

# **STUDIO DESIGN 3A**

# **PORTFOLIO**

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EXAM ID: 8811M*

# PRECEDENT STUDIES

## HERIOT WATT

THE HERIOT-WATT BUILDING HAS MANAGED TO FIND ITS WAY ONTO INFLUENCING THE DESIGN PROCESS IN MAINLY HOW IT APPROACHES THE DISSOCIATION AND DETACHMENT OF SPACES ALL UNDER ONE ROOF, WHERE THIS IDEOLOGY HAS BEEN TRANSLATED IN THE DESIGN OF THE VISITOR CENTER, IT WAS AN HONEST REFERENCE TO THIS BUILDING



## CASA WABI

TADAO ANDO'S CASA WABI, LOCATED IN MEXICO IS ALSO ANOTHER MAJOR INFLUENCE IN THE DESIGN OF THE PROJECT, MAINLY THE CHOICE OF MATERIALS IN THIS INSTANT, WHEREAS SEEN BELOW HE MAMANHES TO USE A ROOF MATERIAL THAT IS MADE UP OF LOCAL THATCH THAT IS FOUND IN THE NEIGHBORING CONTEXT AND CONTRASTING THAT WITH HIS ICONIC RIC CLEAN WALLS AND CREATING VERY UNUSUAL YET SENSIBLE DIVISION OF SPACES



## CASA ATIBAIA

THIS IS AN AMBITIOUS PROJECT BY NI. ACKI HAS CREATED TO SHOWCASE AN IMMACULATE RENDER OF HOW A BUILDING WOULD INTEGRATE ITSELF WITH THE THICK FOREST CONTEXT. AND THE MAIN POINTS TAKEN FROM THIS BUILDING THAT INFLUENCED THE VISITOR CENTER WAS HOW THIS PROJECT WAS ABLE TO BOLDLY BUILD AROUND THE ELEMENTS OF NATURE, BY CREATING CURVATURE SPACES THAT SURROUND MANY OF THE TREES AND THE ROCKS IN THE FOREST, SO THE MAIN PLANNING OF THE BUILDING WAS FIRST INFLUENCED BY THIS TO MAKE SURE THE HERITAGE TREES WERE PRESERVED AND KEPT ON SITE.

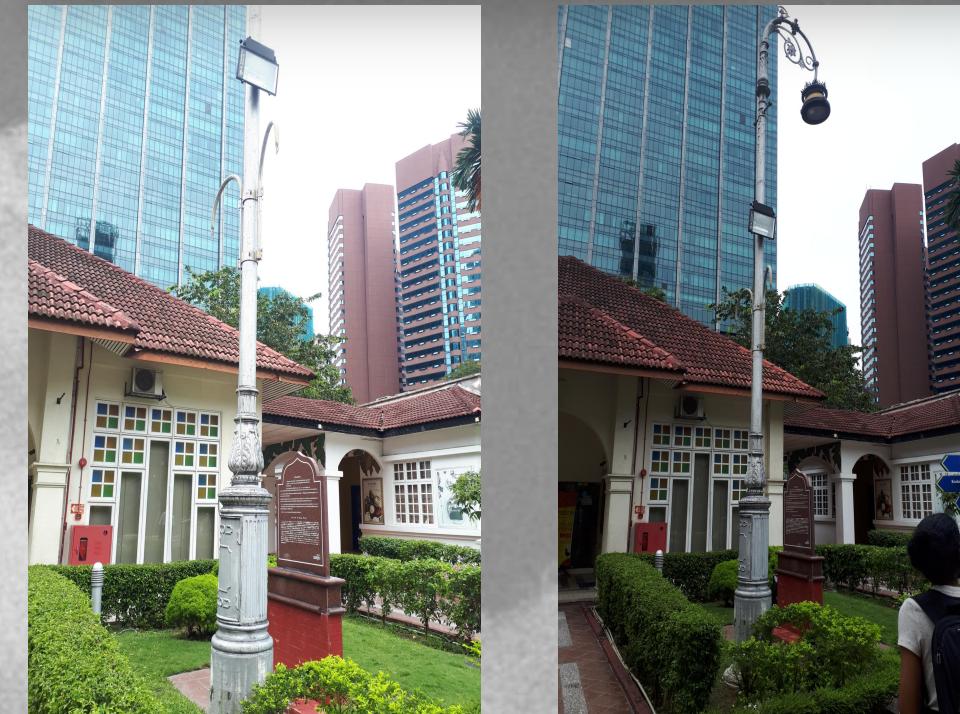


# SITE ANALYSIS

## MATIC:

PROBABLY ONE OF THE CLOSEST AND ONE OF THE IMPORTANT BUILDINGS SURROUNDING THE SITE WAS THE MATIC, WE HAD TO UTILIZE THE ENTRANCEWAY FROM THEMATIC AND MAKE SURE TO MAKE THE JOURNEY AS SMOOTH OD A TRANSITION BETWEEN THERE TO THE SITE AS SMOOTH AS POSSIBLE. TO TACKLE THAT THE PEDESTRIAN WALKWAYS TO AND FROM THEMATIC ARE CONNECTED BY A BRIDGE THAT CONNECTS IT TO THE CENTER.

IN ADDITION TO THAT WE HAD TO THINK ABOUT THE CULTURAL EFFECT THE MATIC HAS ON THE URBAN CONTEXT AND WHAT IT STANDS FOR, DUE TO THE FACT THE MAIN PURPOSE OF THE PROJECT IS TO SOMEWHAT CREATE AN EXTENSION TO THEMATIC, WITH THAT SOME ORNAMENTAL ELEMENTS WERE IMPLEMENTED INTO THE CENTER LIKE THE TYPES OF LAMPS THAT WOULD BE USED AS WELL AS THE INFORMATION THAT WILL BE PROVIDED THERE.



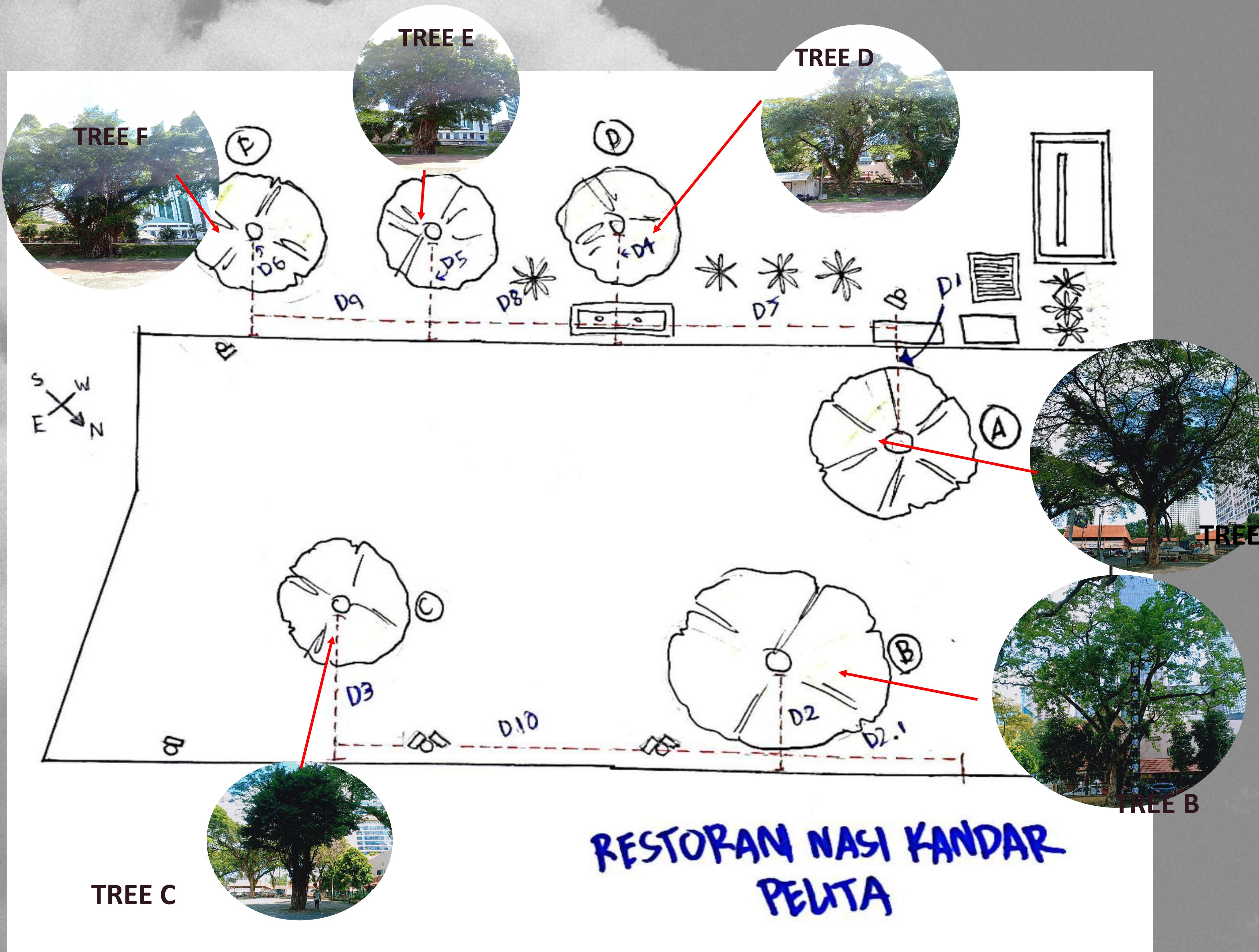
## TREES:

THERE ARE 6 MAIN TREES LOCATED ON THE SITE, AND IN THIS PROJECT WE HAD TO FIND A WAY TO DESIGN SPACES AROUND THEM. THIS WAS BECAUSE THESE TREES ARE CONSIDERED HERITAGE PROPERTY OF THEMATIC AND EXCAVATING THEM WAS NOT AN OPTION, THIS HAS FORCED THE DESIGN PROCESS FROM THE BEGINNING TO CENTER AROUND DESIGNING SPACES THAT WOULD UTILIZE THE SITE COMPLETELY ALL WHILE NOT COMPROMISING THE RESTRICTION THESE TREES CAUSE. THIS CAN BE SEEN IN THE CURVATURE OF THE PLANNING, SIMILAR TO THE PRECEDENT STUDY, THE BUILDING MANAGES TO SURROUND ITSELF AND SLITHER AROUND THE TREES ON SITE

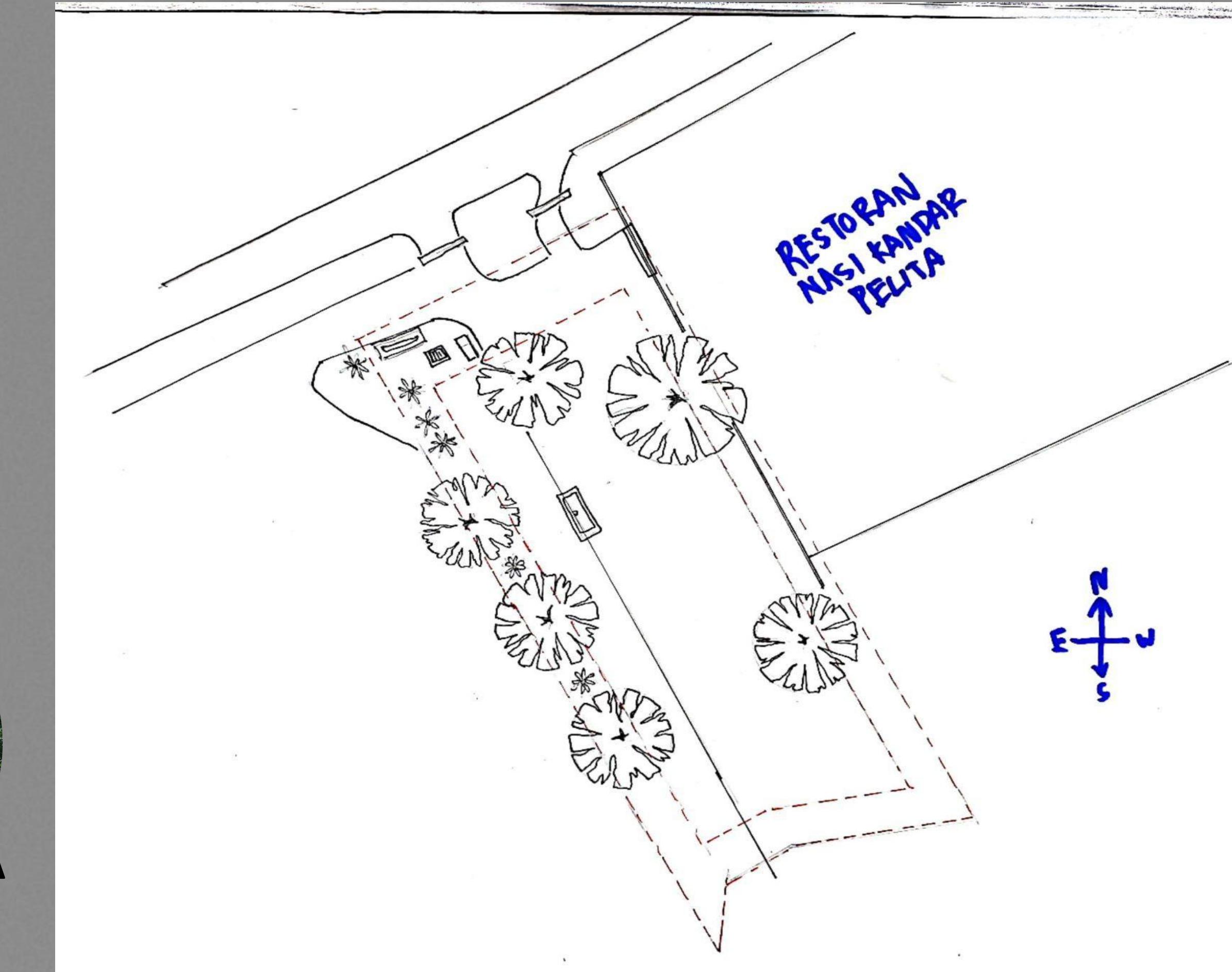
IN ADDITION TO THAT WE WERE ENCOURAGED TO ADD MORE TREES IF IT SOMEHOW MANAGES TO HELP ENHANCE THE QUALITY OF SPACES IN ANY SENSE, AND THAT CAN BE SEEN IN THE ADDITION OF SOME TREES AT THE BACK OF THE BUILDING TO FILTER OUT THE VIEW OF PELITA AND MAKE VISITORS FOCUS ON THE BUILDING



# NATURAL FEATURES: VEGETATION ON SITE



ALL THE SIX TREE ARE FROM THE SAME SPECIES, BUT THEY VARY IN SIZE DUE TO THEIR AGE, THE NAME OF THEIR SPECIES IS EUCALYPTUS CAMALDULENSIS



Positioning of trees from boundaries (Distance in cm & m)

$D_1 = 470\text{cm} = 4.70\text{m}$
$D_2 = 190\text{cm} = 1.90\text{m}$
$D_3 = 630\text{cm} = 6.30\text{m}$
$D_4 = 520\text{cm} = 5.2\text{m}$
$D_5 = 523\text{cm} = 5.23\text{m}$
$D_6 = 528\text{cm} = 5.28\text{m}$
$D_7 = 1040\text{cm} = 10.40\text{m}$
$D_8 = 783\text{cm} = 7.83\text{m}$
$D_9 = 774\text{cm} = 7.74\text{m}$
$D_{10} = 1353\text{cm} = 13.53\text{m}$
$D_{2.1} = 540\text{cm} = 5.40\text{m}$

TREE CANOPY SIZES:

TREE A: 19.2

TREE B: 13.40

TREE C: 15.7

TREE D: 11.6

TREE E: 21.7

TREE F: 22.8

# SWOT ANALYSIS FOR GROUP 3



## Strength

-**Natural features:** there aren't many plant life that has ruined the site physically, so almost 90% of the site is empty, so that gives room for versatility and experimentation in terms of design

-**Man-made features:** there isn't that many landscaping elements found on site, just a few around it, so this gives room to explore the possibilities of placemaking as well as landscaping. In addition to that there are the basic necessities found on site like electrical appliances as well as drainage and water features.

