THESIS REPORT ON

“CYBER TOWN, NOIDA SEC-129”

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF:

BACHELOR OF ARCHITECTURE

BY

ADHYA SHADEJA

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THESIS GUIDE

AR. ANSHU RASTOGI

SESSION

2023-24

TO THE

SCHOOL OF ARCHITECTURE AND PLANNING

BABU BANARASI DAS UNIVERSITY

LUCKNOW.

SCHOOL OF ARCHITECTURE AND PLANNING
BABU BANARASI DAS UNIVERSITY, LUCKNOW (U.P.).

CERTIFICATE

I hereby recommend that the thesis entitled "CYBER TOWN, NOIDA SEC-129" under the supervision, is the bonafide work of the students and can be accepted as partial fulfillment of the requirement for the degree of Bachelor's degree in architecture, school of Architecture and Planning, BBDU, Lucknow.

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Recommendation Accepted

Not Accepted

External Examiner

External Examiner

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At last but not the least, I have no words to express my gratitude for the love and affection of my parents.

-Adhya Shadeja

SCOPE AND LIMITATION

- The scope to study college of architecture would be limited to the study of various departments of architecture and planning department at undergraduate as well as post graduate level.
- It would include the curriculum of planning for the degree of B.Arch.
- It would include the curriculum for master in architecture for a degree of M.Arch. In various department

METHODOLOGY

- SITE ANALYSIS
- SITE & SURROUNDINGS
- SITE CLIMATE
- CASE STUDY
- LITERATURE STUDY
- REQUIREMENT SHEET
- AREA ANALYSIS
- STANDARD SHEET
- CONCEPT SHEET
- DESIGN
- ELECTIVE
- VIEW

INDEX:

SYNOPSIS

THE CYBER HUB

Cyber is a word meaning "relating to or characteristic of the culture of computers, information technology, and virtual reality." A cyber hub is a place where people from Cyber world can come, WORK, PLAY and LIVE. The place will consist of a research and development space, training centers, labs, gaming centers, food hubs and various indoor and outdoor recreational spaces. The skin, lungs, eyes are designed for things which are natural; natural light, fresh air, natural atmosphere, which is clean and pure.

Cyber Hub is a bustling commercial and entertainment complex located in Gurugram, India. Positioned in the Cyber City area, it offers modern office spaces, a diverse range of retail outlets, and a vibrant culinary scene with numerous restaurants and cafes catering to various tastes. Known for its lively atmosphere, Cyber Hub serves as a social hub where businesses thrive, and people gather for work, shopping, and entertainment.

INTRODUCTION:

The complex houses modern office spaces, making it a hub for businesses, especially those in the technology and corporate sectors. Many multinational companies and startups have their offices in this area. Cyber Hub features a wide range of retail outlets, including shops, boutiques, and stores offering various products and services. It caters to the needs of both office-goers and visitors seeking shopping opportunities. One of the major attractions of Cyber Hub is its diverse and extensive array of restaurants and cafes. The buildings in Cyber Hub are characterized by modern architecture and contemporary design. The area is well-planned and aesthetically pleasing.

BACKGROUND AND HISTORY:

The concept of cyber hubs emerged as the importance of cybersecurity grew exponentially in the digital age. With the increasing frequency and sophistication of cyber threats, governments, businesses, and organizations recognized the need to pool resources and expertise to effectively combat cybercrime and safeguard digital infrastructure.

The history of cyber hubs can be traced back to the early days of the internet when the first cybersecurity research centers and collaboration platforms were established. Over time, as cyber threats evolved and became more complex, the need for dedicated cyber hubs became more apparent. Governments and private sector entities began investing in these hubs to promote innovation, education, and collaboration in cybersecurity.

NEED FOR THE STUDY:

The study of Cyber Hub is essential for gaining insights into urban planning, economic impact, cultural dynamics, and business environments. Analyzing Cyber Hub provides valuable information on the integration of businesses, the impact on tourism and hospitality, and the interplay between infrastructure, connectivity, and consumer behavior. Understanding such hubs contributes to broader discussions on urban sustainability, economic development, and the evolving nature of contemporary urban spaces.

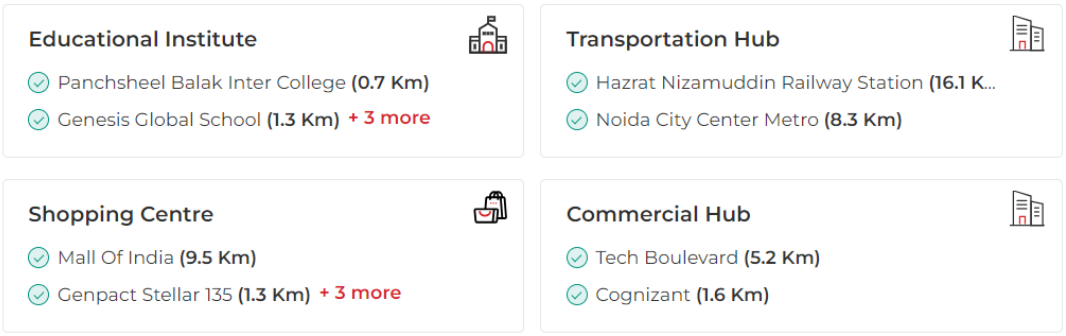
AIM OF THE STUDY:

The aim of studying Cyber Hub is to gain comprehensive insights into the multifaceted aspects of modern urban development and commercial complexes. This includes understanding the economic impact on local and regional economies, assessing the social and cultural dynamics, analyzing the business environment, and examining the influence of architecture and design trends.

SITE AREA: 18.4 acre

Location: Noida Sector 129 is a mixed use development zone as per the Noida Master plan 2031. The sector lies on the six lane Noida Greater Noida expressway, one of the prime development corridors in the country and is unique in its superbly accessible & functional connectivity options.

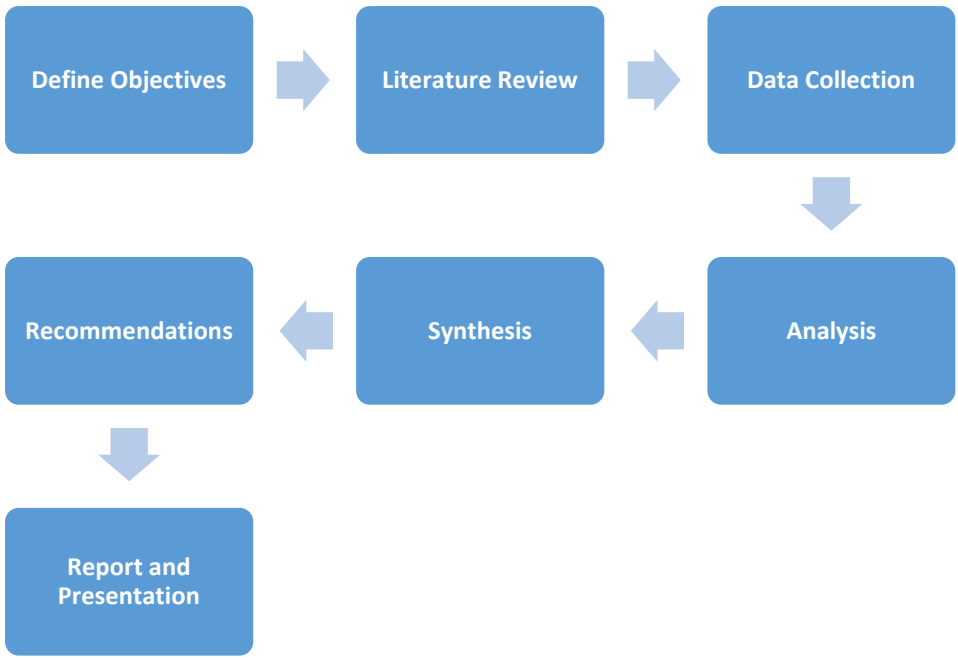
LANDMARKS:



OBJECTIVES:

- To evaluate the economic contributions of Cyber Hub to local and regional economies, focusing on job creation, revenue generation, and overall economic development.
- To examine the social and cultural dynamics within Cyber Hub to understand its role as a social hub, including community interactions and cultural engagement.
- To assess the influence of Cyber Hub on tourism and the hospitality sector, studying its role in attracting visitors and its impact on hotel occupancy rates.
- To Investigate the architectural and design elements of Cyber Hub to identify trends and understand their contribution to the functionality and aesthetic appeal of the complex.
- To explore the sustainability practices implemented in Cyber Hub and assess how the complex aligns with principles of urban planning for creating sustainable and inclusive urban spaces.

METHODOLOGY:



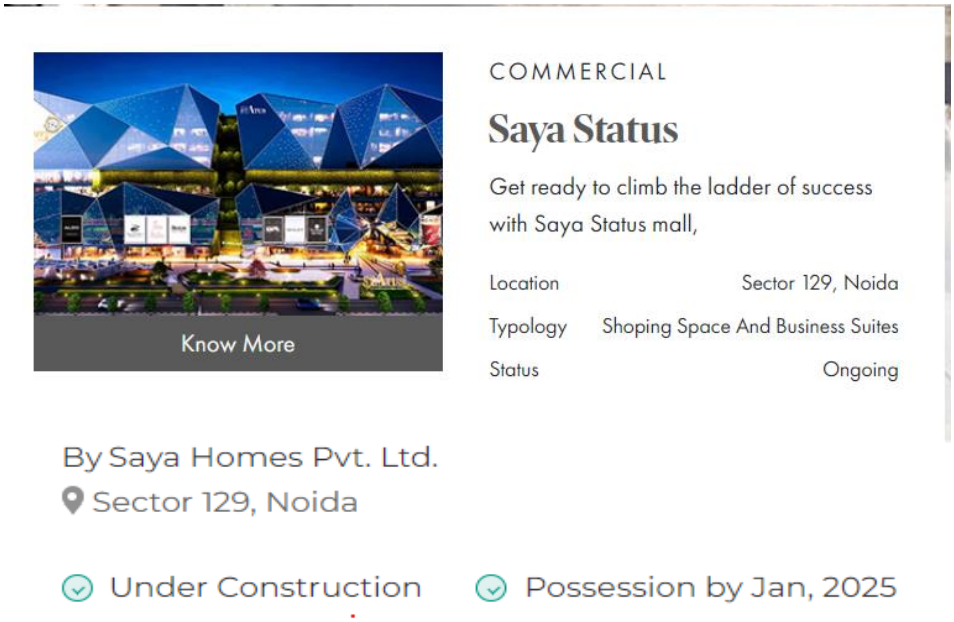
LITERATURE STUDY:

- Document Cyber hub In design 1 - https://issuu.com/deeptijuyal/docs/thesis_document_cyberhub_indesign_1

CASE STUDY:

- CYBER CITY GURUGRAM
- SUPER NOVA, MIXED USE BUILDING, NOIDA
- MIXED USE HIGH RISE BUILDING-KOHINOOR SQUARE, MUMBAI

SUPPORTING DOCUMENTS:



MAJOR REQUIREMENTS:

- OFFICES
- RETAIL
- SERVICE APARTMENTS
- RECREATIONAL AREAS
- MULTIPLEX PLAZA
- FOOD COURT
- SURFACE PARKING

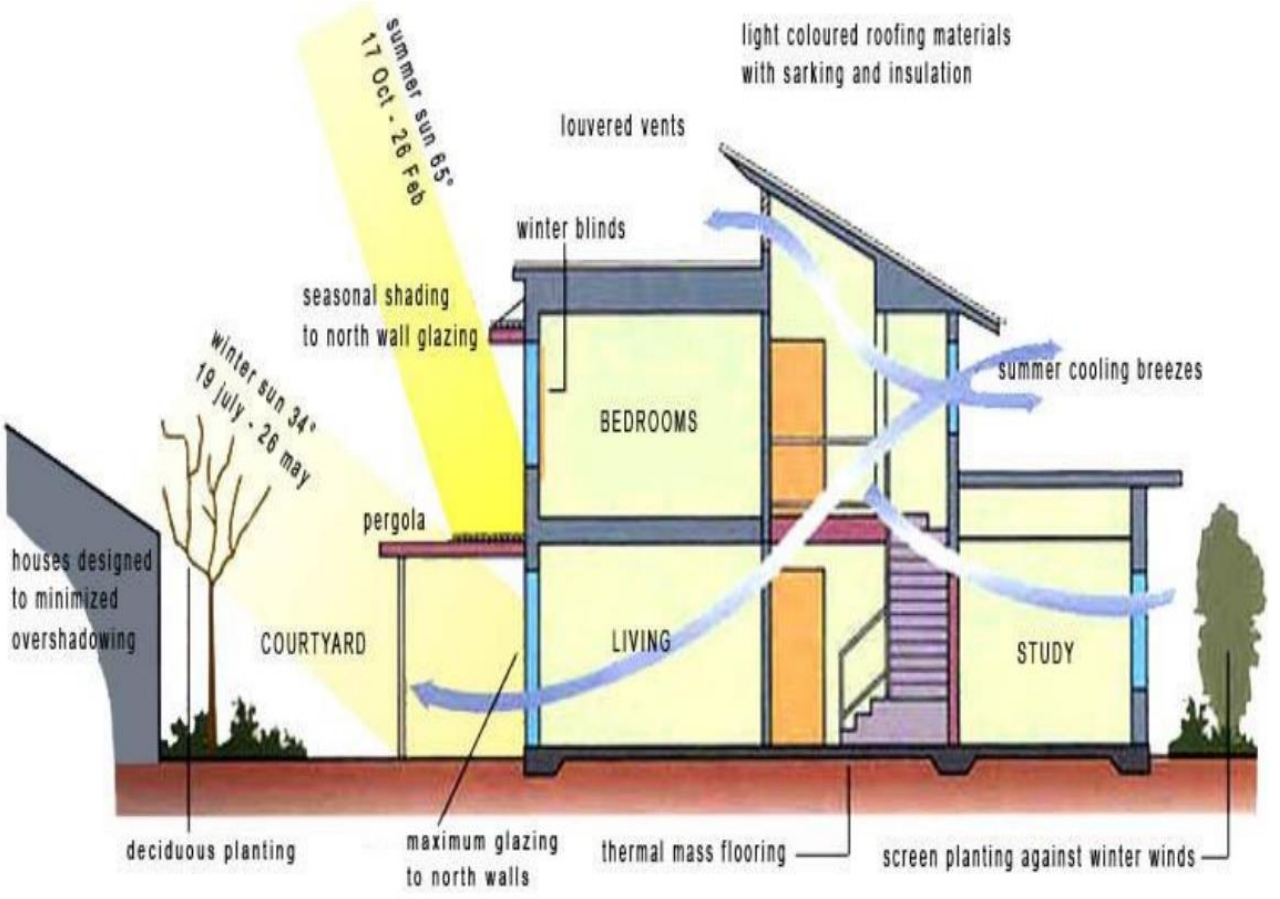
LITERATURE OVERVIEW

WHAT IS BIOCLIMATIC ARCHITECTURE?

Bioclimatic is a sector of architecture that dominated by the principles of ecology and sustainability. Building design that take into account climate and environmental conditions to help achieve optimal thermal and natural comfort into a low carbon emission building is essentially bioclimatic architecture. It emphasis on urban areas and buildings that are designed in order to fully cover their energy requirements without induce environmental damage.

Bioclimatic design is defined as an architecture which has a connection with nature and it refers to the design of buildings and spaces based on local climate, aimed at providing thermal and visual comfort, making use of solar energy and other environmental sources.

- The main aim of bioclimatic architecture is to bring about urban areas and buildings that are designed in order to enclose their energy requirements without induce environmental damage.
- This architecture seeks perfect cohesion between design and natural elements (such as the sun, wind, rain and vegetation), leading us to an optimization of resources.



- It deals with design and architectural elements, avoiding complete dependence on mechanical systems, which are regarded as support.
- A good example of this is using natural ventilation or mixed mode ventilation.

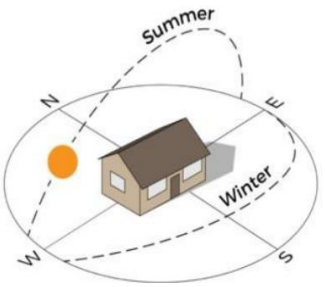
BASIC CONCEPTS AND TECHNIQUES

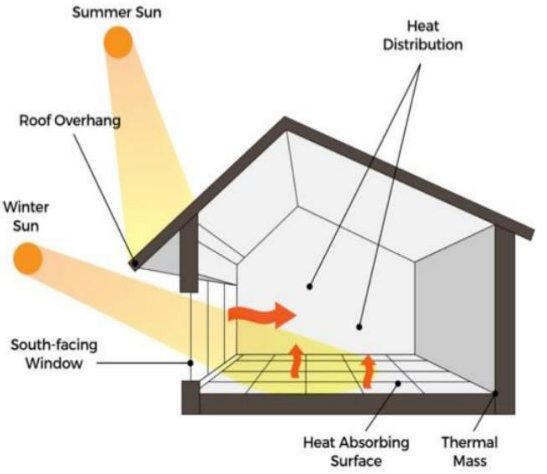
Bioclimatic architecture deals exclusively with building design and materials to achieve energy efficiency.

* *Passive solar architecture.*

These techniques refer to design of buildings for the efficient use of solar energy. This architecture type doesn't use mechanical system (thus the term passive) hence it is firmly connected to bioclimatic architecture, though the lateral so deals with other non-solar climatic elements. That's why the term bioclimatic is a little bit more general, and inclusive, although both work in the same direction.

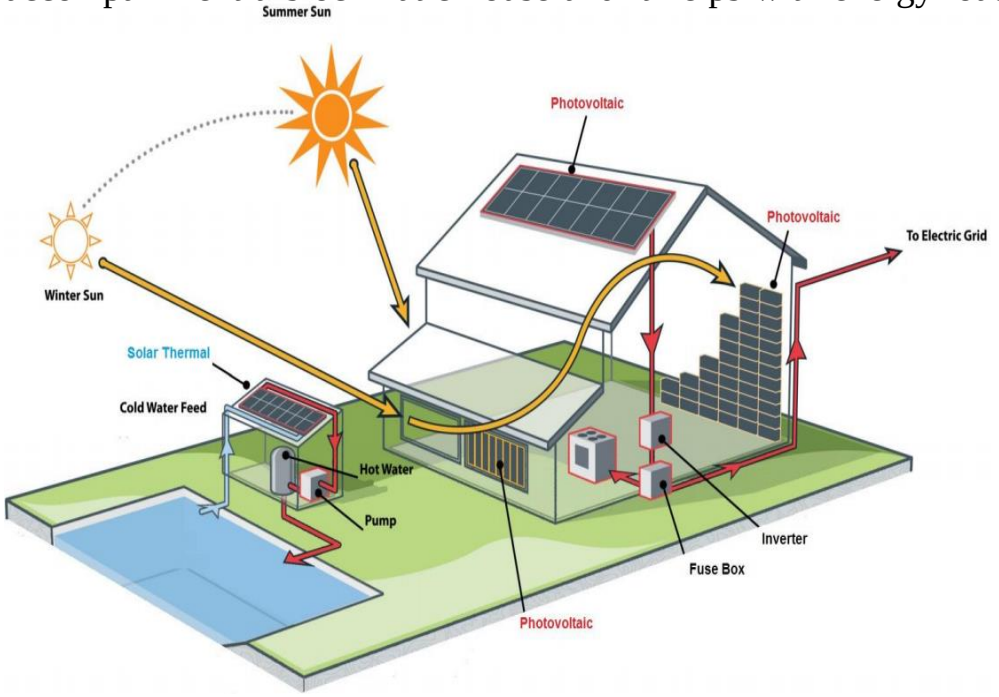
3D model of a passive solar house





* *Active solar architecture.*

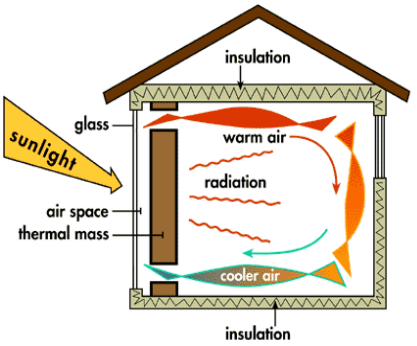
These techniques refer to taking advantage of solar energy by the means of mechanic and/or electric systems for heating and electric conversion that is photovoltaic panels. They may accompaniment a bioclimatic house and it helps with energy loads of the users.



The key elements of bioclimatic design are passive systems, which run without being over dependant on mechanical equipment or subsidiary power supply dealing exclusively with design and local resources that attains energy efficiency and creating an optimum indoor microclimate altogether.

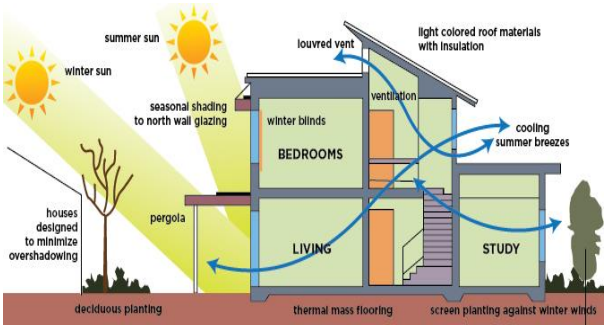
- **Passive Solar Heat Protection (Minimal heat gain)**

This system is achieved by using the appropriate location and orientation of the building which in return would protect it from overheating by the sun. Being fashioned more towards shading, its design will be based on the direction of sun path as well as the presence of surrounding trees or landscaping features, at the same time focuses on treating the exposed façade by using materials that absorb significant amount of incident solar heat and radiation.



