



Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati 2024-25





Report on Industrial visit conducted in association with Institution's Innovation Council (IIC) and Industry Institute Interaction cell (IIIC)







A site visit is an essential learning experience that enhances academic knowledge, fosters innovation, and prepares students for future careers in architecture and town planning (Civil Engineering). By linking real-world construction practices with institutional learning, it supports the goals of the Institution's Innovation Council (IIC) in driving creative and sustainable urban development initiatives.

Name of Project for Site Visit:	Seven Star Icon building construction site near Pencil chowk, Vidya corner, near VP Campus, Baramati
Class and Semester	TE Civil, 2019 Pattern (Sem:VI)
No. of Participants:	31 (out of 39)
Date of Visit:	31st January 2025
Time & duration	betn 11.30 am to 1:30 pm (2 hours)
Course (Subject)	Architecture and Town Planning (Elective -II) C315-e (301015 e)
Industrial visit organized under	Center of excellence 'Town and Country Planning' and in association of IIC, IIIC
Industrial visit organized by	Department of Civil Engineering
Industrial visit coordinated by	Prof. D. G. Patil
Link for report	https://www.vpkbiet.org/dept_Civil.php industrial visits

General Details of Visit:

TE civil students (about 31) visited infrastructure projects and Townships, under construction building sites nearby to Vidya Pratishthan Campus on $31^{\rm st}$ January 2025

to understand different concepts from the syllabus of subject Architecture and Town Planning as mentioned below:

- a. Preparation of development plan and marking reservations
- b. Sites reserved for different amenities and services in residential area
- c. Widening / construction of roads as per proposals in DP of Baramati of extended limits
- d. Change in land uses as per the demand and urbanization trend of area.
- e. Demand of row houses as compared to flats construction as per demand of area
- f. Financial feasibility of 'Seven Star Icon' luxury commercial + residential project on VP-Pencil chowk road considering its strategic location and educational campus in vicinity, access to other prominent facilities in town.
- g. Economic viability of commercial shops in residential area and access to main roads
- h. Land cost and construction cost in particular area and market price of residential properties.
- i. Projects registered under MAHARERA
- j. Landscaping, playground, parking, hostel facilities, Community center (CC), GADIMA auditorium in the VP Campus and surroundings
- k. Parking, traffic and transportation planning in VP campus and outside campus considering educational institute and vehicles of parents, visitors in MIDC area

- 1. Urban renewal process and infrastructure upgraded for road from Pencil chowk to Nakshatra Garden with children Play area and other facilities for Open Gym, morning walk
- m. Development of real estate sector, eateries and other commercial services related to requirement of students, parents

Students also visited Construction of Artificial Intelligence (AI) Center of Excellence building construction site near Nakshatra Garden in VP Campus to study different ongoing construction activities and technology, materials used for this project.

A **construction site visit** is a vital part of architectural and town planning education, offering students hands-on exposure to real-world applications of theoretical concepts. The visit contributes to academic learning in several key ways:

1. Bridging Theory and Practical Application

- Enhances students' understanding of **sustainable design principles** through real-world examples.
- Demonstrates smart construction techniques such as modular buildings, prefabrication, and high-performance materials.
- Allows students to **evaluate site planning strategies** in relation to urban regulations and environmental impact.

2. Sustainability & Green Building Practices

- Eco-Friendly Materials: Observing the use of bamboo, rammed earth, AAC blocks, and recycled materials.
- Energy Efficiency: Integration of solar panels, passive ventilation, and green roofs in building design.
- Water Management: Practical understanding of rainwater harvesting, wastewater recycling, and permeable surfaces.
- Waste Reduction: Insights into on-site waste management, material reuse, and circular economy approaches in construction.
- Sustainable Urban Drainage Systems (SUDS): Learning how cities manage stormwater and flood control through innovative drainage solutions.

