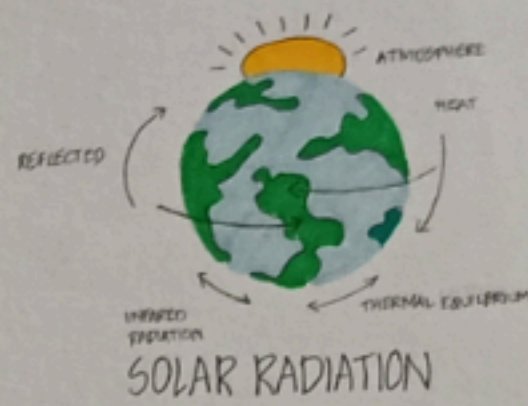


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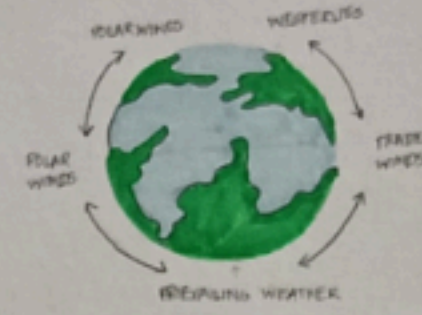


# CLIMATE ANALYSIS

## MACROCLIMATE FACTORS:



AVERAGE SUN ANGLES, RADIATION, SEASONAL VARIATIONS OF REGION



PREVAILING WIND DIRECTIONS AND SPEEDS OF LARGER REGION



## PRECIPITATION

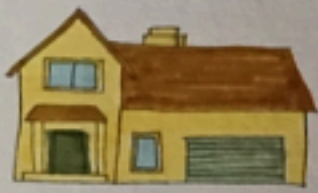
AVERAGE ANNUAL RAINFALL, SNOWFALL, SEASONAL PATTERNS

# NEIGHBORHOOD CONTEXT

## LAND USE

TO ANALYSE EXISTING USE OF BUILDINGS IN THE NEIGHBORHOOD

### RESIDENTIAL



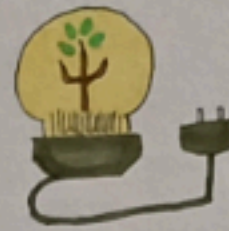
### COMMERCIAL



### INDUSTRIAL



## MICROCLIMATE FACTORS



### ENERGY EFFICIENCY

REDUCE COOLING HEATING BY MAXIMIZING PASSIVE STRATEGIES



### URBAN HEAT ISLAND

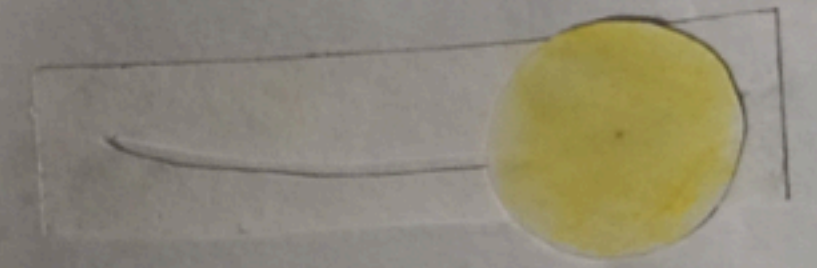
COUNTERACT URBAN HEAT WITH GREEN INFRASTRUCTURE



### SUSTAINABLE DESIGN

INTEGRATES NATURAL PROCESSES INTO BUILT ENVIRONMENTS

## SUN PATH



## HOW TO APPLY IN DESIGN?

WEST FACADE: MOST CRITICAL FOR HEAT GAIN SO ONLY BUFFER ZONES PLACED HERE

NORTH FACADE: GETS DIRECT SUN IN SUMMER

SOUTH FACADE: GETS DIRECT SUN IN WINTER

## CIRCULATION PATTERNS

TO OBSERVE HOW PEOPLE MOVE WITHIN AND AROUND THE SITE



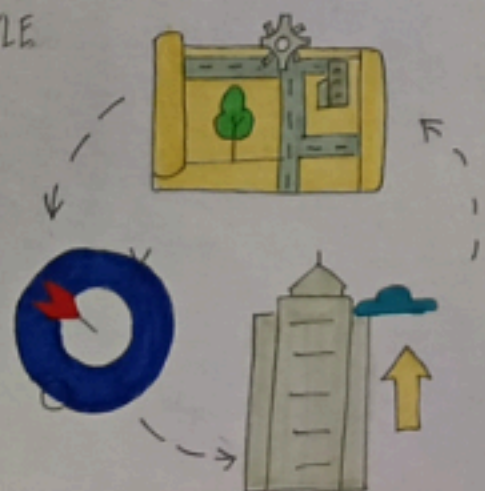
### PEDESTRIAN



### CYCLE PATHS

## URBAN FABRIC

TO DOCUMENT THE ARCHITECTURAL STYLE, BUILDING HEIGHTS, MATERIALS TO ENSURE DESIGN IS CONTEXTUALLY RESPONSIVE AND MAINTAINS THE NEIGHBORHOOD'S IDENTITY



## THERMAL COMFORT

THERMAL COMFORT IN SITE ANALYSIS ASSESSES HOW THE ENVIRONMENT AFFECTS HUMAN COMFORT USING SUCH FACTORS:

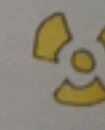
### TEMPERATURE



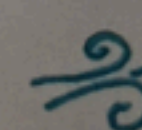
### HUMIDITY



### RADIATION



### WIND



# LITERATURE CASE STUDY

NAME: AMEERA SHAFI

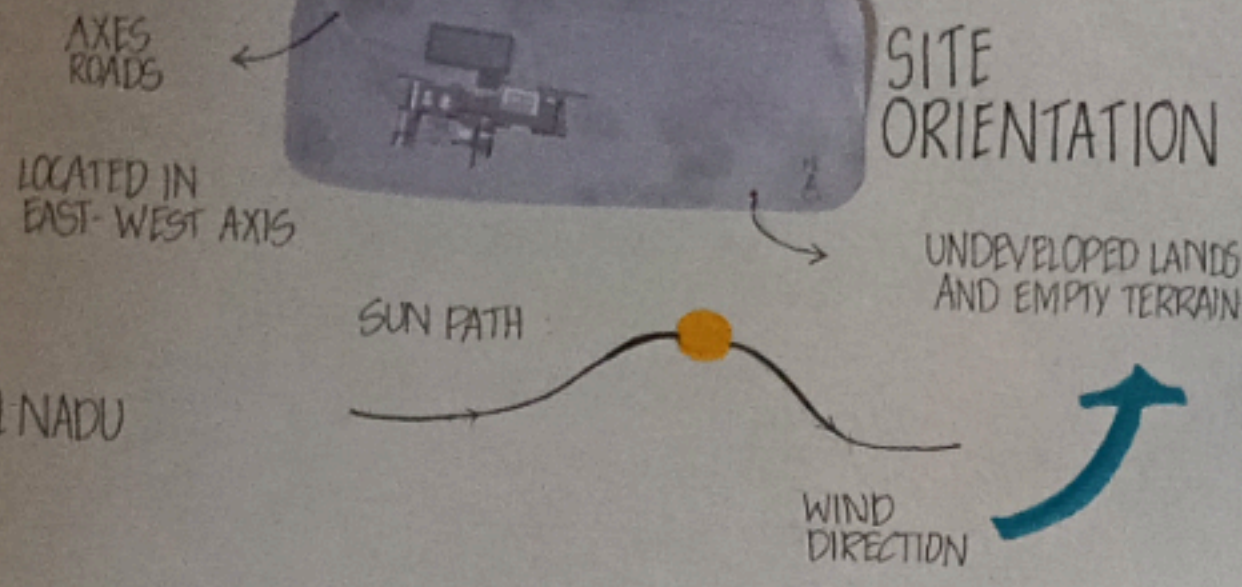
RRN: 251431601005

# SITE AND CONTEXT



LOCATION OF SITE: DENKANIKOTTAI, TAMILNADU  
 AREA: 4500 FE<sup>2</sup>  
 ARCHITECTS: HABITART ARCHITECTURAL STUDIO

THE HOUSE IS PERCHED IN THE HIGHEST POINT OF A ONE ACRE FARMLAND DEVELOPMENT. VEGETATION AND TOPOGRAPHY: THE STRUCTURE STEPS DOWN INTO A TERRAIN MINIMIZING DISRUPTION OF LAND.



