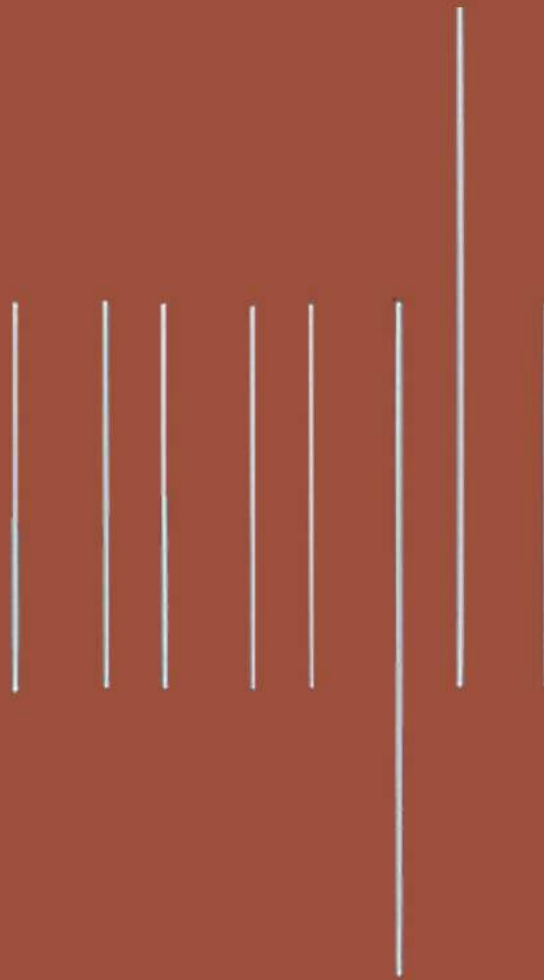


# ARCHITECTURAL PORTFOLIO

MUSKAN SHARMA





Muskan Sharma

### About Me

As an avid Architecture enthusiast by nature, Travelling is my favourite thing to do as it brings me peace. Rather than the usual glam and glitz, I find beauty and comfort in simplicity and minimalism.

### Personal

Birthdate 30th July 1997  
Nationality Indian  
Language Hindi, English

### Contact

+91 - 9407244489  
ms430917@gmail.com

# Curriculum Vitae

## Education

Carmel Convent School, Gwalior  
Higher Secondary School

SDPS College Of Architecture, Indore  
Bachelor Of Architecture  
2015-2020

## Social Skill

Leadership  
Sensitive Thinking  
Team Work  
Empathy  
Presence Of Mind  
Active Listening

## Software Skill



Autocad



Revit



3d Max



Sketch Up



Lumion



Photoshop



Twin Motion



MS Office

## Publication

Revival Of Post Independence And  
Contemporary Architecture For Human Causes

Author: Muskan Sharma  
International Journal Of Research and  
Engineering, Science and Management  
[IJRESM]

## Interest



## Work Experience

2018 Pandey Associates, Gwalior  
As Intern Architect  
(2 Months)

2019 Sthapatya, Jaipur  
As Intern Architect  
(6 Months)

2020 IDIEQ Maker Space, Haldwani, Nanital  
As Intern Architect  
(6 Months)

## Participation

2019 120 Hours  
International Architecture Competition

2018 Sky Walk Design

Wade Asia International Competition  
2018 Berkeley Prize Eassy Writing

International Architecture Competition  
2018 Nari Gandhi Trophy,

By NASA India  
Special Mention 2

2017 CTBUH  
International Tall Building Competition

2017 Louis I Khan Trophy

By NASA India  
2016 59th Annual Nasa Design Competition

By NASA India  
Shortlisted In Top 100

2016 Laurie Baker Trophy

By NASA India  
Shortlisted In Top 8

## Workshops

2018 Griha

60th Annual NASA Convention

2018 The Open Box-Pinewood Workshop

59th Annual NASA Convention

2017 Parametric Workshop

By Shripad Bhalerao

2017 Mud, Bamboo and Rubble Masonary

By Laurie Baker Centre, Trivandrum, Kerela

## Seminars/Conferences

2018 Raj Rewal

Seminar by Wade Asia

2018 Revathi Kamath

Seminar by Wade Asia

2018 Namita Singh

Seminar by Wade Asia

2018 Madhvi Desia

By SDPS College

2018 Women Designer Architects and Artist of Asia  
Conference by Wade Asia

# Content

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## Academics

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Interpretation Centre 05  
Mandav

Urban Design 07  
Pipliyana Square, Indore

## Miscellaneous

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Workshop 09  
- Mud, and Bamboo  
- Parametric,  
- Open Box

## IDIEQ Internship

---

Resort At Pangot 11  
Designed using Earthbag as material  
and build a low cost project

Makers Space 17  
A Studio designed for Architects using  
shipping container

Residence At Bhatroj Khan 19  
Detail Drawings of a holiday  
home at mountains

## Sthapatya Internship

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Residence of Manoj Tongra 20  
Farm House

Zen Garden 20  
A small garden of a residence designed  
on the theme of Japanese garden



# INTERPRETATION CENTRE

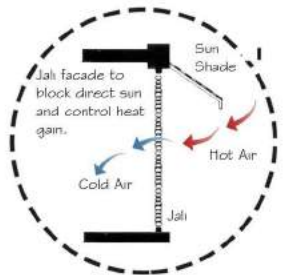
Interpretation Centre, an institution for dissemination of knowledge of natural or cultural heritage. A museum associated with visitors centre. Designed considering the heritage importance of mandav.

The centre is designed after studying the Baz-Bahadur Palace of mandu. Its architecture style, elements, spaces has been used in the design of the centre.

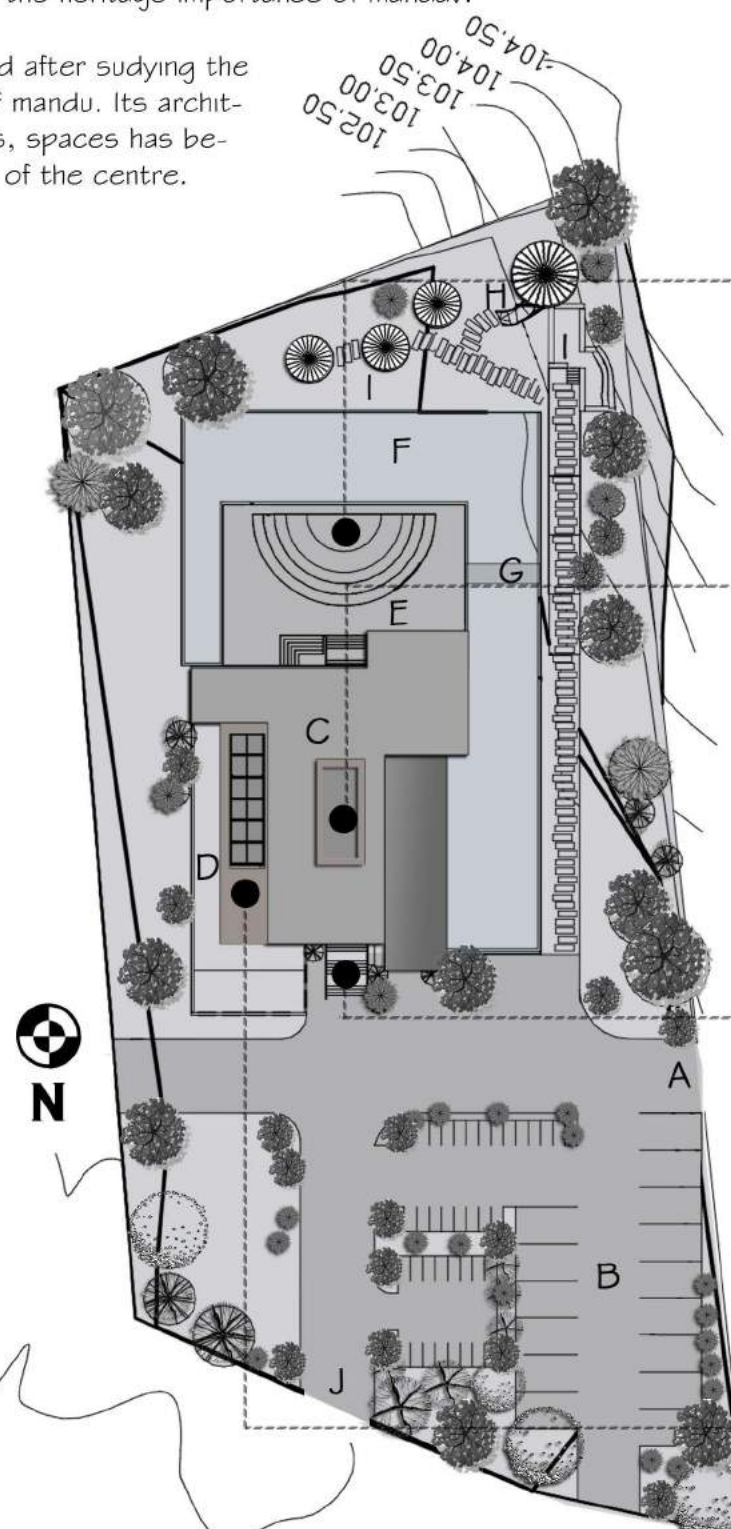
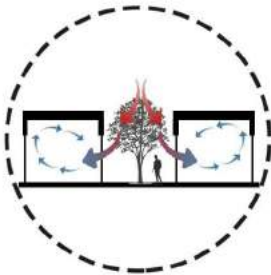
### LEGEND

- A. Entrance
- B. Parking
- C. Building Block
- D. Open Workshop Area at Lower Ground
- E. OAT
- F. Water Body
- G. Bridge
- H. Cafe
- I. Sitting Area
- J Exit

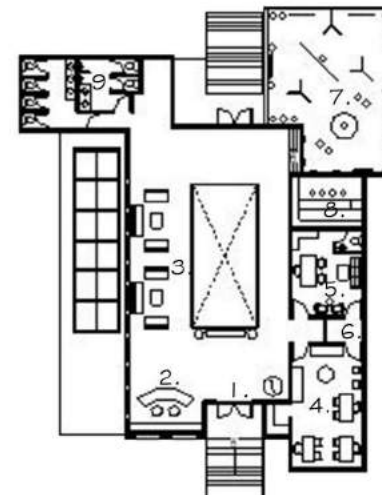
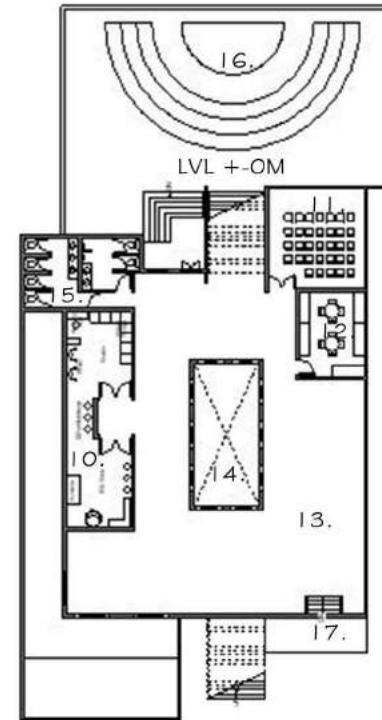
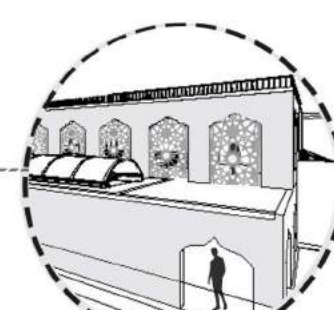
### Climatic Elements



Hot air converting to cool through small opening creating venturi effect.



