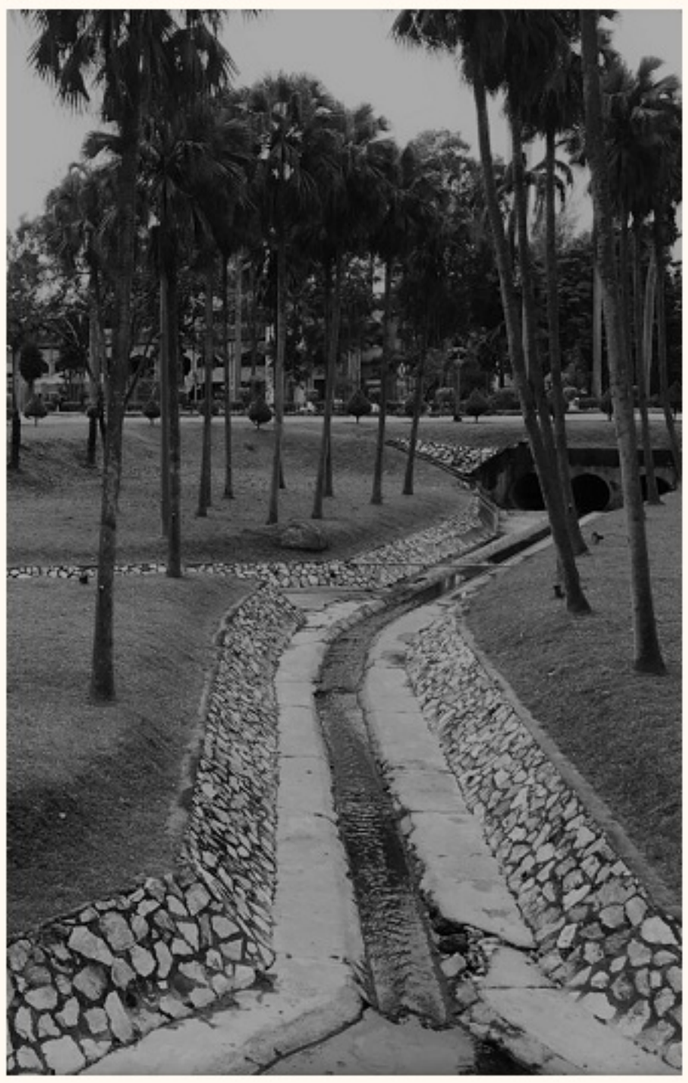
INDEPENDENT LANDSCAPE DESIGN

RIVER WITHIN CAMPUS

Rivitilization Alur Ilmu and regenerating unutilized space to a vibrant community space at Universiti Kebangsaan Malaysia.

DESIGN BY
Siti Shaveera Shadip
2017638342



CONTENT

INDEPENDENT LANDSCAPE DESIGN

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ACKNOWLEDGEMENT

INDEPENDENT LANDSCAPE DESIGN

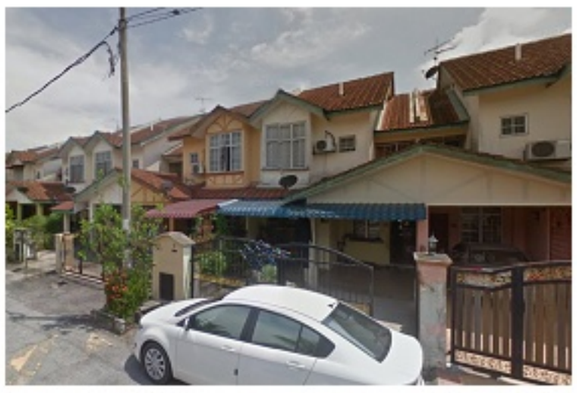
First and foremost, praises and thanks to Allah, the Almighty, for His showers of blessings throughout my final year project to complete everything successfully. I would like to express my deep and sincere gratitude to my studio master, Dr. Nur Huzeima Mohd Hussain, Dr. Siti Rasidah Md Sakip and Miss Siti Syamimi Omar for giving me the opportunity to do final year project and providing invaluable guidance throughout this semester. Their dynamism, vision, sincerity and motivation have deeply inspired me. It was a great privilege and honor to study under their guidance. I would also like to thank them for their empathy and great sense of humor. I am extending my heartfelt thanks for their acceptance and patience during the discussion I had with them on completing this final project.

My Special thanks goes to my super visor, Dr. Atikah Fukaihah Amir for the guidance and keen interest shown to me for complete this final project successfully. I am extremely grateful to my parents for their love, prayers, caring and sacrifices for educating and preparing me for my future. I would like to say thanks to my friends and colleagues for their constant encouragement, helps and genuine support throughout this final project. Finally, my thanks go to all the people who have supported me to complete the final year project directly or indirectly.

SITE INTRODUCTION

site context

1
Residential



Taman Desa Sentosa
Kampung Jeras Jernang
Kampung Sungai Tangkas
Kampung Bahagia

2
Commercial

Seksyen 15
Seksyen 3
Seksyen 16
Bandar Baru Bangi

3
Institutional

Taman Desa Sentosa
Kampung Jeras Jernang
Kampung Sungai Tangkas
Kampung Bahagia

“Every good design begins with an even better story”

site location
Universiti Kebangsaan Malaysia, Bangi, Selangor.

site acres
27 Acres

site background
Sungai Alur Ilmu is a 1.8 km waterways located at the core area of Universiti Kebangsaan Malaysia, Bangi.

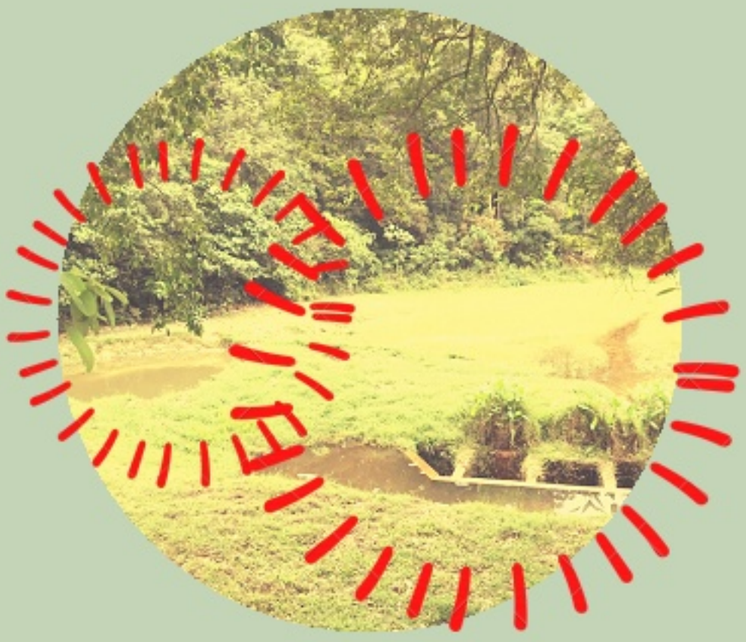
The Alur Ilmu UKM is a large storm water channel serves to store water and flows into Langat River. Originated from a hilly, forest area infront of Nuclear Science Building and flows nearby the buildings and compounds within the core area in Universiti Kebangsaan Malaysia.

