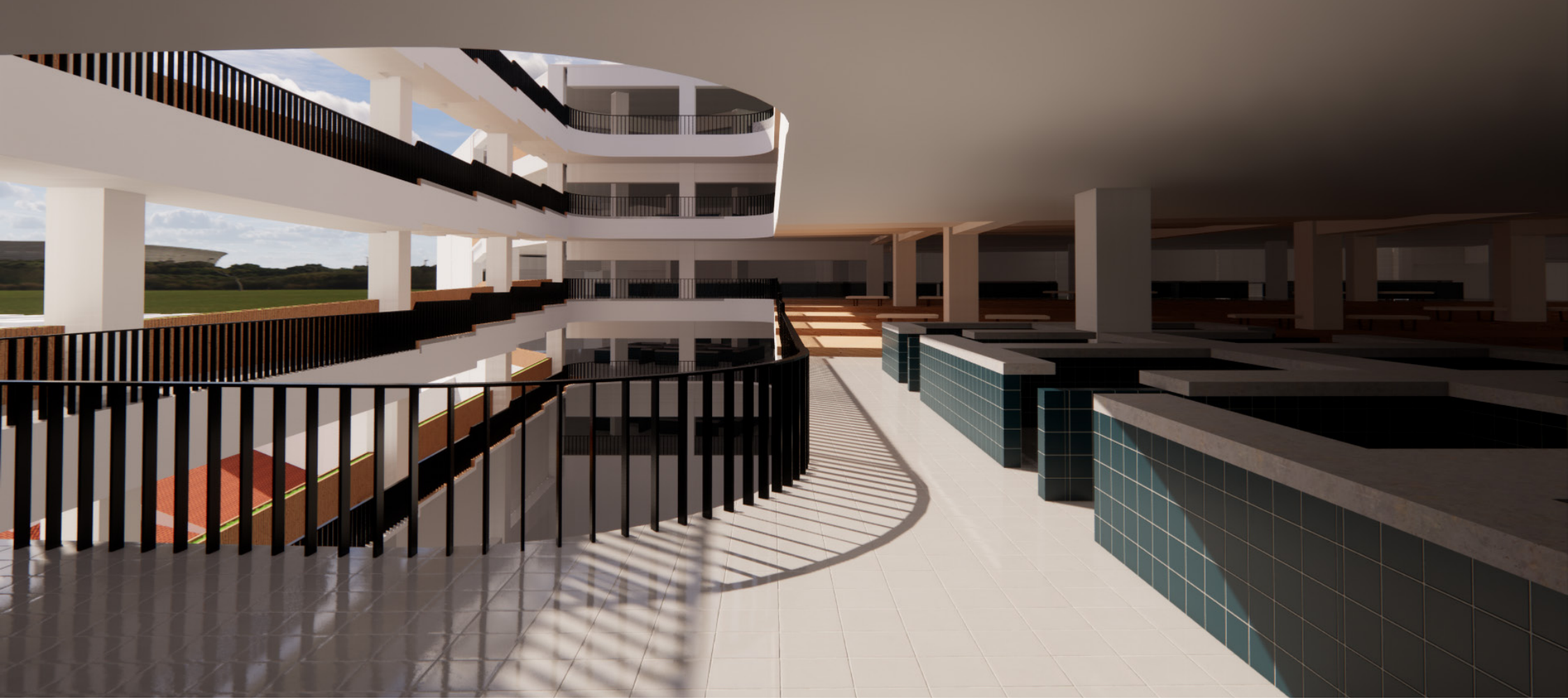
The courtyard can become a place to connect the user back to natural system. Seasonal changes can be seen from the courtyard. People would know whether it is hot or rainy outside just by watching at the courtyard.



MARKET

The market or buy and sell area consist of single stand/kiosk for the seller. This kiosk have a window and openings on its left and right and on its front.

The left and right openings/windows is to keep the social interactions between sellers. The front opening is added as a place for buy and sell activities between buyers and sellers.



VISUAL CONNECTION WITH NATURE

The visual connection with nature can be achieved by putting two views outside from the market. One view is headed towards the front of the buildings which will reveal the outside environment for the visitors, keeping them aware of the current situation outside the building even when they're inside the building. The second view is headed towards the inner courtyard which filled with a lot of trees and plants.

THERMAL & AIRFLOW VARIABILITY

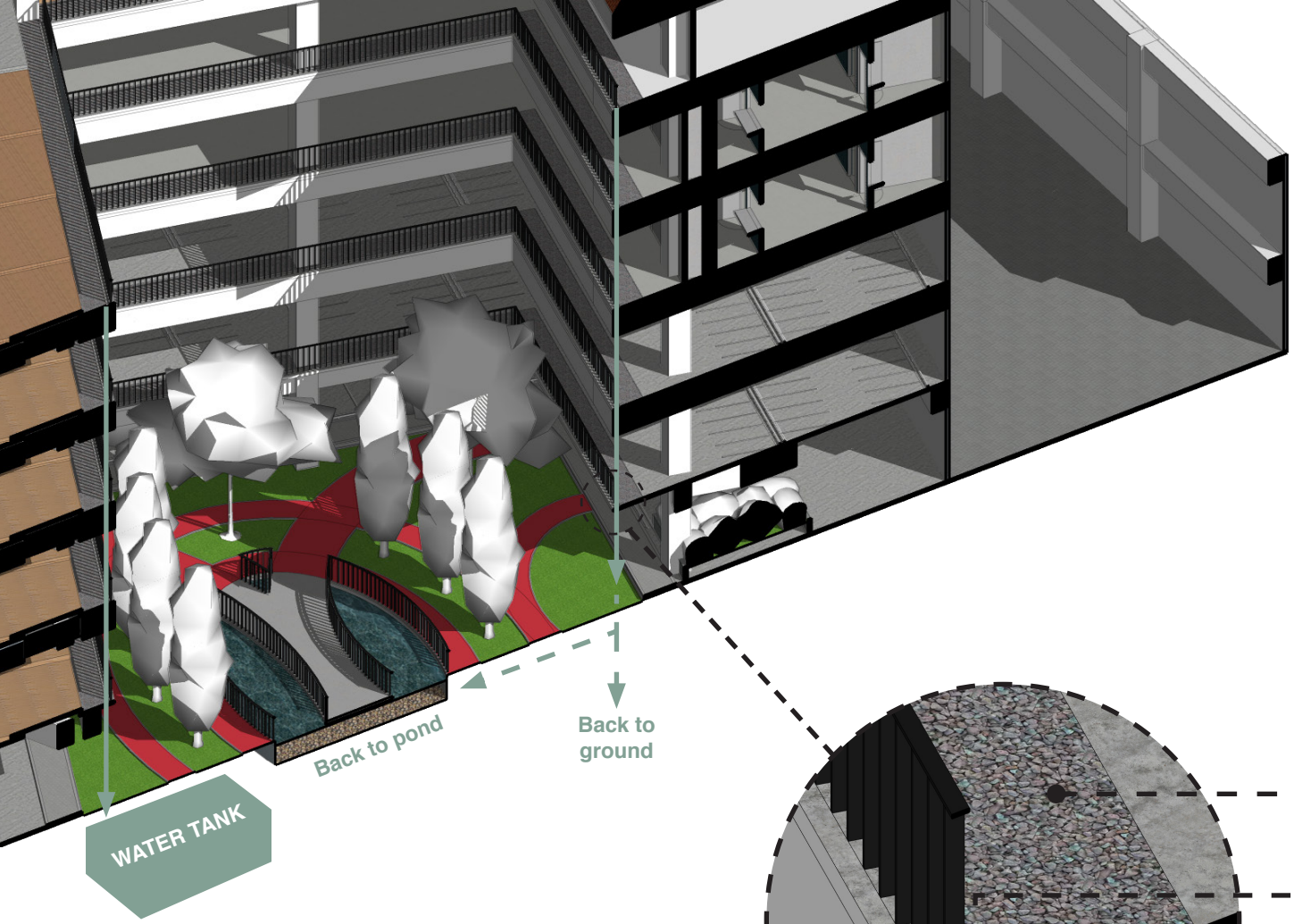
This is almost the same on every floor because every floor is connected with large void in the centre of the building. Every floor, except the first and second, is also have a open balcony. These two openings can create a better airflow inside the building.

PROSPECTS

Prospects is one of the aspect of biophilic design. Prospects means to give a big-picture of understanding of the environment to the people. This can be achieved by creating a views that covers a long distance by removing visual bariers like walls, or by creating an open space..

DINING AREA

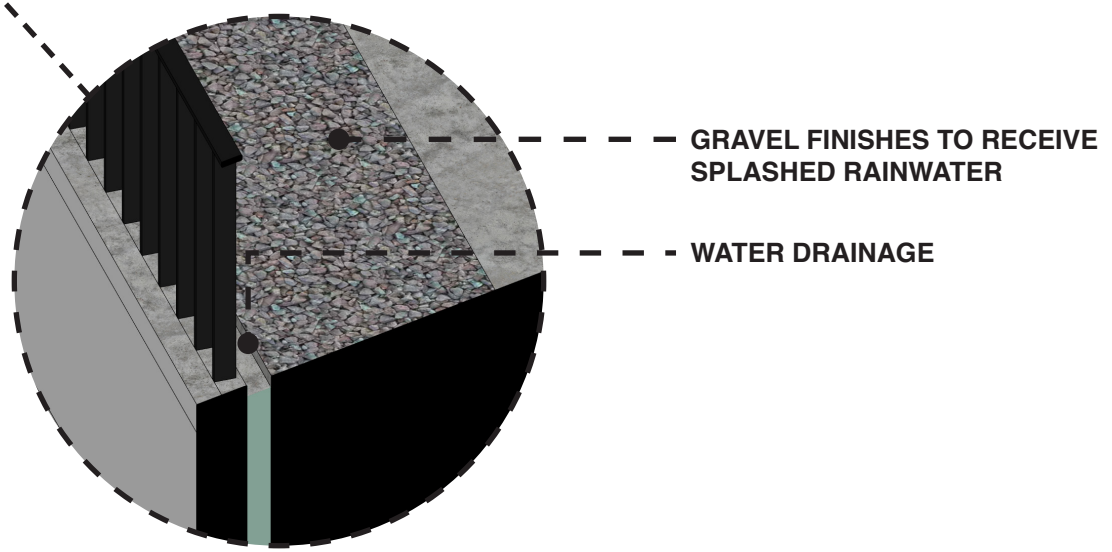
The dining area consist of dining tables and dining chair which can be used as eating, drinking, or just rest after walking around the market The resting room/dining room is side by side with the market area. Because of that, the implementation of biophilic approach is almost the same as the market area.



RAINWATER

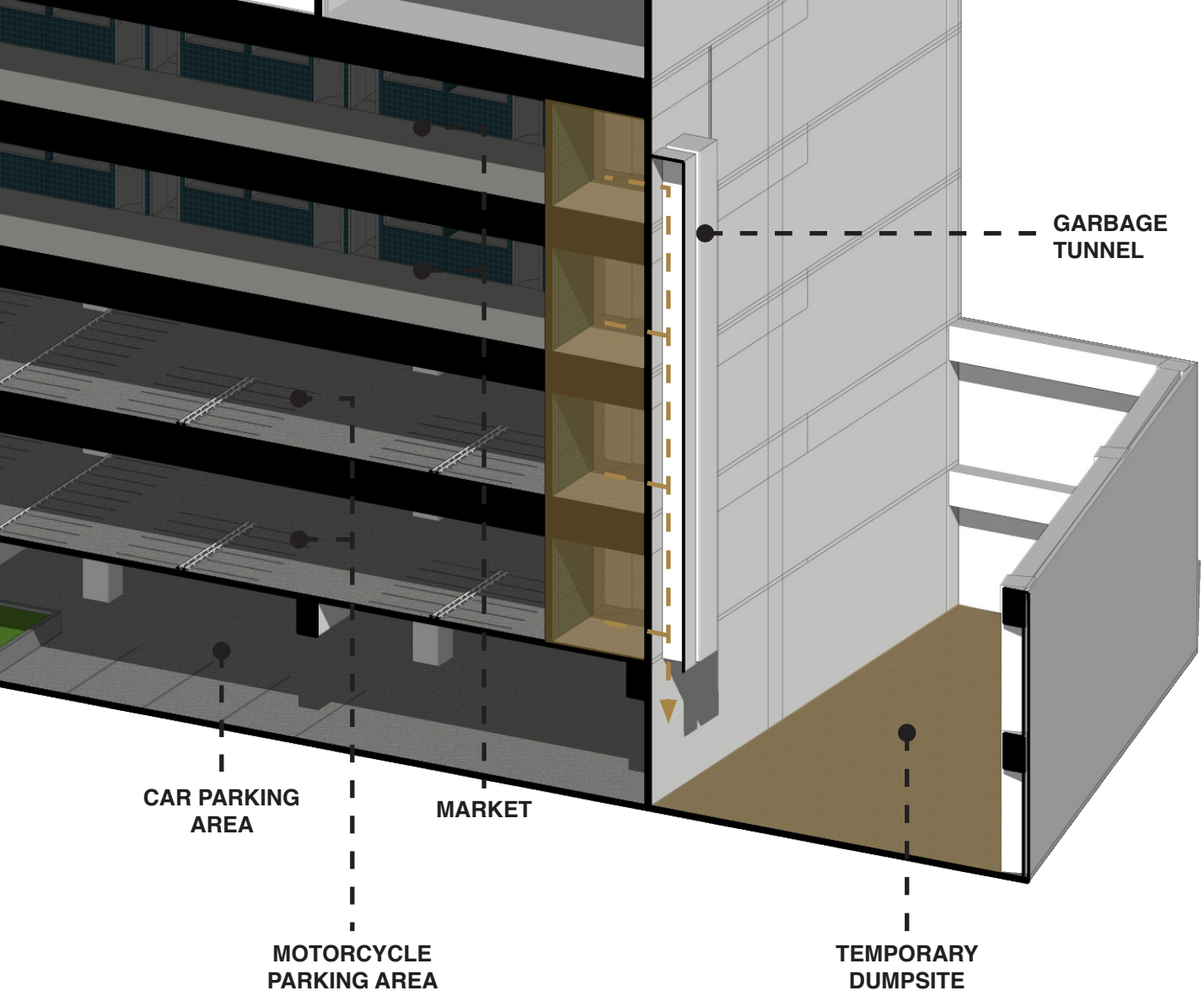
To respond the rainwater splashing from the void, the edge of the floor is finished with gravel which lead the rainwater to the water drain. Then, the water drain will flow the water to the underground water tank.

The rainwater will keep splashing to the floor, but this rain water will not affect the activities inside the building because this rainwater will only wet the gravel area, so the people won't get affected.



Rainwaters that dropped/splashed onto the gravel floor will be streamed downstairs until these waters reach the ground of the courtyard. From here, the water can either be seeped into the ground again, or be recycled again inside the water tank, or also be filling the pond which will be seeped into the ground again if the pond reaches certain capacity.

UTILITIES CONCEPT



TEMPORARY DUMPSITE

As mentioned in the blockplan earlier, the southern part of the site will be removed and changed into a temporary dumpsite for the market. This temporary dumpsite is useful for the sellers, buyers, or the building staff who want to store the waste/garbage from the building without damaging the surrounding environment.

People can throw away the waste directly from the garbage tunnel which are available from 2nd until 5th floor. The tunnel are accessible from inside separate room so that it will be less visible from public areas.

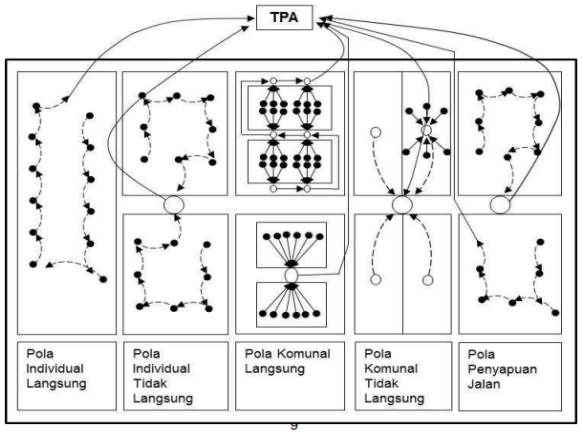
Based on the rules about garbage dumpsite in Indonesia (Peraturan Menteri Pekerjaan Umum Republik Indonesia Nomor 03/PRT/M/2013), all comercial buildings have to accomodate their own temporary dumpsite before these garbage are sent into the final dumpsite. Therefore, the temporary dumpsite are made for this market.

It is located in south of the site area and contains multiple areas such as garbage truck parking, office, anorganic garbage area, B3 garbage area, and more.

METHOD

First of all, there are several points where trash bin are going to be placed. These trash bin are separated by its colour to differentiate what kind of garbage should be put inside.