## Threats

-**Natural features:** the trees and plant life on site is very old, so it has built a sort of mini ecosystem of some wildlife like insects and such, it is noticed that on site there are many mosquitos, so this may be an issue as they may transmit diseases and such to the visitors if not taken care of.

## Weakness

-**Natural features:** There are 3 trees that are directly on the site, so maintaining them and having to take care of them is definitely a concern, due to its age and them being important aspects to the history of the site

-**Man-made features:** some of the appliances found on site aren't really connected to a major system, so connecting them and finding ways to make use of them will be quite tough due to the location of the site in KL

## Opportunity

-**Natural features:** the trees on site and around the site are positioned in places that can be utilized with landscaping, the trees can be used as focal points to the buildings

## Problems:

-**Natural features:** considering that there are three trees on the site, and how the site is kind of sloped from one end to the other, leveling the flooring for the building might be a bit of an issue. For example around the trees the roots seem to be protruding out of the asphalt, causing a mis-leveling of the flooring.

## Solutions:

-A way to counter the roots of the trees and the damage caused on the asphalt, is to raise the floor leveling by perhaps adding wooden planks to create a somewhat terrace that raises the ground level to around the trees, in that way the trees don't get damaged or removed and maintain their wellbeing



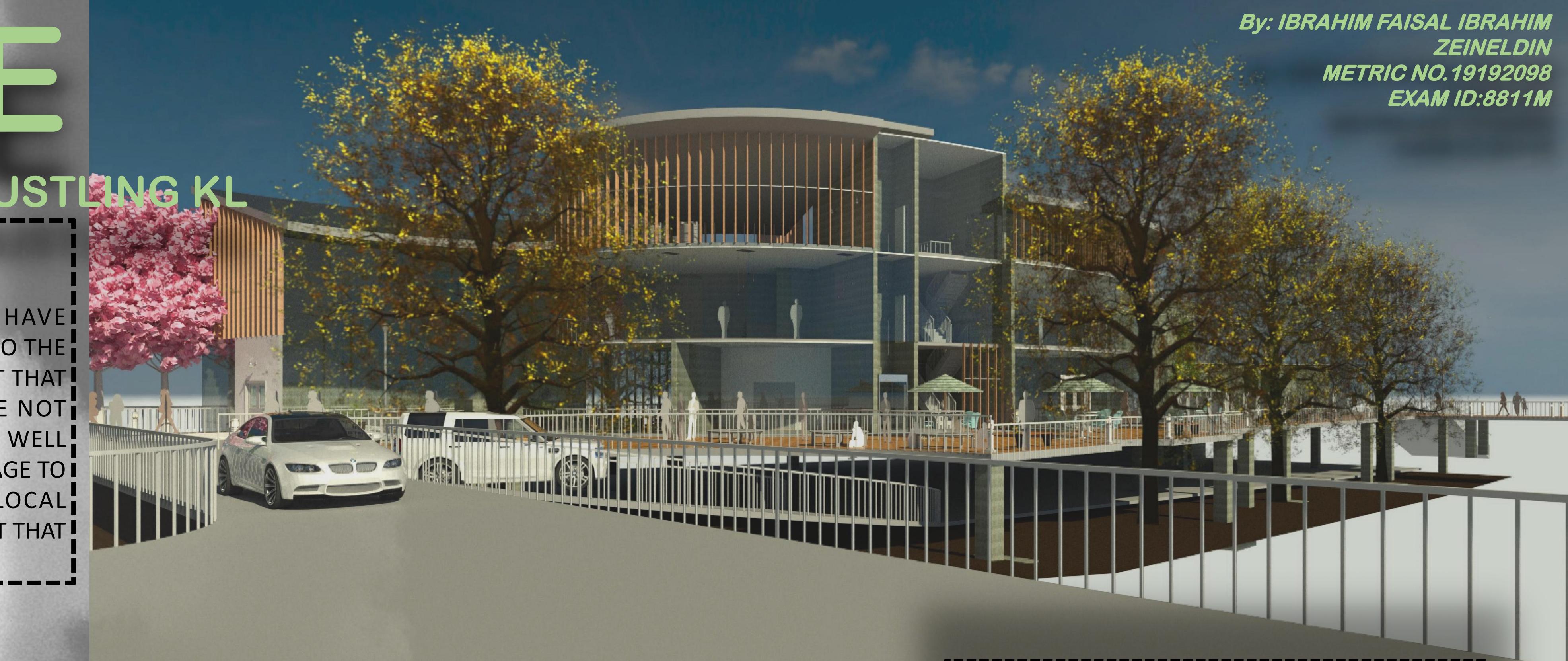
**UPGRADED  
BOARDS**

# THE RUSTLE

## IN BUSTLING KL

### DESIGN STATEMENT:

THE MAIN INTENTION IS TO CREATE SPACES THAT ARE VERY VERSATILE AND HAVE MULTIPURPOSE FUNCTIONALITY. IN THIS SENSE THE BUILDING ITSELF CAN MOLD INTO THE INTENTION OF THE PEOPLE AND LOCAL POPULATION AROUND IT, WHEREAS AN EVENT THAT WOULD OCCUR, WOULD HAVE SPACES THAT FIT THEIR NEEDS. ALL THIS WHILE NOT COMPROMISING THE URBAN DESIGN AND HOW THE BUILDING MANAGES TO FIT IN WELL WITH THE SURROUNDING CONTEXT. THE BUILDING ALSO WANTS TO ACHIEVE ITS HOMAGE TO THE PAST AS WELL AS THE PRESENT WHERE THE BLENDING OF TRADITIONAL LOCAL MATERIALS AND BRUTAL ARCHITECTURE FLOW HAND IN HAND TO CREATE A SWEET SPOT THAT IS ACCESSIBLE AND INTERESTING.



### DESIGN CONCEPT:

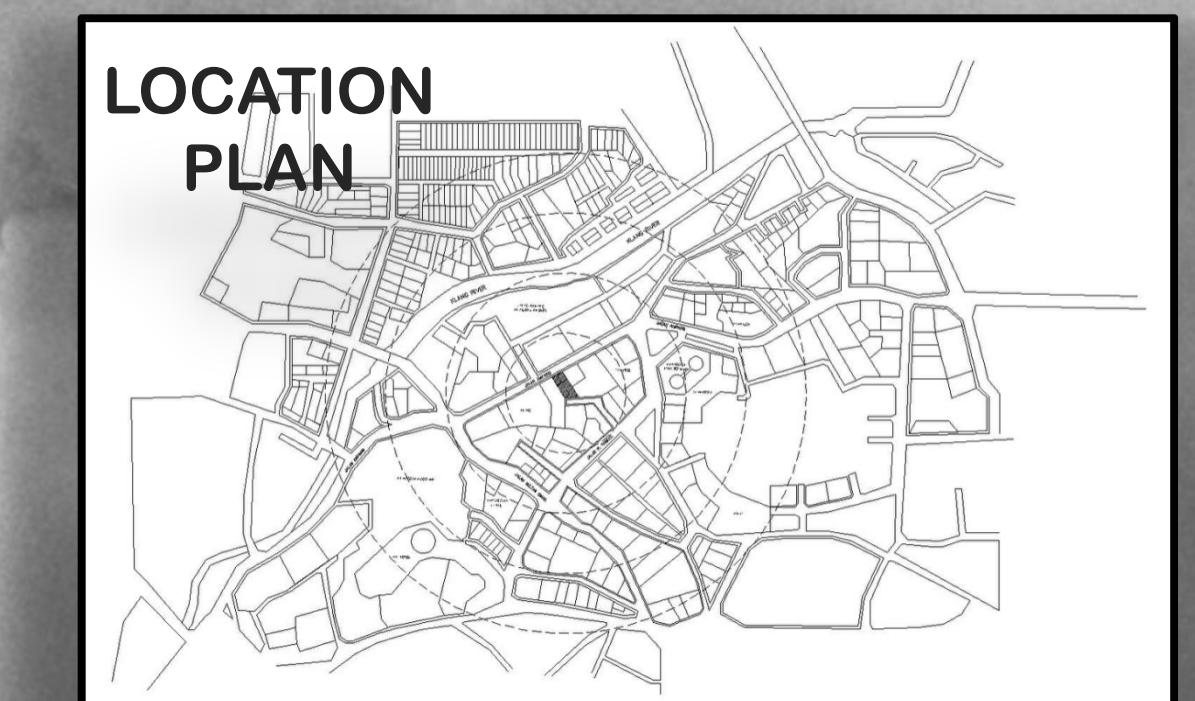
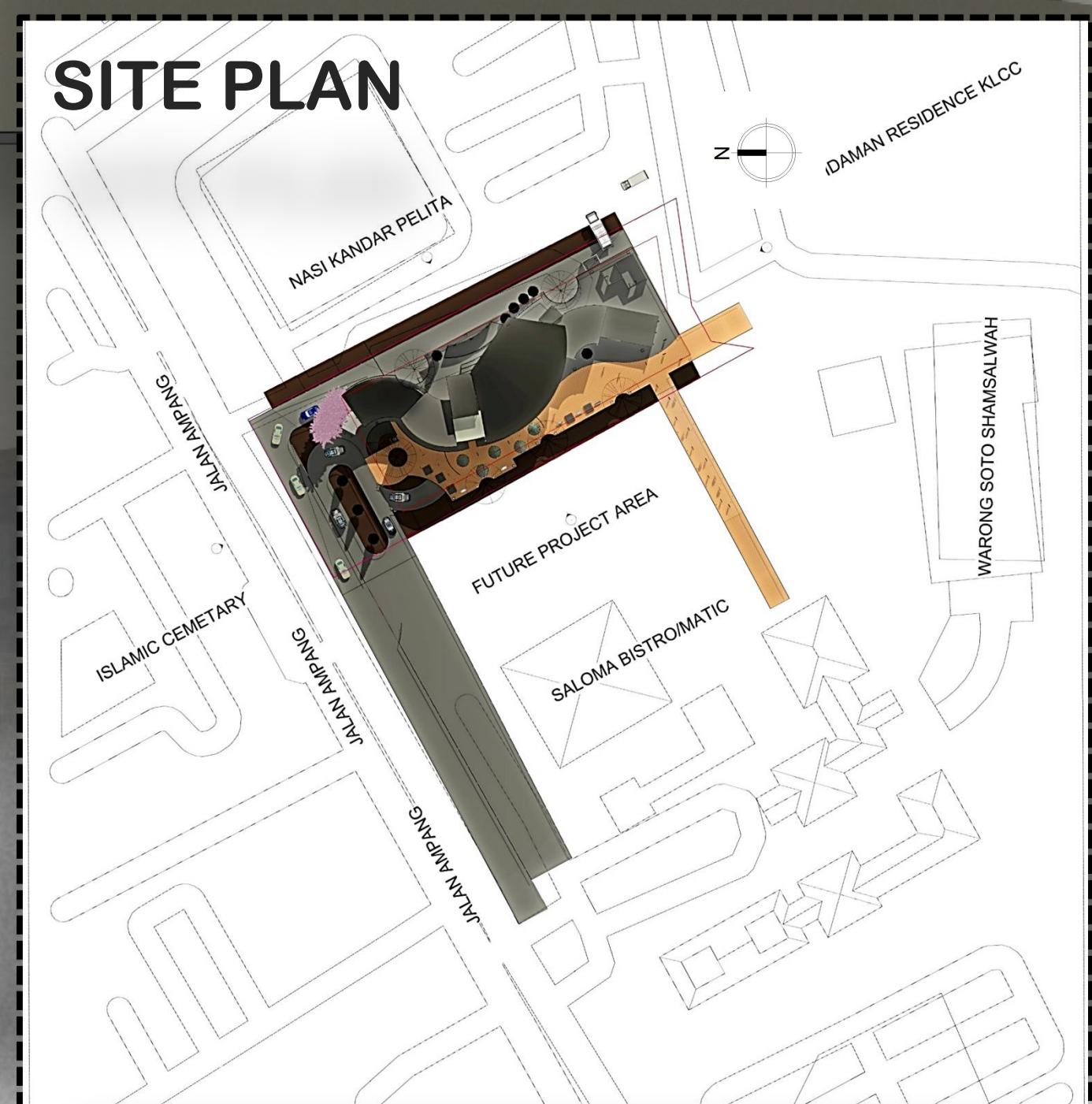
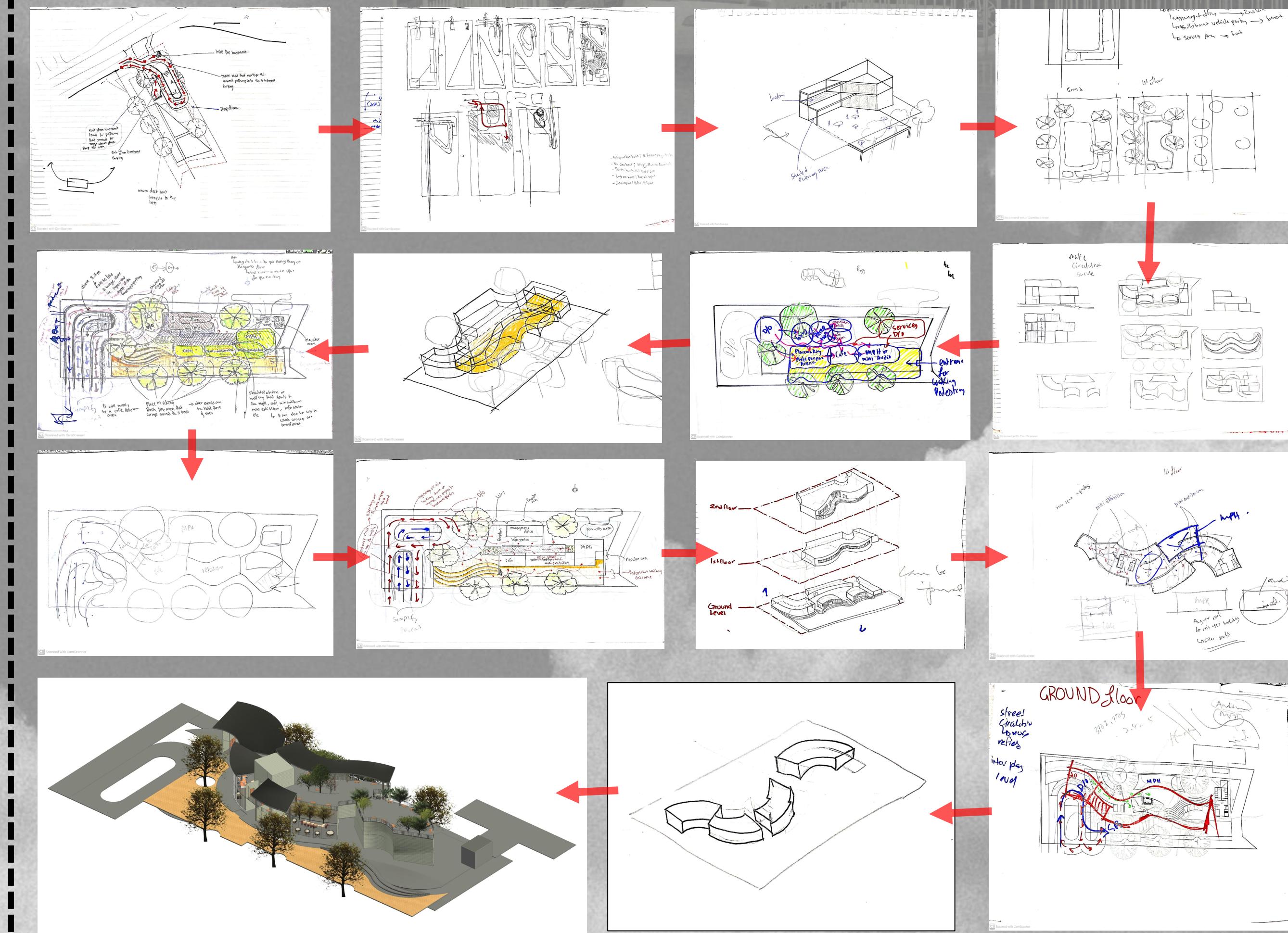
THE OVERALL CONCEPT WAS INSPIRED BY HOW A RATTLESNAKE MAY RUSTLE IN THE FOREST AND CATCH THE ATTENTION OF WHOEVER IS AROUND, IN THIS CASE, THE URBAN FOREST BEING KL AND THE RUSTLING CAUSED IS BY THE BUILDING, WHERE IT MANAGES TO GRAB ATTENTION ALL WHILE ADAPTING AND FITTING INTO THE CONTEXT.