PREVALANT ISSUES

DEGRADATION OF WATER QUALITY AND LIMITED OPTION OF ACTIVITY ALONG WATERWAY

physical connectivity

- Lack of space for activities caused narrow user group
- Poor condition of pedestrian, users feel unsafe and uncomfortable to use

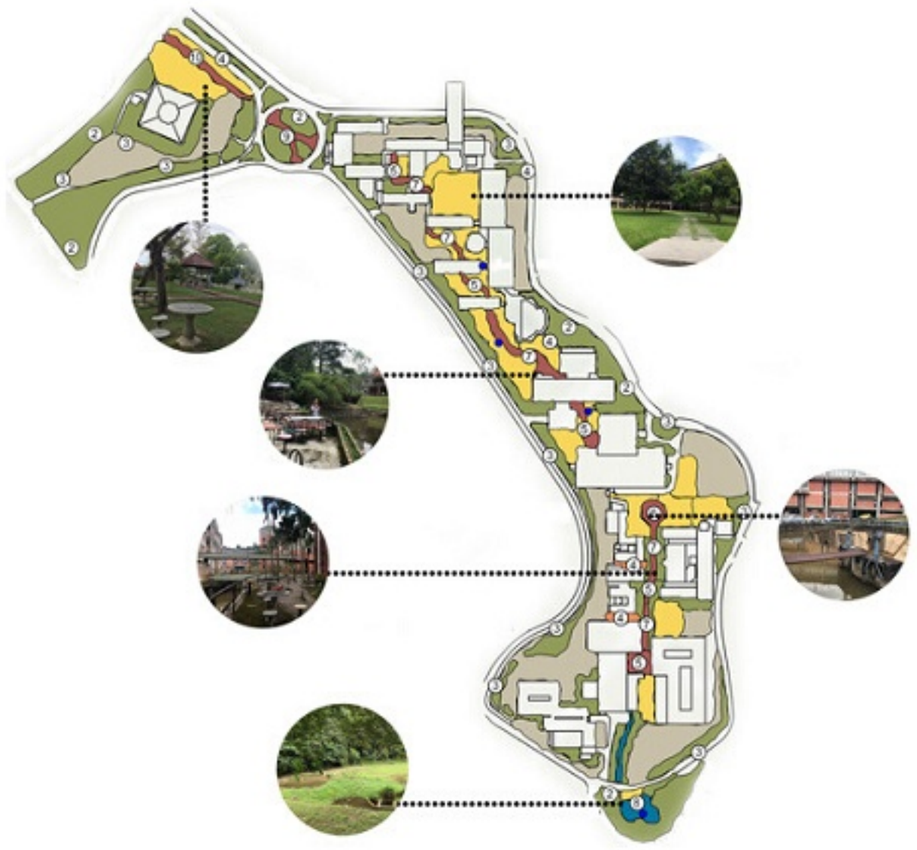


environmental water quality

- Unfunctional sediment trap caused polluted water
- Unutilized space decrease the number of users at Tasik Ghazali

sociocultural activity

- Lack of outdoor activity space caused narrow user group
- Poor condition of shaded area caused unsafe to user



polluted area

- Poor condition of sediment trap
- Poor condition of existing space along waterways caused uncomfort-able

space for community

- Poor condition of pedestrian caused user feel unsafe and uncomfortable
- Poor connectivity between spaces caused lost space

good water quality

- Exposed baresoil at Tasik Ghazali caused dirty rivebed

existing green space

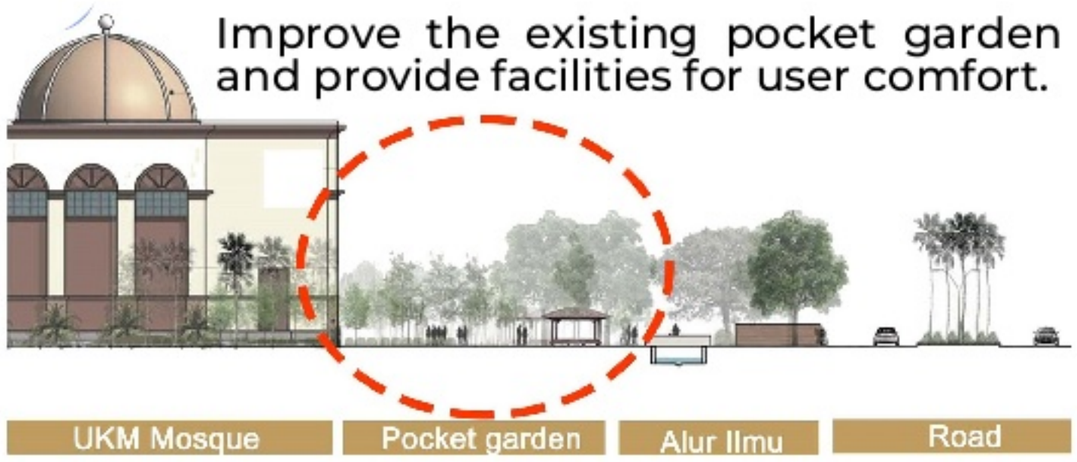
- Existing green area are not fully utilized caused lack of outdoor activity

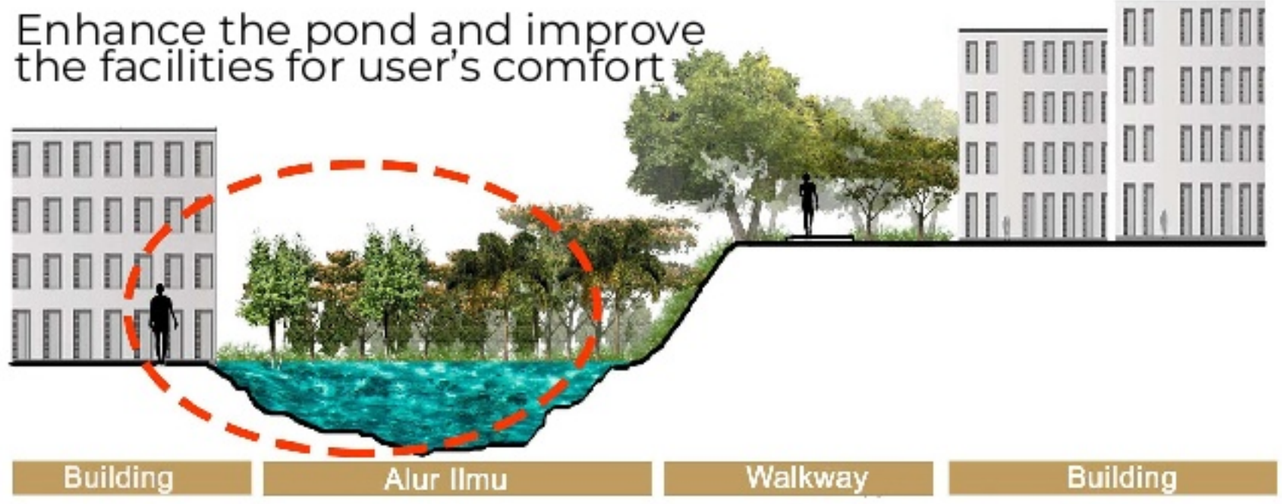
parking area

- Lack of vegetation caused hot surface

SWOT ANALYSIS

STRENGTH | WEAKNESS | OPPORTUNITY | THREAT





- Comfortabilities
- Acessibilities

Use aquatic reed plants for distilled purification and use permeable pavers to filter large and solid waste

- Comfortabilities
- Aesthetic

Implement environmentally sustainable green development

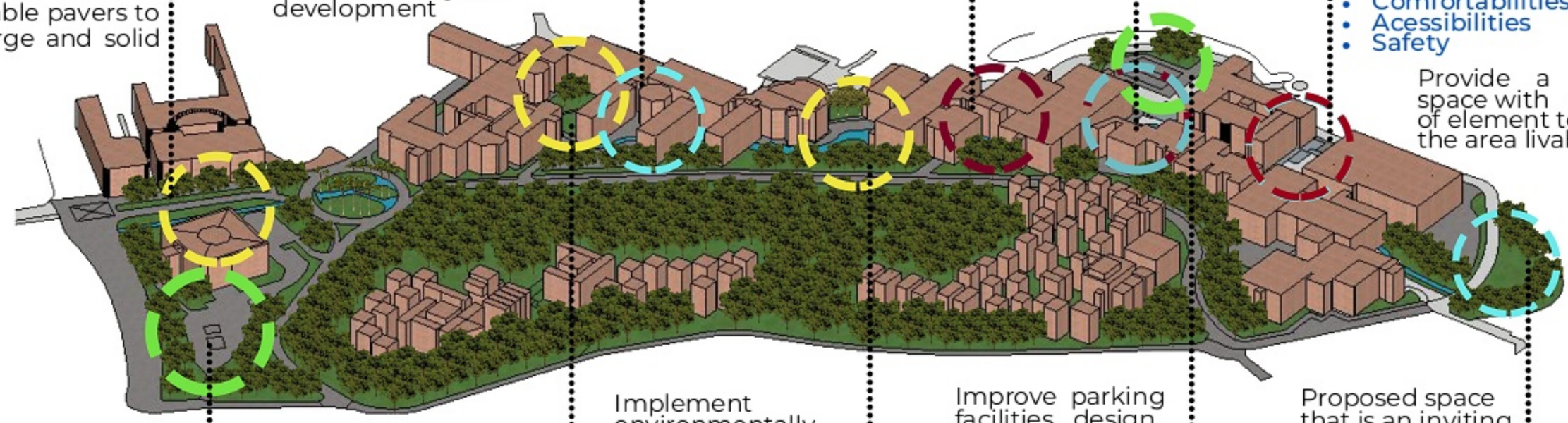
- Comfortabilities
- Acessibilities
- Aesthetic

Opportunity to renergize people's connection with water, history, and culture.

