DEPARTMENT of ARCHITECTURE

Final Architectural Design Studio

Design for Movement

Design of Hybrid Office for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan

Dinda Divamba Yoel K
18512173

Supervisor
Arif Budi Sholihah, S.T., M.Sc., Ph.D

REKA RUPA RUANG



Design of Hybrid Office for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan

Dinda Divamba Yoel K
18512173

Department of Architecture
Faculty of Civil Engineering and Planning
Universitas Islam Indonesia

Table of Contents

00

Title 01
List of Content 02
Authentication Sheet 03
Letter of Authenticity 04
Acknowledgements 05
Project Title Description 07
Design Premise 08

01 Preliminary 09

1.0 Background 11
1.0.1 Sedentary Behavior and Office Syndrome 13
1.0.2 Economic Growth of Balikpapan 14
1.0.3 Traditional corporate office culture 15
1.0.4 Informal Interaction in the workplace 15
1.0.5 The New Independent Workforce 16
1.1 Problem Formulation 17
1.2 Design Methods 19
1.3 Design Framework 21
1.4 Originality and Novelty 23

02 Study of The Design Problem

2.0 Site Context Study 29
2.0.1 Geographical Condition of Balikpapan 30
2.0.2 Topography Condition of Balikpapan 31
2.0.3 Climate Condition of Balikpapan 31
2.0.4 Building Codes and Regulation 32
2.05 Balikpapan Spatial Policy 33
2.1 Design Study Theme
2.1.1 Hybrid Office 35
2.1.2 Active Design in Building 37
2.1.3 Healthy Lifestyle 38
2.1.4 Connectivity 39
2.3 Office of Tomorrow Guidelines 43
2.4 Building Typology & Precedent Study 51
2.5 Design Concept Analysis 57
2.6 Figurative Design Studies and Concept 67

03 Schematic Design

3.0 Site Location 67
3.1 Site Analysis 69
3.2 Design Alternatives **(Comprehensive)**
3.2.1 Building Mass Alternative 77
3.2.2 Mass and Facade Exploration 79
3.2.3 Site Plan Consideration 81
3.2.4 Schematic Drawings 83
3.2.5 Space programming 85
3.2.6 Interior Design 89
3.3.7 Structural System 91

04 Final Design 93

4.0 Project Description 95
4.1 Property Size 97
4.2 Building Mass Transformation 101
4.3 Design Problem Solving 125
4.4 Situation Plan 135
4.5 Site Plan 136
4.6 Floor Plan 137
4.7 Structure and Materials 145
4.8 Circulation Plan 147
4.9 Supporting Facilities 149
4.10 Utility Plan 151

05 Reflections 153

5.0 Investment Feasibility 155
5.1 Comprehensive vs. Design Development Stage 157
5.2 Building Form Consideration 158
5.3 Structural Consideration 159
5.4 References 163

AUTHETICATION SHEET

Final Architectural Design Studio Entitled:

Design for Movement: Design of Hybrid Office for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan

Student Name : Dinda Divamba Yoel K
Student identification Number : 18512173
Has been evaluated and agreed : Yogyakarta, 21th July 2022

Supervisor	Jury 1	Jury 2
Arif Budi Sholihah, S.T., M.Sc., Ph.D	Putu Ayu P. Agustiananda, Dr.Ing., S.T., M.A	Noor Cholis Idham, Prof., Ar., S.T., M.Arch., Ph.D. IAI

Acknowledged by:
Head of Undergraduate Program in Architecture

Yulianto Purwono Prihatmaji, Dr., Ar., IPM., IAI

STATEMENT OF AUTENTICITY

By signing this form, I:

Name : **Dinda Divamba Yoel K**
Student Number : **18512173**
Study Program : **Architecture International Program**
Faculty : **Faculty of Civil Engineering and Planning (FTSP)**
University : **Universitas Islam Indonesia**
Title : **Design for Movement: Design of Hybrid Office for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan**

I hereby declare that this design work is the result of my own work and is not the result of plagiarism and does not contain any work that has been submitted for a bachelor's degree at a university or has been published by another person, except in writing referred to in this manuscript and mentioned in the list rference.

Yogyakarta, 1 Agustus 2022

Author



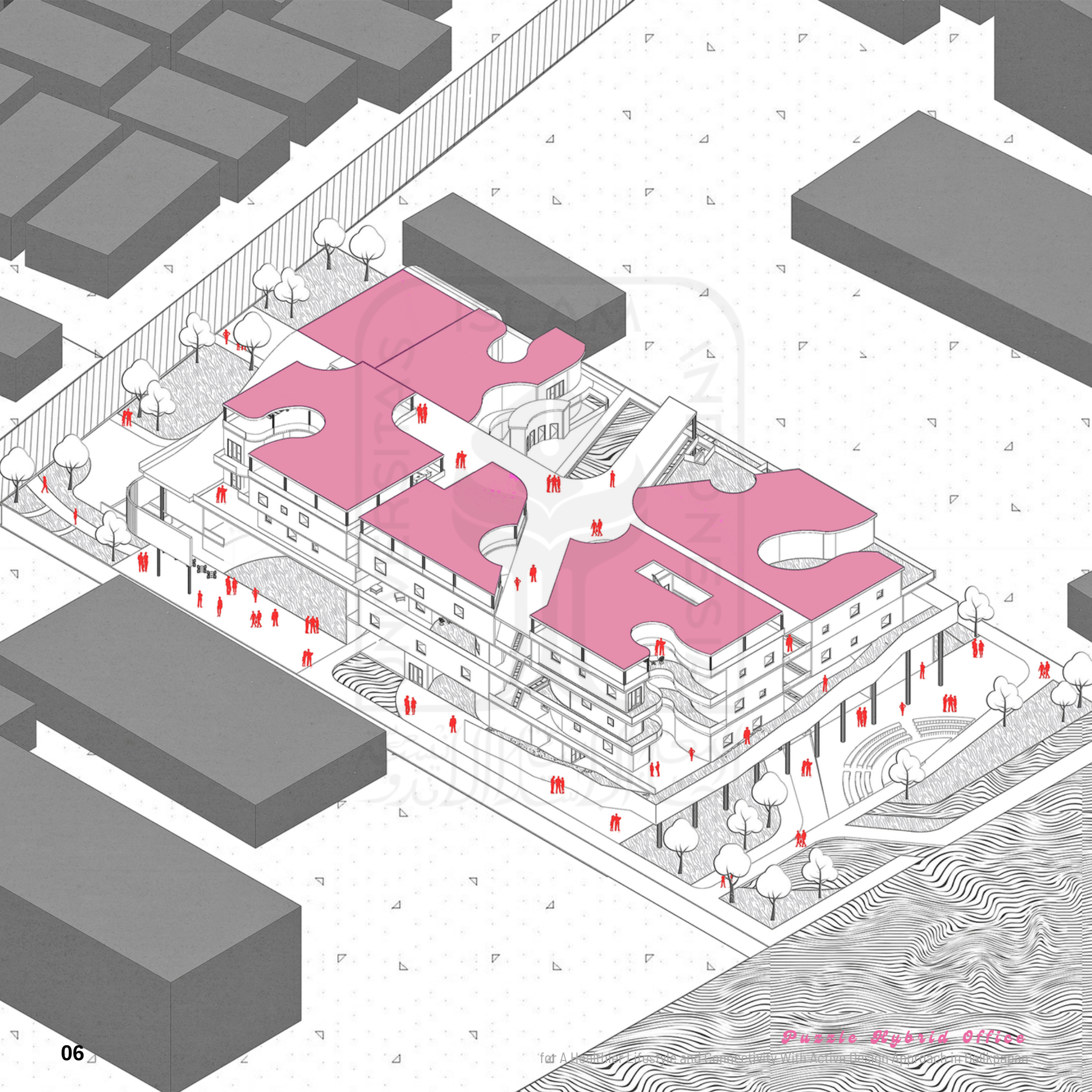
Dinda Divamba Yoel K (18512173)

ACKNOWLEDGEMENTS

First and foremost, praise and thank be to Allah SWT, the almighty, who has granted countless blessings, knowledge, and opportunity to the writer, so that she has been finally able to accomplish her thesis. The writer hardly knows where to start expressing her gratitude, but the gratitude goes to all those who have assisted her in completing this thesis. It would be impossible to list all names but several people deserve her sincere and special thanks.

1. My family, Komarudin (Dad), Dyah Yuliatin (Mom), and Diwa Ghulam Fajrin K (Brother) deserve special mention for their inseparable support and prayers.
2. Arif Budi Sholihah, S.T., M.Sc., Ph.D., as the supervisor who has supported me throughout my project with her patience and expertise while allowing me the room to work in my own way. I attribute my Bachelor's degree to her encouragement and effort and without her, this project would not have been completed. One simply could not wish for a better supervisor.
3. Putu Ayu P. Agustiananda, Dr.Ing., S.T., M.A as the first examiner, and Noor Cholis Idham, Prof., Ar., S.T., M.Arch., Ph.D. IAI as the second examiner who has giving me a criticism and suggestions as well as constructive input so that this Final Architectural Design Studio can be an even better work.
4. Wiryono Raharjo, Ir., M.Arch., Ph.D., as Academic Supervisor Lecturer (DPA) for the support during my study in Architecture.
5. My best friend, Teuku Rifqi Fanshuri who always there for me through it all, I simply couldn’t have done this smoothly without him.
6. In my daily work, I have been blessed with a friendly and cheerful group of friends; Itsna, Ranti, and Fairuz, for sharing their invaluable assistance.
7. My International Program (IP) friends who always support each other in every aspects of life; Ummi, Rifqi, Sultan, Fariz, Krahus, Rizka, Nadya, Aufa, Tyas, Aljau, Shafira, Thirafi, Putra, Nabilla, Chalid, Pac, Daffa, Bdur, Satrio, Faiz, Zulfa, Salsabella, Akmal.
8. My HC Friends, Ilsa, Ida, Salwa, Salma, Putri, Seila, and all people in my secondary instagram account who always support me online.
9. FADS Committee, head, staff, lecturers and employees of the Architecture Department, Universitas Islam Indonesia, Direktorat Perpustakaan UII, without their cooperation and kindness, this project could not have been completed.
10. All parties who have helped the design work process that the author cannot mention one by one.

The author realizes that there are still many shortcomings in the writing of this writing and is open to criticism and suggestions that are useful in developing this writing.



Project Title

Design of Hybrid Office for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan

Design for Movement

In this context, movement defined by a physical activity or any movement of the body that requires energy expenditure.

Hybrid Office

A hybrid office is an office concept that becomes a second home for employees. A sense of comfort at work is a target that the company wants to achieve for its employees. When it comes to hybrid office design, there are two major keys to getting it right. The first is all about how we design the new work model to fit today's flexible work demands.

A Healthier Lifestyle

A healthy lifestyle is the application of a good and balanced lifestyle to create a healthy life both physically, mentally and socially so as to prevent the emergence of various diseases and create happiness.

Connectivity

Connectivity and successful business go hand-in-hand. The rise of the digital workplace is less the ground-breaking headline of 20 years ago, and more of a given as companies increasingly adopt digitized systems for their information and work practises. But connectivity in the workplace is much more than integrated technology: the most successful work environments foster social and emotional connectivity as well.

Active Design Approach

Active design is a set of building and planning principles that promote physical activity. Active design in a building integrates physical activity into the occupants' everyday routines.

Design Premise

Let me take you through a day in the life of Muhammad Ilham:

Daily Routines

05.30	Wake Up + pray
07.00	Work preparation (sit)
08.00	Heavy Breakfast (sit)
08.30	On the way to office
09.00	Work (sit at his desk)
12.00	Break + heavy lunch (sit)
13.00	Work (sit at his desk)
17.00	Go home
18.00	Take a rest, coffee time
19.00	Dinner (sit)
20.00	Hangout in cafe (sit)
00.00	Sleep

In certain moments

20.00	Work (sit)
00.00	Sleep

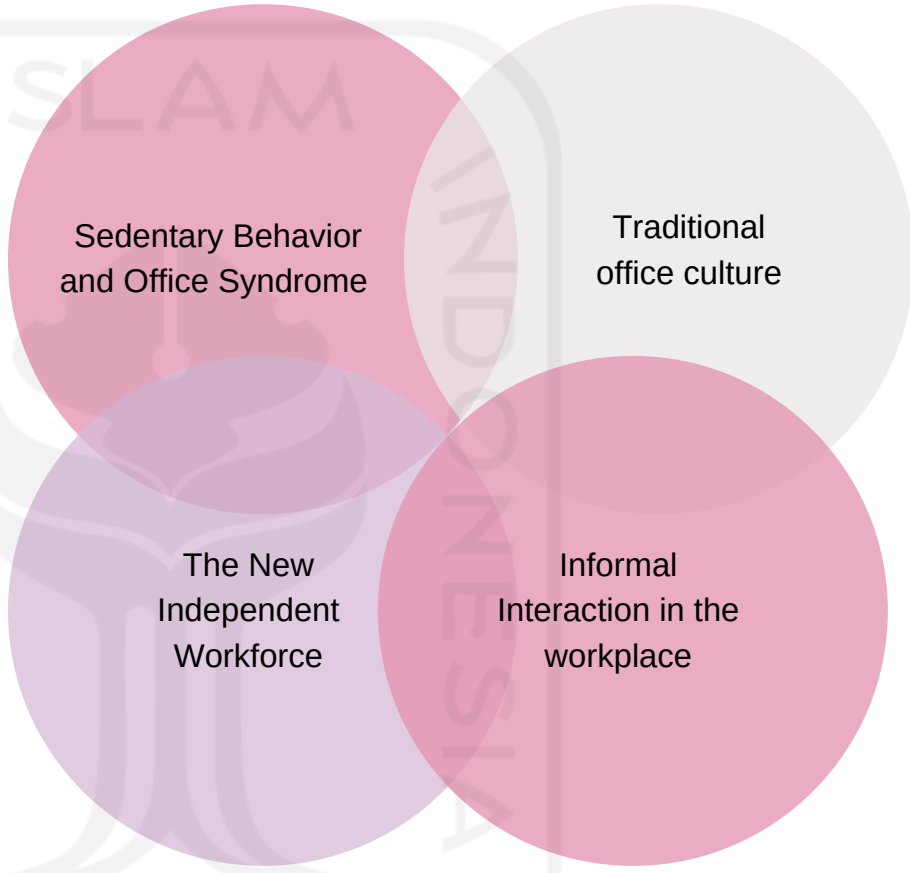
Do you recognize yourself (partly) in this routine?

Lots of people especially office workers sit in chairs with the same posture all day with very little physical movement. In the current era of globalization, human lifestyles are strongly influenced by modernization. This makes people love instant, fast, and practical things that don't take much time because technology can make things more efficient. But, those easy choices makes some people experience an unhealthy lifestyle. Paradoxically, **the workplace has become an environment that contributes to poor employees' health while offering the greatest potential for improving the overall health and well-being of employees.**

Chapter 1

Puzzle Hybrid Office

for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan



Background

01

Background





Sedentary Behavior and Office Syndrome

The current modern life in the city including the city of Balikpapan consists mostly of office work – sitting for hours in the same position and working hard at work in front of a computer screen; resulting in an increasing trend of sedentary behavior in the office. At first glance, we might assume that this sedentary behavior is unlikely to be a dangerous or unhealthy way of life. In fact we think that with the advancement of technology, making activities more comfortable, fast, and not tiring. However, most people do not know that such a lifestyle can lead to serious consequences on the body, especially for muscles, spine, even productivity and work performance.

Sedentary behavior causes "Office Syndrome"; aches and pains in the spine or muscles caused by sitting or the same position for a long time, this habit is very easy to find in the office environment. Body aches and pains that may seem normal at first, can lead to chronic pain, intervertebral disc disease, and spinal abnormalities (Dr. Pakapon Issaragrisil, 2018). Posture and performance in working optimally get a bad impact from this habit.



Sedentary offices
source: google

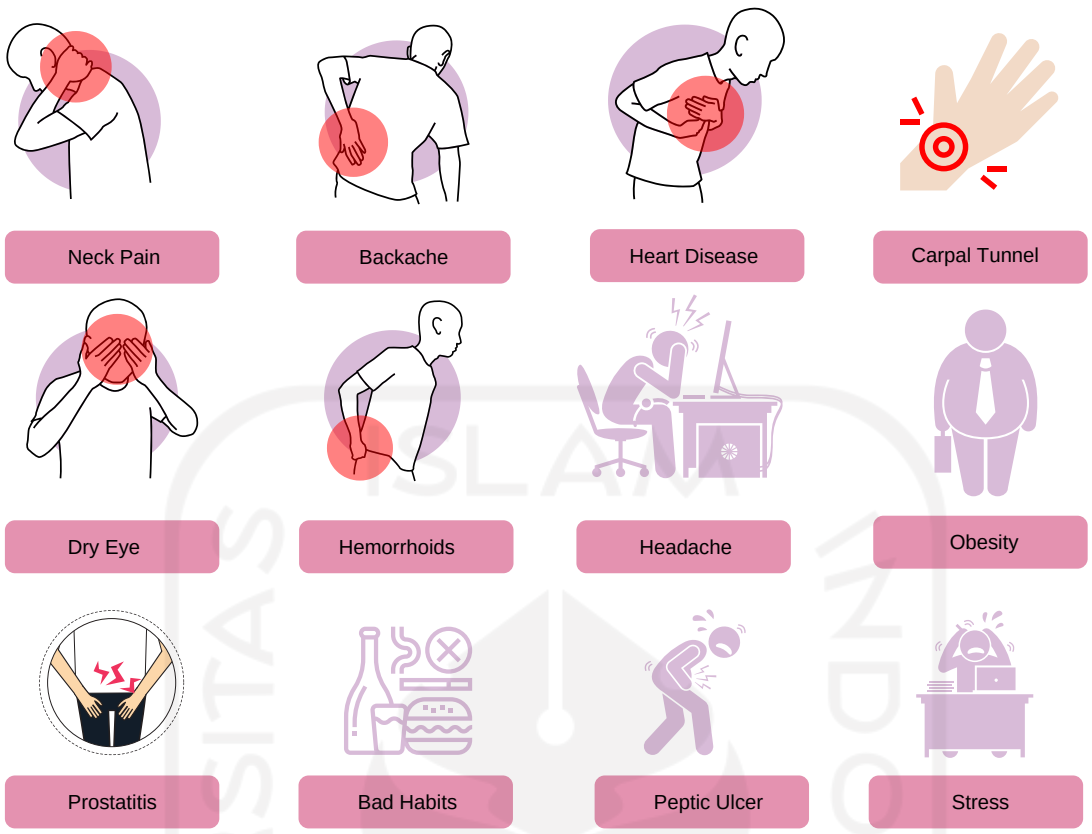




"Office workers need to get off their backsides and move around more"

According to WHO in 2015, the habit of sitting for long periods of time is the 4th leading cause of death in the world. In 2016, Kompas.com reported that the death rate from sitting too long continued to rise, a study published in the American Journal of Preventive Medicine found that sitting more than 3 hours per day increased the risk of premature death by 3.8%. This figure is equivalent to 433,000 the number of deaths in the world each year. Dr James Levine, a doctor at the Mayo Clinic in Rochester, said sitting too long can cause the same ailments as smoking. He also mentions that adults who sit more than 4 hours/day have an 80% risk of dying from heart disease, compared to people who sit less than 2 hours/day, he also adds that just by standing, the body burns more calories than those who sit. adults who sit more than 4 hours/day.

The workplace is a very important place to promote health. Given the fact that the average adult spends about half of his waking hours at work, there is great potential to use this time to encourage increased physical activity and a healthier lifestyle. In addition, it is also beneficial for the company to take its business forward because this habit is closely related to employee productivity and work performance. According to the Canadian Council for Integrated Health, workplace health problems not only cost companies but also increase stress for the remaining employees, creating a vicious cycle. Sick employees also have an impact on families, communities, and the health care system. Workplace boundaries are penetrated, and costs are easily transferred to other elements of society. It is for this reason that workplace health should be a priority for all involved.

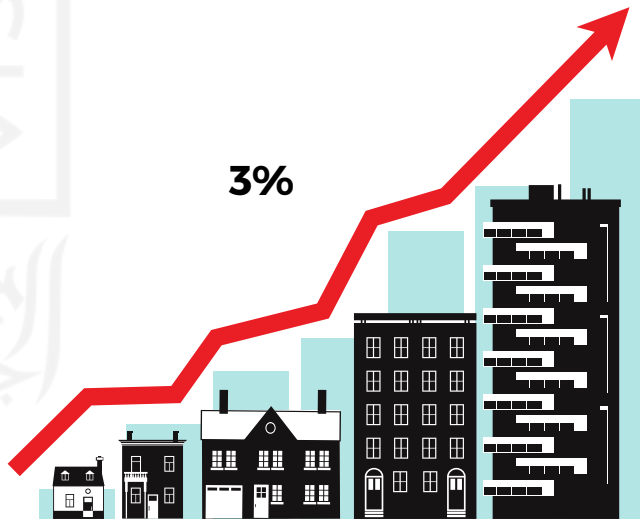


Office Syndrome

source: Author, dtapclinic

Economic Growth of Balikpapan

Balikpapan City's economic growth in 2021 is projected at approximately 3.00 percent, this is driven by several factors. Namely, the continuation of the RDMP project, the development of IKN access, and national strategic projects. Then, the strengthening of domestic demand in line with the post-Covid-19 recovery, relaxation of economic activities, including face-to-face learning and vaccination coverage for the people of Balikpapan City. Economic growth encourages new businesses and company growth so that a comfortable workspace can meet their needs is needed.



Economic Growth in East Kalimantan
(kuartal I/2022)

source: Author, dtapclinic

Traditional corporate office culture

The corporate office settings are often insensitive and inflexible to the need of individual worker and creativity, collaboration, and health. Traditional companies are designed to produce the same results every time, just like a machine. They are not designed to be adaptable, flexible, or subjective. It turns out sitting at that desk in a long time is incredibly bad for our body; blood flow, spine alignment, muscle degeneration, strained neck and shoulders, raised cancer risks and heart disease are just some of the psychical implications of sitting at a desk for a long time.

Office life has always been only about work and focusing on the task, but forget about the enjoyment of life, the benefits of collaboration, and health.

Current Programs

Regular Office	Open Plan Workstation
Pantry	Server Room
Meeting Room	Conference Room
Restroom	Printing Room



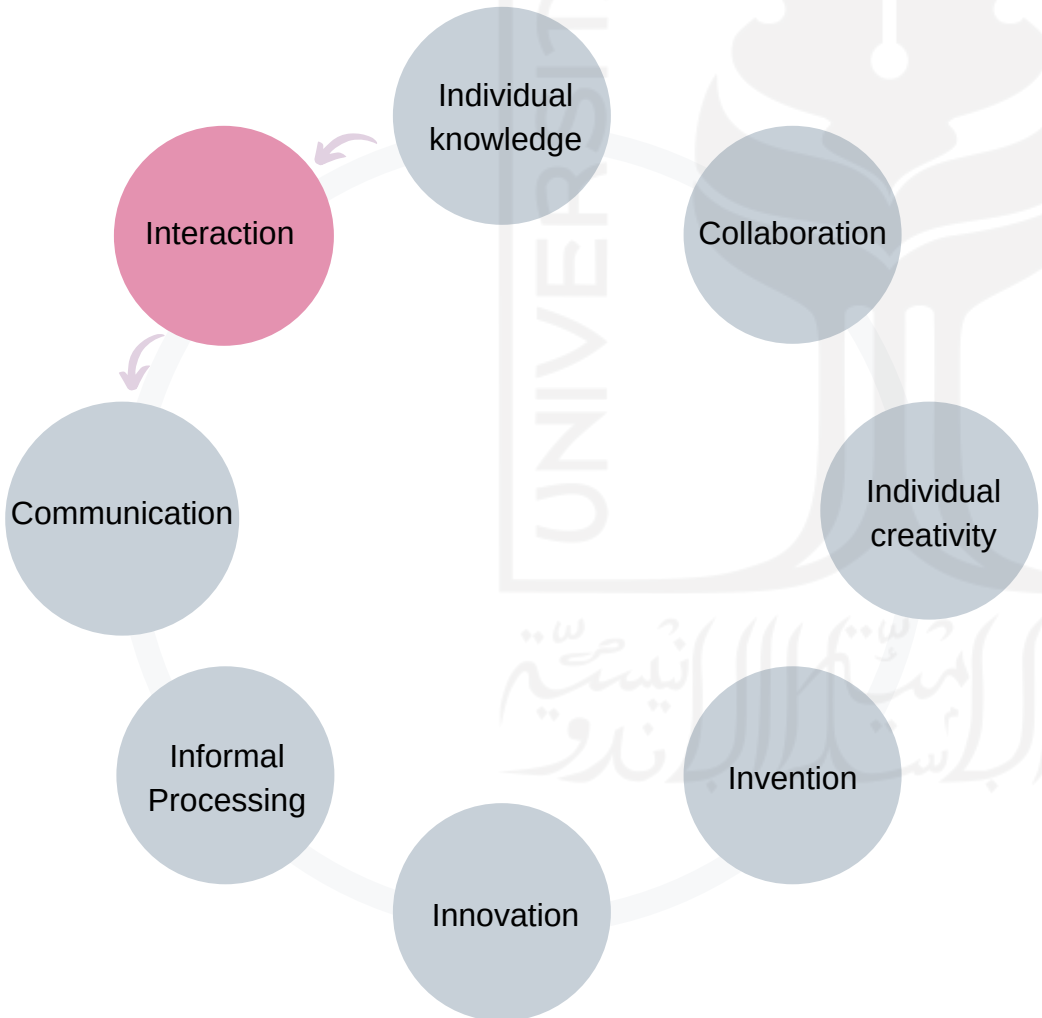
Traditional office layout
source: google

Informal Interaction in the workplace

According to Lawrence Kam (2017). the future workplace can be defined by the increasing focus in knowledge sharing through **informal interaction** because of the capitalist notions of productivity, cost-efficiency and growth.

The current and future generation prefer gathering knowledge from friends or trusted sources, best delivered face-to-face, because they can have a good sense of whether the information is relevant to their work at hand.Although more interactions in the workplace may not have an exact impact on an individual's performance, but the increase in probability of communicating with other co-workers also improve the probability of teamwork. With team work, it can then end to better retention of information, and in turn, higher productivity (Motamed, 2013).

Informal interaction supports a variety of various functions: the execution of work-connected tasks; coordination of group activity; transmission of office culture; and social functions like a team making. This is already prevalent in the modern designs of co-working spaces, where exposure, networking, and collaboration are needed for success.



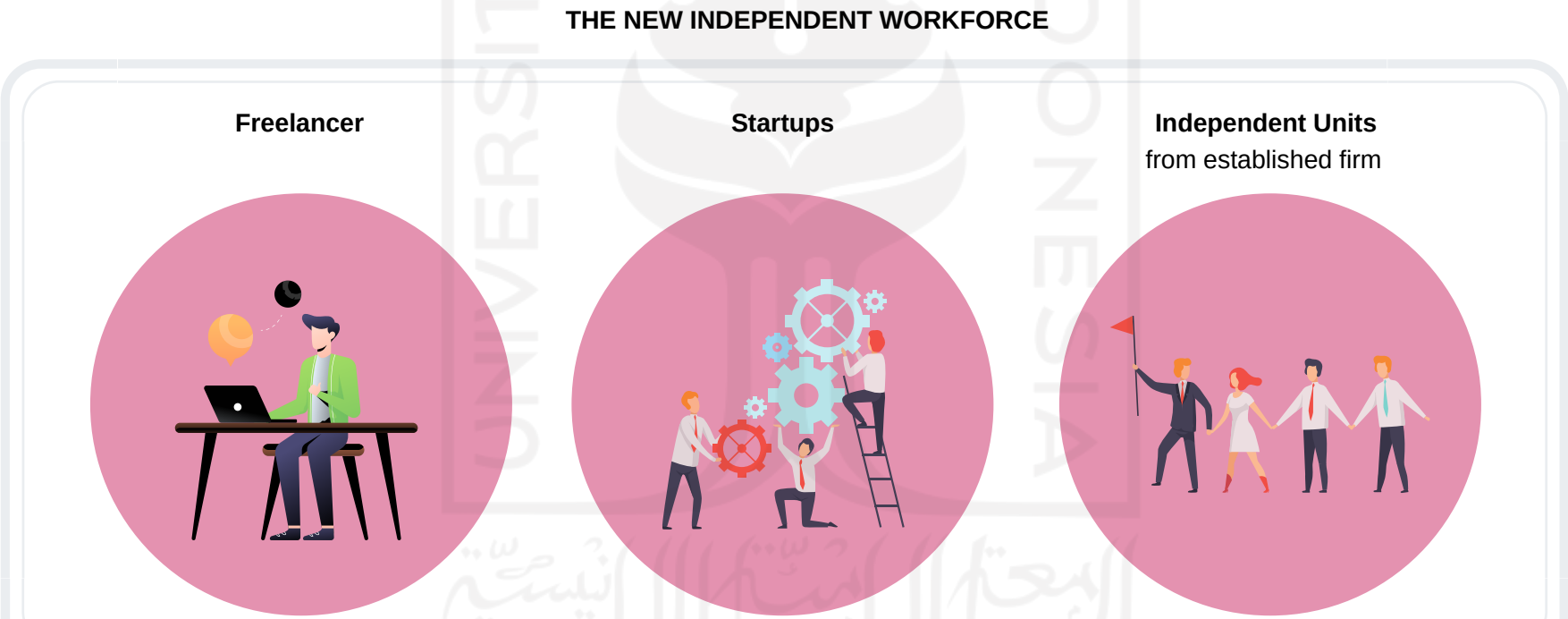
Knowledge Sharing Cycle
source: Oseland, M et al, 2011

A good office layout and design promotes and cultivates informal interaction, which then contributes to knowledge sharing, team-building, and job satisfaction (Lawrence, 2017).

The New Independent Workforce

The design of offices are essentially driven by the business culture and its workforce. In the current business concept, the concept of trade in goods and services is moving from industrialization and repetition to being completely customization and personalization. As the culture changes, the people also change. **Flexibility** is key to the success of most businesses today. Thus, the new independent workforce of today consist of the "Freelancer, Startups, and Independent Units". Morgan Lovell believe that the evolution of office design will see workers using offices not merely

Today’s workplace is looking very different and those companies and services that embrace the independent workforce and make it a part of their HR strategies will be at a competitive advantage. The gig economy was on the rise even prior to COVID-19 lockdowns and massive layoffs. As businesses had no other option than to adopt remote working and work from home policies, going forward, more and more companies will rely on contingent workforce and freelancers.



The types of workers in the new independent workforce
source: Lawrence, 2017

Problem Mapping

CONFLICT MAPPING

Architectural Issues

There is no office space design that considers employees to be more physically active.

Office layout in the city of Balikpapan is still traditional, in the form of cubes, so there are very few informal interactions and collaborations.

Non-Architectural Issues

Sedentary behavior in the office has become the culture of most offices today.

Lack of physical activity and unhealthy food intake is a trend of modern lifestyles for people who work in offices.

Designing a hybrid rental office that encourages the user to be more active and encourage informal interaction to improve work performance.

Balikpapan City

Sudirman Street as a trade and service area

Local Government Regulation

Design for Movement

- Routes
- Destination
- Activity Program
- Building Surrounding

Active Design Approach

Human Behavior

Space Provisions

General Problem

How is the design of a future rental office that supports a healthier lifestyle, movement, and informal interaction of the employee with the application of active design approach?

Specific Problems

1. How to design an office that encourages people to be more active and make the active choice is the easy choice?
2. How to design a space programs and circulation that increase the value of connectivity (informal interactions) and collaboration which encourage the discussion and generation of new ideas among co-workers?
3. How to design an office which adapt to the changes of business practice and consider a physical activity, health, and the future generation of workers?

Goals

Designing a hybrid rental office that encourages the user to be more physically active and encourage informal interaction to improve work performance.

Objectives

1. Designing a rental office that encourages physical activity because it greatly affects health and work performance.
2. Designing a non-traditional and playful workplace to improve creativity and work-life balance.
3. Designing comfortable space arrangements and circulation that encourage users to more active.
4. Designing a comfortable, healthy, productive work environment to improve the company's economy.
5. Designing a model of a healthy and playful work environment that is expected to be an example for the next workspace development.

Problem Thinking

Issues	Sedentary behavior in the workplace	Current traditional office culture	Independent Workforce	
Context	Design for movement	Active Design Approach	Connectivity (Informal Interactions)	Flexibility
Analysis		Creating a sense of play working environment with Active Design Approach	Affording Informal interaction through a spatial computation and visual analysis	

Hypothesis

Designing a hybrid rental office that encourages people to be more active through a sense of play working environment with active design approach and affording connectivity to promote collaboration, creativity, and productivity.

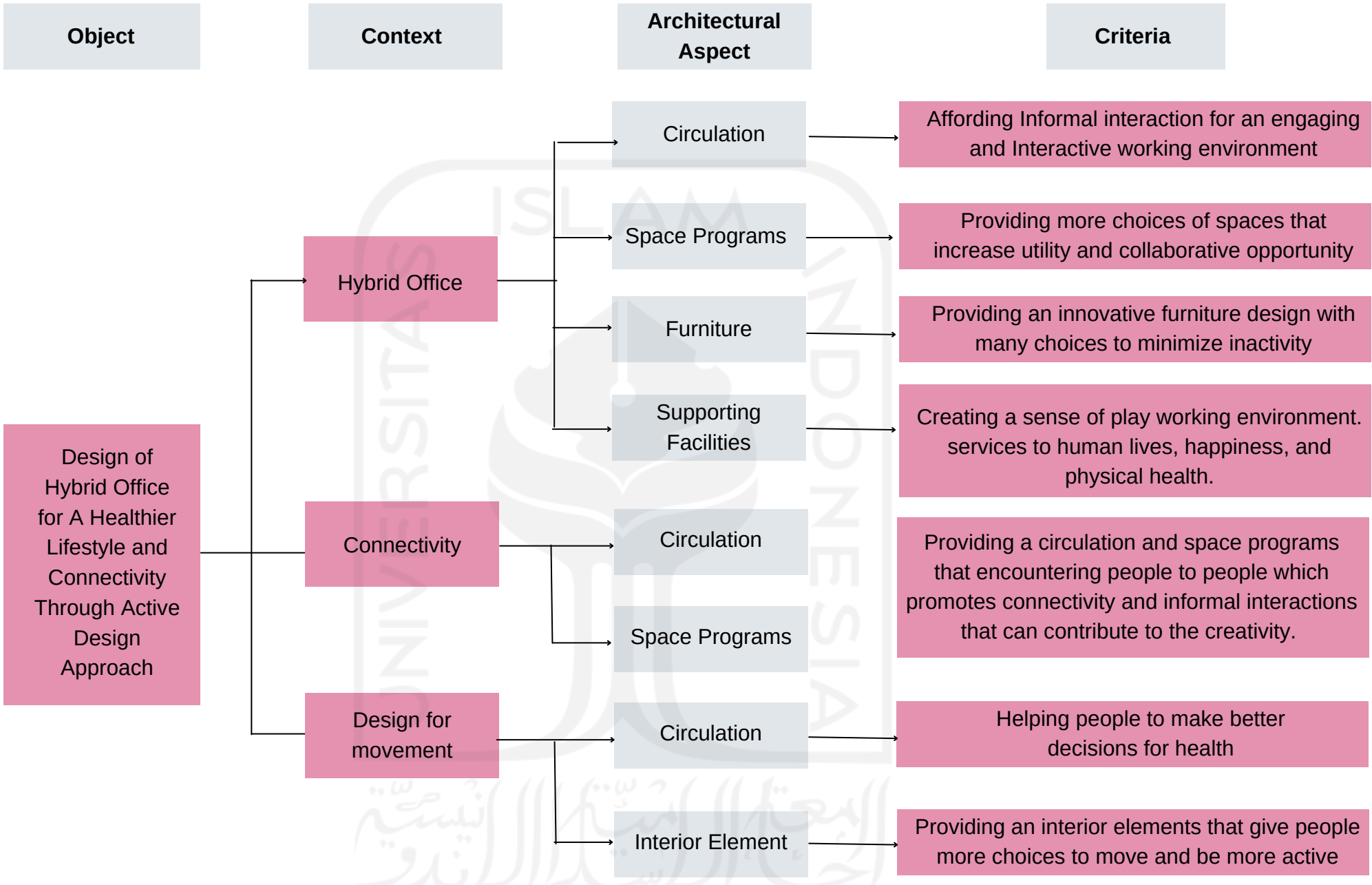
Problem mapping diagram
source: Author

Design Strategy

Design Strategy

Concept	⟷	Design Strategy
Physical Activity	⟷	THE FOUR DOMAINS OF ACTIVE DESIGN Research by Eric van der Burg
Visual Connectivity	⟷	
Physical Connectivity	⟷	
Information Connectivity	⟷	

Design Framework



Problem	Concept
How to design an office that encourages people to be more active and make the active choice is the easy choice?	Future rental office which able to **adapt to the changes of business practices** and be able to integrate with the public through creating programs such as co-working space, auditoriums, and F&B. And also, catering a new workforce of "millennials" that is much more about independence and self-driven personality.
How to design a space programs and circulation that increase the value of connectivity (informal interactions) and collaboration which encourage the discussion and generation of new ideas among co-workers?	Future rental office that is encourages physical activity through an inviting interior elements such as exercise tools, pathway, and furniture design. And also, exploring how people make a better decision for health through the concept of **"inviting affordance"**
How to design an office which adapt to the changes of business practice and consider a physical activity, health, and the future generation of workers?	Future rental office that is more socially engaging space that would aids in the creativity through informal interactions, physical connectivity, visual connectivity, and information connectivity.

Flexibility and Adaptability

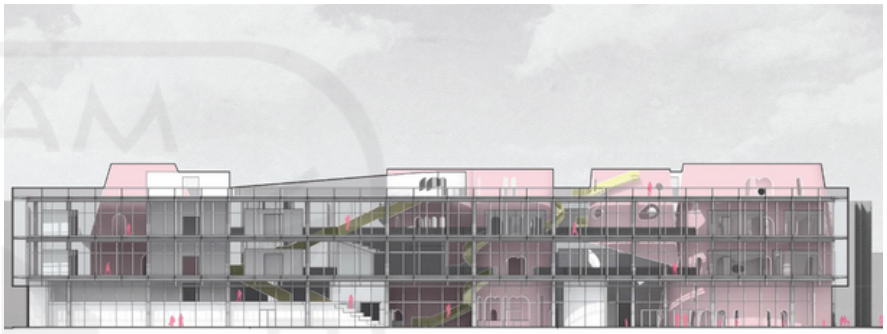
Movement

Concentration and Collaboration

Originality and Novelty

In-Between the line:
The Creative Office Space of Tomorrow

Approach	: Biophilic Approach
Designed by	: Jean Dan
Publication year	: 2019
Concept	: Creative office space of tomorrow
Similarities	: Independent Workforce and background and Biophilic Approach
Differences	: Different approach: Active Design and Biophilic Approach Different Concern: Physical activity and people connectivity



Design 1
Source: Jan Dean, 2019

Future Collective Workplace
Affording Informal Interaction Through Spatial Computation

Approach	: Spatial Computation of Interactions
Designed by	: Lawrence Kam
Publication year	: 2017
Concept	: The office of tomorrow
Similarities	: Independent Workforce and Informal Interaction background
Differences	: Different approach: Active Design and Biophilic Approach Different Concern: Physical activity and people connectivity



Design 2
Source: Jan Dean, 2017

Architecture x Movement: How Human Circulation Networks Can Shape The Workplace

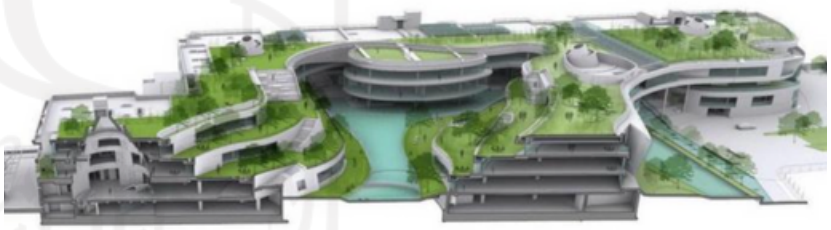
Approach	: Spatial Computation of Interactions
Designed by	: Hoong Yong Wen
Publication year	: 2017
Concept	: The office of tomorrow
Similarities	: A human-oriented design method (physical and psychological comfort)
Differences	: Different approach: Active Design and Biophilic Approach



Design 2
Source: Jan Dean, 2017

Enhancing Productivity of Employees in Workplaces through Biophilic Design Strategies

Approach	: Biophilic Approach
Designed by	: Bhoomika Mehta
Publication year	: 2021
Concept	: Productivity in the workplace
Similarities	: Biophilic Approach, Productivity in the workplace
Differences	: Different approach: Active Design and Biophilic Approach Different Concern: Physical activity and people connectivity



Design 2
Source: Jan Dean, 2017

Chapter 2

Puzzle Hybrid Office

for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan

02

LITERATURE STUDY

enebora

Jl. Baru

Jl. Letjen Suprapto

GN. PIPA

Balikpa

Nanang

Jl. Propinsi

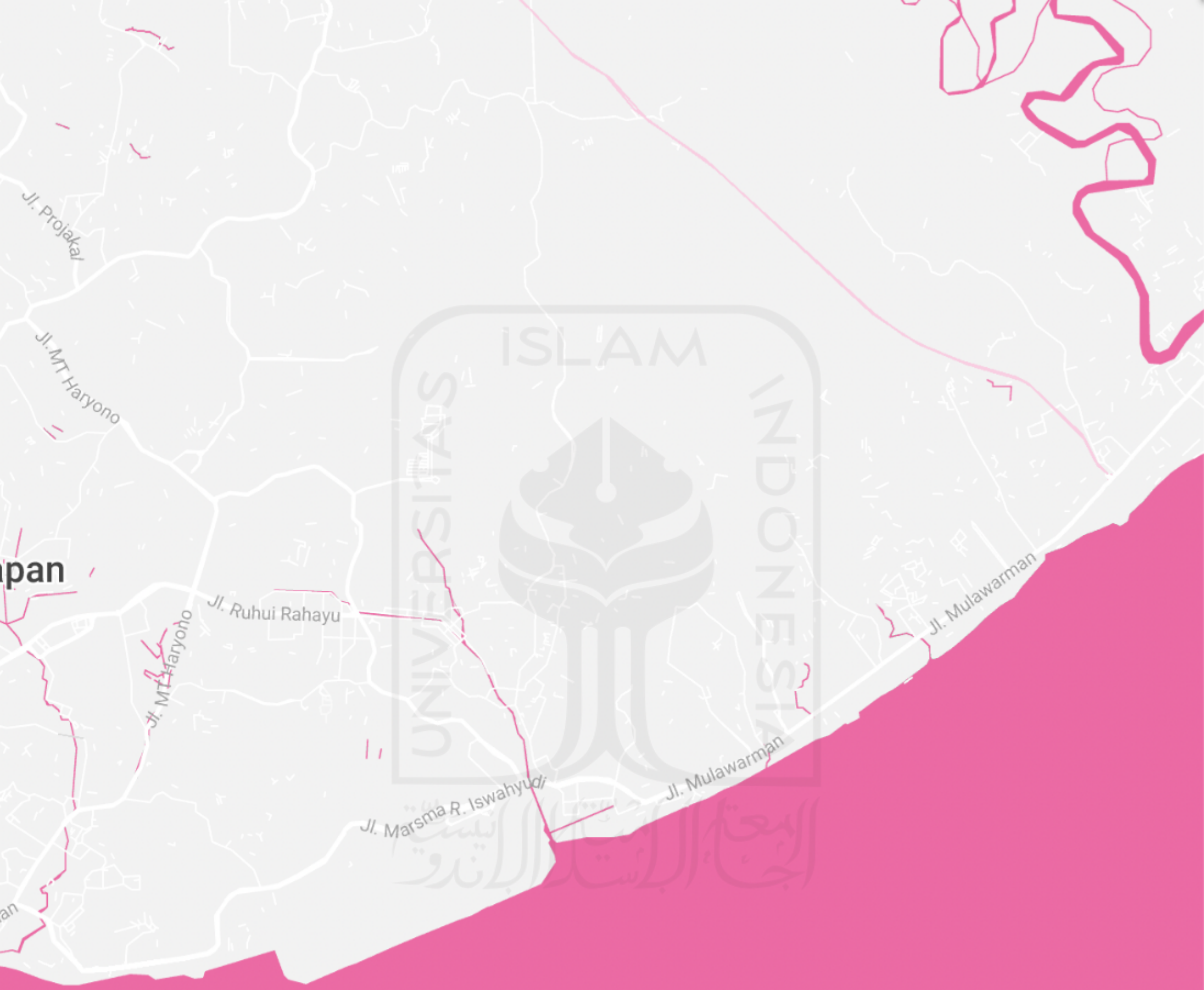
Jl. Yos Sudarso

Jl. Ahmad Yani

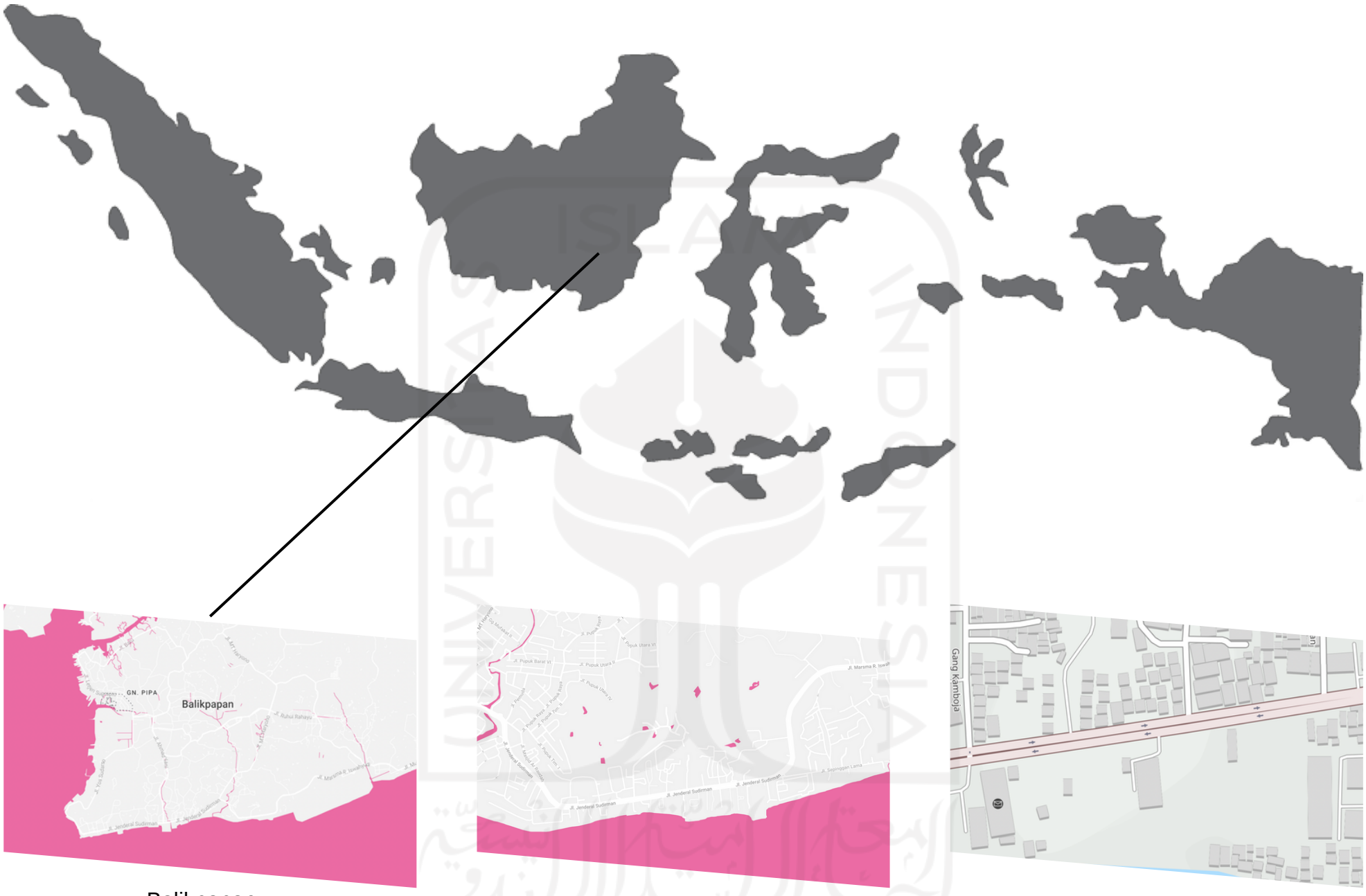
Jl. Jenderal Sudirman

Jl. Jenderal Sudirma

Panajam



Maps of Balikpapan
source: Google maps



Balikpapan

South Balikpapan

Sudirman Street

Micro-Macro Map
source: Google maps

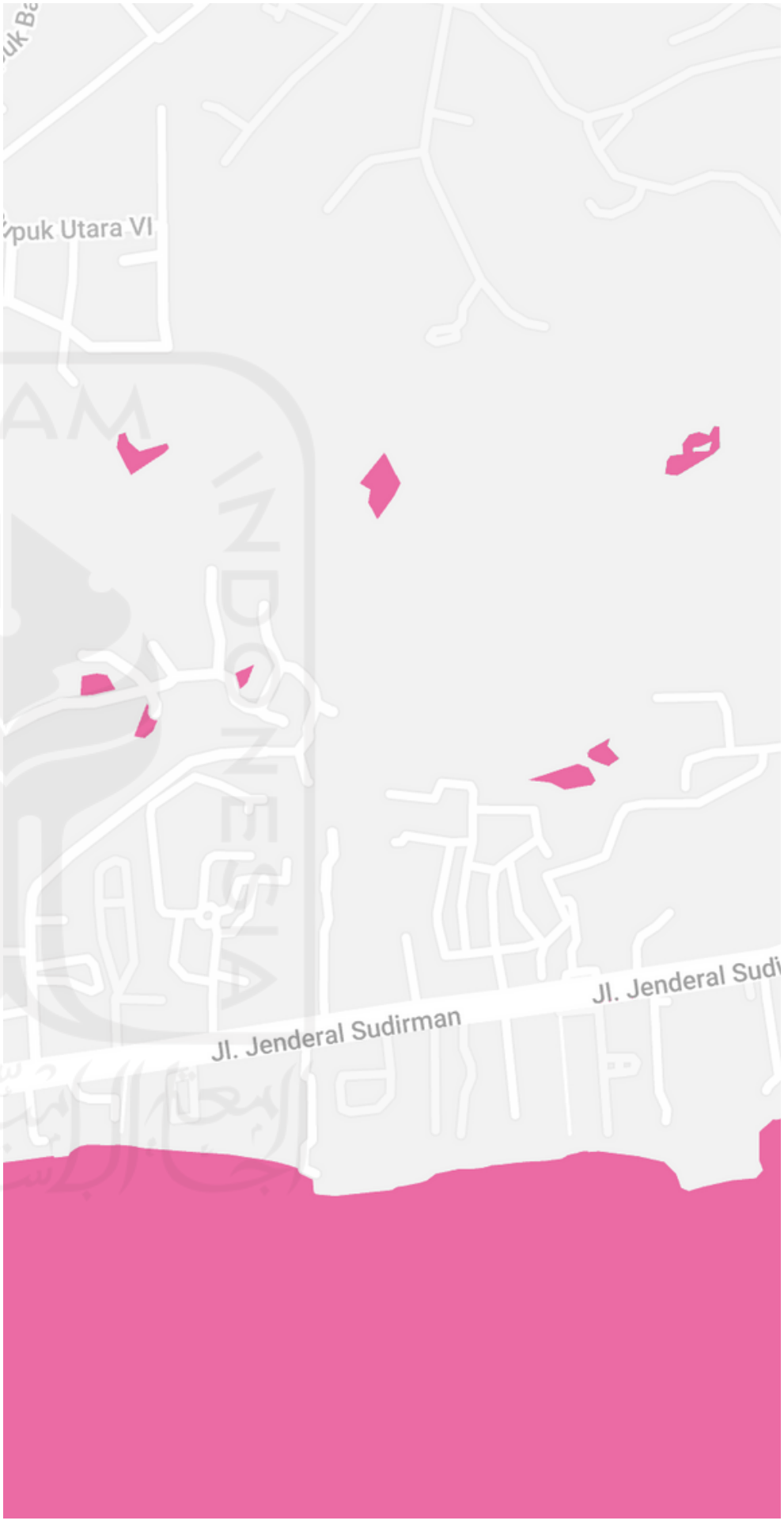
GEOGRAPHICAL CONDITION

Administratively, the total area of Balikpapan City according to the 2012-2032 RTRW is 81,495 Ha, consisting of a land area of 50,330.57 Ha and an ocean area of 31,164.03 Ha.
Geographically, Balikpapan City is located at a position of 116.5 degrees East Longitude and 117.0 degreesEast Longitude and between 1.0 degrees South Latitude and 1.5 degrees South Latitude with the following boundaries:

- In the north, it is bordered by Kutai Kertanegara Regency.
- To the south, it is bordered by the Makassar Strait.
- In the east, it is bordered by the Makassar Strait.
- In the west, it is bordered by North Penajam Paser Regency.

In accordance with the Government Regulation of the Republic of Indonesia Number 38 of 1996, the City of Balikpapan consists of 5 (five) sub-districts and 27 (twenty-seven) sub-districts. Based on the Regional Regulation Number 7 of 2012 concerning the Establishment of 7 Kelurahan within the City of Balikpapan and the Regional Regulation of the City of Balikpapan Number 8 of 2012 concerning the Establishment of the Subdistrict of Balikpapan City within the City of Balikpapan, administratively the City of Balikpapan consists of 6 (six) Subdistricts and 34 (thirty-four)) Ward.

In general, Balikpapan City is located at an altitude of 0 to 100 meters above sea level. The largest classification is at an altitude of 20-100 masl with an area of 20,090.57 ha or 51.66% of the total area.
only unstable and found in hilly areas that have a slope of above 15%, if the rainfall is high it will cause the soil to decline and erode due to erosion so this area does not allow food crops to be developed but is more suitable for the development of perennials/plantations.