### PRECEDENT STUDY:

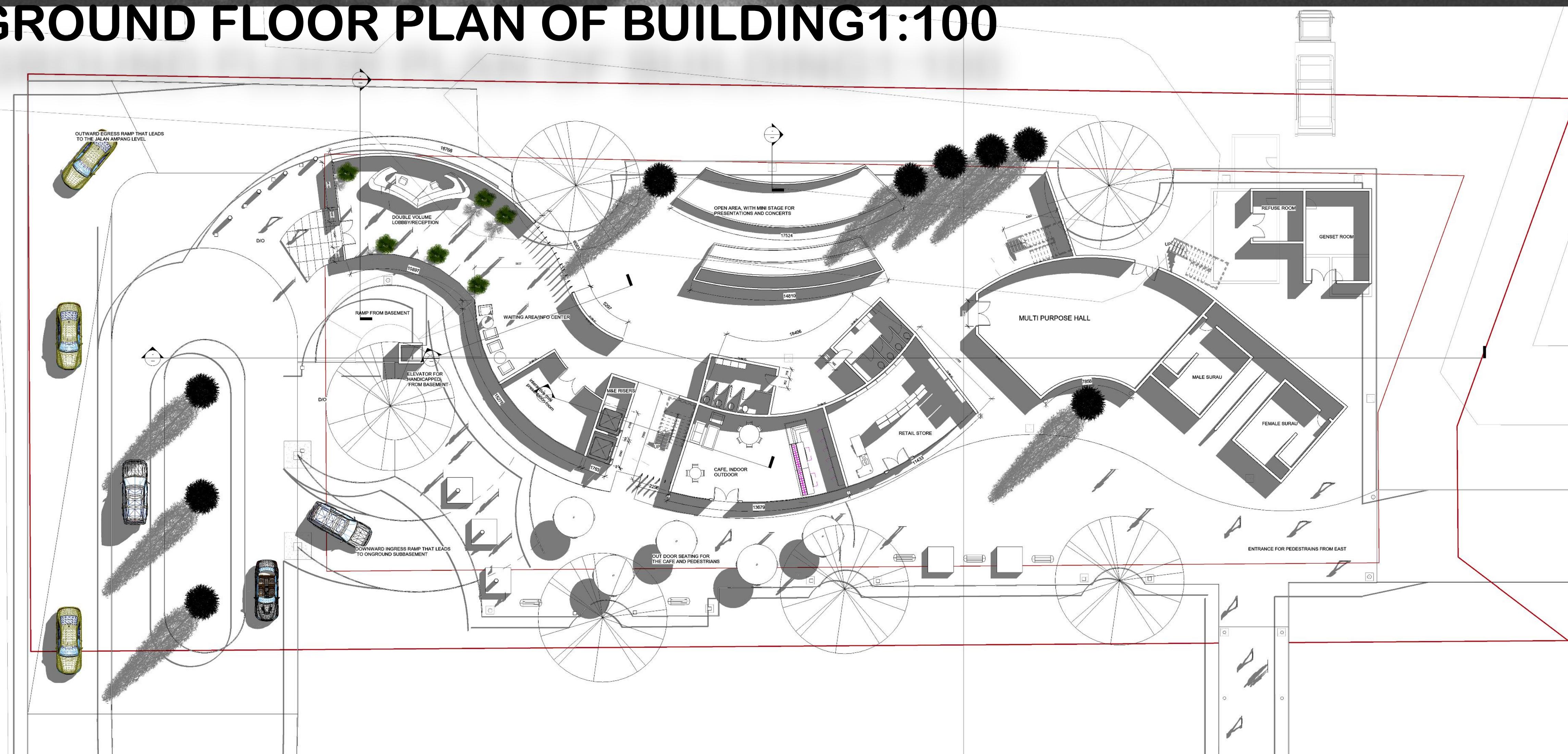
THE THREE BUILDINGS THAT WERE THE MAIN INSPIRATION FOR THE DESIGN PROCESS WAS THE HERIOT-WATT BUILDING AS WELL AS THE CASE ATIBIA PROJECT NI. Cki AND FINALLY THE CASA WABI BUILDING DESIGN ED BY TADAO ANDO THESE TWO PROJECTS HELPED SHAPE MANY OF THE DESIGN DECISIONS THAT WERE TO TAKE PLACE IN THE DESIGN PROCESS.



### DESIGN PROCESS AND CHANGE OF FORM AND PLANNING:



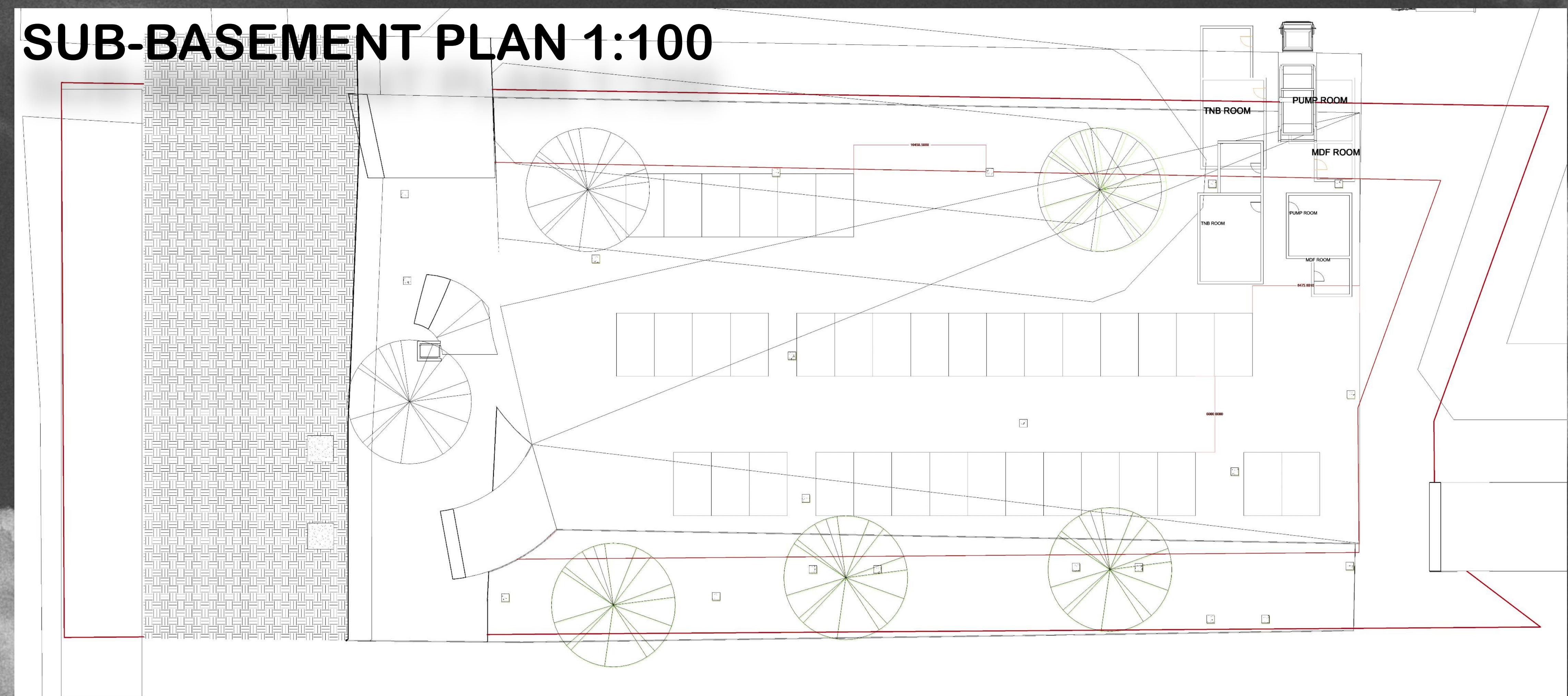
# GROUND FLOOR PLAN OF BUILDING 1:100



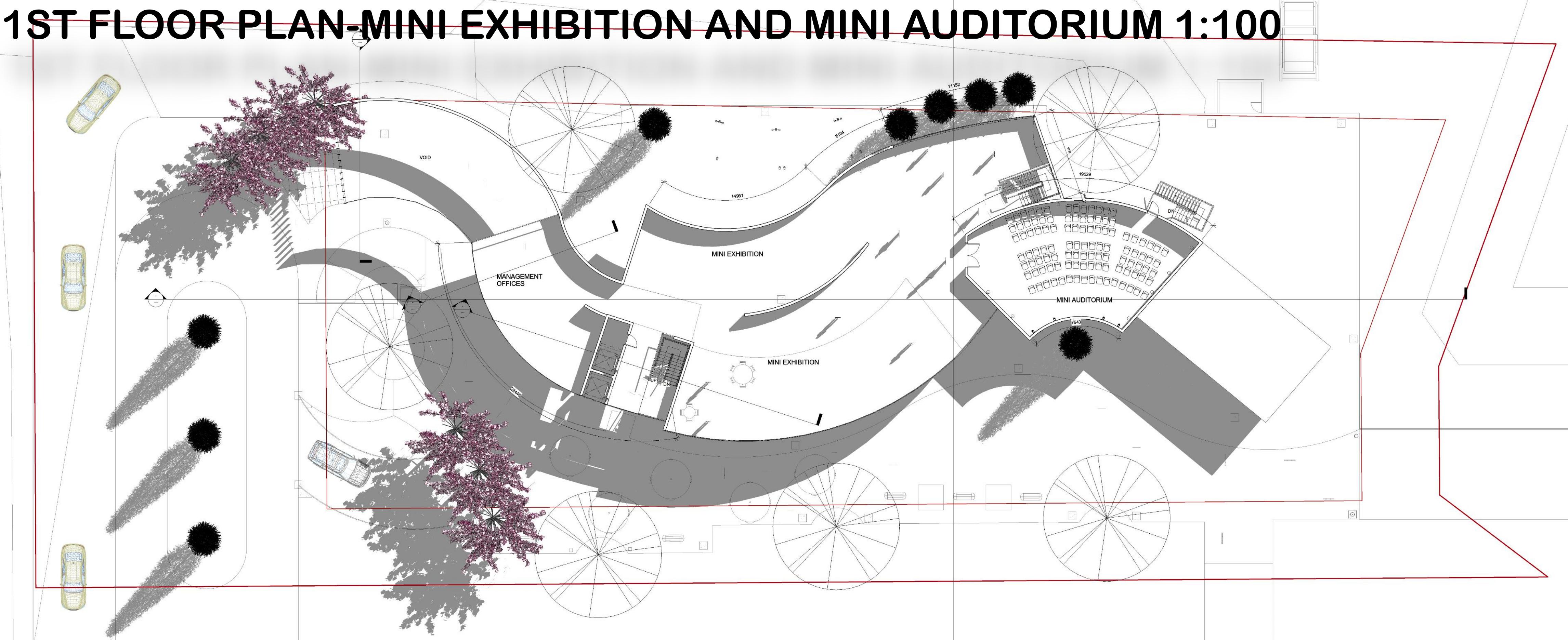
SCHEDULE OF ACCOMODATION	
SPACES OF BUILDING	AREA
<b>GROUND FLOOR</b>	
LOBBY	8X16.7=109.6
RECEPTION	4.9X8.6=42.3
MEDIA ROOM	6.6X6.6=43.6
WATING AREA	4X1.8=7.2*
ELEVATOR	0.9X0.75=0.7*
M&E RISERS	(3.7X5.2)=19.24
MALE AND FEAMLE TOILETS	19.24X2=38.5
CAFÉ	13.7X7.1=97.3
RETAIL STORE	11.4X7.6=86.6
MPH	19.4X6.8=131.92
SURAU-MALE AND FEMALE	12.8X7.5=96
REFUSE ROOM	4X4=16*
GENSET ROOM	5X7=35*
TOTAL AREA OF SPACES ADDED TOGETHER WITHOUT SERVICES=	
$=1693.04 \text{ m}^2$	

## SUB-BASEMENT PLAN 1:100

BASEMENT	
PUMP ROOM	$5X5=25^*$
MDF ROOM	$3X3=9^*$
TNB ROOM	$7X5=35^*$
REFUSE ROOM	$4X4=16^*$
TOTAL AREA OF SPACES ADDED TOGETHER WITHOUT SERVICES=	
$=1693.04 \text{ m}^2$	