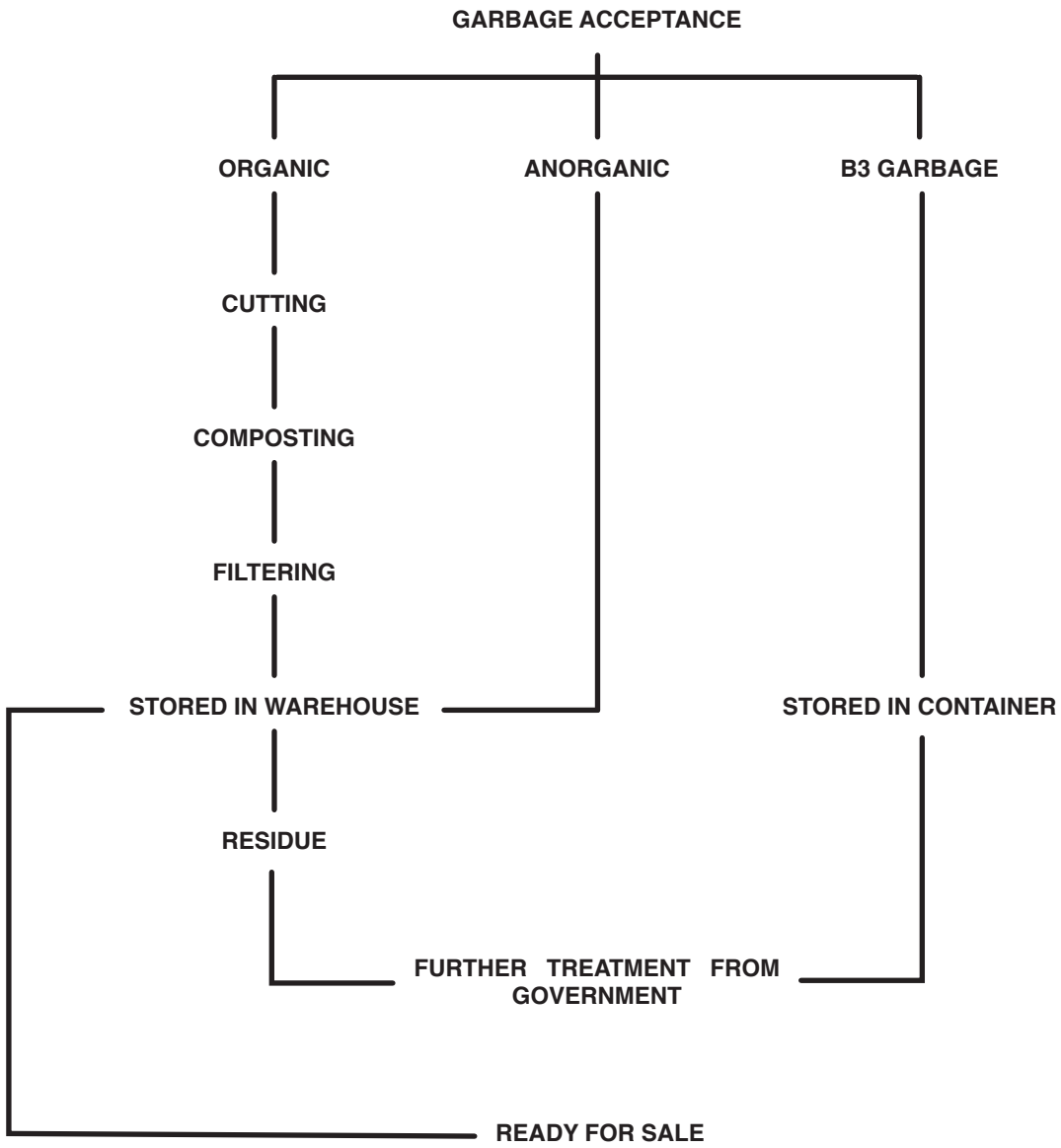
Green are for organic, yellow for reuse-able garbage, blue are for recycle-able garbage, red are for B3 garbage, and grey for residue garbage that cannot be recycled or reused and needs for further attention from the government.



Because this market is a commercial building, the method for collecting these garbage is called Direct Communal Pattern (*Pola Komunal Langsung*). Again, this method are already mentioned in the government's rules and can be seen on the image above.

These method explains that all the garbage inside the trash bin will be moved into temporary dumpsite of the building before they are moved into the final dumpsite of the city.

GARBAGE RECYCLING CONCEPT



RECYCLING

1. Garbage separated by their category. Organic garbage will be processed to become a compost. Anorganic garbage will be stored in the warehouse to prepare it to salen while B3 garbage will be stored inside a separate container before it will be taken care of by government.

2. Cutting process will be placed inside cutting room where the cutting machine do the work.

3. Composting process will be placed inside composting room and it will take around 50 days before it will go to filtering process

4. Filtering process will be placed inside filtering area where the filtering machine will do the work.

5. The compost that are already filtered will be placed inside the warehouse before they are ready to sale.

6. Residue will be placed inside separate container before it will be taken care of by government.

TRASH BIN LOCATION

Based on the rules about garbage dumpsite in Indonesia (Peraturan Menteri Pekerjaan Umum Republik Indonesia Nomor 03/PRT/M/2013), the trash bin must be located in a point where it is easily accessible so that the staff or whoever responsible can bring those trash into the temporary dump site.

The placement of these trash bin are determined by few factors, such as building facilities, quantity of rooms that are available, and access to the temporary dump site.

Based on national standard of Indonesia (SNI No. 19-2454-2002) about Trash Management, the trash bin placement for communal pattern should be:

1. As close as possible to garbage source
2. Not interrupting the circulation or any other kind of facilities
3. Not placed or taken the space of pedestrian way

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JUDUL PERANCANGAN:

THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

LOKASI PERANCANGAN:

PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

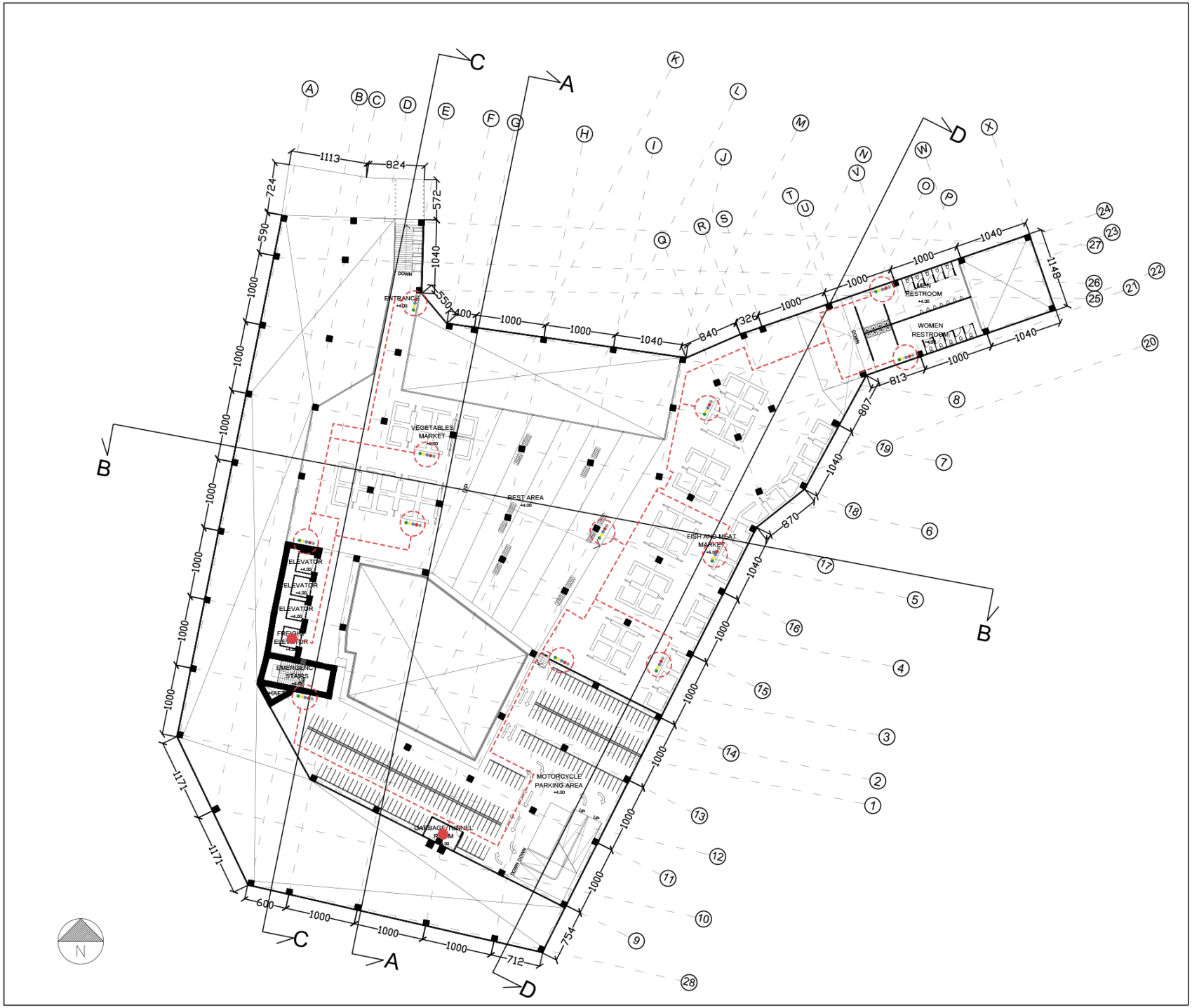
TITIK SAMPAH LANTAI 1

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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JUDUL GAMBAR :

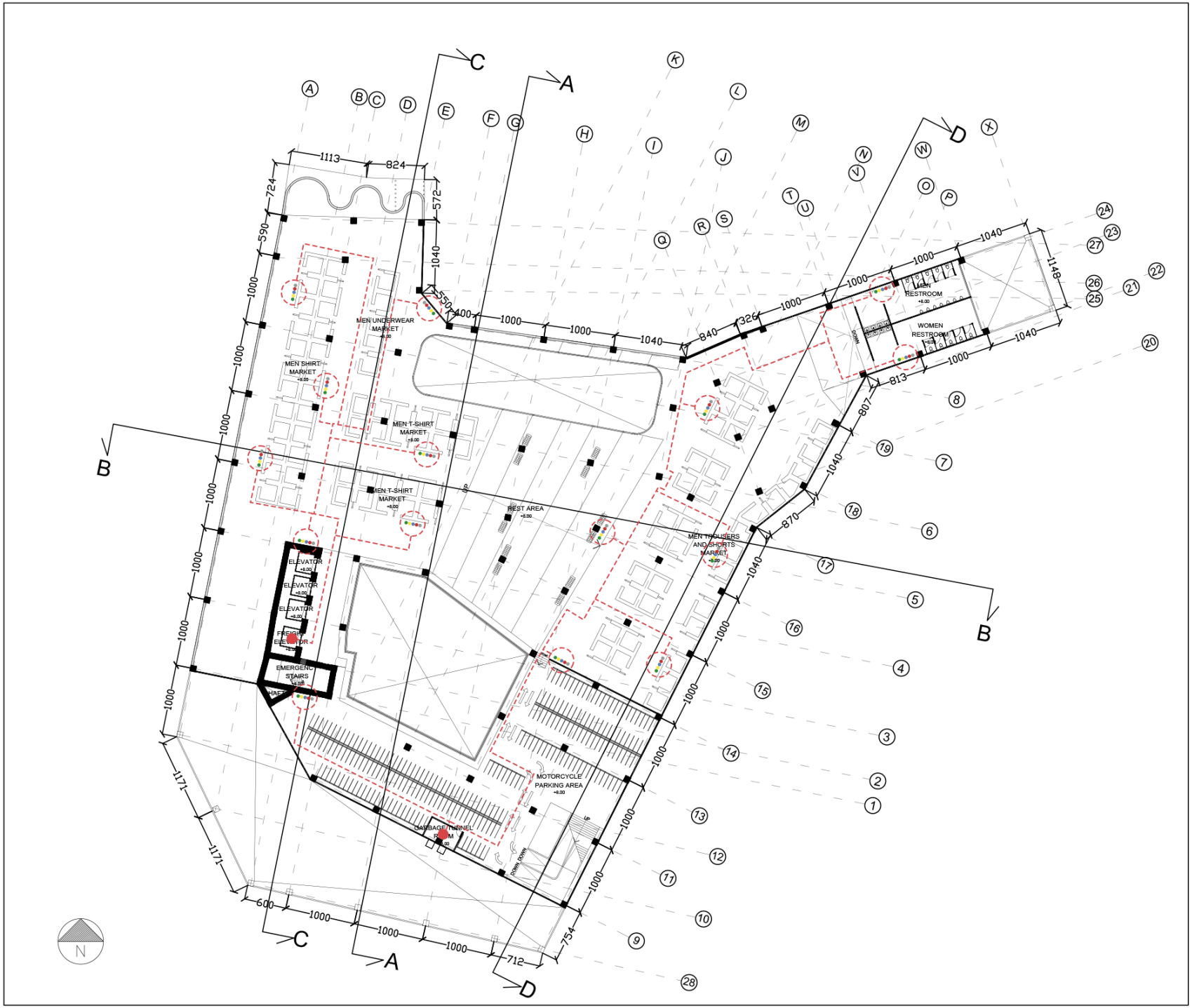
TITIK SAMPAH LANTAI 2

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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JUDUL GAMBAR :

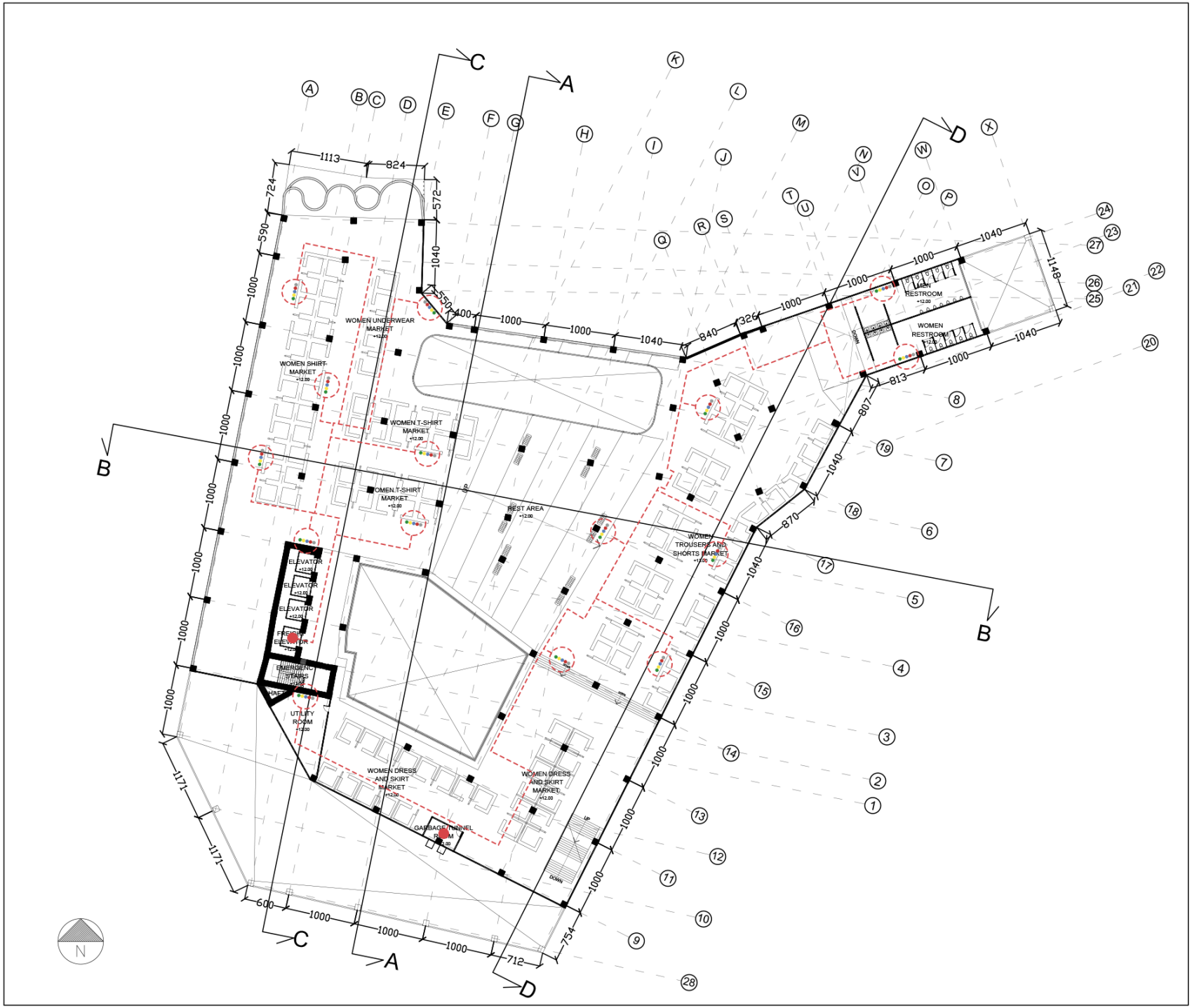
TITIK SAMPAH LANTAI 3

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

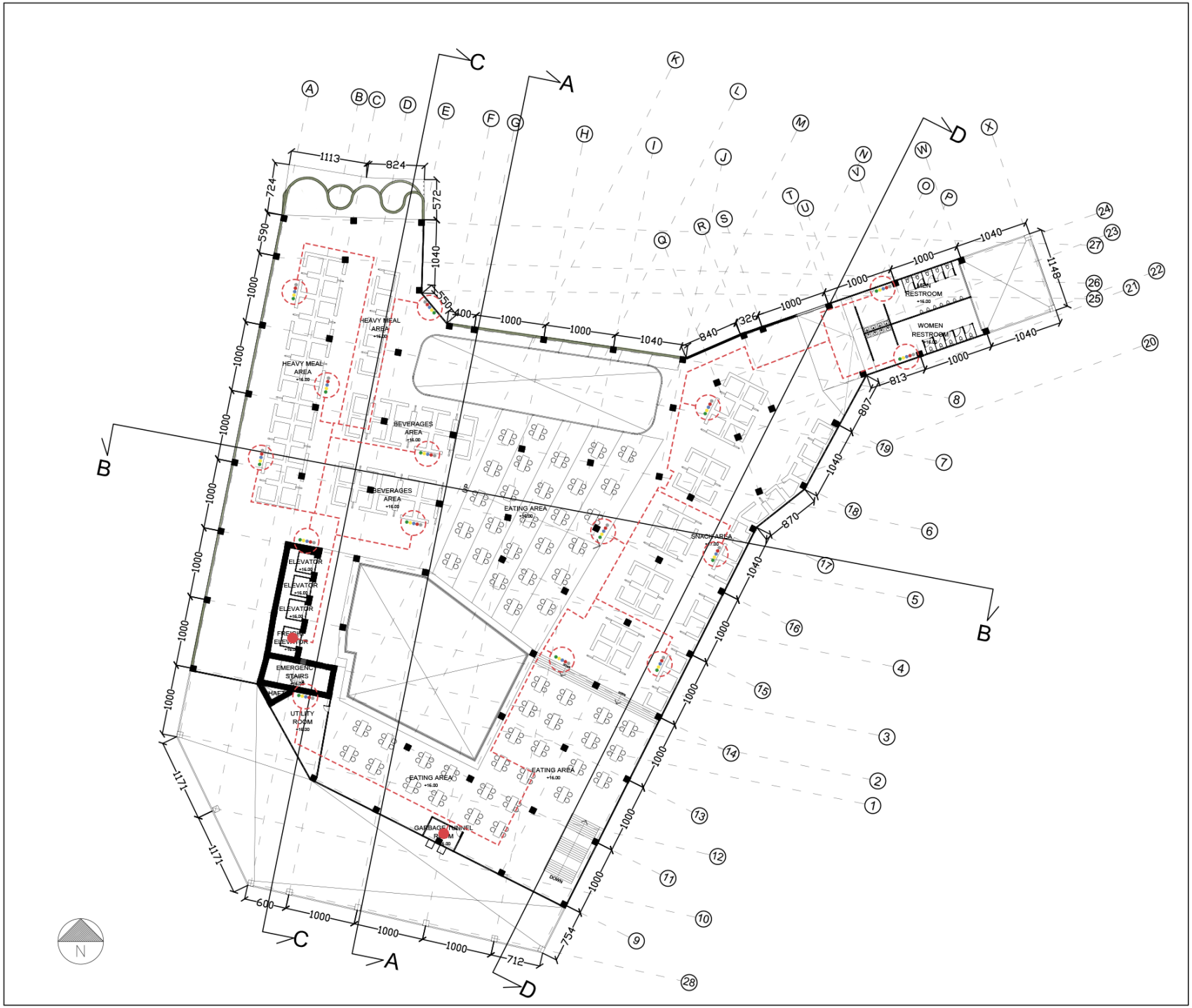
TITIK SAMPAH LANTAI 4

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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JUDUL GAMBAR :