3. Smart City & Urban Planning Innovations

- Smart Infrastructure: Exposure to IoT-enabled smart lighting, intelligent transport systems, and automated waste disposal.
- **Mixed-Use Development:** Observing how modern urban spaces integrate **residential, commercial, and recreational facilities** efficiently.
- Transit-Oriented Development (TOD): Understanding the impact of metro stations, pedestrian-friendly zones, and sustainable transport systems on city planning.

- Resilient Cities: Analyzing disaster-resistant infrastructure and how urban areas adapt to climate change challenges.
- Community-Centric Planning: Learning how urban green spaces, public plazas, and interactive city elements enhance social well-being.

4. Cutting-Edge Construction Technologies

- Building Information Modelling (BIM): Understanding how 3D modelling and digital twins optimize construction efficiency.
- 3D Printing & Prefabrication: Observing factory-made components and their impact on reducing construction time and waste.
- Smart Materials: Learning about self-healing concrete, aerogels, and phase-change materials (PCMs) for energy-efficient buildings.
- Automation & Robotics: Exploring the role of drones, AI-driven project management, and robotic bricklayers in modern construction.
- **Net-Zero Buildings:** Understanding the concept of buildings that **produce as much energy as they consume** using renewable sources.

5. Research & Innovation under IIC Activities

- Identifying industry-academic collaboration opportunities in smart construction and urban development.
- Exploring startups and entrepreneurship in sustainable architecture and smart city solutions.
- Developing research-based student projects on low-carbon construction, smart mobility, and eco-friendly urban planning.
- Organizing hackathons, design challenges, and live case studies for innovative urban solutions.

6. Career Readiness & Skill Development

- Technical Proficiency: Gaining hands-on exposure to architectural drawings, structural detailing, and material specifications.
- Critical Thinking: Analyzing real-world constraints, challenges, and sustainable solutions in design.
- Professional Exposure: Interaction with architects, urban planners, civil engineers, and sustainability experts for industry insights.

• Entrepreneurial Mindset: Encouraging students to develop solutions for smart and sustainable cities under IIC initiatives.

Some photos taken during site visit:





Fig 1,2: students in understanding planning and details of Seven Star Icon project through presentation near Pencil Chowk (MAHARERA registration Number: P52100079042

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Visit to 'Seven Star Icon building construction site' near Pencil chowk, Vidya corner, near VP Campus, Baramati.

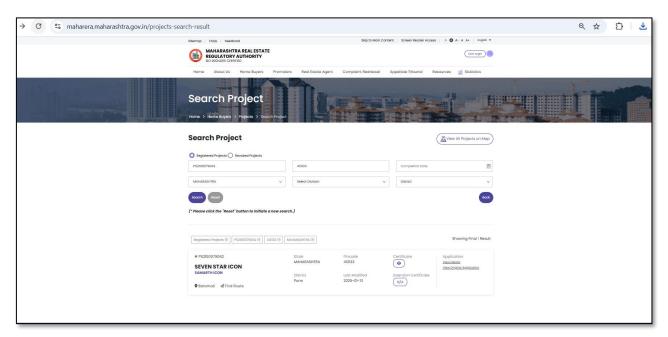


Fig 3: Details of project on MAHARERA website



Fig 4: students while interaction with promoters of project and understanding financial feasibility, town planning permissions required and scope of such Project, details of project etc.



Fig. 5: students watching ongoing construction activities and understanding site layout, plan for execution of project.



