



HOSPITAL PROJECT



PROBLEM STATEMENT

DRUG ADDICTION IN ETHIOPIA, ADDIS ABABA

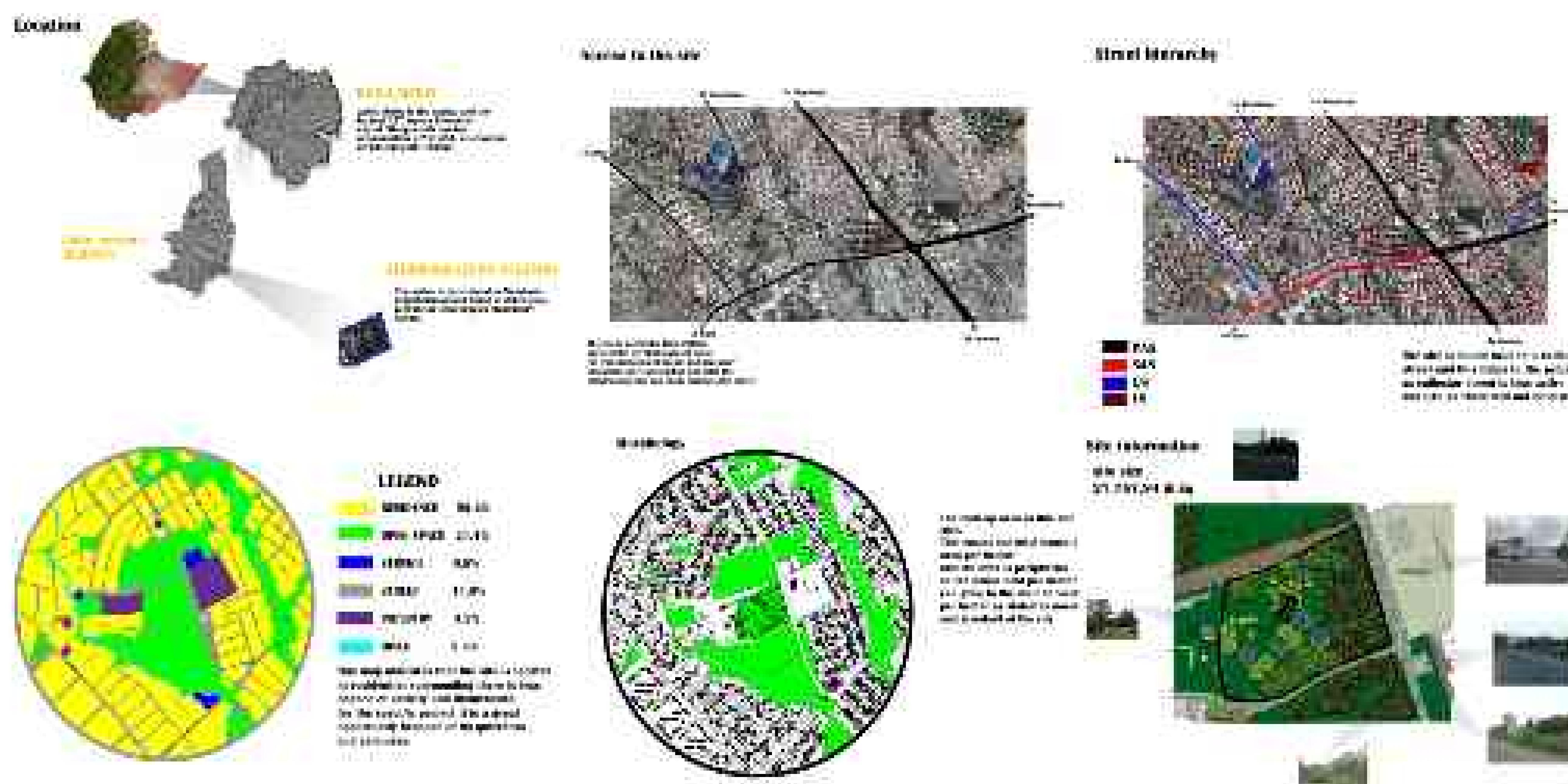
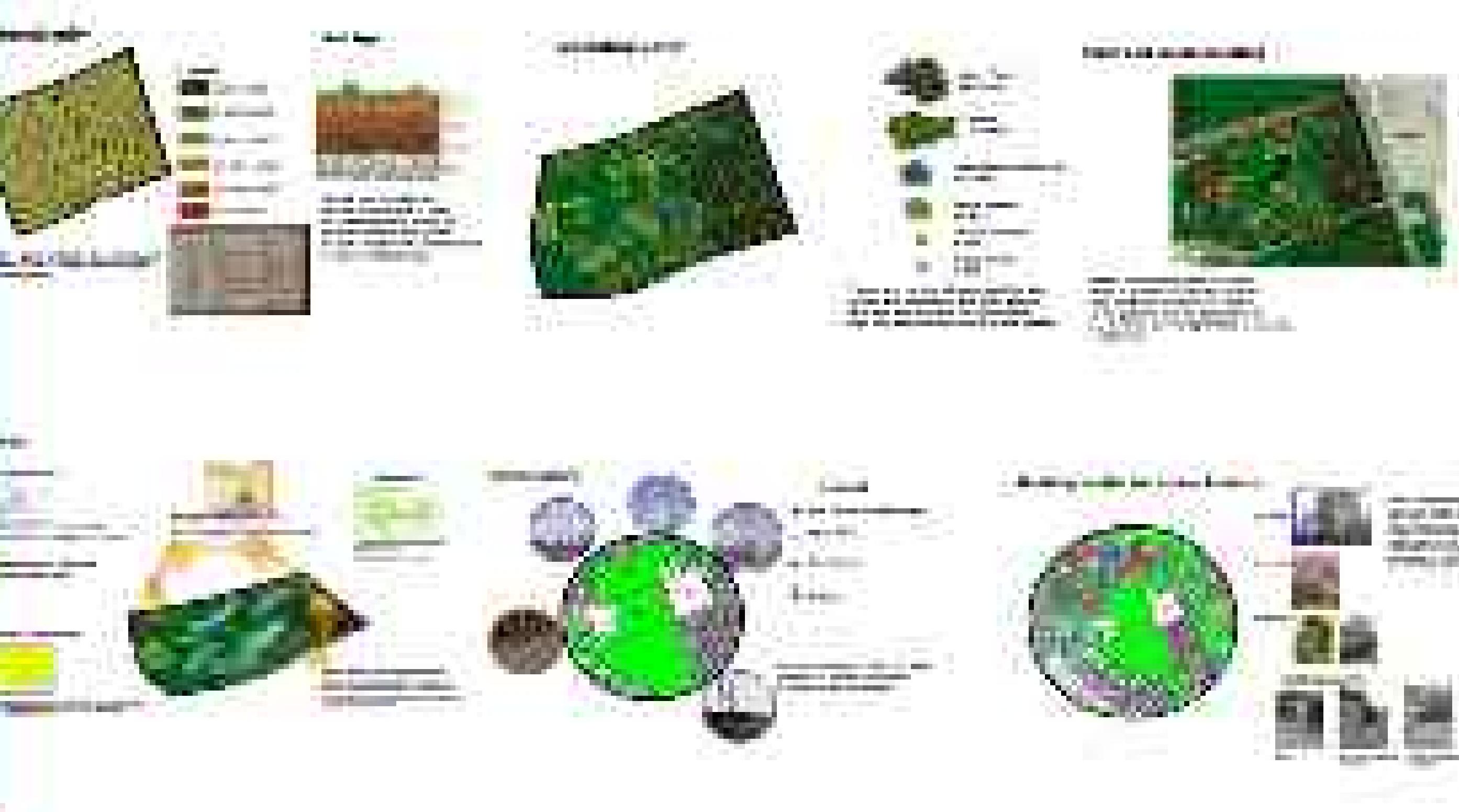
Extent of the Problem

The problem is very critical to our country, to our continent Africa and to the world. It can affect the society in vast ways psychologically, mentally, physically, socially and economically. One of the possible and probable outcomes of sticking with addiction is that you will lose the battle in some way. Your downward spiral could include disease and a lot of loss, including loss of:



This project is based on a study of extent of addiction in our country specifically in Addis Ababa and how to reduce the problem and the final architectural hypothesis is to design a Rehabilitation center for drug and substance abuse.

SITE ANALYSIS



CLIENT BRIEF

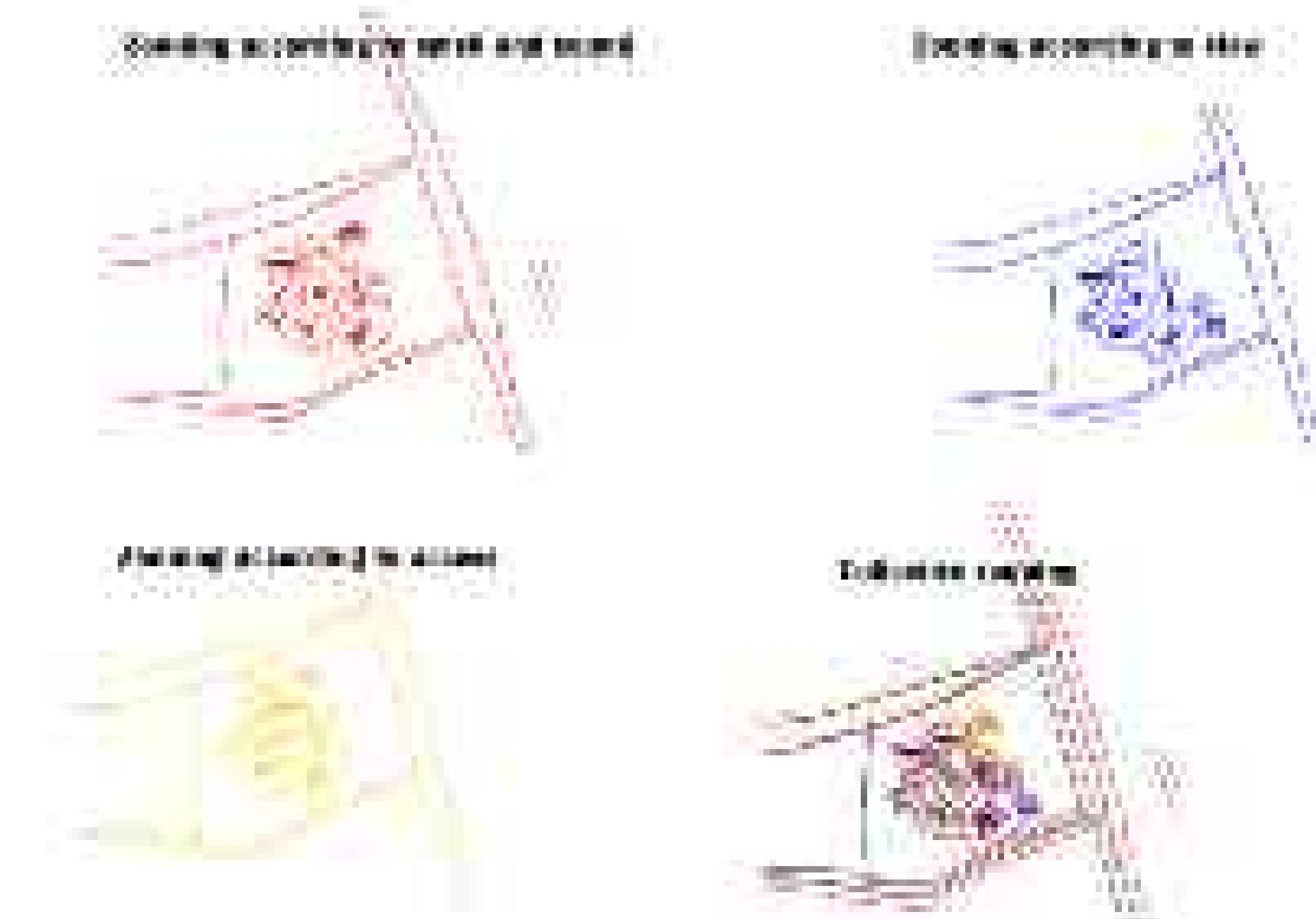
FOUNDER OF NEW LIFE REHABILITATION FOR DRUG AND SUBSTANCE ABUSE NGO
FOUNDER:- MR.S YIRGECU
THE CENTER PROVIDES INPATIENT AND OUTPATIENT COUNSELING THERAPIES ON ALCOHOLADDICTION AND SUBSTANCE ABUSE.



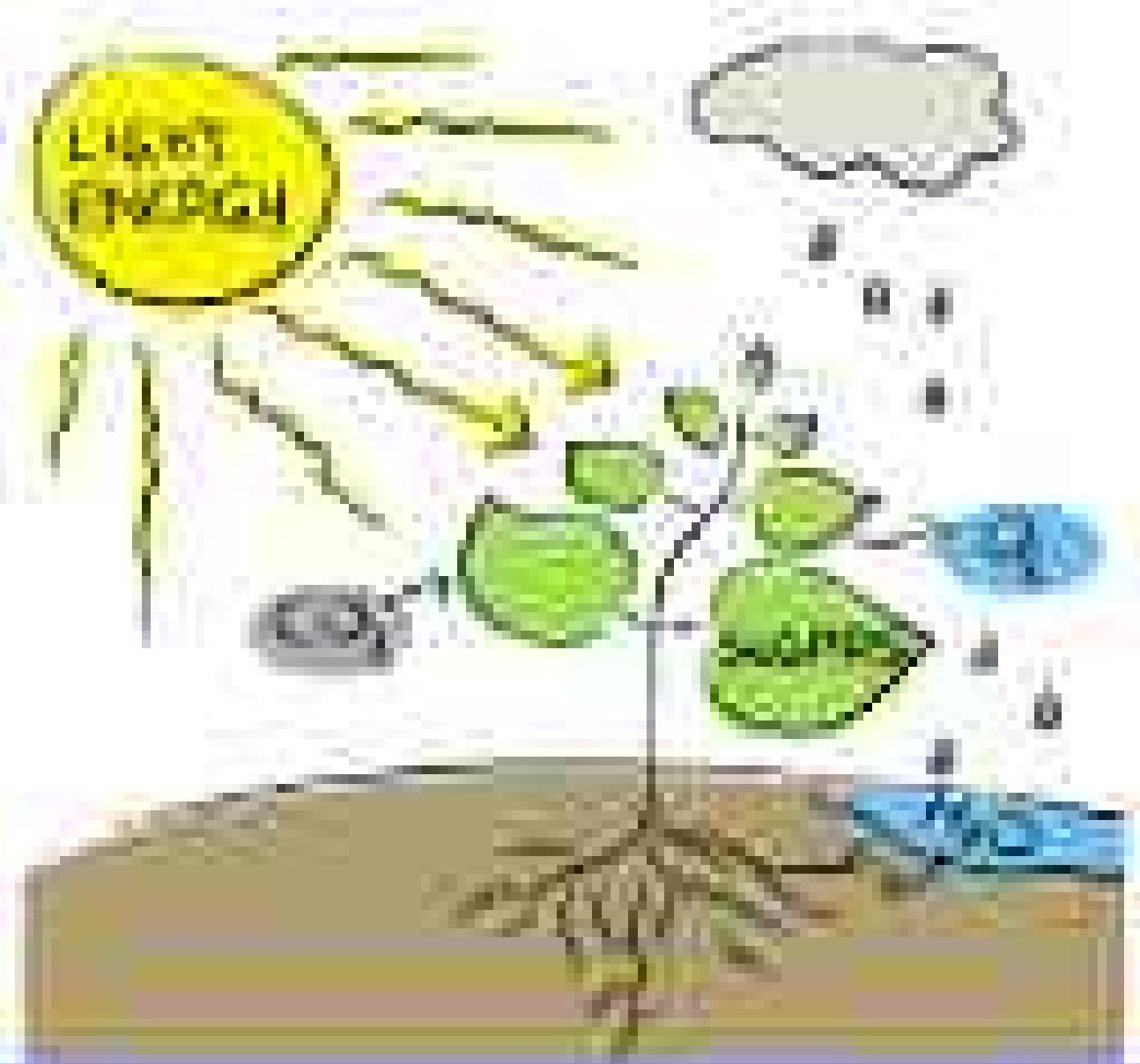
The center currently accepts 12 male inpatients only.

Program List

- Entrance lobby
- Exercise room
- General & Administrative
- Medical Center
- Long- Term Housing
- Rehabilitation & Support Programs
- Activities Therapies
- Education
- Patient Social/ Activity Spaces



PHOTOSYNTHESIS: A PROCESS OF GREEN PLANTS PREPARING THEIR OWN FOOD



the main facilitator of this process is sunlight and it is used to break the bond between hydrogen and oxygen and for that plants require blue and red rays.

A REHAB CENTER ALSO NEED SPACES WITH CALM AND PEACE SO THESE SPACES CAN BE EXPRESSED SAME WAY BLUE CAN BE REPRESENTED.

Formal composition

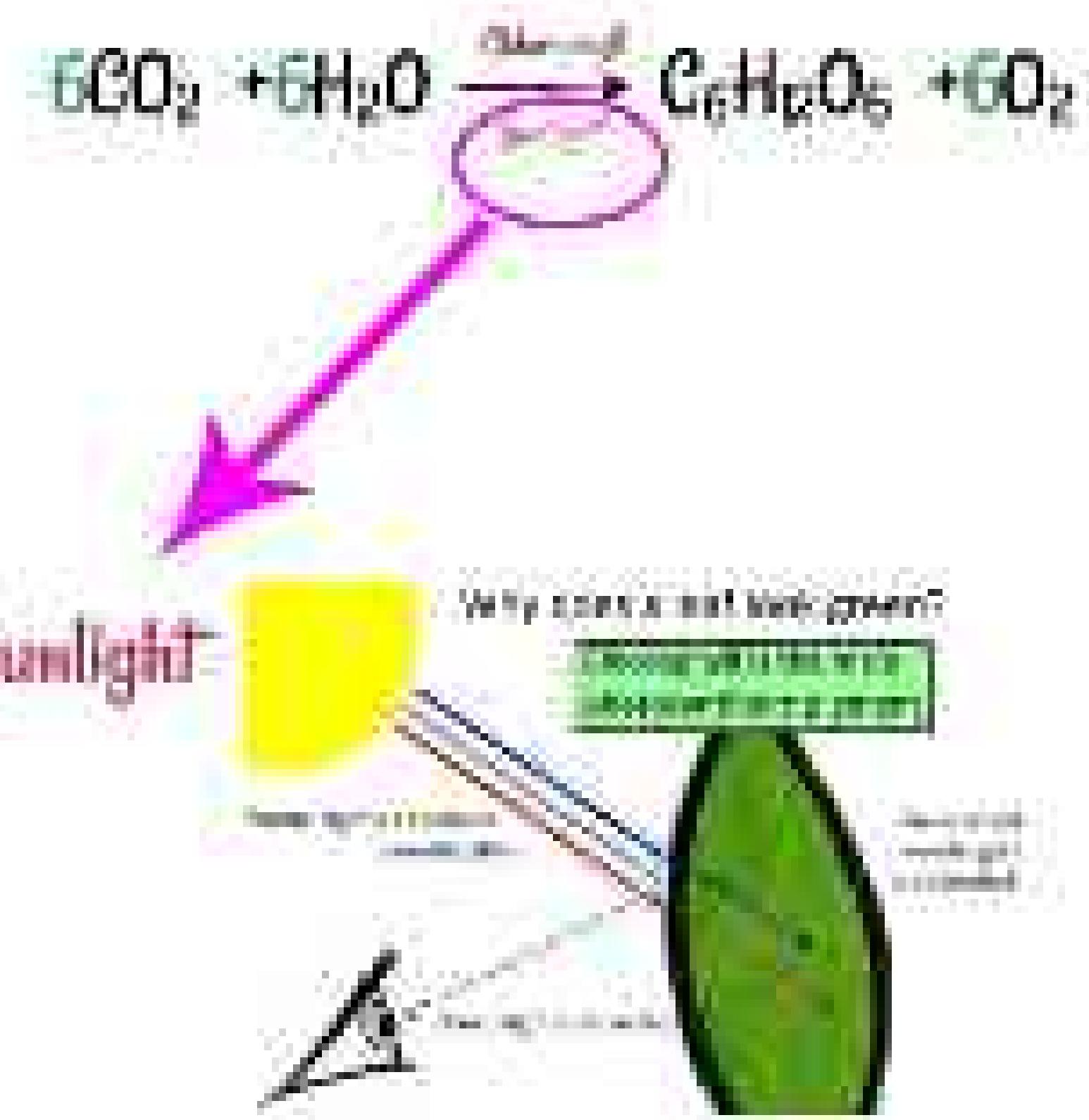
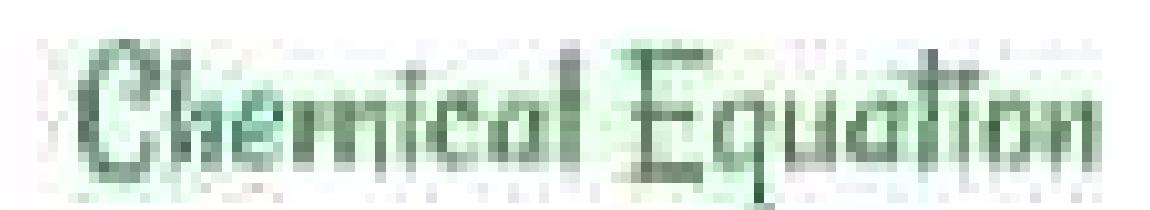
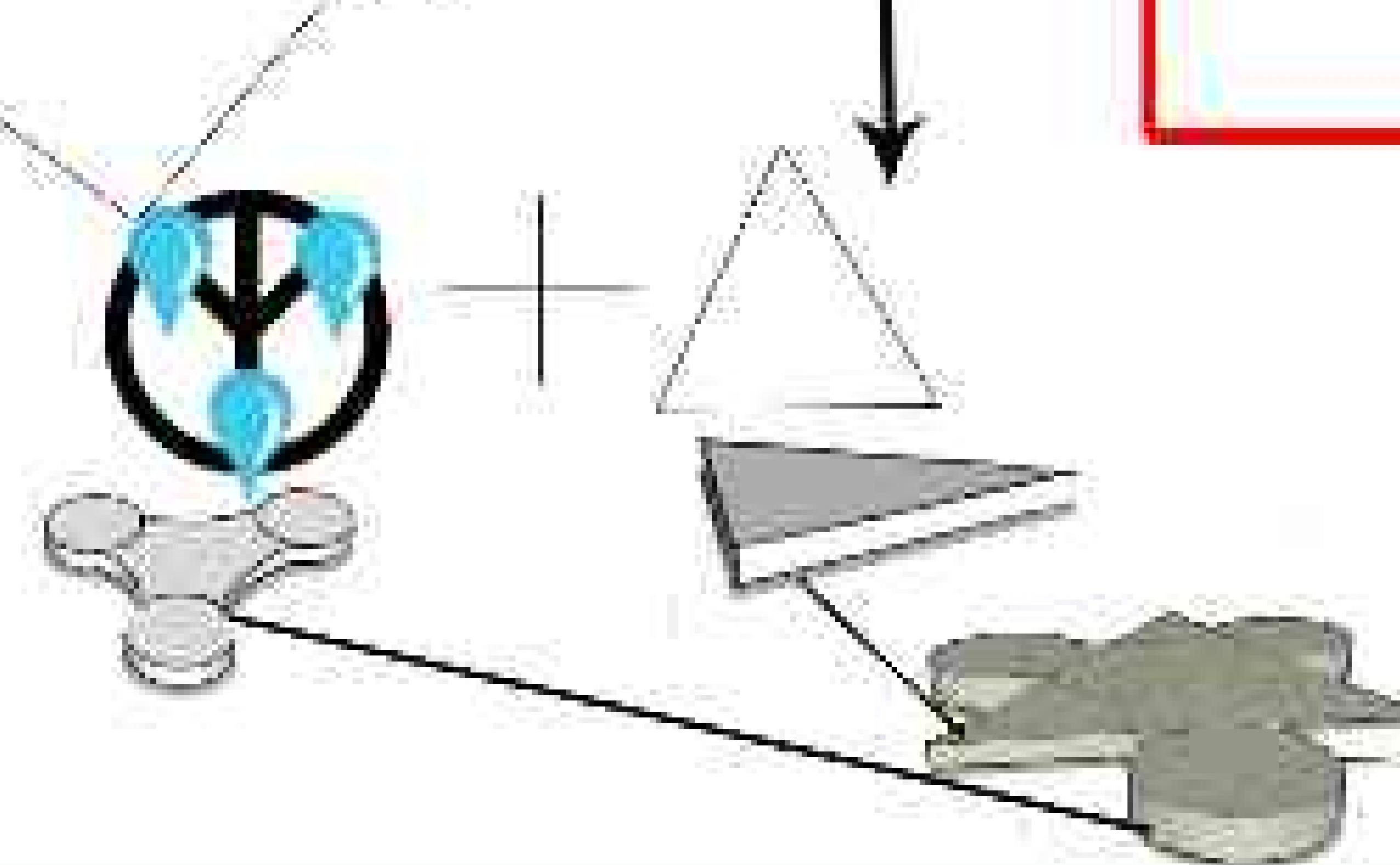
calming



peace



Fire



IN A REHAB CENTER THERE MUST BE ENCOURAGING AND STRONG MOTIVATIVE SPACES TO HELP THE ADDICTS GET INITIATION AND FEEL STRENGTH SO WE CAN EXPRESS THIS SAME WAY AS WE EXPRESS RED.

SITE PLAN

THESIS PROJECT ON REHABILITATION CENTER FOR
DRUG AND SUBSTANCE ABUSE



OPEN AREA

OFFICE INTERANCE

WAREHOUSE

MAIN ENTERANCE

MILK
PRODUCTION

SEEDLING

Force

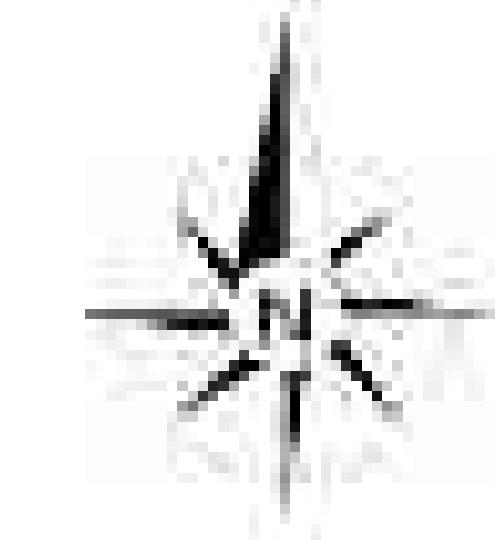
SCALE 1:250

DESIGNED BY LIDYA MIHRET

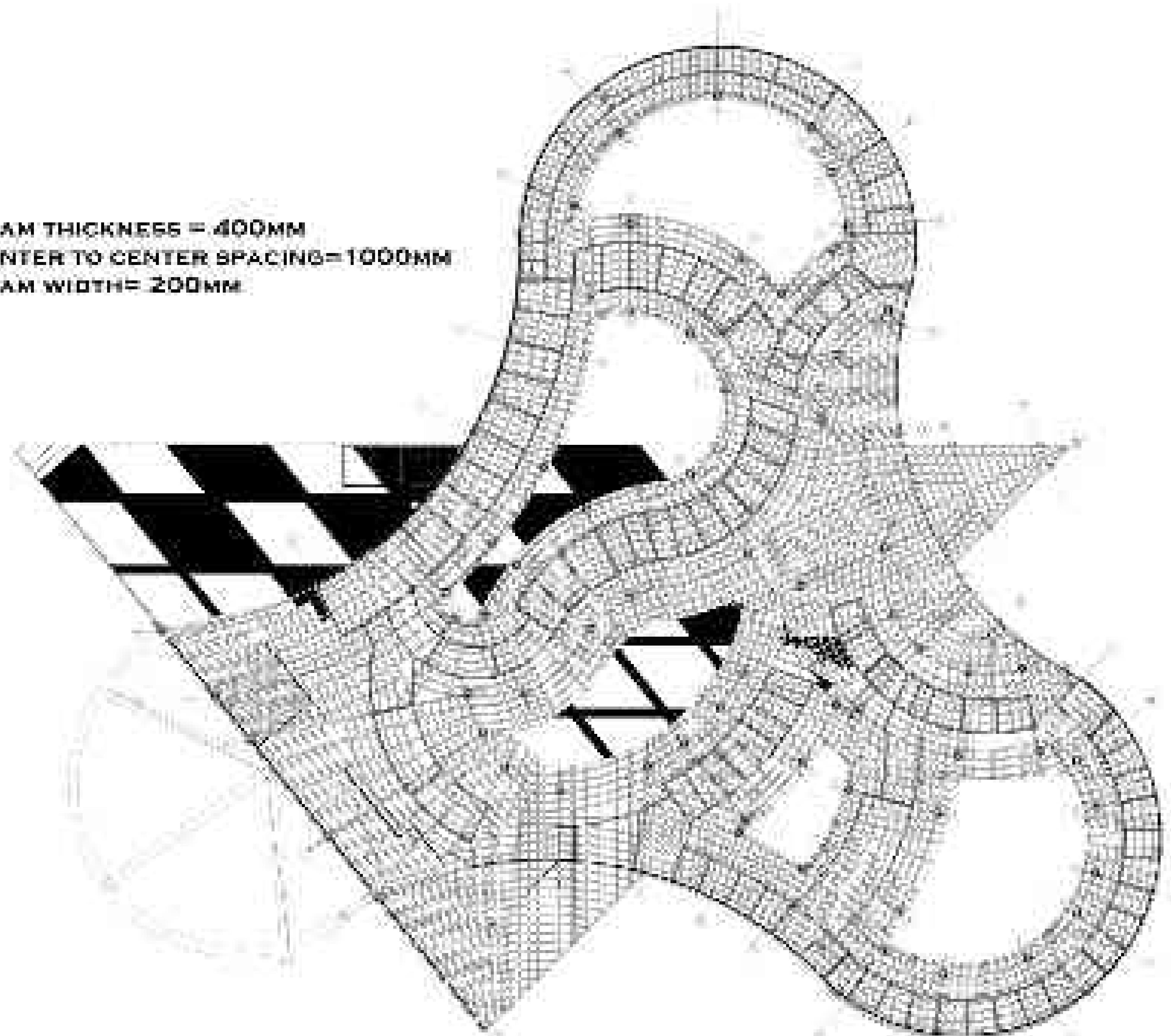
RAR/735/16

INSTRUCTORS

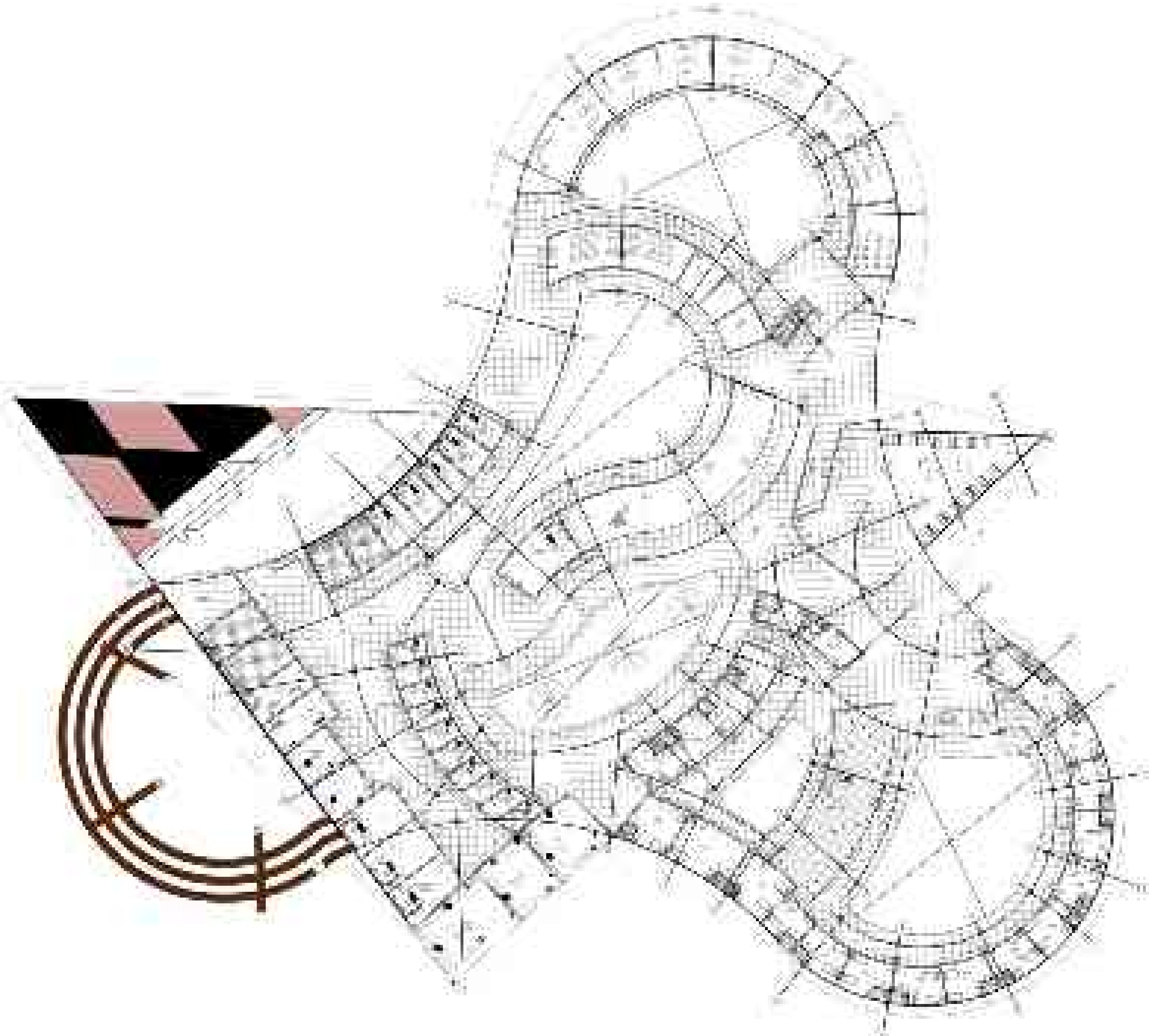
BELAY .G
FASIKA .S
KIRUBEL .T

**GROUND FLOOR PLAN****SCALE 1:250****DESIGNED BY LIDYA MIHRET****RAR/735/16****INSTRUCTORS****BELAY .G
FASIKA .S
KIRUBEL .T**

