

VERSOVA KOLIWADA

RISK ASSESSMENT

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VERSOVA KOLIWADA

LOCATED IN VERSOVA, ANDHERI. SITE CAN BE ACCESSED BY ROAD AND SEA USING FERRIES. ITS A KOLI COMMUNITY SETTLEMENT. IN VERSOVA KOLI'S LIVE AS A CO-OPERATIVE SOCIETIES WHERE THERE ARE ABOUT 3000 PEOPLE OWNING A FISHING. BUSINESS EMPLOYING FURTHER 5000. IT IS ONE OF THE RICHEST KOLIWADAS IN MUMBAI WITH TURNOVER OF ABOUT 400CR. THEY ARE ALSO THE FIRST ONES TO HAVE REGULATED. FISHING PRICES TO PREVENT UNFAIR TRADE AND ALSO TO HAVE THEIR OWN ICE FACTORY IN MUMBAI. WHILE THE BUSINESS OF FISHING IS MOSTLY A MALE DOMAIN, NEARLY 80% OF THOSE WHO HAWK IT ARE WOMEN. EVERY DAY 20-30 TRAWLERS LEAVE THE SHORE IN THE MORNING AND 30-45 COME BACK AFTER BEING A WEEK IN THE SEA. THERE ARE TWO MARKETS, FIRST THE AUCTIONEERS MARKET AND THE BAZAAR GALLI OF THE FORMAL MARKET. THE PRODUCE LEFT IS SENT TO FISH PACKAGING COMPANIES.

EVERY JANUARY THEY HELD A VERSOVA FISHING FESTIVAL. ABOUT 20 VARIETIES OF FISHES AND CRABS ARE PREPARED IN THE TRADITIONAL KOLI WAY AND SOLD AT ABOUT 60 STALLS. PEOPLE FLOCK FROM ALL OVER MUMBAI TO BE A PART OF THIS FESTIVAL. DRESSING UP IN THE TRADITIONAL KOLI ATTIRE JUST ADDS TO THE EXPERIENCE OF THE FESTIVAL. WITH ANNUAL FOOTFALL OF 25000 PEOPLE THIS FESTIVAL ITSELF RAISES 4CR AND ALSO HELPS INCREASE THE PRICE OF FISHES.