# MATERIALS AND FINISHES

- LIME WASH
- LATERITE STONE
- PAVEMENT TILES
- KOTA STONE
- QUEEN BED WITH DARK RICH WALNUT FINISH
- SUNKEN LIVING ROOM WITH L-SHAPED SOFA FINISHED WITH RICH TONED WOOD AND EARTHY BROWN FABRIC
- SOLID WOOD LIVE-EDGE TABLE TOP WITH A STRIKING TURQUOISE RESIN STRIP

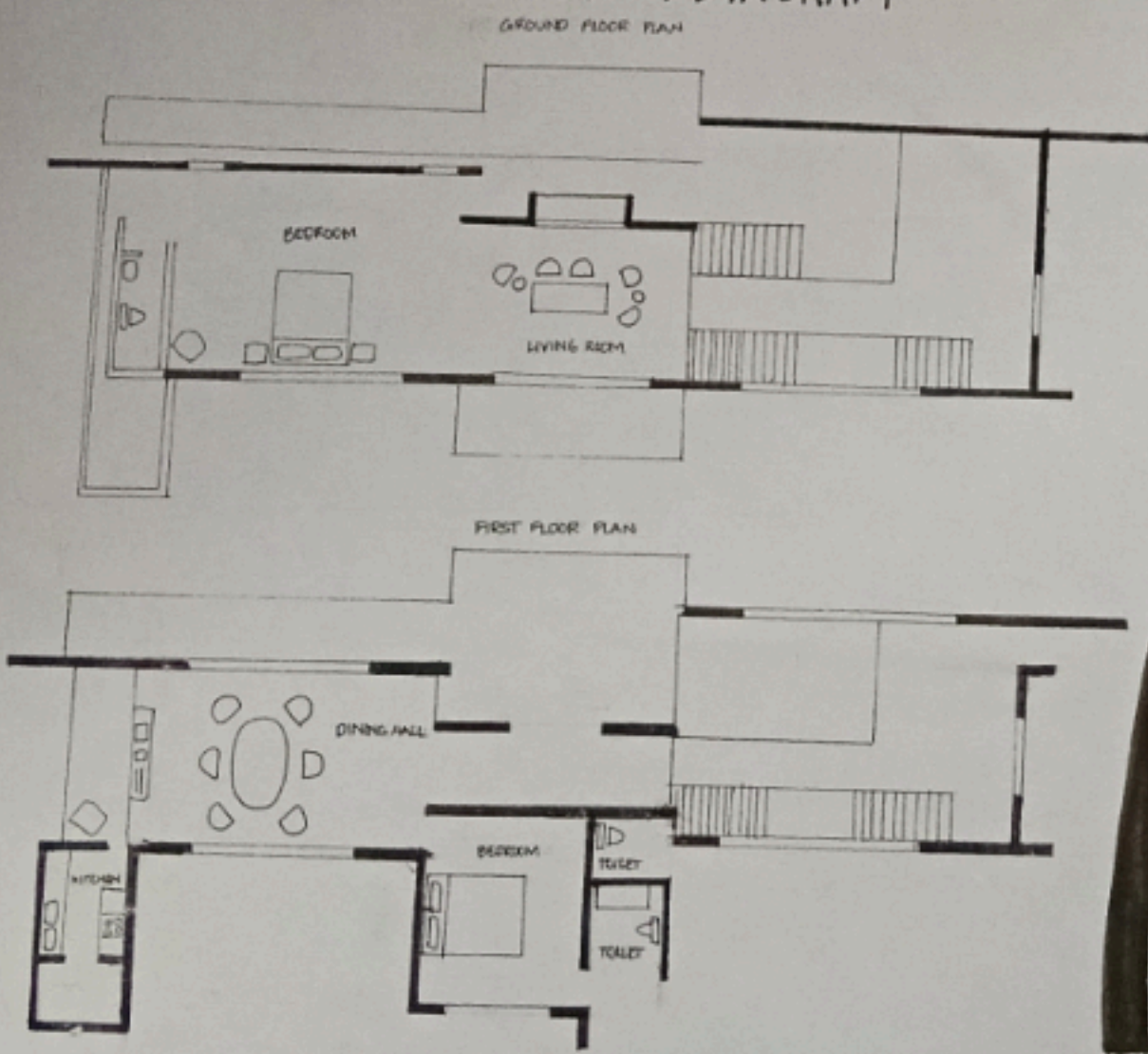
# A CASE STUDY OF ISHAVA'S HOUSE

DONE BY: AMEERA SHAFI  
 RRN: 251431601005

# CLIMATE RESPONSIVE DESIGN

- LARGE WINDOWS FOR ABUNDANT DAYLIGHT
- USE OF THICK STONES FOR COOL
- OPEN TERRACE FOR VENTILATION
- WALLS FINISHED LIMEWASH FOR NATURAL WARMTH
- FAMILY LOUNGE DESIGNED FOR MINDFUL LIVING
- OPEN COURTYARD
- TRANSITION OUTDOOR SPACE

# SITE PLAN DIAGRAM



# BUILDING FORM AND STRUCTURE

- ORGANIC GEOMETRY
- ROOF DESIGN UTILIZES PITCHED ROOF WITH DEEP OVERHANGS TO PROTECT FROM RAINFALL
- BUILT SPACE V6. OPEN SPACE
- CATENARY VAULTS CURVES THAT ARE SELF-SUPPORTING
- CIRCULATION WIDE STAIRCASE IN SEMI OUTDOOR ZONE
- BUILT SPACE: MAIN HOUSE AND SWIMMING POOL  
 OPEN SPACE: LAWN AREA AND SURROUNDING UNDEVELOPED LAND

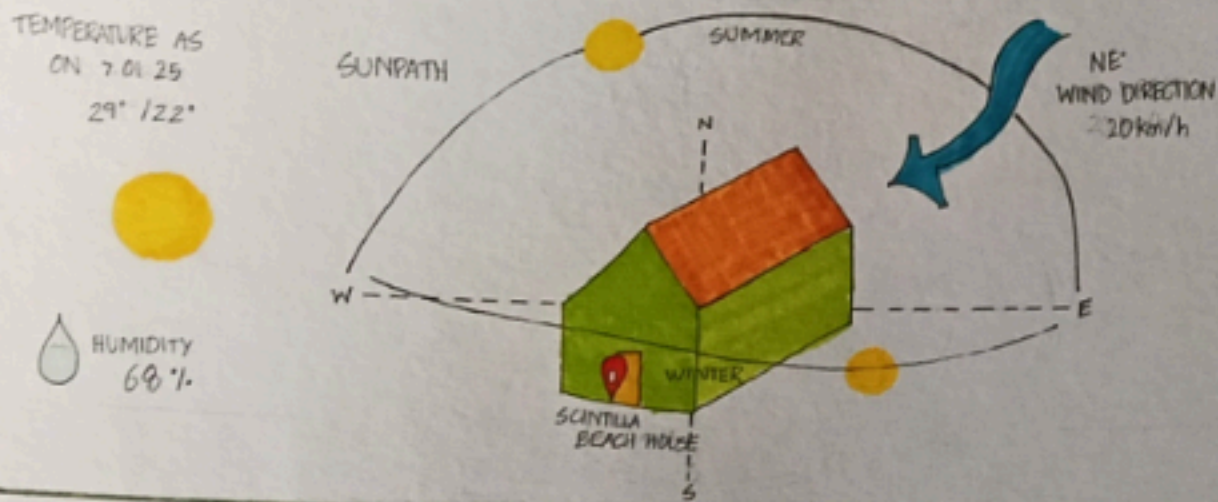
# SCINTILLA BEACH HOUSE

THE SCINTILLA BEACH HOUSE IS A SOPHISTICATED COMPLEX BALANCING PRIVACY WITH THE OPENNESS OF THE COASTAL ENVIRONMENT IN ECR