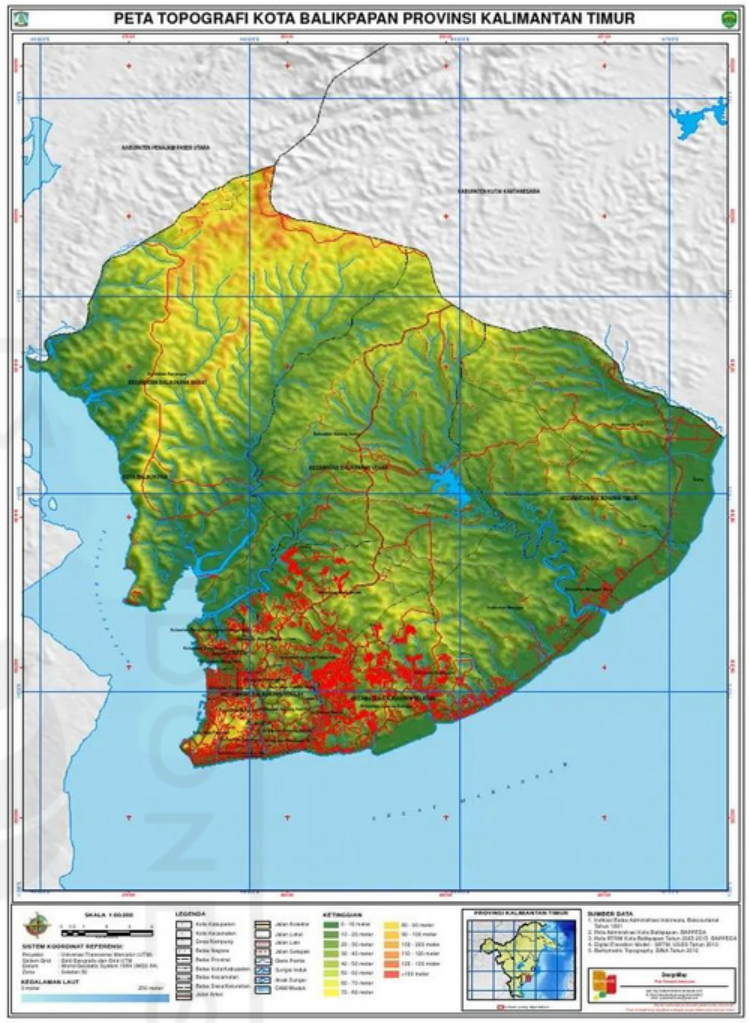


TOPOGRAPHY CONDITION

In general, Balikpapan City is located at an altitude of 0 to 100 meters above sea level. The largest classification is at an altitude of 20-100 masl with an area of 20,090.57 ha or 51.66% of the area, an altitude of >10-20 mdpl covering an area of 17,260 ha or 34.17% of the area and an altitude of 0-10 mdpl covering an area of 6,980. Ha or 13% of the total area.

Morphologically, Balikpapan City consists of 85% hilly area with red yellow podzolic soil type which has thin topsoil character, soil structure is easily eroded. While the other 15% are plain areas located along the east and south coasts of the Balikpapan City area with soil types generally alluvial.

From the topographical point of view, most of the area of Balikpapan City is on a slope between 15-40%, which is an area of 21,305.57 Ha or 42.33% of the total area.



Balikpapan Map
source: Google

CLIMATIC CONDITION

Balikpapan has a tropical climate, has a season that is almost the same as the area in East Kalimantan in general, namely there is no difference between the dry season and the rainy season. The dry season usually occurs from May to October, while the rainy season occurs from November to April. This situation continues every year, interspersed with transitional seasons (transitional) in certain months. In addition, because of its location at the equator, the climate in East Kalimantan is also influenced by monsoon winds, namely the west monsoon in the November - April period and the east monsoon in the May - October period.

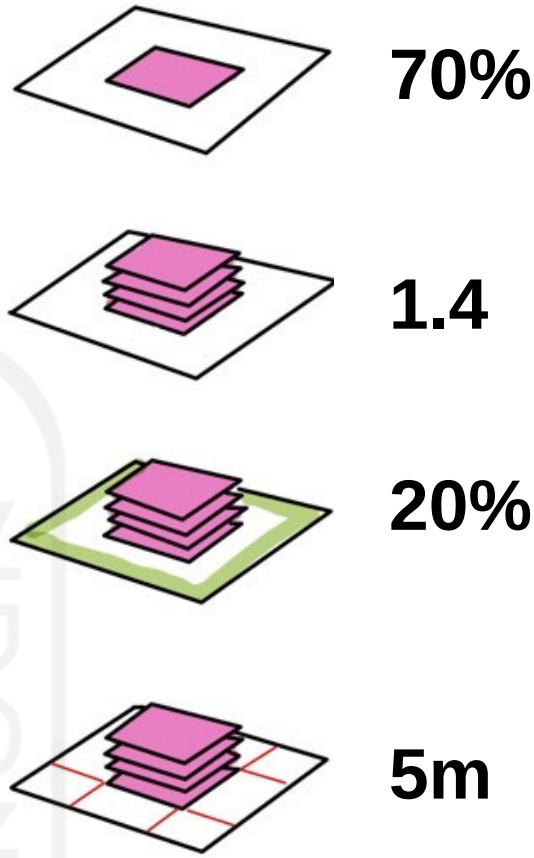
The air temperature in Balikpapan City throughout the year ranges from 21.70C to 34.70C. In addition, as a tropical area, Balikpapan City has relatively high air humidity with an average of 82-91%. The rainfall in Balikpapan City is very diverse. The average of the highest and lowest rainfall during 2009 recorded at the Meteorological Station of Balikpapan City was 64.4 mm and 338.0 mm, respectively.

Wind conditions in Balikpapan City in 2009 which were monitored from the Meteorology, Climatology and Geophysics Station of Balikpapan City, showed that wind speeds ranged from 4 to 6 knots. The highest wind speed occurs in July and the lowest speed occurs in March, April, October, November and December.

BUILDING CODES AND REGULATION

According to the Balikpapan City Regulation No. 12 Year 2012
Regarding the Spatial Planning of Balikpapan City for 2012-2032:

1. The KDB (Basic Building Coefficient) Plan for the Planning Area is **70%**
2. The KLB Plan (Building Floor Coefficient) for the Planning Area ranges from **1.4**
3. The building demarcation line is **5 meters** from the pedestrian path.
4. The GCR (Green Coverage Ratio) for the planning must be minimum of **20%**



Building Codes
source: Author

BALIKPAPAN AS INDUSTRIAL CITY

The first oil drilling in the Mathilda well by JH Menten and Firma Samuel And Co. on February 10, 1897, was an important momentum for Balikpapan to become an Industrial City which until now has developed into the largest oil processing industry outside Java. The existence of this oil refinery has a strategic role to supply oil and gas needs, especially in Eastern Indonesia. In its development, industrial activities in Balikpapan City are growing, both industrial activities that support the oil processing industry and other industrial activities such as shipbuilding, timber, building materials and others.

The preparation of an area of 9 Ha for the relocation of the tofu and tempe industry and other small industries and the establishment of the Kariangau Industrial Estate in the 2005-2015 RTRW of 2,189 Ha and further expanded to 2,721 Ha in the 2012-2032 RTRW will further strengthen the position of Balikpapan City as an Industrial City.

BALIKPAPAN SPATIAL POLICY

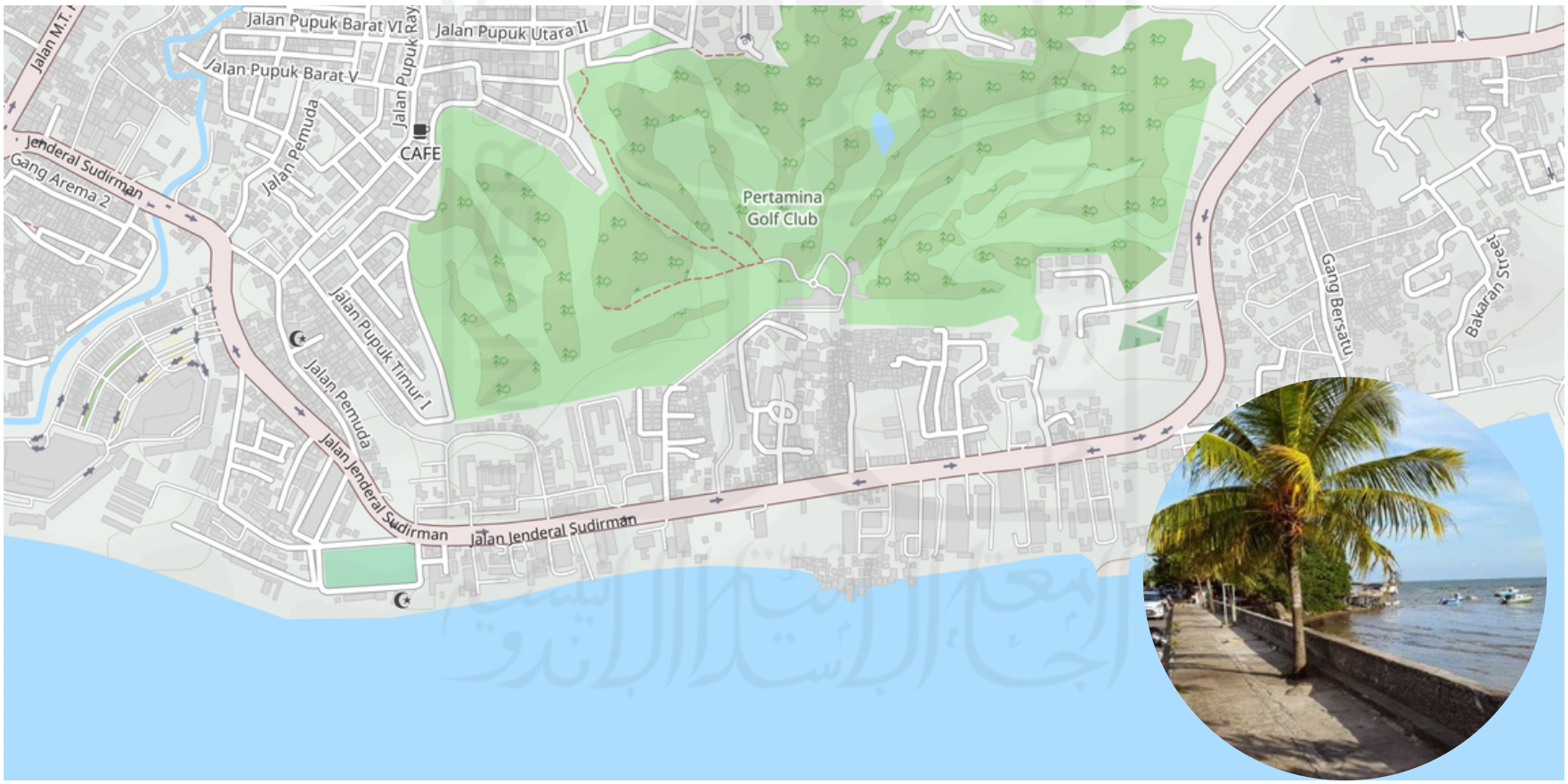
Based on the RTRW of Balikpapan City in 2012-2032, the general objectives and spatial policies of Balikpapan City can be seen in the following table.

Spatial planning goals	• Dimensions of industry, trade, services and tourism, culture and education • Environmentally friendly • Sustainable
City function concept	The realization of Balikpapan City as a dynamic, harmonious and green City of Industry, Trade and Services.
Spatial structure policy	• Improved urban and rural services as well as equitable economic growth centers; • Improve the quality and service coverage of integrated and equitable transportation, telecommunications, energy, and water resources infrastructure network throughout the region.
Space pattern policy	Expansion of environmentally friendly industrial areas Development of commercial areas in new growth centers Conservation and rehabilitation of built heritage and natural heritage Foresting the city for cleaning and cooling the air Zero waste Conserving water supply
Regional infrastructure development policy	Acceleration of infrastructure development in order to accelerate regional growth Acceleration of infrastructure development that pays attention to environmental sustainability and sustainable development (ecological and sustainable)

SUDIRMAN STREET & MELAWAI BEACH

Sudirman Street is one of the roads that extends along the Melawai coast, located in the Klandasan Ulu village, South Balikpapan District, Balikpapan City, East Kalimantan. One of the best beaches in East Kalimantan is Melawai Beach. This beach is not as wide as other beaches and when the tide comes in, this beach will disappear, and all you can see is a small mound or what people here call Tukung Island or Pig Island.

Many views are offered from this beach, if you look at the sea, your eyes will be spoiled with views of the open sea and its marine activities, and if you look at the land, you will see the busy traffic crossing the Sudirman road, buildings, cafes and restaurants thrive around the beach. Because the location is on the outskirts of Jalan Sudirman, making this Melawai beach very easy to visit, only 3 kilometers from the city center, it takes 10 to 15 minutes for you to enjoy the beauty of this Melawai beach.



Balikpapan Map
source: Google

A. Hybrid Office

Basically, a hybrid office is an office concept that becomes a second home for employees. A sense of comfort at work is a target that the company wants to achieve for its employees. When it comes to hybrid office design, there are two major keys to getting it right. The first is all about how we design the new work model to fit today's flexible work demands. The second has to do with the more literal sense of workspace design, and how we actually set up our office in a way that helps facilitate hybrid work. Two things have become non-negotiable in today's working world when it comes to hybrid office design - ***flexibility and wellbeing***. Companies who bake these two things into their DNA prove to be highly successful when it comes to recruiting, retaining talent, and scaling their organization.

What is hybrid office layout?

A hybrid office layout can vary depending on the company. However, today's flex office is typically based on the absence of a designated office, desk, or workspace. Future offices mix modernity with comfort and dynamism. Employees are now more often seen as collaborators in a company and allowed the autonomy **to choose which space suits them most for carrying out their daily activities, whether it be in the office, home, or elsewhere.** How we actually set up the office will either enable or disable the facilitation of hybrid work, which is why redesigning office space in the right way is so important.

Hybrid Office key-points by COHIVE:

1. Decoration

Office decoration should have a broad and modern impression. We do this by eliminating the partitions between employees' desks, providing a variety of colorful furniture that seems young at heart, as well as office corners for work. Working in a hybrid office no longer has to be at their own desk. They can work in several corners that already have a bean bag or sofa. So there is a sense of refreshment in conditions of being chased by deadlines.

2. Focus on Laptop

The hybrid office eliminates the role of computers with CPUs that seem old-fashioned and stagnant. By using laptops, employees can work at their own desks or in certain corners that have been specially designed. There are even companies that give freedom to employees who want to work in cafes first. This is why laptops are becoming more relevant for the hybrid office concept.

3. Use a lot of glass

Now is not the time to cover meeting rooms with ordinary walls. It is clear that the glass as a dividing wall brings a different impression.

Advantages of Hybrid Office

According to the important points in the hybrid office, there are several advantages when this concept is applied, namely:

1. Being able to eliminate the feeling of being lazy to work for employees because of the absence of a work booth makes all eyes can see it clearly. Work Effort becomes higher and provides good productivity as well.
2. Eliminate the distance between employees because there are no work desk booths. Employee socialization is getting closer too.
3. Stress levels can be managed with a hybrid office concept because it provides a spacious room concept with a modern style and is comfortable to work with. You can use certain corners in the office to work and discuss with other colleagues.
4. The concept of a hybrid office is indeed very interesting to run.



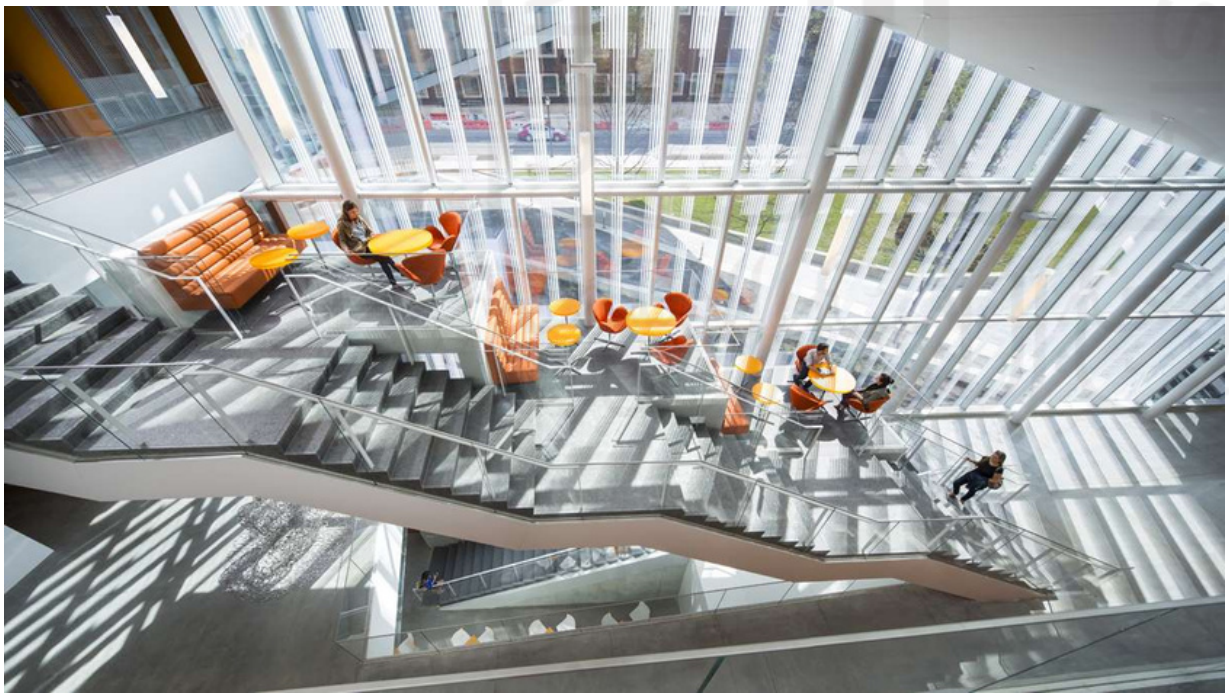
Hybrid Office
source: Dezeen

B. Active Design in Building

We cannot force one person or instruct another to do physical activity. However, we can try to persuade them to engage in physical activity by making it a more attractive option for them and providing them with knowledge or information about the benefits of physical activity. It begins with the recognition that our environment gives us the impetus to influence our behavior. Patrick Whitney, dean at the Illinois Institute of Technology, promotes human-centered design: *"I think if architects limit the core of their discipline to the aesthetic form of buildings, architecture will be marginalized as a field. However, if architects take a broader view [...] then they will develop a deeper specialization. Architecture is healthy if it has a lot of 'hooks'."* Whitney was critical of aesthetically dominated architecture and instead advocated a broader approach that embraced the many aspects of being human. However, he does not seek to condemn or deny the importance of human aesthetics in architecture. Instead, he cites aesthetic impact as an important factor in design success. Richer architecture creates, especially to have a positive impact on humans and the surrounding environment.

Architecture that incorporates human physical activity in the design process can be considered as an example of what Whitney described. After all, the purpose and means of such architecture are reasoned from the point of view of human beings and human needs. Encouraging physical activity begins with understanding why we make certain (subconscious) decisions: by understanding what we find attractive or unattractive. The approach that leads to active building can be roughly divided into two paths:

1. Preventing passive behavior by making passive choices unattractive or unfavorable, either consciously or unconsciously;
2. Encourage active behavior by making active choices attractive or beneficial, both consciously and unconsciously.



Active Design in A Building
source: Google

THE FOUR DOMAINS OF ACTIVE DESIGN

The principles that drive physical activity are divided into four domains, which sometimes overlap. Routes and destinations are the focus of attention because they not only dominate physical activity, but also have the greatest impact on building structures.

ROUTES

Routes are the lines along which people move; they connect programmed space in a building. Routes consist of stairs, corridors, elevators, ramps, and other accessibility features. Physical activity, especially the use of stairs, is facilitated by strategic planning and careful routing. The following main principles apply to routes:

- Focus on stairs rather than lifts as the primary means of vertical transportation.
- Make sure each elevator and escalator occupies a less prominent space than the stairs. Encourage the use of stairs by placing informative and motivational signs where users must choose between stairs and elevators.
- Increases the sensual appeal of the road.
- Play with programs that evaluate materials, transparency, lighting (especially daylight), space differentiation, use of walks and stairs.
- Limit escalators and multiple lifts in high traffic areas.

BUILDING SURROUNDINGS

Buildings impact the environment through mass, materials, transparency, and programming. Shattering gusts of wind and monotonous building facades exemplify how buildings can interfere with district accessibility. On the other hand, various programs, lots of access, and comfortable human-size contribute to physical activity in public places. Qualitative spatial relationships between buildings and their surroundings also facilitate movement between buildings.

DESTINATION

Destinations are programmed features of space where people stay for a certain period of time and form the focus of movement. Strategically placing the destination or function of space in a building where it is needed and making it attractive can cause movement between these spaces. An interesting space will bring people to move into the room and move between other spaces.

The main principles of destinations are:

- Make sure commonly used spaces in the building are strategically placed to make walking, standing, and using a wheelchair easier.
- Discover the specialty of the destination in a walkable way (fun). Ensure that users know their destination in and around the building. Show this or use the sign.
- Incorporating the natural environment into the design as a destination. Above all, green open space is very important.
- Consider rethinking the composition and placement of the various functions of the building. Centralization of some functions and decentralization of others can increase social contact and physical activity.

ACTIVITY PROGRAM

The activity program is committed to building functions that are directly related to increased physical activity. This includes a fitness room, bike storage, and active furniture. These elements encourage physical activity by providing facilities and/or comfort associated with sporting activities.

S/M/L PRINCIPLES

(Impact on building structure)

Some active design principles can be easily applied even though during the operational phase of a building. There are several principles that need to be planned from the beginning or included in the first sketch, because they have a significant impact on the structure of the building. Therefore, in the active design approach, the principle has been distinguished with the aim of creating a system that can be applied to various billing levels and new and existing buildings. It defines three categories: small, medium, and large. It is important to note that this classification refers only to the impact on the structure of the building, not the potential impact of each principle. However, the "small" principle with limited structural effect can seriously impact physical activity.

S

SMALL

Small is a small principle that is not related to the structure of a building. This principle usually involves colors, materials, furnishings, fixtures or lighting (including daylight). Although relatively inexpensive, these principles can have a major impact on the ability to get people moving, such as on foot, and can often be applied to the operational phase of a building.

M

MEDIUM

Medium is a medium principle which involves limited modification of the spatial structure with a view to encouraging physical activity. Such interventions often generate activity through horizontal or vertical variations or strategic programming. This can often be accomplished with minor changes to the building's structure or details.

L

LARGE

Large is a big principle that has a big influence on the structure of the building, so it must be included in the initial planning or initial ideas of the architect. They define the spatial organization of buildings and cover aspects such as configuring access systems, creating views within buildings or combining Routes and Destinations.



TOOLKIT EXPLANATION

Symbols indicate the domain to which the principle belongs.



Routes



Destinations



Activity Program



Building Surroundings

An indication is made whether the principle is classified as being Small, Medium, or Large.



Small



Medium



Large

Objective principles are not subject to taste or personal preferences and can be applied universally in nearly all instance. These objective principles are indicated using the Sigma symbol.



This icon is used for principles that promote activity among wheelchair users. It goes without saying that those with a more minor physical impairment also benefit from these measurement.



Nearly all principles are synergistic with sustainability as they encourage the use of metabolic over mechanical energy. Still some principles have a more direct or more versatile contribution in the field of sustainability.



ACTIVE DESIGN INDEX TOOLKIT

		Routes	Destinations	Activity	B. surroundings	Small	Medium	Large	Wheelchair bound	Sustainability	Objective
1.01	Senses ask to be stimulate	✓	✓	✓	✓	S	M	L	✓	✓	Σ
1.02	Make stairs as appealing as adjacent areas	✓				S					
1.03	High-quality materials last longer	✓				S					
1.04	Safe staircases are used by more people	✓				S					Σ
1.05	Well-lit stair environment are safer and more inviting	✓				S					Σ
1.06	Signage encourages physical activity	✓				S					Σ
1.07	Visible signage is effective	✓				S					
1.08	A programmed elevator makes climbing stairs more favorable	✓				S			✓	✓	Σ
1.09	Natural ventilation makes a welcome change	✓					M				
1.10	Curiosity evokes movement	✓					M				
1.11	Daylight attracts	✓					M				
1.12	Visible stair environments stimulate use	✓					M				
1.13	Hidden elevators are used less frequently	✓					M			✓	Σ
1.14	Wide stairs are more appealing	✓					M				Σ
1.15	Stairs with a lower inclination are easier to climb	✓						L			Σ
1.16	Horizontal variation enhances experience	✓						L			
1.17	Combining routes and destinations create experience	✓						L			
1.18	Interior and exterior views are rewarding	✓						L			
1.19	Stairs near the entrance are more likely to be used	✓						L			
1.20	Stairs near the elevator are more likely to be used	✓						L			
1.21	Stairs on main routes are more likely to be used	✓						L			
1.22	Unique stair configurations invite use	✓						L			
2.01	A variety of moods makes people move	✓				S					
2.02	Social hubs attract	✓				S					
2.03	Drinking fountains encourage short breaks	✓				S					
2.04	Centralization benefits activity and the environment	✓				S					
2.05	Keep distance reasonable and practical	✓				S					

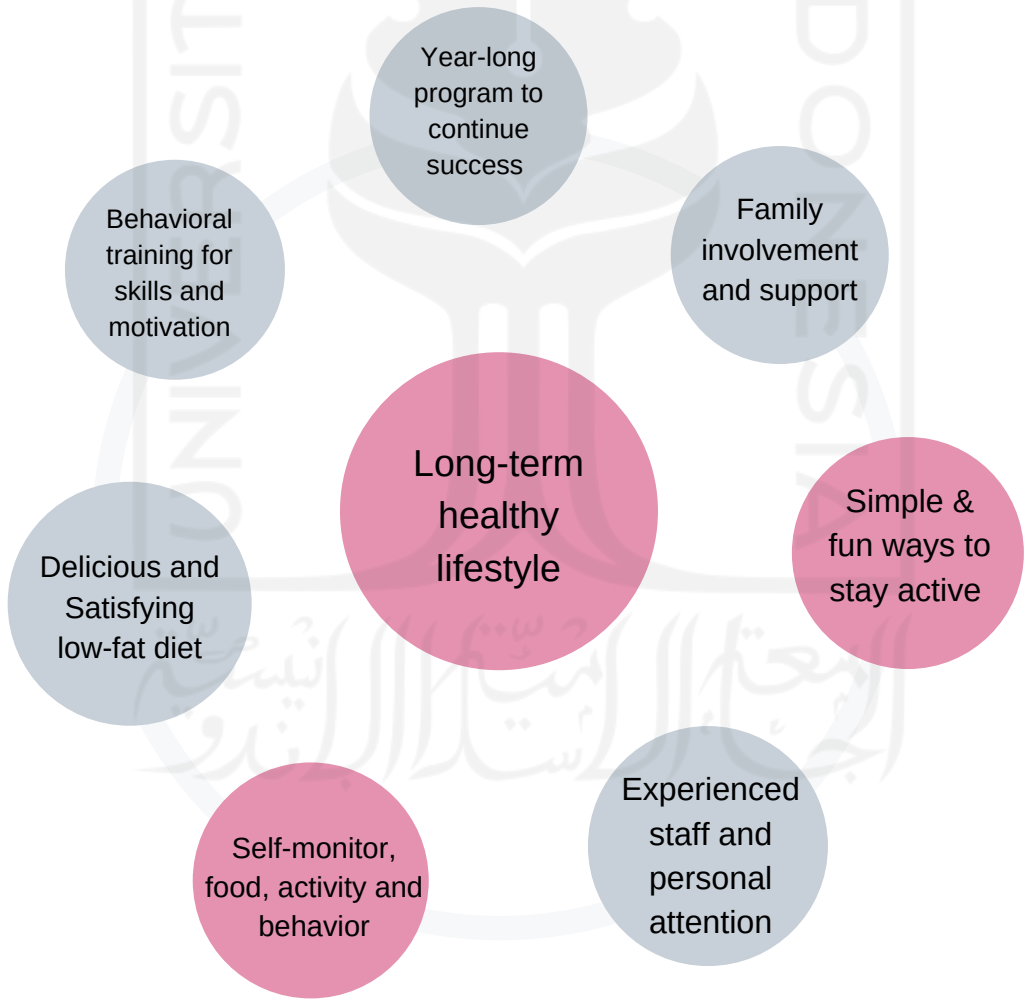
Index Toolkit
source: Eric van der Burg

		Routes	Destinations	Activity	B. surroundings	Small	Medium	Large	Wheelchair bound	Sustainability	Objective
2.06	Collective spaces attract		●				M				
2.07	Grouping auxiliary functions generates social contact		●				M				
2.08	Dispersal of auxiliary functions generates social contact		●				M				Σ
2.09	Unique building functions prompts physical activity		●				M				Σ
2.10	Communal outdoor spaces form a destination		●				M				Σ
2.11	Entrance functions on alternate floors prompt movement		●					L			Σ
2.12	Combine destinations and routes		●					L			
2.13	Place frequently used functions at a distance		●					L			Σ
2.14	Combine outdoor spaces and routes		●					L			
3.01	Active furniture promotes health			●		S					Σ
3.02	Exercise equipment prompts physical activity			●		S					Σ
3.03	Activity spaces encourages physical activity			●				L			Σ
3.04	Visible activity spaces are more frequently used			●			M				
3.05	Activity spaces with a view are more frequently used			●				L			
3.06	Broadly oriented activity spaces are more frequently used			●			M				
3.07	Changing rooms and showers encourage sports			●				L			Σ
3.08	Storage encourages sports			●				L			Σ
4.01	Variety and continuity encourage physical activity						M				
4.02	Multiple entrances and transparency activate public space							L			
4.03	Well integrated entrances generate movement between interior and exterior						M				
4.04	Canopies and awnings provide shelter						M				Σ
4.05	Prevent adverse effects on livability							L			Σ
4.06	Stairs and ramps act as a buffer between private and public space						M				Σ
4.07	Destinations in public space encourage physical activity					S					

C. Healthy Lifestyle

A healthy lifestyle is the application of a good and balanced lifestyle to create a healthy life both physically, mentally and socially so as to prevent the emergence of various diseases and create happiness. Based on data from the Central Statistics Agency, the life expectancy of the Indonesian people has increased in 2020. For men it increased to 69.59 from the previous 69.44 while for women it increased to 73.46 from the previous 73.33. Most women who have gone through menopause, one in three women will experience osteoporosis or Alzheimer's fractures.

The damage caused by this condition can certainly be delayed or avoided by changing the right lifestyle early on. The need for health workers to educate the public about the importance of starting and maintaining a healthy lifestyle from an early age. The interesting thing that happened among teenagers was their concern about a healthy and proper diet. Proper diet, health and lifestyle will make it possible to improve people's quality of life.



Healthy Lifestyle cycle
source: Google



Healthy Lifestyle diagram
source: Google

D. Connectivity

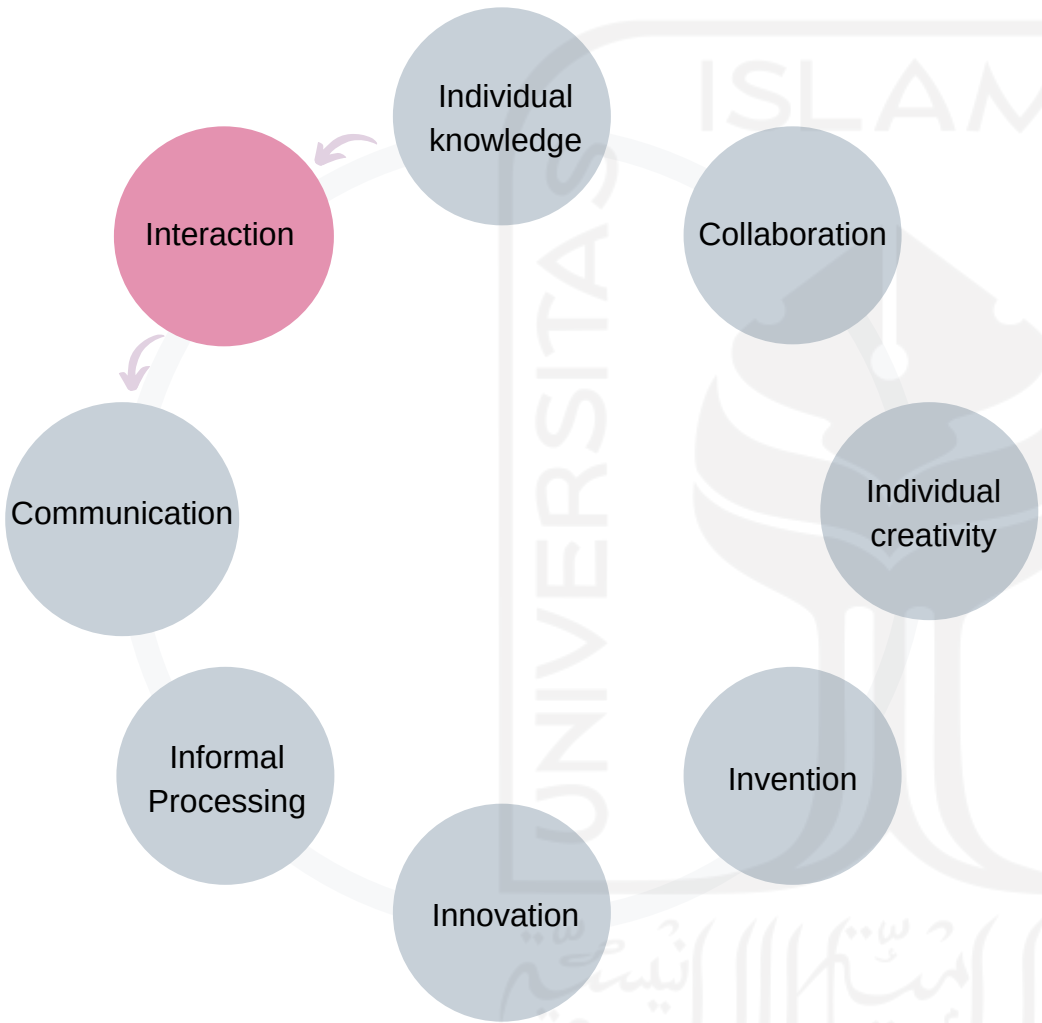
Connectivity and successful business go hand-in-hand. The rise of the digital workplace is less the ground-breaking headline of 20 years ago, and more of a given as companies increasingly adopt digitized systems for their information and work practises. But connectivity in the workplace is much more than integrated technology: the most successful work environments foster social and emotional connectivity as well.

Informal Interaction in the workplace

According to Lawrence Kam (2017). the future workplace can be defined by the increasing focus in knowledge sharing through **informal interaction** because of the capitalist notions of productivity, cost-efficiency and growth.

The current and future generation prefer gathering knowledge from friends or trusted sources, best delivered face-to-face, because they can have a good sense of whether the information is relevant to their work at hand.Although more interactions in the workplace may not have an exact impact on an individual's performance, but the increase in probability of communicating with other co-workers also improve the probability of teamwork. With team work, it can then end to better retention of information, and in turn, higher productivity (Motamed, 2013).

Informal interaction supports a variety of various functions: the execution of work-connected tasks; coordination of group activity; transmission of office culture; and social functions like a team making. This is already prevalent in the modern designs of co-working spaces, where exposure, networking, and collaboration are needed for success.

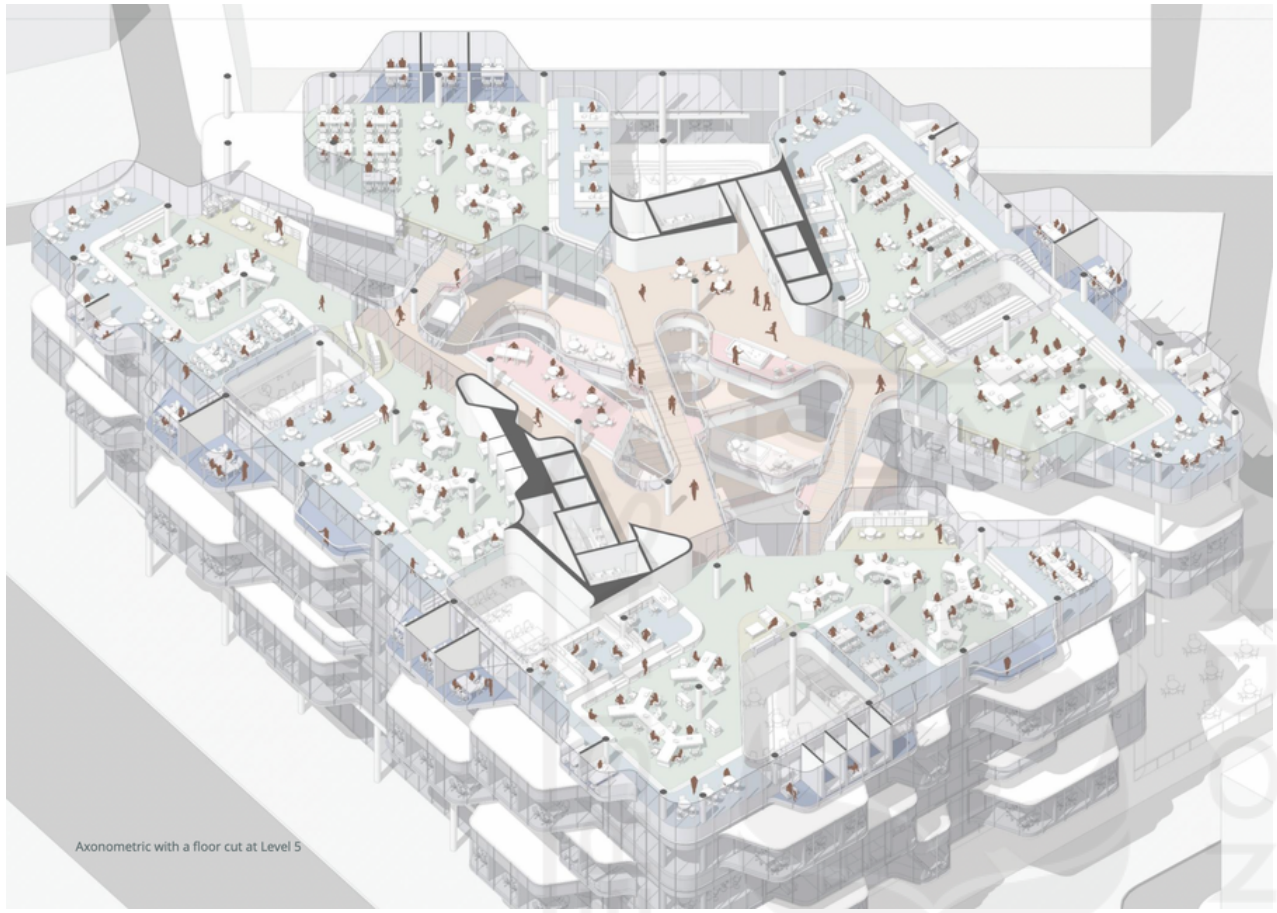


Knowledge Sharing Cycle
source: Oseland, M et al, 2011

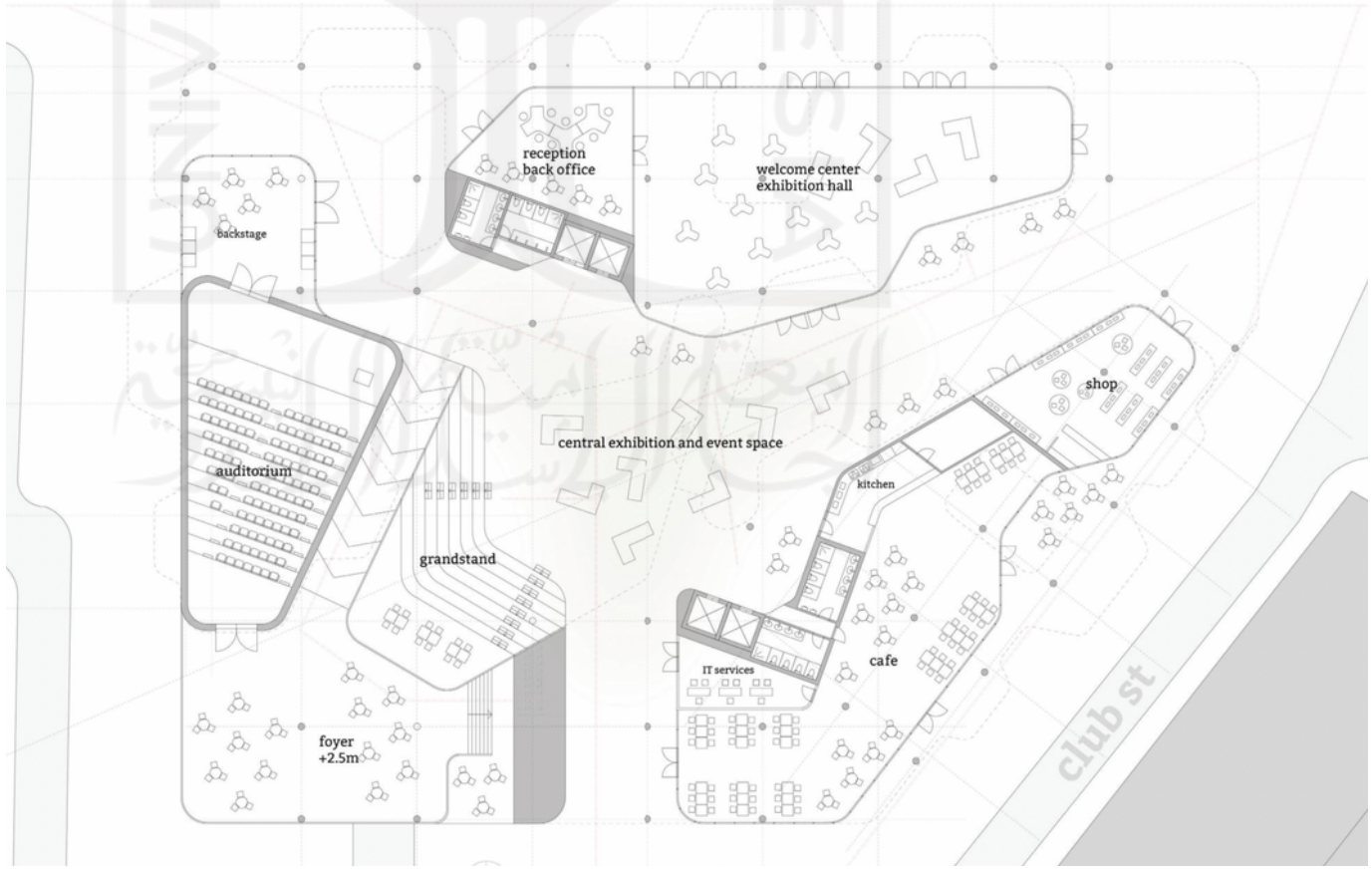
A good office layout and design promotes and cultivates informal interaction, which then contributes to knowledge sharing, team-building, and job satisfaction (Lawrence, 2017).

Office of Tomorrow Guideline by Lawrence



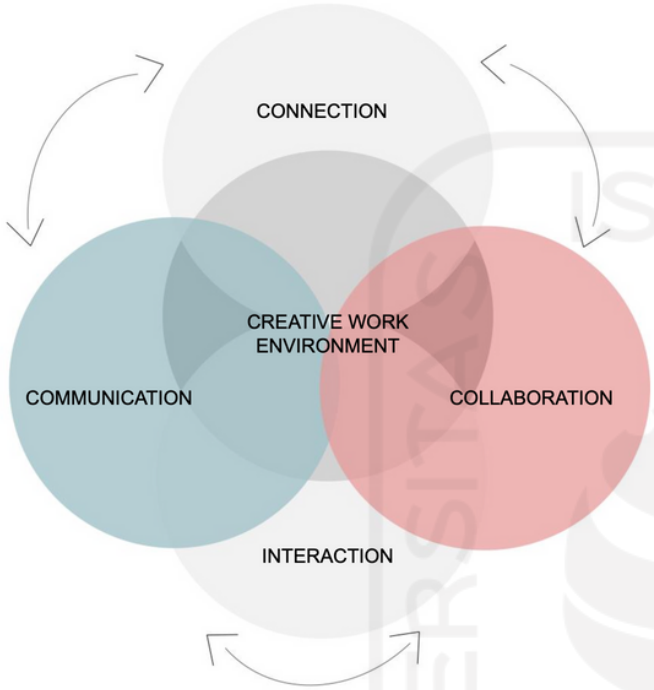


Axonometric with a floor cut at Level 5

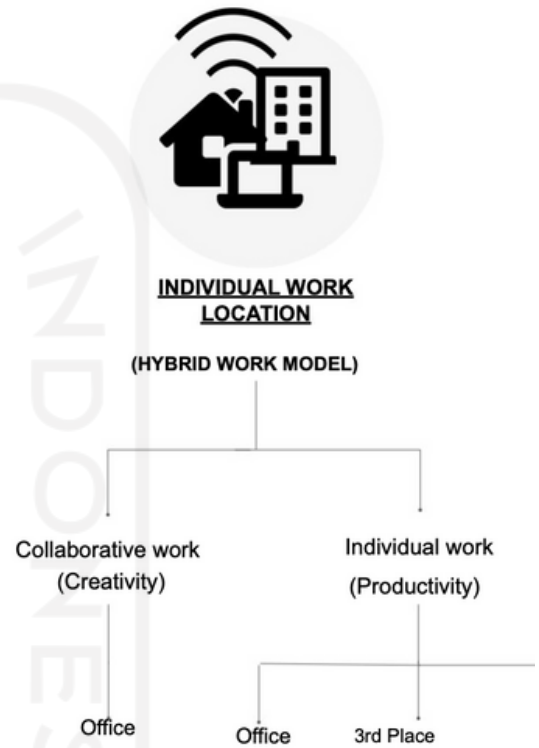


Office of Tomorrow Guideline by Altoyan

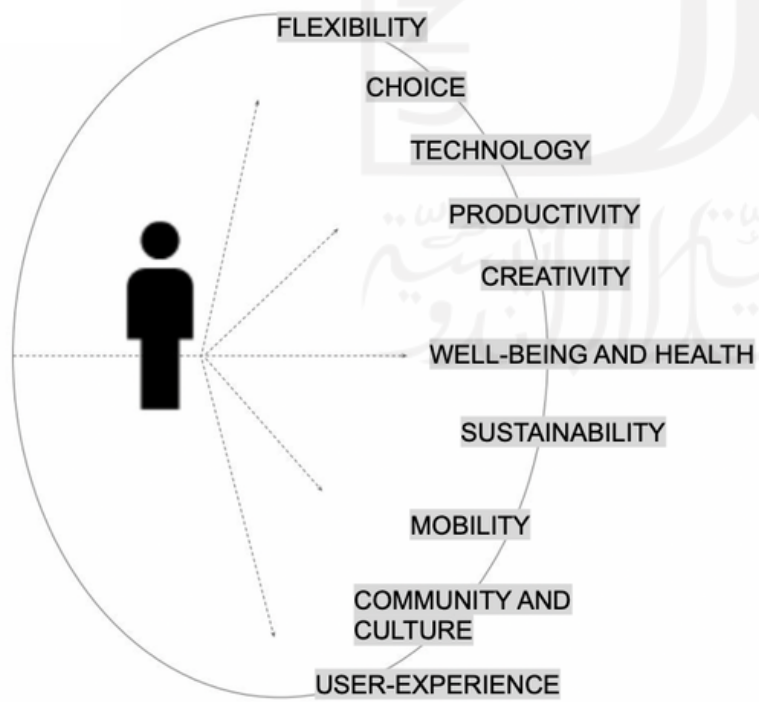
THE CREATIVE WORK ENVIRONMENT



FLEXIBLE INDIVIDUAL WORK LOCATION



FLEX-TECH WORKPLACE OVERTVIEW

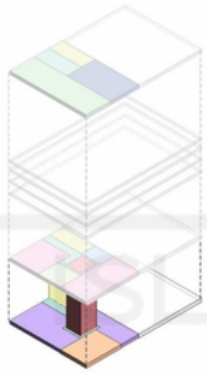


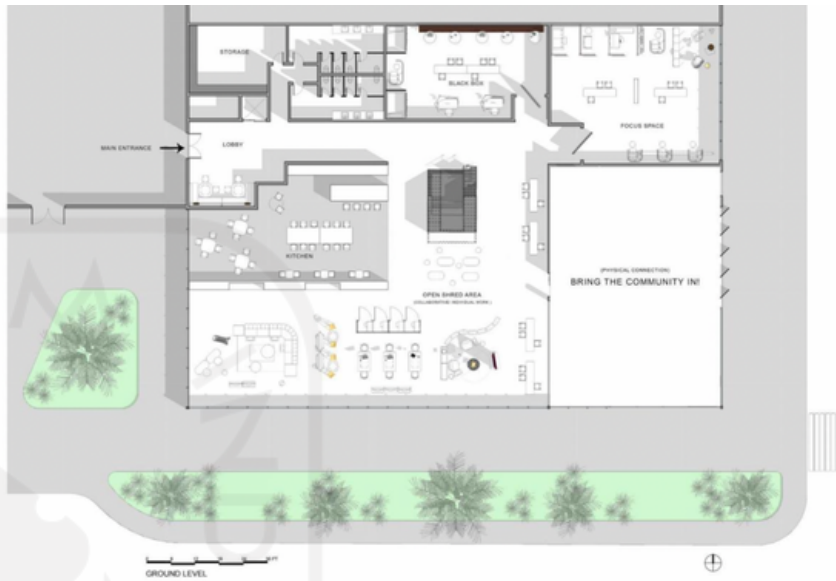
Flex-Tech workplace work to embrace Flexibility and Technology as ubiquitous resources and the mindset of employee-experience as a primary focus in the creative work environment.

These individuals should be supported by a workplace that enables choice, flexibility, greater degrees of collaboration and communication, spaces to support focused work, agility, and mobility, all with higher degrees of cosial interation that reflects and shapes the work culture.

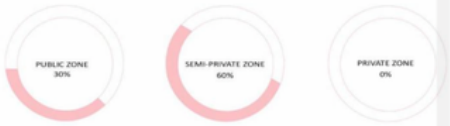
https://issuu.com/shathaaltoyan/docs/flex-tech_workplace







USE TYPE



KEY PLAN:

GROUND LEVEL:

- LOBBY AND RECEPTION
- INFORMAL SHARED SPACES(COLLABORATIVE AND INDIVIDUAL SPACES)
- MULTI-PURPOSE SPACE (BRING THE COMMUNITY IN)
- SERVICES
- HORIZONTAL AND VERTICAL CIRCULATION

CAFE WORK

CAFE WORK space should be designed in a way that support work :

- Services and tools
- Different furniture layout
- Comfortable seating
- Technology
- Closed and Open Spaces

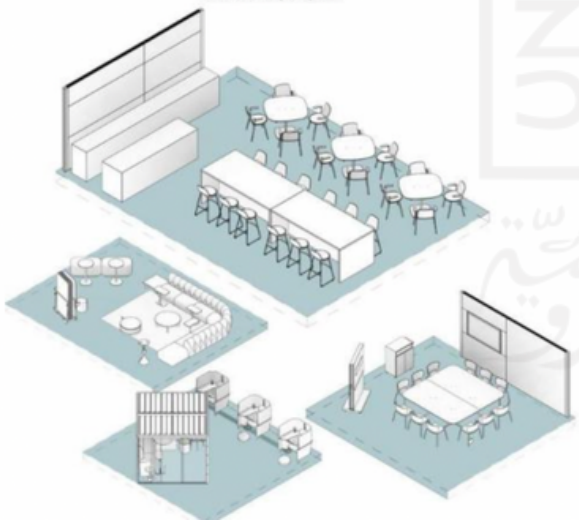


EXHIBIT GALLERY

Exhibit Gallery where Art and architecture connect artistes , architect and designers with the community. Space where the office start to present their work and get feedback form the community. A way of conveying ideas and designs to people.



EVENT SPACE

Event Hall a space where architects and designers educate, talk and discuses with the community to know what the community is thinking about and what they want, need and wish to see and interact b with.



Office of Tomorrow Guideline by Jean Dan

CIRCULATION, MOVEMENT & CONNCECTIVITY

Circulation and movement are very important in any architectural work. The evolution of office design will see workers using offices not only to produce and connect one space to another, program to program, and person to person. to do, but to connect, collaborate, and grow.

On a micro scale, circulation in the body will allow the body to function properly. Because job shifting is becoming more and more common in today's industry, and resulting in good health. If circulation doesn't work, living bodies will stop working even harder to maintain their staff with the facilities, comforts and jobs at hand. So circulation obviously affects every aspect of any system or organism.

PRIVACY, PROXIMITY OF MEETING SPACES

While it should encourage people's interactions and encounters, there's also a need for just the right amount of privacy to encourage people to express their thoughts freely with others. According to a case study by Grajewski, in a meeting area that lacks privacy, the percentage of observed interactions is low. The proximity of the meeting room is also important for focusing or distracting the work environment. Having a meeting room next to the work office will create noise and visual disturbances for others trying to work. On the other hand, having a meeting room that is too far away will discourage people from being in that space away from their work environment. So there needs to be different spaces with different levels of privacy and proximity to adapt to different work areas.

INDEPENDENT WORKFORCE

Office space design is basically driven by the culture of the business and its workforce. As the shift from industrialization and repetition of products and services shifts to customization and personalization, along with that work culture changes.

Today's workers are facing the new workforce of mostly young people or Millennials who continue to grow and improve in the aspects of independence, self-management, and flexibility, thus creating the character of freelancers, start-ups, and independent companies. So it can be concluded that the new independent workforce group today consists of "Freelancers, Startups, and Independent Units." Morgan Lovell believes that the evolution of office design will allow workers to use the office not only to work, produce and perform, but also to connect, collaborate, and grow. Despite the ever-increasing number of wireless communication technologies, people want to be in communities to interact, collaborate and share ideas.