BEAM THICKNESS = 400MM
CENTER TO CENTER SPACING=1000MM
BEAM WIDTH= 200MM



GROUND FLOOR CEILING PLAN



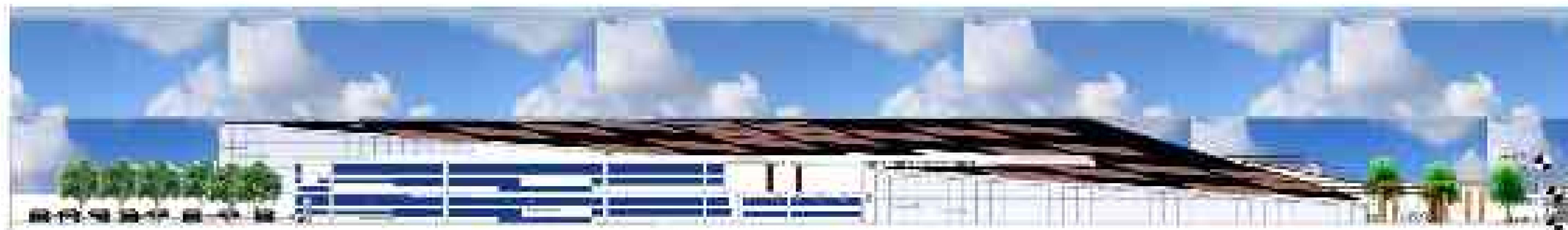
FIRST FLOOR PLAN



EAST ELEVATION



WEST ELEVATION



SOUTH ELEVATION

SCALE 1:250

DESIGNED BY LIDYA MIHRET

RAR/735/16

INSTRUCTORS

BELAY .G
FASIKA .S
KIRUIREI .T

SECTIONS

THESIS PROJECT ON REHABILITATION CENTER FOR
DRUG AND SUBSTANCE ABUSE

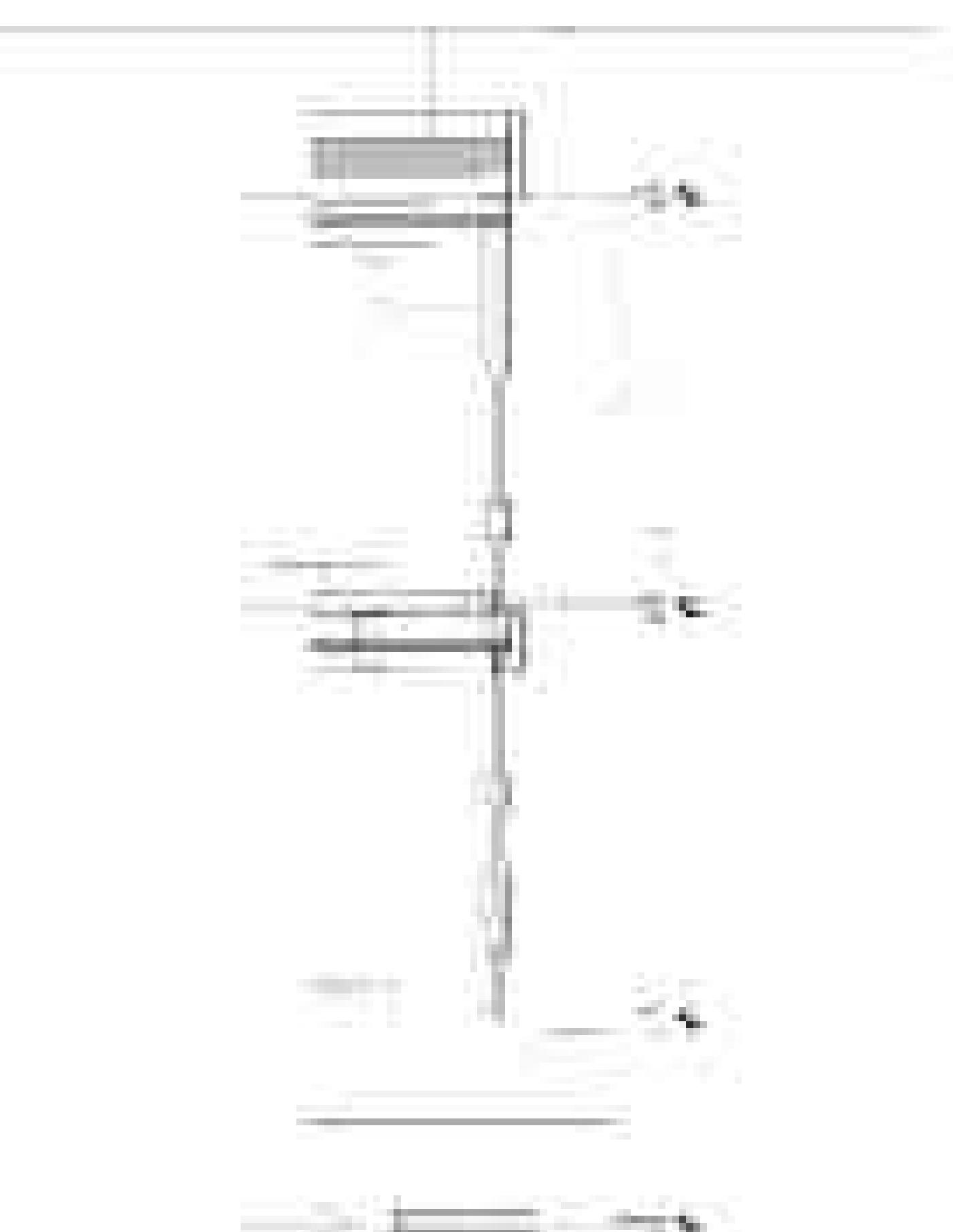


SECTION 1



SECTION 2

WINDOW DOOR SCHEDULE



wall section
1:20



















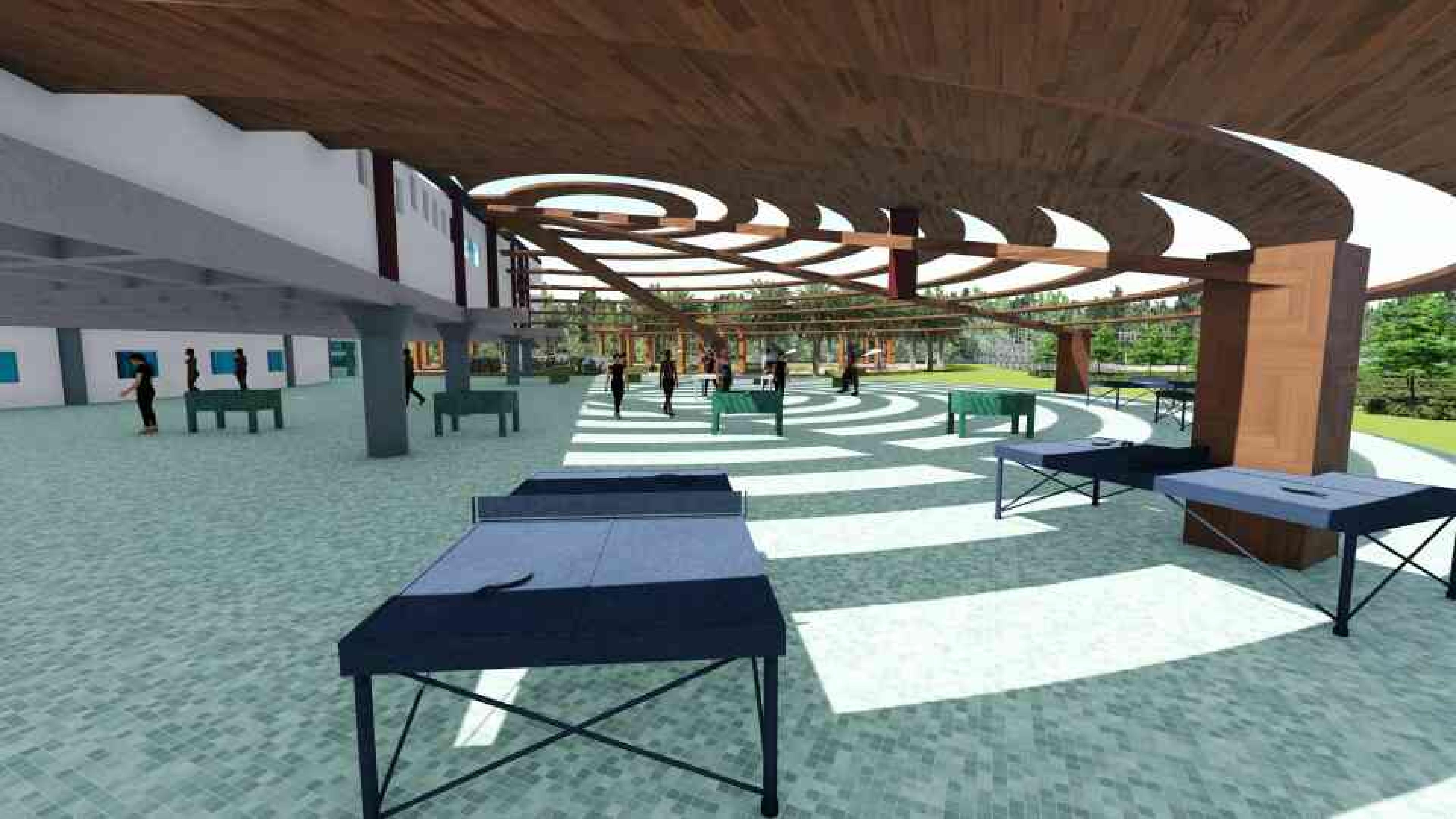






































3D



INTERIOR VIEWS



DESIGNED BY LIDYA MIHRET

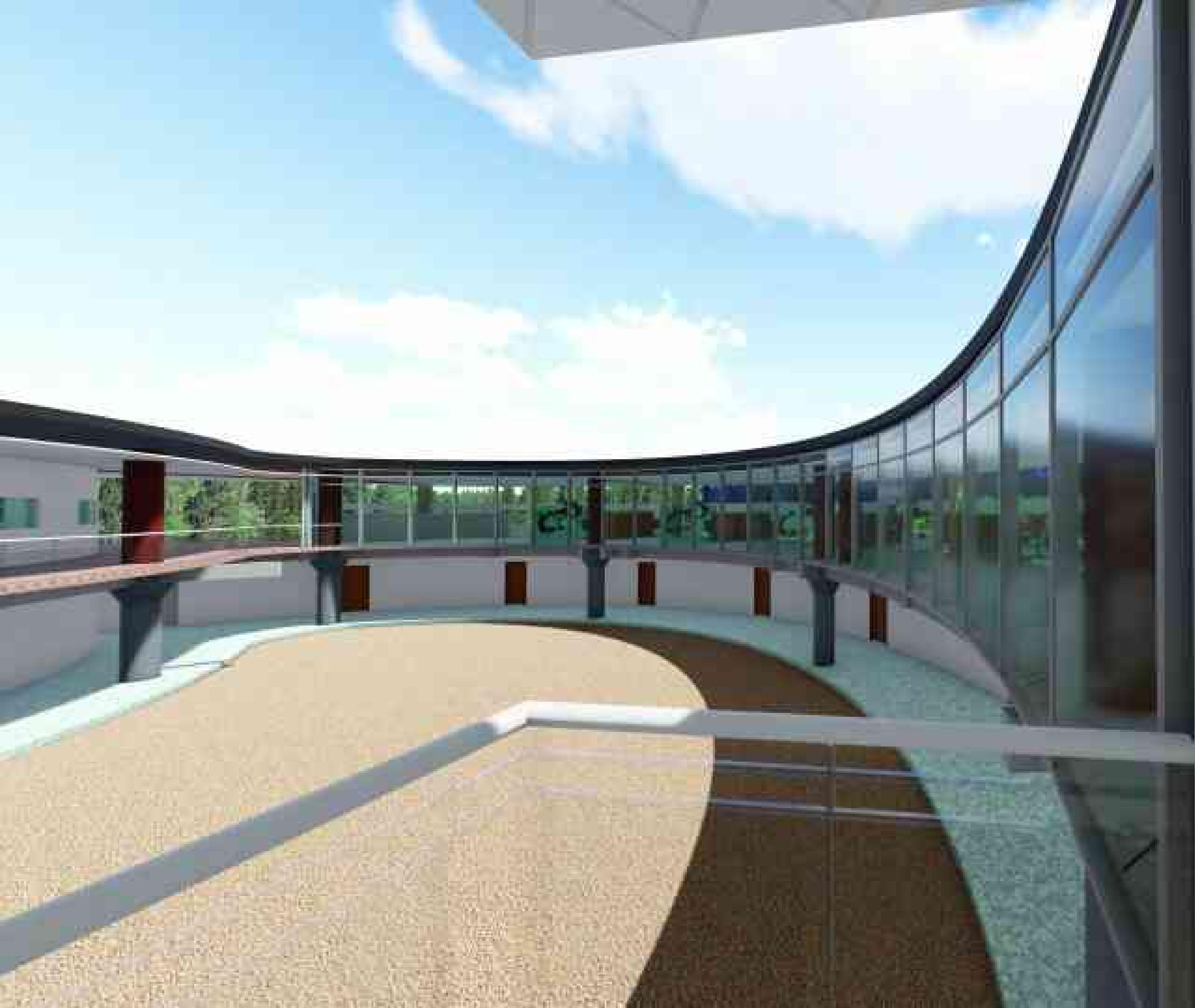
RAR/735/16

INSTRUCTORS

BELAY .G
FASIKA .S
KIRUBEL .T































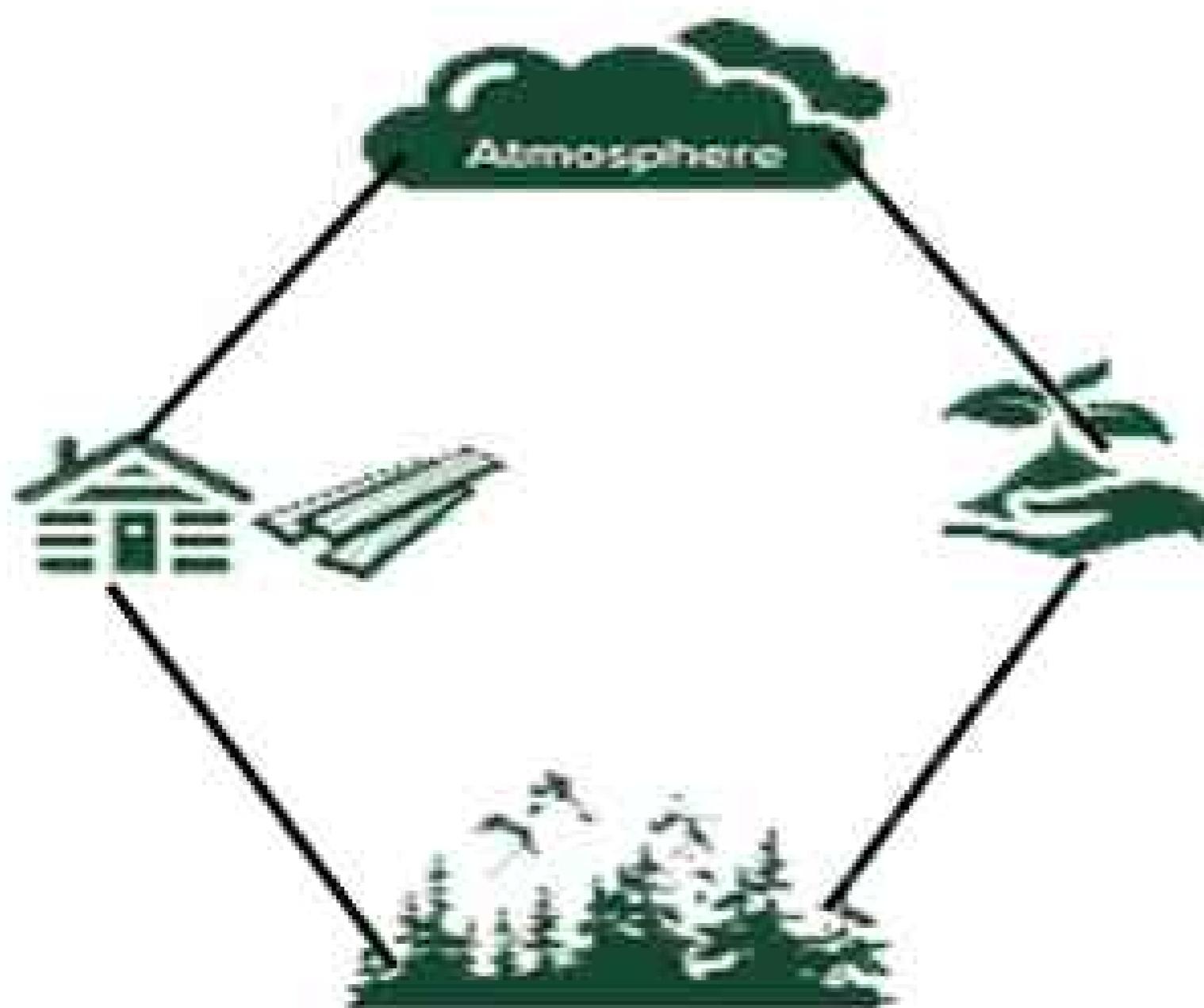


concept

TRANSITIVE: HAVING A CHARACTER OF TRANSITION

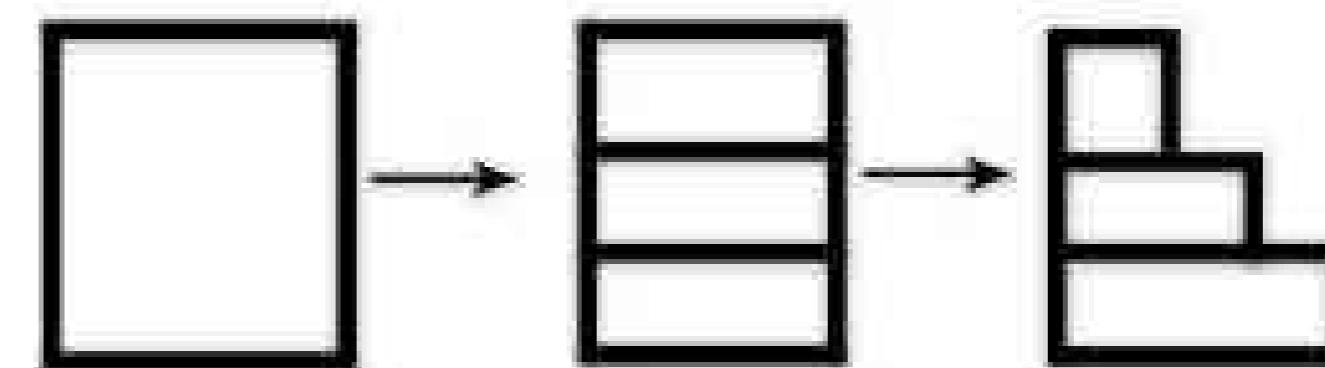


transit in of the building material used for the project is a cycle from a single tree to forest then timber logs and finally an ecofriendly house which also has much less effect to the Environment



the transitive process of the area which is from *condominiums* → *detatched residential*

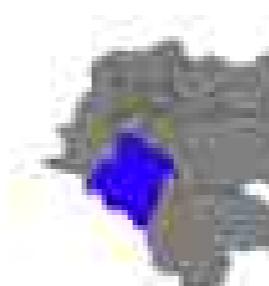
The form of the building also shows step to describe transitive or the transition from common dwelling to a single family house.



LOCATION



ETHIOPIA



ADDIS ABABA



NIFAS SILK LAPHTO SUBCITY



JEMO J CONDOMINIMS IN FRONT OF GLASS FACTORY

SITE PICTURES

The site is found beside a ground plus 3 the site is selected because the area is a developing residential area including a condominium and is isolated from noise, have access to the main road.

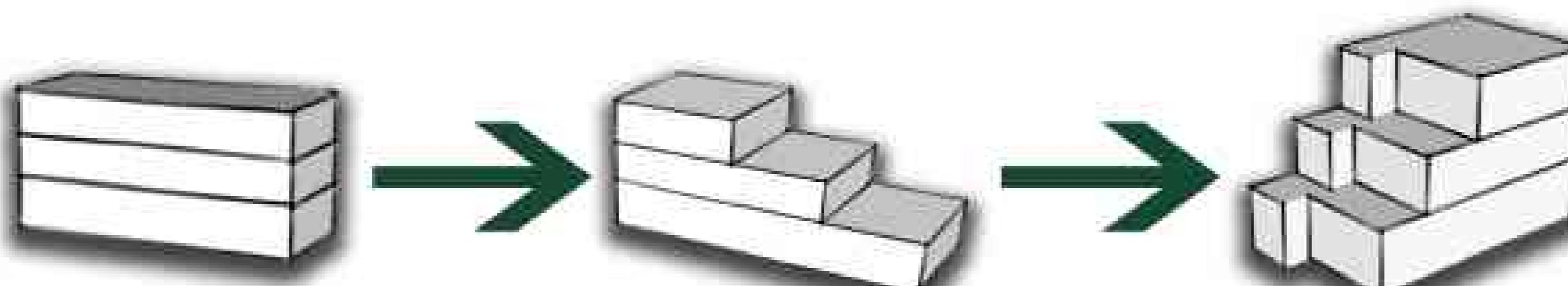


Detail about the residence + home cinema project



In addition the house has a cinema room
It is designed for 4 people to live in the house
It has 3 story

As shown on the concept
the volumetric form transition is
subtractive, a subtracted part from
a cube