### VIEW

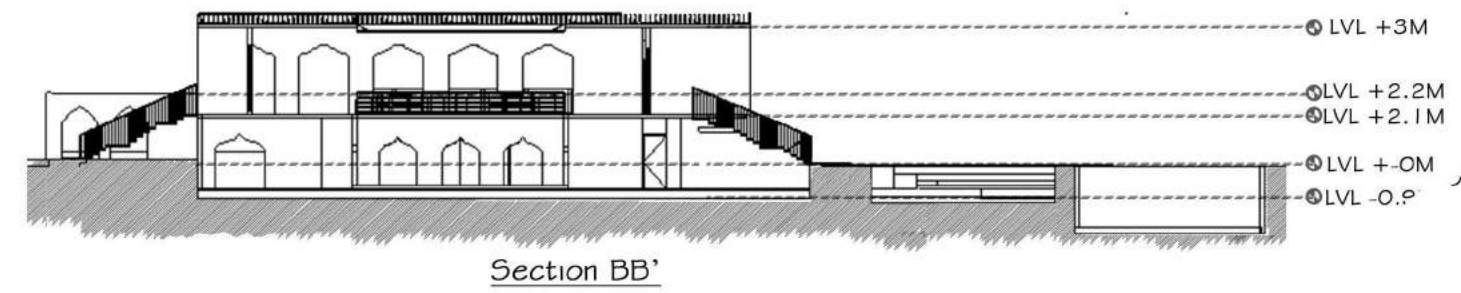
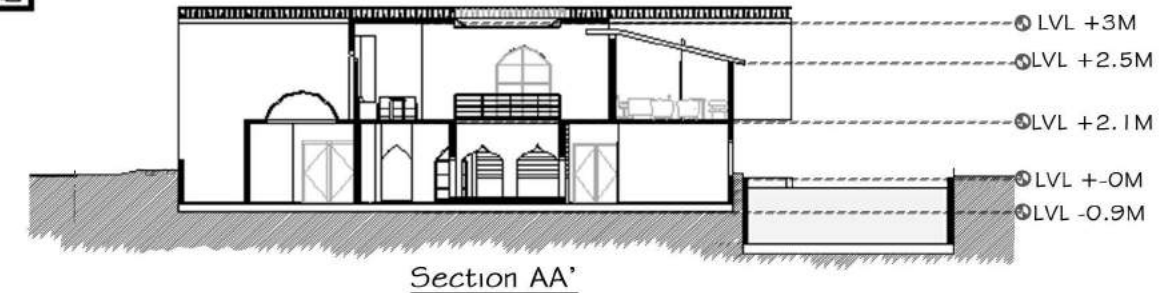
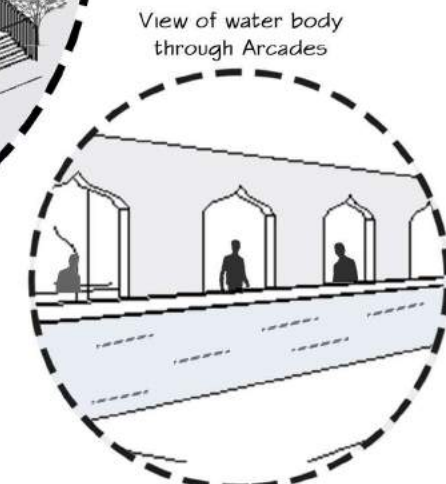
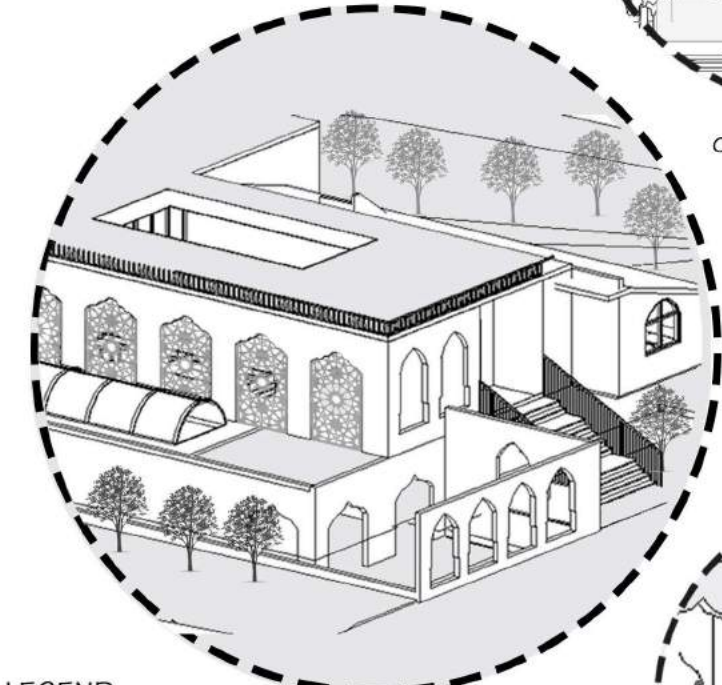


### LEGEND

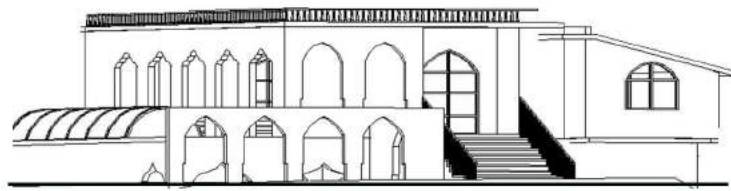
- 10. Workshop
- 11. Mini Theatre
- 12. Library
- 13. Exhibition Space
- 14. Pottery Display
- 15. Common Washroom
- 16. OAT
- 17. Entry

### LEGEND

- 1. Entrance
- 2. Reception
- 3. Waiting Area
- 4. Accounts Office
- 5. Director's Cabin
- 6. Open Area
- 7. Exhibition
- 8. Souvenir Shop
- 9. Common Washroom