INFORMAL INTERACTION

The creation of informal meeting places allows for spontaneity of meeting between people, which give way for sharing of ideas and collaborations that is most helpful in producing creative ideas and innovations. There is also the third party interactions in which the person can overhears the conversation and learn from others in the work environment.



Chelsea's Hungspace

This hungspace right above the entrance lobby is, in itself, a light well with 3 level glass floors that can be a private break area, meditation space, or in-between meeting space for chance encounters of employee. On the roof, there is access to the highest space in the building, which is the observation deck.



The Circular-Tangent Circulation

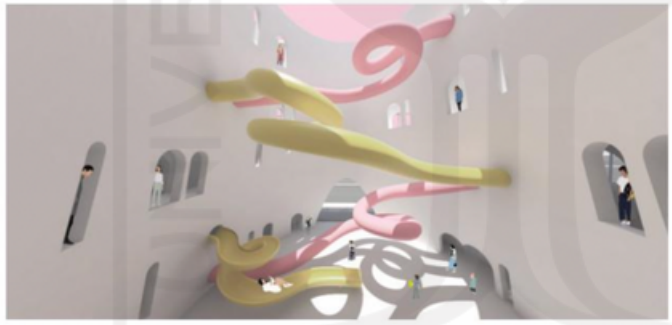
Pathways connecting at tangent to the circular-shaped Conference Towers are horizontal circulation that connects the front of building to the back and the left of building to the right. This also allows for "visual connections" vertically and horizontally across all levels and all sides of building.



Entrance Lobby looking up



Central Space of Building's Core Circulation



View of the Playground from Second Level



The Grand Staircase



Open Plan Office Space + Lounge + Over-the-Counter Meeting Space

The open plan office space is flexible to accommodate a variety of use and adjustment that will change according to user's need. Office desks, open lounge, over-the-counter meeting, and break area with pool/ping-pong table are all connected in this space. Various smaller, private offices, Executive offices, and phonebooths can be found in this space.



3rd Floor Amphitheater

Sunken amphitheater space on the 3rd level creates a half-floor space where employees could have discussion and share new knowledge, technology, and updates within the office. Underneath the amphitheate are smaller private offices making use of the other half-floor.

a. Activity-Based Workspace

Activity-based working is a design concept that recognizes that through the course of any day, employees engage in many different activities and that they need and can choose different types of work settings to accommodate these activities. This type of work environment is known as the activity-based workplace (ABW).
In these workplaces, individual employees are not assigned to a particular workstation. To make work effective, efficient, and more enjoyable for both the organization and the employee, ABW focuses on the employees and provides the freedom to decide for themselves: how to work, where to work, which tools to use, and with whom to collaborate to get the work done. The workspace is designed in such a way that it allows them to perform different activities over the course of the workday, such as:

- learning
- focusing
- collaborating
- socializing





The four defining elements of ABW
ABW isn't just about adding couches and phone booths to a workplace. For ABW to exist in a company, four elements must be present: design, sensory experience, behavioral reinforcement, and iterative learning.

1. **Design.** An ABW workspace is designed with a variety of space types under one roof. Need a space for heads-down work? Take a desk in the study, where everyone can go to focus in silence as frequently as they need or want. Have to host a client meeting in a large conference room? Book one for your group instantly. Want to collaborate with a team over lunch? Gather them in a restaurant-style booth. How about a quick call with a colleague? Duck into a phone booth. Whatever the activity, there's a corresponding space type, ready and waiting.

"The future of work is flexible and people-centric"

2. **Sensory experience.** ABW spaces need to provide employees with explicit and implicit cues about how to use a space. Whether they need to access high- or low-energy space for the type of work they're doing, employees should be able to easily gauge which space is right for them in the moment. Let's take the kitchen area at WeWork as an example of a high-energy space. Upon walking in, you smell freshly brewed coffee, hear music playing over the speakers, and feel the energy of others in the space. These elements draw people in and make them feel welcome to pour a cup of coffee and chat with colleagues. On the other end of the energy spectrum, the study in our WeWork New York headquarters is quiet from the moment you walk in, providing you with enough mental space to focus on your next pitch deck or design project. In this way, different environmental elements provide unique cues and act as an overlay on the physical design, inherently sharing how to use each space differently.

3. **Behavioral reinforcement.** With optimal ABW design and sensory cues, the space itself works best when people are aware of its expectations: Being quiet in the study, using phone booths for calls, bringing personal belongings with them to allow others use of space, and feeling empowered by their teams and people leaders to use the space as it suits them and the work at hand. No amount of free coffee will encourage a team to have a meeting in the kitchen if their leaders frown on them being away from their desks.

4. **Iterative learning.** Employees are truly empowered to adopt a new work style such as ABW when company leaders fully embrace the change in mindset, combined with the design, behaviors, and programming of an ever-evolving workplace. When leaders are committed to creating a feedback loop through qualitative and quantitative data, and implementing those findings to improve the workspace, they're helping to ensure their ABW space will be a success.

Applied correctly, ABW offers a way for employees and employers to improve efficiency and productivity in the workplace, and show how flexible and adaptable it can be. Talent is becoming more global and mobile than ever, and it's important for the workplace to adapt and grow with the trend. ABW is an exciting opportunity for our teams here at WeWork. It allows us to combine the powers of space, design, and research to continue pushing forward to uncover deeper truths about what is essential for people in workplaces around the world. We're making it our responsibility, now, to get to the work of making work better for everyone.

Characteristics:

- Different settings are designed to support specific tasks
- The focus is on effectiveness, and providing variety and choice
- Unassigned, free-address seating
- Balance of concentrative zones and interactive areas.
    - Permission signaling created by providing a variety of heights and work point locations workers can select from to signal availability

Considerations:

- Is there are a variety of tasks that are being performed or is everyone doing similar and repetitive tasks?
- Are different levels of focus and interaction required?
- Does your IT enable mobility?
- Is wellbeing a focus or concern?

Typology & Precedents

RENTAL OFFICE

Rental office is a building that accommodates business transactions and professional services that will be rented out according to space requirements and typp of company, The interior spaces consist of rooms with functions that are used lo work in teams or individually (According to the Commercial Building Design Guidelines, 2008), An ollice is a building that is used for work, relating to administrative and other maters, As lor the rent Gil, it means the use of something that is paid for with money, or the tenant does not have the right 1o awn the building, but is only limited to Occupying lil, as long as he still pays the rent.

Ofice Rental Function

• As a place to accommodate companies engaged in various fields, of course any feld is in accordance wilh the agreement of the service provider.

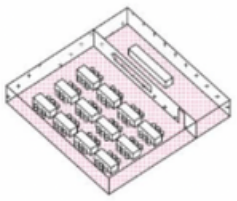
- As a place to accommodate several corpanies that do nol yet have ineir own ollices.

• As a place to conduct business transactions with protessional and agency services in the form of profitable efforts.

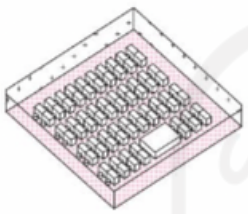
• As a place 1o accommodate companies engaged in the marketing industry, And not o produce or cook anomalous or semi - hinished objects, but to sell finished factory products.

In today's Corporates world, people spend more time in the office or workplace than at home. Therefore, it is very important to note that to structurg, shape and design of the oilice has a complete impact of producivily and healu), therefore the physical ervironment of the a'fice should be given the necessary and appropnate attention, Organizational workspace, ie. the p/'irsical environment of the organization provided for employees to carry out their work acuities, is he second largest financial overhead her human resources for most organizatons (McCoy & Evan, 2005), A number ol studies consistenty claim that Ihe characteristics of the physical office environment can have a significant influence on employee behavior, perceptions, and producivily.

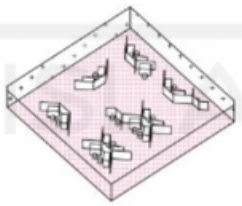
History of Office Layout



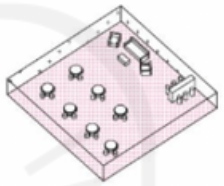
Taylorist (early 1900s)



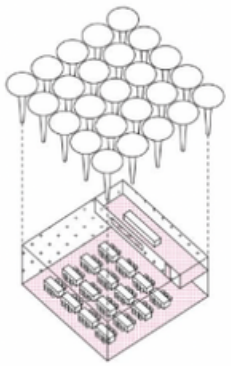
Open Plan (early 1950s)



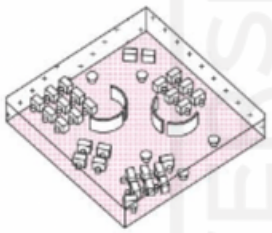
Action Office i & ii (1968s)



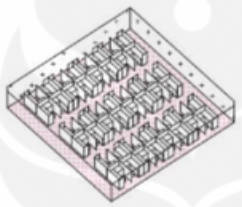
Casual Office (2000s)



Streamed Line (early 1930s)



Burolandscaft (1960s)



Cubicle Farm (1960s)

Traditional affices tend to accommodate one or yo individuals in private rooms, enclosed by walls, often containing most ol the facilities required for their work. Open offipes are characterized by a lack of interior walls, tend to be larger, and contain more workers, with individual work stations arranged within the office in groups. Open plan design relers to an olfice with individual work stations placed within an open space; sometimes shared by panels, but also includes a conventional shared office with several workers in the office space. Several studies have found evidence that an open office is associated with decreased job satistaction, decreased motivation, and lower percerved privacy, It is evident that many organizations are re- evaluating their facilibies to ensure efficiency and productivity, it should however be taken into account that people who perform difficult tasks are happier in private offices, and also perlor better, than in non-private alices, In contrast, employees who perform simple tasks perform betier in non-personal environments. Working in an open office can, hawever, lead to distractions and distractions, which have a negatve ellect on perlormance (Hedge, 1982), as cited in Maarleveld, 12009).

Precedent Study

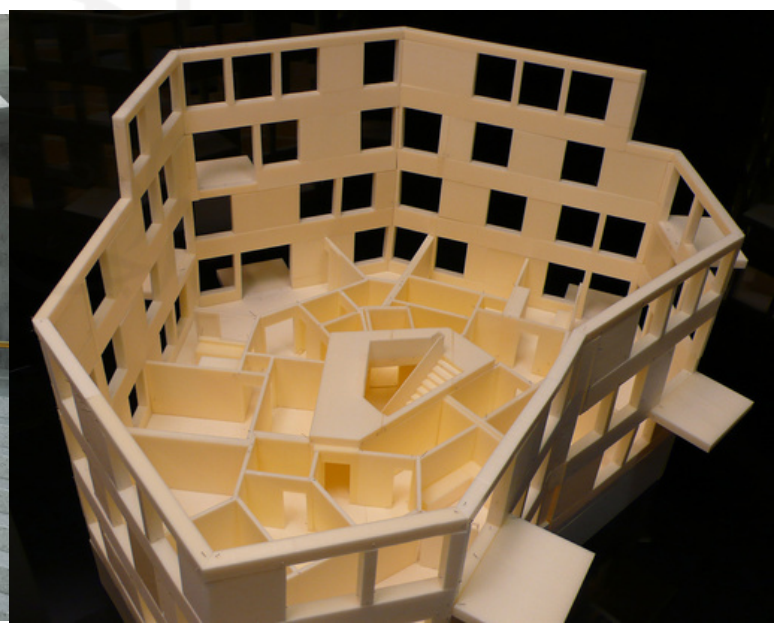


Uetlibergstrasse

Architects: Office AT
Area : 2000 m²
Year : 2014
Contractor : Italian Thai Engineer
Interior Designer : OFFICE AT Co.Ltd

A staircase becomes more pleasant when it is lined with haptic surfaces and filled with daylight



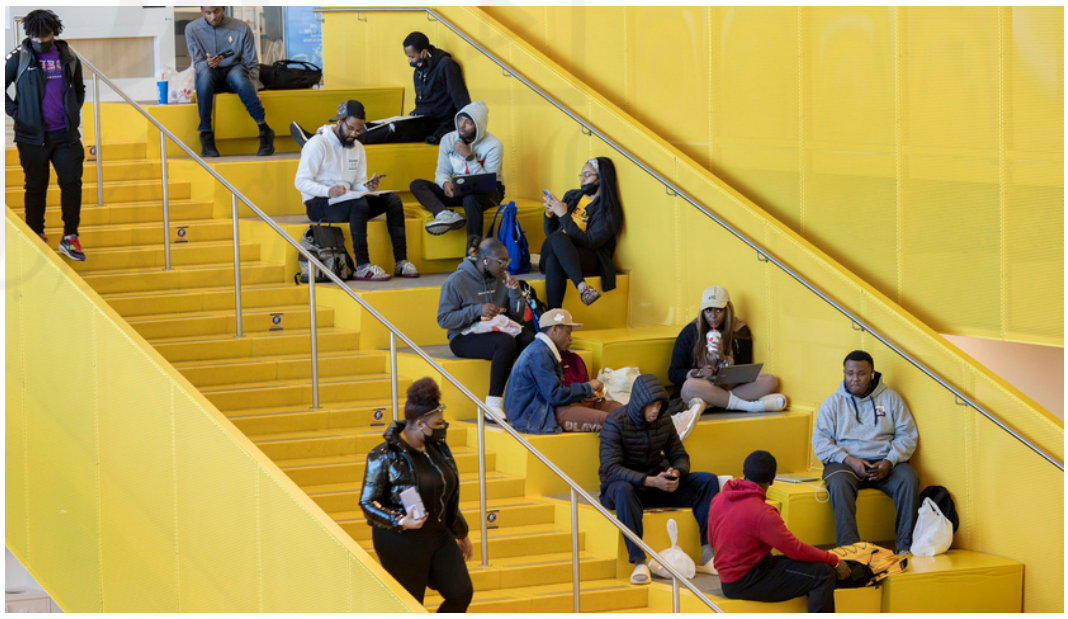




The Big Yellow Stairs, North Carolina State University

Architects: Office AT
Area : 2000 m²
Year : 2014
Contractor : Italian Thai Engineer
Interior Designer : OFFICE AT Co.Ltd

Something as simple as the use of color can add to quality of a staircase and stimulate its use. This staircase is placed in the middle of the routing and is executed in an explicit color.





Valschermkade

Architects: Paul de Ruiter Architects
Area: 2000 m²
Year: 2008
Location: Netherlands

Bringing the outdoors inside is an effective way to stimulate physical activity.

The building, which offers a fine view of the water of De Schinkel, is characterized by sustainability, daylight, and flexibility. The building has ultra-sustainable installations. It is a building that literally and figuratively gives energy, and as a result inspires, delights, and promotes productivity – precisely the kind of intelligent building that Paul de Ruiter Architects enjoys working on.





Inteltion Office/ONION

Architects: Onion
Area: 170 m²
Year: 2017
Manufacturers: Herman Miller, Curio, Herman Miller

In terms of design, the problem of office syndrome is the Architect's concern. Spending hours working in the same bodily posture is unhealthy either with a computer or a pencil. Onion's proposal is the design for good health, promoted by the office for the employees.

The objects to exercise with also include the spherical cabinet handles. They are placed a bit higher than normal for the purpose of bodily stretching. The meeting table can be transformed into a table tennis table, above which is the ping-pong balls container lamp. Next to it is a wall of ping-pong balls for the players to count the scores. When tired, employees can take a nap on the raised platform full of pillows, right above the movable file cabinets.



Rental Office Backgorund and Definition

Balikpapan as a center for the development of East Kalimantan experienced an increase in industry and trade, which will have an impact on the expansion of business activities and their supporting needs, namely buildings as office functions. Office rental is one solution to support business activities because in this case, it is profitable, manageable, adjustable, and sustainable. Currently in the city of Balikpapan, many small companies use shophouses as offices, but the concept of an office in a shophouse is less effective, because shophouse buildings are not able to meet the needs of office and social activities. With the rental office building, it can be one of the facilities that will later function as a support for development in the city of Balikpapan which is currently running, because it can provide convenience for people who want to use the services of companies engaged in the field in accordance with the needs of the community itself.

As a commercial building, a rental office must be able to attract the interest of entrepreneurs and investors as business actors, both in terms of choosing a strategic location, infrastructure comfort, the benefits, building aesthetics, and most importantly the supporting facilities offered. Office space is a reflection of a business, the success of a business has a huge impact on productivity. The office should be designed to create happiness, inspiration, and most importantly healthier environment.

According to the Commercial Building Design Guidelines (2008), a rental office is a building that accommodates business transactions and professional services. The interior spaces consist of rooms with the same function, namely office functions with user facilities as tenants of the space they use. Based on The Arnold Encyclopedia of Real Estate (1993), an office or "office building" is a place used for business activities or a profession that is distinguished from residential buildings, commercial or rented space, industrial buildings or recreational facilities.

Rental Office Function and Demand

The function of the rental office is to accommodate tenant companies that do not yet have their own offices in carrying out or conducting business transactions with professional services, administrative activities together to achieve the main goal, namely to obtain financial benefits. The rental office is also a place to accommodate companies engaged in the marketing industry and not to produce or process raw or semi-finished goods into finished goods, but to market finished goods. And make it easier for consumers (service users) because the location of the office is clear and there are several types of activities that can be done at once.

Owner & Manager

The motivation of the manager is to seek the maximum profit by providing a place/space or building that functions as an office with certain standards and sizes according to the modules that have been determined and can be rented out as widely as possible. Things to consider in designing a rental office are:

1) Floor area
2) Energy efficiency
3) Information system
4) Communication system
5) Utility system
6) Executive facilities
7) Places to eat and socialize
8) Electric standby

Tenants

In accordance with their activities as tenants, what the tenants want are:

1) The appearance of the building that has an aesthetic and representative value. This is very much needed as evidence and to give the tenant a sense of trust to deal with the clients of each tenant.
2) A comfortable working atmosphere is created to increase work productivity so as to be able to encourage office progress.
3) Flexibility of the module space that is rented according to the level of needs of the tenant in accordance with the number of employees, type of office and activities that take place as well as the assumption of office area needs that are always changing according to the level of progress of the company.
4) The tenants do not need to re-pay for building maintenance.
5) Security and safety level

Community

Rental Office Specification

Specifications of rental offices can be classified by activity that occurred in the rental office, including:

Based on Tenant's Business
1) Industry (manufacturing)
2) Insurance (insurance)
3) Advertising (advertising)
4) Finance (financial)
5) Trade exchange (trade association)
6) Publication (publication)
7) Banks (banking)
8) Accountant (accountant)
9) Consultant (consultant)

Based on Tenant's Business Level
1) Head office (head office)
2) Branch office (branch office)
3) Representative office (liasson representative office)

Based on Ownership System
1) Government office group
2) Non-government/private office groups

Everything described above shows that one of the many possibilities can be seen from the status of the office, whether it is a head office, branch office or representative office which will affect the floor area requirements used.

By Ownership Status
1) Office for rent
This type of rental office provides flexibility for users (users) to rent according to the needs needed based on the size and type of business in accordance with the requirements. rental capabilities.

2) Office for rent and buy
This type of rental office is a rental office that can be owned by the tenant (user) if there is a building purchase agreement in installments in accordance with the agreement made between the manager and the tenant (user).

Based on Building Class
1) Number of floors

Number of floor	Class
>21	AI
13 – 20	AII
9 – 12	B
5-8	C
4	D

(Source: S.K.Gub DKI Jakarta No.208/1977)

Facilities

1. Electric
2. Drinking water
3. Phone
4. Generator
5. Building maintenance
6. Public toilet
7. Elevators
8. Fire detection
9. Air condition
10. Security
11. Parking lot
12. Cleaning service
13. Telex
14. Utility room
15. Cafeteria
16. Bank
17. Lobby and corridor

Based on Lease Period

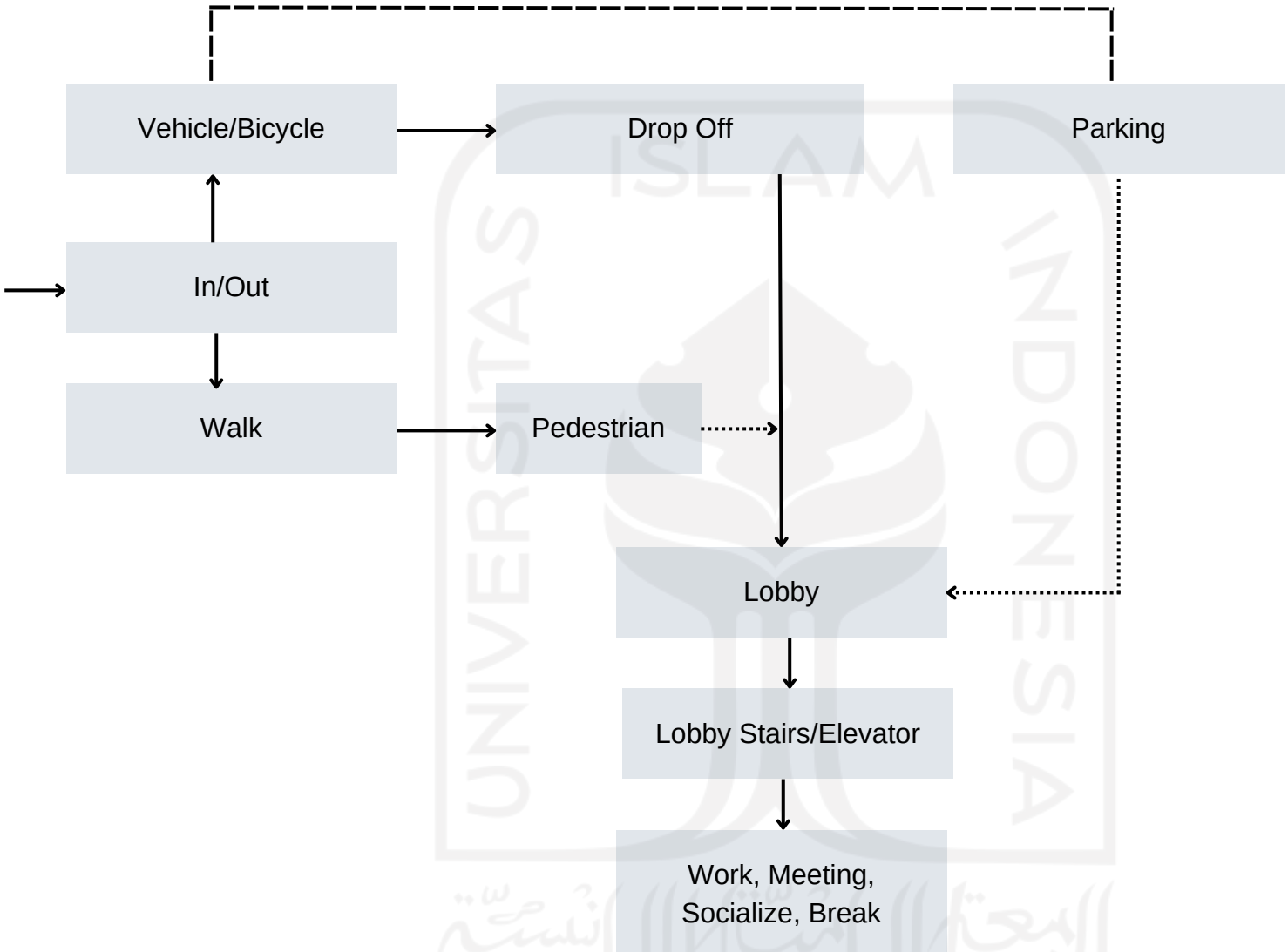
The period of rental of space (contract) in a building is regulated and determined by the manager and approved by the tenant (user).
The period of rental of space in a building can be divided into:
1) Long-term rental Long-term leases are determined by the management, which are usually annual terms.
2) Short-term rental Short-term contract rental is determined by the manager with a period of months in accordance with the agreement with the tenant (user).

Unit Area

The area of the unit that is rented out in the space rental system is divided into: 1) Based on the smallest unit/module that has been determined by the manager. 2) Based on the smallest unit module multiples required by the lessee according to their needs. 3) Based on floor rental.

Activities Flow Analysis

Tenants



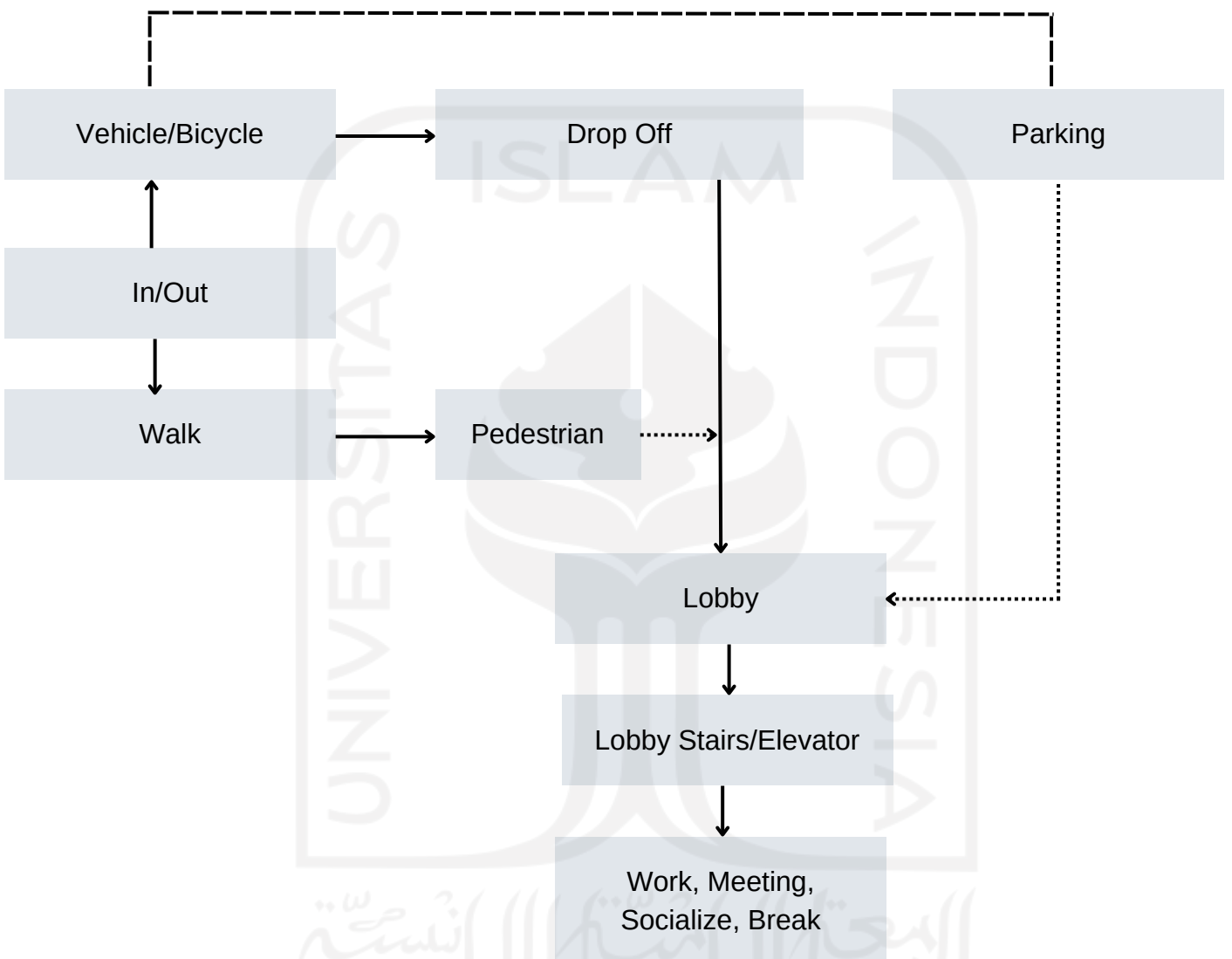
a. Tenant

The activities carried out are:

- Come
- Parking
- Enter the building, go to work
- Work, meetings, other activities
- Rest, eat, drink and defecate
- Home

Office tenants usually do the same routine activities everyday.

Manager



a. Manager

The activities carried out are:

Come

Parking

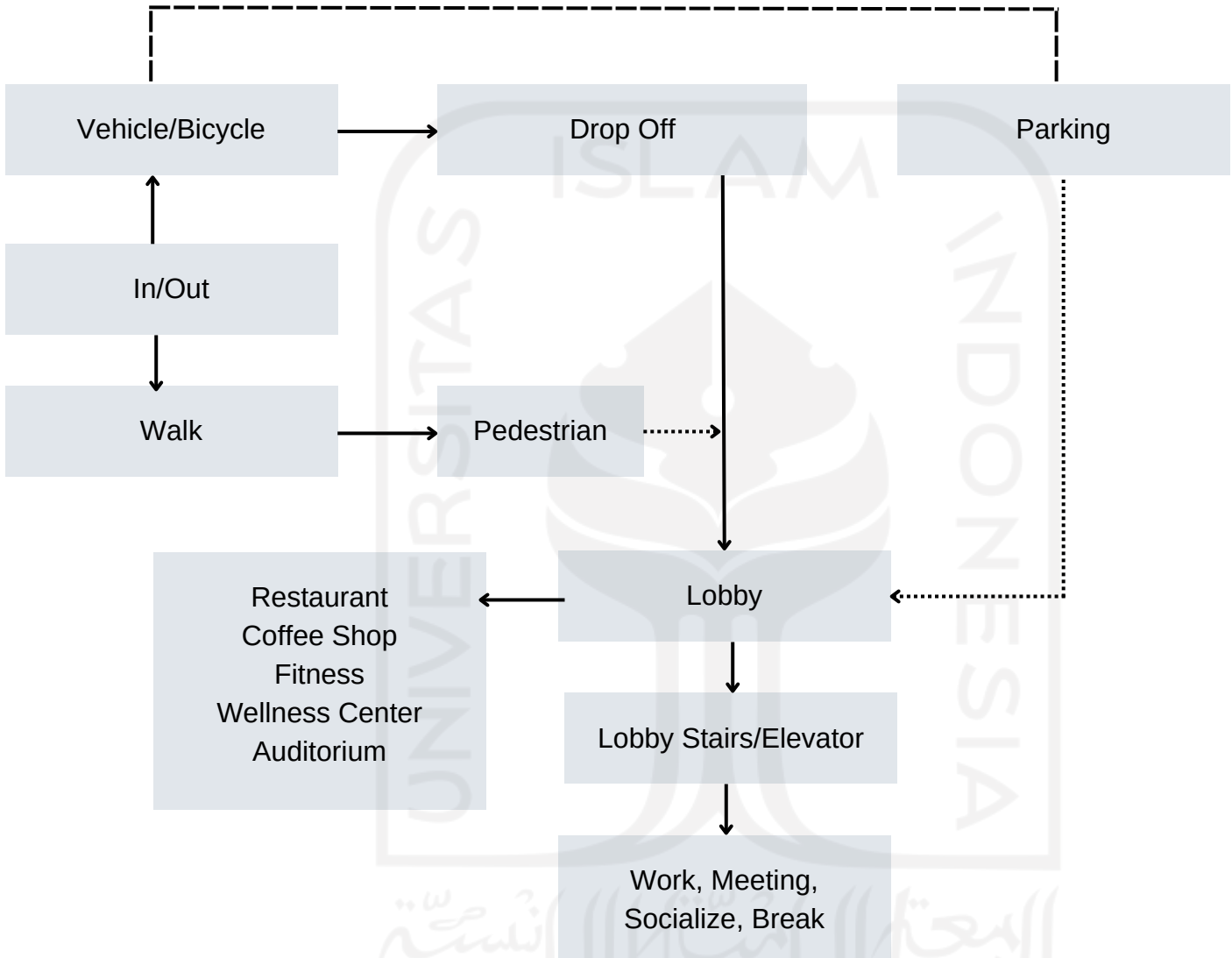
Enter the building, go to work

Work, carry out administrative activities, supervisory activities, maintenance activities.

Rest, eat, drink, urinate

Home

Visitors



Visitors
The activities carried out are:
Come
Parking
Enter the building
Do / fulfill:
o Tasks/needs, meetings, meetings, etc
o Special activities
o Fitness, check up, eat, drink, rest
Home

Space Programming Analysis

Rental Office	Room Type	Amount	Capacity	Size/occ	Source	Size (s.m)
Rental Office Space type A	Private	4	80	2 m2	Neufert	640
Rental Office Space type B	Private	6	50	2 m2	Neufert	600
Rental Office Space type C	Private	12	25	2 m2	Neufert	600
Rental Meeting Room type A	Private	8	15	2 m2	Neufert	240
Rental Meeting Room type B	Private	6	8	2 m2	Neufert	96

Management	Room Type	Amount	Capacity	Size/occ	Size (s.m)	Source
Director Room	Private	1	1	27 m2	27 m2	DA
Manager Room	Private	1	1	10 m2	10 m2	DA
Secretary Room	Private	1	2 units	6 m2/occ	12 m2	DA
Marketing Division	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2	DA
Administrative and Finance	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2	DA
Maintenance Division Room	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2	DA
MEP Division Room	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2	DA
Meeting Room	Private	1	16	2 m2/occ	32 m2	POS
Lobby	Public	2	6	4 m2/occ	48 m2	POS
Archive Room	Private	1	6 cabinets	1,5 m2/occ	20 m2	POS
Receptionist	Semi-Private	2	2	2 m2/occ	8 m2	SB
Pantry	Semi-Private	1	3	3 m2/occ	9 m2	DAAA
Praying Room	Public	1	10	2 m2/occ	20 m2	A
Storage Room	Private	1	Tools	5 m2	5 m2	A
Restrooms (male)	Public	5	3 Lavatory, 2 Urinoir, 3 wastafel	2,7 m2 lavatory 0,8 urinoir 0,9 m2 wastafel	9 m2	TSS
Restrooms (female)	Public	5	3 Lavatory, 3 Wastafel	2,7 m2 lavatory 0,9 m2 wastafel	9 m2	TSS

Supporting Facilities	**Room Type**	**Amount**	**Capacity**	**Size/occ**	**Size**	**Source**
Lobby, waiting room	Public	1	50	1,6 m2/occ	80 m2	DA
Cafeteria Dining Room Kitchen Cashier	Public	1	100	2 m2	200 m2	DA
Minimarket	Public	1	50	1 m2/occ	50 m2	DA
Auditorium	Public	1	50	50 m2/unit	50 m2	TSS
Wellness Center	Public	1	20	1,2-2 m2	40 m2	TSS
Sport Centre	Public	1	20	2 m2	40 m2	TSS
Praying Room	Public	1	50	2 m2	100 m2	TSS
Co-Working Space	Public	1	100	2 m2	200 m2	DA
Informal Workspace (outdoor garden)	Public	1	50	2 m2	200 m2	DA
Informal Workspace (ramp)	Public	3	15	2 m2	90 m2	DA
Informal Workspace (stairs-side)	Public	6	8	2 m2	96 m2	TSS
Informal Workspace (Zen)	Public	4	10	2 m2	80 m2	TSS
Outdoor Workspace	Public	3	20	2 m2	120 m2	TSS
Mini Cinema/Projection Room	Semi-Private	1	50	2 m2	100 m2	TSS
Game Room	Semi-Private	1	8	2 m2	16 m2	TSS
Nap Time Room	Semi-Private	1	8 Female Bunk Bed 8 Male Bunk Bed	4 m2	64 m2	DA
Coffee Shop	Public	1	100	1,5 m2	150 m2	DA
ATM Center	Public	5		6 m2/unit	30 m2	DA
Outdoor Communal Area	Public	1	200	2 m2	400 m2	DA

Service	Room Type	Amount	Capacity	Size/occ	Size	Source
Restrooms (male)	Public	5	3 lavatory 2 urinoir 3 wastafel	2 m2/lavatory 0,8 m2/urinoir 0,9 m2/wastafel	51,5 m2	TSS
Restrooms (female)	Public	5	3 lavatory 3 wastafel	2 m2/lavatory 0,9 m2/wastafel	43,5 m2	TSS
Shower Room	Public	2	4 Shower 4 locker 1 Lavatory	2 m2/Shower 1 m2locker 2 m2/lavatory	28 m2	A
Elevator	Public	5	10	2 m2	100 m2	
Janitor	Private	5	-	3 m2/unit	15 m2	A
Panel Room	Private	2	-	4 m2/unit	8 m2	TSS
Genset Room	Private	1	-	40 m2/unit	40 m2	A
Security and Safety Room	Private	2	-	10 m2/unit	20 m2	A
Cleaning Service Room	Private	1	-	10 m2/unit	10 m2	A
AHU Room	Private	3	-	10 m2/unit	30 m2	A

Parking Area	Room Type	Capacity	Size/occ	Source	Size (s.m)
Car Parking	Public	200 car	11 m2	Neufert	2200
Motorbike Parking	Public	300 motorbike	1,5 m2	Neufert	450
Bicycle Parking	Public	100	1,2 m2	Neufert	120

1	Main Activities (Rental Office)	2176 m2
2	Management Activities	285 m2
3	Supporting Activities	2206 m2
4	Service Activities	346 m2
5	Parking Area	2770 m2
	Total	7783 m2

Circulation 20%
TOTAL: 9339 m2

Space Organization

Utility (to support building functions):
a. Building Maintenance and its system
b. Security
c. Servers
d. Electrical Panels and PABX
e. Generator Set
f. Pump Room
g. Ground Tank
h. AHU (Air Handling Unit)
i. Water Treatment
j. Septic Tank and Sewerage System

President Commissioner's Room and System
Work Area
Living room
Meeting Room (shared)
Toilet and Bathroom
Guest Waiting Room (shared)
Secretary Room

Commissioner Room and System
Work Area
Living room
Meeting Room (shared)
Toilet and Bathroom (shared)
Guest Waiting Room (shared)
Secretary Room

Managing Director and the System
Work Area
Living room
Leadership Meeting Room
Dining Room and Pantry (shared)
Toilet and Bathroom
Guest Waiting Room
Secretary Room

Board of Directors Room and System
a. Work Area
b. Living room
c. Meeting Room (shared)
d. Dining Room and Pantry (shared)
e. Clothes Room
f. Toilet and Bathroom
g. Guest Waiting Room (shared)
h. Secretary Room

Deputy Director's Room and System
a. Work Area
b. Living room
c. Toilet and Bathroom
d. Secretary Room

Head of Sub Division / Head of Bureau and System and Staff Area
Workspace (Activity Based Workspace)
Living Room (shared)
Informal Meeting Zone
Phonebooth

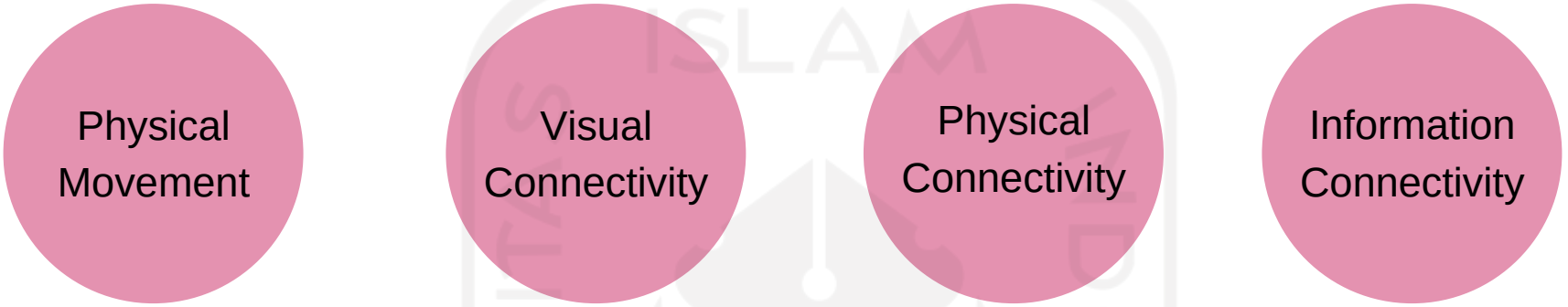
Space Requirement

Determination of space requirements is based on the types of activities carried out by the main users, managers and visitors of Oil Company Office. Based on the activities of the perpetrators, it can be analyzed the spaces needed as shown in the following table:

User	Activity	Space Requirements
Employee	1. Parking 2. Meeting guests/relatives 3. Work 4. Meetings 5. Take a break 6. Eating/Drinking 7. Using/Managing complementary facilities 8. Worship 9. Toilets	1. Parking area 2. Informal Meeting Zone 3. Office space/Activity-Based Workspace 4. Meeting room 5. Pantry 6. Cafeteria 7. Mini market, ATM Center, Parks, Entertainment and sport spots, conference room, coffee shop, co-working space. 8. Mosque 9. Toilets
Manager, Building Management Staff	1. Parking 2. Building Management 3. Meet guests/relatives 4. Meetings 5. Search/store data 6. Eat/Drink 7. Using complementary facilities 8. Worship 9. Toilets	1. Parking area 2. Manager Room, Staff Room 3. Informal Meeting Zone 4. Meeting Room 5. Archives Room 6. Pantry 7. Mini market, ATM Center, Parks, Entertainment and sport spots, conference room, coffee shop, co-working space. 8. Mosque 9. Toilets
Cleaning Service	Cleaning and Building maintenance	Cleaning Service Room
Technician	Maintenance, Electrical Mechanical, Equipment Storage, Clean and Dirty Water Management	Elevator engine room, Genset room, Pump room, Ground Water Tank (GWT) room, Sewage Treatment Plant (STP) room & pump room. transformer, panel room.

Design Concept

The concept applied to the design of this building is Design for Movement where what is meant is the creation of a corporate office space design that helps users to be more active in moving, and makes moving a fun thing and provides many benefits. This movement can be created through several Routes, Destination, Activity, and Building Surroundings parameters.



Parameter of Movement

Routes

Routes are the lines along which people move; they link the programmed spaces in a building. Routes consist of stairs, corridors, elevators, ramps, and other accessibility features. Physical activity and stair use in particular are facilitated through the strategic configuration and careful elaboration of routes.

PROVIDE (VISUAL) CONNECTIONS BETWEEN FLOORS
Open/transparent/undefine and layered facade
In between function

ENHANCE THE SENSORY APPEAL OF ROUTES
Daylight in the circulation and stairs
Unique stairs configurations

Visible space (use of glass material)



1.02
1.10
1.11
1.18
1.21

2.01
2.02
2.08
2.09
2.11

3.04

ENSURE STAIRWELLS ARE TRANSPARENT AND ATTRACTIVE

Color, light, materials, interior views should be attractive (make it contras)
Combine destination + routes (ex: read space, workspace besides the stairs)



1.01
1.02
1.09
1.12
1.21

2.08
2.12
2.13

Sea views and courtyard views



1.02
1.10
1.16
1.18
1.22

2.01
2.14

COMBINE VERTICAL & HORIZONTAL ROUTES

Rich and rewarding experience routes (interior), visual and physical connections between horizontal and vertical routes.
Inviting playground



1.02
1.10
1.12
1.16
1.21

2.11
2.12

3.04

Activity

Activity program concerns building functions that relate directly to increased physical activity. These includes gyms, bicycle storage and active furniture. These elements encourage physical activity by providing facilities and/or comfort in relation to sport activities.

ENCOURAGE EMPLOYEES TO CYCLE TO WORK

Provide secure and sheltered bycicle parking area
Provide e-bike connection



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

ENCOURAGE THE ACTIVE POSTURE

Ergonomic Furnitures
Exercise equipment: • standing desk (adjustable desk) • treadmill desk • balance ball chair • resistance chair • balance board • under desk elliptical • mini exercise bike • yoga mats



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

ENSURE THAT EMPLOYEES CAN TAKE A SHOWER

Provide Changing rooms & showers
Provide gym and playground space



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

PROVIDE VISUAL INFORMATION

Digital information: the availability of sports and playground facilities.



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

MAKE ACTIVITY SPACES ATTRACTIVE AND VISIBLE

Gym in the first floor, make it visible with glass materials
Gym with view to the sea



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

MAKE ACTIVITY SPACES ATTRACTIVE AND VISIBLE

Integrating exercise facilites in the workplace



3.02
3.03
3.04
3.06

Destination

Destinations are the functions of programmed spaces where people spend any number of time and which form a focal point for movement. The strategic positioning of necessary or attractive destinations in a building can evoke movement between them. The key principles for destinations are as follows:

STIMULATE THE MOBILE WORKPLACE

Laptop instead of a desktop workstation to gives them more freedom to find suitable working environments and/or positions.
Green deck with sea view for informal workstations



1.08 2.01 3.01 4.04
1.11 2.02 3.02
1.15 2.04 3.06
1.20 2.08 3.07
2.14 3.08

PROVIDE SPACES FOR RESTING

Break room or relaxation room with greenery, peaceful acoustics, natural light, and fresh air.
Wellness center



1.02 2.11 3.04
1.10 2.12
1.12
1.16
1.21

INTRODUCE A VARIETY OF ATMOSPHERES

Variety of atmosphere, different types of interior design.
Establish some biophilic approach



1.01 2.01 3.01 3.07
1.10 2.02 3.06
1.11 2.04
1.16 2.08
1.18 2.13

DISPERSE COLLECTIVE FUNCTIONS

Communal functions of different department to encourages collaboration
Consultation rooms, concentration areas, coffee corners within comfortable walking distance of each other and the workplace.



1.06 2.02 3.04
1.19 2.04 3.07
1.20 2.08 3.08
1.21 2.13

COMBINE FUNCTIONS TO CREATE SOCIAL SPACES

Combining auxiliary functions such as toilets, kitchenettes, and printers for social interactions



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

CENTRALIZE FUNCTIONS

A central, well-ventilated print and photocopy room instead of printers at every workplace.
a central recycling station instead of wastepaper baskets beneath every desk.



2.08
2.12
2.13

ADD UNIQUE COLLECTIVE PROGRAM

Informal meeting, board room, projection room, garden room
Inviting playground in some points



1.01
1.02
1.09
1.12
1.21

2.08
2.12
2.13

Building Surroundings

A building influences its immediate surroundings through its massing, materials, degree of transparency and programming. Annoying gusts of wind and monotonous building facades are examples of how buildings can adversely affect the walkability of the neighborhood. By way of contrast, varied programming, multiple entrances and a pleasant human scale actually contribute to physical activity in public spaces. A qualitative spatial connection between a building and its surroundings also encourages movement in between.

MAKE ENTRANCES NUMEROUS AND TRANSPARENT

Multiple street-level entrances that are clearly recognizable, safe and transparent so that the pedestrian area and the entrance lobby may be experienced.
Encourages movement between the interior and the exterior but also promotes social control in the public space.



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

AVOID EMPTY LOTS AFTER OFFICE HOURS

After office hours, parking spaces for cars and bicycles are not in use. These empty lots can negatively affect the walkability of a neighborhood. Upgrading these areas using pedestrian routes, seating (mobile if possible), water features, public artworks and greenery.



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

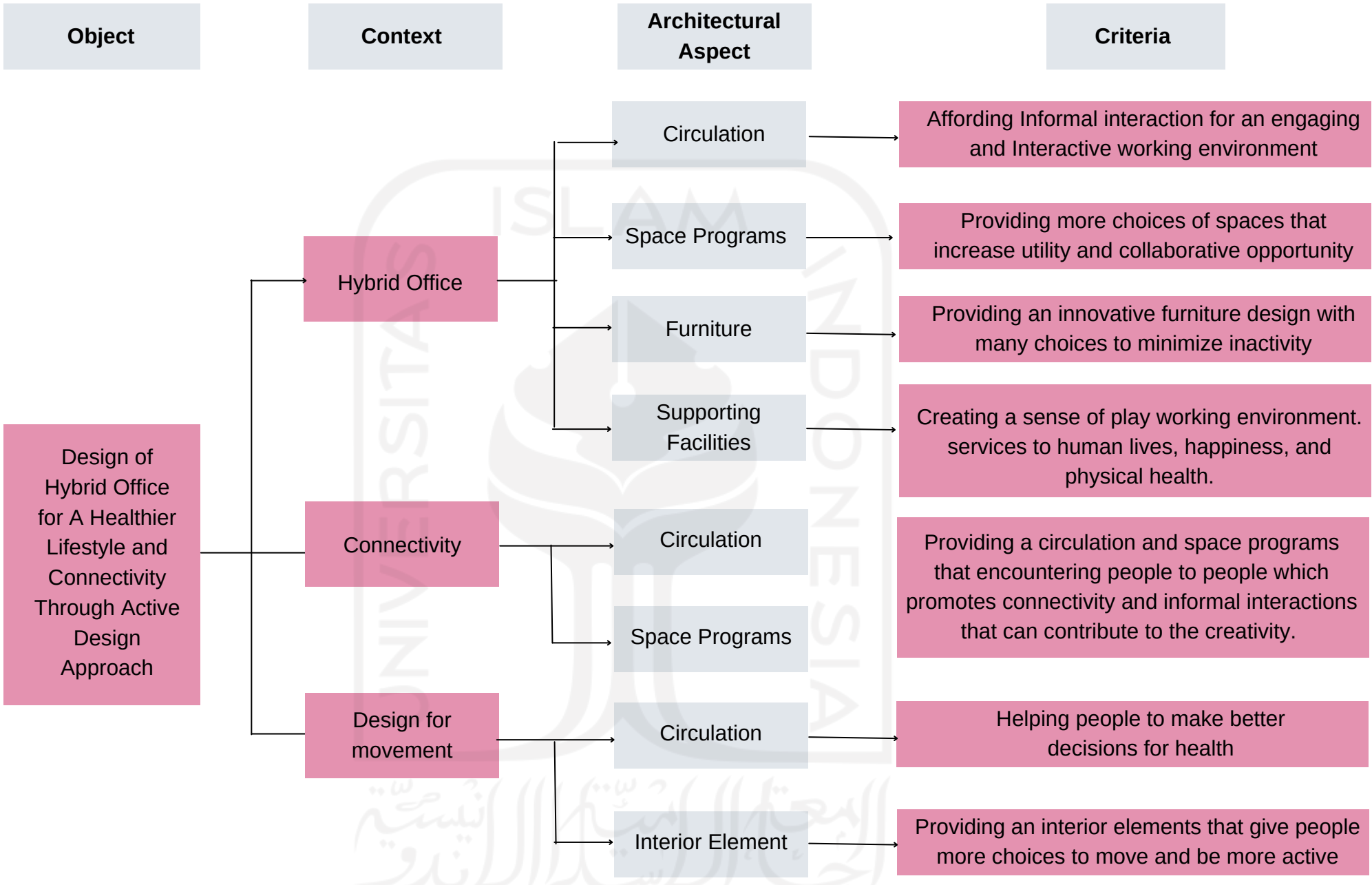
INTRODUCE ATTRACTIVE URBAN FUNCTIONS

Introducing public program by adding a street-level cafeteria or lunchroom. This stimulates diversity at the urban level, it provides a destination for physical activity, and it adds social value to the surrounding area.
Outdoor sports



1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

Design Framework



Problem	Concept
How to design an office that encourages people to be more active and make the active choice is the easy choice?	Future rental office which able to **adapt to the changes of business practices** and be able to integrate with the public through creating programs such as co-working space, auditoriums, and F&B. And also, catering a new workforce of "millennials" that is much more about independence and self-driven personality.
How to design a space programs and circulation that increase the value of connectivity (informal interactions) and collaboration which encourage the discussion and generation of new ideas among co-workers?	Future rental office that is encourages physical activity through an inviting interior elements such as exercise tools, pathway, and furniture design. And also, exploring how people make a better decision for health through the concept of **"inviting affordance"**
How to design an office which adapt to the changes of business practice and consider a physical activity, health, and the future generation of workers?	Future rental office that is more socially engaging space that would aids in the creativity through informal interactions, physical connectivity, visual connectivity, and information connectivity.

