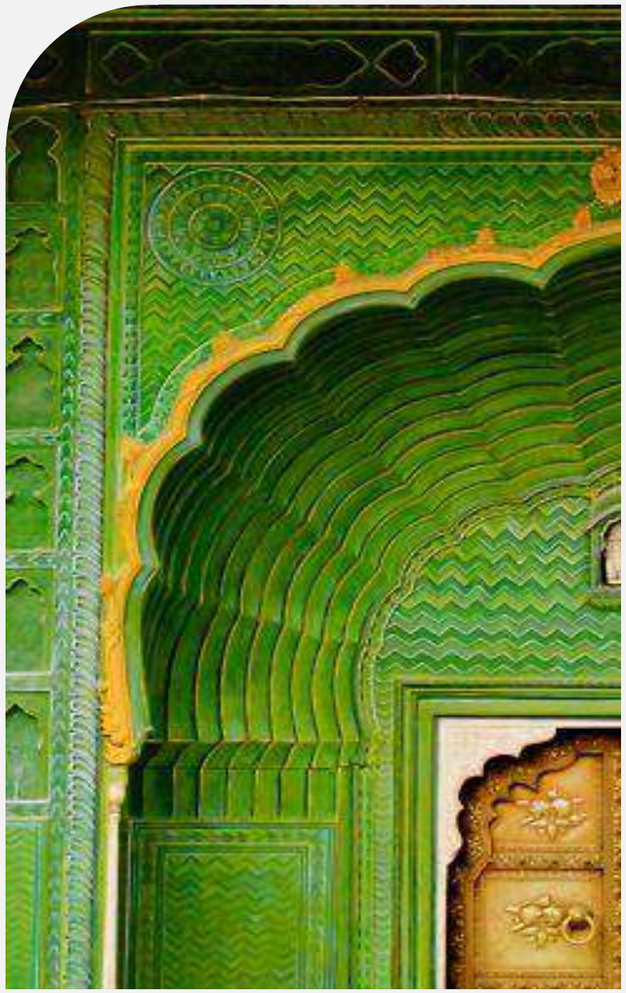


ARCHITECTURE PORTFOLIO

SONALI METE
sonalimete21@gmail.com

CONTENTS

RESUME 01

DUPLEX BUNGLOW 02

GURUKUL 03

HIGH-END HOUSING 04

CORPORATE OFFICE 05

CAFÉ CLUB 06

SCHOOL 07

MY HOUSE 08

WORKING DRAWING 09

CONSTRUCTION SHEETS 10

ART WORK 11

SONALI METE

ARCHITECT

About me

WORK
DESIGN
INNOVATE
PLAY
SLEEP

BIRTH DATE - 21st March, 1996

Contact

PHONE
9096061675
8390323676

E-MAIL
sonalimete21@gmail.com

ADDRESS
70, New Congress Nagar, Amravati

Skills

AutoCAD
Revit Architecture
SketchUp
CorelDRAW
V-ray
Photoshop
Microsoft PowerPoint
Microsoft Word
Microsoft Excel

-Quick learner
-Good Listner and Observer
-Creativity, flexibility and Multitasking Ability.

Objective

Eager to work with an organization enhancing my inherent features and acquired skills through team effort, continuous learning and hard work.

Education

B.ARCH — **2013-2019**
Sri. Manoramabai Mundle College of Architecture, Nagpur

12th Board — **2012-2013**
Independent Junior College Rural Institute, Amravati

10th Board — **2010-2011**
Golden Kids English School, Amravati

Experience

- **TRAINING**

Trainee Architect — **Jan 2018- Aug 2018**
Sushil Khandarkar and Associates, Amravati

Trainee Architect — **Jan 2017- Aug 2018**
Mitimitra Associates Pvt. Lmt., Pune

Trainee Architect — **May 2015**
Sushil Kandarkar and Associates, Amravati

- **WORKSHOPS**

Training in Field Practices, Nagpur — **2016**
Zero Energy Building, IIT Powai — **2015**

- **COMPETITIONS**

IIA Design Competition — **2016**
NASA - ANDC Trophy — **2015**
NASA - ANDCTrophy — **2014**

01 DUPLEX BUNGLOW

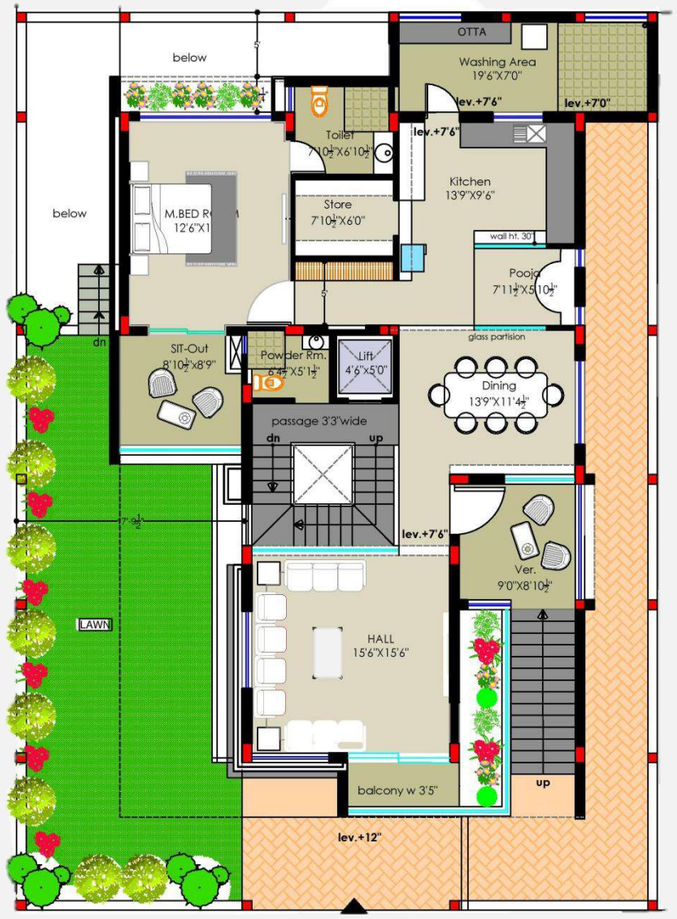
INTERNSHIP WORK

01 DUPLEX BUNGLOW

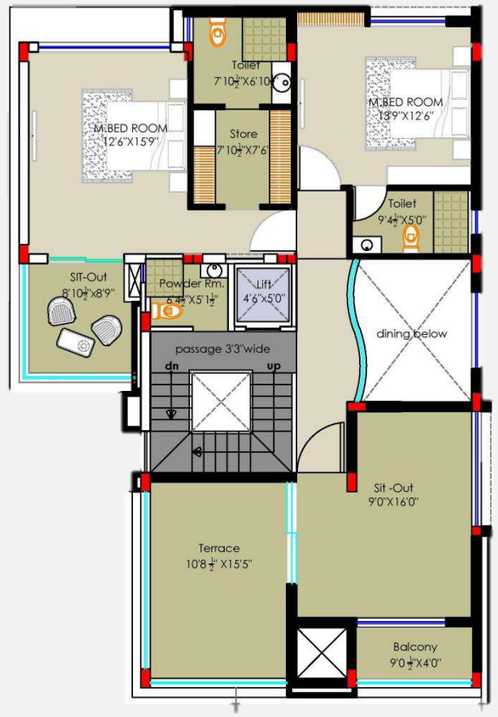
Proposed Duplex Bunglow for
Ms. JYOTI DESHMUKH on
Plot no. 23, Mouje Rajapeth,
AMRAVATI.

SITE AREA – 3316.34 sq.ft.
TOTAL BUILT-UP
AREA – 5271.36 sq.ft.

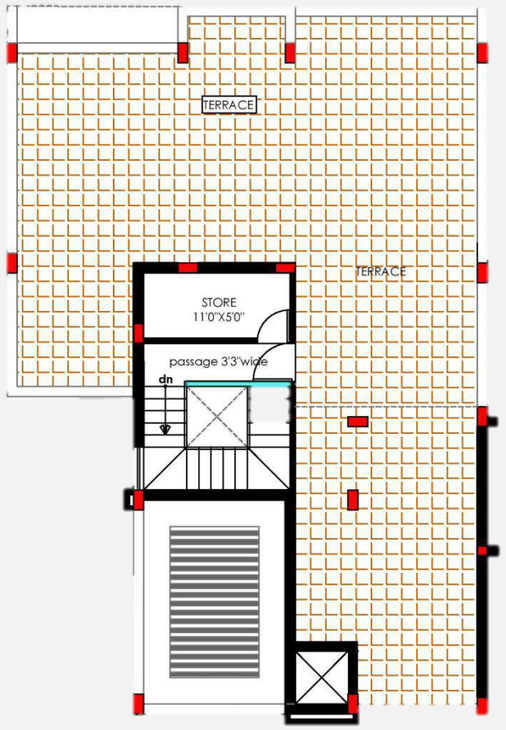
GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



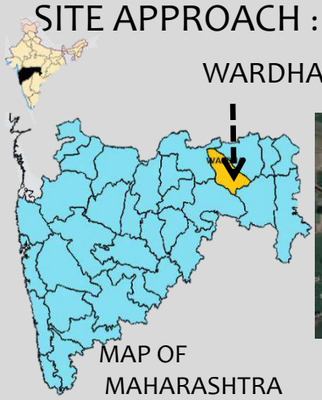
TERRACE LEVEL PLAN

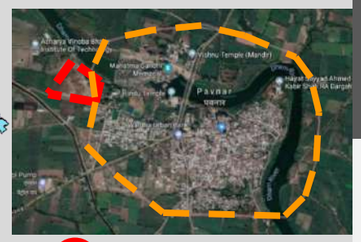
THESIS PROJECT

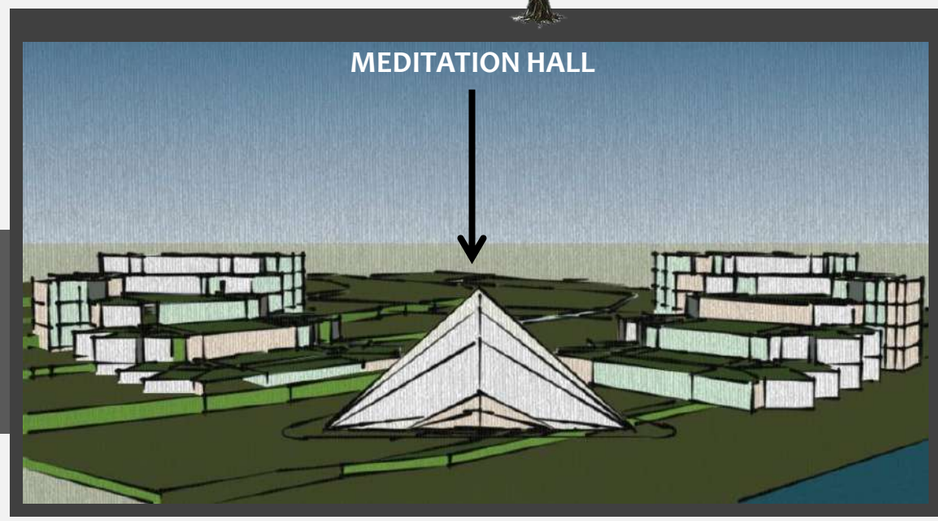
02

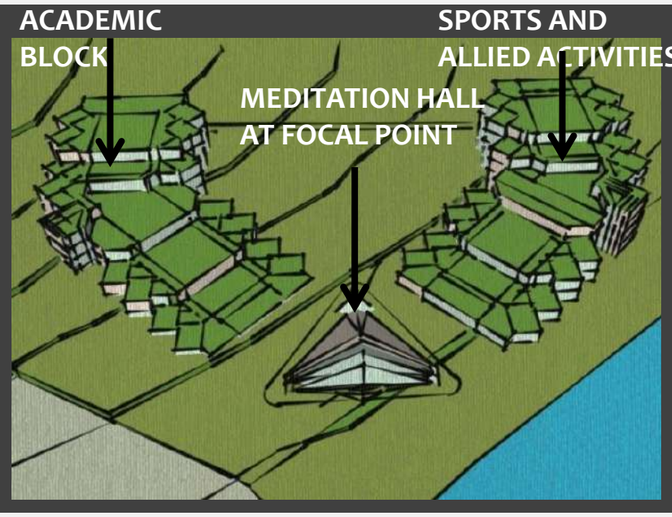
GURUKUL

LOCATION : Pavnar Village, Wardha, Maharashtra.
SITE AREA : 52,870.72 sq.m.
SITE APPROACH :