1,000 m



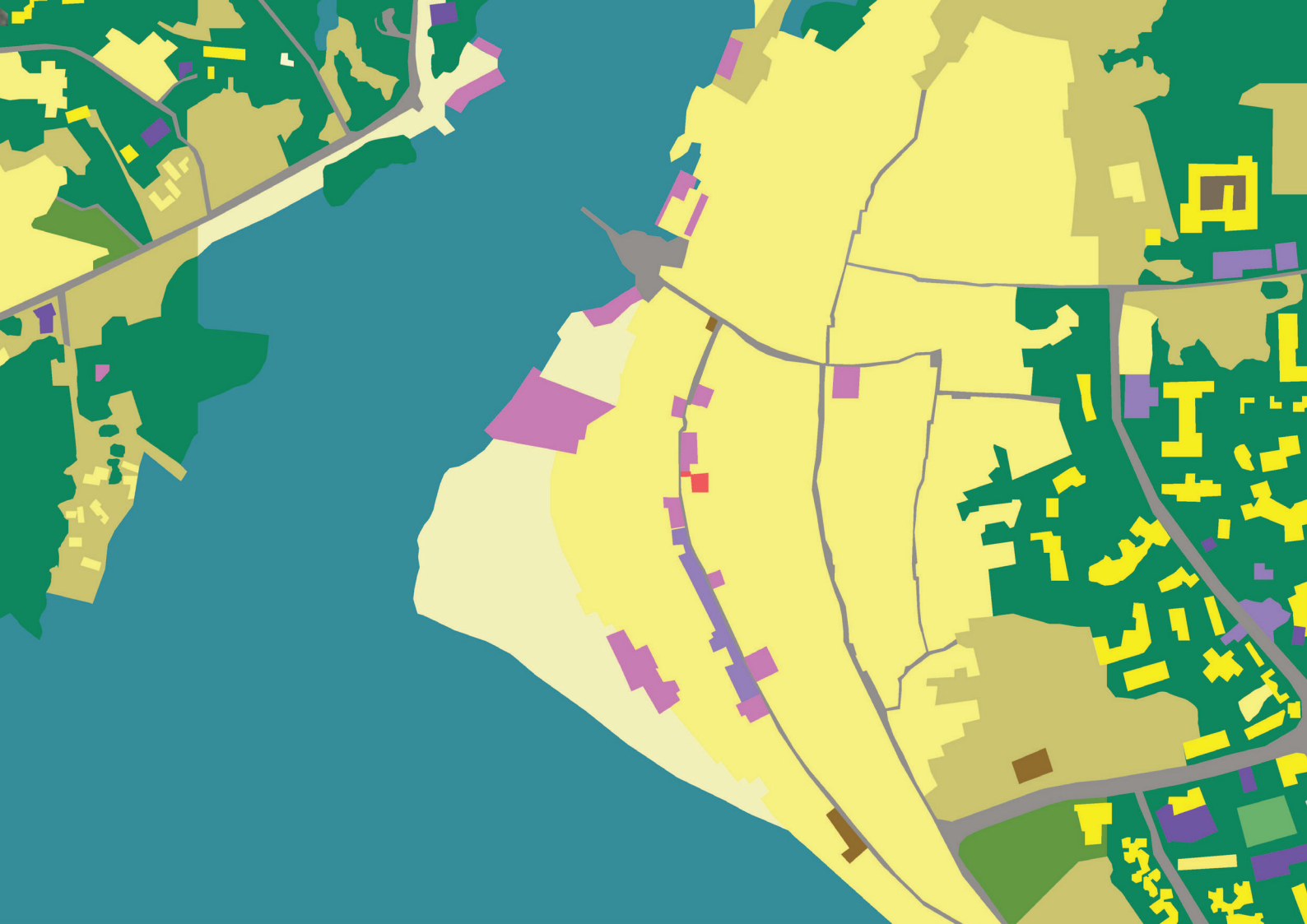
MADH JETTY

ON-SHORE
FISHING
MARKET

VERSOVA
JETTY

BOAT
PARKING

ONLY
OPEN
SPACE



LEGEND

- | | | |
|---|---|---|
|  VERSOVA KOLIWADA RESIDENTIAL |  VERSOVA BEACH |  OPEN SPACES |
|  PRIVATE GATED COLONIES |  FISHING INDUSTRY RELATED SPACES |  COMMERCIAL SPACES |
|  GREEN COVER |  OPEN GREEN SPACE |  RELIGIOUS SPACES |
|  WATER BODIES |  ROADS |  PUBLIC TOILETS |

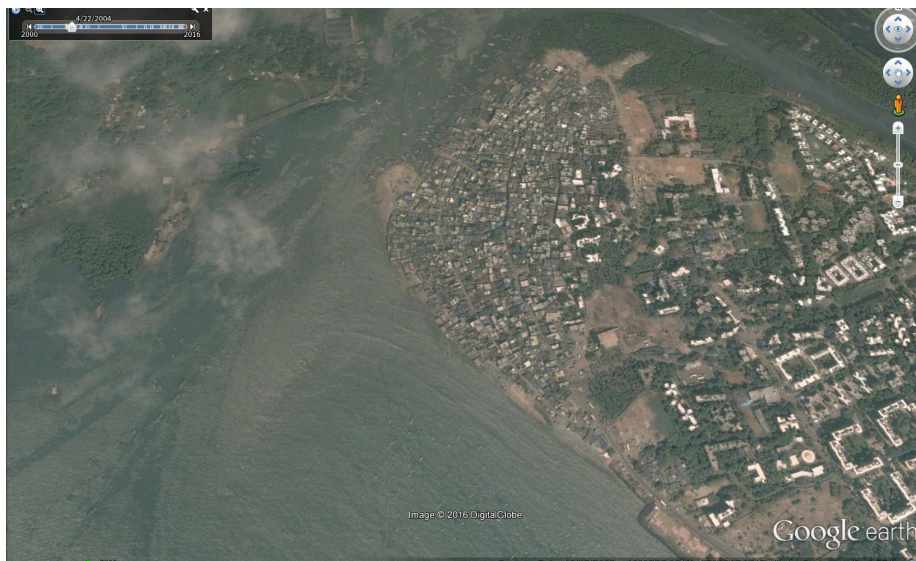
LAND USE MAP

Majority of the activities related to the fishing industry are situated at the edge of Patil Galli, the road has been marked in the 2034 development plan for widening which would in turn would affect the fishing industry. On either side of the road are two markets, one is the auction market for the instant sale and other side is the daily market.