- Comfortabilities
- Acessibilities

- Comfortabilities
- Acessibilities
- Safety

Provide a good space with variety of element to make the area livable



Improve parking facilities design that giving safety and comfort to users

- Comfortabilities
- Acessibilities

Implement environmentally sustainable green development

- Comfortabilities
- Acessibilities

- Comfortabilities
- Aesthetic

Improve parking facilities design that giving safety and comfort to users

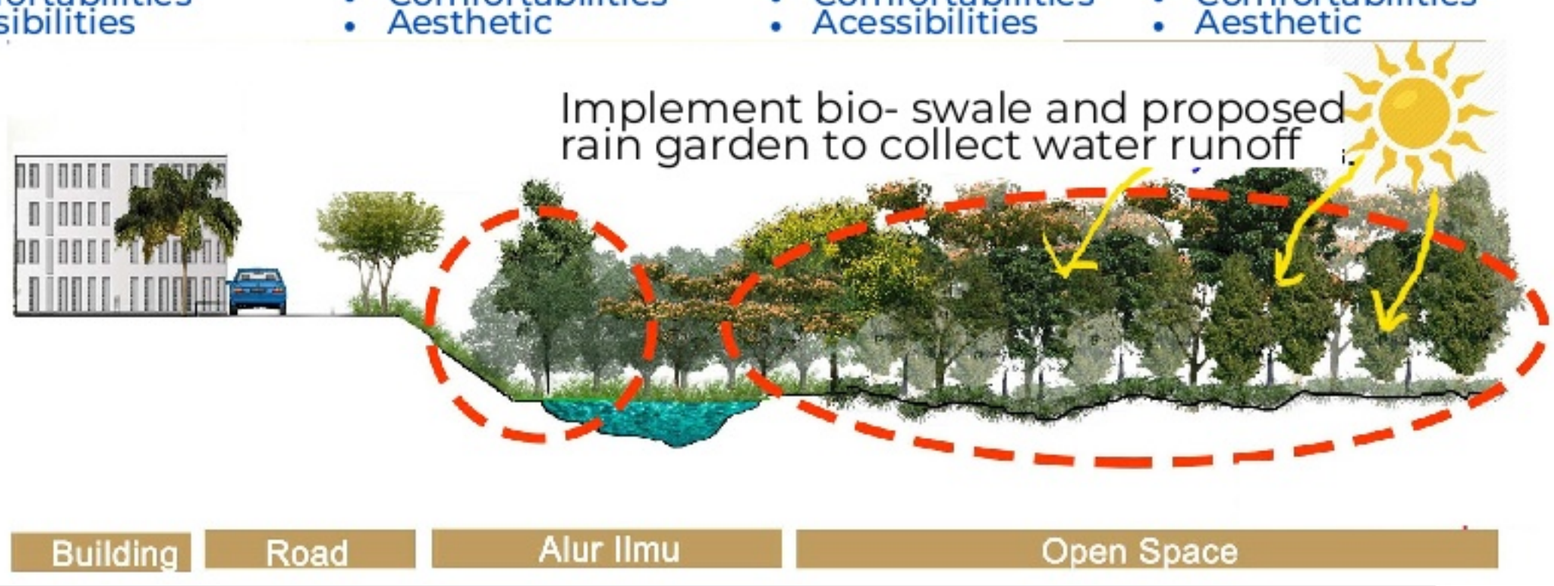
- Comfortabilities
- Acessibilities

Proposed space that is an inviting, walkable place for people

- Comfortabilities
- Aesthetic

design idea

- Proposed phytoremedation method
- Proposed wetland to improve water quality
- Improve parking facilities
- Proposed bioswale to collect water runoff
- Provide outdoor spaces to make livable area

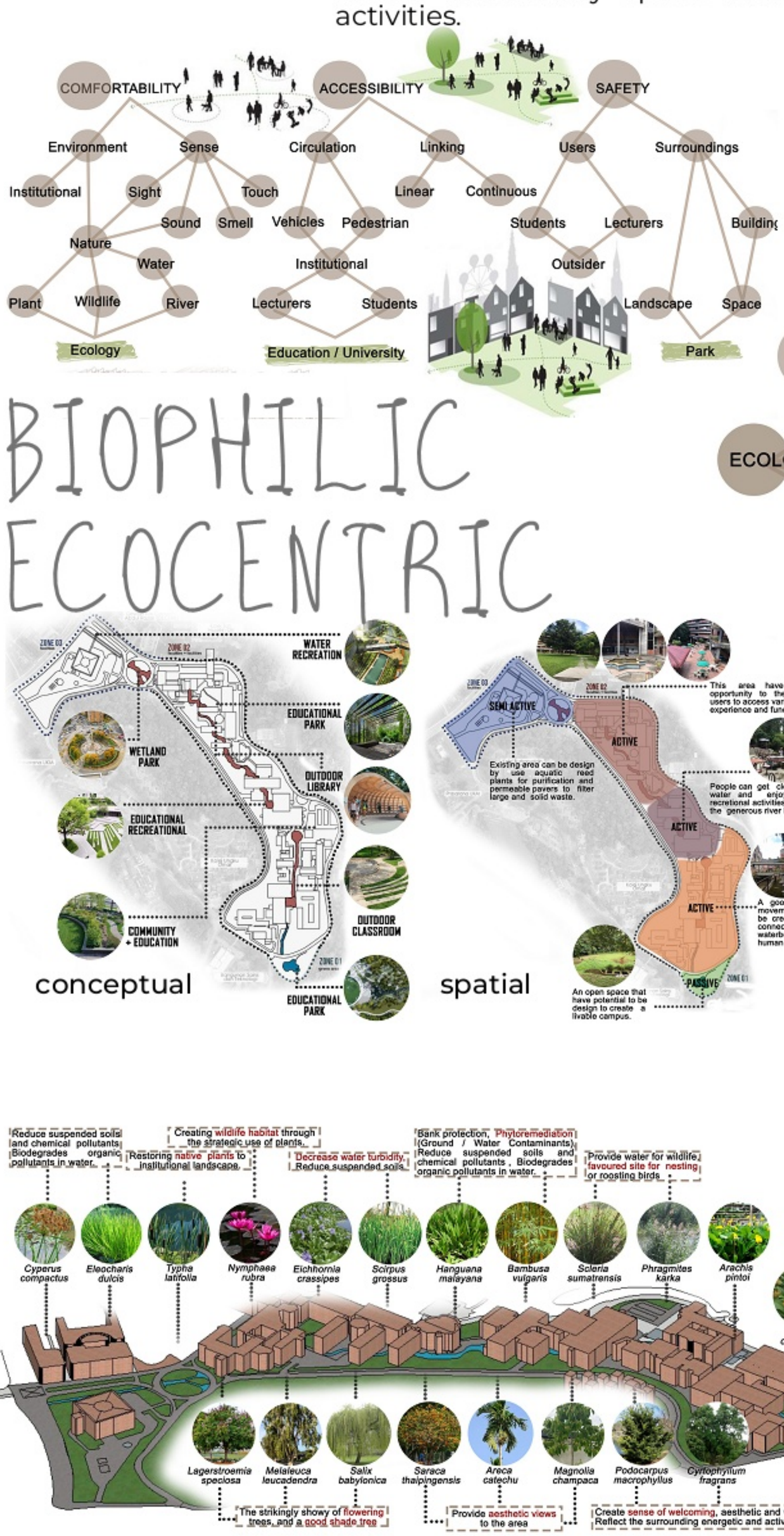


CONCEPTUAL PLAN

Towards revitalization Alur Ilmu and surrounding environment through ecologicah approach a Universiti Kebangsaan Malaysia, Bangi.

objectives

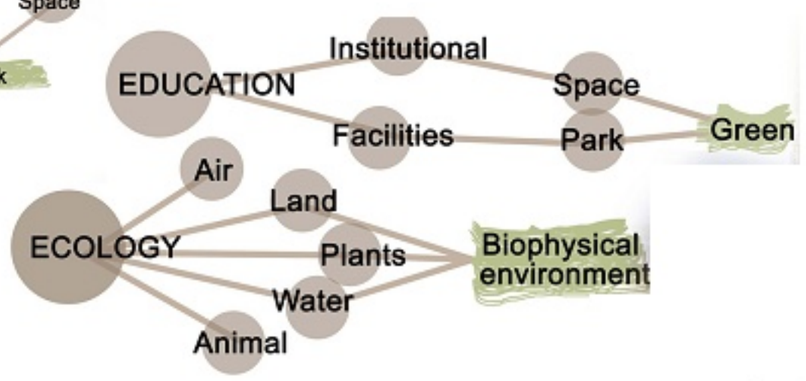
+ To provide comfort along waterways and space with human needs for the area using ecological approach.
+ To create an appealing and functional accessibilty for UKM users to enhance the communities quality of life.
+ To provide masterplan that encourage user to experience the livable community space that have safety with various of activities.