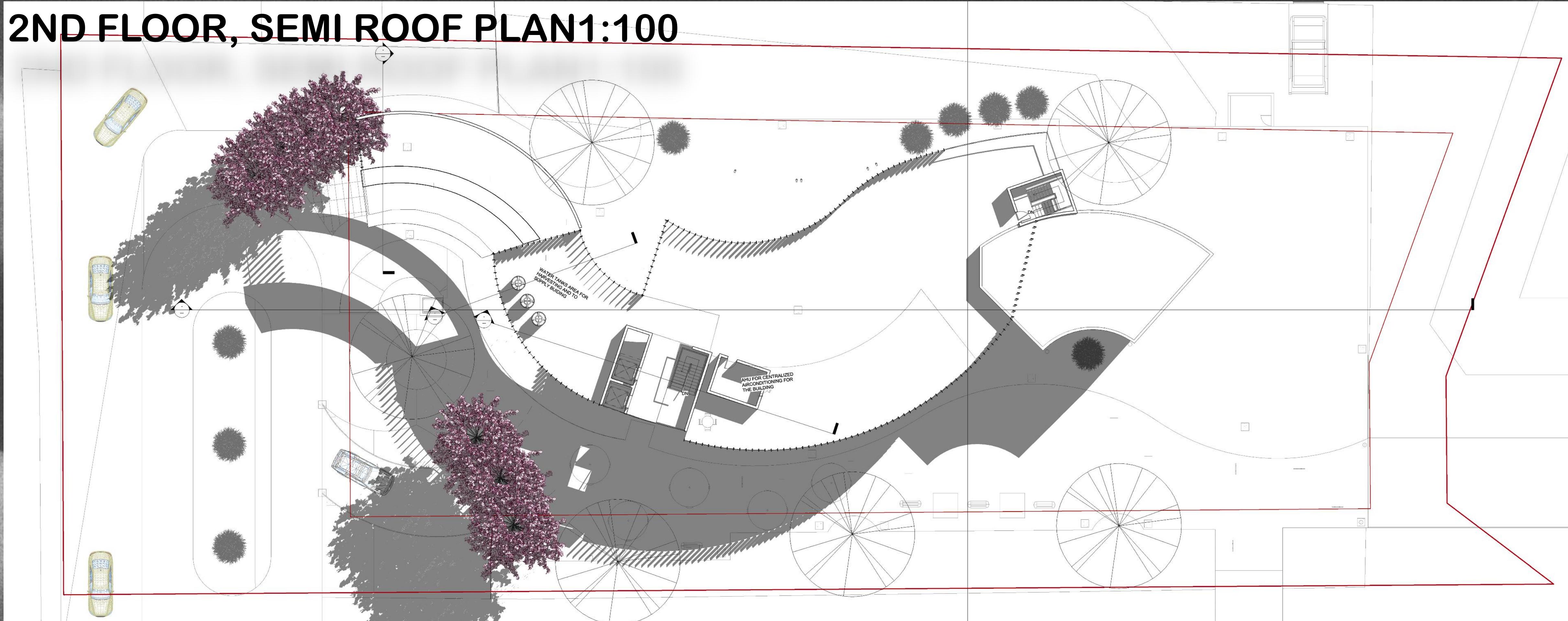
# 1ST FLOOR PLAN-MINI EXHIBITION AND MINI AUDITORIUM 1:100



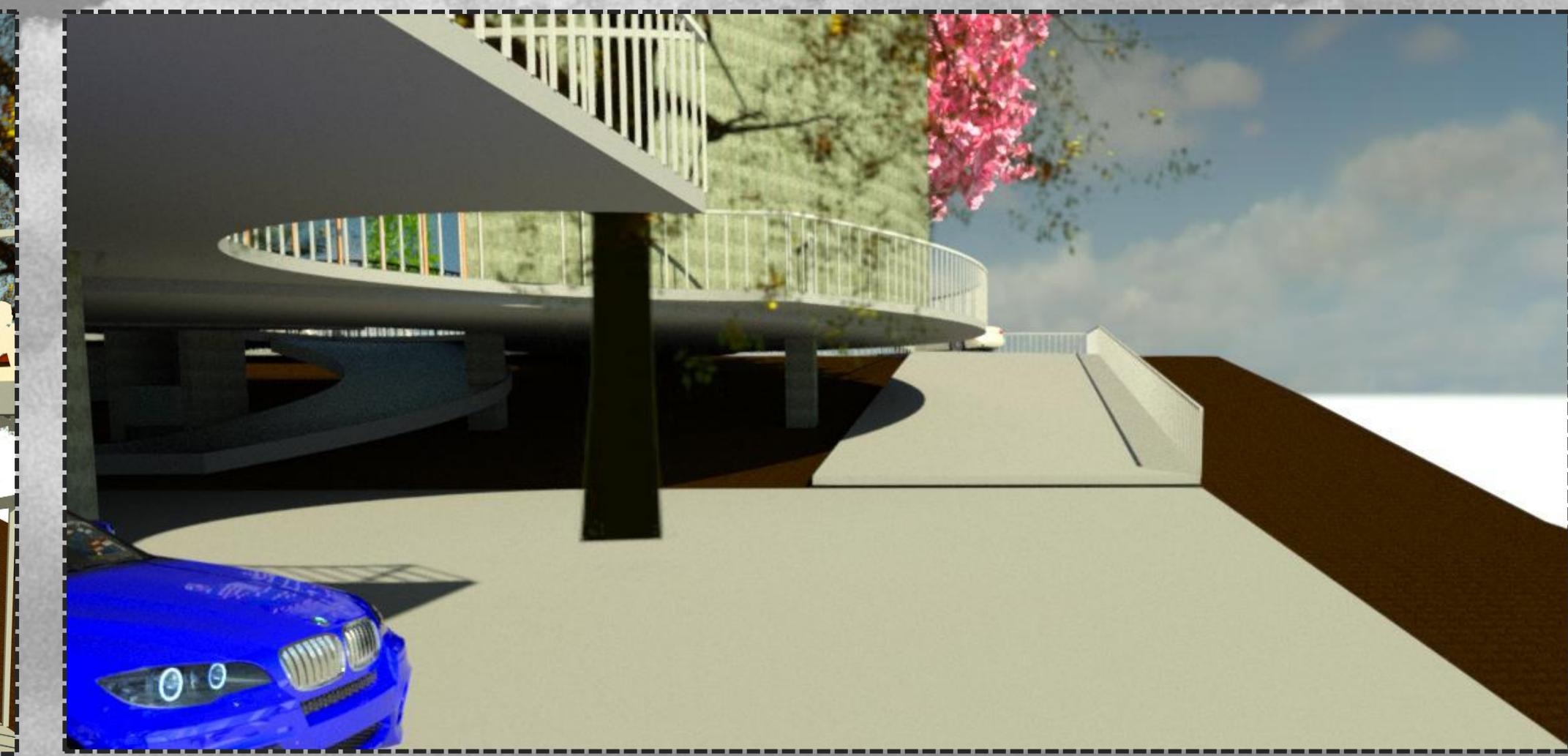
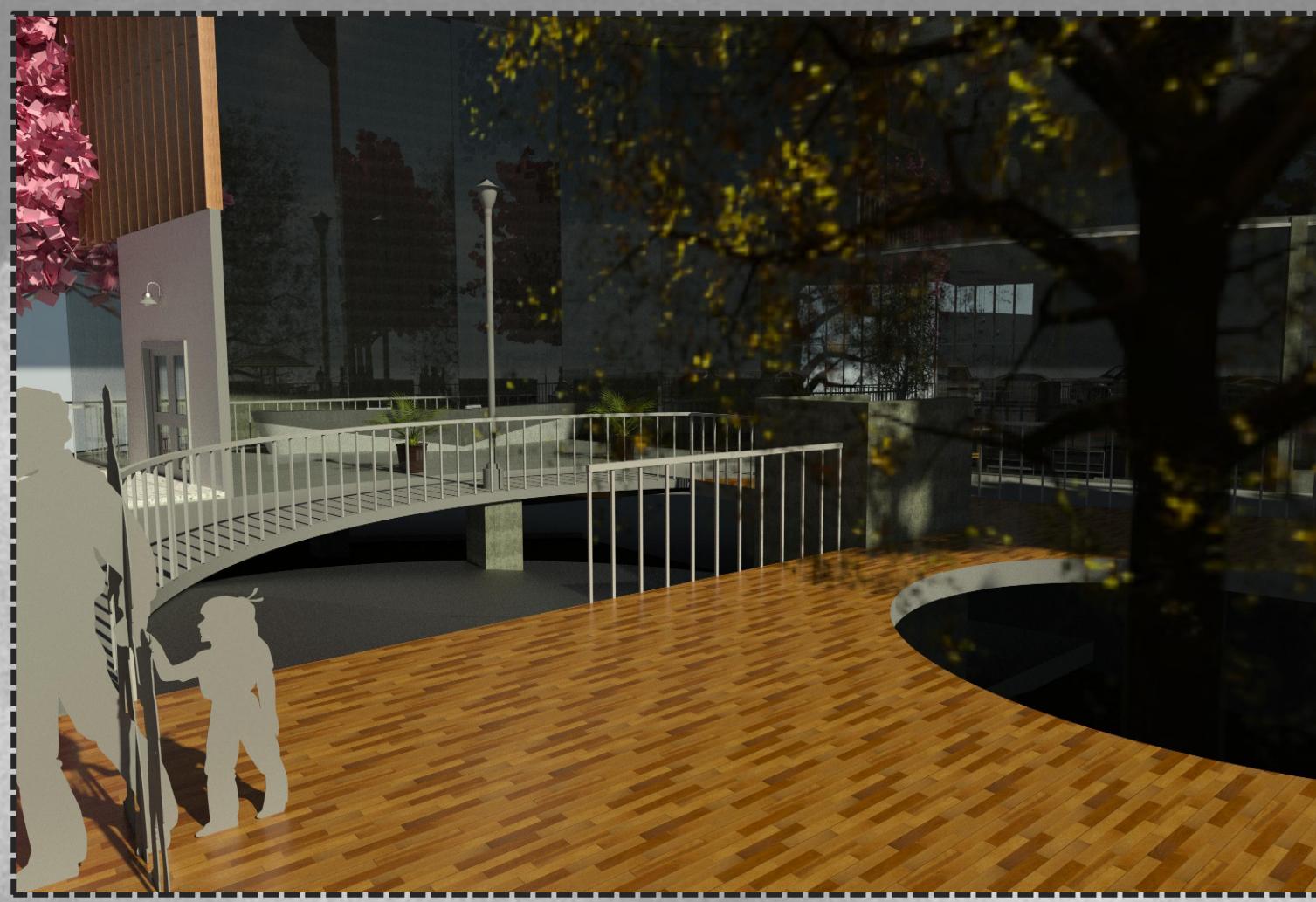
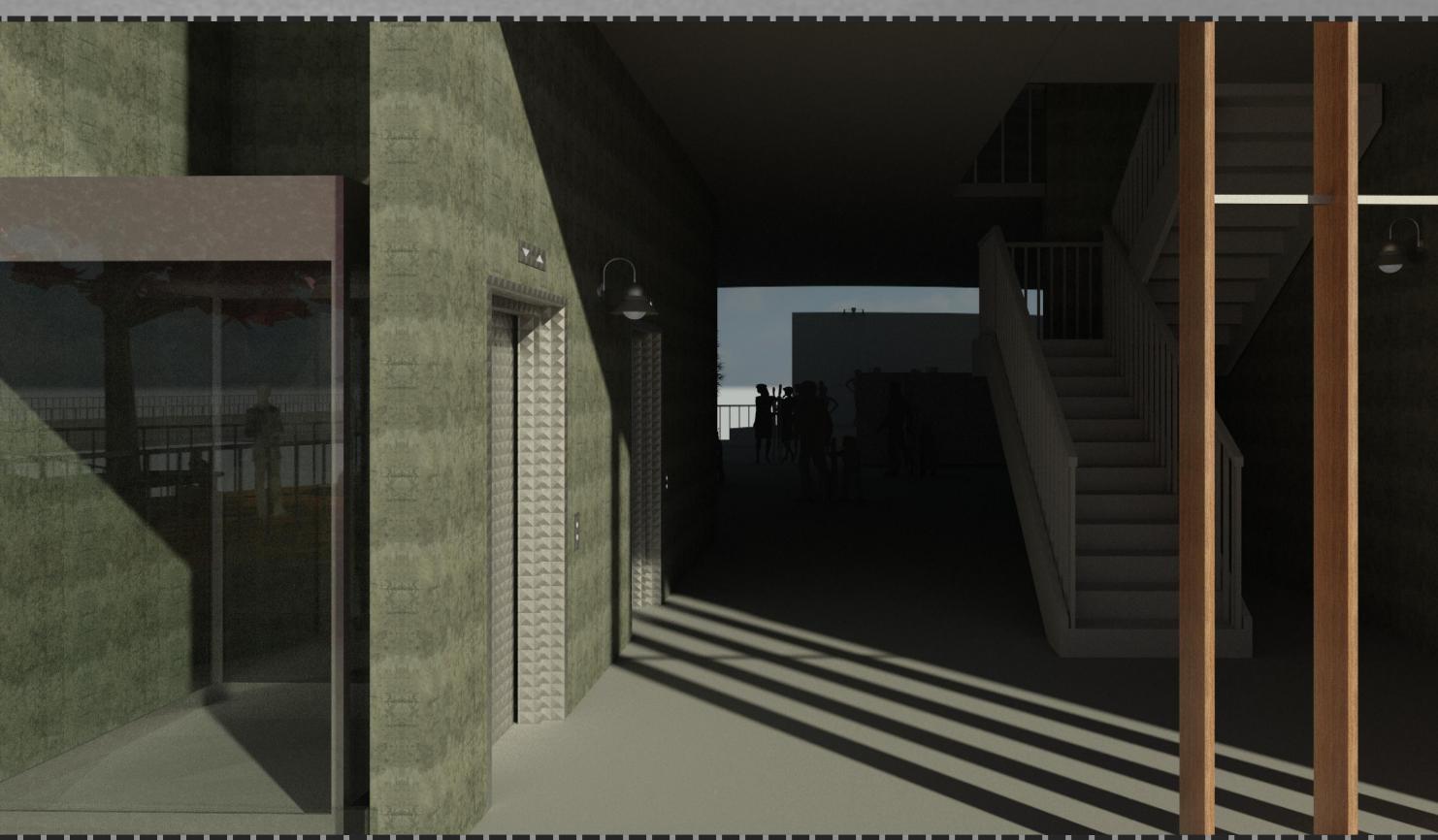
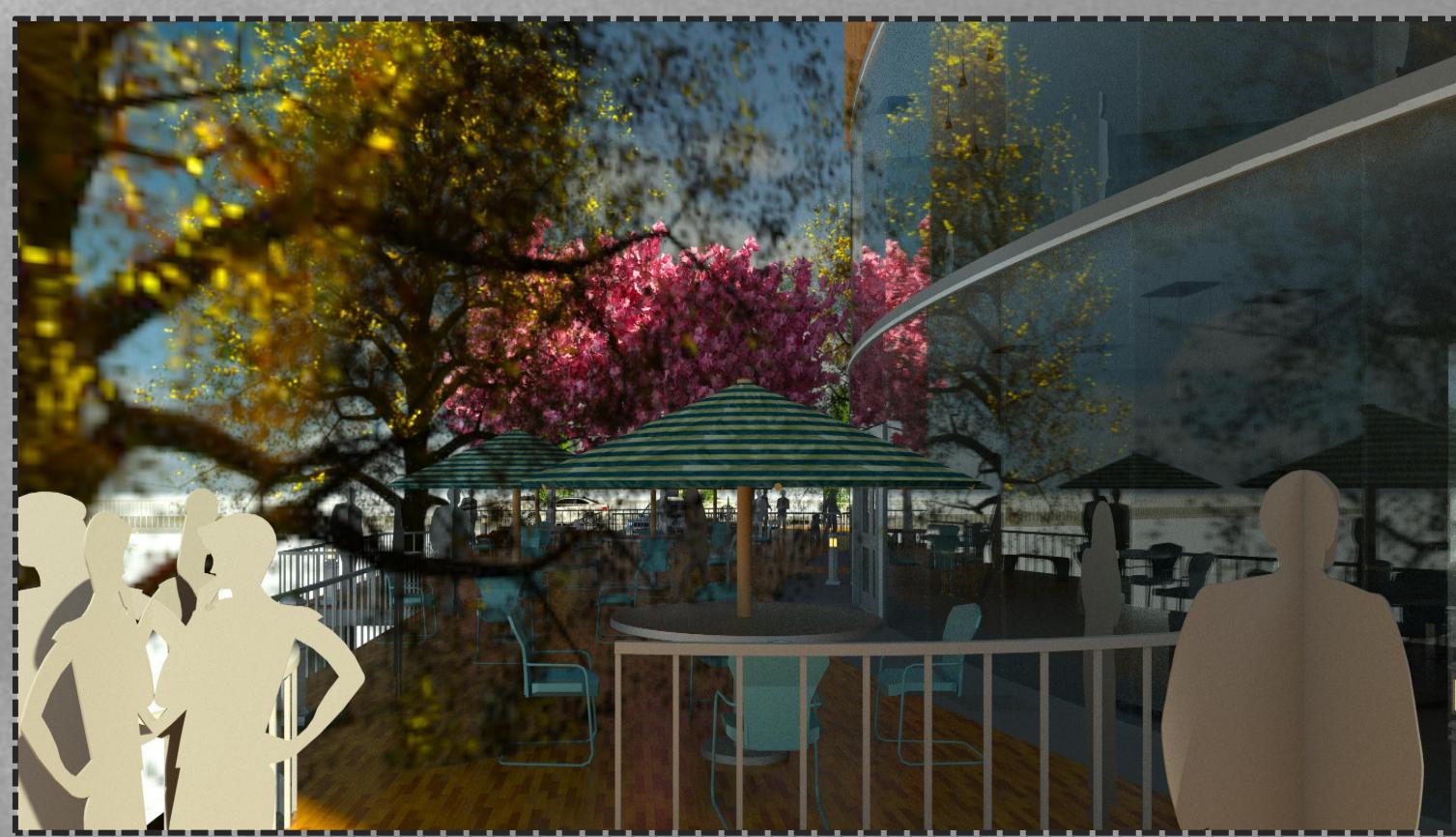
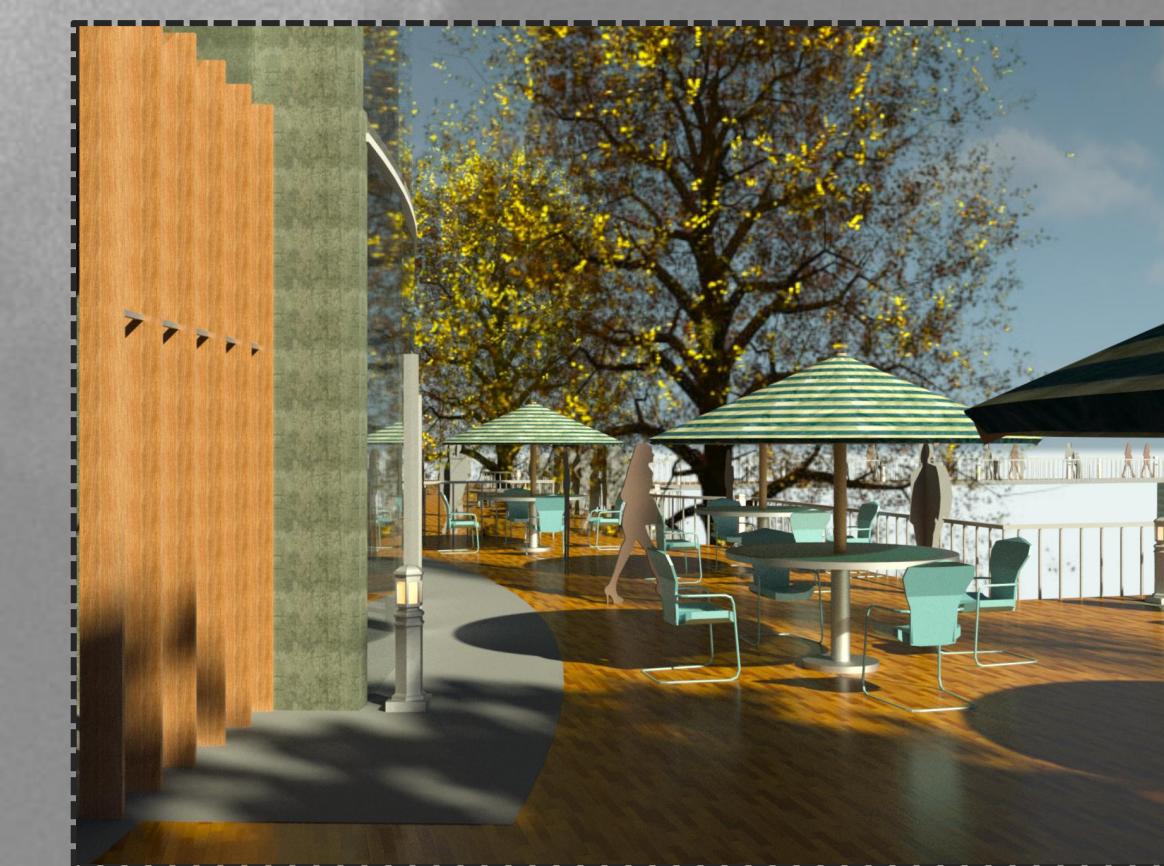
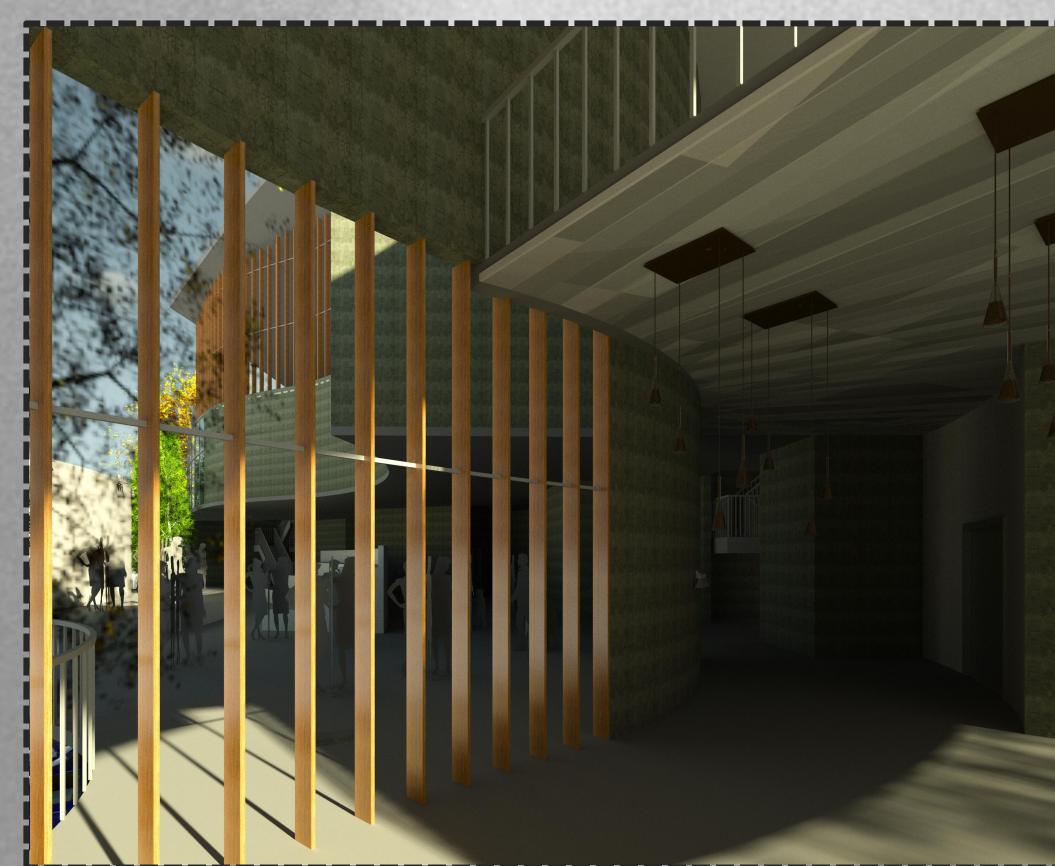
SCHEDULE OF ACCOMODATION		AREA
SPACES OF BUILDING		
1 <sup>ST</sup> FLOOR		
MINI EXHIBITION	$200.3+207.3=407.6$	
MINI AUDITORIUM	$18.4 \times 6.8 = 131.92$	
MANAGEMENT OFFICE	$6.5 \times 15.4 = 100.1$	
TOTAL AREA OF SPACES ADDED TOGETHER WITHOUT SERVICES=		$=1693.04 \text{ m}^2$

