

PORTFOLIO

Ayush Gala

MASTER OF URBAN DESIGN

UNIVERSITY OF VIRGINIA

ABOUT ME:

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As an Architect and Urban Designer, my philosophy is deeply rooted in empowering communities through sustainable, innovative design that harmonizes contemporary technology with historical context. My approach, shaped by a rich academic background, emphasizes holistic urban revitalization that prioritizes inclusivity, ecological balance, and long-term resilience. Collaboration is a cornerstone of my philosophy; I am committed to working alongside like-minded professionals to forge a path towards a sustainable, well-planned urban future, where the design of spaces reflects both functionality and environmental mindfulness.

SELECTED WORKS:

01 SEED PARK(ING): REDEFINING URBAN PARKING

Urban Design Studio | First Year Graduate

02 REVITALIZATION OF AN URBAN COMMUNITY

Undergraduate Thesis | Final Year Undergraduate

03 PUBLIC LIBRARY

Architectural Design Studio | Final Year Undergraduate

04 I.B TOWER, MUMBAI

Mix-Use Tower | Commercial

05 PUBLIC HEALTHCARE CENTRE

Laurie Baker Trophy (2020-21) | Design Competition

- This portfolio of selected works offers a glimpse of my academic works and demonstrates the progress made throughout my undergraduate.
- This drawing also demonstrate how my undergrad projects were a catalyst for my passion in Urban Design.
- It also demonstrates the thought and design processes across varied projects as well as their final outcomes.
- All drawings, text are works of Ayush Gala, unless otherwise mentioned.

01 SEED PARKING

Location: Newtown Creek, New York

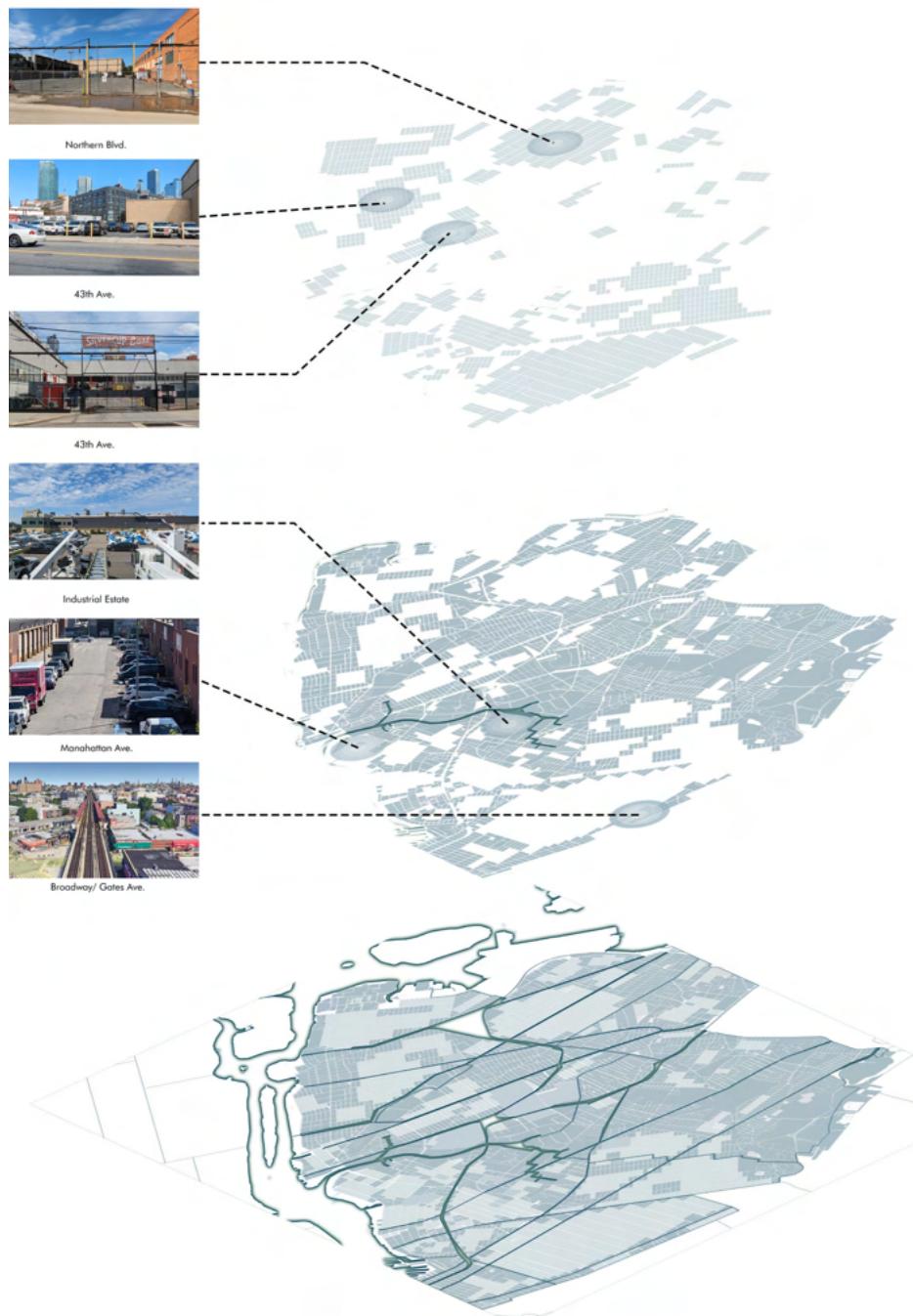
Creek length: 3.5 Mile Built-up Area: 13,000 M²

Year: First Year Graduate UD studio

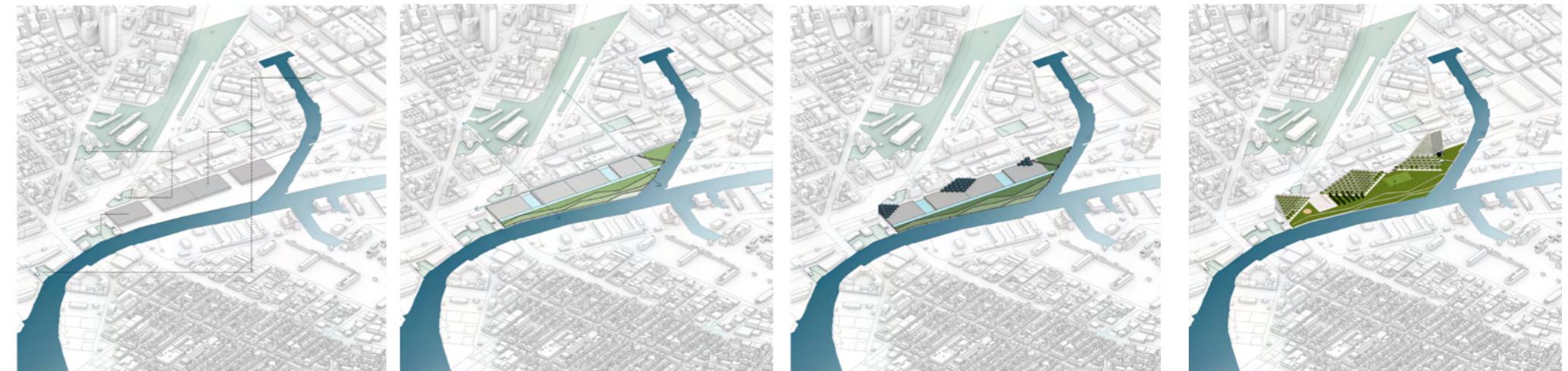
Project Type: Academic | Individual

Aim: To transform urban parking areas into sustainable, multifunctional spaces

GRID MORPHOLOGY & ON-SITE PHOTOS:



FORM DEVELOPMENT:



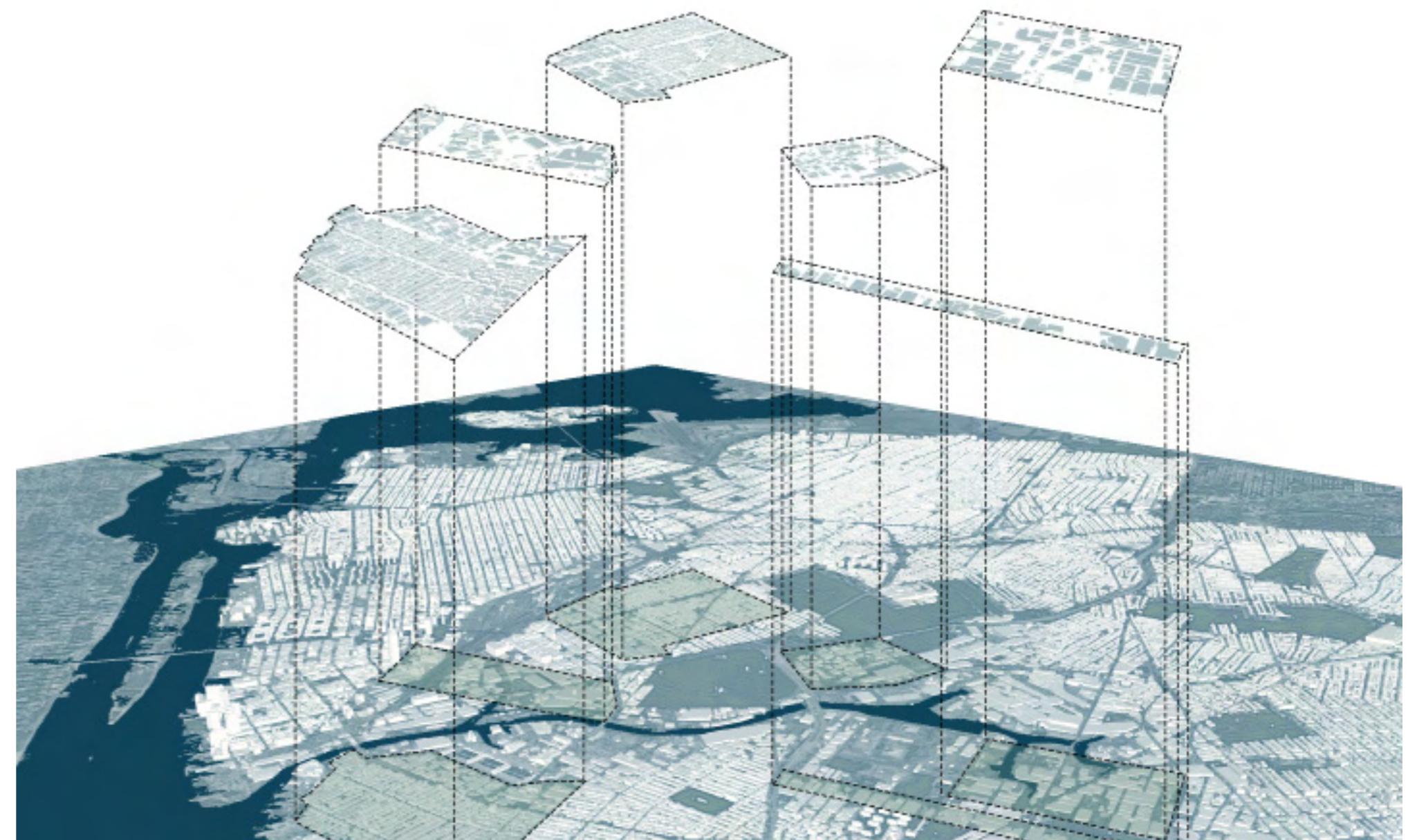
1. Consolidating all the parkings onto SEED site.

2. Providing public access & softening creek edge.

3. Place Manufacturing plants on the bottom.

4. Residential on top with public amenities.

GRID MORPHOLOGY AXO:



SWOT ANALYSIS:

STRENGTHS:



Newtown Creek's central position, intertwined with its industrial heritage, makes it an ideal hub for urban development.

WEAKNESSES:



Extensive surface parking diminishes valuable space, hindering the area's potential for more productive uses.