- **Passive Cooling Technique (Maximum heat loss)**

As heat protection does not necessarily guarantee zero heat gain, a subordinate system is adopted which operates by dissipating heat accumulated in the building by natural means. Passive cooling incorporates various techniques such as natural ventilation, night flush cooling, direct and indirect radiative cooling, evaporative cooling as well as earth coupling. For natural ventilation to operate effectively, appropriate placement of openings is to be done based on the direction of wind.

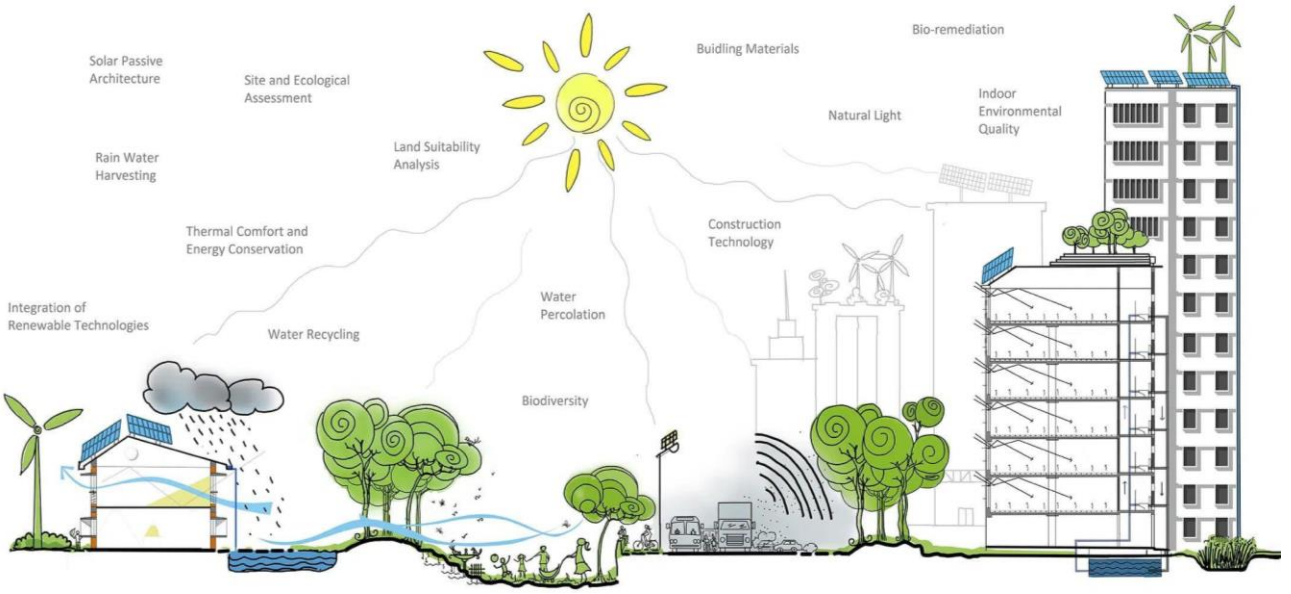


- **Natural Daylighting System**

Daylighting system functions by placing openings or windows and reflective surfaces at suitable locations of the building based on the sun path which, in Malaysia it is often encouraged to be at the north and south facing facades. This provides sufficient diffused natural light and ensures effective internal lighting during the day while avoiding the problem of glare. This system maximizes visual comfort and allows reduced energy consumption as less artificial lighting is used.

* *Renewable energy.*

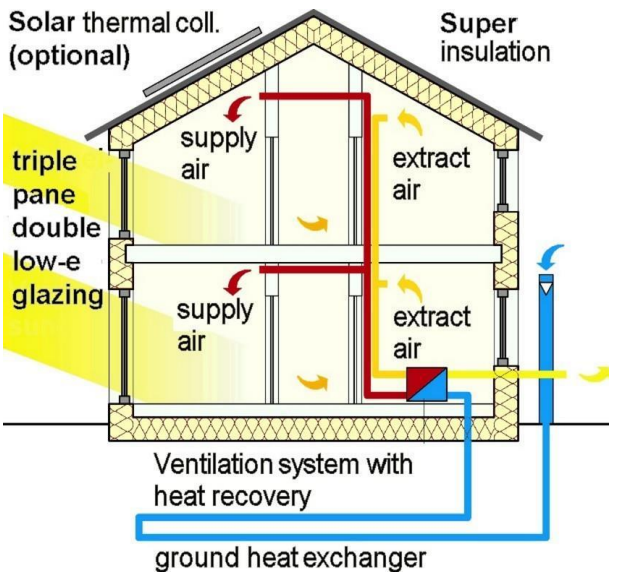
Sources of energy that cannot be enervated. Bioclimatic architecture incorporates solar radiation for heating and cooling. Other kinds of renewable energies include as wind or hydro, and methane generation from organic waste that is biomass. The process of bioclimatic design involves adapting the building and integrating it with its environment by taking into consideration the regional climatic conditions and the relevant environmental factors. The aim of this process is to reduce the amount of energy consumed for heating, cooling, and lighting purposes without affecting the users' comfort conditions



* *Sustainable architecture.*

These techniques aiming to a minimum environmental impact of all the processes implied in building from materials in which manufacturing processes that don't produce toxic waste and don't consume much energy, also building techniques are being used for minimum environ- mental damage, building location also its environmental impact, energy consumption and its impact, and the recycling of materials when the building has achieve its function and is demolished.

Bioclimatic architecture helps in reducing the energy consumption of the building and also enhanced when merged with sustainability architecture techniques.



COMPARATIVE ANALYSIS :

ASPECTS	Indira Paryavaran Bhawan (MOEF)	Peda Office Complex at Chandigarh	The Bioclimatic Tower of Singapore	Sino-Italian Ecological And Energy Efficient Building, Beijing, China
LOCATION AND CLIMATE:	New Delhi experiences a hot semi-arid climate with extremely hot summers and cool winters.	Chandigarh has a hot-summer Mediterranean climate with extremely hot summers and cool winters.	Singapore has a tropical rainforest climate with high temperatures and humidity throughout the year..	Beijing experiences a humid continental climate with hot summers and cold winters.
PASSIVE DESIGN STRATEGIES:	The building in New Delhi may employ shading devices, orientation to maximize natural light, and efficient insulation to reduce heat gain during the hot summers.	This building in Chandigarh might incorporate features such as overhangs and well-designed fenestration to control solar gain and promote natural ventilation.	Given Singapore's humid climate, the tower could utilize innovative façade designs for rainwater harvesting, as well as passive cooling through cross-ventilation and natural shading elements.	In Beijing, the building may leverage passive solar design principles, ensuring optimal solar exposure during the colder months and protection from the sun in the hot summers.
RENEWABLE ENERGY INTEGRATION :	The building may incorporate solar panels and other renewable energy sources to reduce its dependence on conventional energy.	Integration of solar photovoltaic systems and efficient lighting solutions might contribute to energy savings.	Given Singapore's commitment to sustainability, the tower may utilize solar power, wind turbines, or other renewable energy sources.	Beijing's building could implement cutting-edge energy-efficient technologies, potentially including solar thermal systems or geothermal heating and cooling.
WATER MANAGEMENT:	Rainwater harvesting and efficient water use could be essential components to address water scarcity.	The design may include water conservation measures, such as permeable surfaces and water recycling systems.	Advanced water recycling and purification systems may be employed to address water scarcity in Singapore.	Water-efficient fixtures and landscaping practices might be adopted to minimize water consumption.
VEGETATION AND GREENERY:	The building might feature green roofs and landscaped areas to enhance thermal insulation and contribute to biodiversity.	Incorporation of green spaces and indigenous plants can help regulate temperature and improve air quality.	Vertical gardens and green facades could be integral to the tower's design, promoting biodiversity and mitigating the urban heat island effect.	Beijing's building may integrate green building envelopes, providing both aesthetic appeal and environmental benefits.

LITERATURE STUDY

LITERATURE STUDY – 01 KOHINOOR SQUARE, MUMBAI, INDIA .

LOCATION:
DADAR, WEST MUMBAI
2009-15

ARCHITECT:
SSA ARCHITECTS, MUMBAI

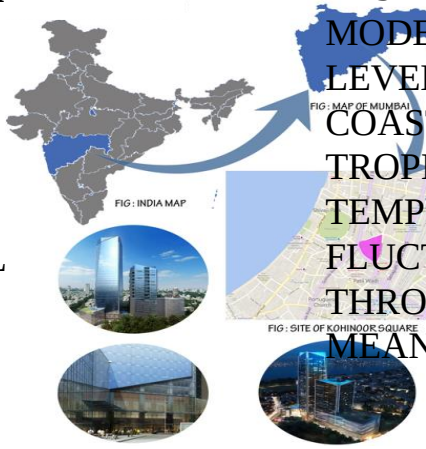
TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
SITE AREA = 4.6 ACRES (18615 SQ.M)
FAR = 3.75
GROUND COVERAGE – 39332 SQ.M

PROGRAM:
OFFICES
RESTAURANTS
COMMERCIAL
EXHIBITION HALL

SITE CONDITION:
THE SITE IS STRATEGICALLY LOCATED ON THE JUNCTION OF LJ ROAD AND GOKHALE ROAD AT THE CENTRE OF SHIVAJI PARK.THE SITE IS THUS SURROUNDED BY SHIVAJI PARK ON EAST SIDE, D G RUPARELL COLLEGE ON WEST SIDE AND SOUTH SIDE COVERING THE PATIL WAADI AREAS.

CLIMATE:
MUMBAI'S CLIMATE CAN BE BEST DESCRIBED AS MODERATELY HOT WITH HIGH LEVEL OF HUMIDITY. ITS COASTAL NATURE AND TROPICAL LOCATION ENSURES TEMPERATURES WON'T FLUCTUATE MUCH THROUGHOUT THE YEAR. THE MEAN AVG. TEMP. IS 27.2°C



PROJECT INTRODUCTION:

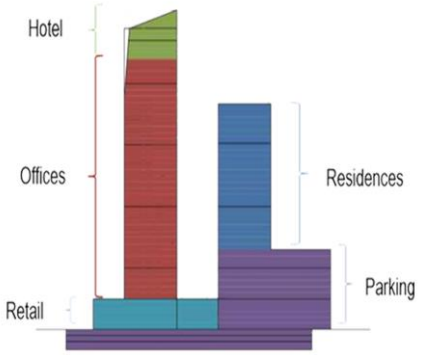
- IT IS A SEMI-TWIN MIXED USE SKYSCRAPER IN MUMBAI.
- THE MAIN SKYSCRAPER IS ABOUT 52 FLOORS 203 METRES AND THE RESIDENTIAL SKYSCRAPER IS ABOUT 35 FLOORS 142 METRES.
- THE FIRST FIVE FLOORS OF THE MAIN BUILDING IS USED FOR A HIGH-END SHOPPING MALL AND THE REMAINING 47 FLOORS OF THE MAIN BUILDING IS UTILIZED FOR A COMMERCIAL OFFICES AND FIVE STAR HOTEL.
- THE FIRST 13 FLOORS OF THE RESIDENTIAL BUILDING IS USED AS A PARKING GARAGE FOR BOTH THE BUILDINGS AND THE REMAINING 19 FLOORS IS RESIDENCES.

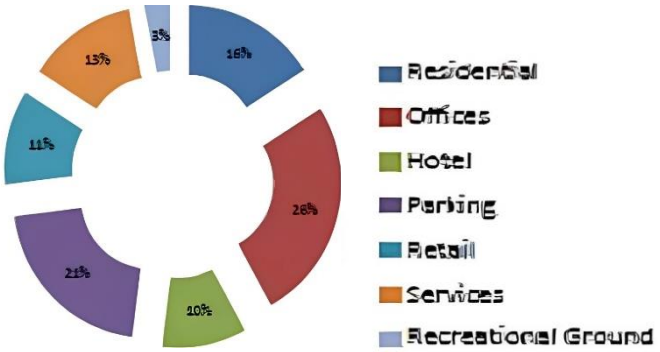
AERIAL VIEW OF KOHINOOR SQUARE:

AREAS:

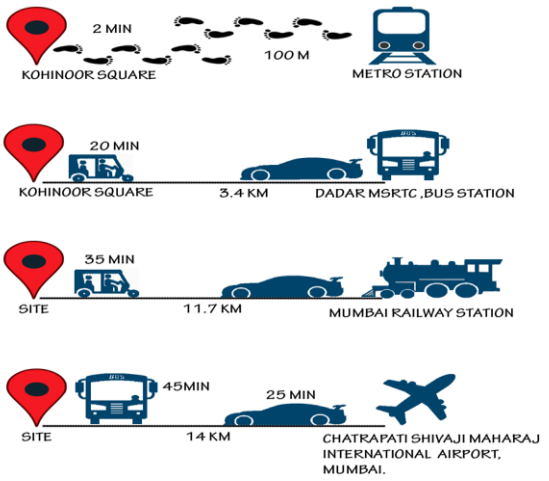
SPACES	AREAS(SQ.M)
RESIDENCES	
3BHK	222.96
3.5BHK	260.12
4BHK	306.58
OFFICES	
WORKING SPACES	50-256
MALE WASHROOM	30
FEMALE WASHROOM	30
PANTRY	4.8
REFUGE AREA	458.76
ELECTRICAL ROOM	1.25
AHU	2.49
SERVER ROOM	18.50
MACHINE ROOM	70.89
RETAIL	
RETAIL STORE	1150
FOOD COURT	1150
MALE WASHROOM	21
FEMALE WASHROOM	21
SHOPS	50-256
OTHERS	
ENERGY	236
TERRACE ON 3RD FLOOR	715.9
PARKING	3627.6

AREA DISTRIBUTION:





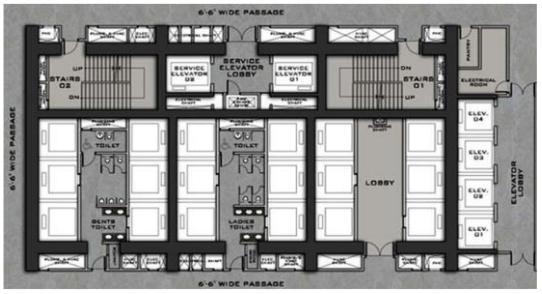
APPROACH:



SITE ZONING:

FLOOR PLANS:

• 3 LOBBIES OF 6 LIFTS SERVING LEVELS 25TH TO 39TH
• SPACES BETWEEN THE LIFTS ARE USED
• THE CENTRAL CORE IS SURROUND- ED BY THE OFFICE SPACES
.• THERE ARE SEGREGATED OFFICE SPACE FROM 6TH TO 14 FLOOR WITH TOILETS TO EACH OFFICE AND WITH COMMON TOILETS.
• 13 STORIES OF PARKING IN BELOW FLOORS. 132 RESIDENTIAL UNITS. 8 UNITS ON EACHFLOOR
.• CENTRAL CORE: 3 LIFTS AND 1 SERVICE LIFT 2 STAIRS ARE ALSO PLACED IN THE CORE.



CORE BUILDING FLOOR PLAN

Fig 3.10716th Floor Plan(office)

Electric room – 77.5ft²
Server room – 199.13ft²
AHU room – 199.13ft²
Refuge area – 1291.66ft²

401 – 805.58ft²
402 – 885.12ft²
403 – 805.58ft²
404 – 891.15ft²
405 – 1110.20ft²
406 – 1012.78ft²
407 – 1008.48ft²
408 – 1349.81ft²
409 – 909.13ft²
410 – 912.25ft²
411 – 912.25ft²
412 – 854.66ft²
Gents Toilet 322.91ft²
Ladies Toilet 322.91ft²
Pantry – 51.66ft²

Fig 3.101 Typical Floor Plan(office)

COMMERCIAL BUILDING FLOOR PLAN

SKY GARDENS:

- 15 DOUBLE HEIGHT LANDSCAPED SKY GARDENS AND MORE THAN A DOZEN DOUBLE HEIGHT TERRACES, TO ACT AS TRANQUIL AND REFRESHING BREAKOUT ZONES.
- LOW FLOW FAUCETS, DUAL FLUSH TOILETS, GREY WATER SYSTEMS AND STORM WATER & RAINWATER MANAGEMENT SYSTEMS-ALL A PART OF OUR COMMITMENT TO THE ENVIRONMENT.

HIGH PERFORMANCE FACADES:

- THE FAÇADE CONSISTS OF FACETED UNITIZED ALUMINUM CURTAIN WALLS WITH PROVISIONS FOR HIGH PER- FORMANCE DOUBLE GLASS FAÇADES ON THE TOWER.
- DIAMOND EDGES OF THE BUILDING HAVING ALUMINUM FLASHING WITH LED LIGHTING ARE THE UNIQUE FEATURE AND MAKE IT COMPLICATED FAÇADE DESIGN.
- ALL THE GLASSES ARE ARTICULATED GLASSES & CAN SUSTAIN DESIGN WIND PRESSURE OF 4.5 TO 5.0 KPA.

STRUCTURE SYSTEM:

- THE STRUCTURE COMPRISES A CONCRETE CORE AND POST-TENSIONED CONCRETE SLAB AND SPANDREL BEAMS. THE AVERAGE CENTRE TO CENTRE DISTANCE BETWEEN COLUMNS IS **9.5 M**. THE COLUMN IS OF **1.8 X 1.8 M**.
- THE TUBE SYSTEM CONCEPT IS BASED ON THE IDEA THAT A BUILDING CAN BE DESIGNED TO RESIST LATERAL LOADS. THIS ASSEMBLY OF COLUMNS AND BEAMS FORMS A RIGID FRAME THAT AMOUNTS TO A DENSE AND STRONG STRUC- TURAL WALL ALONG THE EXTERIOR OF THE BUILDING.

FOUNDATION:

- THE COMBINED PILE RAFT FOUNDATION SYSTEM IS USED. IT IS A GEOTECHNICAL COMPOSITE CON- STRUCTION THAT COMBINES THE BEARING EFFECT OF BOTH FOUNDATION ELEMENTS RAFT AND PILES.

SUSTAINABLE FEATURE:

1.RAIN WATER COLLECTION
2.SKY GARDENS
3. HIGH PERFORMANCE FAÇADE
4.HIGH EFFICIENCY VENTILATION SYSTEM
5.DAYLIGHT HARVESTING AND DUMMING CONTROLS
6. BLACK AND GREY WATER REUSE
7.ENVOIRNMENTALLY PREFERABLE MATERIAL
8.GREEN ROOF
9.ENERGY CENTRE
10.NATIVE ADAPTED LANDSCAPE
11.ON SITE WASTE WATER TREATMENT
12.RECYCLEABLE SORTING AND COLLECTION
13.NATURAL VANTILATION

LITERATURE STUDY – 02 SELECT CITY WALK, SOUTH DELHI, INDIA .

LOCATION:
SAKET DISTRICT , NEW DELHI, INDIA

ARCHITECT:
TEVATIA CHAUHAN

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
TOTAL SITE AREA- 62800 SQ M (15.5 ACRE)
BUILT UP AREA - 15884 SQ M
GROUND COVERAGE- 9686.86 SQ M
FAR < 1
HEIGHT OF STRUCTURE - 38.7M
OPEN SPACES - 8093.71
PERCENTILE OF ROADS- (7598 SQ MI) 18%

PROGRAM:
RETAIL PODIUM
CINEMAS
OFFICE BUILDINGS
SERVICE APARTMENTS
PLAZA AND LANDSCAPE

SITE CONDITION:
THE SITE IS STRATEGICALLY LOCATED ON THE MAIN ARTERY CONNECTED TO MAIN SAKET ROAD, SUB ROADS CONNECTED ADJACENT TO SITE ACTS AS PEDESTRAIN ACESS TO THE SITE, SERVICE ENTRY FROM LEFT SIDE OF THE BUILDING TOWARDS BASEMENT.