ABOUT PAVNAR VILLAGE:

HOW TO REACH PAVNAR VILLAGE :

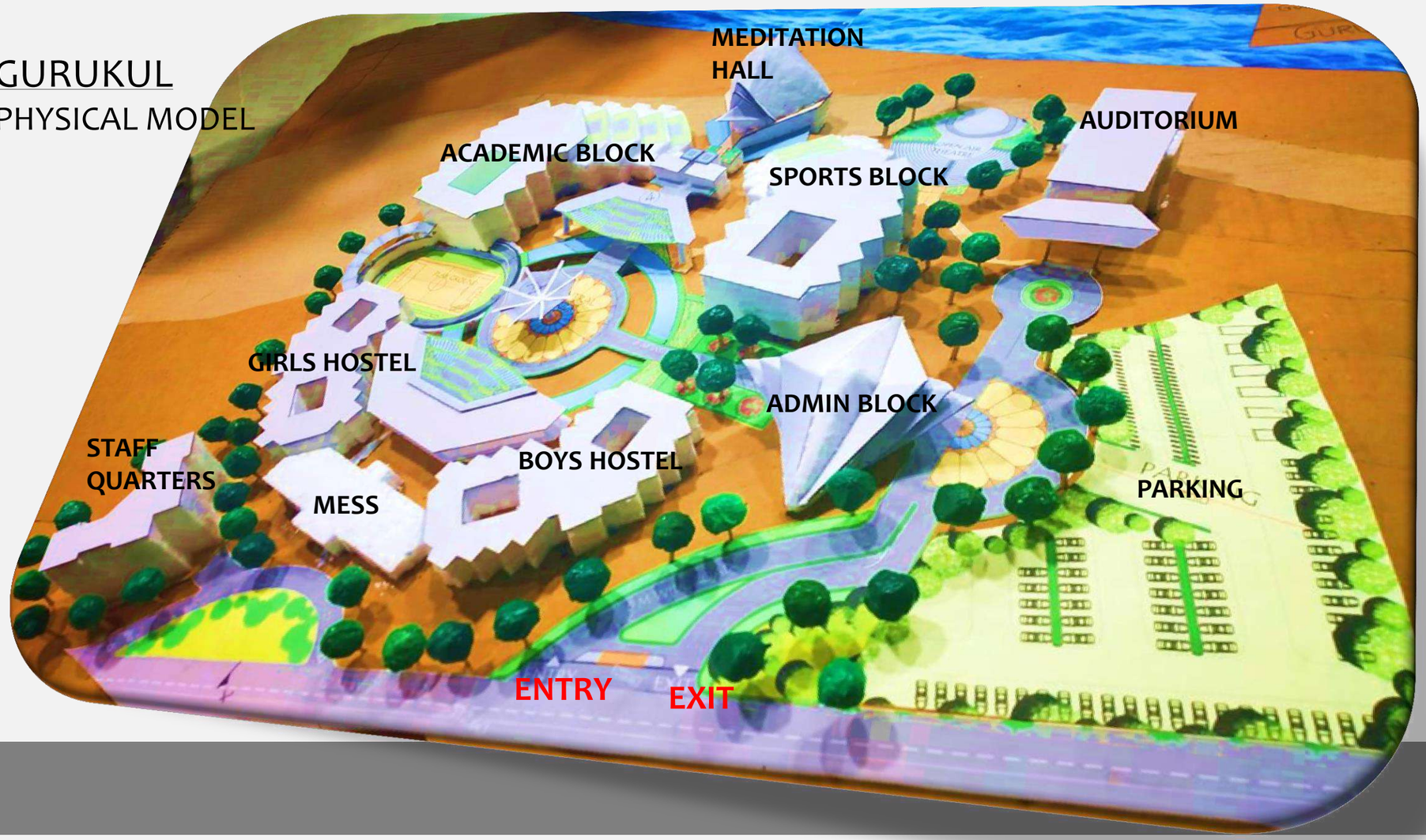
1. BY TRAIN
   - Wardha forms the nearest rail head, at a distance of 12km.

2. BY ROAD
   - Wardha Bus Stand is approx. 9.2km away
3. BY AIR
   - Nearest airport seems to be Nagpur, which is 65km away.

HISTORICAL IMPORTANCE OF PAVNAR:

- The historical village of Pavnar, said to be named after the legendary Rajput King Pavan, is situated on the banks of the Dham river.
- It is the site of an ashram, which was founded by the great social reformer and activist Acharya Vinoba Bhave.
- Of the few attractions that can be found here, are the Gandhi Kuti and the Paramdham Ashram of Vinobaji.
- The latter is situated at a distance of 13 kms from the main land of Wardha.
- The land houses a fort, supposedly built by the Bhonsles comprising of brick walls.

GURUKUL
PHYSICAL MODEL

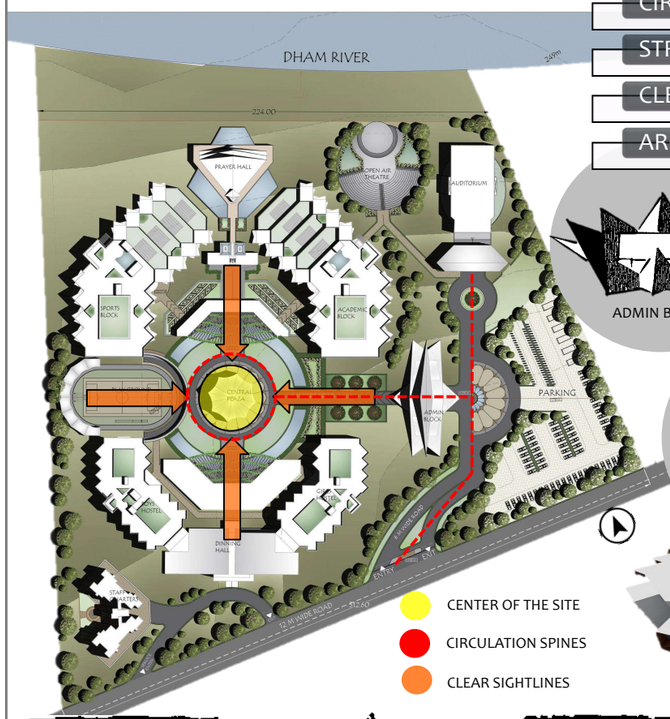


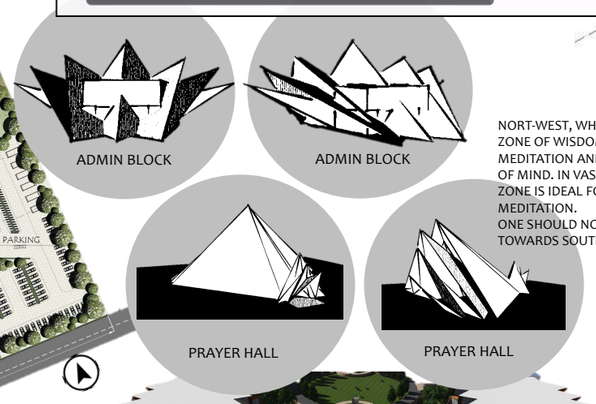
GURUKUL

OVERVIEW OF PLANNING PRINCIPLES

- SYMMETRICAL PLANNING
- CIRCULATION SPINES
- STRONG CENTER
- CLEAR SIGHTLINES
- ARCHITECTURAL ICONS

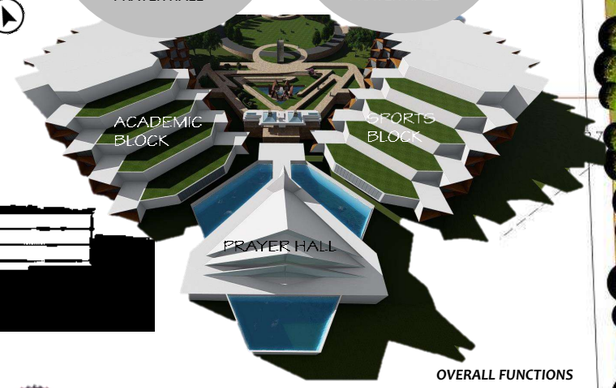
CREATING CAMPUS IDENTITY



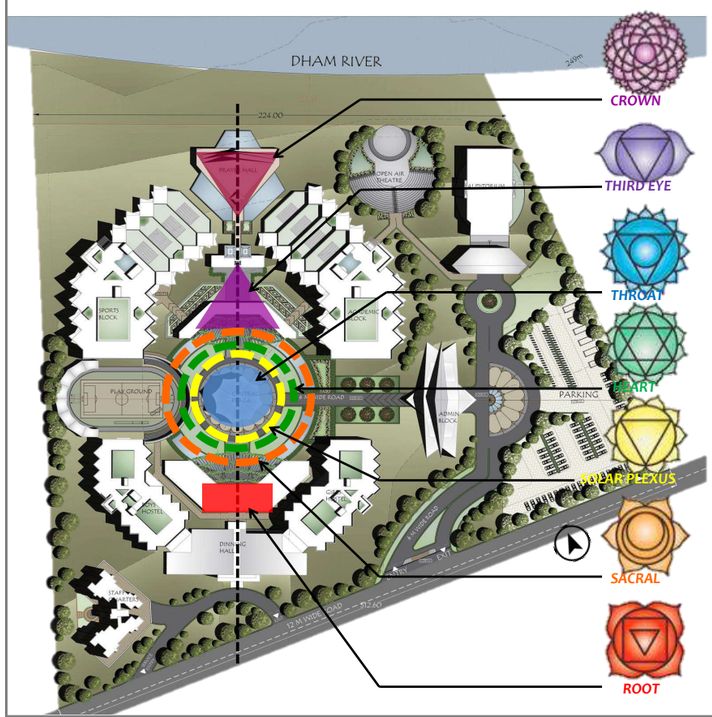


NORT-WEST, WHICH IS THE ZONE OF WISDOM, MEDITATION AND CLARITY OF MIND. IN VASTU, THIS ZONE IS IDEAL FOR MEDITATION.
ONE SHOULD NOT FACE TOWARDS SOUTH.

- CENTER OF THE SITE
- CIRCULATION SPINES
- CLEAR SIGHTLINES



VASTU CENTRIC DESIGN



7. **Sahasrara** or pure consciousness chakra located at the crown of the head - symbolized by a lotus with one thousand multi-coloured petals. According to Vastu Mandala Anja is the sanctum. The vimanam and shikara forms the space element and the currents of life ascends through the 'Brahma-randra shila' or stone slab placed at 'griva' (neck)of the vimana.

6. **Ajna** or third eye located at pineal glands or between the eye brows. As per Vastu Mandala this direction is also related to open spaces ('Akasha') and to the North East corner (Ishanya). The sanctum (Garbagriha or womb chamber) is recommended at this grid, the seat of the divinity.

5. **Vishuddha** or Vishuddhi located at the throat i.e., thyroid glands . According to Vastu Mandala Lord Shiva in Ishanya form rules this grid and represents the space or Akasha. Mantras chanted here will reverberate in space. If left free from obstacles and less occupation or weight, there will be balanced power.

4. **Anahata**, Anahata-puri, or Padma-sundara located at chest . As per Vastu Mandala Lord Vayu or Lord of Wind rules this point. This grid relates to air and regulation of air. If this grid is allowed to flow air and the peace and comfort resides.