PREPARED BY

SCALE

TITLE

DATE

LIDYA MIHRET

1:50

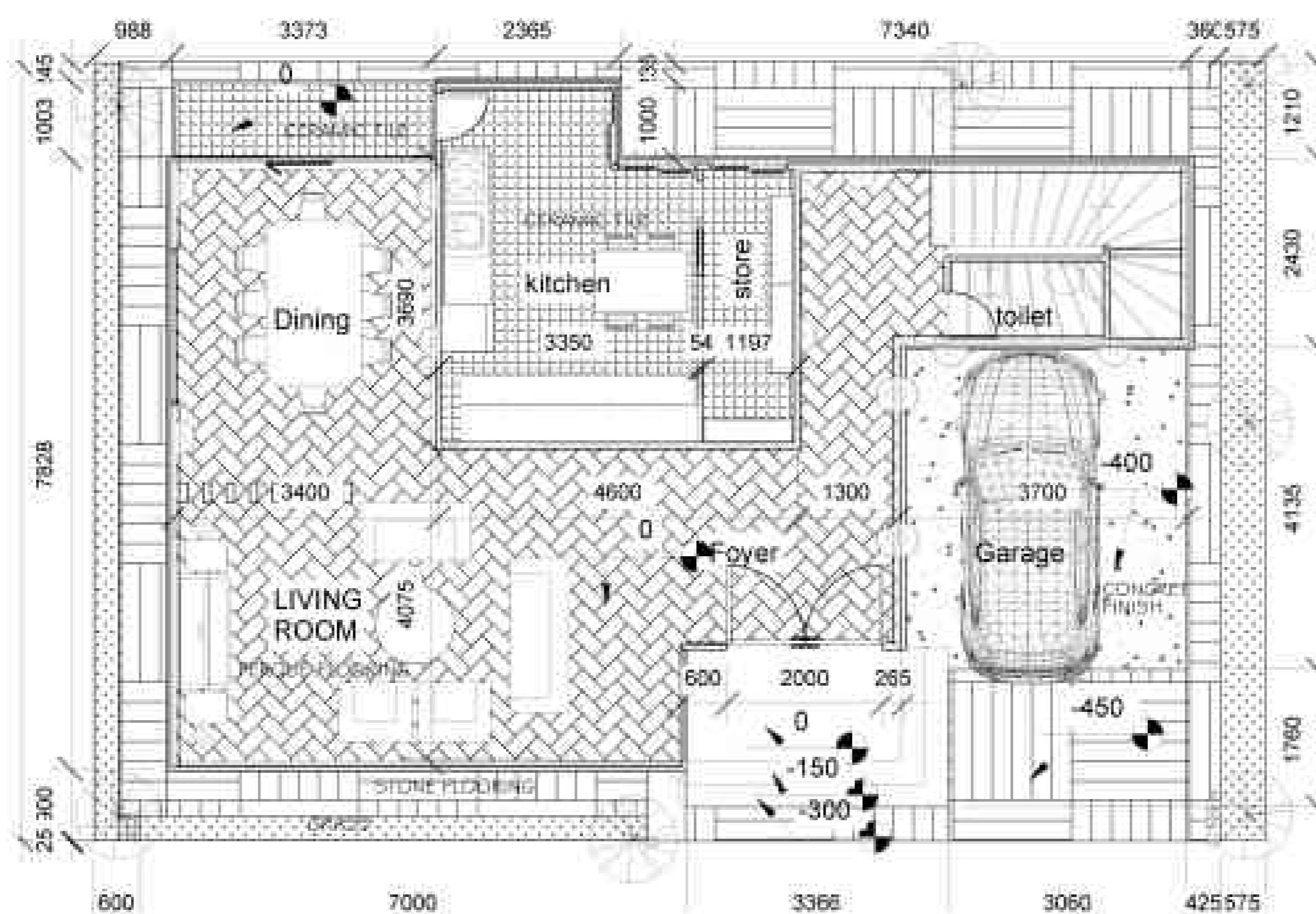
PROJECT DESCRIPTION

DECEMBER-22-2020

SITE PLAN



GROUND FLOOR PLAN



PREPARED BY

SCALE

TITLE

DATE

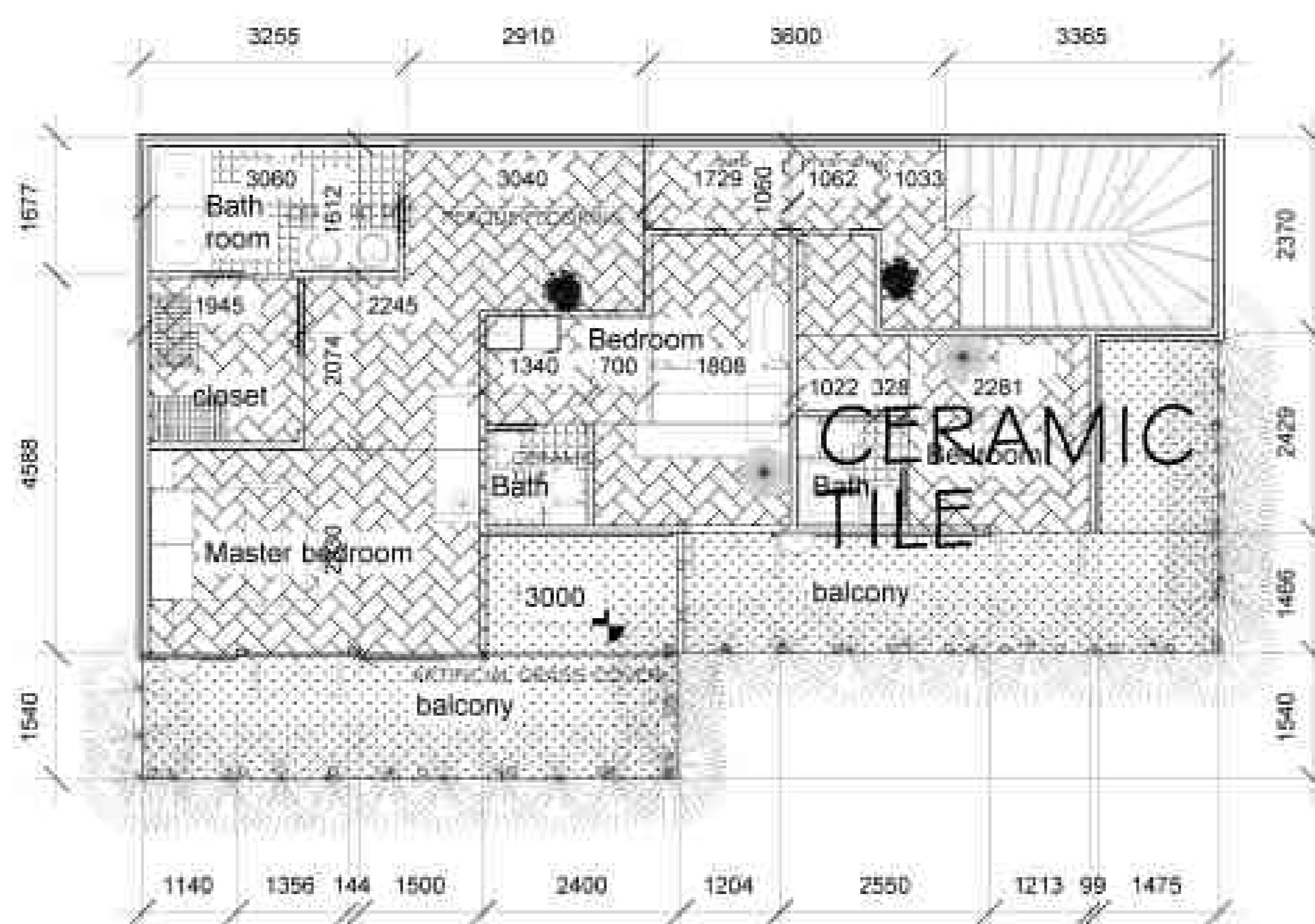
LIDYA MIHRET

1:50

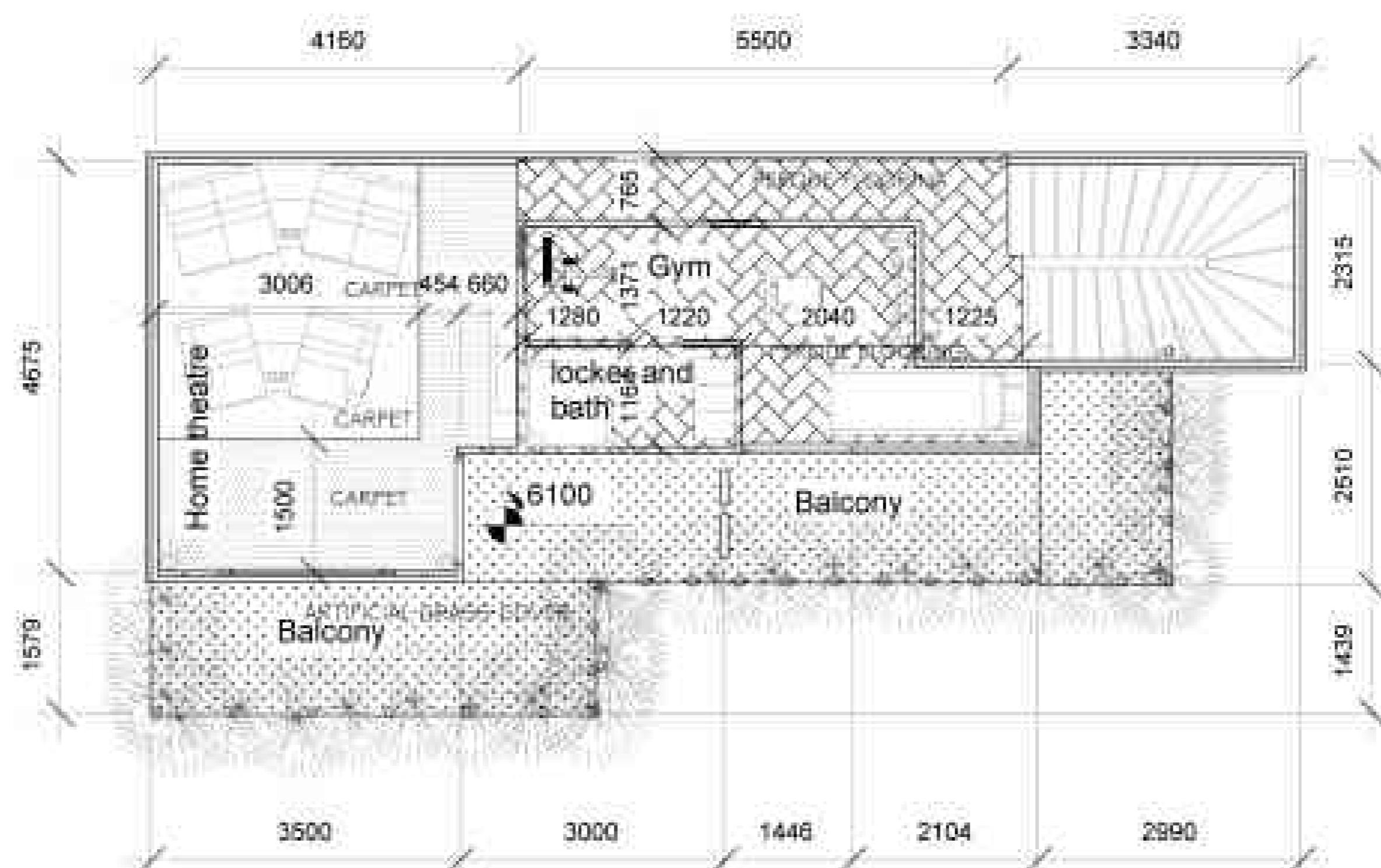
SITE PLAN AND GROUND FLOOR PLAN

DECEMBER-22-2020

FIRST FLOOR PLAN



SECOND FLOOR PLAN



PREPARED BY

SCALE

TITLE

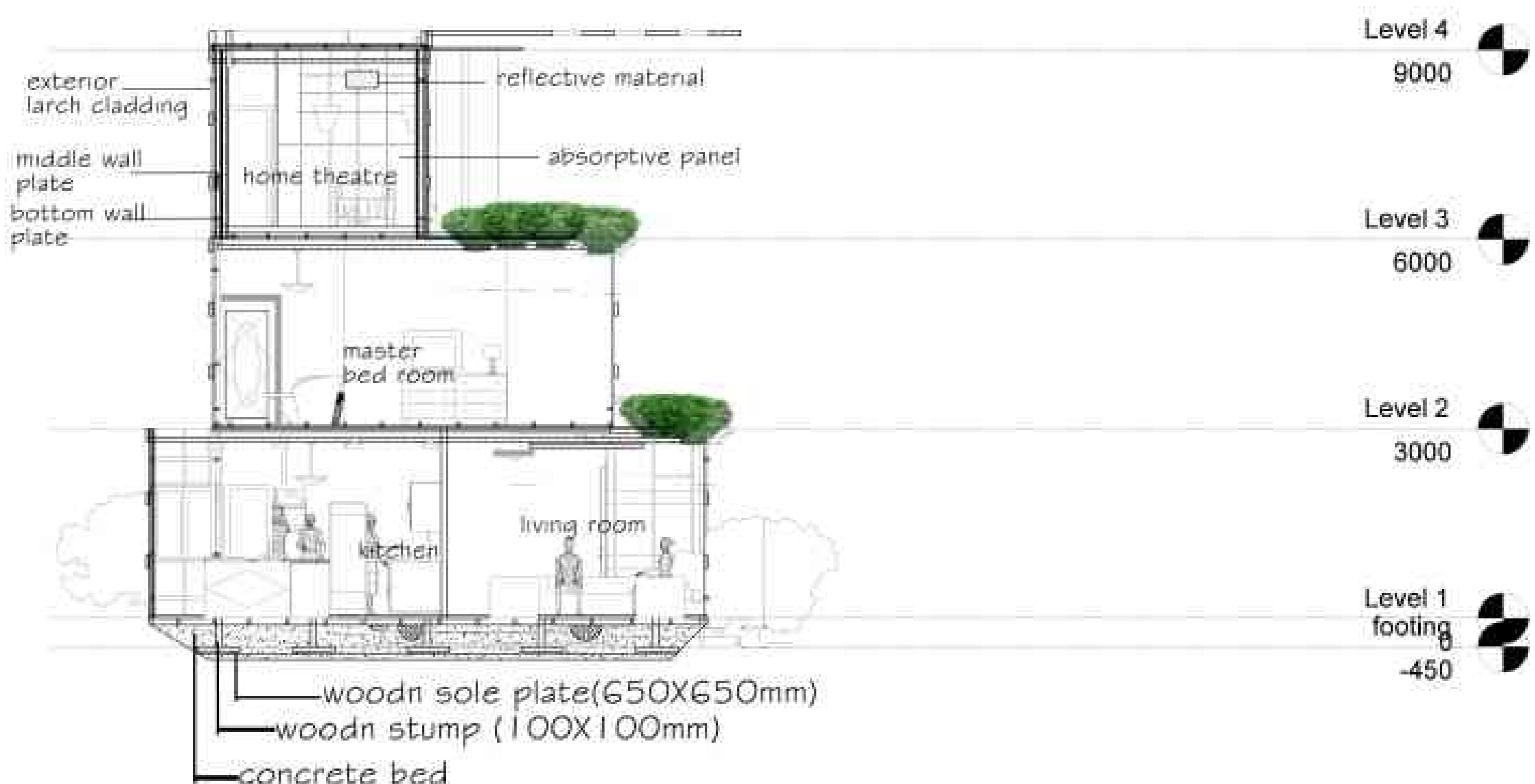
DATE

LIDYA MIHRET

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FIRST AND SECOND FLOR PLAN

DECEMBER-22-2020



PREPARED BY

SCALE

TITLE

DATE

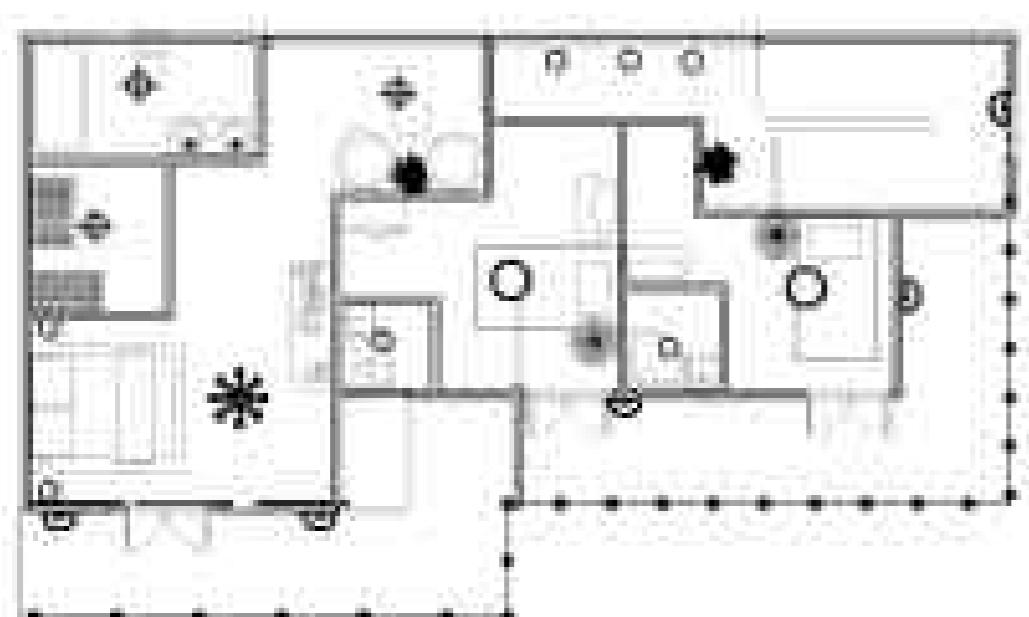
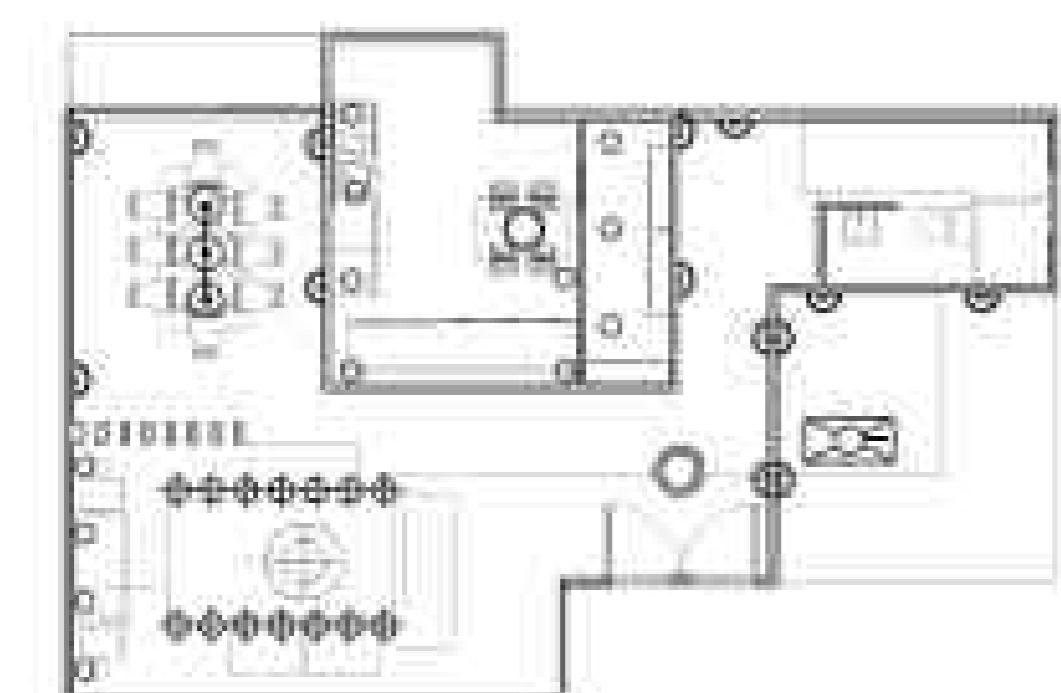
LIDYA MIHRET

1:50

sections

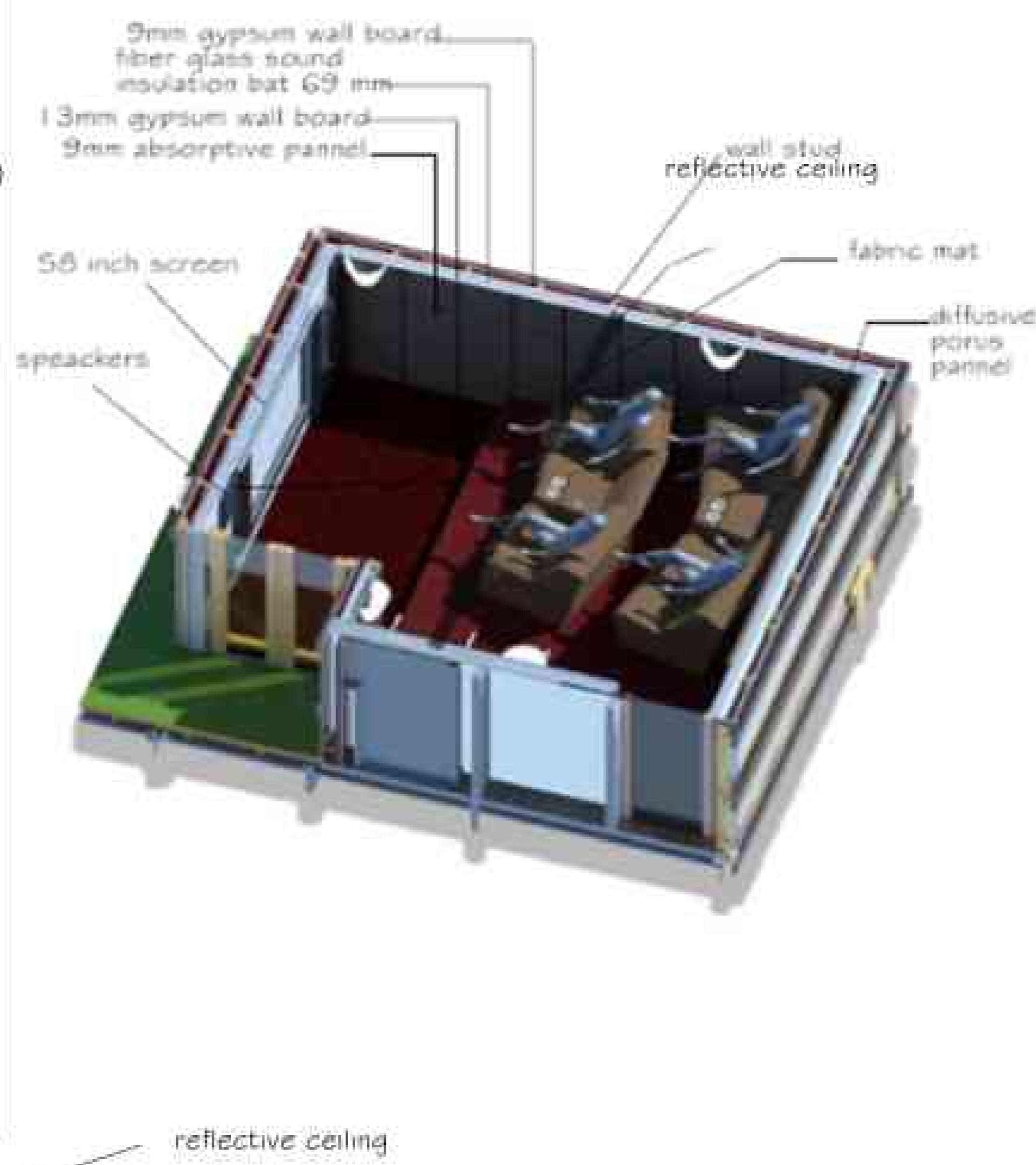
DECEMBER-22-2020

LIGHTING



- layer 5 (for specific task)
pendant (LED)
- layer 1 (directive)
wall mounted
(incandescent)
- layer 3 (hierarchical)
ceiling-mounted
(LED)
- layer 5 (for specific task)
ceiling mounted
(LED)
- layer 5 (specific task)
ceiling mounted
(incandescent)
- layer 3 (decorative)

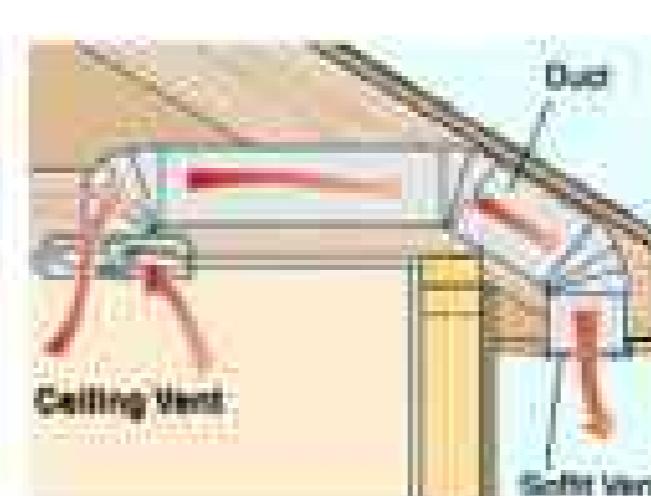
acoustics(for home theatre)



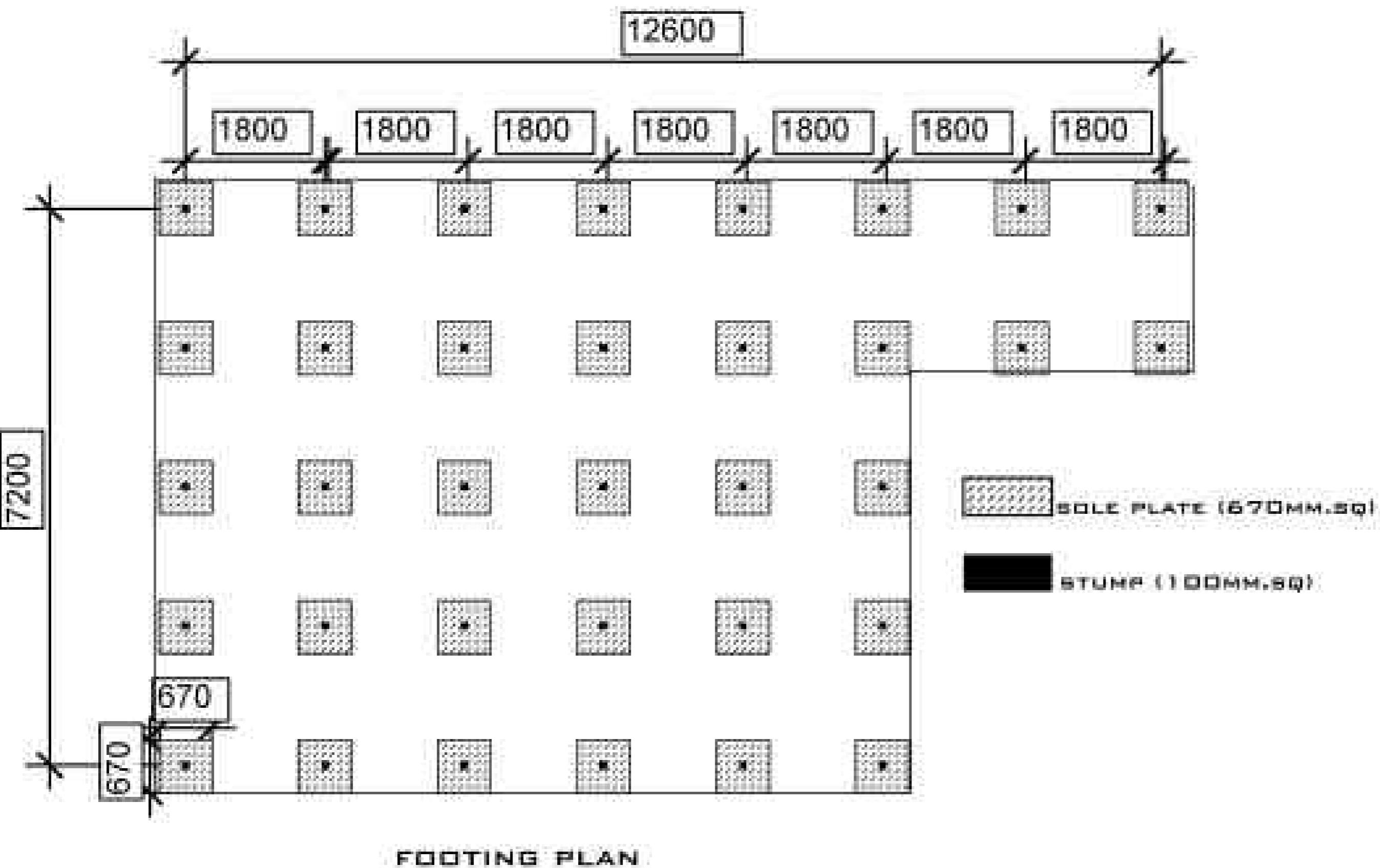
reflective ceiling



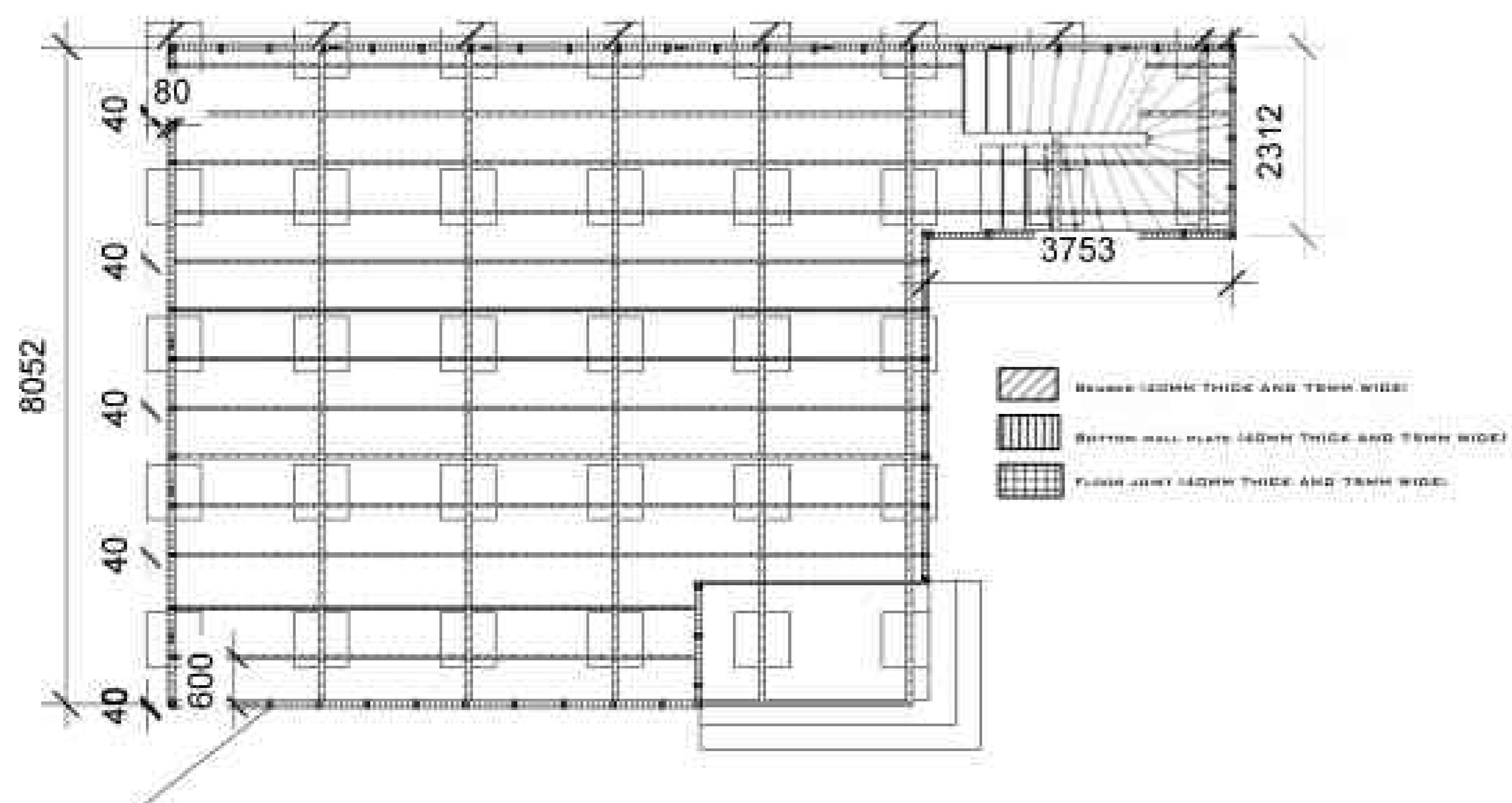
automatic ceiling vent



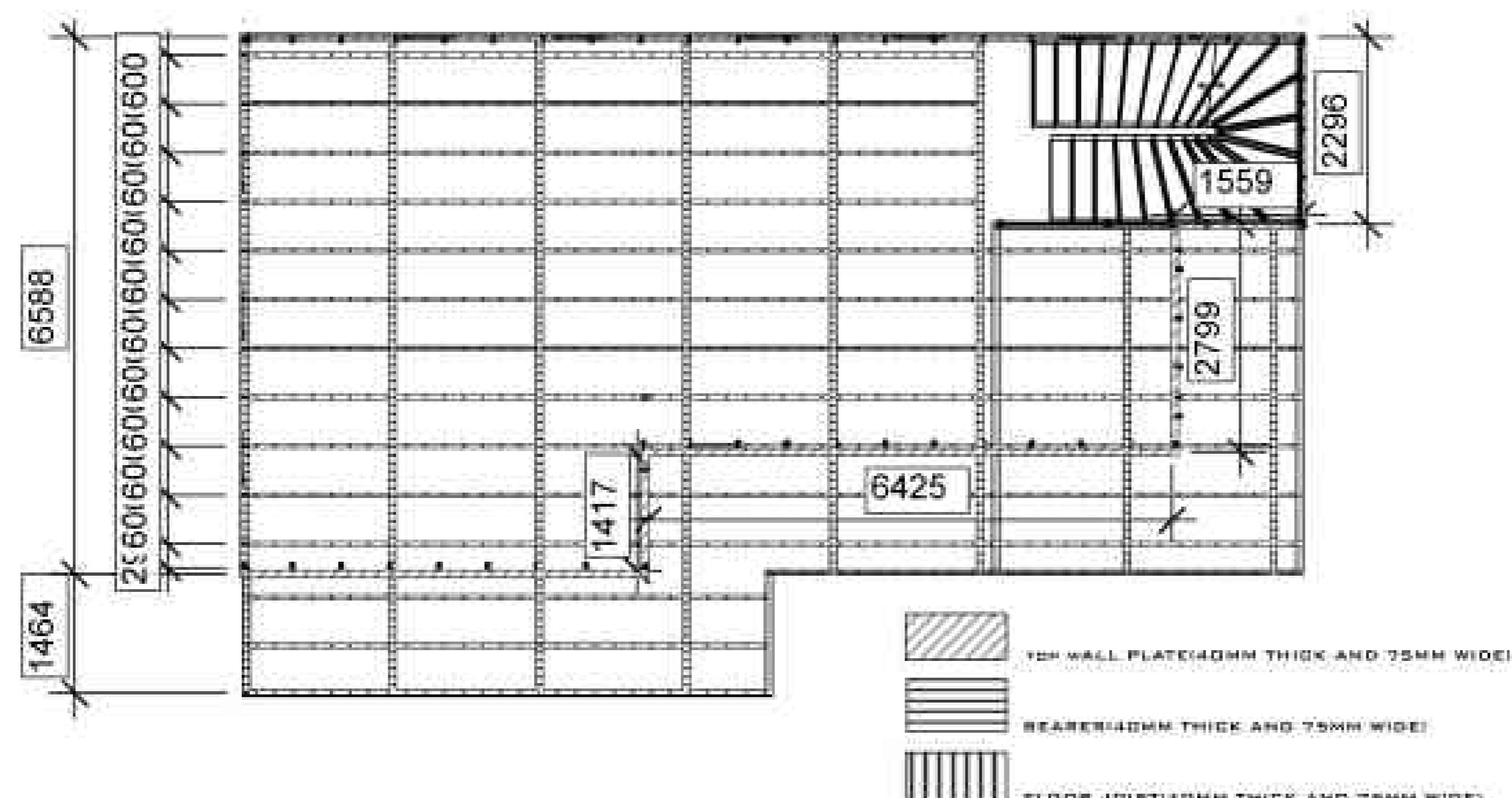
PREPARED BY	LIDYA MIHRET
SCALE	1:50
TITLE	LIGHTING AND VENTILATION
DATE	DECEMBER-22-2020