BIOPHILIC ECOCENTRIC

theme and concept

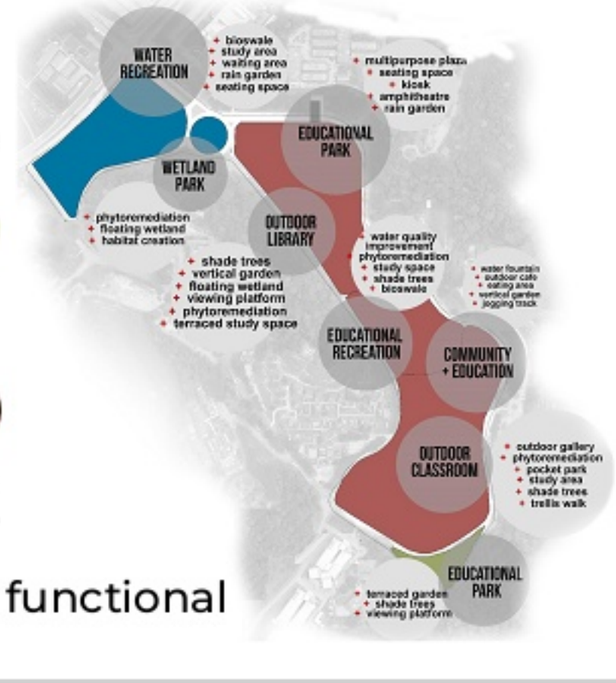
Humans have an inherited need to connect with nature and other biotic forms due to our evolutionary dependence on it for survival and personal fulfilment.



map programming

conceptual

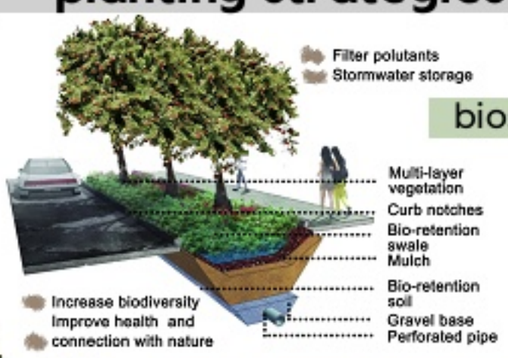
spatial



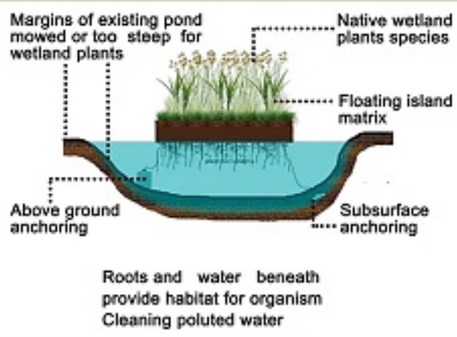
functional

planting strategies

bioswale



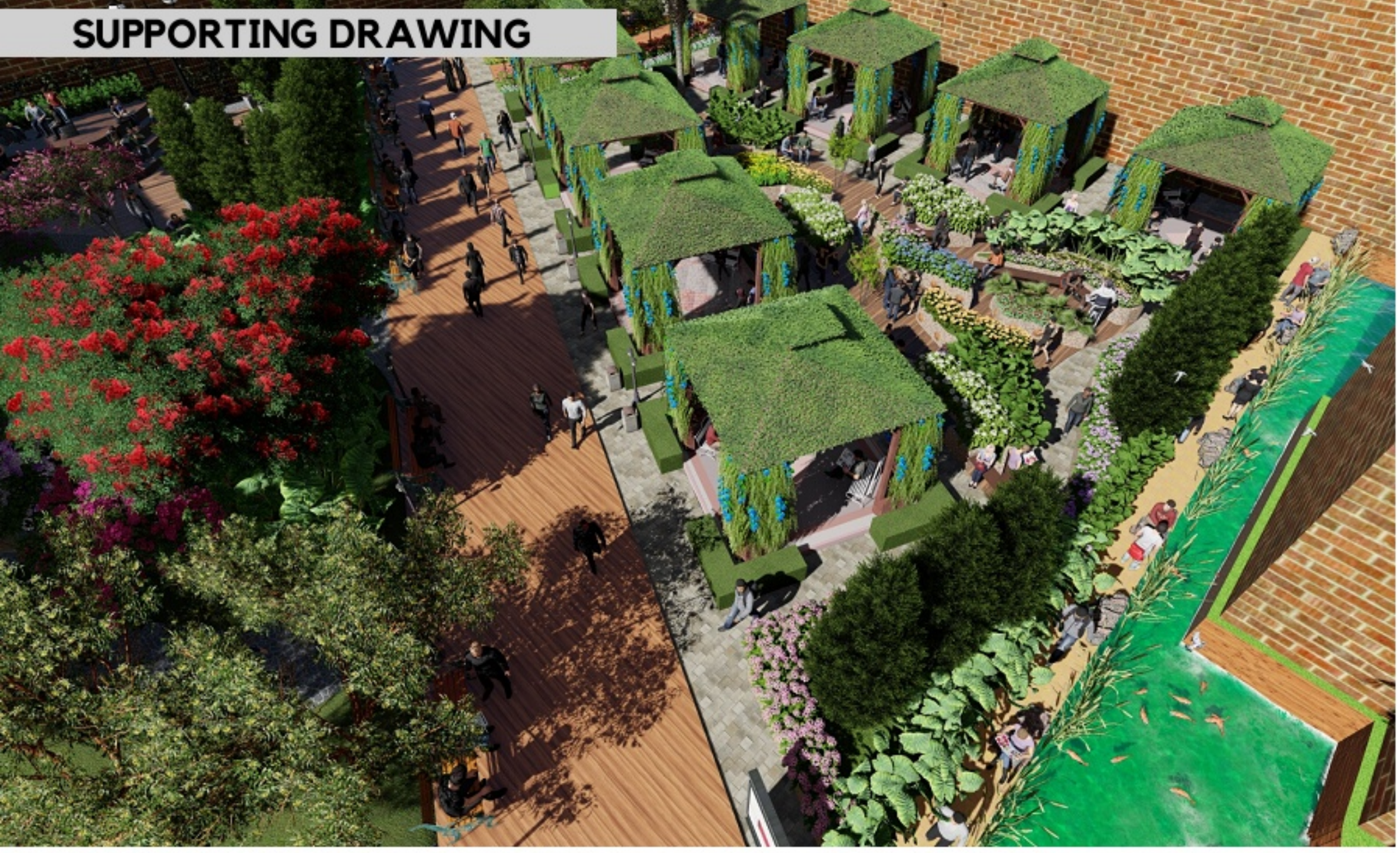
water treatment strategy



MASTER PLAN


ZONE 3
1. Main Entrance
2. Viewing Platform
3. Emphitheatre
4. Resting Area
5. Healing Garden
6. Pegola Walk
7. Scenic Garden
8. Waiting Area
9. Green Parking
10. Wetland
11. Terrace Garden
BIOPHILIC
ECOCENTRIC
KEY PLAN
SELANGOR
LOCATION PLAN
UNIVERSITI KEBANGSAAN
MALAYSIA, BANGI
THEME
ECO-EDU PARK
DESIGN GOAL
Towards revitalization Alur Ilmu and surrounding environment through ecological aproach at Universiti Kebangsaan Malaysia.
OBJECTIVES
1. To provide comfort along waterways and space with human needs for the area using ecological approach.
2. To create an appealing and functional accessibility for UKM users to enhance the communities quality of life.
3. To create habitat of river life that encourage user to experience the livable community space with nature that have safety.
ZONE 2
1. Green Parking
2. Laman Siswa
3. Emphitheatre
4. Scenic Garden
5. Courtyard
6. Outdoor Class
7. Eko-denai
8. Denai Budaya
9. Denai Ilmu
10. Terrace Garden
11. Amphitheatre
12. Picnic Area
13. Denai Seri Lanang
14. Parkir Tun Seri Lanang
15. Teres Eko-Niaga
16. Laman Terapi
17. Laman Seri Lanang
18. Taman Budi
19. Laman Ilmu
20. Parkir Denai Ilmu
21. Taman Siswa
22. Terrace Garden
23. Green Parking
SCALE 1:1250
ZONE 1
1. Wetland/Riparian Education
2. Viewing Platform
3. Nature trail
4. Boardwalk

ENLARGEMENT



OUT DOOR CLASS ROOM

This active area located in the middle of two faculties. Proposed outdoor classroom for UKM students to provide functionally as a study and associate place with comfort, aesthetic and no risk.