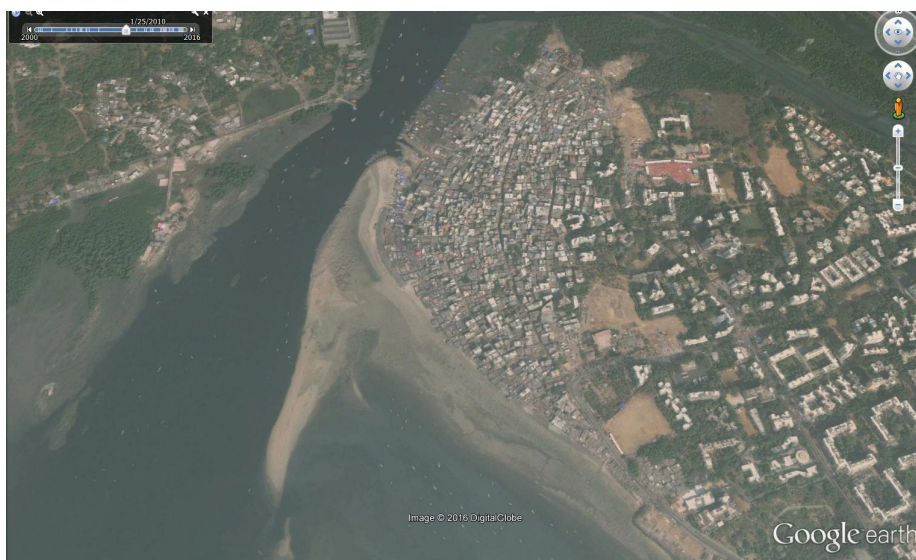




JUNE 2001, ONSET OF MONSOON



OCTOBER 2007, POST MONSOON



JANUARY 2010, WINTER

General observation

Studying the past satellite images we can infer that during the 4 months of monsoon in Mumbai the oliwada gets flooded and the beach which is a main open space and is used for various fishing activities completely submerges. The garbage that is dumped in the creek ends up on the beach. this causes a big sanitation problem.



PROPOSED DEVELOPMENT PLAN FOR 2034
 IT PROPOSES WIDENING OF THE PATIL GALLI(18.3) FROM 6M TO A 18M WIDE ROAD. THIS ROAD WOULD JOIN THE PROPOSED COASTAL ROAD (27.45) AND IN TURN MAKE IT A TRAFFICATED ONE.

Development plan 2034

This plan indicates a road widening project for the Patil galli from current 6m wide road to a 18m wide road. This road passes through the heart of the fishing community and any change in this will affect the community.

Many of the fishing related activities span across this road and is a daily commute for hundreds of people and fishes.

The development plan doesn't account for 108 homes which are right at the sea. These houses are the most vulnerable to flooding and also are the nearest to the garbage dump. Unaccounted houses are more vulnerable as benefits of government policies don't cater to these houses.