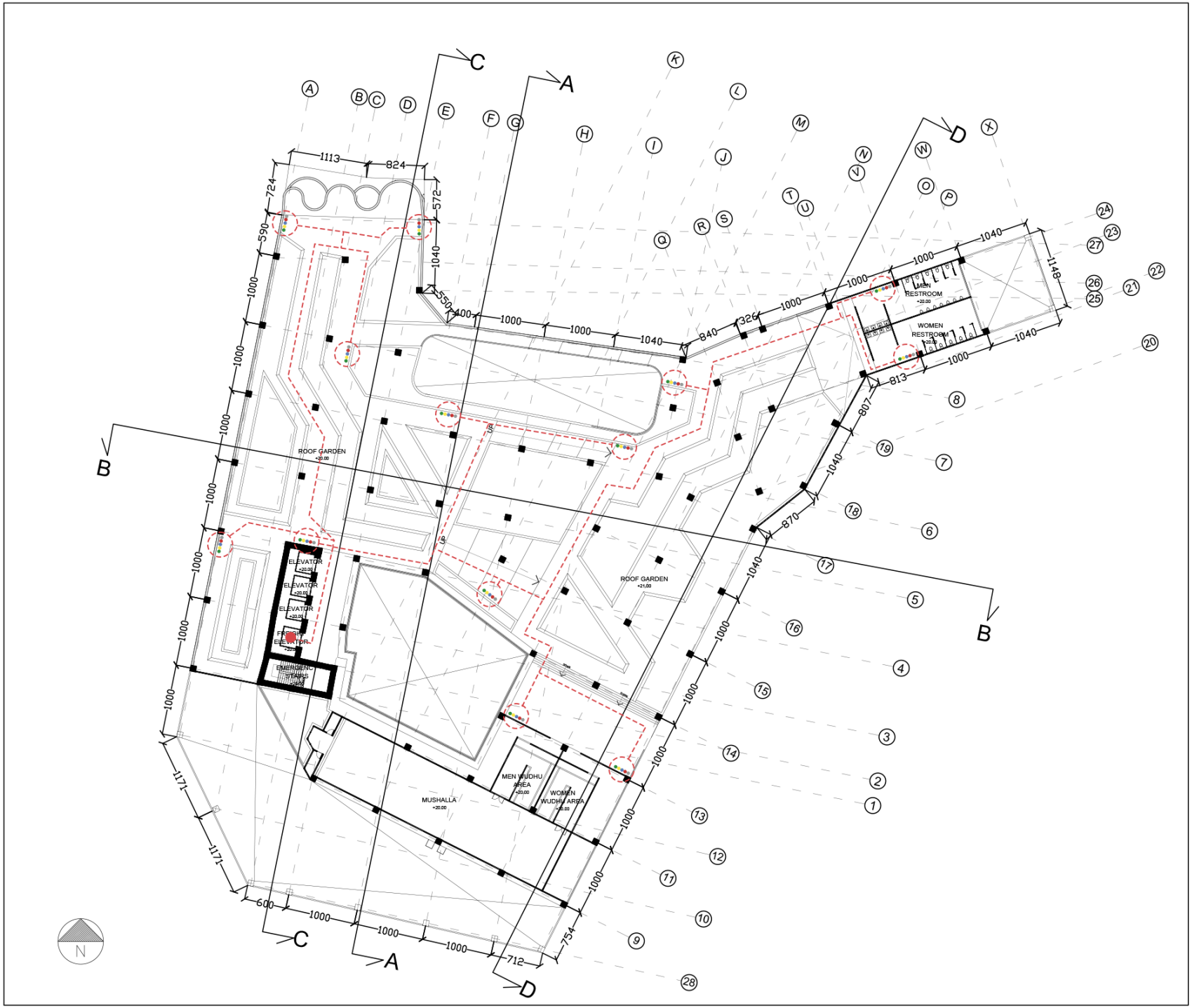
TITIK SAMPAH LANTAI 5

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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JUDUL PERANCANGAN:

THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

LOKASI PERANCANGAN:

PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

TITIK SAMPAH LANTAI 6

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

(f) Kelas 6 : Bangunan gedung perdagangan.

Bangunan gedung toko atau bangunan gedung lain yang dipergunakan untuk tempat penjualan barang-barang secara eceran atau pelayanan kebutuhan langsung kepada masyarakat, termasuk:

1) ruang makan, kafe, restoran; atau
2) ruang makan malam, bar, toko atau kios sebagai bagian dari suatu hotel atau motel; atau
3) tempat potong rambut/salon, tempat cuci umum; atau
4) pasar, ruang penjualan, ruang pamer, atau bengkel.

According to the Regulation of The Ministry of Civil Works about Technical Requirement of Fire Protection System in Building and Environment, fire protection system in a building and environment is a system which consist of tools or facilities which are installed or built for active or even passive fire protection.

In this regulation, buildings are divided into several class/type based on its functionality. Market, however, is considered as a Class 6 building which is a commercial building. The other kind of building that are considered as Class 6 buildings are shown on picture above.

(19) Hidran halaman, adalah alat yang dilengkapi dengan slang dan mulut pancar *(nozzle)* untuk mengalirkan air bertekanan, yang digunakan bagi keperluan pemadaman kebakaran dan diletakkan di halaman bangunan gedung.

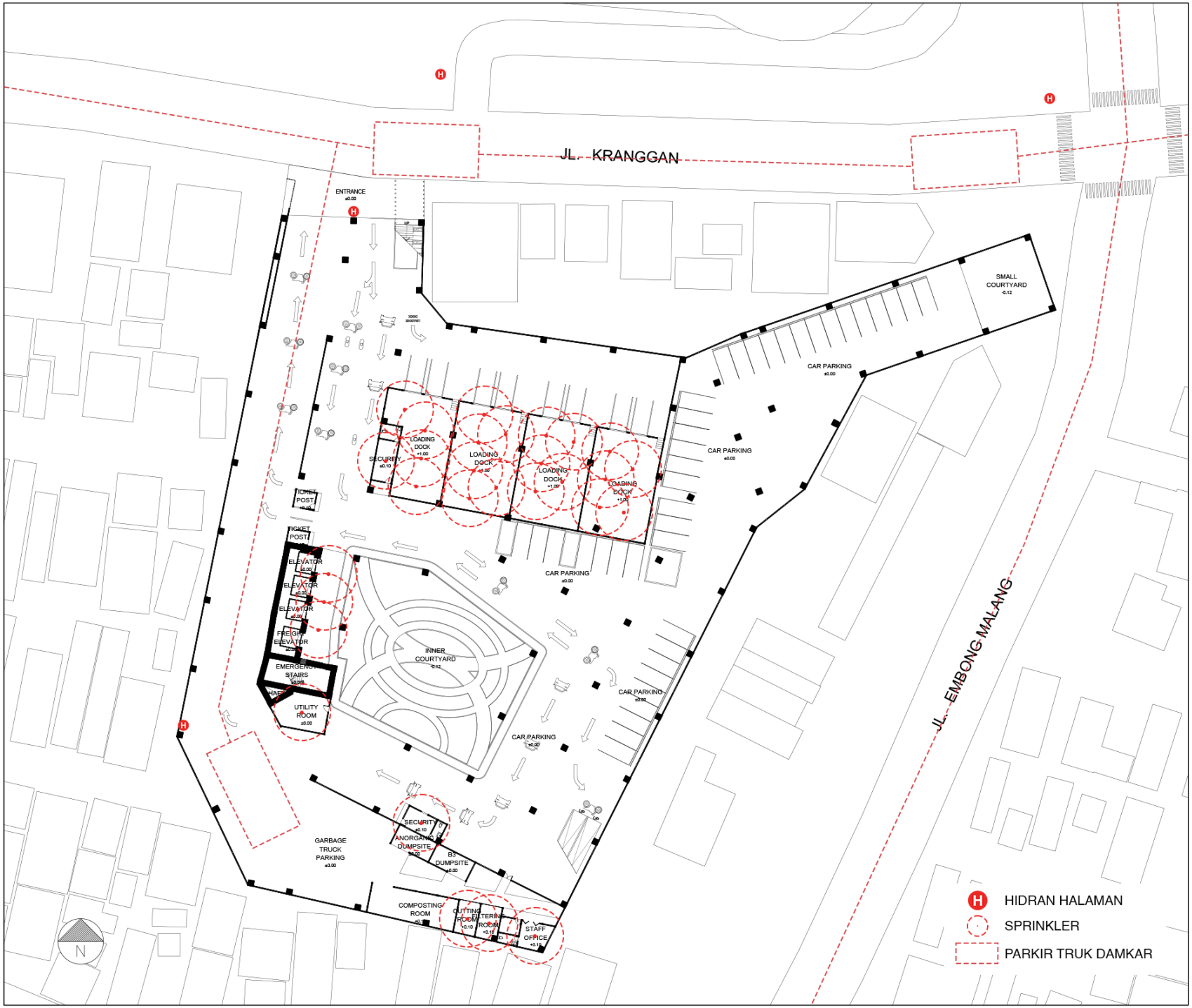
One of the elements of fire protection system is a hydrant. Hydrant is a tool that are equipped with pipe and nozzle to channel a pressurized water. This water will then used by firefighters in case the building is on fire.

FIRE PROTECTION

(59) Springkler, adalah alat pemancar air untuk pemadaman kebakaranyang mempunyai tudung berbentuk deflektor pada ujung mulut pancarnya, sehingga air dapat memancar kesemua arah secara merata. Dalam pertanian ada juga jenis springkler yang digunakan untuk penyiraman tanaman.

The other elements for fire protection system is a sprinkler. Sprinkler is a water sprayer tool that are installed in a certain area in the building. This tool is usually placed near a flammable element of a building such as kitchen furniture like stove or electrical components. The minimum distance between sprinklers are shown in table below.

Sumber panas	Jarak minimum dari tepi sumber ke springkler temperatur sedang	Jarak minimum dari tepi sumber ke springkler temperatur menengah
	mm	mm
Sisi terbuka atau dapur api terbenam.	914	305
Bagian depan dapur api terbenam.	1524	914
Tungku dengan bahan bakar batu bara atau kayu	1067	305
Kompor dapur.	457	229
Kompor dinding	457	229
Corong udara panas.	457	229
corong udara panas tanpa insulasi.	457	229
pipa air panas tanpa insulasi.	305	152
Sisi langit-langit atau difuser udara panas yang dipasang didinding.	607	305
Bagian depan dinding yang dipasang difuser udara panas.	914	457
Pemanas air panas atau tunggku.	152	76
Armatur lampu :	1	
0 W ~ 250 Watt	152	76
250 Watt ~ 499 Watt.	305	152



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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

UTILITAS PEMADAM KEBAKARAN LANTAI 1

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

ARCHITECTURAL DRAWINGS

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FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

