Portfolio on

Oikopolis VI- A new begenning

This studio tackles two key challenges in housing design: rapid yet effective design execution, and achieving a meaningful balance between design quality, profitability, and regulatory compliance. To address these, students engage in a mainstream housing project based in Ahmedabad, completing it within an intensive 4-week period. Despite the constraints, the goal is to create spaces that are both meaningful and compliant with financial and regulatory demands.

The first 12 weeks are dedicated to preparing for this final project. During this phase, students conduct extensive research on housing, engage in multiple design explorations, and propose strategies that integrate complex systems and services within housing projects.

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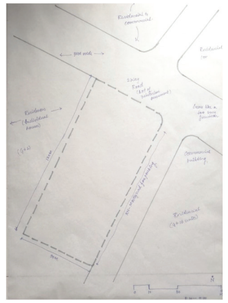
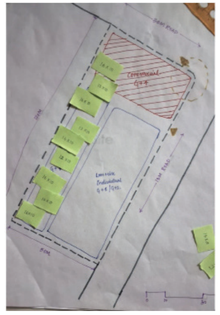
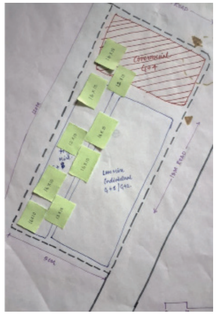
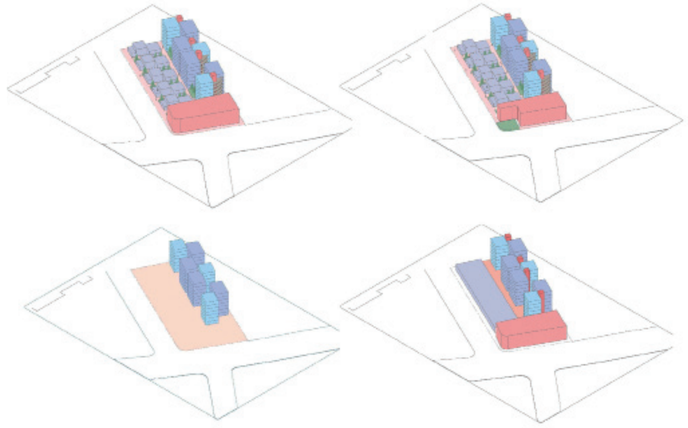
MASTERS IN HOUSING DESIGN | MONSOON 2024 |CEPT UNIVERSITY







TP 1

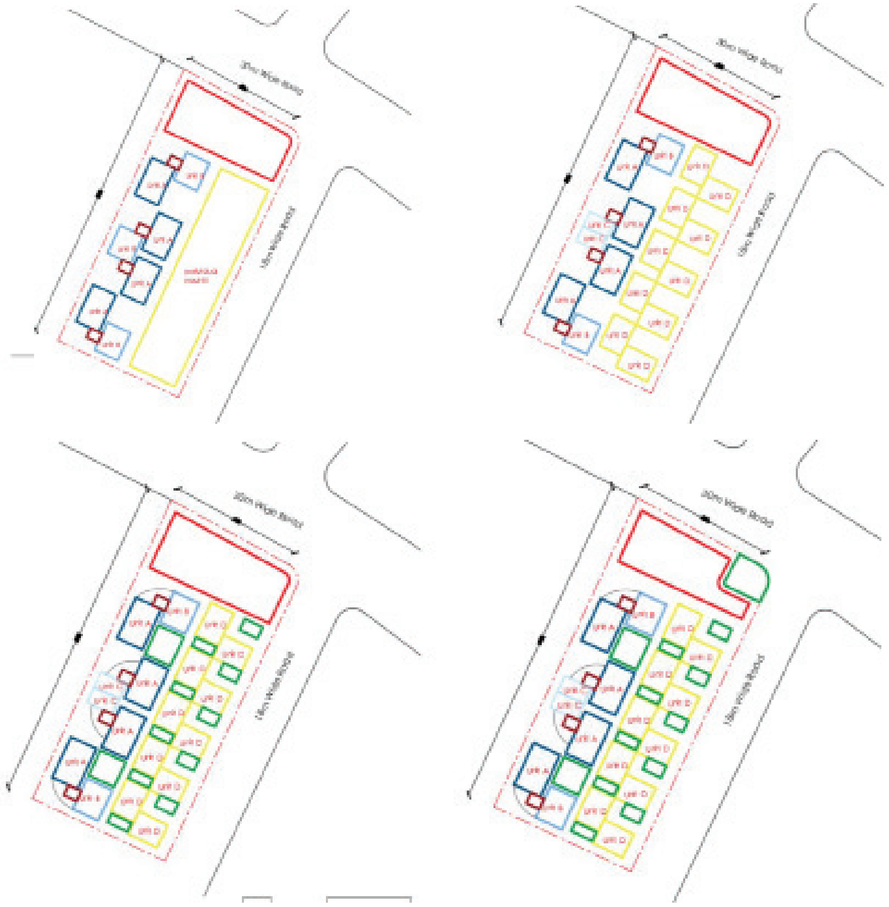


Zone- R1
Building height - 45M
FSI -2.7
Set backs - 6-9M

Context study- G+14 structures
3BHK apartments

Programme
Commercial: As a part Public-landscape intervension.

Residential:
High rise - 3BHK Units- 140Sqm
Low rise - 4BHK units - 180Sqm



TP 2

Zone- R1
Building height - 45M
FSI -2.7
Set backs - Front- 7.5M
Side - 6m
Rear - 6M
Tower to tower - 9m
Max Built up - 8082 SqM

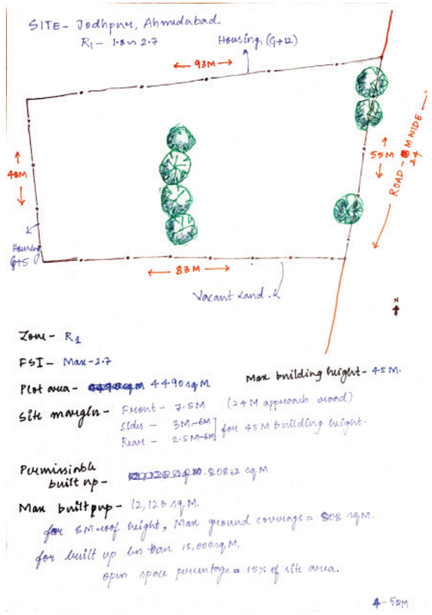
Programme
Residential:
High rise - 4BHK Units- 175Sqm
4BHK Units- 173Sqm