3. **Manipura** or Manipuraka at the digestive glands of the human. Digestion involves energy of fire. According to Vastu Mandala Lord Brahma or Lord of Creation seated on lotus flower base (Adishtana) rules this point. If this point in temple should be left open, the vital energy flows and the wholeness resides with blessings and protection.

2. **Swadhisthana** or Adhishthana at the lower stomach region or the sacrum of the human. Vastu direction West (Varuna) - Lord Varuna (Neptune) Lord of Water or Rain. Formation of temple tank or water bodies in South or West will influence reputation, fame, prosperity and success.

1. **Muladhara** or root chakra located at the base of the spine in the coccygeal region (governs senses). According to Vastu Mandala South-West (Nauritya) - Deity Lord (Demon) Nauritya influences protection, strength and stability.

OVERALL FUNCTIONS

Spirituality-
PRAYER HALL – Dominating element in the site

Institution, Wisdom, Creative Intelligence-
ENTRANCE PLAZA

Communication -
CENTRAL PLAZA – Central interactive space

Love, Giving/Receiving-
GREEN SPACES – Open space for air flow

Empowerment, Self will- CIRCULAR ROAD – Open connecting space

Balance- WATER BODY – Centrally located for cooling micro climate

Grounding, Tribal association-
GURU'S REST ROOMS AND ENTRANCE PLAZA

ZONNING

EDUCATIONAL ZONE
- ACADEMIC BLOCK
- SPORTS BLOCK
- PRAYER HALL
- LIBRARY

RESIDENTIAL ZONE
- GIRLS HOSTEL
- BOYS HOSTEL
- DINNING HALL/ MESS
- GURU'S REST ROOMS
- STAFF QUARTERS

ALLIED ACTIVITIES
- ADMIN BLOCK
- AUDITORIUM
- OPEN AIR THEATRE
- PLAYGROUND
- CENTRAL PLAZA

FACILITIES

ADMIN BLOCK
- Entrance Foyer
- Principal's Cabin
- Clerk's Work Area
- Conference Room
- Lounge
- Pantry
- Store Room
- Toilets

ACADEMIC BLOCK
- Classrooms
- Laboratories
- Audio Visual Rooms
- Clock Rooms
- Common Room
- Visitors Lounge
- Staff Rooms
- Store Rooms
- Janitor store rooms
- Toilet

PARKING
- Two Wheeler Parking
- Four Wheeler Parking
- Bus Parking

SPORTS BLOCK
- Swimming Pool
- Gym
- Visitors Lounge
- Karate
- Chess
- Dart
- Health care
- Sick Room
- Control Rooms
- Badminton Court
- Activity Rooms
- Squash Court
- Dance Hall
- Music Hall
- Instrument Room
- Store Room
- Janitor store room
- Toilet

GIRLS HOSTEL
- 4 Student Occupancy Room
- Common Rooms
- Helpers Rooms
- Common Toilets

BOYS HOSTEL
- 4 Student Occupancy Room
- Common Rooms
- Helpers Rooms
- Common Toilets

MESS BLOCK
- 200 Seats Girls Dinning Hall
- 200 Seats Boys Dinning Hall
- Waiting Area
- Kitchen
- Store Room
- Wash Area

GURU'S REST ROOMS
- Rooms with attach toilets
- Entrance Foyer
- Meeting Room
- Dinning Room

SITE PLAN:

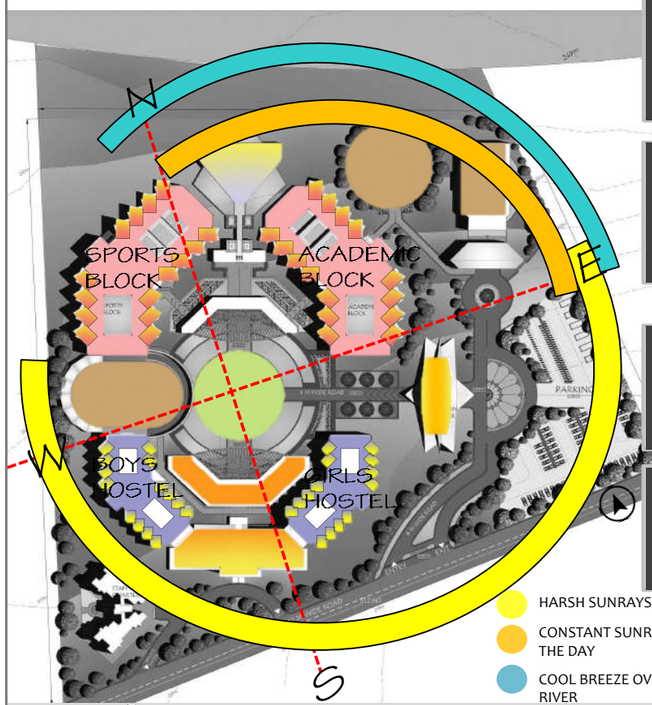
SCALE – 1:500
ALL DIMENSIONS ARE IN M

SITE LOCATION : Pavnar Village, Wardha district, Maharashtra
TOTAL SITE AREA : 62,300 approx.
TOTAL BUILT UP AREA : 32000 approx

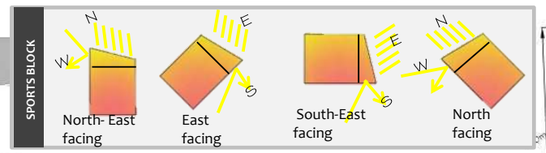
GURUKUL

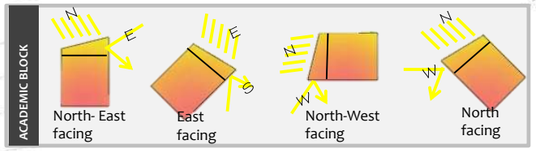
MICRO CLIMATIC FACTORS

BUILDING POSITION FOR DAYLIGHTING

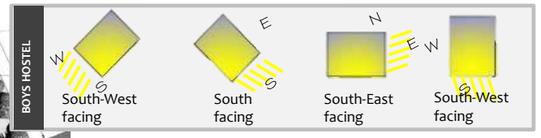


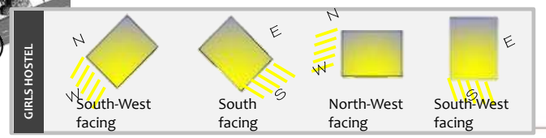
OPENINGS OF CLASSROOMS





OPENINGS OF ROOMS



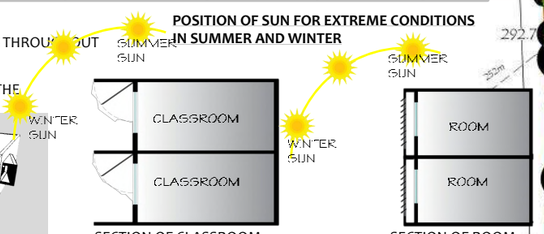


HARSH SUNRAYS

CONSTANT SUNRAYS THROUGHOUT THE DAY

COOL BREEZE OVER THE RIVER

POSITION OF SUN FOR EXTREME CONDITIONS IN SUMMER AND WINTER



SECTION OF CLASSROOM

SECTION OF ROOM

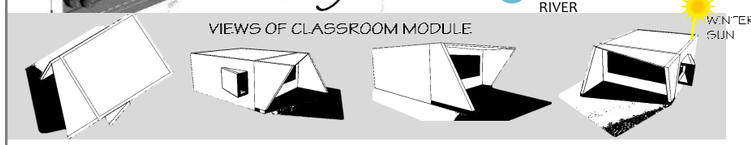
SHADOTEX LOUVER

- Operable exterior solar shading louver system.
- It consists of a special fabric stretched between two sides of a louver support frame.
- extremely light weight which allows for very large spans without the need for additional supporting framework.

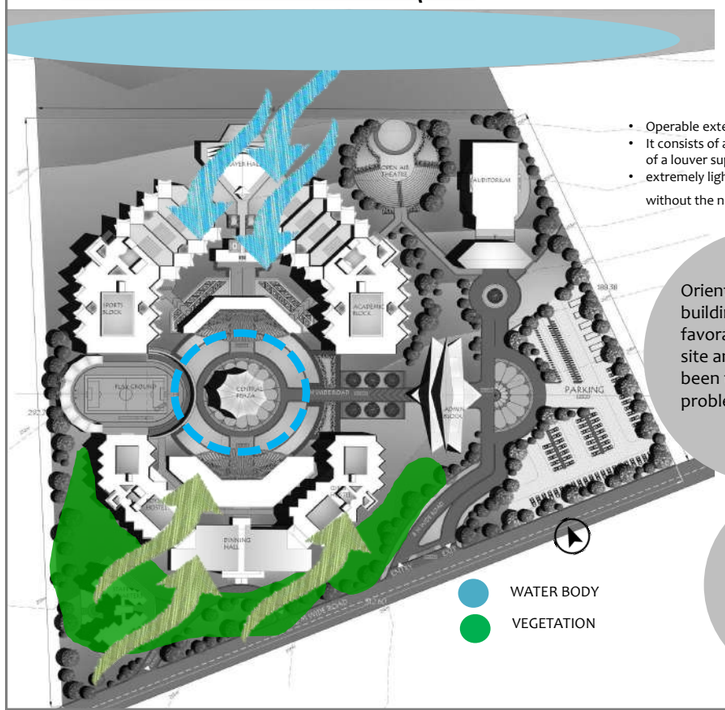
SHADOVOLTAIC LOUVER

Operable exterior solar shading systems that incorporate glass louvers with photovoltaic cells integrated into the glass to generate electricity at the same time as providing shading

VIEWS OF CLASSROOM MODULE



PASSIVE COOLING TECHNIQUES

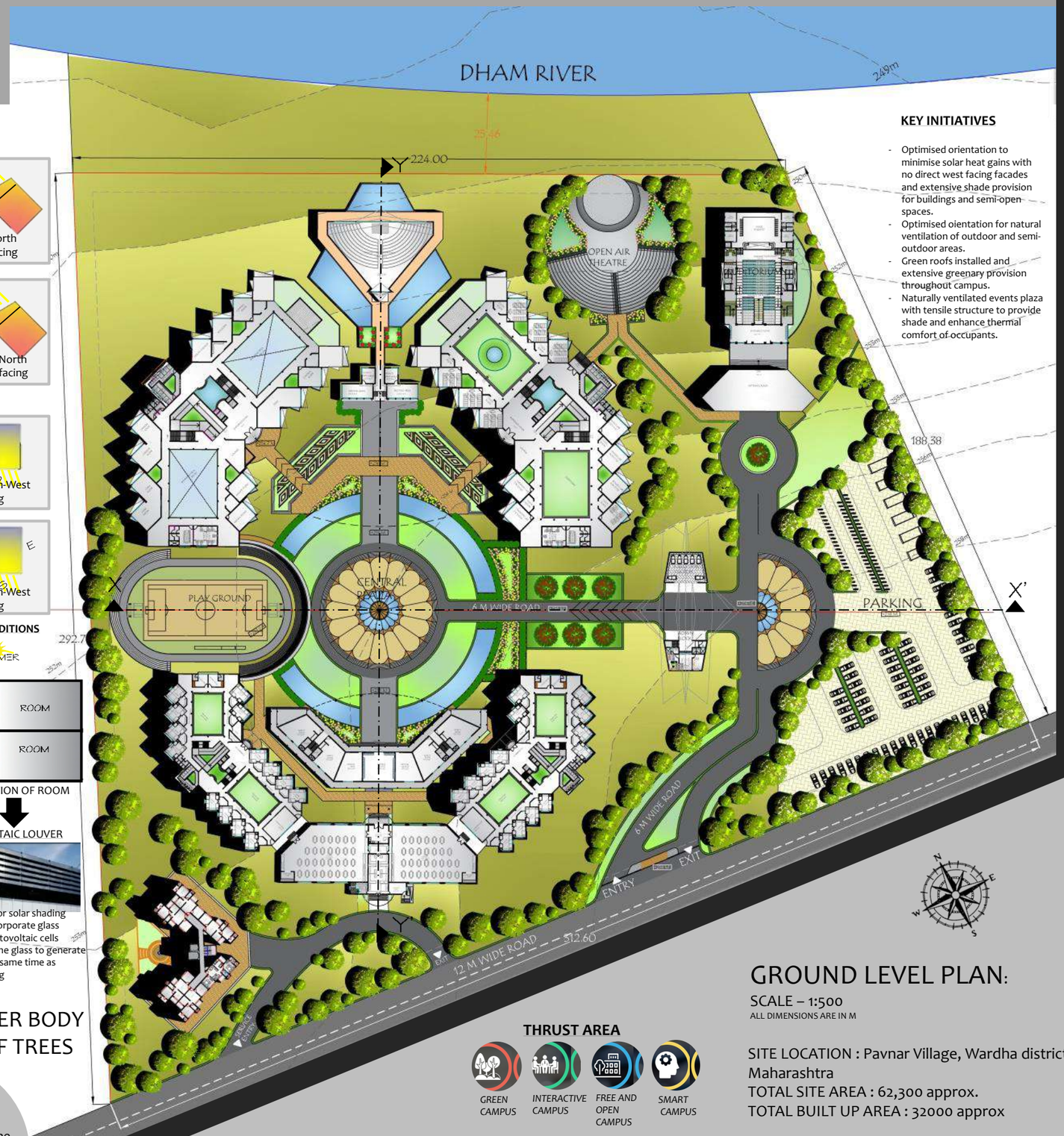


Orientation of the buildings capitalize on all favorable conditions on site and measures have been taken to fix the problems on site