FOOTING PLAN



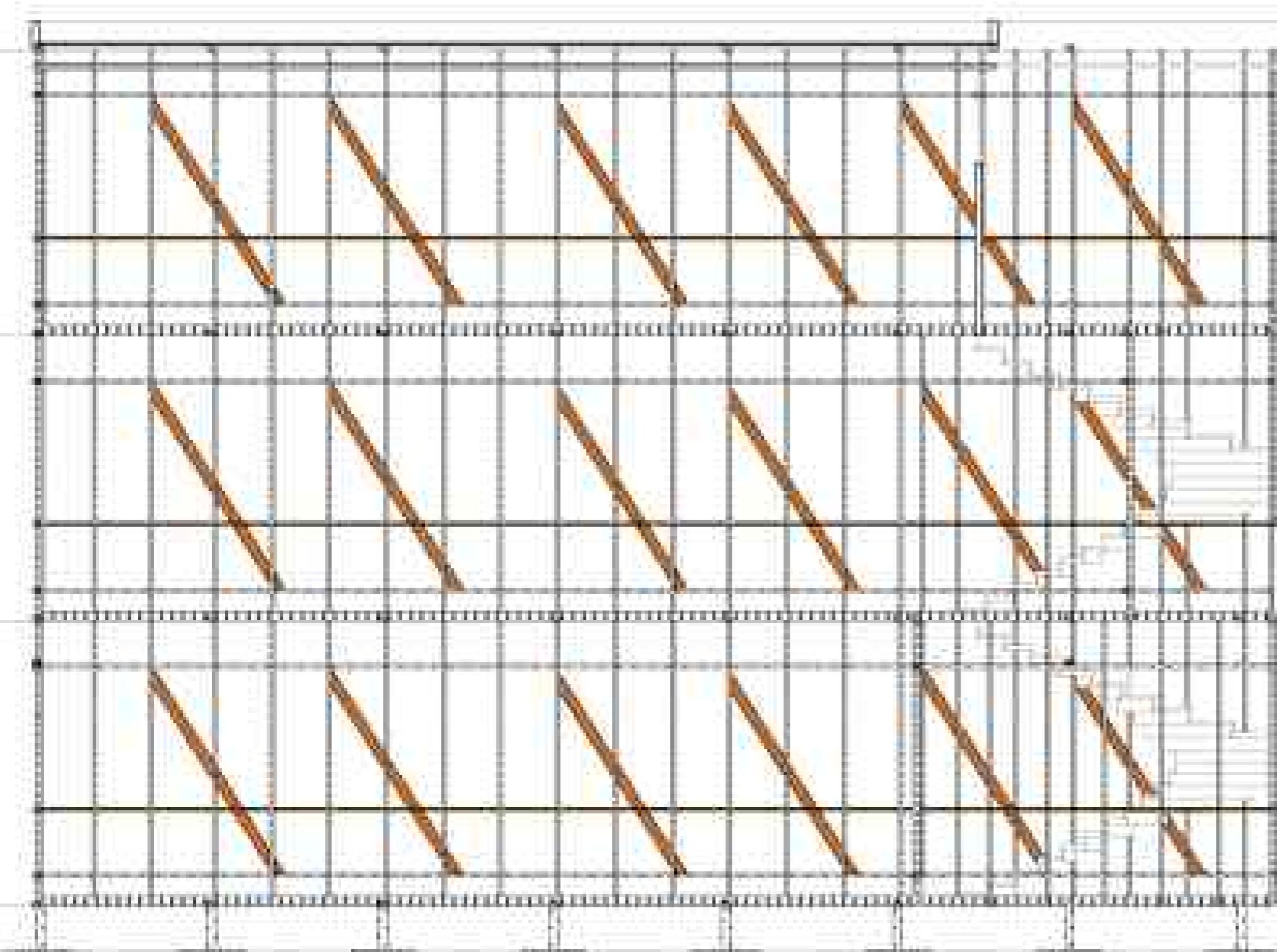
GROUND FLOOR PLAN



FIRST FLOOR PLAN

PREPARED BY	LIDYA MIHRET
SCALE	1:50
TITLE	footing, and structures
DATE	DECEMBER-22-2020

SECTION 1



Level 4

9000

Level 3

6000

Level 2

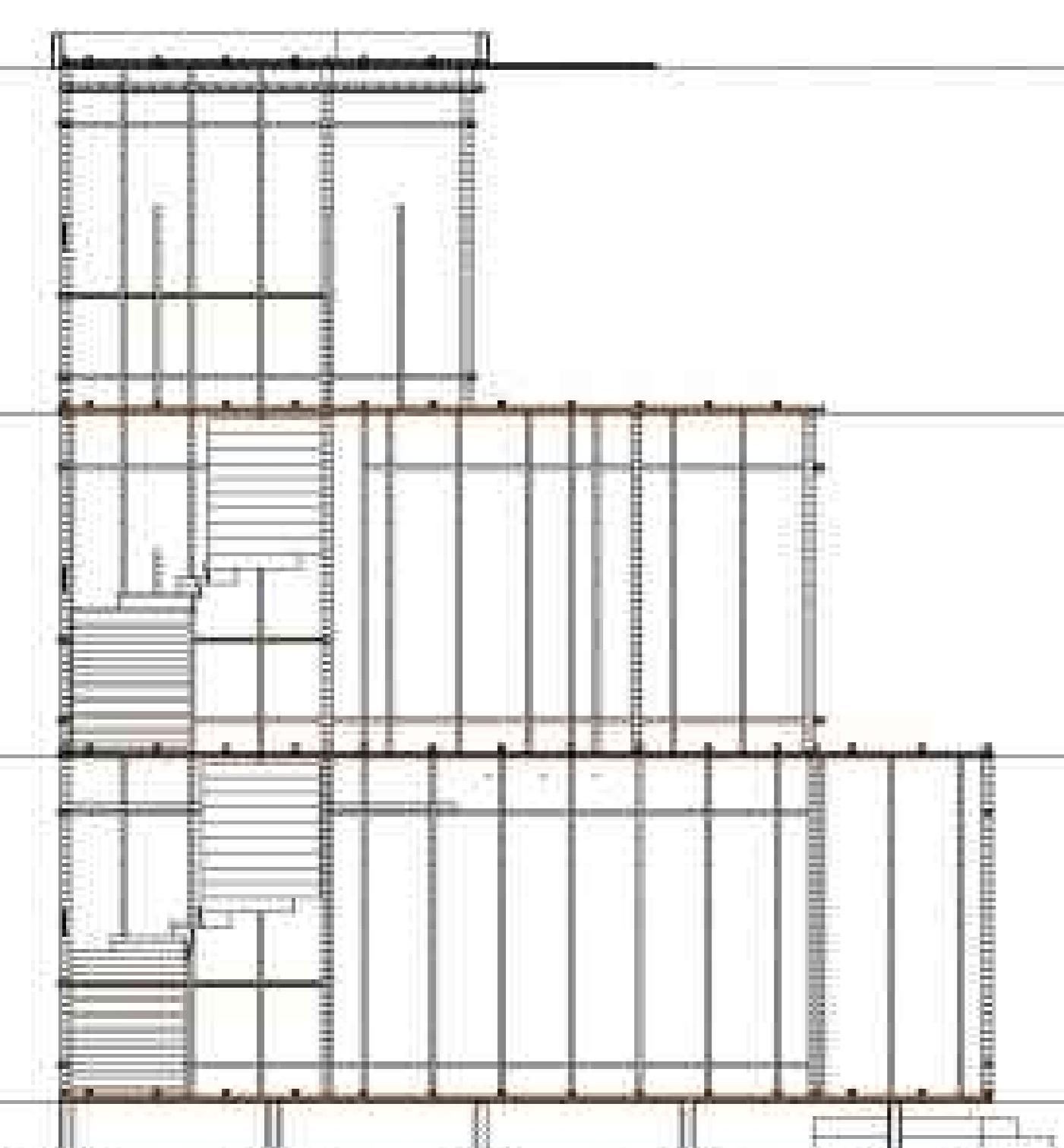
3000

Level 1

footing

-450

SECTION 2



Level 4

9000

Level 3

6000

Level 2

3000

Level 1

footing



PREPARED BY

SCALE

TITLE

DATE

LIDYA MIHRET

1:50

footing, and structures

DECEMBER-22-2020



PREPARED BY

SCALE

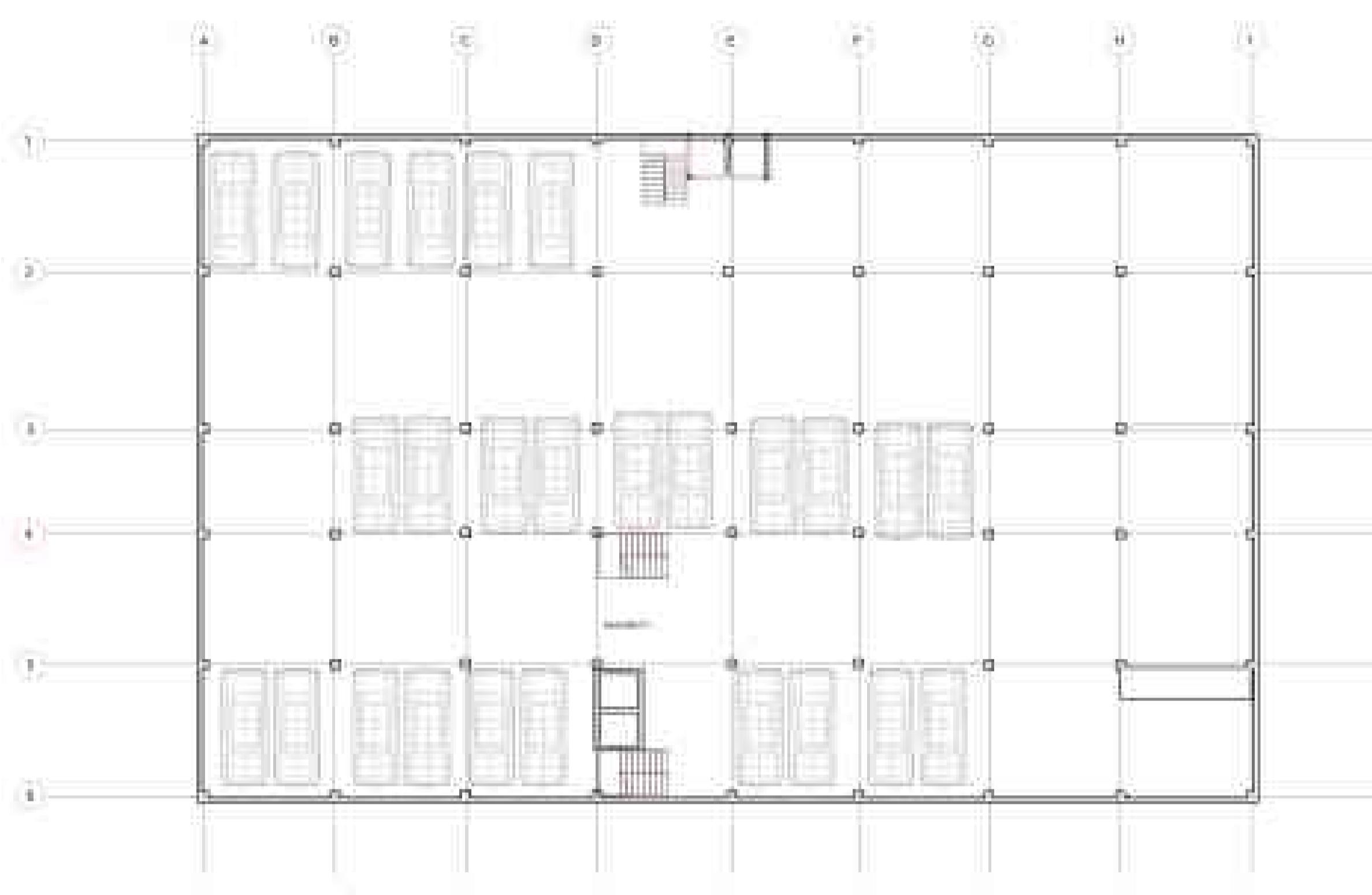
TITLE

DATE

LIDYA MIHRET

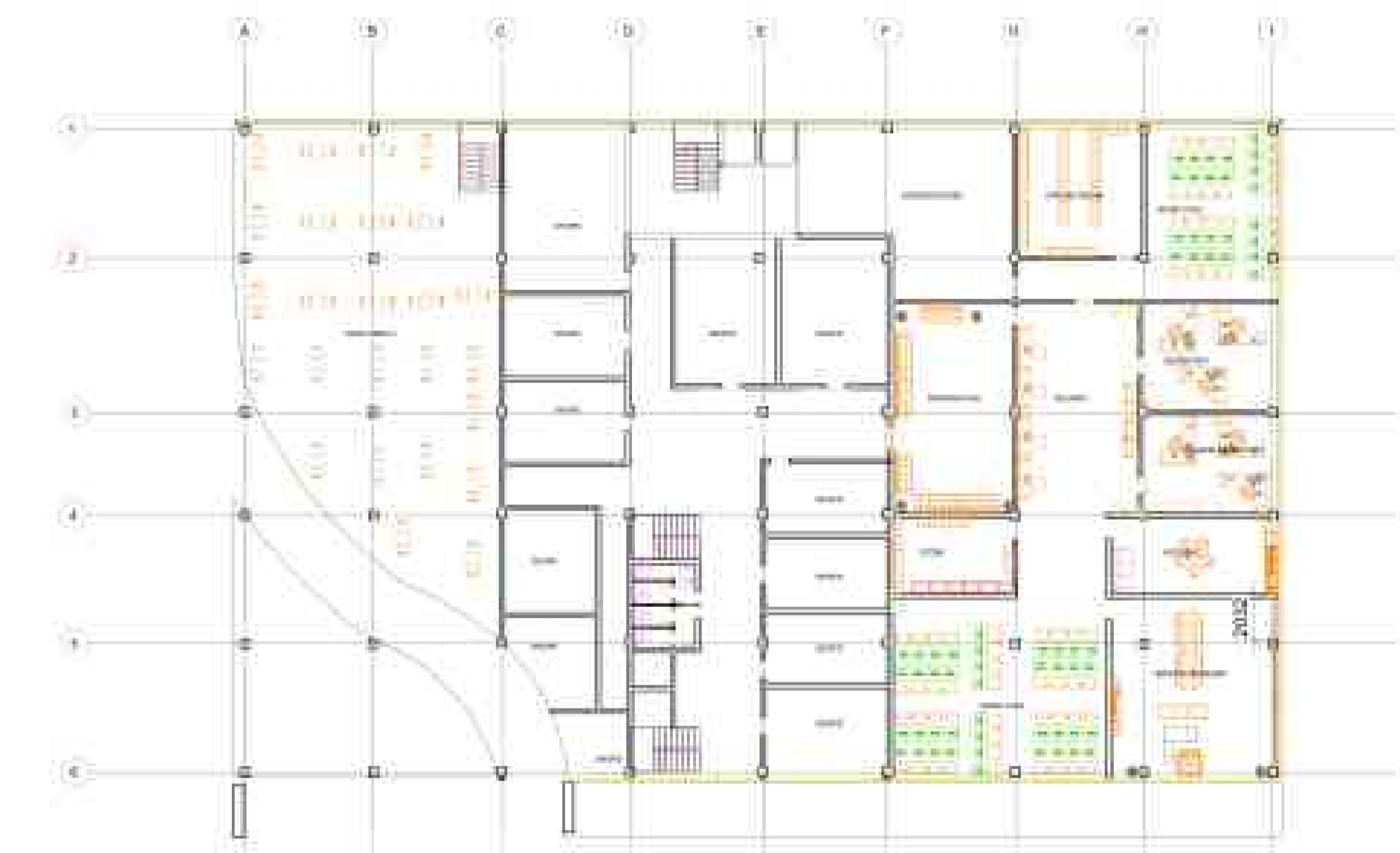
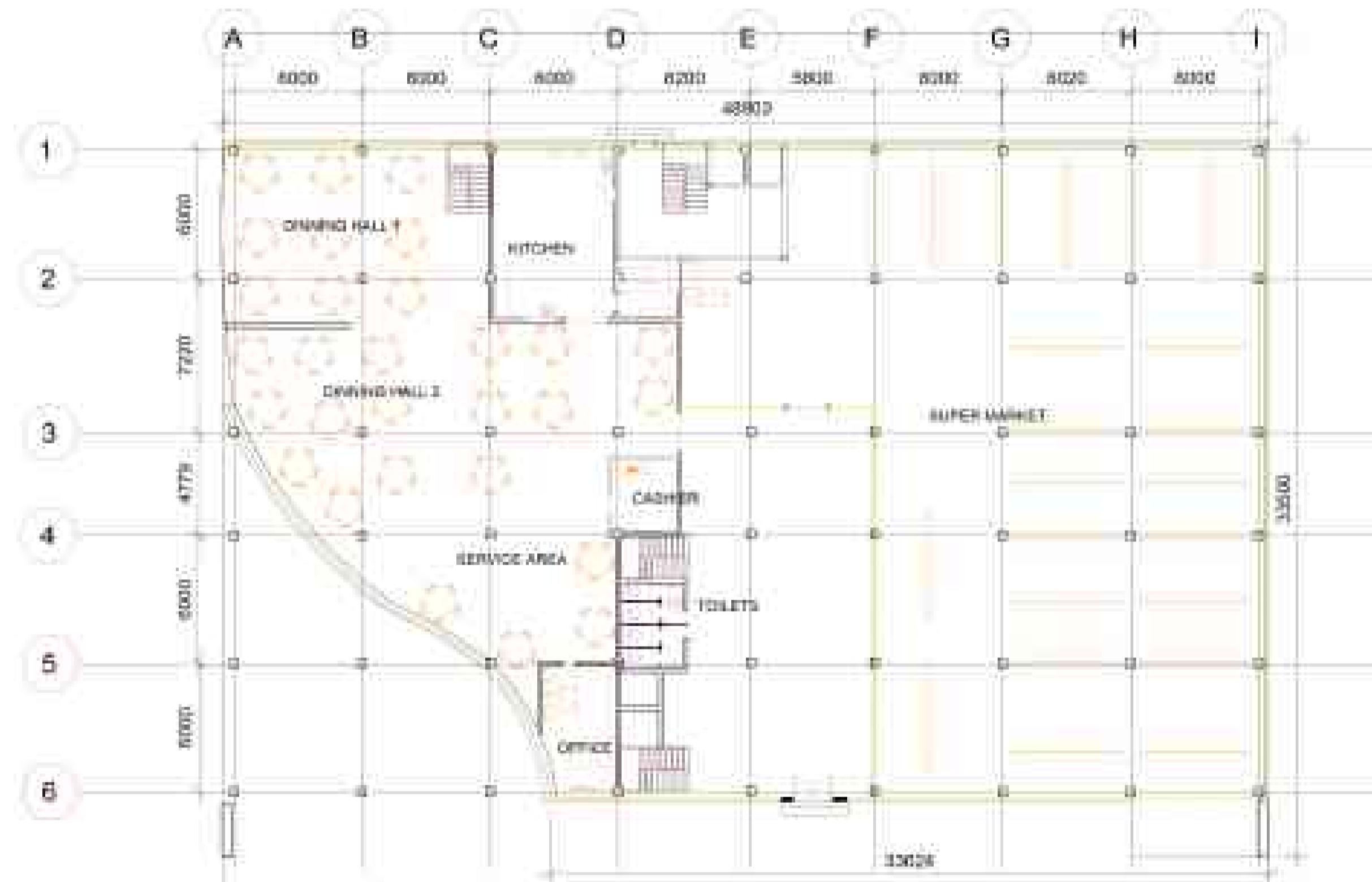
3d and interiors

DECEMBER-22-2020

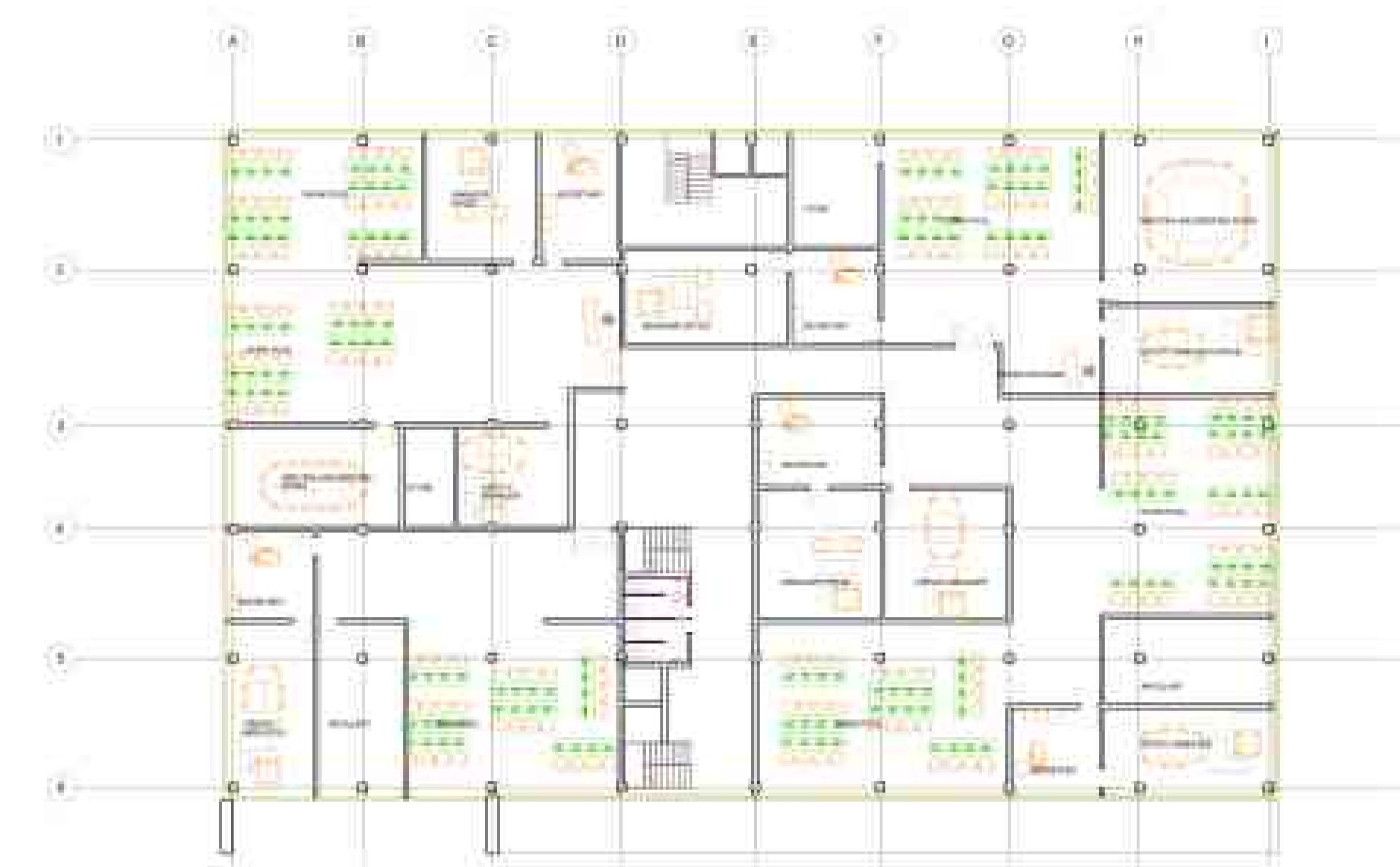
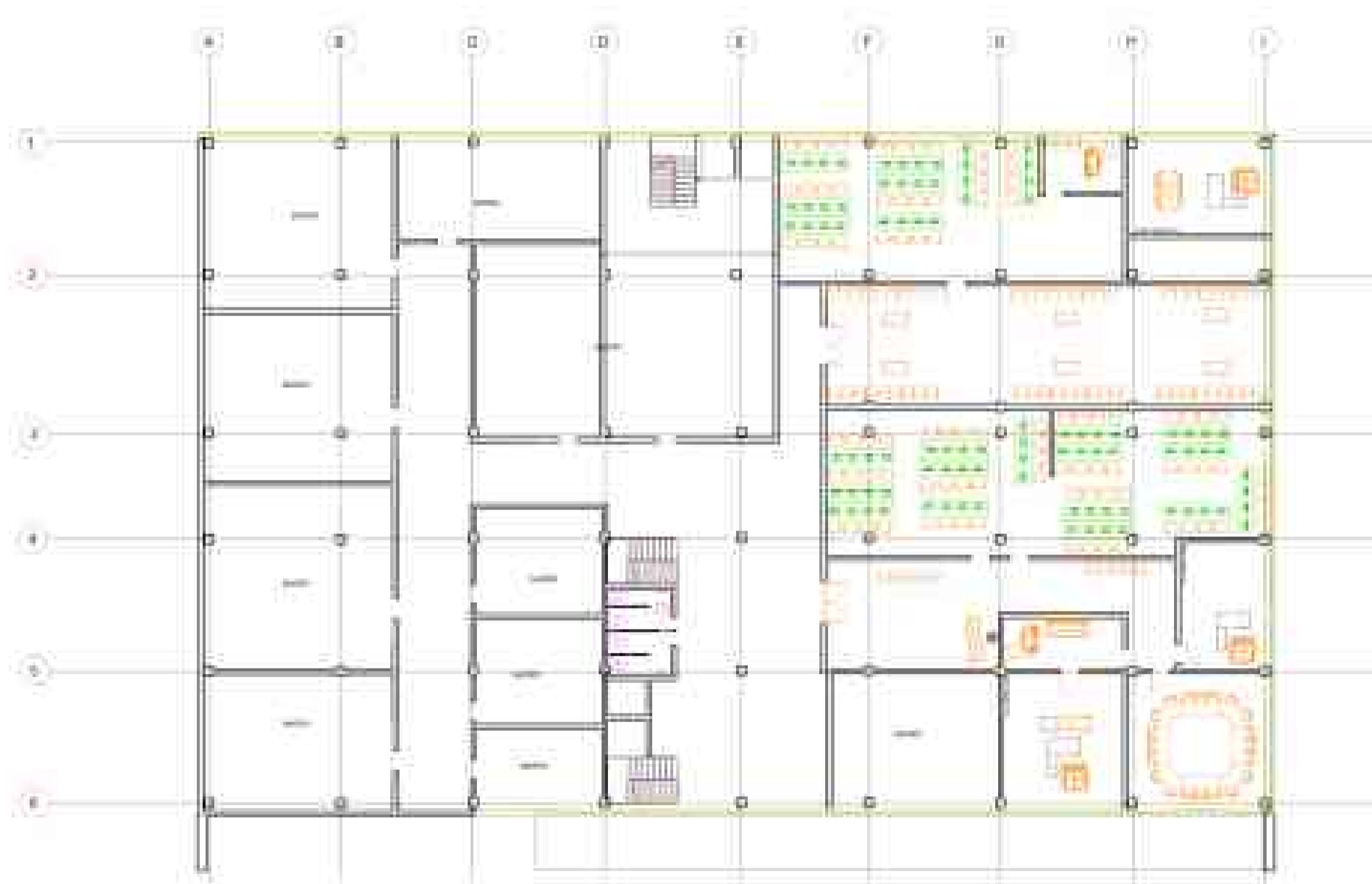


**NAME LIDYA MIHRET
SECTION 1
RAR/735/16
SCALE 1:200**

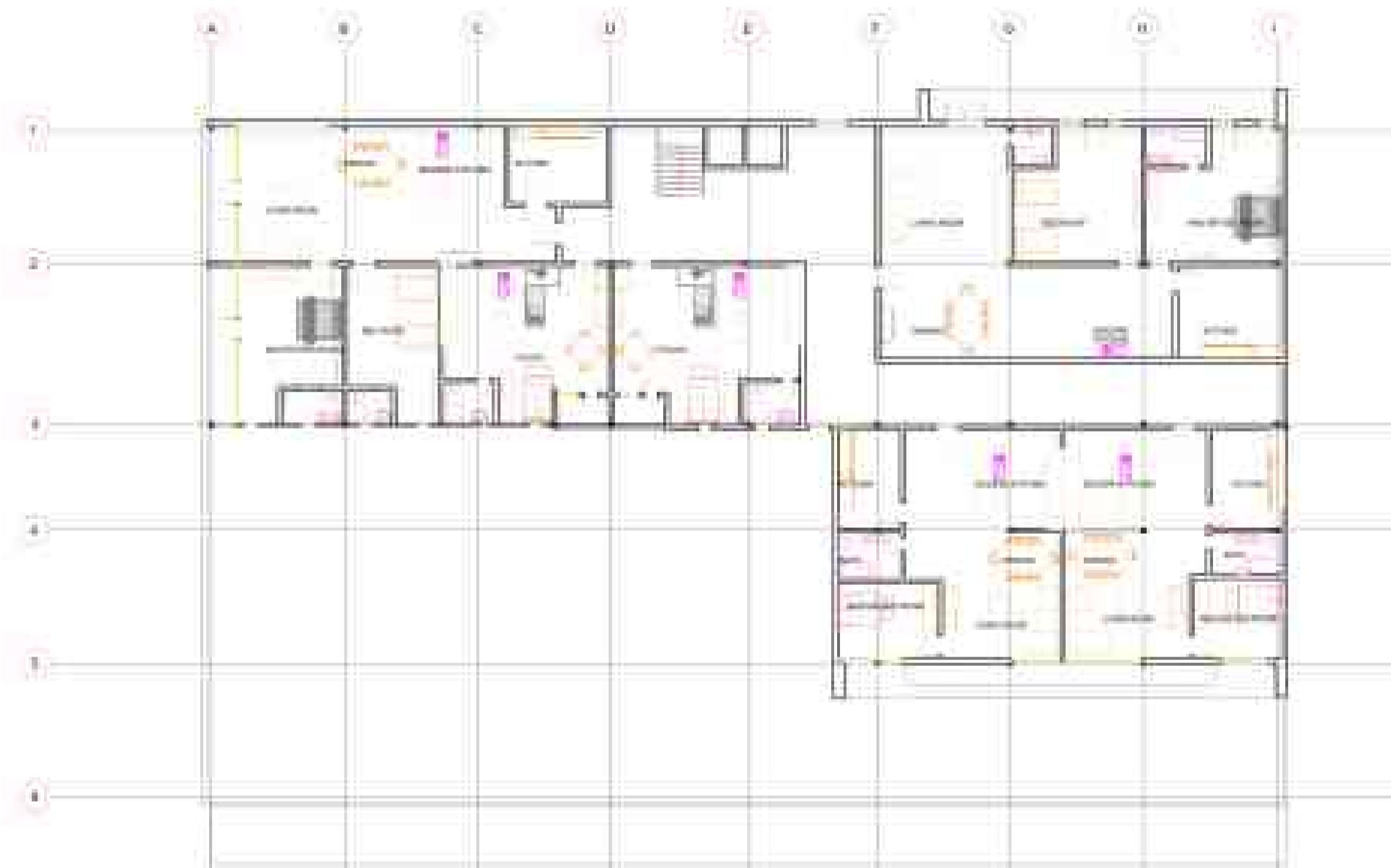
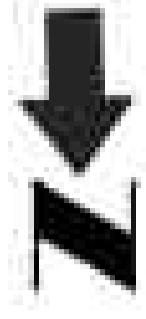
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**NAME LIDYA MIHRET
SECTION 1
RAR/735/16
SCALE 1:200**