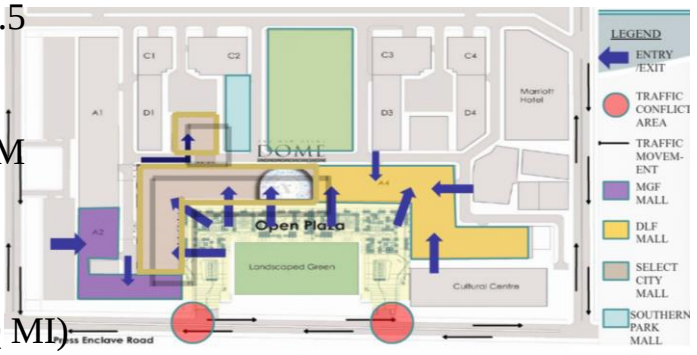


FIG :KEY PLAN

BUILDING PROGRAM:
- 3 FLOORS OF SHOPPING AREA
- 2 SEPARATE 5-STOREY BLOCKS CONTAINING

I. OFFICE SPACE II. SERVICED APARTMENTS

- OUTDOOR OPEN-AIR PLAZA, APPROX. 1 LAKH SQ. FT.
- WATER BODIES & FOUNTAINS
- AN AMPHITHEATRE
- SIX SCREEN PVR CINEMAS

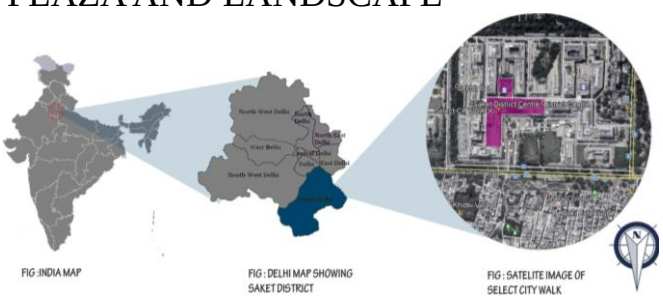


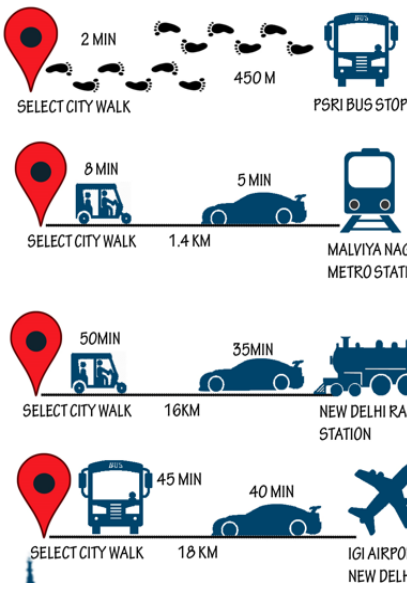
FIG :INDIA MAP
FIG : DELHI MAP SHOWING SAKET DISTRICT
FIG : SATELITE IMAGE OF SELECT CITY WALK

FIG :WELCOMING ENTRANCE

FIG :SELECT CITY VIEW

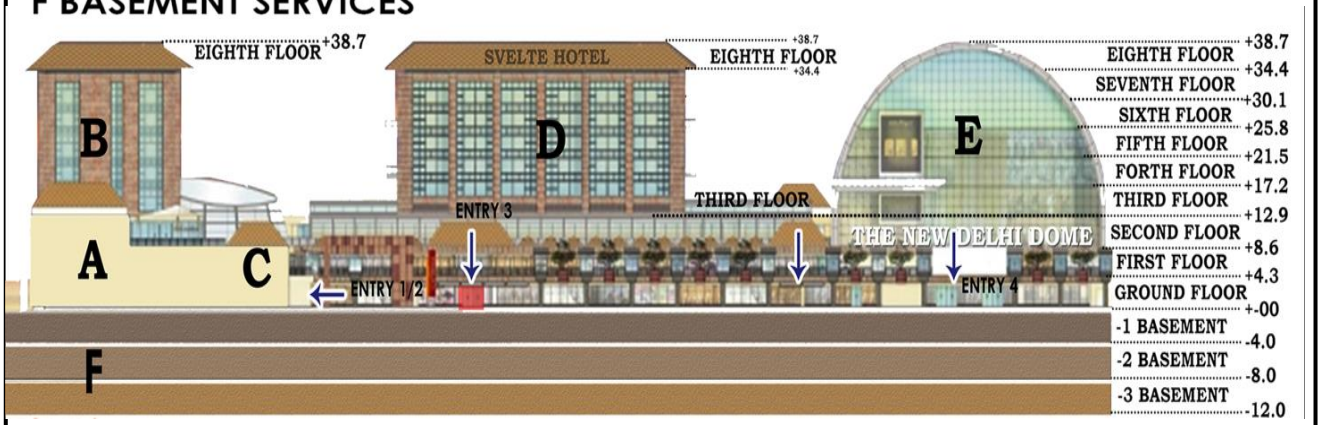

FIG : BUDHA STATUE A SYMBOL OF PEACE

APPROACH:



LEGENDS:

A SHOPPING COMPLEX
B OFFICE BUILDING
C SHOPPING COMPLEX
D SVELTE HOTEL
E RESTAURANT AND GYM
F BASEMENT SERVICES



SITE ORIENTATION AND WIND DIRECTION:

- REGULAR IN SHAPE: RECTANGULAR
- MAJOR ROAD: NORTHEAST-SOUTH WEST ORIENTED
- MINOR ROAD: NE-SW ORIENTED
- SITE AXIS ORIENTED TO MAJOR ROAD, NORTH DIRECTION WELCOMING/ SOUTH DIRECTION BLOCKED EAST AND WEST- MINOR ROAD AXIS

FIG :SITE ORIENTATION

SITE CIRCULATION:

- EXTERNAL ROAD: 30 M MAIN ROAD, MINOR INTER- NAL ROAD: 20 M WIDE, PERIFERAL STREET: 8M WIDE.
- PASSAGE RUNNING ON ONE SIDE OF L-SHAPE BUILDING, IS 2.5M WIDE.

SITE PLANNING CONSIDERATIONS:

- ENTRANCE: 2,EXIT: 2, BUILDING ENTRANCE:4LANDSCAPE: INFRONT OF SELECT CITYURBAN SPACES: ROADS, STREETS, TRANSITION ZONE,
- LANDSCAPE ACTS AS ECOLOGICAL EQUILIBRIUM TO THE SITE PUBLIC INTERCONNECTIVE SPACES OUTSIDE CAN BE USED FOR EMERGENCY EXIT GATHERINGS.
- ATTRACTIVE SPACE CRATE FOR OUTDOOR SEATING IN THE PLAZA

VEGETATION (FLORA AND FAUNA)

- SHRUB COVER, TROPICAL TREES (>10M)
- SHADING TO THE FACADES ARE DONE BY TROPICAL TREE SHRUBS ARE PLANTED ON THE PERIFARY OF THE BLOCK.

SITE SERVICES:

- FIRE SAFETY SERVICES, LOADING UNLOADING ON PERIFARY, ELECTRICAL UNDERGROUND, DRAINAGE CONNECTED TO MAIN SEWER LINE.
- HYDRANT HOSEREEL ARE PLACED 15 M APART AS PER FIRE AND SAFETY PURPOSE, UNDER- GROUND ELECTRICAL SYSTEM IS DONE CONNEC- TION TRANSFROMER AT SERVICE ZONE.

SECURITY CHECKPOINTS:

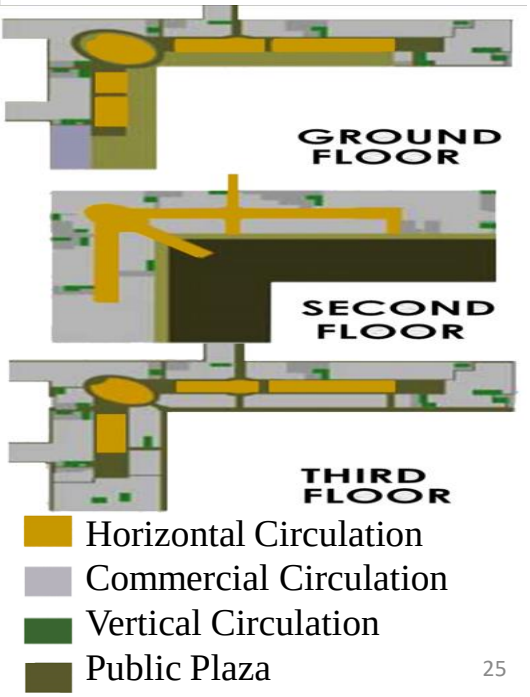
- AT MAIN ENTRANCE-INTELLEGENT CAR SCANNERS SERVICE CHECK POST, 2 PARKING CHECKPOST

CIRCULATION:

ENTRANCES

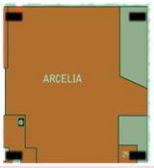
- THERE WERE 2 MAIN ENTRANCES TO THE MALL
- ONE FROM THE FRONT & 2ND FROM THE REAR SIDE.
- ON THE FRONT SIDE, 4 MAIN ENTRIES WERE PRESENT.
- PASSAGE RUNNING ON ONE SIDE OF L-SHAPE BUILDING, IS

1. 2.5M WIDE
2. DISTANCE BETWEEN COLUMNS-6M
3. COLUMN SIZE-600X450



STRUCTURAL ANALYSIS:






THE WHOLE STRUCTURE ISIDVIDED INTO 5 ZONES WITH SEPERATE REINFORCEMENT AND STRUCTURE DEPEND-ING UPON THE ZONES, THIS TYPE OF STRUCTURE IS DE-SIGNED TO CREATE THE EARTHQUAKE RESISTANT BUILDIING CREATING BALANCE IN WHOLE BLOCK.

GARBAGE AREA:

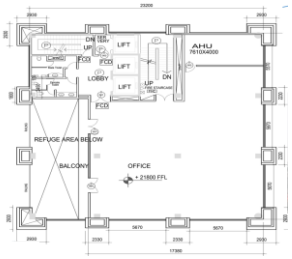
- THE WASTE FROM RESTAURANTS WAS COLLECTED IN BASEMENT THROUGH SHAFT
- THERE WERE 3 SEPARATE AREAS, WHICH WERE DIVIDING THE WASTE INTO DIFFERENT CATEGORIES.
- COMPOSTING AREA, SEGREGATION AREA & SEGREGATED WASTE FOR RECYCLING AREA
- AFTER SEPARATION, WASTE IS DISPOSE OF THROUGH GARBAGE TRUCKS.

BASEMENT SERVICES:

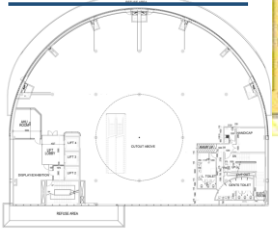
IT INCLUDES

A. FIRE FIGHTING EQUIPMENT'S
B. EMERGENCY EXITS
C. LOADING & UNLOADING AREA
D. GARBAGE COLLECTION AREA

OFFICE SPACE PLAN:



DOME PLAN:



TYPICAL 4 TO 6 FLOOR PLAN

BASEMENT:

- 1176 CARS CAN BE PARKED IN 3 DIFFERENT FLOORS OF BASEMENT AT ONE TIME.
- BASEMENT 1-OFFICES, PARKING FOR 327 CARS, 161 TWO WHEELERS LOADING & UNLOADING AREA, GARBAGE DISPOSAL AREA
- BASEMENT 2-PARKING 550 CARS, 100 TWO WHEELERS
- BASEMENT 3- PARKING 299 CARS, 310 TWO WHEELERS
- BASEMENT HEIGHT-3.5M
- GRID 6X6M
- BASEMENTS-
  41578.5 SQM (3L VLS)

BASEMENT 1 PLAN

BASEMENT 2 PLAN

BASEMENT 3 PLAN

THE PLAZA-SAANSKRITI:

- SELECT CITYWALK ALSO HAS AN OUTDOOR OPEN PLAZA SAAN- SKRITI, APPROX 1 LAKH SQ. FT OF OUTDOOR LANDSCAPED AREA WITH RICH PLANTS, TREES, WATER BODIES, AMPHITHEATURE AND SPECIALISED LIGHTING GIVING DELHI A RICH URBAN OUTDOOR SPACE COMPARABLE TO THE BEST IN THE WORLD.
- SEVERAL COUNTRIES PROJECTED AND PRESENTED CULTURAL PROGRAMMES AND PROMOTED THEIR DESTINATIONS AT SAAN-SKRITI.
- FAMOUS ARTIST PERFORMED AT THE AMPHITHEATRE OF SELECT CITY WALK.

THE COMMON DESIGN CONCERN WAS THEREFORE THE INTEGRATION OF BOTH PODIUMS WITH THE ADJOINING PARK. ITS LANDSCAPE WAS THUS ADAPTED TO VISUALLY AND PHYSICALLY CONNECT WITH THE PARK WHICH FUNCTIONED AS A COMMON.

- THE FORMWORK OF ITS BASEMENT SLAB WAS PART-EXECUTED, PRIOR TO THE INVOLVEMENT OF DC.

PLAZA FEATURES:

- LANDSCAPED PLAZA OF 8992 SQ. METERS.
- AN OAT, WITH A CAPACITY OF 200+ PEOPLE.
- 5 STAIRCASES LEADING TO BASEMENT.
- STATUES & SCULPTURES WERE PLACED ALL AROUND THE LANDSCAPING
- .FLOORING: MARBLE, GRANITE
  SLABS, VITRIFIED TILES

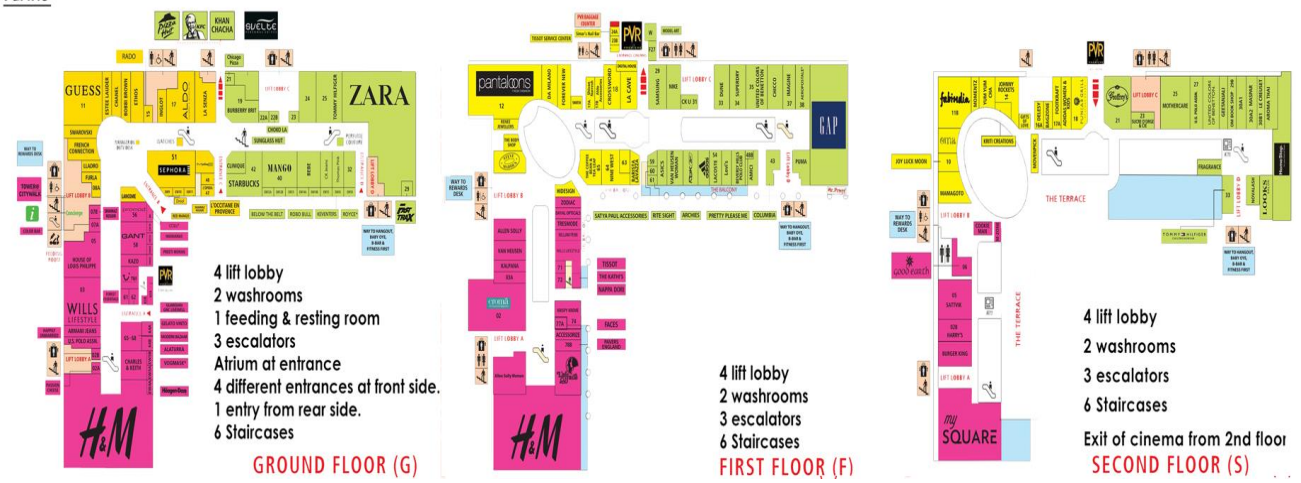
PLANNING CONCEPT:

THE PLAN IS DIVIDED INTO 4 CATEGORIZATION-

- A-FAMILY AND TRADITION SPACE
- B-CELEBRATION (CENTRE-SAGE)
- C-HIGH-VOLTAGE (YOUTH)
- D-OPEN PLAZA/ LANDSCAPED AREA (GROUND FLOOR)

BUT THE ACTUAL PLANNING IS DIFFERENT FROM CONCEPT PLANNING.

BUILDING BLOCK:
PLANS



BUILDING BLOCK PLANS

FLOOR AREA STATEMENT:

- **BASEMENT** =41578.5 (3L VLS) +6075 (3LS VLS)=47653.5 SQ. M
- **GROUND FLOOR** =9622.345+1756.46 (MULTIPLEX)=1137.81 SQM
- **FIRST FLOOR** = 10803.323+2012.72 (MULTIPLEX) = 12816.043 SQ. M
- **SECOND FLOOR**=6568,06 SQ. M
- **THIRD FLOOR** = 2921.226 SQ.M
- **FOURTH FLOOR**=2776.216 SQM
- **FIFTH FLOOR**=2467.621SQ.M
- **SIXTH FLOOR** = 2268.241 SQ.M
- **SEVENTH FLOOR** = 1948.80 SQ. M
- **FOYER LEVEL AREA IN MULTIPLEX** = 825.29 S.QM
- **TOTAL WITHOUT BASEMENTS** = 43970.307 S.QM
- **TOTAL WITH BASEMENTS** = 91623.807 SQ. M

SPECIFICATIONS AND MATERIAL:

1. **TYPE OF CONSTRUCTION:** RCC FRAME STRUCTURE
2. **EXTERNAL FINISH CLADDING:** GRANITE, TEXTURE PAINT
3. **INTERNAL WALL FINISHES:** PLASTER WITH DESIRED PAINT FINISH, CEAMIC TILES FOR THE TOILET.
4. **FLOORING:** MARBLE, GRANITE SLABS, VITRIFIED TILES.
5. **DOORS:** SHUTTERS OF PLY WITH TM FRAMES AND FIRE PROOF DOOR WHEREVER REQUIRED.
6. **WINDOW:** ALUMINIUM SECTION
7. **ELECTRIFICATION:** PROVISION FOR ELECTRIC OUTLETS

CASE STUDY

CASE STUDY – 01 SUPERTECH SUPERNOVA, NOIDA, INDIA .

LOCATION:
SECTOR 94, AMRAPALI MARG,NOIDA

ARCHITECT:
BENOY ARCHITECT

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
SITE AREA = more than17ACRES
FAR = 4
NO.OF TOWERS= 5+ RETAIL SHOPS
OPEN AREA = 70%
NO.OF FLOOR= 80
NO.OF UNITS= 5708
CONSTRUCTION STATUS= ON GOING
BUILD UP AREA= 50, 00,000 SQ. FT.

PROGRAM:
- OBSERVATORY DECK
- EXCLUSIVE CLUB-HOUSE
- AUTOMATED ELEVATOR
- FINE DINING, LEISURE, AND ENTERTAINMENT OPTIONS
- LUXURY SHOPPING MALL
- 5-STAR HOTELS.

EAST

WEST

PROJECT LOCATION:

SITE APPROACH:

CONCEPT AND AMENITIES OF SUPERNOVA:

THE UNDERTAKING WILL AND EXTRAVAGANCE RETAIL BRANDS, OFFICE, SERVICE APARTMENTS, AND EXTRAVAGANCE APARTMENTS. ABOVE ALL, THIS UNDERTAKING HIGHLIGHTS 2 LAVISH INNS, PREMIUM FIVE STUNNING PINNACLES ALL MIXING FOREFRONT DESIGN WITH CUSTOMARY VAASTU STANDARDS. EVENTUALLY, THESE FIVE MONSTER STRUCTURES ARE NAMED AUSTRALIS, NOVA EAST, AND NOVA WEST, SPIRA, AND SOVEREIGN PINNACLE. SUPERNOVA HAS TWO FUNDAMENTAL TOWERS NOVA EAST AND NOVA WEST ARE PRIVATE APARTMENTS. CERTAINLY, IT OFFERS 2BHK AND 3 BHK OUTFITTED CONDOS VARIATIONS WITH SIZES 1330 SQ. FT AND 2040 SQ. FT

SITE CONDITION:

THE PROJECT IS STRATEGICALLY LOCATED NEAR MAJOR ROADWAYS, INCLUDING THE NOIDA-GREATER NOIDA EXPRESSWAY, YAMUNA EXPRESSWAY, AND THE UPCOMING NOIDA-GREATER NOIDA METRO LINK EXPRESSWAY. THESE ROADWAYS PROVIDE SEAMLESS CONNECTIVITY TO OTHER PARTS OF DELHI-NCR REGION, INCLUDING DELHI, NOIDA, GREATER NOIDA, AND GHAZIABAD.

ASTRALIS (COMMERCIAL):

- GROUND+28 FLOOR.
- FROM GROUND TO 2ND I.E DOUBLE HEIGHT ENTRANCE LOBBY
- .3RD FLOOR IS A WAITING FLOOR
- .4TH FLOOR IS CLUB
- .FROM 5TH TO 23RD ARE LOCKABLE SPACES.
- 25TH IS SERVICE FLOOR.
- 24TH, 26TH, 27TH, 28TH ARE VIRTUAL SPACES.