SITEPLAN

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

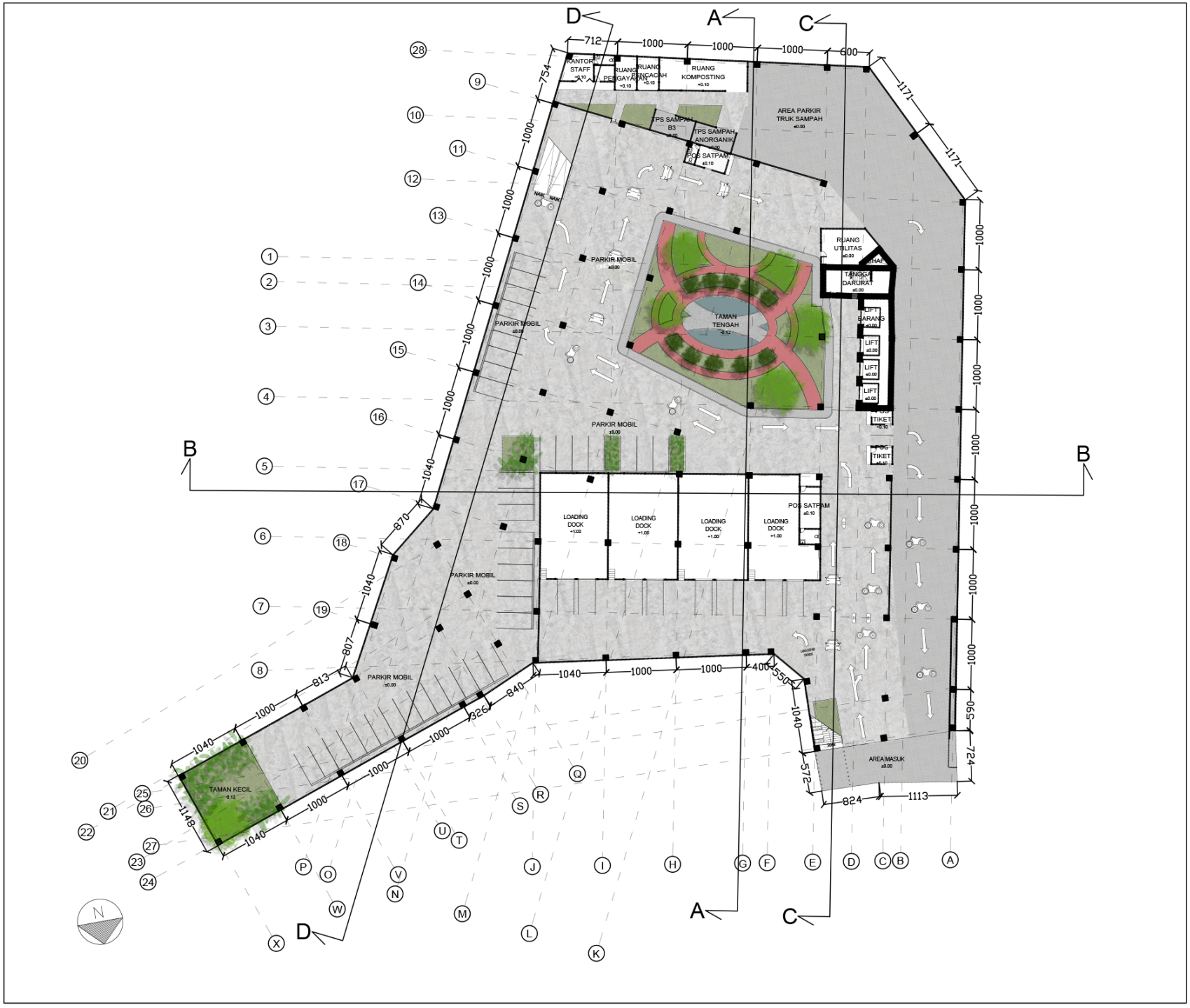
LAYOUT PLAN

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

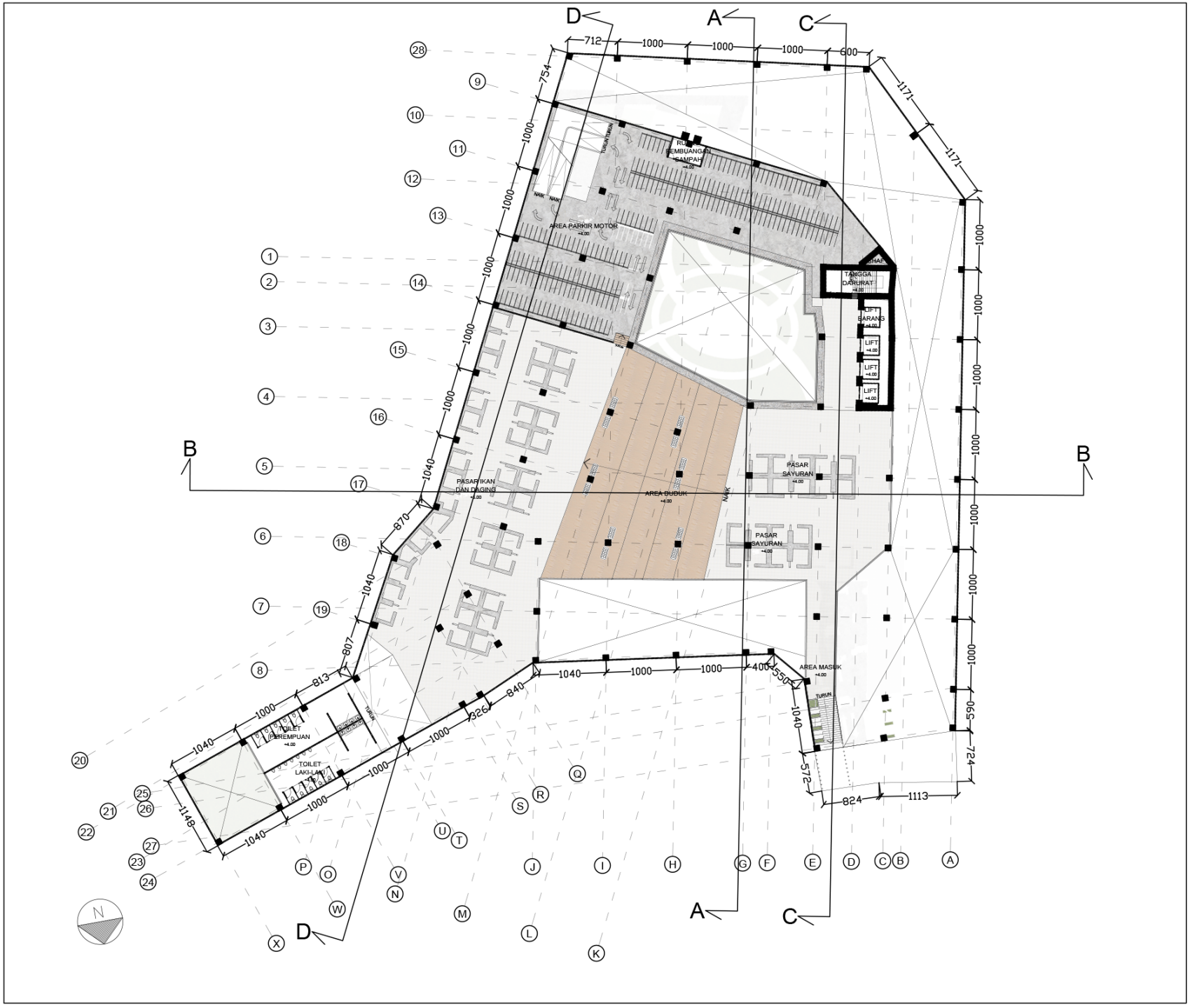
DENAH LANTAI 1

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

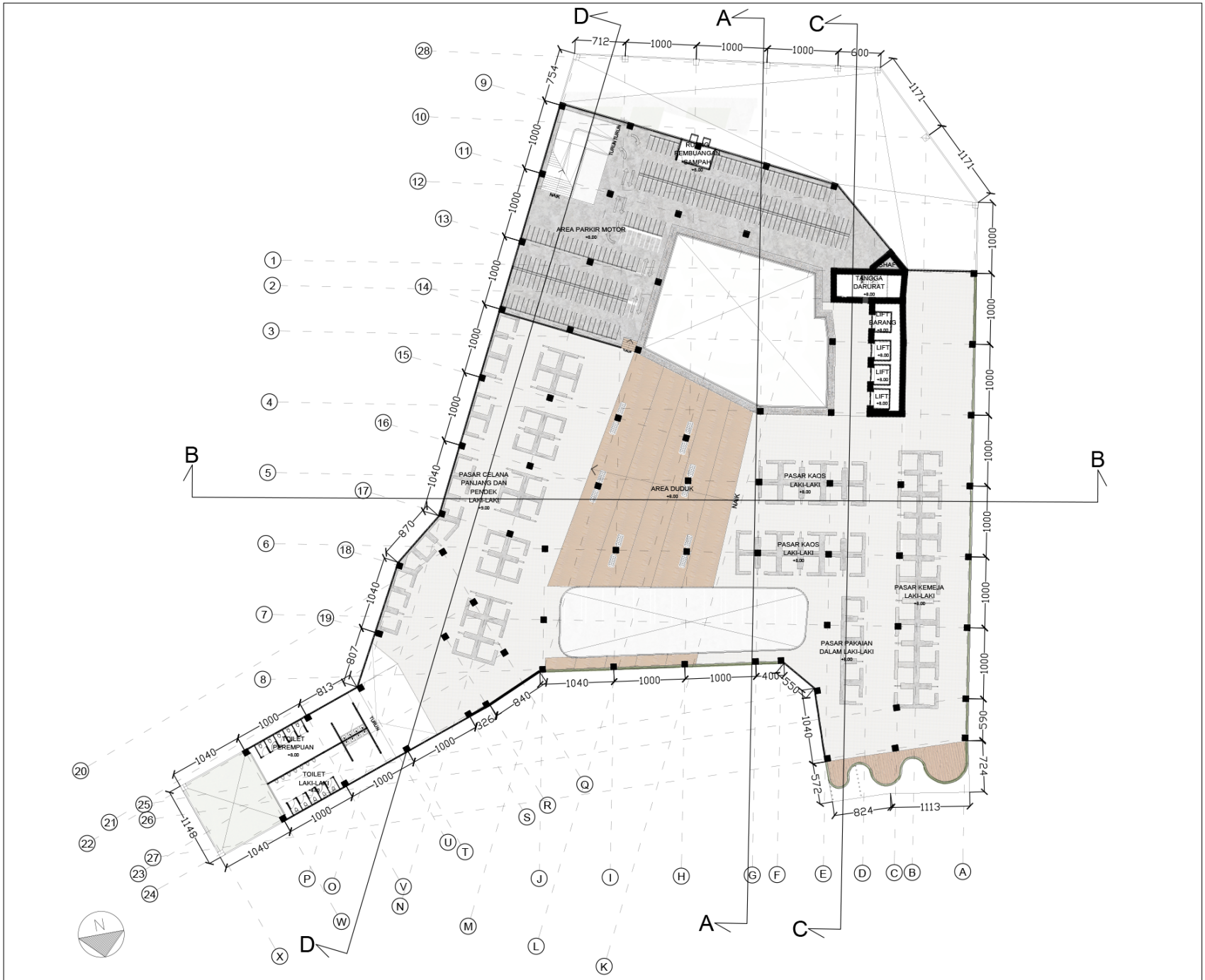
DENAH LANTAI 2

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

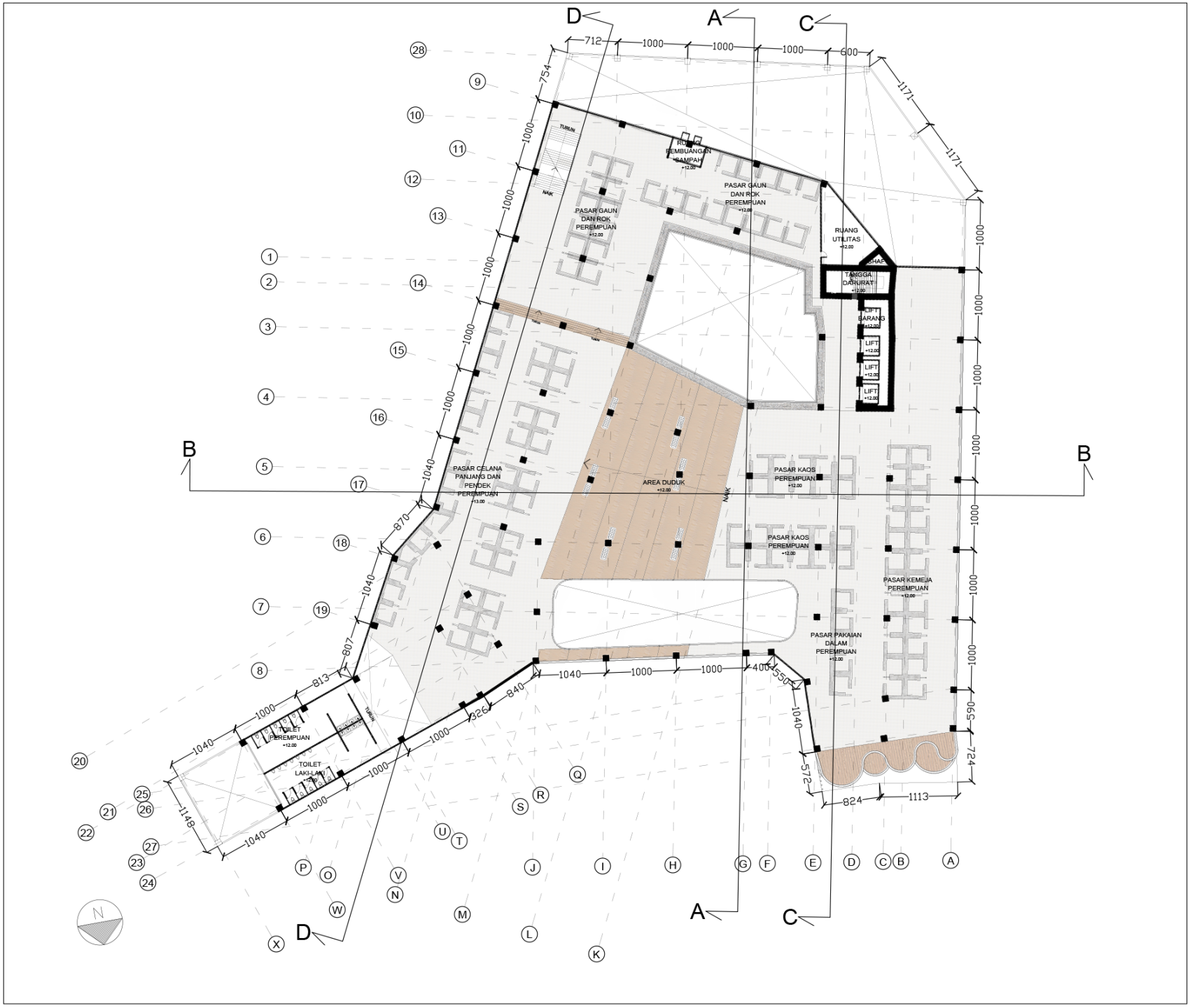
DENAH LANTAI 3

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NIM

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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