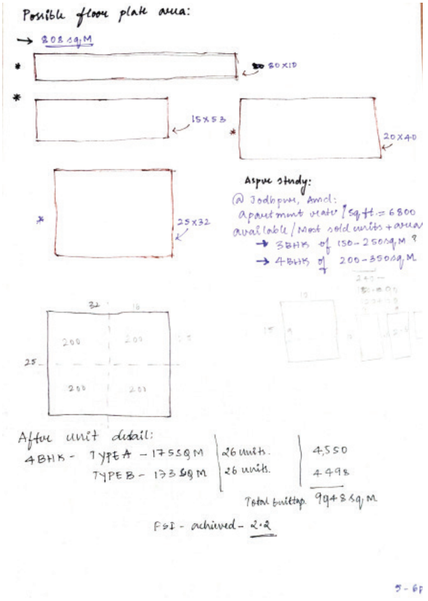
26 Units each
4550+4550=9948Sqm

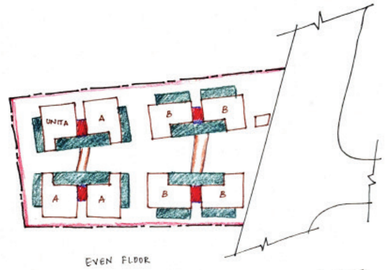
Acheived FSI- 2.2

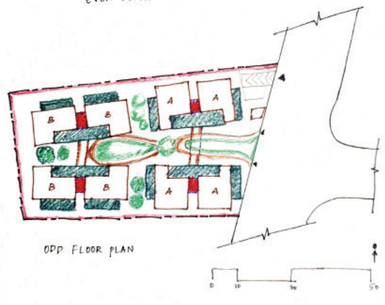
UNIT A - 1755SQM

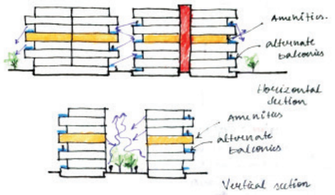
UNIT B
1735SQM

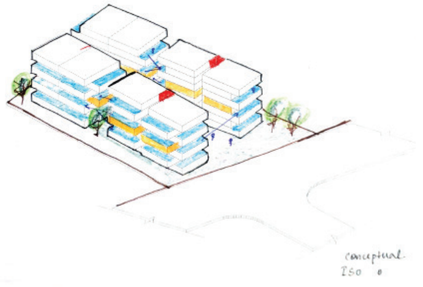










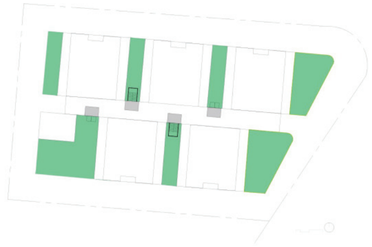


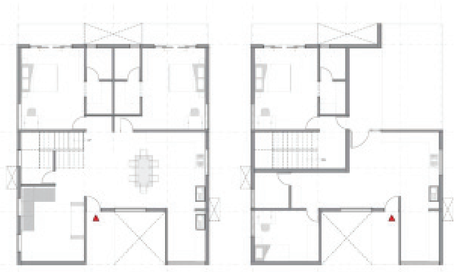
TP 3

Zone- R1
Building height - 45M
FSI -2.7
Set backs - Front- 7.5M
Side - 6m
Rear - 6M
Tower to tower - 9m

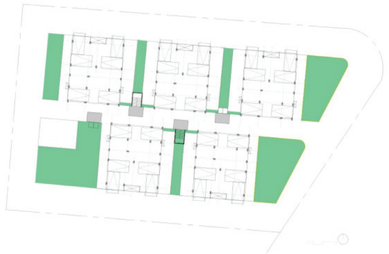
Programme
Residential:
High rise - Type 1- 3BHK- 135Sqm
Type 2- 2BHK- 65Sqm
Type 3- Studio- 50Sqm
Total Built up area- 8364
FSI acheived - 2.7

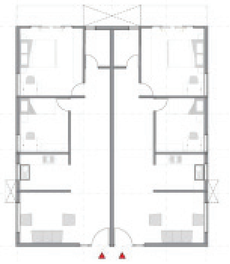
Zoning





Ground floor parking





BUILDING - 01

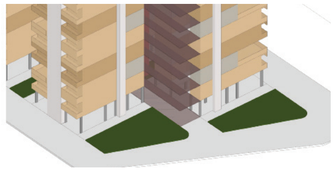
UNIT											
TYPE OF UNIT	NO. OF USERS	CARPET AREA OF UNIT	RERA CARPET AREA OF UNIT	BUA OF UNIT	NO. OF UNITS PER FLOOR	TOTAL BUA OF ALL THE UNITS IN A FLOOR	NO. OF FLOORS	TOTAL NO. OF UNITS	LOADING FACTOR (CARPET : SUPER BUA)	TOTAL NO. OF USERS
Studio apt	1		100	50	5	250	4	20		20
2 BHK	3		100	65	10	650	4	40		120
3 BHK	5		100	135	5	675	4	20		100
TOTAL					20	1575	12	80		240

FLOOR TYPE	BUA OF UNIT	NO. OF UNITS PER FLOOR	NO. OF FLOORS	CORRIDOR AREA	AREA PER FLOOR	TOTAL FLOOR AREA
Floor Type - 01	50	5	4	172	422	1688
Floor Type - 02	65	10	4	172	822	3288
Floor Type - 03	135	5	4	172	847	3388
TOTAL BUILT UPAREA						8364

1,4,7,10 floor plans

2,5,8,11 floor plans

3,6,9,12 floor plans

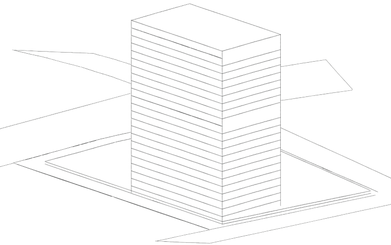


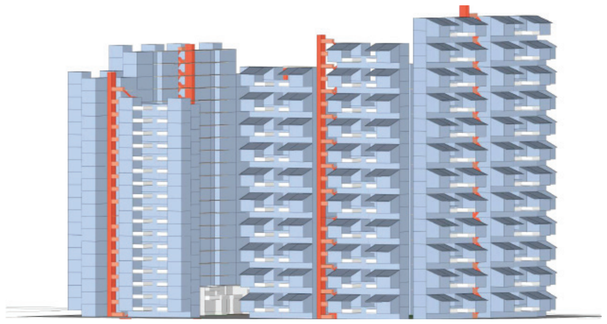
TP 4

Zone- R1
Building height - 45M
FSI -2.7
Set backs - Front- 7.5M
Side - 6m
Rear - 6M
Tower to tower - 9m

Programme
Residential:
High rise - Studio - 70 Sqm
2BHK- 102 Sqm

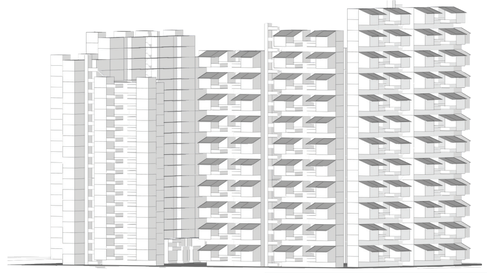
Total Built up area- 34452
FSI Acheived-3.0

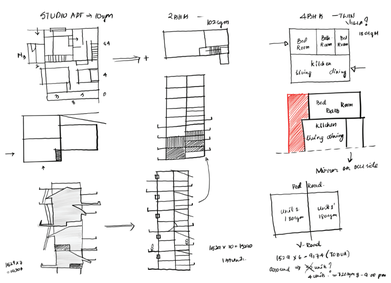


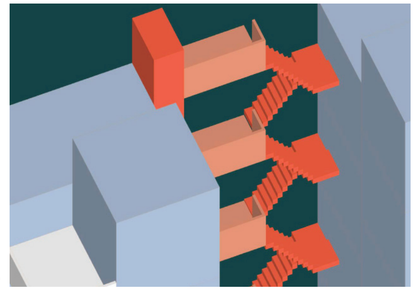


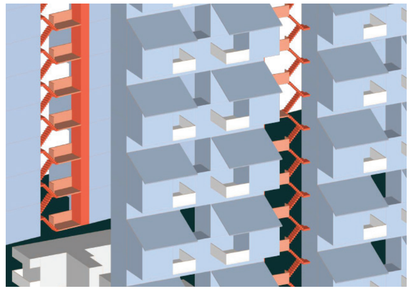
" I have water, soap and give you a space for lot of creativity, I definitely need a door. I need privacy " says the bathroom, so follows the bedroom, "ohh! I think I am done being covered as a private space. I am used to anything and everything, why is there even a wall? I am unaware. I want to see from inside and welcome who ever comes. And treat them by being what they want. I don't want to be defined as a space, constrained by one man of huge furniture." And the kitchen from a corner says," I think I need a window, that overlooks up who is coming and going. In that case I feel I am the best placed soon after you enter " some old soul : "ohh kid we were a huge family with a lot of individuals. Everyone surving a unique purpose. Not just within the family but also around us, we were connected as a community. To the sky, to the stars, the sun and the moon. The plants giving flowers gave a fragrance that flow through the kitchen. "Ajji, we also have neighbours, but just that we are unaware of them. What to do everybody is busy in working. Fast life you see."