Flexibility and Adaptability

Movement

Concentration and Collaboration

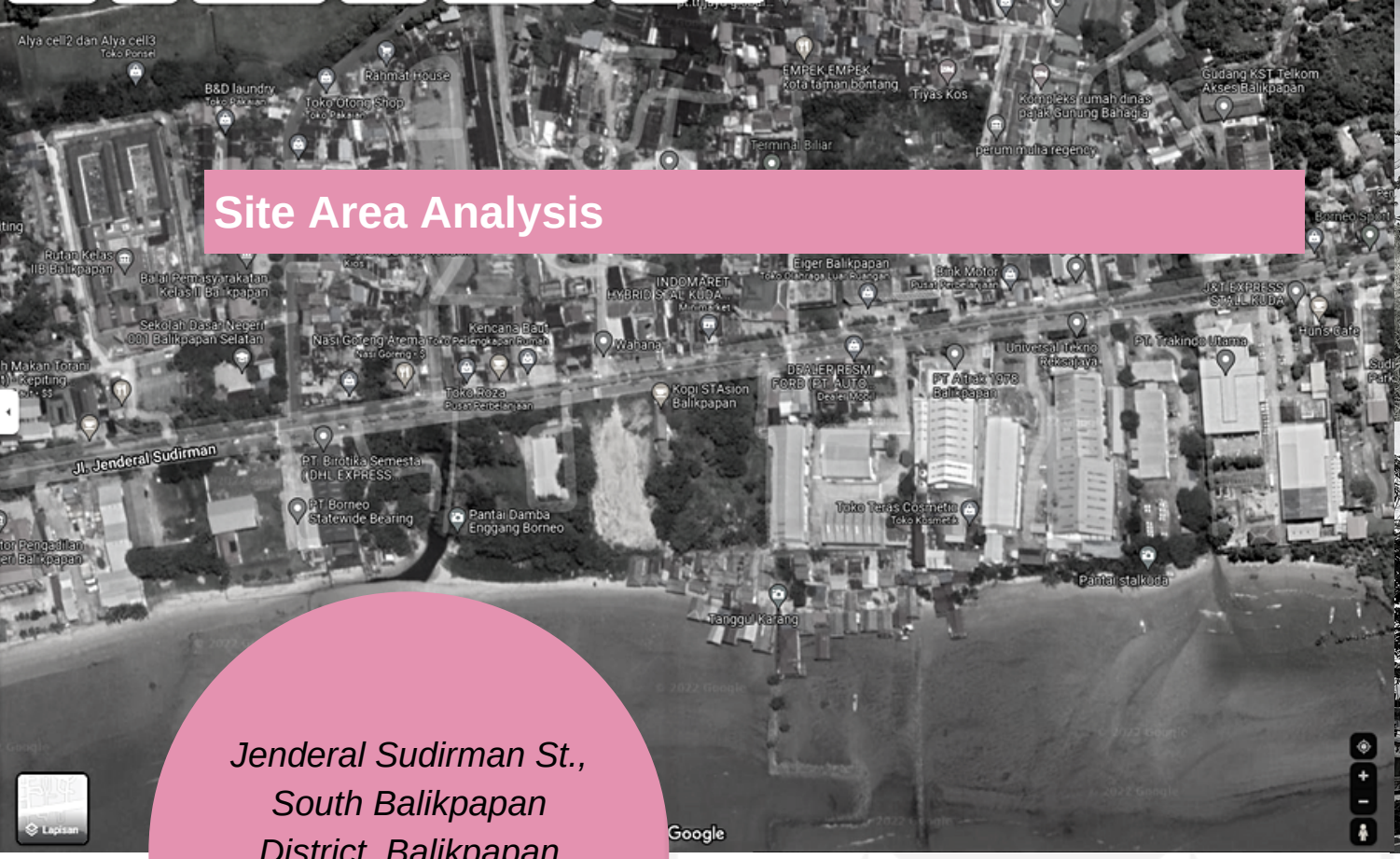
Building Codes and Regulation
Macro Urban Conditions
Site Analysis
Design Alternative (Comprehensive Stage)
Mass and Facade Exploration (Comprehensive Stage)
Site Plan (Comprehensive Stage)
Schematic Drawings (Comprehensive Stage)
Space Programming (Comprehensive Stage)
Interior Design (Comprehensive Stage)
Structural System (Comprehensive Stage

Chapter 3

03

Schematic Design

Site Area Analysis







Jenderal Sudirman St., South Balikpapan District, Balikpapan City, East Kalimantan 76114

Site Location
source: Author & google maps

A. Building Codes and Regulation

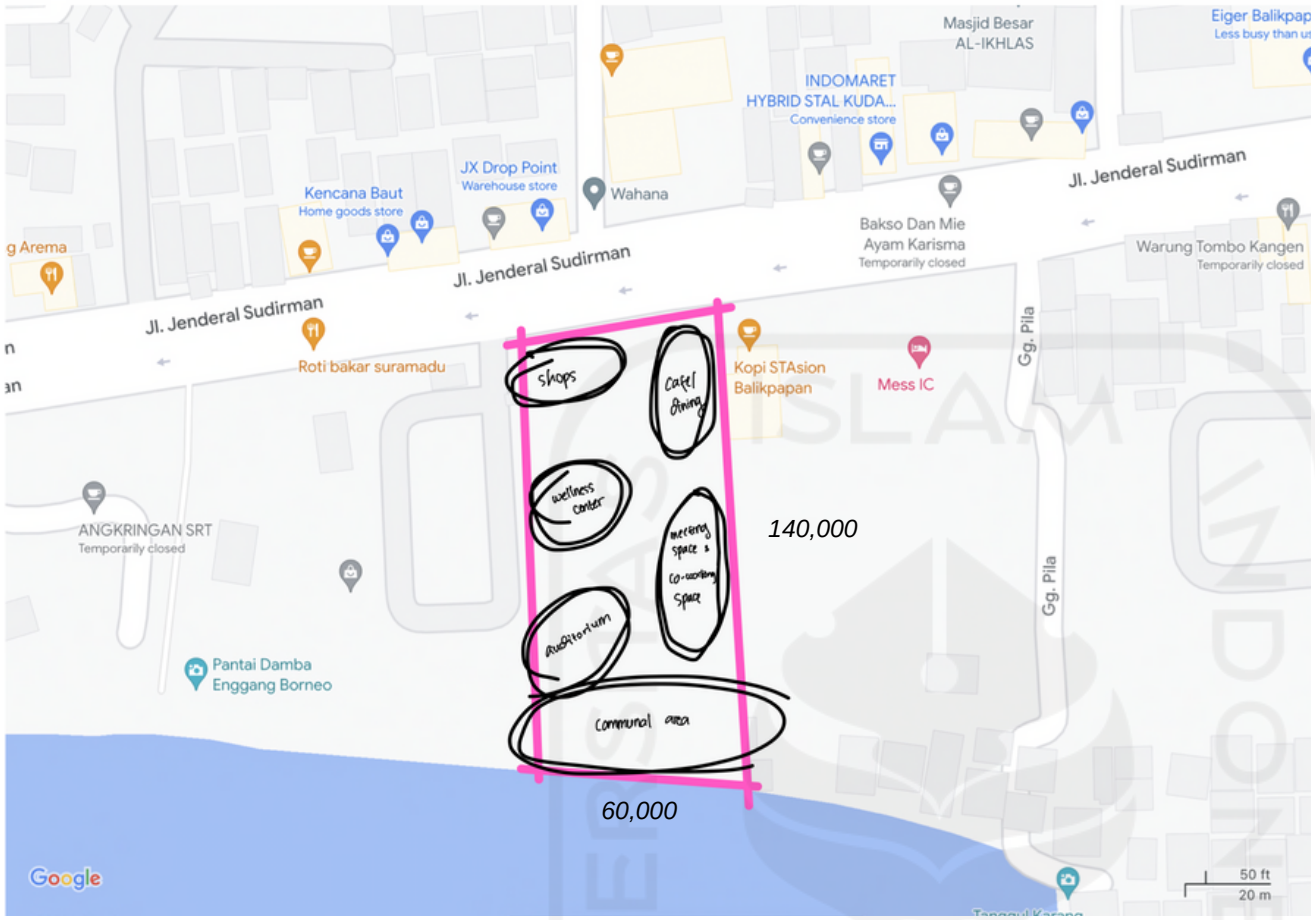
Coordinates:1°16'31.1"S 116°52'08.1"E
Area: 4500 m2

According to the Balikpapan City Regulation No. 12 the Year 2012
Regarding the Spatial Planning of Balikpapan City for 2012-2032:
a. BCR (Building Coverage Ratio): 70%
b. Maximum permissible KLB 1.4
c. Maximum building height 3 floors
d. The Building Boundary Line is 5 meters.
e. Ground Coverage: 20%

The site is located on Jl. General Sudirman, South Balikpapan District, Balikpapan City, East Kalimantan 76114. The site criteria that will be selected as the design context are:

- Located in the designation of trade and services in accordance with the design function, which is office.
- Located in a strategic location, directly adjacent to the beach so as to get a good view that can support the design strategy.
- Balikpapan is a city that has experienced significant economic growth and development.
- East Kalimantan is the second place position for high obesity rate in Indonesia.

B. Macro Urban Conditions





Sun Direction by Author



Wind Direction by Author



Noises by Author



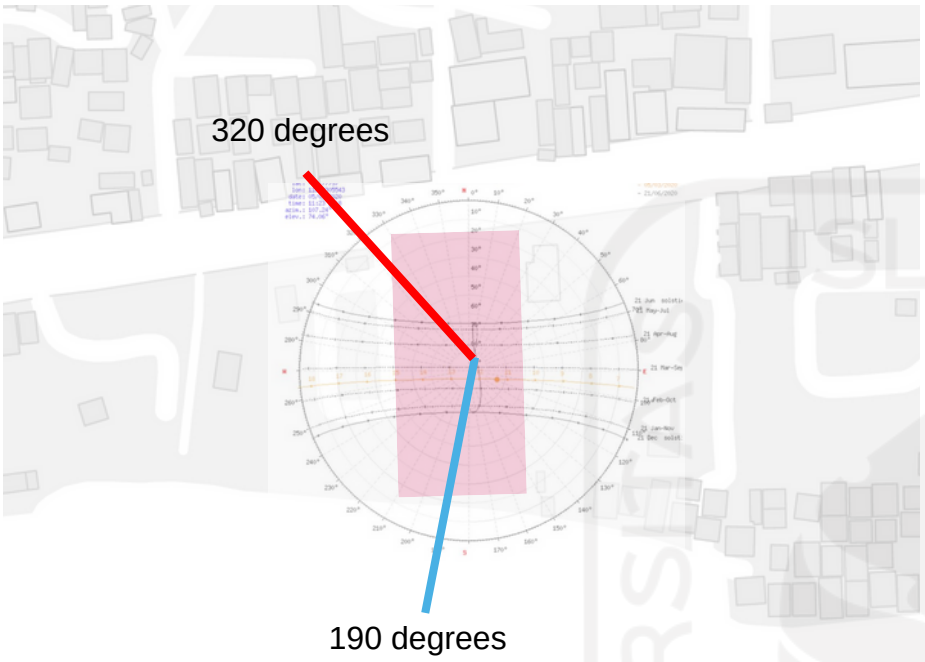
Main Circulation by Author

KDB = 70% x 8400= 5880

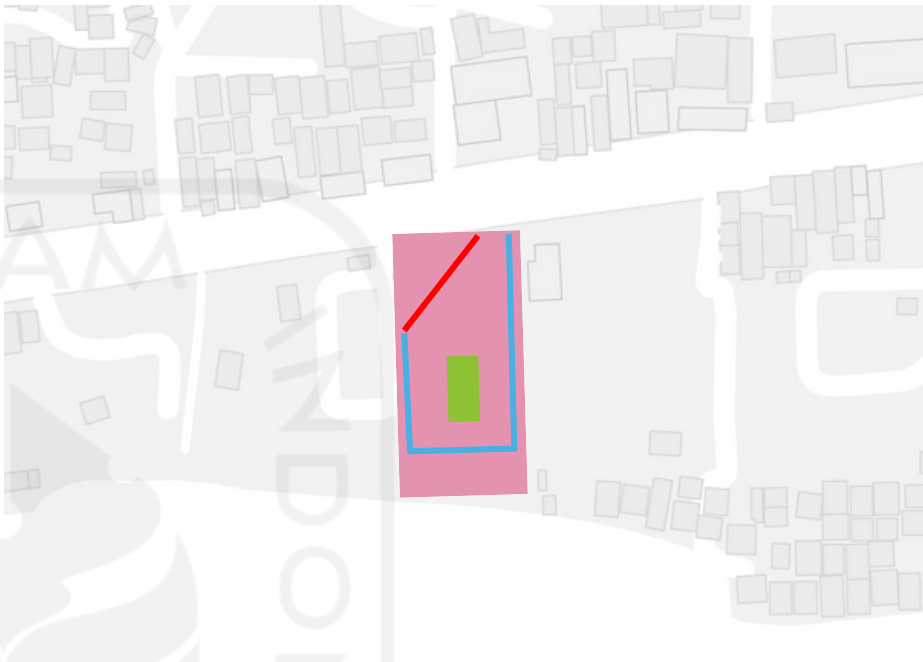
KDH = 20% X 8400 = 1680

The design area is located at Jalan Sudirman No. 9 Klandasan Ulu, Balikpapan City, Balikpapan City, East Kalimantan.
Physical boundaries of the site at the location:
North : Jl. General Sudirman
South: Klandasan Beach
East : Residential Settlement
West : Bekapai Park and Offices
The scope of the design area is in the trade and service area located on the Coastal Coast of Balikpapan City, especially on Jalan Sudirman No. 9 Klandasan Ulu, Balikpapan City, East Kalimantan.

1. Building Orientation Analysis



Sun Direction by Author



Sun Direction Response by Author

Recommended orientation based on Balikpapan Climate Data

Avoided orientation based on Balikpapan Climate Data

From the sun path data, it can be seen that the position of the sun is in crisis at 11.00 – 16.00 WITA. The position of the sun can determine the orientation of the building mass and openings.

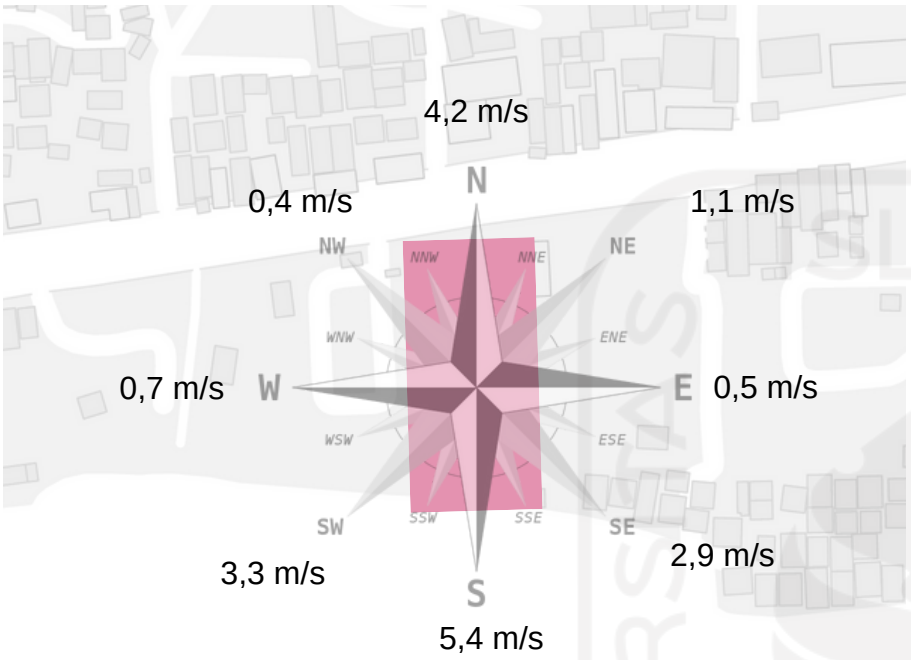
After looking at the Sun Path data and knowing the position of the sun crisis and from which direction the sun exposure point is, it is found that the recommended building orientation based on the data is at 190 degrees of orientation position and 320 degrees of avoided building orientation.

Open view with a glass facade to bring in natural light for maximum daylight eficiency.

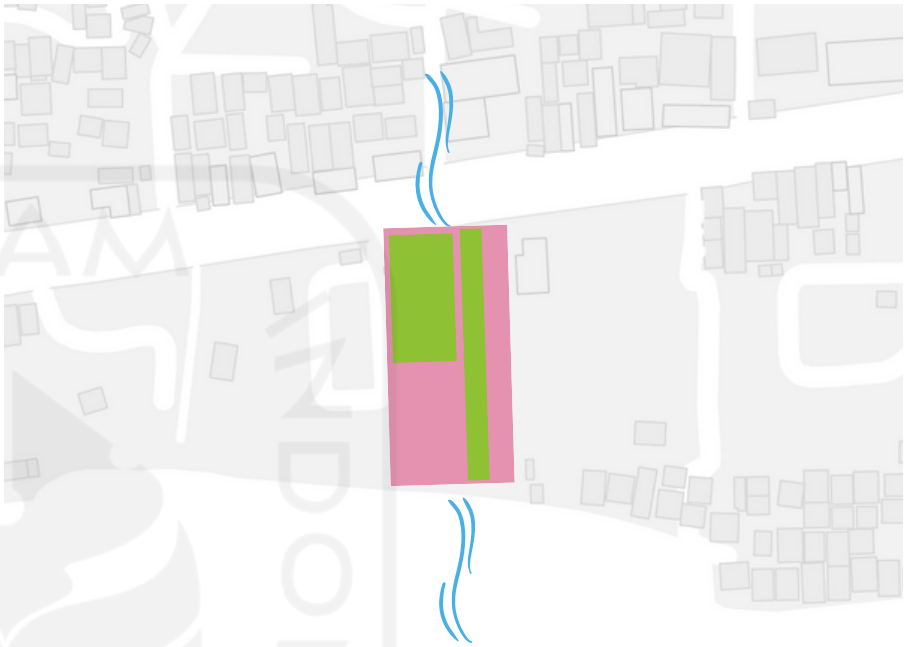
Use perforated or operable facade to control hot light from the east.

Create courtyard to bring in additional light in specific areas.

2. Wind Analysis



Wind Direction by Author



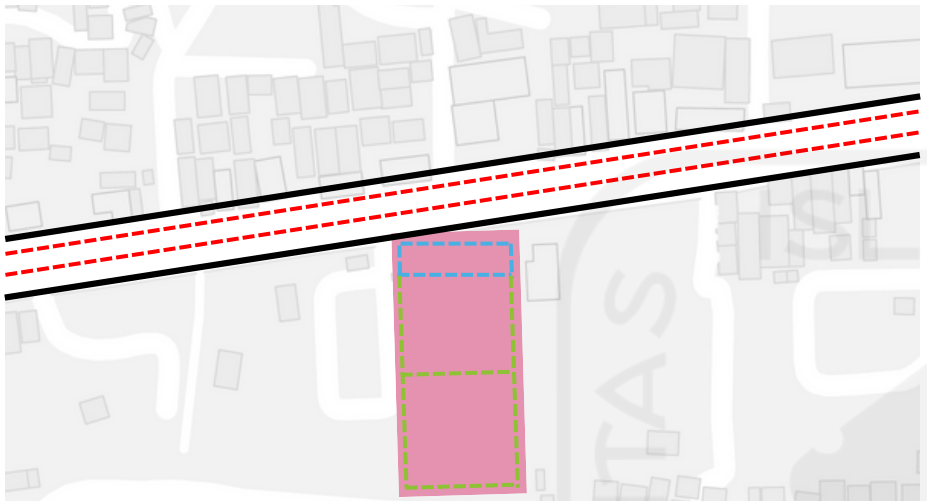
Wind Direction Response by Author

The highest wind speed at the site comes from the north and south, from the north the wind blows at a value of 4.2 m/s while from the south the wind blows at 5.4 m/s. Of course, this condition is quite favorable which can be maximized in this design.

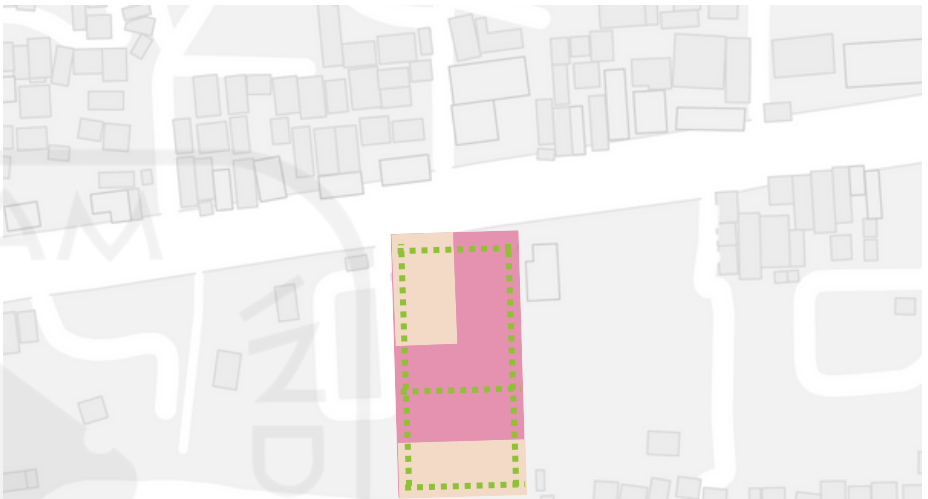
Meanwhile, with values ranging from 0.4 m/s and 0.5 m/s, once it is known that the strongest winds come from the North and South directions, then it can be a benefit for the design of an office. However, the strong wind must also be controlled so that the wind entering the building is not excessive.

Open void in building to bring in the wind and allow air ventilation through the building.

4. Circulation Analysis



Circulation Analysis by Author



Circulation Analysis Response by Author

Main Road

Pedestrian Circulation

Vehicle Circulation

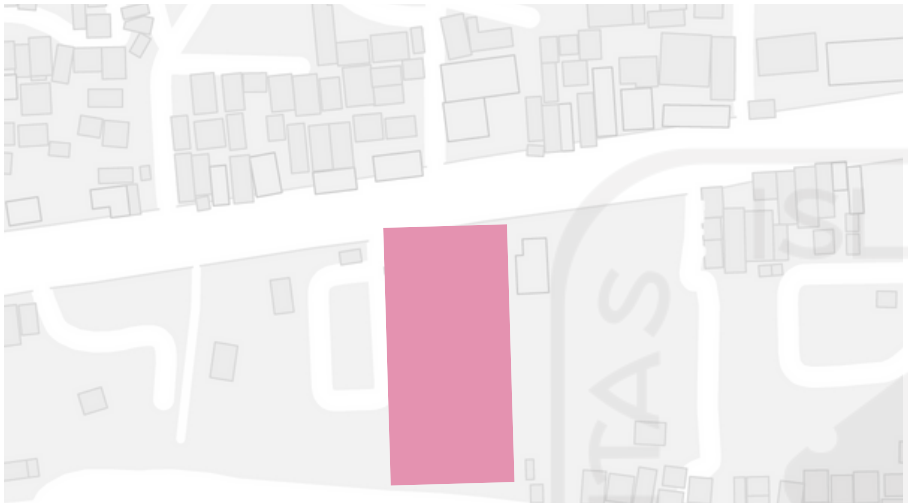
From the diagram shows that the position of the main road/highway is on the north side of the site, so the entrance for vehicles and pedestrians is only on the north side, namely from Jalan Sudirman.

The site circulation path is designed around the building mass to facilitate vehicle access and as a safety aspect in the building in the event of a fire to make it easier for firefighters to access all corners of the building mass.

Public area for use by the community to activate building by bringing the pedestrian from nearby cafes and residential.

Jogging track and pedestrian circulation designed to be 360 degrees in order to enhance movement

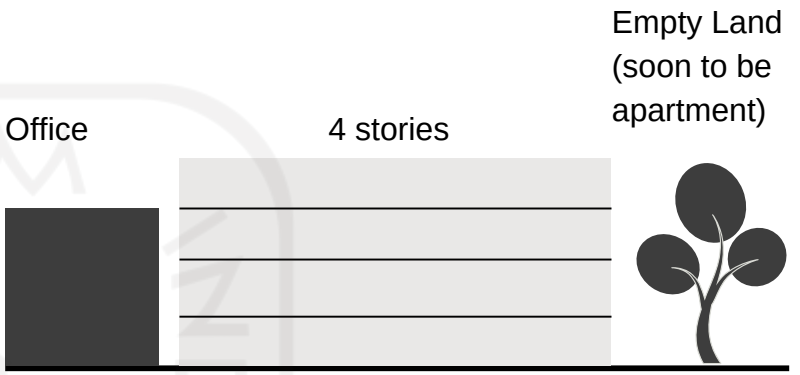
4. Building Use Adjacents Analysis



Building Use Adjacent Analysis by Author

- Office
- Factory
- Housing/Residential
- Retail
- Parking

Area is mainly an office and a service-trade center area with much housing and residential neighborhood surroundings.

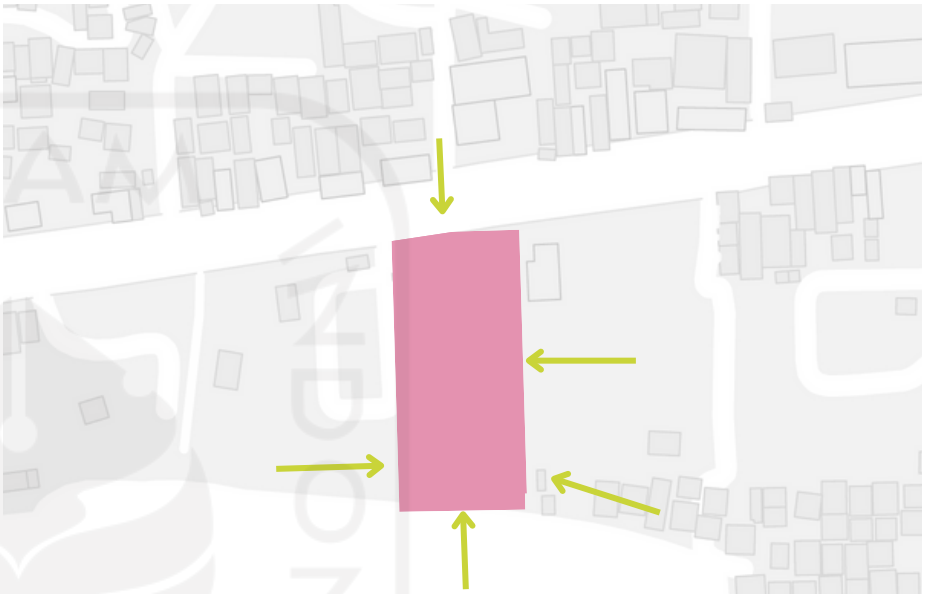


Building Use Adjacent Analysis by Author

Being in between office building and empty land (soon to be apartment building), the design height should follow the local regulation which is the maximum height of 4 floors. Office building design can easily fit in this site since it has many neighbor that are offices and factory.

4. View Analysis





View from Site

The site has 2 main faces, one faces the beach, and the other faces the streets.
Response:
Considering the South and North view a potential view and using more transparent materials to get those good views.

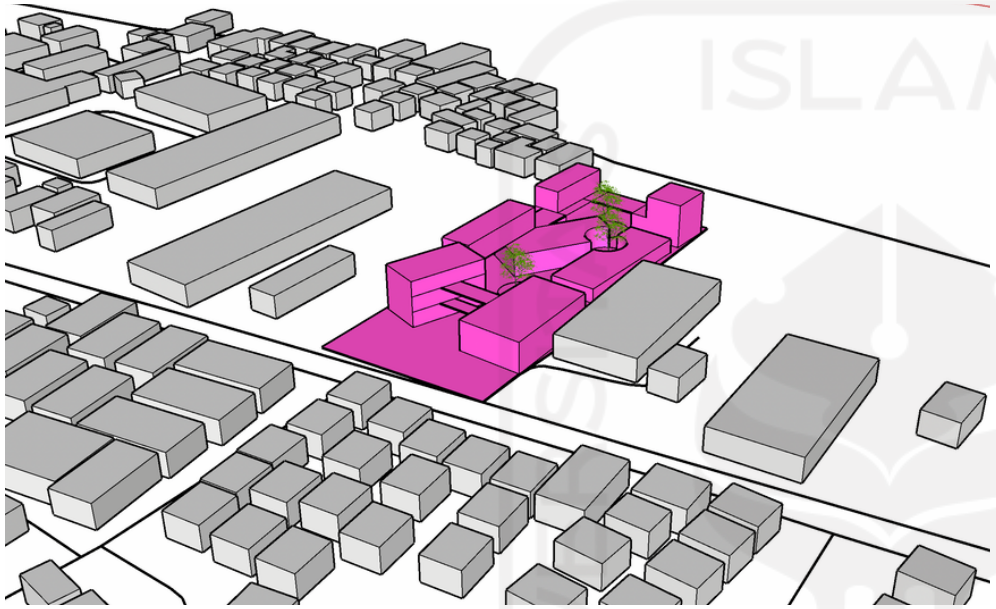
View to Site

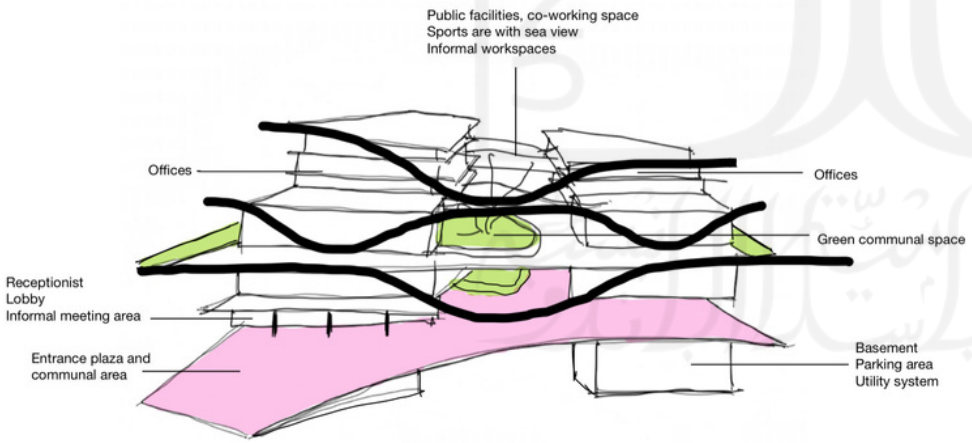
View to site comes from the main street, retail, residential area, and adjacent coffee shop.

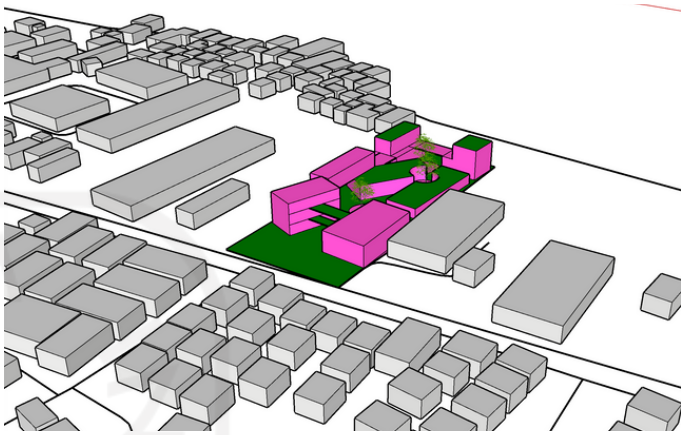
Design Alternatives (Comprehensive Stage)

Building Mass Alternative 1

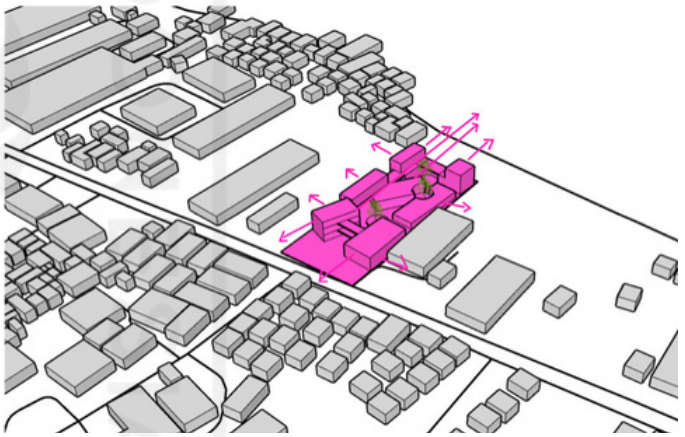
Initial Zoning Design



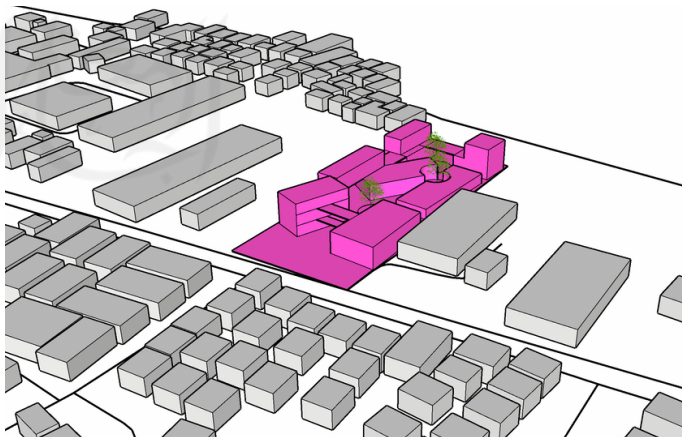




Green area improvement



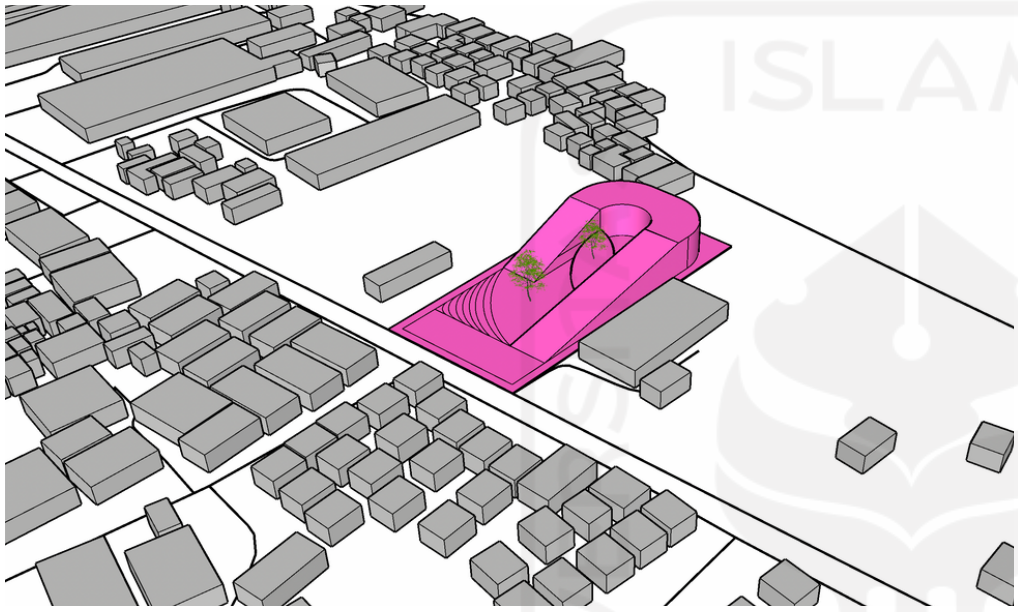
Visual Transparency



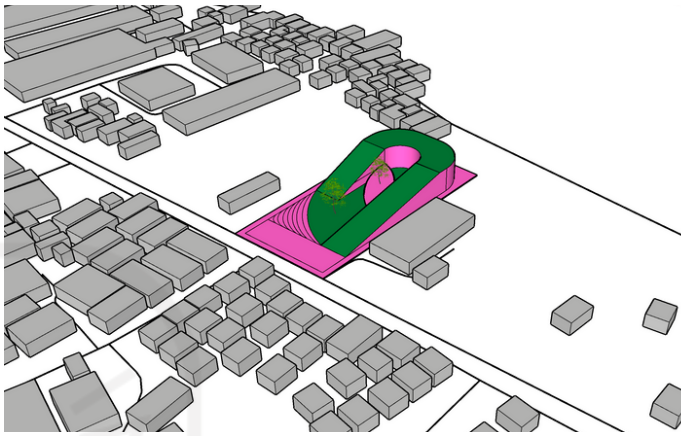
Movement

Building Mass Alternative 2

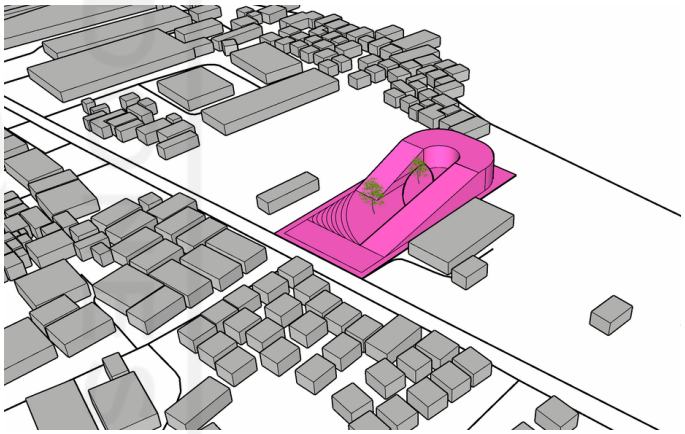
Initial Zoning Design



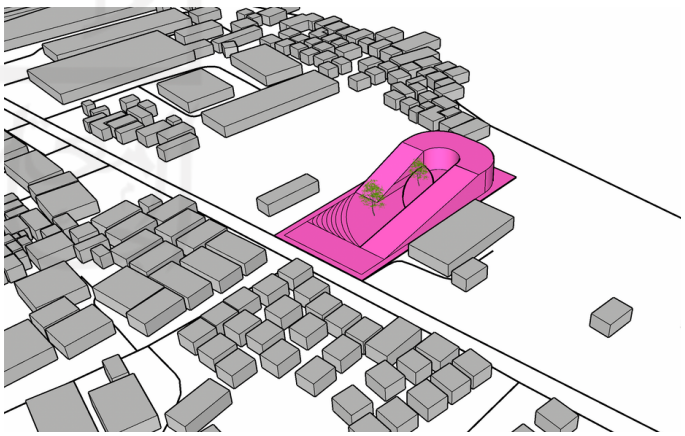
The concept applied to the design of this building is Design for Movement where what is meant is the creation of a corporate office space design that helps users to be more active in moving, and makes moving a fun thing and provides many benefits. This movement can be created through several Routes, Destination, Activity, and Building Surroundings parameters.



Green area improvement



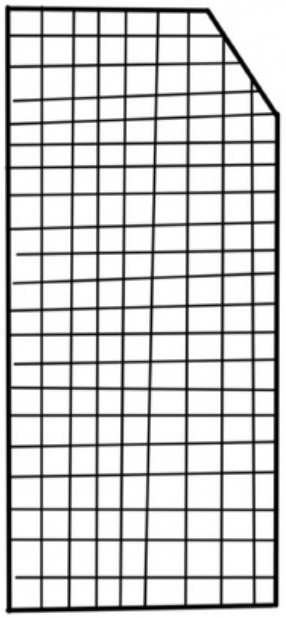
Visual Transparency



Movemnet

Mass and Facade Exploration (Comprehensive Stage)

Grid+ Ground



Masses
(adapting the urban shape)

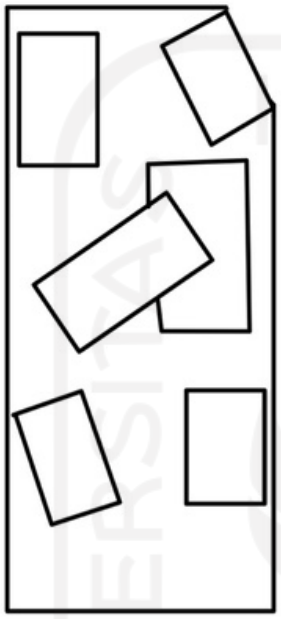
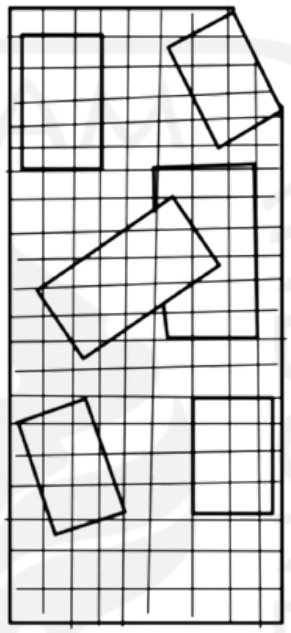
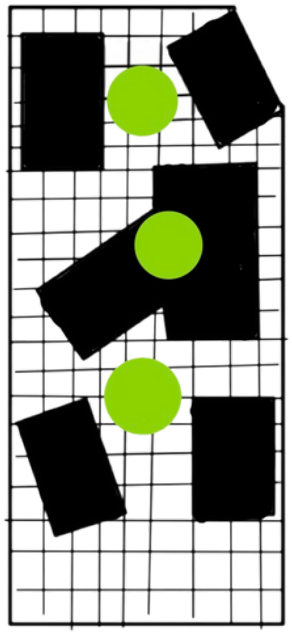


Figure Groud



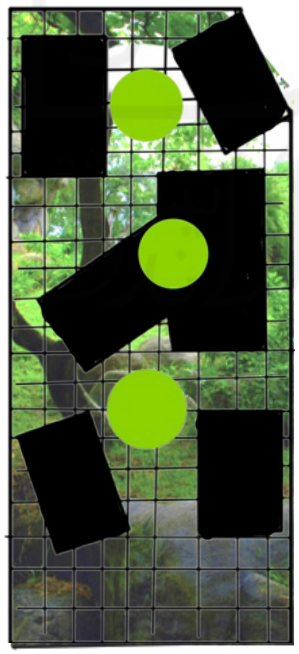
Communal Points



Nature



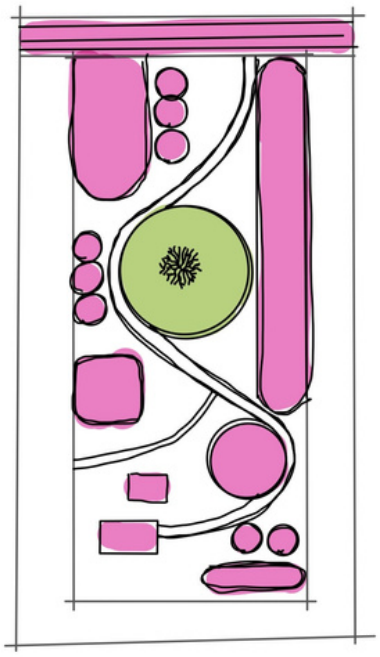
Green Belt



Reuse of figure as substraction



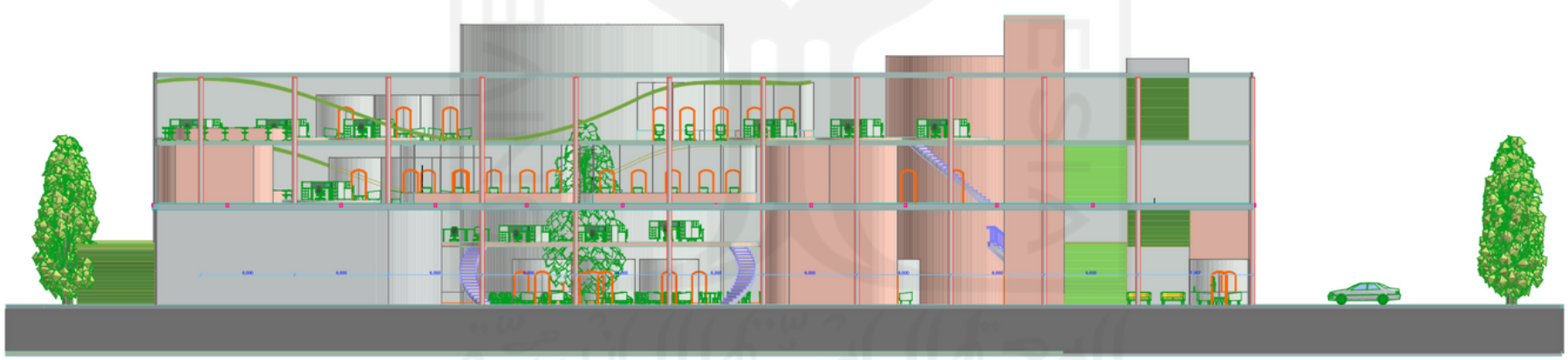
Shape inspired by Oil Refinery







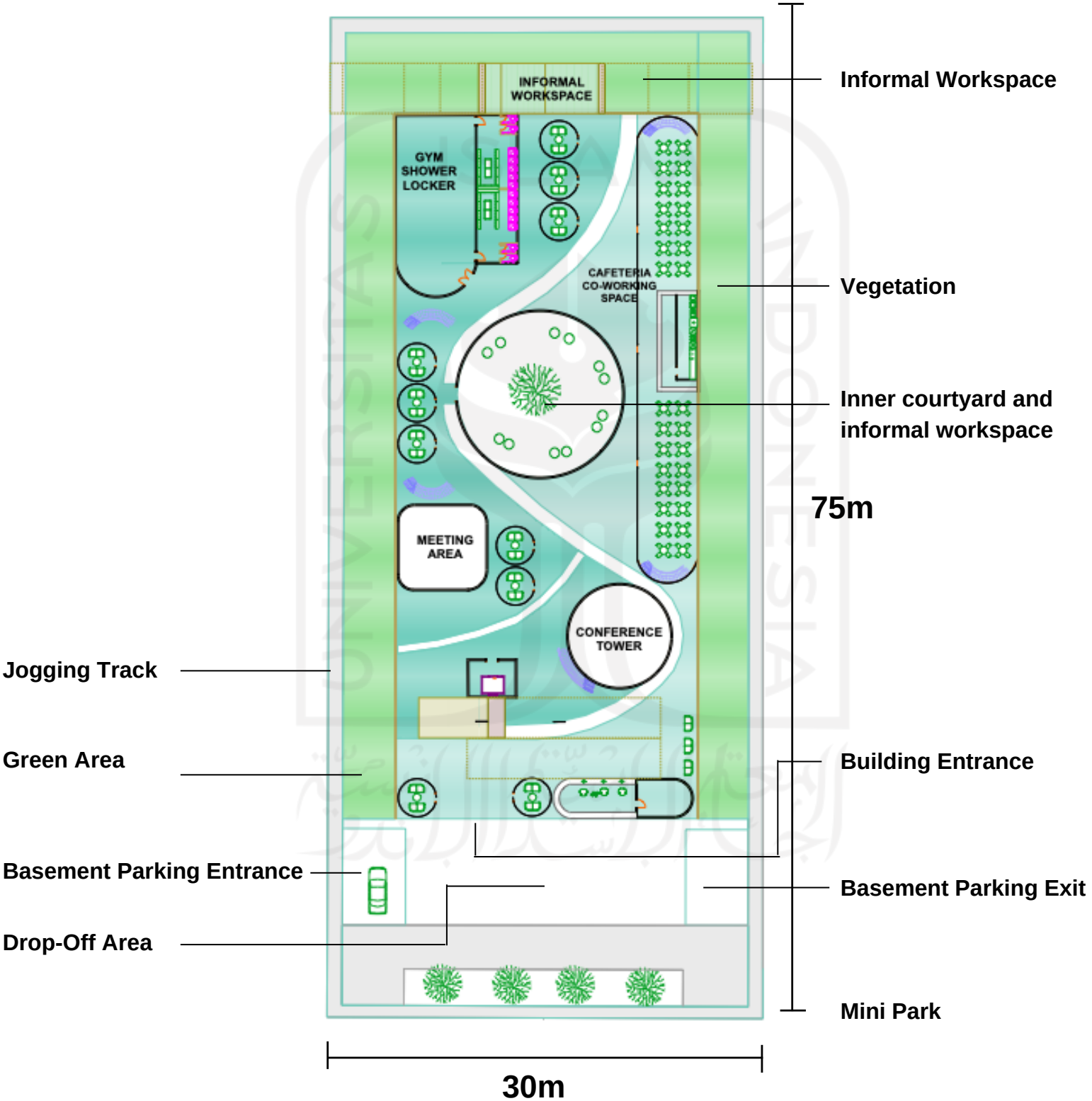
oil refinery



Inspired by Oil Refinery

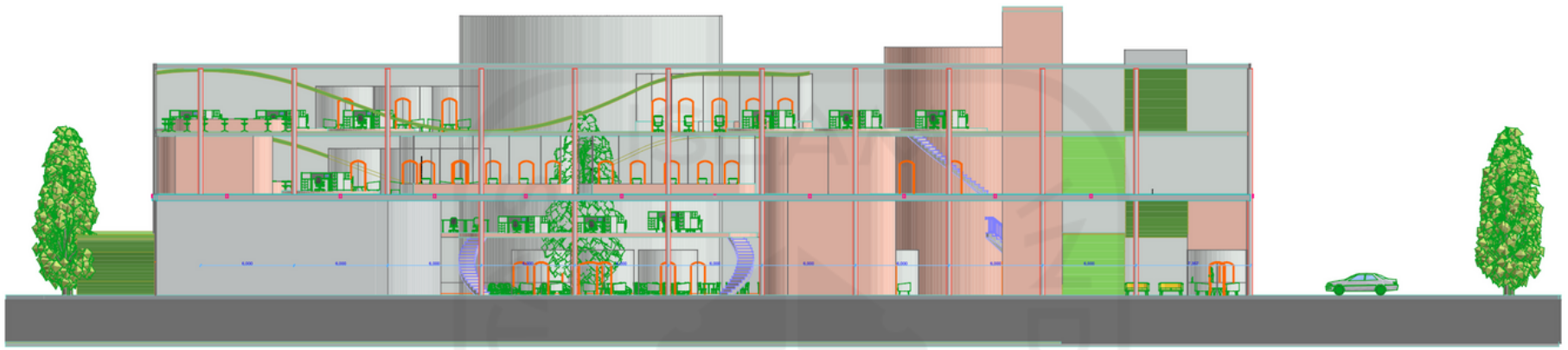
As an oil company office, the office building is inspired by the shape of the oil refinery and its systems. Starting from adaptation to urban forms, then using figure ground analysis to create contrast and attractiveness for certain functions, then adding a green belt to create a comfortable workspace.