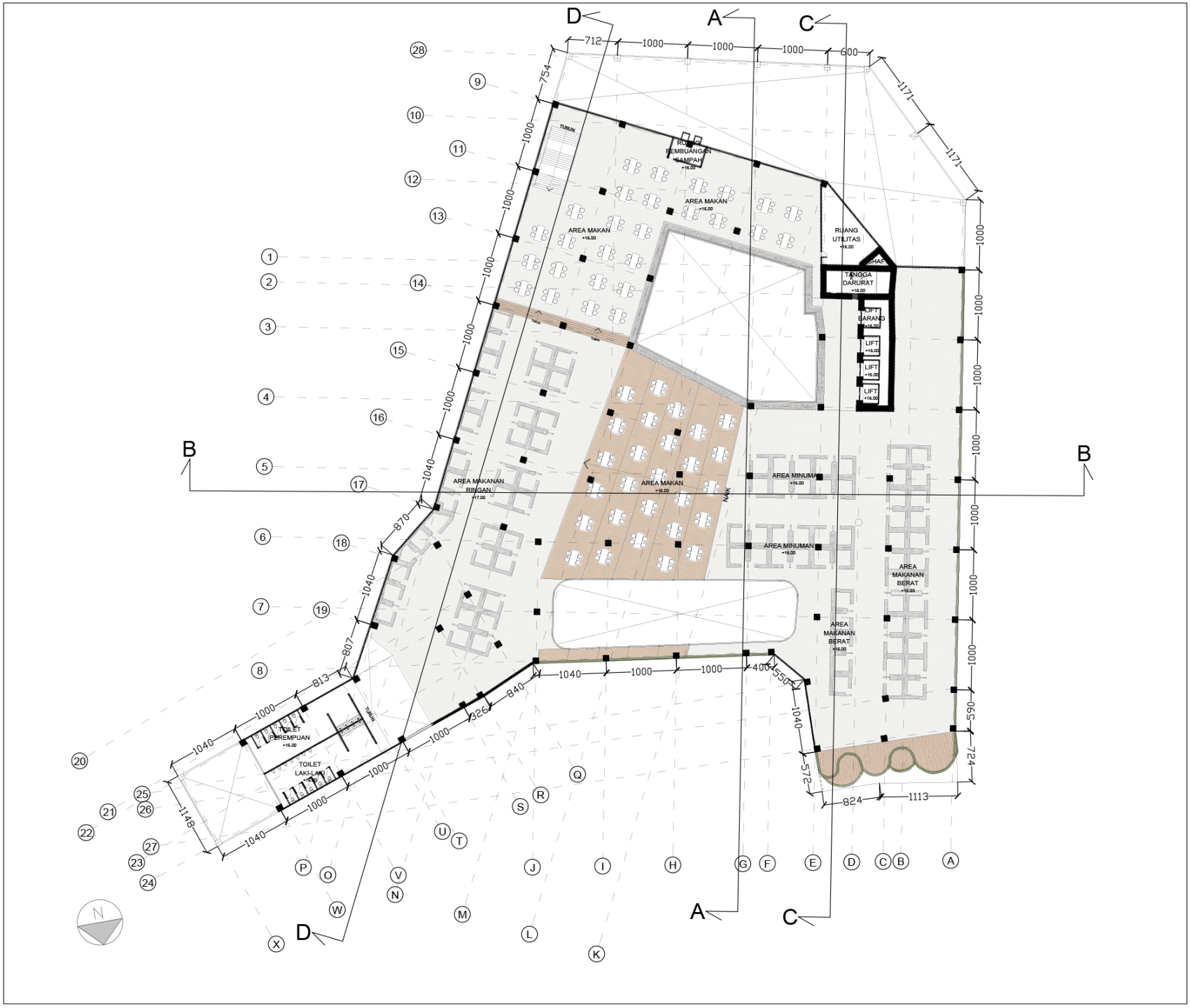
DENAH LANTAI 4

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

DENAH LANTAI 5

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

DENAH LANTAI 6

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

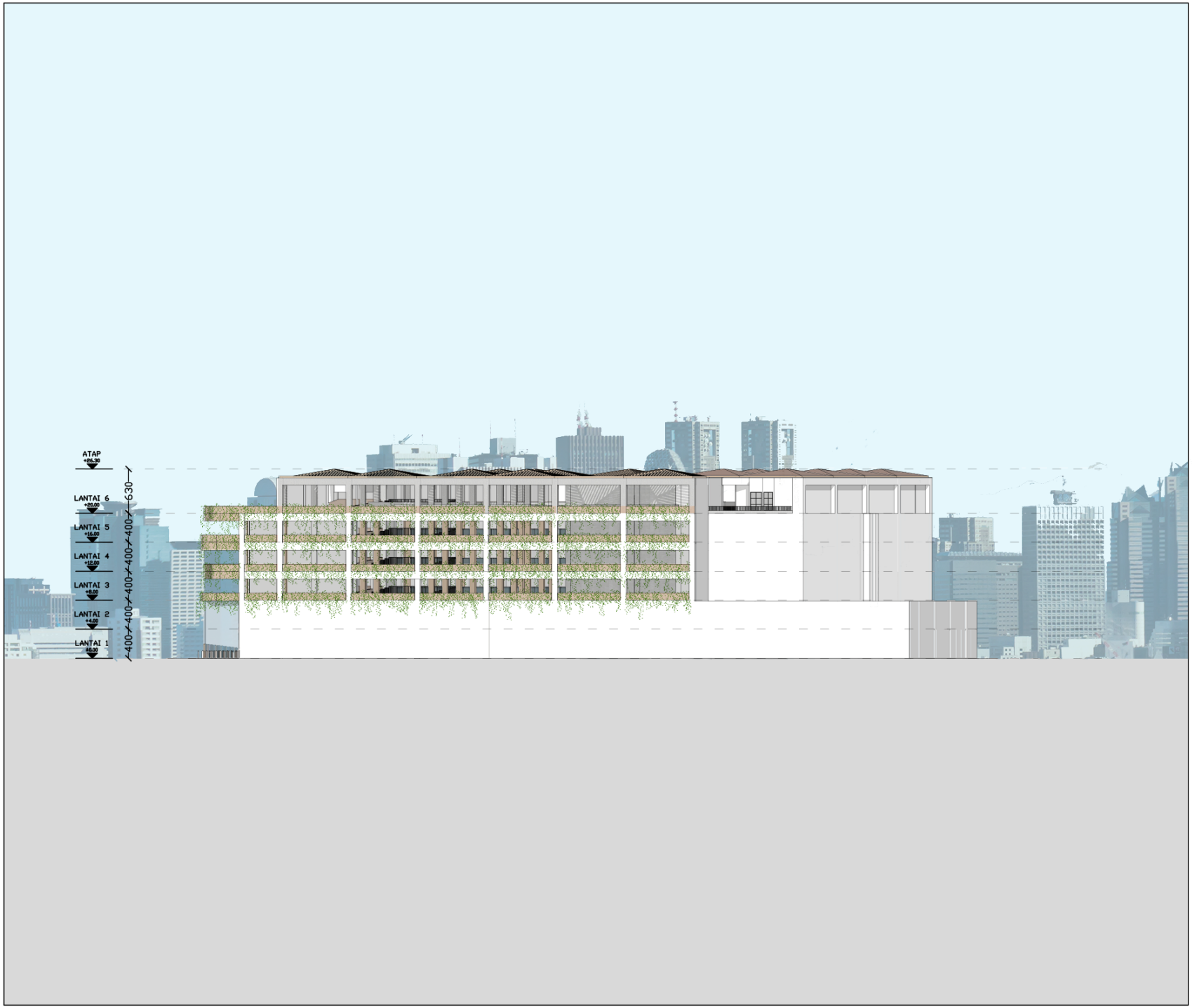
TAMPAK UTARA

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

TAMPAK BARAT

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

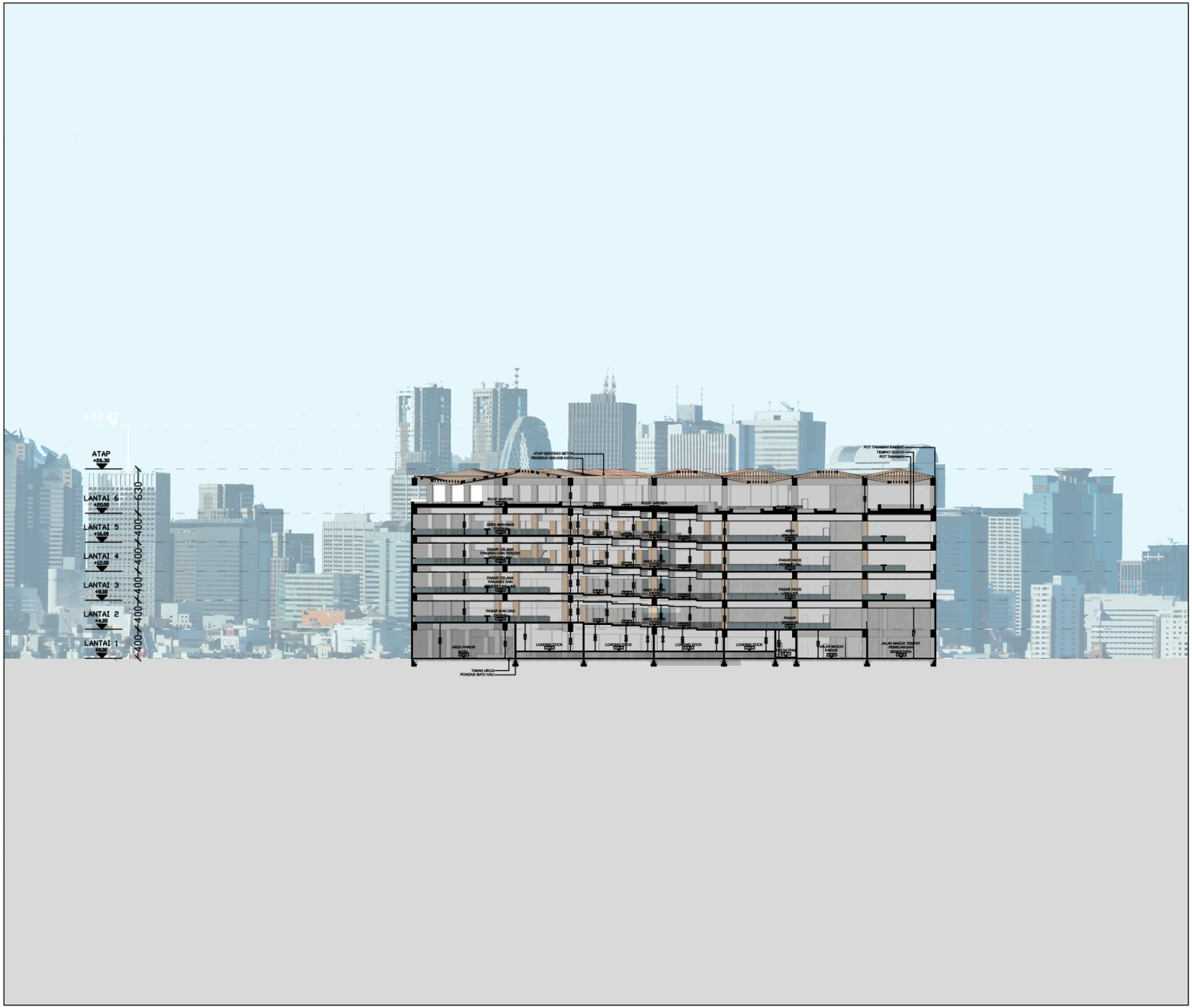
POTONGAN AA

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

POTONGAN BB

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

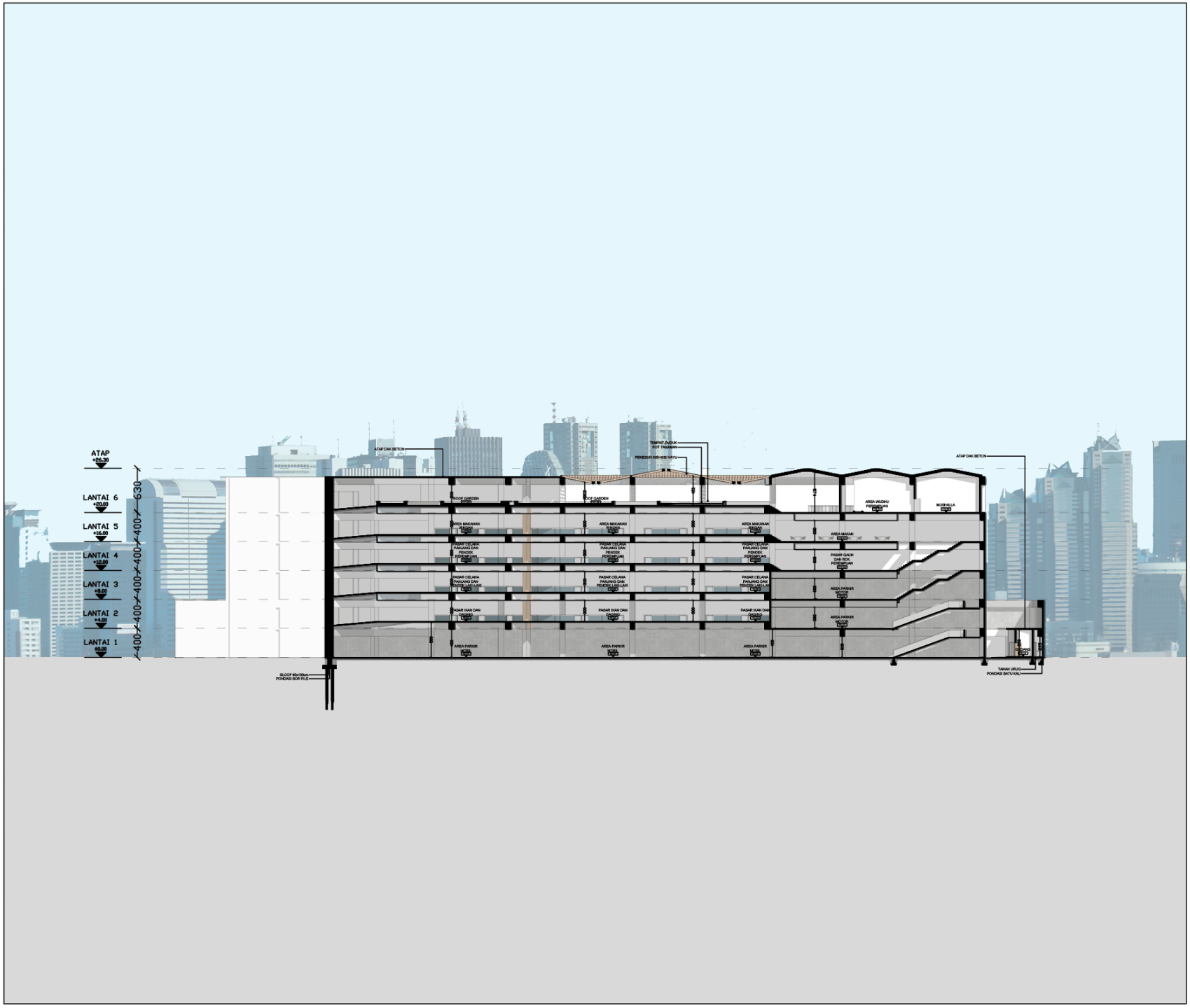
POTONGAN CC

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

POTONGAN DD

SKALA :

1 : 750

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

DESIGN RESULTS

PARKING AREA REFERENCES

d) Pasar

Luas Areal Total (100m^2)	40	50	75	100	200	300	400	500	1000
Kebutuhan (SRP)	160	185	240	300	520	750	970	1200	2300

TABEL II.2.
UKURAN KEBUTUHAN RUANG PARKIR

Peruntukan	Satuan (SRP untuk mobil penumpang)	Kebutuhan Ruang Parkir
Pusat Perdagangan		
• Pertokoan	SRP / 100 m^2 luas lantai efektif	3,5 - 7,5
• Pasar Swalayan	SRP / 100 m^2 luas lantai efektif	3,5 - 7,5
• Pasar	SRP / 100 m^2 luas lantai efektif	
Pusat Perkantoran		
• Pelayanan bukan umum	SRP / 100 m^2 luas lantai	1,5 - 3,5
• Pelayanan umum	SRP / 100 m^2 luas lantai	
Sekolah	SRP / mahasiswa	0,7 - 1,0
Hotel/Tempat Penginapan	SRP / kamar	0,2 - 1,0
Rumah Sakit	SRP / tempat tidur	0,2 - 1,3
Bioskop	SRP / tempat duduk	0,1 - 0,4

Sumber : Naasra 1988

TABEL II.3.
LEBAR BUKAAN PINTU KENDARAAN

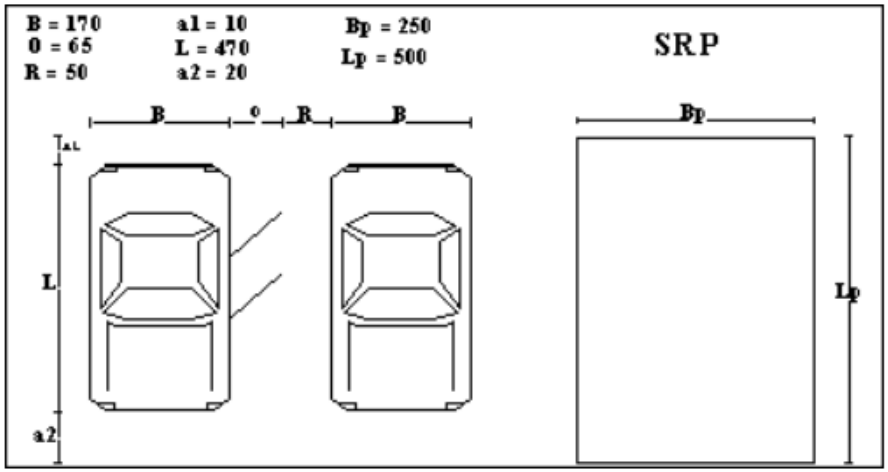
Jenis Bukaan Pintu	Pengguna dan/atau Peruntukan Fasilitas Parkir	Gol
Pintu depan/belakang terbuka tahap awal 55 cm.	• Karyawan/pekerja kantor • Tamu/pengunjung pusat kegiatan perkantoran, perdagangan, pemerintahan, universitas	I
Pintu depan/belakang terbuka penuh 75 cm	• Pengunjung tempat olahraga, pusat hiburan/ rekreasi, hotel, pusat perdagangan eceran/swalayan, rumah sakit, bioskop	II
Pintu depan terbuka penuh dan ditambah untuk pergerakan kursi roda	• Orang cacat	III

TABEL II.4
PENENTUAN SATUAN RUANG PARKIR (SRP)

Jenis Kendaraan	Satuan Ruang Parkir (m^2)
1. a. Mobil penumpang untuk golongan I	2,30 x 5,00
b. Mobil penumpang untuk golongan II	2,50 x 5,00
c. Mobil penumpang untuk golongan III	3,00 x 5,00
2. Bus/truk	3,40 x 12,50
3. Sepeda motor	0,75 x 2,00

1. Satuan Ruang Parkir untuk Mobil Penumpang

Gambar II.2
Satuan Ruang Parkir (SRP) untuk Mobil Penumpang (dalam cm)



Keterangan :

B = lebar total kendaraan
L = panjang total kendaraan
O = lebar bukaan pintu
a1, a2 = jarak bebas arah longitudinal

TABEL II.4
PENENTUAN SATUAN RUANG PARKIR (SRP)

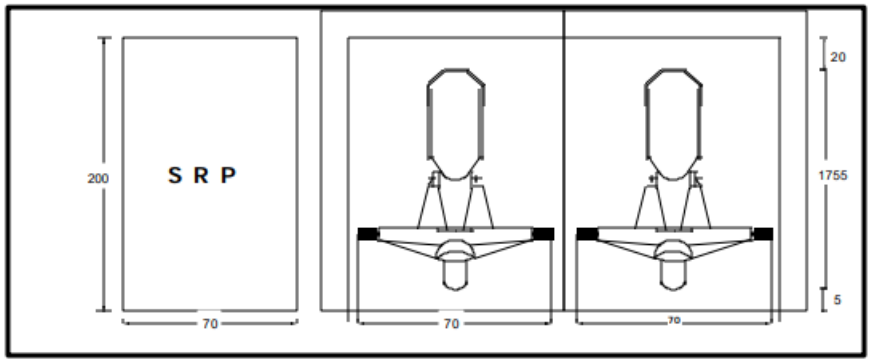
Jenis Kendaraan	Satuan Ruang Parkir (m^2)
1. a. Mobil penumpang untuk golongan I	2,30 x 5,00
b. Mobil penumpang untuk golongan II	2,50 x 5,00
c. Mobil penumpang untuk golongan III	3,00 x 5,00
2. Bus/truk	3,40 x 12,50
3. Sepeda motor	0,75 x 2,00

R = jarak bebas arah lateral

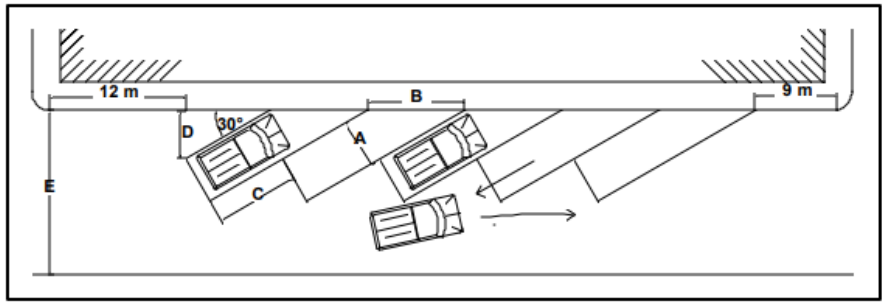
Gol I : B = 170 a1 = 10 Bp = 230 = B + O + R
O = 55 L = 470 Lp = 500 = L + a1 + a2
R = 5 a2 = 20

3. Satuan Ruang Parkir untuk Sepeda Motor

Gambar II.4
Satuan Ruang Parkir (SRP) untuk Sepeda Motor (dalam cm)



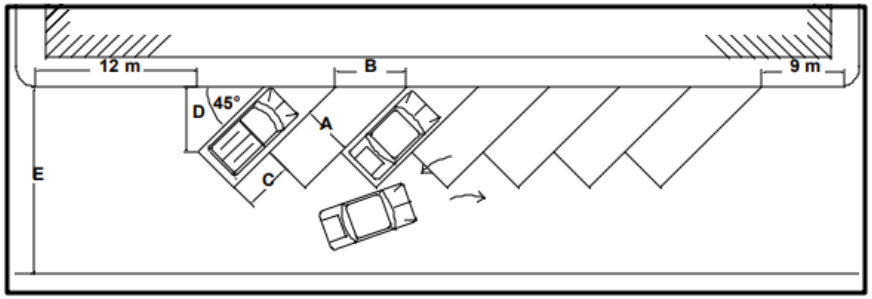
a). Sudut = 30°



Gambar II.9

	A	B	C	D	E
Golongan I	2,3	4,6	3,45	4,70	7,6
Golongan II	2,5	5,0	4,30	4,85	7,75
Golongan III	3,0	6,0	5,35	5,0	7,9

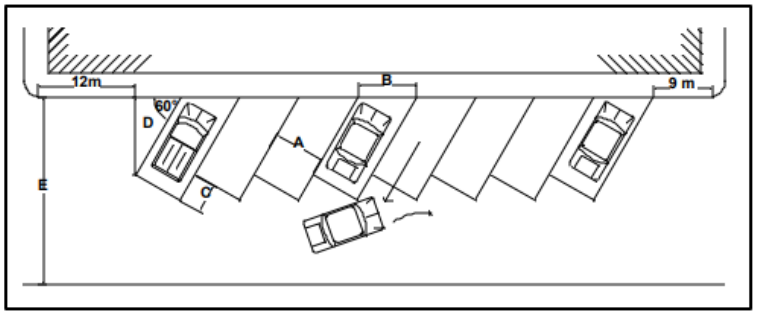
b). Sudut = 45°



Gambar II.10

	A	B	C	D	E
Golongan I	2,3	3,5	2,5	5,6	9,3
Golongan II	2,5	3,7	2,6	5,65	9,35
Golongan III	3,0	4,5	3,2	5,75	9,45

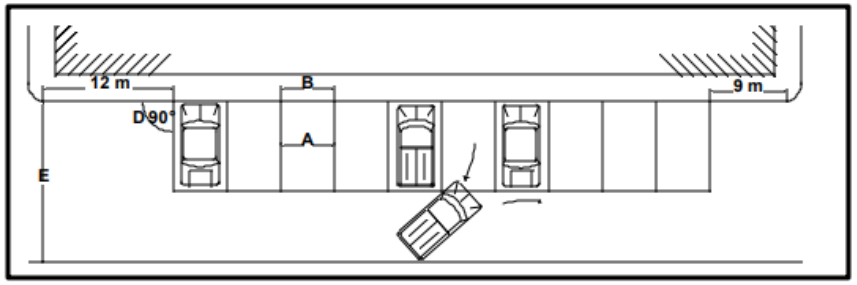
c). Sudut = 60°



Gambar II.11

	A	B	C	D	E
Golongan I	2,3	2,9	1,45	5,95	10,55
Golongan II	2,5	3,0	1,5	5,95	10,55
Golongan III	3,0	3,7	1,85	6,0	10,6

d). Sudut = 90°



Gambar II.12

	A	B	C	D	E
Golongan I	2,3	2,3	-	5,4	11,2
Golongan II	2,5	2,5	-	5,4	11,2
Golongan III	3,0	3,0	-	5,4	11,2

Keterangan :

A = lebar ruang parkir (M)
B = lebar kaki ruang parkir (M)
C = selisih panjang ruang parkir (M)
D = ruang parkir efektif (M)
M = ruang manuver (M)
E = ruang parkir efektif ditambah ruang manuver (M)

6. Indeks Parkir

Indeks parkir adalah perbandingan antara akumulasi parkir dengan kapasitas parkir. Nilai indeks parkir ini dapat menunjukkan seberapa kapasitas parkir yang terisi. Rumus yang digunakan untuk menghitung nilai indeks adalah:

$$IP = \frac{Akumulasi\ parkir}{Kapasitas\ parkir} x\ 100\% \qquad (6)$$

- IP < 1 artinya fasilitas parkir tidak masalah, dimana kebutuhan parkir tidak melebihi daya tampung/kapasitas normal
- IP = 1 artinya kebutuhan parkir seimbang dengan daya tampung/kapasitas normal
- IP > 1 artinya fasilitas parkir bermasalah, dimana kebutuhan parkir melebihi daya tampung/kapasitas normal.