REFRESHING AREA

Students are most likely to enjoy and engage with environment that are flexible.

FLOWER FIELDS

Proposed variety of flowers as the colors and scents can boost energy to users.

A POND

Provide boulders along waterways for people to enjoy river view. This pond contains additional water plant that create food and shelter for fish.

RESTING AREA

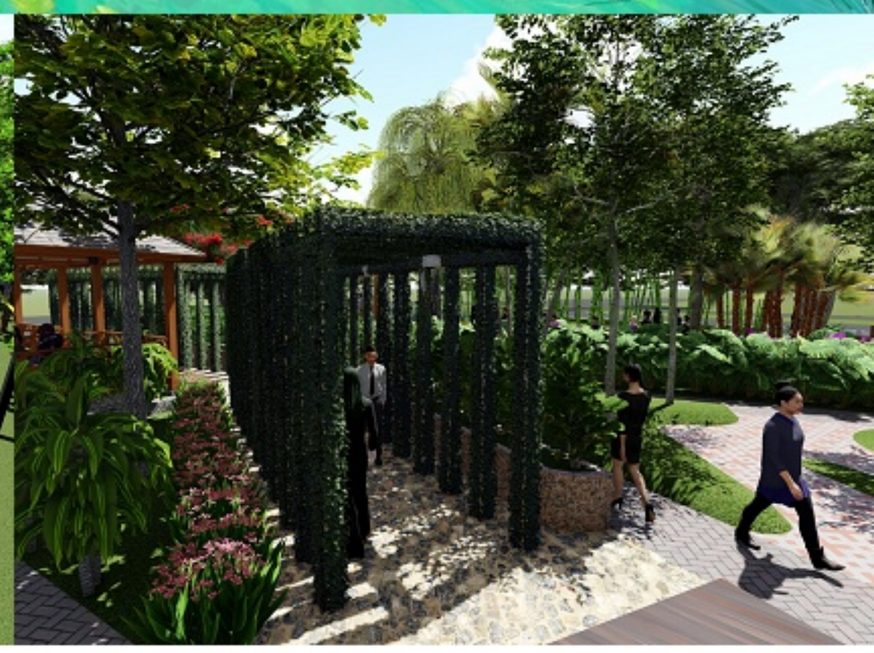
Using deck material and stone for pedestrian walk to create nature feeling. This area provide drinks for user to rest while enjoying scenery.

AMPHITHEATER

Proposed amphitheater for events and student to engage in recreational activity. This allow students to develop sense of community.

SUPPORTING DRAWING

Proposed amphitheater as a place for people to meet and interact while enjoying the nature vibes around them. Long versatile benches to encourage social engagement.



VIEWING PLATFORM

This area provide socializing space to fulfill user needs for social interaction, self-expression and retreat while enjoying river view.

OUTDOOR GYM

The addition of nature and fresh air helps exercising fun and effective. Combining natural light, exercise and sensory stimulation can reduce stress.

THE GARDEN THROUGH

Walking in green provide enjoyment feelings to users. Climbing plants provide shade for user comfort and supply habitat for birds as well.

CAMPUS COMMUNITY PARK UKM

Campus community park is located behind Masjid UKM and linked to the green UKM roundabout that provide variety of activity spaces with variety of plantings to strengthen the connection between human and nature to make the institutional livable and sustainable.

TASIK GHAZALI

Tasik Ghazali provide campus community garden for user to go outside and be active. Proposed plenty of trees and bushes that can growth a healthy ecosystem to make UKM more sustainable.

SERENITY IN GARDEN

Proposed relaxing spaces that provide outdoor patio umbrella table for people to enjoy some much-needed shade and safe from rain.

RIVERSIDE WALK

Proposed floating plant along waterways for filteration and create shelter for aquatic life. Riverside walk surround by plantings can give calm feeling and reprieve from noise.

VIEWING PLATFORM

This sunny-feel water area preserve the biodiversity and habitat for the area. Student can do recreation and get natural lights while enjoying the lake view.

TAMAN SISWA

Taman siswa provide ghatering space for UKM users to associate and study outdoor. Provide colourful shrubs to create therapeutic ambience surrounded with relaxing space.

TERES EKO-NIAGA

SUPPORTING DRAWING

Green parking and bioswale replacing conventional drainage system.

High roof shaded with sitting space for user comfort.

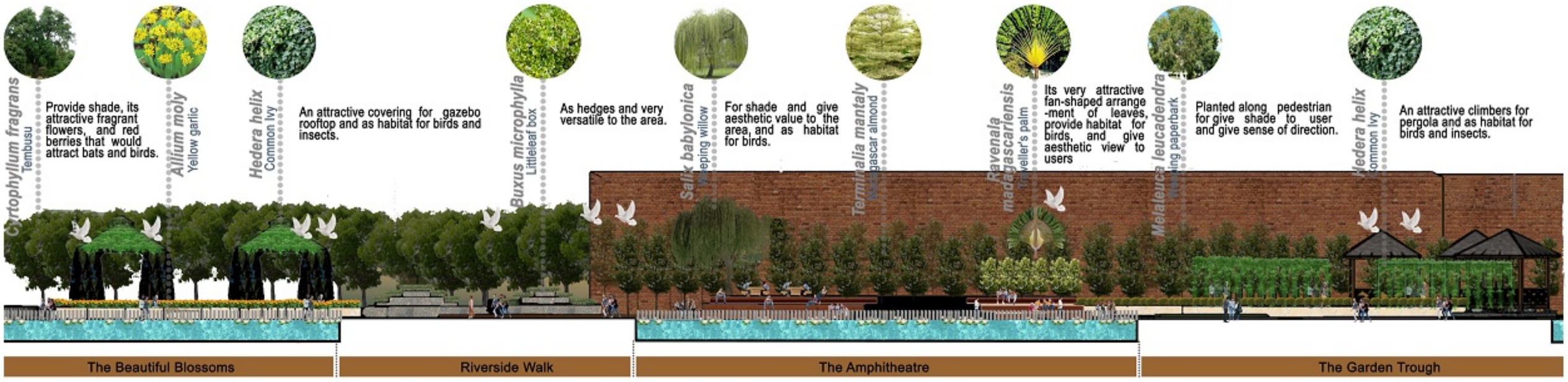
Proposed food stalls to make healthy food more accessible to UKM users.

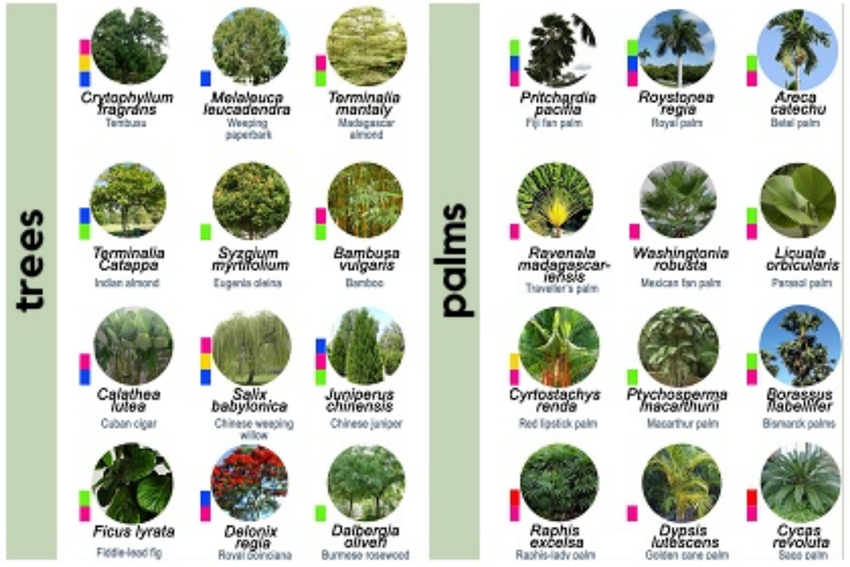
Teres Eko Niaga is the place where provide connection between UKM users and nature to make the area livable and sustainable.