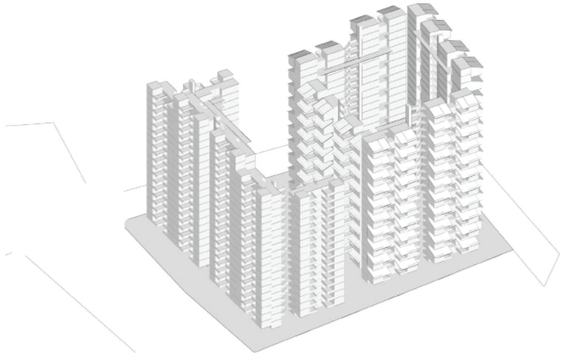
"Oh yes dear, fast life higher ambitions and flying goals. You have wings, we will be the roots, wishing you from the ground..." says the villa.

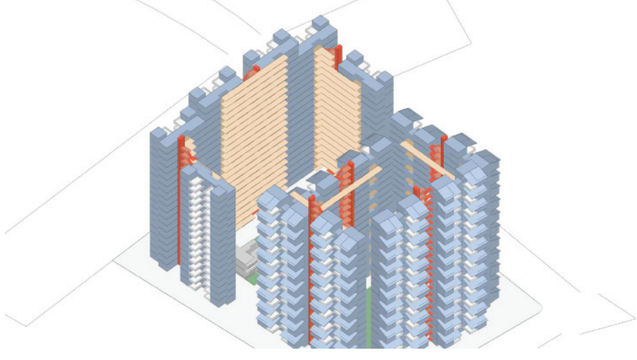










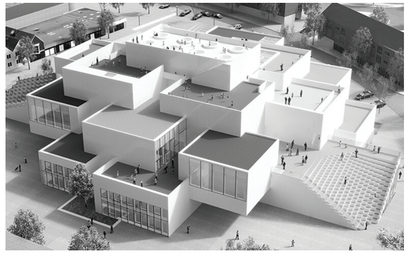


Seminar - WHY NOT? Unconventional housing

Feeling on seeing high rise towers

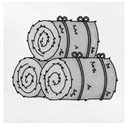




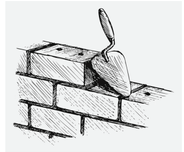
Stacking...

The words , history (entomology) is tracid some where in 10CE from middle English 'hay stack' was from where the word 'stack' emerged... Followed with, pillnof strawbwood , grain and some time money as well in general, stacking is a pill of identical objects. Or to arrange somethings in particular manner.




In Architecture

Where as in architecture,when talking about the smallest possible material, a brick when arranged along h or v axis even that is called stacking.
But it facinats me , when a 3 m is a wall of double height space!

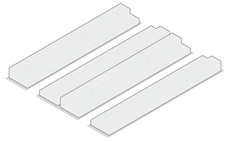
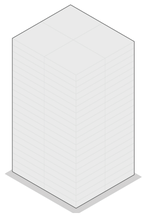



In Housing

Housing
Here, in housing it's about arranging individual units along the wallor along the slabs . More than arranging,stacking is more about attaching individual units along the walls or along slab or some time both.

But why?
But, why was this required? What was the need of it? What made with stack along each other?

User Builder

When looked at it from 2 lenses, the user wanted an affordable , convenient and flexible dwelling, where as for a builder it's always a good investment.

Understanding through History

When we trace the history, Town House, where the row houses, as a typology was observed. This allowed multiple types of units stacked along wall. This also allowed to generatemultiple income sources, than a single family. This was benificial in densily populated area and served well for the high demand for rental properties.

During 3rd CE, commercial dwellings of 4-6 stories were found in Rome and Egypt, . Here ground floor was mostly commercial and above were the dwellings stacked and durng 16th CE, 30M, 10 Storie Apartments were found in Shbam Houses, Yemen.

In both the cases. mud bricks were used to build thick load bearing walls. as the height was increased, the topmost units were cheapest, as they were considered highly dangerous. and these units were used mostly for rental purposes.

With steel in the construction industry...

In both the cases. mud bricks were used to build thick load bearing walls. as the height was increased, the topmost units were cheapest, as they were considered highly dangerous. and these units were used mostly for rental purposes. But when steel was invented as a material in construction, Skyscapers were introduced to experiment in modern society.
Louis Sullivan works around 'tripartite' Principle of havong 3 distinct divisions in a building stacked above one another.

Hans Zwimpfer an architect from Switzerland, started stacking a single family unit on top of each other. And he patented apartment building as a design concept. Luxury as an other ingredient was added to the apartment typology and thus people started to trust and buy units.

Around 1940, Le Corbusier in Unite - D habitation, had arouund 332 apartments and 23 typologies. It was a city initself, with 1700 habitabts, commercial buildings, in 7&8th floor, 8 interior streets with overlapping a 2 storey apartment and garden at its 17th floor.

These many experiments and interpretations were made and as the time rolled on, new invensions were made. Architects started to explore on the concept of stacking to Pixcels in 2d - voxcels in 3d or modules in terms of Architecture.

BUT Why was this done???

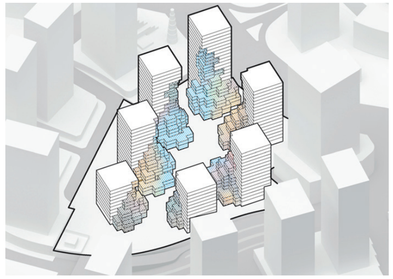
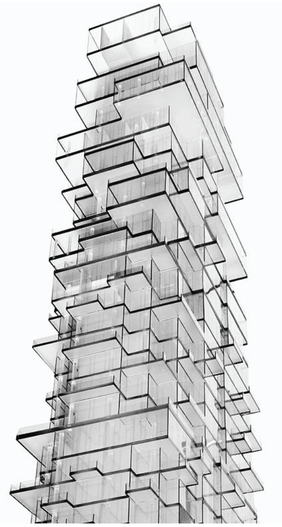
Is this an alternative for conventional stacking??

Or is this about living units outside the box??

Or is it to show Dynamism in architecture??

Or is it to introduce new way of living??

or the questions can go on and on and on...

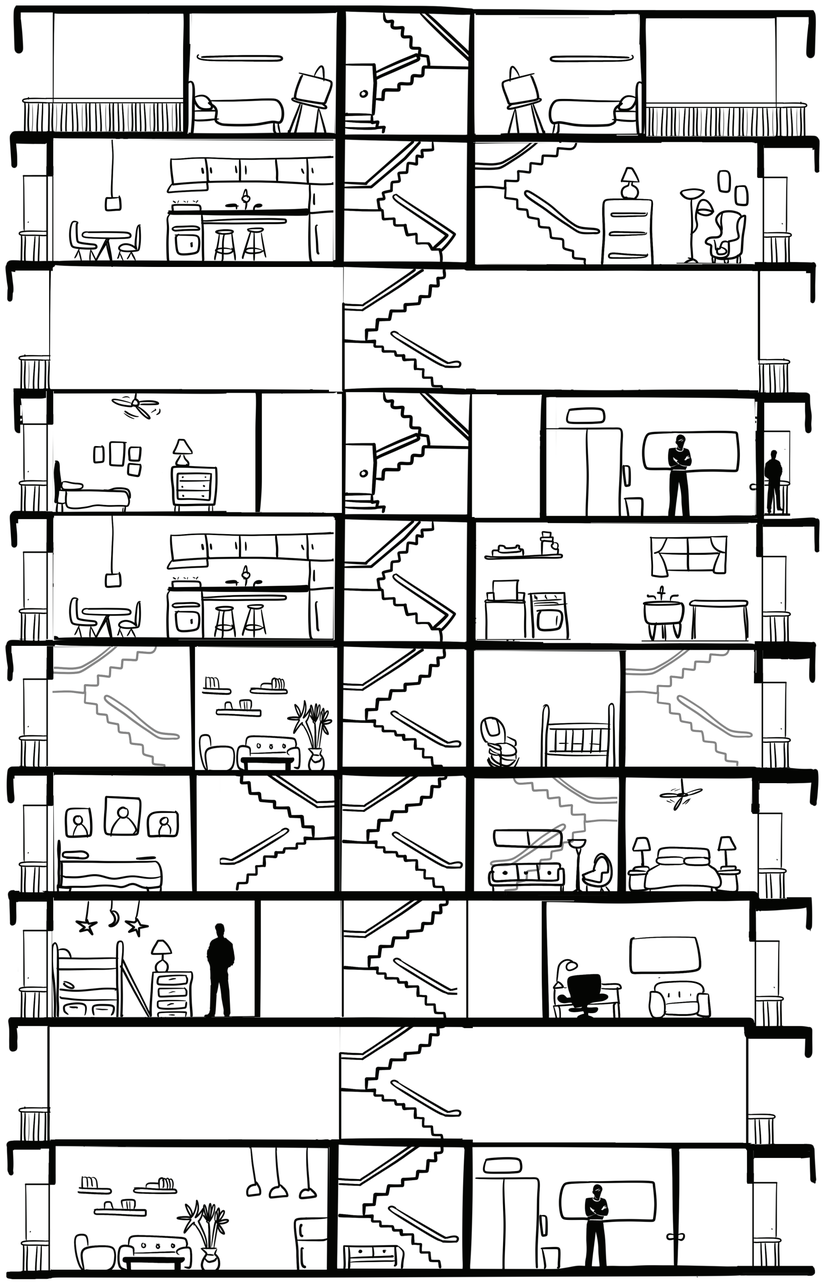
Multiple examples like habitat 67, Monde Res Building, Pixcels frm MVRDV, 56 Leonard Etc etc etc are making significant difference in thw way of living.