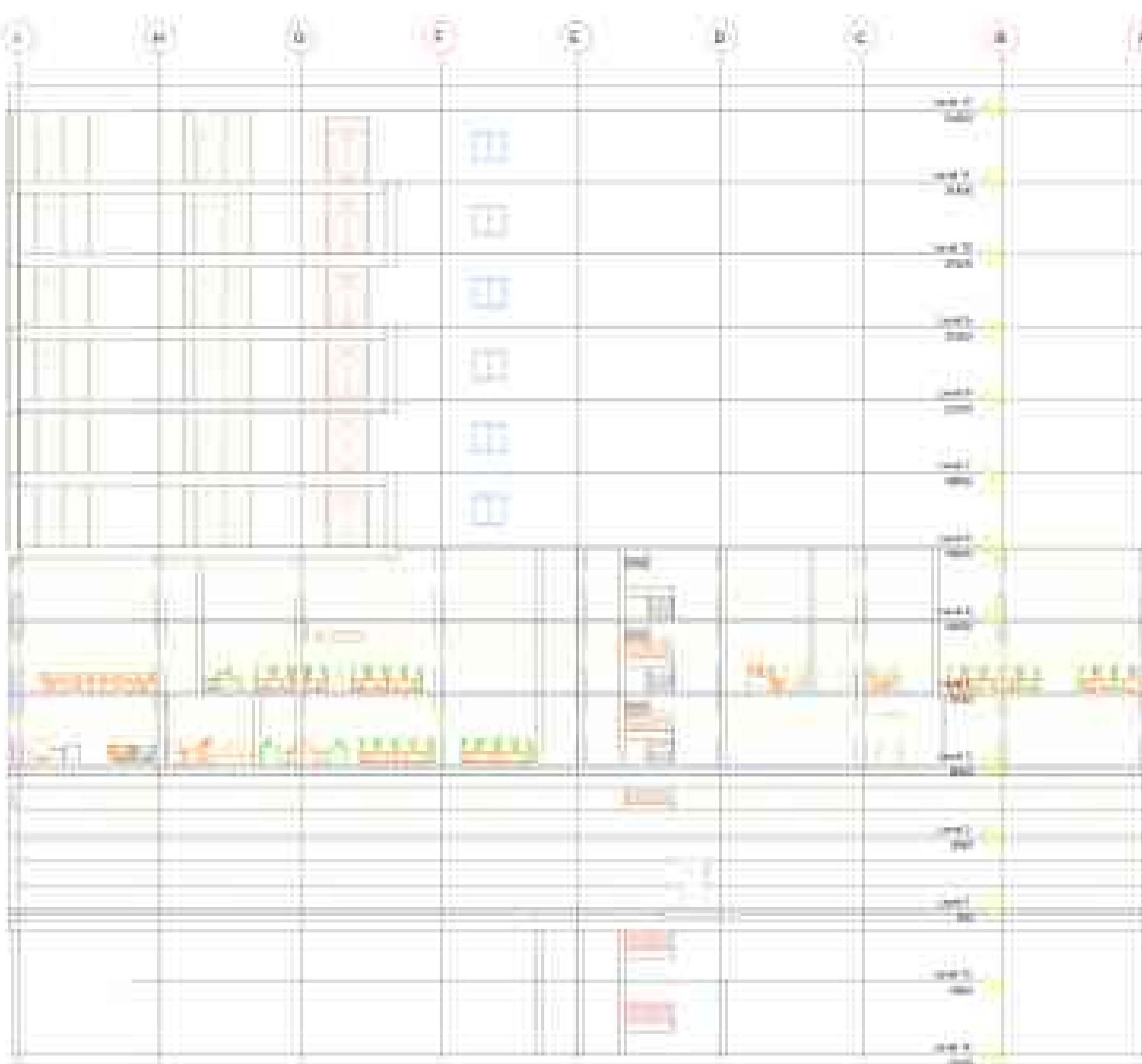


**NAME LIDYA MIHRET
SECTION 1
RAR/735/16
SCALE 1:200**

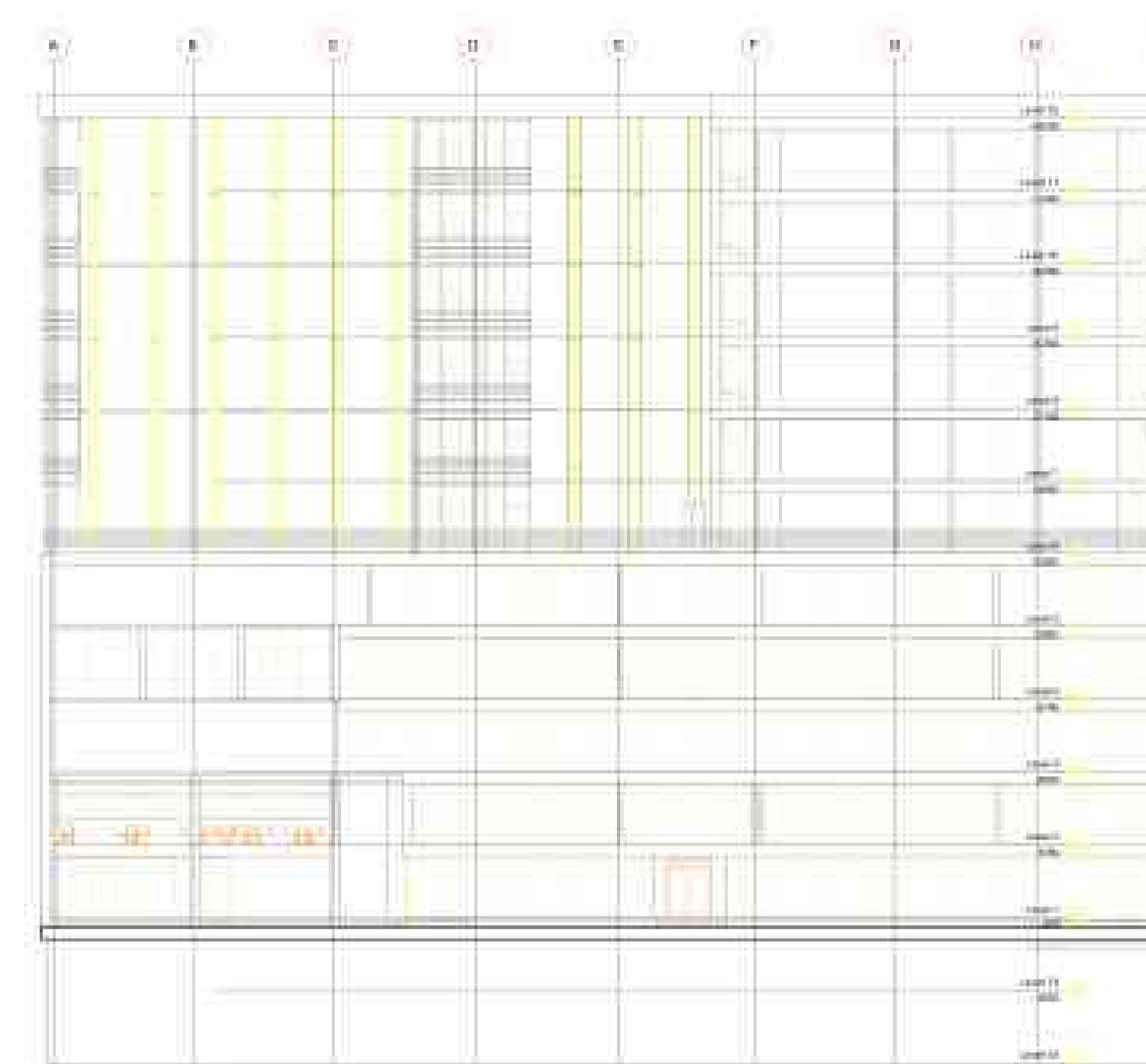


FIFTH - ELEVENTH FLOOR PLAN

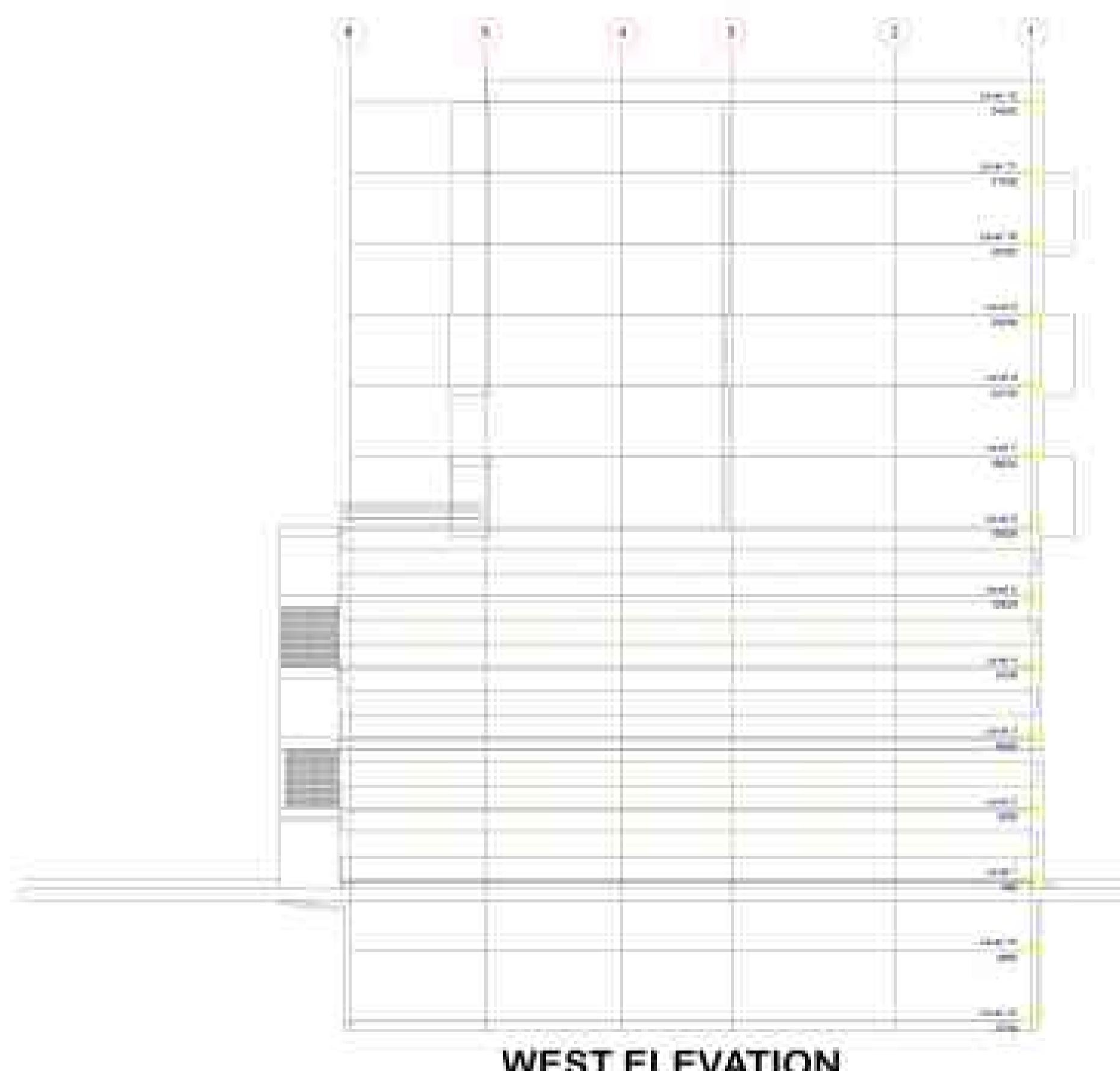
NAME LIDYA MIHRET
SECTION 1
RAR/735/16
SCALE 1:200



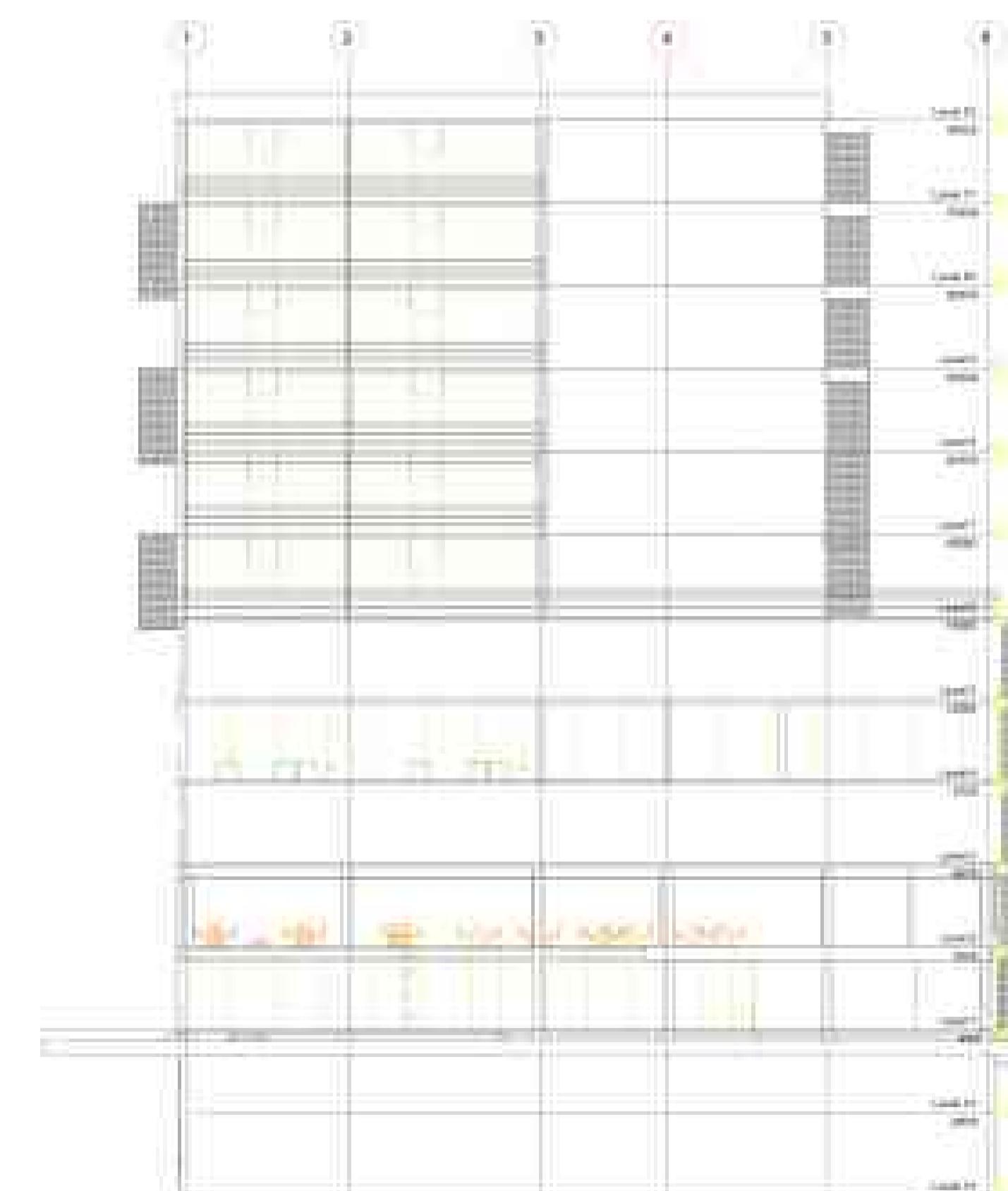
NORTH ELEVATION



SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION

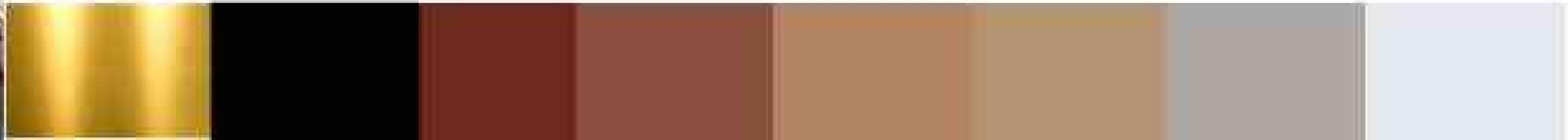
**NAME LIDYA MIHRE
SECTION 1
RAR/735/16
SCALE 1:200**



**DR. BY LIDYA MIHRET
SECTION 1
RAR/735/16
SCALE 1:200**



NATURAL MOOD BOARD



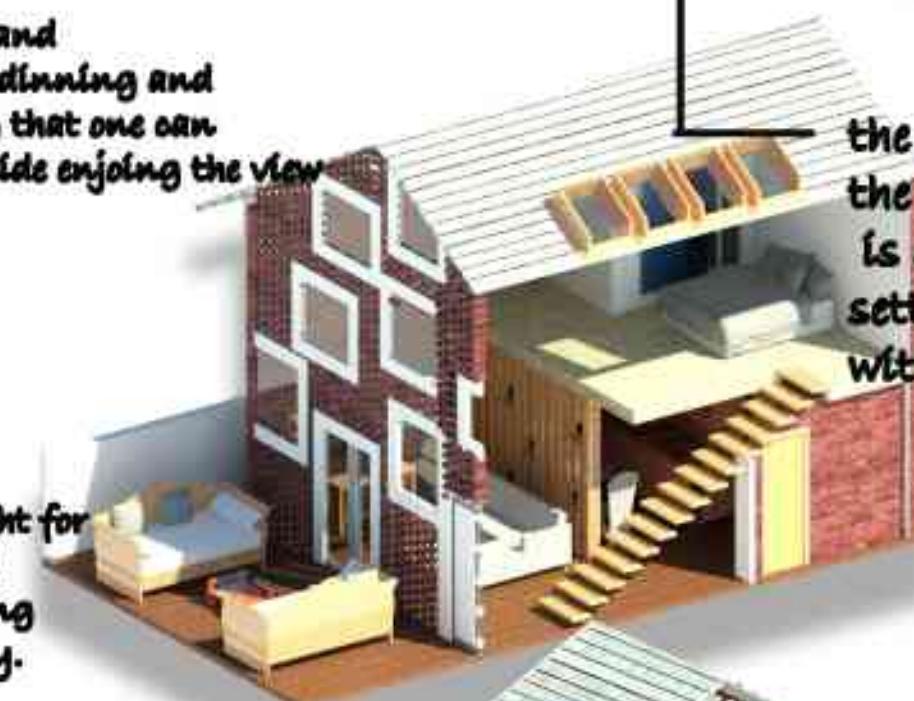
Space Articulation

Our design is a loft house which almost most of the rooms are visually accessible, that is easy to figure out, creating a sense of belongingness and easy access.



the living room has a natural brick wall and have visual access to the kitchen which have wooden partition to give it naturalistic feeling also have a visual connection to the garden and physical access to the verandah which also can be used as a sitting area

the garden with shading material and vines and plants as visible from the kitchen, dining and the living room. It creates a feeling that one can be inside but still aware of the outside enjoying the view



the kitchen the feeling we wanted to create is a natural with a furniture setting of wood and is facilitated with a stove.



Material usage

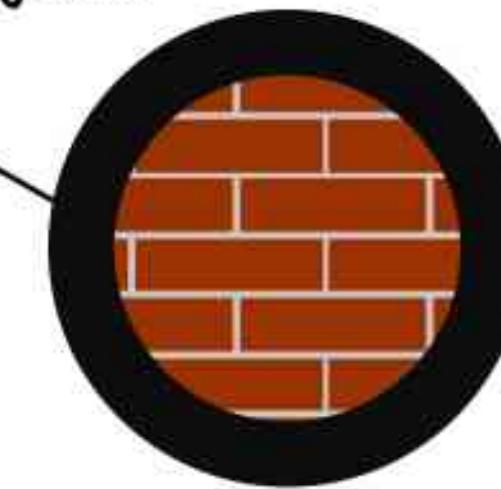


this is a displacement method used to decorate our front wall to articulate the interior space natural light.

on the natural state and size of the brick is used on this articulation,



the other walls in this residence are brick walls with stretcher bond. In stretcher bond masonry all the bricks are arranged in stretcher course care should be taken to break vertical joints.



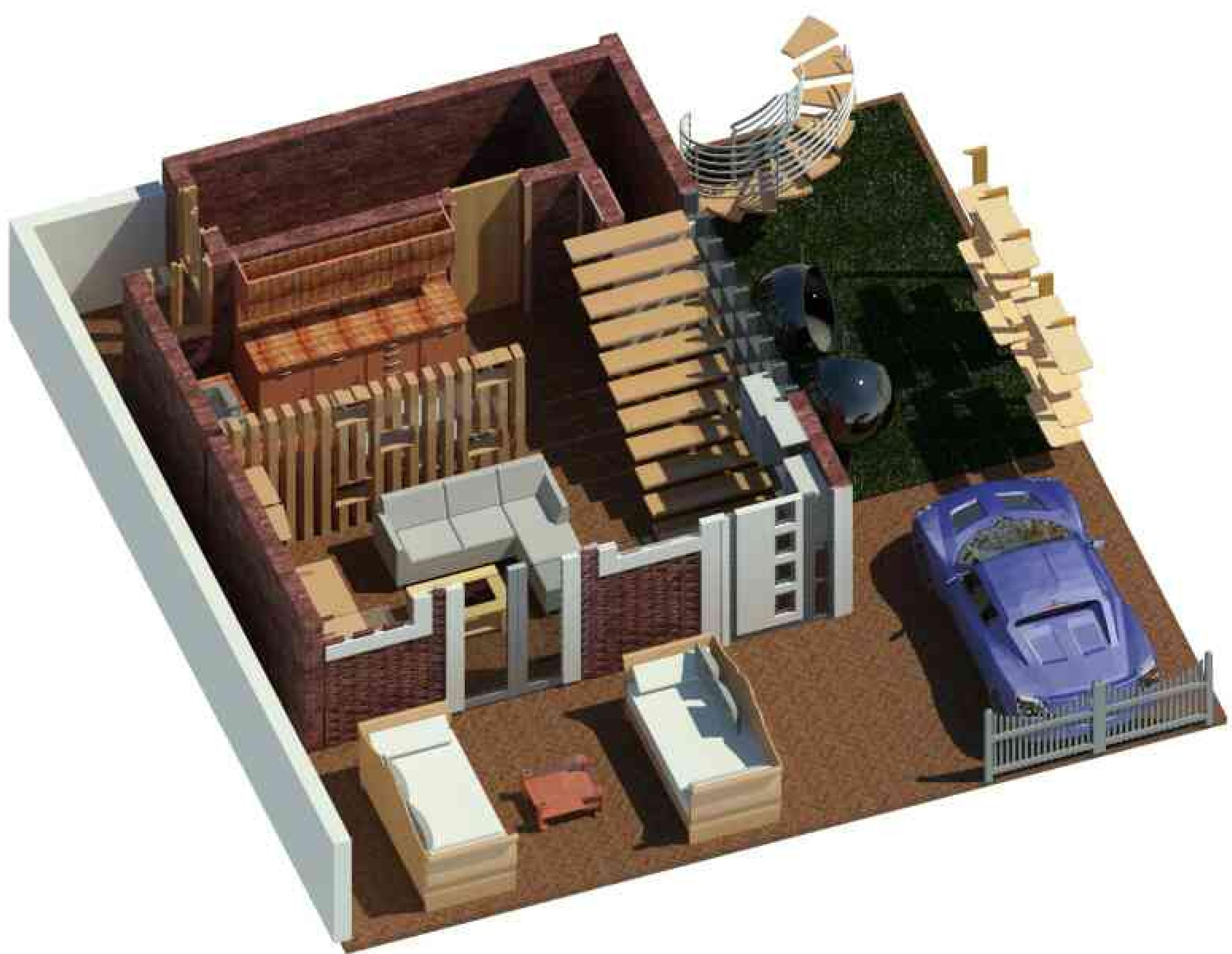
Artificial lighting



bed room corner light with green light.
shade material - metal type - Gooseneck
wattage- 31-40W
bulb type - LED



living room lighting
ceiling mounted hanging light
type- lampara globo filamento
bulb type-LED
wattage- 10W









Part 1

Site analysis



LOCATION MAP

LOCATION MAP

- THE PROPOSED SITE IS FOR
THE MULTIPURPOSE SPORT
FIELD FOR HOPE UNIVERSITY
COLLEGE.