SITE PLANNING

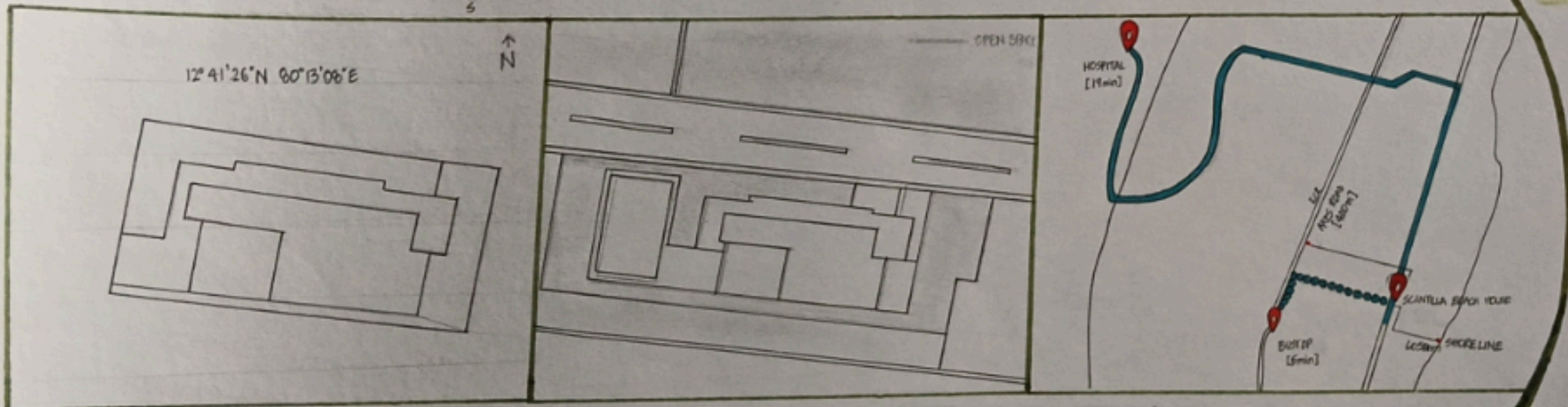
## CLIMATIC CONTEXT



### CONCLUDING OBSERVATIONS

SCINTILLA BEACH HOUSE IS A SUCCESSFUL EXPLORATION OF HOW A COASTAL RESIDENCE CAN BE BOTH A PROTECTIVE SANCTUARY AND A TRANSPARENT PAVILION PROVING THAT ARCHITECTURAL PERFORMANCE CAN COEXIST WITH THE FLUIDITY OF A BEACHHOUSE SETTING.

ARCHITECTURAL FEATURES:  
SOLAR PROTECTION → SOLID SOUTHERN PLANES  
VENTILATION → LINEAR PLANNING  
PRIVACY → WESTERN ORIENTATION FOR PRIVATE QUARTERS.



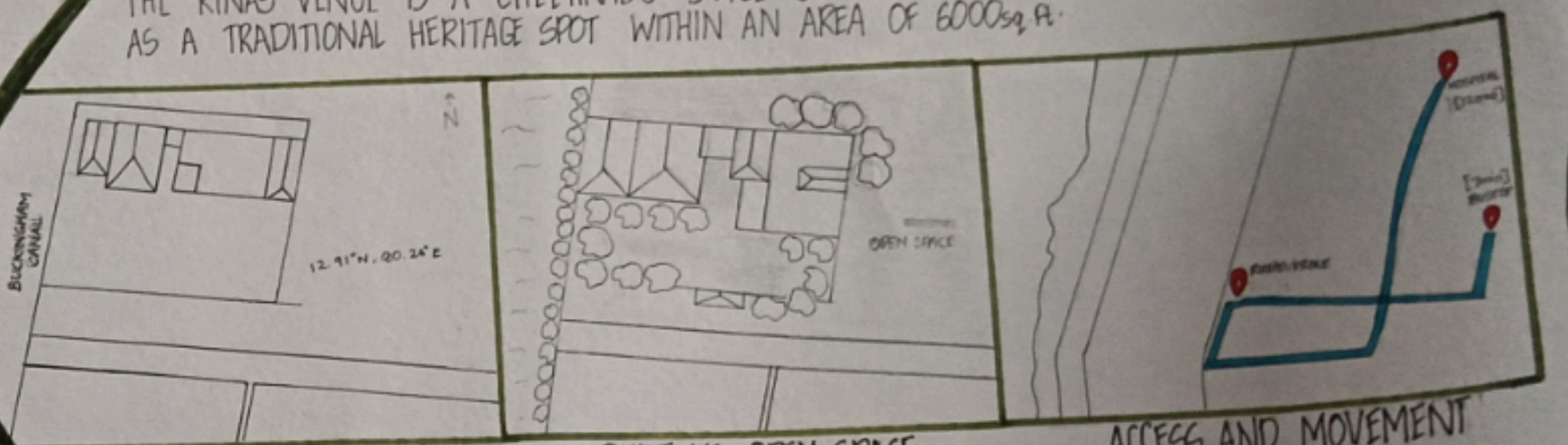
SITE ORIENTATION

BUILT VS. OPEN SPACES

ACCESS AND MOVEMENT

# RINA'S VENUE

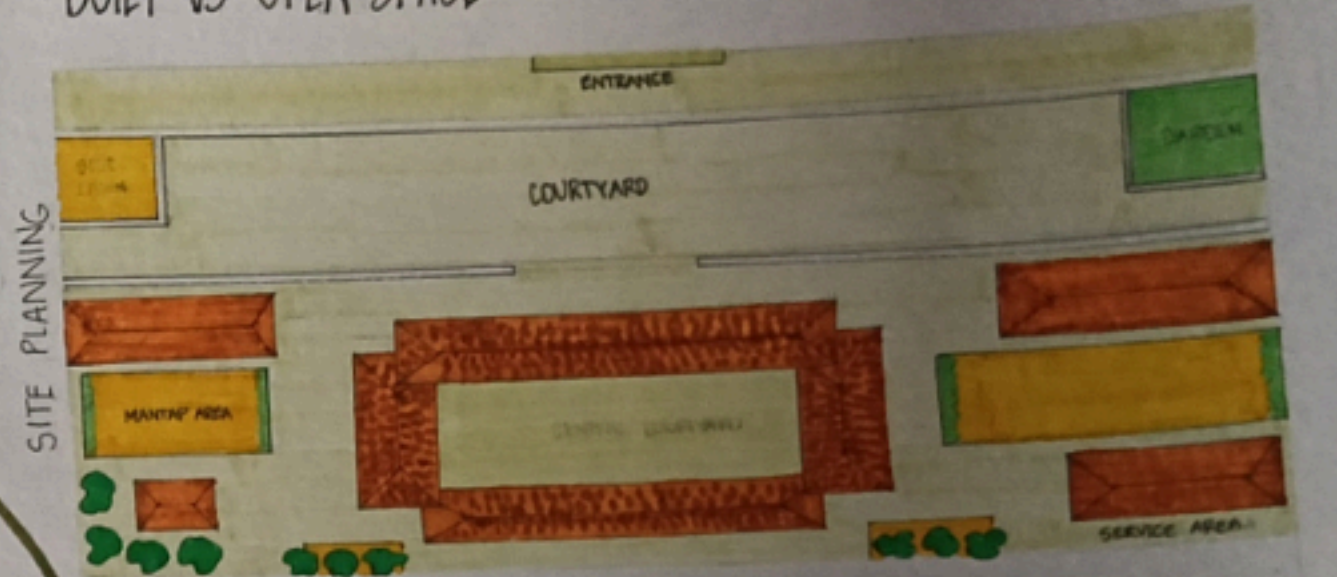
THE RINA'S VENUE IS A CHETTINADU STYLE BUNGALOW LOCATED IN CHENNAI SERVING AS A TRADITIONAL HERITAGE SPOT WITHIN AN AREA OF 6000sq ft.



