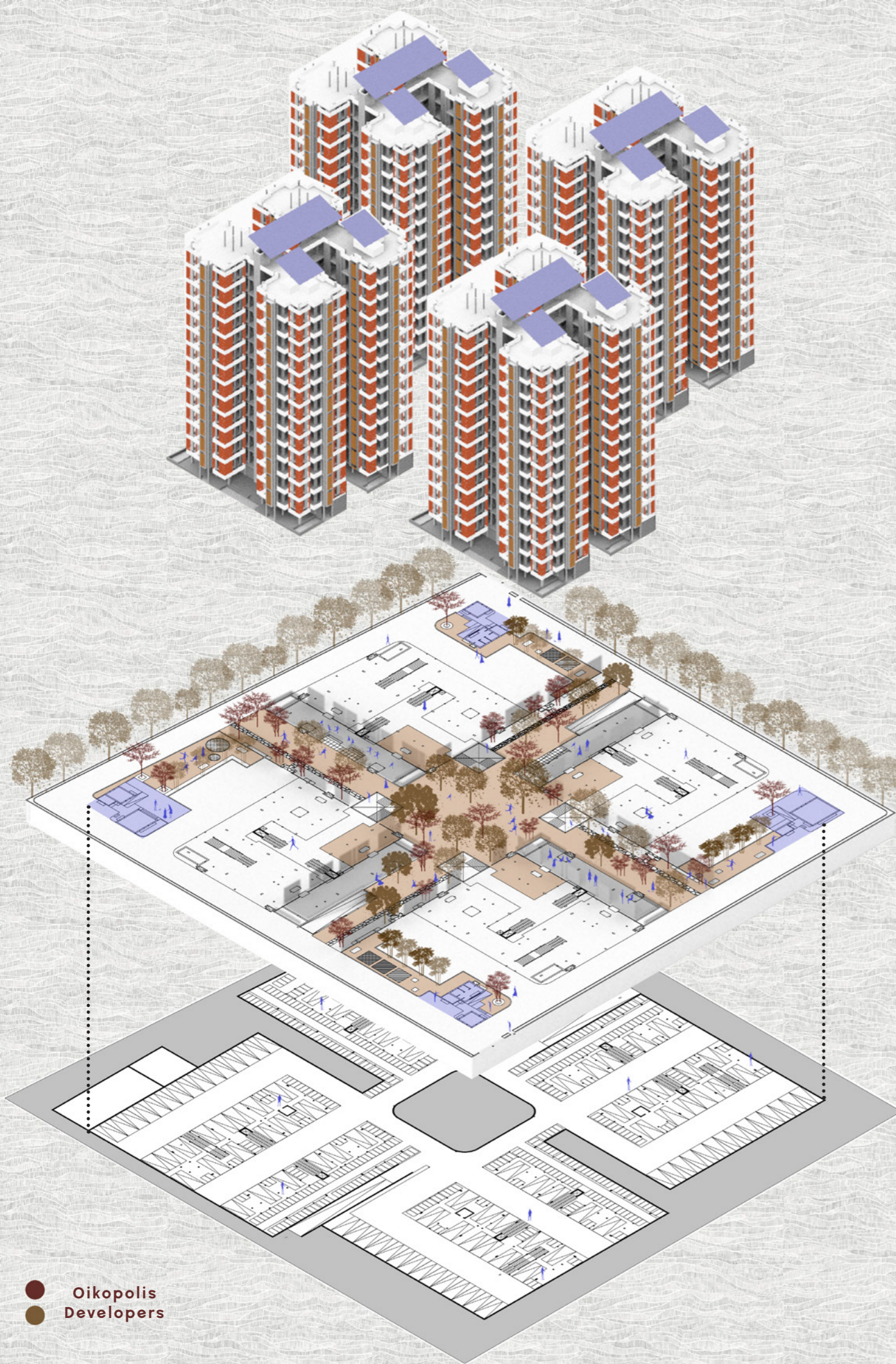


# UNITED DREAMSCAPES |

chandkheda, ahmedabad  
2/3 bhk premium living



● Oikopolis  
● Developers

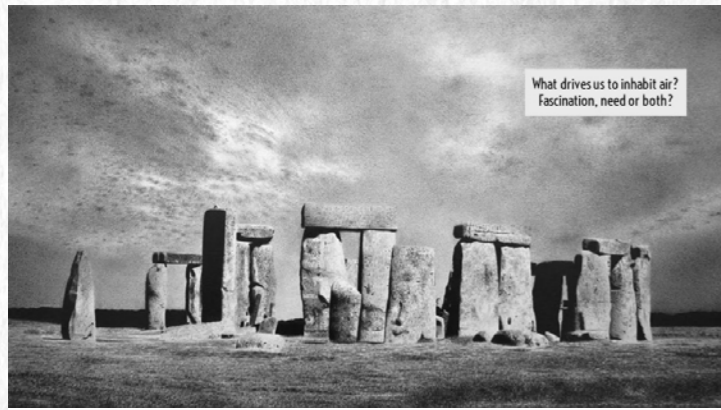
# PORTFOLIO

Monsoon Semester 2023  
Oikopolis V: The Architect Strikes Back

Isha Mahajani |UG190589

# HOW DO YOU STACK?

POTENTIAL AND PERSPECTIVES IN MASS HOUSING



What drives us to inhabit air?  
Fascination, need or both?



To stack is to only go vertical?



What happens when you stack different volumes, floor plates or even styles?



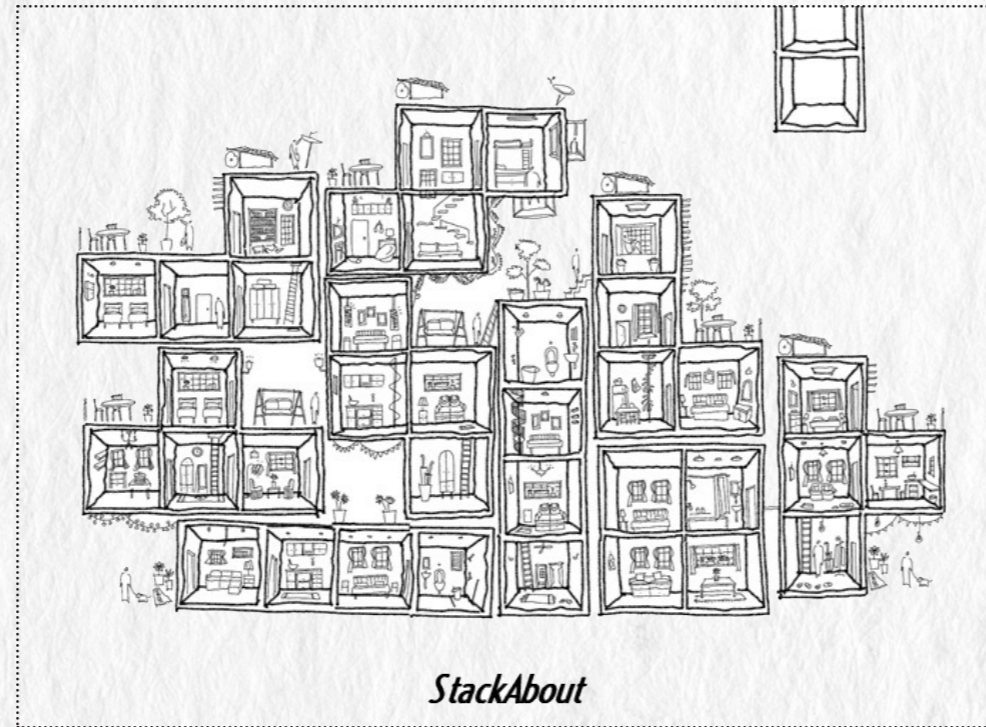
How's moving castle?  
Unconventional stacking?