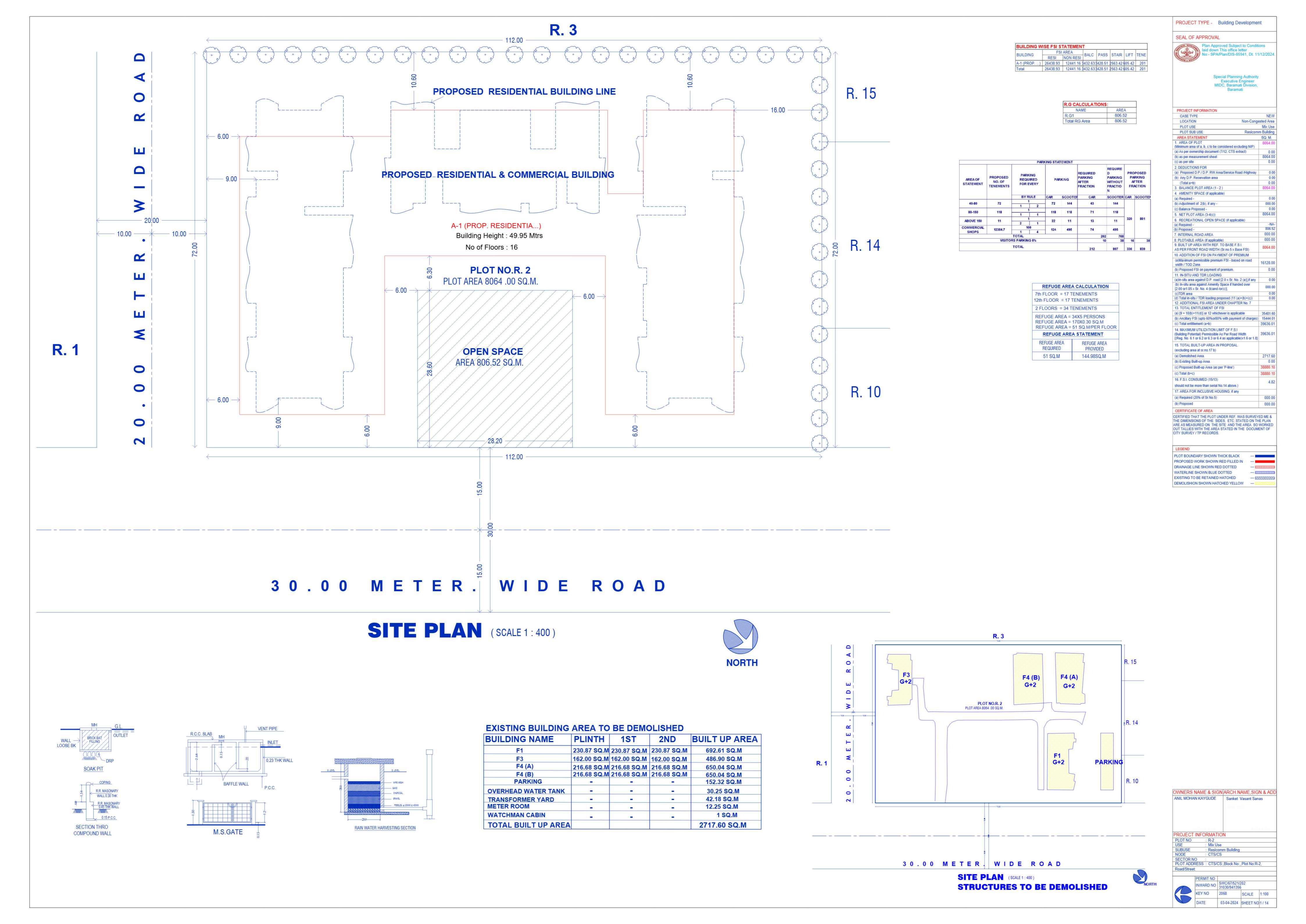
Fig.6: Model of project

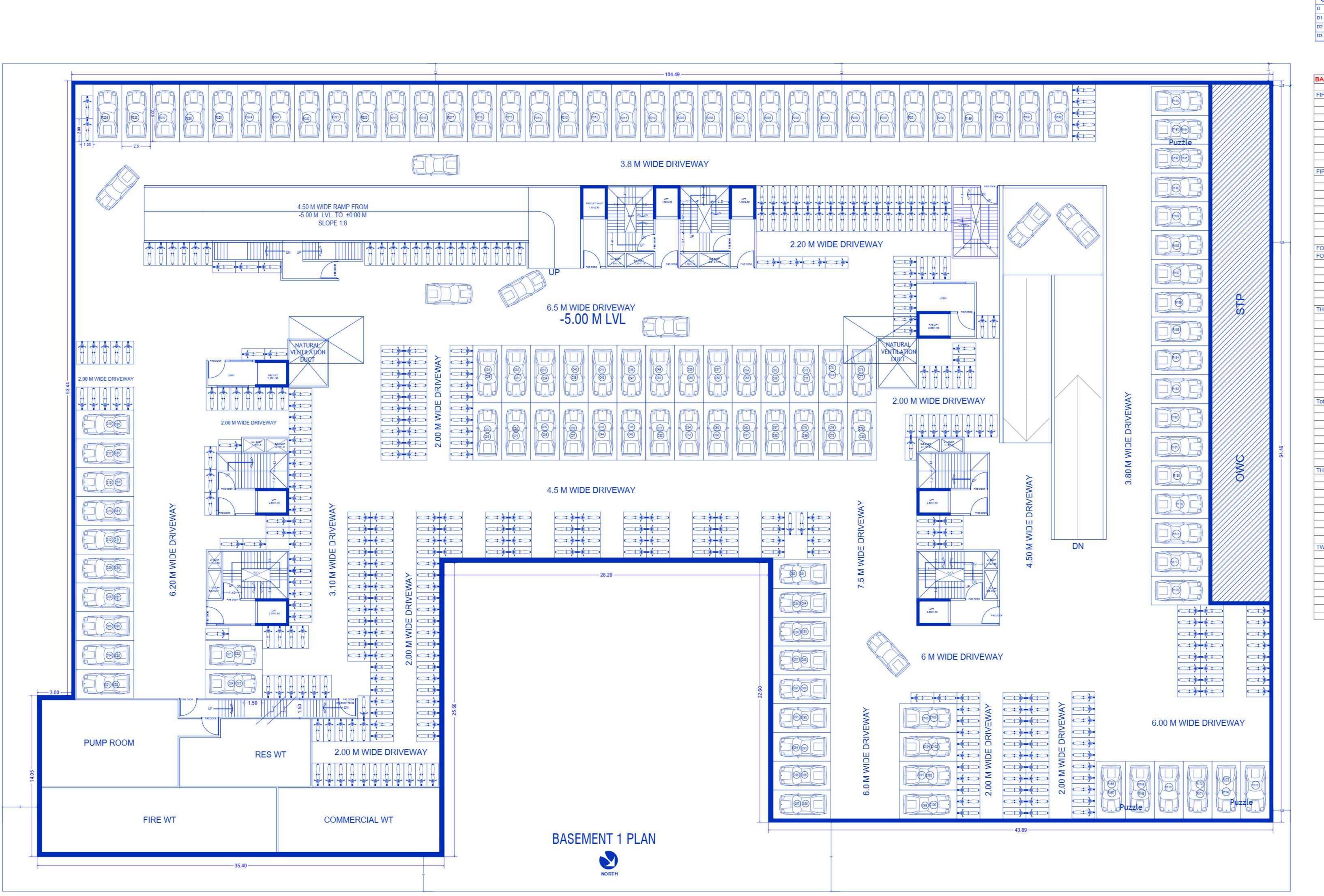




Fig.7,8: Excavation on site for foundation and construction of Building A

Mr. D. G. Patil Course Teacher- ATP Dr. N. T. Surywanshi Head, dept of Civil Engg.





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PROJECT TYPE - Building Development

SEAL OF APPROVAL

Plan Approved Subject to Conditions laid down This office letter No:- SPA/Plan/DIS-85941, Dt. 11/12/2024