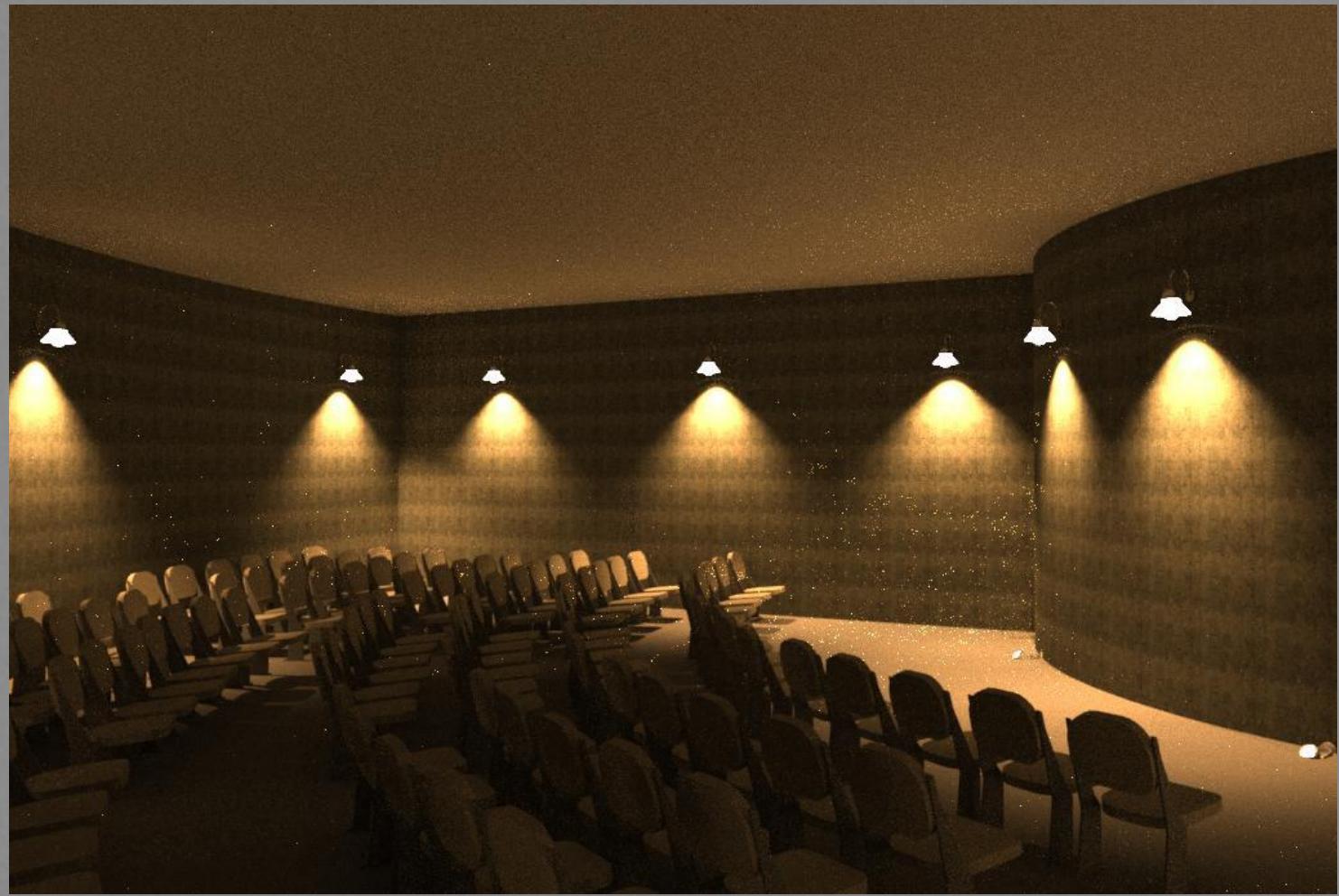
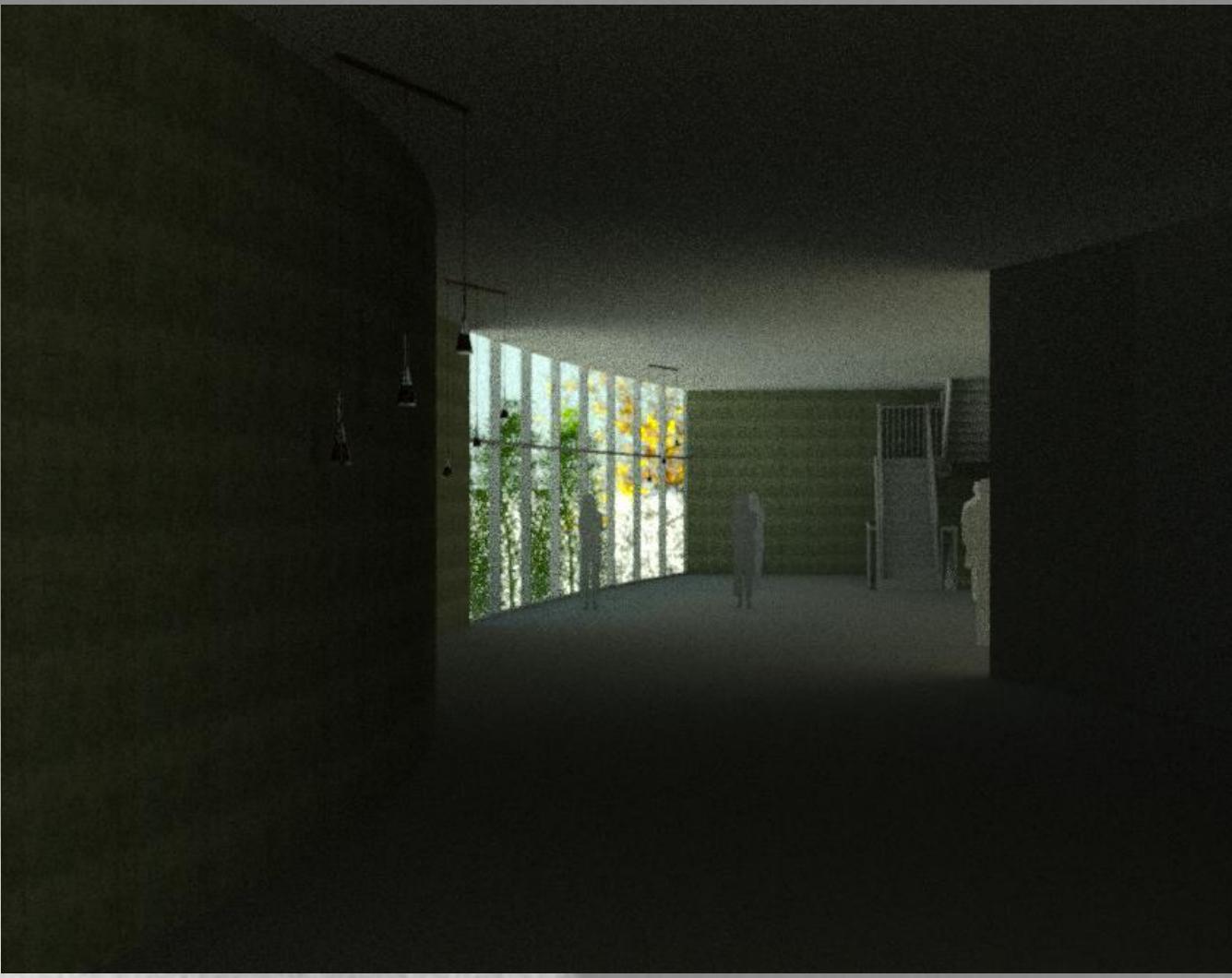
# 2ND FLOOR, SEMI ROOF PLAN1:100