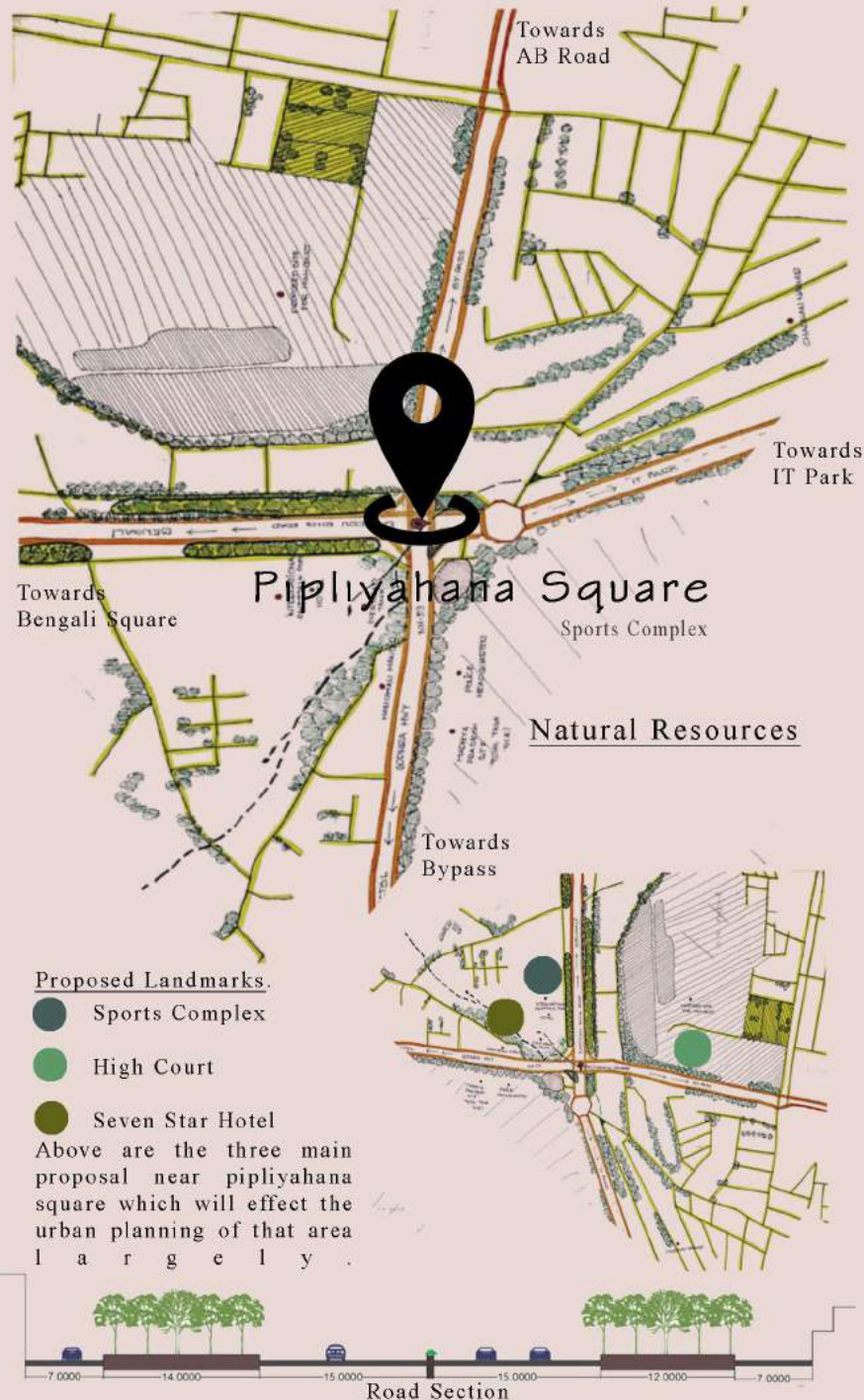


# CENTRE AT MANDAV



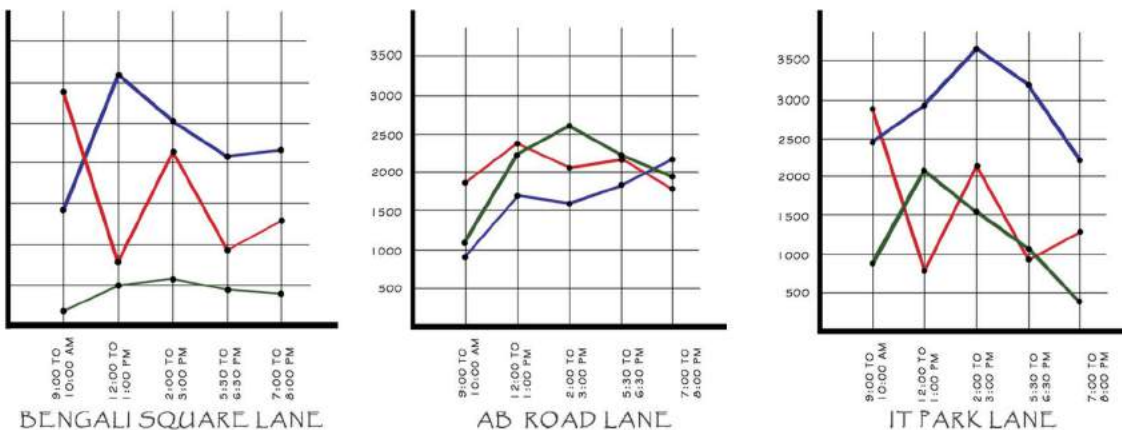
# Urban Design

## Pipliyahana Square, Indore

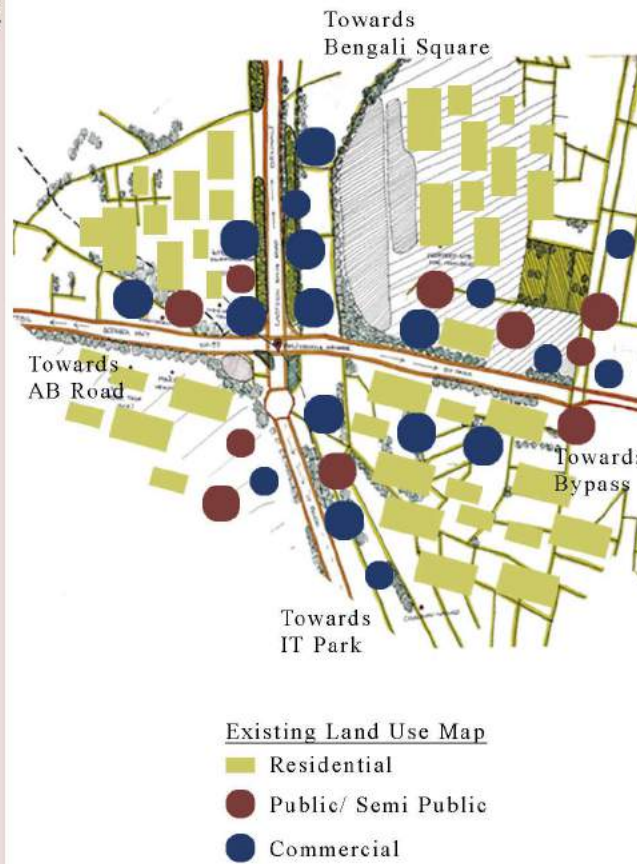


Traffic Analysis was done by analyzing the number of vehicle and its flow. It was analysed due to heavy flow on each lane coming towards pipliyahana square was creating congestion on the square.

■ SUNDAY  
■ SATURDAY  
■ MONDAY

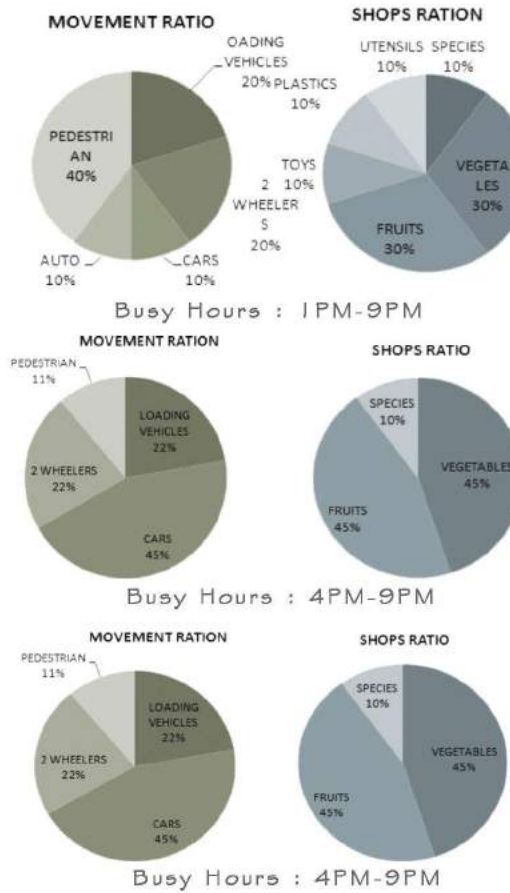


### TRAFFIC ANALYSIS



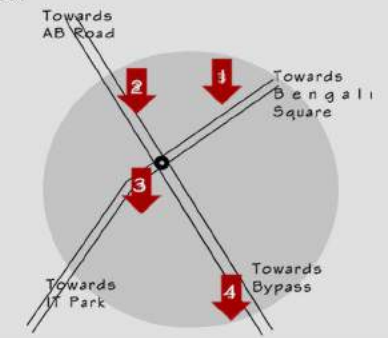
### PROPOSED FLYOVER ON PIPLIYAHANA SQUARE

The vehicles coming from four sides towards the square and also the pedestrian circulation on main road due to the absence of footpath create congestion on the square, due to which rate of accident has been increasing day by day. Due to this problem of heavy traffic and increasing rate of accident on pipliyahana square, flyover is proposed diverting the flow coming from bengali square towards It park or visa versa.



### HAAT

Haat only opens on monday at four different spot near square. It acts as a source of income for the vendors coming from near by villages. Haat is one of the major reason of congestion on the square.



### S.W.O.T

**STRENGTH**

- Major intra and inte city routes.
- International level projects are proposed
- Accessibility
- Haat generates source of employment for vendors.

**WEAKNESS**

- No proper parking for near by landmarks.e.g. Hospital, Haat.
- No pedestrian Path.
- Congestion
- No proper bus stop.
- Water shortage.

**OPPORTUNITY**

- Pipliyahana Lake can be developed as point of attraction.
- Because of flyover traffic congestion will reduced.
- Expansion of economic activities.

**THREAT**

- Illegal Encroachment(vendors).
- Accident prone area.
- The area under flyover can be misused.

### CONCLUSION

- Parking areas
- Under Flyover
- Government land
- Widening of godra highway:provision of servie road and footpath.
- Permanent bus stops.
- Provision of haat under flyover.
- Pedestrian pathway.

### INTERVENTION CAN BE DONE

- Jogging track and interacting spaces.
- Dead into liable spaces.
- spaces under flyover can convert into green spaces.

### HIGH COURT



SITE AREA - 37.58ACRES  
BUILT UP AREA - 35.69ACRES

Phase	Components	Details
Phase-1	Basement Parking floor	340 Car Parking Capacity
	Main Court Building	141 *84 Court Room
	Auditorium Building	1000 person capacity
	Multi Level Parking	Space for 1284 Vehicle, Each floor 214
	Service Building	BG+1 (Allied Activities)
Site Development		

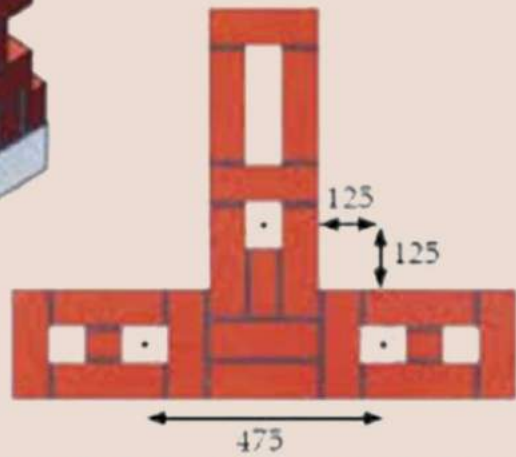
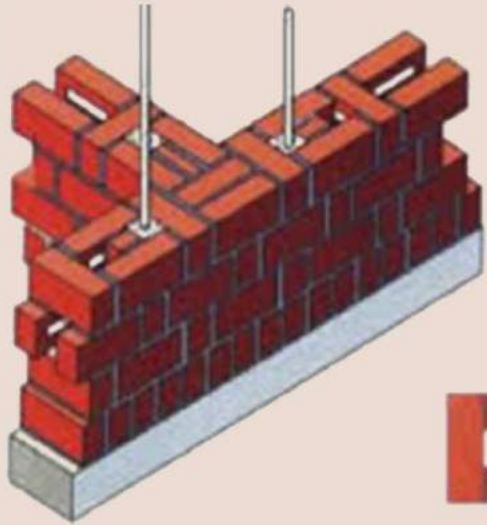
### CONSEQUENCES

- Will have the foot count of minimum 4000people.
- Due to heavy foot count, the traffic count will also increase on the godhara highway (main road going towards bypass from the square)
- The road width of the main road is not enough to take the load of more vehicles.
- Due to which engestion will increase more, and the problem will increased.



## Rat Trap Bond Masonry

An innovative 9" thick brick wall masonry bond that uses brick on edge on the inside and outside, creating an air cavity in the middle. Every alternate brick is taken across to bond and increase strength. This helps to create a wall with 30% better insulation property and saves material use.



## Brick Arch

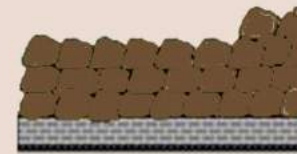


## Cob Construction

Cob is a natural building material made from subsoil, water, fibrous organic material (typically straw), and sometimes lime. Cob is fireproof and uses low-cost materials. Cob walls are laid in courses, each one being left to completely dry before the next one is laid. Cob is a mixture of approximately 1 part clay, 4 parts sand and 1 part straw.



Typical Cob for a 24" thick wall



Courses Laid from Cob



## Random Rubble

Random rubble walls, for which rough dressed stone are piled up in courses without mortar with varying size of stones.