SITE AREA

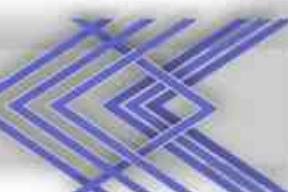


T.A = 3090 SQ.M



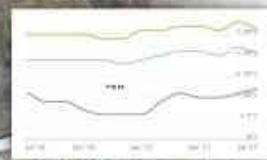
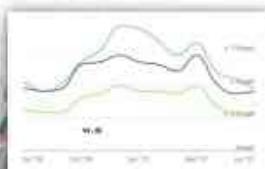
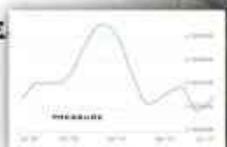
PREPARED BY:
LIYOLA MIRRET

ID.NO.: 735/16
INSTRUCTORS:
AR. LISANEWORK
INTERNSHIP PROJECT
SITE ANALYSIS





CLIMATE

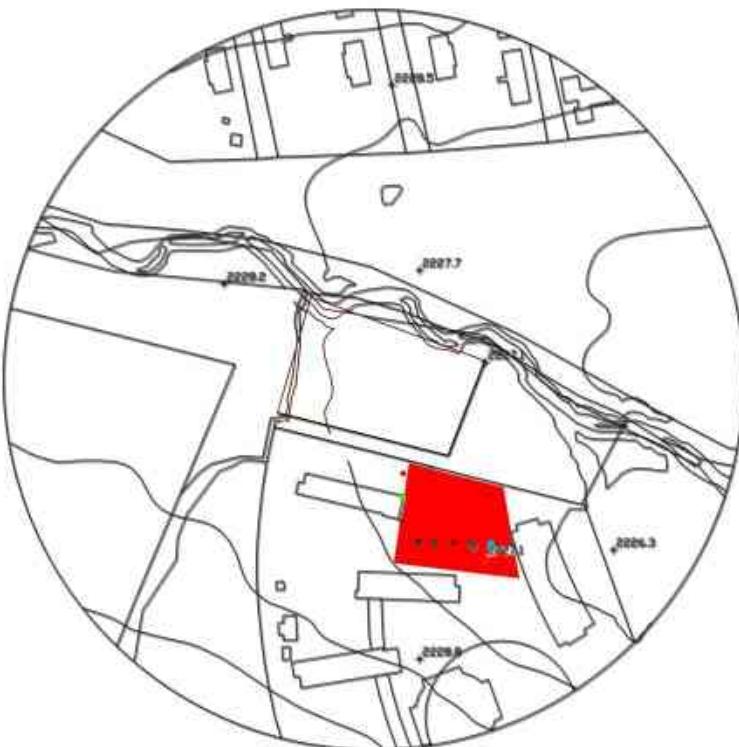




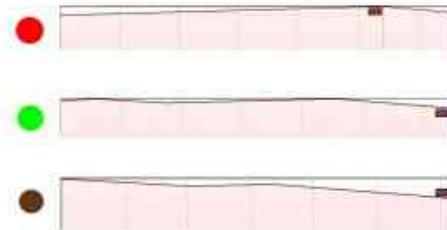
TOPOGRAPHY

TOPOGRAPHY

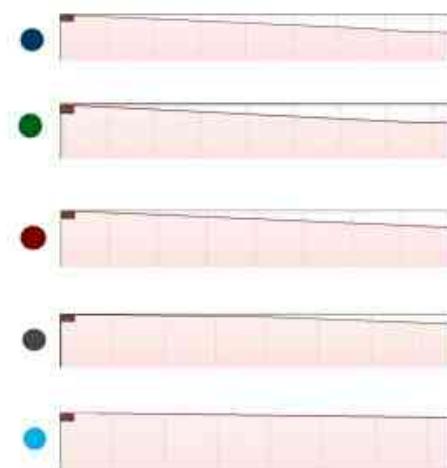
- D=0M E= 2233.26 A= INCREASE
D=100M E= 2233.88 S=0.62%
ELEVATION DIFFERENCE=+0.62M
- D=0M E=2233.88 A=DECREASE
D=98M E=2233.57 S=0.32%
ELEVATION DIFFERENCE=-0.31M
- D=0M E= 2234.48 A= INCREASE
D=95M E= 2233.57 S=0.86%
ELEVATION DIFFERENCE=+0.91M
- D=0M E= 2234.48 A=DECREASE
D=65M E= 2233.27 S=1.69%
ELEVATION DIFFERENCE=-1.21M
- D=0M E= 2234.18 A= INCREASE
D=61M E= 2233.57 S=1%
ELEVATION DIFFERENCE=+0.61M
- D=0M E= 2234.18 A= INCREASE
D=58M E= 2233.59 S=1.02%
ELEVATION DIFFERENCE=+0.59M
- D=0M E= 2234.18 A= INCREASE
D=57M E= 2233.57 S=1.07%
ELEVATION DIFFERENCE=+0.61M
- D=0M E= 2233.87 A=DECREASE
D=55M E= 2233.57 S=0.54%
ELEVATION DIFFERENCE=-0.3M



HORIZONTAL SECTION



VERTICAL SECTION



N



PREPARED BY:

LIDYA MIHRET

ID.NO:

735/16

INSTRUCTORS

AR. LIBANEWORK

INTERNSHIP PROJECT

SITE ANALYSIS

ACCESS AND CIRCULATION

LEGEND

STREET JUNCTION



T-JUNCTION



Y-JUNCTION

STREET HIERARCHY



MAIN STREET



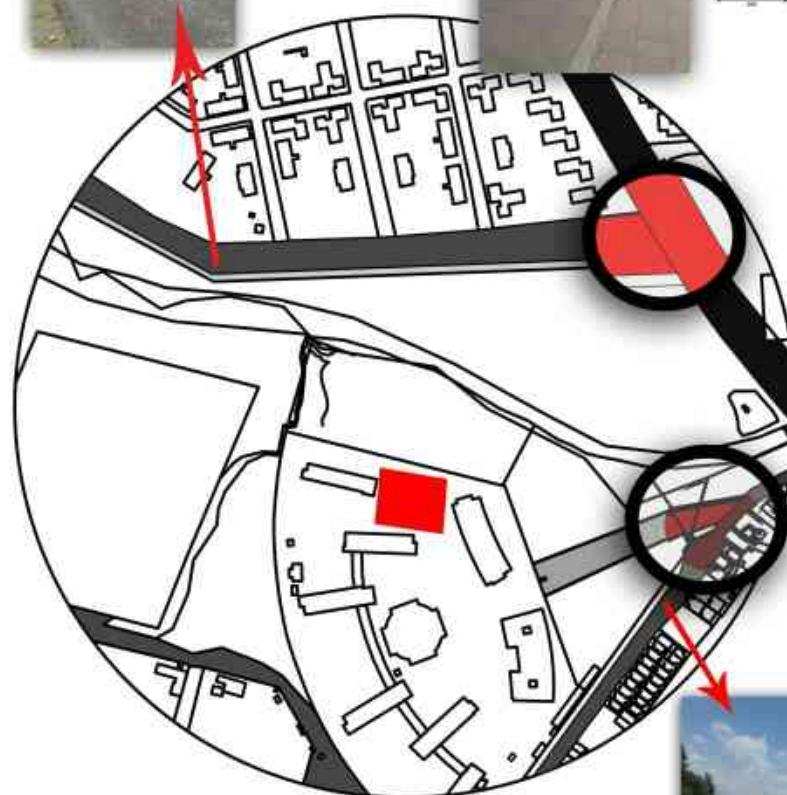
COLLECTOR STREET



LOCAL STREET



ACTION AREA



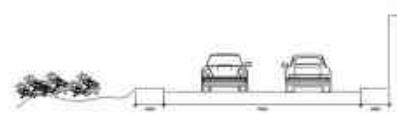
STREET SECTION



MAIN STREET



COLLECTOR



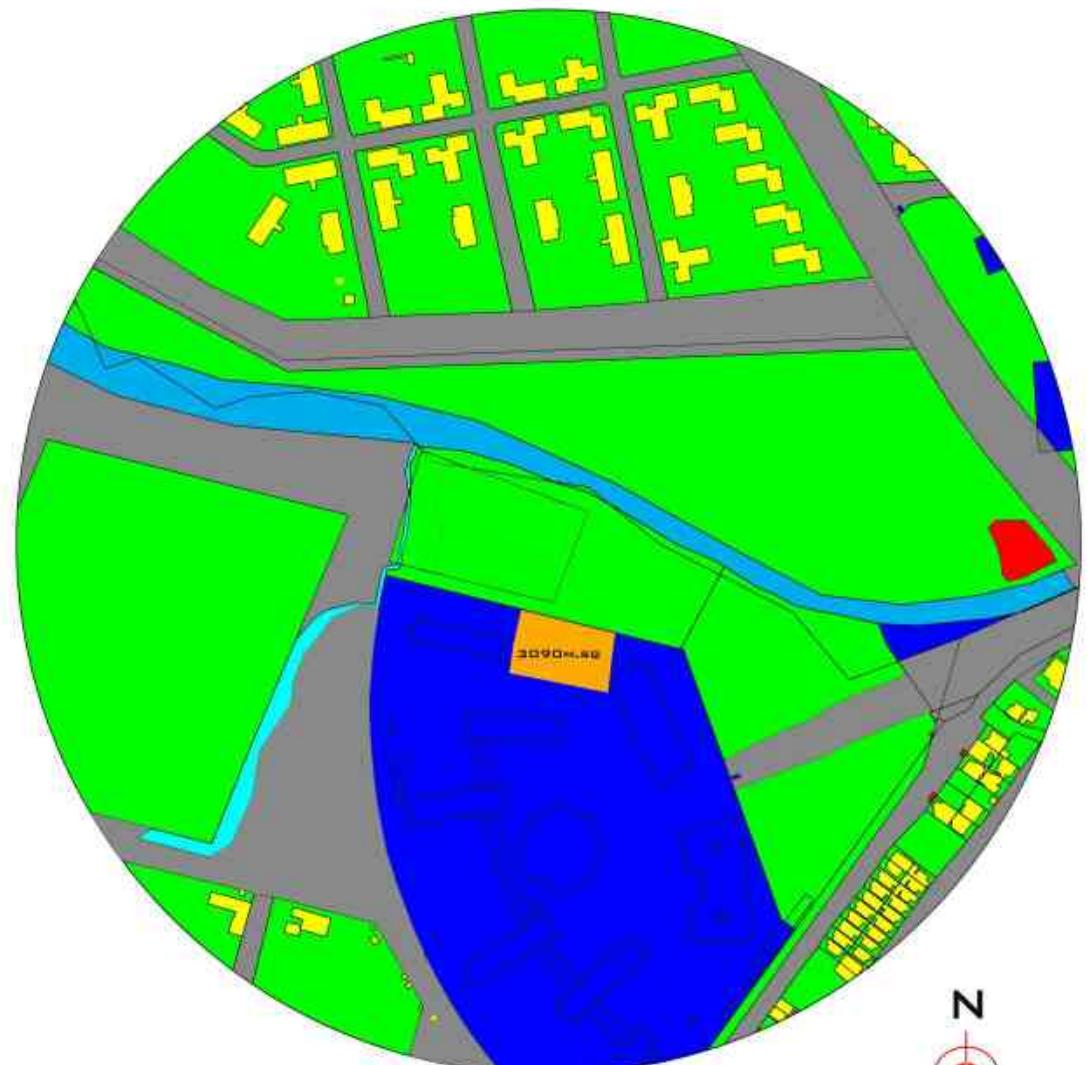
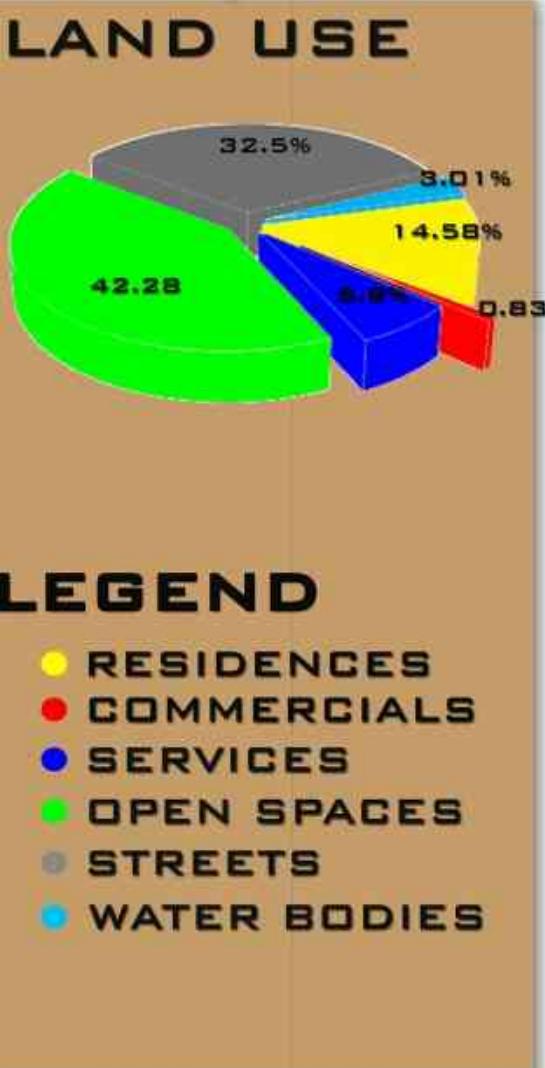
COLLECTOR



LOCAL



LAND USE



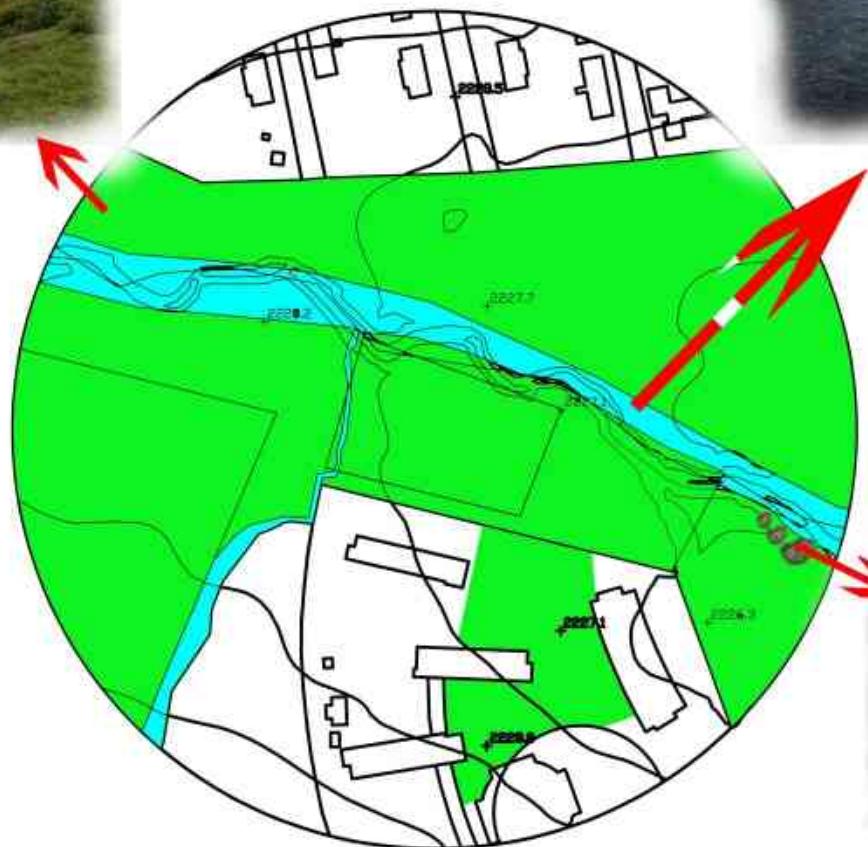


BIOLOGICAL FACTOR

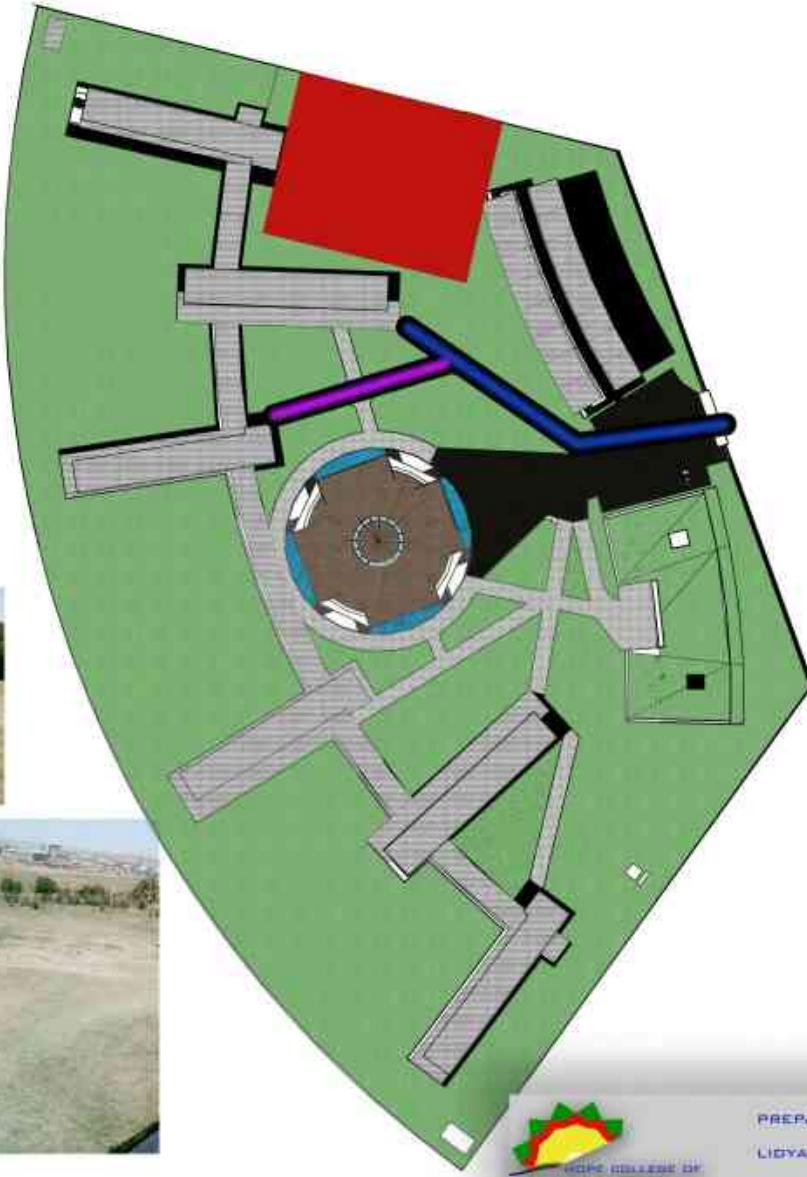
LEGEND



THE ACTION AREA IS COVERED
WITH GRASS AND THE VEGETATIONS
CAN EASILY GROW IF KEPT WELL.



CIRCULATION
AROUND THE SITE



THE SITE

FROM SITE TO
THE ARCHADE

FROM SITE TO
COMPOUND EXIT

A SPORT FIELD MUST BE EASY TO BE
ACCESSED BY VEHICLES INCASE THERE
ARE INJURIES.





STRENGTH

- * THE SLOPE OF THE SITE GOOD FOR SPORT FIELD
- * ACCESSIBLE FROM OUT SIDE



OPPORTUNITY

- * EASY FOR CONTRUCTION
- * GOOD SOILE TYPE



WEAKNESS

- * THE AREA IS CLOSE TO BUILDINGS



THREAT

- * NOISE FROM THE FIELD MAY DISTRACT THE CLASS ROOMS AND THE RESIDENCE



Part 2

Material analysis

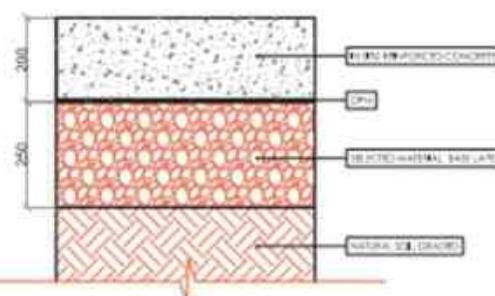
FLOOR MATERIAL

CONCRETE IS THE SELECTED MATERIAL.

CRITERIA; -STRENGTH

- SITE SOIL TYPE (EXPANDING)
- SUITABLE FOR SPORTS
- RELATIVELY LOW COST

COMPARATIVELY

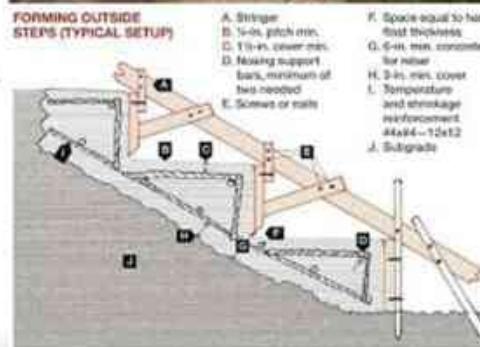


THE CONTRACTOR NEEDS TO¹⁸

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7
Clear the site	Perform bulk excavation	Supply and construct selected material fill	Supply and construct in situ reinforced concrete surface	Construct the side drainage	Install ancillary works	Apply the line markings

SEATING

BENCHES



CRITERIA:-

- IT MINIMIZES COST
- DOES NOT NEED ADDITIONAL CHAIR
- MAINTAINABLE
- FEASIBLE



FENCING

VERTICAL BENDED ALUMINUM

CRITERIA :- DURABILITY

STRENGTH

LESS MAINTENANCE

AESTHETIC

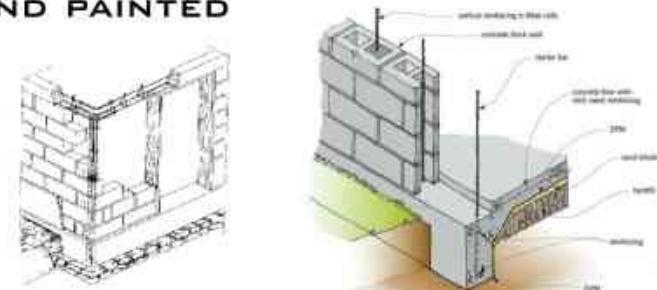
ALUMINUM IS AVAILABLE IN
OUR COUNTRY, AND CAN BE
INSTALLED EASILY.

THE MATERIAL HAS LOW SELF
LOAD WHICH MAKES IT A LOT
EASY TO ERECT.



FOR SANITARY AND STORE ROOMS

HCB WALL PLASTERED
AND PAINTED



INTERIOR WITH PORCLAIN TILES FOR
BOTH FLOOR AND WALL FOR THE
CHANGING AND SHOWER ROOM
AND

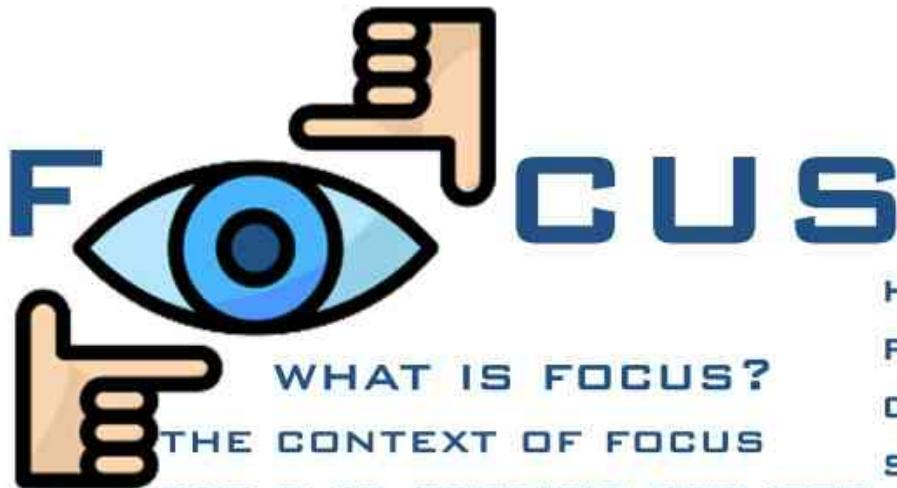
INTERIOR WITH PLASTER AND PAINT
FOR THE STORE AND TOILETS

CRITERIA:-EASY CLEAN
AVAILABLE



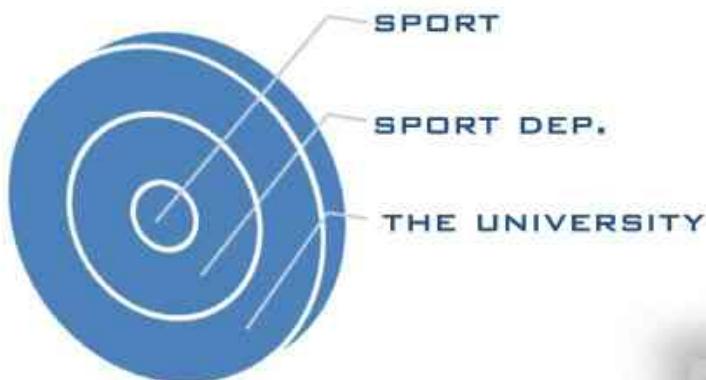
Part 3

Proposed design



WHAT IS FOCUS?

THE CONTEXT OF FOCUS FOR THIS SPECIFIC PROJECT IS, A CENTER OF ACTIVITY OR ATTENTION.



PROJECT DESCRIPTION

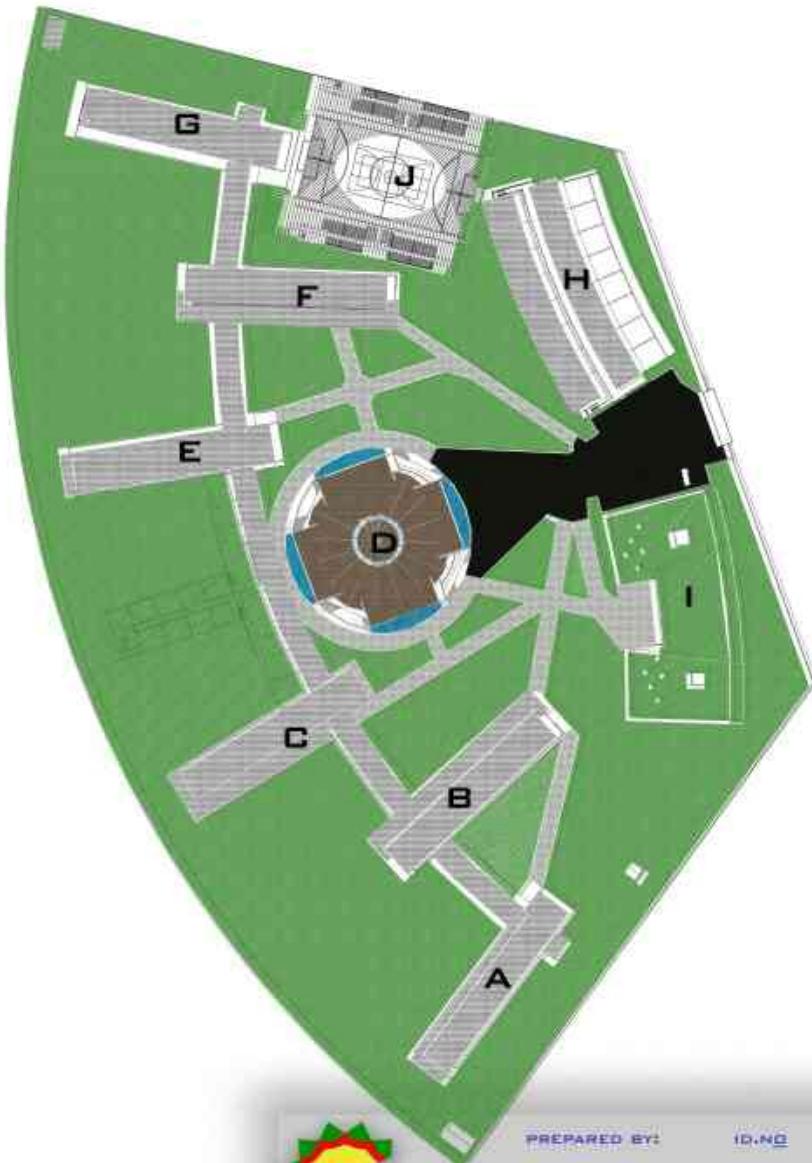
FOOTSALE WHICH ENABLES STUDENTS PLAY FOOTBALL, BASKETBALL AND VOLLYBALL AT DIFFRENT TIMES WITH SHADE AND COMFORTABLE SEATS FOR WATCHERS, AND CHANGING ROOMS AND BATH ROOMS FOR PLAYERS.

HOPE UNIVERCITY HAVE A SITE PLAN DESIGNED WITH A CONCEPT OF AN EYE.

SO THE PROJECT I AM ON IS A BIT OUT OF FOCUS SO I NEED THE EYE TO FOCUS ON THE SPORT FIELD, TO PROMOT THE UNIVERSITY AS IT WAS KNOWNEN FOR THE MULTIPURPOUS HALL.

SO THE SCHOOL CAN ALSO BE KNOWNEN FOR THE ATTENTION IT GIVES TO THE SPORT.

SITE PLAN

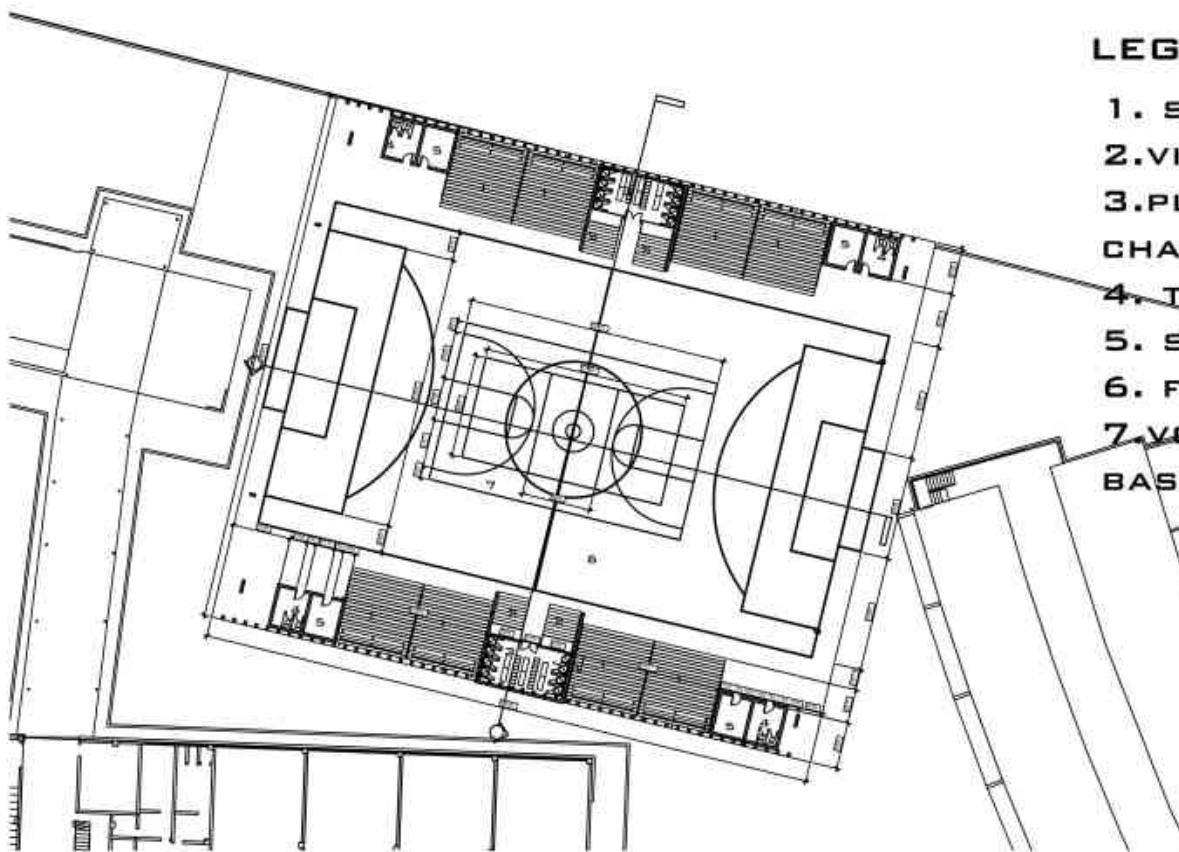


LEGENDS

- A. CAFETERIA
- B. CLASS ROOMS
- C. ADMINISTRATION
- D. MULTI PURPOSE HALL
- E. ARCHITECTURE DEPARTMENT
- F. CLASS ROOMS
- G. WORKSHOPS
- H. RESIDENCES
- I. LIBRARY
- J. SPORT FIELD



FLOOR PLAN



LEGENDS

1. SEATS
2. VIP SEATS
3. PLAYERS SHOWER AND CHANGING
4. TOILETS
5. STOR
6. FOOTBALL FIELD
7. VOLLYBALL AND BASKETBALL COURT