- CENTRAL WATER BODY
- PLACEMENT OF TREES

Cooled air is retained and circulated within the site and prevented from escaping by landscape from all sides

Harsh West heat filtered and partially blocked by the landscape and plantation in West



KEY INITIATIVES

- Optimised orientation to minimise solar heat gains with no direct west facing facades and extensive shade provision for buildings and semi-open spaces.
- Optimised oientation for natural ventilation of outdoor and semi-outdoor areas.
- Green roofs installed and extensive greenary provision throughout campus.
- Naturally ventilated events plaza with tensile structure to provide shade and enhance thermal comfort of occupants.

THRUST AREA

GREEN CAMPUS

INTERACTIVE CAMPUS

FREE AND OPEN CAMPUS

SMART CAMPUS

GROUND LEVEL PLAN:

SCALE – 1:500

ALL DIMENSIONS ARE IN M

SITE LOCATION : Pavnar Village, Wardha district, Maharashtra

TOTAL SITE AREA : 62,300 approx.

TOTAL BUILT UP AREA : 32000 approx

SITE SECTION Y-Y'

SITE SECTION X-X'

3rd YEAR / 5th SEM
MAJOR PROJECT

03 HIGH-END HOUSING

MEDIUM: HAND-DRAFT

THE HIGH-END HOUSING IS TO BE DESIGNED FOR BOING INTERNATIONAL COMPANY. THE GIVEN SITE WAS IN MIHAN AREA, NAGPUR. THE RESIDENCES HAS TO BE DESIGN IN 3 TOPOLOGIES

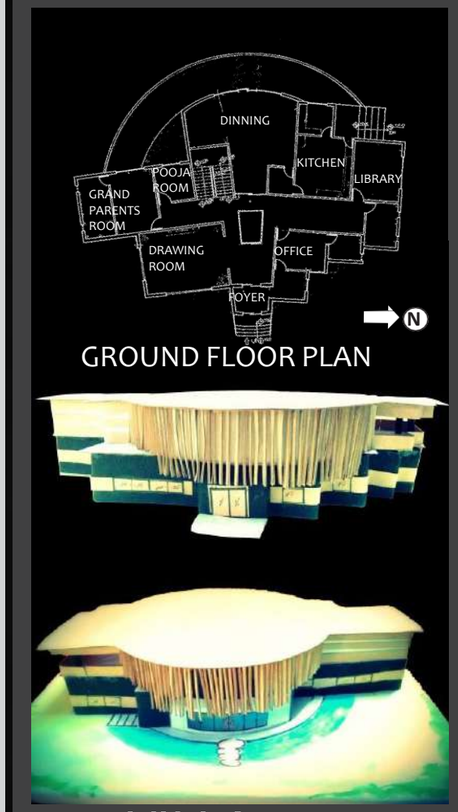
1. VILLA
2. BUNGALOW
3. SENIOR EXECUTIVE APPT

CONSIDERING THE HIGHEST POSITION OF VILLA IT IS PLACED AT THE CENTRAL TOP POSITION FROM WHERE ALL THE FACILITIES COULD BE EASILY APPROACHABLE. NEIGHBORING TO IT ARE THE BUNGALOW ON BOTH THE SIDES.

THE CENTRAL PART OF THE HOUSING SOCIETY IS FOR THE RECREATIONAL AREA SUCH AS CLUB HOUSE, GYM, TEMPLE, PARKS, PLAYGROUND, SHOPS, SWIMMING POOL, CHILDREN'S GARDEN

TO ARRANGE THE RESIDENCES ACCORDING TO THEIR IMPORTANCE AND STATUS.

1. VILLA
2. BUNGALOW
3. J.E. APARTMENT
4. S.E. APARTMENT
5. GUARD ROOM
6. RETAIL SHOPS
7. CLUB HOUSE
8. GYM
9. TEMPLE
10. CHILDRENS PLAY AREA
11. PLAY GROUND

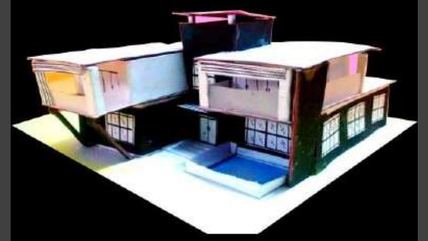


GROUND FLOOR PLAN

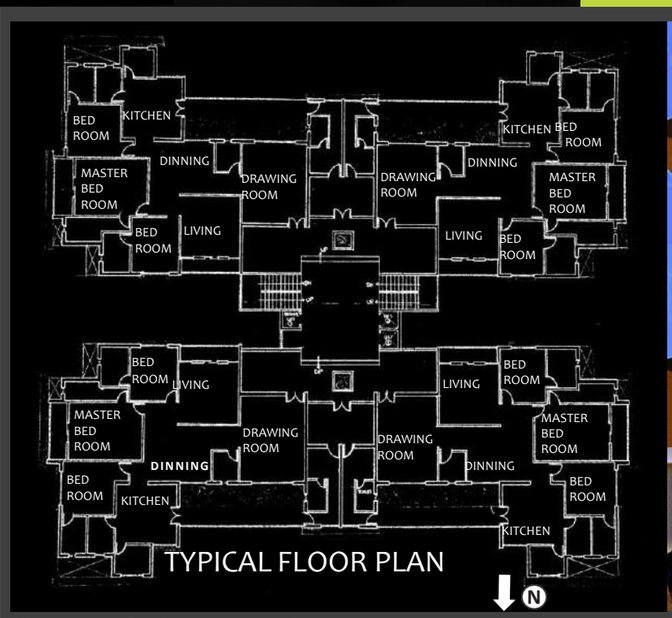
VILLA

GROUND FLOOR PLAN

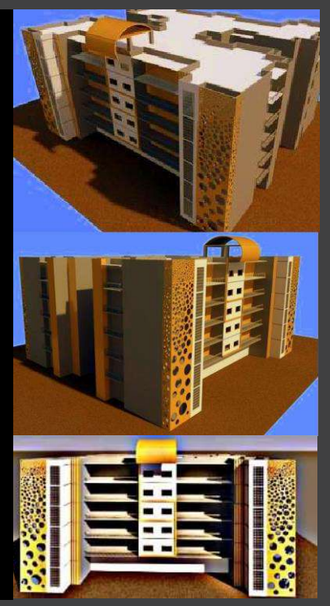
FIRST FLOOR PLAN



BUNGALOW



TYPICAL FLOOR PLAN



SENIOR EXECUTIVE APARTMENT

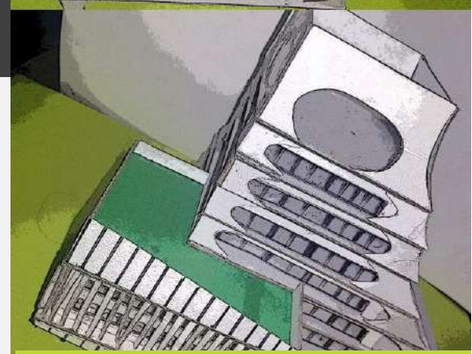
3rd YEAR / 6th SEM
MAJOR PROJECT

MEDIUM: AUTOCAD

04 CORPORATE OFFICE

CONCEPT:
DYNAMICS

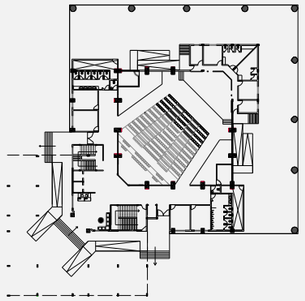
THE FORCES OR PROPERTIES WHICH STIMULATE GROWTH, DEVELOPMENT OR CHANGE WITHIN A SYSTEM OR PROCESS. DYNAMICS IS THE MOTION OF BODIES UNDER ACTION OF FORCES.



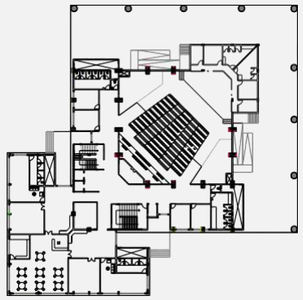
THE CORPORATE OFFICE IS A SIX STORIED BUILDING DESIGNED FOR A REAL-ESTATE COMPANY WITH CAPACITY OF 300-400 EMPLOYEES. THE AUDITORIUM IS ON THE GROUND FLOOR WITH THE CAPACITY OF 500 PEOPLE. THE PLAN OF WORKSTATION IS
TYPICAL FROM 2ND TO 5TH FLOOR.

THE CURTAIN WALLS ARE COATED WITH THE SLANTING ROOFS WHICH ACTS AS A SHADING DEVICE AS WELL AS USED AS A AESTHETIC ELEMENT. THE FRONT PORTION IS COVERED WITH
THE LOUVERS TO PROTECT FROM HARSH SUNRAYS.

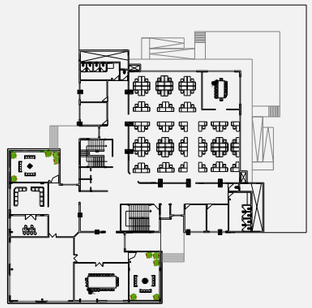
TWO SQUARES ACTING UNDER PRESSURE ARE FORCED TO INTERSECT EACH OTHER. THE BUILDING IS GIVEN A VERY DYNAMIC FORM IN ELEVATION. THE FORM IS TAPERING TOWARDS THE TOP.