Sort Stones before laying



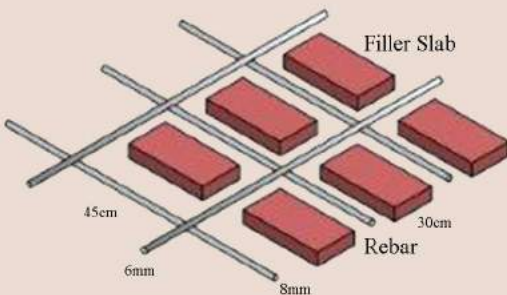
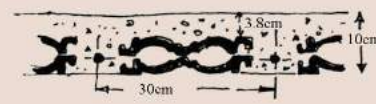
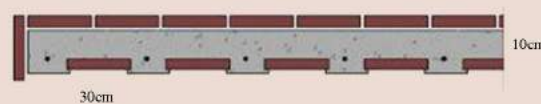
## Parametric Pinewood



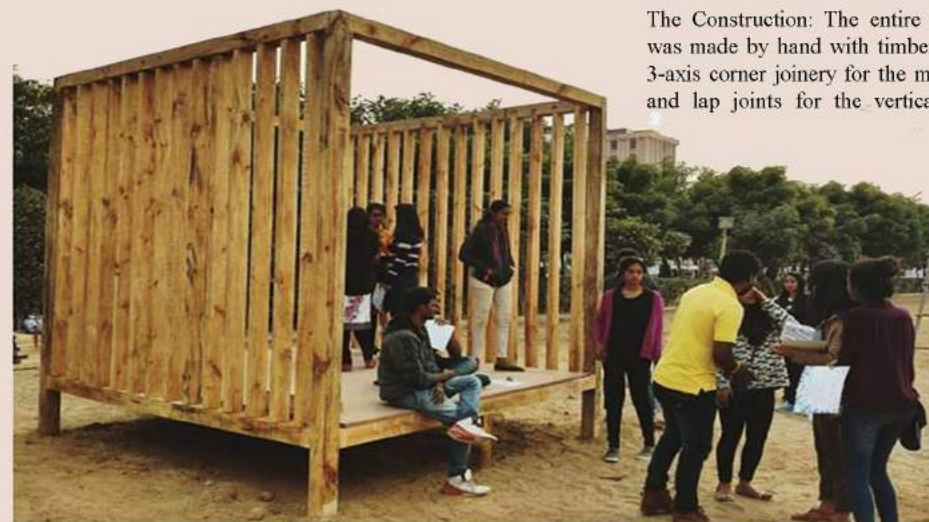
A Pavilion constructed using pinewood.

## Filler Slab

Another innovative technique used in some parts of India, where the non performing parts of a concrete slab are replaced with an inexpensive and inert material like a terrakota tile or clay brick. The reinforcement is designed to allow these blocks to sit exactly in between while preparing the slab for casting. The technique saves on the volume of concrete used as well as create an interesting pattern from below.

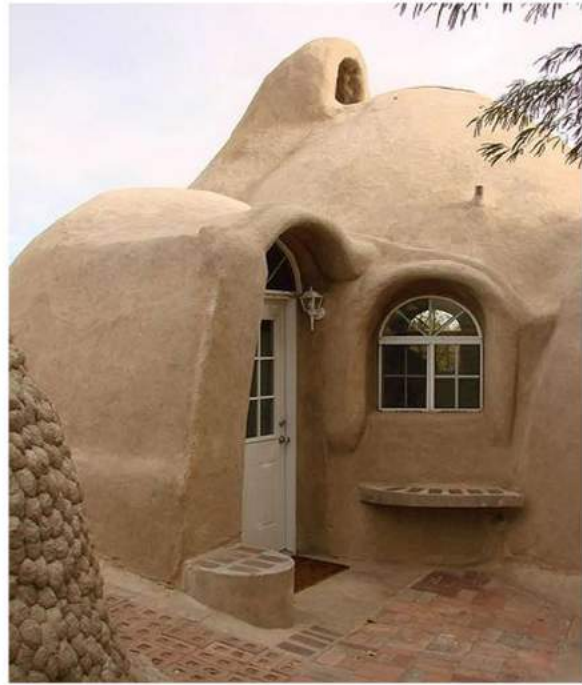


## The Open Box Project



An open pavilion that becomes a node in a large open ground and provides a space for students to hangout. The Construction: The entire structure was made by hand with timber using a 3-axis corner joinery for the mainframe and lap joints for the vertical fins.

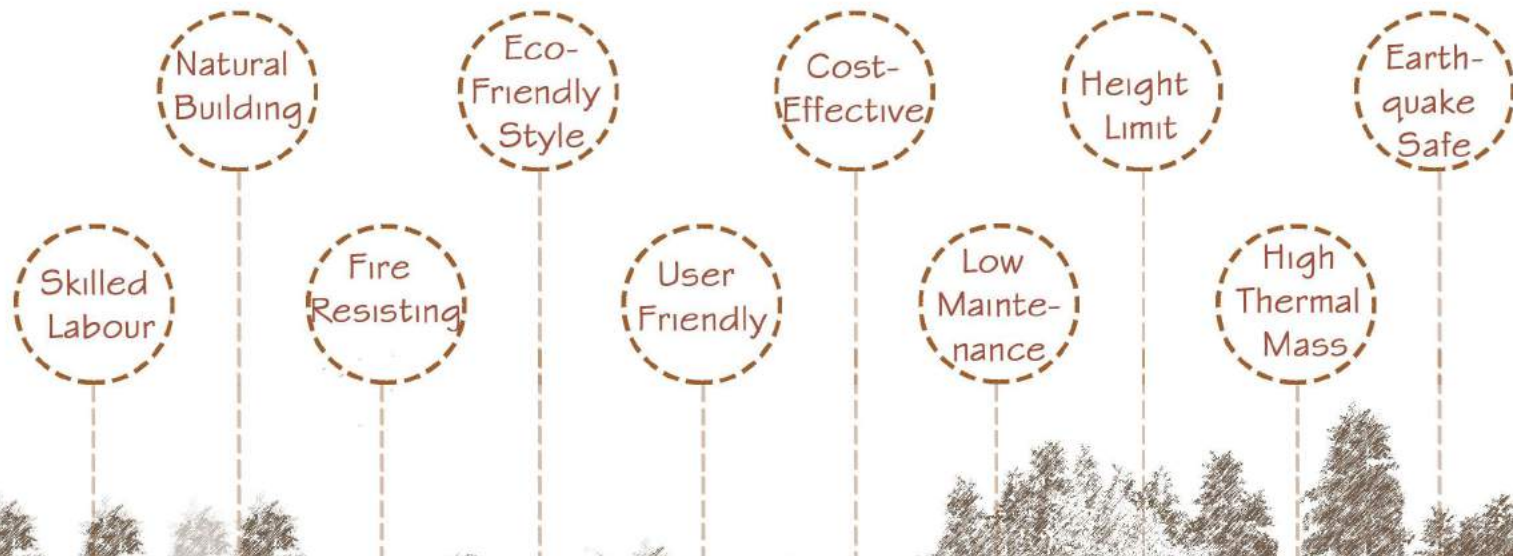




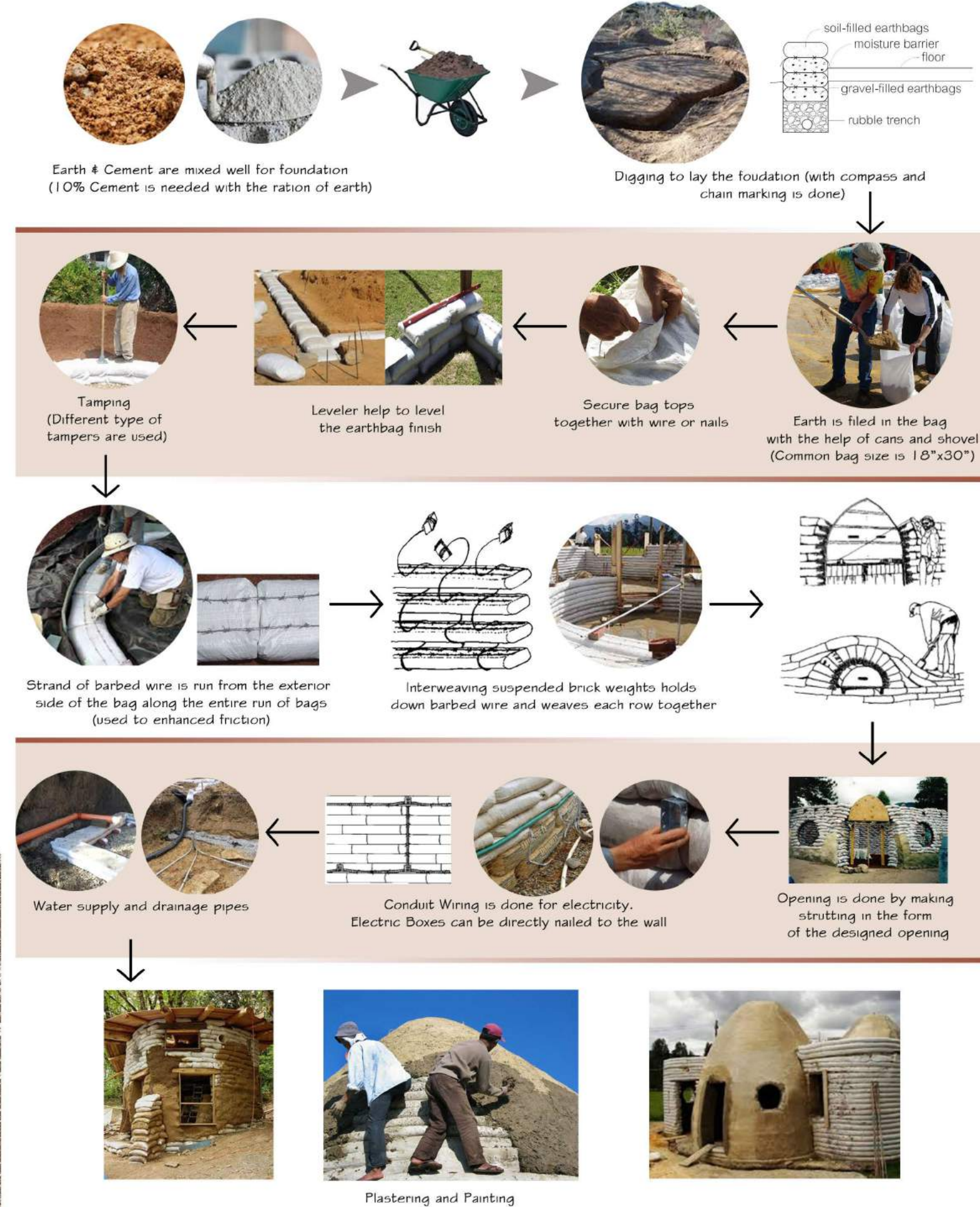
Earthbag structures are mainly located in hot, dry climates. These building has the unique advantage of providing either thermal mass or insulation, and therefore can be adapted for cold climates with an insulated fill material.