Site Plan (Comprehensive Stage)

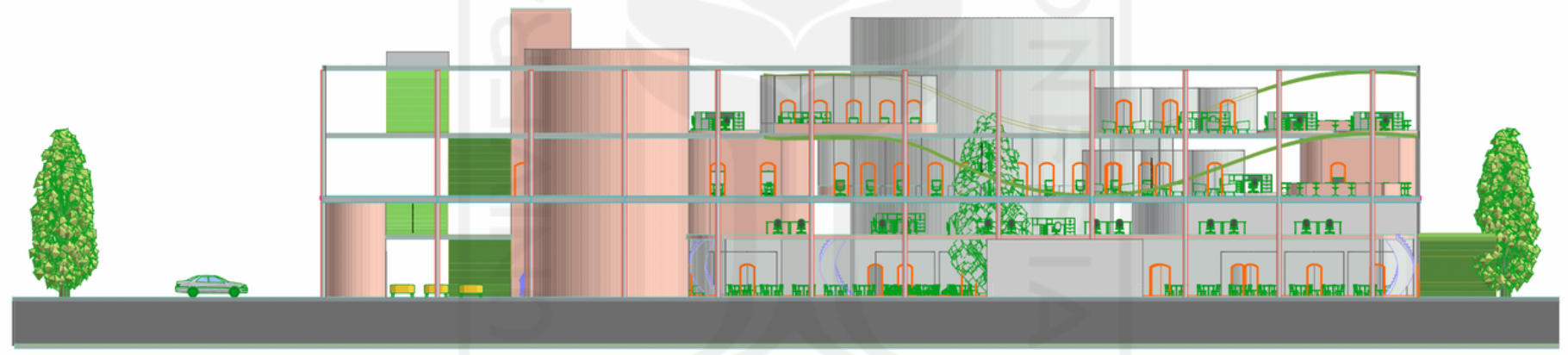


Site Plan

Schematic Drawings (Comprehensive Stage)



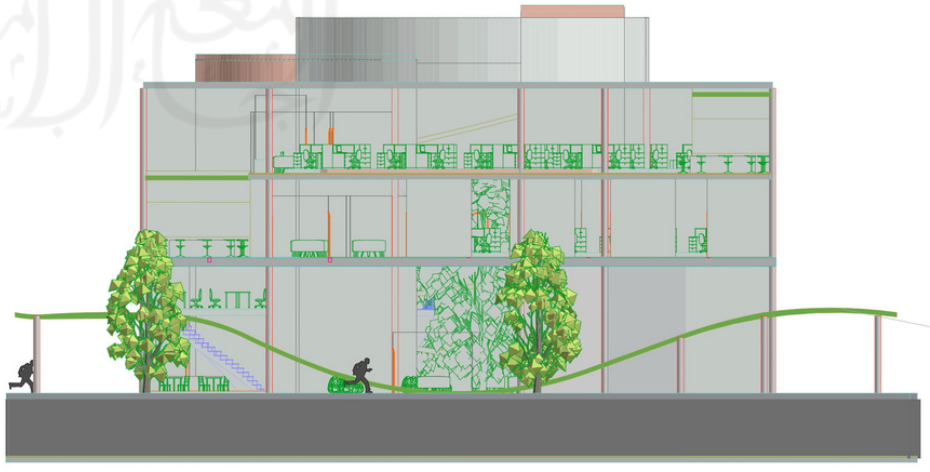
West Elevation



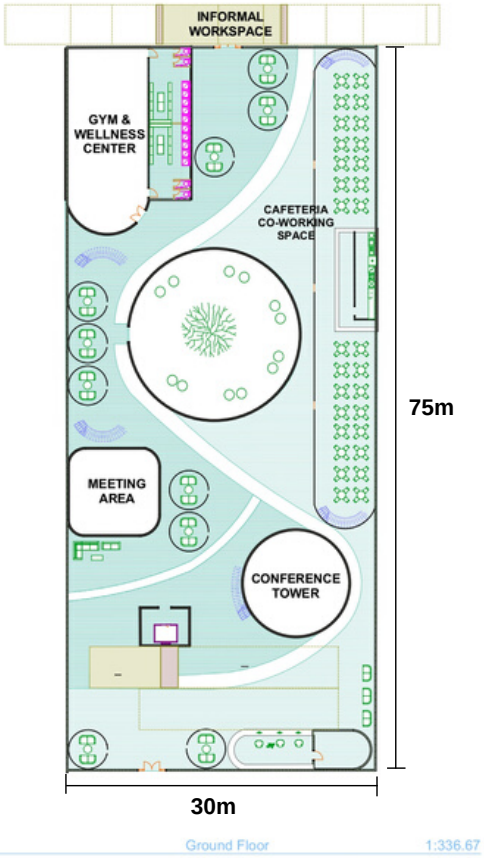
East Elevation



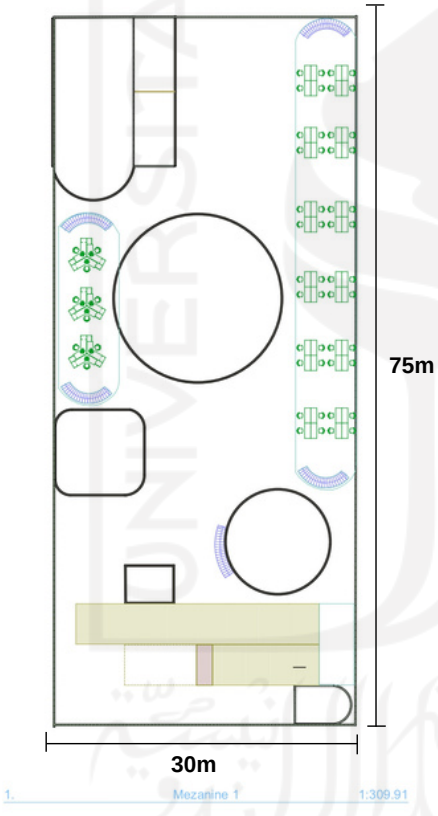
North Elevation



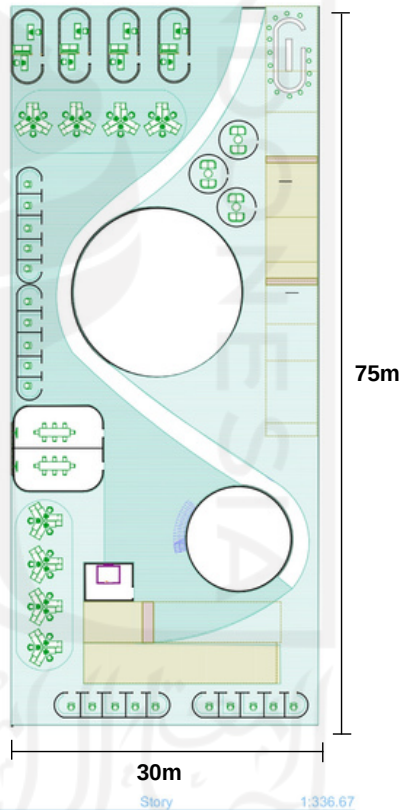
South Elevation



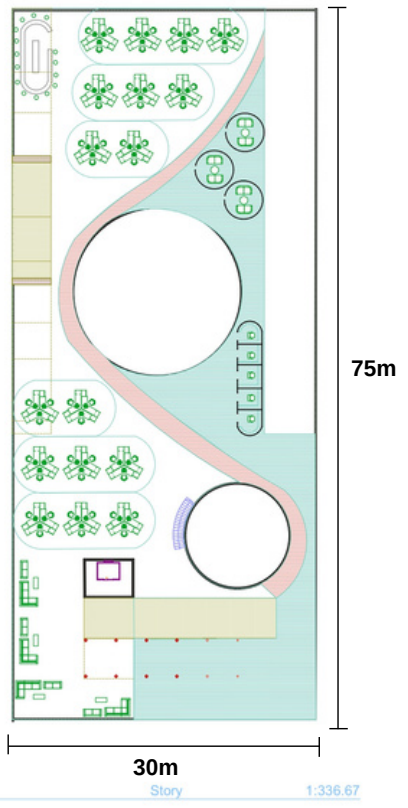
1ST FLOOR PLAN



MEZANINE PLAN



2ND FLOOR PLAN



3RD FLOOR PLAN

Space Programming (Comprehensive Stage)

Space Programming **Entrance Lobby**	Room Type	Amount	Capacity	Size/occ	Source	Size (s.m)
Main Lobby	Public	1	30	1,2-2 m2	Neufert	60
Entrance Plaza	Public	1	50	1,2-2 m2	Neufert	100
Green Communal Area	Public	1	50	1,2-2 m2	Neufert	100
Lounge Room	Semi Public	1	12	4 m2	Neufert	48
Receptionist	Private	1	5	1,2 m2	Neufert	6
Informal Meeting Zone (Lounge)	Private	1	10	2 m2	Neufert	20
Co-Working Space	Public	1	50	3,5 m2	DM	175
ATM Gallery	Public	3	3	2 m2	DM	18
Net Total						527
Gross-up			1.22 x Total m2			**642,94**

Office	Room Type	Amount	Capacity	Size	Source	Size (s.m)
Activity Based Working Space (ABW)	Private	1	300	1,2-2 m2	ASS	600 m2
Private Office						
Informal Meeting Zone (Lounge)	Private	8	30	2 m2	ASS	480 m2
Informal Meeting Zone (Phonebooth)	Private	50	15	2 m2	ASS	1500 m2
Informal Meeting Zone Type A	Private	2	10	1,5 m2	Neufert	30 m2
Informal Meeting Zone Type B	Private	2	10	1,5 m2	Neufert	30 m2
Informal Meeting Zone Type C	Private	2	10	1,5 m2	Neufert	30 m2
Conference room (small)	Private	3	8	1,2-2 m2	Neufert	48 m2
Conference room (medium)	Private	3	16	1,2-2 m2	Neufert	96 m2
Conference room (large)	Private	3	25	1,2-2 m2	Neufert	150 m2
Break rooms	Private	1	8	2 m2	ASS	16 m2
Directors office	Private	5	6	6 m2	SB	180 m2
Executive office	Private	5	3	6 m2	SB	90 m2
Board room	Private	1	16	1,5 m2	ASS	24 m2
Projection room	Private	1	16	1,5 m2	ASS	24 m2
Garden Informal Workspace A	Private	4	30	1,5 m2	ASS	180 m2
Garden Informal Workspace B	Public	1	30	1,5 m2	ASS	45 m2
Net Total						3523 m2
Gross-up			1.22 x Total m2			**4298 m2**

Supporting Facilities

	Zoning	Amount	Capacity	Size/occ	Source	Size m2
Auditorium	Semi Private	1	100	1,2-2 m2	Neufert	200 m2
Gym and Fitness Center	Public	1	50	2 m2	ASS	100 m2
Game/playground area	Public	1	25	1,8 m2	Neufert	45 m2
Wellness Center	Public	5	5	1,8 m2	Neufert	45 m2
Shower room	Semi Private	5	5	2 m2		50 m2
Locker room	Semi Private	1	-	-		200 m2
Praying room	Private	1	50	0,75-1,3 m2	Neufert	65 m2
Cafeteria	Private	1	100	1,4-1,7 m2	Neufert	170 m2
Coffee Shop	Public	1	50	1,4-1,7 m2	Neufert	75 m2
Restaurant	Public	1	50	1,4-1,7 m2	Neufert	75 m2
Smoking area	Public	1	8	1,4-1,7 m2	ASS	13,5 m2
Coffee Bar/Pantry	Semi Private	1	10	1,4-1,7 m2	ASS	17 m2
Manager Room	Private	3	3	16 m2		144 m2
Female Restrooms	Private	5	4	2,25 m2	Neufert	45 m2
Male Restrooms	Private	5	4	2,25 m2	Neufert	45 m2
Staff Room	Service	1	12	1,2-2 m2	ASS	24 m2
Archive Room	Private	3	-	8 m2	Neufert	24 m2
Loading Deck	Service	1	-	30 m2/unit	Neufert	60 m2
Photocopy room	Service	2	-	5 m2/unit	ASS	10 m2
Janitor	Service	6	-	10 m2/unit		60 m2
Core	Public	3	-	300 m2/unit	Neufert	900 m2
Net Total						2371 m2
Gross-up			1.22 x Total m2			**2893 m2**

Vertical Circulation

	Zoning	Amount	Capacity	Size/occ	Source	Size (m2)
Elevator	Service	3	10	6,3/unit	SBT	19 m2
Goods Elevator	Service	3	2000kg	2000kg	SBT	16 m2
Stairs with informal workspace	Service	3	15	0,6 + 2 m2	ASS	90 m2
Emergency Stairs	Service	3		0,6 m2	SBT	16 m2
Slides	Service	3		0,6 m2	ASS	
Net Total						141 m2
Gross-up			1.22 x Total m2			**172 m2**

Parking Area-Basement

	Zoning	Amount	Capacity	Size/occ	Source	Size (s.m)
Bike Parking	Service	1	50		SBT	19 m2
Employee Car Parking	Service	1	150		SBT	16 m2
Employee Bicycle Parking	Service	1	150		ASS	90 m2
Executive and Director Car Parking	Service	1	10		SBT	16 m2
Net Total						141 m2
Gross-up			1.22 x Total m2			**172 m2**

Basement

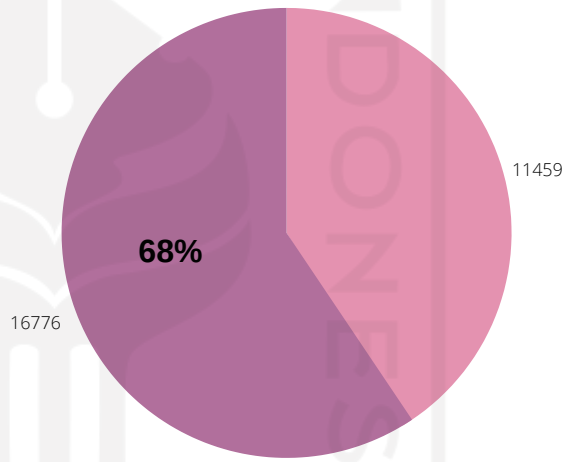
	Zoning	Amount	Capacity	Size	Source	Size (s.m)
Driver waiting room	Service	3	-	20 m2	CS	60 m2
Genset room	Service	1	-	45 m2	CS	45 m2
Trafo room	Service	1	-	30 m2	CS	30 m2
Panel room	Service	1	-	30 m2	CS	30 m2
Storage Room	Service	4	-	120 m2	CS	480 m2
STP room	Service	2	-	160 m2	ST	320 m2
GWT room	Service	2	-	160 m2	ST	320 m2
Security room	Service	2	-	70 m2	CS	140 m2
Pump room	Service	1	-	50 m2	CS	50 m2
Fan room	Service	3	-	6 m2	CS	18 m2
IBS room	Service	1	-	70 m2	CS	70 m2
AHU	Service	3	-	110 m2	CS	330 m2
Circulation + Ramp	Service	1	-	2864 m2	CS	2864 m2
Net Total						4757
Gross-up			1.22 x Total m2			**5803.5 m2**

Legend:
Neufert: Neufert Architect's Data
TS: Time Saver Standards for Building Types
DM: Dimention Matrix
SBT: (Book) Sistem Bangunan Tinggi
ASS: Assumption
MP : Design standards based on modular principles.
CS: Comparative Study

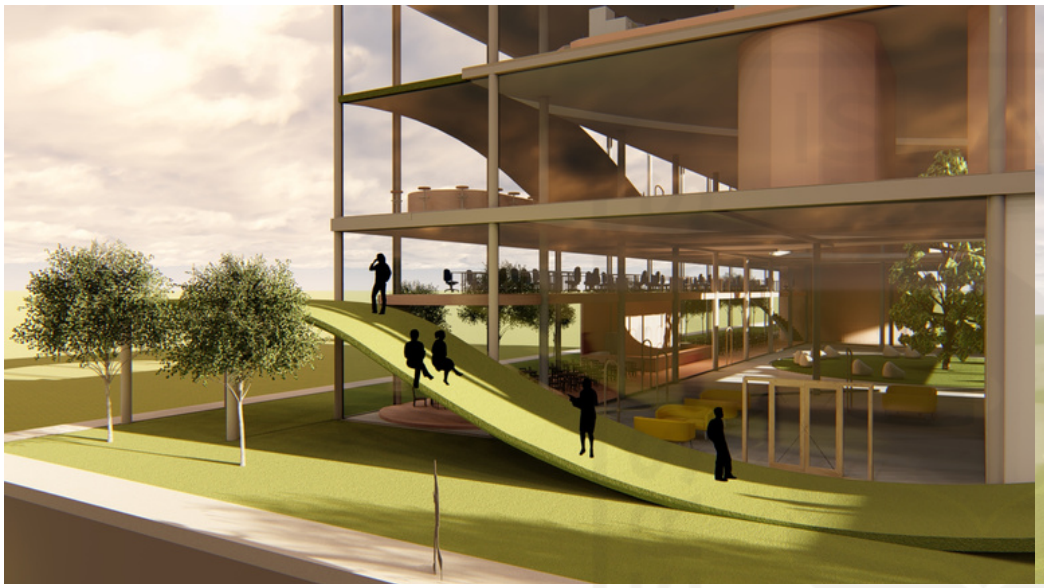
Building Net Total		11459
Building Total		13980
Building Gross-up	1.2 x Total Building	**16776 s.m.**

Space Summary

Efficiency = Net Total/Gross Total
11459/ 16776 = **68% Efficient**



Interior Design (Comprehensive Stage)



Outdoor Informal Workspace with sea view



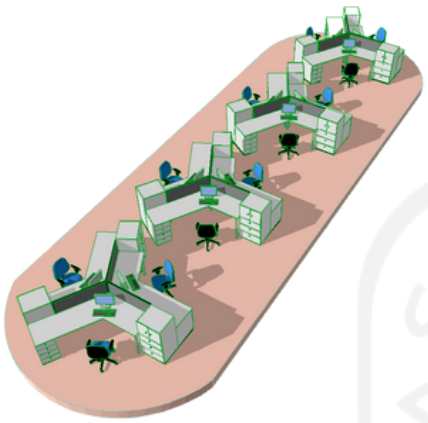
Indoor Informal Workspace



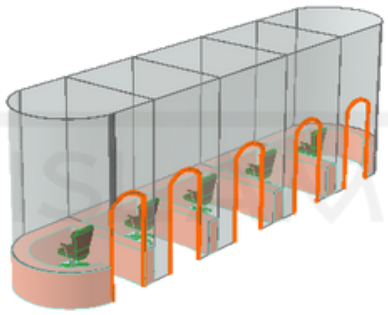
Activity-Based Workspace



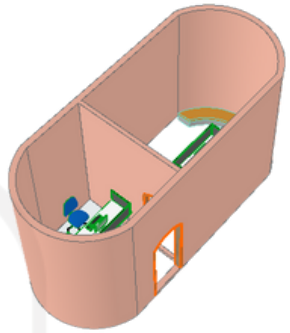
Vertical Circulation



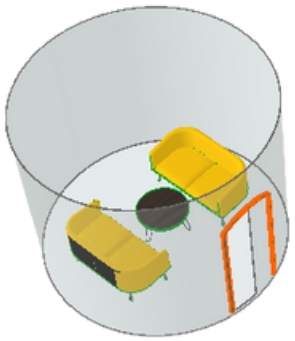
ABW



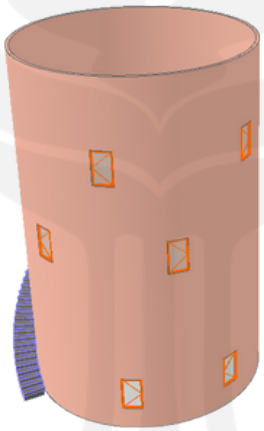
Personal workspace



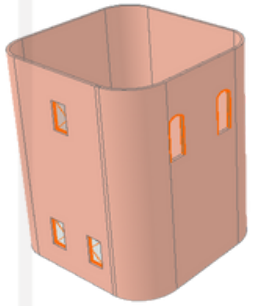
Executive room



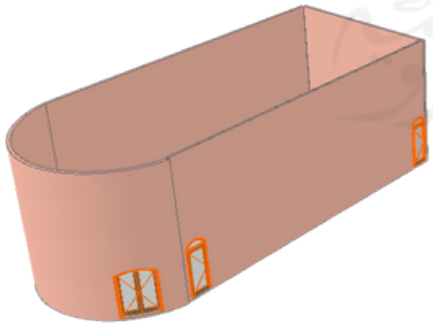
Informaal meeting space



Conference Tower



Meeting room tower



Sports & wellness centre

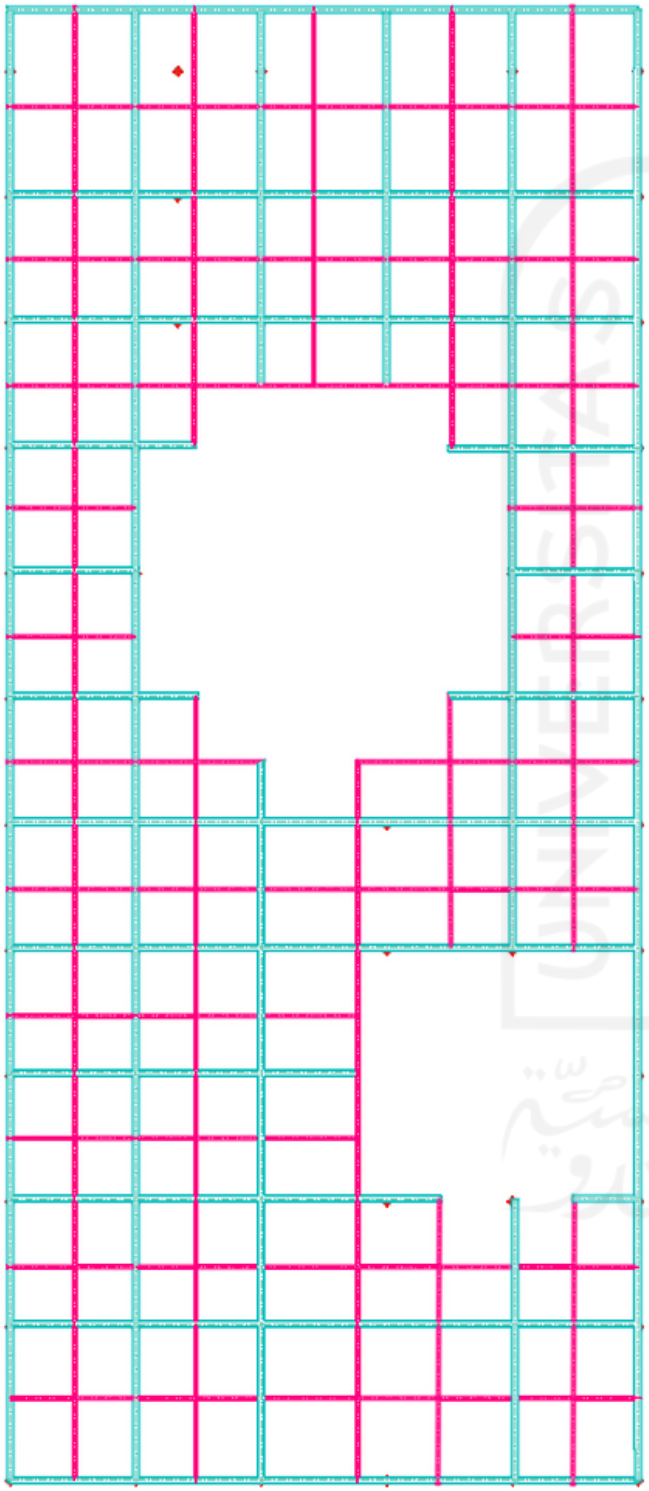


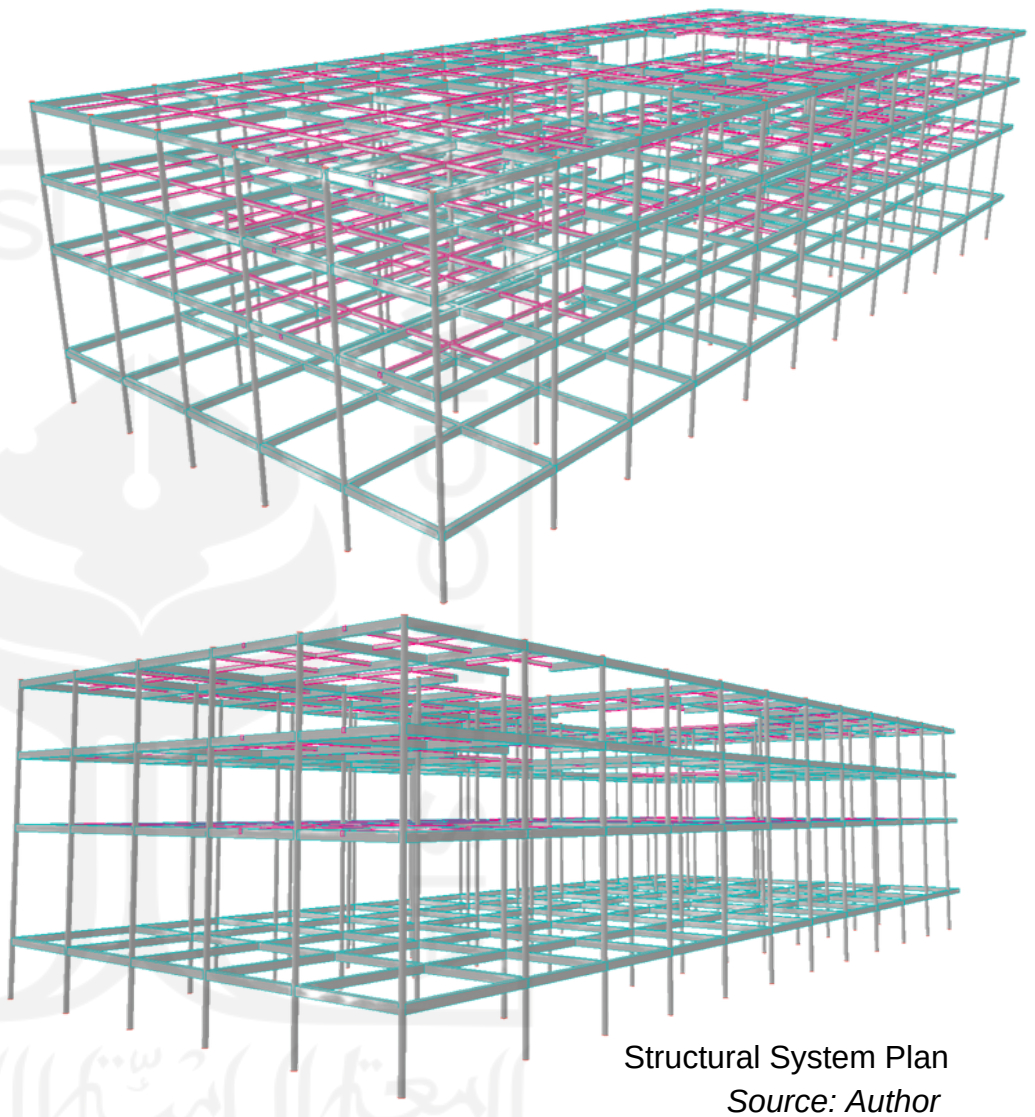
Indoor garden + workspace



Informaal workspace

Steel Structures

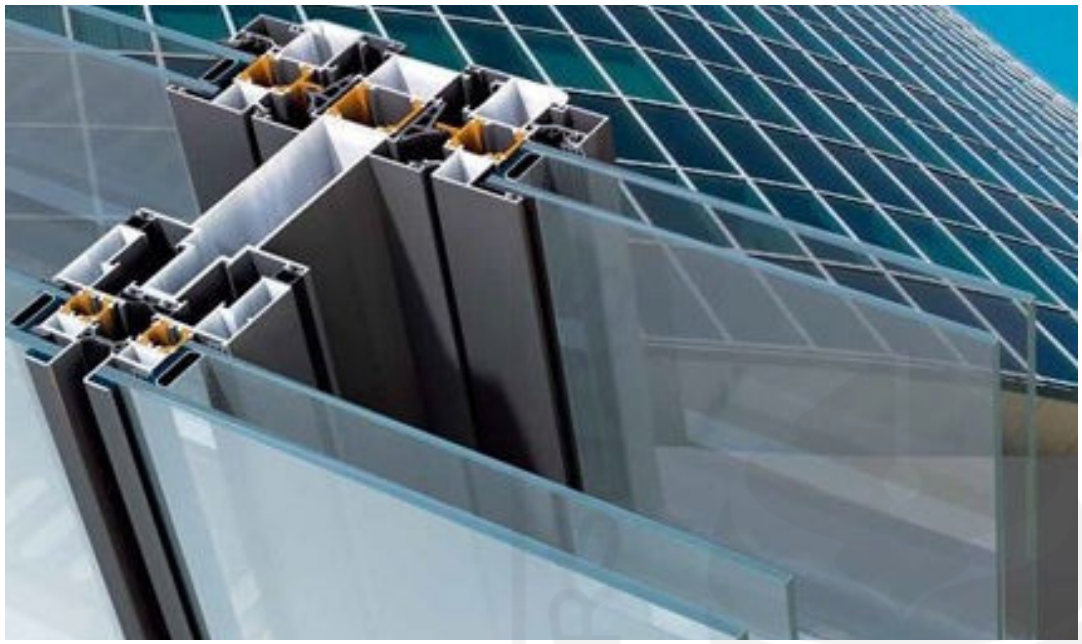




Structural System Plan
Source: Author

The building using steel structures and concrete flooring. The steel structures create the framework of support for the entire building with corrugated metal decking topped with concrete flooring. Within the structural frame, cores and unique spaces of structural concrete serves as formal spaces and at the same time, withstand the building's lateral-load. The parking lot is subterranean and made of concrete structures, supporting all the steel construction above it. A double glass facade surrounds the 1st, 2nd, and 3rd floor as a sustainability efforts.

Sustainable Envelop



Double-glass Facade
Source: Google

Double Glass Curtain Wall with ventilation and sustainability feature defines energy performance with open view and natural lighting. The cavity between the exterior facade and interior glass creates a vacuum which help reduce heating loads and allows hot air to be exhausted out of the building.

Material Palette Urban/Industrial)



Concrete
Steel
Aluminum
Wood
Glass
Fritted Glass

Material Palette
Source: Google

Project Description
Property Size
Problem Solving
Situation & Site Plan
Building Plan
Building Elevation
Building section
Structural system
Building Structure & Materials
Interior Design
Building Infrastructure
Barrier Free Design
Security and safety Plan
Building Exterior
Building Interior

Chapter 4

04

Design Development

Project Description

The current modern life in the city consists mostly of office work–sitting for hours in the same position, in front of a computer screen which results in an increasing trend of sedentary behavior in the office. At first glance, we might assume that this sedentary behavior is unlikely to be a dangerous or unhealthy way of life. In fact, this kind of lifestyle can lead to serious consequences on the body, especially for muscles, spine, productivity, and work performance.

Puzzle Hybrid Office is a rental office of tomorrow which able to adapt to the changes in business practices and be able to integrate at the urban level, catering to a new workforce of employees that is much more about independence and self-driven personality and encouraging physical activity through an inviting affordance principle. Using a hybrid concept in which the office is a second home for the employees that focuses on flexibility and wellbeing. Rather than build as many units as possible given the site area, the building aimed to produce spaces and an atmosphere where people not only work but also enjoy living and spending lots of time in the building

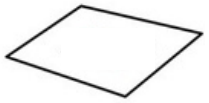
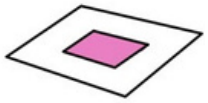
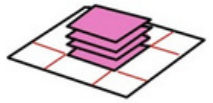


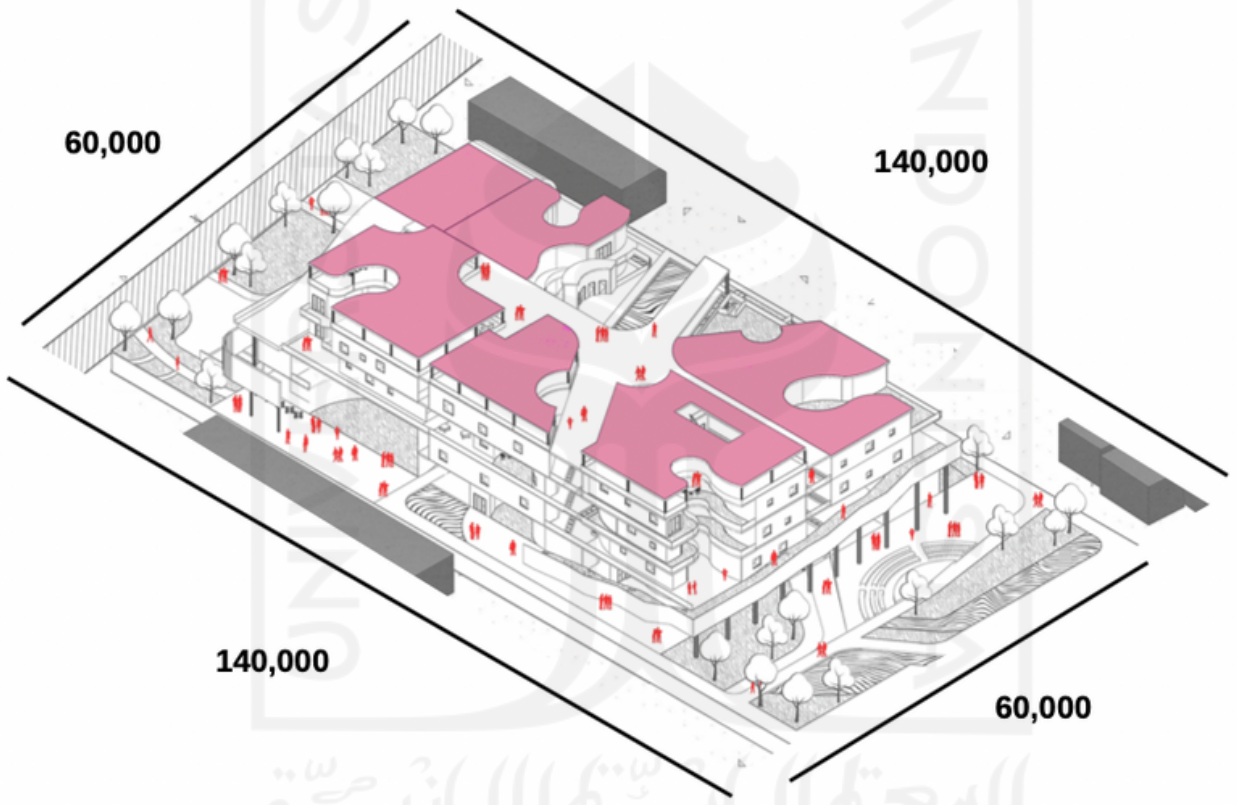
Office of Tomorrow

- Able to adapt to the changes in business practices
- Able to integrate at the urban level
- Catering to a new workforce of employees that is more about independence and self-driven personality
- Encouraging physical activity through an inviting affordance principle

Hybrid Office

Property Size

SITE AREA	BCR	FAR	GCR	GSB
	 70%	 1.4	 20%	 5m
8400 s.m	5880 s.m	11760 s.m	1680 s.m	5 m each



Rental Office	Room Type	Amount	Capacity	Size/occ	Size (s.m)
Rental Office Space type A	Private	4	80	2 m2	640
Rental Office Space type B	Private	6	50	2 m2	600
Rental Office Space type C	Private	12	25	2 m2	600
Rental Meeting Room type A	Private	8	15	2 m2	240
Rental Meeting Room type B	Private	6	8	2 m2	96

Management	**Room Type**	**Amount**	**Capacity**	**Size/occ**	**Size (s.m)**
Director Room	Private	1	1	27 m2	27 m2
Manager Room	Private	1	1	10 m2	10 m2
Secretary Room	Private	1	2 units	6 m2/occ	12 m2
Marketing Division	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2
Administrative and Finance	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2
Maintenance Division Room	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2
MEP Division Room	Private	1	1 Head 2 Staffs	9 m2 head 5 m2 staff	19 m2
Meeting Room	Private	1	16	2 m2/occ	32 m2
Lobby	Public	2	6	4 m2/occ	48 m2
Archive Room	Private	1	6 cabinets	1,5 m2/occ	20 m2
Receptionist	Semi-Private	2	2	2 m2/occ	8 m2
Pantry	Semi-Private	1	3	3 m2/occ	9 m2
Praying Room	Public	1	10	2 m2/occ	20 m2
Storage Room	Private	1	Tools	5 m2	5 m2
Restrooms (male)	Public	5	3 Lavatory, 2 Urinoir, 3 wastafel	2,7 m2 lavatory 0,8 urinoir 0,9 m2 wastafel	9 m2
Restrooms (female)	Public	5	3 Lavatory, 3 Wastafel	2,7 m2 lavatory 0,9 m2 wastafel	9 m2

Supporting Facilities	**Room Type**	**Amount**	**Capacity**	**Size/occ**	**Size**
Lobby, waiting room	Public	1	50	1,6 m2/occ	80 m2
Cafeteria Dining Room Kitchen Cashier	Public	1	100	2 m2	200 m2
Minimarket	Public	1	50	1 m2/occ	50 m2
Auditorium	Public	1	50	50 m2/unit	50 m2
Wellness Center	Public	1	20	1,2-2 m2	40 m2
Sport Centre	Public	1	20	2 m2	40 m2
Praying Room	Public	1	50	2 m2	100 m2
Co-Working Space	Public	1	100	2 m2	200 m2
Informal Workspace (outdoor garden)	Public	1	50	2 m2	200 m2
Informal Workspace (ramp)	Public	3	15	2 m2	90 m2
Informal Workspace (stairs-side)	Public	6	8	2 m2	96 m2
Informal Workspace (Zen)	Public	4	10	2 m2	80 m2
Outdoor Workspace	Public	3	20	2 m2	120 m2
Mini Cinema/Projection Room	Semi-Private	1	50	2 m2	100 m2
Game Room	Semi-Private	1	8	2 m2	16 m2
Nap Time Room	Semi-Private	1	8 Female Bunk Bed 8 Male Bunk Bed	4 m2	64 m2
Coffee Shop	Public	1	100	1,5 m2	150 m2
ATM Center	Public	5		6 m2/unit	30 m2
Outdoor Communal Area	Public	1	200	2 m2	400 m2

Service	Room Type	Amount	Capacity	Size/occ	Size
Restrooms (male)	Public	5	3 lavatory 2 urinoir 3 wastafel	2 m2/lavatory 0,8 m2/urinoir 0,9 m2/wastafel	51,5 m2
Restrooms (female)	Public	5	3 lavatory 3 wastafel	2 m2/lavatory 0,9 m2/wastafel	43,5 m2
Shower Room	Public	2	4 Shower 4 locker 1 Lavatory	2 m2/Shower 1 m2locker 2 m2/lavatory	28 m2
Elevator	Public	5	10	2 m2	100 m2
Janitor	Private	5	-	3 m2/unit	15 m2
Panel Room	Private	2	-	4 m2/unit	8 m2
Genset Room	Private	1	-	40 m2/unit	40 m2
Security and Safety Room	Private	2	-	10 m2/unit	20 m2
Cleaning Service Room	Private	1	-	10 m2/unit	10 m2
AHU Room	Private	3	-	10 m2/unit	30 m2

Parking Area	Room Type	Capacity	Size/occ	Source	Size (s.m)
Car Parking	Public	200 car	11 m2	Neufert	2200
Motorbike Parking	Public	300 motorbike	1,5 m2	Neufert	450
Bicycle Parking	Public	100	1,2 m2	Neufert	120

1	Main Activities (Rental Office)	2176 m2
2	Management Activities	285 m2
3	Supporting Activities	2206 m2
4	Service Activities	346 m2
5	Parking Area	2770 m2
	Total	7783 m2

Circulation 20%

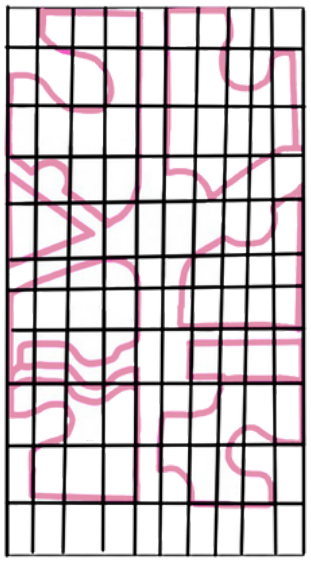
TOTAL: 9339 m2

Building Mass Transformation

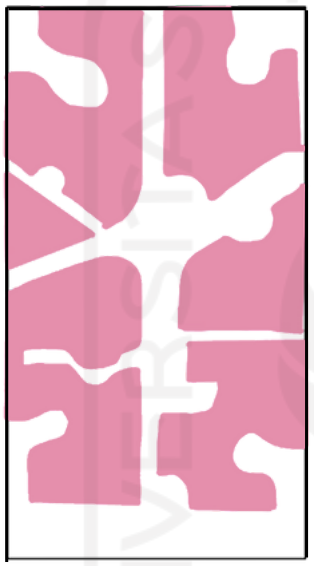
SMOOTHLY BLEND INTO THE URBAN RIGID

Rather than build as many unit as possible given the site area, the building aimed to produce soaces and an atmosphere that people not only work but also enjoy living and spending lots of time in the building.

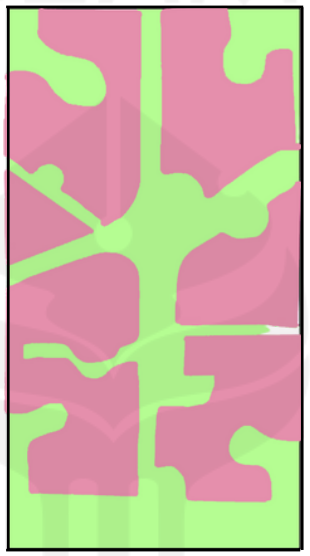
Grid+ Ground



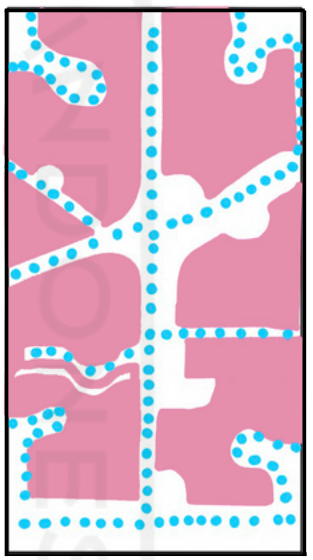
Masses
(adapting the urban rigid)



Connectivity Points



Circulation
(north-south axis)



INSIDE-OUTSIDE REPETITION OF FORM

Bringing water elements to the building and maximizing both city and beach views will help create a connected environment of inside out and outside in, blending the natural into the man-made.

SURFACE (LAYER STACKED)

The building is designed in the form of organic layer to maximize the view outside the building and maximize the experience and flexibility.

HYBRID (TWO OR MORE FORMS)

Each function has a different module shape, the majority of which are inspired by the shape of the oil refinery in Balikpapan. Various forms are very helpful for complex building functions.

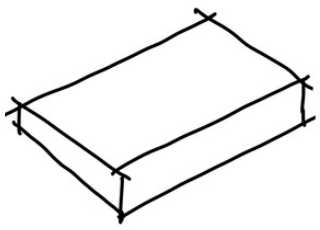


INSPIRED BY A PUZZLE

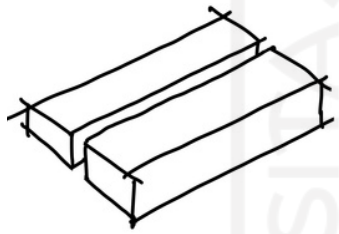
A shape variety of space will encourage curiosity

Curiosity will encourage **movement**

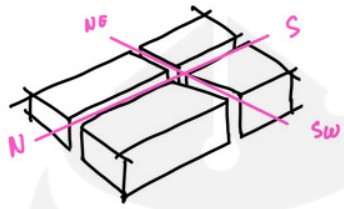
(Active Design Approach)



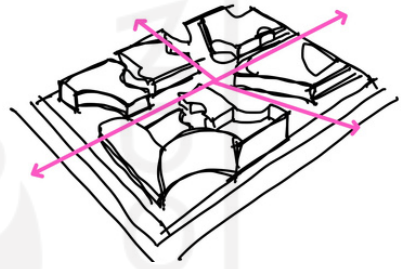
Simple box as an adaptation to the urban rigid



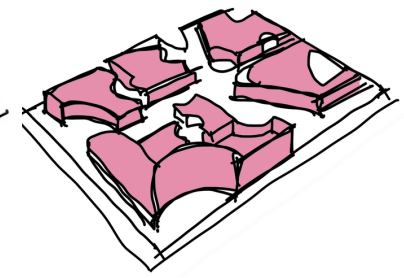
Creating a north-south axis as a circulation to maximize sea and city view that will encourage movement.



Adding more axis to maximize the movement.



Creating some different shape inspired by a puzzle but still following the rigid.



Final massing.

A SENSE OF PLAY

The building designed in the form of a puzzle in order to create a playful environment to promote the idea that the office/work environment can be a fun and playful place in which many activities could occur to bring people together. By activating the space and bringing people together through interactions, this architecture could be a catalyst for "movement, creativity, innovation, and discussions."

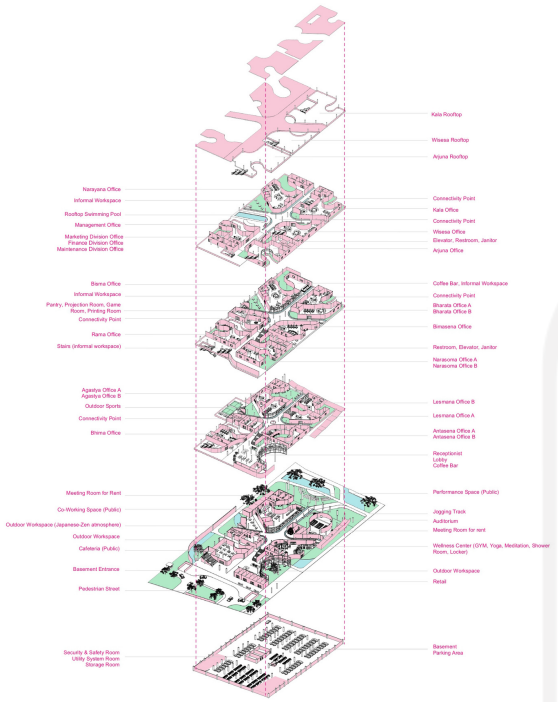
TYPOLOGICAL (ORGANIZATIONAL STRUCTURE)

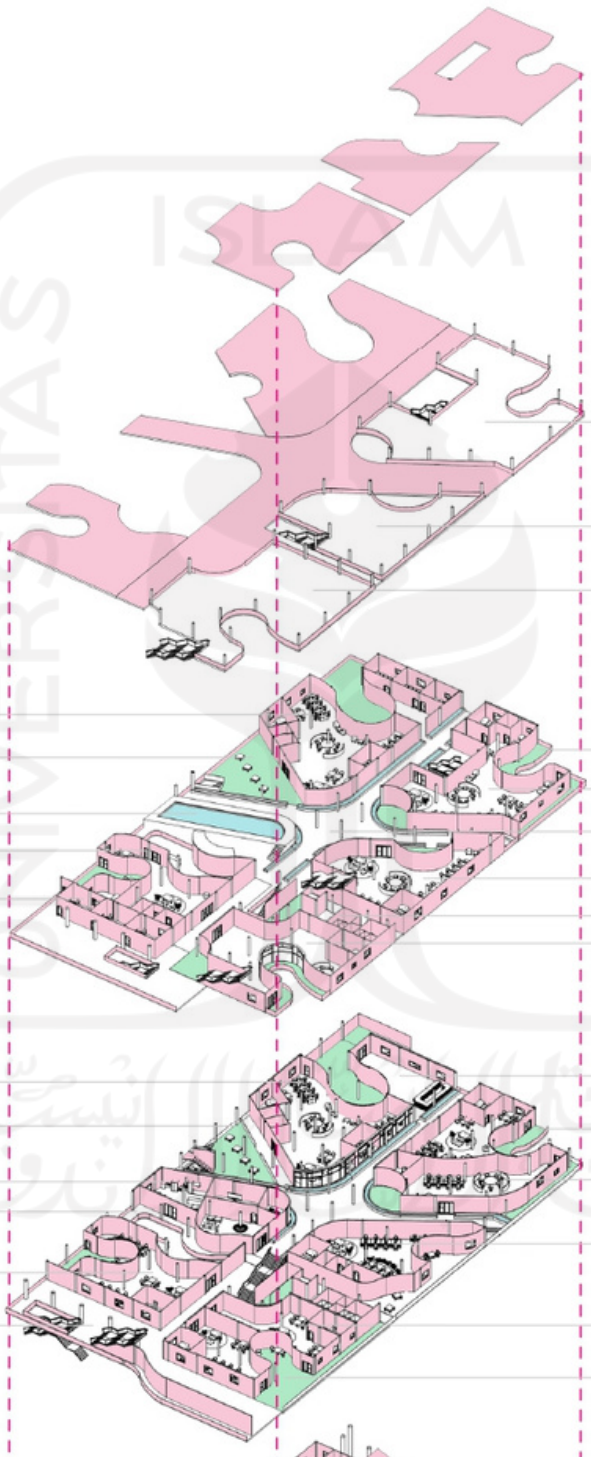
The typological structure was chosen as an effort to create a new, more modern approach to encourage the future rental office.

FIGURE (SHAPE)

Thin and light structures were chosen to characterize the building's facade and followed by a lot of transparency in an effort to create an open and interconnected working environment.

Building Axonometry







PROBLEM 1:

How to design an office that encourages people to be more active and make the active choice is the easy choice?

1 ENSURE STAIRS ARE TRANSPARENT AND ATTRACTIVE

Combine destination + routes (ex: read space, workspace besides the stairs/ramp)
Color, light, materials, interior views should be attractive.



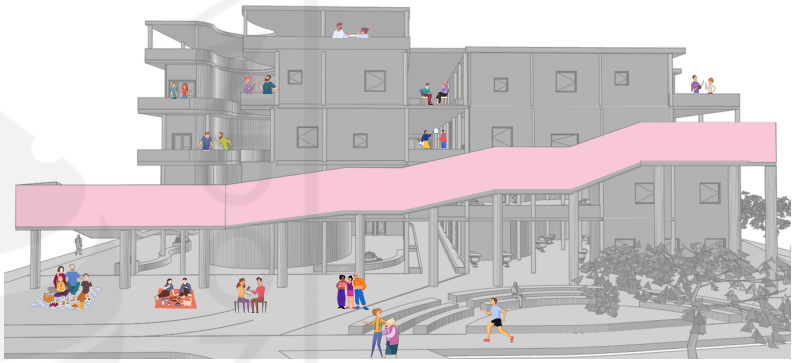
Combining destinations and routes by providing reading area and also function as an informal workspace in the side-stair seating.

HOW:
Combination between routes and destination.

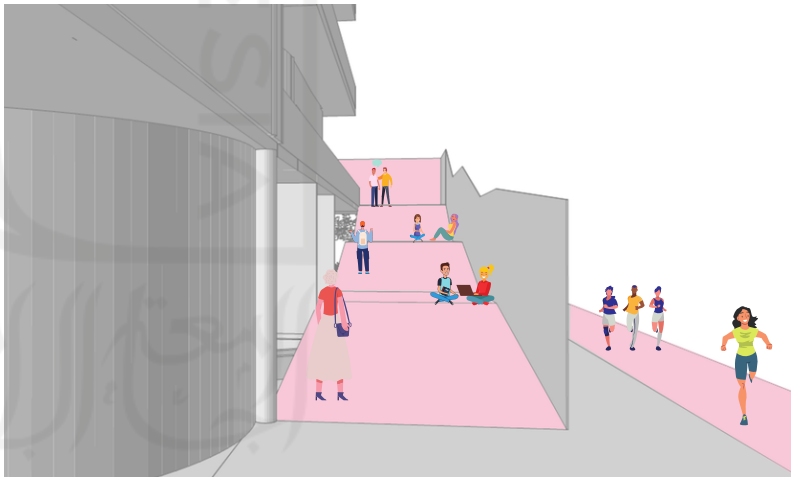
WHY
When routes (stairs) and destinations (side stair-seating, places to relax, read, work informally) collaborate, people are more likely to use stairs. Because to be able to sit in the side-stair seating, they have to go through the stairs, so that without realizing it people will use the stairs more often in order to get to the side-stair seating.

2 STIMULATE THE MOBILE WORKPLACE

Inviting geen deck with sea view for informal workstations.
Laptop instead of a desktop workstation to gives them more freedom to find suitable working environments and/or positions.



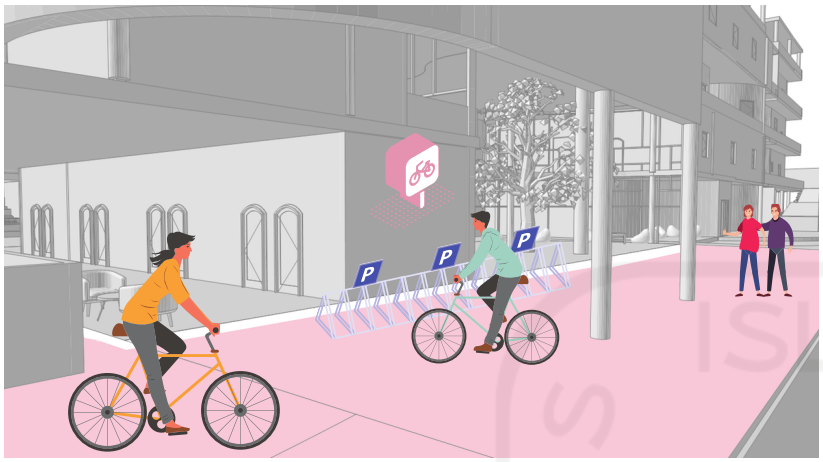
Inviting Informal Workspace which connect first floor, second floor, to thirs floor.



HOW
Designing an inviting and unusual shape for an informal workspace with a view to the sea.

WHY
People will have more freedom on how the want to conduct their working hours and the unique configuration will encourage movement between the workspaces.

3 ENCOURAGE EMPLOYEES TO CYCLE TO WORK



Provide a sheltered and secure bicycle parking area
Provide e-bike connection

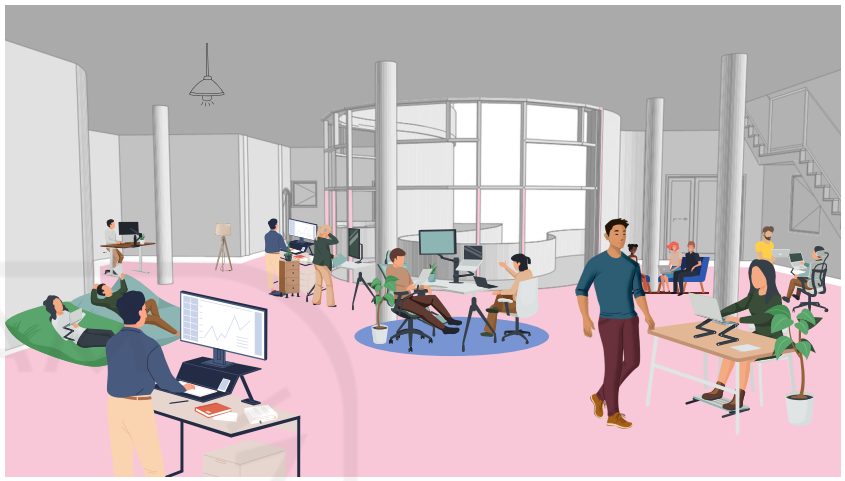
HOW

Provide a sheltered and secure bicycle parking area
Placed near the entrance.

WHY

The existence of a sheltered and secure bicycle parking area will encourage people to cycle to work

4 ENCOURAGE THE ACTIVE POSTURE



HOW

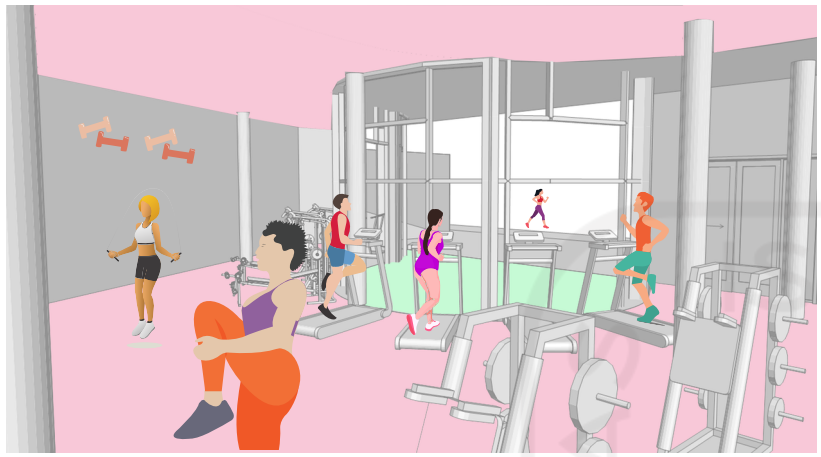
Provide an ergonomic furnitures including excercise equipment:

- standing desk (adjustable desk)
- treadmill desk
- balance ball chair
- resistance chair
- balance board
- under desk elliptical
- mini exercise bike
- yoga mats

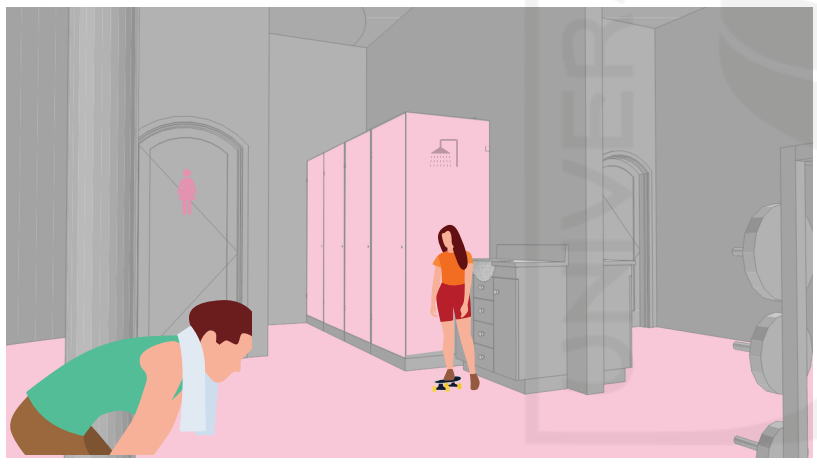
WHY

People will have more freedom, work become fun because they have many options on how to conduct their working hours.

5 ENSURE EMPLOYEES CAN DO WORKOUT AND TAKE A SHOWER IN THE OFFICE



Provide Changing rooms & showers



Provide gym and wellness center facilities

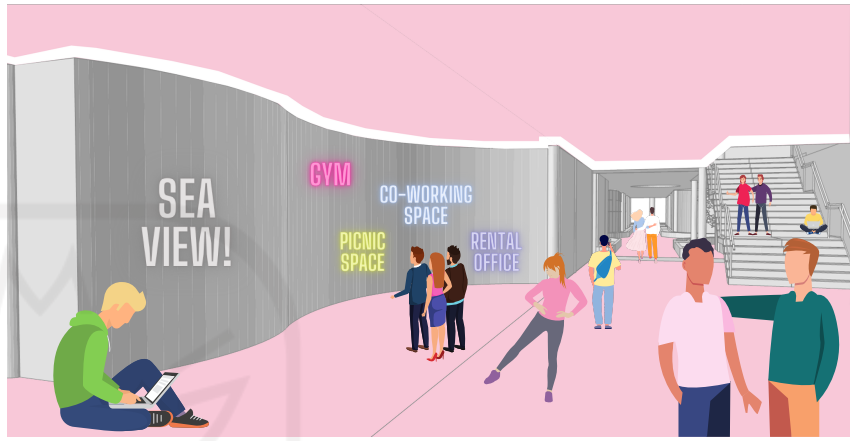
HOW

Provide a changing rooms and shower rooms
Provide gym and wellness center facilities

WHY

People will consider their lunch break time to do workout because the building provide post-workout facilites.