The burrow in Harry Potter?  
Maybe usual for the Weasleys.



Reality



StackAbout



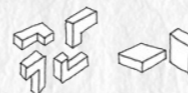
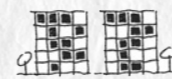
**RULES**

- NO CHANGE IN PIECES (ROTATION INCLUDED)
- NO PIECE CAN BE STACKED AT AN ANGLE
- EVERY PIECE NEEDS TO HAVE AT LEAST ONE SURFACE IN DIRECT CONTACT WITH CYLINDER
- NO 2 PIECES STACKED DIRECTLY CAN BE IN THE SAME PLANE
- NO 4 PIECES CAN HAVE THE SAME ORIENTATION
- 5 MINUTES

Winning Stack Most Exposed

## Game Experiment | Objectives behind designing and playing the game

- To explore variations in stacking within a simple structure
- To use different types of dwellings in one stack unlike the usual vertical repetition of a house
- To compare and understand the potential and limitations of different types of dwellings
- To explore the variations possible in a stack using only one type of dwelling
- To use the game as a tool to come up with strategies and concepts that can be used at mass housing scale



## StackAbout 3.0

Given: **Maximum 12 pieces** (of one type of tetromino) **and a cylinder**

Rules:

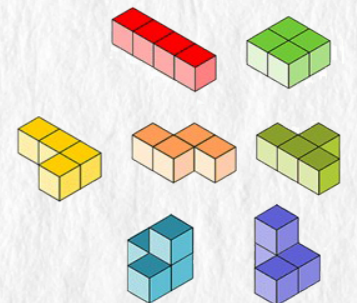
1. Cannot change the pieces
2. Every piece needs to have at least one square face directly attached to the cylinder
3. No pieces stacked directly on top of each other can be in the same plane
4. No two pieces can have the same orientation

**Cylinder MANDATORY to use.**  
**Different winning criteria were given.**

Time: 3-5 minutes

Result:

- Majority of the people who played the game thought that the **L, Z and T** pieces were easy to stack according to the rules when compared to the other pieces.
- Equal number of people thought that the easiest piece to stack between these 3, was the **L or the T** piece.





Most exposed stacking

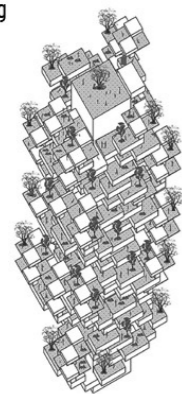
Unite d'Habitat



Nakagin Tower



Most exposed stacking



Hybrid Model of building



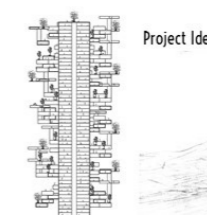
## Prospects of StackAbout

1. Instead of a 3D tetromino, different 3D polyomino are used to play the game ( thereby allowing different sized dwellings as variety ).
1. Same rules as StackAbout 3.0,
  - Not allowing angle rotation of pieces
  - Only 50% of the down facing surface area of a piece can be exposed ( To limit extreme cantilevering )
  - Not more than one piece stacked on top of the other
  - To maximize voids
1. The pieces can be stacked without the cylinder; the stack that requires least number of cylinders to connect all the pieces wins
 

( understanding and exploring unit-circulation relationship ).
1. Game of 3D Tetris of stacking different pieces in one plane ( imagine like a section of a building ), stack with minimum surfaces closed off wins.

## Food for Thought

- In a high-rise apartment, does the repetition of a house discourage expression of individual identity?
- Do you feel isolated from the ground in mass housing? How can stacking strategize to provide a sense of groundedness?
- What is the future of stacking?
- Is irregular stacking (intending to break monotony) doing the exact opposite ie. creating a new style/ sense of monotony-chaos and confusion?



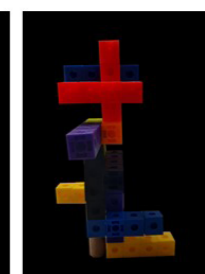
One facade aligned



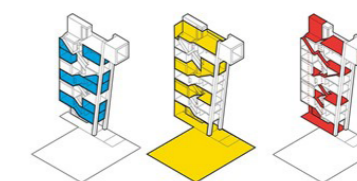
Rokko Housing, Tadao Ando



Mirador, MVRDV



Least surface area of the cylinder used



Project Idea- Exposed and Integrated circulation



# SITE

Zundal - Tragad Rd, Chandkheda, Ahmedabad

- PLOT SIZE-** 10074 SQ.M
- R1 ZONE, 2.7 FSI**
- PERMISSIBLE FSI-** 27200 SQ.M
- MAX. HEIGHT-** 45M
- ROAD WIDTHS-** 30M, 24M
- SITE MARGINS-** 6M ON ALL SIDES
- MARGIN BETWEEN BUILDINGS-** 9M

**NEIGHBOURHOOD SCHEMES**  
 MAJORLY 2-3 BHKS APTS. FOR MIDDLE CLASS FAMILIES (OUTSTATE AND SERVICE ORIENTED)

**ABOUT THE PROJECT**  
 2/3 BHK PREMIUM LIVING



- FSI USED-** 26534 SQ.M
- BUILT UP AREA-** 39925SQ.M
- NO. OF FLOORS-** G+13
- NO. OF CLUSTERS-** 4



- NO. OF UNITS PER FLOOR-** 16
- NO. OF UNITS-** 208
- TYPES OF UNITS-** 4 (SAME AREA, DIFFERENT LAYOUT)
- RERA CARPET AREA-** 94.5 SQ.M
- BUILT UP AREA-** 117 SQ.M
- COST OF ONE UNIT-** 97,50,000SQ.M



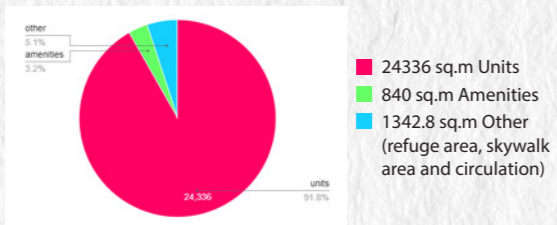
**CAR PARKING-** 215 CARS



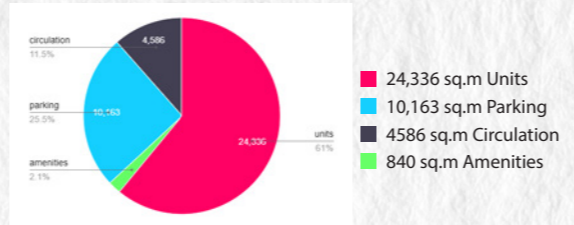
**TWO-WHEELER PARKING-** 546 SPOTS



Pie Chart showing split up of FSI



Pie Chart showing split up of Built up



# WHAT IS A HOME?

## A REFUGE

WHAT IS SERVED?

- EATING
- GATHERING
- SLEEPING
- STUDYING

WHAT IS SERVANT?

- COOKING
- BATHROOMS
- KITCHEN CHOWKDI
- STORAGE

# WHAT IS A NEIGHBOURHOOD?

## A UTOPIA

WHAT IS SERVED?