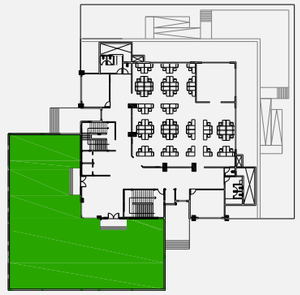
GROUND FLOOR PLAN



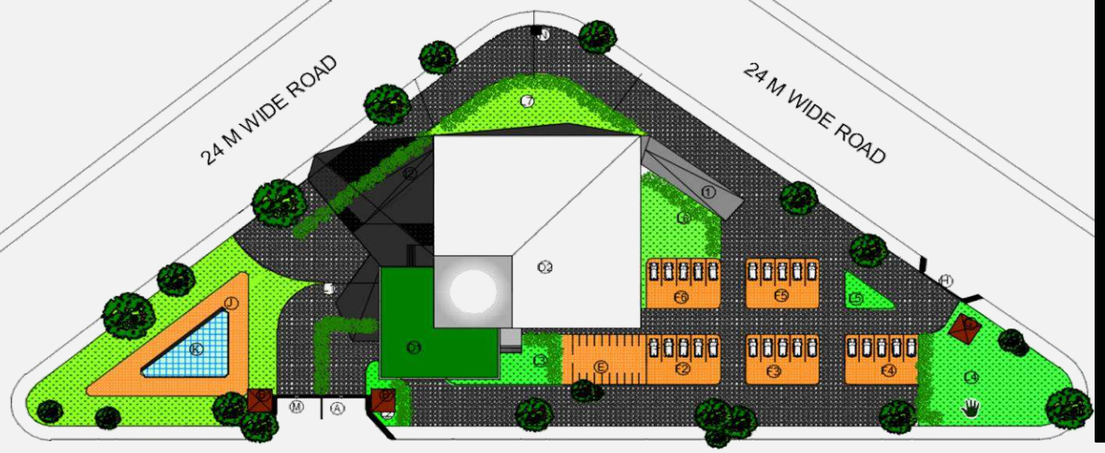
FIRST FLOOR PLAN

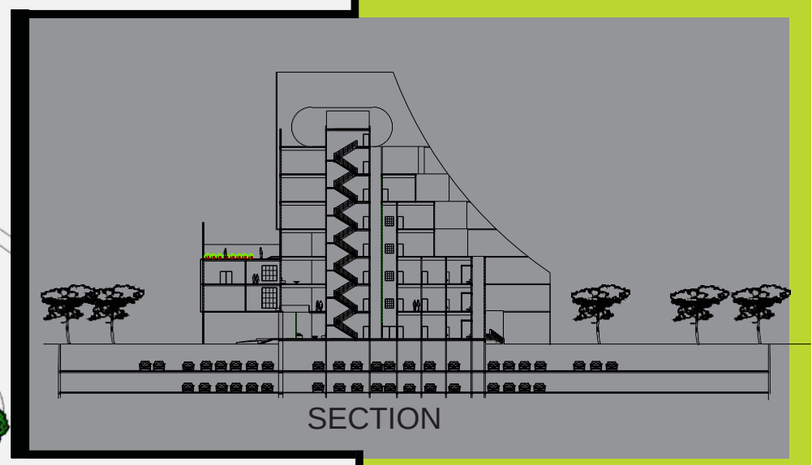


SECOND FLOOR PLAN

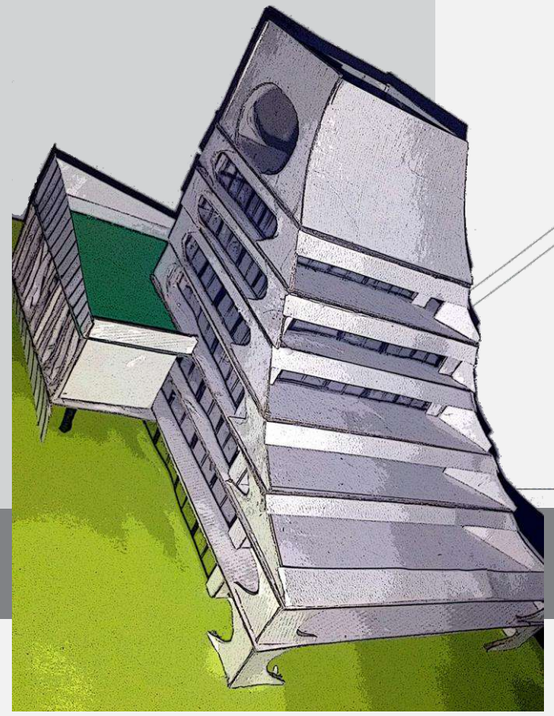


3rd and 4th FLOORPLAN





SECTION



3rd YEAR / 5th SEM
MINOR PROJECT

MEDIUM: HAND-DRAFT

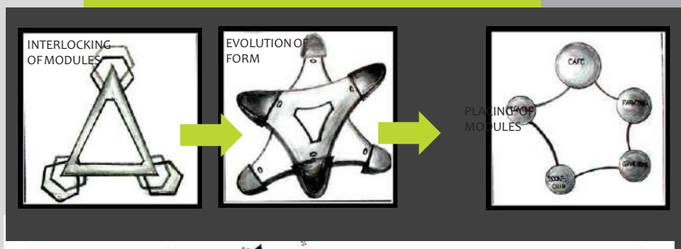
CAFÉ CLUB

05

CONCEPT:
INTERLOCKING

ENGAGE WITH EACH OTHER BY OVERLAPPING OR BY THE FITTING TOGETHER OF PROJECTIONS.

THE PROJECT FOCUSES ON CLIMATE RESPONSIVE STRUCTURE, PLANNING ON CONTOUR AS WELL AS INNOVATION AND AESTHETICS TAKING INTO CONSIDERATION DIFFERENT AGE GROUP OF USERS.



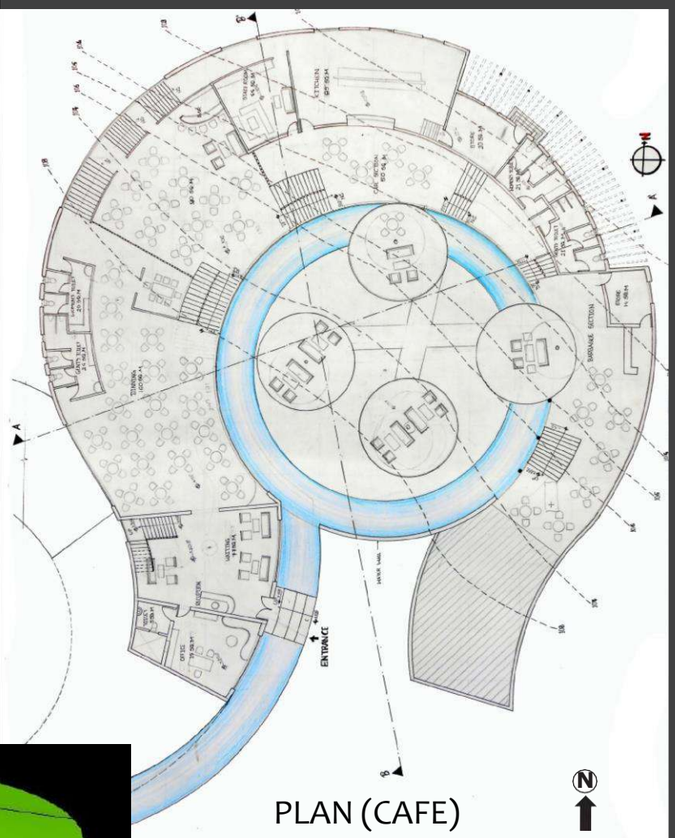
CAFÉ CLUB IS BASICALLY A CLUB MERGE WITH OTHER ALLIED ACTIVITIES. THIS CAFÉ CLUB IS A COMBINATION OF CAFE+YOGA AND AEROBICS CLUB+ BOOKS CLUB+GAME ZONE.

SITE PLAN

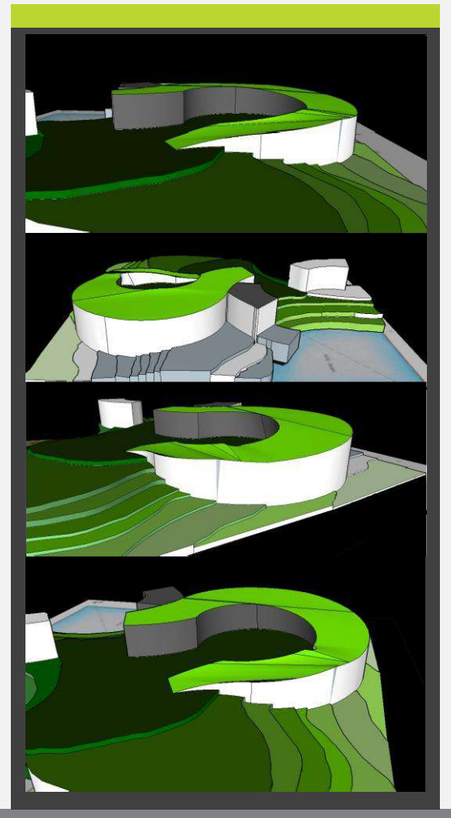
EVERY ACTIVITY CONTRAST EACH OTHER SO THAT A PERSON OF ANY TYPE OR AGE GROUP CAN CHOOSE THEIR ACTIVITY.

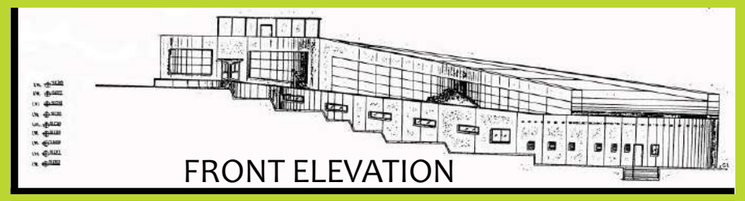
THE GIVEN SITE WAS IN OUTSKIRTS NAGPUR NEAR KHINDSI LAKE. THE CLUB IS ALSO PROVIDED WITH A WOODEN DECK NEAR THE LAKE WITH BOATING FACILITY.

THE GREEN ROOF OF THE CAFÉ HELPS IT IN MERGING WITH THE SITE AND MAINTAINING A ECO-FRIENDLY ENVIRONMENT.

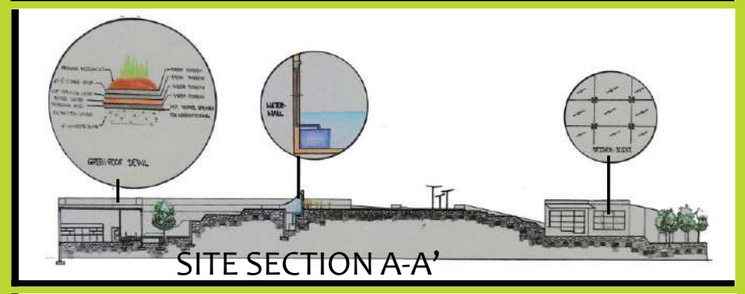


PLAN (CAFE)

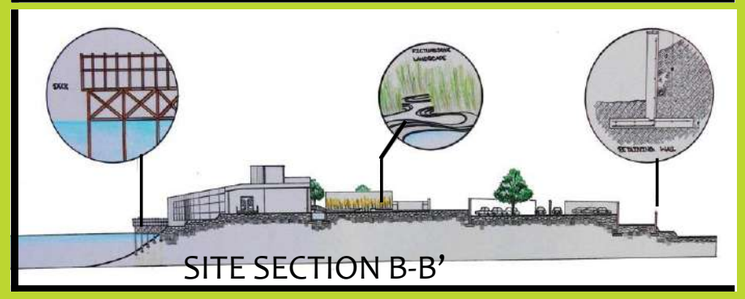




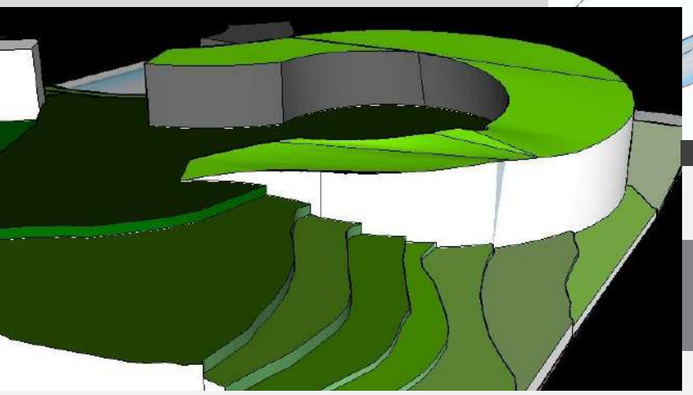
FRONT ELEVATION



SITE SECTION A-A'



SITE SECTION B-B'



2nd YEAR / 3rd SEM
MAJOR PROJECT

06

SCHOOL

MEDIUM: HAND-DRAFT

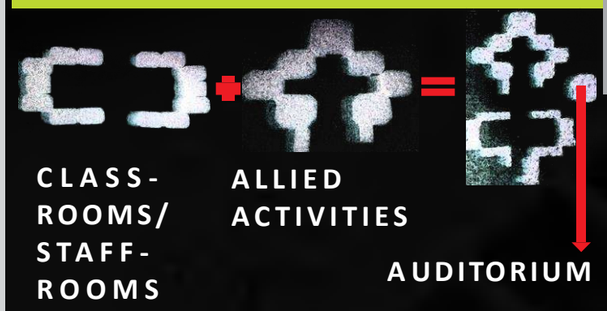
THE SCHOOL IS DESIGNED FOR THE STUDENTS OF CLASS 1 TO 10.