Susur Harmoni as the nodes for student to associate surround waterways.

Laman Seri Lanang as the leisure area to strengthens campus community image and the sense of place.

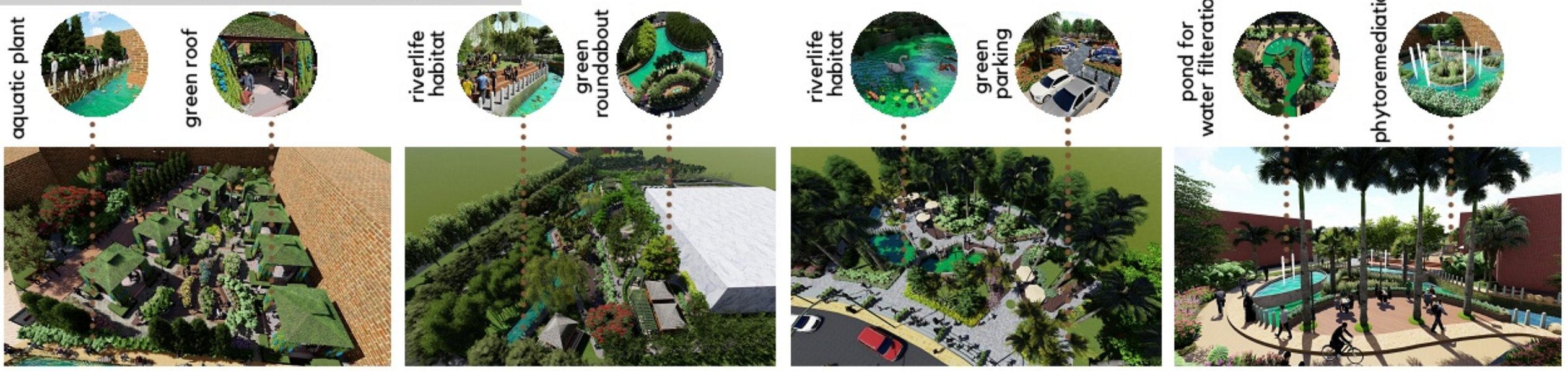
Plaza to gather for curriculum or other event activity. Provide ramps for disabled people to access.