The Earthbag walls are 35 cm thick, but the buttress is formed by a double Earthbag (70 cm thick). The Earthbag dome roof has an average thickness of 28 cm. The continuous polypropylene bag contains an earthen mixture of on-site earth and construction sand in a 1:1 proportion. Slaked lime in water was used as stabilizer, in approximately 10% of the total earthen volume. The sieve analysis showed that the earth mixture contained in weight: 0.80% fine gravel, 92.21% sand, 3.42% slime and 3.57% clay. The earth mixture was manually rammed.

## BUILDING PROPERTIES

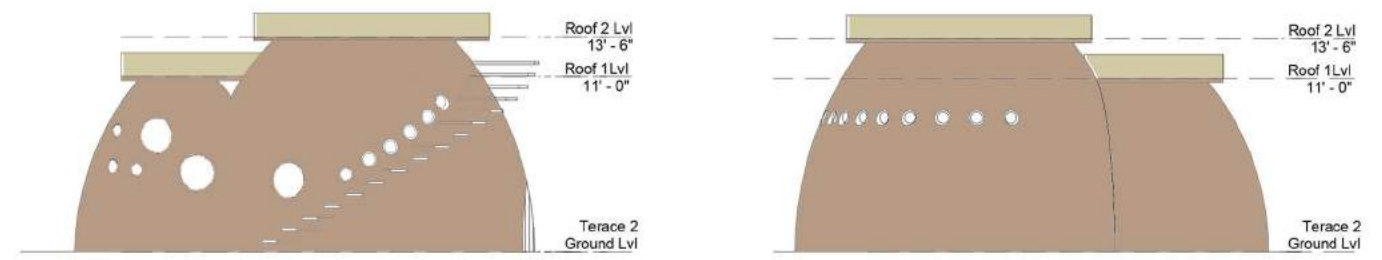
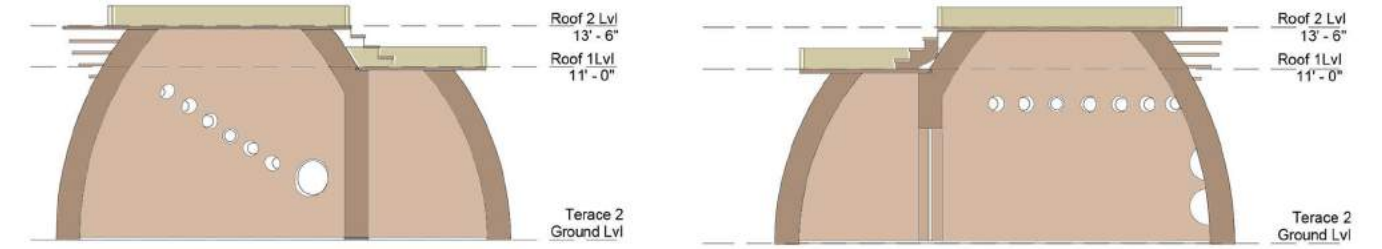
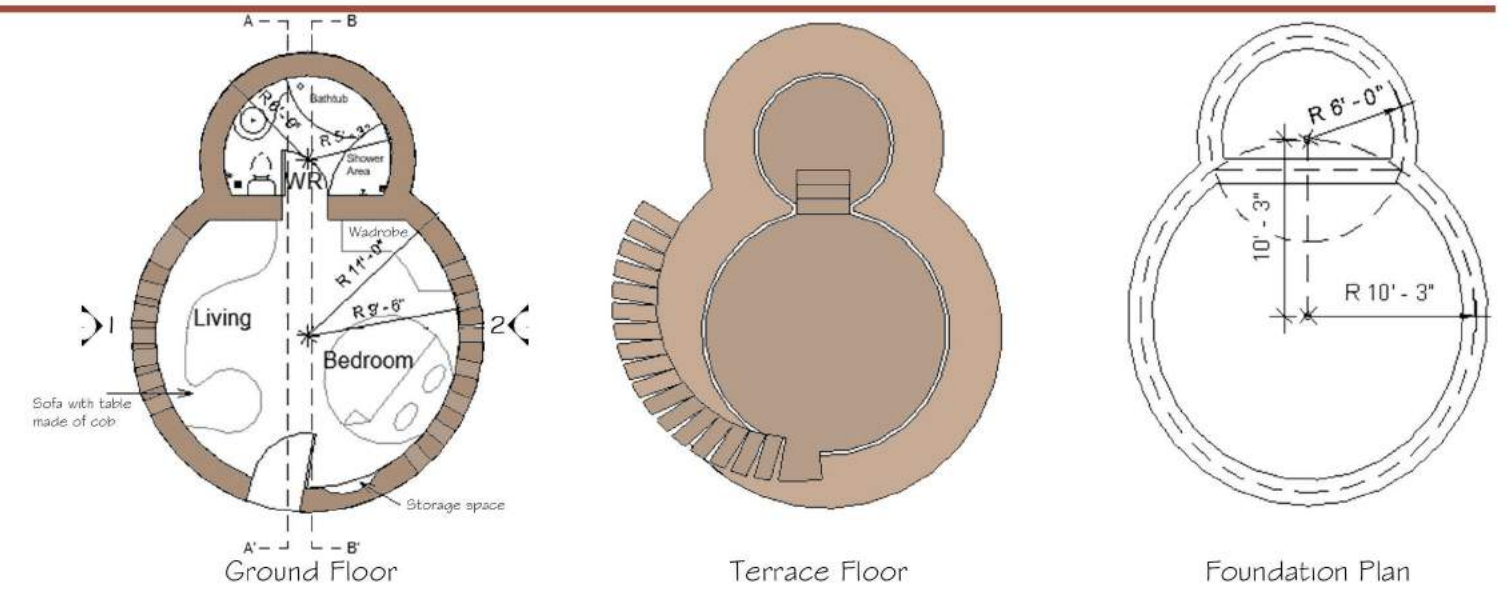
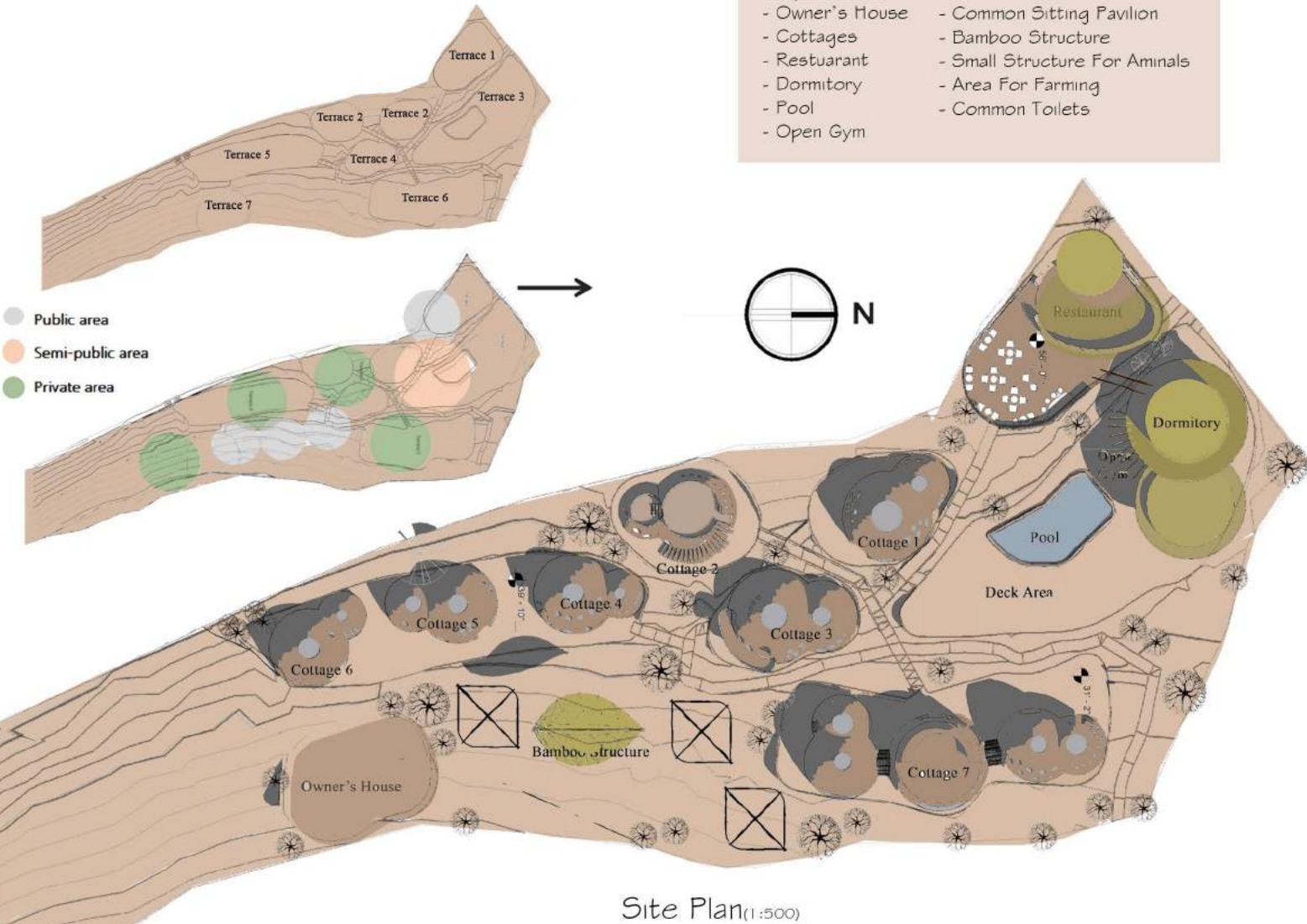