THE PROJECT MAINLY FOCUSES ON CLUSTERING OF SPACES. IN THIS PLAN EVERY CLUSTER IS PROVIDED WITH A COURTYARD SO THAT ALL THE INTERNAL SPACES GETS MAXIMUM LIGHT AND VENTILATION.

ACTIVITIES:
- ADMIN
- CLASS-ROOMS
- STAFF-ROOMS
- CONFERENCE ROOM
- LIBRARY
- LABS ART-ROOM
- MUSIC-ROOM
- COMPUTER-ROOM
- DANCE-ROOM
- TOILETS
- AUDITORIUM

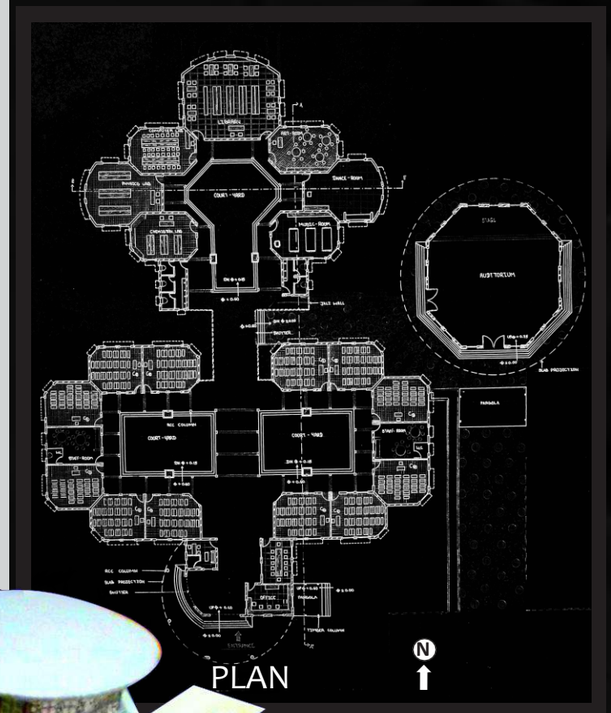
CLUSTERING

THIS PROJECT DEALS WITH UNDERSTANDING AND SEGREGATING THE AREAS, CLUSTERING AND CREATING SPACES.

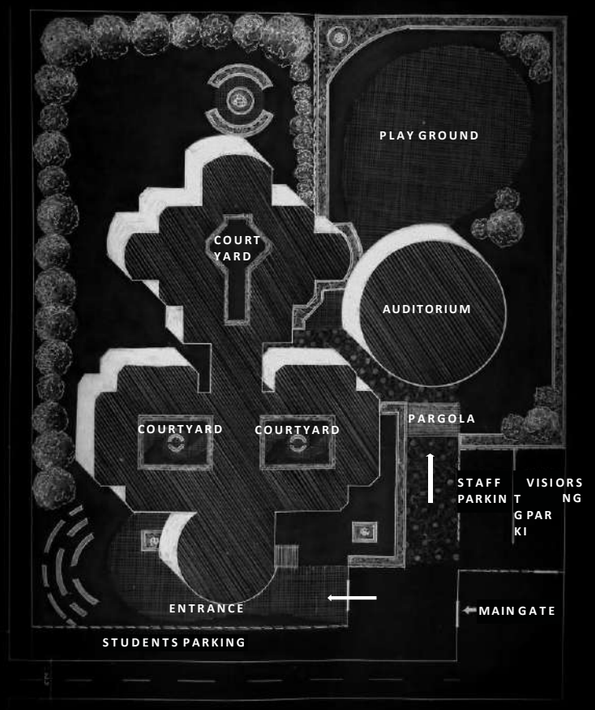


SECTION A-A'

SECTION B-B'

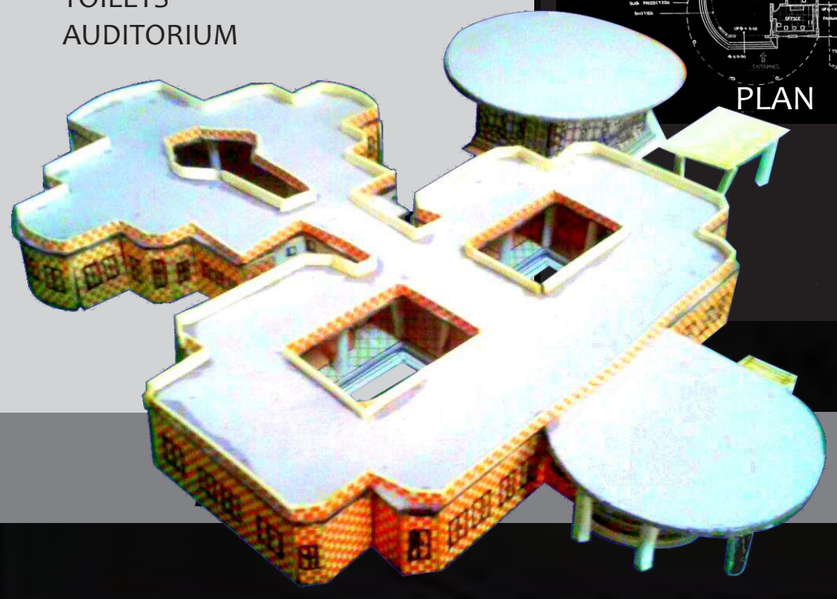


PLAN



SITE PLAN

FRONT ELEVATION



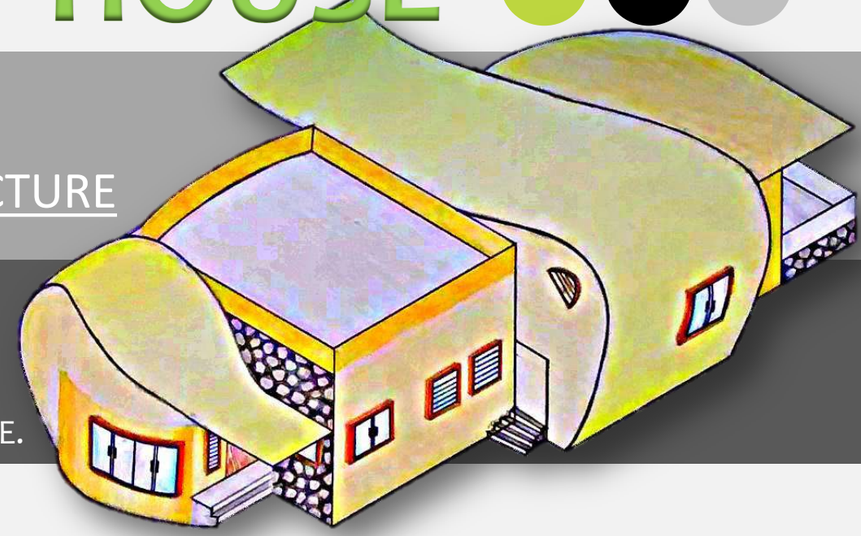
1st Year / 2nd Sem
MAJOR PROJECT

MEDIUM : HAND DRAFT

07

MY HOUSE

CONCEPT :
AERO-DYNAMIC STRUCTURE

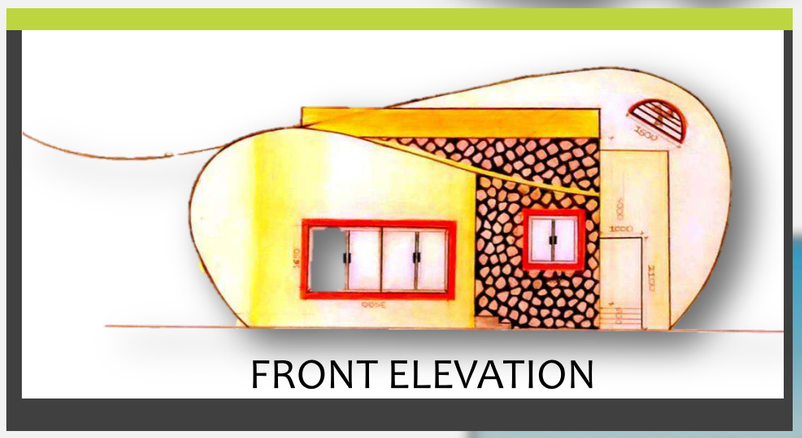


THE PROJECT FOCUSES MAINLY ON USING PASSIVE ENERGY AND MAKING IT A AERO-DYNAMIC STRUCTURE.

THE HOUSE IS TO BE DESIGNED CONSIDERING THE FAMILY MEMBERS, THEIR REQUIREMENTS AND COMFORT.

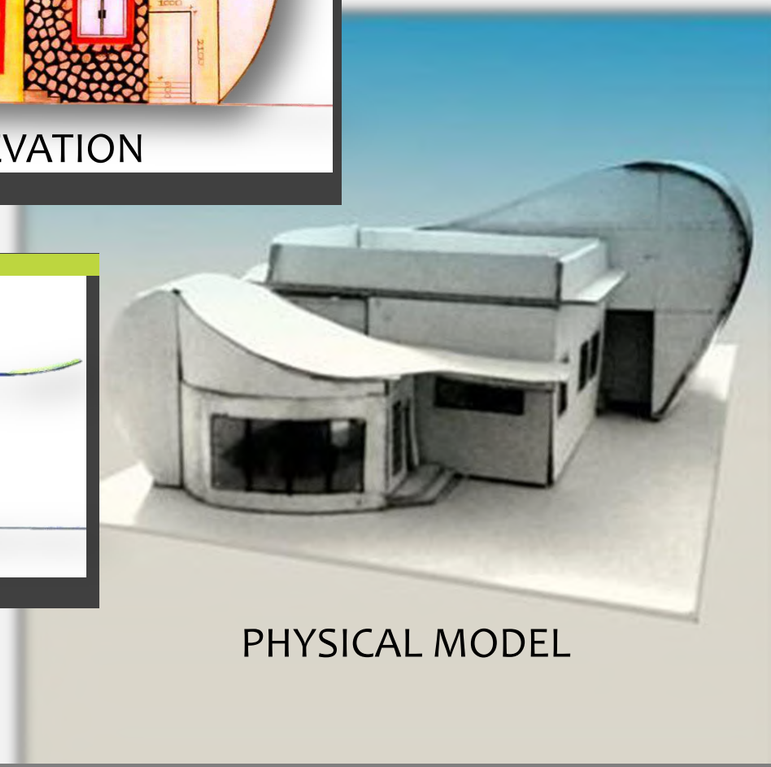
THE PLAN FORM IS EVOLVED FROM THE BASIC COMBINATION OF LINES AND CURVES.
THE CURVES ON THE EXTERIOR ARE NOT ONLY FOR AESTHETIC PURPOSE BUT ALSO HELPS IN TAKING THE HOT AIR UPWARDS RESULTING IN COOLER INTERNAL ATMOSPHERE.