Abbreviation	Area(sq.m)	Abbreviation	Area(sq.m)
Office 1	190	Office 12	43.5
Office 2	78.5	Office 12A	43.5
Office 2A	78.5	Office 14	143
Office 3	190	Office 15	68.5
Office 4	50	Office 15A	68.5
Office 5	54	Office 16	143
Office 6	45.5	Office 17	43.5
Office 7	43.5	Office 18	43.5
Office 8	43.5	Office 19	43.5
Office 9	43.5	Office 20	43.5
Office 10	43.5	Office 21	43.5
Office 11	43.5	Office 22	43.5
Office 23	43.5	Office 25	54
Office 24	45.5	Office 26	50

Floor Plans

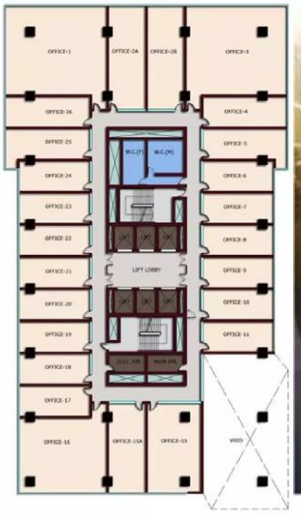
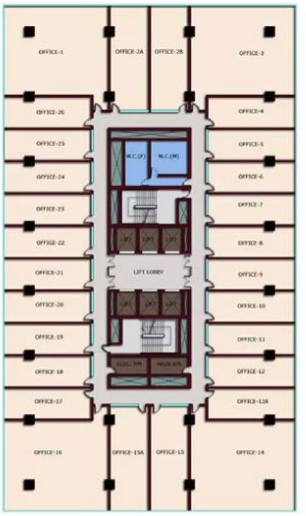


Fig 3.57Astralis Ground Floor
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/1.jpg

Fig 3.58Astralis Floor with Void - 6,11,16,21 floors
https://www.smcrealty.com/supertech-supernova-



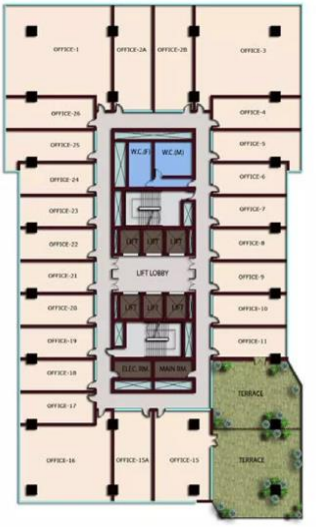


Fig 3.59Astralis Upper Large Floor - 25,26 floors
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/3.jpg

Fig 3.60Astralis Floors with Terrace - 5,10,15th,20 floors
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/4.jpg

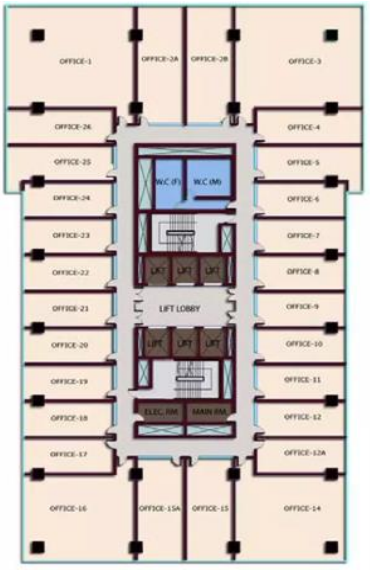


Fig 3.61
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/5.jpg

Male washroom – 23sq.m.

Female washroom – 20sq.m.

Electric room – 12sq.m.

Lift lobby – 55sq.m.

Corridors – 2m wide.

Terrace 1 – 104sq.m.

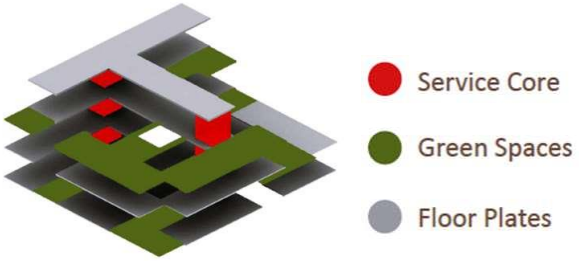
CASE STUDY – 02 INDIA GLYCOL OFFICE, NOIDA.

PROJECT TYPE : OFFICE BUILDING
LOCATION : SECTOR 126, NOIDA
ARCHITECT : MORPHOGENESIS
CLIENT : INDIA GLYCOL
SITE AREA : 2,15,280 SQ. FT. (20,200 SQ. MT.)
BUILT-UP AREA : 391,700 SQ. FT. (36,390 SQ. MT)
F.A.R. : 1.5
EMPLOYEES : 250
ENERGY-RESPONSIVE DESIGN, A WORKPLACE CATERING REQUIREMENTS OF THE IT, DEVELOPMENT OF BUILDING TECHNIQUES WITH MODERN MATERIALS.

ACCESS AND APPROACH

INDIA GLYCOL IS LOCATED IN SECTOR 126 OF NOIDA (DELHI NCR REGION). THE SITE IS WELL CONNECTED TO DELHI AND GREATER NOIDA BY NOIDA EXPRESSWAY. THE MAP SHOWN ABOVE SHOWS THE ACCESS AND APPROACH OF SITE AND ITS DISTANCE FROM THE AIRPORT RAILWAY STATION AND THE BUS STAND.
NEAREST METRO STATION BOTANICAL GARDEN (8.6KM)

CLIMATIC ZONE : COMPOSITE
AVG. TEMPERATURE (HIGH) : 31.2°C
AVG. TEMPERATURE (LOW) : 18.8°C
AVG. PRECIPITATION : 715 MM



FORM EVOLUTION

CONCEIVED AS A SOLID PERIMETER SCHEME WITH A MORE FLUID INTERIOR, THE MORPHOLOGY BLURS THE INTERFACE BETWEEN THE INSIDE AND OUTSIDE. THE SITE SURROUNDINGS AND CONTEXT ALONG WITH AN OPTIMUM ENCLOSED SQUARE VOLUME ENABLED A BUILT FORM WITH MINIMUM EXPOSED SURFACE AREA. THE BUILT FORM CONFIGURED OF 8M WIDE OFFICE BAYS OPTIMIZES THE NATURAL DAY LIGHTING AND HELPS TO DEFINE THE PROGRAMMATIC REQUIREMENTS OF THE OFFICE.

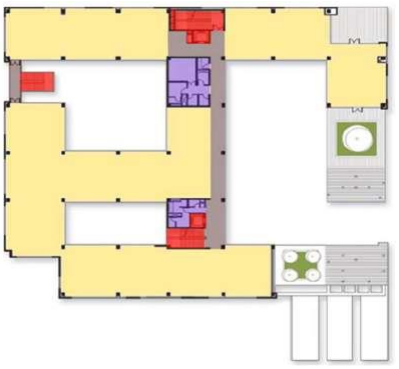
VOLUMETRIC CONFIGURATION

THE DESIGN'S CONCEPTUAL STRENGTH COMES FROM THE SPATIAL ORGANIZATION WHICH CREATES OVERLAPS BETWEEN THE EXTERIOR AND THE INTERIOR AND BETWEEN THE VARIOUS PROGRAMMATIC REQUIREMENTS, HENCE CREATING A VIBRANT AND CREATIVE WORK ENVIRONMENT.

ZONING PLANS

Ground Floor Plan

- Reception
- Corridor
- Office Spaces
- Conference rooms
- Service core
- Washrooms



First Floor Plan

- Corridor
- Office
- Service core
- Washroom

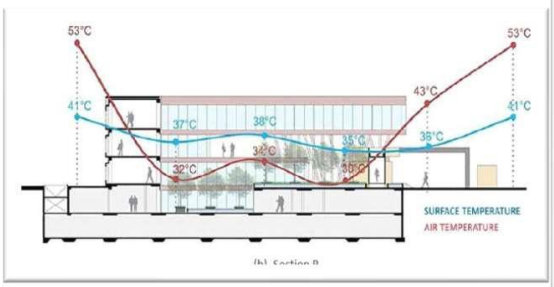
Second Floor Plan

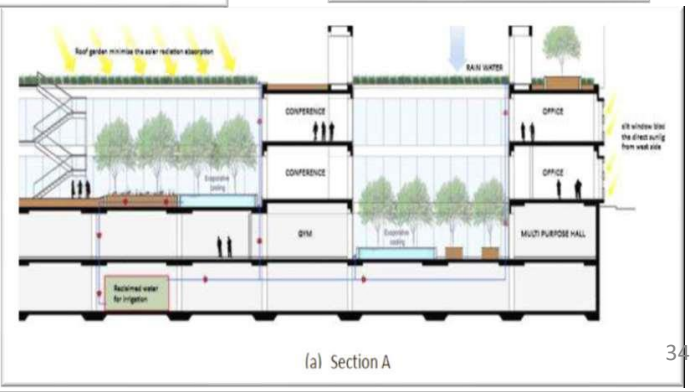
- Corridor
- Office
- Service core
- Washroom
- Terrace Garden

RECEPTION

KEY PLAN FOR SECTIONS

SERVICES





(a) Section A

AHU ROOM AREA - 17 SQM / ROOM
PANTRY AREA - 4 SQM / ROOM
STAIRCASE
- WIDTH 1500 MM
- TREAD 300 MM
- RISER 150 MM
LIFTS AREA – 4 SQM / LIFT ROOM
NO. OF WASHROOMS
- MALE 04
- FEMALE 03

COURTYARDS AND TERRACES

GREEN FEATURES PROGRAM, FORM OPTIMIZATION, MORPHOLOGY, AND ORIENTATION

• ENERGY CONSCIOUSNESS DICTATES THE INTERNAL SPATIAL AND PROGRAMMATIC
COMPOSITION THROUGH A SERIES OF OPEN AND SEMI-OPEN SPACES.
• INSTEAD OF AN OVERLAY OF AN ENVIRONMENTAL LAYER, PASSIVE DESIGN
TECHNIQUES ARE EMPLOYED THROUGHOUT THE SCHEME.
• THE SITE SURROUNDINGS AND CONTEXT ALONG WITH AN OPTIMUM ENCLOSED
SQUARE VOLUME ENABLED A BUILT FORM WITH MINIMUM EXPOSED SURFACE AREA.
• SOLAR EXCLUSION IS ACHIEVED BY MEANS OF A SOLID EXTERNAL PERIMETER WITH
MINIMUM FENESTRATION, WHICH ONLY PERMITS DIFFUSED DAYLIGHT INTO THE OFFICE
ENVIRONS.

NO.	TITLE	ACC. TO CPWD/NBC 2005	GLYCOL INDIA
1.	**WORK STATION**	**(sqm)**	
	EMPLOYEES-WORKSPACE	9.29	2.2
	MANAGER'S OFFICE	9.29	11.8
	SENIOR MANAGER'S OFFICE	18.58	20
	DIRECTORS OFFICE(WITH 4 PERSON MEETING TABLE)	23.22	37
	4 PERSON MEETING ROOM	9.29	10.5
	8 PERSON MEETING ROOM	11.61	24
	BOARD ROOM	20.43	24
	30 PERSON/CONFERENCE ROOM	22-44	150FOR100
	PANTRY	9.29	4.2X2
	1 SERVER RACK SERVER ROOM	3.72	NIL
	4SERVER RACK SERVER ROOM	11.5	NIL
	VISITOR'S LOUNGE	<44	39
	RECEPTIONIST	11	14.5
	CANTEEN	0.09/PERSON	2.1/PERSON
2.	**CIRCULATIONS**		
	LIFT NO.		2
	LIFT WELL		4.07sqm/lift
	LIFT DOOR WIDTH	0.9m	1
	LOBBY IN FRONT OF ELEVATOR		
	ELEVATOR ON ONE SIDE	1.8m	2.23m
	ELEVATOR ON TWO SIDE	3.1m	NIL
	CORRIDORS		
	SUBSTANTIAL TRAFFIC	1.6m	2.6m
	MODERATE TRAFFIC	1.2m	2.2m
	SECONDARY TRAFFIC	1m	1.5m
	STAIRCASE STANDARDS		
	MINI. WIDTH	>=1.2 m	1.5m
	MINI. TREAD	30cm	30cm
	HEIGTH OF RISER	<=15 cm	15cm
	HAND RAIL HEIGHT	>=90cm	90cm
3.	**FIRE SAFETY**		
	MAIN ENTRANCE WIDTH	>6m	7.5
	TURNING RADIUS	9m	9m

NO.	TITLE	ACC. TO CPWD/NBC 2005	GLYCOL INDIA
4.	**HEIGHT STANDARDS**	**(sqm)**	
	FLOOR TO FLOOR HEIGHT	3.6m	3.6m
	MINI. CLEARANCE HEIGHT	2.43m	2.43m
5.	**WET AREA REQUIREMENTS**		
	AREA OF TOI/LAT-HANDICAPPED	3.5sqm	NIL
	AREA OF TOI/LAT-COMMAN MAN	1.5sqm	2.2sqm
6.	**CORRIDORS**		
	CORRIDOR (ACCESS TO STREETS)	Y/N	Y
	OBSTRUCTION FREE	Y/N	Y
	CLEARLY VISIBLE EXIT ROUTES	Y/N	Y
	FIRE EXIT WIDTH	>1m	1m
	NO. OF EXITS	min.2 staircas	2
	EXTERNAL STAIRCASE		
	CONNECTED TO THE GROUND LVL	Y/N	Y
7.	**EXTERNAL STAIRCASE**		
	WIDTH	>1250mm	1500mm
	TREAD	>250mm	300mm
	RISER	<190mm	150mm
	NO. OF RISERS PER FLIGHT	<=15	12
8.	**PARKING**		
	MIN. AREA FOR VEHICLE		
	CARS	13.75sqm	13.75
	TWO WHEELERS	3sqm	3
	CYCLE	1.5sqm	NIL
9.	**METHODS OF VENTILATION**		
	NATURAL SUPPLY &NATURAL EXHAUST OF AIR	Y/N	
	NATURAL SUPPLY & MECH. EXHAUST OF AIR	Y/N	
	MECH. SUPPLY & NATURAL EXHAUST OF AIR	Y/N	
	MECH. SUPPLY & MECH EXHAUST OF AIR	Y/N	Y

CASE STUDY – 03 CYBER CITY, GURUGRAM, INDIA

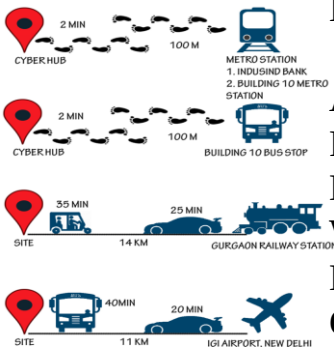
LOCATION:
SOUTH DELHI, PHASE 3, GURUGRAM, INDIA

ARCHITECT:
HAFEEZ CONTRACTOR

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
TOTAL SITE AREA- 26.2 ACRES
CYBER HUB AREA-9.1 ACRE
FAR -3.75
BUILTUP AREA – 400136 M²
GROUND COVERAGE - 39332M²

PROGRAM:
OFFICES
RESTAURANTS
RETAIL
EXHIBITION HALL
MEDIA ROOM
AMPHITHEATURE

APPROACH:


CLIMATE:
HUMID SUB-TROPICAL

AVERAGE TEMPERATURE RANGE FROM 19-32 DEGREE DEPEND- ING ON THE WEATHER SUMMER ARE HOT, WINTERS ARE QUITE COLD, WITHMOST AMOUNT OF RAIN DURING MONSOONS

SITE CONDITION:
THE SITE IS STRATEGICALLY LOCATED ON THE MAIN ARTERY CONNECTING GURUGRAM TO DELHI, NH8, UDYOG VIHAR, A DENSELY POPULATED INDUSTRIAL AREA LIES ON THE OPPOSITE SIDE OF THE HIGHWAY. THE SITE IS TO SURROUNDED BY COMMERCIAL AND RESIDENTIAL. CYBER HUB IS LOCATED AT A PRIME CORNER OF CYBER CITY.

CONNECTIVITY AND ACCESS:
- RAPID METRO RUNS AROUND THE CYBER CITY AND CONNECTS TO THE YELLOW LINE METRO AT SHIKANDERPUR METRO STATION.
- MULTIPLE ENTRIES ARE AVAILABLE INTO THE SITE FROM THE STATIONS ON THIS PRIVATISED LINE.
- FREE SHUTTLE SERVICE AND AUTO-RICKSHAWS SERVE AS LAST MILE CONNECTIVITY FOR THE VICINITY.
- ACCESS BY PUBLIC BUS SERVICE IS INADEQUATE IN COMPARISION TO METRO, RICKSHAW AND PRIVATE VEHICLES

PROJECT LOCATION:

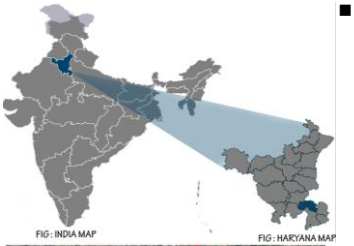



FIG : INDIA MAP FIG : HARYANA MAP

FIG : SATELITE IMAGE OF CYBER HUB

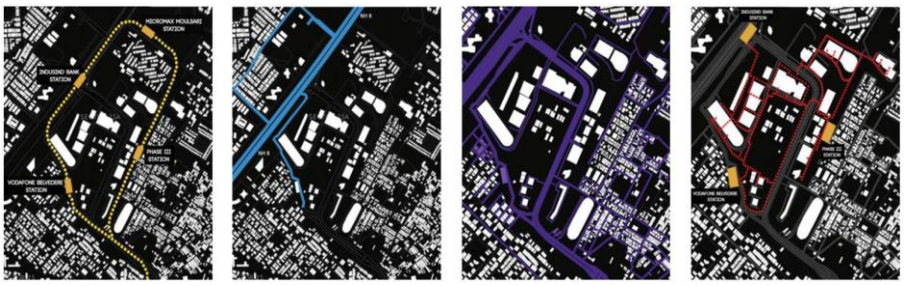
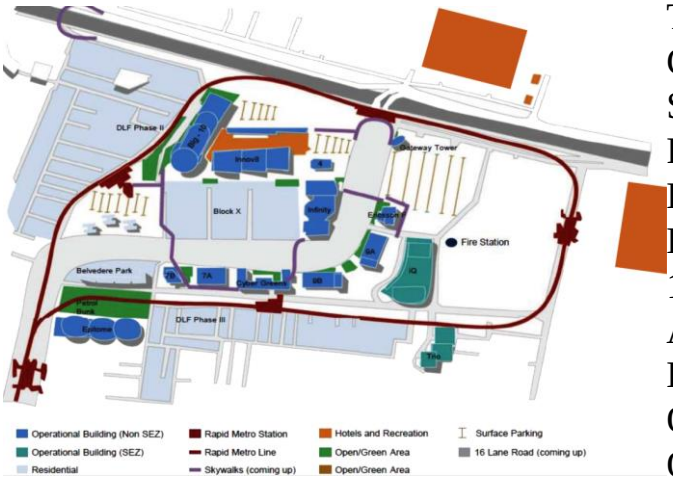


FIG: MOVEMENT SYSTEM LEFT TO RIGHT: RAPID METRO, BUS, PRIVATE VEHICLE AND PEDESTRAIN MOVEMENT

SITE ZONING:



LANDUSE :

HIGH, MEDIUM AND LOW DENSITY INDUSTRIAL, RESIDEN- TIAL AND PUBLIC AND SEMIPUBLIC USES ESTABLISHED WITHOUT CLEAR DEFINITION OR RELEVENT SCALES BE- TWEEN INDIVIDUAL BUILDINGS. BUILDINGS CONTAIN A VERTICAL MIX OF USES, OFTEN WITH OFFICE ON THE GROUND LEVEL WITH CAR PARKING OCCUPYING THE REST OF THE PLINTH. THIS REDUCES THE PUBLIC PRESENCE AND PASSIVE SURVEILLANCE ON THE STREET. VERY FEW AREAS OF GREEN SPACES PRESENT IN PRECINCT, THUS FORMING NO HIERARCHY IN GREEN.

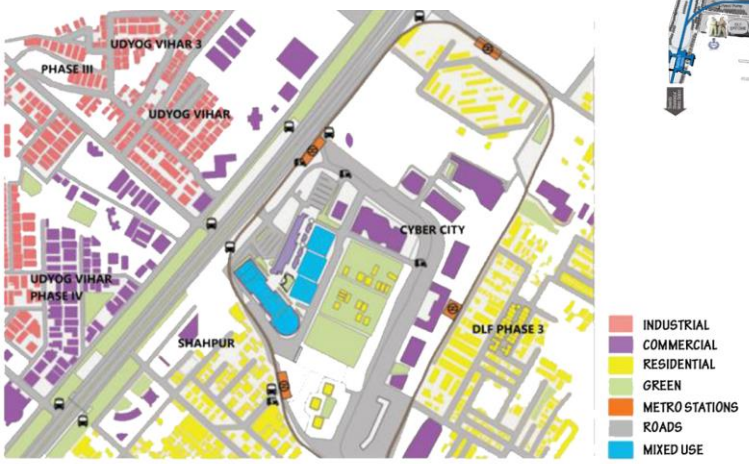


FIG : LAND USE MAP

BUILDING PROGRAM:

THE MAIN COMPONENT OF THIS CORPORATE PARK ARE 2,71,400 SQ. M OF OFFICES OF TOP IT AND FORTUNE 500 COMPANIES.CYBER HUB ALLOWS VARIED EXPERIENCE TO USERS THROUGH 1,36,150 SQ. M OF CONGREGATION AND CIRCULATION SPACES BESIDES COMMERCIAL ACTIVITY OF 9770 SQ. M. RETAIL OPPORTUNITIESEXHIBIT AREA THAT OFFERS SPACES FOR DESIGN AND DISPLAY OF PRODUCTSAMPHITHEATURE WITH DIGITAL SOUND AND PROJECTION SYSTEM, AIR SCREENS AND WEATHER-PROOF SOUND SYSTEM.OPEN TERRACES FOR SOCIALIZING.THESE ARE SUPPORTED BY 2670 SQ. M OF SERVICES AND 14360 SQ. M OF SURFACE PARKING, BESIDE GENEROUSLY PROVIDED BASEMENTS.