PARKING AREA CALCULATION

NO	KENDARAAN PARKIR	AKUMULASI PARKIR MAX (kendaraan)	
		KAMIS	MINGGU
1	Parkir Sepeda Motor	92	101
2	Parkir Mobil	14	15

As seen on the table above, a survey is conducted in two separate days, which is weekday (Thursday) and weekend (Sunday). The survey proves that on Thursday, total acumulation of motorcycle in Blauran Market is 92, and increasing to 101 on Sunday. Whereas for car is 14 on weekday, and 15 on weekend.

$$IP = \frac{Akumulasi\ parkir}{Kapasitas\ parkir} x\ 100\% \qquad (6)$$

- IP < 1 artinya fasilitas parkir tidak masalah, dimana kebutuhan parkir tidak melebihi daya tampung/kapasitas normal
- IP = 1 artinya kebutuhan parkir seimbang dengan daya tampung/kapasitas normal
- IP > 1 artinya fasilitas parkir bermasalah, dimana kebutuhan parkir melebihi daya tampung/kapasitas normal.

The parking index is a comparison of acumulation of parking and its capacity. In short, the parking index shows whether the amount of parking space in a building is less than, more than, or enough.

To prevent the surge of visitors in certain days, the parking index is set as 0.5 so that the amount of parking space available in Blauran Market will be more than enough.

Therefore, the calculation for motorcycle parking space needed is shown below,

$$\textbf{IP} = \frac{\text{Parking acumulation}}{\text{Parking capacity}}$$

$$\textbf{0.5} = \frac{101}{\text{Parking capacity}}$$

$$\text{Parking capacity} = \frac{101}{0.5}$$

Parking capacity = 202

Lastly, the calculation for car parking space needed is also shown below,

$$\textbf{IP} = \frac{\text{Parking acumulation}}{\text{Parking capacity}}$$

$$\textbf{0.5} = \frac{15}{\text{Parking capacity}}$$

$$\text{Parking capacity} = \frac{15}{0.5}$$

Parking capacity = 30

In conclusion, Blauran Market needs at least 202 motorcycle parking space and 30 car parking space.

REDESIGN THEORY

There is a lot of definition of redesign. Here's a few example of definition of redesign taken from different source.

1 According from American Heritage Dictionary (2006), "redesign mean to make a revision in the appearance or function of" which means to make a revision in appereance or function.

2 Collins English Dictionary (2009) stated that "Redesign is to change the design of (something)".

3 Third, according to Salim's Ninth Collegiate English-Indonesian Dictionary (2000), redesign means to design again

From different definitions above, we can take conclusion that redesign is designing an existing object so that it would have change in its appereance or its functionality.

In architecture industry, redesigning is almost the same as rebuilding an existing architectural object/ building that is not quite have the function the way it was. Redesigning is identical with analyzing the flaws of the building and then repair or change it into something new.

Redesign can be done by changing, reducing, or inserting new elements into a building. There are some types of redesign, which is:

1. Redevelopment
2. Centrification
3. Conservation
4. Preservation
5. Rehabilitation
6. Renovation
7. Restoration
8. Reconstruction

The redesign type which is used on this project is called redevelopment. Redevelopment is an effort to rebuild some or whole part of a building or area of a city by disassembling some of or whole of its facilities and infrastructure in which are considered as not functioning properly.

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JUDUL PERANCANGAN:

THE CITY OASIS: REDESIGN OF BLAURAN MARKET WITH BIOPHILIC ARCHITECTURE APPROACH

LOKASI PERANCANGAN:

PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

EXTERIOR PERSPECTIVE 1

SKALA :

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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UIN MALANG

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FAKULTAS SAINS DAN TEKNOLOGI
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG

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PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

EXTERIOR PERSPECTIVE 2

SKALA :

NO. GAMBAR:

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PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

EXTERIOR PERSPECTIVE 3

SKALA :

NO. GAMBAR:

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LOKASI PERANCANGAN:

PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

MARKET INTERIOR

SKALA :

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

INNER COURTYARD

SKALA :

NO. GAMBAR:

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

CAR PARKING AREA

SKALA :

NO. GAMBAR:

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

EATING AREA

SKALA :

NO. GAMBAR:

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

RESTROOM

SKALA :

NO. GAMBAR:

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NAMA MAHASISWA:
FARID RACHMAN
NIM
17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

MUSHALLA

SKALA :

NO. GAMBAR:

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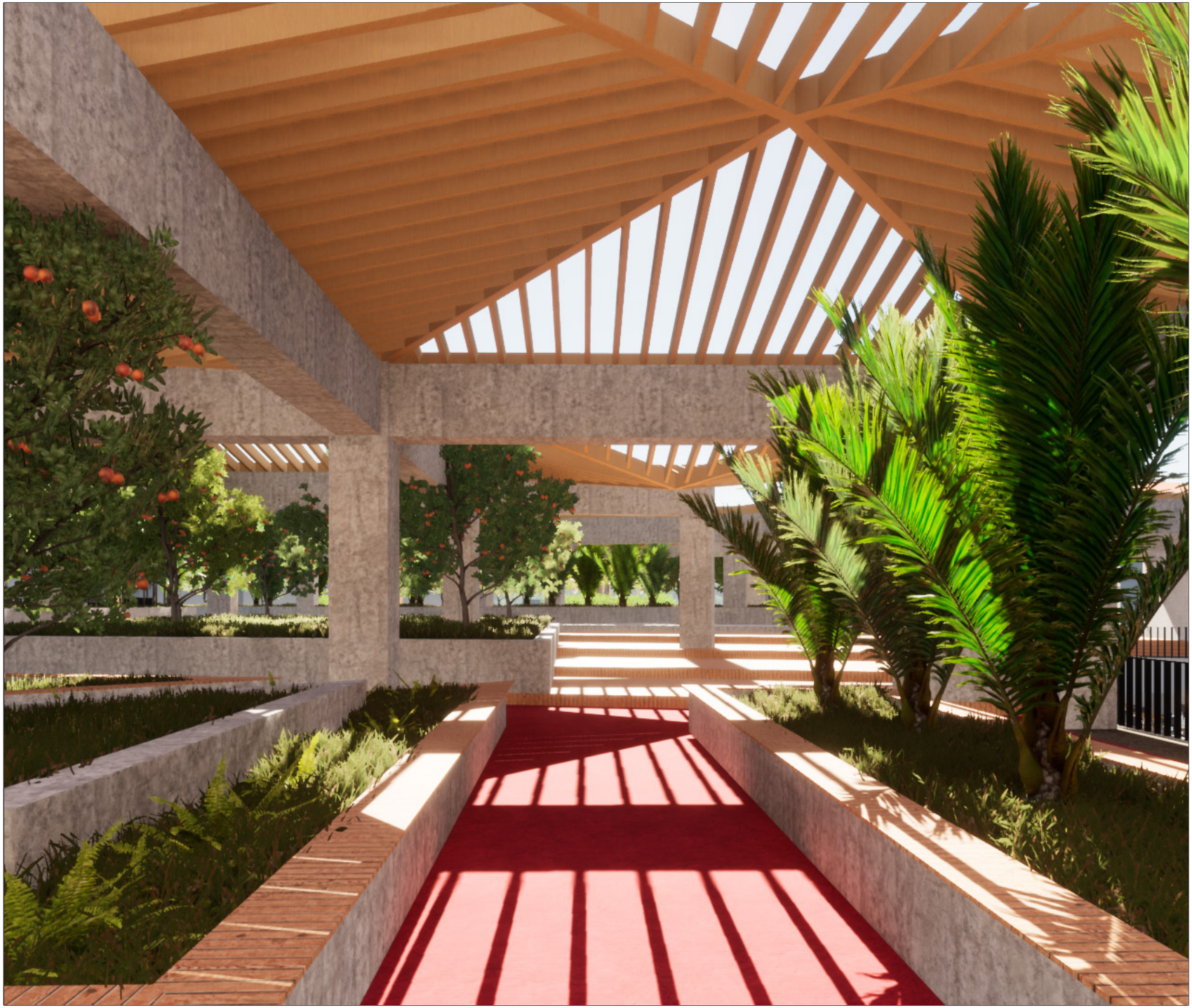

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FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

ROOF GARDEN 1

SKALA :

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

ROOF GARDEN 2

SKALA :

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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

ROOF GARDEN 3

SKALA :

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

[1] https://i.pinimg.com/originals/2a/53/df/2a53df357eed214da9bd0b7d8077b8cb.jpg

[2] https://pesonawisatasurabaya.files.wordpress.com/2014/09/dsc01746.jpg

[3] https://www.iqair.com/indonesia/east-java/surabaya

[4] Otten, Harvey ***et al***. (2015). World of Food / Harvey Otten + Ted Schulten [Artikel]. ***Available: https://www.archdaily.com/777290/world-of-food-harvey-otten/?ad_source=myarchdaily&ad_medium=bookmark-show&ad_content=current-user***

[5] ArchDaily. 2021. World of Food / Harvey Otten + Ted Schulten. [online] Available at: <https://www.archdaily.com/777290/world-of-food-harvey-otten/?ad_source=myarchdaily&ad_medium=bookmark-show&ad_content=current-user> [Accessed 18 May 2020].

[6] ArchDaily. 2021. Pike Place MarketFront / The Miller Hull Partnership. [online] Available at: <https://www.archdaily.com/910614/pike-place-marketfront-the-miller-hull-partnership?ad_source=search&ad_medium=search_result_projects> [Accessed 18 May 2020].

[7] 2021. [online] Available at: <https://quran.com/15> [Accessed 15 May 2020].

[8] TafsirWeb | Baca al-Qur'an Online Terjemah Tafsir. 2021. Quran Surat Al-Hijr Ayat 45 Arab, Latin, Terjemahan Arti Bahasa Indonesia. [online] Available at: <https://tafsirweb.com/4195-quran-surat-al-hijr-ayat-45.html> [Accessed 16 May 2020].

[9] TafsirWeb | Baca al-Qur'an Online Terjemah Tafsir. 2021. Quran Surat Al-Hijr Ayat 46 Arab, Latin, Terjemahan Arti Bahasa Indonesia. [online] Available at: <https://tafsirweb.com/4196-quran-surat-al-hijr-ayat-46.html> [Accessed 16 May 2020].

[10] TafsirWeb | Baca al-Qur'an Online Terjemah Tafsir. 2021. Quran Surat Al-Hijr Ayat 47 Arab, Latin, Terjemahan Arti Bahasa Indonesia. [online] Available at: <https://tafsirweb.com/4197-quran-surat-al-hijr-ayat-47.html> [Accessed 16 May 2020].

[11] TafsirWeb | Baca al-Qur'an Online Terjemah Tafsir. 2021. Quran Surat Al-Hijr Ayat 48 Arab, Latin, Terjemahan Arti Bahasa Indonesia. [online] Available at: <https://tafsirweb.com/4198-quran-surat-al-hijr-ayat-48.html> [Accessed 16 May 2020].

[12] BMKG | Badan Meteorologi, Klimatologi, dan Geofisika. 2021. Prakiraan Cuaca Surabaya - Provinsi Jawa Timur | BMKG. [online] Available at: <https://www.bmkg.go.id/cuaca/prakiraan-cuaca.bmkg?Kota=Surabaya&AreaID=501306&Prov=35> [Accessed 10 May 2020].

[13] Google.com. 2021. Before you continue to Google Maps. [online] Available at: <https://www.google.com/maps/place/Pasar+Blauran+Baru/@-7.2558762,112.7336993,18z/data=!4m5!3m4!1s0x0:0xd1b20e9a6583d399!8m2!3d-7.2564741!4d112.7334876> [Accessed 10 May 2020].

[14] The Weather Channel. 2021. Surabaya, East Java, Indonesia Weather Forecast and Conditions - The Weather Channel | Weather.com. [online] Available at: <https://weather.com/weather/today/l/e96c025dff93d1309009553941427ace13b40431ec670e40807680e81d4e74f3> [Accessed 10 May 2020].

[15] Amazon.com. 2021. [online] Available at: <https://www.amazon.com/Biophilic-Design-Practice-Bringing-Buildings/dp/0470163348> [Accessed 10 May 2020].
Kellert, Stephen., Wilson, Edward. 1995. ***The Biophilia Hypothesis. Washington***. Island Press.

[16] 2021. [online] Available at: <https://www.researchgate.net/publication/40777405_Building_for_Life_Designing_and_Understanding_the_Human-Nature_Connection> [Accessed 20 May 2020].

[17] Neufert, Ernst. 1996. ***Data Arsitek Jilid 1***. Jakarta: Erlangga.

[18] Neufert, Ernst. 2002. ***Data Arsitek Jilid 2***. Jakarta: Erlangga.

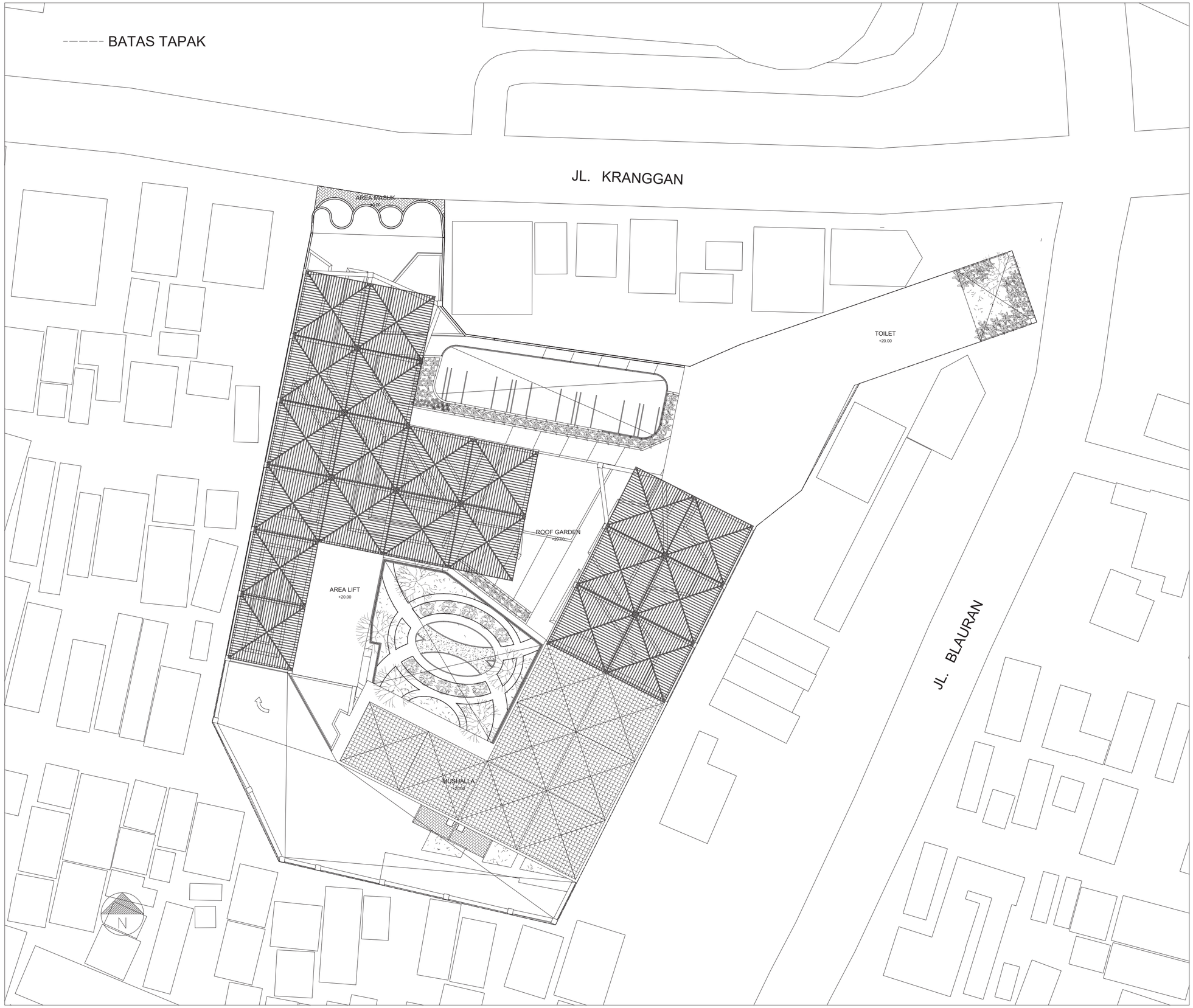
REFERENCES

[19] Neufert, Ernst. 2000. ***Architect's Data Third Edition***. Oxford: Blackwell Publishing.

[20] Naderi, Jody Rosenblatt. 2009. Landscape and Urban Planning. Texas.