PLAN



FRONT ELEVATION

REAR ELEVATION



PHYSICAL MODEL

OTHER PROJECTS

ART GALLERY

PHYSICAL MODEL

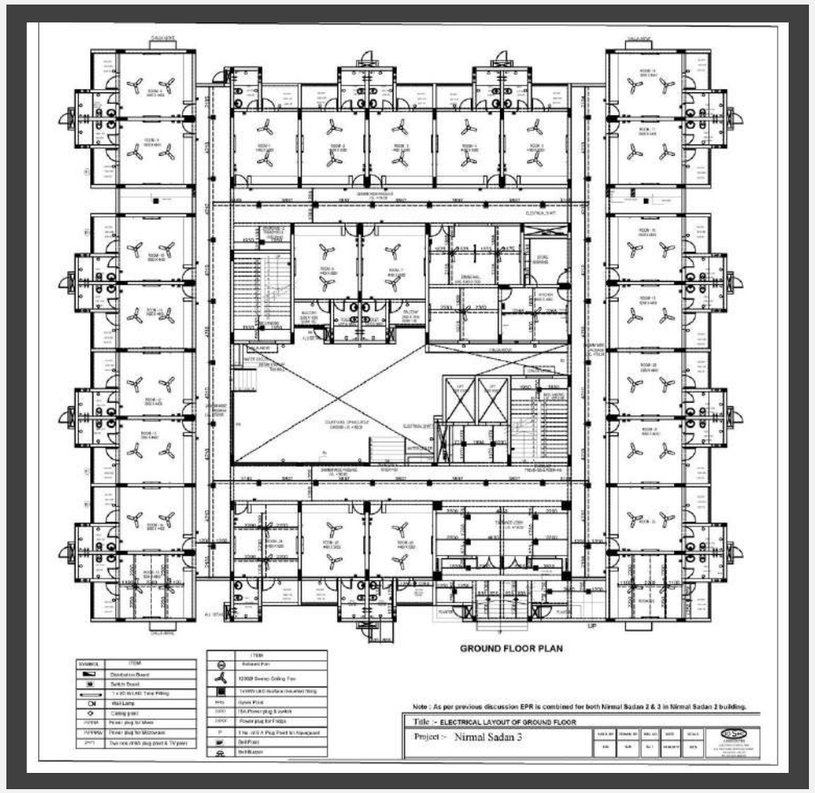
2nd year/ 4th sem

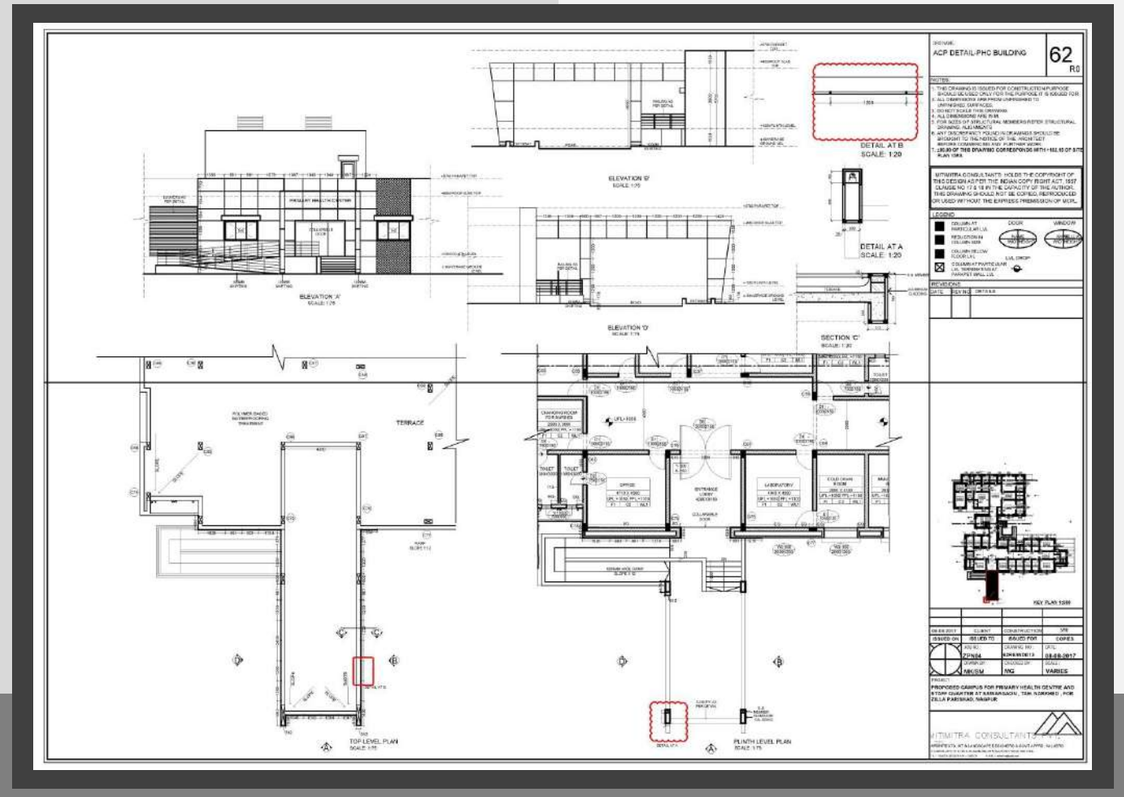
PLAY-STATION WITH ROOF TOP CAFE

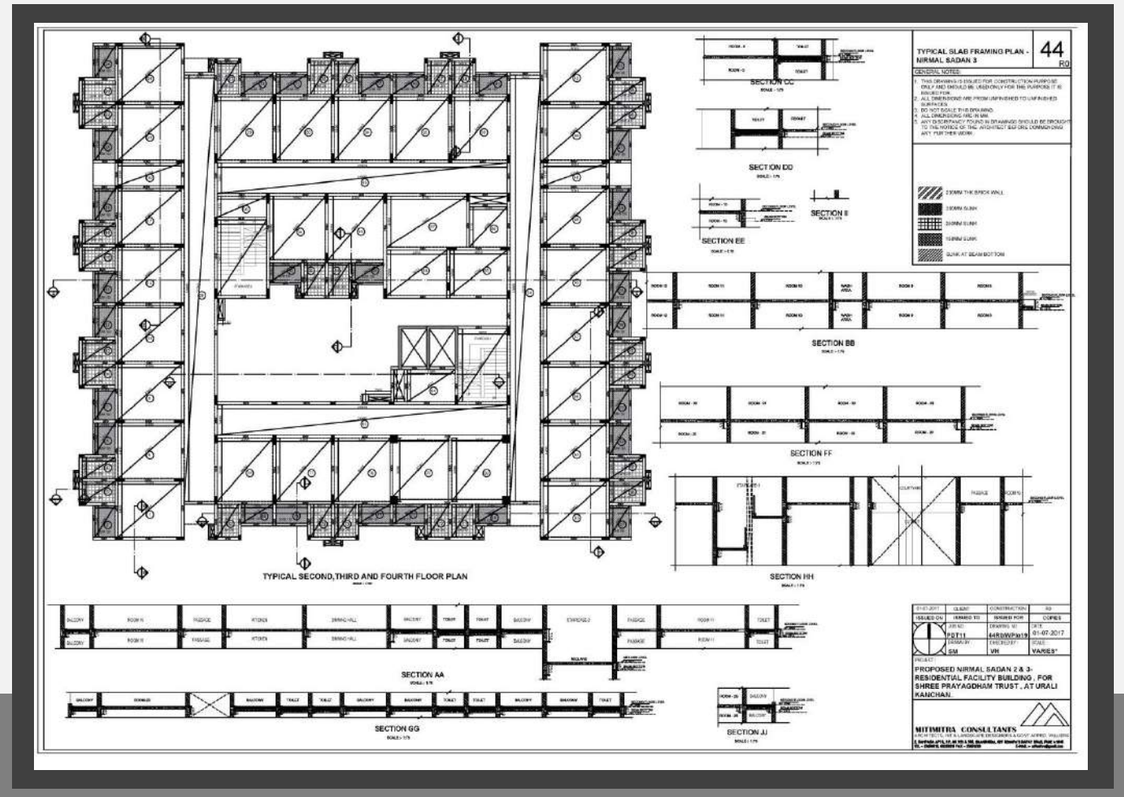
REVIT MODEL

4th year/ 7th sem

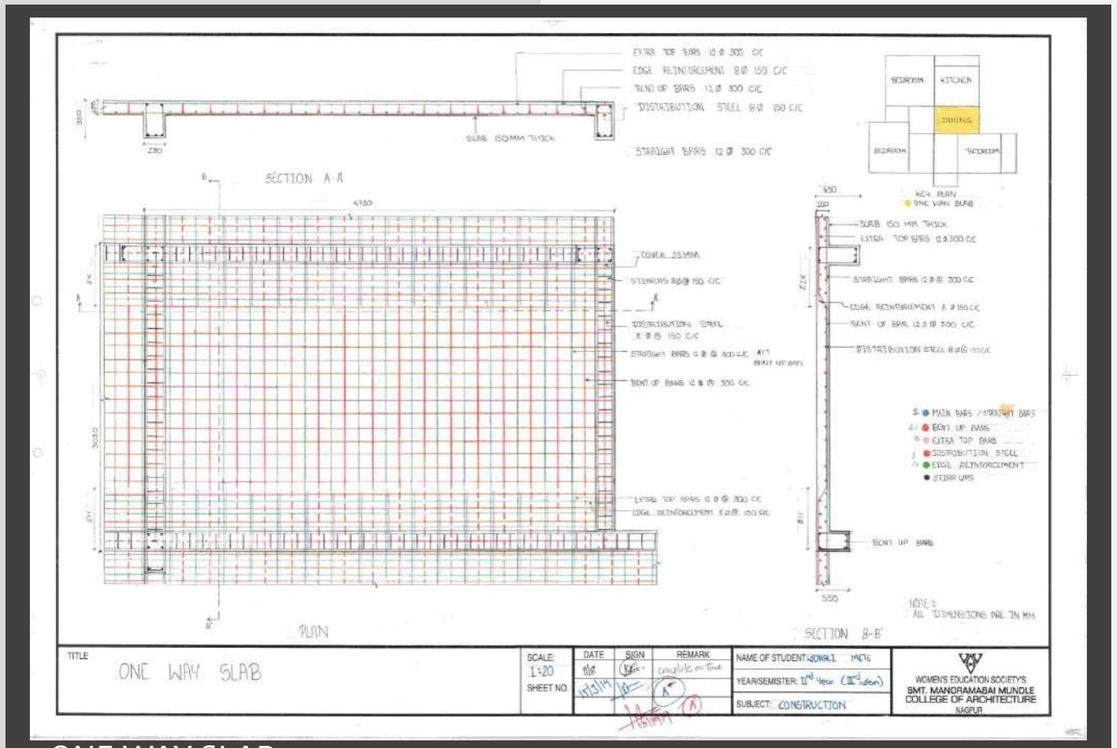
WORKING DRAWING