## PROCESS OF CONSTRUCTION

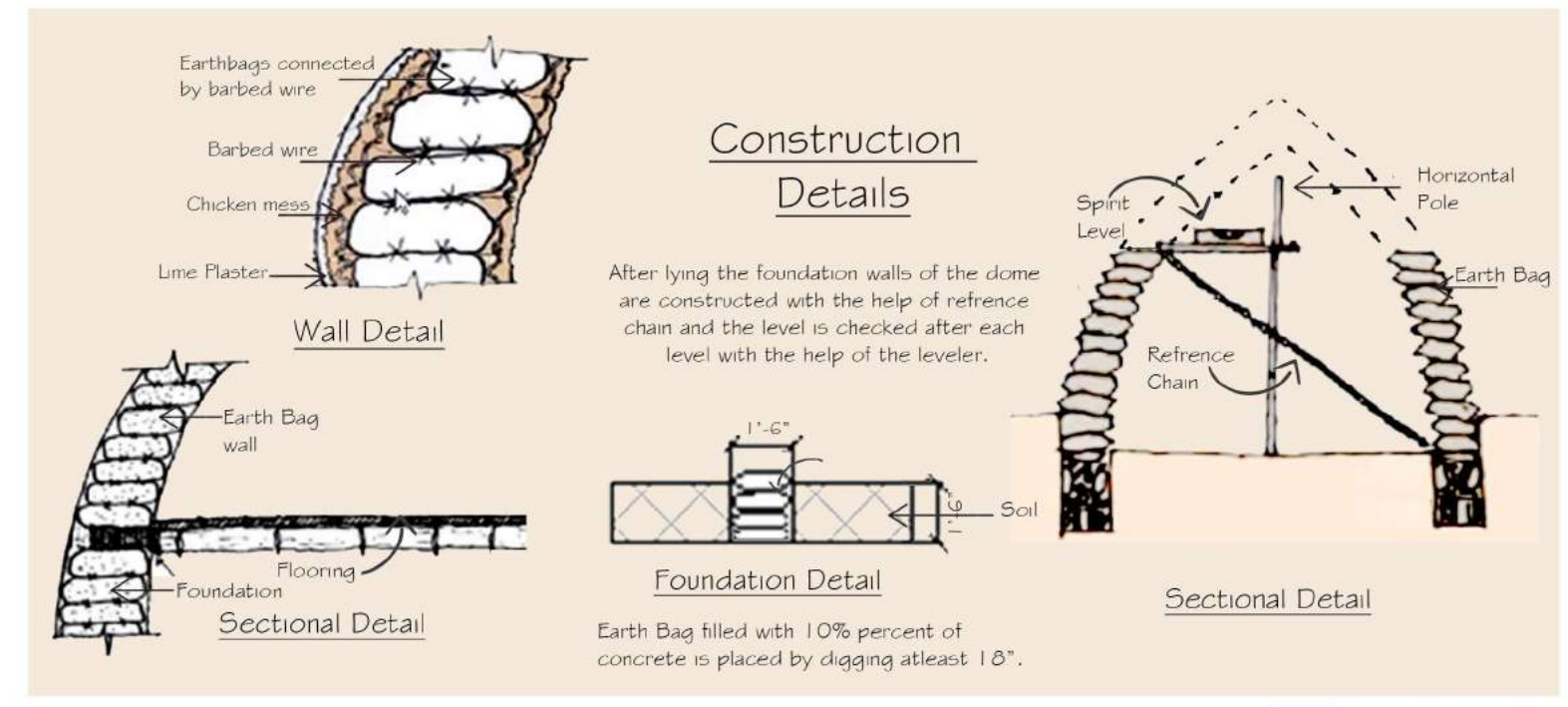


Pangot, Nainital District, Uttarakhand  
 Client's : Mr. Sameer & Jalaj Arora

- Requirements**
- Owner's House
  - Cottages
  - Restaurant
  - Dormitory
  - Pool
  - Open Gym
  - Common Sitting Pavilion
  - Bamboo Structure
  - Small Structure For Animals
  - Area For Farming
  - Common Toilets



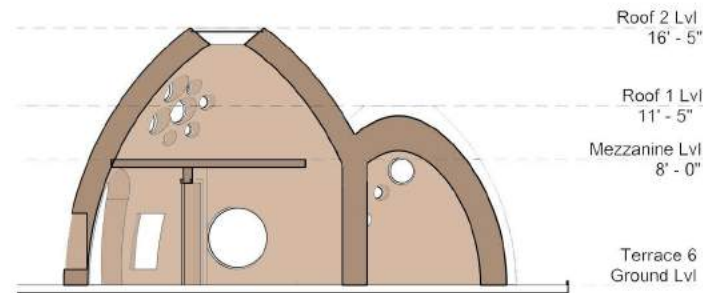
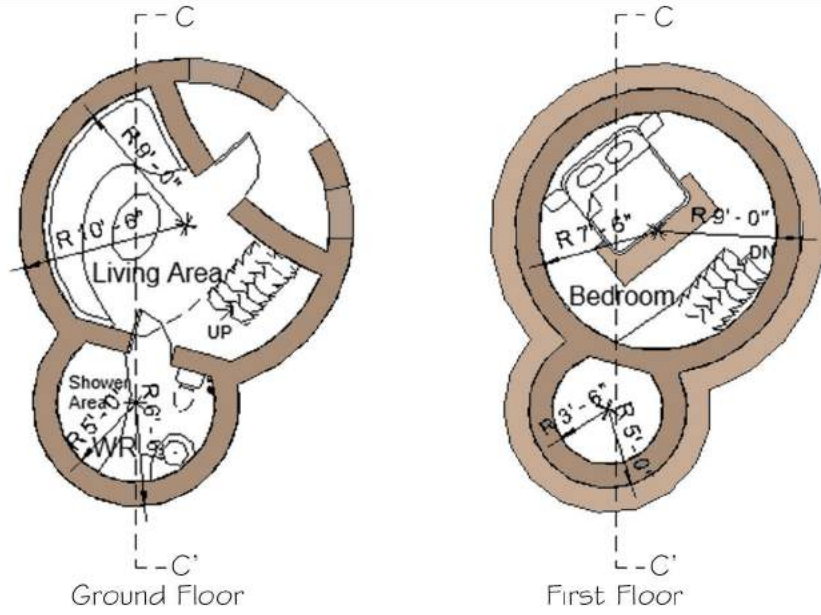
Views From The Site





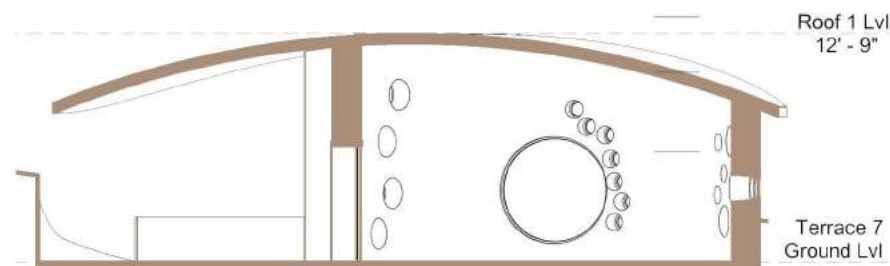
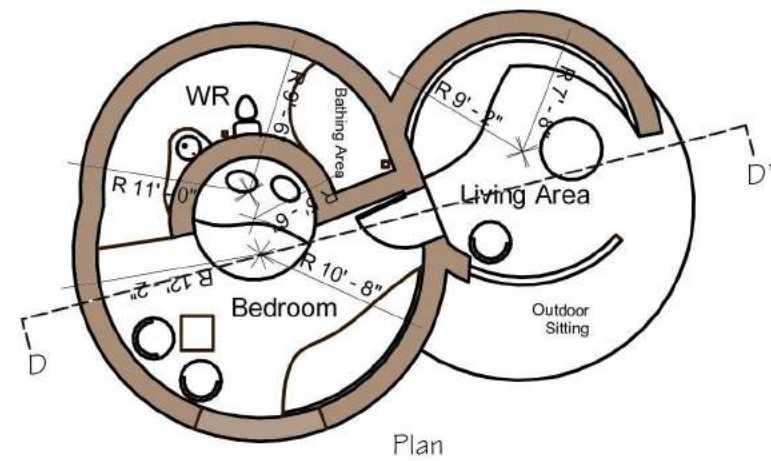


Cottage (Terrace 5)



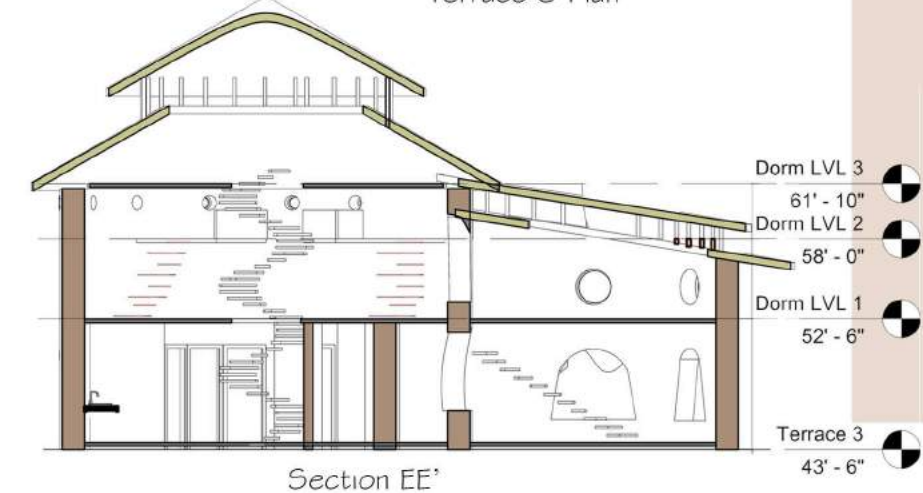
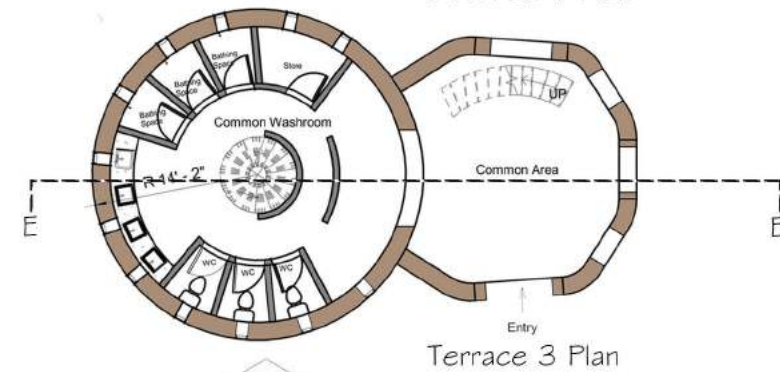
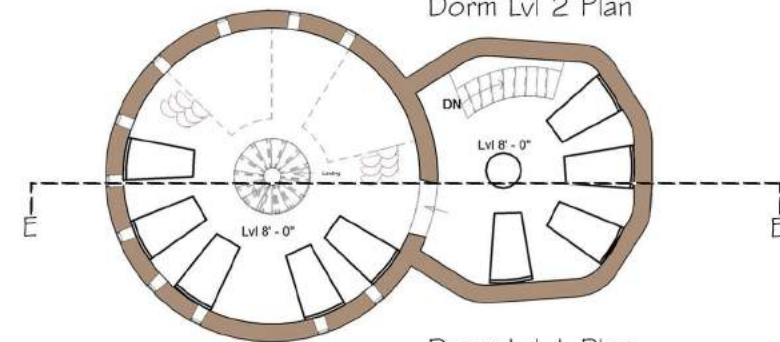
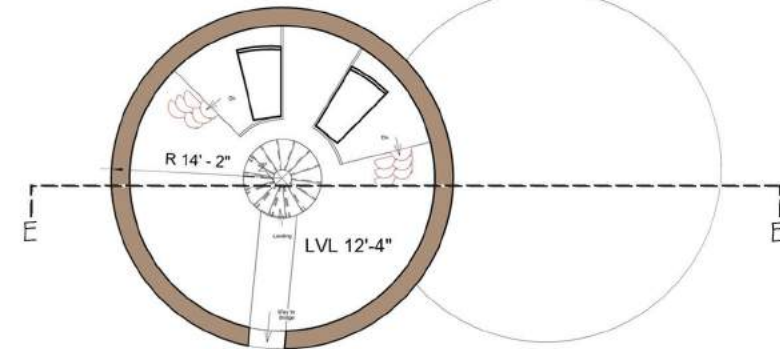
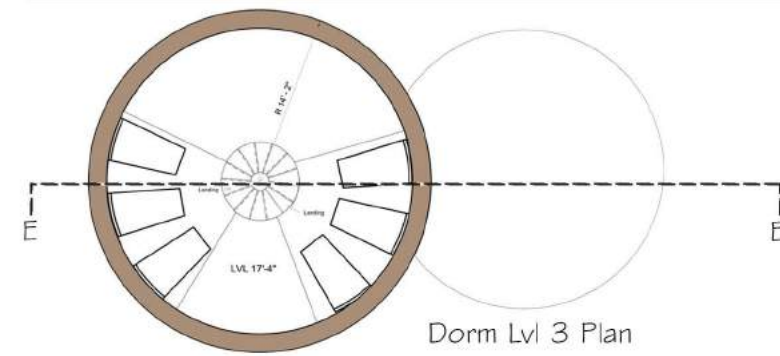
Section CC''