SITE ORIENTATION

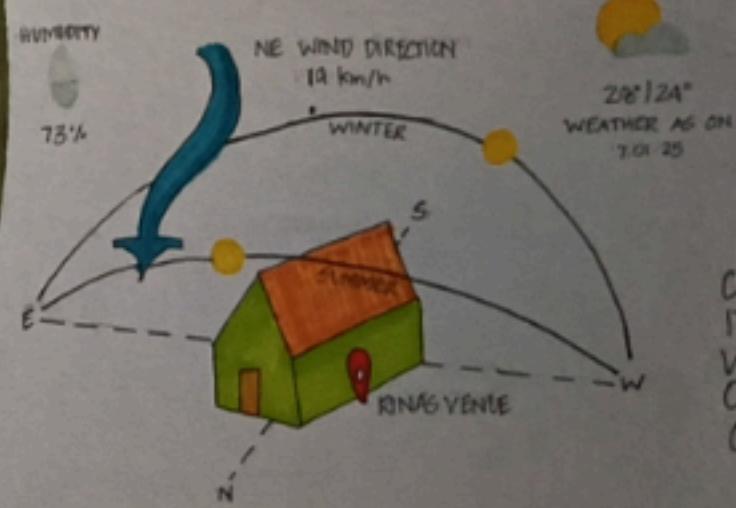
BUILT VS OPEN SPACE

ACCESS AND MOVEMENT



SITE PLANNING

## CLIMATIC CONTEXT



### CONCLUDING OBSERVATIONS

ARCHITECTURAL CHARM: THE 6000sq ft HERITAGE HOUSE WITH ITS CENTRAL COURTYARD WITH WOODEN PILLARS AND RED TILED ROOFING CREATES A RITUAL BACKDROP ITS A BEAUTIFUL ENVIRONMENT WITH LOTUS PONDS AND A MASSIVE OUTDOOR LAWN FACING A VIEW OVER THE BUCKINGHAM CANAL.

NAME : AMEERA SHAFI  
RRN : 291431601005

# LIVE CASE STUDY

Handwritten signature or initials.