6 PROVIDE VISUAL INFORMATION



Digital information: the availability of sports and wellness center facilities.

HOW

Provide the information of the availability of sports and wellness center facilities in some of area of the building.

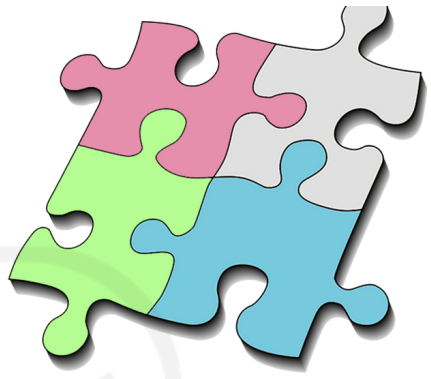
WHY

To attract people, partners, and community near the office to be more active as well, we need to provide a digital information so they will know that there is a public facilites that is very benefial to them.

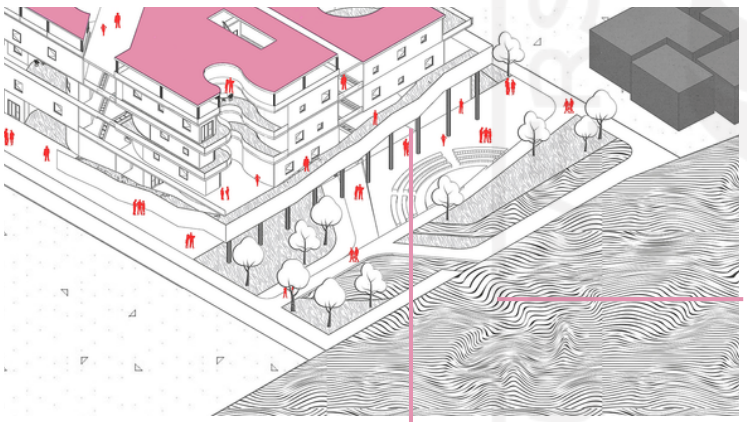
7 ENHANCE THE SENSORY APPEAL OF ROUTES



Daylight in the circulation and vertical transportation



Attractive color coordination will encourage movement between each function.



Informal Workspace
(Polycarbonate transparent material)

Informal workspace with a good view (sea view) will encourage people to use the facility.

HOW

Color, light, materials, and interior views should be attractive by making them contrasting dan playful.
Every room with different functions has a different color theme and concept

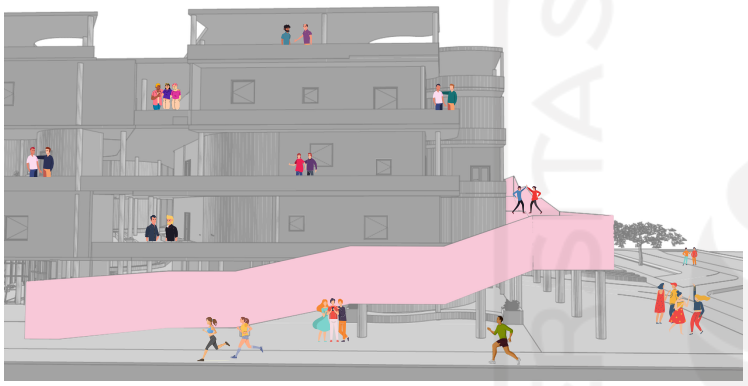
WHY

Different colors and shapes in different facilities will encourage movement between each function.

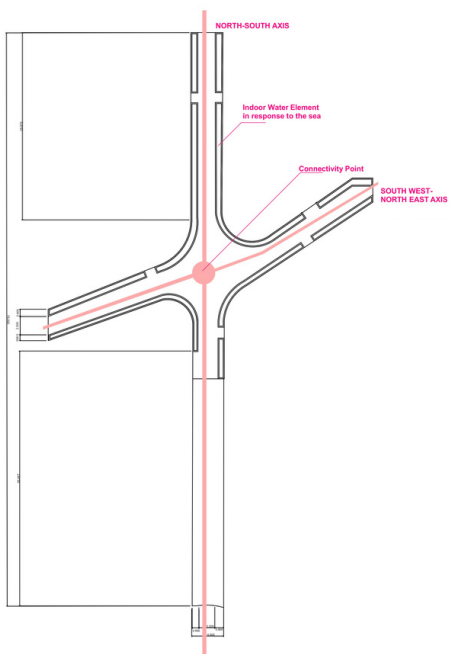
8 COMBINE VERTICAL & HORIZONTAL ROUTES

Rich and rewarding experience routes, visual and physical connections between horizontal and vertical routes.

Informal Workspace which also function as a vertical transportation



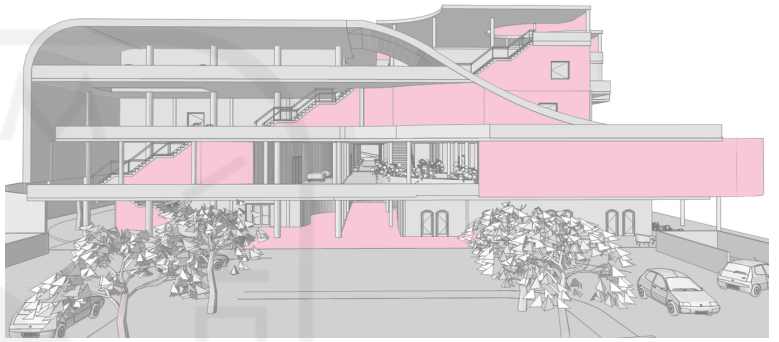
Informal Workspace which also function as a vertical transportation placed outside of the building but still connected to provide indoor-outdoor atmosphere and to encourage community to use this facility.



North-South Axis circulation to provide both sea view and city view as far as they eyes an see, this kind of circulation will encourage movement.

9 MAKE ENTRANCES NUMEROUS AND TRANSPARENT

Open façade and open lobby will encourage movement between interior and exterior.



From the front facade, people will see the line of stairs from the first floor to the fourth floor as a point of interest that is inviting.

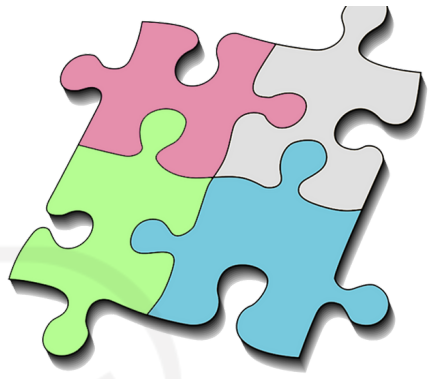


In the lobby, people are served by big stairs with seating and an outdoor view which shows the situation of the outdoor workspace.

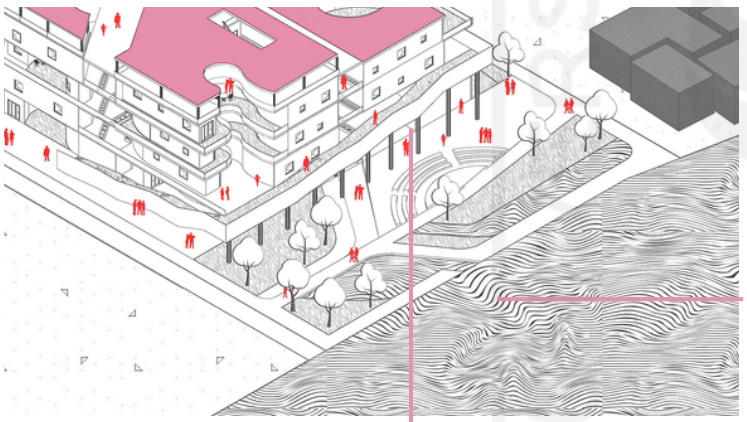
7 ENHANCE THE SENSORY APPEAL OF ROUTES



Daylight in the circulation and vertical transportation



Attractive color coordination will encourage movement between each function.



Informal Workspace
(Polycarbonate transparent material)

Informal workspace with a good view (sea view) will encourage people to use the facility.

HOW

Color, light, materials, and interior views should be attractive by making them contrasting dan playful. Every room with different functions has a different color theme and concept

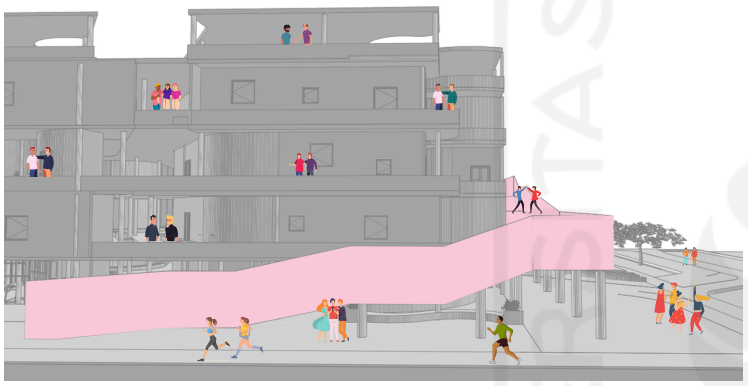
WHY

Different colors and shapes in different facilities will encourage movement between each function.

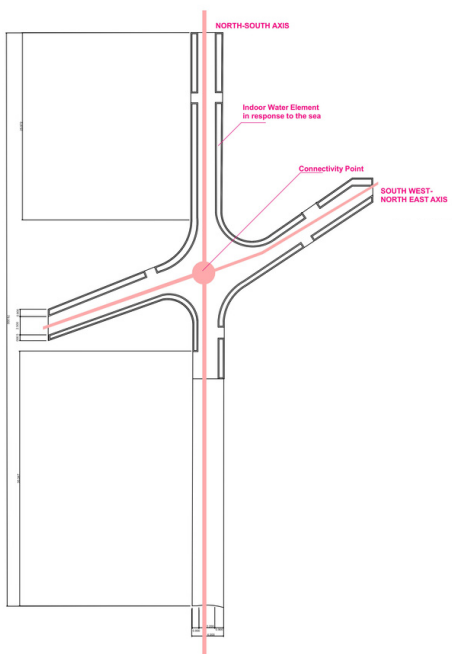
8 COMBINE VERTICAL & HORIZONTAL ROUTES

Rich and rewarding experience routes, visual and physical connections between horizontal and vertical routes.

Informal Workspace which also function as a vertical transportation



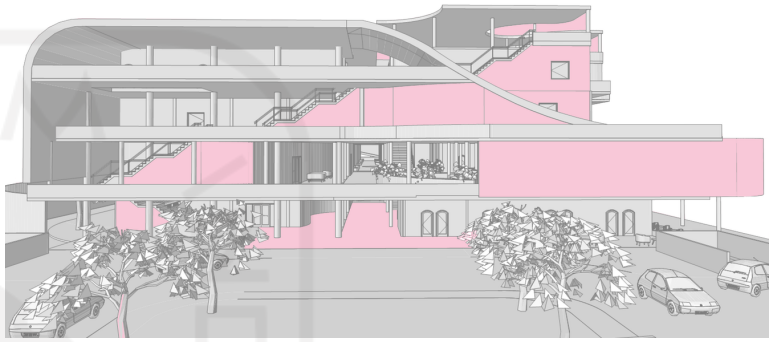
Informal Workspace which also function as a vertical transportation placed outside of the building but still connected to provide indoor-outdoor atmosphere and to encourage community to use this facility.



North-South Axis circulation to provide both sea view and city view as far as they eyes an see, this kind of circulation will encourage movement.

9 MAKE ENTRANCES NUMEROUS AND TRANSPARENT

Open façade and open lobby will encourage movement between interior and exterior.



From the front facade, people will see the line of stairs from the first floor to the fourth floor as a point of interest that is inviting.



In the lobby, people are served by big stairs with seating and an outdoor view which shows the situation of the outdoor workspace.



PROBLEM 2:

How to design a space programs and circulation that increase the value of connectivity (informal interactions) and collaboration which encourage the discussion and generation of new ideas among co-workers?

1 ADD UNIQUE COLLECTIVE PROGRAM & CENTRALIZED FUNCTION



Projection room, game room, and printing room in one area to connect people from different company in order to encourage more informal interactions and collaborations.

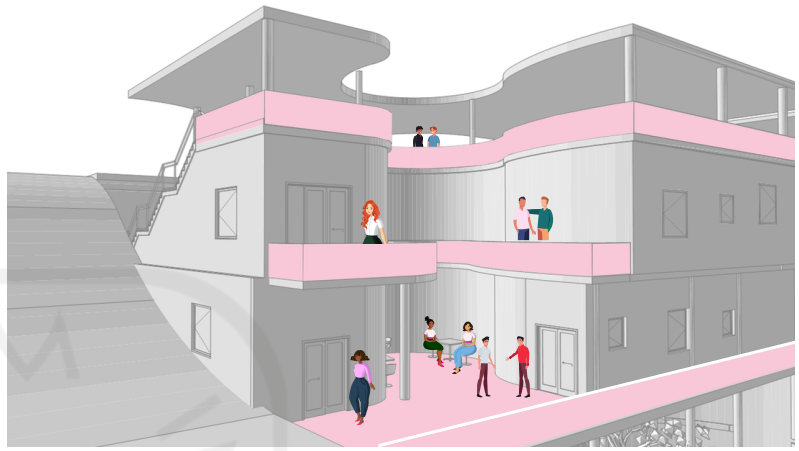


A centralized and comfortable break room complete with kitchen and coffee-making facilities.

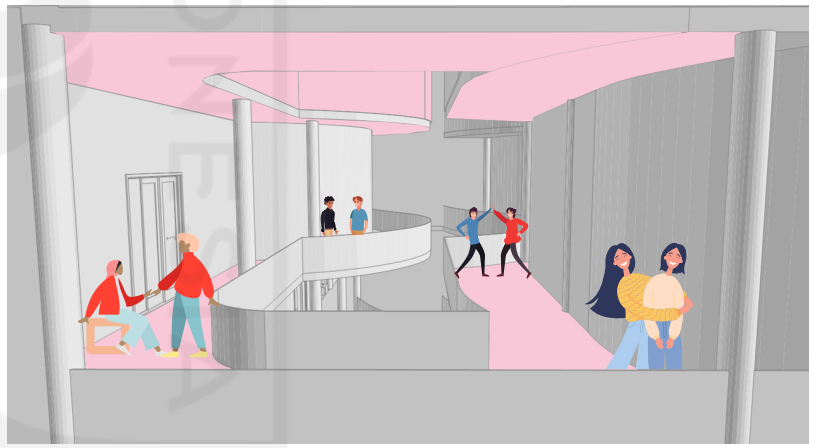
WHY

A centralized function will encourage informal interactions between employees not only in the same division but also with a different division, and hopefully will create more collaborative conversation and ideas,

2 MAKE A VISUAL CONNECTION



The visual connection between floors with a good view.



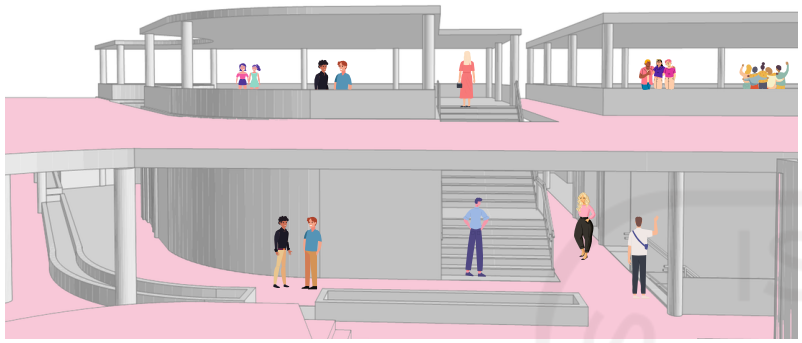
A visual connection in the building with natural light

WHY

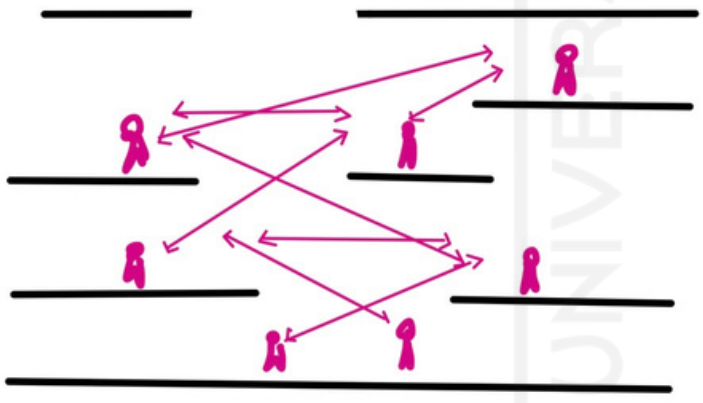
In order to achieve connectivity and informal meeting between users to exchange ideas, the circulation and visual connection is designed to be transparent.

HOW

The plotting of the mass and function of the building considers both visual and physical connectivity.



Open and undefine and layered facade with a good view from outside



HOW
Open/transparent/undefine and layered facade

WHY
Responding to the good view from outside which are city views and beach views will encourage movement.

3 PROVIDE PUBLIC SPACES FOR RELAX



Break room or relaxation room with greenery, peaceful acoustics, natural light, and fresh air.



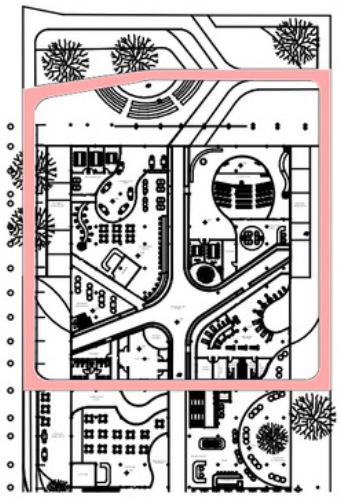
Public space for relaxing in the back side of the building with a sea view and peaceful acoustic.

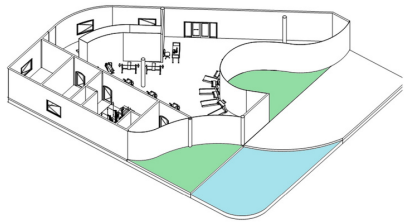
HOW
Provide a break room or relaxation room with greenery, peaceful acoustics, natural light, and fresh air.

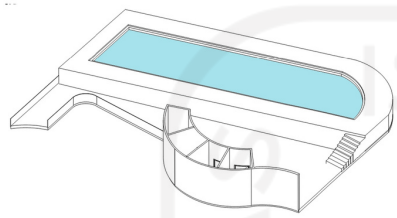
WHY
Green area as a courtyard area will provide both informal interations between employees and also provide a good view. A good view will encourage movement.

4

INTRODUCE ATTRACTIVE URBAN FUNCTIONS







Introducing public program by adding a jogging track that surround the building and pass the beach. This stimulates diversity at the urban level, it provides a destination for physical activity, and it adds social value to the surrounding area.
Outdoor sports

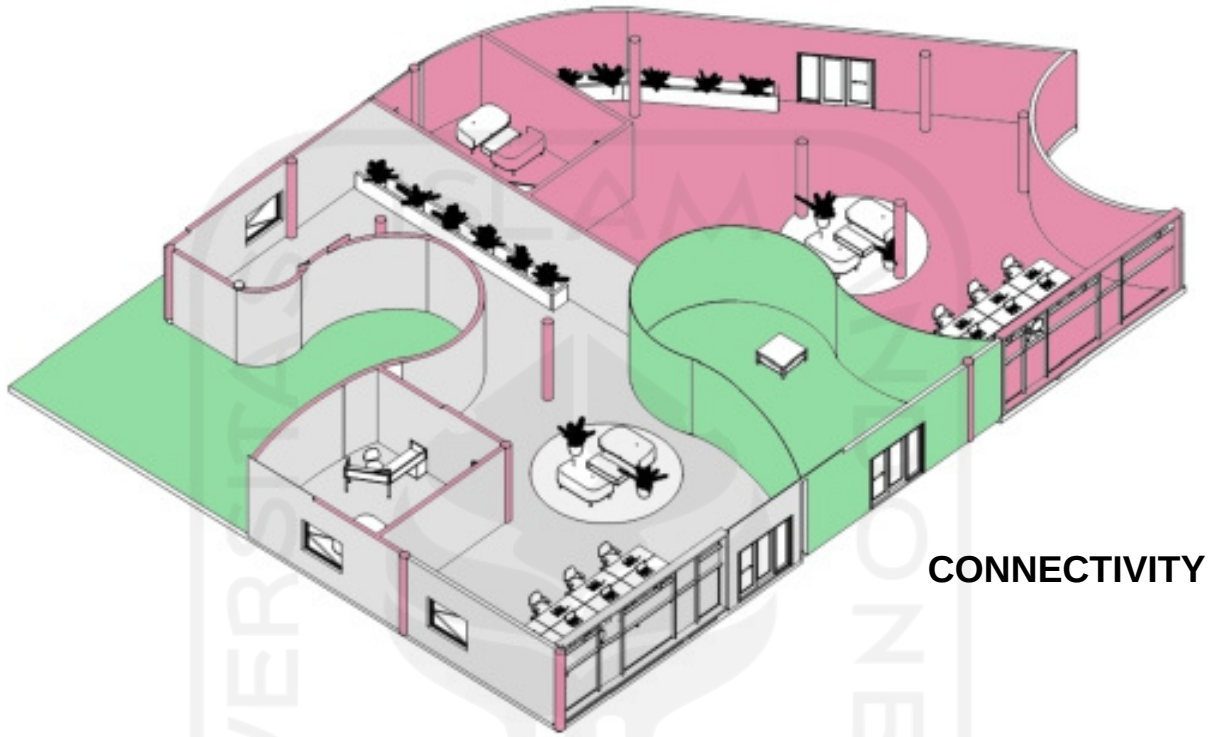
HOW

Inviting community to use the facilities to get the benefit of it by providing jogging track, wellness center, and co-working space.

WHY

Inviting community is important in order to stimulates diversity at the urban level, it provides a destination for physical activity, and it adds social value to the surrounding area.

OFFICE B



OFFICE A

CONNECTIVITY SPACE

PROBLEM 3:

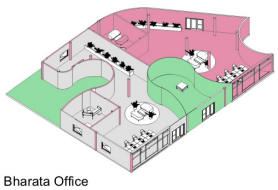
How to design an office which adapt to the changes of business practice and consider a physical activity, health, and the future generation of workers?

Changes of business practice: Independence workforce. In the current business practice, the concept of trade in goods and services is moving from industrialization and repetition to being completely customization and personalization. As the culture changes, the people also change. **Flexibility is key to the success of most businesses today.** Thus, the new independent workforce of today consist of the "Freelancer, Startups, and Independent Units".

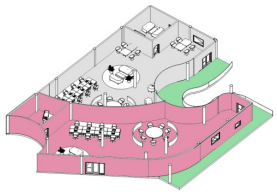
1 INTRODUCE A VARIETY OF ATMOSPHERES

Variety of atmosphere, different types of interior design that is playful.

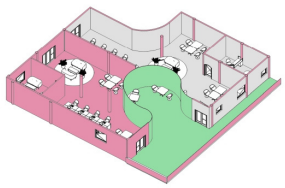
Lesmana Office



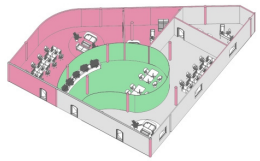
Bharata Office



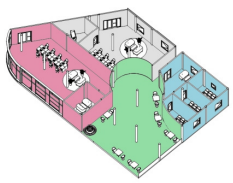
Narasoma Office



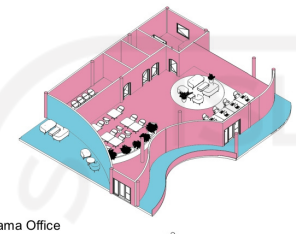
Antasena Office



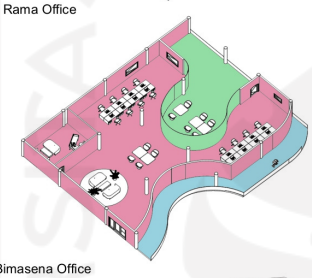
Agastya Office



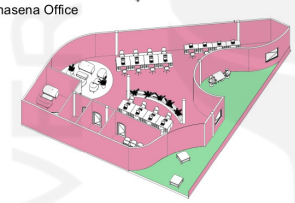
Rama Office



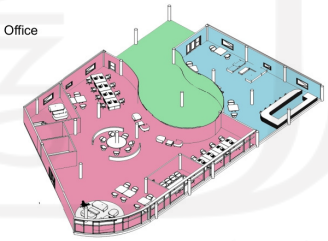
Rama Office



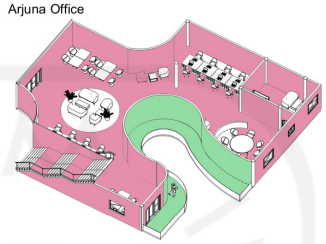
Bimasena Office



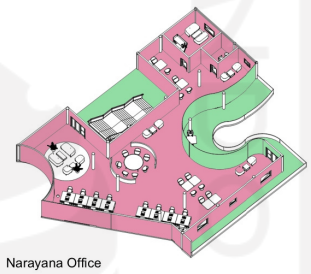
Bisma Office



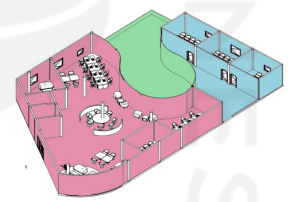
Arjuna Office



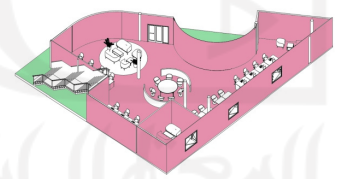
Kala Office



Narayana Office



Wisesa Office



WHY

Attractive and different kinds of shapes for different programs will encourage movement between each function.

HOW

A variety of shapes, atmosphere, and colorful color to make it playful considering the current workforce of millennials.

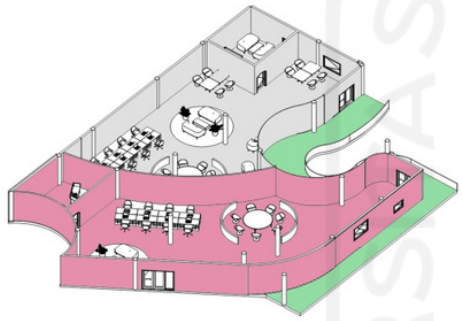


TYPE C: Shared Office Capacity Up to 20 People

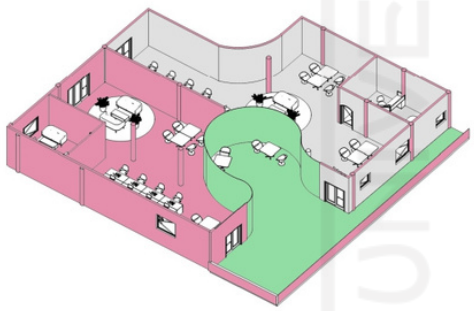
Lesmana Office



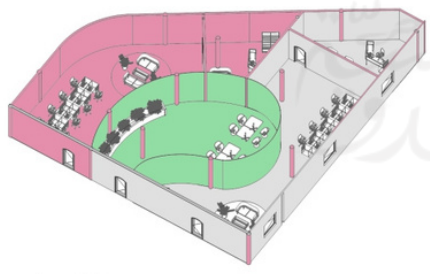
Bharata Office



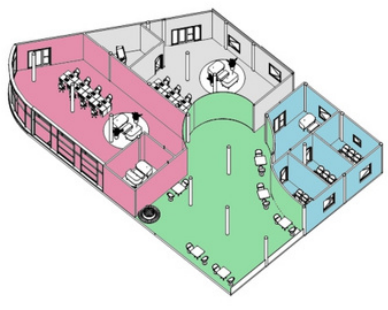
Narasoma Office



Antasena Office

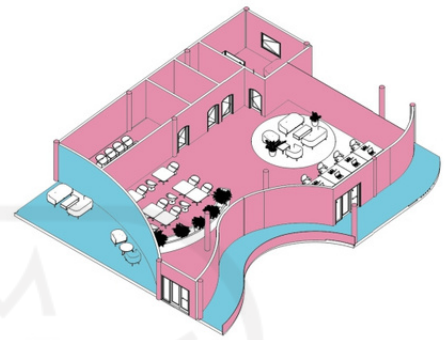


Agastya Office



TYPE B: Office Capacity Up to 40 People

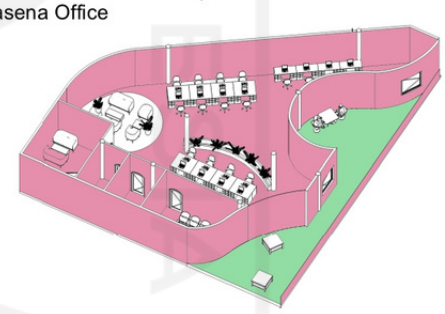
Rama Office



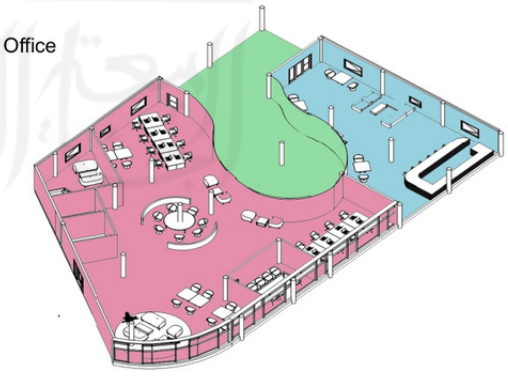
Rama Office



Bimasena Office

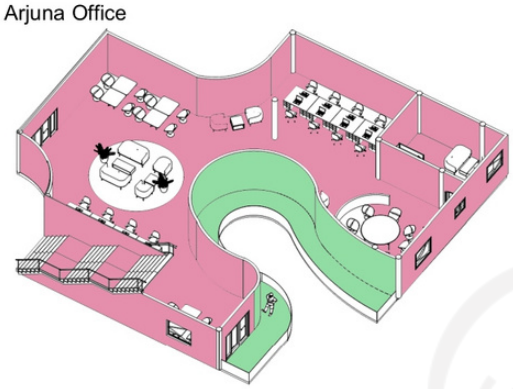


Bisma Office

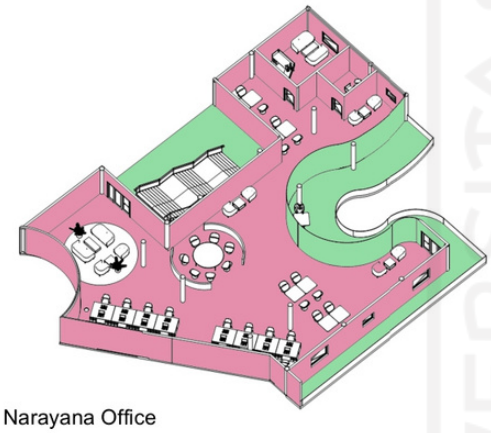


TYPE A: Office Capacity Up to 70 People

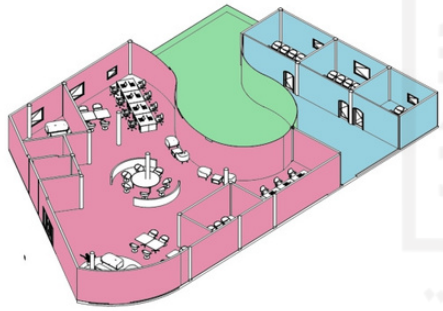
Arjuna Office



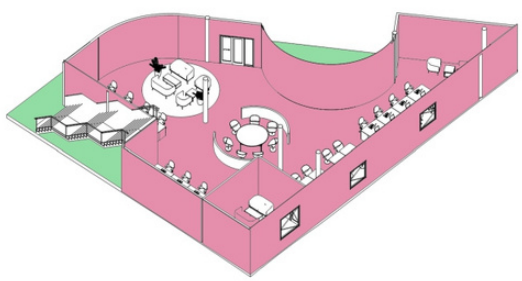
Kala Office



Narayana Office



Wisesa Office



Pink & Grey : Office Room

Green : Connectivity Space

Blue : Connected to the public

Scenario for shared Office:

In this module there are 2 office rooms (pink and grey color) and 2 conectivity space (green color, the first one is in between the office room, and the other one is in the outside with a sea view). The purpose of conncectivity space is to connect between people from two different companies to encourages collaboration, informal interactions, and exchange ideas to create a sustainable work environment. The connectivity room is not directly connected to the office room to encourage movement.

Scenario for Private Office (capacity up to 40 people):

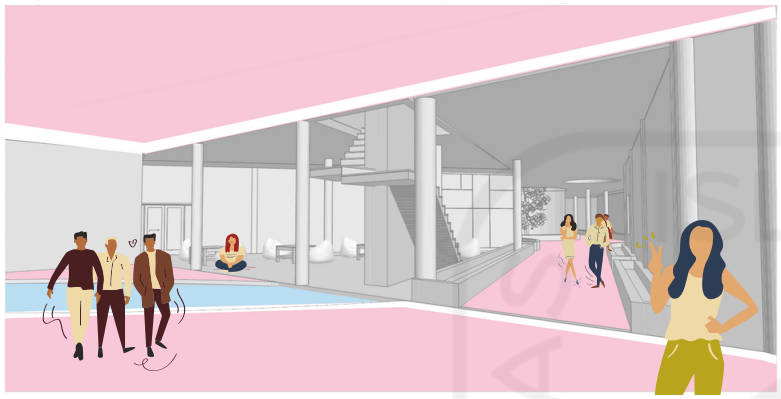
In this module there is only one company, and the company may choose if they want to collaborate with other people from other company only and keep their privacy or they want an office space which allows them to interact with other community as well. Each connectivity space have a good view either sea view or city view.

Scenario for Private Office (capacity up to 70 people):

This office space is the biggest and maximizing flexibility, all of them have a rooftop workspace. The company may allow other people entering their rooftop workspace or not. The connectivity point in this module perform differently and with a good view of the sea.

2 PLACE AUXILIARY FUNCTION ALONG ROUTES

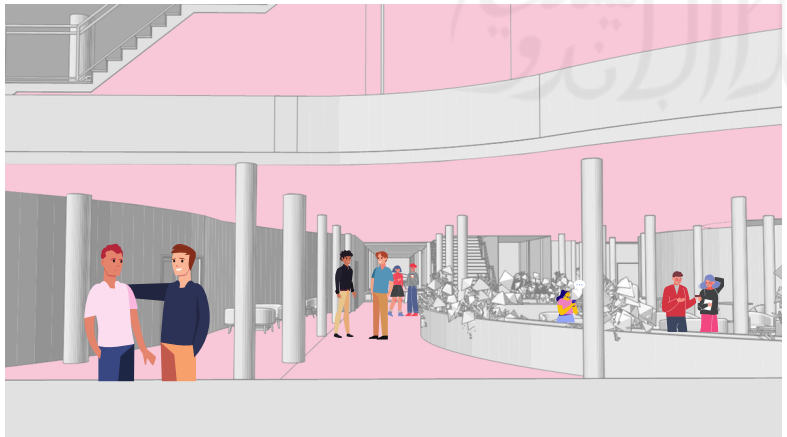
Ensure that routes are programmed with auxiliary functions to encourage short breaks and walks.



Circulation which directly connected to the Zen informal workspace with a water element atmosphere.

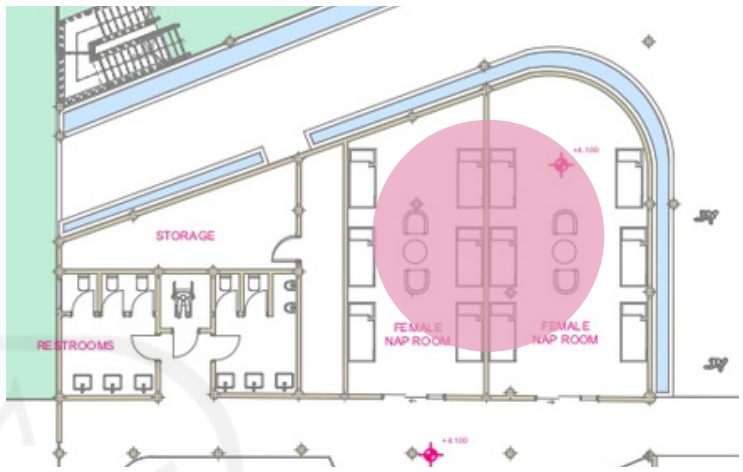


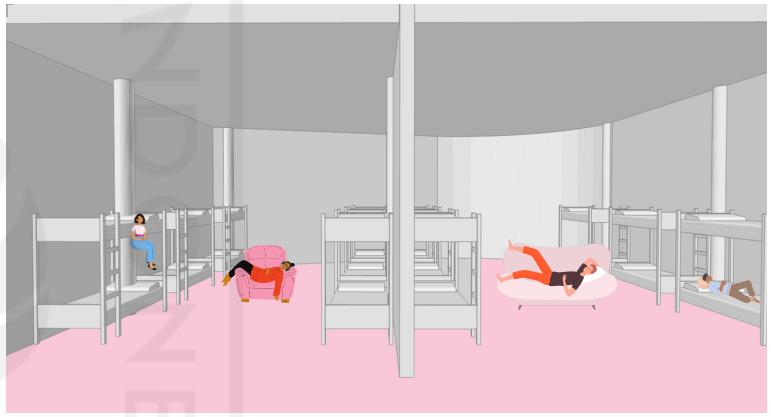
Ccoffee corners within comfortable walking distance of each other and the workplace.



Main circulation which pass through a lounge encourages short breaks and informal interactions.

3 PROVIDE SPACES FOR RESTING



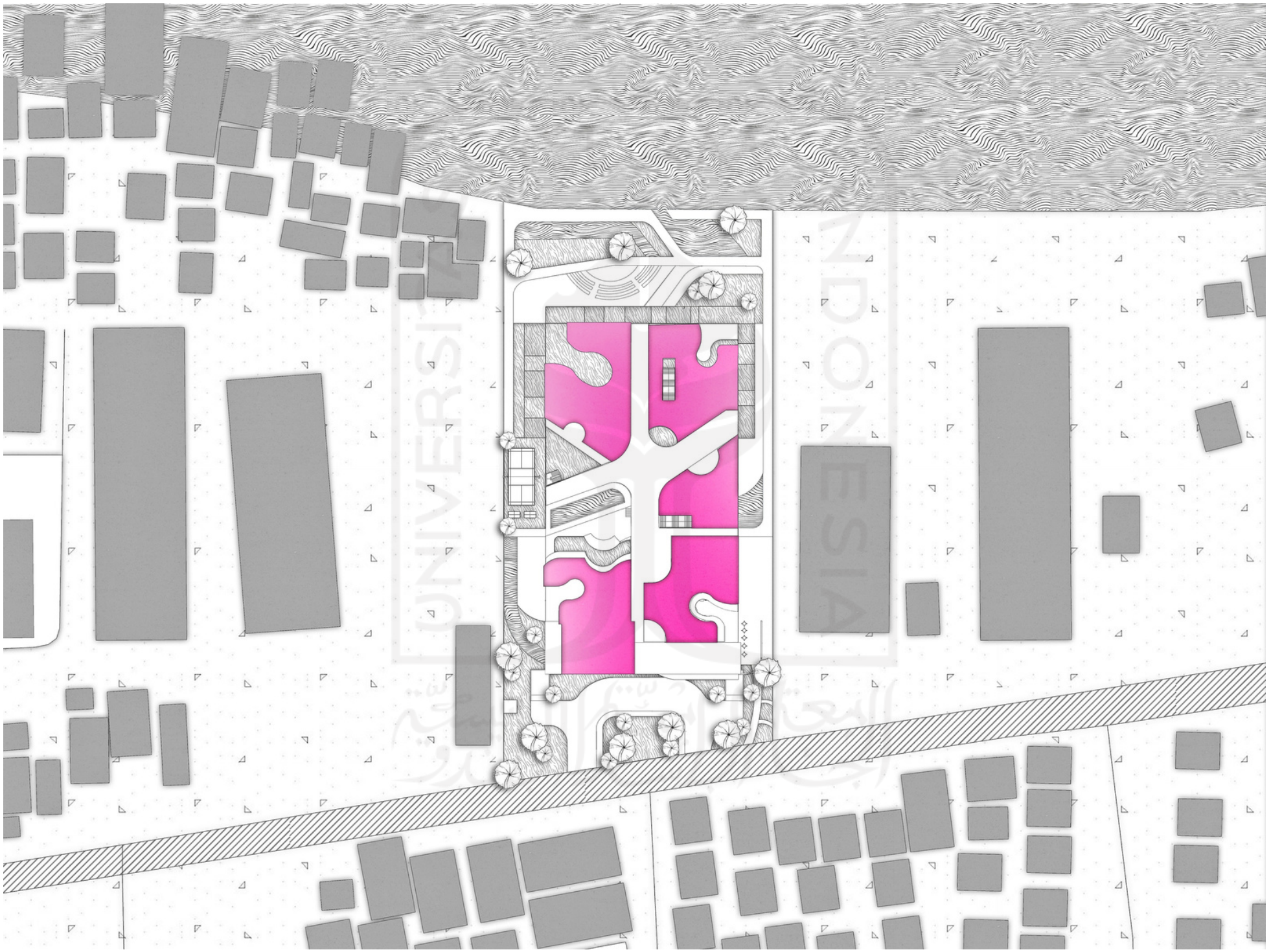


Female Nap Room **Male Nap Room**

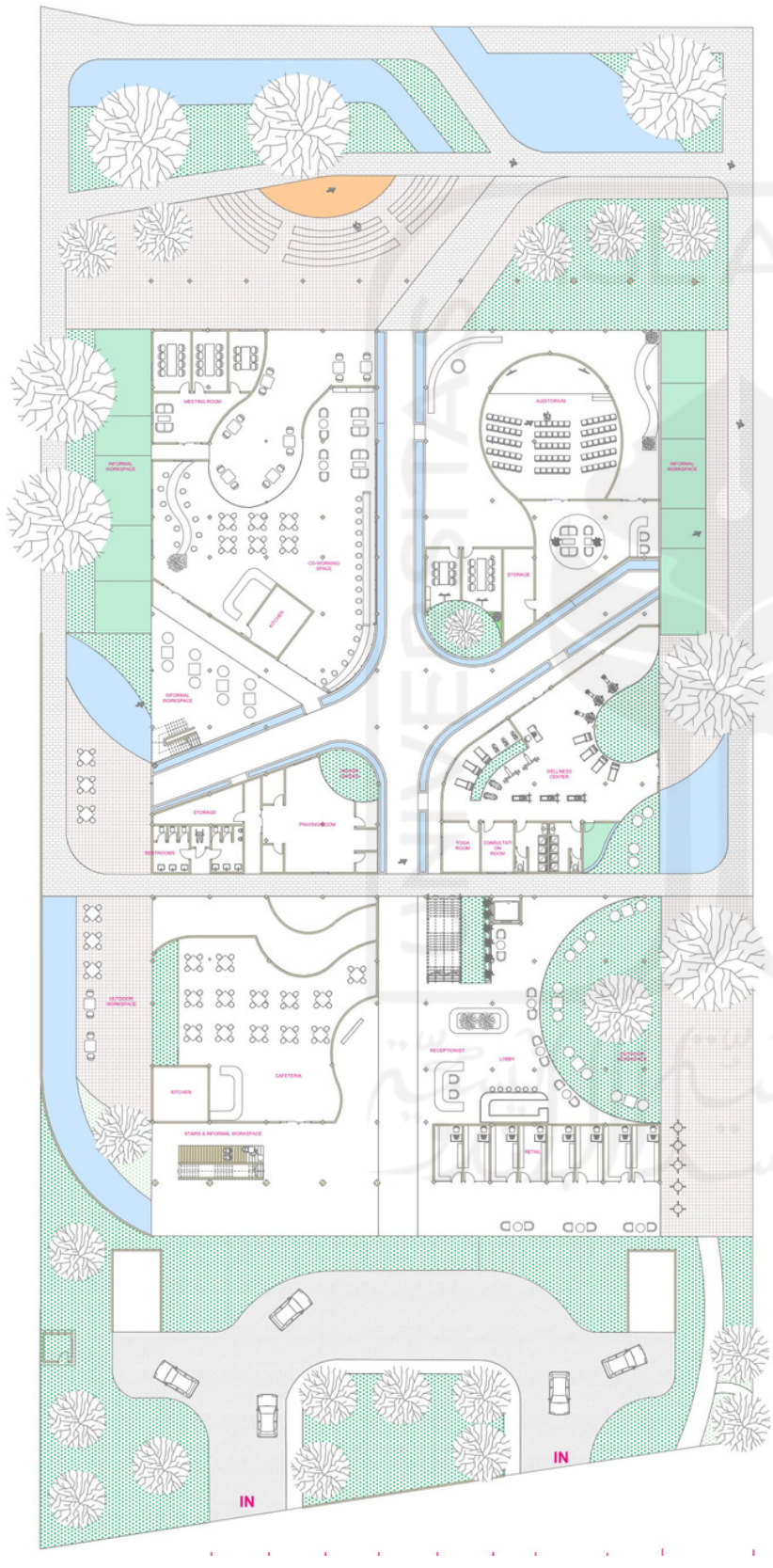
Nap Time Room

Sleeping in the office is not yet a common in Indonesia, while in countries such as Spain and Italy many employees take a quick snooze during a daily mid-afternoon work break. In Japan, there's the practice of inemuri (sleeping wherever, whenever), daydreaming, or sleeping - which is perceived as a sign of devotion to work that shares some blur lines with burnout and exhaustion. Some Japanese businessmen even go to sleeping pods during the day to get some quiet, quality sleep time. There are a lot of benefits of nap time, therefore this building try to encourage people to sleep 15-30 mins during lunch break.

Situation Plan



Site Plan



Madagascar Almond

Palm Tree

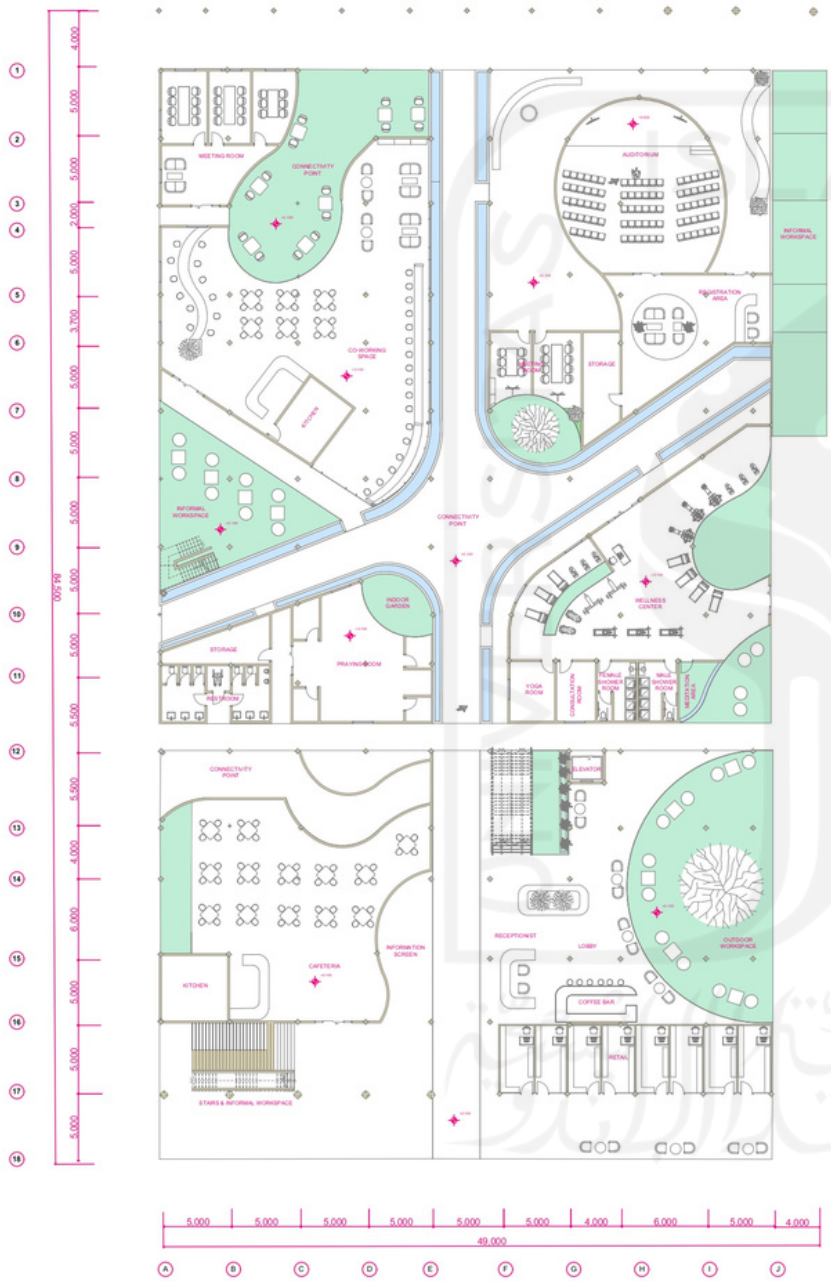
Grass

Concrete Block

Pavement

Asphalt

Floor Plan



F FLOOR PLAN 1:300

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

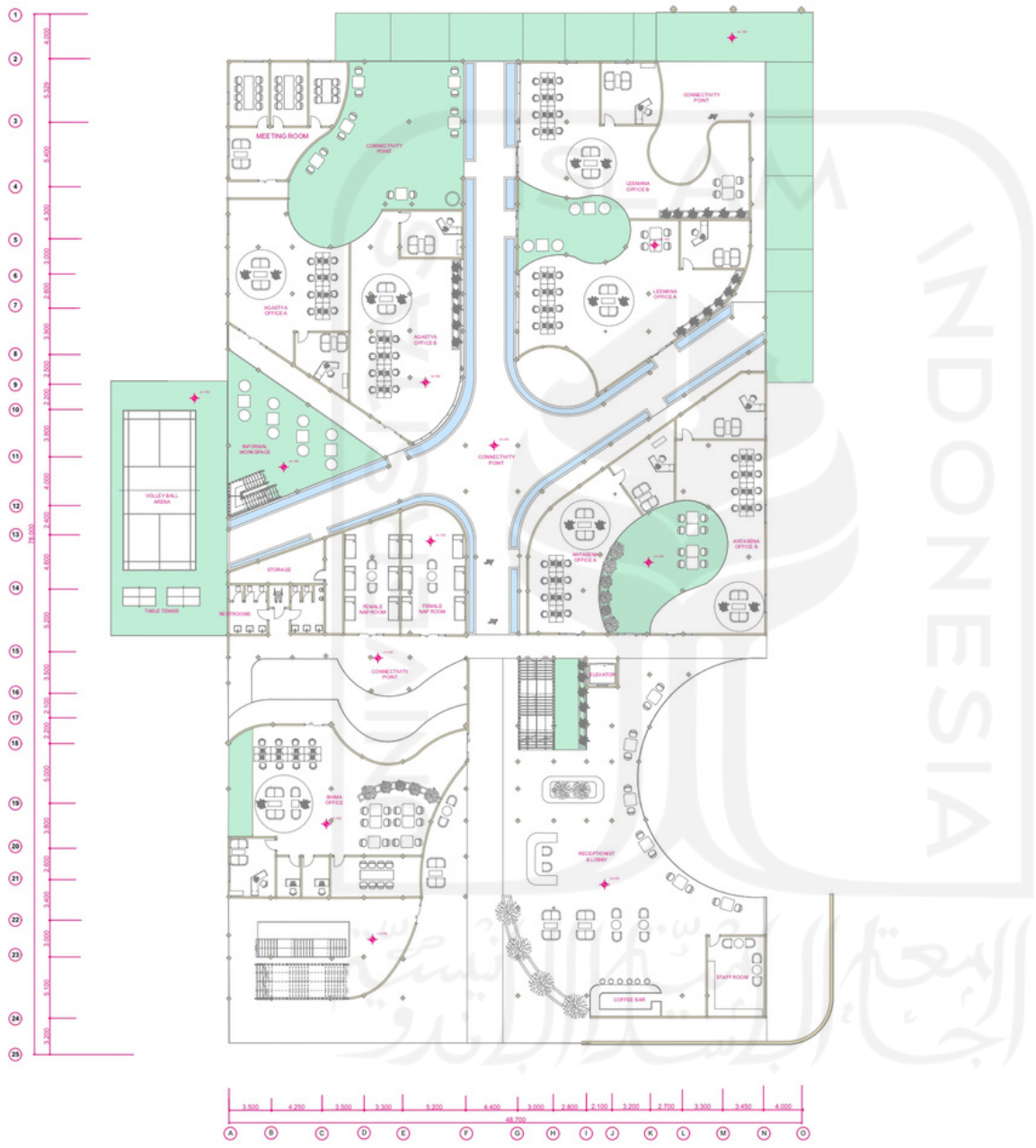
PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