[21] petaperuntukan.cktr.web.id

TECHNICAL DRAWINGS



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LOKASI PERANCANGAN:

PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

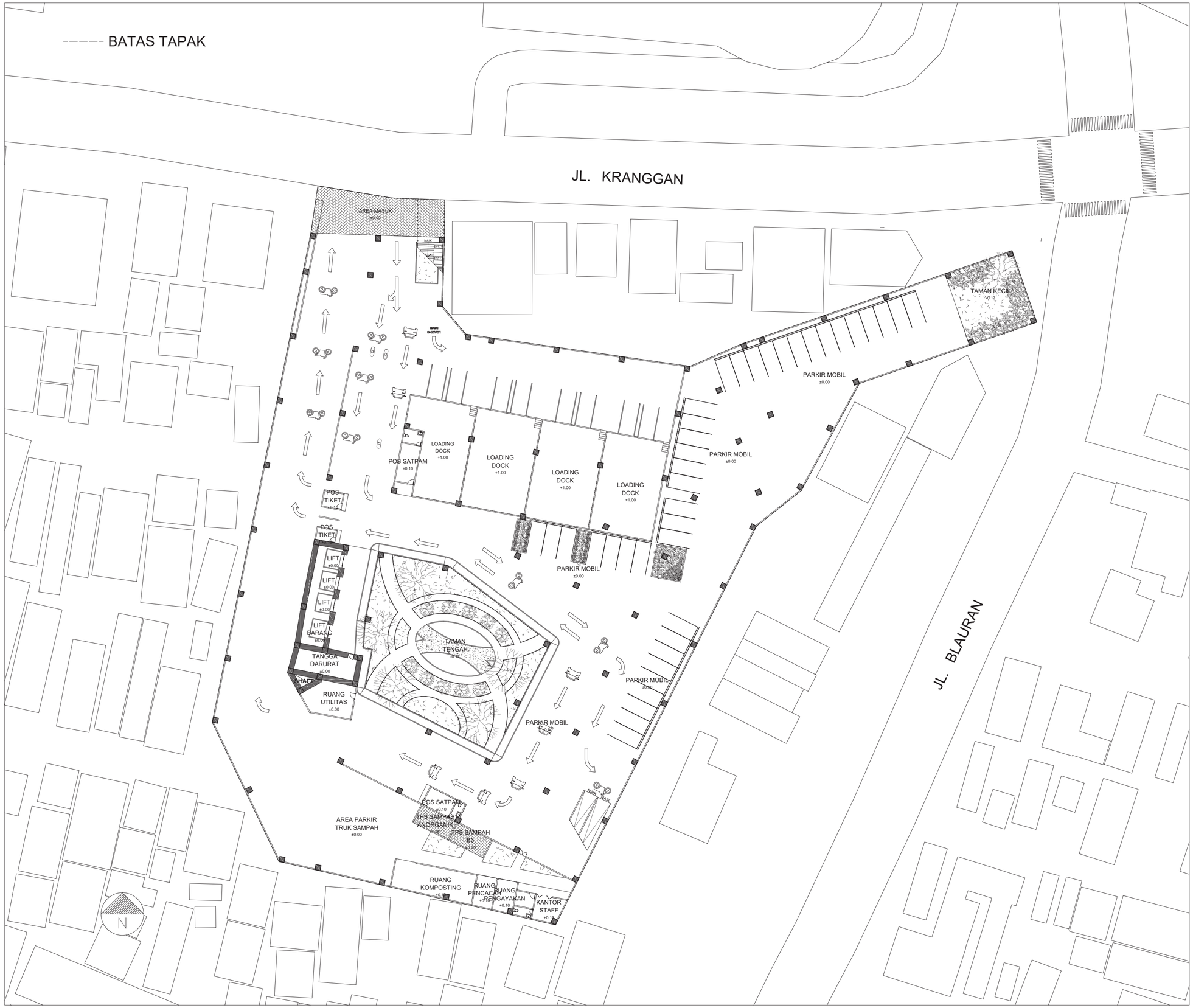
SITEPLAN

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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LOKASI PERANCANGAN:

PS. BLAURAN BARU, BLOK LB 11, JL. KRANGGAN, SAWAHAN, KEC. SAWAHAN, KOTA SBY, JAWA TIMUR 60251

NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

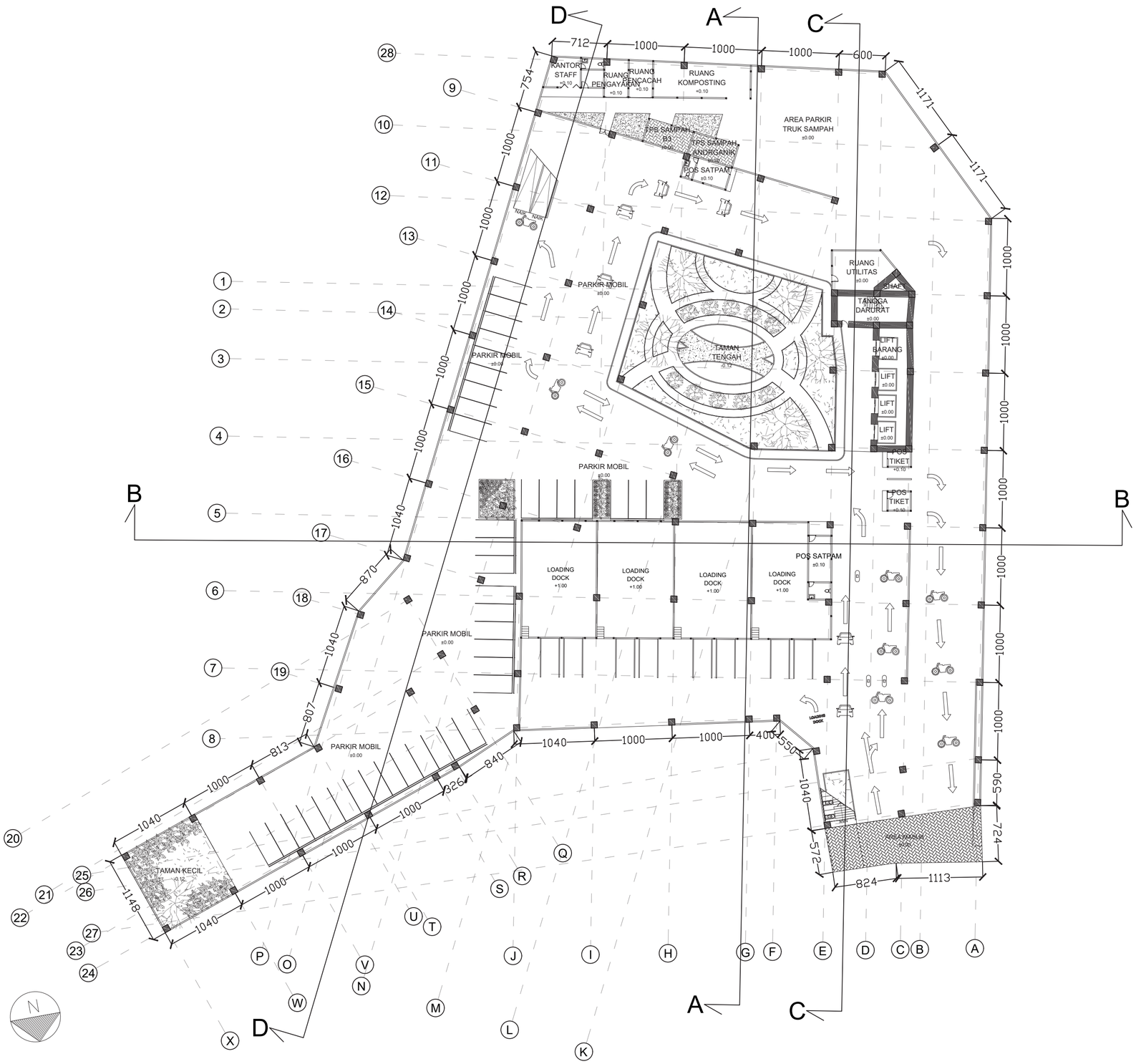
LAYOUT PLAN

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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UIN MALANG

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UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG

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DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