SECURITY CHECKPOINT:

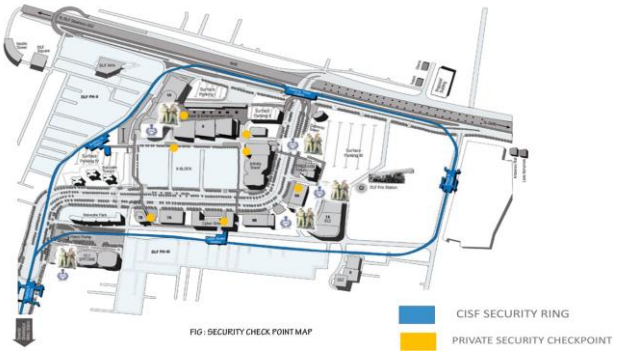


FIG : SECURITY CHECK POINT MAP

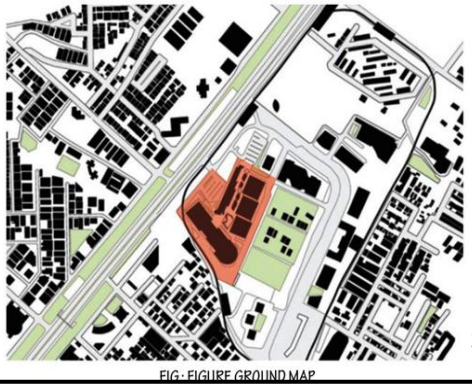


FIG : FIGURE GROUND MAP

BUILDING 8 & AND BUILDING 10

SITE AREA -106590 SQ. MT
AREA BUILT ON GROUND: 36.9%
PERMISSIBLE GROUND COVERAGE: 40%
FOT IT SECTOR

BUILTUP AREAS

BUILDING & BUILTUP AREA = 162787 SQM
BUILDING 10 BUILTUP AREA 224910.8 SQ.M
CYBER HUB 12438 SQ. M
TOTAL BUILTUP AREA=4001363 SQM
FAR ACHEIVED=3.75

LAND USE

OFFICE SPACE: 271388.56 SQM
CONGREGATION & CIRCULATION :136144.34 SQ. M
SHOPS: 9768 SQ. M
SERVICES: 2670 SQ. M
SURFACE PARKING: 14360 SQ. M

FOOT FALL

WEEDAY= 35%
WEEKEND 65%

PARKING:

BUILDING 8

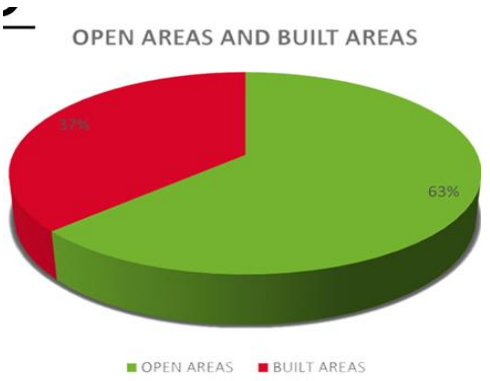
LOWER GROUND: 750 CARS
BASEMENT 1:800 CARS
BASEMENT 2:850 CARS
BASEMENT 3:900 CARS
TOTAL PARKING ACHEIVED: 3300 CARS
TOTAL PARKING REQUIRED @2ECS/100SQ. MI.E. 3256 CARS

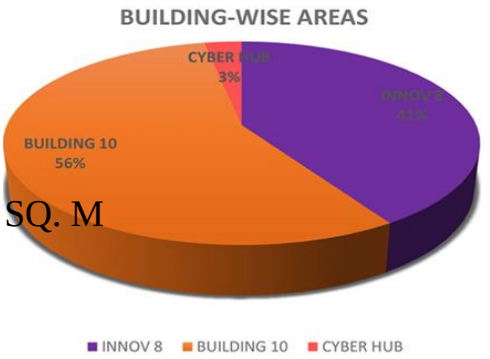
CYBER HUB

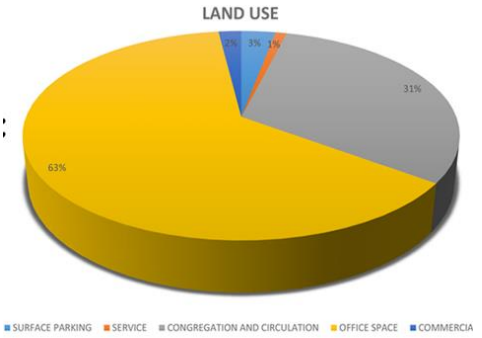
SURFACE PARKING 1: 250 CARS
SURFACE PARKING 2: 250 CARS
TOTAL PARKING ACHEIVED: 500 CARS
TOTAL PARKING REQUIRED @ 2ECS/100 SQ. M I.E. 498 CARS

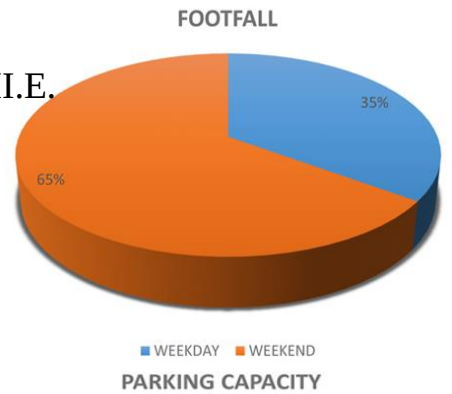
BUILDING 10

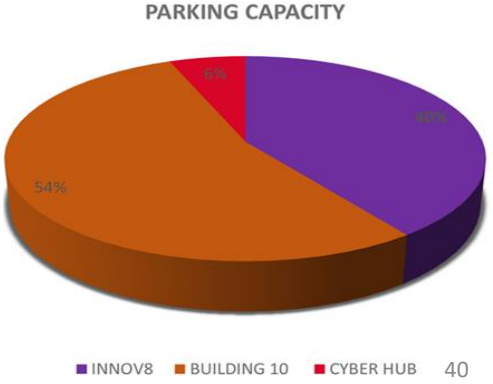
LOWER GROUND: 1020 CARS
BASEMENT 1:1100 CARS
BASEMENT 2:1150 CARS
BASEMENT 3:1230 CARS
TOTAL PARKING ACHEIVED: 4500 CARS
TOTAL PARKING REQUIRED @ 2ECS/100SQ. MI.E. 4498 CARS











BUILDING 8

- WORLD CLASS DEVELOPMENT LOCATED JUST OFF THE NATIONAL HIGHWAY-8 IN DLF CYBER CITY GURGAON.
- DLF INNOV8 IS SPREAD ACROSS AN AREA OF APPROX 1.4 MILLION SQ. FT.
- IT IS DIVIDED INTO 3 BLOCKS (8A, 8B & 8C), WITH A RANGE OF 4-9 FLOORS.
- CONFORMING TO MODERN WORK ENVIRONMENT, FACILITIES LIKE FOOD COURT, ATM AND RETAIL OUTLETS, FORMS AN INTEGRAL PART OF THE COMPLEX.
- THE DESIGN INCORPORATES LARGE EFFICIENT FLOOR PLATES, WIDE COLUMN SPAN AND HIGH FLOOR TO FLOOR CLEARANCE, FOR OPTIMAL SPACE UTILIZATION.
- THE BUILDING STRUCTURE IS DESIGNED TO SEISMIC ZONE V SPECIFICATIONS FOR GREATER EARTHQUAKE RESISTANCE AND IS STRUCTURALLY NFPA COMPLIANT.

AREA DETAILS

THE TOTAL IT WORKSPACE CONSTITUTES 3 BLOCKS (8A, 8B & 8C) COMPRISES OF RETAIL AND OFFICE SPACE. HAVING TOTAL BUILT UP AREA OF 18841193.5 SQ. M

BUILDING 8 DETAIL

BLOCK	FLOOR	AREA
A	G + 5	29111 SQ. M
B	G + 8	45662 SQ. M
C	G + 15	77381 SQ. M

RETAIL AREA- 10802 SQ. M
RETAIL GROUND FLOOR 5945.2 SQ. M
RETAIL FIRST FLOOR 4857.39 SQ. M

SERVICE LIFT:

BLOCK A	BLOCK B	BLOCK C
NO. OF LIFT - 9 LIFTS	NO. OF LIFT - 14 LIFTS	NO. OF LIFT - 16 LIFTS
PASSENGER- 6 LIFT	PASSENGER- 12 LIFT	PASSENGER- 12 LIFT
SERVICE- 2 LIFT	SERVICE- 2 LIFT	SERVICE- 2 LIFT
FIRE LIFT- 1 LIFT	FIRE LIFT- 2 LIFT	FIRE LIFT- 2 LIFT

PASSENGER LIFT IS OF CAPACITY OF 21 PERSONS, 1600 KG
INTERNAL DIMMENSION OF CAR IS 1800 X 1700 MM OF SOME LIFT
AND 2000 X 1550 OF SOME LIFT.
SERVICE LIFT AND FIRE IS OF CAPACITY OF 24 PERSONS
FIRE LIFT STOPS ON EVERY FLOOR.

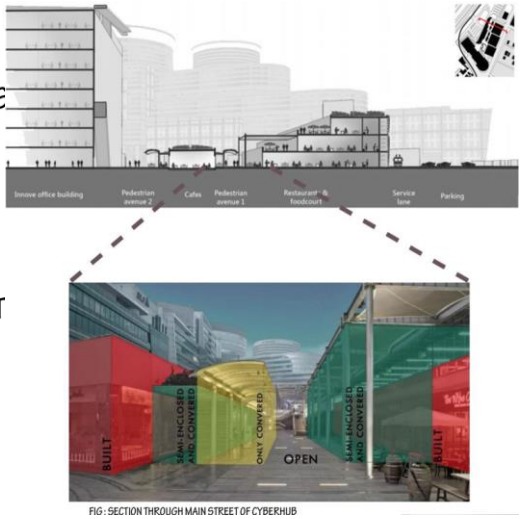


FIG : SECTION THROUGH MAIN STREET OF CYBERHUB

FIRE STAIRCASE:

BLOCK A	BLOCK B	BLOCK C
NO. OF	NO. OF	NO. OF
STAIRCASE- 4 CORE	STAIRCASE- 5 CORE	STAIRCASE- 3 CORE

STAIRS DETAIL
RISER 150 MM
TRADE 300 MM
WIDTH 2000MM



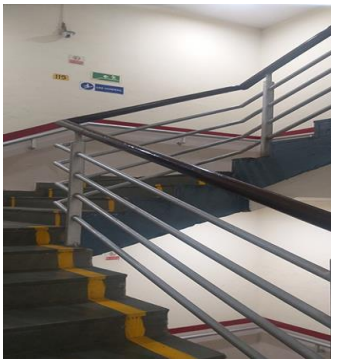
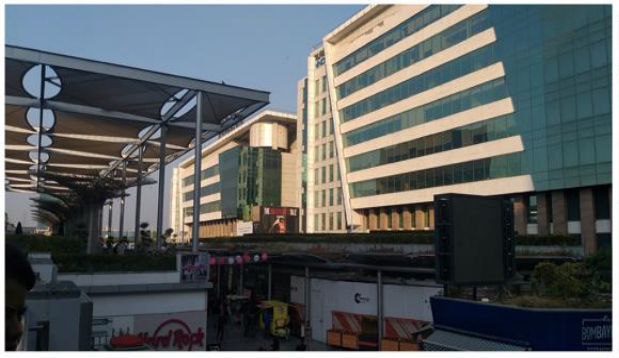



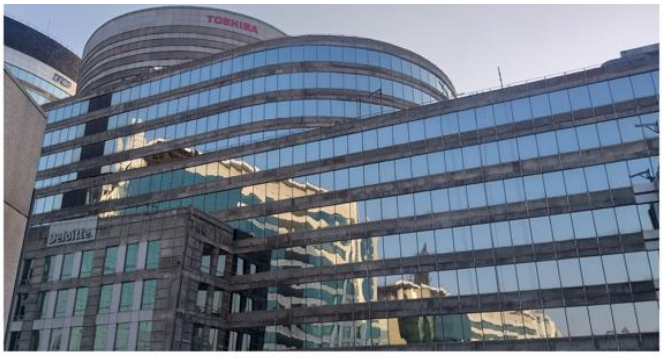
FIG : TENSILE SHADE AT ROOF


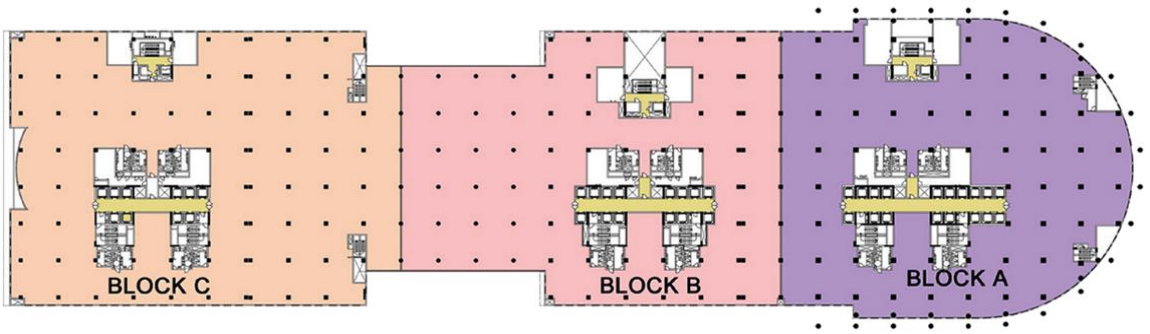
FIG : GLASS FACADE


BUILDING 10

- AN INTEGRATED TECHNOLOGY PARK OFFERING MODERN WORKSPACE TO IT/ITES COMPANIES. OFFERING A WORLDCLASS CONTEMPORARY STRUCTURE, BLDG. 10 IS A SPECTACULAR COMPLEX COMPRISING OF A PLETHORA OF FUTURISTIC AMENITIES, WHICH TOGETHER PROVIDE AN INTERACTIVE ENVIRONMENT REQUIRED FOR NEW AGE IT PROFESSIONALS.
- IT IS DIVIDED INTO 3 BLOCKS (10A, 10B & 10C), WITH A RANGE OF 5-20 FLOORS.

PLAN

- BLOCK A CONSIST OF 3 BASEMENT AND 6 FLOOR.
- BLOCK B CONSIST OF 3 BASEMENT AND 15 FLOOR.
- BLOCK C CONSIST OF 3 BASEMENT AND 21 FLOOR
- EFFICIENT FLOOR PLATES-WIDE COLUMN TO COLUMN SPACES.
- TYPICAL FLOOR PLATE SIZE: 40-65000 SQ FT-SCALABLE TO 16000 SFT OVER BLOCKS



AREA DETAILS

AREA DETAILS THE TOTAL IT WORKSPACE CONSTITUTES 3 BLOCKS (10A, 10B, 10C) COMPRISES OF RETAIL AND OFFICE HAVING TOTAL BUILTUP AREA OF 224910.8 SQ. M

BUILDING 10 DETAIL

BLOCK	FLOOR	AREA
A	3B+G+5F	35528.6 SQ M
B	3B+G+14F	65567.5 SQ M
C	3B+G+20F	110839 SQ M

BLOCK A RETAIL UPPER GROUND 5588.5 SQ. M
BLOCK B RETAIL UPPER GROUND 2908 SQ. M
BLOCK C RETAIL UPPER GROUND 4717.2 SQ. M

FIRE STAIRCASE:

BLOCK A
NO. OF
STAIRCASE- 5 CORE

BLOCK B
NO. OF
STAIRCASE- 3CORE

BLOCK C
NO. OF
STAIRCASE- 5 CORE

SERVICE LIFT:

BLOCK A
NO. OF LIFT - 13 LIFTS
PASSENGER- 9 LIFT
SERVICE- 2 LIFT
FIRE LIFT- 2 LIFT

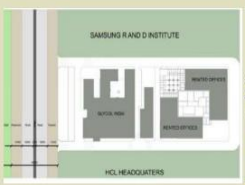
BLOCK B
NO. OF LIFT - 14 LIFTS
PASSENGER- 10 LIFT
SERVICE- 2 LIFT
FIRE LIFT- 2 LIFT

BLOCK C
NO. OF LIFT - 19 LIFTS
PASSENGER- 15 LIFT
SERVICE- 2 LIFT
FIRE LIFT- 2 LIFT

PASSENGER LIFT IS OF CAPACITY OF 21 PERSONS, 1600 KG
INTERNAL DIMMENSION OF CAR IS 1800 X 1700 MM OF SOME LIFT AND 2000 X 1550 OF SOME LIFT.
SERVICE LIFT AND FIRE IS OF CAPACITY OF 24 PERSONS
FIRE LIFT STOPS ON EVERY FLOOR.

COMPARITIVE ANALYSIS

Features	Supertech Supernova, Noida(C1)	India Glycol Office, Noida (C2)	Cyber City, Gurugram(C3)	Kohinoor Square, Mumbai (L1)	Select City Walk, New Delhi(L2)
Location	Sector 94, Amrapali Marg, Noida	Sector 126, Noida	South Delhi ,Phase 3 , Gurugram	Dadar West , Mumbai	Saket District, South Delhi
Neighbourhood planning	A blend of residential luxury and commercial convenience, featuring green spaces and robust infrastructure for a balanced urban lifestyle.	A modern corporate enclave with cutting-edge amenities and connectivity, fostering a dynamic business environment.	A bustling tech and entertainment hub with vibrant eateries, collaborative spaces, and top-notch security for professionals and visitors alike.	A commercial hub with high-rise offices, mixed-use spaces, and sustainable design, fostering connectivity and iconic architecture.	A vibrant retail and entertainment destination, featuring public spaces, cultural activities, and pedestrian-friendly design for a dynamic urban experience.
Site area	more than 17 acre.	5 acre	26.2 acre and 9.1 acre hub	4.6 acre	15.5 acre
Built up area	400136 SQ.M	36390 SQ.M	400136 SQ.M		15884 SQ.M
F.A.R	4	1.5	3.75		3.9
Approaches	located near major roadways, Noida- Greater Noida expressway	connects to Delhi and Noida expressway	connecting Gurugram to Delhi , NH8, Udyog Vihar	junction of LJ road and Gokhale road	connected to main saket road
Function Allocation	Residential and commercial blend.	Corporate hub for business excellence.	Tech-driven corporate ecosystem.	Premium commercial and retail destination.	Vibrant retail and entertainment hub.
			Site Planning Strategies		
Function	focus on maximizing space utilization and integrating	emphasizes efficient traffic flow and green spaces.	prioritizes connectivity and mixed-use development for a	aims for iconic architecture and seamless integration	emphasizes pedestrian-friendly design and vibrant
Parking	SUFFICIENT CAR PARKING AVAILABLE	MIN. AREA FOR VEHICLE CARS 13.75sqm 13.75 13.75 TWO WHEELERS 3sqm 3 3 CYCLE 1.5sqm NI	3 BASEMENTS, 7800 CARS FOR OFFICE	MULTILEVEL PARKING FOR 2000 CARS	1176 ESCS PARKING IN MULTILEVEL
Vegetation	integrate greenery into urban spaces, focusing on creating lush landscapes and green corridors.	emphasizes sustainable landscaping, incorporating native plants and water-efficient irrigation systems.	prioritizes green rooftops and vertical gardens to enhance the environment and mitigate urban heat island effects.	integrates green spaces into its design, offering respite amidst the urban hustle while contributing to air quality improvement.	incorporates extensive greenery and tree-lined avenues, promoting a healthy urban environment and enhancing the pedestrian experience.
Site Planning	Vertical Zoning	Access To Various Zones	Vertical Zoning	Vertical Zoning In 3 Blocks	Building Block Divided Into 5 zones
			Building		
Climate considerations	may involve implementing energy-efficient cooling systems and designing for monsoon resilience.	could prioritize heat mitigation strategies and proper ventilation to combat the region's hot and humid climate.	may focus on shading devices and water conservation measures to address the area's extreme temperatures and limited water resources.	might incorporate strategies for managing heavy rainfall and humidity while optimizing natural light intake.	may emphasize thermal comfort solutions and pollution control measures to mitigate the city's hot summers and air quality issues.
Architectural Presence	boasts sleek, modern towers defining the skyline.	showcases contemporary design with emphasis on glass facades and geometric shapes.	stands out with its futuristic skyscrapers and innovative architectural concepts.	impresses with its striking combination of glass and steel, making a bold statement in the cityscape.	features a blend of contemporary and traditional elements, creating an inviting urban oasis.