Owner's House

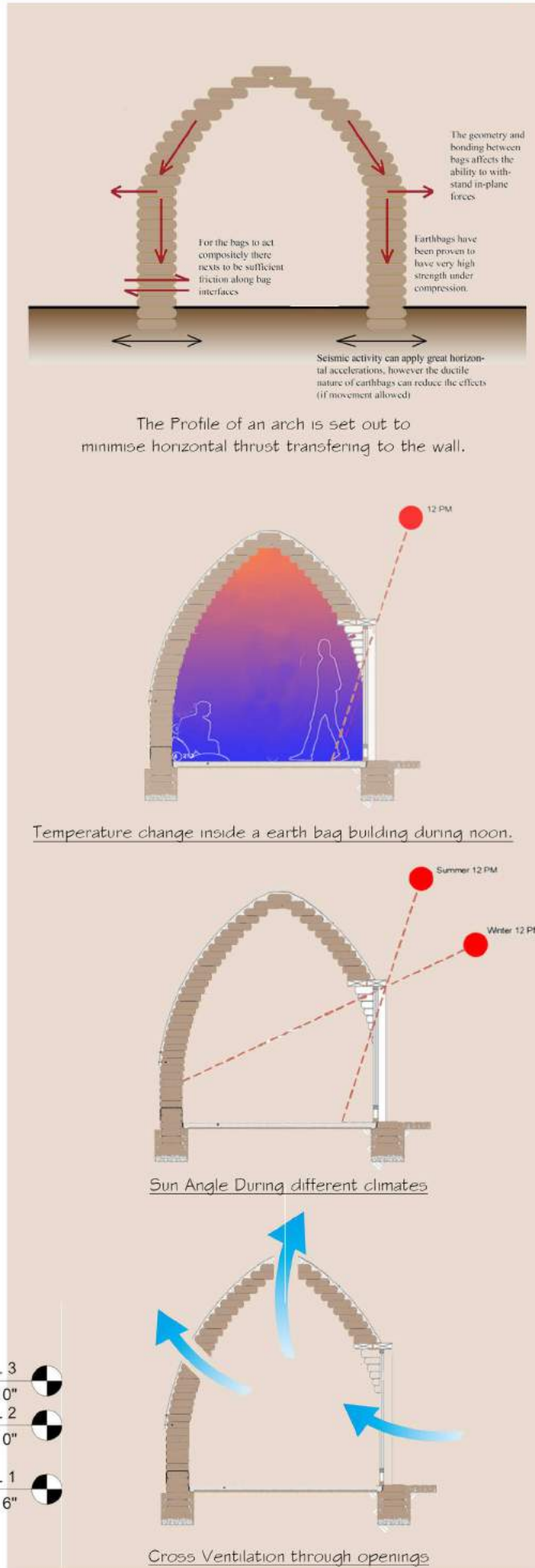


Section DD''

Dormitory



Section EE'



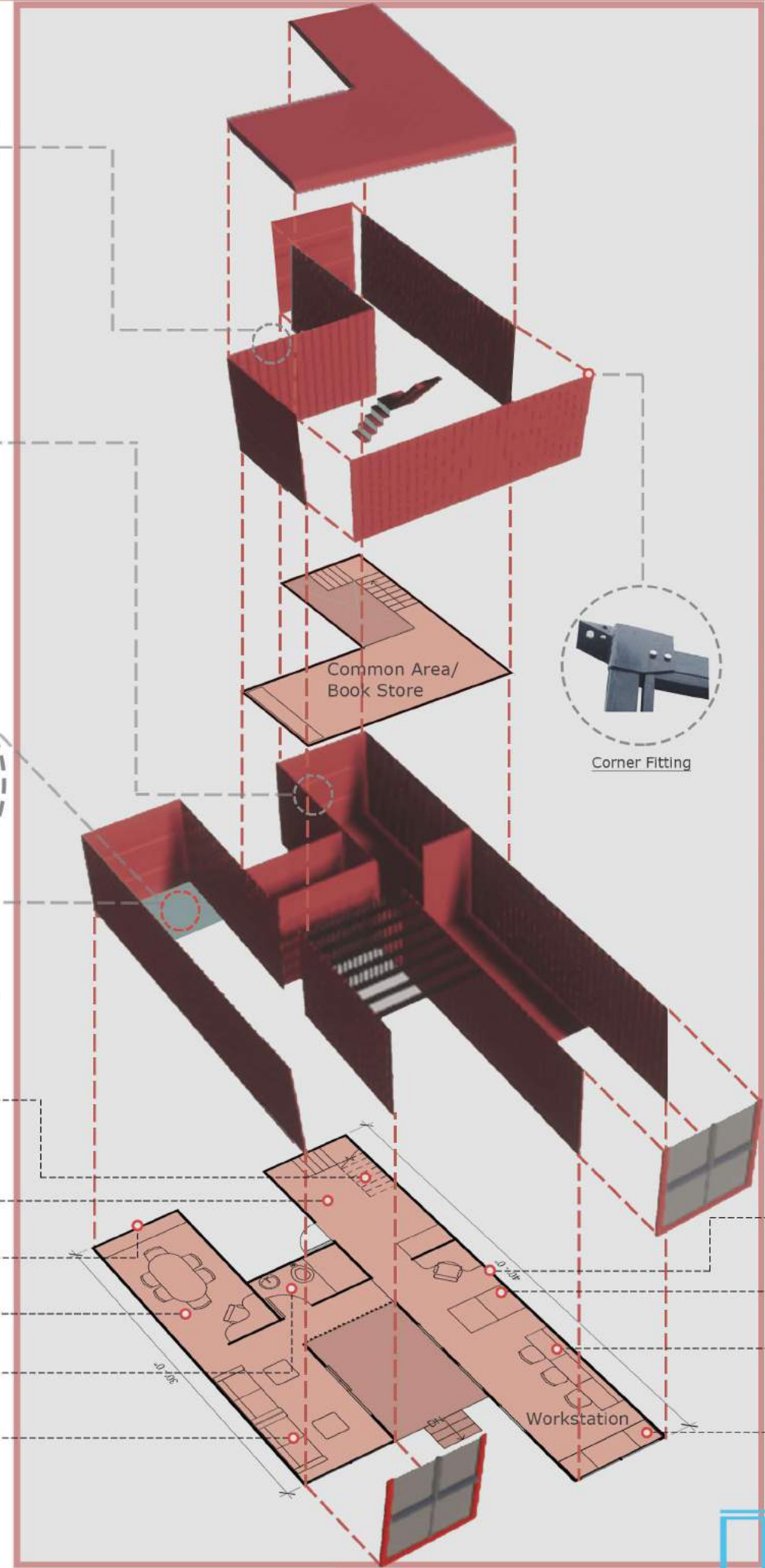
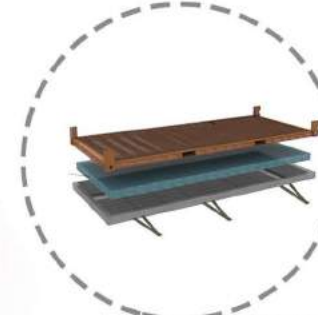
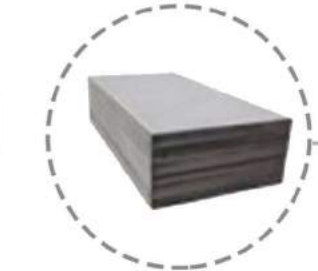
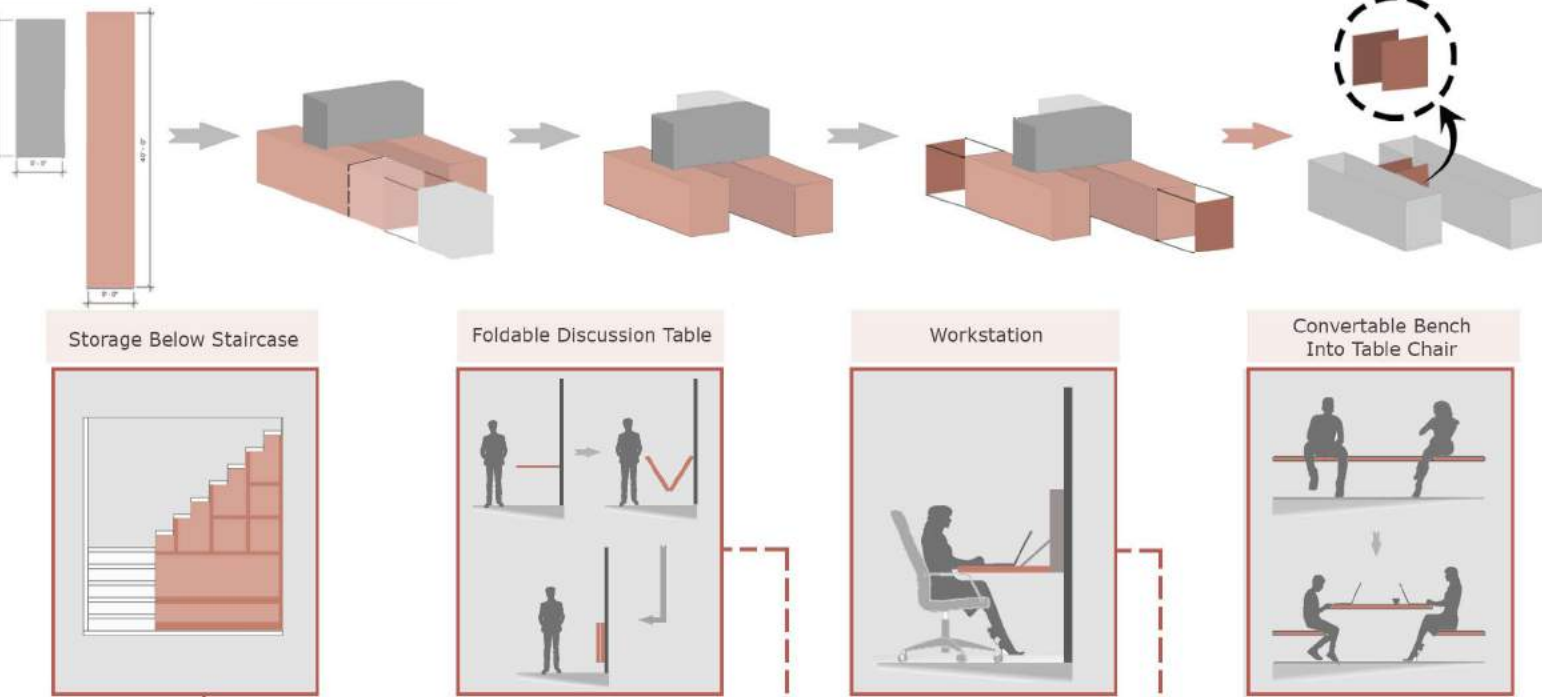
## Design Brief