Risk assessment - Interviews of the the local residents

NAME	AGE GROUP	OCCUPATION	No. of people in the family	What is their source of livelihood	Type of house	Plinth	Chapra	Toilet- inside the house/common toilet	Is there water supply	Ventilation	Disease caused due to flood and unhygienic condition	Material of the house	Does the house cause any problem during rain	Is the material apt to the weather condition	Till what level does the water get filled during rain	Does the water accumulate with min. rainfall	What actions are taken during the time of water collection	Do they get any help from municipality	What are the other activities happening in the area	Average income	How do you pay for the damage done due to rains	What happens to the assets during monsoon
Shankarrao Keluskar	60 years	fishing	4	fishing	temporary house	No	Yes	common toilet	2 hours a day	no proper ventilation	stagnant water	bamboo/patra	water clog	no	enters house	yes	no actions taken	yes, at times	netmaking	50k p.a	individually	stored in the house.
Dilip Talpade	43 years	fishing	3	fishing	temporary house	no	no	common toilet	once in a day	no proper ventilation	stagnant water	bamboo/patra	water clog	no	enters house	yes	no actions taken	yes	fishing	50k p.a	contributed	stored on the loft.
Shehnaz Ansari	36 years	service	4	govt. job	permanent house	yes	yes	inside the house	twice a day	proper ventilation	garbage	concrete	diseases/epidemic	yes	plinth level	no	no actions taken	yes	netmaking	2 lac p.a	contributed	stored in the house.
Abhimanyu Mhatre	25 years	student	5	part time job	temporary house	yes	yes	common toilet	once in a day	no proper ventilation	garbage	bamboo/patra	diseases/epidemic	yes	plinth level	no	water is removed	no,there is no help	fishing festival	30k p.a	individually	stored in the house.
Sandhya Koli	49 years	fishing	5	fishing	temporary house	no	no	common toilet	once in a day	no proper ventilation	common toilet	concrete	stagnant water	yes	plinth level	no	water is removed	yes, at times	fishing festival	60k p.a	contributed	stored on the loft.
Jayashree Deshpande	29 years	net making	2	net making	permanent house	yes	yes	inside the house	twice a day	proper ventilation	stagnant water	brick	stagnant water	yes	plinth level	no	no actions taken	yes	fish drying	60k p.a	individually	stored in the house.
Mahendra Shinde	35 years	net making	4	net making	permanent house	no	no	common toilet	once in a day	proper ventilation	unclean plinth	brick	diseases/epidemic	no	enters house	yes	water is removed	yes	netmaking	30k p.a	individually	stored in the house.
Junaid Khan	68 years	retired	3	pension	temporary house	yes	yes	inside the house	twice a day	no proper ventilation	stagnant water	concrete	water clog	yes	enters house	yes	water is removed	no,there is no help	school	60k p.a	contributed	stored on the loft.
Shridhar Pawar	58 years	fishing	3	fishing	permanent house	yes	yes	inside the house	twice a day	proper ventilation	garbage	bamboo/patra	diseases/epidemic	no	plinth level	yes	no actions taken	yes	school	3lac p.a	individually	stored in the house.
Mayur Khodgaonkar	28 years	wine shop	4	shop business	permanent house	no	no	common toilet	once in a day	no proper ventilation	garbage	concrete	water clog	yes	enters house	yes	no actions taken	yes, at times	mosque	3lac p.a	individually	stored in the house.
Vilas Ghatvilkar	45 years	sweet shop	4	shop business	permanent house	yes	yes	inside the house	twice a day	proper ventilation	stagnant water	concrete	no	yes	plinth level	no	no actions taken	yes, at times	fish market	5lac p.a	individually	stored on the loft.
Janki Doshi	38 years	sugarcane juice shop	3	shop business	permanent house	yes	Yes	inside the house	twice a day	proper ventilation	garbage	brick	water clog	yes	enters house	yes	water is removed	yes	fish market	3lac p.a	individually	stored on the loft.
Mohit Deshmukh	22 years	grocery shop	5	part time job	temporary house	no	yes	common toilet	once in a day	no proper ventilation	common toilet	patra	diseases/epidemic	no	enters house	yes	water is removed	no	school	3lac p.a	contributed	stored in the house.
Azim Shaikh	30 years	stationery and toy shop	3	part time job	temporary house	yes	yes	common toilet	once in a day	no proper ventilation	unclean plinth	bamboo/patra	water clog	no	enters house	yes	water is removed	yes	classes	3lac p.a	contributed	stored in the house.



Major risk : flooding during the monsoon

People in Versova koliwada have been facing severe sanitation problems. People staying right at the edge of the sea are getting the brunt of it. This problem is caused by dumping of garbage on the beach. Which results in the fishing, plastic and the other waste materials floating in the sea, all of which comes in with the sea water during the monsoon.

Also at a city level, the goregaon nala flows out quite near the Koliwada, this causes bad odour and various different kinds of unsegregated garbage to flow into the water near the village.

Vulnerability : Poor drainage system and housing

A lot of water that flows in doesn't flow out easily as the village is almost at sea level. the houses too are quite vulnerable too flooding and the dampness causes major risks of structural stability and formation of poisonous moulds.