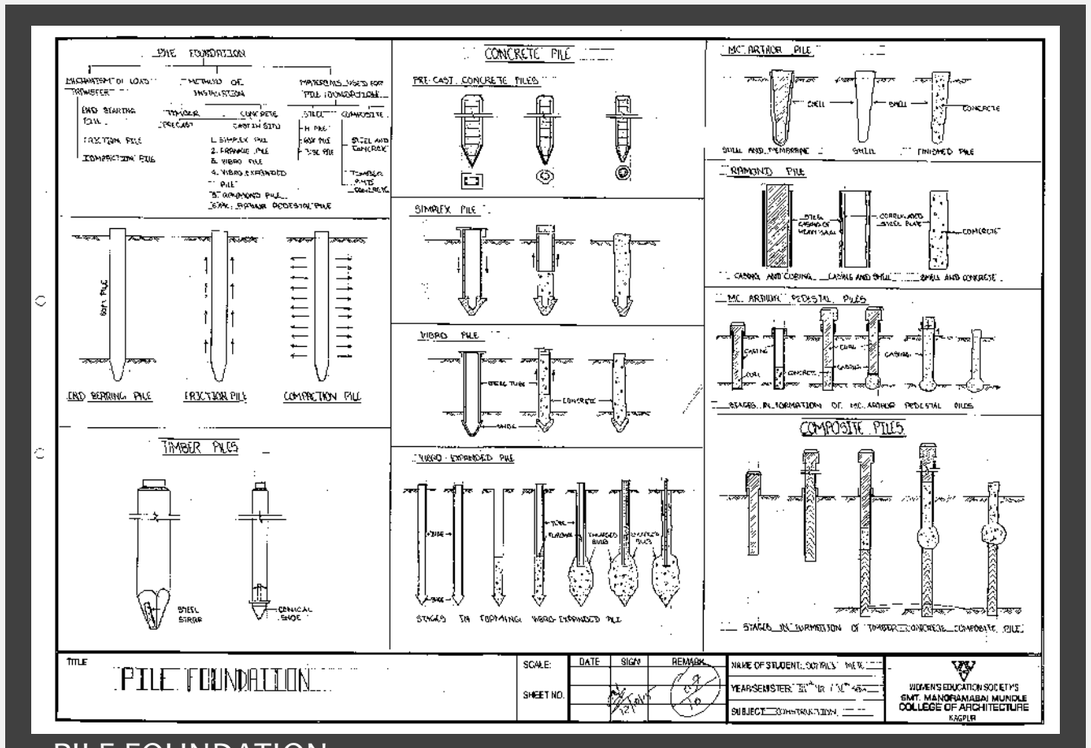




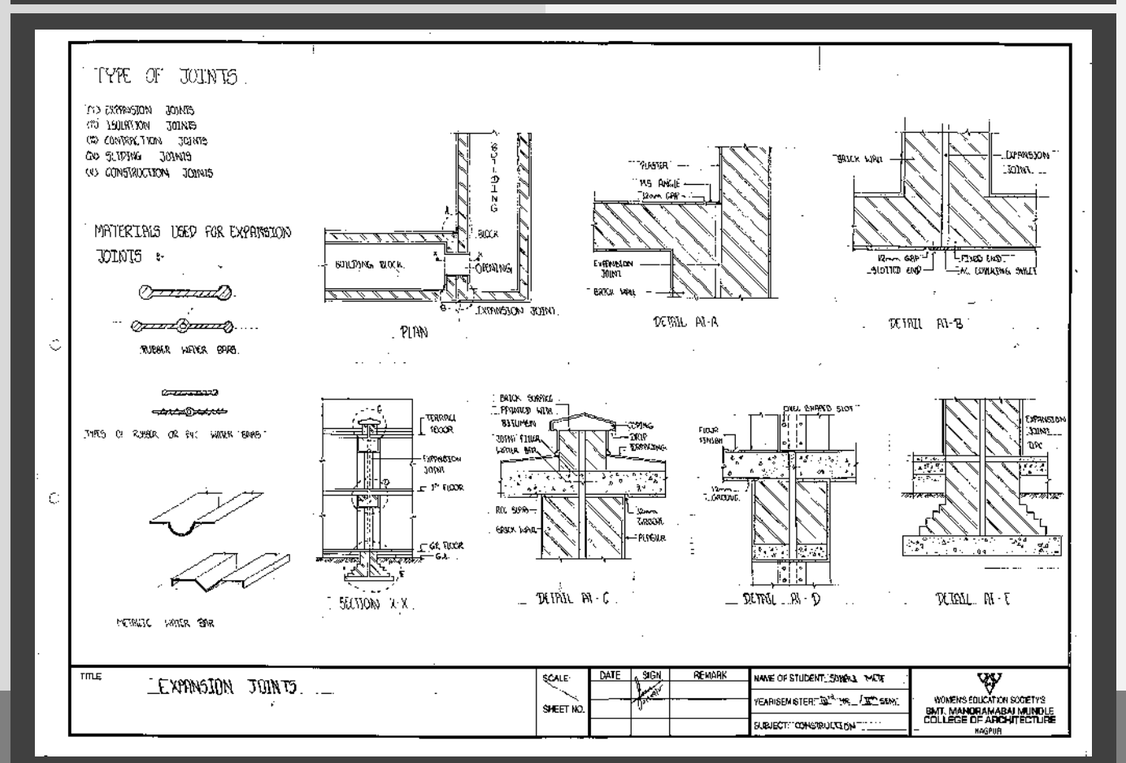
CONSTRUCTION SHEETS



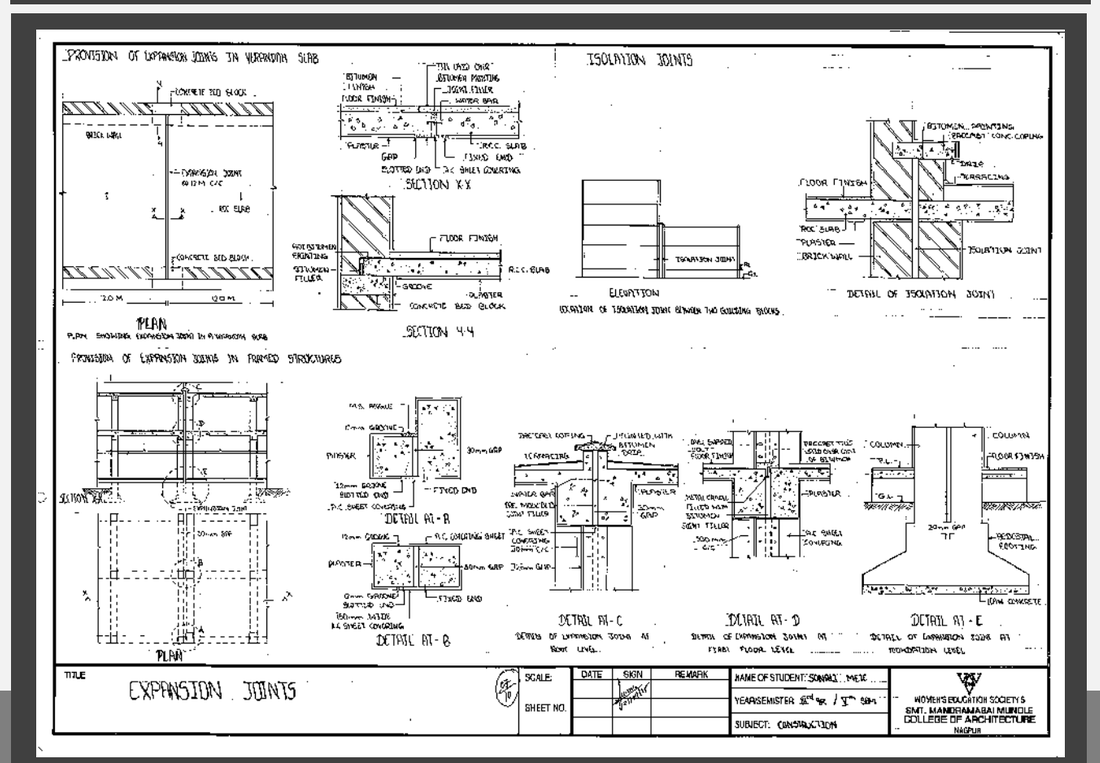
ONE-WAY SLAB



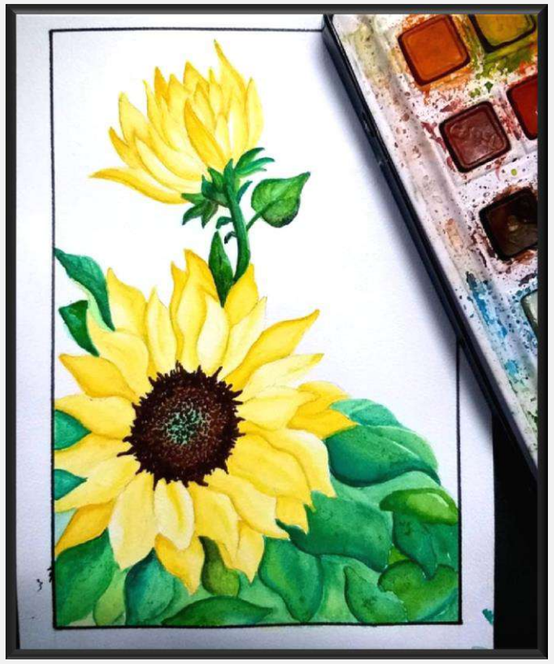
PILE FOUNDATION

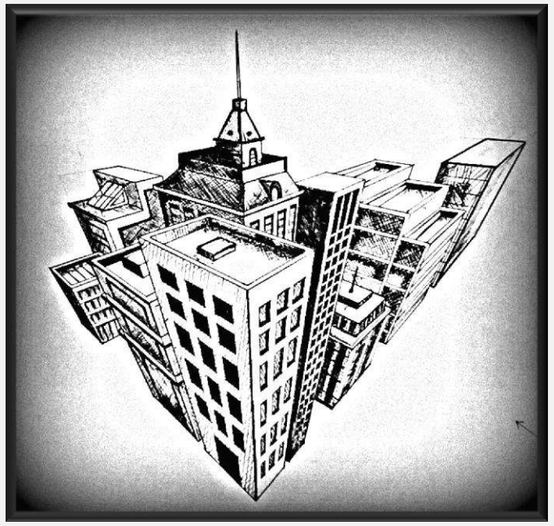


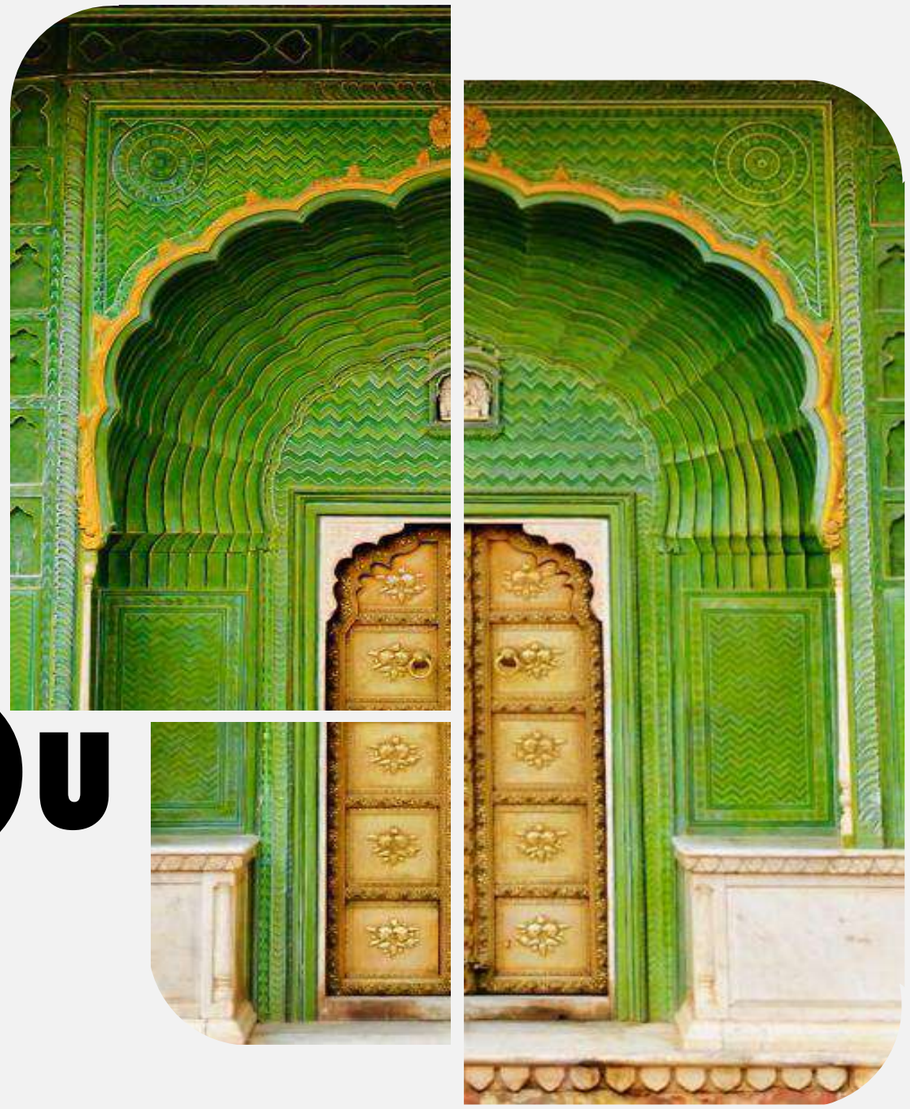
EXPANSION JOINTS



EXPANSION JOINTS





ARTWORK

THANK YOU