OPPORTUNITIES:



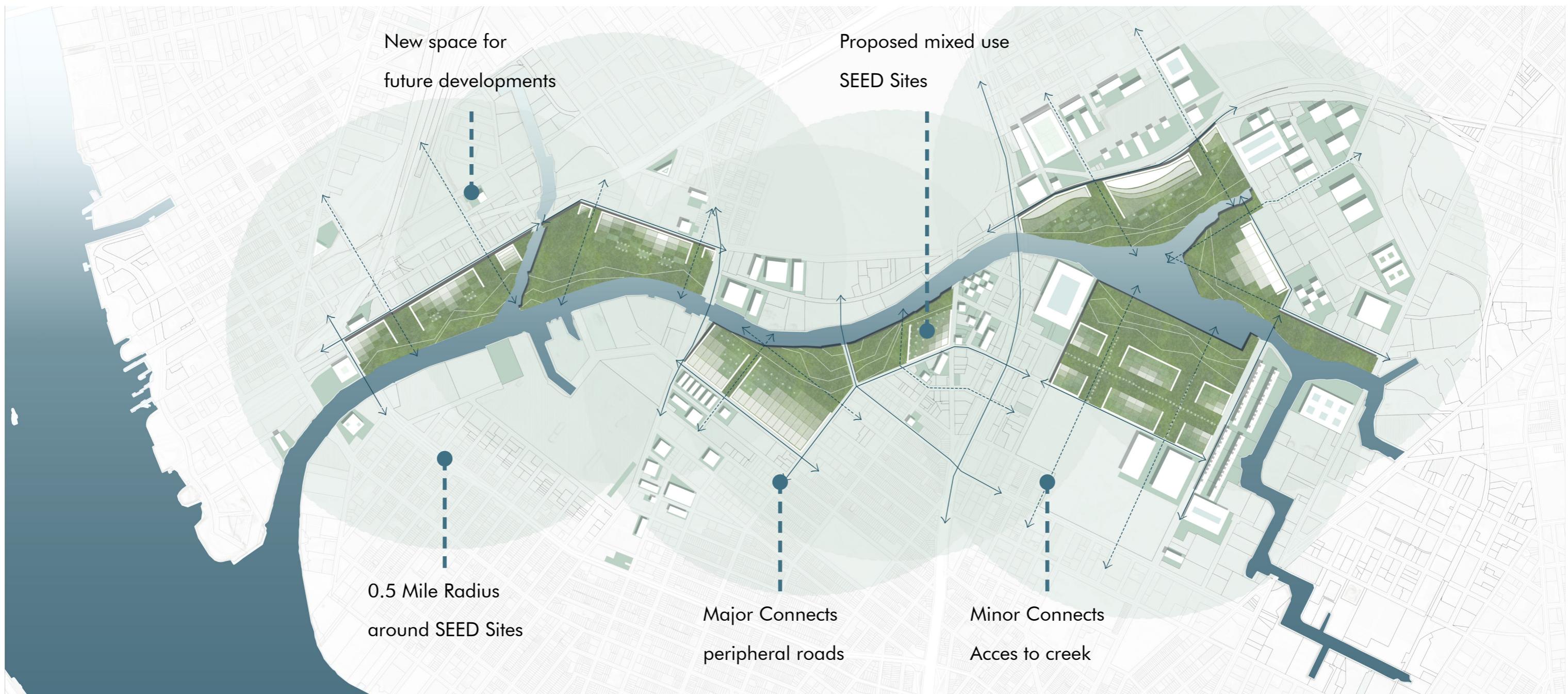
Redeveloping underutilized parking lots could introduce mixed-use spaces, fostering a vibrant community atmosphere.

THREATS:

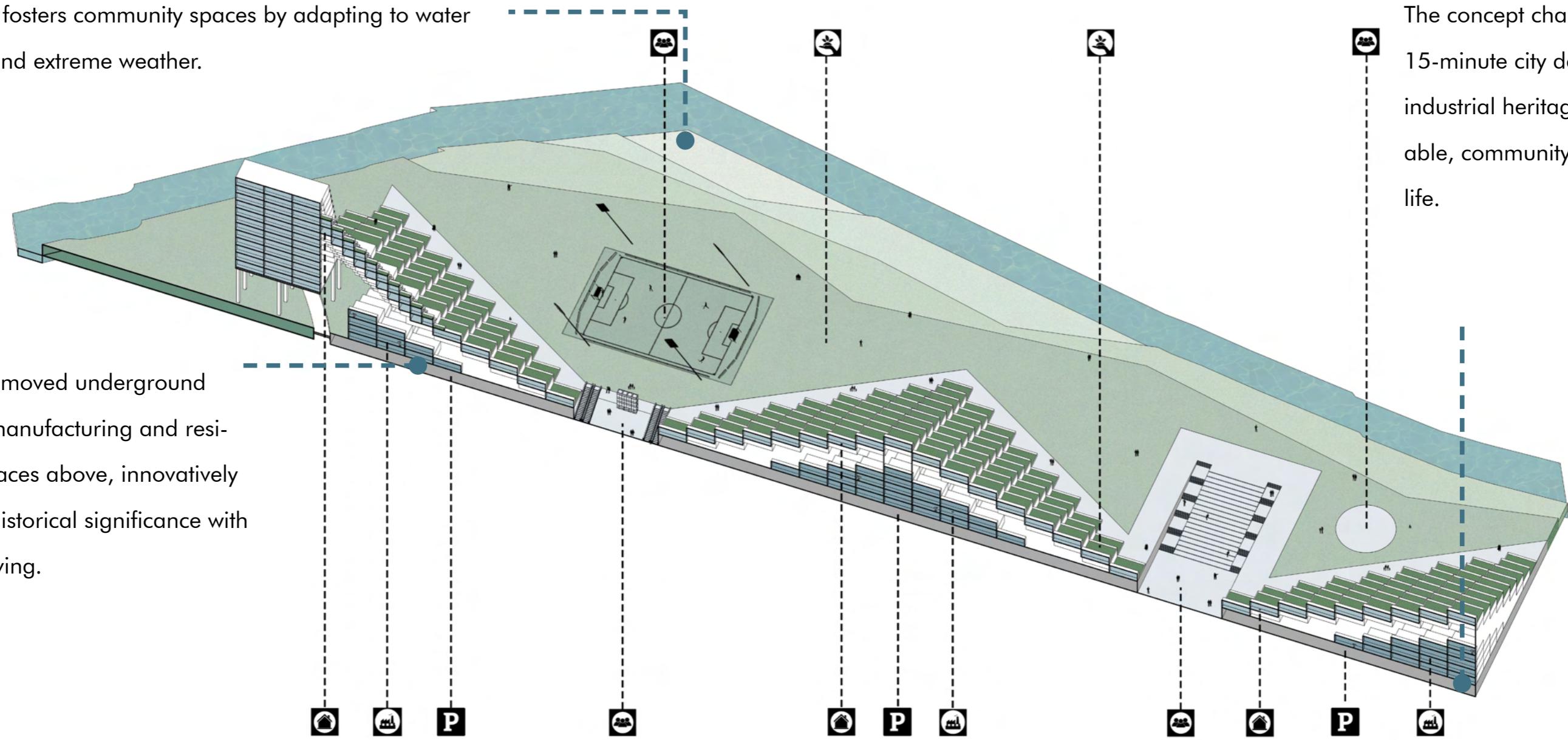


The hard edge poses environmental challenges, impacting water quality and limiting opportunities for natural habitat restoration.

MASTER PLAN:



The stepped creek edge design boosts environmental resilience and fosters community spaces by adapting to water changes and extreme weather.



Axo. SECTION

INFERENCE:

Parking is a major issue in almost all American cities, by repurposing parking lots into multifunctional spaces that encompass residential, industrial, and communal areas, it suggests a shift towards more sustainable urban planning. This approach not only maximizes the use of limited urban space but also promotes a closer community lifestyle, reducing the need for long-distance travel and fostering a more eco-friendly, interconnected urban environment.

3D VIEW:



3D MODEL:



The concept champions a 15-minute city design, marrying industrial heritage with a sustainable, community-centric urban life.

02 REVITALIZATION OF AN URBAN COMMUNITY

Location: Noida, Uttar Pradesh.

Site Area: 97,000 M²

Year: Fifth Year (2022-2023)

Project Type: Design Dissertation | Individual

Aim: To design a physical environment that would act as a catalyst for a synergistic interaction between people and organizations working in various habitat-related fields.

INTRODUCTION:

A habitat is the natural environment in which an organism could survive. It provides the organisms with food, water & shelter. Similarly, a Habitat Centre is a place for contemporary culture, economic, business and social events. The main goal is to design a Habitat Centre using sustainable design practices that is relevant to the local context.

OBJECTIVES:



SENSE OF COMMUNITY:

Locals develop shared experiences while using the Habitat Centre.

SUSTAINABLE DEVELOPMENT:

The centre could create significant employment opportunities.

COMMUNITY DEVELOPMENT

CULTURAL DEVELOPMENT:

Culture could function as a catalyst for community's development.

ECONOMIC DEVELOPMENT:

The habitat centre could act as a centre of commerce & business.

LITERATURE STUDIES:

In the literature study, we will first understand what a community is. then how the agricultural revolution led to the formation of the four ancient civilizations of Mesopotamia, Egypt, the Indus Valley, and China, which then provided the basis for continuous future developments.

Ferdinand Tönnies who is usually credited with the notion of 'community' and how Tönnies distinguished two types of communities, the simplicity of village life (Gemeinschaft), then there were complex social relationships in urban environments (Gesellschaft). To improve these social relations and strengthen the bonds of an urban community, we need to understand how to impart a sense of community and socialization, which will help to develop a given urban community by creating a habitat for various types of social interaction, exchange of culture and ideas. Also, understand various active and passive technique to design a sustainable structure.

Lastly, conclude with how a Habitat Centre could act as Community Centre of commerce and a socio-cultural hub.

CASE STUDIES:

1. INDIAN HABITAT CENTRE

Location: New Delhi, India

Architect: Joseph Allen Stein

Site Area: 9.6 Acres

Built-up Area 53,000 m²

Planning: Peripheral movement of vehicles.

Built areas zoned into blocks -offices & cultural, which are connected by courtyards and bridges.

Sustainable Design: The inner courtyard & a system of sky-to-open shaded canopies over the large paved plazas, the structure is designed as an example of a medium-sized climate adaptation.



SITE SELECTION:

THE TIMES OF INDIA

In 5 years, Noida Authority spent over Rs 20,000 crore on infrastructure projects, most on metro lines

HELIPORT, METRO CORRIDOR IN PIPELINE

₹20,577 cr

Spent by Noida Authority on infra development since Apr 2017

COMPLETED: Projects include:

₹1,074 cr | 6 multilevel/underground parking spaces for 12,653 vehicles

₹480 cr | Elevated road from Vishwa Bharati school to Sector 61

₹474 cr | Two power substations and power lines

₹344 cr | 240-bed Covid Hospital

₹220 cr | Four underpasses

₹140 cr | Six-lane bridge on Yamuna river, four-lane bridge on Shandara drain

₹115 cr | Indoor stadium and shooting range



TOTAL ₹ 3,265 cr

UNDERWAY: Projects include:

- ₹1,154 cr | Two elevated roads (Chilla and Bhangel), one flyover
- ₹737 cr | Habitat Centre (Sector 94) and golf course (Sector 151A)
- ₹ 259 cr | 100 MLD sewage treatment plant in Sector 168, 80 MLD-STP in Sector 123
- ₹ 218 cr | Four underpasses
- ₹ 158 cr | City bus terminal in Sector 82
- ₹ 61 cr | Resurfacing work of Noida-Greater Noida Expressway

TOTAL ₹ 3,227 crore

THE TIMES OF INDIA

Noida airport track for end 2024 launch, says developer

TNN Nov 4, 2022, 11:34 AM IST



A subsidiary of concessionaire Zurich AG floated for the airport project, MAPL awarded the engineering, procurement and

construction (EPC) contract to Tata Projects Limited in June. Since then, workforce and machinery have been mobilised. At present, excavation work for the terminal building, runway and air traffic control is on while more than 1,000 workers are employed at the site. At the peak of the construction, this number is expected to touch 6,000. Officials said 50% of the workforce is from the Jhajjar region, where the airport is located.

"This area will emerge as a strong business ecosystem. We expect that 10,000-2,000 people will work directly in cargo, security, flight maintenance and other spheres of airport management. The ecosystem will create thousands of jobs indirectly as well," said the informed official.