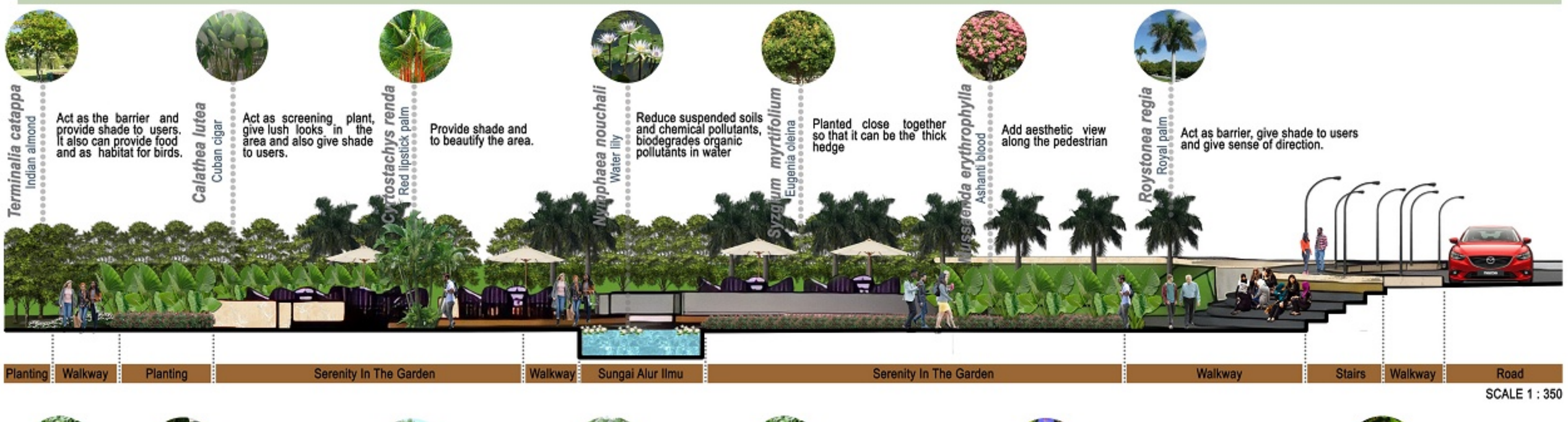




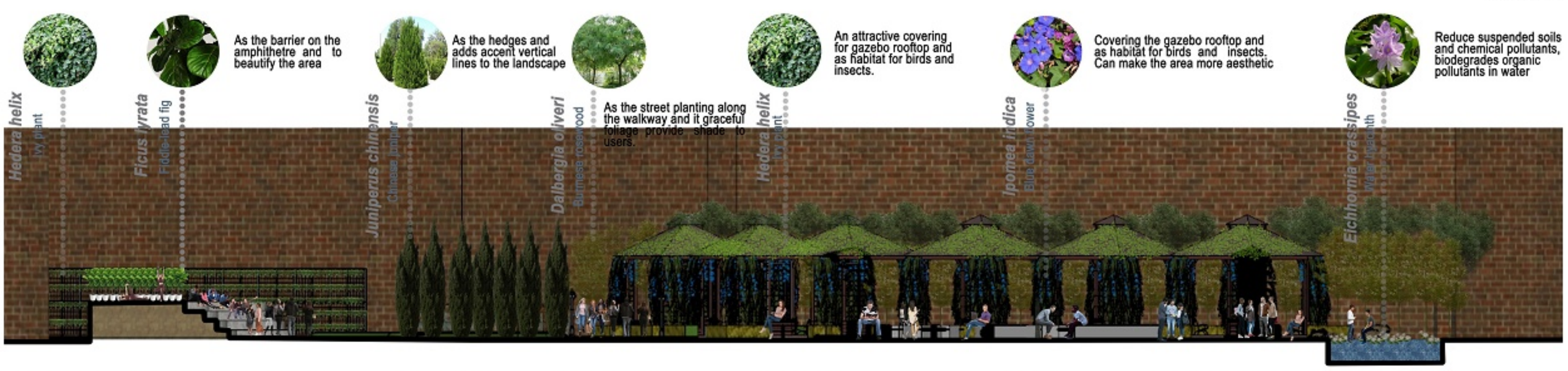
PLANTING INSPIRATION

ECOLOGICAL APPROACH



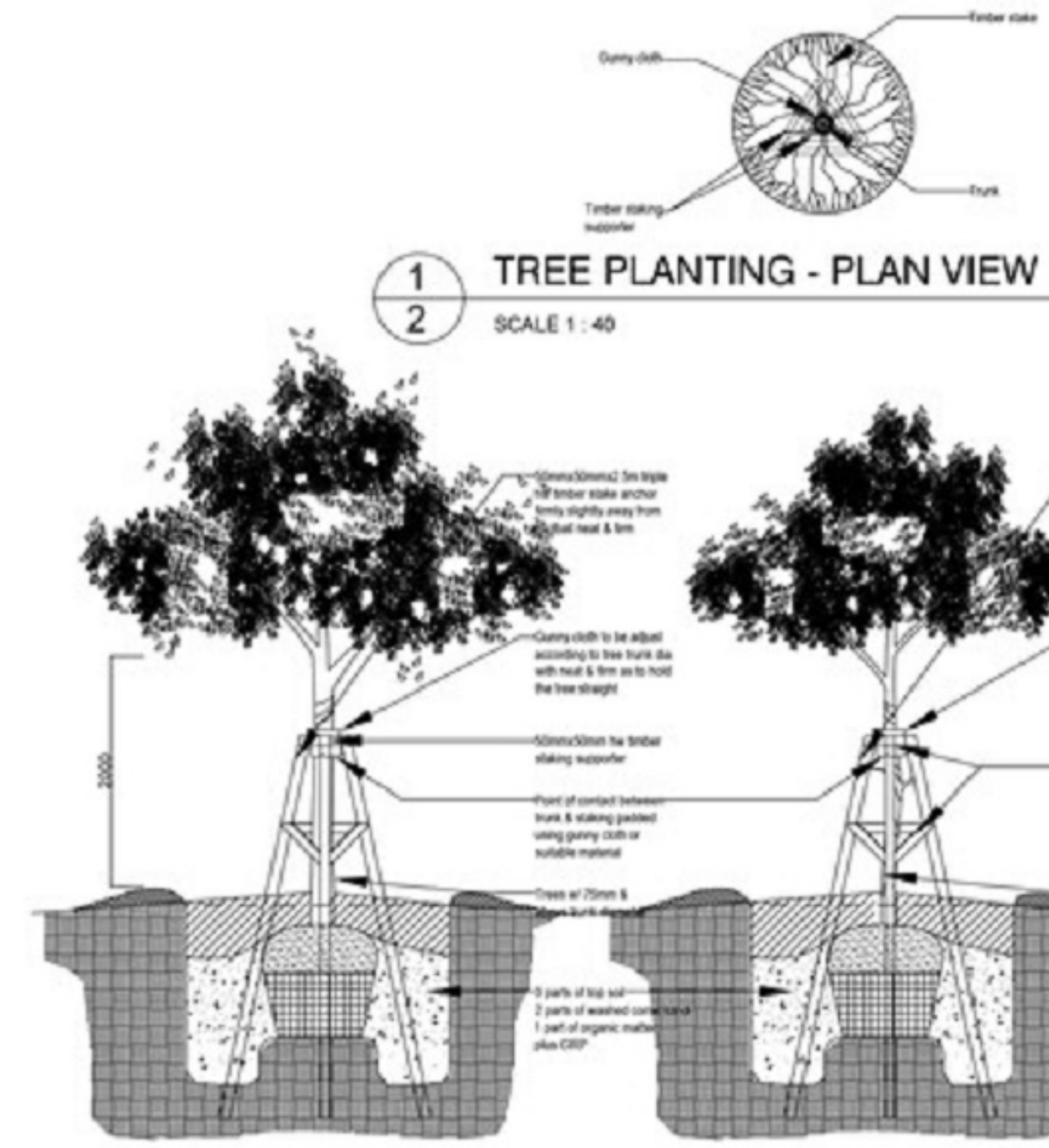


SCALE 1 : 350

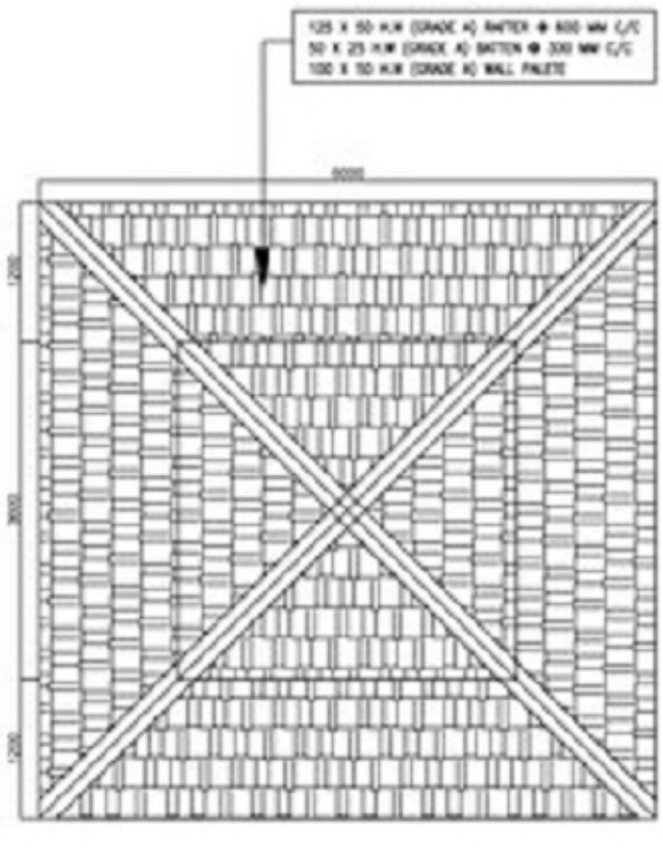


SCALE 1 : 110

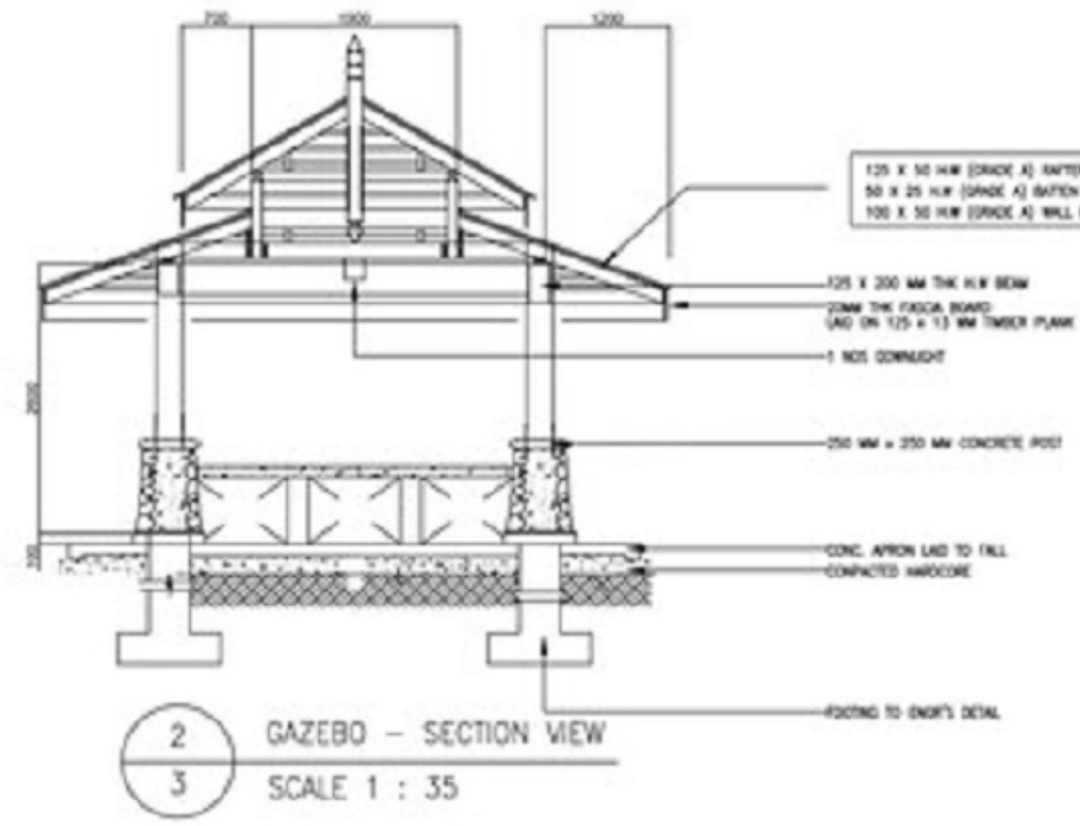
PLANTING DETAIL



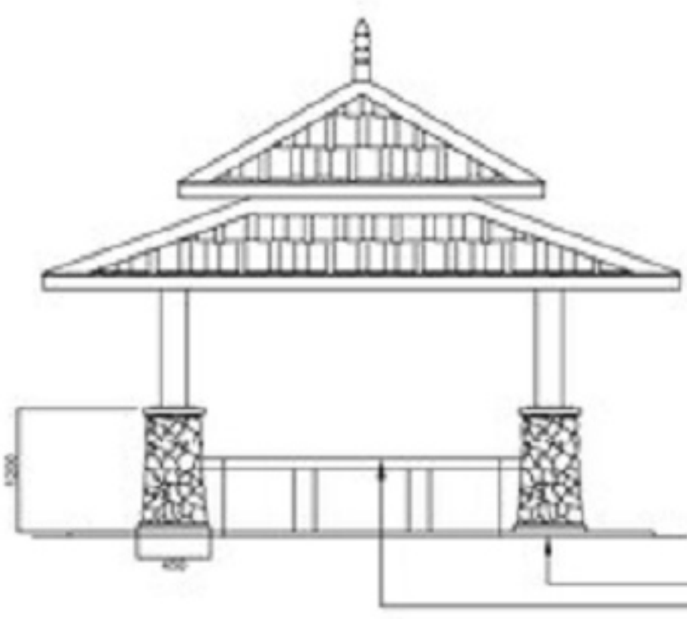
HARDSCAPE DETAIL



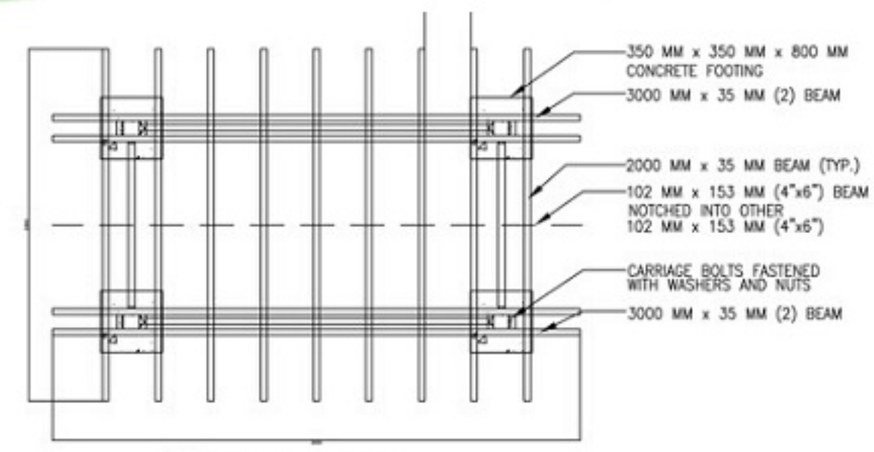
1 / 3 GAZEBO – PLAN VIEW
SCALE 1 : 35



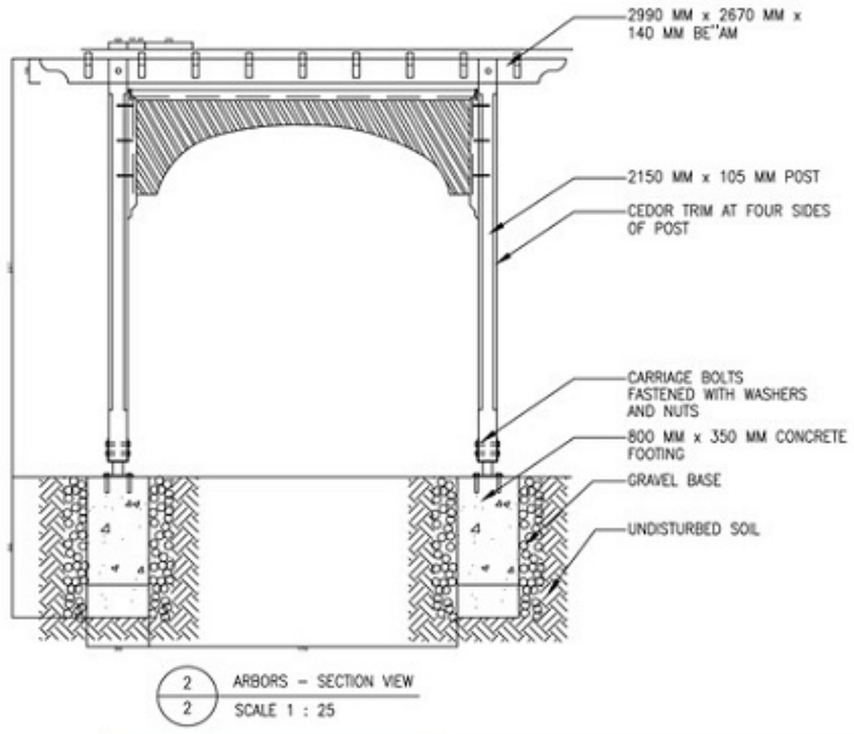
2 / 3 GAZEBO – SECTION VIEW
SCALE 1 : 35



3 / 3 GAZEBO – ELEVATION VIEW
SCALE 1 : 35

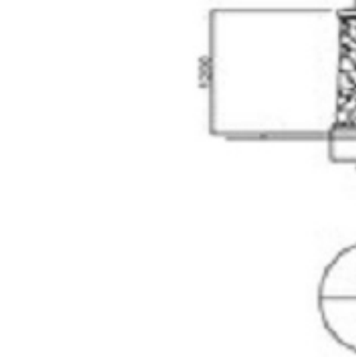


1 / 2 ARBORS – PLAN VIEW
SCALE 1 : 25

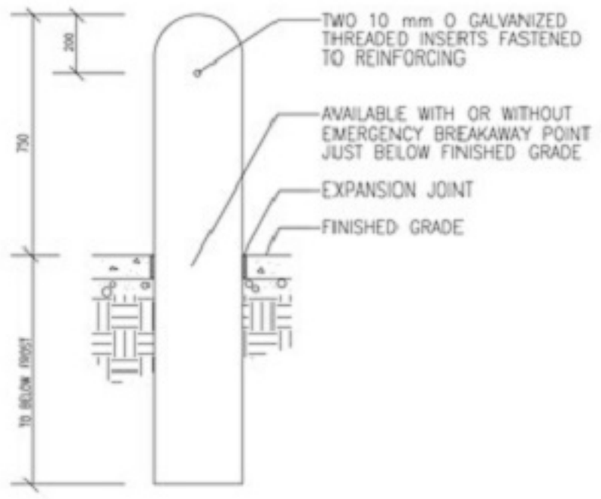


2 / 2 ARBORS – SECTION VIEW
SCALE 1 : 25

1 / 3 BOLLARD – PLAN VIEW
SCALE 1 : 10



2 / 3 ALT. FOUNDATION
SCALE 1 : 10



3 / 3 BOLLARD – SECTION VIEW
SCALE 1 : 10

CONCLUSION

INDEPENDENT LANDSCAPE DESIGN

issues

+ Physical connectivity
+ Environmentally water quality
+ Sociocultural activity

(Comfortabilities, Safety and Aesthetic)

design strategies

+ Phytoremediation method
+ Green parking and bioswale
+ Proposed campus community park
+ Variety outdoor campus community spaces
+ sustainable institutional design

outcomes