To Design a unit with Low Cost material by utilizing minimum space and create a interactive environment. Convertible Spaces Should be Created.

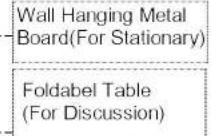
### Requirements

- Waiting Area
- Meeting Room
- Common Washroom
- Workstation
- Printing Area
- Common Room
- Workshop Area
- Workshop Equipment Space
- Stationary Zone
- Discussion Area
- Store

## Concept Evolution



### Interior Spaces



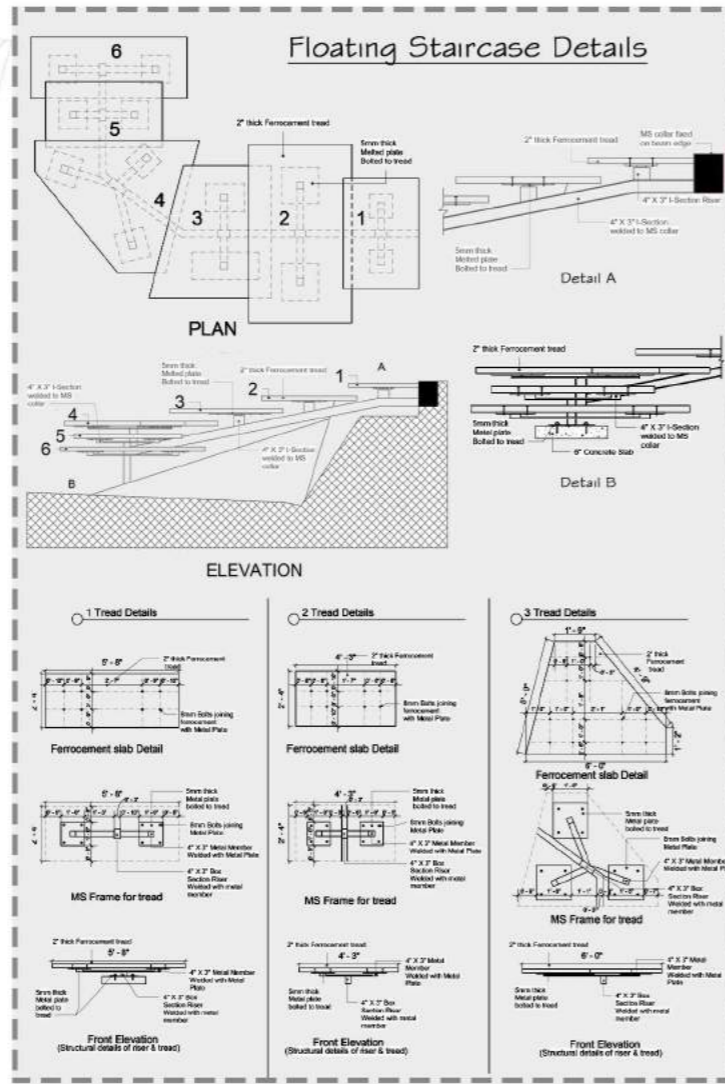
Office architect's space

# Pavilion House

Bhatrojkan, Uttrakhand  
Client's : Mr. Sourabh

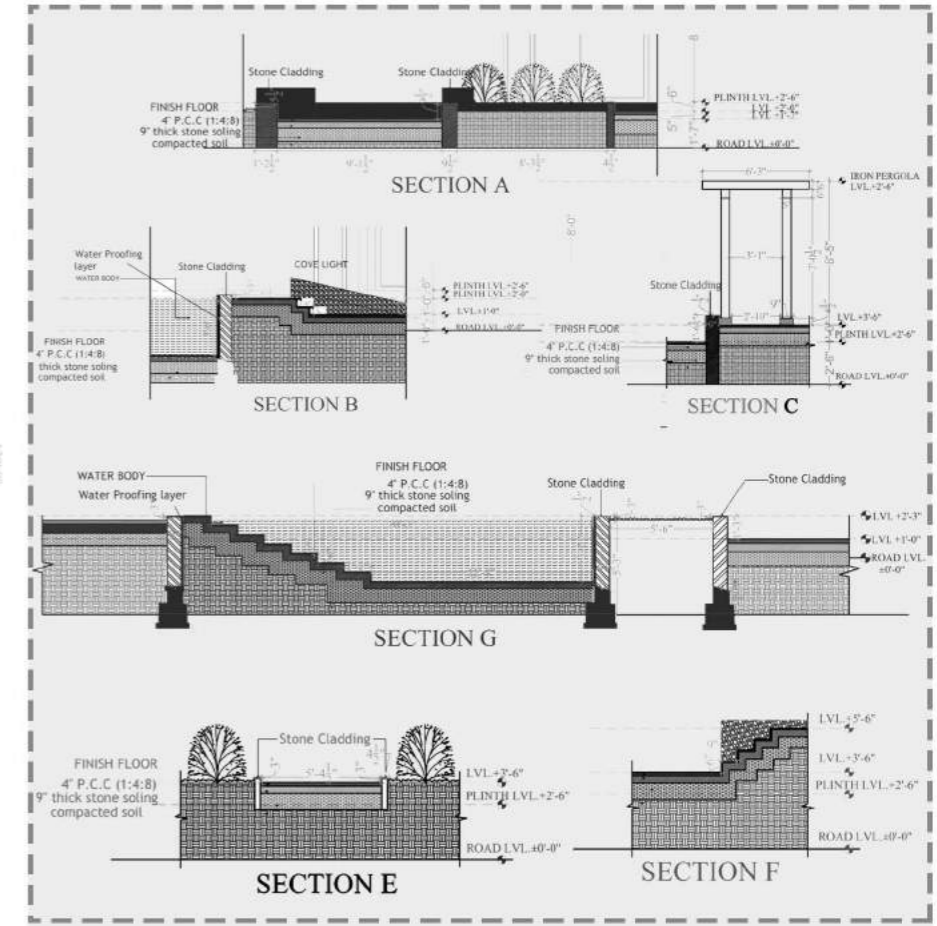
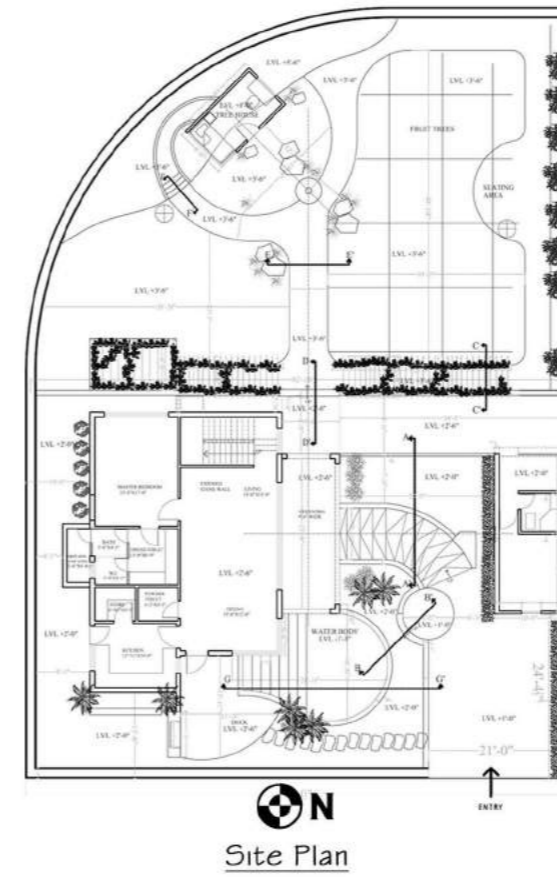
Site Area : 8893.25SF

- Working Drawings
- Floating Staircase
- Glass Metal Doors Details
- Landscape design



# Farm House

Jaipur, Rajasthan  
Client's : Manoj Tongra



# Zen Garden

Jaipur, Rajasthan  
Client's : Arpit Darak