# VIEWS



# CLIMATIC CONTEXT



SUMMER : NORTH EAST - NORTHWEST  
 SPRING : EAST - WEST  
 WINTER : SOUTH EAST - SOUTHWEST



PREVAILING WIND :  
 EAST TO WEST  
 ENABLES NATURAL VENTILATION



UNPLEASANT : VEHICLE NOISE  
 PLEASANT : SEA WAVES

VEGETATION  
 SPARSE VEGETATION :  
 COCONUT PALM, SHRUBS



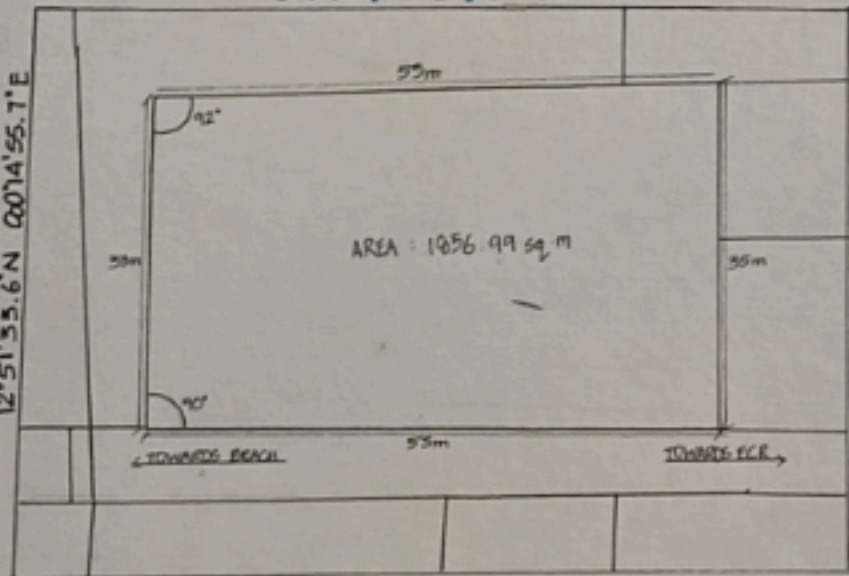
TOPOGRAPHY  
 LARGE FLAT SITE WITH  
 GENTLE SLOPE TOWARDS  
 SEA

# SITE CONTEXT

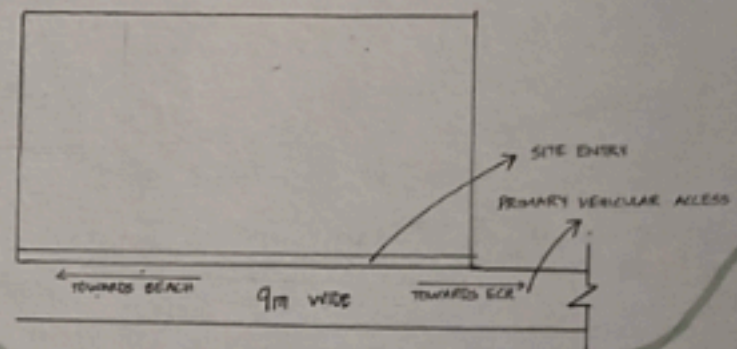
LOCATION



# PROPOSED SITE

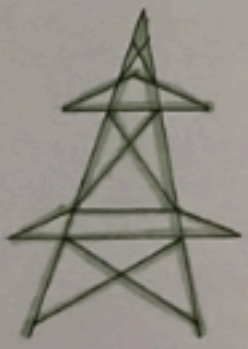


# ACCESS ROAD



# UTILITIES

DRAINAGE  
 NATURAL DRAINAGE  
 TOWARDS BEACH  
 ROADSIDE STORM WATER DRAINS



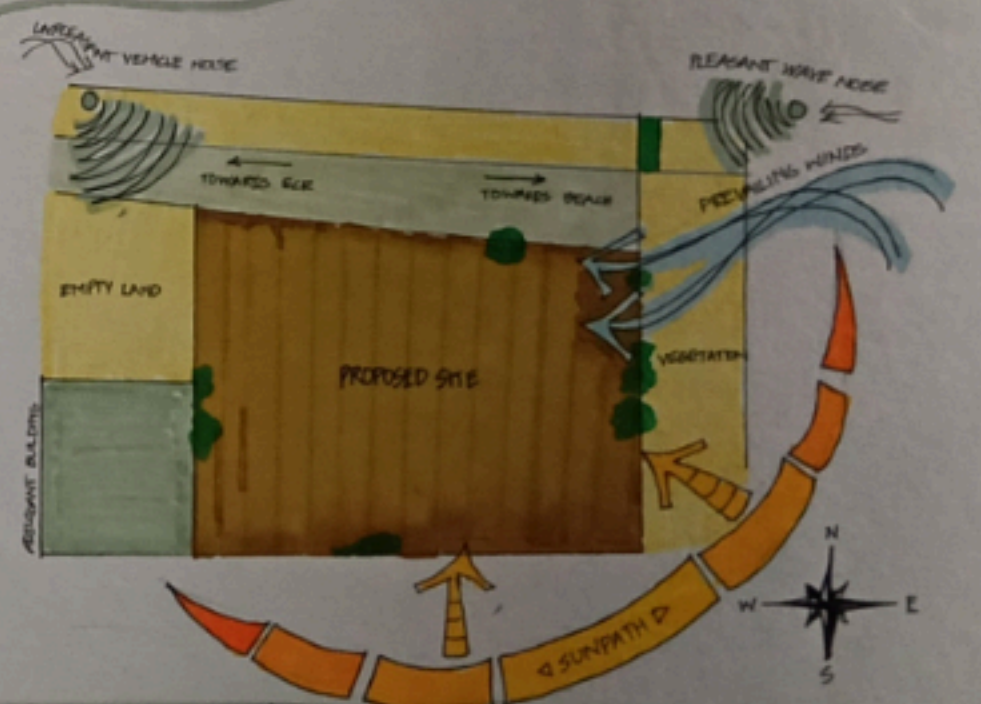
ELECTRICITY :  
 THROUGH NEARBY  
 RESIDENTIAL CONNECTIONS



WATER SUPPLY :  
 GROUND WATER  
 MUNICIPAL SUPPLY

# INFERENCES

CLIMATE  
 HOT HUMID COASTAL CLIMATE  
 COOLING SEA BREEZE



# SITE ANALYSIS

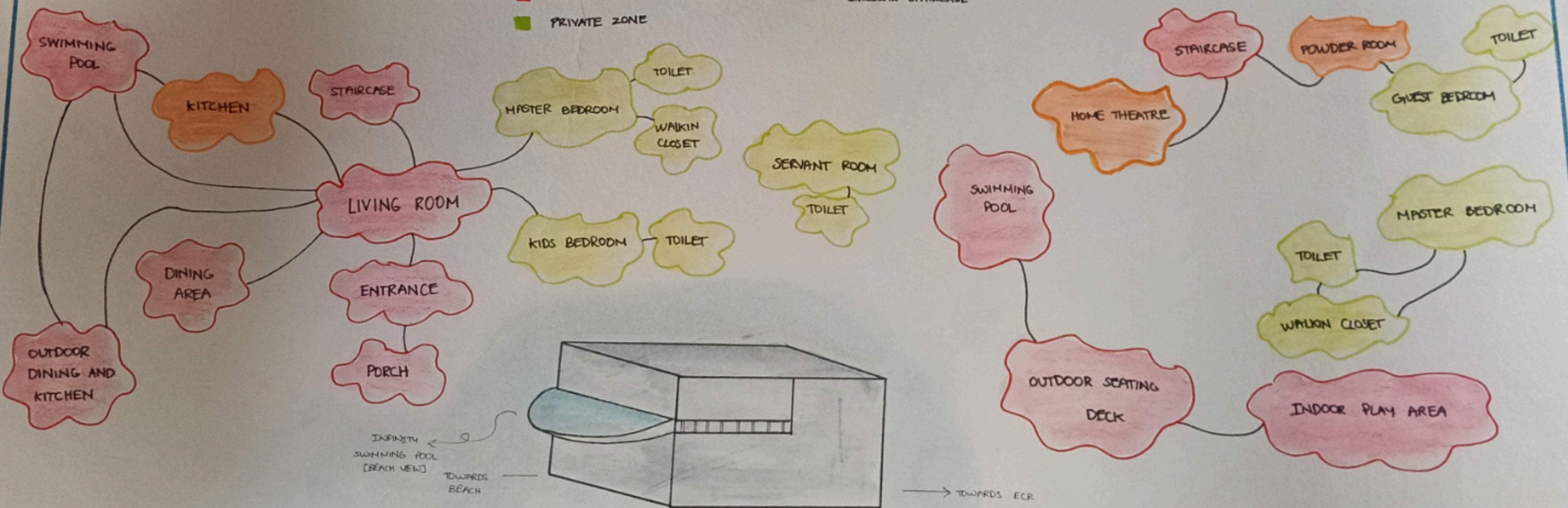
NAME : AMEERA SHAFI  
 RRN : 251431601005  
 B.DES - SEM 1  
 DESIGN ENVIRONMENT  
 CRESCENT SCHOOL OF ARCHITECTURE

# THE SERENE MANSION

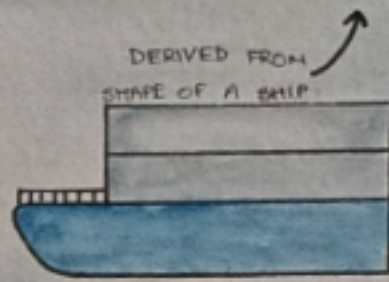
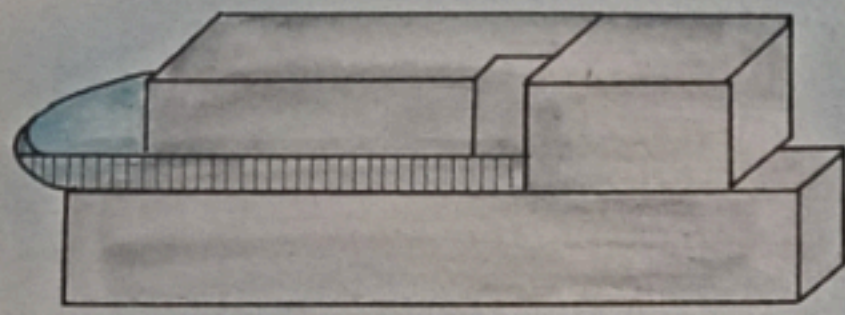
## CONCEPT

HOME IS WHERE THE HEART IS. THE HEART FINDS SERENITY WHERE THERE IS COMFORT, ELEGANCE AND A SPACE TO JUST BE YOURSELF. THIS IS A SPACE SUITED FOR EVERYONE FROM THE YOUNGSTERS TO THE OLDER GENERATIONS. THIS VILLA IS INSPIRED BY THE CONCEPT OF A FIRM FAMILY UNIT. IT IS WHERE THE ENTIRE FAMILY WOULD FIND BEAUTY IN TOGETHER.