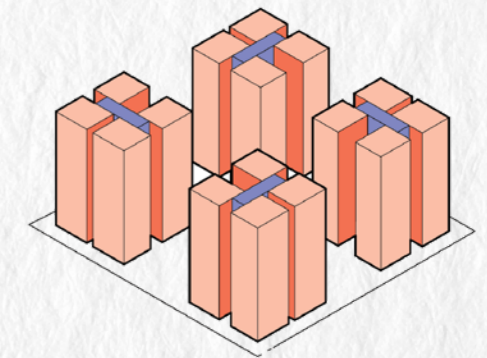
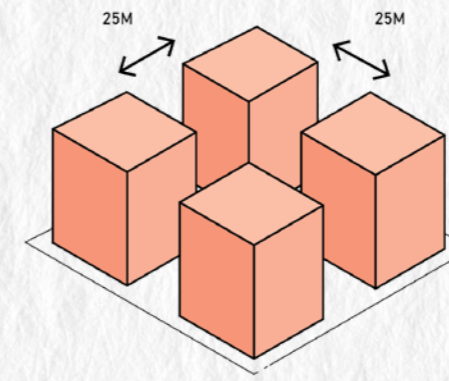
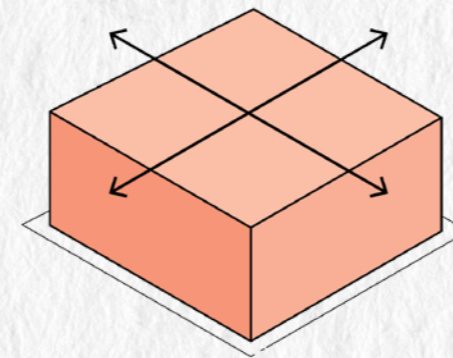
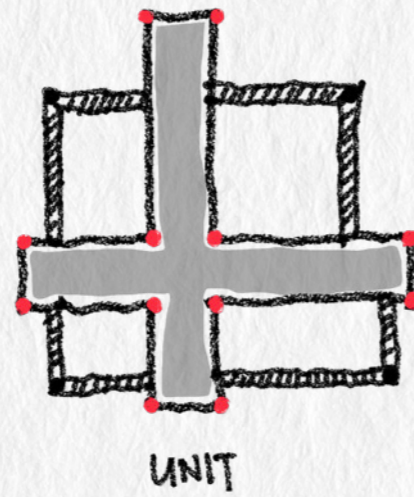
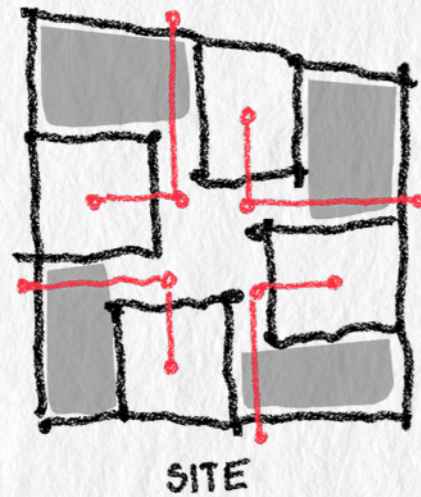
- GREEN SPACES
- RECREATION SPACES
- RESIDENCES

WHAT IS SERVANT?

- PARKING
- CIRCULATION
- METER ROOMS
- TRANSFORMER
- GENERATOR
- PUMP ROOM
- SECURITY CABINS
- GARBAGE DISPOSAL

**THE INTENT:**  
TO DIGNIFY THE SERVICES AT BOTH INDIVIDUAL AND COLLECTIVE LEVEL

**THE CONCEPT:**  
INVERSION OF SERVED AND SERVANT SPACES TO DEFINE GEOMETRY



AT SITE LEVEL,

THE RESIDENTIAL MASS IS PUSHED INSIDE, FREEING THE CORNERS.

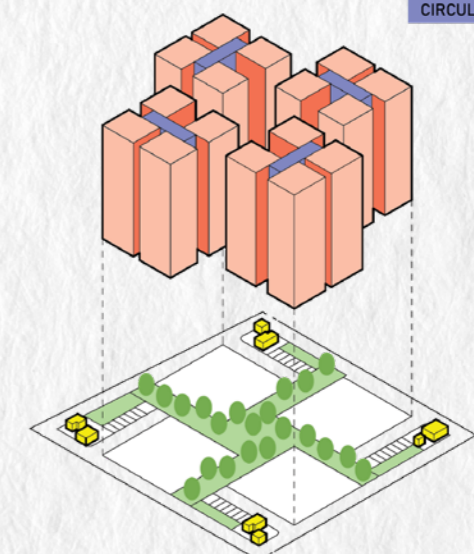
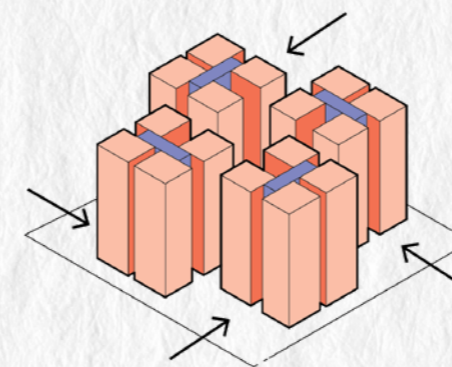
SERVICES IN GREY ARE DESIGNED TO DEFINE THESE CORNERS.

CIRCULATION PATH IN RED GOES THROUGH THE DENSE WILDSCAPE.