Cascading risk: Mosquitoes and diseases

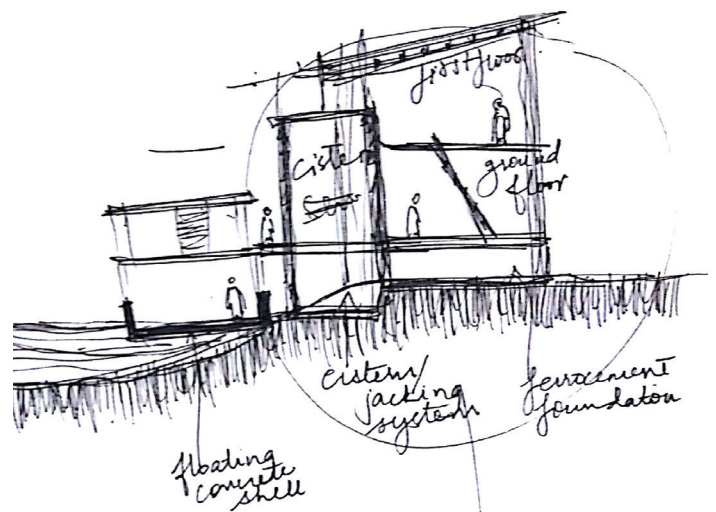
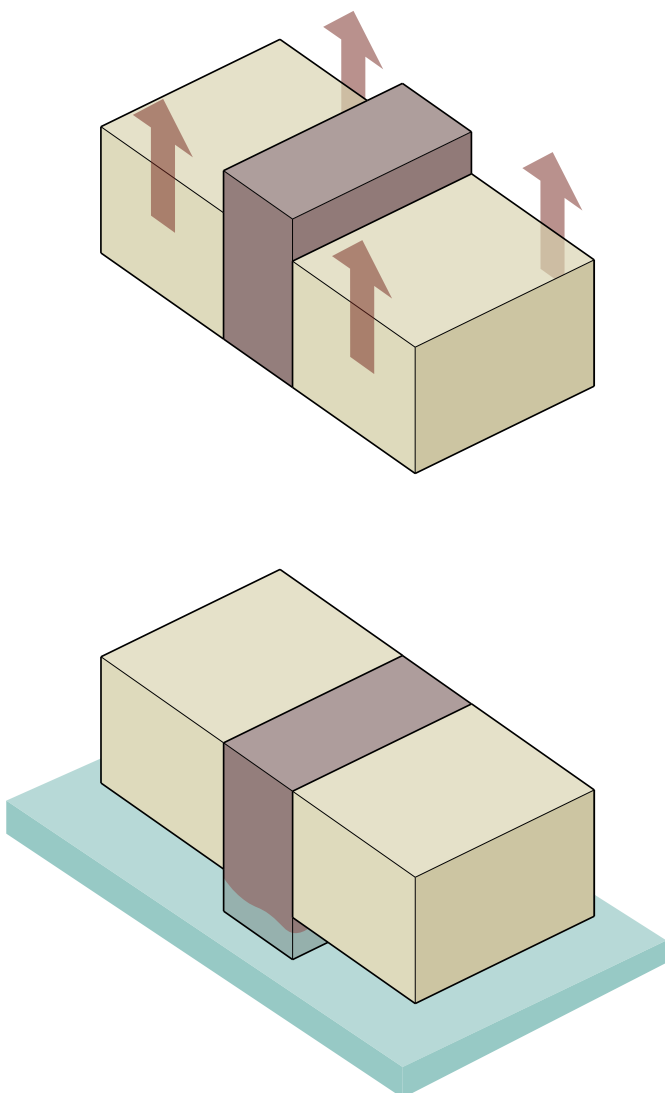
A lot of the water remains stagnant in the various nooks, crevices, plastic bags and other wate, this becomes a ground to breed mosquitoes and in-turn increases chances of spreading diseases like dengue and malaria.