2 <sup>ND</sup> LEVEL	
OPEN MULTI PURPOSE SPACE	$200.3+207.3=407.6$
AHU ROOM	$3 \times 4 = 12^*$
WATER HARVESTING TANKS AREA	$100.1^*$
TOTAL AREA OF SPACES ADDED TOGETHER WITHOUT SERVICES=	
$=1693.04 \text{ m}^2$	

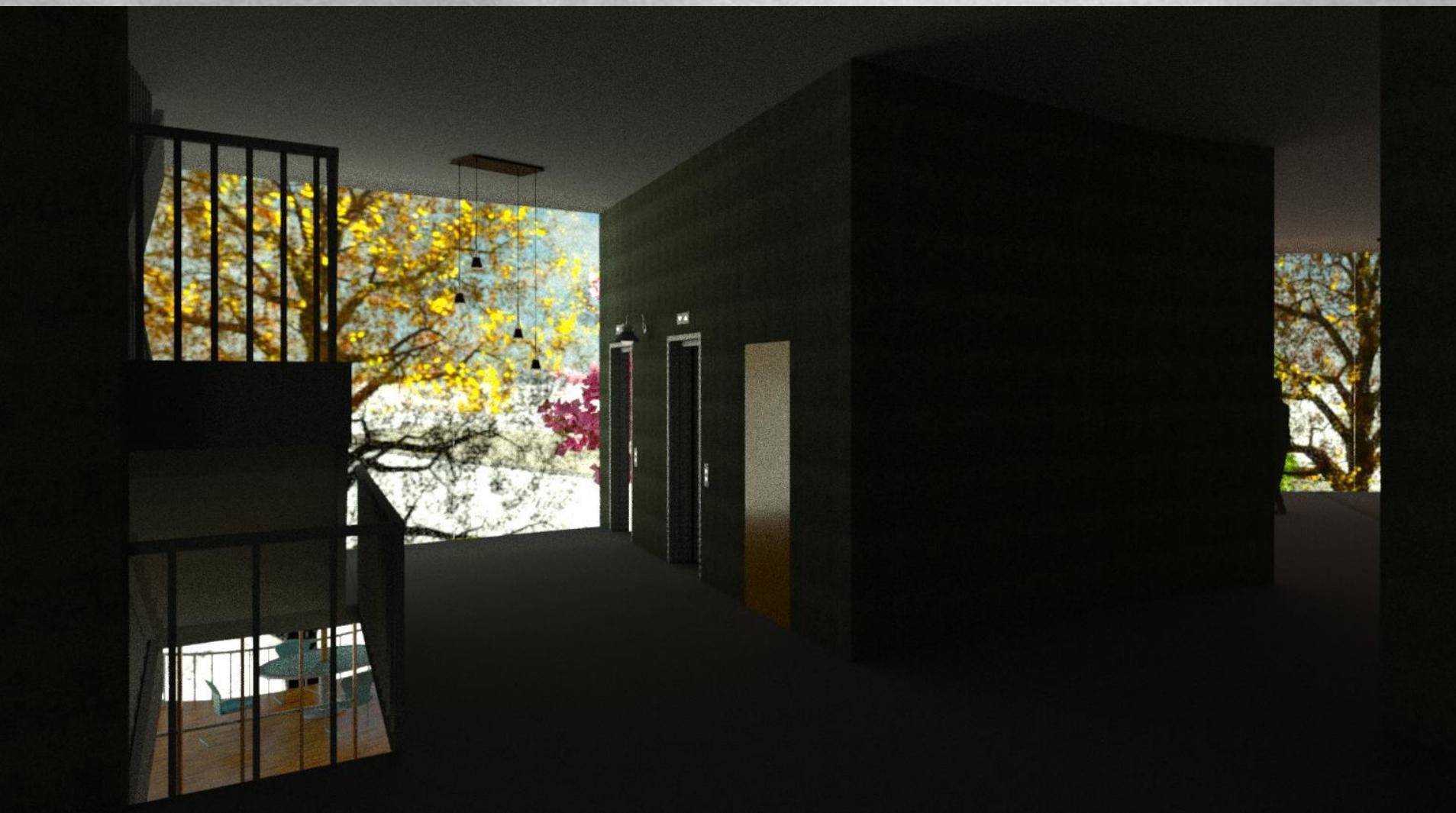


## PERSPECTIVE SHOTS OF INTERIOR AND EXTERIOR ON GROUND LEVEL AND BASEMENT



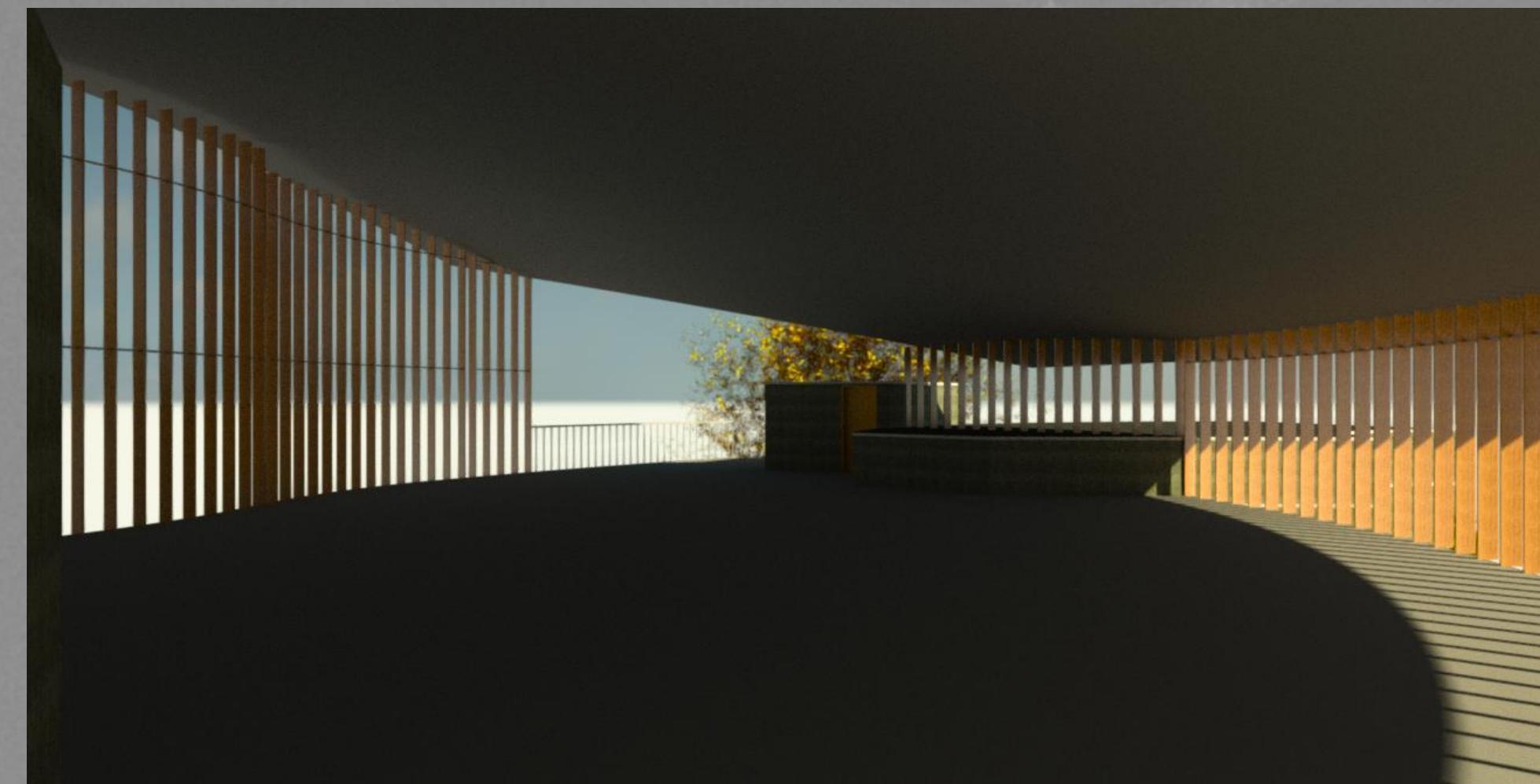
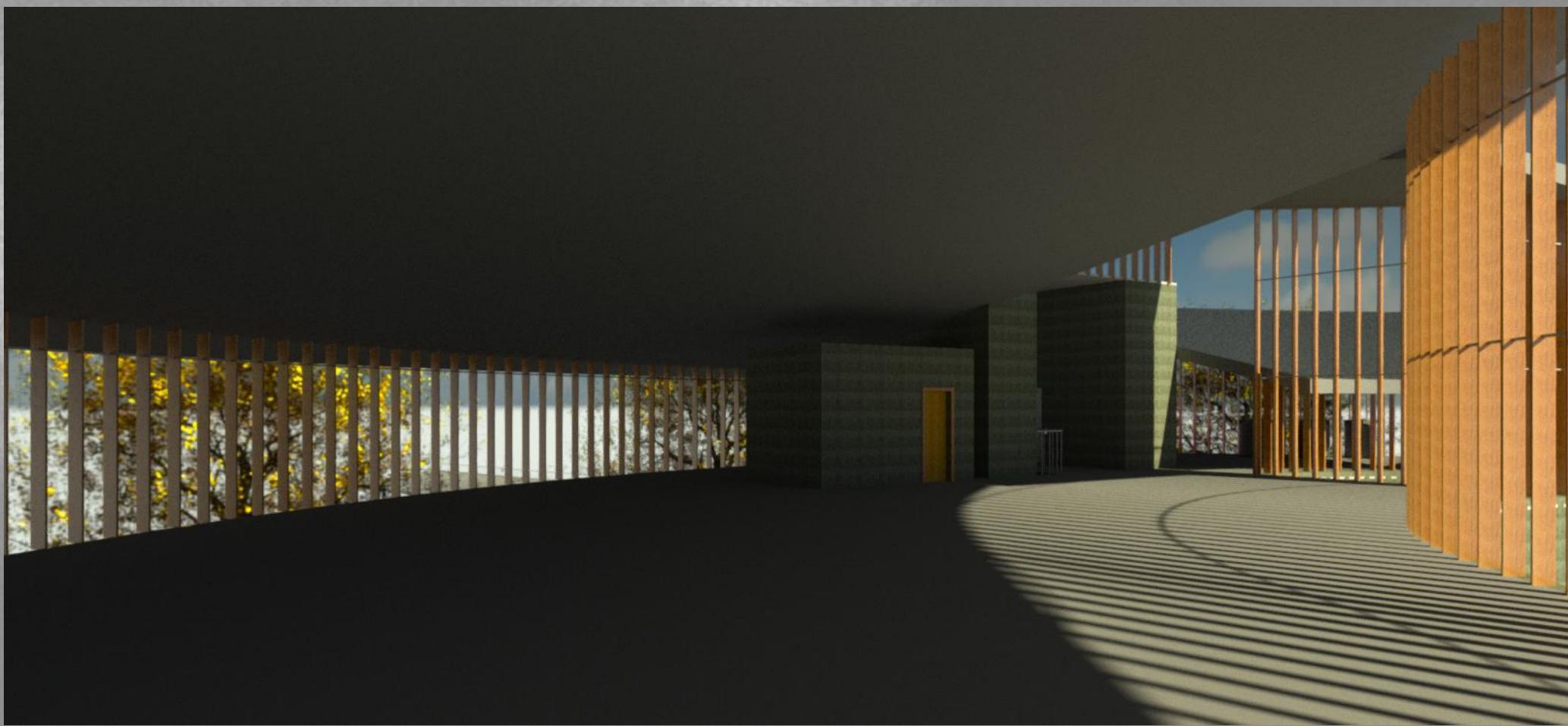


**SEMI PUBLIC:MINIEXHIBITION AREA IS A SPACIOUS FOR AND HAS 2 MAIN SECTIONS THAT IS DIVIDED BY A PARTITION WALL IN THE MIDDLE, THIS IS TO ORGANIZE THE CIRCULATION THIS FLOOR IS MAINLY MORE ISOLATED TO FOCUS ON WHAT WILL BE DISPLAYED INSIDE RATHER THAN OUTSIDE**



**SEMI PRIVATE RENTABLE MINI AUDITORIUM THAT WILL DISPLAY THE HISTORY FO MALAYSIA OR ANYTHING DEPENDING ON THE THEME THAT THE BUILDING WILL BE TAKING AT A GIVEN TIME**

**THE EMERGENCY STAIRCASE ALSO ARE USED AS MAIN MEANS OF CIRCULATION BETWEEN THE FLOORS OF THE BUILDING, AND THEY ARE IN ACCESIBLE DISTANCE IN CASE OF AN EMEGENCY**



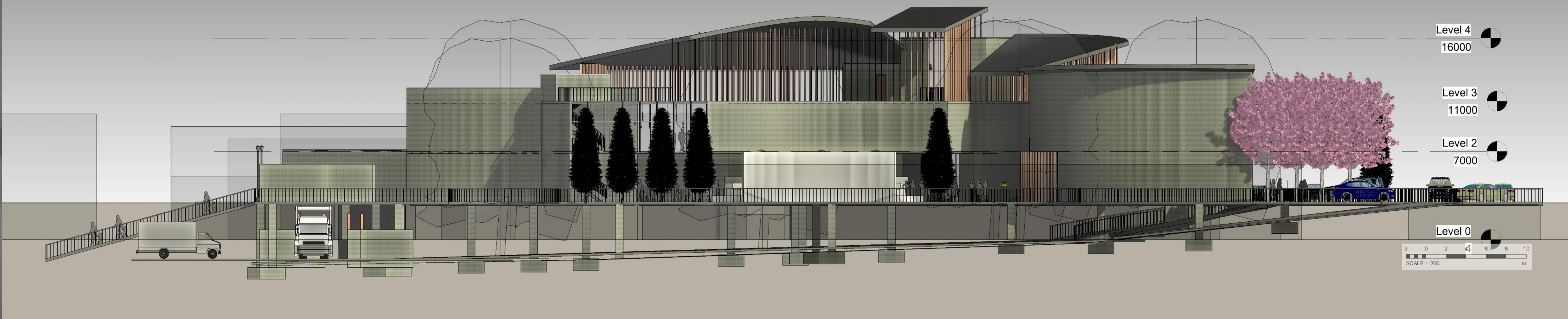
**THE ROOF FLOOR IS MAINLY GOING TO ALSO BE A RENTABLE ARE WHERE THE SPACES ARE ULPIPURPOSE FOR DIFFERENT EVENTS.THIS FLOOR IS SURROUNDED BY MAINLY WOODEN LOUVERS THAT ACT AS A SHADING DEVICE ALL WHILE NOT BLOCKING THE WIND HELPING IN VENTILATION**