AT UNIT LEVEL,

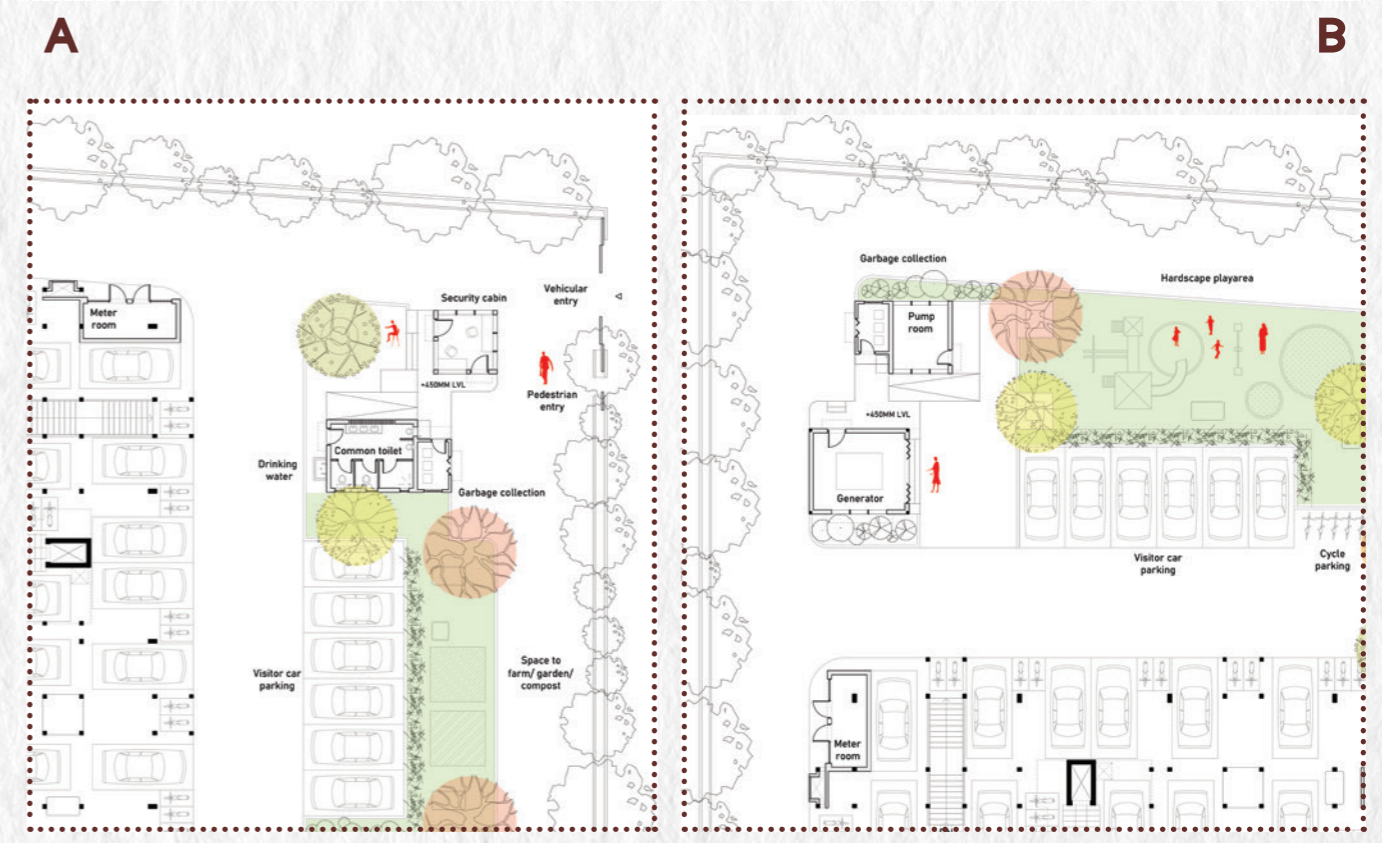
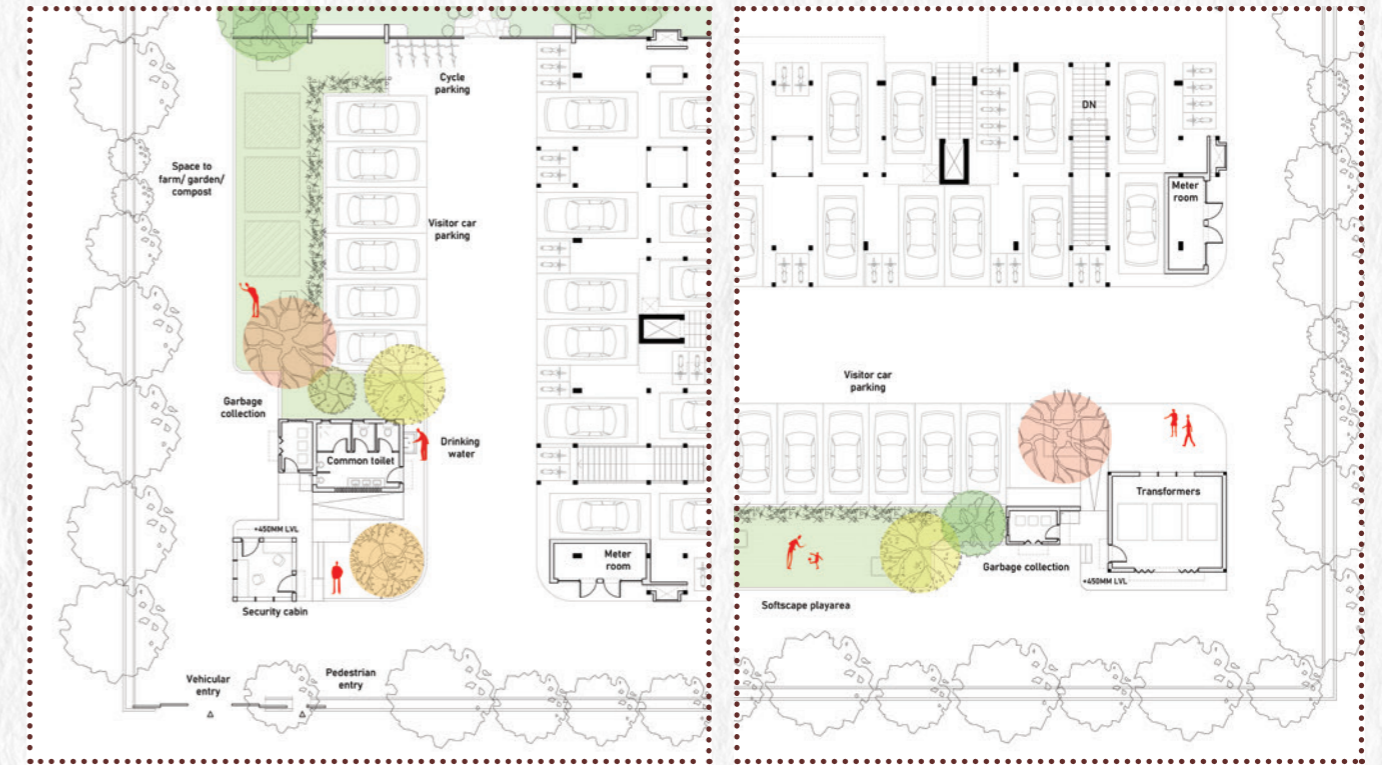
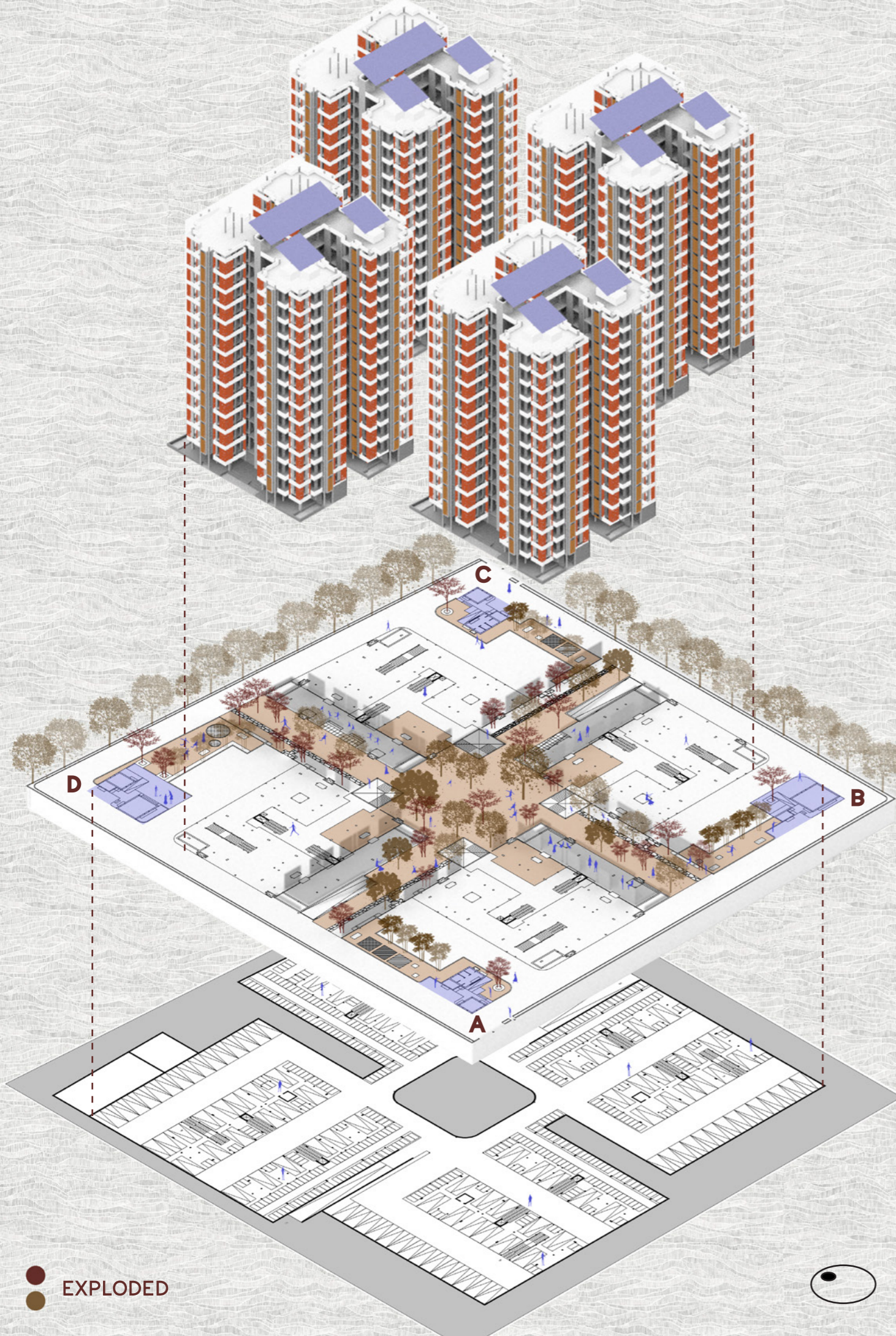
THE CENTRAL GREY CROSS IS THE SERVANT SPACE DEFINED BY LIGHT STEEL INFRASTRUCTURE.