If piles of boxes are the solution for the residential architecture. There can be an aesthetice choice or an attitude towards construction or the life style.

when we believe that the buildings live longer that the time it takes to be constructed, as architects ....

WHAT ARE WE DOING ?

Glimpse of the seminar



A board game that had to play around arranging the units with their cut sectional views

Glimpse of the seminar

TRIGGERS FOR EACH TP

Tp-01

Mixed use development
- on having commercial and residential units.

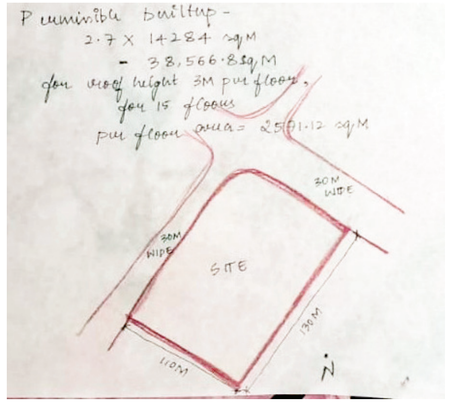
Tp-02
- Stacking - same unit but different orientation
- getting zigzag balconies in elevation - façade.

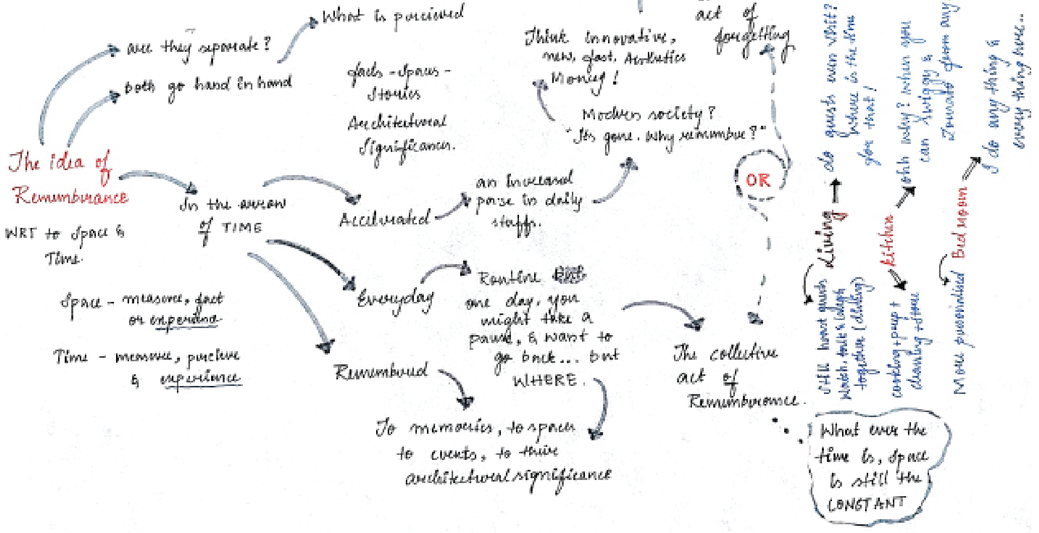
Tp-03
- Stacking 3 different units into a conventional form
- slg out structures, plumbing & other services.

Tp-04
- b/w flying high & being grounded who loves to be in sky — still has love to Mother Earth

Tp-05
- To stack duplex units - hidden spaces under the floor.

Permissible builtup -
2.7 X 14284 sqM
= 38,566.8 sqM
for roof height 3M per floor,
for 15 floors
per floor area = 2571.12 sqM



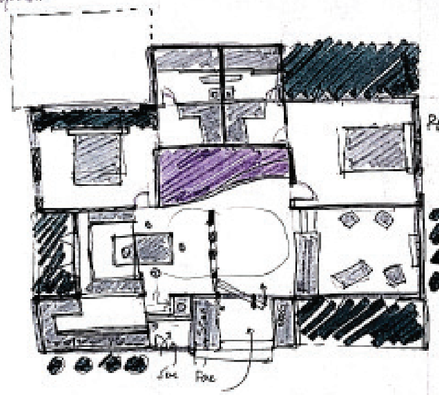


If both stay together, the doors are usually shut, balconies are much occupied than living, eating together would be occasional

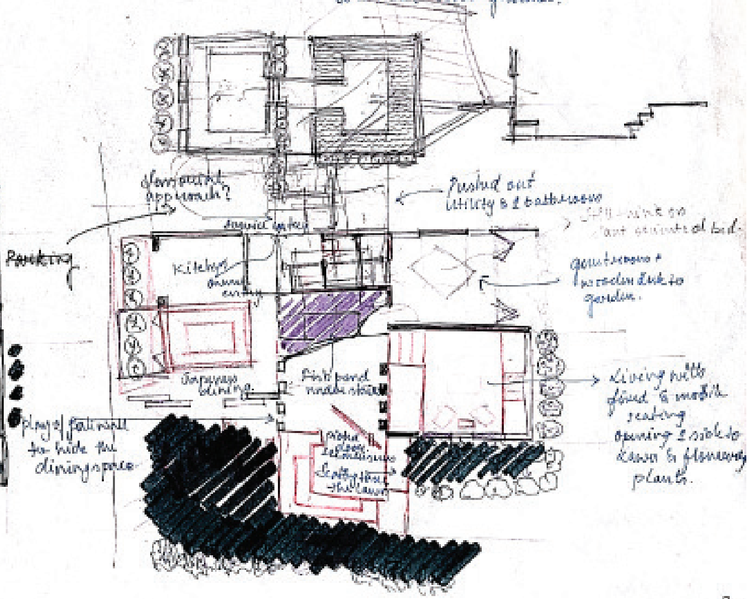
- where to enter something built.
  - => guided path, amidst greens
  - short plinth with L shaped seating
  - ~~depression~~ with a pivoted door- walk on through water?
  - step down to living - wall mounted furniture - windows open to see flowing plants at the clipped hedge.