## BUBBLE DIAGRAM



## MOOD BOARD



GLAZED WALL



CIRCULAR STAIRCASE



COLOUR SCHEME



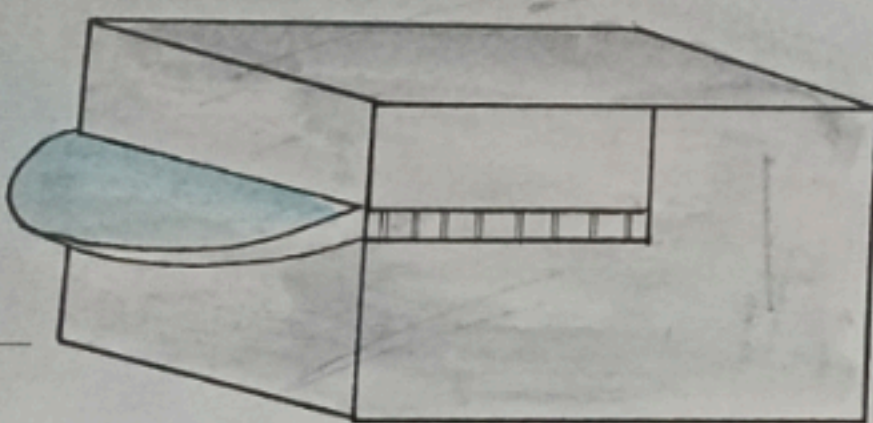
TERACOTTA ROOF



COURTYARD + POOL



INFINITY SWIMMING POOL

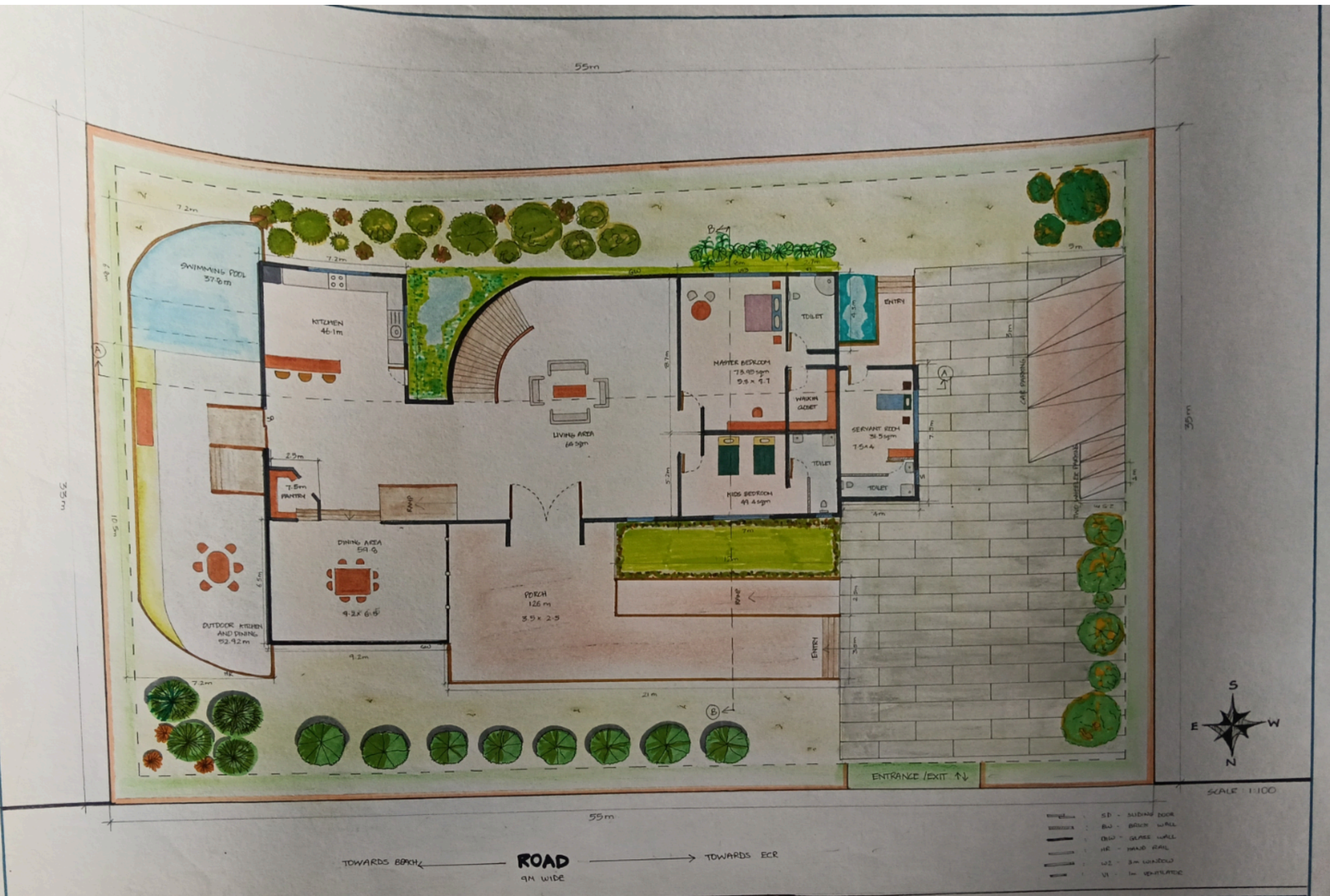


INFINITY SWIMMING POOL [BEACH VIEW]  
TOWARDS BEACH

TOWARDS ECR

## CONCEPT SHEET

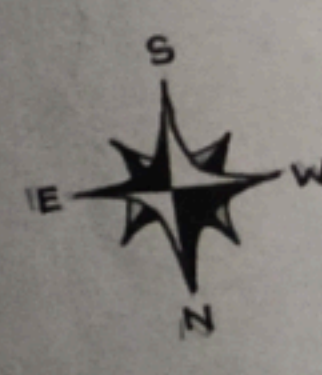
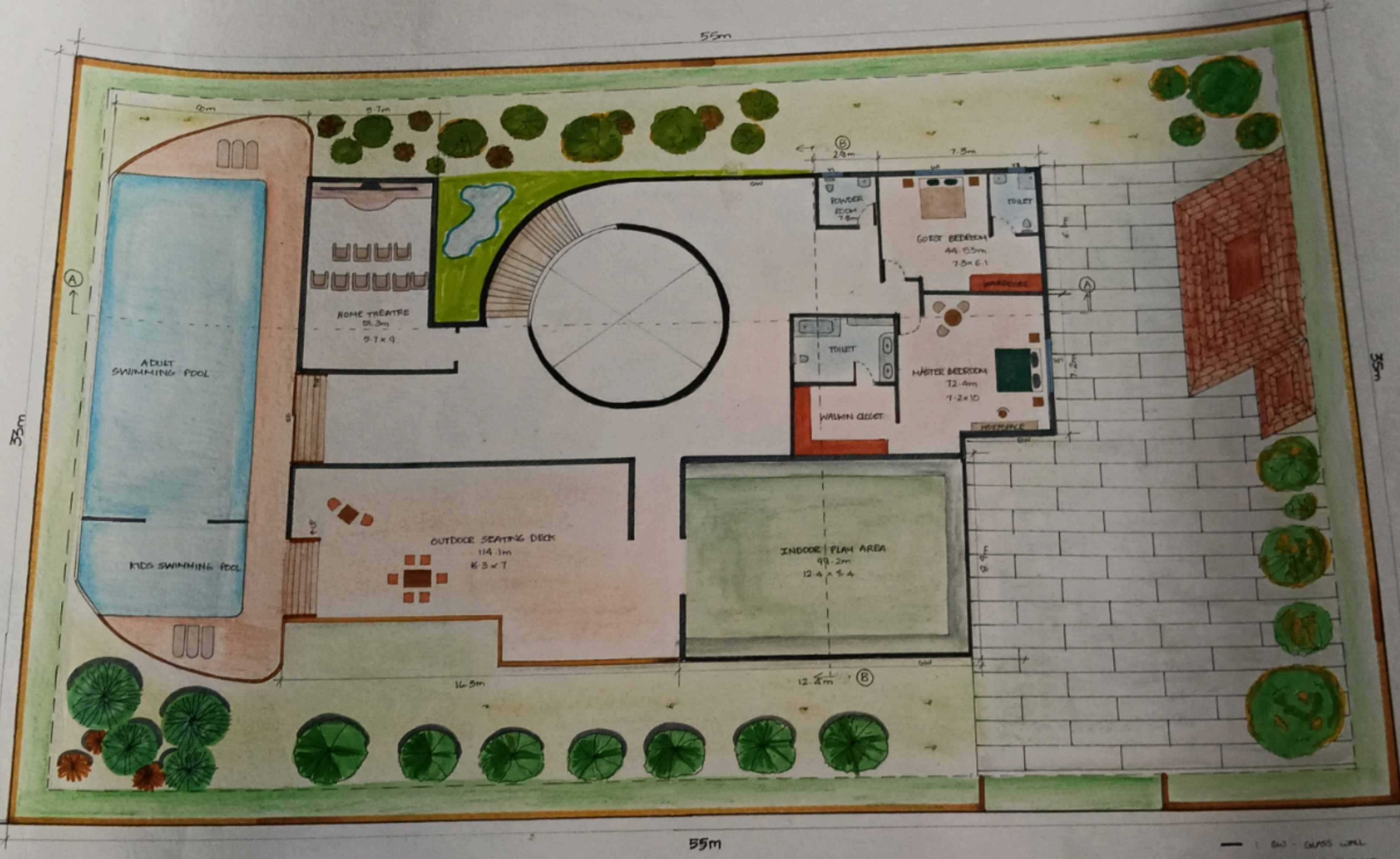
NAME: AMEERA SHAFI  
 RRN: 251431601005  
 BDES SEN - II  
 DESIGN ENVIRONMENT  
 CRESCENT SCHOOL OF ARCHITECTURE