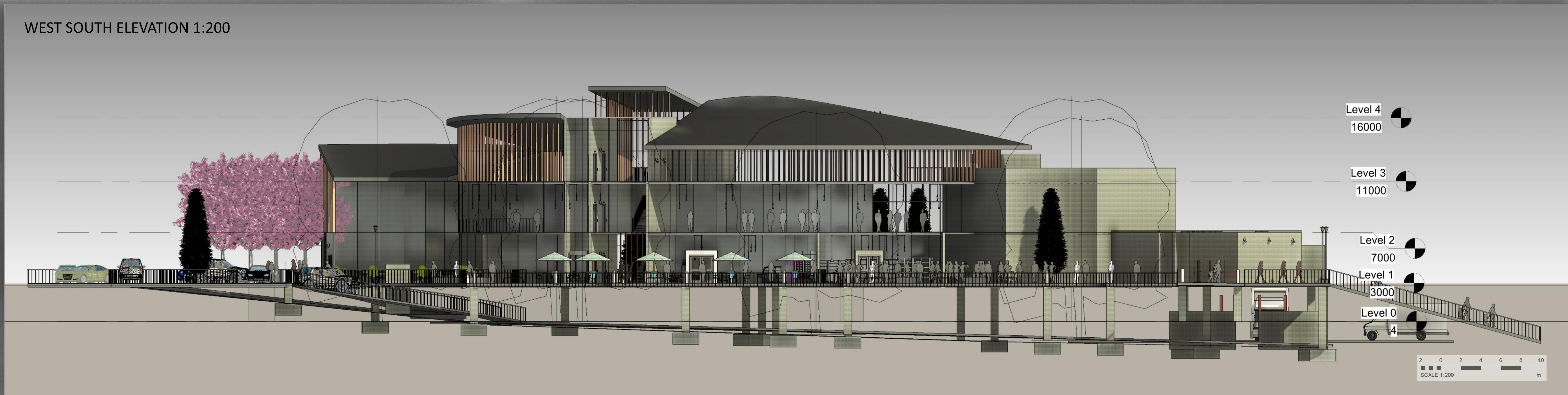
**THIS AREA IS DEDICATED TO ACT AS SERVICES SUPPLY MAILY FOR WATTER SUPPLIES FOR THE BUILDING, AND THAT INCLUDES THE WATER HARVESTATION SYSTEM WHERE WATER WILL BE COLLECTED FROM THE GUTTERS OF THE SLOPED ROOFS AND LEAD TO THE WATER TANKS**