GROUND FLOOR PLAN



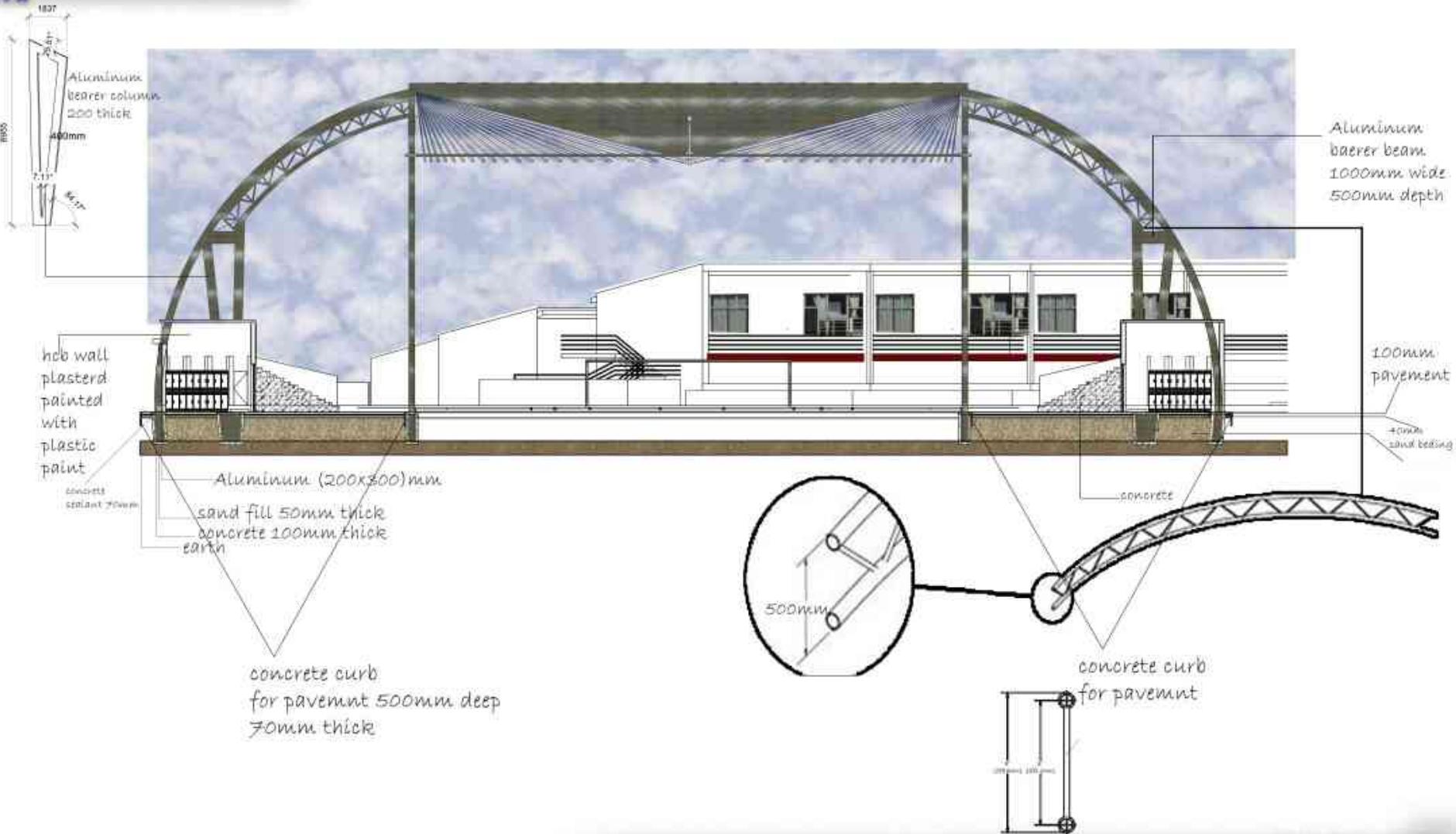
PREPARED BY:
LIYOLA HINRET

ID.NO:
735/16

INSTRUCTORS:
AR. LISANEWORK

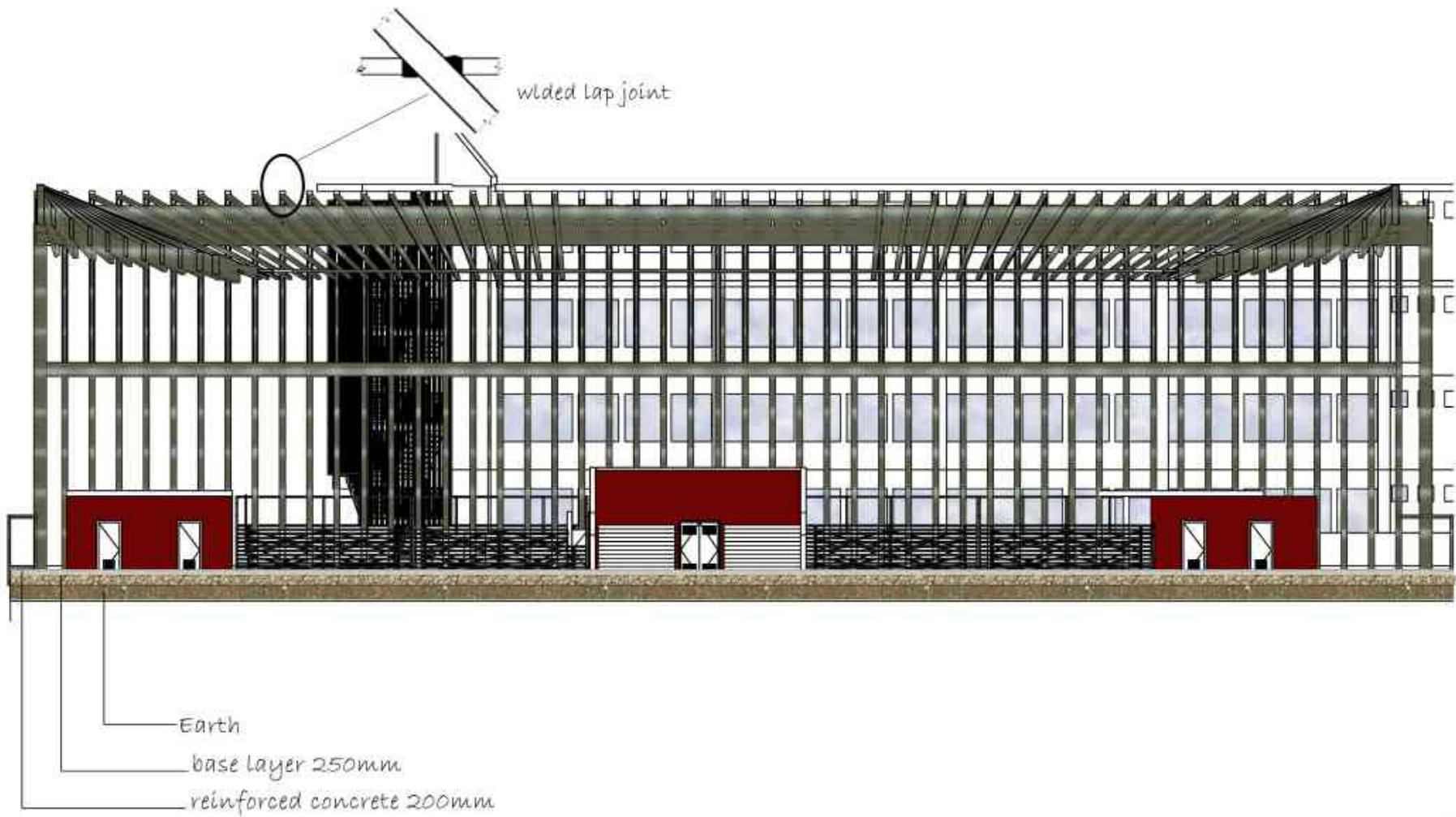


SECTION 2





SECTION 1

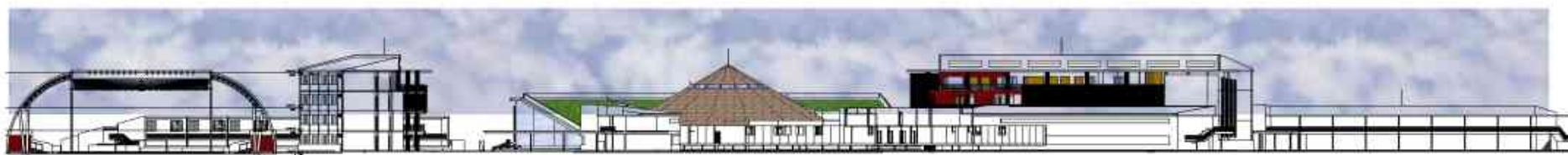




ELEVATIONS



EAST ELEVATION



WEST ELEVATION



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LIDYA MIHRET

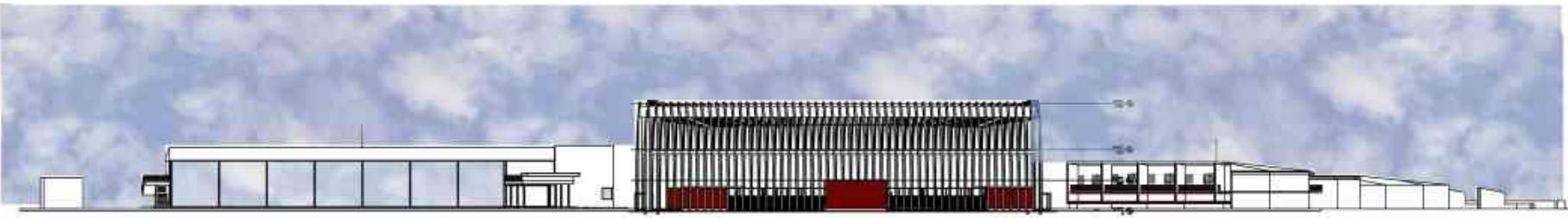
ID.NO.
735/16

INSTRUCTORS
AR. LIBANEWORK





ELEVATIONS



SOUTH ELEVATION



NORTH ELEVATION

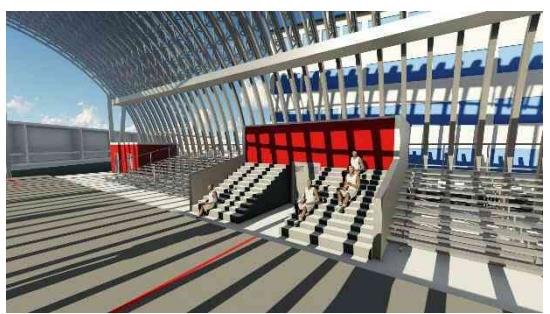
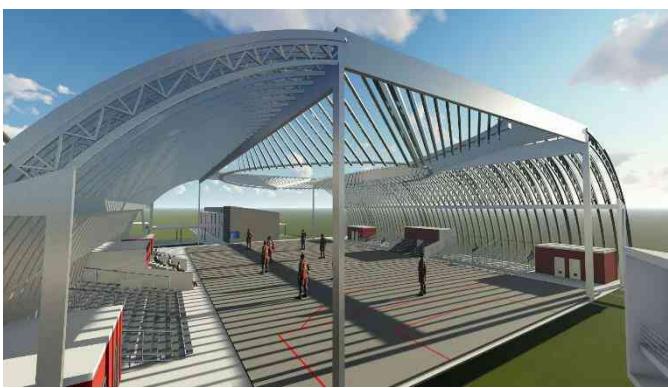
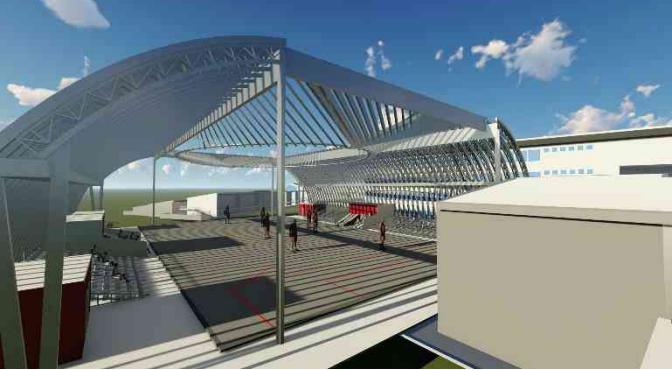


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3D



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TITLE

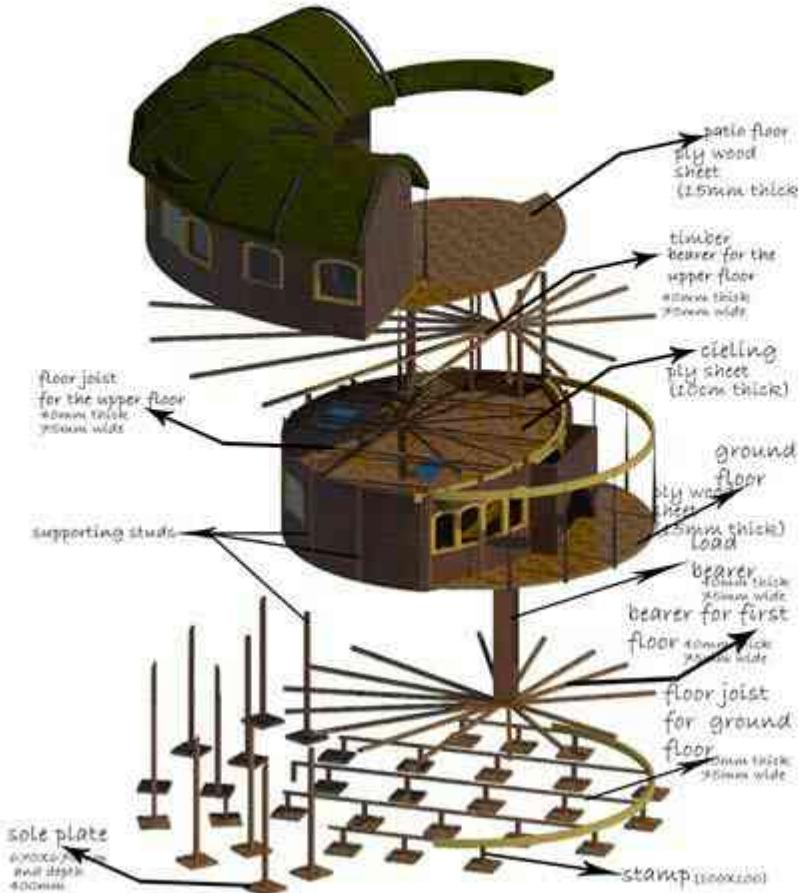
SCALE

LIDYA MIHRET

3D

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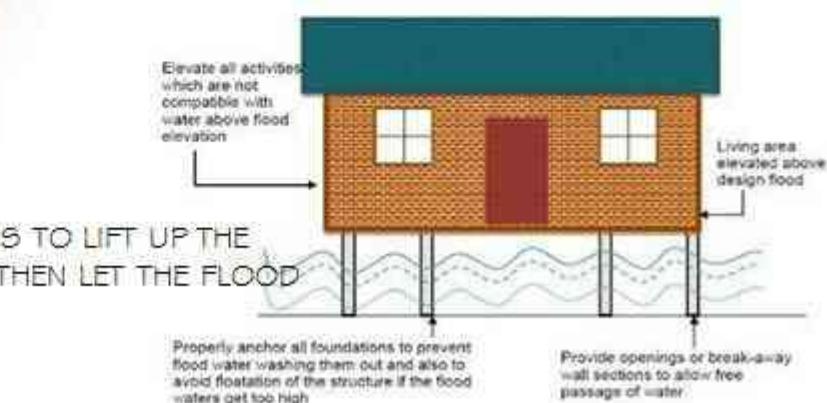


VENTILATION AND FLOOD PROTECTION



PASSIVE WAY OF VENTILATION WHERE THE DOOR IS WIDE AT THE BOTTOM WHICH LET COOL AIR IN AND WINDOWS TO PULL HOT AIR THROUGH

ONE WAY TO PREVENT FLOOD IS TO LIFT UP THE GROUND LEVEL WITH STUMPS THEN LET THE FLOOD FLOW UNDER THE HOUSE.



Concept

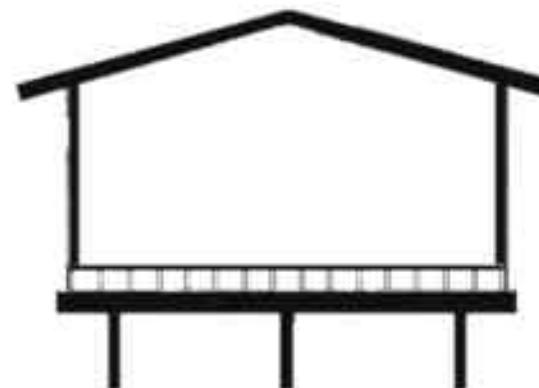
Taageero



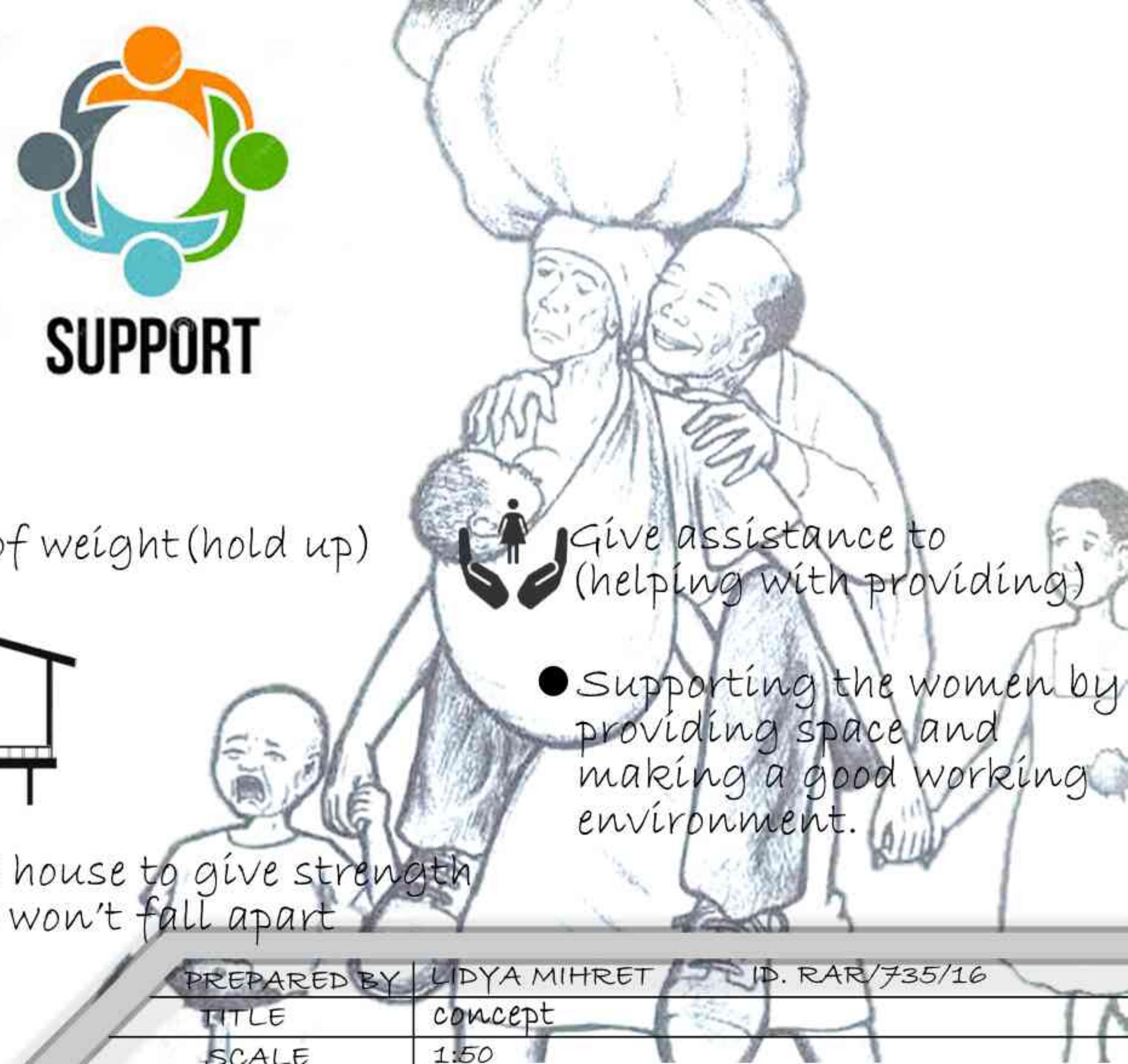
SUPPORT

What is support?

- Bear all part of weight (hold up)



- Supporting the house to give strength
Hold it up so it won't fall apart



Give assistance to
(helping with providing)

- Supporting the women by providing space and making a good working environment.

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concept

1:50

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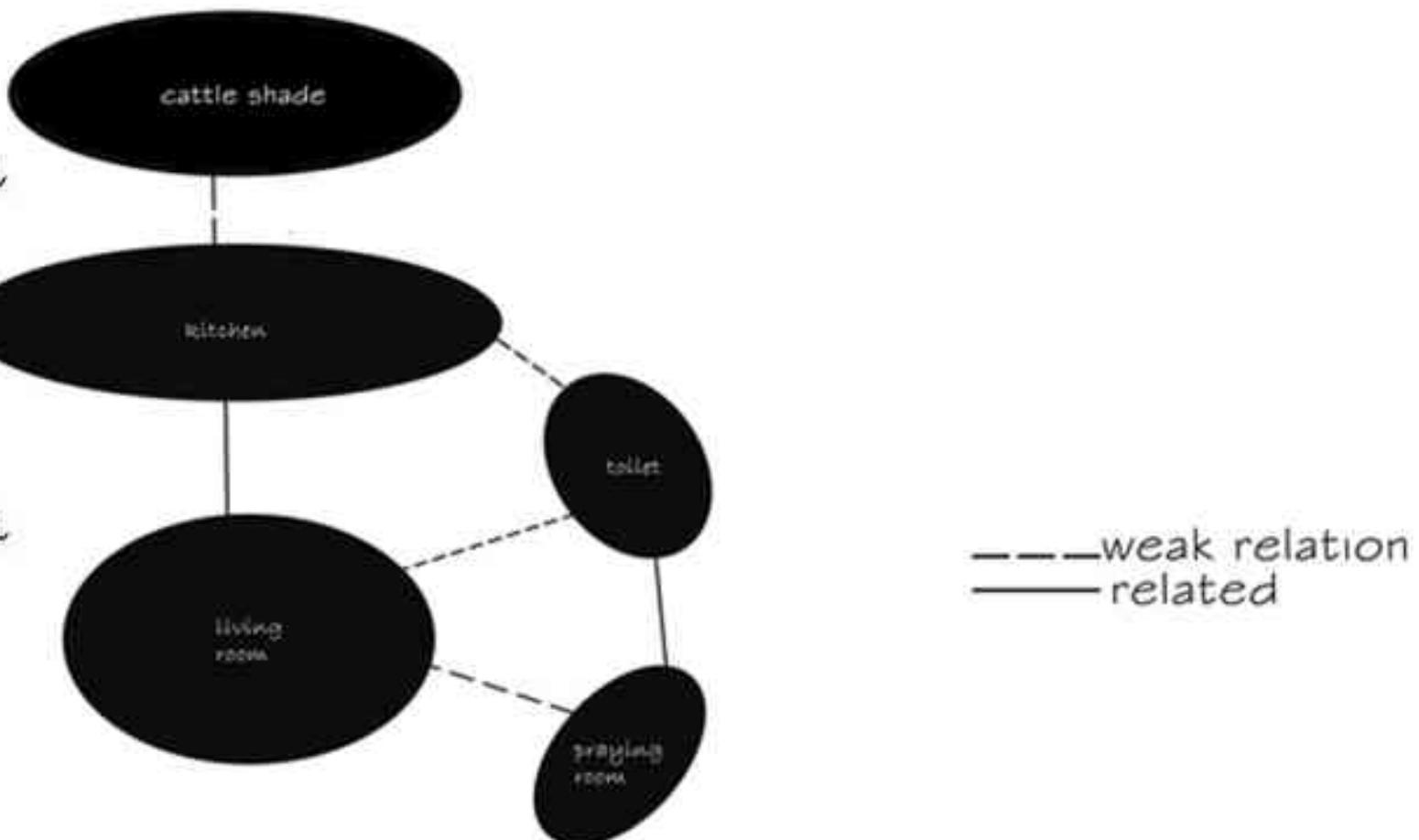
Client brief

My clients are single family with four members, two children and parents.

They are local at the rural area. Their religion as studied on the analysis most population of Somali region areas are Muslim and my clients are also muslim.

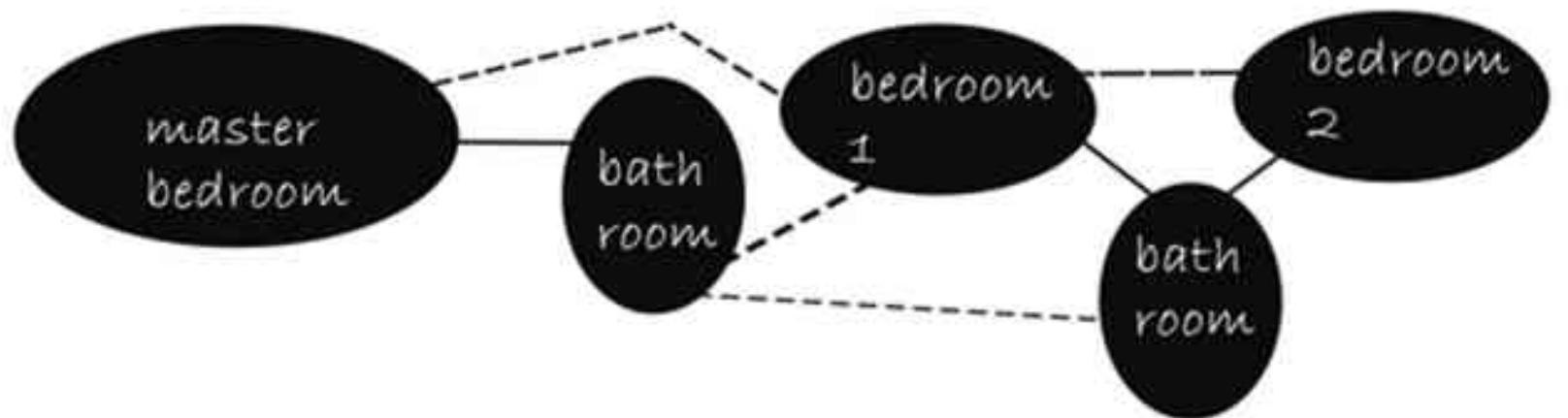
- Bubble diagrams

Ground floor plan room relation



- Programs on ground level
1. Living room
 2. Kitchen
 3. Toilet
 4. Praying room
 5. Cattle shade

first floor plan room relation



Programs on first Level

1. Master bed room with private bath room
2. 2 bedrooms sharing a bath room

— weak relation
— related

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client brief and program development

SCALE

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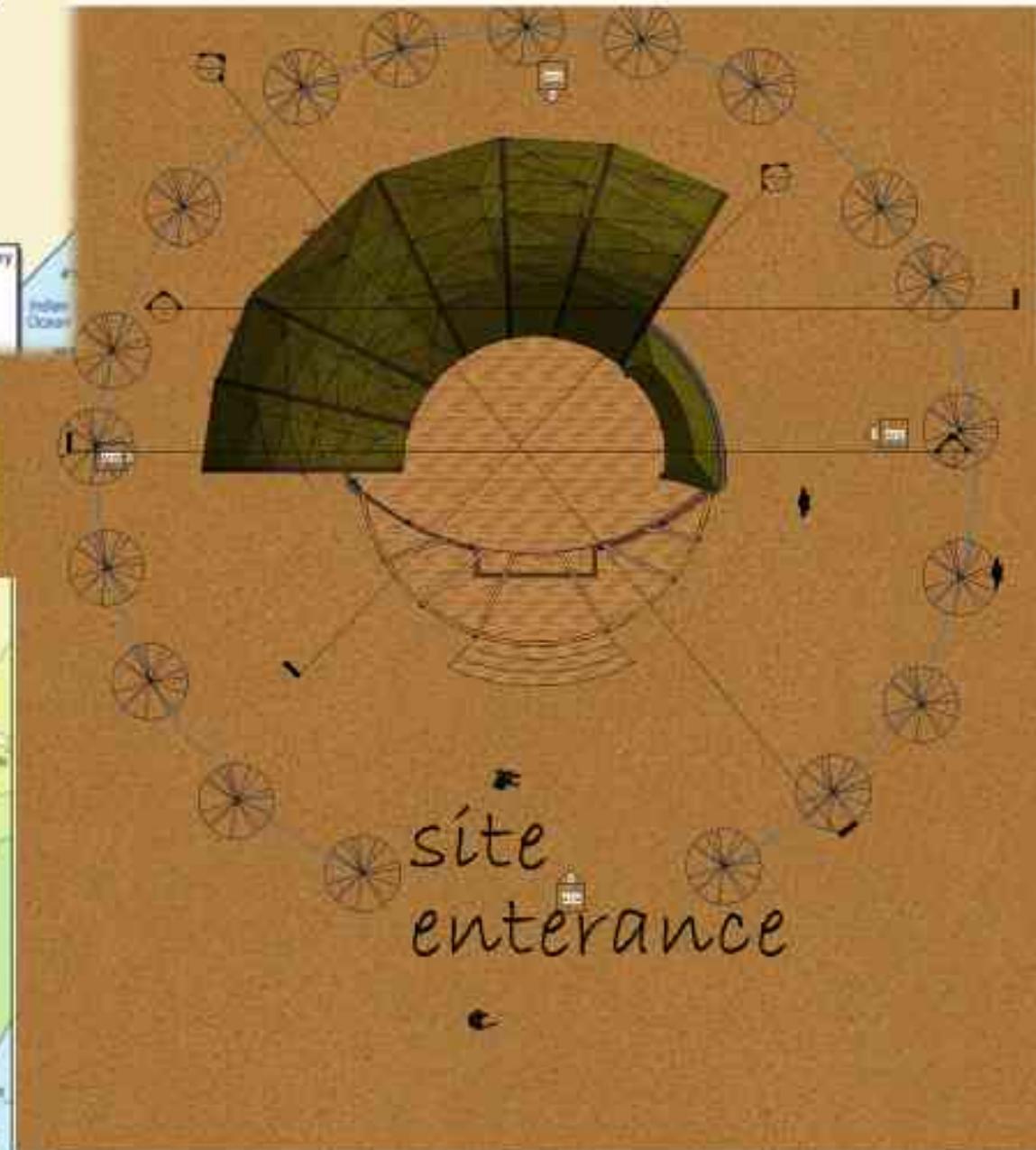
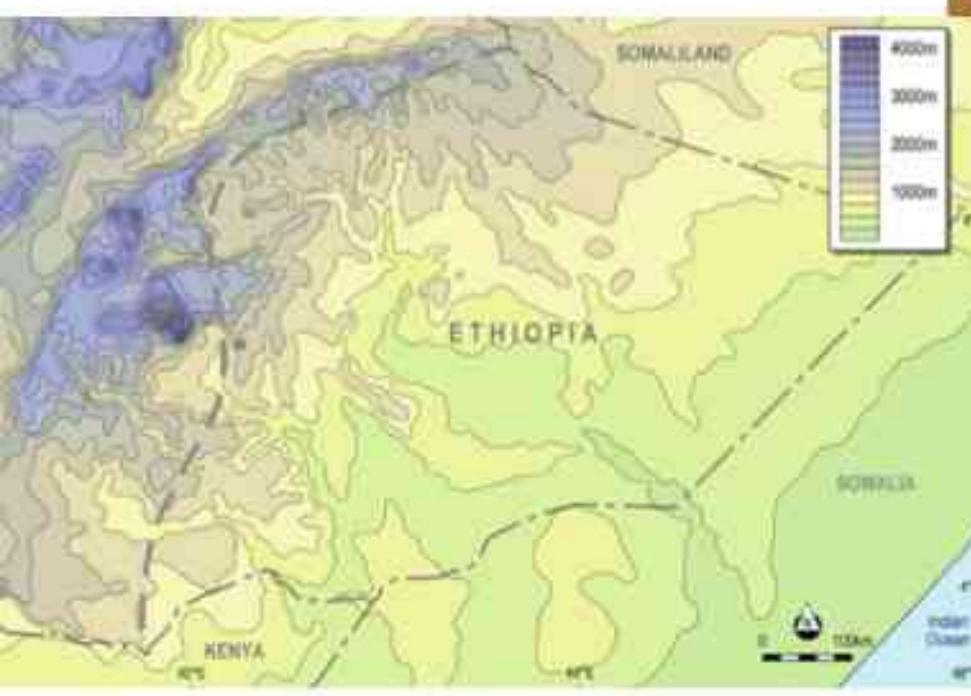
Site location SOMALI REGION



climate zone



climate



elevation



the region below 500 m elevation, where annual rainfall is less than 400 mm, resulting in sparse vegetation with extensive bare ground. The kolla zone (warm to hot semiarid) covers the region between 500 and 1,500 m in elevation.