1F PLAN

SCALE: 1:300



2F FLOOR PLAN 1:300

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

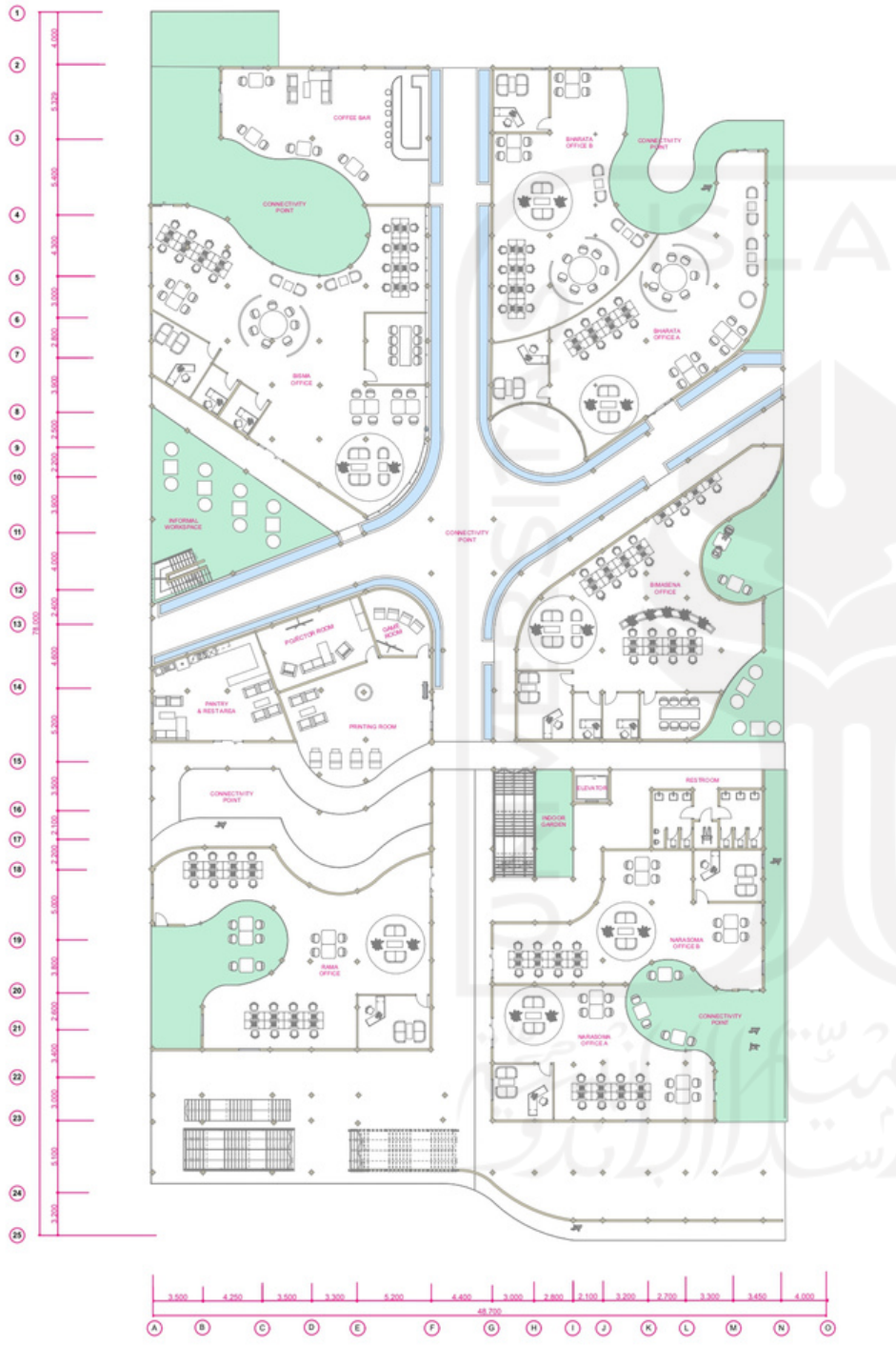
ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

2F PLAN

SCALE: 1:300

Floor Plan



3F FLOOR PLAN 1:300

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

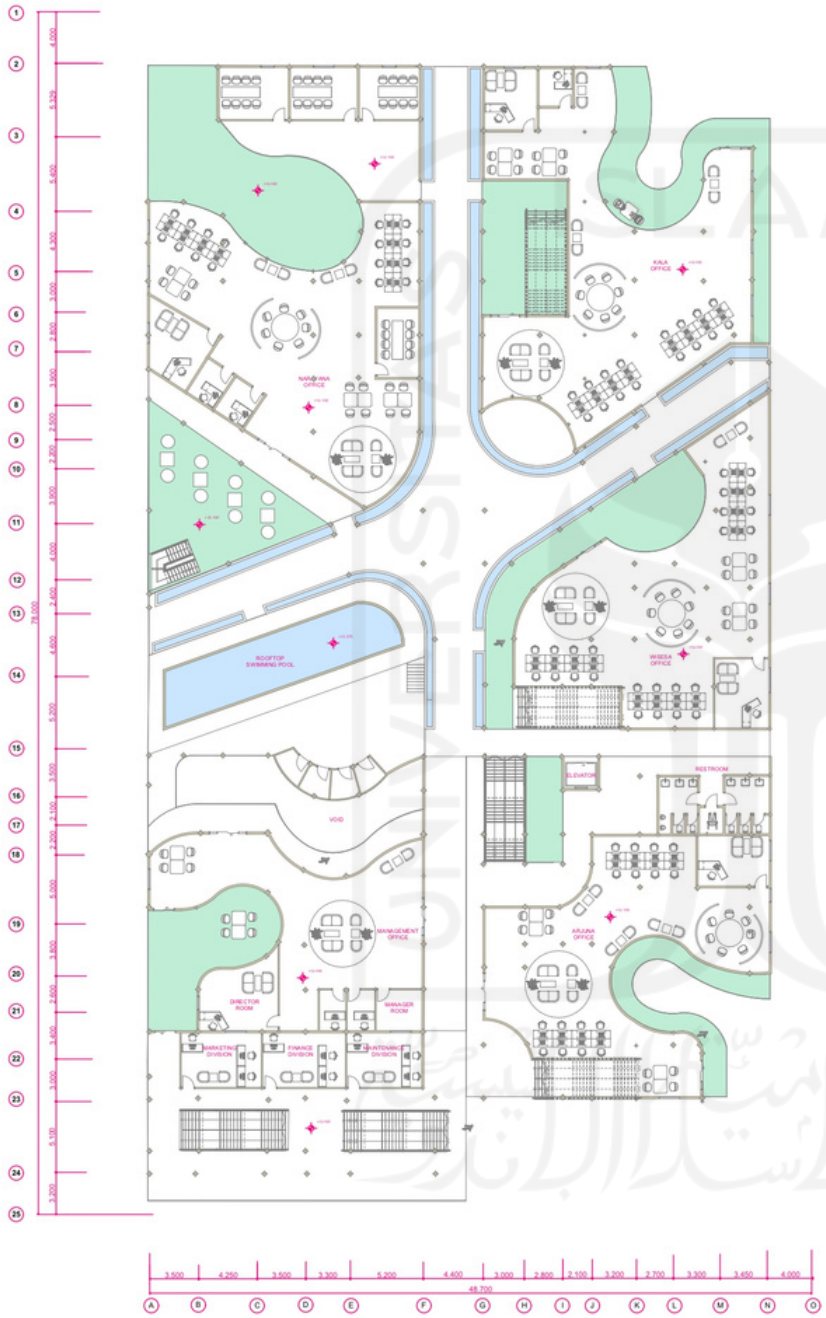
PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

3F PLAN

SCALE: 1:300



4F FLOOR PLAN 1:300

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

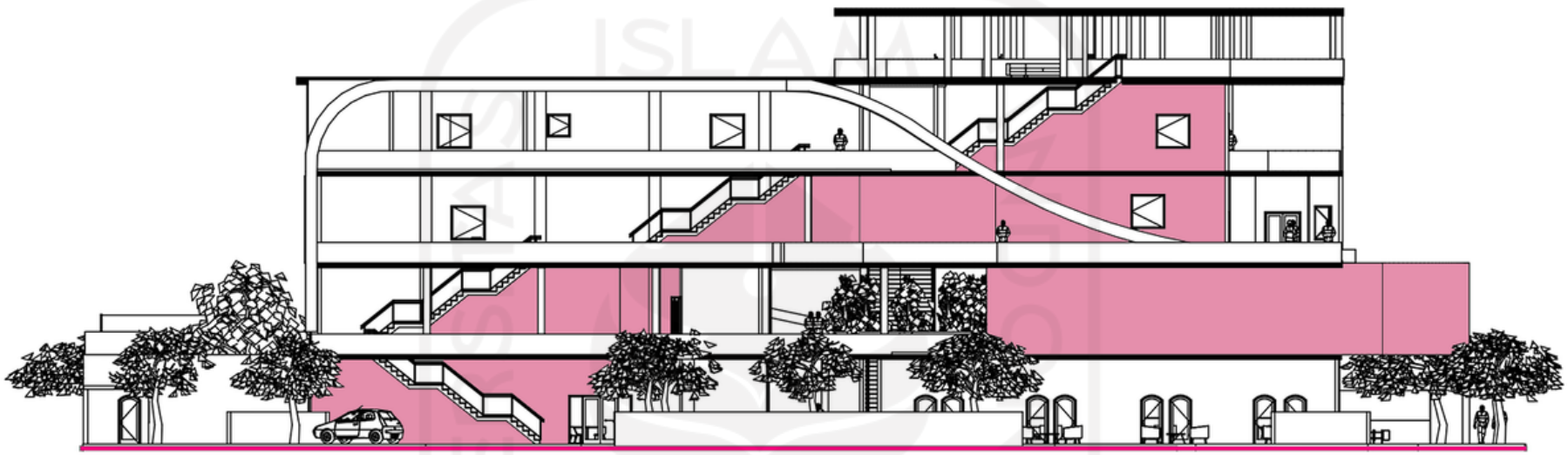
ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

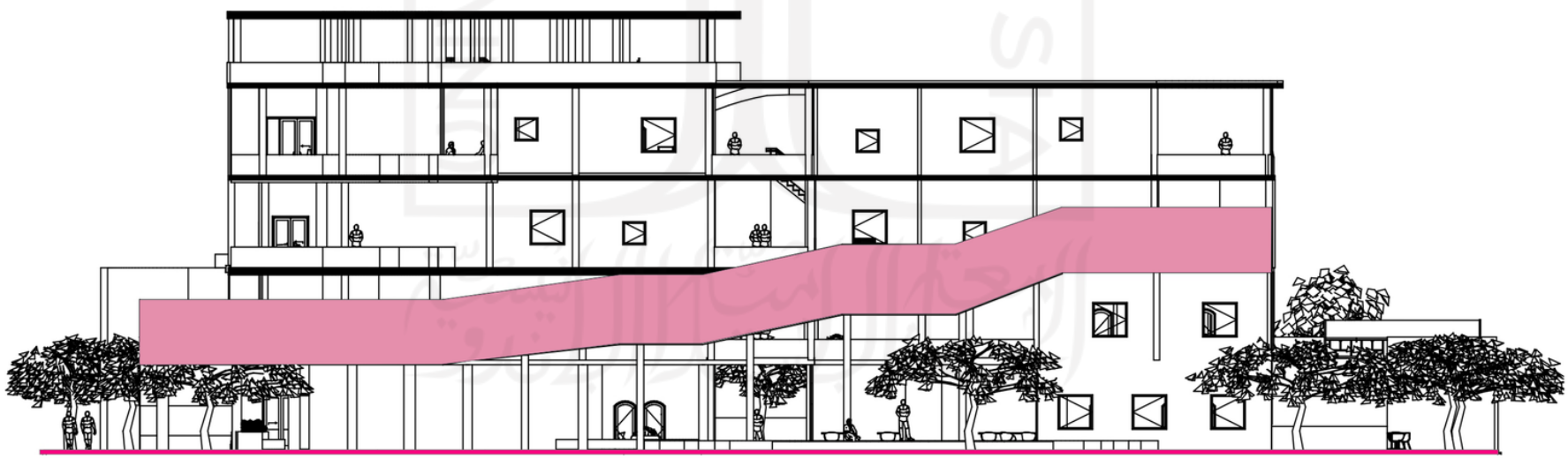
4F PLAN

SCALE: 1:300

Building Elevation



SOUTH ELEVATION 1:160



NORTH ELEVATION 1:160

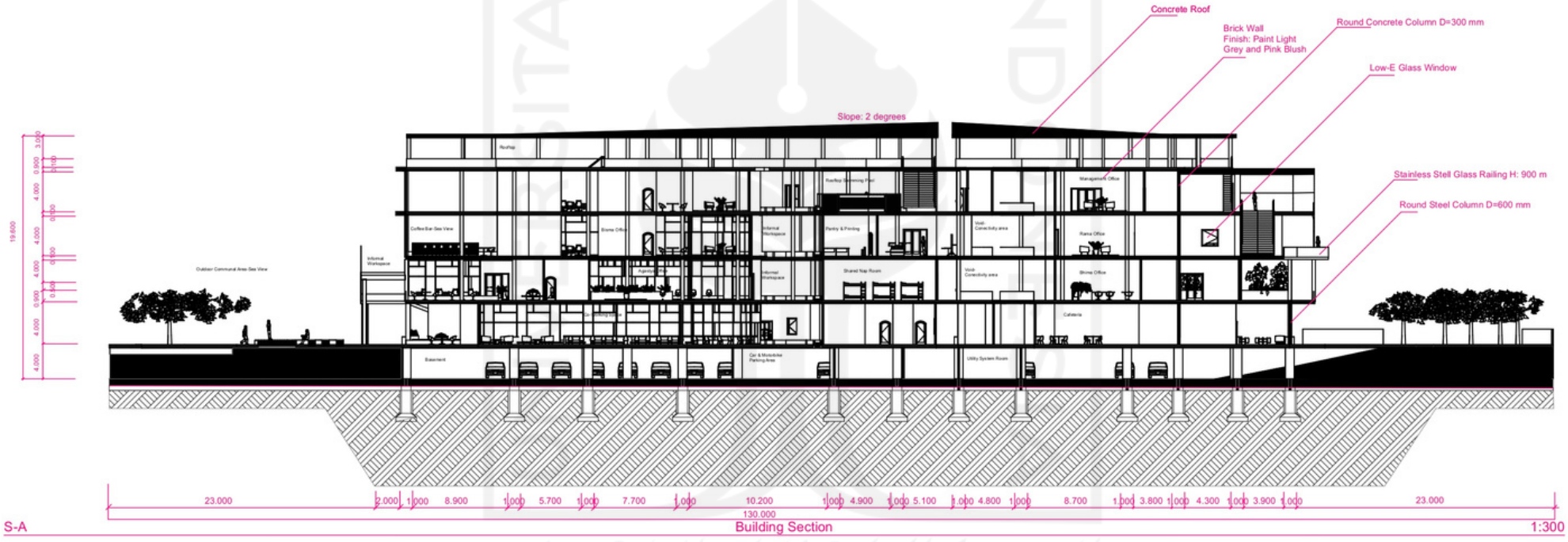


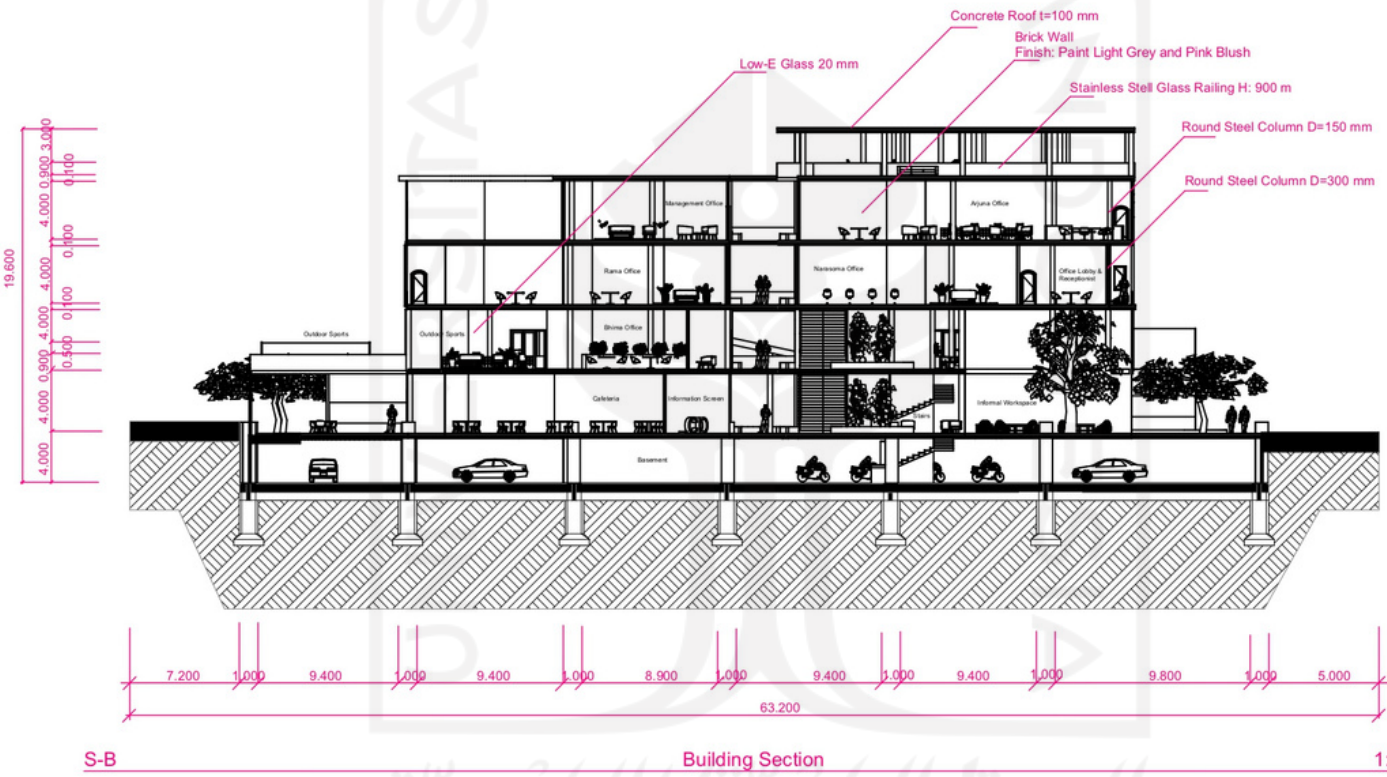
EAST ELEVATION 1:300



WEST ELEVATION 1:300

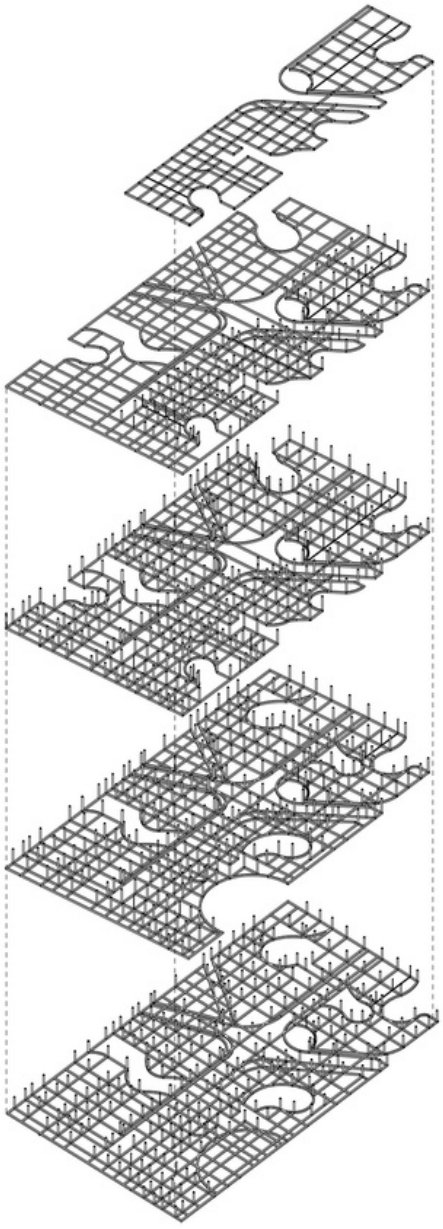
Building Section





S-B Building Section 1:300

Building Structure & Materials



ROOF TOP STRUCTURE

STEEL BEAM 300 x 150 mm

4F STRUCTURE

ROUND STEEL COLUMN 600 x 600 mm
ROUND STEEL COLUMN 300 x 300 mm
ROUND STEEL COLUMN 150 x 150 mm

STEEL BEAM 300 x 150 mm

3F STRUCTURE

ROUND STEEL COLUMN 600 x 600 mm
ROUND STEEL COLUMN 300 x 300 mm
ROUND STEEL COLUMN 150 x 150 mm

STEEL BEAM 300 x 150 mm

2F STRUCTURE

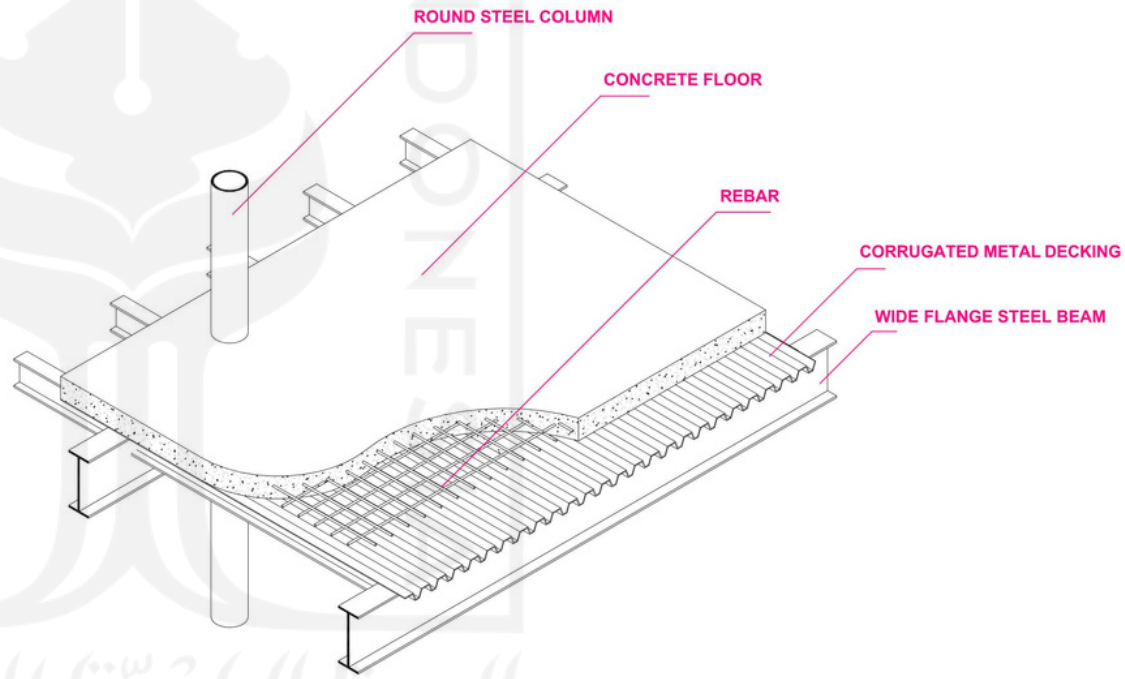
ROUND STEEL COLUMN 600 x 600 mm
ROUND STEEL COLUMN 300 x 300 mm
ROUND STEEL COLUMN 150 x 150 mm

STEEL BEAM 300 x 150 mm

1F STRUCTURE

ROUND STEEL COLUMN 600 x 600 mm
ROUND STEEL COLUMN 300 x 300 mm
ROUND STEEL COLUMN 150 x 150 mm

STEEL BEAM 300 x 150 mm



Material Palette Urban/Industrial)



Green Concrete
Steel
Aluminum
Wood
Glass
Fritted Glass

Material Palette

Source: Google

Sustainable Envelop Strategy

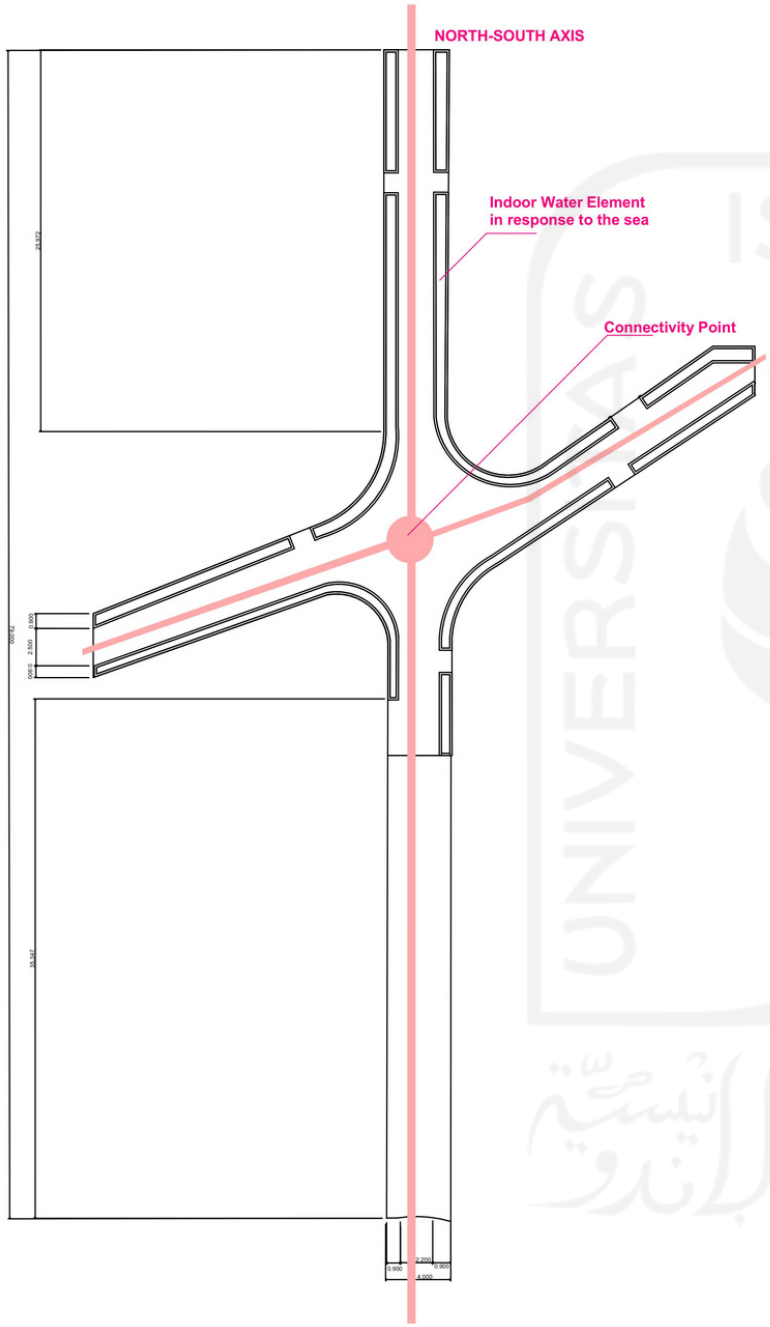
Green Concrete

Concrete that uses less energy in its production and produces less co2. The main ingredient is cement which consists of limestone and reduces natural resources (stone, lime, shale, clay, and natural river sand). Green concrete can be mixed and reused.

Wood

Wood material was chosen as the building envelope because the method of processing wood to be used as building material does not require a lot of energy. Well-managed forests can also be sustainable. Using wood in the house can also make it cooler during the day. Wood is also easy to obtain and its service life is approximately 50 years.

Circulation Plan



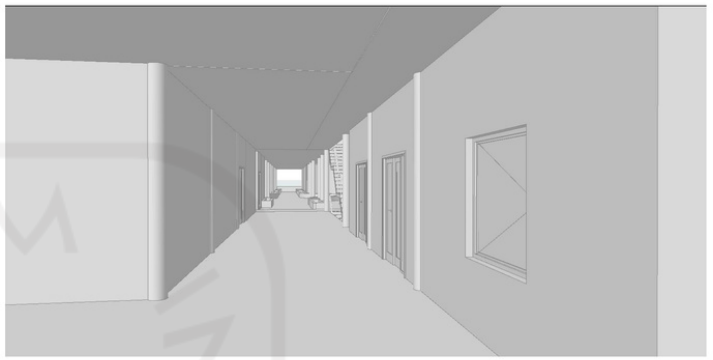
Circulation Plan 1:250

North-South Axis Circulation to provide Sea View and City View as far as the eye can see.

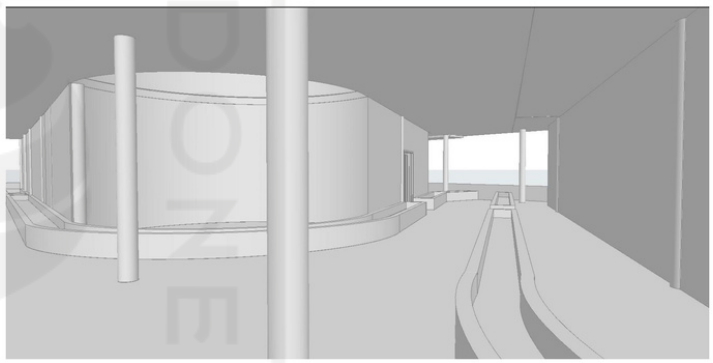
According to Active Design Approach, providing a good view as much as it could is one of the ways to encourage movement.

South West-North East Axis Circulation to provide Sea View and City View as far as the eye can see.

According to Active Design Approach, providing a good view as much as it could is one of the ways to encourage movement.



Generic Perspective 1:312.32



Generic Perspective 1:311.31

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

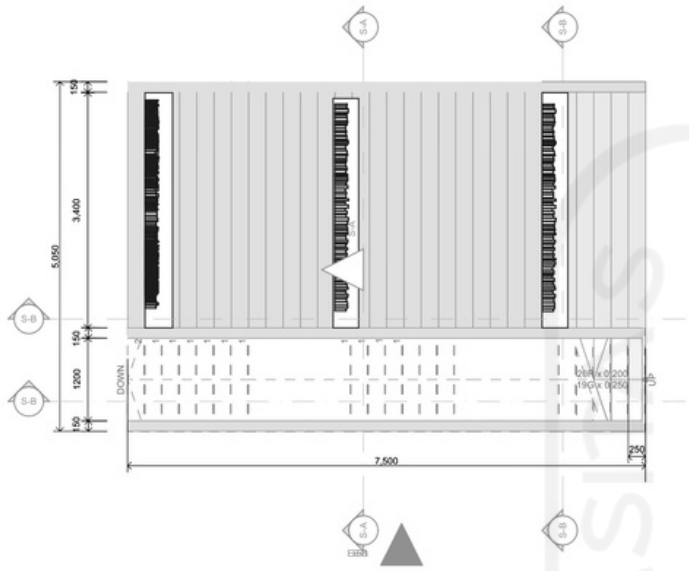
SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

CIRCULATION DETAIL

SCALE: 1:250

Stairs Design

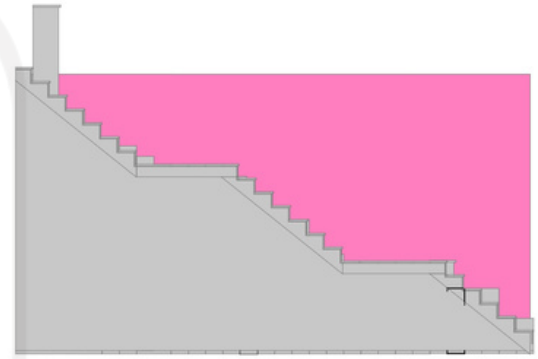
ARCHICAD EDUCATION VERSION



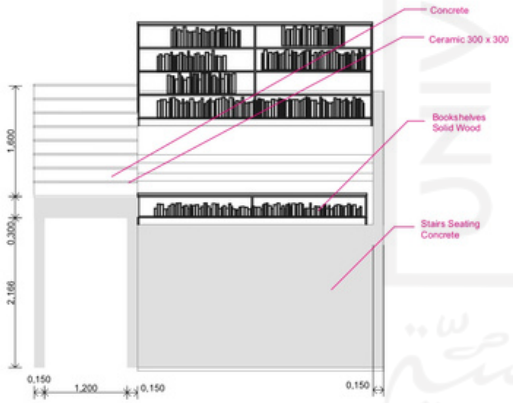
Stairs Plan 1:50



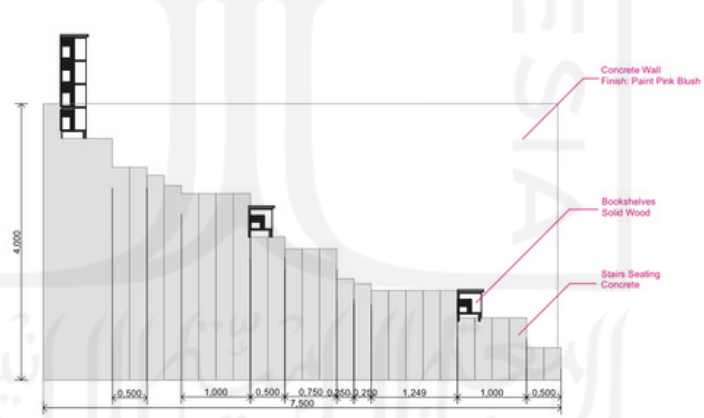
E-A Elevation 1:50



E-B Elevation 1:50



S-A Section 1:50



S-B Section 1:50

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

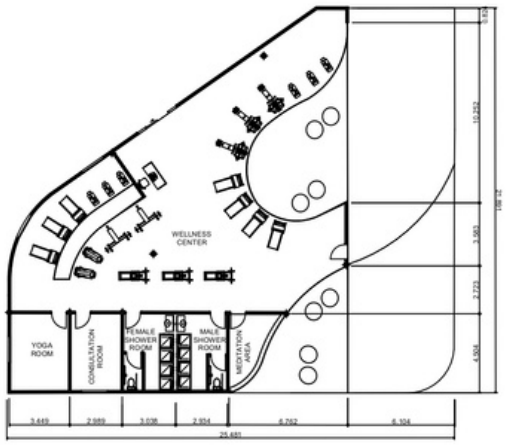
ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

STAIRS DETAIL

SCALE: 1:50

Sports Facilities

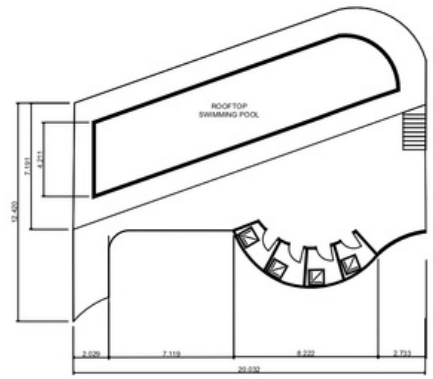


Plan Wellness Center 1:200

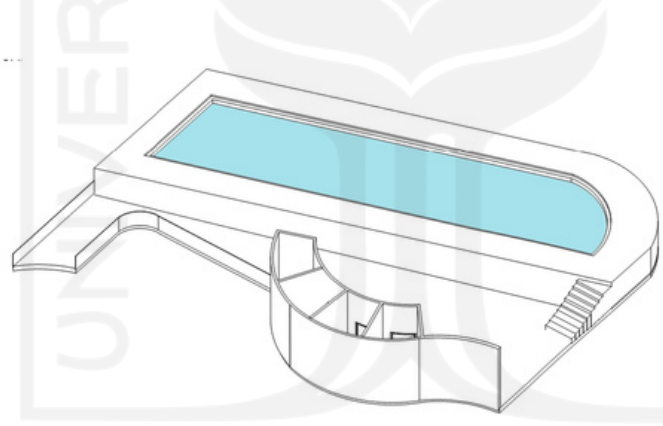


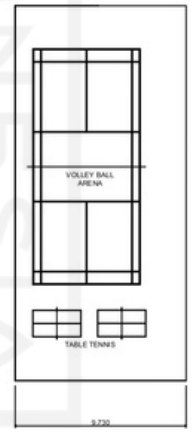


Plan Jogging Track 1:1000



Plan Swimming Pool 1:200





Plan Sports Area 1:200

Sport Facilities in the building:

1. Wellness Center
2. Swimming Pool
3. Volley and Table Tennis Area
4. Jogging Trach with sea view
5. Shower Room

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

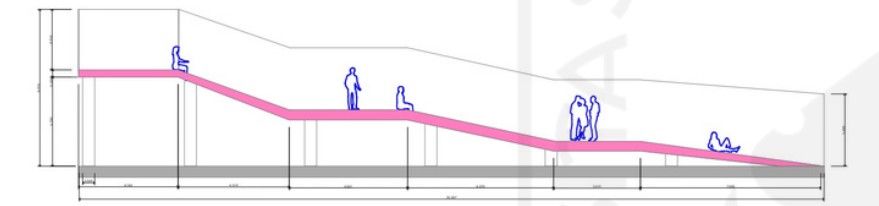
ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

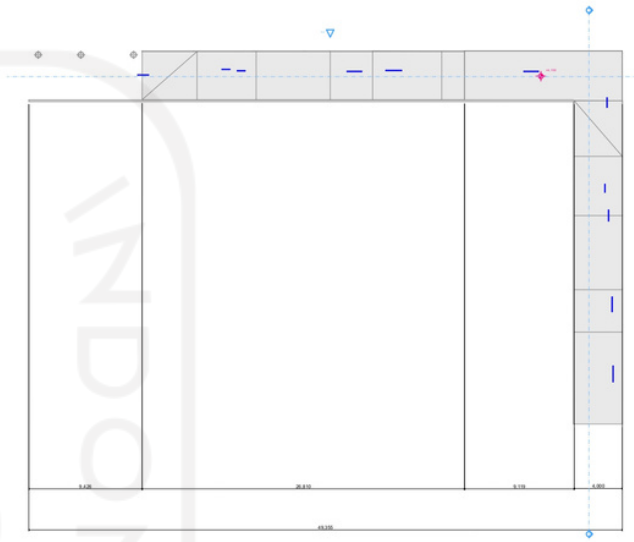
Sports Facilities

SCALE: 1:200

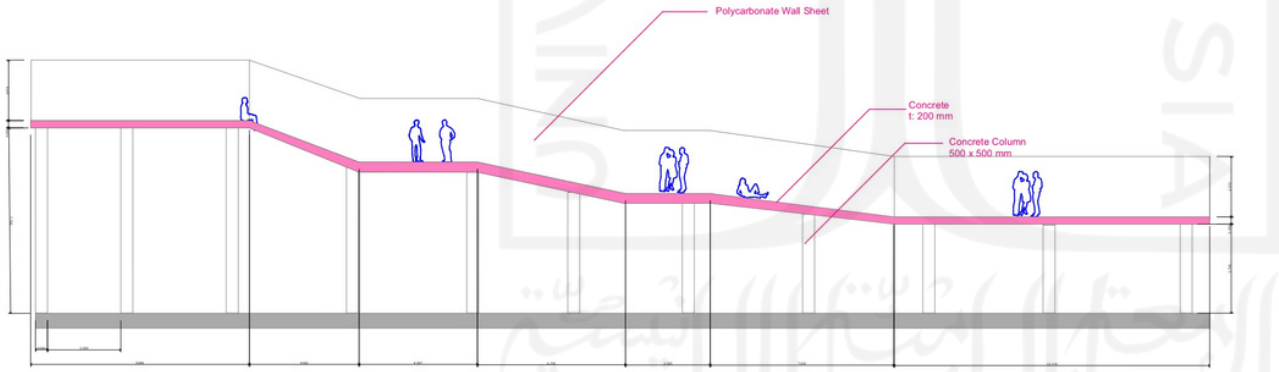
Informal Workspace



S-A Informal Workspace 1:150



Informal Workspace Plan 1:300



S-B Informal Workspace 1:150

DEPARTMENT OF ARCHITECTURE
FACULTY OF CIVIL ENGINEERING AND PLANNING
UNIVERSITAS ISLAM INDONESIA

FINAL ARCHITECTURAL DESIGN STUDIO

PUZZLE OFFICE
HYBRID OFFICE FOR A HEALTHIER LIFESTYLE AND CONNECTIVITY
with Active Design Approach

ARCHITECT
DINDA DIVAMBA YOEL K
STUDENT ID
18512173

SUPERVISOR
ARIF BUDI SHOLIHAH, S.T., M.Sc., Ph.D

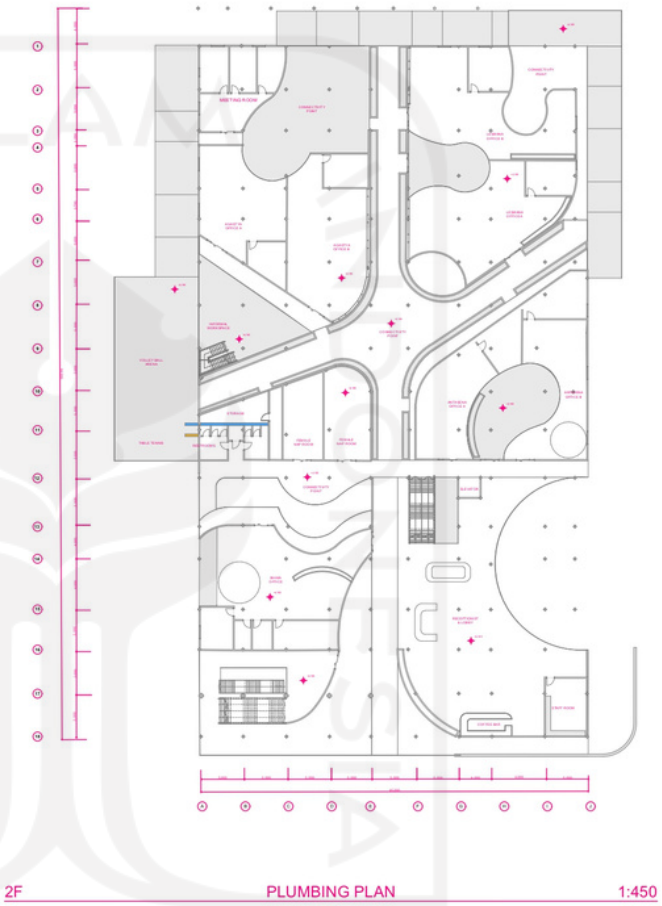
INFORMAL WORKSPACE

SCALE: 1:150

Plumbing Plan



1F PLUMBING PLAN 1:450



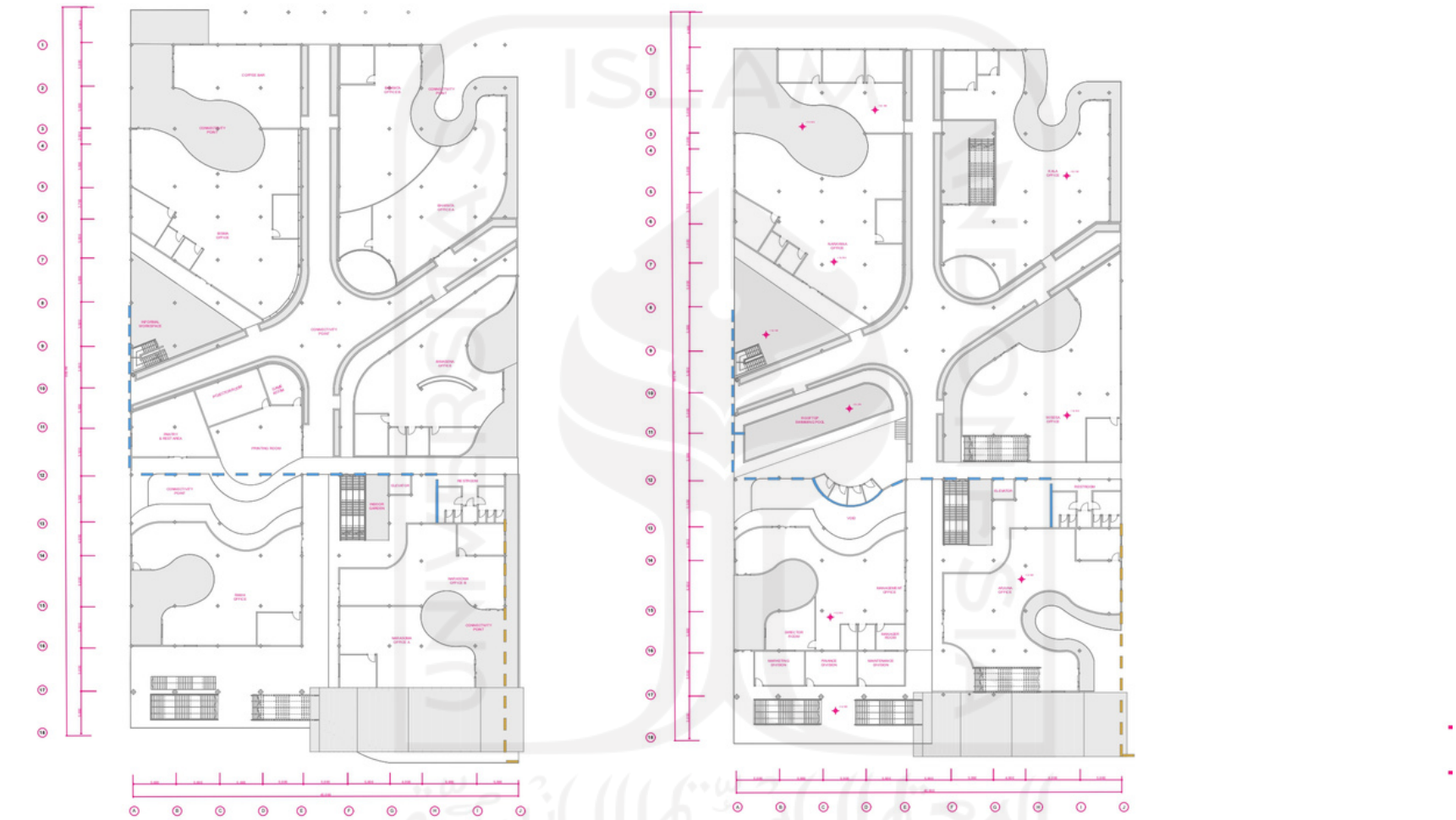
2F PLUMBING PLAN 1:450

UNDERGROUND WATER TANK

CLEAN WATER

SEPTIC TANK

WASTE WATER



3F PLUMBING PLAN 1:400

4F PLUMBING PLAN 1:400

UNDERGROUND WATER TANK

CLEAN WATER

SEPTIC TANK

WASTE WATER

HVAC Plan



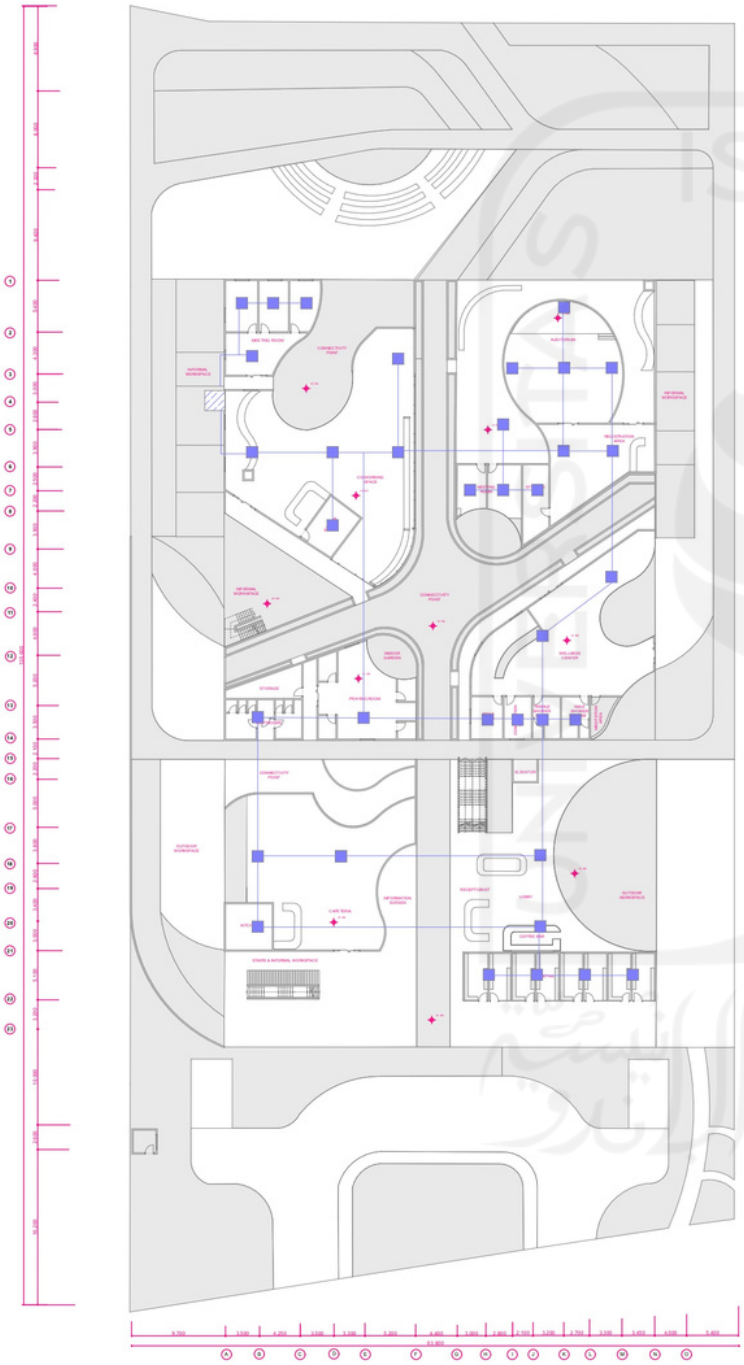
3F HVAC PLAN 1:400

4F HVAC PLAN 1:400

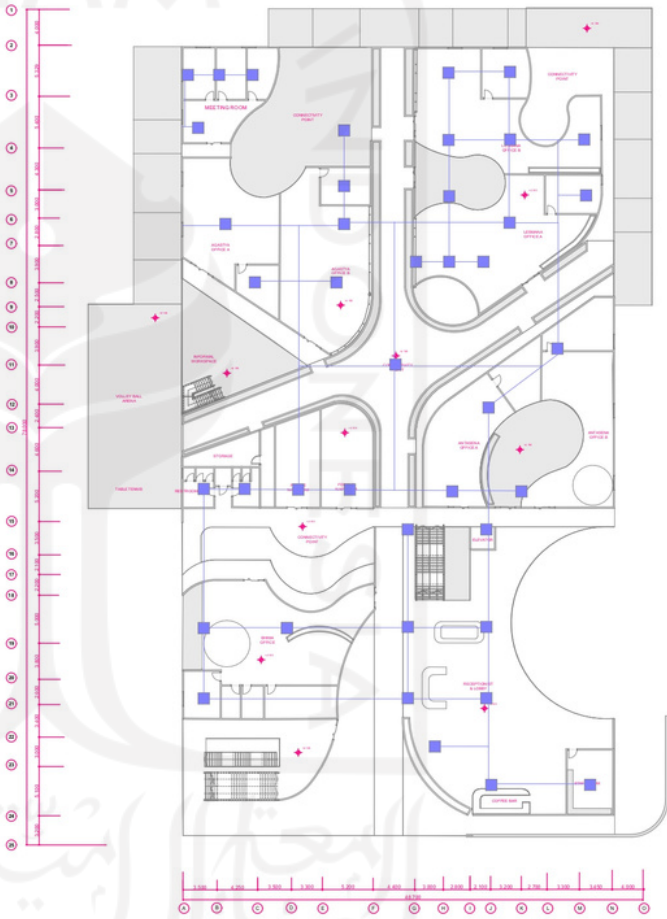
DUCTING

HVAC INDOOR UNIT

VERTICAL HVAC SHAFT



1F HVAC PLAN 1:400



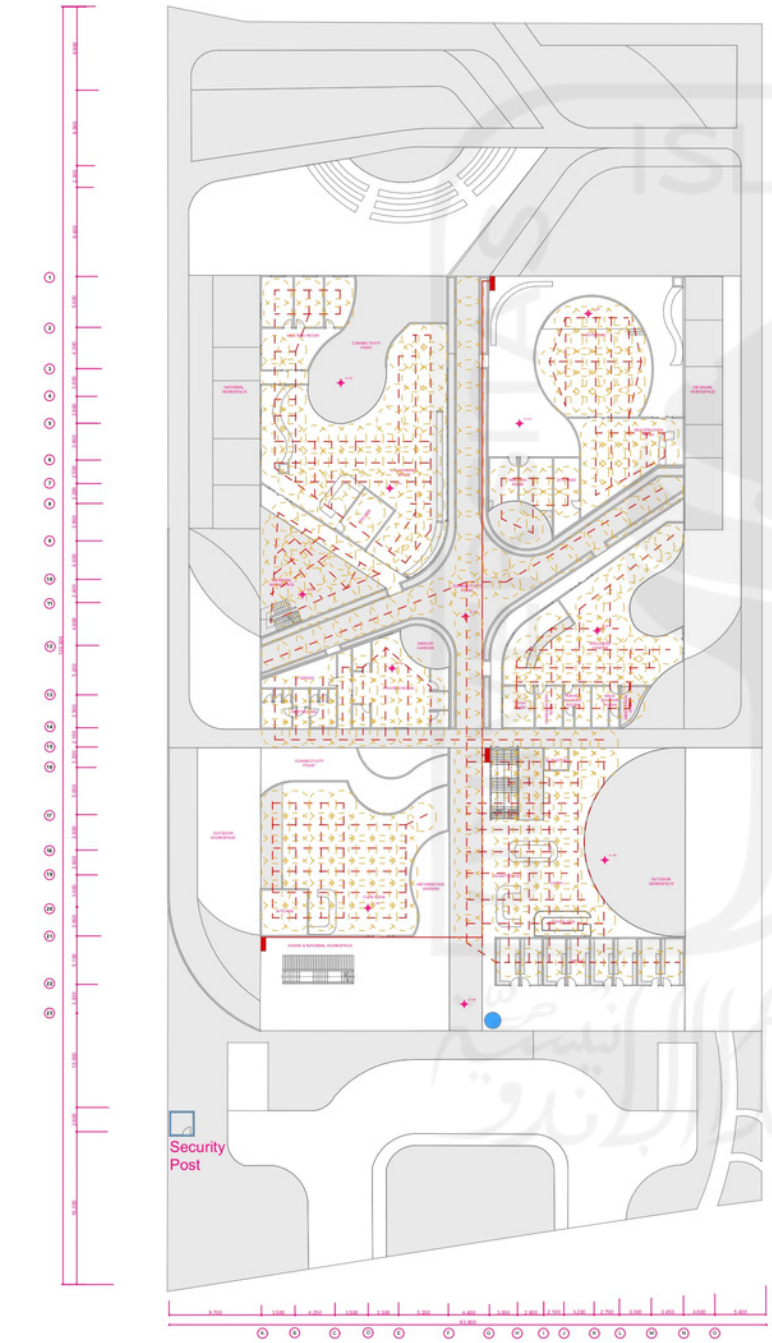
2F HVAC PLAN 1:400

DUCTING

HVAC INDOOR UNIT

VERTICAL HVAC SHAFT

Security and Safety Plan



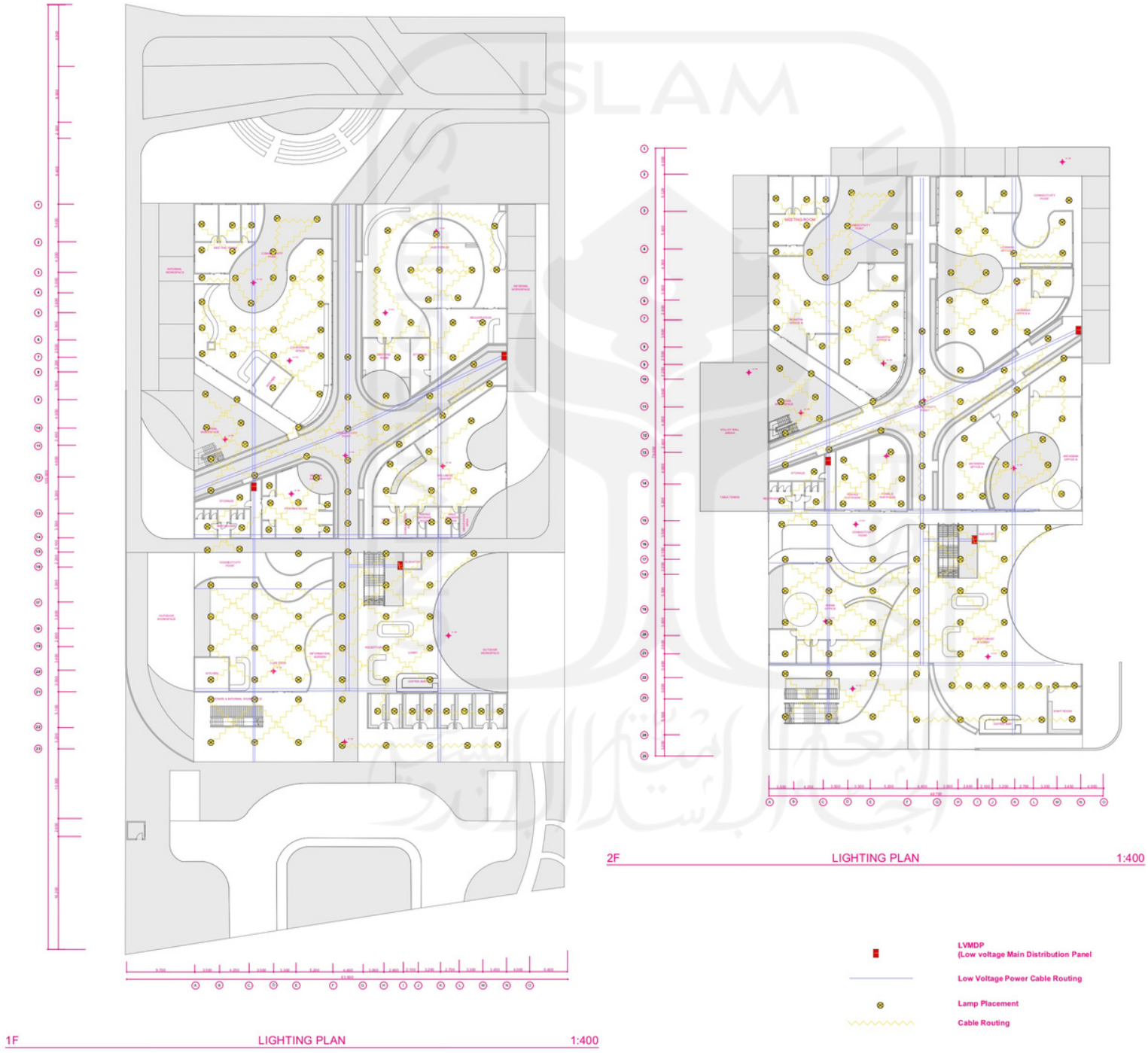
1F PLAN SECURITY AND SAFETY PLAN 1:400



2F SECURITY AND SAFETY PLAN 1:400

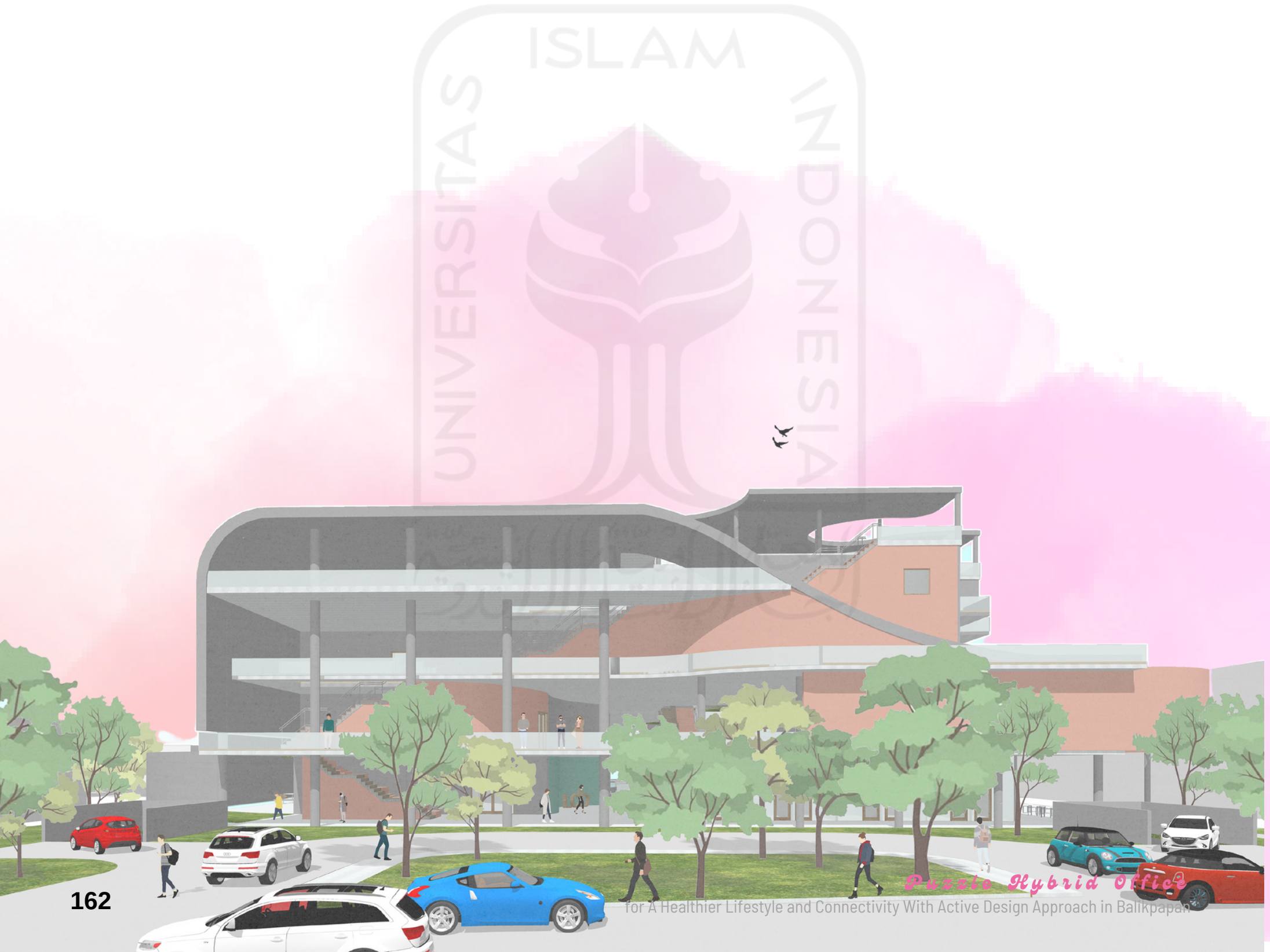
SPRINKLE
HYDRANT PIPE
SPRINKLE PIPE LINE
INDOOR HYDRANT BOX
VERTICAL FIRE PROTECTION PIPE
SECURITY POST
ASSEMBLY POINT