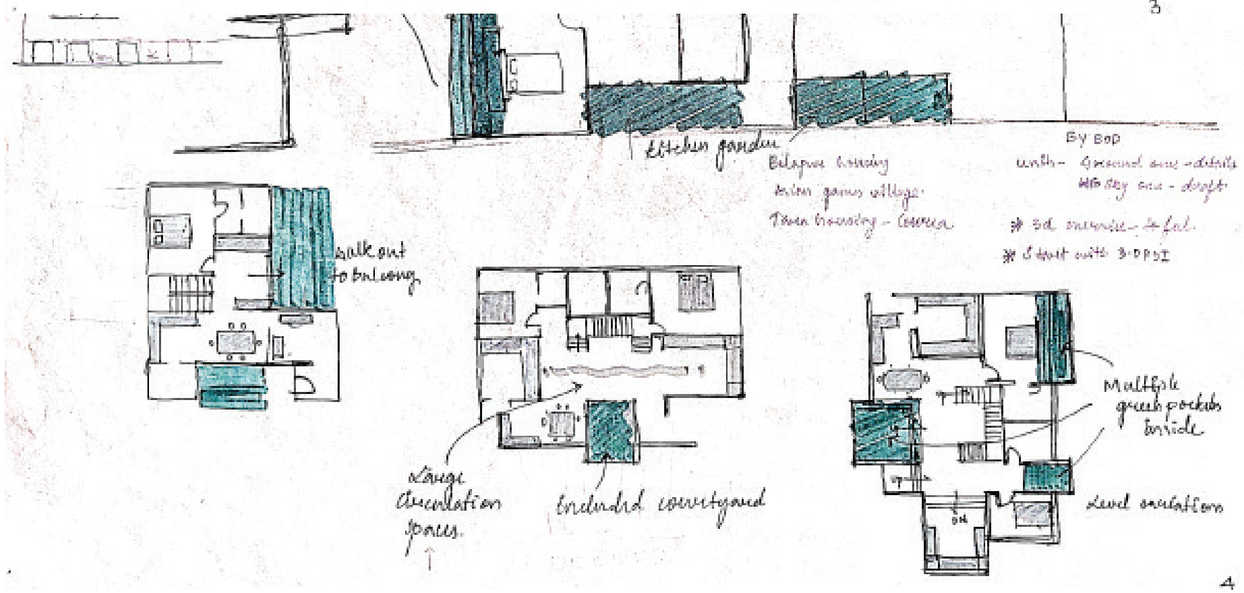
options:

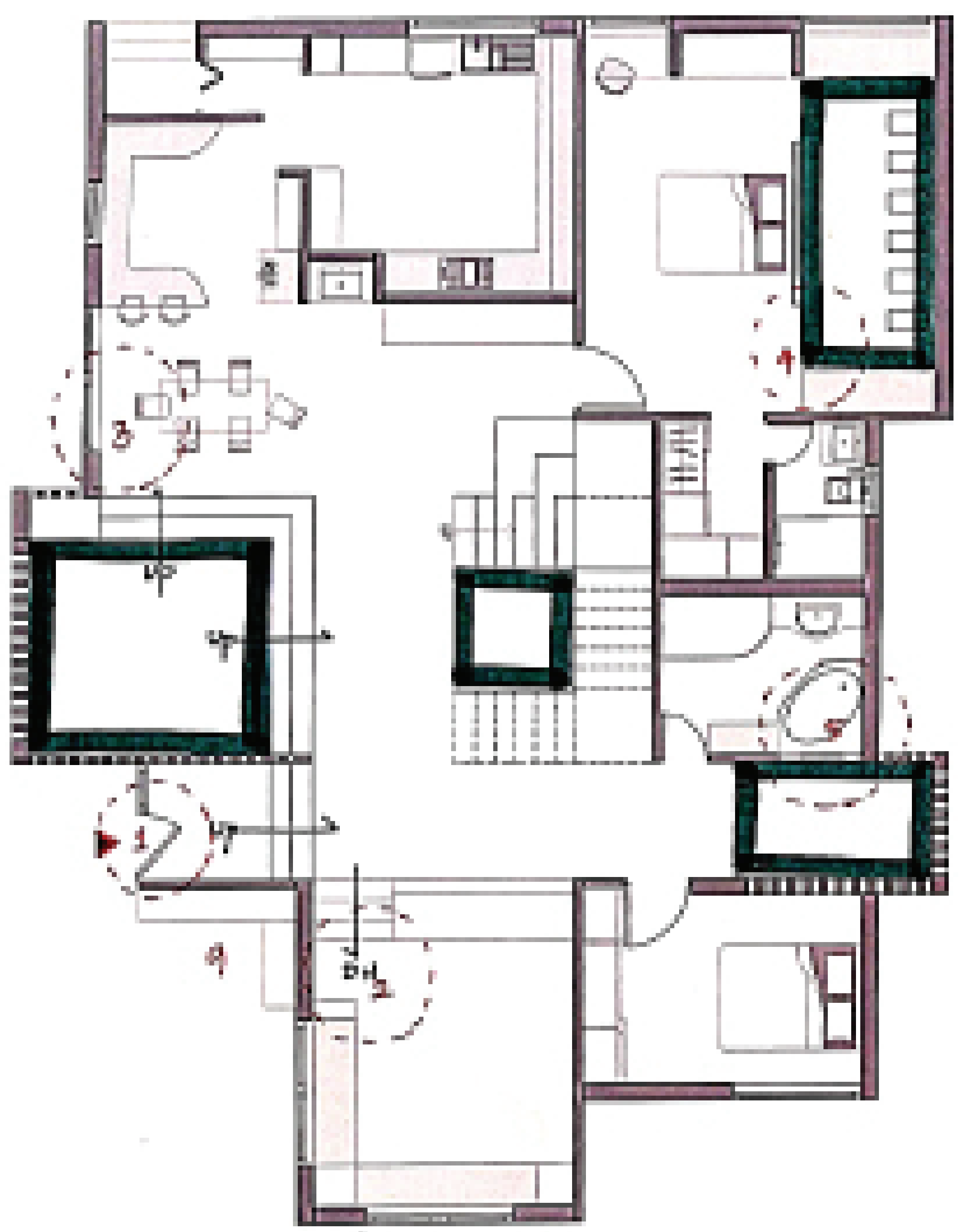
option 1



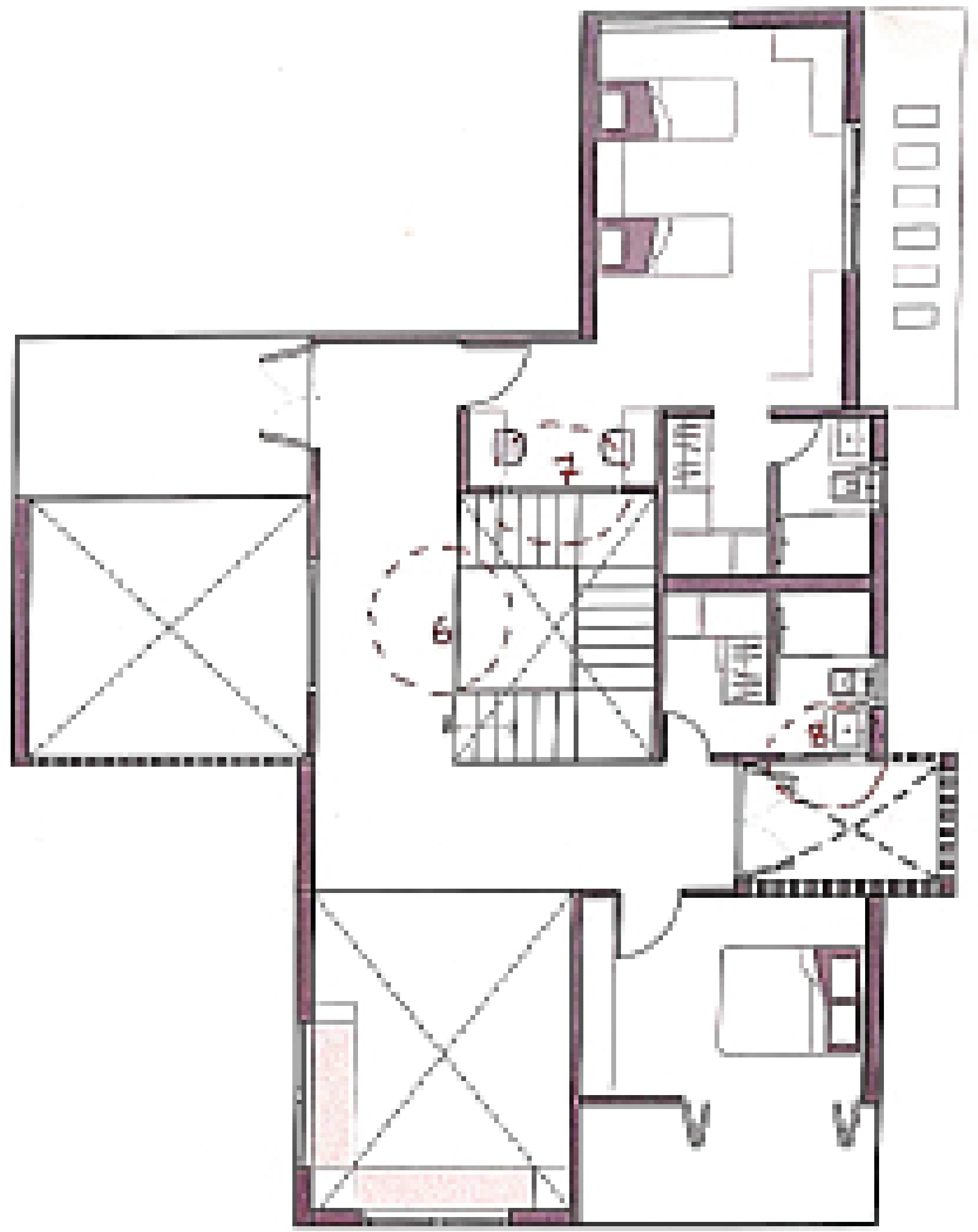
* Should roof height be a fact to make the space feel grounded?
* open to sky? - then then canopy? or should being grounded be inconvenience?
* Is there a need of G+1? aren't they considered with ground?