inferences	Focus on sustainable urban development with efficient traffic circulation and green spaces. Likely to cater to a diverse range of residential and commercial needs given its size and strategic location in Noida.	Emphasis on creating a conducive work environment through integrated landscaping and pedestrian-friendly design. Indicates a commitment to employee well-being and possibly a trend towards green office spaces.	Positioned as a dynamic mixed-use district with seamless connectivity and amenities. Likely to attract businesses and professionals seeking a vibrant urban environment with access to various facilities.	Focus on iconic architecture and efficient land use to maximize the city's skyline. Reflects Mumbai's trend towards vertical development and high-density urban spaces.	Aimed at creating a lively pedestrian hub with diverse retail offerings and cultural spaces. Indicates a focus on enhancing the urban experience through community engagement and leisure activities.
Material	Concrete, steel, glass, aluminum, and composite materials for a modern aesthetic and structural integrity.	Steel, glass, concrete, and sustainable materials for a contemporary and eco-friendly design.	High-quality steel, glass facades, concrete, and advanced construction materials to create a futuristic and efficient workspace environment.	Steel, glass, high-grade concrete, and premium finishes to achieve architectural excellence and durability in Mumbai's urban landscape.	Steel frames, glass facades, concrete, and sustainable materials to blend modernity with environmental consciousness in a retail and entertainment complex.
			Planning		
Architectural Presence	a futuristic architectural presence with sleek, contemporary design elements.	showcases a modern and functional architectural style, reflecting efficiency and professionalism.	stands out with its impressive skyline dominated by sleek glass facades and high-rise towers.	commands attention with its iconic, cutting-edge architectural design, symbolizing innovation and sophistication.	exudes an inviting architectural charm, blending modern aesthetics with traditional elements, creating a vibrant urban oasis.
Inferences	Supertech Supernova in Noida is a large mixed-use development comprising residential, commercial, and recreational facilities. It likely features luxurious apartments, modern office spaces, and retail outlets within a well-planned urban environment.	India Glycol Office in Noida is a corporate complex focused on providing modern office facilities and promoting employee well-being. It may incorporate sustainable design elements and prioritize accessibility for commuting employees.	Cyber City in Gurugram is a bustling business district with a concentration of corporate offices, particularly in the IT sector. It offers a vibrant mix of commercial activities, dining options, and recreational spaces amidst modern infrastructure.	Kohinoor Square in Mumbai is an iconic mixed-use development featuring striking architecture and premium amenities. It comprises upscale residences, corporate offices, retail spaces, and dining options catering to affluent residents and visitors.	Select City Walk in New Delhi is a popular shopping and entertainment destination known for its diverse retail brands, dining options, and cultural events. It provides a lively atmosphere with well-maintained outdoor spaces and convenient accessibility.
Plans					

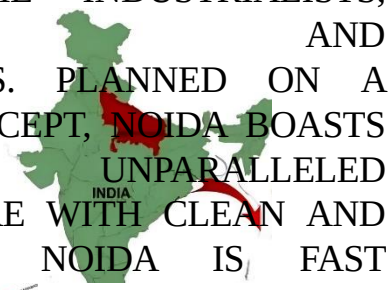
SR. NO.		FUNCTION	SUPERTECH SUPERNOVA, NOIDA (C1)	CYBERCITY, GURUGRAM (C3)	KOHINOOR SQUARE, MUMBAI (L1)	SELECT CITYWALK, SOUTH DELHI (L2)	AREA AS PER STANDARD (SQ.M.)	PROPOSED AREA (SQ.M.)
1		FOOTFALL	–	20,000-100,000 people per day	5,000-30,000 people per day	20,000-100,000 people per day		
	A	TOTAL BUILT UP AREA	4,64,515.2 SQ M	4,00,136 SQ M	–	15,884 SQ M		2,23,386.48 SQ.M
	B	FOYER	135 SQ.M	150 SQ.M	75 SQ.M	110 SQ.M	1.78 - 1.92 SQ.M/PERSON	
2		SHOPS						
	A	SMALL	75 SQ.M	50 SQ.M	50 SQ.M	75 SQ.M	50 SQ.M	50 SQ.M
	B	MEDIUM	100 SQ.M	75 SQ.M	75 SQ.M	100 SQ.M	100 SQ.M	90 SQ.M
	C	LARGE	150 SQ.M	120 SQ.M	100 SQ.M	130 SQ.M	120 SQ.M	120 SQ.M
	D	ANCHOR STORES	1500 SQ.M	1300 SQ.M	1000 SQ.M	1200 SQ.M	1000 SQ.M	1000 SQ.M
	E	DEPARTMENTAL STORES	3000 SQ.M	–	–	1600 SQ.M	ABOVE 3000 SQ.M	3000 SQ.M
3		WASHROOMS						
	A	GENTS	23 SQ.M	25 SQ.M	–	30 SQ.M	1WC/25PER, 1U/25PER	60 SQ.M
	B	LADIES	20 SQ.M	22 SQ.M	–	25 SQ.M	1WC/15PER	50 SQ.M
	C	DISABLED	25 SQ.M	27 SQ.M	–	27 SQ.M		27 SQ.M
4		OFFICE BLOCKS						
	A	TYPE 1	50 SQ.M	45 SQ.M	45 SQ.M	100 SQ.M	10 SQ.M/ PERSON	
	B	TYPE 2	75 SQ.M	70 SQ.M	70 SQ.M	500 SQ.M		
	C	TYPE 3	100 SQ.M	120 SQ.M	90 SQ.M	800 SQ.M		
	D	TYPE 4	200 SQ.M	180 SQ.M	120 SQ.M	1000 SQ.M		
5		SERVICE APARTMENTS	5 % OF TOTAL AREA	–	–	5 % OF TOTAL AREA	5 % OF TOTAL AREA	5 % OF TOTAL AREA
6		CINEMA						
	A	WAITING LOBBY	–	120 SQ.M	–	120 SQ.M	3.3 SQ.M/PERSON	120 SQ.M
	B	SNACK BAR	–	100 SQ.M	–	75 SQ.M	1.2-1.5 SQ.M/ PERSON	180 SQ.M
	C	AUDI GOLD CLASS	–	200 SQ.M	–	200 SQ.M		
	D	AUDI PREMIUM CLASS	–	AUDI1- 800 SQ.M (650PER) AUDI2- 420 SQ.M(320 PER) AUDI 3 &4- 420 SQ.M	–	AUDI1- 600 SQ.M (480PER) AUDI2- 550 SQ.M(450 PER) AUDI 3 &4- 350 SQ.M(280 PER)	1.2 SQ.M/SEAT = 420 SQ.M (INC. CIRCULATION)	
	E	WASHROOMS	–	30 SQ.M	–	40 SQ.M		
	F	PROJECTOR ROOM	–	25 SQ.M	–	25 SQ.M	20 SQ.M	
7		FOOD COURT						
	A	DINNING AREA	100 SQ.M	480 SQ.M	–	470 SQ.M	1.5 SQ.M/ PERSON	
	B	FOOD STALL	20 SQ.M	20 SQ.M	–	17 SQ.M		
	C	KITCHEN	30 SQ.M	120 SQ.M	–	140 SQ.M	30% DINNING	
	D	OPEN DINNING	–	380 SQ.M	–	350 SQ.M		

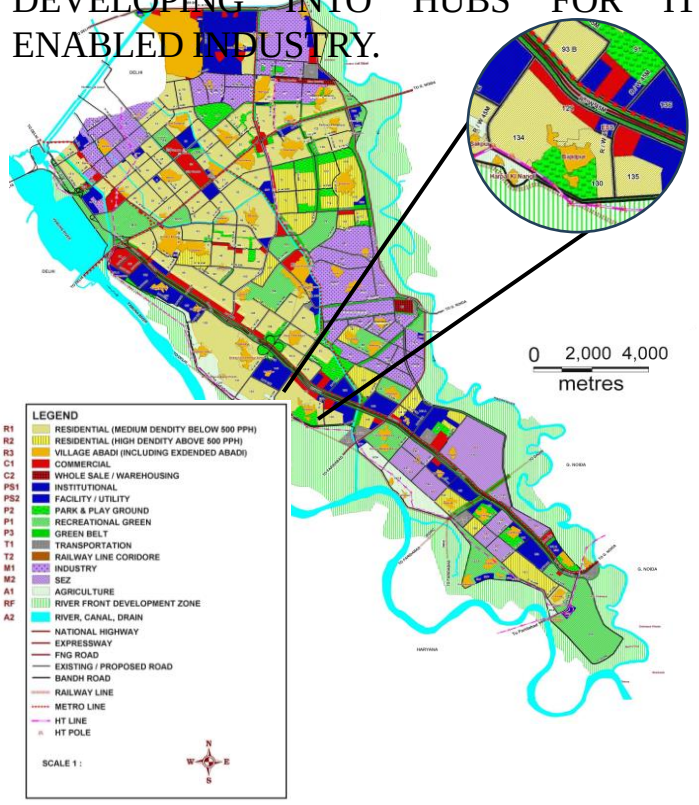
	E	KIOSK	_	15 SQ.M	_	10 SQ.M		
	F	RESTAURANT	_	120 SQ.M	_	120 SQ.M		
8		GAME AND KIDS ZONE						
	A	FOYER	_	50 SQ.M	_	50 SQ.M		
	B	WAITING LOUNGE	_	180 SQ.M	_	200 SQ.M		
	C	GAME LOUNGE	_	1500 SQ.M	_	1250 SQ.M		
	D	BOWLING ALLEY	_	2200 SQ.M	_	_		
9		SERVICES						
	A	MALL MANAGEMENT	_	600 SQ.M	_	550 SQ.M		
	B	D.G ROOM	_	170 SQ.M	_	180 SQ.M		
	C	ELECTRIC PANEL ROOM	120 SQ.M	220 SQ.M	_	200 SQ.M		
	D	CONTROL ROOM	75 SQ.M	75 SQ.M	_	50 SQ.M		
	E	FIRE CONTROL ROOM	120 SQ.M	120 SQ.M	_	120 SQ.M		
	F	BOILER ROOM	50 SQ.M	50 SQ.M	_	50 SQ.M		
	G	AC PLANT ROOM	200 SQ.M	120 SQ.M	_	125 SQ.M		
	H	AHU	40 SQ.M	40 SQ.M	_	30 SQ.M	AHU SHOULD AT EVERY 30-50 SQ.M	
	I	GARBAGE AREA	30 SQ.M	30 SQ.M	_	30 SQ.M		
10		STP						
	A	COLLECTION ROOM	_	75 SQ.M	_	60 SQ.M		
	B	PUMP ROOM	_	40 SQ.M	_	25 SQ.M		
	C	AERATION ROOM	_	100 SQ.M	_	50 SQ.M		
	D	UV TREAT & FILTER	_	40 SQ.M	_	25 SQ.M		
11		LOADING & UNLOADING						
	A	L/U STAGE	200 SQ.M	150SQ.M	_	150SQ.M		
	B	BIN CENTER	150 SQ.M	120 SQ.M	_	100 SQ.M		
	C	STORAGE	120 SQ.M	120 SQ.M	_	100 SQ.M		
12		OPEN SPACE						
	A	OPEN PLAZA	10550 SQ.M	5000 SQ.M	_	5612 SQ.M		

SITE SELECTION

ABOUT THE CITY

NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY COMES UNDER THE GOVERNMENT OF UTTAR PRADESH AND LIES IN THE GAUTAM BUDDHA NAGAR DISTRICT. NOIDA IS A HIGHLY INTEGRATED TOWNSHIP, OFFERING FACILITIES FOR ALL ACTIVITIES: INDUSTRIAL, COMMERCIAL AND RESIDENTIAL. IT FALLS UNDER THE NATIONAL CAPITAL REGION BEING A PART OF DELHI. THE MASTER PLAN ENVISAGES SYSTEMATIC DEVELOPMENT TO ENHANCE THE QUALITY OF INDUSTRIAL AS WELL AS SOCIAL LIFE. IT HAS EMERGED AS A FAVOURITE SPOT FOR THE INDUSTRIALISTS, PROFESSIONALS AND ENTREPRENEURS. PLANNED ON A GRID IRON CONCEPT, NOIDA BOASTS OF AN UNPARALLELED INFRASTRUCTURE WITH CLEAN AND WIDE ROADS. NOIDA IS FAST DEVELOPING INTO HUBS FOR IT ENABLED INDUSTRY.





SITE BRIEF:

THE SITE IS LOCATED ON THE MIXED ZONE (RESIDENTIAL + COMMERCIAL) OF "SECTOR 129" NOIDA, UTTAR PRADESH, INDIA.

IT IS A CORNER PLOT HAVING NORTH- WEST FACING RESIDENTIAL AREAS (UNITECH GOLF AND COUNTRY CLUB), SOUTH-EAST AND SOUTH-WEST FACING COMMERCIAL AREAS, AND SOUTH FACING INSTITUTIONAL AREAS.

LOCATION:

LOCATED IN THE STATE OF UTTAR PRADESH AT THE FRINGES OF DELHI, THE NATIONAL CAPITAL.

LOCATED AT THE DOOR STEP OF DELHI, NOIDA IS ONLY 14 KMS. AWAY FROM CONNAUGHT PLACE.

THE 550 MS. LONG, EIGHT LANE NOIDA TOLL BRIDGE ACROSS YAMUNA CONNECTING MAHA RANIBAGH IN DELHI TO NOIDA HAS FURTHER REDUCED THE DISTANCE, TIME AND COST OF COMMUTING TO AND FRO DELHI - NOIDA.

SITE DETAILS & BYELAWS:-

- SITE AREA –18.4 acre (74462.16 SQ.M)
- PERMISSIBLE GROUND COVERAGE – 30% = 22334SQ.M
- PERMISSIBLE F.A.R – 3
- HEIGHT RESTRICTION – NO
- SETBACK = FRONT – 0
- ALL OTHER SIDES – 0
- EQUIVALENT CAR SPACE- 2ECS PER 100 SQM
- SARDAR ROAD -30M WIDE
- INETRNATIONAL ROAD-35M WIDE


GREATER NOIDA EXPRESSWAY

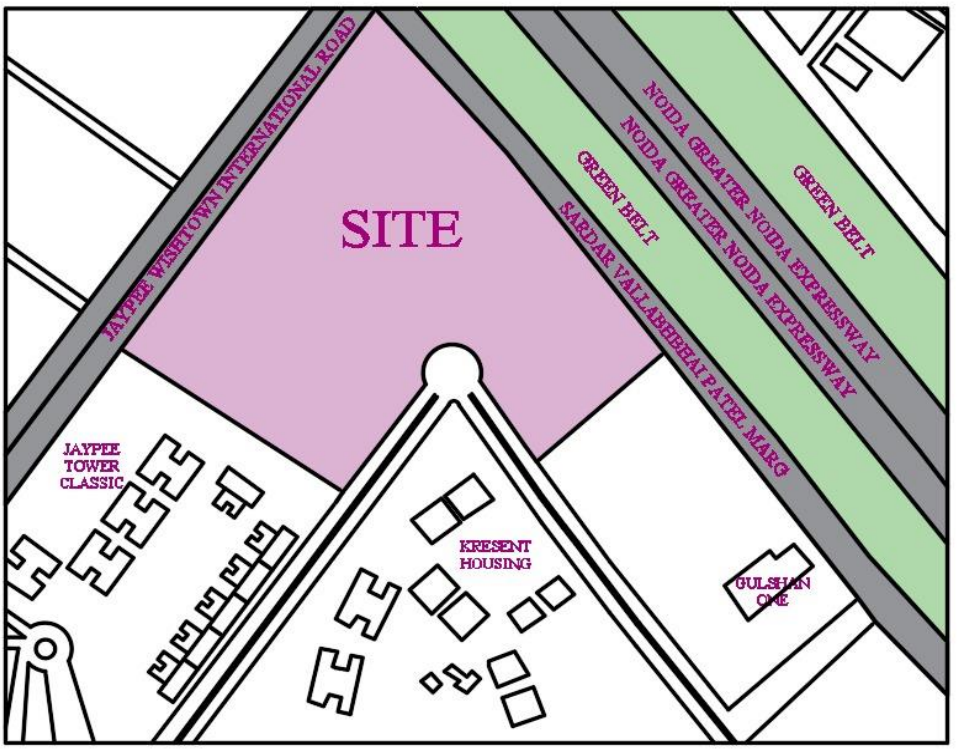
APPROACH:

- THE SITE IS CORNER PLOT (SECTOR 129) AND LIES ON 30M WIDE SERVICE ROAD RUNNING PARALLEL TO NOIDA EXPRESSWAY.
- THE SITE HAS 3 CONNECTED ROADS

INDIRA GANDHI INTERNATIONAL AIRPORT ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ **24.8 km**

GOLF COURSE METRO STATION ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ **3.1km**

NEW DELHI , RAILWAY STATION ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ **21 km**



SITE FEATURES AND ITS SURROUNDINGS

PROXIMATE AMENITIES:

- MEDICAL FACILITIES
- MARKETS
- INSTITUTIONS
- POLICE BOOTH
- TEMPLES
- BANKS

ADJACENT TO EXPRESSWAY:

- RESIDENTIAL SECTORS NEARBY
- GREEN BELT ALONG THE EXPRESSWAY
- HOSPITAL IN CLOSE PROXIMITY
- METRO LINE
- EMPLOYE FRIENDLY ZONE
- NO COMMUNITY CENTRE NEARBY

SERVICES

ELECTRICITY LINES

HIGH TENSION CABLES CARRYING 33 KV RUNNING ALONG SOUTH – WEST SIDES OF THE SITE. ELECTRICITY IS SUPPLIED BY STATE ELECTRICITY BOARD. STREET LIGHTS PROVIDED IN THE DIVIDERS.

TELEPHONE LINES

- TELEPHONE LINES RUNNING ALONG THE SITE IN THE FRONT WATER SUPPLY
- PROVIDED AN OVERHEAD TANK 300 M AWAY FROM THE SITE.
- SUBMERSIBLE WATER.

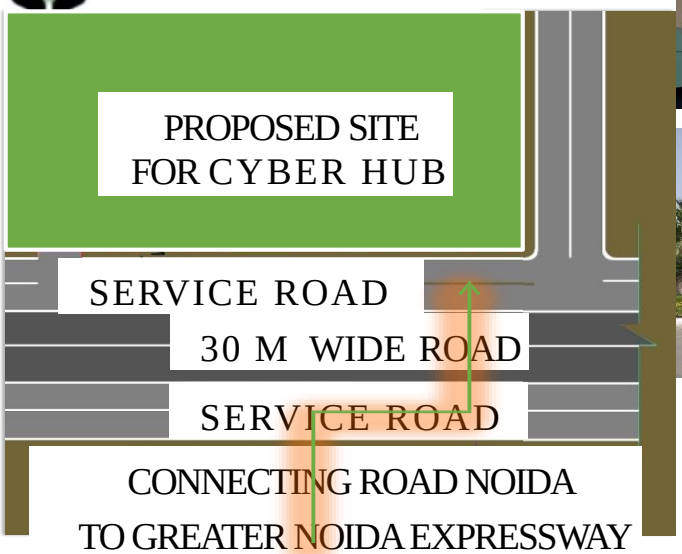
SEWER LINES

- THE MAIN SEWER LINES CONSTRUCTED ALONG THE
- SOUTH – WEST SIDE OF THE SITE. DISTANCE BETWEEN MANHOLES IS 30 M.

LANDMARKS:

SECTOR 137 METRO STATION (1.7KM)

JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY (2.6KMS)



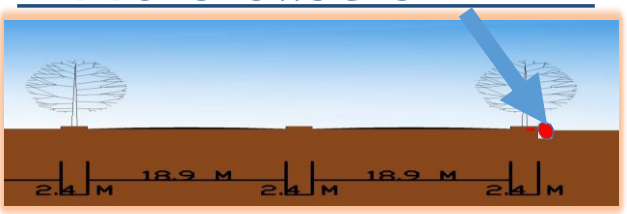
SEWER LINE

ELECTRIC LINES, TRANSFORMER

GAS SUPPLY

- PROVIDED A HIGH PRESSURE GAS PIPELINE - 18" DADRI-DESU PIPELINE BY GAIL (INDIA)LIMITED.

RED DOT SHOWS GAS PIPELINE



UTILITIES

DRAINAGE

TRAFFIC ANALYSIS

THE DESTINATION OF TRAFFIC IS FROM NEW DELHI ON THE NORTH – WEST DIRECTION AND GREATER NOIDA ON THE SOUTH – EAST DIRECTION.

- AVERAGE VOLUME OF THE TRAFFIC ON THE 30M. WIDE ROAD PER HOUR ARE AS FOLLOWS –
- FOUR WHEELERS – 89 NOS./HR.
- TWO WHEELERS – 118 NOS./HR.
- TRUCKS – 42 NOS./HR.

THREATS

- THE PROJECT MAY ADD TO THE TRAFFIC OF THE CITY.
- THERE WILL BE SECURITY ISSUES BECAUSE OF THE EXPRESSWAY.
- THE NEARBY RESIDENCES ARE CURRENTLY ABANDONED

TOPOGRAPHY

- FLAT LAND WITH NO CONTOURS PRESENT ON THE SITE.
- THE SITE LEVEL IS -0.40 M FROM ROAD LEVEL.

OPPORTUNITY

- SITE IS A PROPOSED COMMERCIAL LAND AS PER THE NOIDA MASTER PLAN 2031
- PRESENCE OF MORE THAN 100 INSTITUTIONS INCREASES THE POTENTIAL OF THESITE.
- HIGH RISED RESIDENTIAL APPARTMENT IN THE VICINITY. PRESENSE OF NO SIMILAR PROJECT IN THE VICINITY

.