Housing Strategy

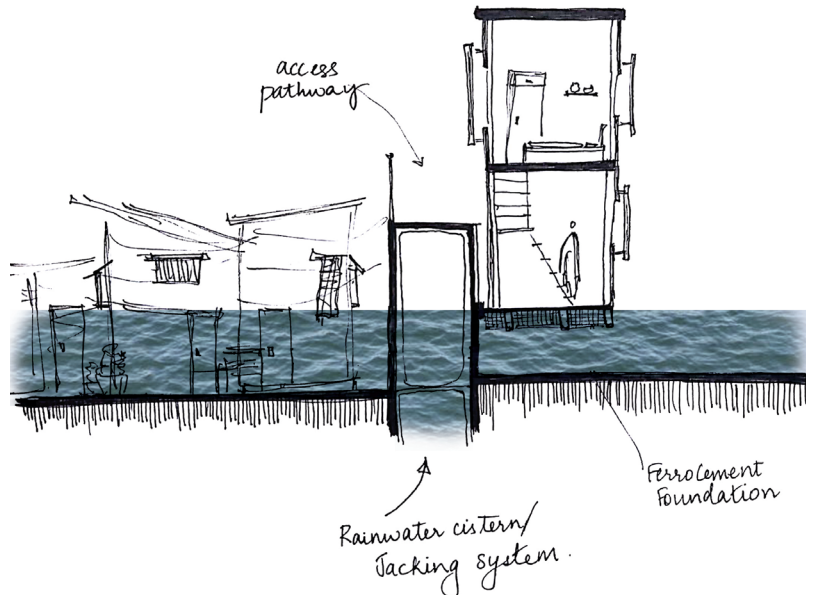
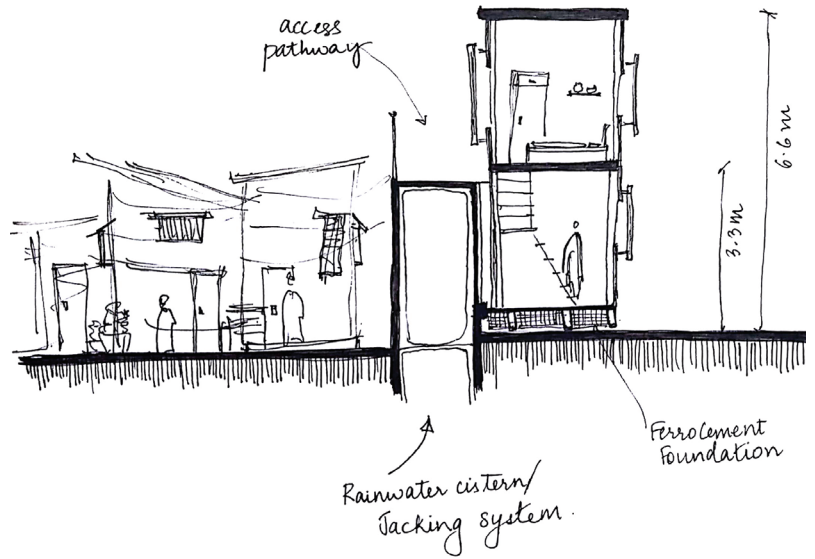
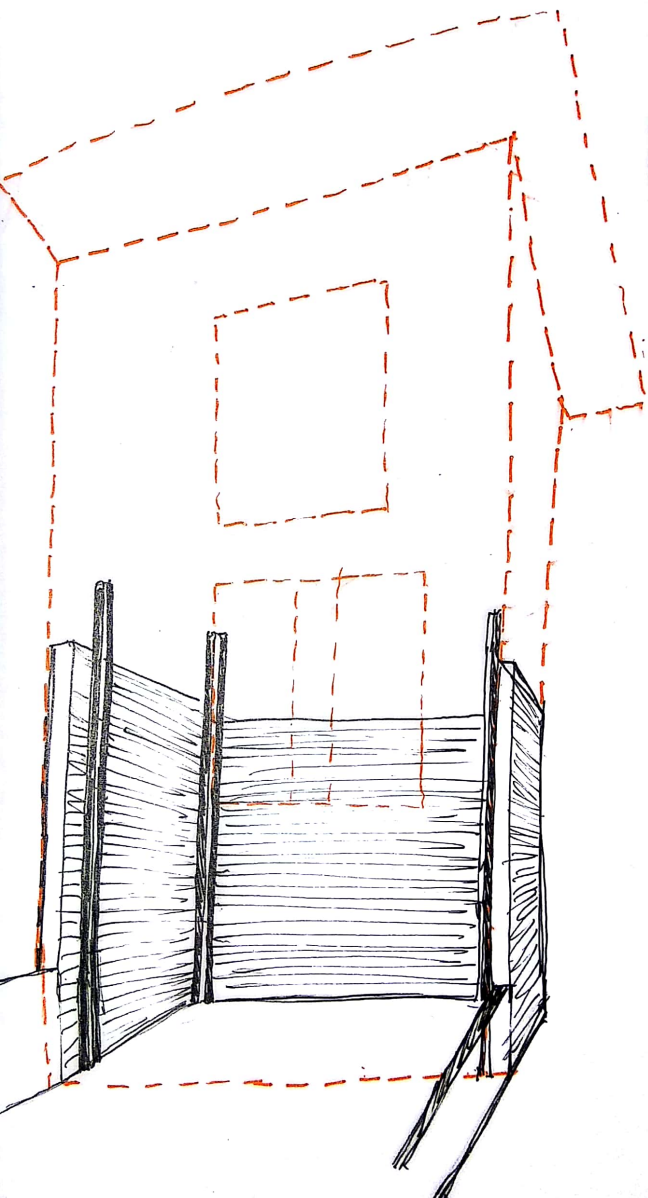
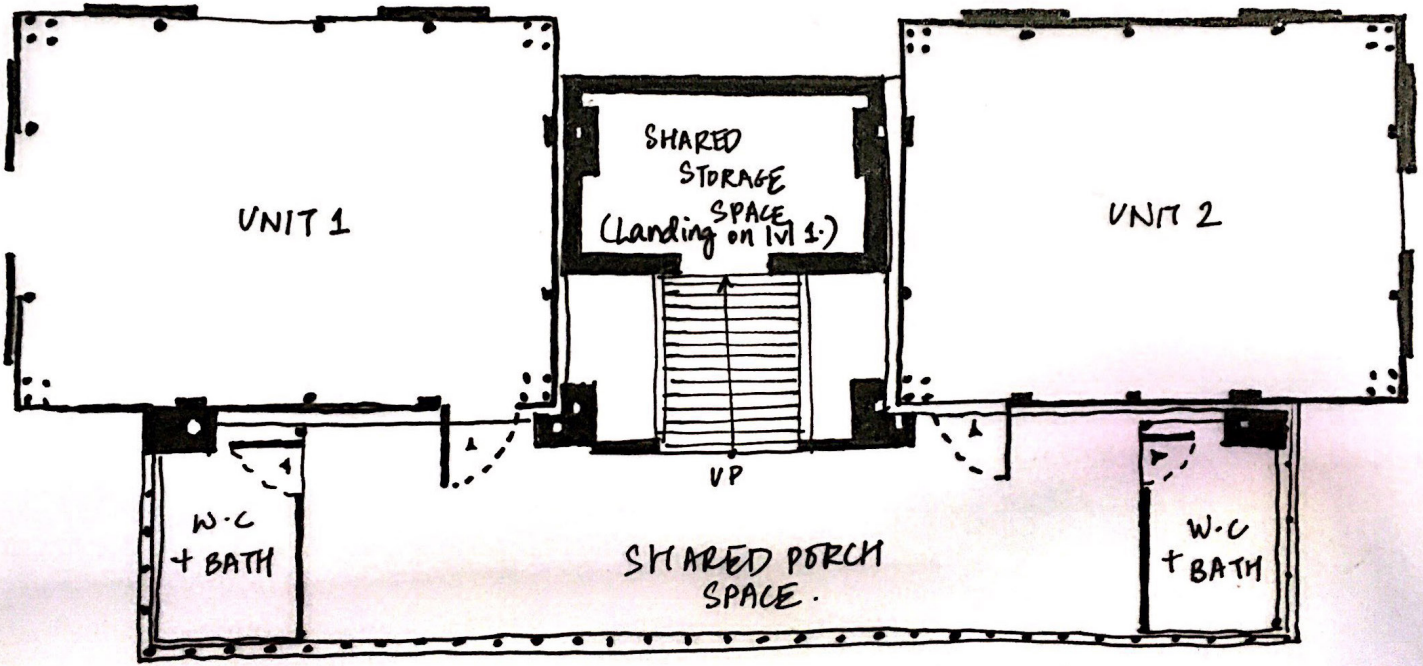
The design is imagined to provide an alternative for the current area which is prone to flooding. With the same reason, in the 2034 DP they have been not mapped. To make this settlement sustain, it's necessary that this settlement withstands the main risk that is flooding.

It is a module which stands on both land and water. The entire module is held by the RCC core consisting of staircase and toilet .

The dwelling units on the side rise or sink on the basis of water level. They are imagined to have a jacking system to make this possible



central core having staircase / toilet
can be RCC core which holds together .
+ jacking system that goes up and down during floods.



GROUP MEMBERS:

AKANKSHA BAJAJ

AAKANKSHA JAIN

AKSHATA JANGAPALLE

AMI MODY

HETVI BHEDA

HITANSHI MEHTA

NILAY SHAH

SAURAVI BAWISKAR

SOHAN TARI