NOIDA GETS ITS OWN CULTURAL CENTER

The missing link required for the transition of the city of Noida into a state-of-the-art and self-sufficient city has been an entertainment and cultural space around which its social life can seamlessly revolve, like the millennium city of Gurgaon's Epicentre or the national capital of Delhi's IHC, India Habitat Centre. But the much awaited change might soon turn into a reality.

A world class facility which will house a cultural centre is all set to give Noida a much-needed facelift. The requisite land for the highly anticipated facility has already been set aside in the fast developing region. The mighty and in power central government is putting good funding to this ambitious and much-needed project.

Since the twin cities of Noida and Greater Noida are the face of the state of Uttar Pradesh, the development and sustenance of all the important NSG region is being undertaken in a tech savvy and structured manner.

But that's not all; a humungous Rs 23,000 crore has been allotted in this fiscal year's state budget to provide a much-needed boost to the power sector. As a result, 24-hour uninterrupted power supply to a key urban areas by the month of October 2016 will be a reality soon enough.

Apart from the above, the mighty UP government has installed a skill development mission and close to a whopping 110 lakh vibrant and young residents of the state have taken part in the helpful skill training sessions. State government of UP and the Noida authority are working hand in hand towards the noble cause of training more and more unskilled labours/workers.

While the proposed and the much-looked forward to Noida's Habitat Centre project is rightly being expected to be the very first of its kind completely integrating entertainment, art, display, exhibition and convention arena in Noida where academics, organizations and professionals will be able to interact and share ideas in a totally informal environment. With the lands required for building this project, from a scratch will be generated and granted by the Central government, the vibrant and sprawling Noida Authority will provide the requisite land.

Noida, which has already established itself as a force to be reckoned with, is going from pillar to post at a rapid pace. Noida is undoubtedly Uttar Pradesh's most crucial city and is Delhi-NCR's most in demand job, education and realty hub. Now with development of its very own habitat Centre, which till date was not only blank in its annum, is also going to be filled. The people of Noida rightly have their fingers crossed for a timely and seamless execution of the habitat center in the city because if it does so then the landscape of Noida will change for the better almost instantly.

THE TIMES OF INDIA

CM Yogi Adityanath gives nod for skill centre near Noida International Airport in Jawar

TNN Nov 4, 2022, 09:27 PM IST



GREATER NOIDA: Chief minister Yogi Adityanath has given in-principle approval for setting up a skill development centre near the upcoming Noida International Airport in Jawar. While 8,700 sqm of land has been earmarked for the proposed centre in Sector 31 of the Yamuna Expressway Authority area, the CM has directed officials to facilitate the work.

The approval comes days after Jawar got its first co-ed degree college, while another degree college, exclusively for women, is likely to be ready by July 2023. The two colleges and the skill development centre have been sanctioned by the Yogi government, along with several other development projects, keeping in mind the upcoming Jawar airport. The construction of the airport is going on at a rapid speed, with its first flight slated to take off in 2024.

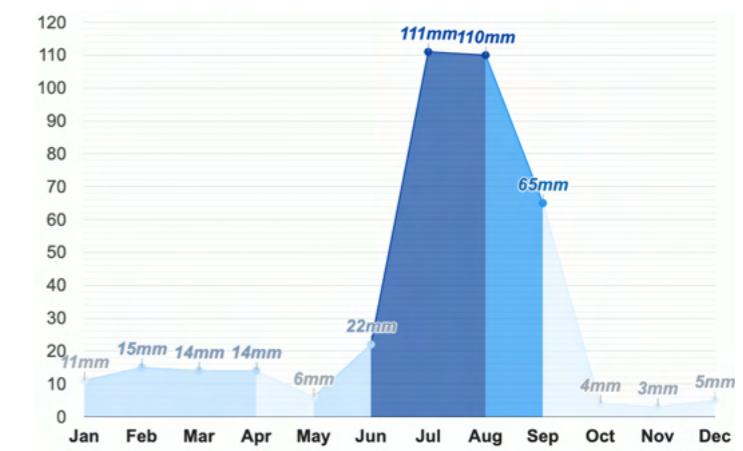
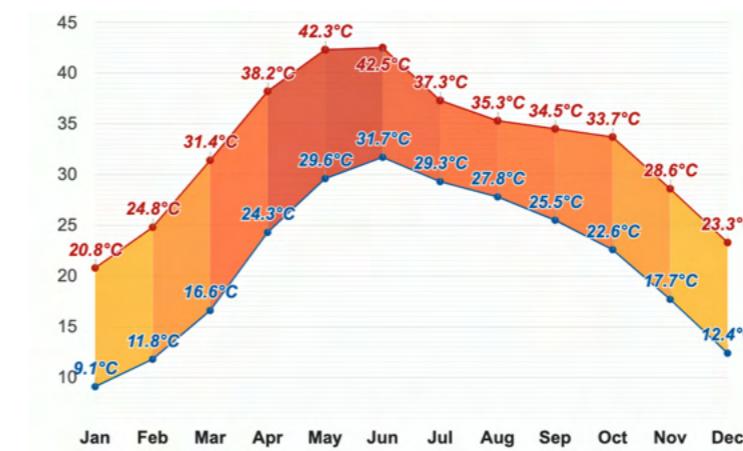
The department of vocational and skill development will carry out the construction of the centre. And once ready, the centre will offer vocational training related to aviation, apparel and upcoming industries in the region and also facilitate start-ups, officials have said.

"I had been raising the demand for a proper skill development centre in the Jawar area since 2020 for training the local youth. But the state kaushal vikas (skill development) department did not take it forward. Maybe due to the pandemic, Jawar NIA (Delhi-NCR) Singita TOL (Tender Opened) took up the matter with CM Yogi on Saturday and he immediately agreed. So, 8,700 sqm of land has been allotted to the vocational and skill development department for the centre."

ABOUT SITE:

"Noida Convention and Habitat

Centre" is proposed at Sector 94, Noida, and Uttar Pradesh. The total plot area is 97,000 m² and is marked for mixed land use development. Noida is a planned city near Delhi, located in the Indian state of Uttar Pradesh. Noida has been planned on the grid iron concept.



The warmest month is June (42.5°C). The month with the lowest temperature is January (20.8°C). The wettest month is July (111mm). The driest month is November (3mm).

S.W.O.T. ANALYSIS:

- The Site Location is prime, as it has sufficient area for the project. It is also well connected with the Okhla Bird Sanctuary Metro Station being within walking distances.

- The soils in the region are sandy clay loam type. - A 80-Storey tower to the north of the project site which casts shadow during evenings and early mornings.

- The Noida Authorities have spent a lot of resources in developing various infrastructure project like Metro and also a Noida International Airport (Jewar Airport).

- Noida has extreme climatic conditions. Various active and passive design strategies will be taken while design the project, to make it eco-friendly.

03 PUNE PUBLIC LIBRARY

Location: Pune, Maharashtra

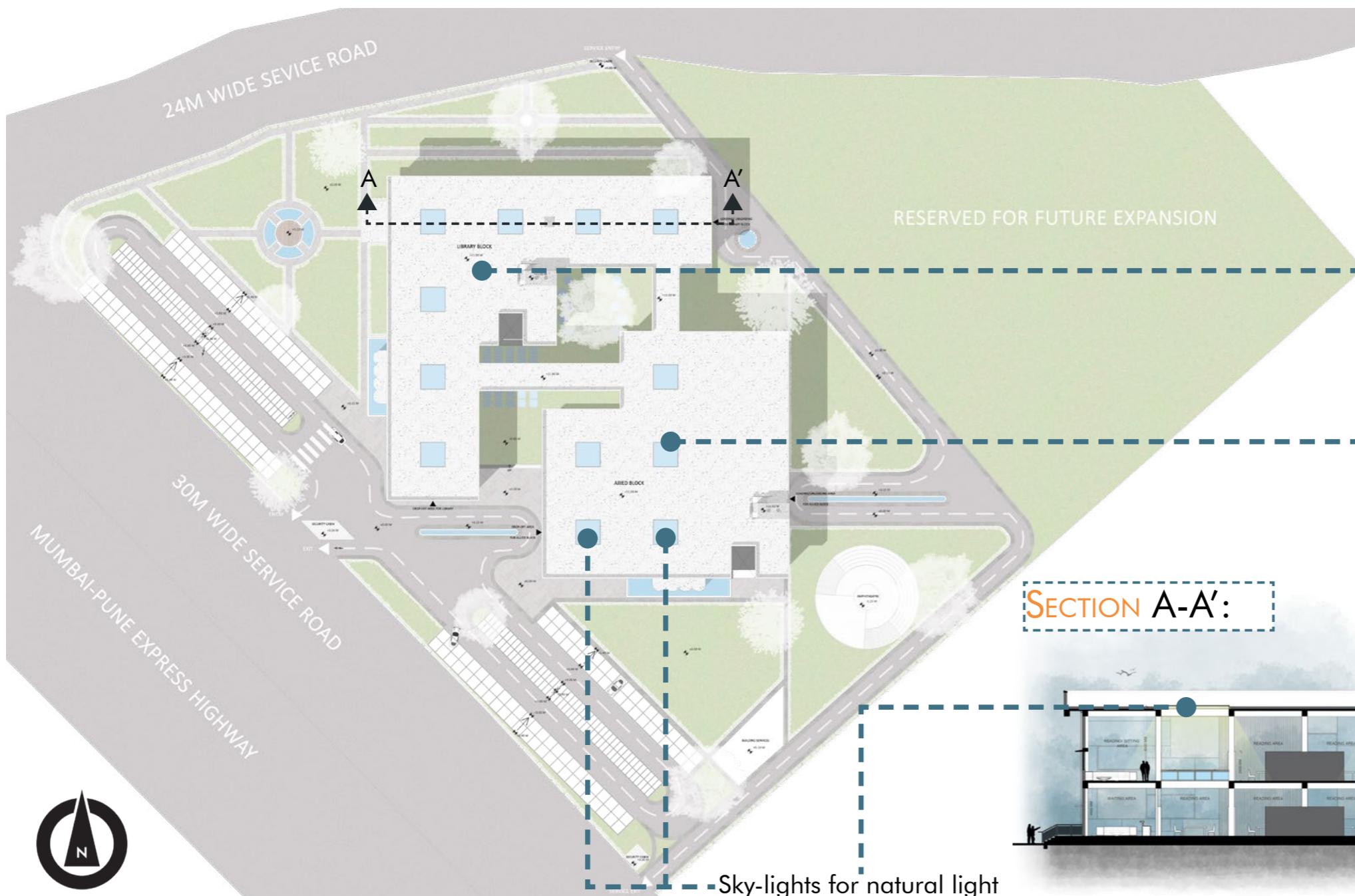
Site Area: 23,637 M² Built-up Area: 13,000 M²

Year: Fifth Year (Sem-IX)

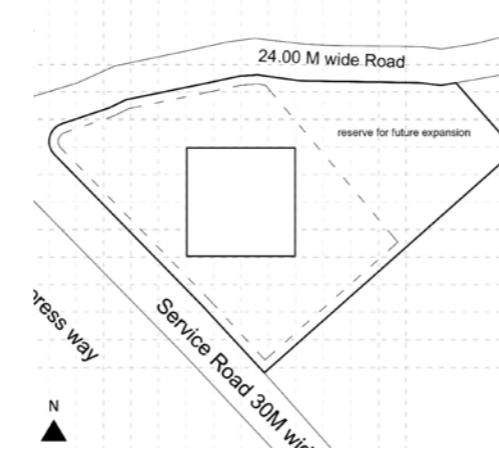
Project Type: Academic | Individual

Aim: To Design a Public Library Building with multipurpose facilities at Hingewadi, Pune.