Special Planning Authority
Executive Engineer MIDC, Baramati Division, Baramati

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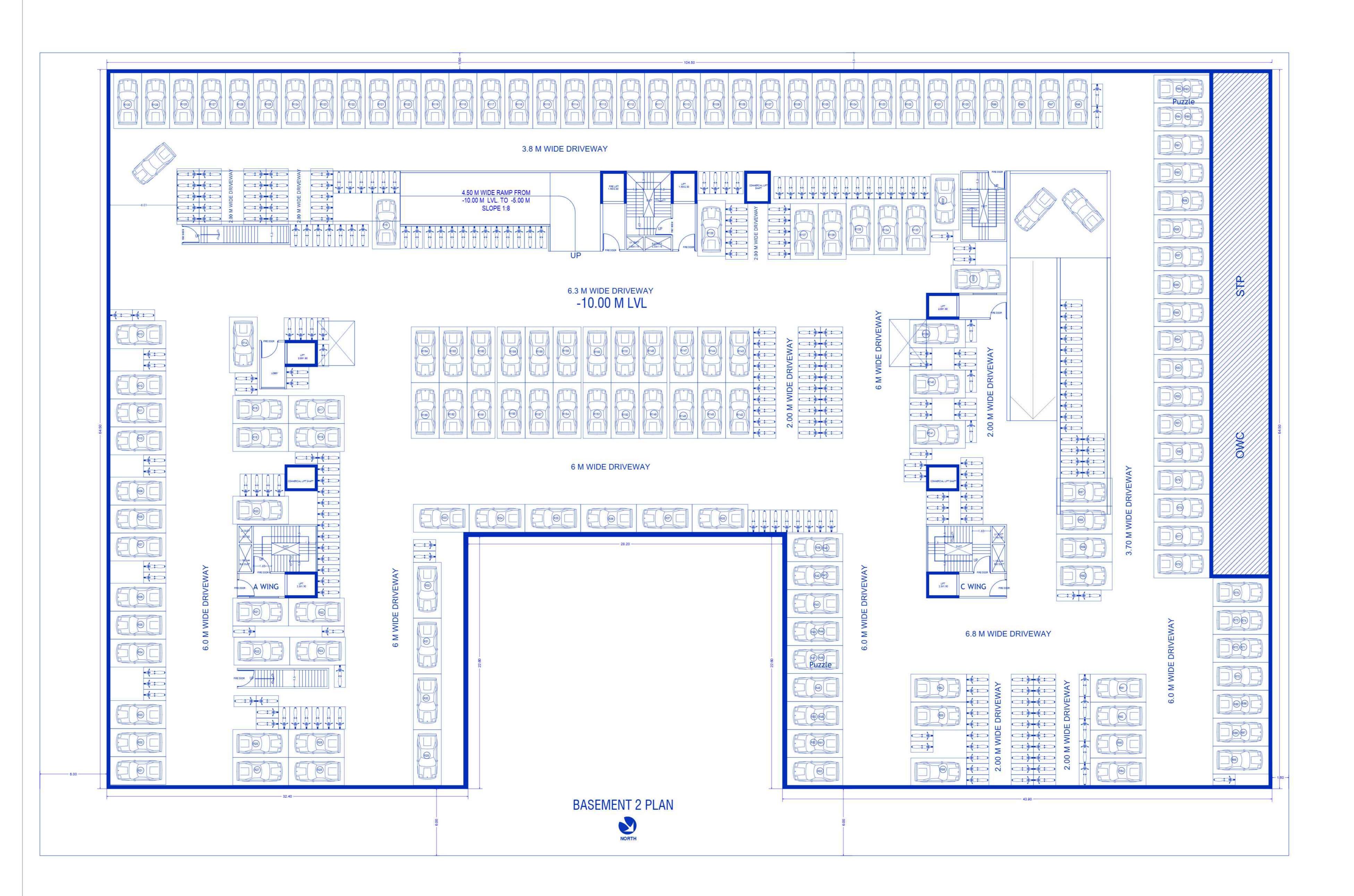
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KEY NO	2068	SCALE	1:100
DATE	03-04-2024	SHEET NO	2/1/





OWNERS NAME & SIGN ARCH.NAME, SIGN & ADD
ANIL MOHAN KAYGUDE Sanket Vasant Sanas

PROJECT INFORMATION
PLOT NO : R-2
USE : Mix Use
SUBUSE : Resicomm Building
NODE : CTS/CS

PLOT ADDRESS : CTS/CS:,Block No:,,Plot No:R-2

PERMIT NO | SWC/67/521/202 | 31030/941356 | KEY NO | 2068 | SCALE | 1:100 | DATE | 03-04-2024 | SHEET NO 3 / 14