SWOT ANALYSIS

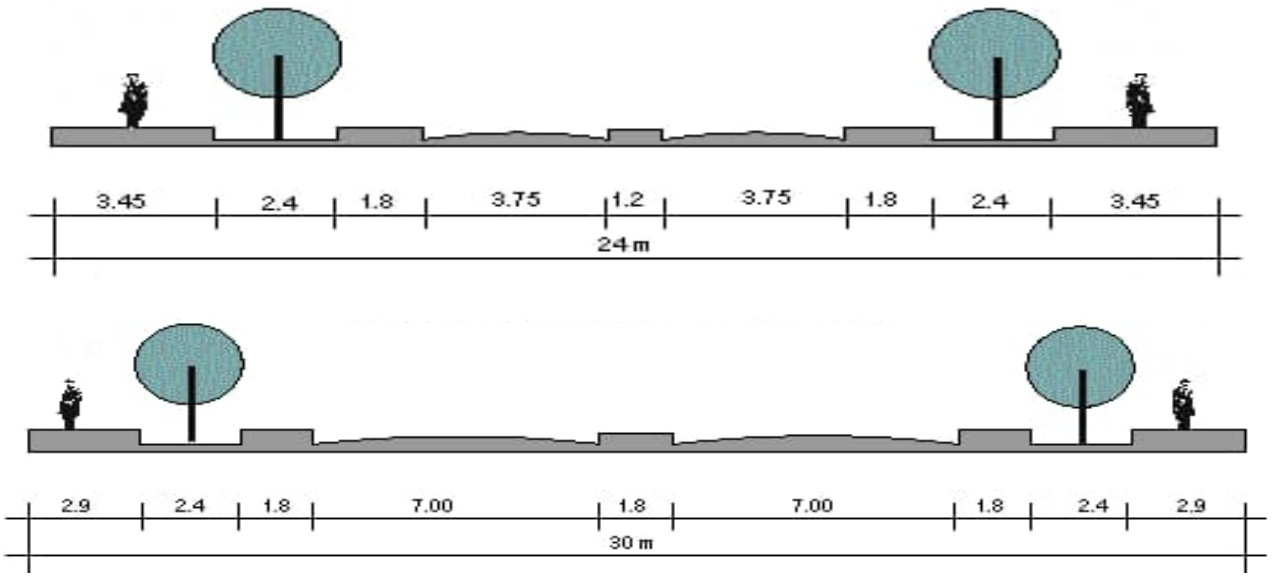
STRENGTH

- NOIDA IS A BOOMING COMMERCIAL HUB IN THE NCR REGION..
- SITE IS LOCATED ON A PRIME LOCATION IN NOIDA.
- SITE IS ADJACENT TO THE NOIDA GREATER NOIDA EXPRESSWAY WHICH MAKES THE CONNECTIVITY EASIER.
- IT IS WELL CONNECTED TO PUBLIC TRANSPORT.
- A METRA LINE IS PROPOSED ADJACENT TO THE SITE.

WEAKNESS

- SURROUNDING WILL BE NOISY DUE TO THE PRESENCE OF THE EXPRESSWAY.
- THE PROPOSED METRO WILL ALSO ADD TO THE NOISE POLLUTION.
- THE CLIMATIC CONTITIONS OF THE PLACE MAY AT TIMES BECOME LIFE THREATNING.

ROAD SECTION:



SERVICES PROVIDED BY GOVERNMENT ARE

WATER SUPPY	DRAINGE SYSTEM	ELECTRICITY
•OVERHEAD TANK •UNDERGROUND WATER LEVEL IS 15M FROM GROUND LEVEL	- PRESENT ON THE MAIN ROAD - SEWAGE PIPE LINES ARE AVAILABLE	- POLES ARE USE ONLY FOR ROAD LIGHT - UNDERGROUND ELECTRIC WIRE

CLIMATE

THE CLIMATE OF THE DISTRICT IS SUB-HUMID AND CHARACTERIZED BY HOT SUMMER AND BRACING COLD SEASON I.E. COMPOSITE. AFTER FEBRUARY THERE IS CONTINUOUS INCREASE IN TEMPERATURE TILL MAY WHICH IS GENERALLY THE HOTTEST MONTH. THE DISTRICT EXPERIENCES THE HOTTEST WEATHER IN THE MONTH OF JUNE WITH AVERAGE MEAN TEMPERATURE OF 32.85°C FOLLOWED BY MAY WITH 31.9°C. THE COLDEST MONTH IS JANUARY WITH AVERAGE MEAN TEMPERATURE OF 14.2°C FOLLOWED BY DECEMBER WITH 15.4°C.

WIND

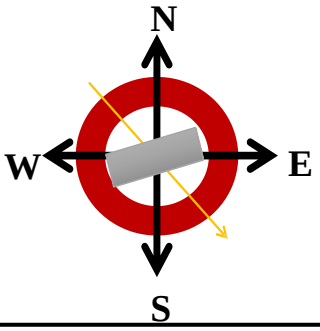
THE PREDOMINANT AVERAGE HOURLY WIND DIRECTION IN NOIDA VARIES THROUGHOUT THE YEAR. THE WIND IS MOST OFTEN FROM THE EAST FOR 1.5 MONTHS, FROM JULY 12 TO AUGUST 29, WITH A PEAK PERCENTAGE OF 41% ON JULY 30

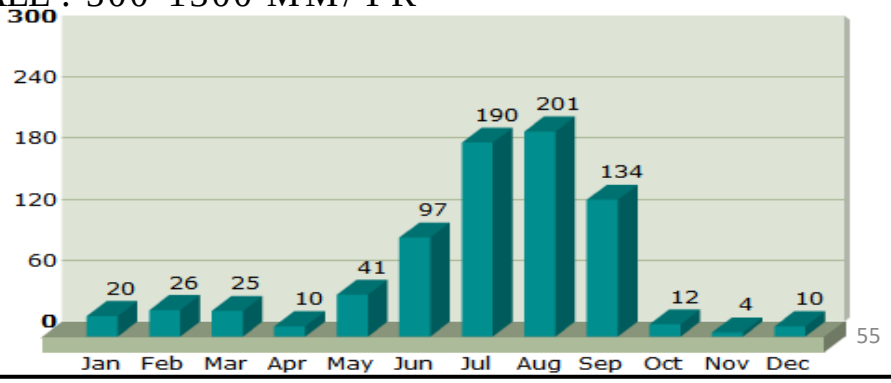
SOIL TYPE

THE SOIL RANGES FROM PURE SAND TO STIFF CLAYS AND INCLUDING ALL COMBINATION OF THE TWO EXTREME LITHO UNITS. THE PURE SAND IS CALLED BHUR AND CLAY IS CALLED MATIAR. THE MIXTURE OF SAND AND CLAY IN EQUAL PROPORTION FORMS DUMAT OR LOAM, A GOOD AGRICULTURE SOIL. SEVERAL SUBCATEGORIES OF DUMAT ARE POSSIBLE DEPENDING UPON THE CONTENTS OF CLAY AND SAND. THE BAD LAND PATCHES (KALLOR) WHICH ARE INGESTED WITH REH AT PLACES DO NOT SUPPORT ANY VEGETATION GROWTH. ALLUVIAL SOILS OCCURRING IN FLOOD PLAIN OF RIVERS IS CALLED KEMP WHICH YIELD GOOD CROPS. KANKARS INVARIABLY ASSOCIATED WITH CLAY AND AT TIMES RETARDS GROUND WATER MOVEMENT.

RAINFALL

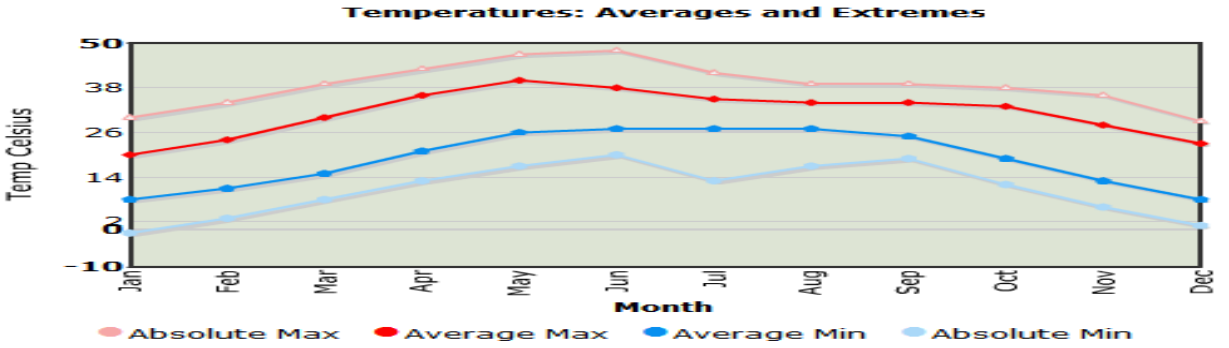
- MONSOON RAINS ARE INTENSE AND LITTLE OR NO RAIN IN DRY PERIODS.
- MAX. HOURLY RAINFALL : 25-38 MM/HR.
- MAX MONTHLY RAINFALL : 200-250 M M / M
- ANNUAL RAINFALL : 500-1300 MM/YR

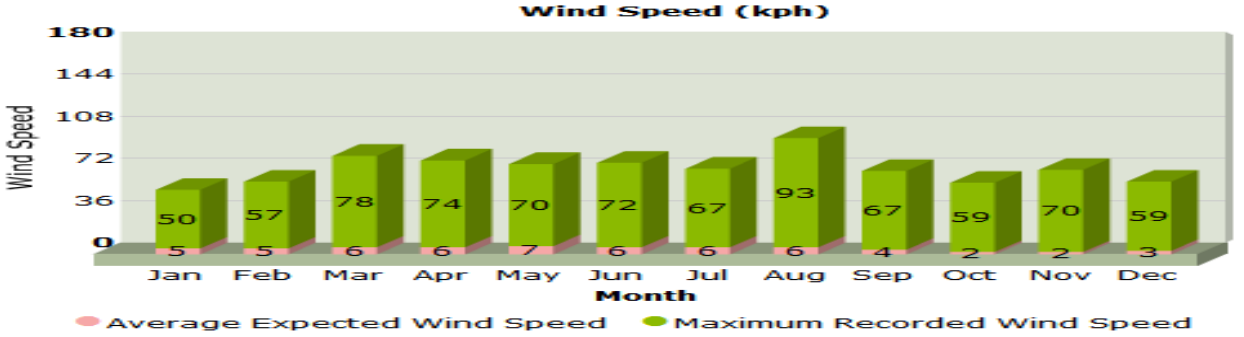




TEMPERATURE

HENCE THE TEMPERATURE VARIATES FROM 5° - 48°C. THE CHART BELOW PLOTS THE AVERAGE HIGH AND LOW TEMPERATURE FOR EACH MONTH OF THE YEAR. IT ALSO SHOWS THE MAXIMUM AND MINIMUM RECORDED TEMPERATURES.





SOLAR RADIATION

SOLAR RADIATION'S ARE PLEASING DURING THE WINTER SEASON AND HENCE GOVERN THE OUTDOOR ACTIVITIES. BUT DURING SUMMERS THEY ARE ALMOST UNBEARABLE. IT IS DIRECT AND VERY STRONG DURING THE DAY.

NATURAL VEGETATION

GULMOHAR, NEEM, PEEPAL AND AMALTAS
MIXED VEGETATION WITH SCATTERED SHRUBS AND SMALL SCALDED TREES

DELONIX REGIA (GULMOHAR)

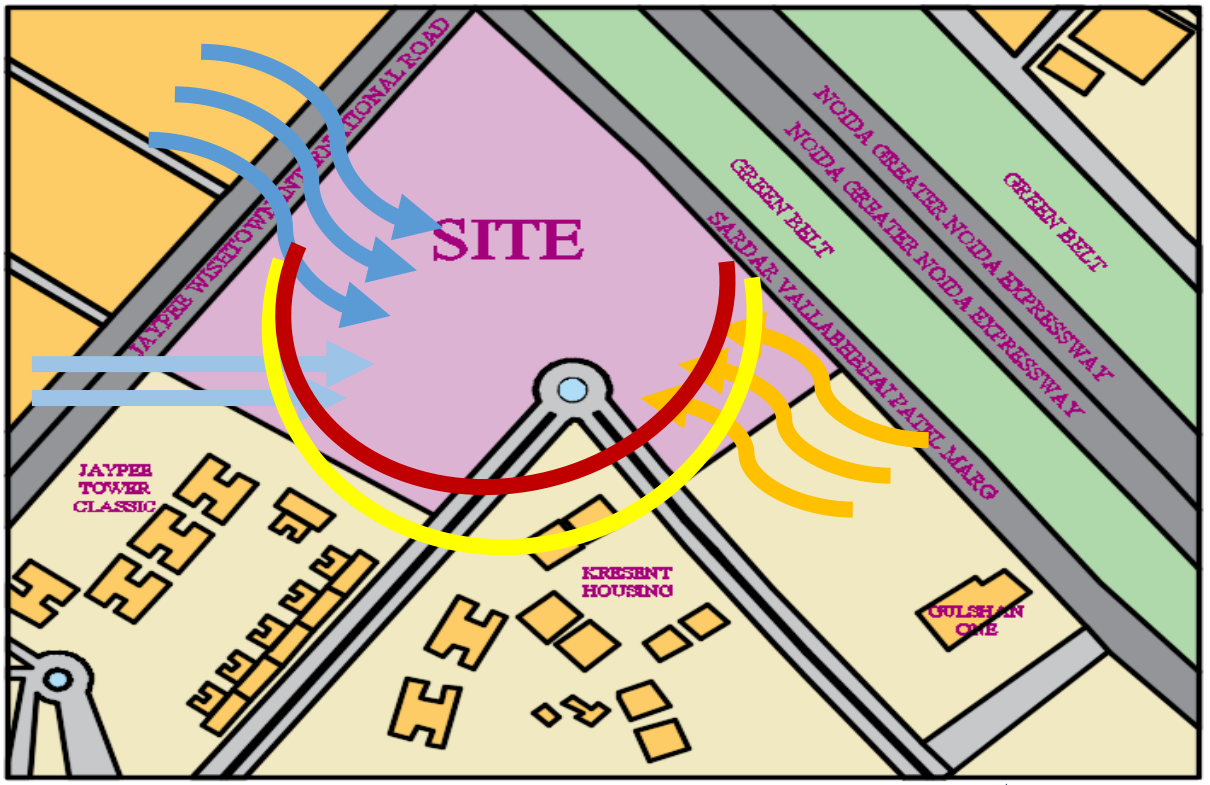
AZADIRACHTA INDICA (NEEM)

FICUS RELIGIOSA (PEEPAL)

CASSIA FISTULA (AMALTAS)

SITE ORIENTATION AND SUN PATH

- THE SITE IS ORIENTED IN SOUTH-WEST DIRECTION WITH LONGER SIDE FACINNG EXPRESSWAY.



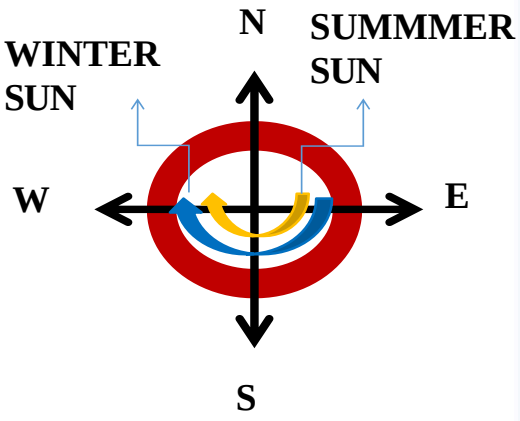
WESTERN DISTURBANCE

SOUTH EAST WIND (THE MONSOON WINDS)

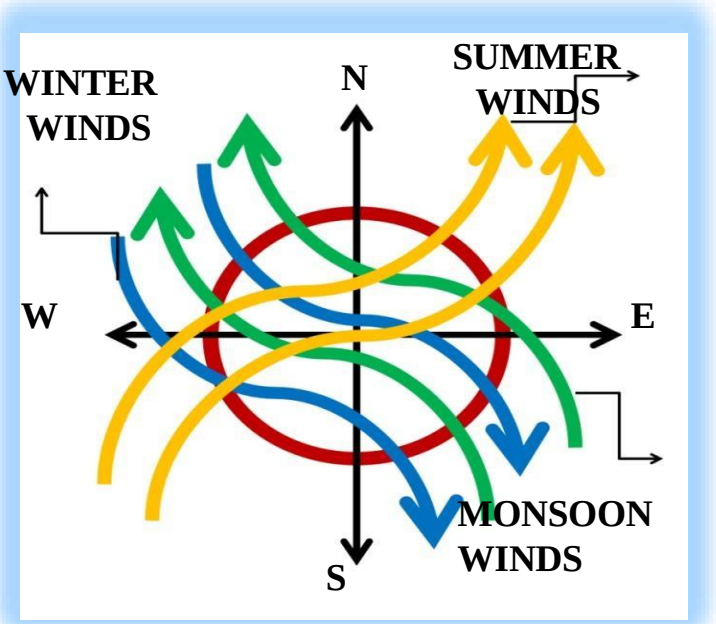
NORTH WEST WINDS (PREVALING WINDS)

SUN PATH

SUNPATH DIAGRAM



WIND DIRECTION



PRE DESIGN STUDY

OFFICE DESIGN:

THE WORD OFFICE COMES FROM THE LATIN WORD “OFFICIUM” MEANING SERVICE, COURTESY ETC.

•THE WORD CORPORATE COMES FROM “CORPORATUS” LATIN, MEANING COLLECTIVE.

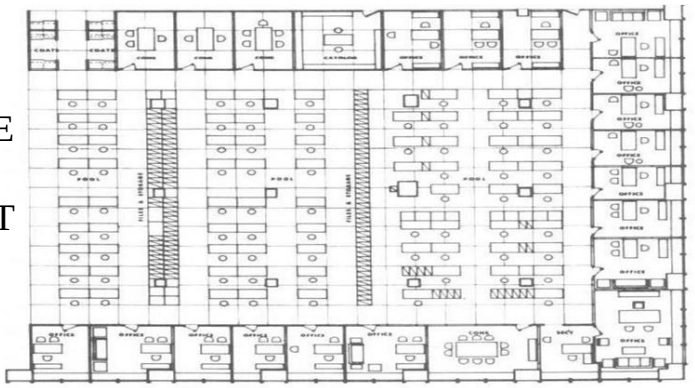
•THERE ARE MANY WAYS OF ARRANGING SPACES IN AN OFFICE ACCORDING TO THE FUNCTIONS MANAGERIAL AND CULTURAL OFFICES.

•IT IS GUIDED BY HOW PEOPLE WILL WORK WITHIN THE SAME ROOM.

•OPEN PLAN OFFICES HAVE MULTIPLE WORKERS TOGETHER IN SAME PLACE AND IMPROVE SHORT TERM PRODUCTIVITY BUT SECURITY AND PRIVACY ARE OFTEN ISSUES ASSOCIATED WITH IT.

•IN WALLED OFFICE SPACES, PEOPLE SET THEIR WORKING DESKS IN SUCH A WAY THAT THEY CAN SEE THE PERSON ENTERING THEIR OFFICES.

GENERAL OFFICE SPACE:

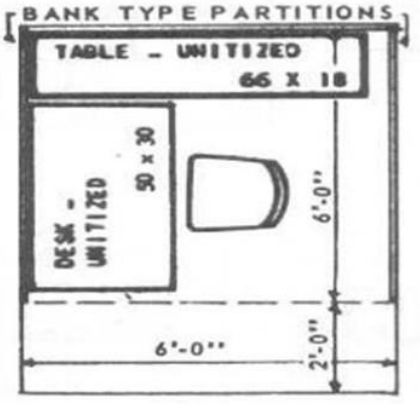


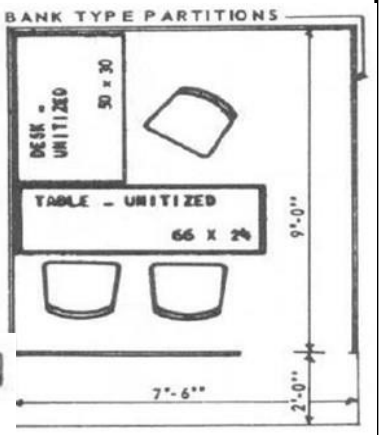
THE SPACE ALLOCATED TO THESE WORK STATIONS IS BASED ON THE FURNITURE AND EQUIPMENT NECESSARY TO PERFORM THE WORK ASSIGNED AS WELL AS ON CIRCULATION AREA.

WORKSTATION SPACE:

SPACES PROVIDED TO PEOPLE TO ACCOMMODATE THEIR INDIVIDUAL FURNITURE AND EQUIPMENT AND ALLOW THEM TO PERFORM THEIR JOB FUNCTIONS.

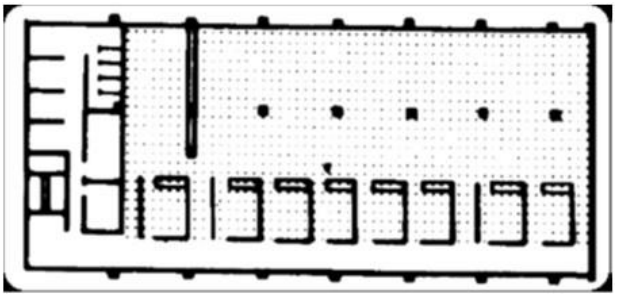
WORKSTATION SPACE MAY BE ENCLOSED OR OPEN DEPENDING ON THE CONFIDENTIALITY, SECURITY, VISUAL AND ACOUSTICAL PRIVACY REQUIREMENTS OF THE JOB.