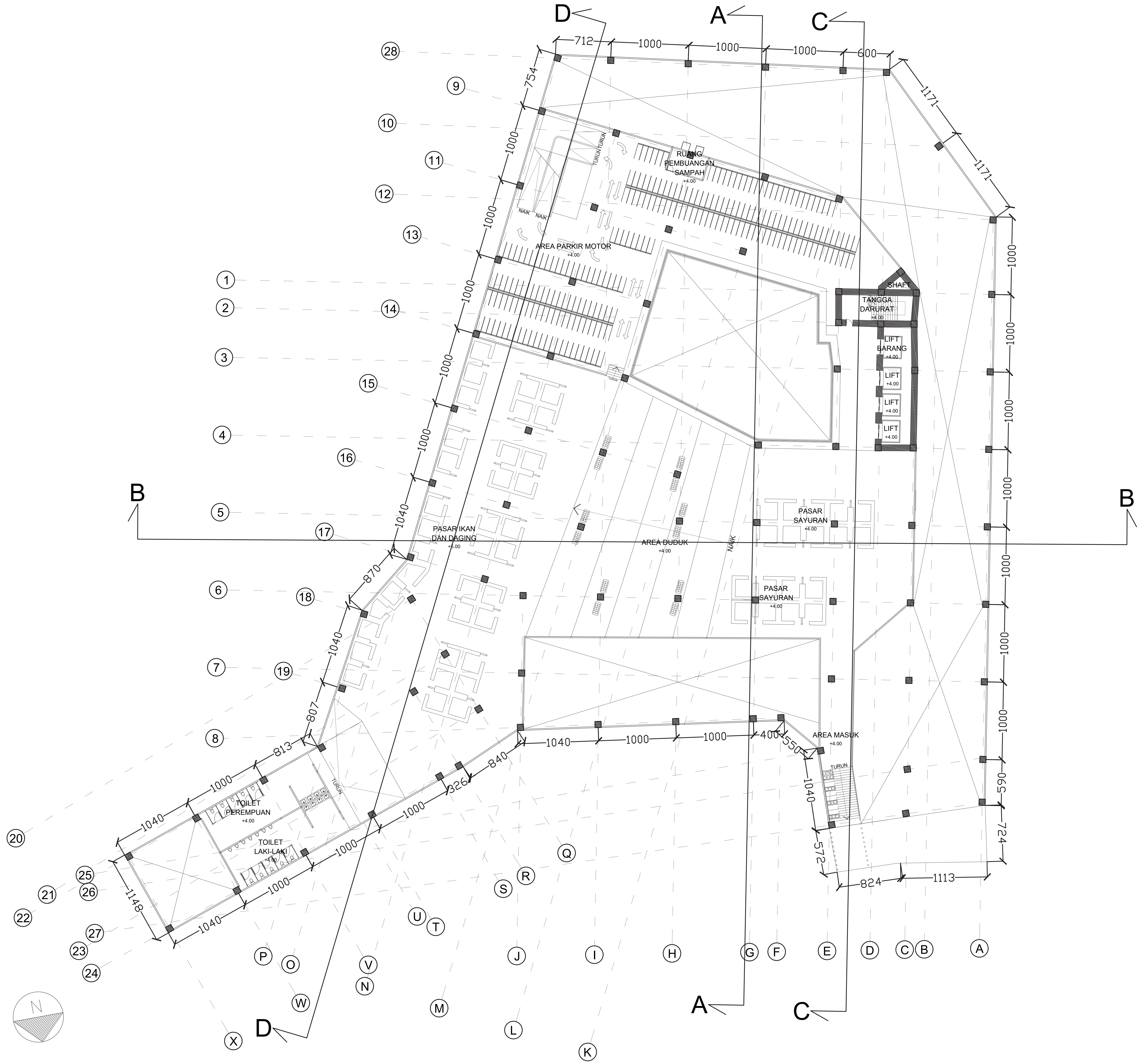
DENAH LANTAI 1

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

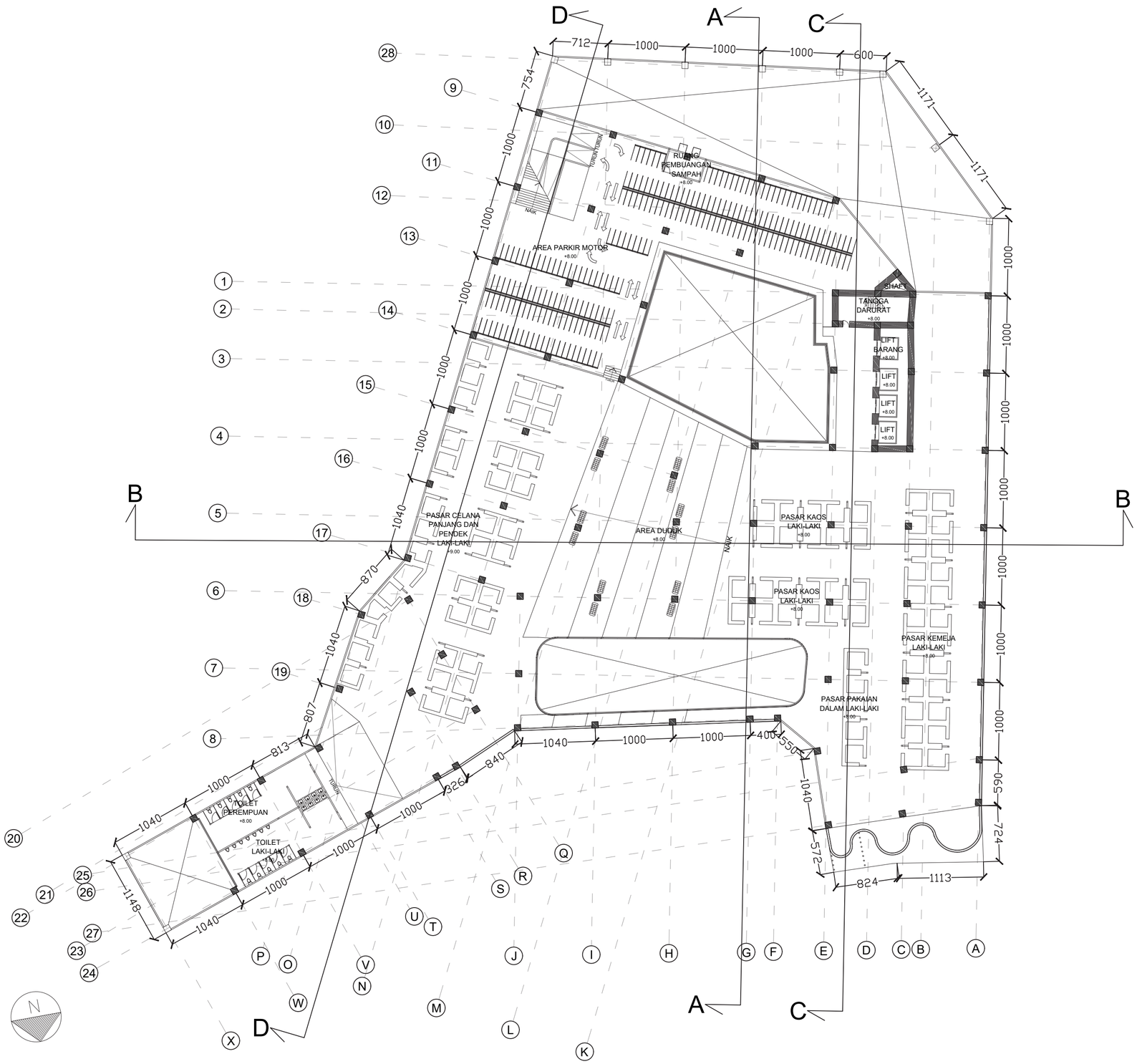
DENAH LANTAI 2

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

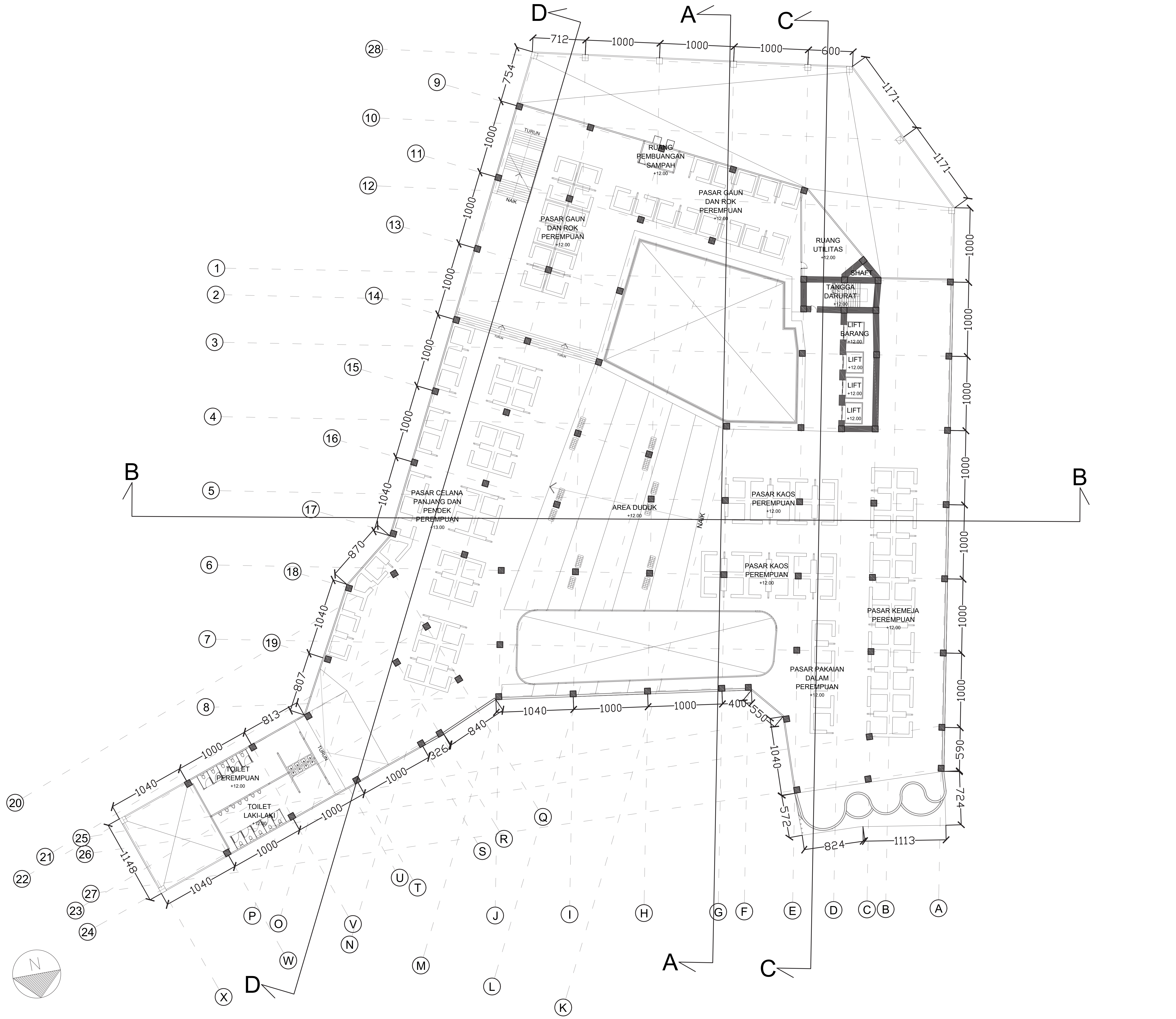
DENAH LANTAI 3

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

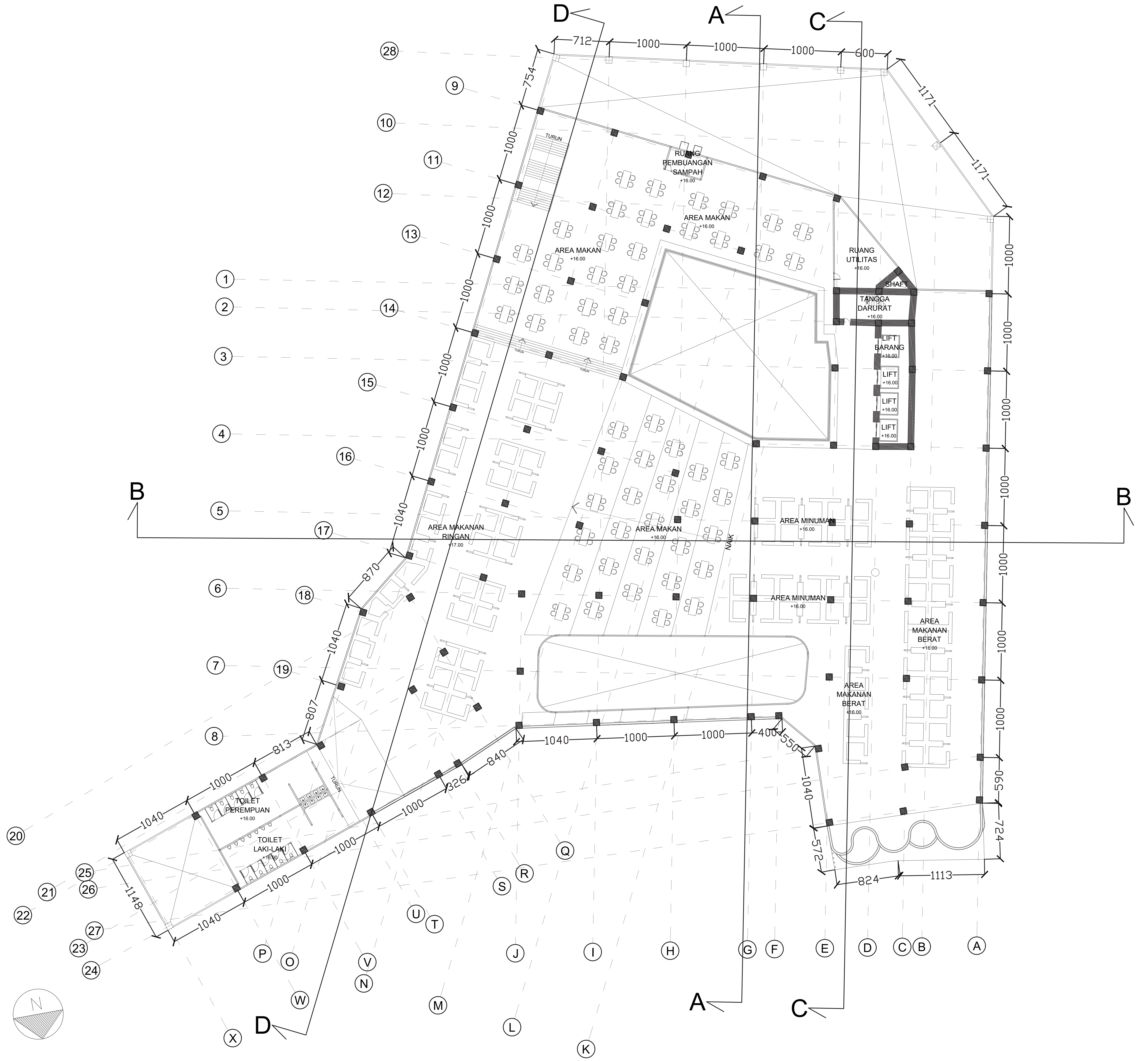
DENAH LANTAI 4

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

DENAH LANTAI 5

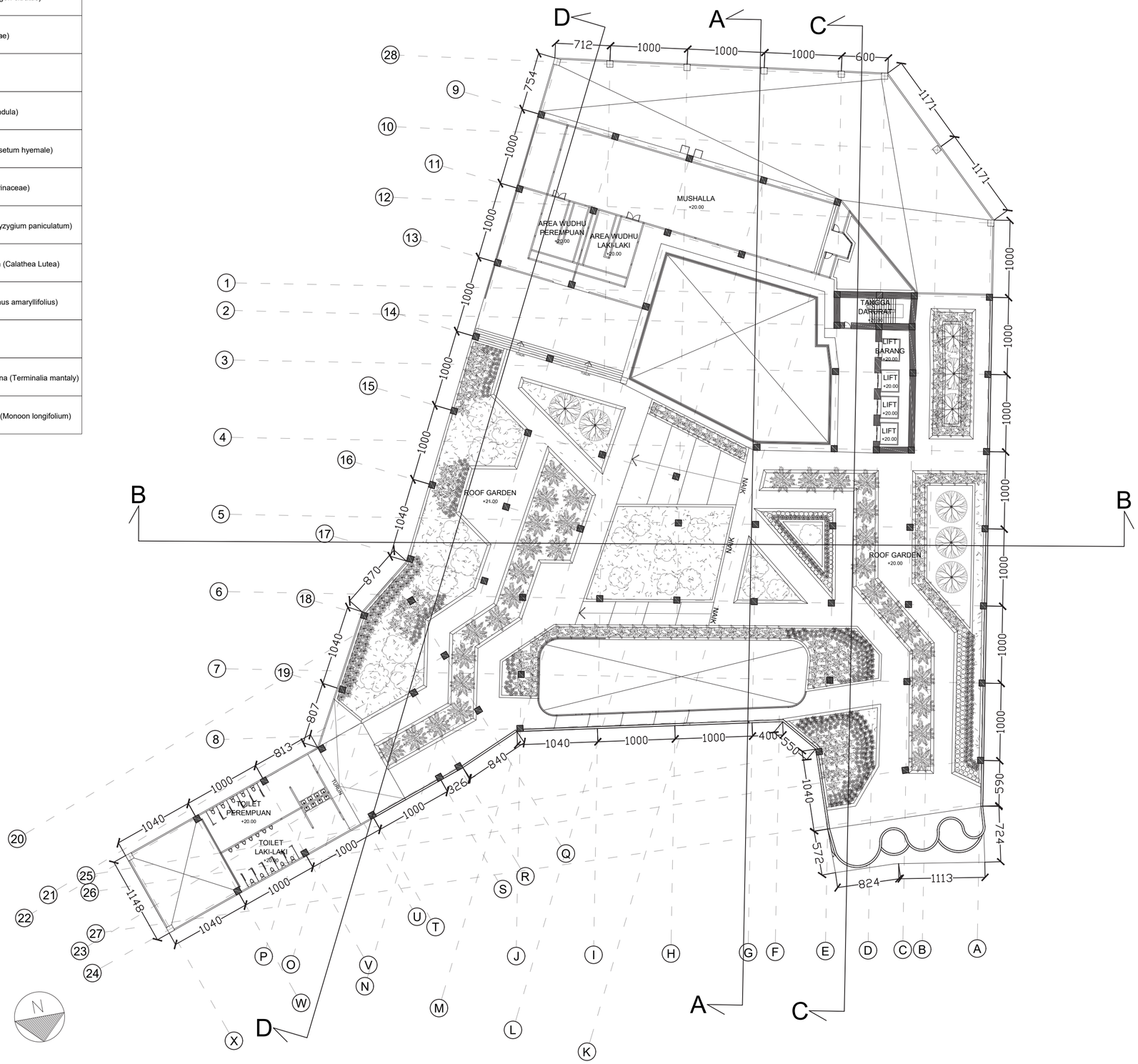
SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

	Serai (Cymbopogon citratus)
	Palem (Arecaceae)
	Mint (Mentha)
	Lavender (Lavandula)
	Bambu air (Equisetum hyemale)
	Cemara (Casuarinaceae)
	Pucuk merah (Syzygium paniculatum)
	Pisang-pisangan (Calathea Lutea)
	Pandan (Pandanus amaryllifolius)
	Bougainvillea
	Ketapang kencana (Terminalia mantaly)
	Glodokan Tiang (Monoon longifolium)



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DOSEN PEMBIMBING 2:

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JUDUL GAMBAR :

DENAH LANTAI 6

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)

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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

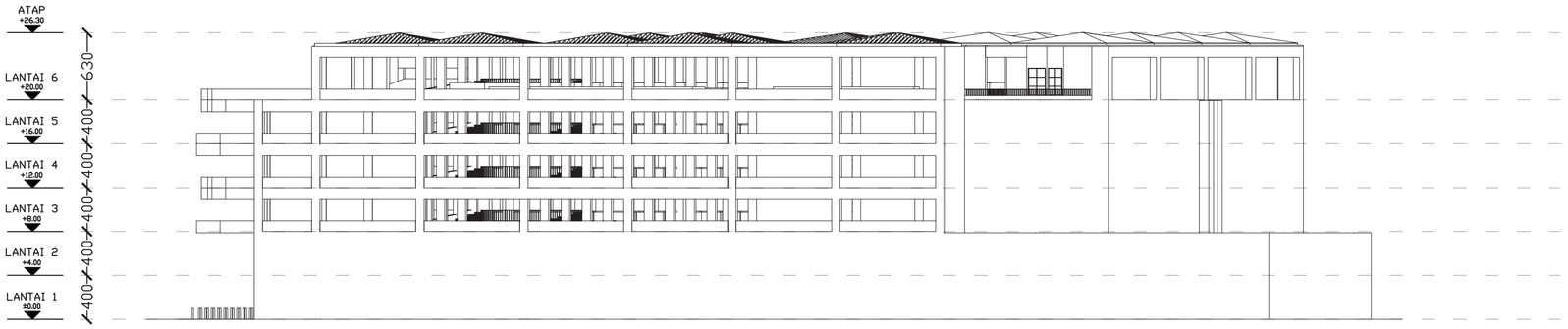
TAMPAK UTARA

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

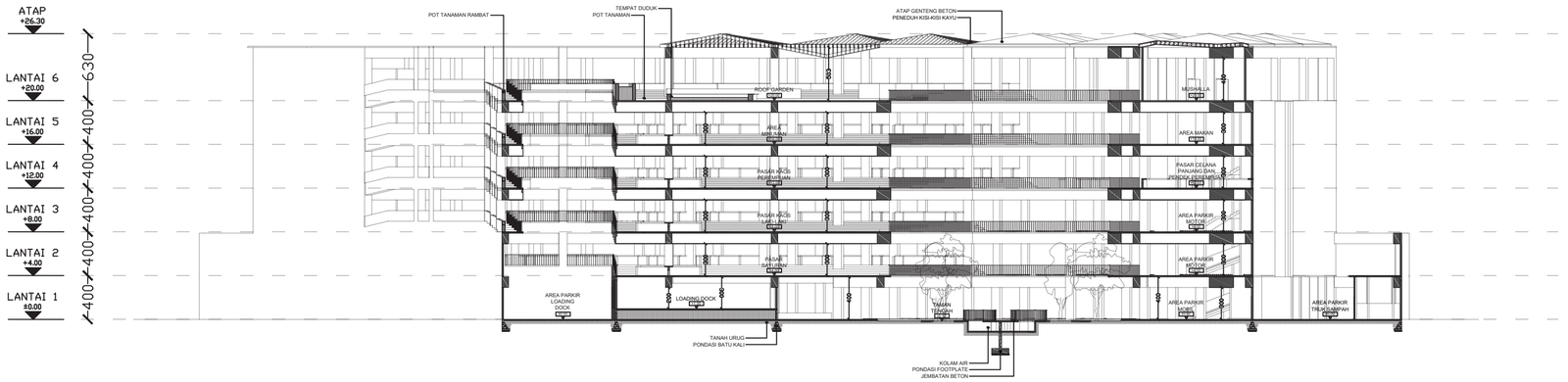
TAMPAK BARAT

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

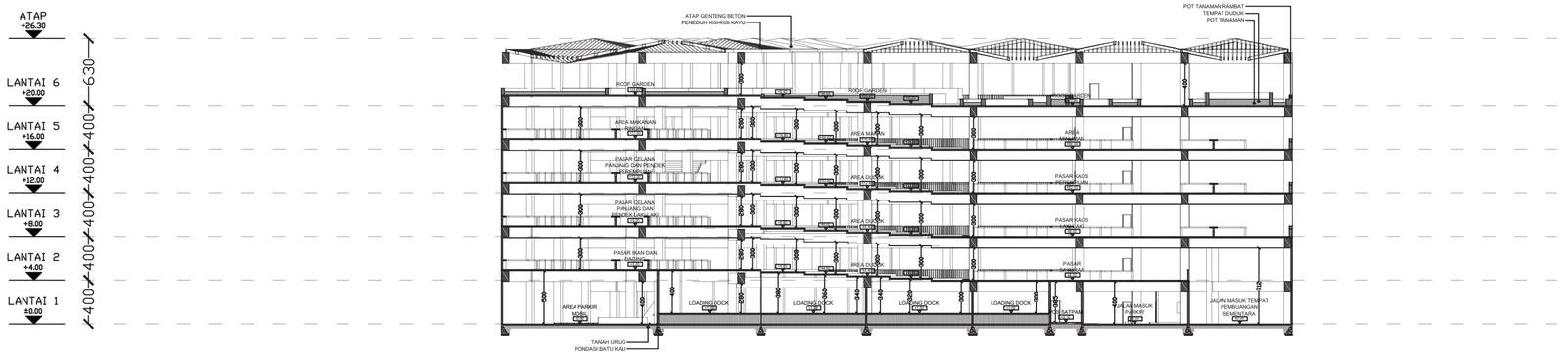
POTONGAN AA

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NAMA MAHASISWA:

FARID RACHMAN

NIM

17660025

DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

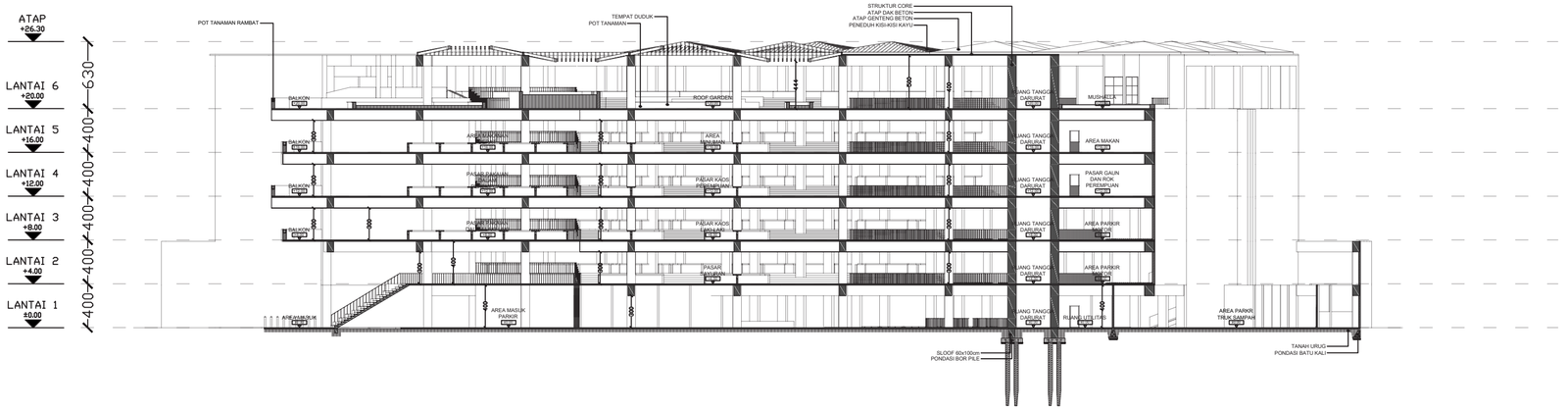
POTONGAN BB

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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NIM
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DOSEN PEMBIMBING 1:

DR. NUNIK JUNARA,M.T

DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

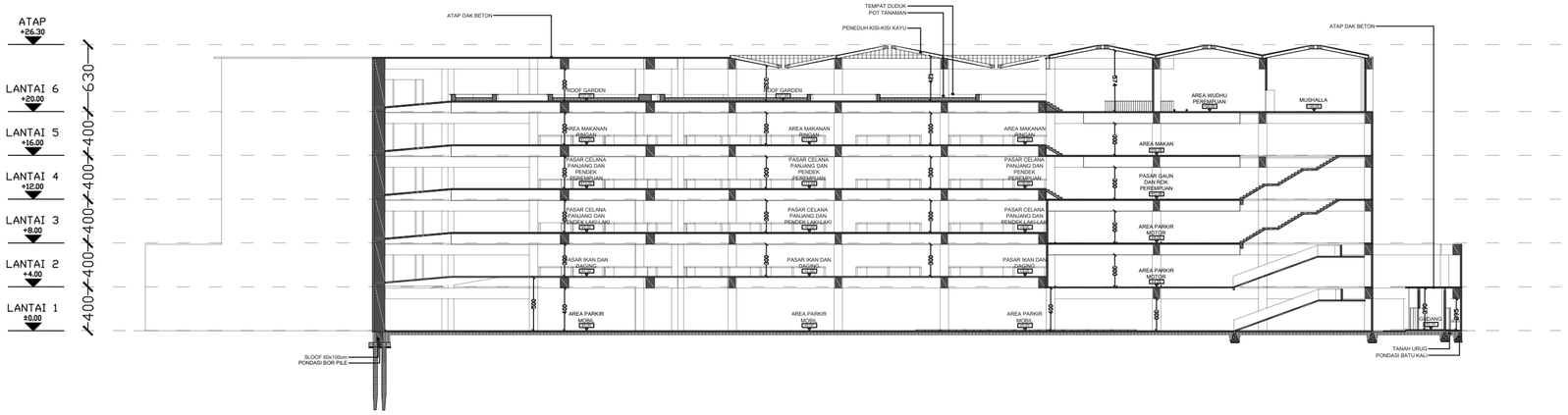
POTONGAN CC

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)



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DOSEN PEMBIMBING 2:

TARRANITA KUSUMADEWI,M.T

JUDUL GAMBAR :

POTONGAN DD

SKALA :

1 : 400

NO. GAMBAR:

LOGO PERANCANGAN (JIKA ADA)