# GROUND FLOOR PLAN

NAME: AMEERA SHAFI  
 RRN: 251431601005  
 B. DES SEM - II  
 CRESCENT SCHOOL OF ARCHITECTURE  
 DESIGN ENVIRONMENT

- SR - SLIDING DOOR
- BR - BRICK WALL
- GL - GLASS WALL
- HW - HAND RAIL
- W - 3M WINDOW
- VI - IN VENTILATED

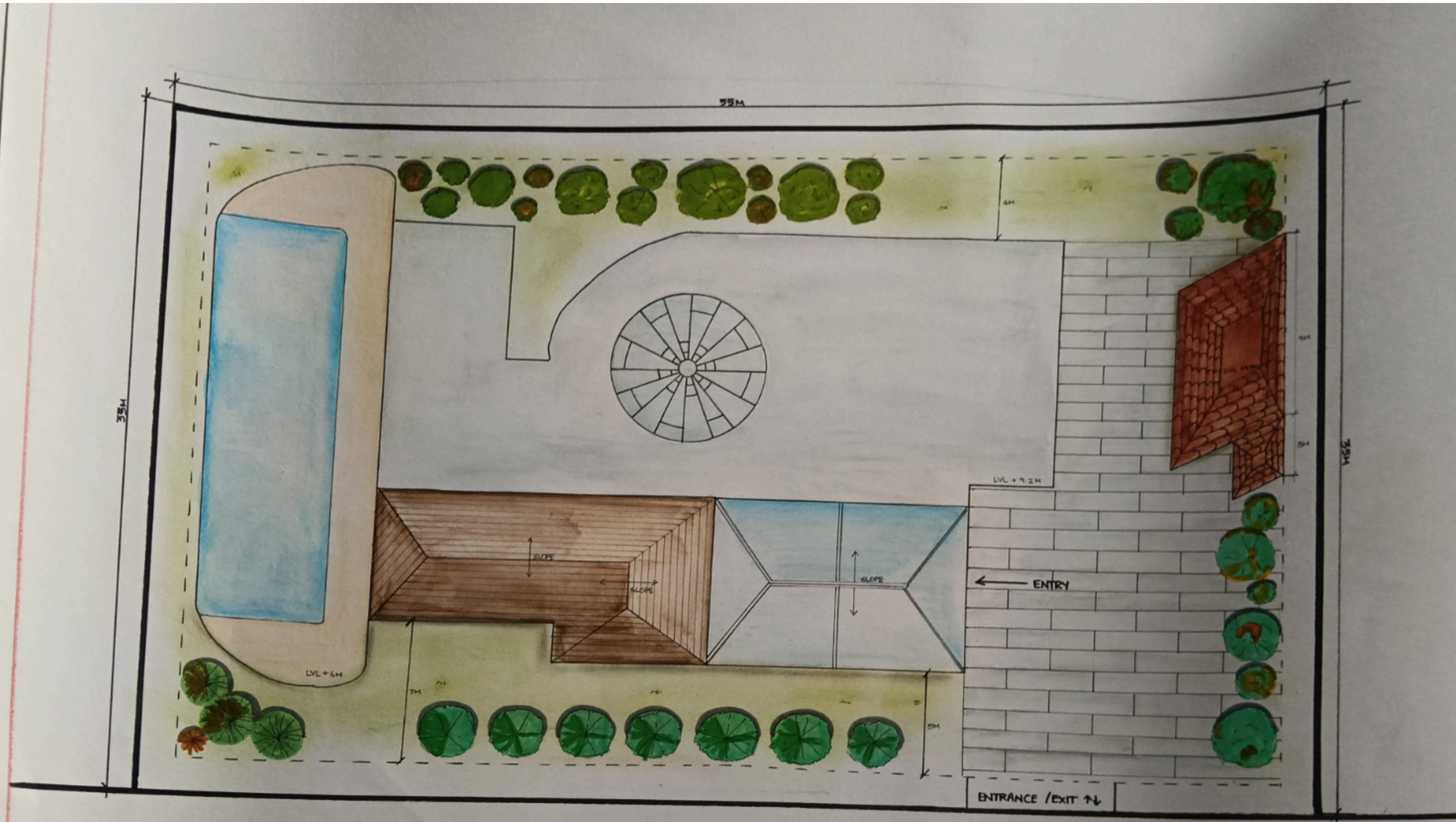


SCALE : 1:100

- : GW - GIPS WALL
- : SB - SUBSIDIARY DOOR
- : BW - BRICK WALL
- : W1 - 2.5m WINDOW
- : W2 - 1m WINDOW WITH VENTILATOR

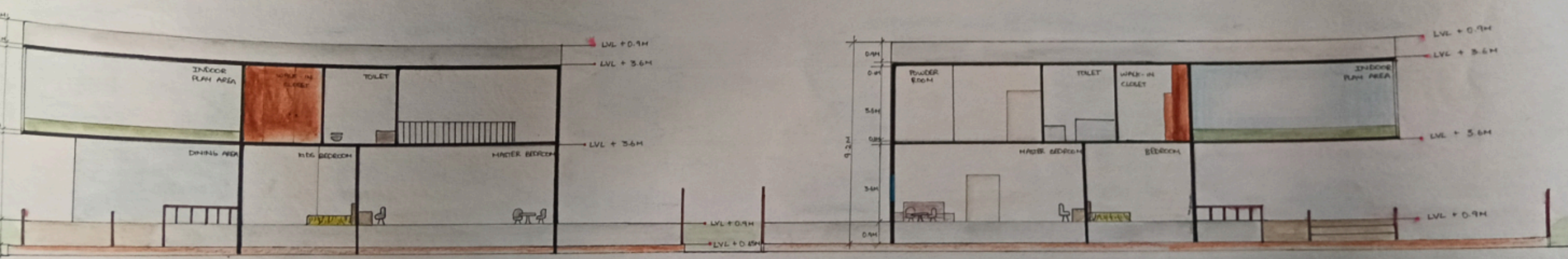
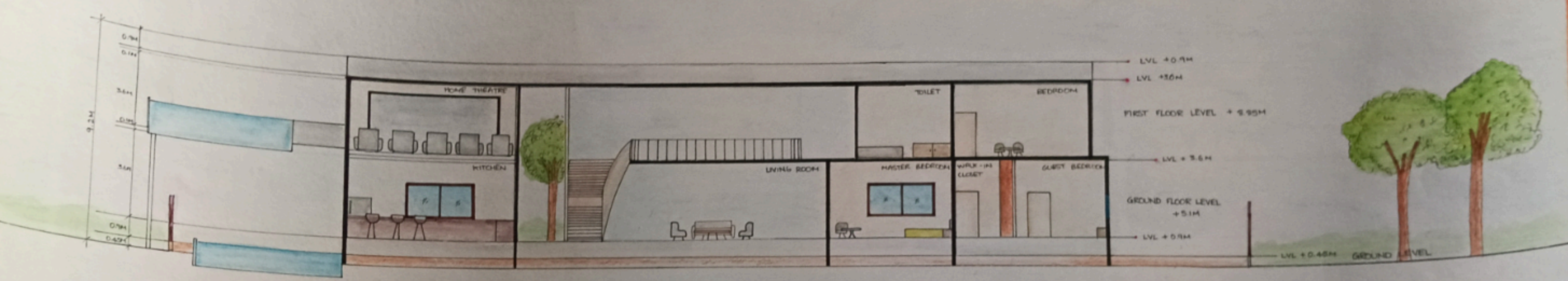