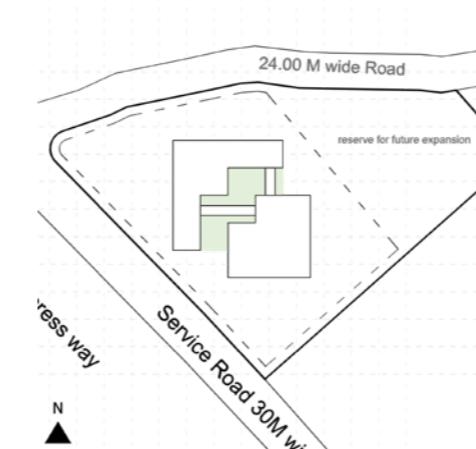
SITE PLAN:



FORM DEVELOPMENT:

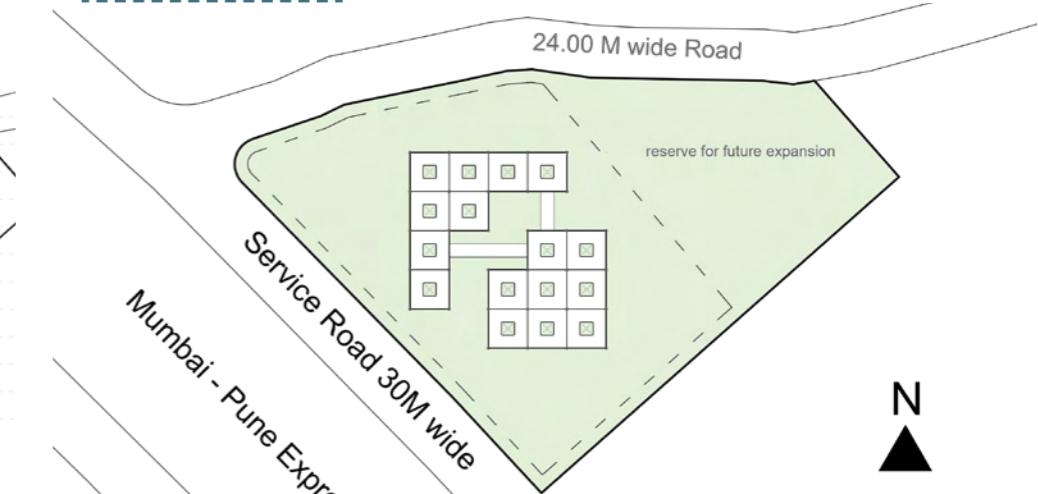


1. Setting-up grid and placing the block in the center.



2. Dividing the block into two block (noisy and quiet block)

CONCEPT:



The two blocks are then further divided into 18m x 18m blocks. These 18m x 18m blocks, each contain a 6m x 6m central Courtyard and sky-lights running parallel (as shown in the section below) which allows light to further penetrate 6m in all directions, making sure that each every corner of the structure is properly lit.

Library Block (Block 1):

Reading Area, Writing Area, Digital Library, Librarian Office Book Maintenance areas, Toilets, etc.

Allied Block (Block 2):

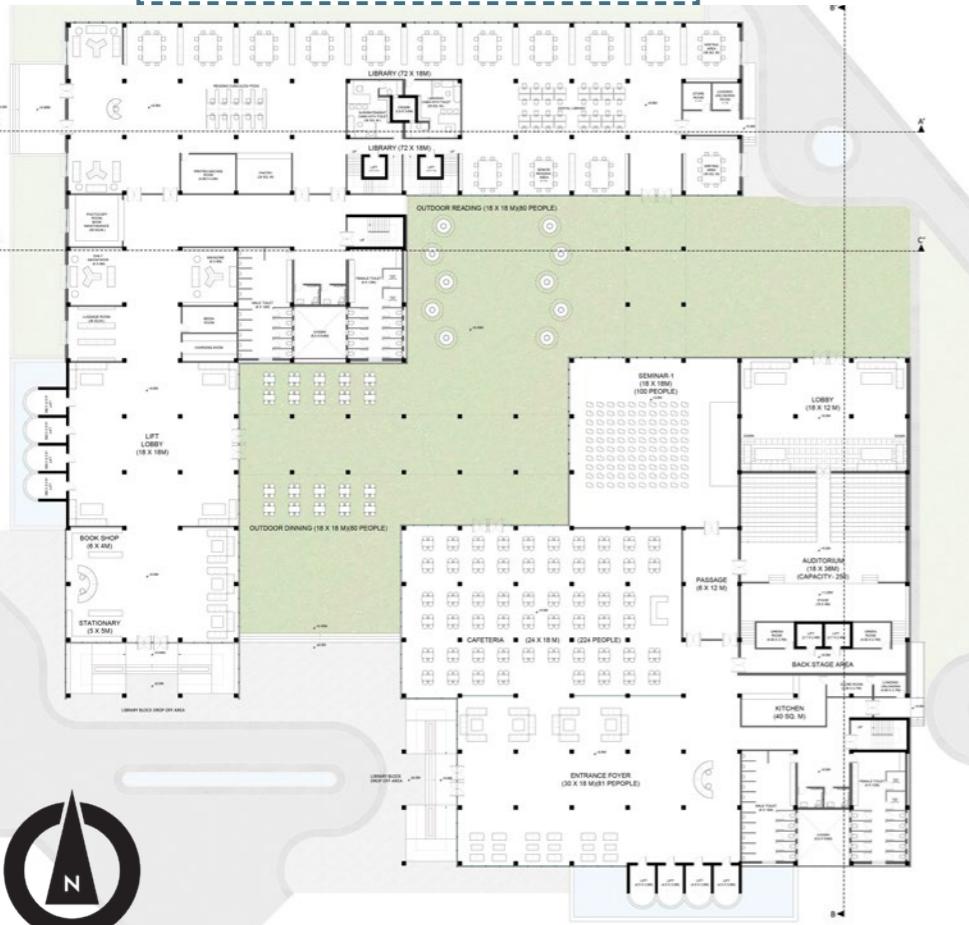
Cafe, Auditorium, Seminar Halls, Exhibition Hall, etc.

SECTION A-A':

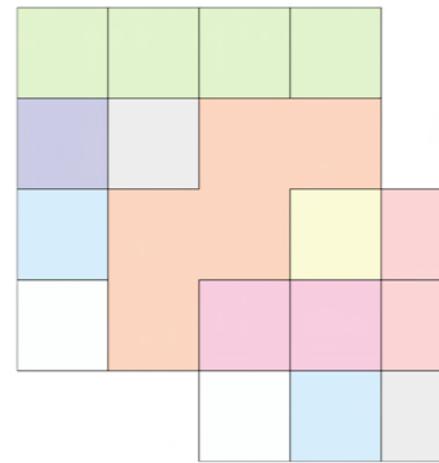


01

GROUND FLOOR PLAN:



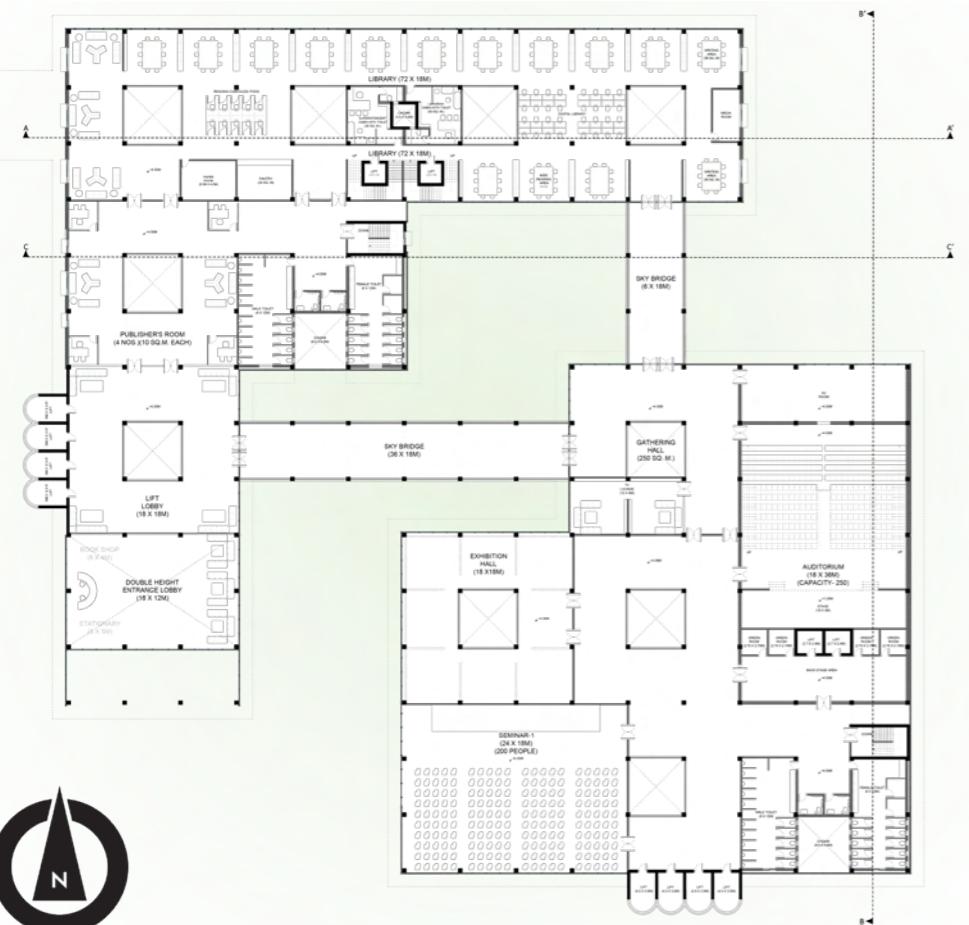
Zonning:



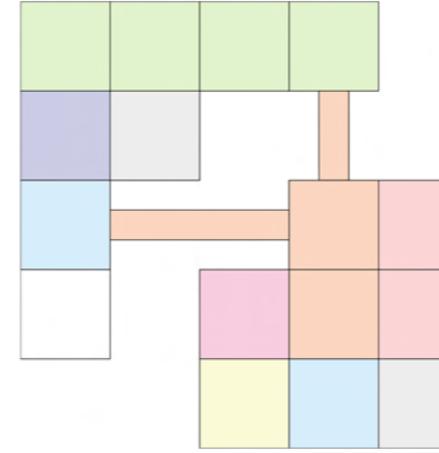
Legend:

- Main Library
- Infra Spaces
- Services (Toilets, Stairs)
- Lift Lobby

FIRST FLOOR PLAN:



Zonning:



Legend:

- Main Library
- Publisher's Room
- Services (Toilets, Stairs)
- Lift Lobby

NORTH-SIDE ELEVATION:

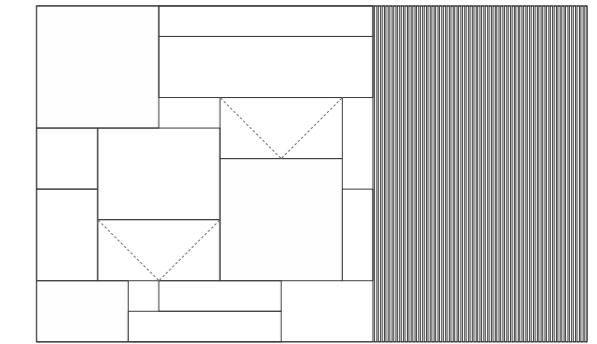


The unit is a combination of solid panels, glass panels and top-hung windows.

- Entrance Lobby
- Cafeteria
- Auditorium
- Seminar Room

MONDRIAN COMPOSITION:

A grid-pattern of horizontal and vertical lines could represent the universal harmony of the world.



WEST-SIDE ELEVATION:



uPVC can withstand extremes of heat, cold, wind, rain and is cheaper than wood.

- Transitional spaces
- Exhibition Hall
- Auditorium
- Seminar Room

INTERNAL HEAT GAIN:

Heat gain is the rise in temperature within a space due to heat from the sun. To reduce this heat gain, uPVC louvers have been used on walls as a shading devices.