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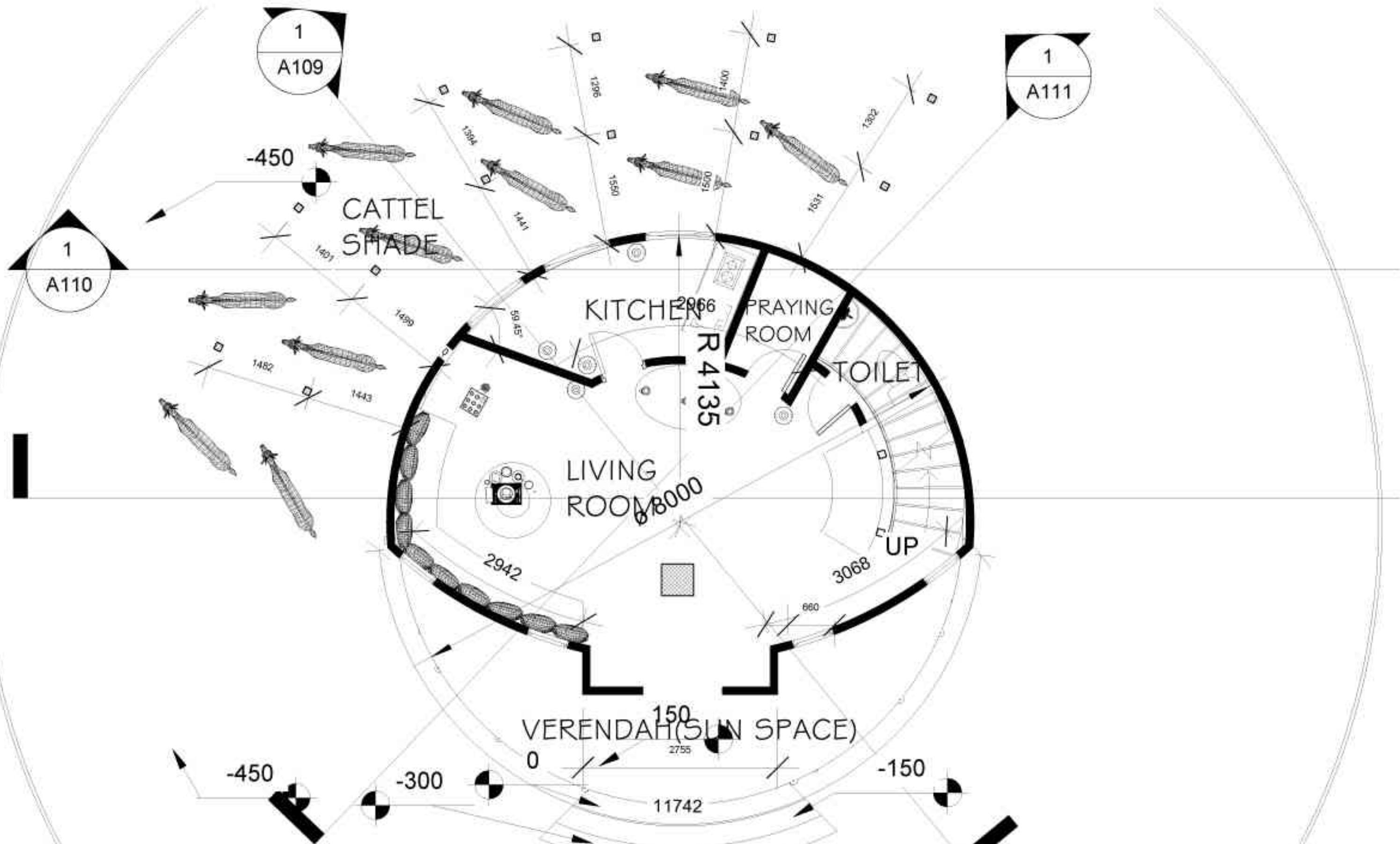
SCALE

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site plan and location

1:100

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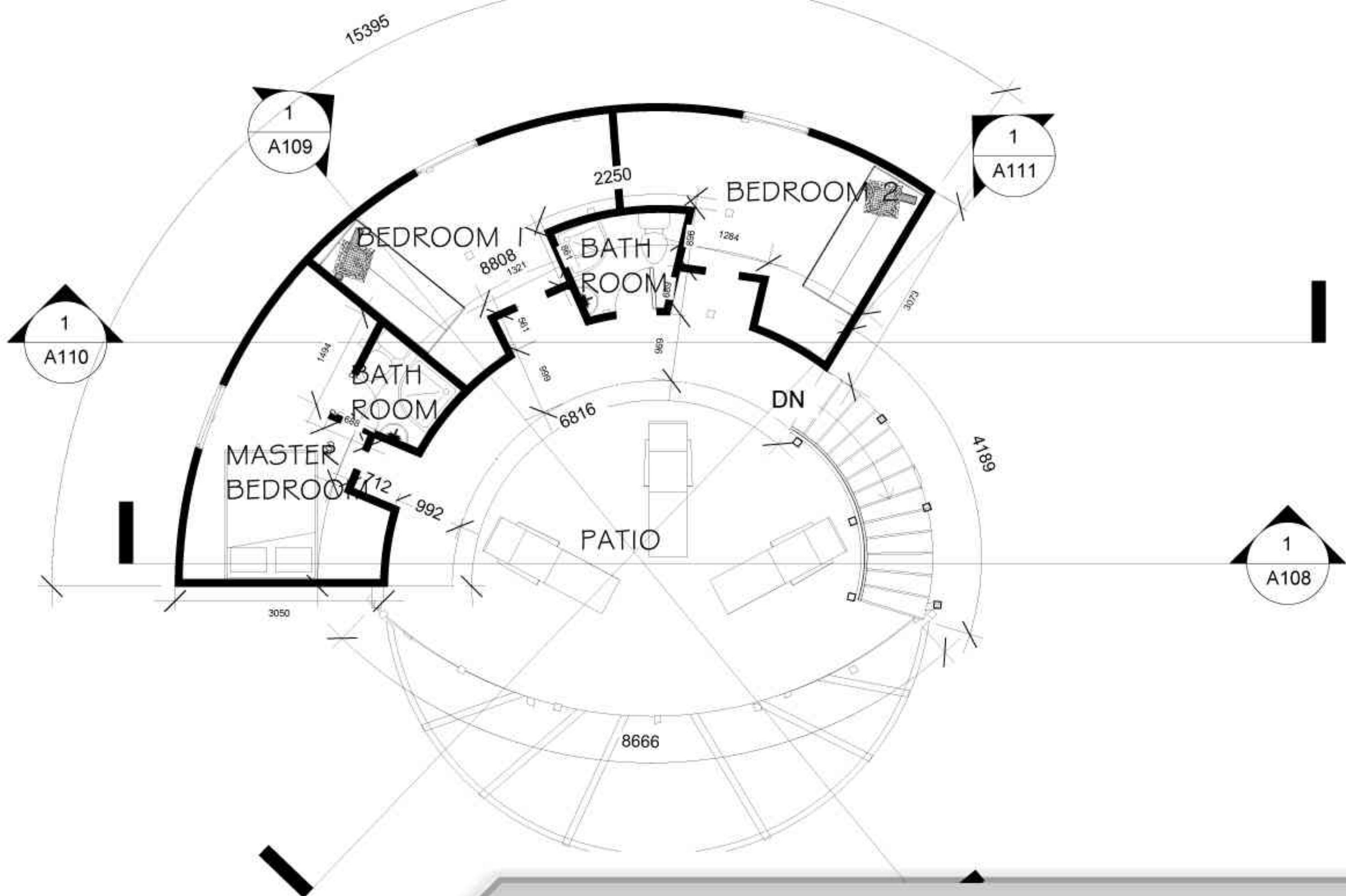
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GROUND FLOOR PLAN

SCALE

1:50



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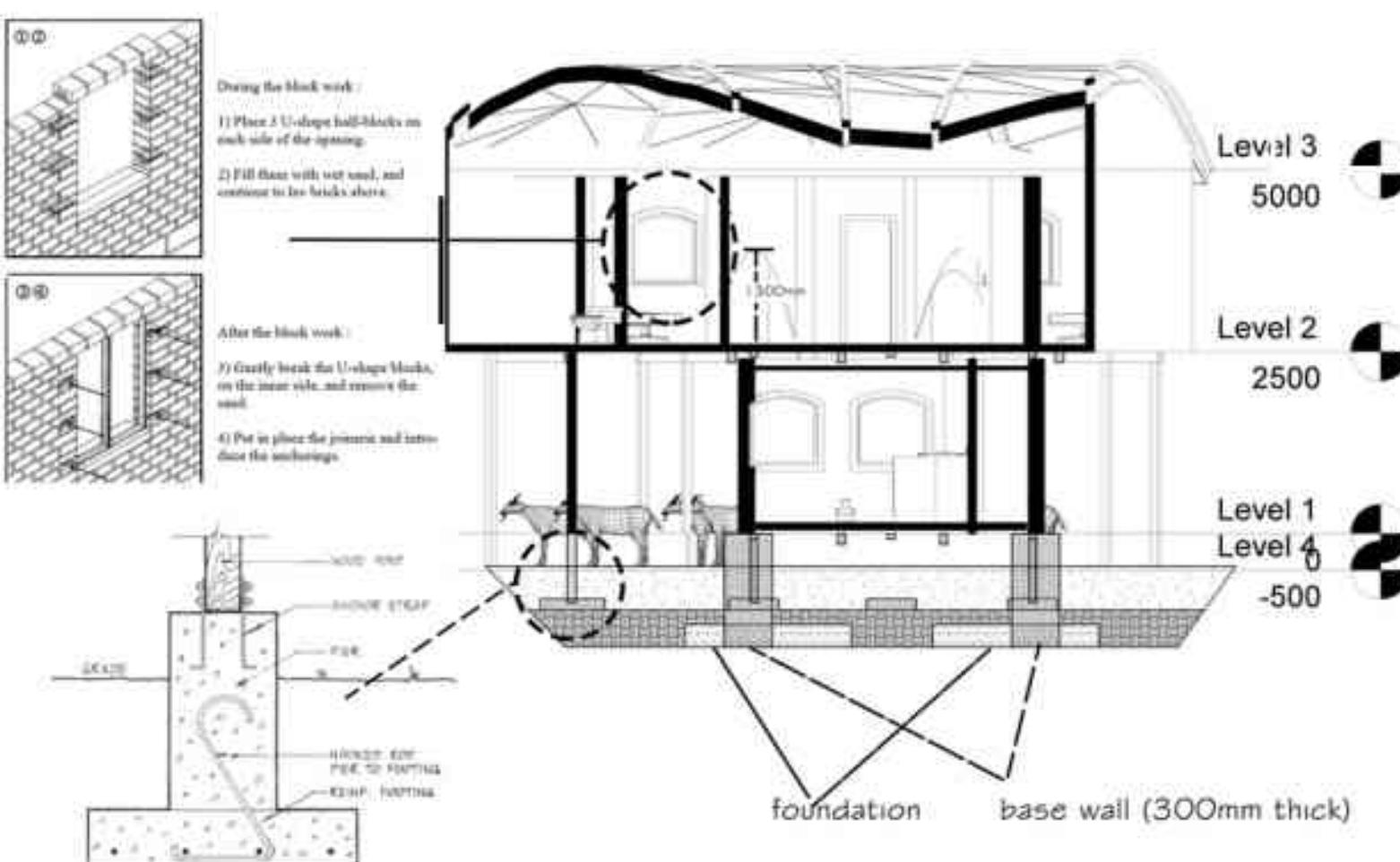
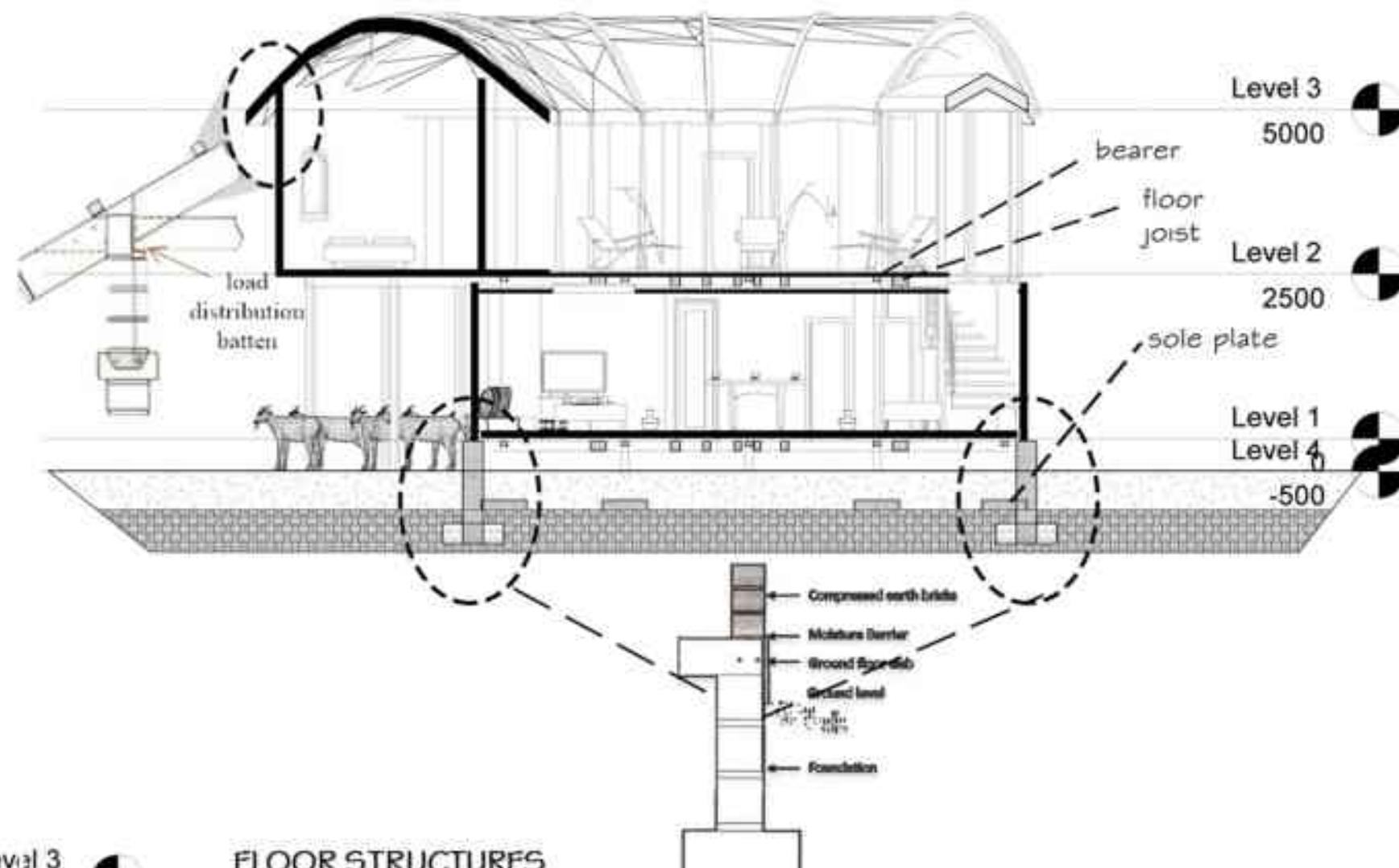
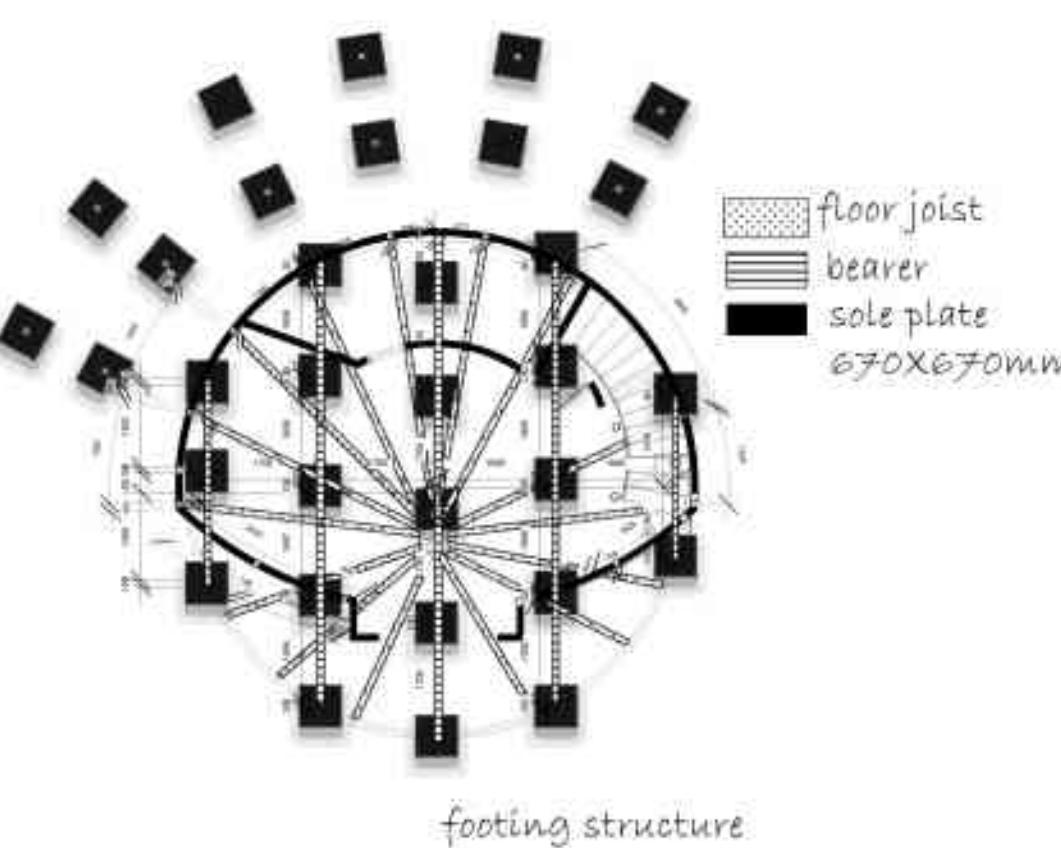
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TITLE

FIRST FLOOR PLAN

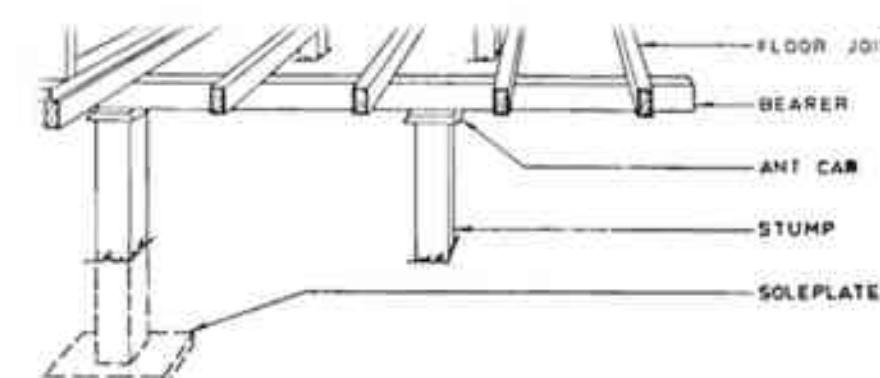
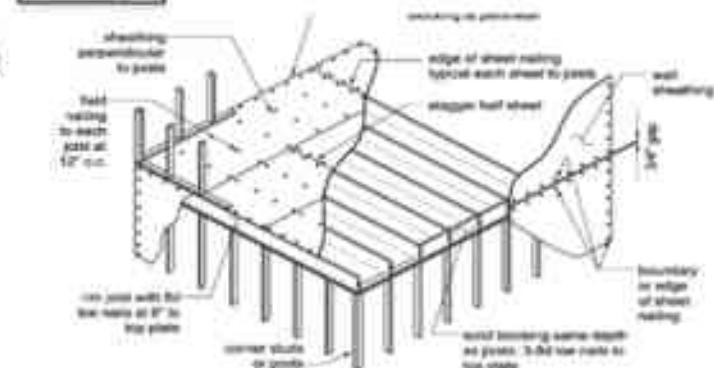
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FLOOR STRUCTURE

For flooring I used the available material which is wood rather than concretes and other materials which needs more excavation and not economical for my design. The following study elaborates about structural systems we should use while constructing timber framed floor structure.



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TITLE	section and details	
SCALE	1:100	



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TITLE

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Elevations

1:100

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Wall material

HYDRAFORM



The properties of soil using as building materials

- Earth as a Sustainable Material
- Cost and Energy efficient
- Efficient Use of Finite Resources
- Minimizing Pollution
- Strength
- Durability
- Maintenance and Pests
- Thermal Properties
- Aesthetically pleasing



Use of Local Subsoil's

- Earth building practice is extremely varied in terms of the soils available, the way they can be used, the functions to which they are applied, and how they perform in different contexts. With a few exceptions, earth suitable for construction is found in the sub-soil layers.



- According to the percentage of these 4 components, a soil with more gravel will be called gravelly, another one with more sand, sandy, others silt or clayey.

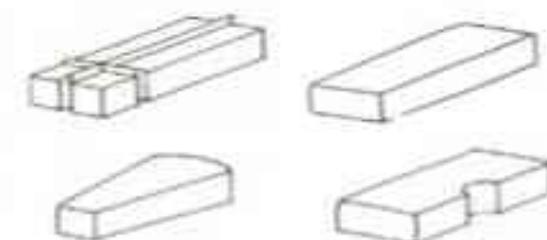
- Topsoil and organic soils must not be used because this organic material was not fully stabilized and weaken the bonds between stabilizer and soil particles. Identifying the properties of a soil is essential to perform, at the end, good quality products. Some simple sensitive analysis can be



① Grinding and pulverisation



③ Mixing



⑤ Curing



② Screening



④ Pressing

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material preparation

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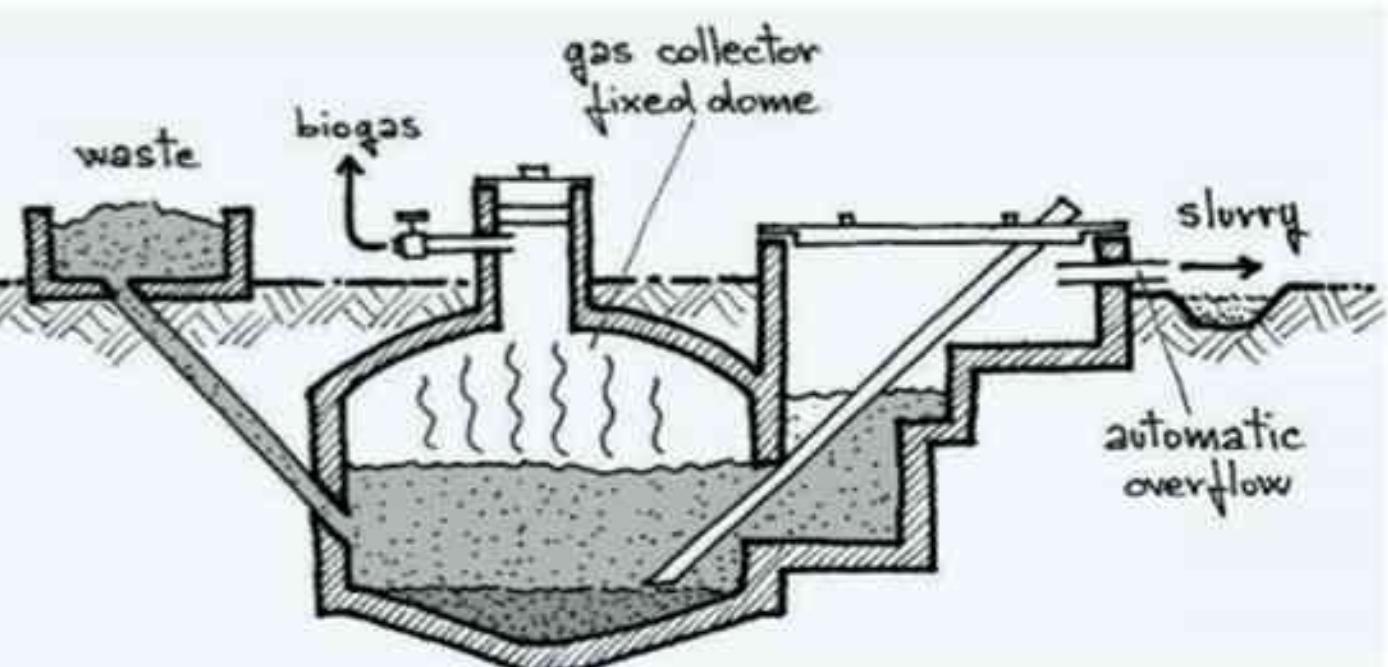
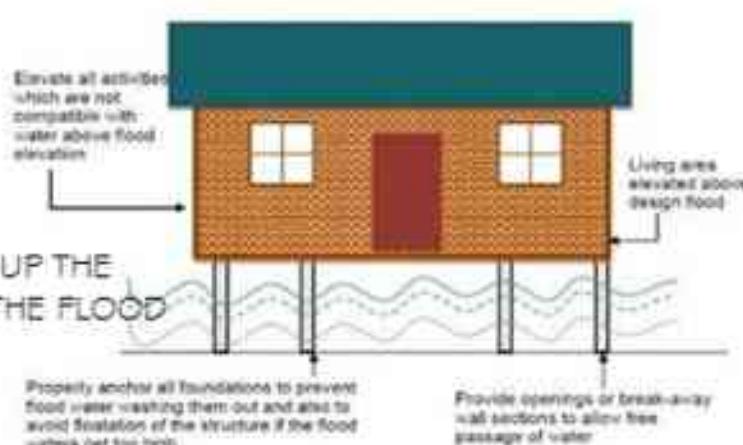
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VENTILATION AND FLOOD PROTECTION

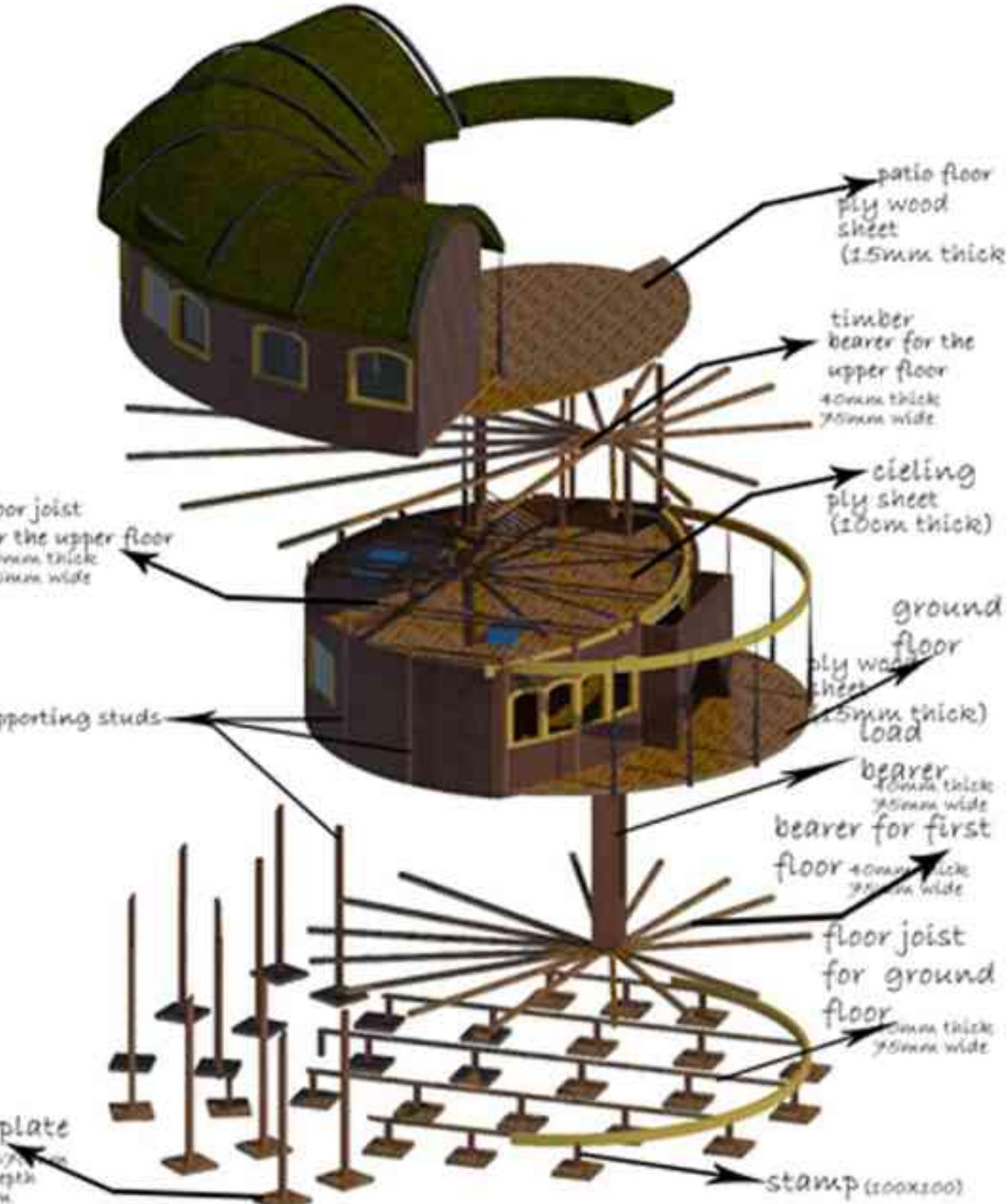


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ONE WAY TO PREVENT FLOOD IS TO LIFT UP THE GROUND LEVEL WITH STUMPS THEN LET THE FLOOD FLOW UNDER THE HOUSE.



Collecting the waste from the cattle is one solution to support the family with energy supplies



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discriptions

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