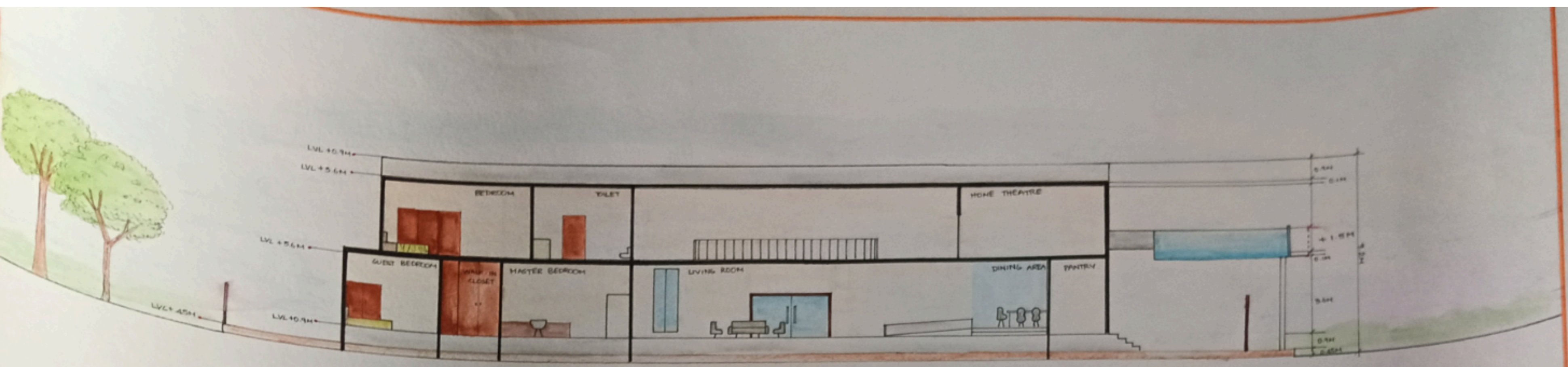
# FIRST FLOOR PLAN

NAME : AMEERA SHAFI  
 RRN : 25143601005  
 B.DES SEM-II  
 DESIGN ENVIRONMENT  
 CRESCENT SCHOOL OF ARCHITECTURE



SITE PLAN

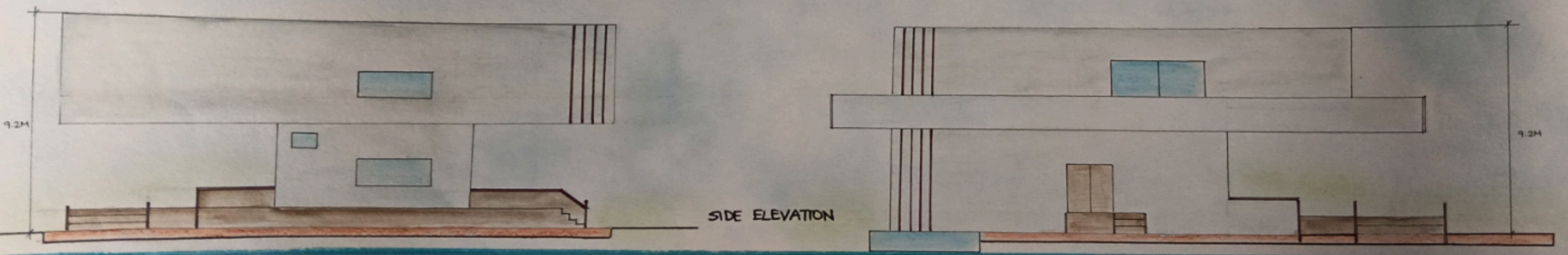
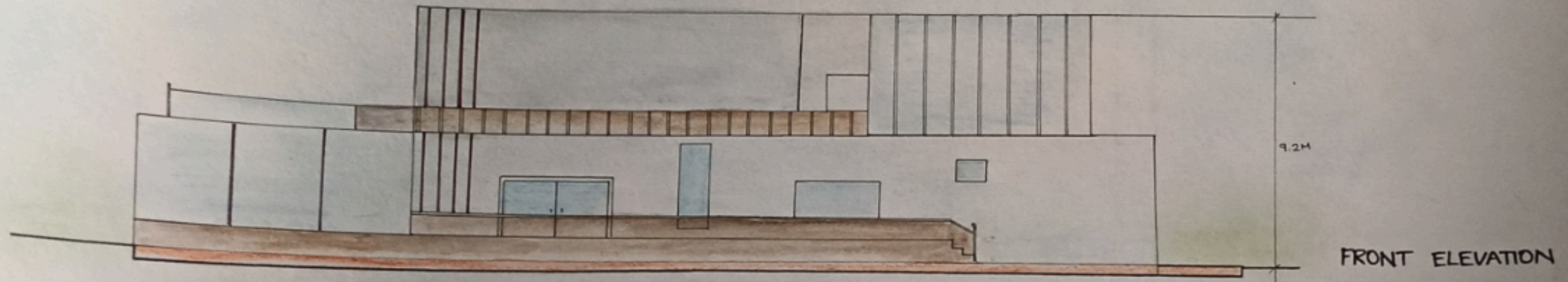
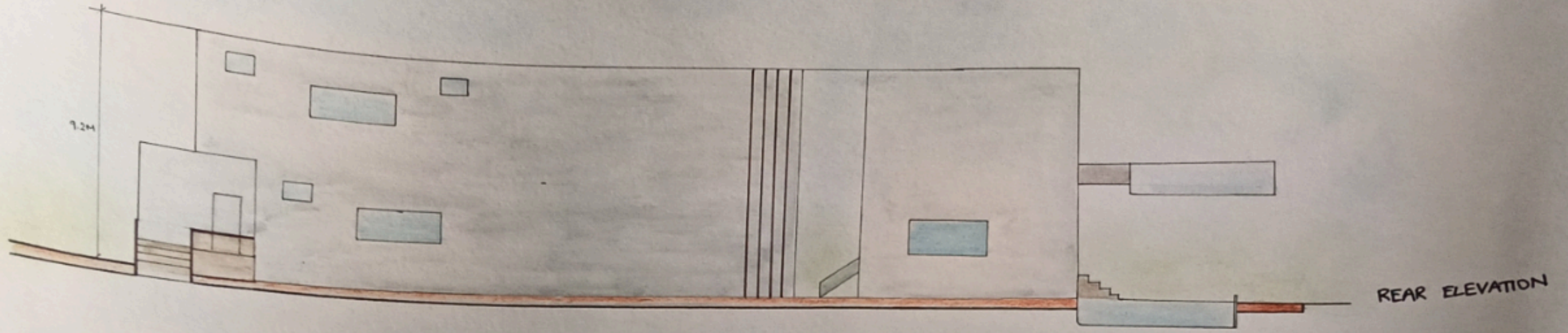
NAME: AMEERA SHRA  
 PRN: 251451601005



# SECTIONAL ELEVATION

NAME: AMEERA SHAFI  
 REN: 201431601005

# WEEKEND COTTAGE



## ELEVATION

NAME: AMEERA SHAFI  
RPN: 251431601005

# VIEWS