Lighting Plan



Conclusion

In designing a building that has a function as a commercial building as well as a place to work, it must pay attention to aspects such as the health and comfort of its users, besides that lighting, ventilation, security, safety, and convenience are also important to consider, so as to provide maximum comfort for everyone. building users. So it can be concluded that the rental office design is a medium-scale building, where the most important thing in this design is that the office building must support work-life balance and support users to be more active in moving considering the many benefits of moving itself, because in work life becomes very important because it relates to employee work performance.



3D Model photograph



3D Model photograph



Chapter 5

05

Reflections

Question #1

How is the investment feasibility in your office building?

CONSTRUCTION COST ESTIMATION					
NO	WORK	area (m2)		PRICE / m2	total PRICE
A	preliminaries COST				
1	Land purchase	7,200.0	M2	IDR 2,000,000.00	IDR 14,400,000,000.00
2	Preparatory Work	7,200.0	M2	IDR 50,000.00	IDR 360,000,000.00
					IDR 14,760,000,000.00
B	BUILDING CONSTRUCTION COST				
1	Architectural Work	5,760.0	M2	IDR 200,000.00	IDR 1,152,000,000.00
					IDR 1,152,000,000.00
C	INFRASTRUCTURE & UTILITY COSTS				
1	MEP work	291.6	M2	IDR 100,000.00	IDR 29,160,000.00
2	Utility Installation	77.0	Unit	IDR 100,000.00	IDR 7,700,000.00
					IDR 36,860,000.00
D	Permit COSTS				
1	Land & Environmental Permit	7,200.0	M2	IDR 50,000.00	IDR 360,000,000.00
2	Building Permit	5,040.0	M2	IDR 100,000.00	IDR 504,000,000.00
					IDR 864,000,000.00
E	MARKETING COSTS				
1	Marketing Management	1.50%		IDR 17,280,000.00	IDR 259,200.00
					IDR 259,200.00
					IDR 16,813,119,200.00
	costs per m2	7,200.0	M2	IDR 16,813,119,200.00	IDR 2,335,155.44

The construction cost is estimated about IDR 16,813,119,200.00

INVESTMENT FEASIBILITY OF COMMERCIAL SPACE RENTAL BUSINESS							
	Capacity	Quantity	Halfday (6h)	Fullboard (12h)	Monthly	Yearly	PRICE
Office Type A	70 Pax	4 Unit	NA	NA	100,000,000.00	1,200,000,000.00	1,200,000,000.00
Office Type B	40 Pax	6 Unit	NA	NA	90,000,000.00	1,080,000,000.00	1,080,000,000.00
Office Type C	25 Pax	12 Unit	NA	NA	120,000,000.00	1,440,000,000.00	1,440,000,000.00
Meeting Room Type A (Small Office	12 Pax	10 Unit	350,000	600,000	30,000,000.00	360,000,000.00	360,000,000.00
Meeting Room Type B (Small Office	8 Pax	10 Unit	250,000	400,000	20,000,000.00	240,000,000.00	240,000,000.00
Retail	6m2	8 Unit	NA	NA	8,000,000.00	96,000,000.00	96,000,000.00
Community Club Membership		150 Pax	NA	NA	22,500,000.00	270,000,000.00	270,000,000.00
income per year							4,686,000,000.00
Property Management COSTS		50 Unit			50,000.00	600,000.00	30,000,000.00
UTILITY COSTS		2%					93,120,000.00
profit							4,562,880,000.00
Insurance		0.10%				4,562,880.00	4,562,880.00
Tax		0.50%				23,430,000.00	23,430,000.00
Manager		0.50%				23,280,000.00	23,280,000.00
After-tax profit							4,511,607,120.00
Investment							IDR 16,813,119,200.00
return on investment (year)							3.7

Office space for type A is 600 sqm + rooftop with the same size. This type of office space has a capacity of up to 70 people with a rental fee of 25,000,000 per month. For type A there are 4 units so that in one month the profit earned is 100,000,000 and in one year it gets 1,200,000,000.

Office space for type B is 300 sqm. This type of office space has a capacity of up to 40 people with a rental fee of IDR 15,000,000 per month. For type B, there are 6 units so that in one month the profit earned is IDR 90,000,000 and in one year it gets 1,080,000.

Office space for type C is 150 sqm. This type of office space has a capacity of up to 25 people with a rental fee of IDR 10,000,000 per month. For type B, there are 12 units so that in one month the profit earned is IDR 120,000,000 and in one year it gets 1,440,000,000.

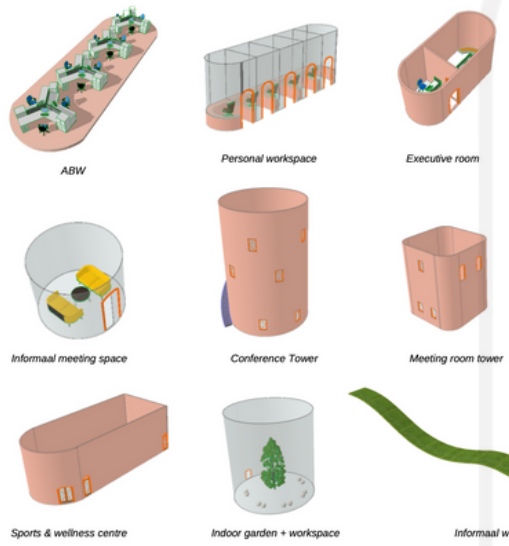
According to the profit, insurance, tax, management and construction cost, the return on investment is about **3,7 years.**

Question #2

Please explain how you applied each of your concepts and developed your designs from the schematic drawing you produced in the comprehensive stage. Were there some considerable changes or not? Please explain.

Comprehensive Stage

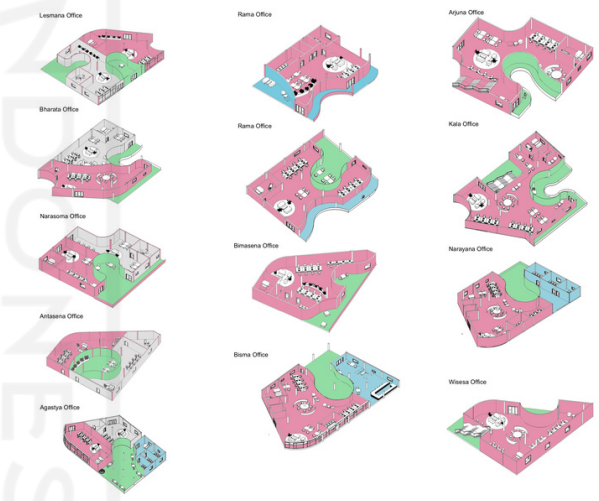
FUTURE OFFICE

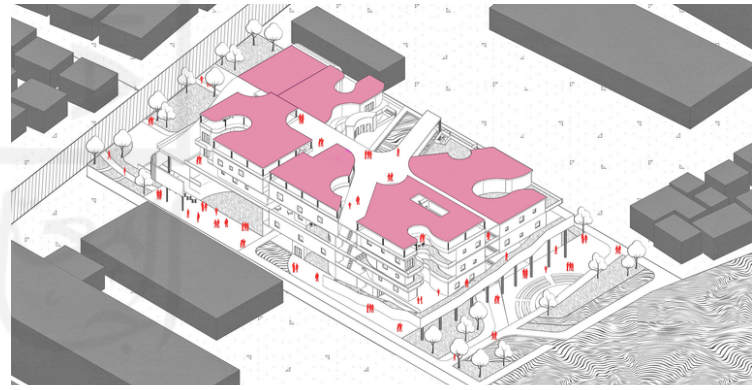




Design Development Stage

HYBRID OFFICE

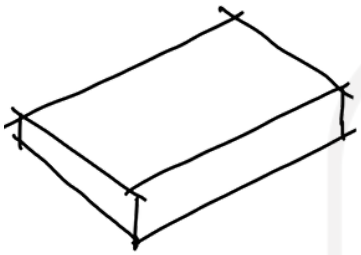




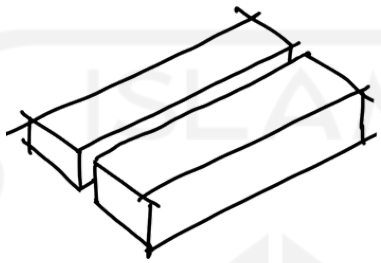
In order to change the traditional office or office design that we see today into a future office, we need to make a **transition** so it can be slowly and easily accepted by the community. We couldn't change something big immediately in terms of **habit/behavior** (context: we want to encourage people to be more active). Therefore, a hybrid concept is the best way to approach the community, to make them familiar first that they can work everywhere and flexibility is key to the success of most businesses today.

Question #3

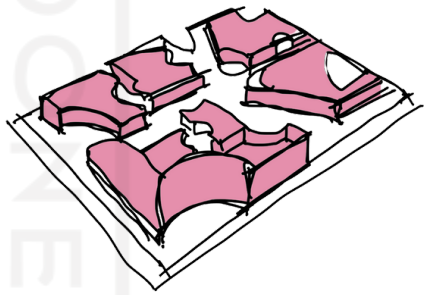
Please clarify the result of your exploration of building forms and/or interior design with aesthetic consideration.



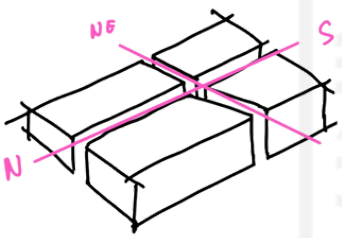
Simple box as an adaptation to the urban rigid.



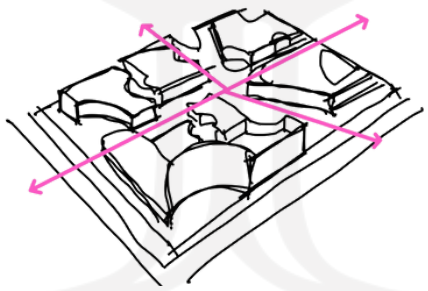
Creating a north-south axis as a circulation to maximize sea and city view that encourage movement.



Final building mass.



Adding more axis to maximize the movement.



Creating some different shape inspired by a puzzle but still following the urban rigid.



INSPIRED BY A PUZZLE

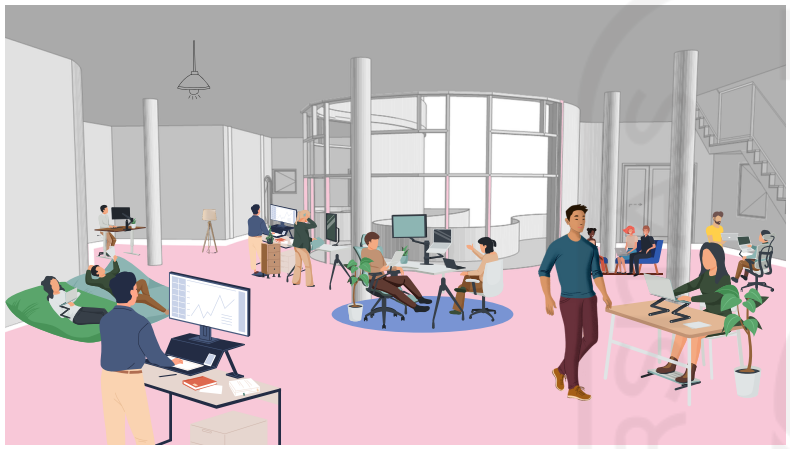
A shape variety of space encourage **movement**

(Active Design Approach)

Question #4

Please reconsider your structural concept!

The structural system and material use the concept of urban and industrial concept, therefore the column is intentionally exposed to emphasize the industrial concept.



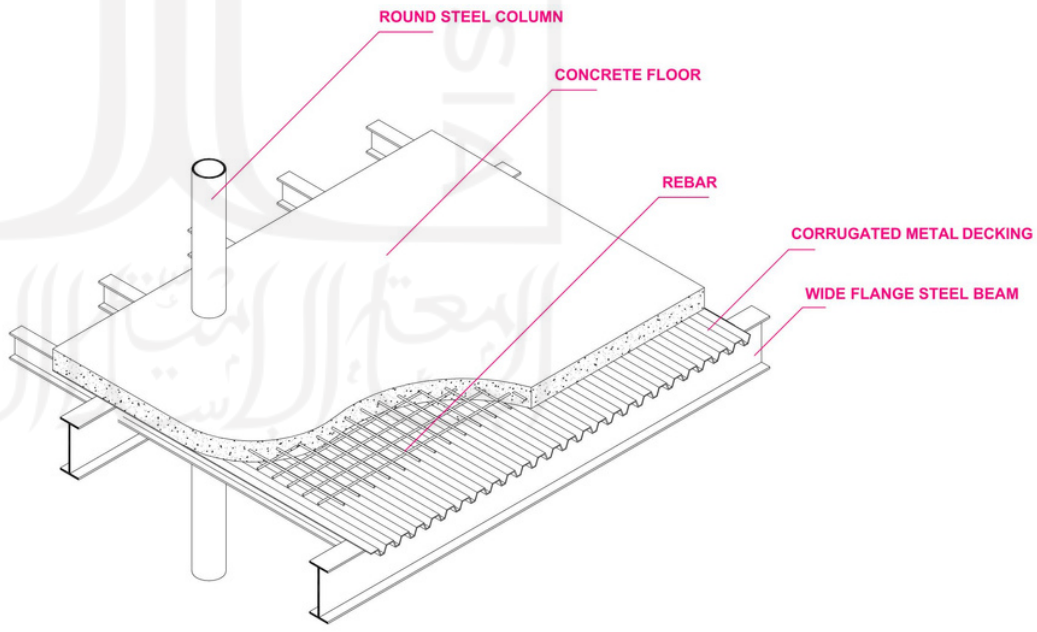


Green Concrete
Steel
Aluminum
Wood
Glass
Fritted Glass

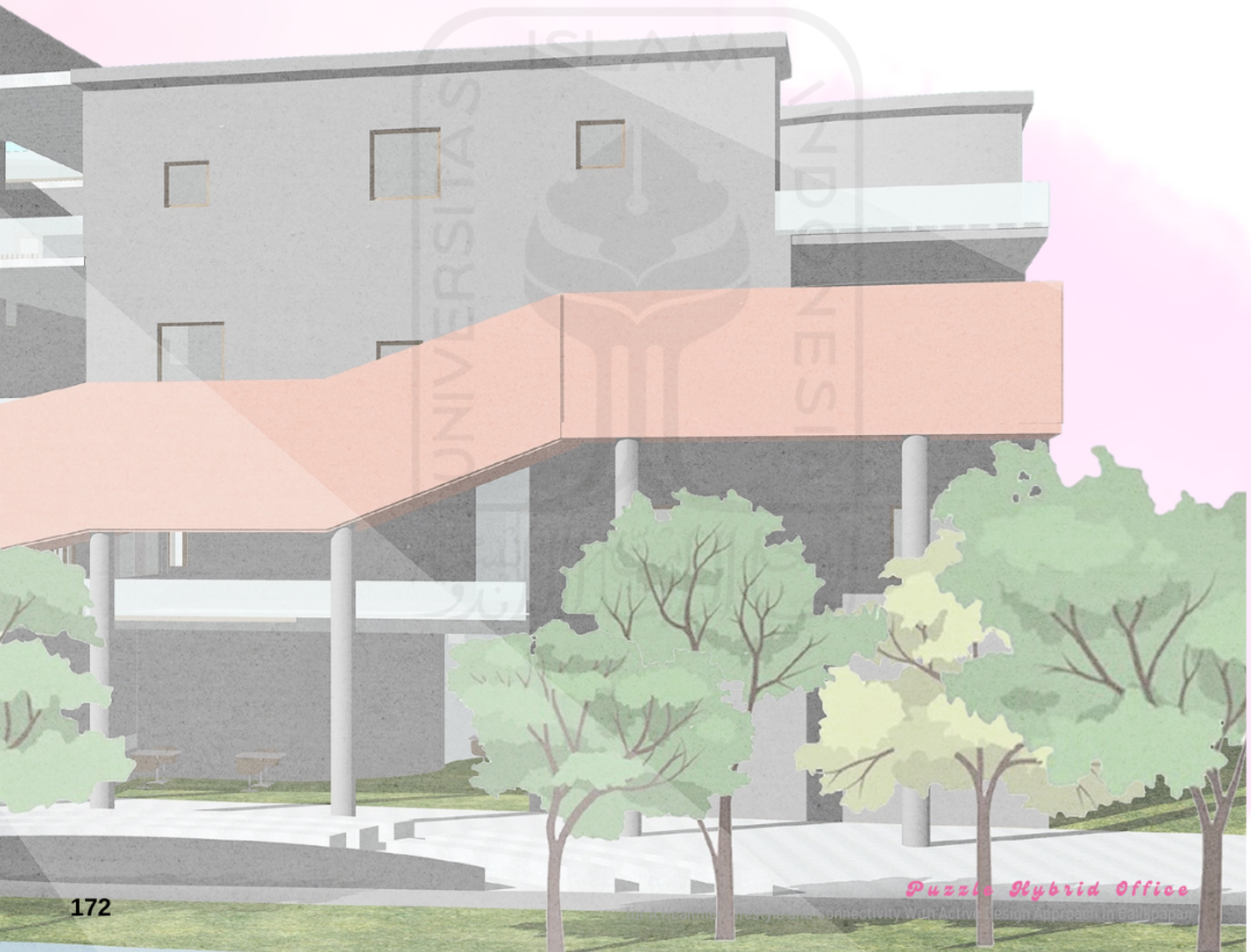
Material Palette
Source: Google








Puzzle Hybrid Office


Puzzle Hybrid Office

Reference

Barton, P. (2014). Detail in Contemporary Staircase Design.

Greene, C., & Myerson, I. (201 1). Space for thought. Designing for knowledge workers. Facilities, 29(1/2), 19-30.

Hoskins, Diane, (2014) Employees Perform Better When They Can Control Their Space. Retrieved on May 23 from https://hbr.org/2014/01/employees performbetter-when-they-can-control-their-space

Lovell, Morgan (2019). The Evolution of Office Design, Retrieved on May 20, 2019 from https://www.morganlovell.co.uk/articles/the-evolution of office design/

Pochepan, Jeff. (2018) The Open plan office is a disaster, Retrieved on May 24, 2019 from https://www.chicagotribune.com/business/success/inc/tca-the-open-ollice-plan-is-backfiring-20180220-story.html

Wyalt, Scot. (2017) Cubicles Don't Work. How architectural design affects your brain. TEDxSeattle Youtube video,

Young, Michelle. (2012). Googleplex, Moutain View: Designing Interior Spaces at an Urban Scale, Retrieved on May 23, 2019 from https://untappedcities. com/2012/01/02/googleplex-mountainvlew-designing-Interior-spaces at an urban-scale/.

Fayard, A et al.: 2005, "Photocopiers and Water-coolers: The Affordances of Informal Interaction".

Grajewski, T: 1993, "The SAS Head Office - spatial configuration and interaction patterns"

Kuenne, C.: 2014, "The Four Key Drivers Of Growth"

Hall, E.: 1966, "The Hidden Dimension".

Heerwagen, jet al: 2004; "Collaborative Knowledge Work Environments"

Herman Miller: 2012. "What It Takes to Collaborate"

Heumann, A et al.:2014, "Digitally Designing Collaboration: Computational Approaches to Process, Practice, and Product*

Schrader, B; 2015, "Here's Why The Freelancer Economy is On The Rise"

Attachement

Puzzle Hybrid Office

Design of Hybrid Office for A Healthier Lifestyle and Connectivity with Active Design Approach

The current modern life in the city consists mostly of office work- sitting for hours in the same position, in front of a computer screen which resulting in an increasing trend of sedentary behavior in the office. At first glance, we might assume that this sedentary behavior is unlikely to be a dangerous or unhealthy way of life. In fact, this kind of lifestyle can lead to serious consequences on the body, especially for muscles, spine, productivity and work performance. Puzzle Hybrid Office is a rental office of tomorrow which able to adapt to the changes of business practices and be able to integrate at the urban level, catering a new workforce of employees that is much more about independence and self-driven personality and encouraging physical activity through an inviting affordance principle. Using a hybrid concept in which the office as a second home for the employees that focuses on flexibility and wellbeing. Rather than build as many units as possible given the site area, the building aimed to produce spaces and an atmosphere where people not only work but also enjoy living and spending lots of time in the building

Blends smoothly into the urban rigid.

Simple box as an adaptation to the urban rigid.

Creating a north-south axis as a circulation to maximize sea and city view that encourage movement.

Adding more axis to maximize the movement.

Creating some different shape inspired by a puzzle but still following the urban rigid.

Final building mass.

INSPIRED BY A PUZZLE

A shape variety of space encourage movement

(Active Design Approach)

Grid + Ground | Building Mass | Connectivity Points | Circulation *(north-south axis)*

INSIDE-OUTSIDE REPETITION OF FORM | A SENSE OF PLAY WORK ENVIRONMENT

TYPE C RENTAL OFFICE

Antasena, Lesmana, Agastya, Narashoma, Bharata

TYPE B RENTAL OFFICE

Bhima, Rama, Bisma, Bimasena, Aswatama

TYPE A RENTAL OFFICE

Arjuna, Kala, Narayana, Wisesa



Department of Architecture | Student: Dinda Divamba Yoel K | 18512173 | Supervisor: Arif Budi Sholihah, S.T., M.Sc., Ph.D | Jury: Putu Ayu Agustiananda, S.T, M.A.Dr-Ing, Prof. Noor Cholis Idham, ST., M.Arch., Ph.D

Background

Sedentary Behavior and Office Syndrome

Sedentary behavior causes "Office Syndrome"; pain and soreness in the spine or muscles caused by sitting or remaining in the same position for long periods of time,

Traditional office culture

"Office life has always been only about work and focusing on the task, but forget about the enjoyment of life, the benefits of collaboration, and health."

The New Independent Workforce

In the current business concept, the concept of trade in goods and services is moving from industrialization and repetition to being completely customization and personalization. As the culture changes, the people also change. Flexibility is key to the success of most businesses today.

Economic Growth of Balikpapan

3%

Economic growth encourages new businesses and company growth so it's important to have a comfortable workspace which able to meet their needs.

Site Location



Design Concept

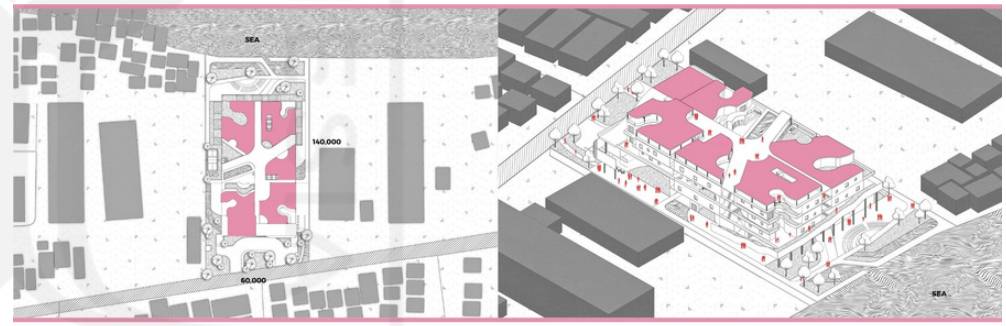
Hybrid Office

Hybrid office is an office concept that becomes a second home for employees. A sense of comfort and flexibility in working is a target that the company wants to achieve for its employees.

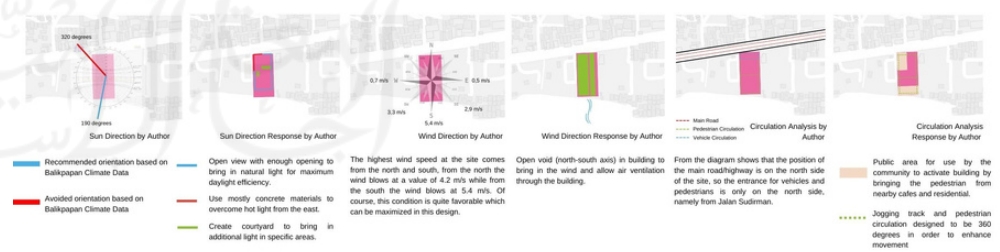
Physical Movement | Visual Connectivity | Physical Connectivity

Active Design Approach

- Room Programming, Massing → *Flexibility and Adaptability*: Hybrid rental office which able to **adapt to the changes of business practices** and be able to integrate with the public through creating programs such as co-working space, auditoriums, and F&B. And also, catering a new workforce of employees that is much more about independence and self-driven personality.
- Circulation → *Movement*: Hybrid rental office that is encourages physical activity through an inviting interior elements such as exercise tools, pathway, and furniture design. And also, exploring how people make a better decision for health through the concept of **"inviting affordance"**
- Interior Element, Landscape → *Concentration and Collaboration*: Hybrid rental office that is more socially engaging space that would aids in the creativity through informal interactions, physical connectivity, visual connectivity, and information connectivity.



Site Analysis



Recommended orientation based on Balikpapan Climate Data

Avoided orientation based on Balikpapan Climate Data

Open view with enough opening to bring in natural light for maximum daylight efficiency.

Use mostly concrete materials to overcome hot light from the east.

Create courtyard to bring in additional light in specific areas.

The highest wind speed at the site comes from the north and south, from the north the wind blows at a value of 4.2 m/s while from the south the wind blows at 5.4 m/s. Of course, this condition is quite favorable which can be maximized in this design.

Open void (north-south axis) in building to bring in the wind and allow air ventilation through the building.

From the diagram shows that the position of the main road/highway is on the north side of the site, so the entrance for vehicles and pedestrians is only on the north side, namely from Jalan Sudirman.

Public area for use by the community to activate building by bringing the pedestrian from nearby cafes and residential.

Jogging track and pedestrian circulation designed to be 360 degrees in order to enhance movement

Building Codes

BCR	FAR	GCR	GSB
70%	1.4	20%	5m

Department of Architecture | Student: Dinda Divamba Yoel K | 18512173 | Supervisor: Arif Budi Sholihah, S.T., M.Sc., Ph.D | Jury: Putu Ayu Agustiananda, S.T, M.A.Dr-Ing, Prof. Noor Cholis Idham, ST., M.Arch., Ph.D

Attachement

Active Desugn in Office Building

Research by Eric van der Burg

Routes

PROVIDE (VISUAL) CONNECTIONS BETWEEN FLOORS
1.02 2.01 3.04
1.10 2.02
1.11 2.08
1.18 2.09
1.21 2.11

ENHANCE THE SENSORY APPEAL OF ROUTES
1.02 2.01
1.10 2.14
1.16
1.18
1.22

ENSURE STAIRWELLS ARE TRANSPARENT AND ATTRACTIVE
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

COMBINE VERTICAL & HORIZONTAL ROUTES
1.02 2.11 3.04
1.10 2.12
1.12
1.16
1.21

Destination

STIMULATE THE MOBILE WORKPLACE
1.08 2.01 3.01 4.04
1.11 2.02 3.02
1.15 2.04 3.06
1.20 2.08 3.07
2.14 3.08

PROVIDE SPACES FOR RESTING
1.02 2.11 3.04
1.10 2.12
1.12
1.16
1.21

INTRODUCE A VARIETY OF ATMOSPHERES
1.01 2.01 3.01 3.07
1.10 2.02 3.06
1.11 2.04
1.16 2.08
1.18 2.13

COMBINE FUNCTIONS TO CREATE SOCIAL SPACES
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

CENTRALIZE FUNCTIONS
2.08
2.12
2.13

Activity

ENCOURAGE EMPLOYEES TO CYCLE TO WORK
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

ENCOURAGE THE ACTIVE POSTURE
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

ENSURE THAT EMPLOYEES CAN TAKE A SHOWER
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

PROVIDE VISUAL INFORMATION
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

MAKE ACTIVITY SPACES ATTRACTIVE AND VISIBLE
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

Surrounding

MAKE ENTRANCES NUMEROUS AND TRANSPARENT
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

AVOID EMPTY LOTS AFTER OFFICE HOURS
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

INTRODUCE ATTRACTIVE URBAN FUNCTIONS
1.01 2.08
1.02 2.12
1.09 2.13
1.12
1.21

Problem 1: How to design an office that encourages people to be more active and make the active choice is the easy choice?

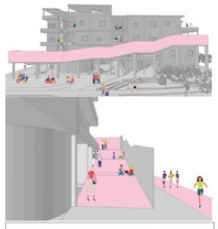
1 ENSURE STAIRWELLS ARE TRANSPARENT AND ATTRACTIVE



Combining destinations and routes by providing reading area which also function as an informal workspace in the side-stair seating.

WHY
When routes (stairs) and destinations (side stair-seating, places to relax, read, work informally) collaborate, people are more likely to use stairs. Because to be able to sit in the side-stair seating, they have to go through the stairs, so that without realizing it people will use the stairs more often in order to get to the side-stair seating.

2 STIMULATE THE MOBILE WORKPLACE



Inviting Informal Workspace which connect first floor, second floor, to third floor.

Laptop instead of a desktop workstation to gives them more freedom to find suitable working environments and/or positions.

WHY
People will have more freedom on how the want to conduct their working hours and the unique configuration will encourage movement between the workspaces.

3 ENCOURAGE EMPLOYEES TO CYCLE TO WORK



Provide a sheltered and secure bicycle parking area

Provide e-bike connection

WHY
The existence of a sheltered and secure bicycle parking area will encourage people to cycle to work

4 ENCOURAGE THE ACTIVE POSTURE



HOW
Provide an ergonomic furnitures including excercise equipment:
- standing desk (adjustable desk)
- treadmill desk
- balance ball chair
- resistance chair
- balance board
- under desk elliptical
- mini exercise bike
- yoga mats

WHY
People will have more freedom, work become fun because they have many options on how to conduct their working hours.

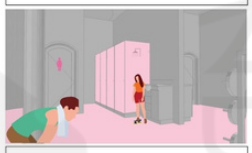


DEPARTMENT of ARCHITECTURE
Student: Dinda Divamba Yoel K | 18512173
Supervisor: Arif Budi Sholihah, S.T., M.Sc., Ph.D
Jury: Putu Ayu Agustiananda, S.T, M.A.Dr-Ing
Prof. Noor Cholis Idham, ST., M.Arch., Ph.D

5 ENSURE EMPLOYEES CAN DO WORKOUT AND TAKE A SHOWER IN THE OFFICE



Provide gym and wellness center facilities



Provide Changing rooms & showers

WHY
People will consider their lunch break time to do workout because the building provide post-workout facilites.

6 PROVIDE VISUAL INFORMATION



Provide the information of the availability of sports, wellness center, and public workspace facilities in some of areas of the building.



WHY
To attract people, partners, and community near the office to be more active as well, we need to provide a digital information so they will know that there is a public facilites that is very beneficial to them.

7 ENHANCE THE SENSORY APPEAL OF ROUTES



Daylight in the circulation and vertical transportation will attract people.



Informal Workspace
(Polycarbonate transparent material)

Informal workspace with a good view (sea view) will encourage people to use the facility.

8 COMBINE VERTICAL & HORIZONTAL ROUTES



Rich and rewarding experience routes, visual and physical connections between horizontal and vertical routes by providing Informal Workspace which also function as a vertical transportation



North-South Axis circulation to provide both sea view and city view as far as they eyes an see, this kind of circulation will encourage movement.

9 MAKE ENTRANCES NUMEROUS AND TRANSPARENT



Open façade and open lobby will encourage movement between interior and exterior.

10 ENSURE THE BUILDING COLOR IS ATTRACTIVE



Attractive color coordination will encourage movement between each function.

WHY
Different colors and shapes in different facilities will encourage movement between each function.



DEPARTMENT of ARCHITECTURE
Student: Dinda Divamba Yoel K | 18512173
Supervisor: Arif Budi Sholihah, S.T., M.Sc., Ph.D
Jury: Putu Ayu Agustiananda, S.T, M.A.Dr-Ing
Prof. Noor Cholis Idham, ST., M.Arch., Ph.D

Attachement

Problem 2 : How to design a space programs and circulation that increase the value of connectivity (informal interactions) and collaboration which encourage the discussion and generation of new ideas among co-workers?

1 ADD UNIQUE COLLECTIVE PROGRAM & CENTRALIZED FUNCTION



Projection room, game room, and printing room in one area to connect people from different company in order to encourage more informal interactions and collaborations.



A centralized and comfortable break room complete with kitchen and coffee-making facilities.

WHY
A centralized function will encourage informal interactions between employees not only in the same division but also with a different division, and hopefully will create more collaborative conversation and ideas,

2 MAKE A VISUAL CONNECTION



The visual connection between floors with a good view.



A visual connection in the building with natural light

WHY
In order to achieve connectivity and informal meeting between users to exchange ideas, the circulation and visual connection is designed to be transparent.

3 PROVIDE PUBLIC SPACES FOR RELAX



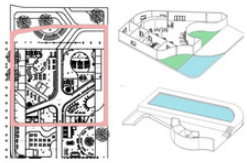
Break room or relaxation room with greenery, peaceful acoustics, natural light, and fresh air.



Public space for relaxing in the back side of the building with a sea view and peaceful acoustic.

WHY
Green area as a courtyard area will provide both informal interations between employees and also provide a good view. A good view will encourage movement.

4 INTRODUCE ATTRACTIVE URBAN FUNCTIONS



Introducing public program by adding a jogging track that surround the building and pass the beach. This stimulates diversity at the urban level, it provides a destination for physical activity, and it adds social value to the surrounding area.

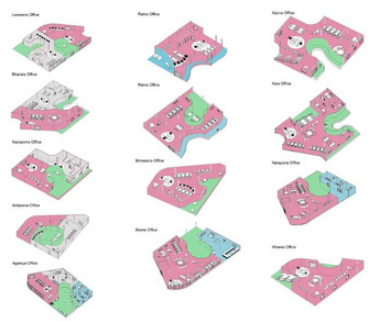
Provide wellness center & outdoor sports for public

WHY
Inviting community is important in order to stimulates diversity at the urban level, it provides a destination for physical activity, and it adds social value to the surrounding area.

Problem 3: How to design a space programs and circulation that increase the value of connectivity (informal interactions) and collaboration which encourage the discussion and generation of new ideas among co-workers?

1 INTRODUCE A VARIETY OF ATMOSPHERES

Variety of atmosphere, different types of interior design that is playful.



WHY
Attractive and different kinds of shapes for different programs will encourage movement between each function.

2 PLACE AUXILIARY FUNCTION ALONG ROUTES

Ensure that routes are programmed with auxiliary functions to encourage short breaks and walks.

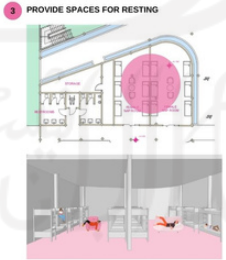


Coffee corners within comfortable walking distance of each other and the workplace.



Main circulation which pass through a lounge encourages short breaks and informal interactions.

3 PROVIDE SPACES FOR RESTING



Female Nap Room Male Nap Room

Provide room for take a nap. A short nap in the mid-afternoon can boost memory, improve job performance, lift your mood, make you more alert, and ease stress.

Sleeping in the office is not yet a common in Indonesia, while in countries such as Spain and Italy many employees take a quick snooze during a daily mid-afternoon work break. In Japan, there's the practice of inemuri (sleeping wherever, whenever), daydreaming, or sleeping - which is perceived as a sign of devotion to work that shares some blur lines with burnout and exhaustion.

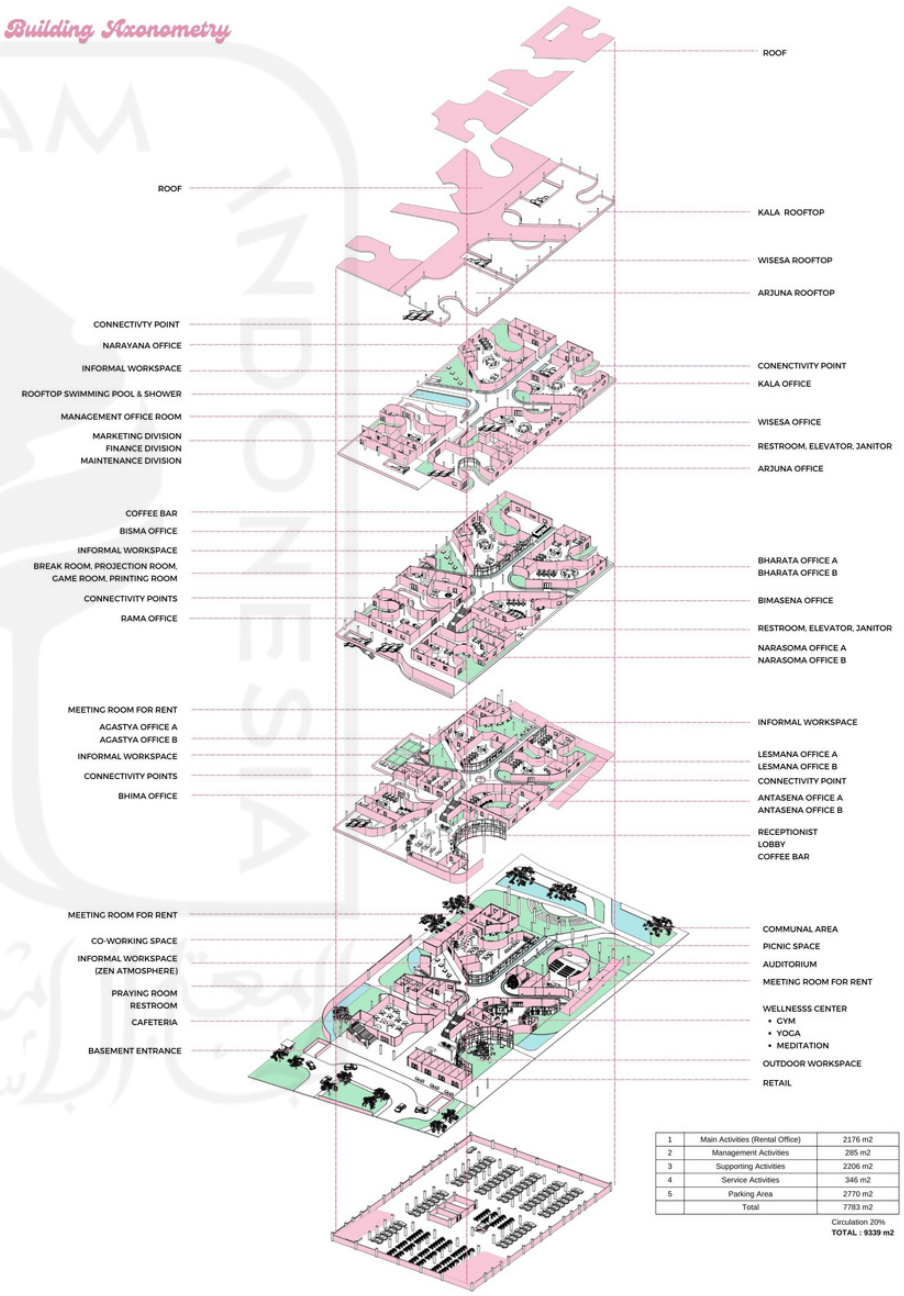
DEPARTMENT of ARCHITECTURE

Student: **Dinda Divamba Yoel K | 18512173**

Supervisor: **Arif Budi Sholihah, S.T., M.Sc., Ph.D**

Jury: **Putu Ayu Agustiananda, S.T, M.A.Dr-Ing**
Prof. Noor Cholis Idham, ST., M.Arch., Ph.D

Building Axonometry



1	Main Activities (Rental Office)	2176 m2
2	Management Activities	285 m2
3	Supporting Activities	2206 m2
4	Service Activities	346 m2
5	Parking Area	2770 m2
	Total	7783 m2

Circulation 20%
TOTAL : 9339 m2

DEPARTMENT of ARCHITECTURE

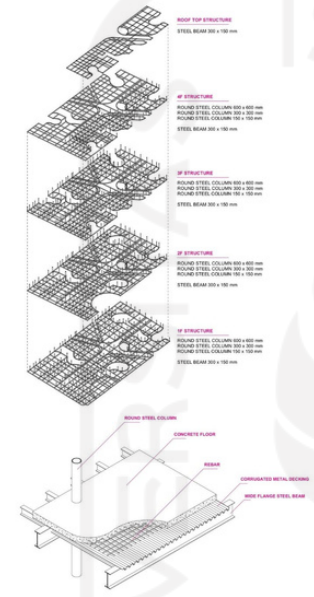
Student: **Dinda Divamba Yoel K | 18512173**

Supervisor: **Arif Budi Sholihah, S.T., M.Sc., Ph.D**

Jury: **Putu Ayu Agustiananda, S.T, M.A.Dr-Ing**
Prof. Noor Cholis Idham, ST., M.Arch., Ph.D

Attachement

Building Structure



Investment Feasibility

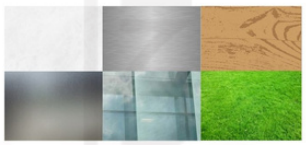
CONSTRUCTION COST ESTIMATION

NO	WORK	area (m2)		PRICE / m2	total PRICE
A	preliminaries COST				
1	Land purchase	7,200.0	M2	IDR 2,000,000.00	IDR 14,400,000,000.00
2	Preparatory Work	7,200.0	M2	IDR 50,000.00	IDR 360,000,000.00
					IDR 14,760,000,000.00
B	BUILDING CONSTRUCTION COST				
1	Architectural Work	5,760.0	M2	IDR 200,000.00	IDR 1,152,000,000.00
					IDR 1,152,000,000.00
C	INFRASTRUCTURE & UTILITY COSTS				
1	MEP work	291.6	M2	IDR 100,000.00	IDR 29,160,000.00
2	Utility Installation	77.0	Unit	IDR 100,000.00	IDR 7,700,000.00
					IDR 36,860,000.00
D	Permit COSTS				
1	Land & Environmental Permit	7,200.0	M2	IDR 50,000.00	IDR 360,000,000.00
2	Building Permit	5,040.0	M2	IDR 100,000.00	IDR 504,000,000.00
					IDR 864,000,000.00
E	MARKETING COSTS				
1	Marketing Management	1.50%		IDR 17,280,000.00	IDR 259,200.00
					IDR 259,200.00
					IDR 16,813,119,200.00
	costs per m2	7,200.0	M2	IDR 16,813,119,200.00	IDR 2,335,155.44

INVESTMENT FEASIBILITY OF COMMERCIAL SPACE RENTAL BUSINESS

	Capacity	Quantity	Halfday (6h)	Fullboard (12h)	Monthly	Yearly	PRICE
Office Type A	70 Pax	4 Unit	NA	NA	100,000,000.00	1,200,000,000.00	1,200,000,000.00
Office Type B	40 Pax	6 Unit	NA	NA	90,000,000.00	1,080,000,000.00	1,080,000,000.00
Office Type C	25 Pax	12 Unit	NA	NA	120,000,000.00	1,440,000,000.00	1,440,000,000.00
Meeting Room Type A (Small Office)	12 Pax	10 Unit	350,000	600,000	30,000,000.00	360,000,000.00	360,000,000.00
Meeting Room Type B (Small Office)	8 Pax	10 Unit	250,000	400,000	20,000,000.00	240,000,000.00	240,000,000.00
Retail	6m2	8 Unit	NA	NA	8,000,000.00	96,000,000.00	96,000,000.00
Community Club Membership		150 Pax	NA	NA	22,500,000.00	270,000,000.00	270,000,000.00
Income per year							4,686,000,000.00
Property Management COSTS		50 Unit			50,000.00	600,000.00	30,000,000.00
UTILITY COSTS		2%					93,120,000.00
profit							4,562,880,000.00
Insurance		0.10%				4,562,880.00	4,562,880.00
Tax		0.50%				23,430,000.00	23,430,000.00
Manager		0.50%				23,280,000.00	23,280,000.00
After-tax profit							4,511,607,120.00
Investment							IDR 16,813,119,200.00
return on investment (year)							3.7

URBAN AND INDUSTRIAL CONCEPT



Green Concrete
Steel
Aluminum
Wood
Glass
Fritted Glass

Design Strategy

Concept	⟷	Design Strategy
Physical Activity	⟷	THE FOUR DOMAINS OF ACTIVE DESIGN Research by Eric van der Burg
Visual Connectivity	⟷	
Physical Connectivity	⟷	
Information Connectivity	⟷	



DEPARTMENT of ARCHITECTURE

Student:
Dinda Divamba Yoel K | 18512173

Supervisor:
Arif Budi Sholihah, S.T., M.Sc., Ph.D

Plagiarism Result

Direktorat Perpustakaan Universitas Islam Indonesia
Gedung Moh. Hatta
Jl. Kaliurang Km 14,5 Yogyakarta 55584
T. (0274) 898444 ext.2301
F. (0274) 898444 psw.2091
E. perpustakaan@uii.ac.id
W. library.uii.ac.id

SURAT KETERANGAN HASIL CEK PLAGIASI
Nomor: 1867149128/Perpus./10/Dir.Perpus/IV/2022

Bismillaahirrahmaanirrahiim

Assalamualaikum Wr. Wb.

Dengan ini, menerangkan Bahwa:

Nama	: Dinda Divamba Yoel K
Nomor Mahasiswa	: 18512173
Pembimbing	: Arif Budi Sholihah, S.T., M.A
Fakultas / Prodi	: Teknik Sipil dan Perencanaan/ Arsitektur
Judul Karya Ilmiah	: Design of Future Corporate Office for A Healthier Lifestyle and Connectivity Through Active Design Approach in Balikpapan Balikpapan

Karya ilmiah yang bersangkutan di atas telah melalui proses cek plagiasi menggunakan **Turnitin** dengan hasil kemiripan (*similarity*) sebesar **1 (Satu) %.**

Demikian Surat Keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Wassalamualaikum Wr. Wb.

Yogyakarta, 7/6/2022
Direktur

UNIVERSITAS ISLAM INDONESIA
DIREKTORAT PERPUSTAKAAN
YOGYAKARTA

Joko S. Prianto, SIP., M.Hum

Puzzle Hybrid Office

for A Healthier Lifestyle and Connectivity With Active Design Approach in Balikpapan