+ Lost spaces and spaces between buildings has been identified and enhanced by creating active linkages along Sungai Alur Ilmu.

+ Space connection through all of the surrounding area environment increased the quality of campus life with lively and healthy human life.

+ Water quality improvement is being made through ecological approach to mitigate the pollution of the waterways.

+ Outdoor social spaces that supports the livability of Alur Ilmu has been enhanced by adding campus community elements according to user needs.

REFERENCES

INDEPENDENT LANDSCAPE DESIGN

issues research

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design research

+ https://www.google.com/
+ https://www.pinterest.com/

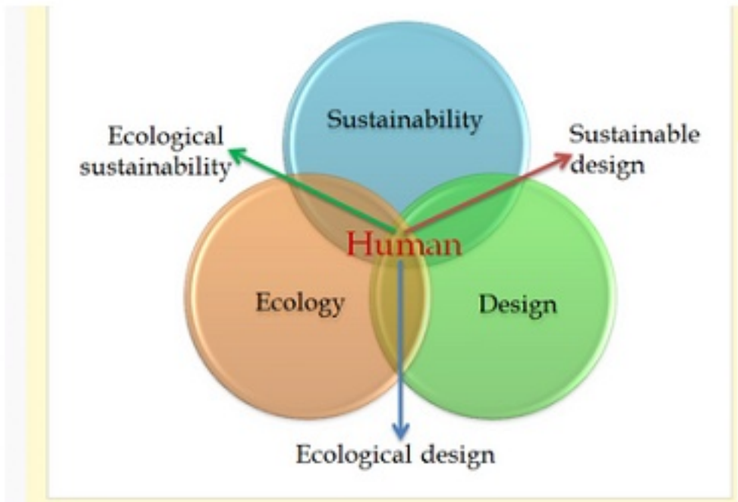

Figure 1.
The relationship between ecology, sustainability and design

In landscape architecture ecology's emphasis on natural processes and the


Bendigo Hospital | Bendigo, Australia | OCULUS

OUE Downtown Landscape Design by Shma (II) Public Area

The Garden of Migrations by Agence APS – Landscape...

Landscape Diagrams for Design Strategy and Programming

Ideo O2 Residence by Redland-scape

The Bamboo Garden | Atelier F - Arch2O.com

Partners HealthCare Administrative Campus | OJB Landscape...

final year project

Thank You

All praises are to Allah.
End of my diploma.