THE CORNERS ARE THE SERVED SPACES DEFINED BY A THICKER RCC STRUCTURE.



# SERVANT SPACES AT SITE LEVEL

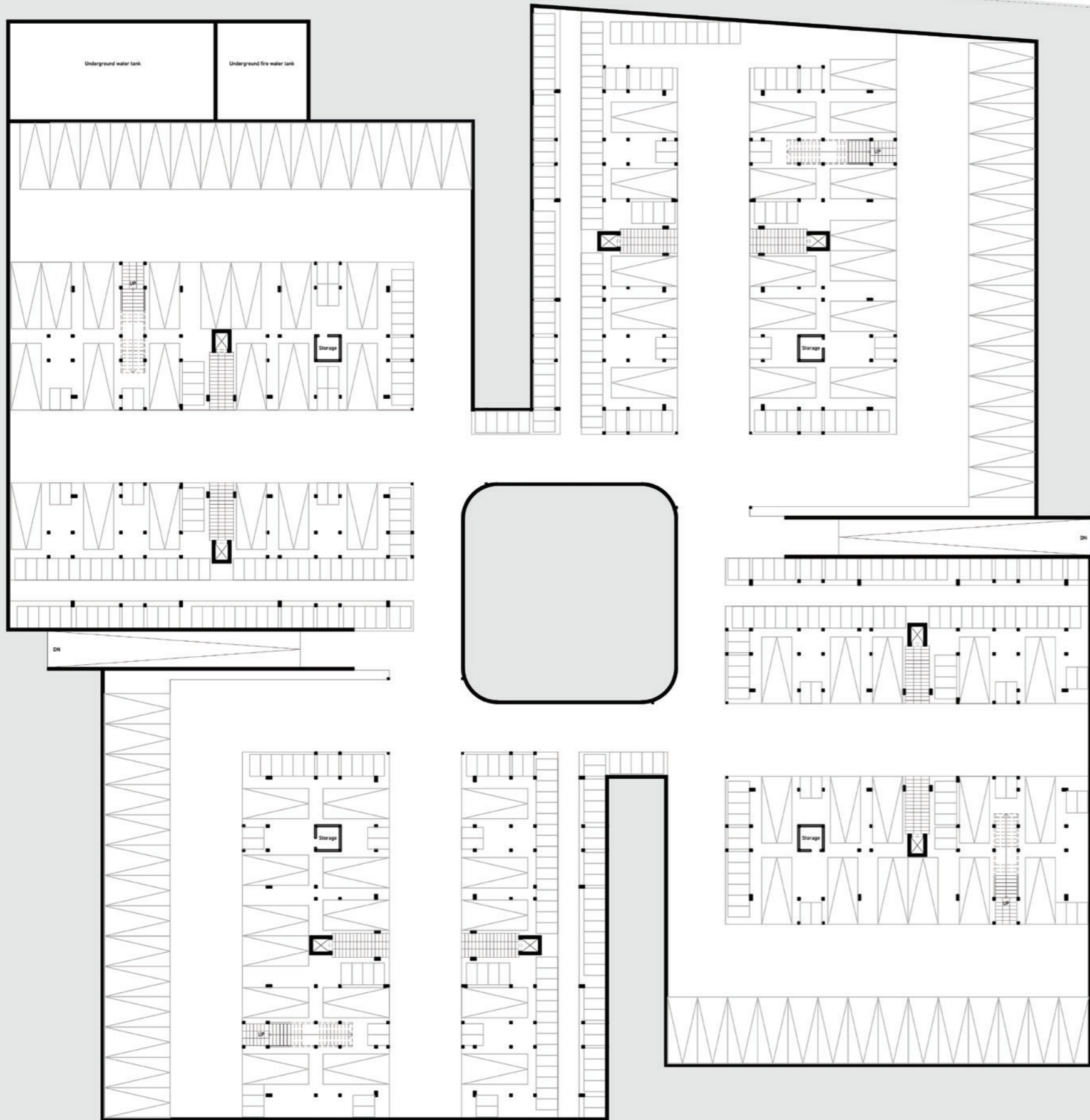
- METER ROOM
- COMMON TOILETS
- DRINKING WATER
- PARKING
- SECURITY CABIN
- GARBAGE DISPOSAL
- TRANSFORMER
- GENERATOR