# ELEVATIONS

NORTH EAST ELEVATION 1:200

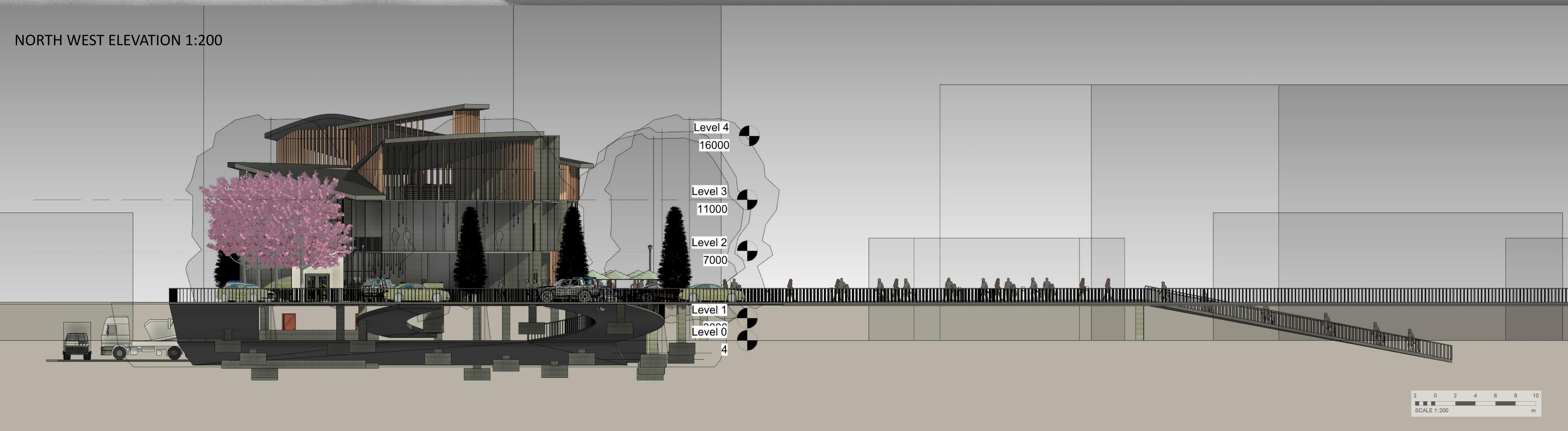


WEST SOUTH ELEVATION 1:200

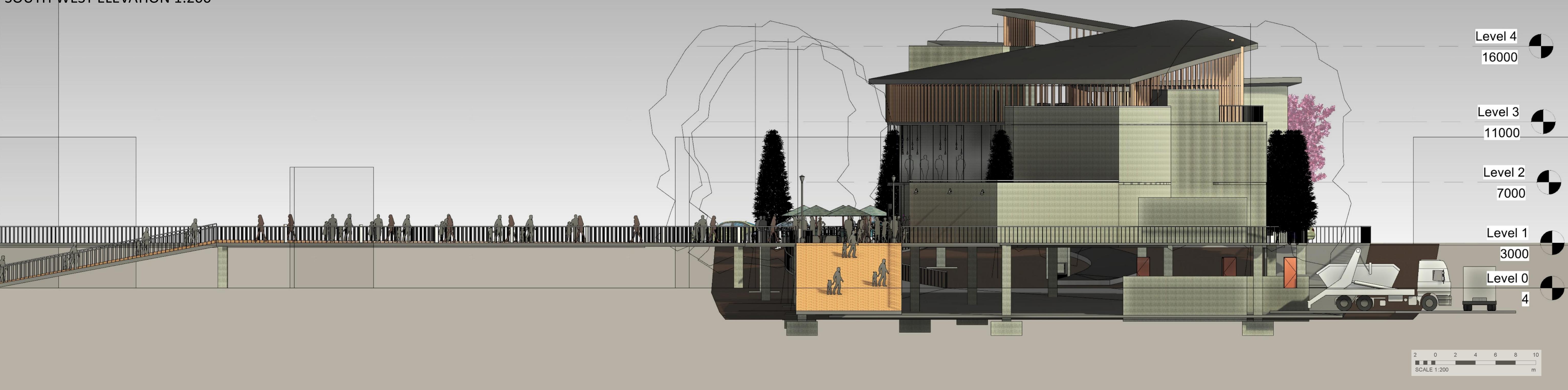


# ELEVATIONS

NORTH WEST ELEVATION 1:200

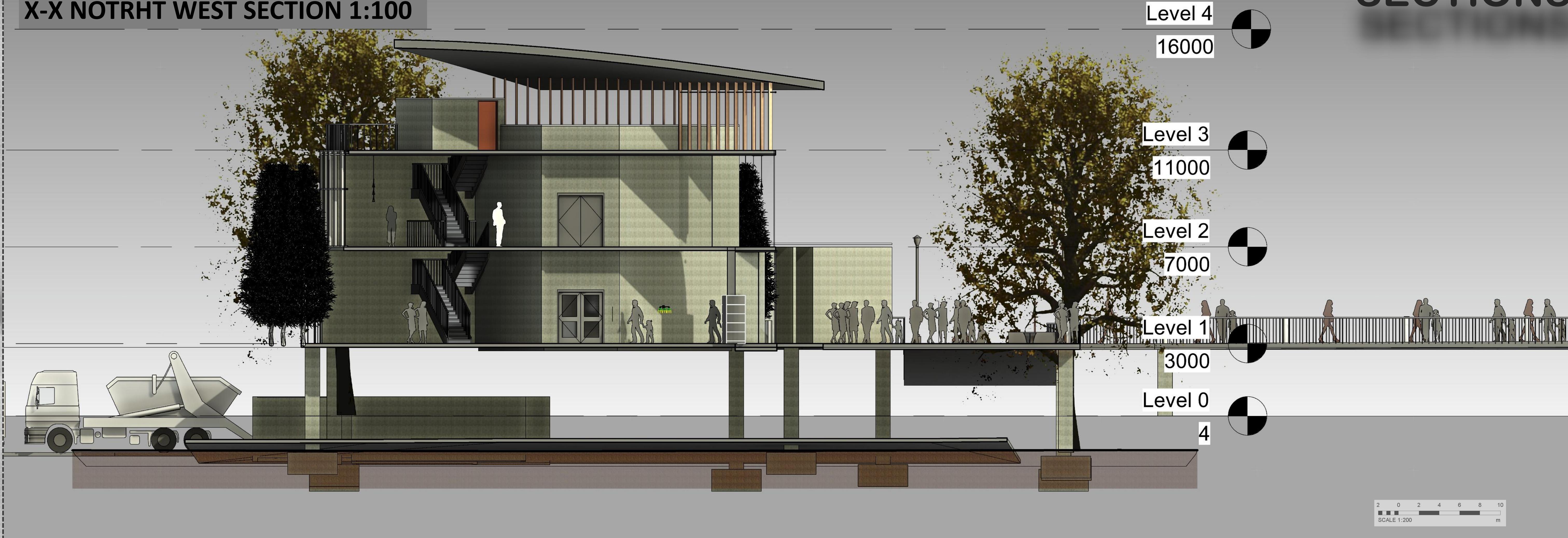


SOUTH WEST ELEVATION 1:200



# SECTIONS

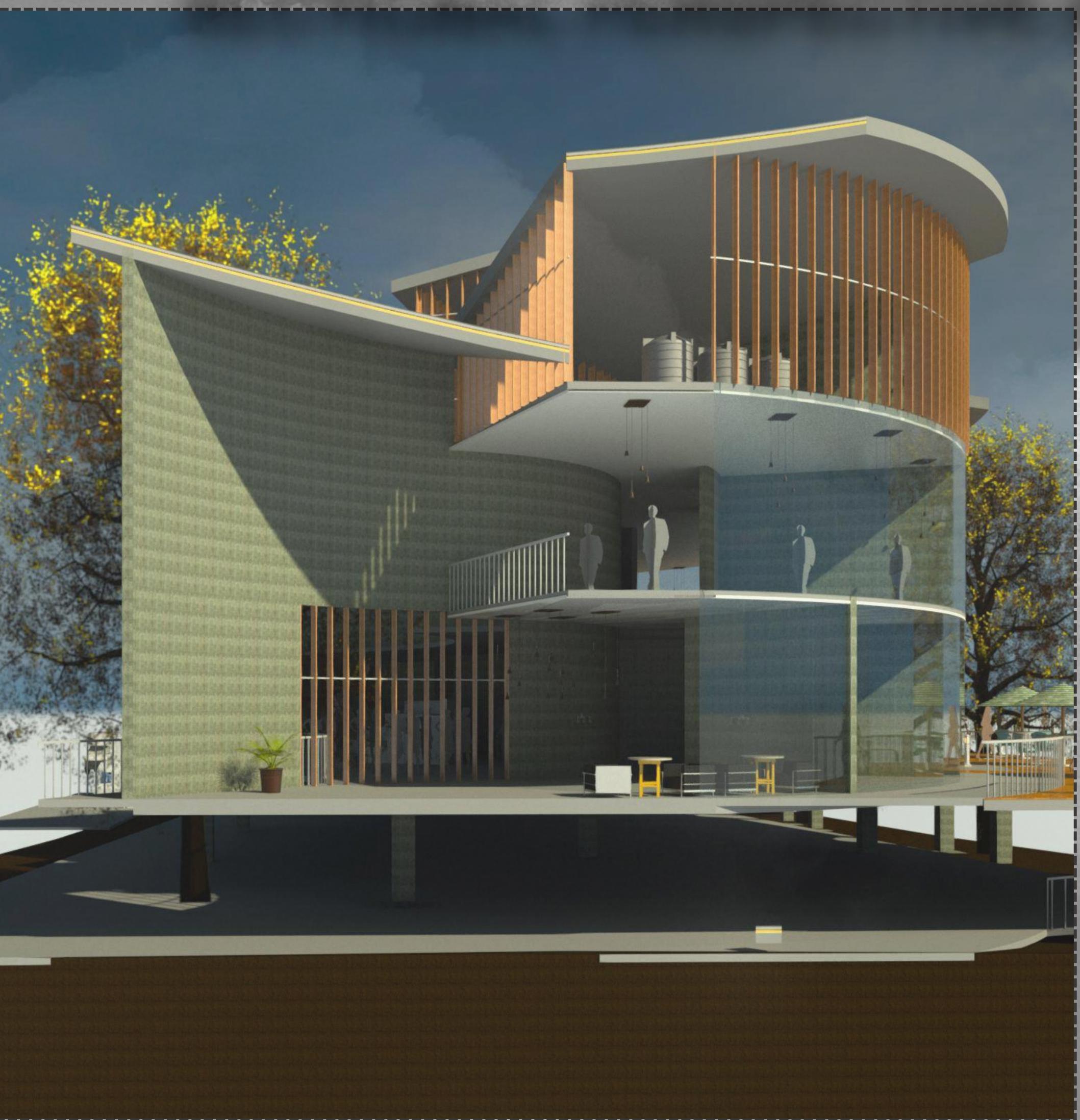
X-X NOTRHT WEST SECTION 1:100



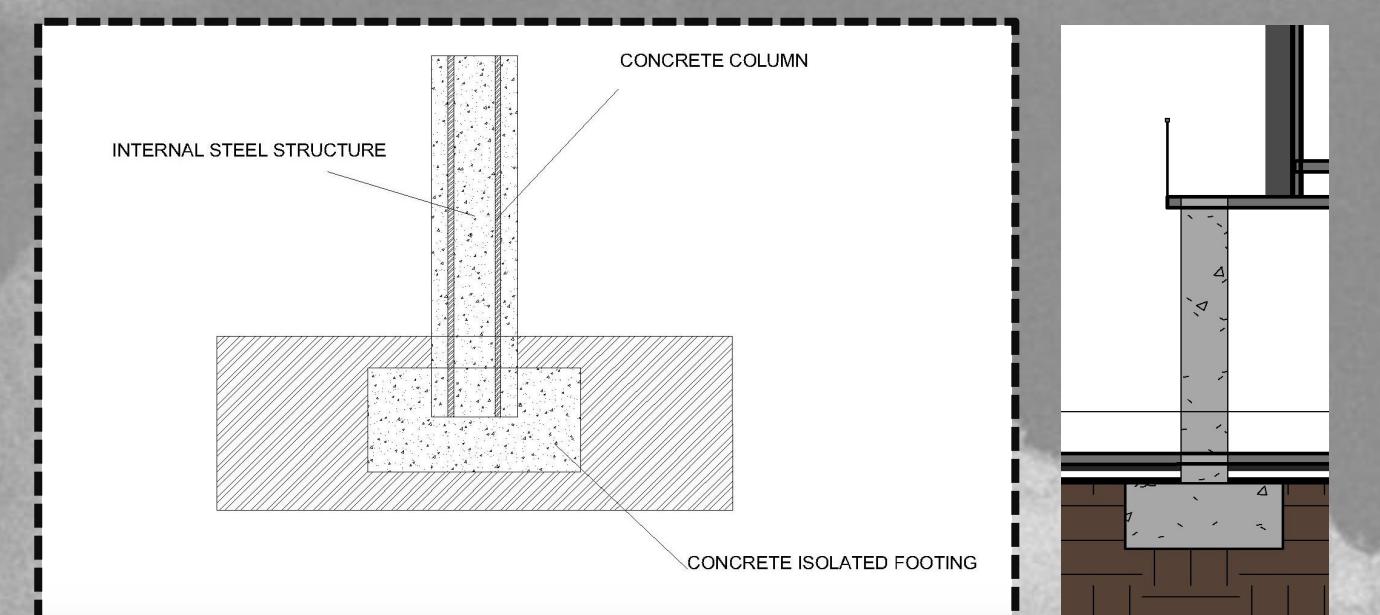
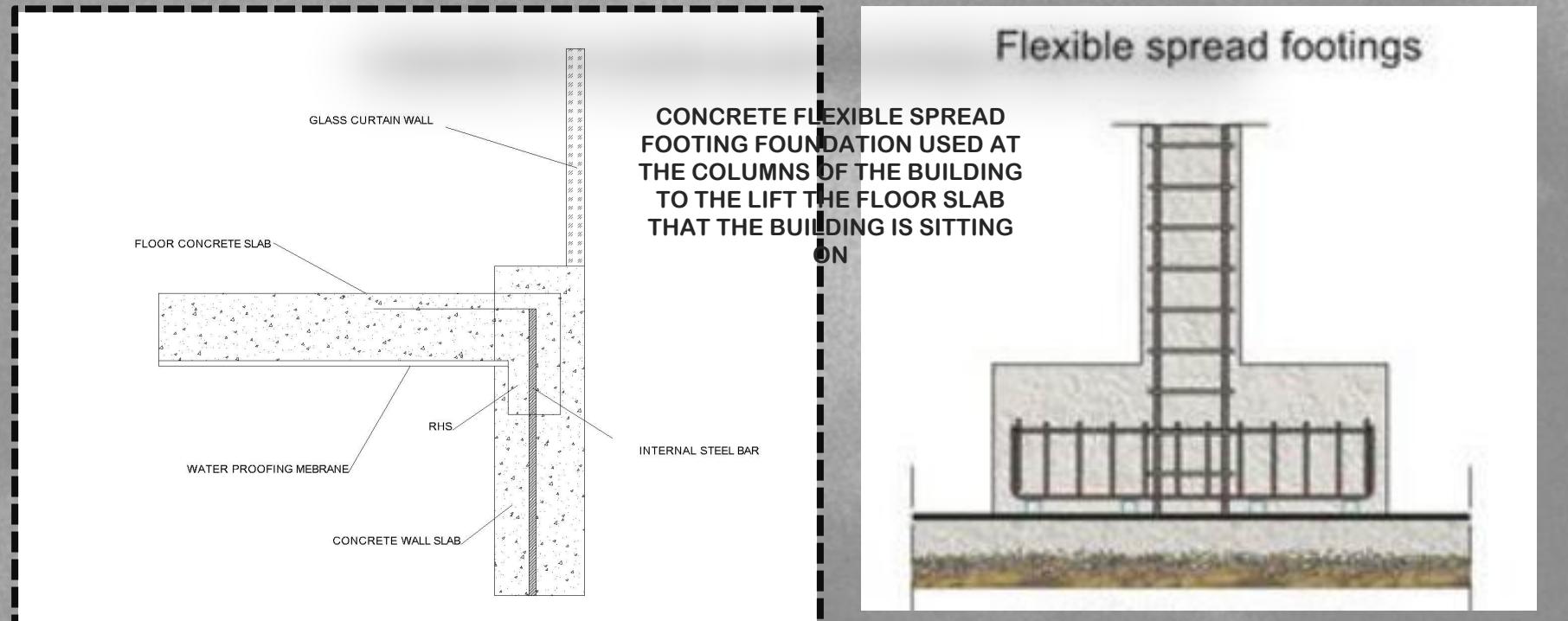
Y-Y WEST SOUTH SECTION 1:100



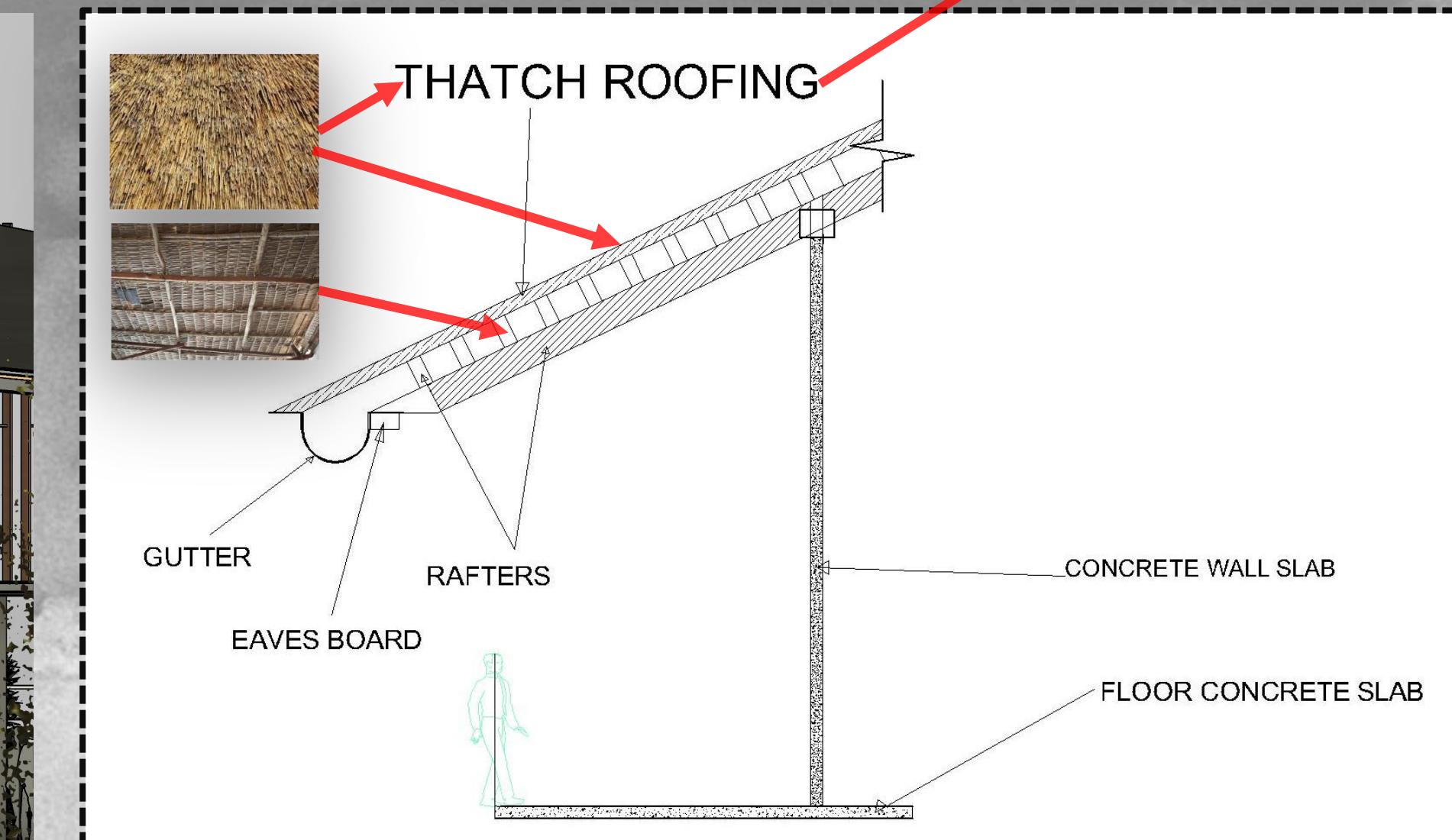
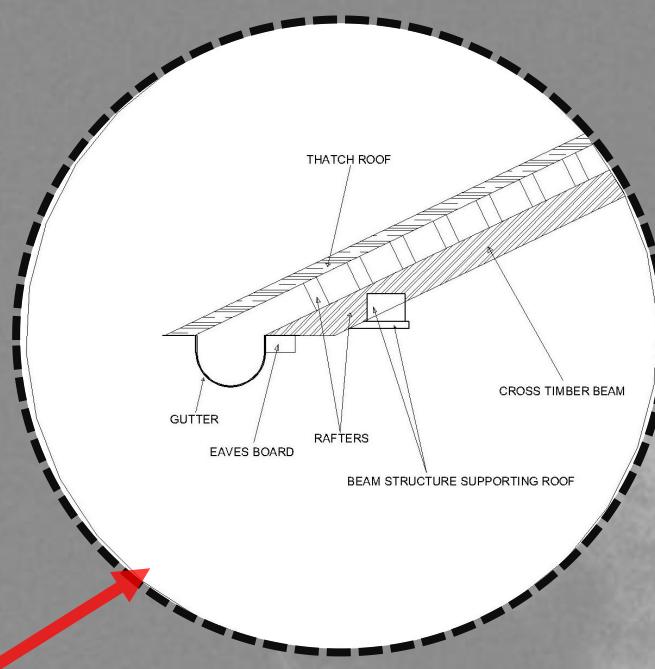
# SECTIONAL PERSPECTIVE AND CONSTRUCTION DETAILS



CONCRETE FLOOR SLAB FOOTING FOR FLOORS



THE TYPE OF FOUNDATION USED WILL BE THE ISOLATED FOUNDATION FOR THE FOOTING OF THE COLUMNS OF THE BUILDING, THIS WILL BE CONSIDERED THE ONLY EXCAVATION THAT WILL BE CARRIED OUT ON THE SITE



ONE OF THE MAIN POINTS THE BUILDING WOULD LIKE TO ACHIEVE IS BUILD THE FOUNDATION AND THE CONSTRUCTION OF THE SITE LEVEL SO THAT MINIMAL EXCAVATION IS NEEDED AND THE SITE BASE IS PRESERVED, THAT WOULD RESULT IN IT THE BUILDING BEING ECO FRIENDLY AND EFFICIENT. IN ADDITION TO THE NOT BOthering THE HERITAGE PLANTATION THAT IS FOUND ON THE SITE. THEREFORE THE BUILDING WILL BE BASED ON AN ELEVATED SLAB THAT SUPPORTS THE STRUCTURE AND SO THE BASEMENT PARKING CAN FIT IN THE SITE LEVEL WITHOUT EXCAVATION

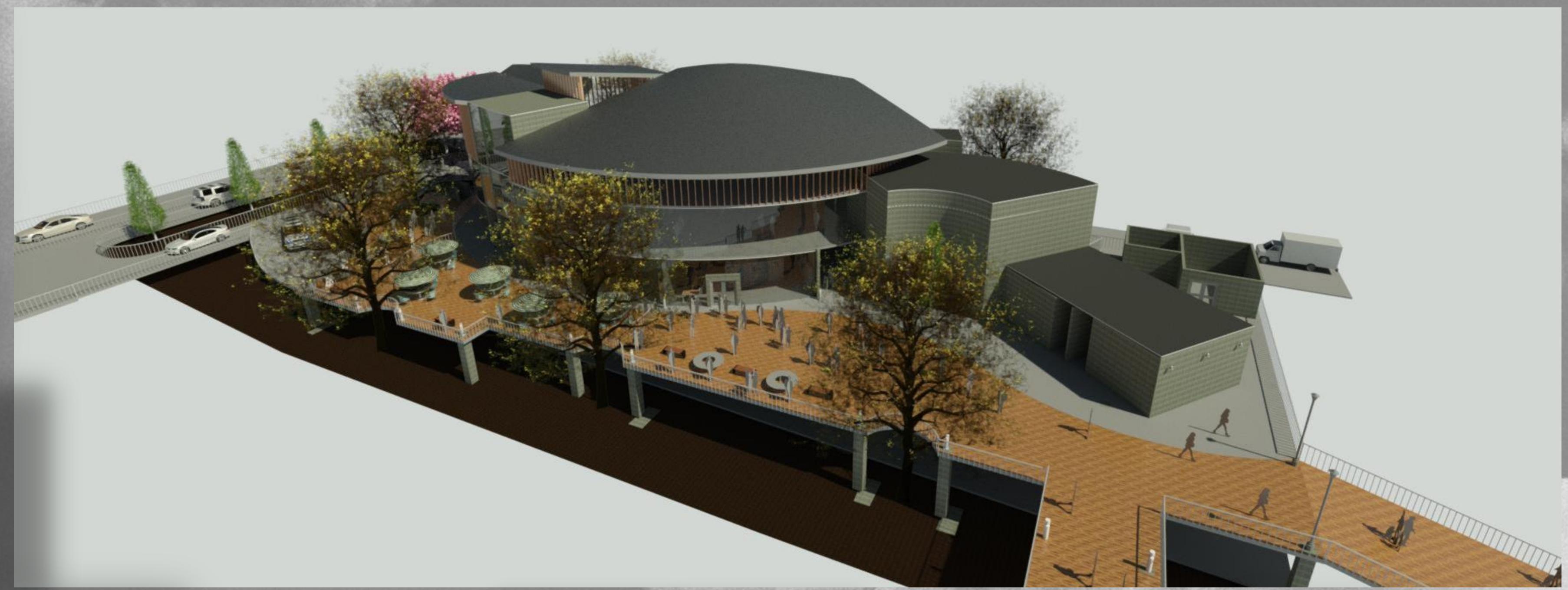
# OVERALL MATERIALS USED FOR THE BUILDING



THE WALLS WILL MAINLY BE MADE FROM REINFORCED CONCRETE. THIS ADDS A RAW AND UNFILTERED TEXTURE TO THE BUILDING AND AN ELEMENT THAT SORT OF BLENDS WITH THE SURROUNDING CONTEXT. THE MAIN INSPIRATION BEHIND THIS MATERIAL CHOICE IS TO REFERENCE THE MINIMAL BRUTALISM THAT THE JAPANESE ARCHITECT TADAO ANDO USES WITH HIS BUILDINGS, WHERE HE CREATES UNIQUE SPACES BY UTILIZING THE PLAINNESS OF A WALL AND USING LIGHTING AND SHADOWS AS AN ORNAMENT



THE MATERIAL USED FOR THE ROOF STRUCTURE WILL BE AN ATTAP OR THATCH ROOF, WHICH PAYS HOMAGE TO A TRADITIONAL KAMPUNG MALAY HOUSE THAT USES THE MATERIAL FOR THE ROOF STRUCTURE. THIS CONTRASTS WITH THE HARD CONCRETE WALLS AND MANAGES TO ADD A POINT OF FAMILIARITY AND LONGING FOR THE LOCAL COMMUNITY.



ANOTHER POINT OF REFERENCE TO MALAYSIAN HISTORY IS SOME OF THE LIGHTING SYSTEMS THAT WILL BE USED, IN THE MATIC THERE WAS AN ANTIQUE PIECE THAT WAS THERE FOR A LONG TIME, SO THE INTENTION WAS TO USE SIMILAR LAMPS THAT HAVE A HISTORY TO THEM.



IF THE ROOF STRUCTURE ATTAP AND THE HISTORIC LAMPS ARE A REFERENCE TO MALAYSIA'S HISTORY, THEN THE WOODEN LOUVERS THAT ARE CONNECTING THE STRUCTURE TO THE WALLS ARE A REFERENCE TO THE PRESENT AND MODERNITY. MANY MODERN HOUSES HERE IN MALAYSIA USE ADJUSTABLE LOUVERS AS A SUNSCREEN TO LIMIT THE SUNLIGHT EXPOSURE THE INTERIOR HAS, ALL WHILE NOT COMPROMISING THE VENTILATION

# SITE CONTEXT AND URBAN DESIGN STUDIES