GROUND FLOOR



FIRST FLOOR

1. Enter from ground, plinth happens after the foyer.
2. Get down - to the living with fixed seating at openings seen only when seated ..... Kamala house.
3. heard Japanese table?
4. a pocket of green inside room.

5. Jacuzzi - Visually connected to green space & with 8
6. Walkway - bridge b/w 2 of OTS
7. opening from kids room looking inside the house.
9. Seating outside

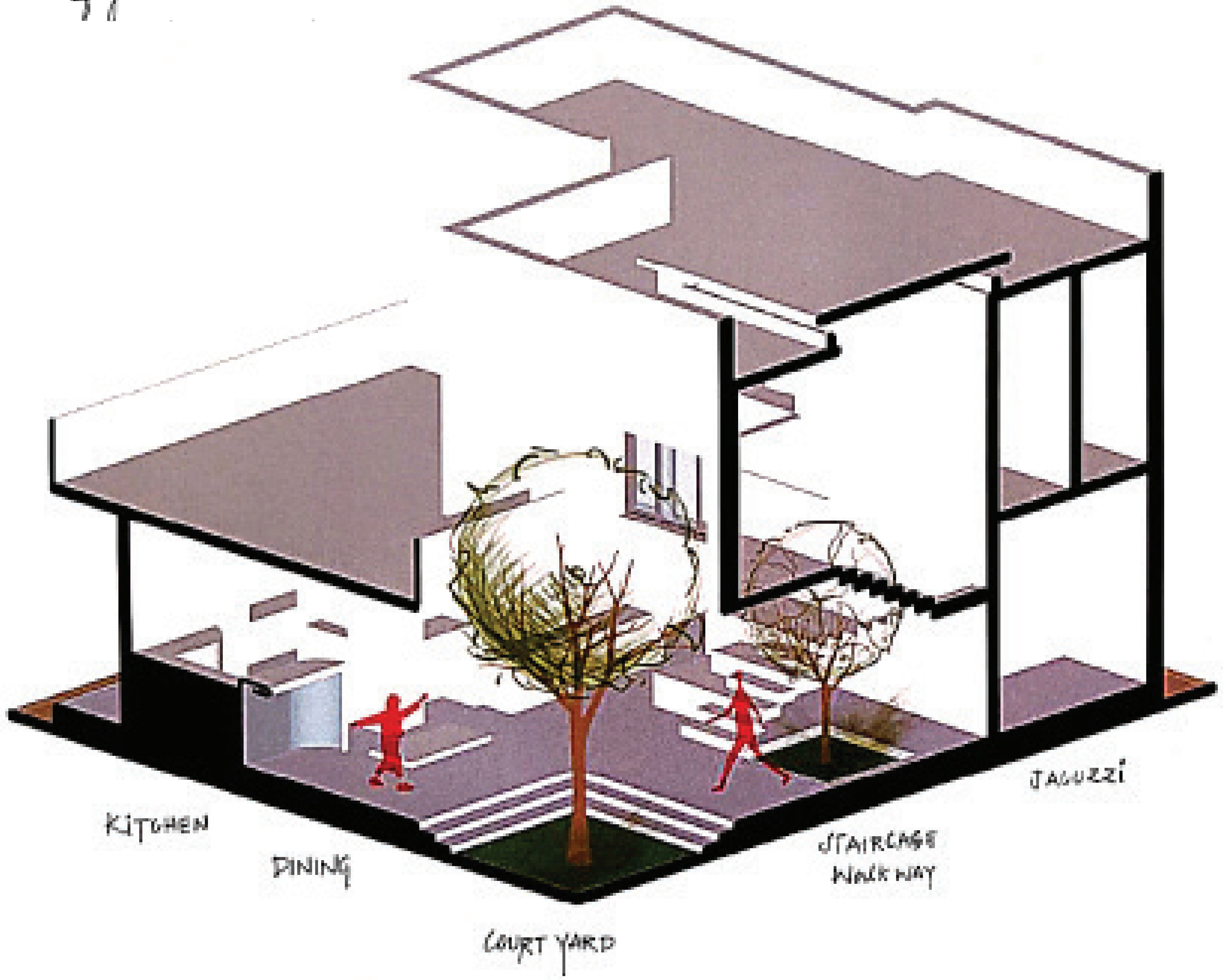
ABOUT NUMBERS -

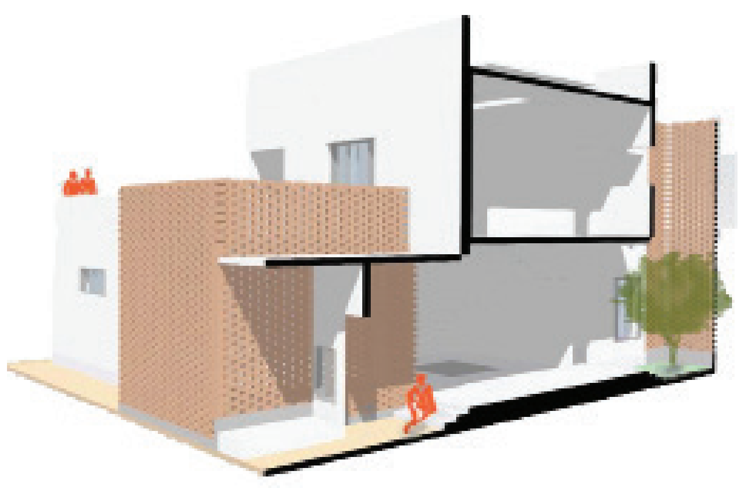
UNIT - BUA = 266 sqM

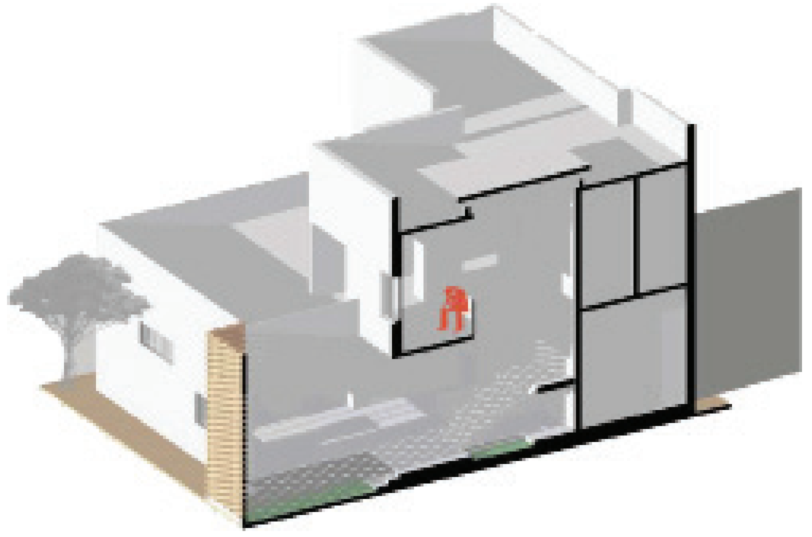
No of UNITS - 22

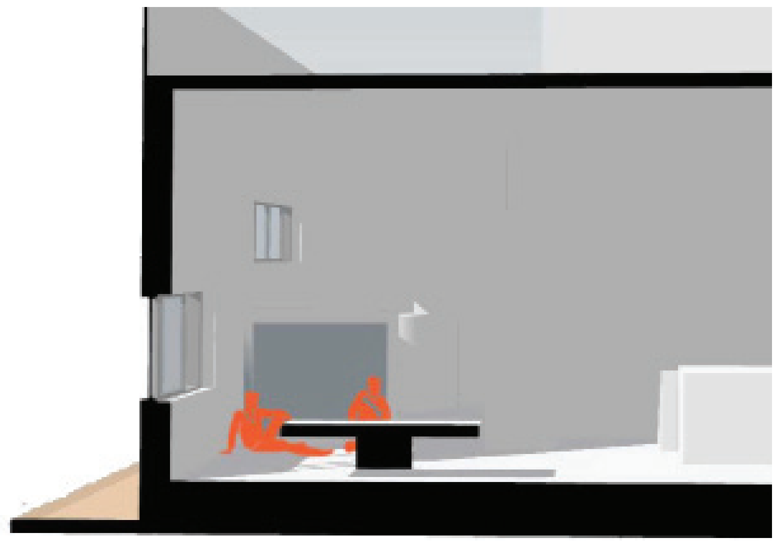