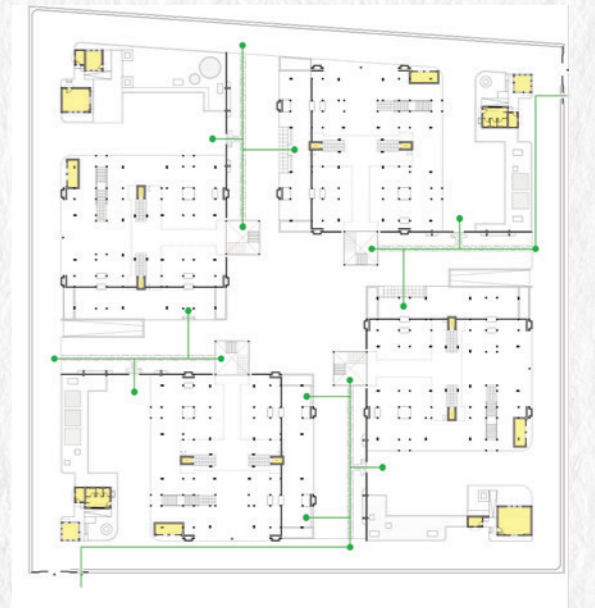
● EXPLODED



# BASEMENT PARKING PLAN



- VEHICULAR PATH
- GARBAGE TRUCK

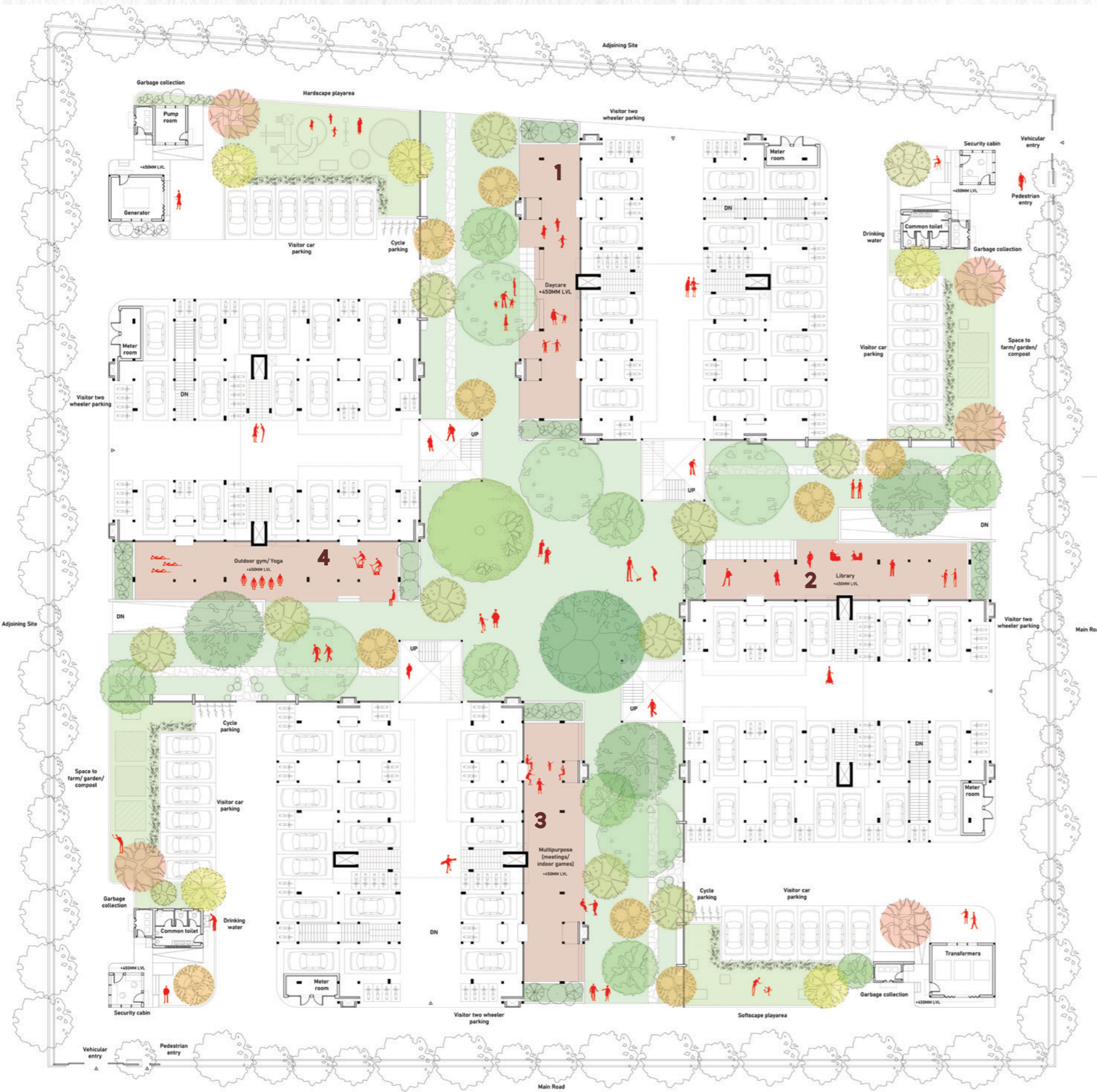


- SERVICES ON SITE
- PEDESTRIAN PATH

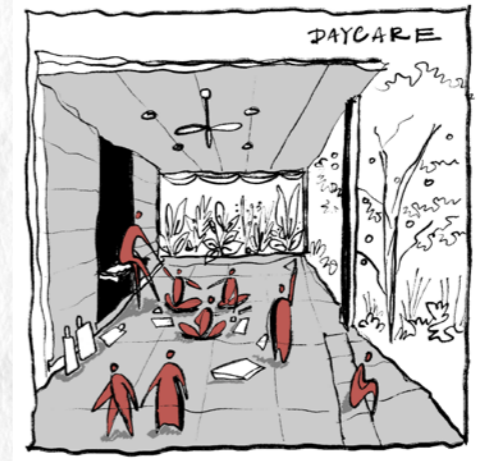
- RAMPS
- UNDERGROUND WATER TANK
- UNDERGROUND FIRE TANK
- LIFT AND STAIRCASES
- STORAGE
- CAR PARKING
- 2-WHEELER PARKING



# GROUND FLOOR PLAN



1



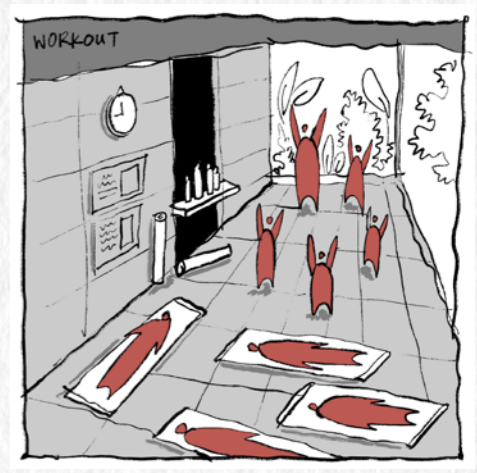
2



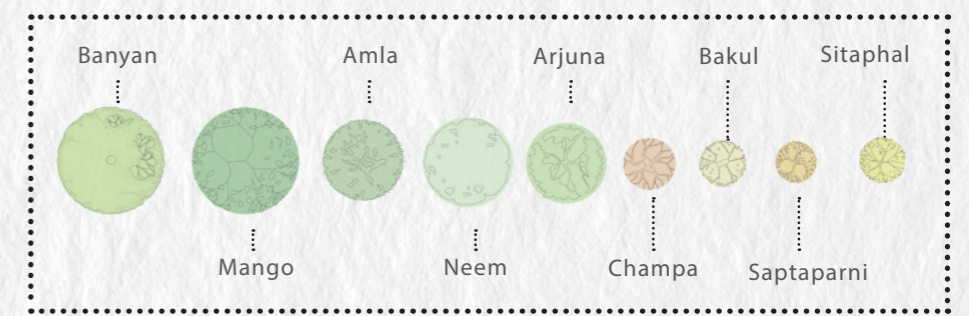
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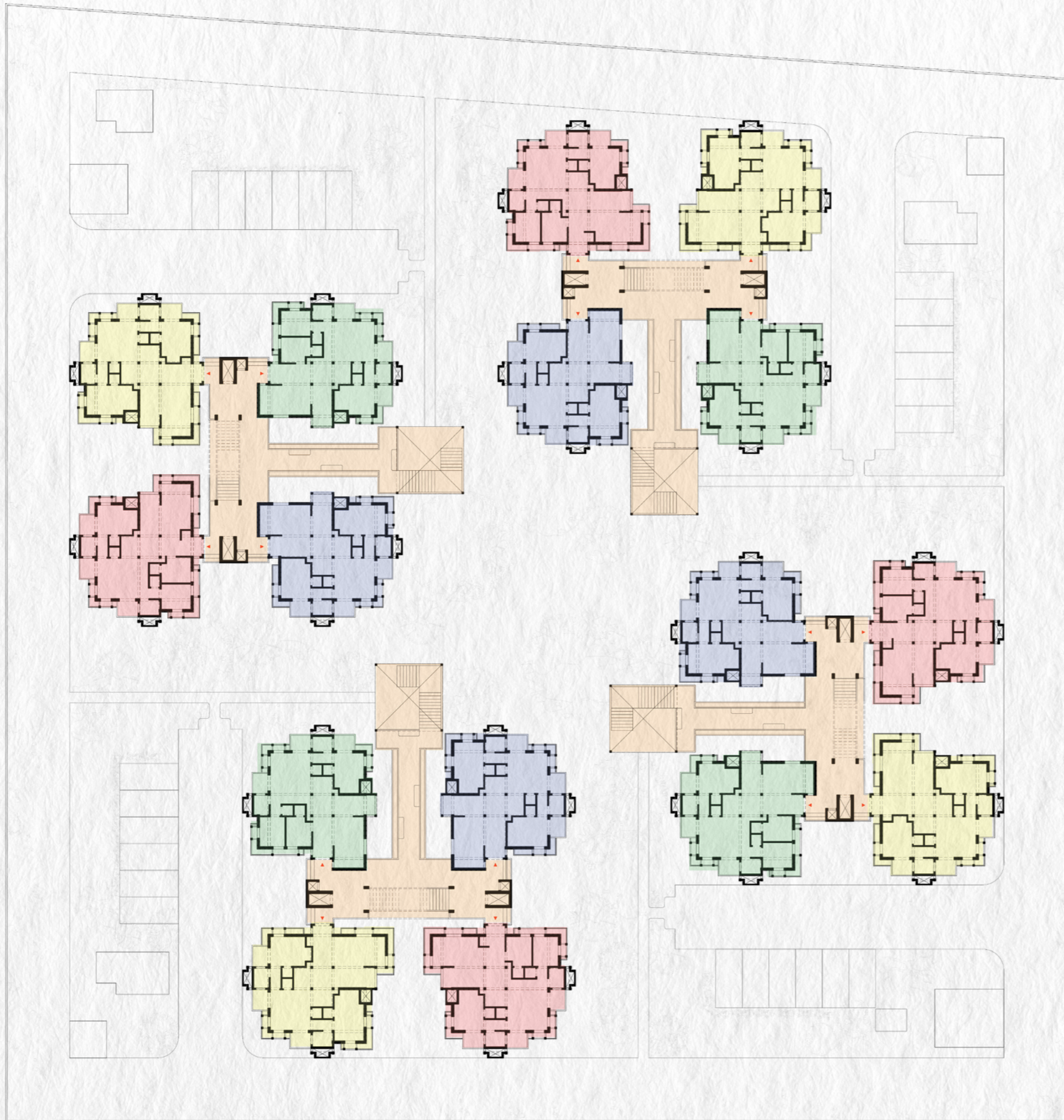
4