3D VIEW

INFERENCE:

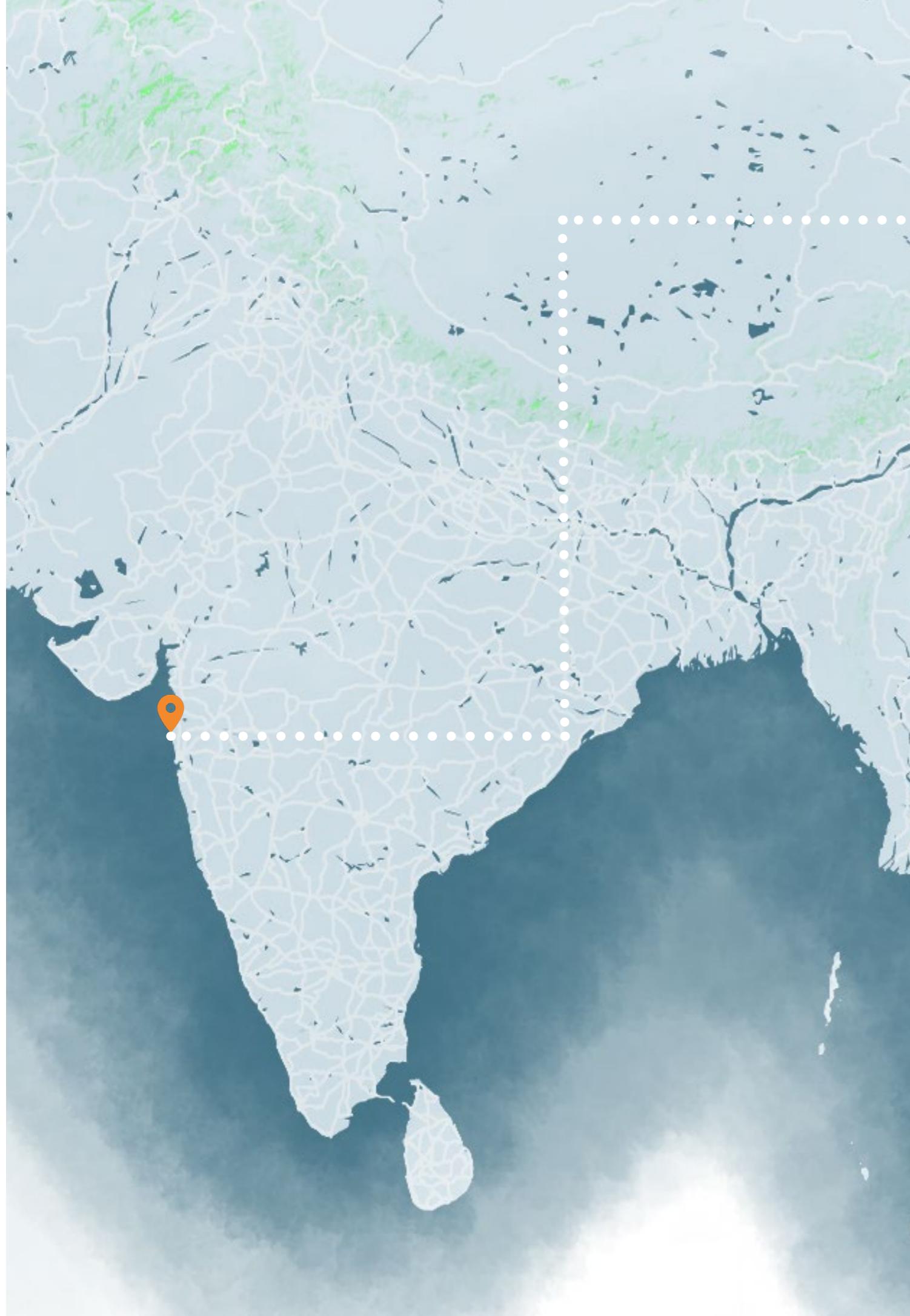
To design a public library, I did a precedent analysis on libraries like Lilavati Lalbhai Library (CEPT) and Seattle Public Library. I studied Pune and the site in detail. I also studied Ar. Christopher Benninger and his works in Pune. Through this literature and case studies, I understood efficiency, human scale, balanced movement, tradition, institutional and regional integration. And these principals influenced the design and are applied for a better design.



ENTRANCE VIEW:



VIEW OF THE COURTYARD:



PROFESSIONAL WORKS:

04

I.B. TOWER (MUMBAI)

Mix-use Tower | Professional Work

About the firm:

Bekal Gupta Architects is a Mumbai based firm founded in 2018 by Ar. Parth Bekal and Ar. Suruchi Gupta. This firm works at multiple-scale and with various clients. This allows the firm to experiment and diversify their work; such as Bungalows to gated communities and from Filming Studio to Cloud Kitchen. The Professional Training at Bekal Gupta Architects was for 110 working days.

Scope of work:

- Architectural Design
- Interior Design
- Presentation Drawings
- Technical Drawings
- Site Visits
- Research (Material, cost)

Soft Skills:

- Time Management
- Teamwork
- Creativity
- Problem Solving
- Work Ethic
- Attention to detail

04 I.B. TOWER

Location: Goregaon (E), Mumbai

Site Area: 785 M²

Year: 2020-On-going

Project Type: Mixed-Use Tower | Group Work

Client Name: I.B Patel

Role: Assisted in designning the Floor Plans of the Tower.

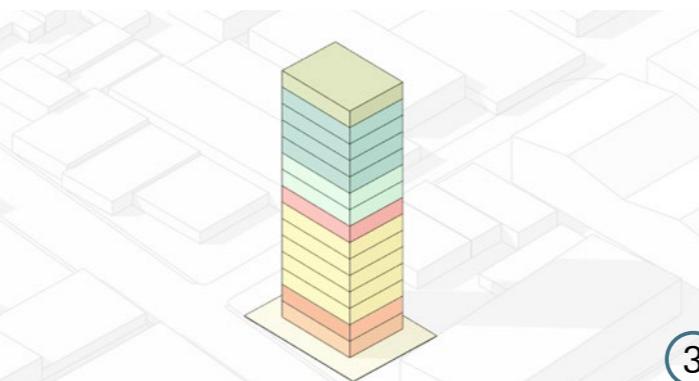
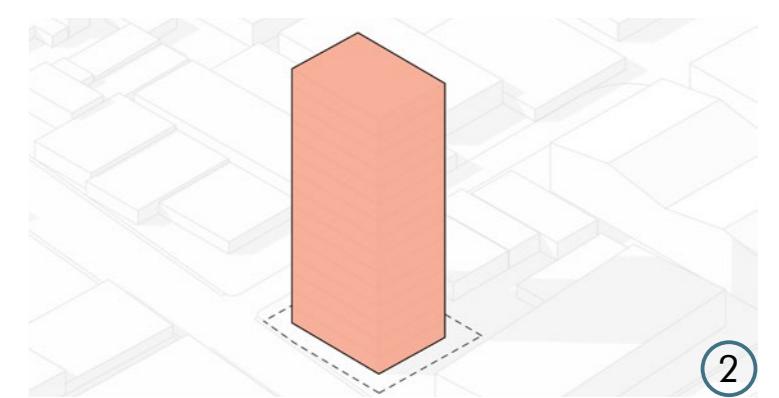
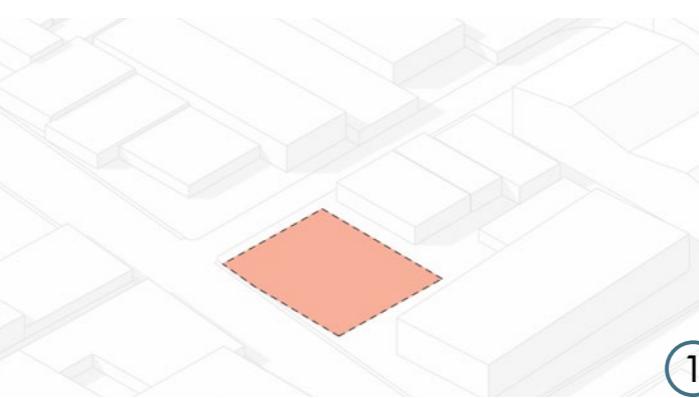
Responsible for creating Presentation drawings for each floor of the tower

Responsible for creating Vertical Zonning Presentation drawings

Responsible for 3D model and Rendering each Floor Plans of the tower and also alternative layouts of each floor

Aim: To design a Mix-use skyscrapper in Goregaon (E), Mumbai.

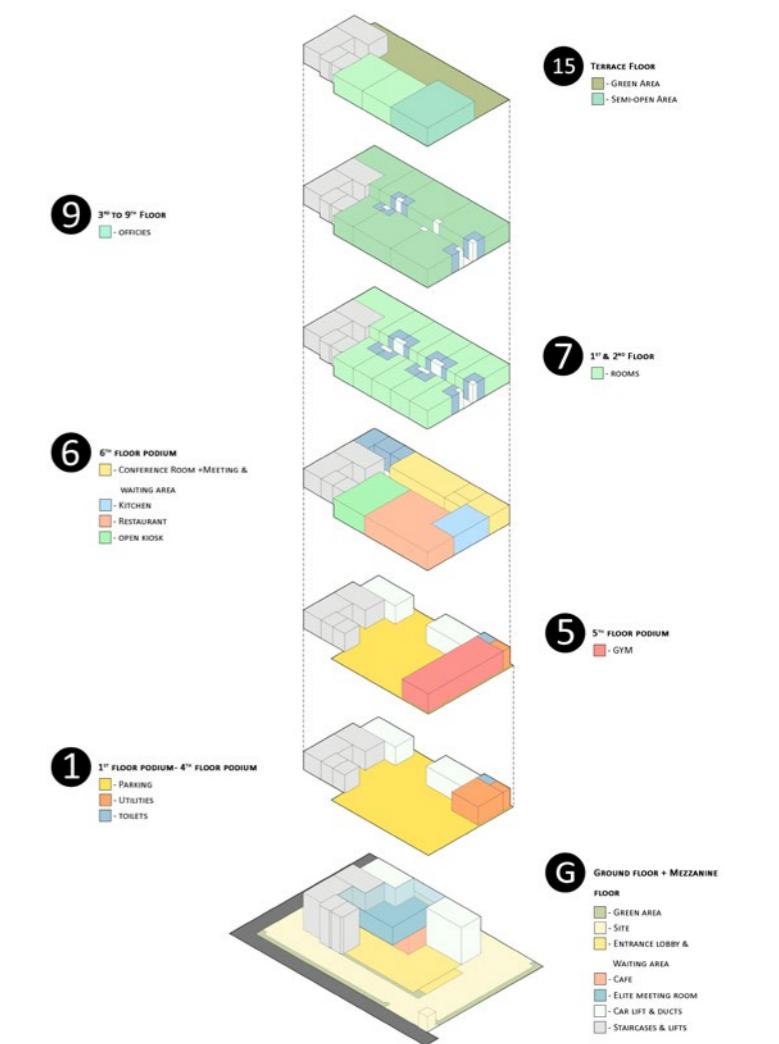
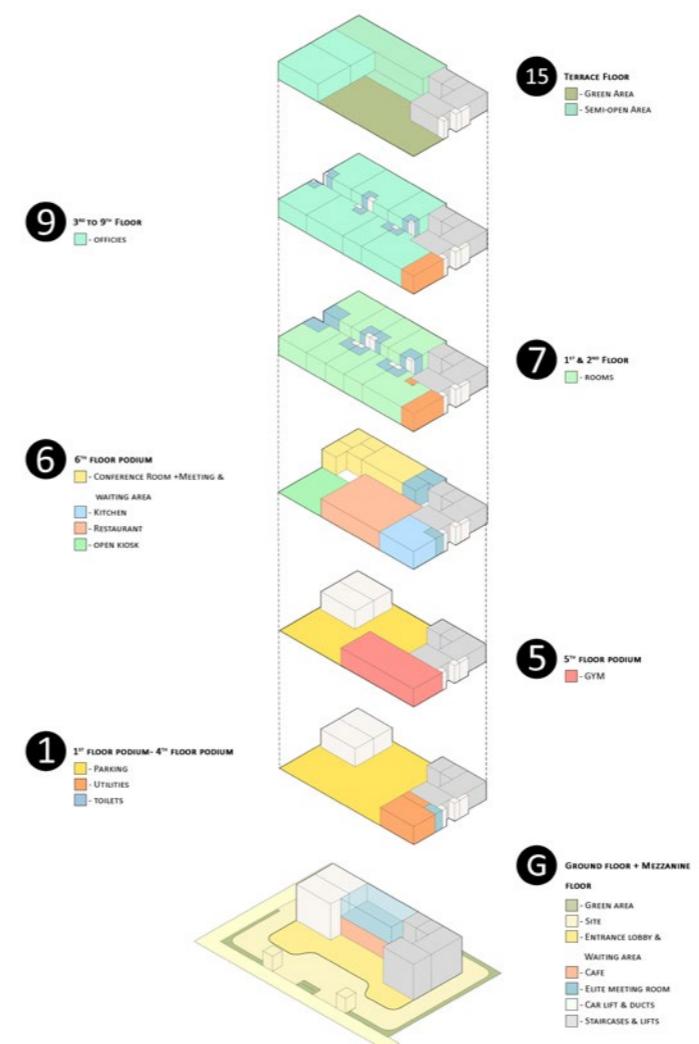
CONCEPT:

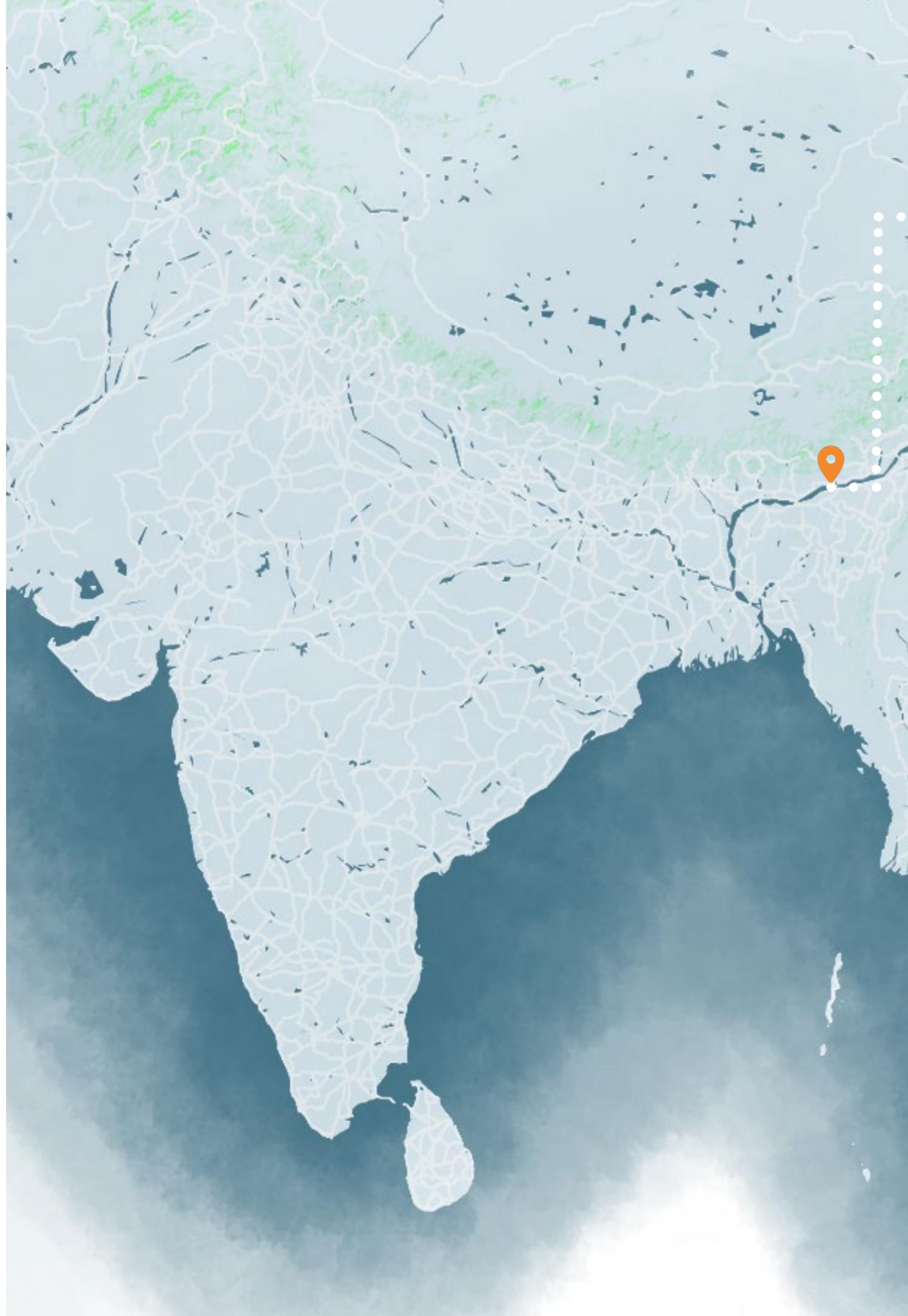


PRESENTATION DRAWINGS (OPT. A & B):



ZONNING LAYOUT (OPT. A & B):





COMPETITION:

05

PUBLIC HEALTHCARE CENTRE (ASSAM)

Laurie Baker Trophy (2020-21) | Group Work

Introduction:

Primary Health Centre is the cornerstone of rural health services. The Laurie Baker Centre for Habitat Studies seeks to get architecture students to gain a close understanding of the state of health services in a rural area, by attempting to design a Type B Public Health Centre for the Laurie Baker Trophy 2020.

The Design Brief:

The brief for Laurie Baker Trophy 2020-21 is to prepare a design for a Type B Public Health Centre. Each entry is required to have three parts:

1. Identification, Documentation and Analysis
2. Planning and Design
3. Impact Analysis

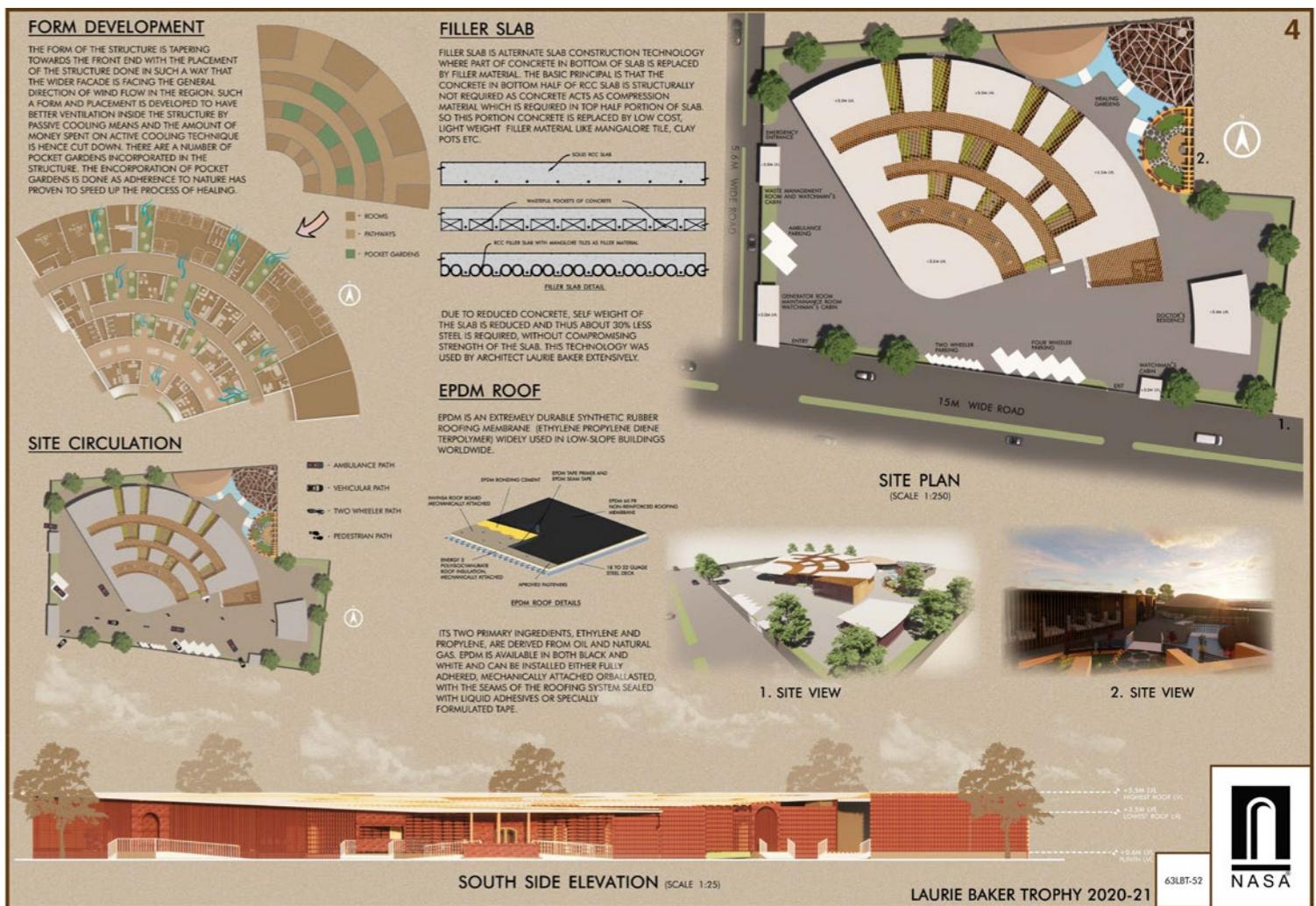
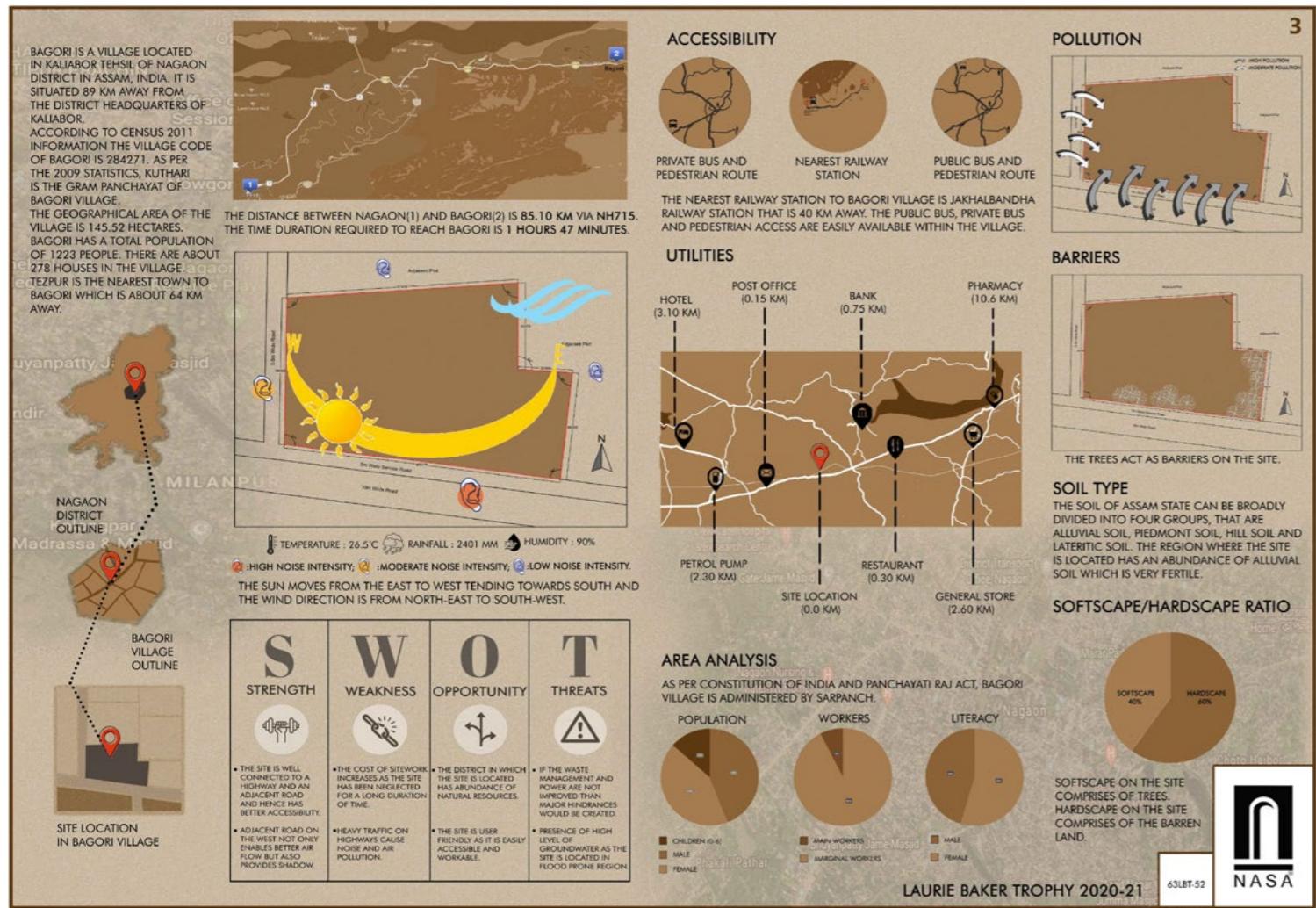
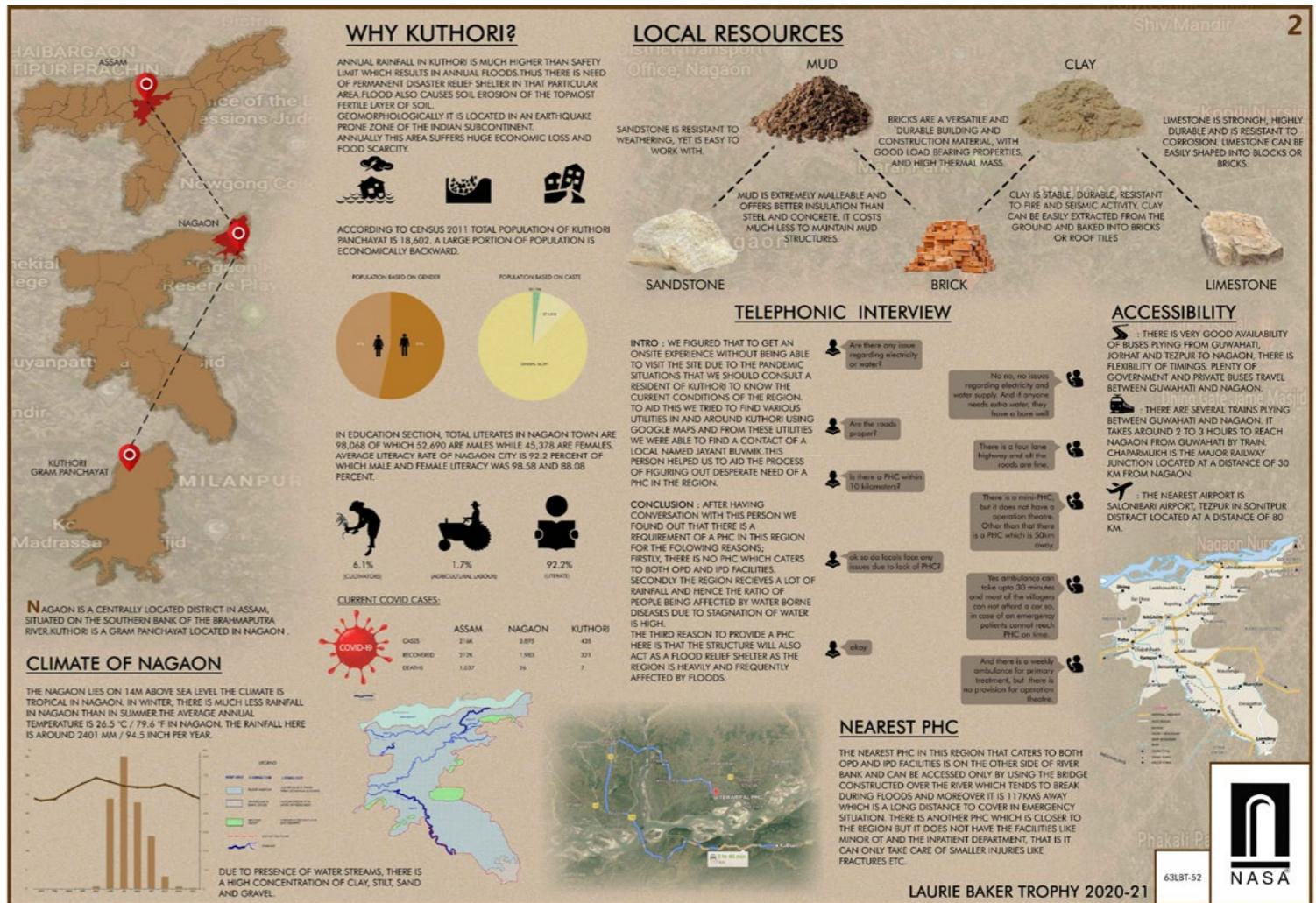
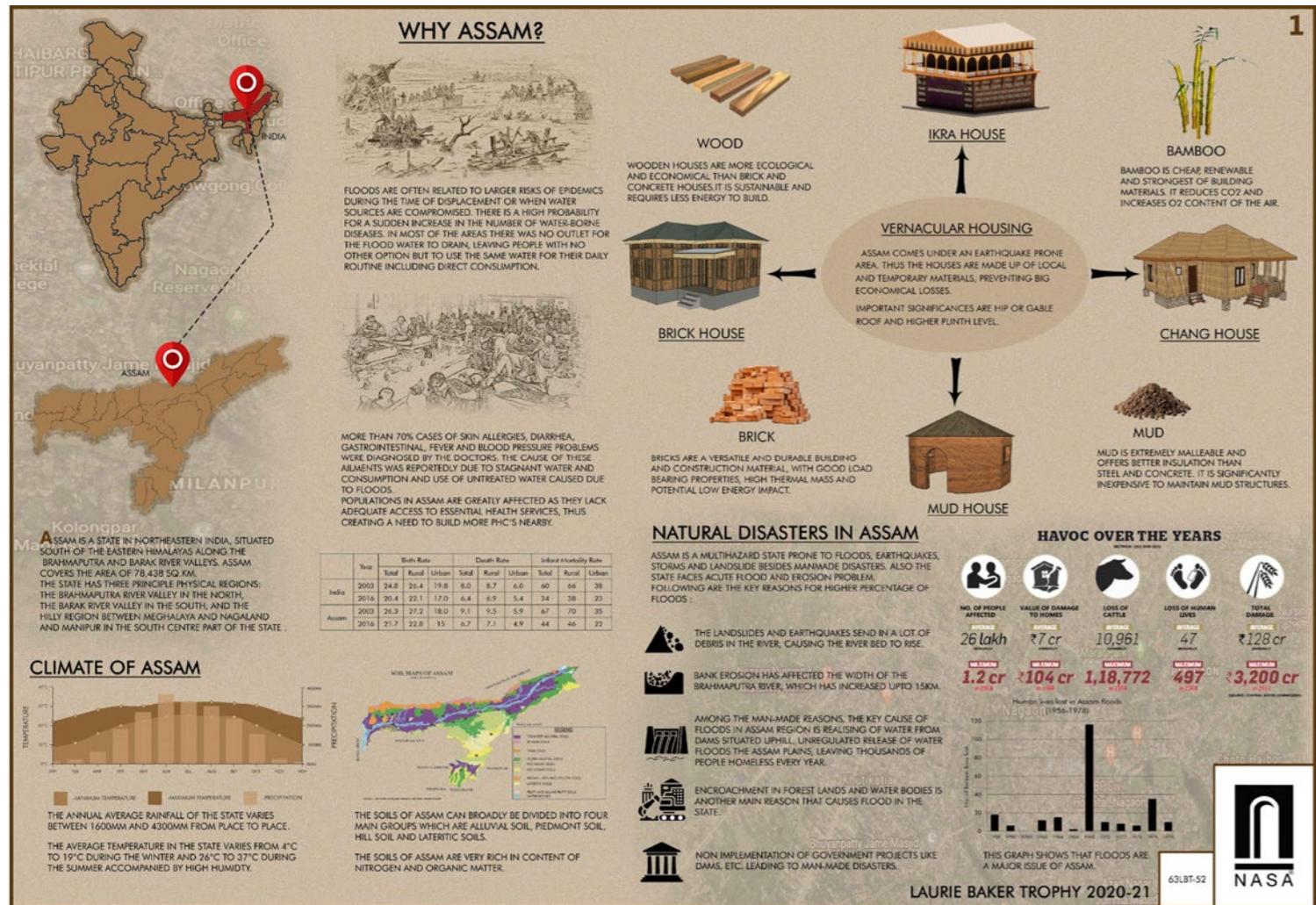
Role:

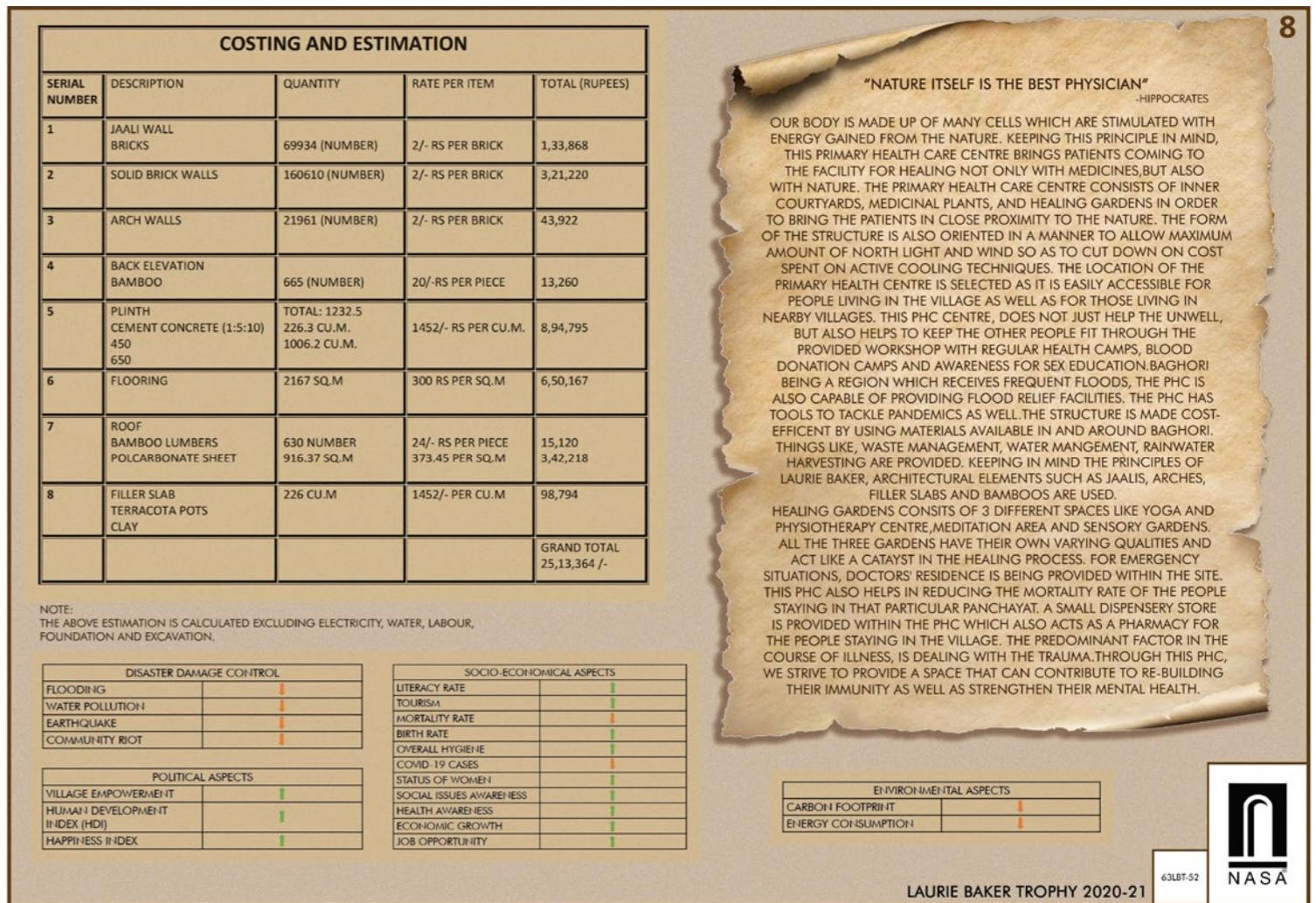
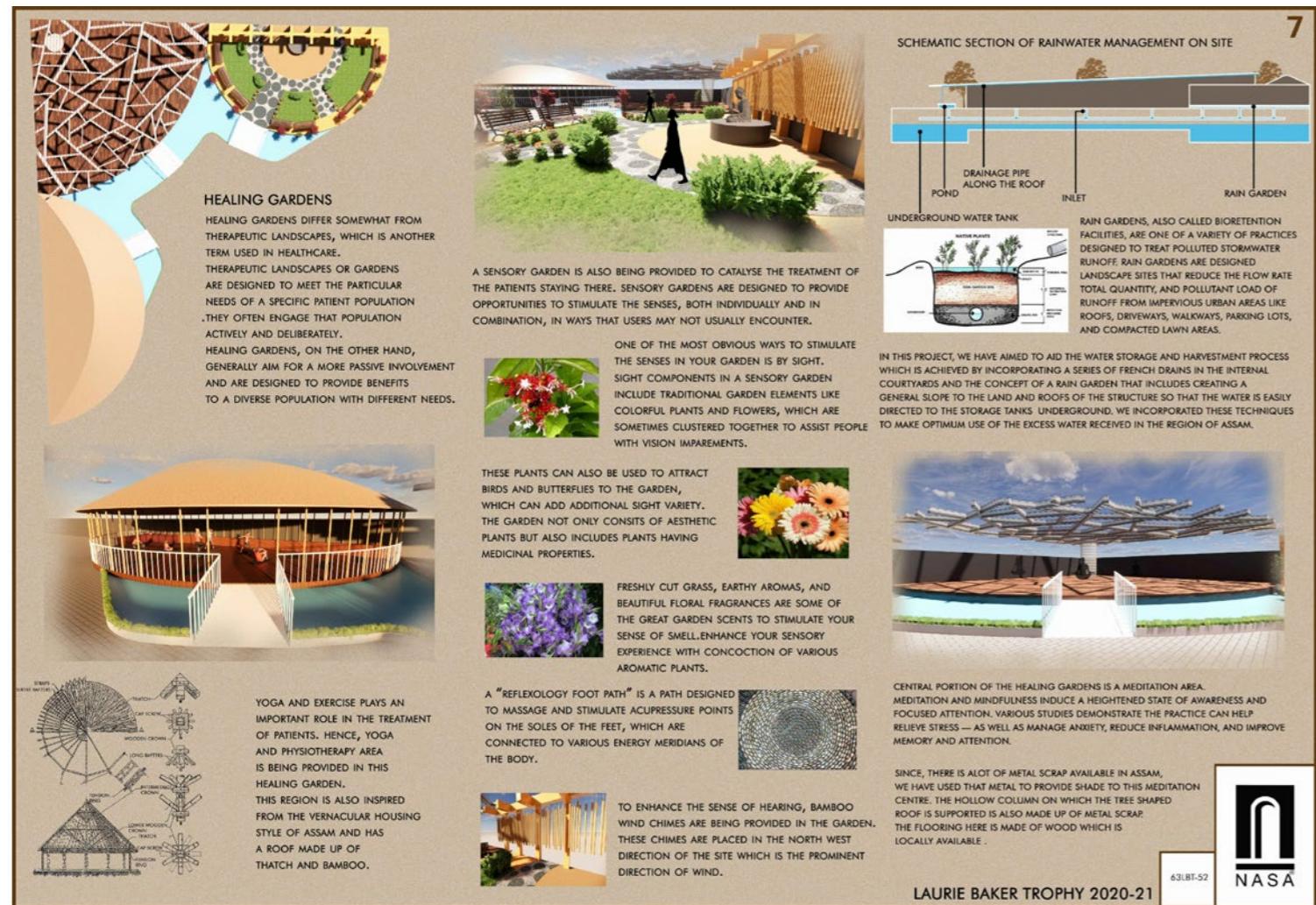
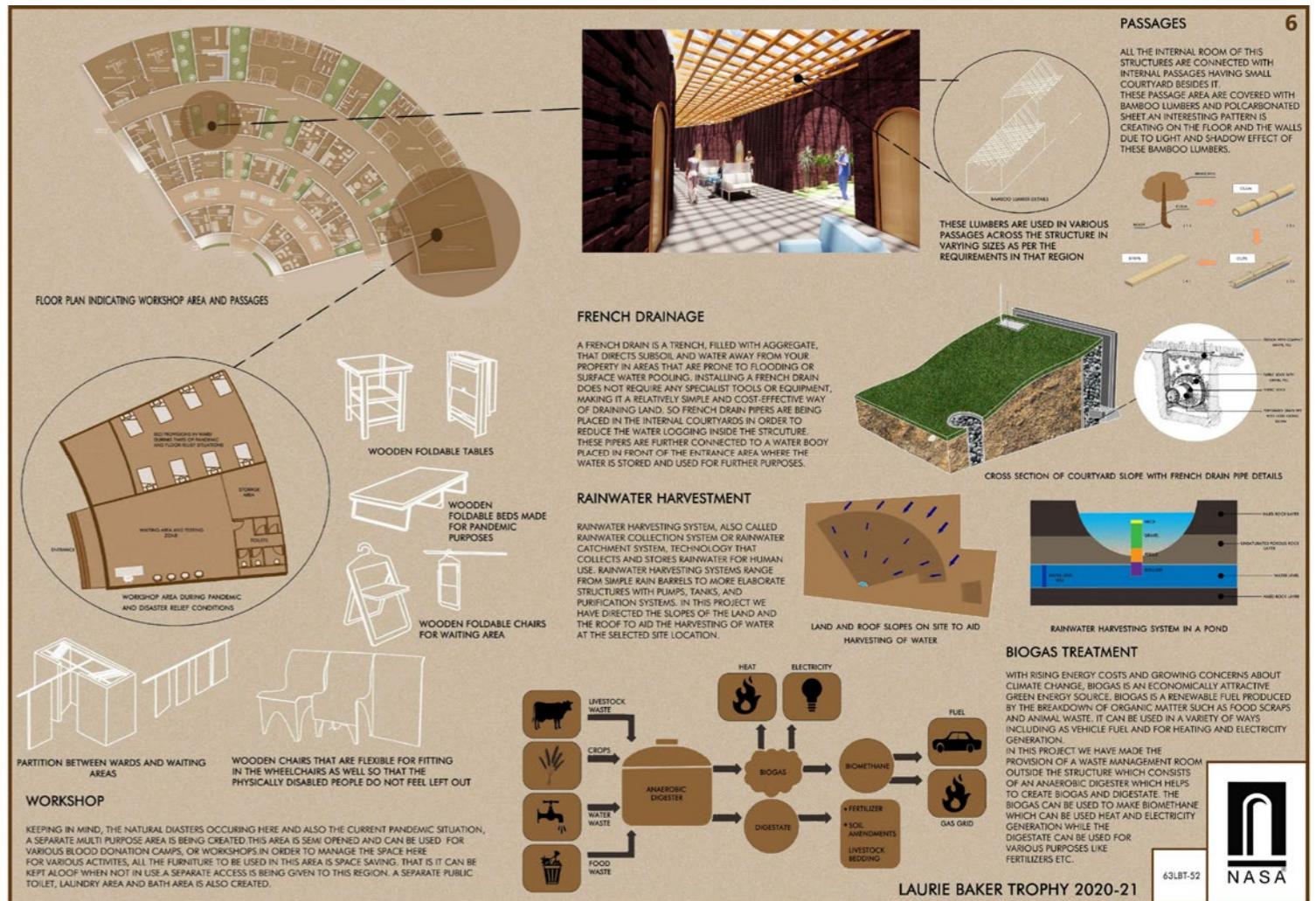
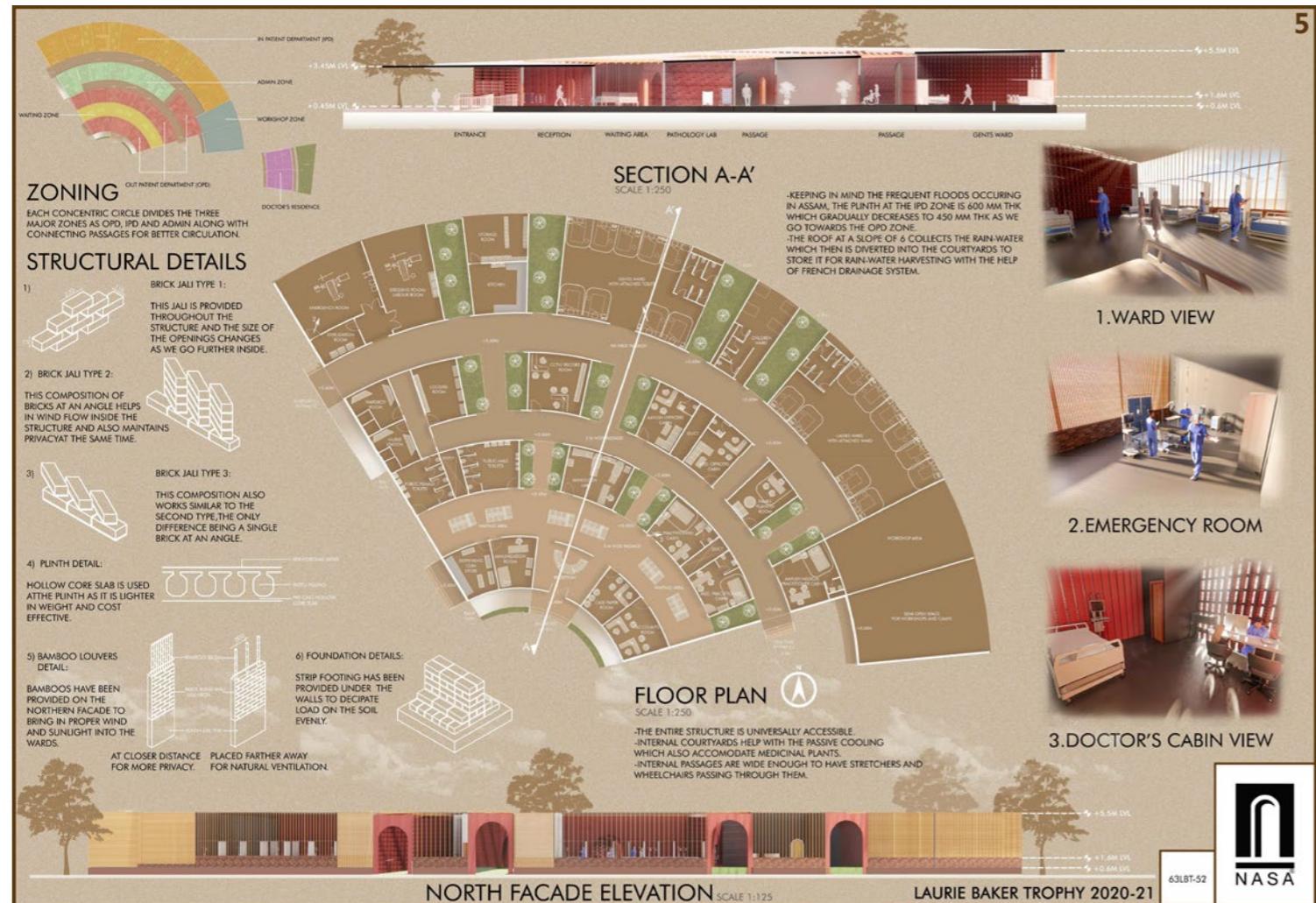
Responsible for gathering information on the location of the site and its context. Assisted in design process of the PHC, and also assisted in drafting the technical drawing for the PHC.

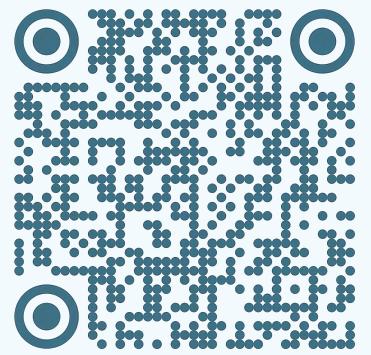
Assisted in preparing the Revit model of the PHC

Responsible for making the final sheets on location analysis and site analysis.

Responsible for calculating the cost of each material used in the project.







AYUSH GALA

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