Total builtup - 5852 sqM

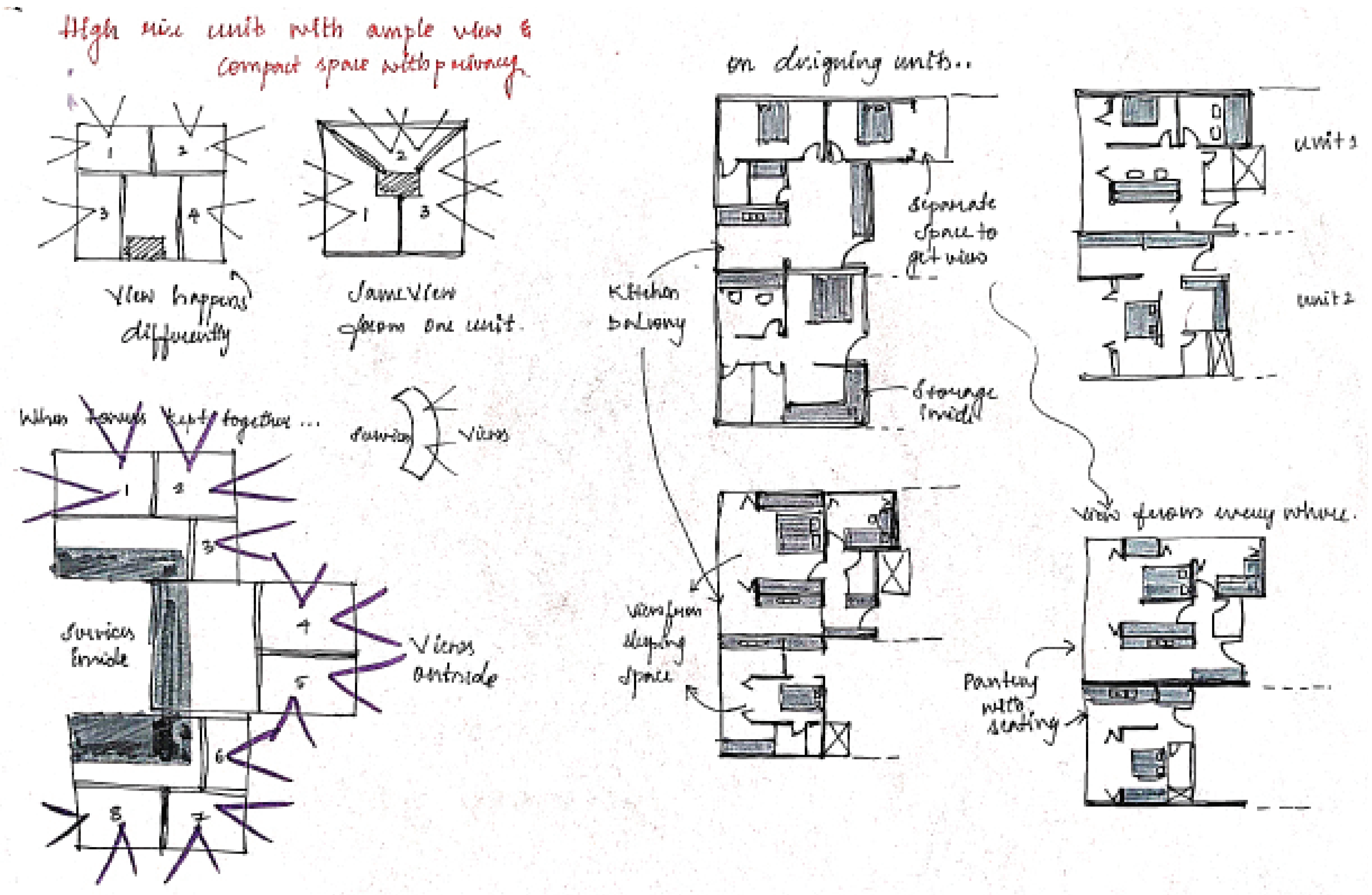
Achieved FSI - 0.4

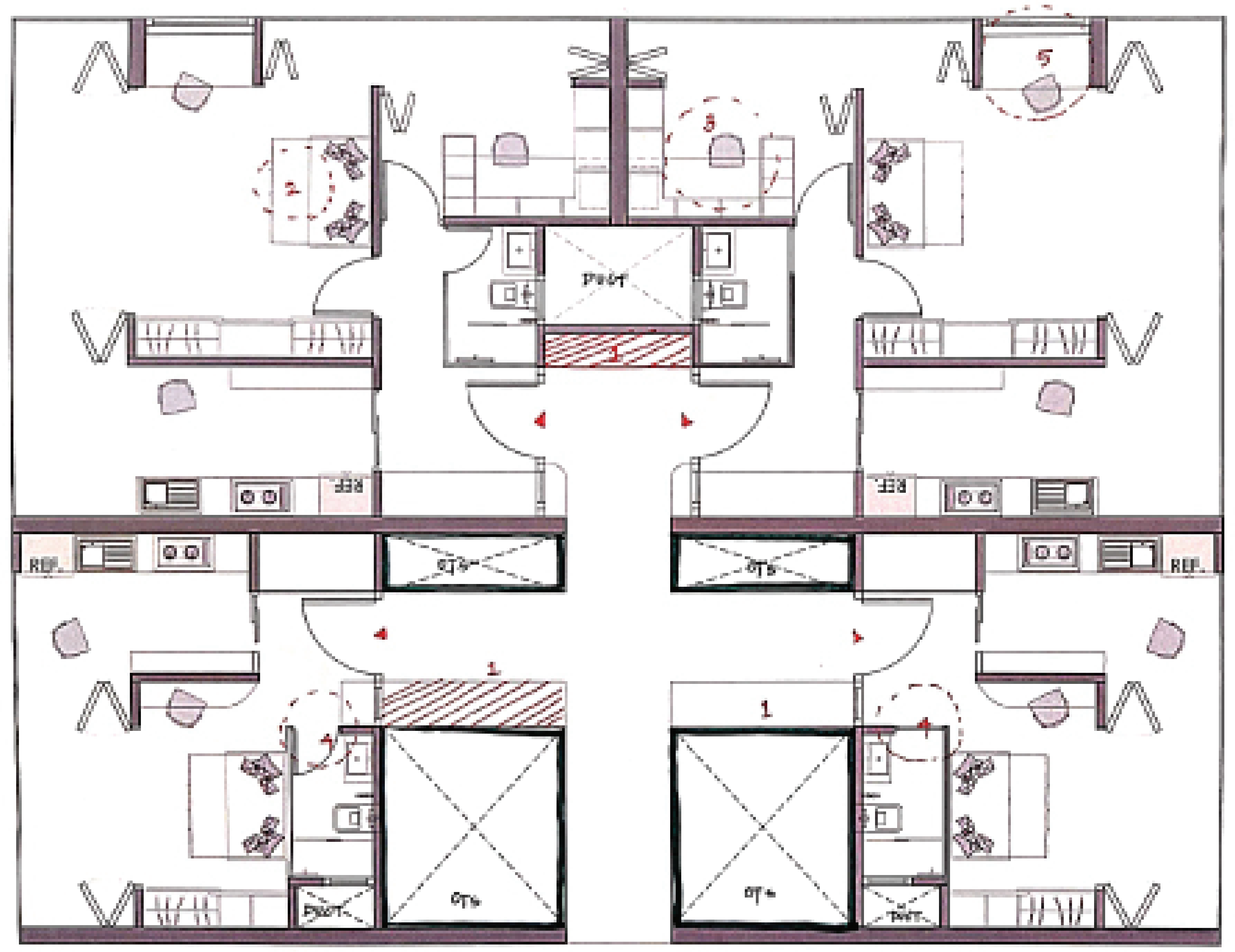












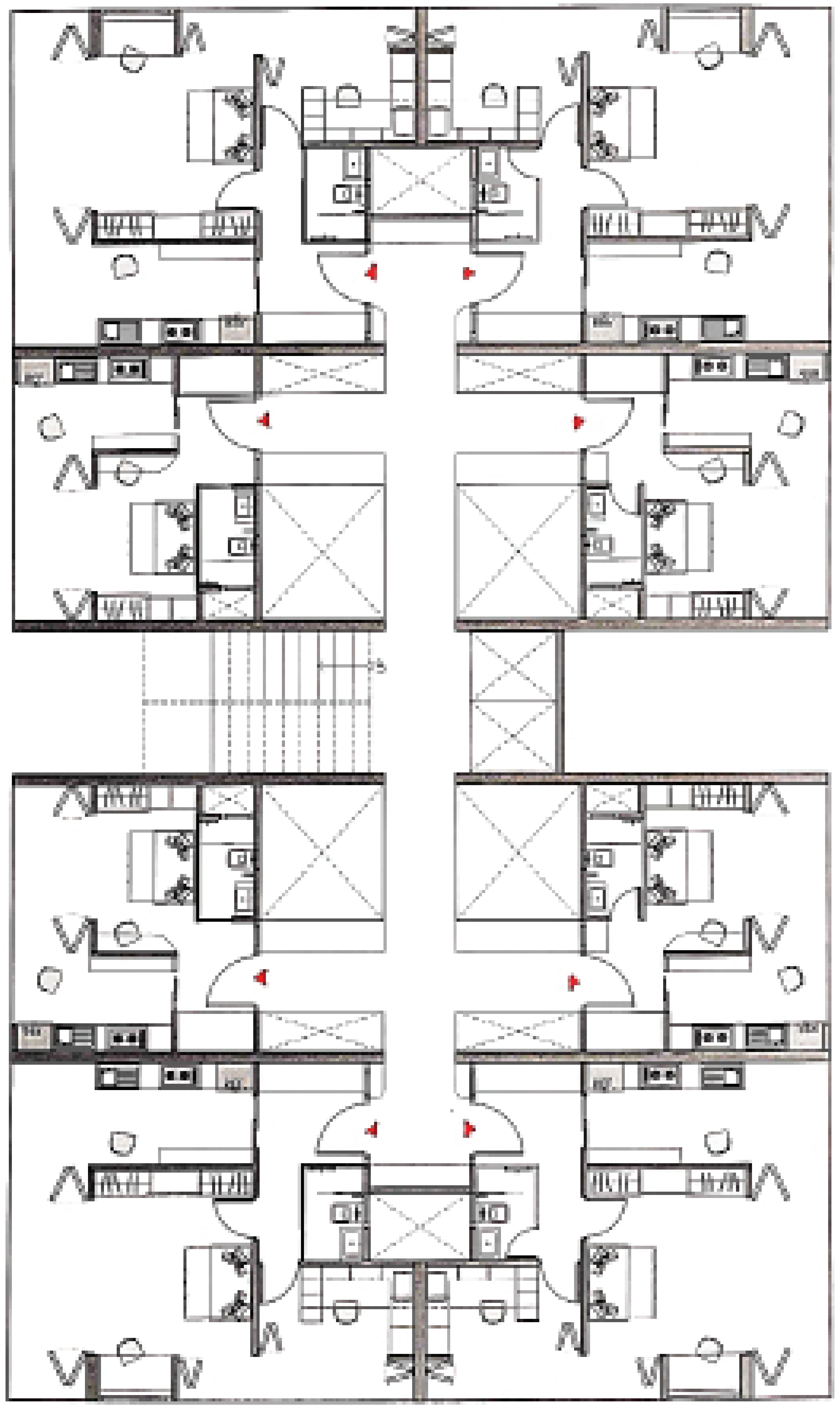
UNIT-A = 30 sq.M ~ 4 Nos in 1 floor ~ 260NOS
UNIT-B = 57 sq.M ~ 4 Nos in 1 floor ~ 260NOS

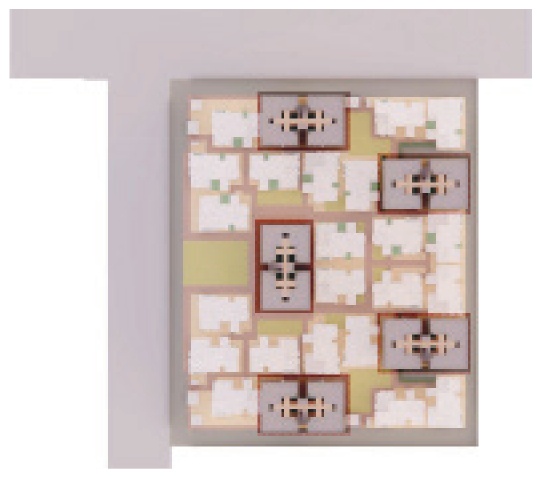
floor plate area = 440 sq.M
(with lobby) 92 sq.M
corridor = 44 sq.M

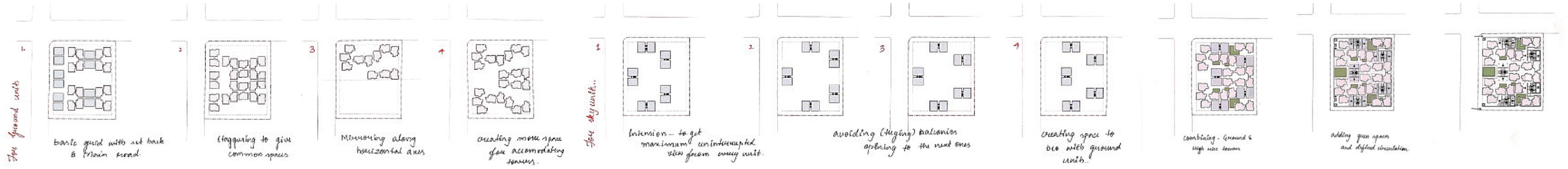
13 floors per tower = 5720 sq.M
5 such towers = 28600 sq.M

achieved FSI = 1.7

1. Door delivery of groceries, food, anything daily, waste and laundry also
2. Sofa + Bed when in need.
3. Bunker with storage + study below
4. Japanese toilets are with frosted glass transparent when open opaque when closed.
5. Isolated / away from socializing






for ground units
1
basic ground with set back & main road
2
staggering to give common spaces
3
Mirroring along horizontal axis
4
creating more space for accomodating towers.
for sky units..
1
Intension – to get maximum uninterrupted view from every unit.
2
3
avoiding (hugging) balconies opening to the next ones
4
creating space to be with ground units..
combining - Ground & high rise towers
adding green spaces and defined circulation.