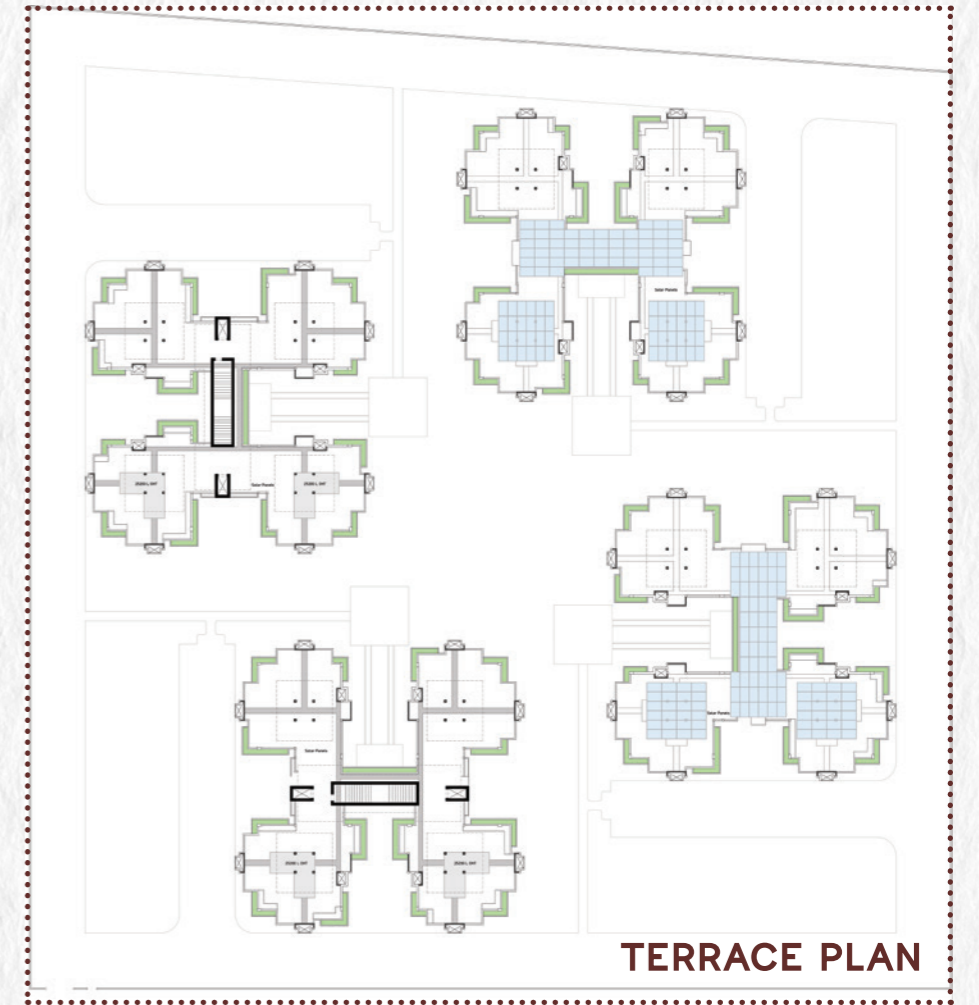
## INDIGENOUS TREES ON SITE







**FIRST FLOOR PLAN**

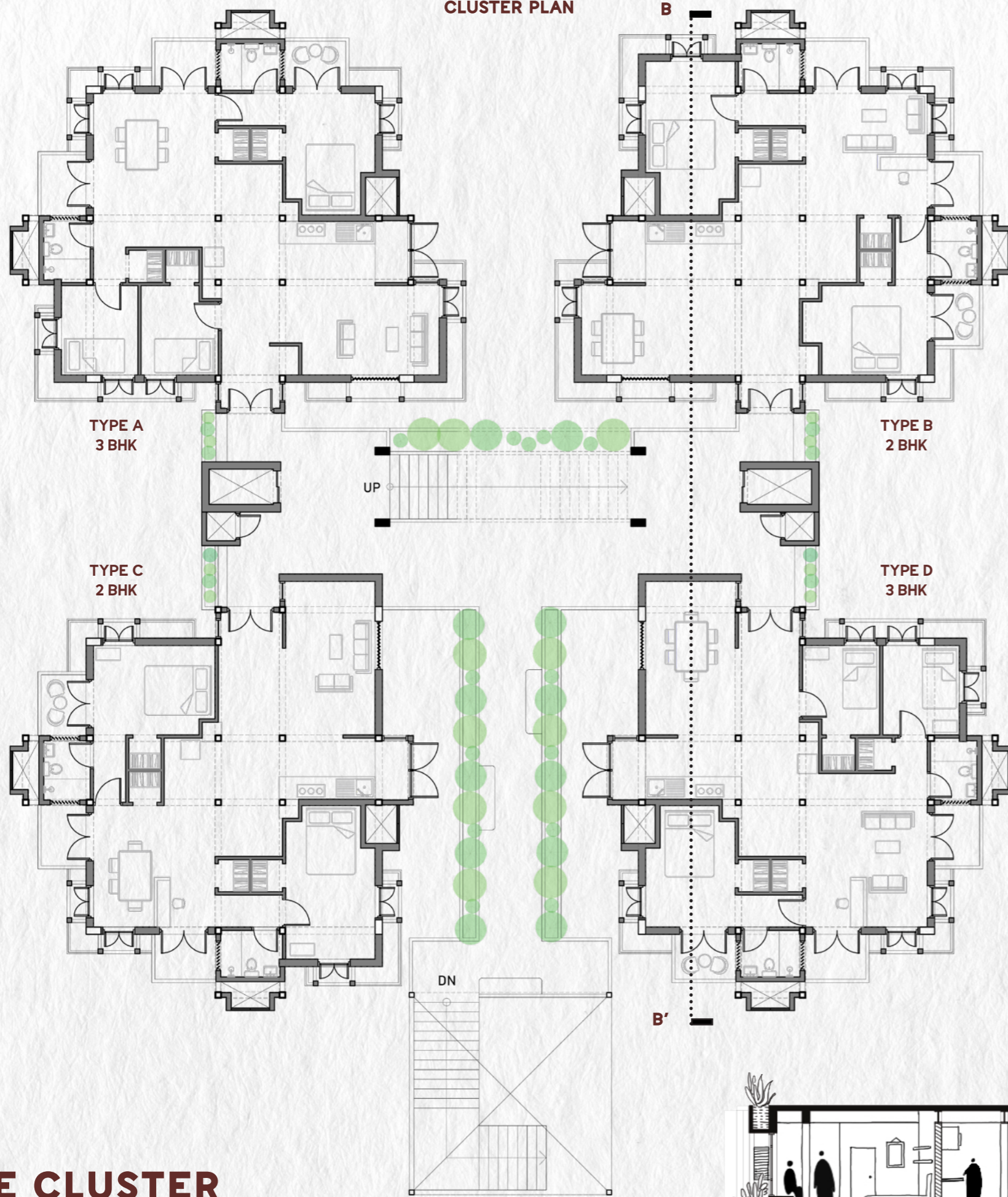


**TERRACE PLAN**

LIFT AND STAIRCASES  
 WATER PIPES  
 SOLAR PANELS  
 OVERHEAD WATER TANK

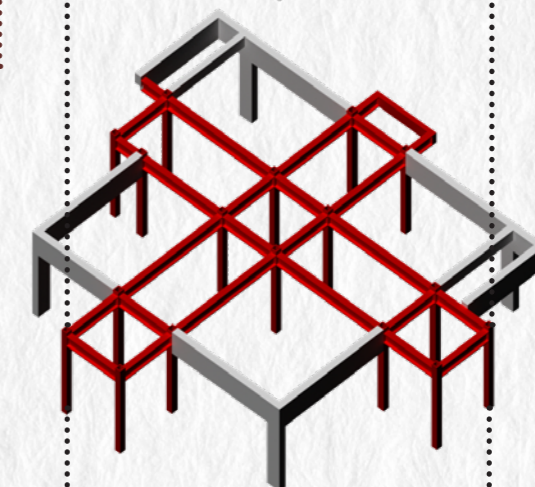
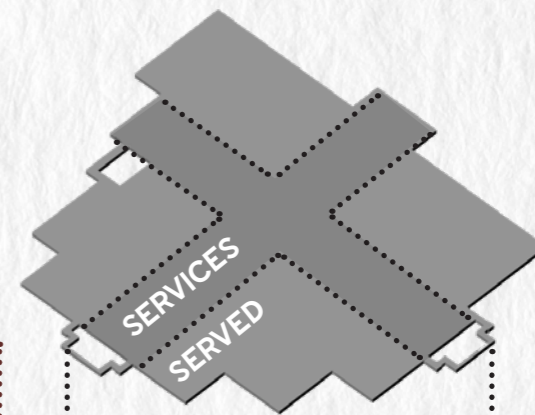
- TYPE A  
3 BHK
- TYPE B  
2 BHK
- TYPE C  
2 BHK
- TYPE D  
3 BHK

**CLUSTER PLAN**



**UNIT EXPLODED**

SEGREGATION OF SERVANT AND SERVED



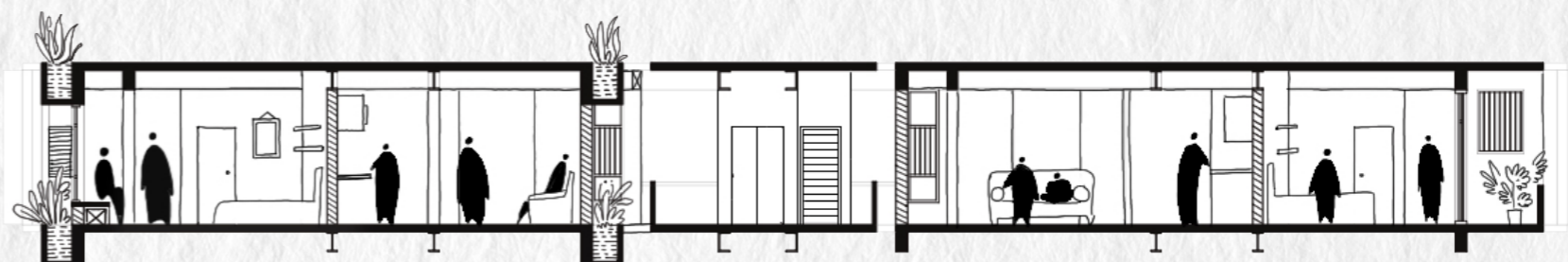
STEEL COLUMN BEAM STRUCTURE



MOVABLE TERRACOTTA PANELS AS A SKIN

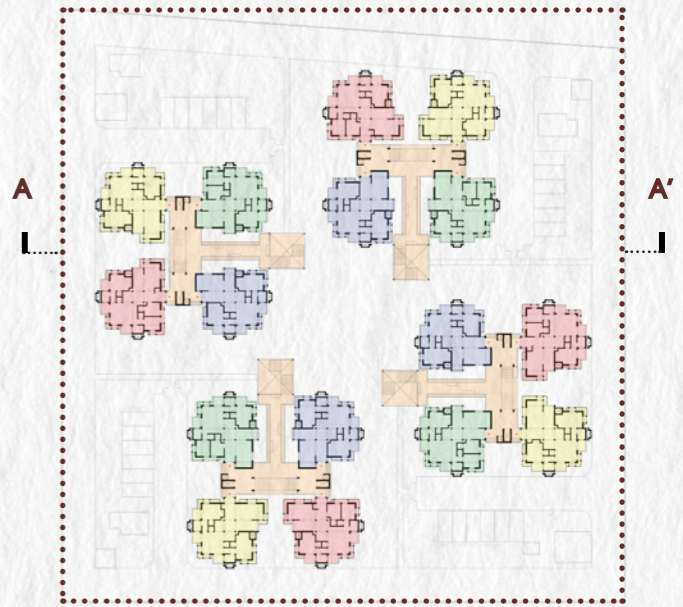
BAMBOO SCREENS COVERING SHAFTS

**THE CLUSTER AND THE UNIT**



**SECTION BB'**

SECTION AA'



COMMON CIRCULATION ON EVERY FLOOR

ON EVERY THIRD FLOOR THIS COMMON CIRCULATION DOUBLES AS A REFUGE AREA

THIS GREEN SKYWALK IS A SHARED SPACE, DIRECTLY JOINING FIRST FLOOR TO THE WILDSCAPE

DOUBLE HEIGHTED LOBBY OPENING INTO THE WILDSCAPE, PARTIALLY SHADED BY BAMBOO SCREENS

SUNKEN SLAB TO ALLOW TREES TO GROW, ONLY IN PLACES WHERE THERE IS A BASEMENT BELOW