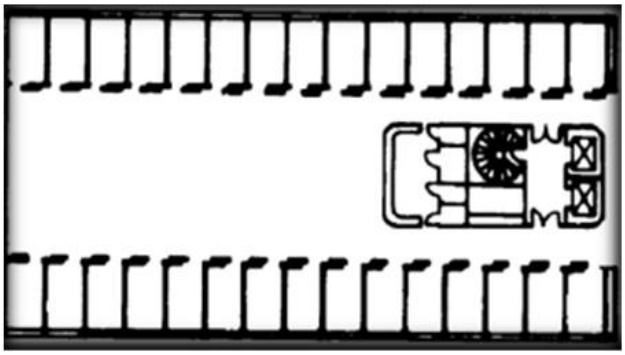




CONFERENCE ROOMS:

CONFERENCE ROOMS SHOULD BE DESIGNED TO ACCOMMODATE AVERAGE BUT NOT MAXIMUM ATTENDANCE. EXTRA CHAIRS CAN BE USED TO ACHIEVE ADDITIONAL SEATING. THERE IS NEED OF 15-20SQFT PER PERSON SPACE REQUIRED FOR CONFERENCE ROOM.





OFFICE

ANOFFICEIS GENERALLY A ROOM OR OTHER AREA WHEREADMINISTRATIVEWORK IS DONE, BUT MAY ALSO DENOTE A POSITION WITHIN ANORGANIZATIONWITH SPECIFIC DUTIES ATTACHED TO IT.

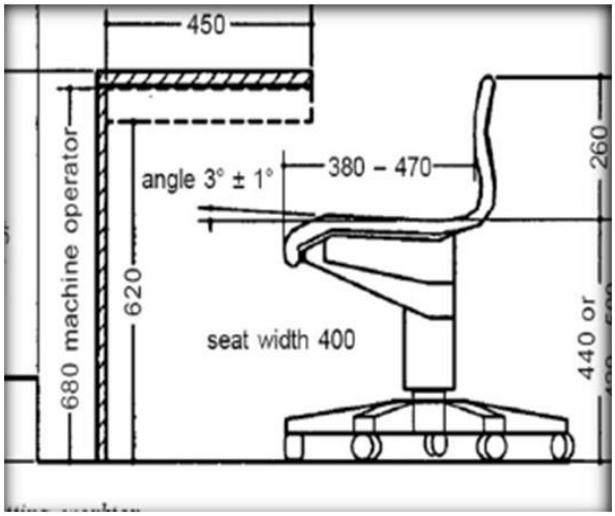
SIZE OF A PRIVATE OFFICE:

100-200 SQ FT (FOR NORMAL PRIVATEOFFICES

300 SQ FT (WHERE OCCUPANT MEET WITH 10 OR MORE PEOPLE ONCE IN A DAY)

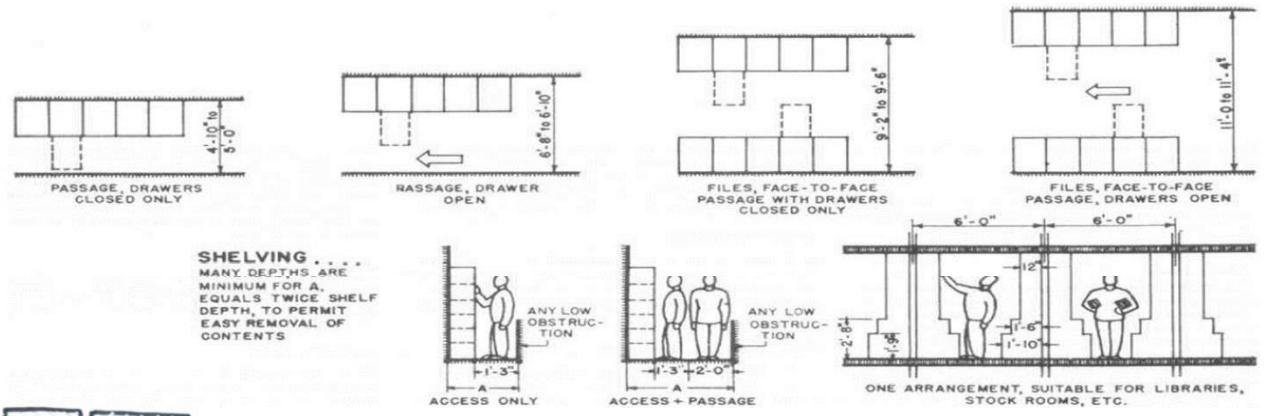
EMPLOYEE/VISITOR SUPPORT SPACES

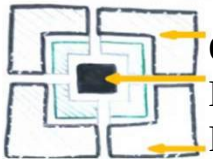
- WORKSTATIONS, CONVENIENCE STORE, KIOSK, OR VENDING MACHINES
- LOBBY OR GENERAL OFFICE SPACE: CENTRAL LOCATION FOR BUILDING DIRECTORY, SCHEDULES, AND GENERAL INFORMATION
- ATRIA OR COMMON SPACE: INFORMAL, MULTI-PURPOSE RECREATION AND SOCIAL GATHERING SPACE
- CAFETERIA OR DINING HALL
- TOILETS OR RESTROOMS



RECEPTION AREAS AND VISITOR CONTROL

VISITORS RECEIVE THEIR FIRST IMPRESSION OF AN ORGANIZATION FROM THE DECOR AND LAYOUT OF THE RECEPTION AREA. IT SHOULD BE ATTRACTIVE, NEST, BUSINESS LIKE, AND ABOVE ALL, ADEQUATE TO ACCOMMODATE NORMAL VISITOR TRAFFIC.





OTHER OFFICE SPACES LIKE WORKSTATIONS
EXECUTIVE CORE
PRIVATE OFFICES

PLANNING

•FLOOR-TO-FLOOR HEIGHTS ARE USUALLY ABOUT 12 FT, RANGING FROM 11 TO 14 FT. CEILING HEIGHTS ARE GENERALLY ABOUT 8 TO 8.5FT.
•THE SPACE ABOVE THE CEILING IS REQUIRED FOR DUCTS AND RECESSED LIGHTING.
•IN ORDER TO AVOID EXCESSIVE DEPTHS IN THIS UTILITY SPACE, GIRDERS ARE SOMETIMES DESIGNED WITH OPENINGS IN THE WEB TO PERMIT THE PASSAGE OF DUCTS.

CIRCULATION

1.AISLES LEADING TO MAIN EXITS FROM AREAS WHICH CARRY SUBSTANTIAL TRAFFIC (MAIN AISLES) SHOULD BE 5 FEET WIDE.
2.AISLES WHICH CARRY A MODERATE AMOUNT OF TRAFFIC (INTERMEDIATE AISLES) SHOULD BE 4 FEET WIDE.
3.AISLES BETWEEN ROWS OF DESKS (SECONDARY AISLES) SHOULD BE APPROXIMATELY 3 FEET WIDE.

SERVICES IN BUILDING

FIRESAFETY

WHERE OPENINGS ARE PERMITTED, THEY SHALL NOT EXCEED THREE-FOURTHS THE AREA OF THE WALL IN THE CASE OF AN EXTERNAL WALL AND THEY SHALL BE PROTECTED WITH FIRE RESISTING ASSEMBLIES OR ENCLOSURES HAVING A FIRE RESISTANCE EQUAL TO THAT OF THE WALL OR FLOOR IN WHICH THESE ARE SITUATED. OFFICE BUILDING SHALL HAVE STAIRCASE WIDTH 1.5M

FIRELIFTS

WHERE APPLICABLE, FIRE LIFTS SHALL BE PROVIDED WITH A MINIMUM CAPACITY FOR 8 PASSENGERS AND FULLY AUTOMATED WITH EMERGENCY SWITCH ON GROUND LEVEL. IN GENERAL, BUILDINGS 15 M IN HEIGHT OR ABOVE SHALL BE PROVIDED WITH FIRE LIFTS

LIGHTING

-BROADER OPENINGS MAY ALSO BE EQUALLY OR MORE EFFICIENT, PROVIDED THEIR SILLS ARE RAISED BY 300 MM TO 600 MM ABOVE THE WORKING PLANE.

-UNILATERAL LIGHTING FROM SIDE OPENINGS WILL, IN GENERAL, BE UNSATISFACTORY IF THE EFFECTIVE WIDTH OF THE ROOM IS MORE THAN 2 TO 2.5 TIMES THE DISTANCE FROM THE FLOOR TO THE TOP OF THE OPENING.

WATER SUPPLY, DRAINAGE AND SANITATION

WATER REQUIRED IN OFFICE BUILDING 45L PER HEAD PER DAY

Sl No	Fixtures	Public Toilets		Staff Toilets	
		Male	Females	Male	Females
(1)	(2)	(3)	(4)	(5)	(6)
i)	**Executive Rooms and Conference Halls in Office Buildings**				
	Toilet suite comprising one WC, one washbasin (with optional shower stall if building is used round the clock at user's option) Pantry optional as per user requirement	Unit could be common for Male/Female or separate depending on the number of user of each facility		For individual officer rooms	
ii)	**Main Office Toilets for Staff and Visitors**				
	a) Water-closets	1 per 25	1 per 15	1 per 25	1 per 15
	b) Ablution tap with each water-closet	← 1 in each water-closet →			
	c) Urinals	Nil up to 6 1 for 7-20 2 for 21-45 3 for 46-70 4 for 71-100 101-200 Over 200	—	Nil up to 6	—
	Add @ 3% for Add @ 2.5 %				
	d) Washbasins	1 per 25	1 per 25	1 per 25	1 per 25
	e) Drinking water fountain	1 per 100	1 per 100	1 per 100	1 per 100
	f) Cleaner's sink	← 1 per floor →			

ACOUSTICS AND SOUND INSULATION

•FOR GREEN BELT TO ACT AS A SOUND BARRIER IT SHOULD BE OF 30M THICK BELT OF PLANTING (STRONG LEAFY TREES) IN ALL SITUATIONS A WELL DESIGNED BARRIER OF AT LEAST 3M HEIGHT SHOULD BE GIVEN TO ENSURE NO EXCESSIVE NOISE.
•ROOM REQUIRED QUITE ENVIRONMENT SHOULD BE ON QUITE SIDE, SHOULD NOT ON STREET LEVEL, NOT NEAR PARKING YARDS AND DOUBLE WINDOWS CAN BE PROVIDED.
•NOISE INSIDE ROOMS, REVERBERATION SHOULD NOT EXCEED 0.75 SEC FOR SMALL OFFICE AND 1.25 S FOR LARGE OFFICE.

FAR PERMITTED:

INDUSTRIAL / I.T. PARK SHALL HAVE MINIMUM 5 ACRES OF AREA. IN AN I.T. PARK, I.T. COMPONENT SHALL HAVE FAR. 2. FOR COMMERCIAL IT IS 2.5 TO 3 . IN CASE OF INDUSTRIAL PARK, FOR INDUSTRIAL FAR PERMITTED FOR AN INDUSTRIAL COMPONENT SHALL BE 1.

ROAD WIDTH:

THE MINIMUM ROAD WIDTH WITH IN THE INDUSTRIAL UNIT SHALL NOT BE LESS THAN 40FEET .INCASE, THE EXISTING ROAD IS LESS THAN 40’ IN WIDTH THAN IT SHALL BE WIDEN TO 40’ BY TAKING EQUAL STRIP OF LAND FROM BOTH SIDE OF RD.

HEIGHT:

NO HEIGHT RESTRICTIONS OF THE BUILDING.

Size of Plot	Site Coverage
For the first 2420 sq yds	50% of the site
For the next 2420 sq yds	33% of the site
In excess of 4840 sq yds	25% of the site
FAR	1
Parking	@ 1 ECS per 100 sq. mtr. of covered area*

PARKING STANDARDS:

PARKING STANDARDS HAVE BEEN PRESCRIBED FOR GOVERNMENT 1 EQUIVALENT CAR SPACES (ECS) PER 100 SQ M OF FLOOR AREA

GREEN BUILDING CRITERIA FOR OFFICE BUILDING

• SITE SELECTION

• PRESERVE AND PROTECT LANDSCAPE DURING CONSTRUCTION.

• SOIL CONSERVATION

• ENHANCE OUTDOOR LIGHTING SYSTEM EFFICIENCY

• REDUCE AIR POLLUTION DURING CONSTRUCTION

• REDUCE BUILDING WATER USE

• USE LOW-ENERGY MATERIALS IN INTERIORS

• WASTE WATER TREATMENT

• REDUCTION IN WASTE DURING CONSTRUCTION

• STORAGE AND DISPOSAL OF WASTES

• USE OF LOW-VOC PAINTS/ADHESIVES/SEALANTS

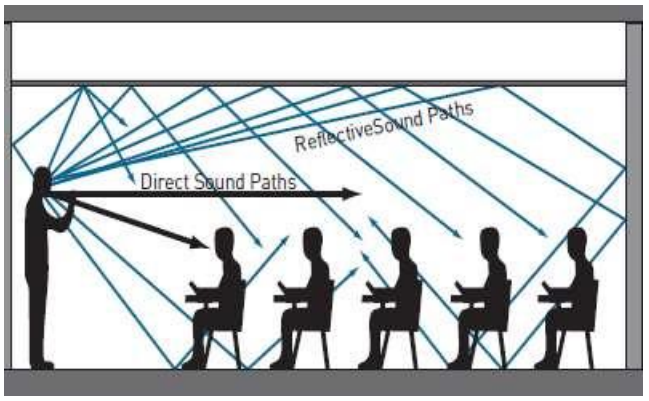
• MINIMIZE OZONE DEPLETING SUBSTANCES

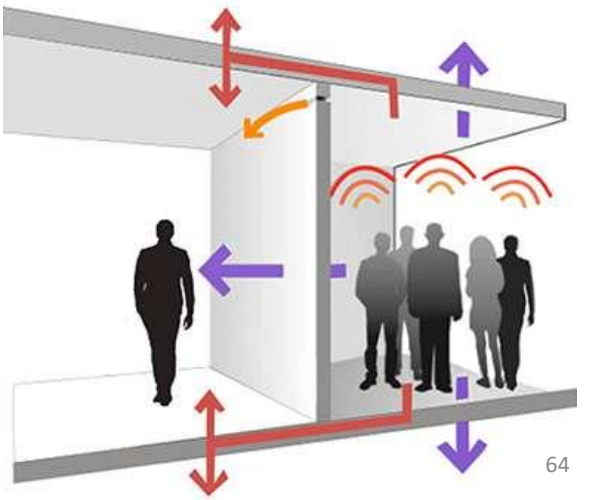
• ACCEPTABLE OUTDOOR AND INDOOR NOISE LEVELS

• TOBACCO AND SMOKE CONTROL

• PROVIDE AT LEAST THE MINIMUM LEVEL OF ACCESSIBILITY FOR PERSONS WITH DISABILITIES

• OPERATION AND MAINTENANCE



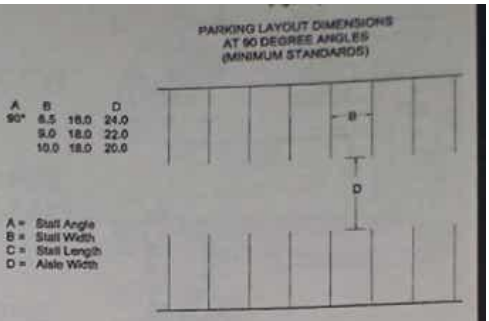


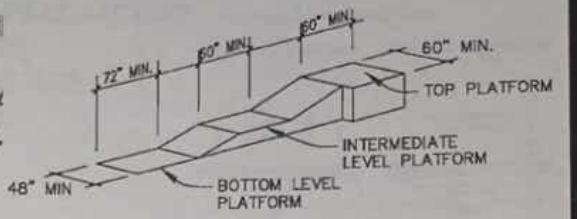
LIBRARY STUDY

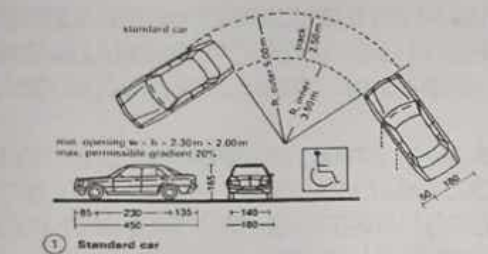
	STANDARDS	
	COMMERCIAL	RETAIL
ENTRY	N/A	N/A
EXIT	N/A	N/A
FIRE LIFT	1 PER 30 mt.	1 PER 30 mt.
SERVICE LIFT	1 PER 30 mt.	1 PER 30 mt.
PASSENGER LIFT	1 PER 30 mt.	1 PER 30 mt.
FIRE STAIRCASE	1 PER 30 mt.	1 PER 30 mt.
MAXIMUM RISER	150 mm	150 mm
MAXIMUM TREAD	300 mm	300 mm
MAXIMUM WIDTH	1 UNIT/ 25 PERS.	1 UNIT/ 25 PERS.
BASEMENT	ACCORDING TO BUA	ACCORDING TO BUA
BASEMENT ENTRY	AS PER REQUIREMENT	AS PER REQUIREMENT
BASEMENT HEIGHT	FFL TO BOB 2400 mm	FFL TO BOB 2400 mm
BASEMENT RAMP WIDT	1 UNIT/60 PERS.	1 UNIT/60 PERS.
HANDICAPPED RAMP	MIN. WIDTH 1200 mm	MIN. WIDTH 1200 mm
FIRE TENDER ROAD	MIN. 6000 mm	MIN. 6000 mm
TOILET	1/25 PERS.	1/25 PERS.
FIRE TANK	MIN. 2 LAC.LT.	MIN. 2 LAC.LT.
WATER TANK	45 LT. PER PERSON	45 LT. PER PERSON
HVAC	25-30 TONS/100 SQ.FT.	25-30 TONS/100 SQ.FT.
DG SET	15 SQ.FT. PER WATT	15 SQ.FT. PER WATT
PARKING	ACCORDING TO BUA	ACCORDING TO BUA
FIRE EXIT	1 PER 30 mt.	1 PER 30 mt.
FAN ROOM	N/A	N/A
SMOKE DETECTORS	1/6MT. RADIUS	1/6MT. RADIUS
SPRINKLERS	1/3MT. RADIUS	1/3MT. RADIUS
GARBAGE CHUTE	N/A	N/A

PARKING

PARKING DETAILS :
DIMENSION OF FOUR WHEELER VEHICLE PARKING SPACE IS 2.5X5.0 TO 3.0X6.0 IN METER
TWO WHEELER PARKING 1X2 METER
90°PARKING IS MORE ECONOMICAL IN SPACE REQUIREMENTS
WALKWAYS :
FOR FREE MOMENT OF WHEEL CHAIR, THE M
WIDTH OF WALKWAYS SHOULD BE 1.5 M
RAMPS ARE INTRODUCED AT THE PEDESTRI/
CROSSING POINTS TO LET THE WHEELCHAIR.
ACCESS THE WALKWAY FROM ROAD.

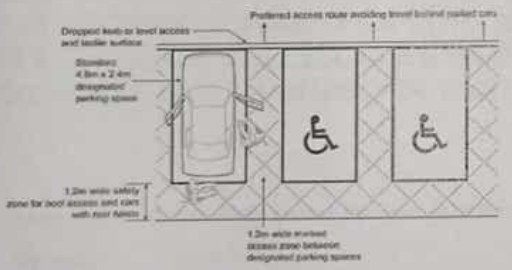


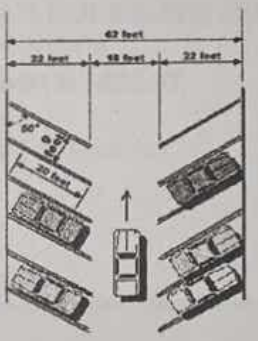




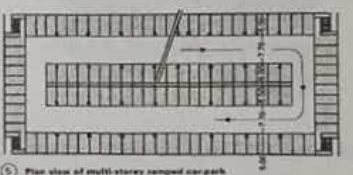
① Standard car

A RAMP WHEN PROVIDED SHALL NOT HAVE A SLOPE GREATER THAN 1 : 12. LARGER SLOPES SHALL BE PROVIDED FOR SPECIAL USES BUT IN NO CASE GREATER THAN 1 : 8.





Description	Dimension
Parking space width	9 feet
Parking space length	20 feet
Driving aisle width (1-way)	18 feet
Two rows plus aisle width	62 feet

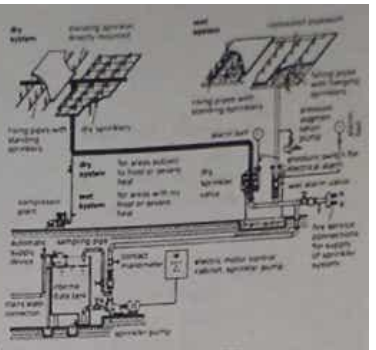

⑤ Plan view of multi-storey ramped car-park


⑥ Cross-section at ⑤

THE MAXIMUM RAMP SLOPE SHOULD BE 15 PERCENT.
THE MIN. WIDTH OF RAMP SHOULD BE 22 FT.
FOR TWO WAY TRAFFIC.

FIRE FIGHTING :

BUILDING REGULATIONS REQUIRE THAT DUE CONSIDERATION MUST BE GIVEN IN BUILDINGS TO:
THE ARRANGEMENT OF ESCAPE ROUTES.
THE AIM IS TO PREVENT THE START AND SPREAD OF A FIRE SYSTEM THE SPREAD OF SMOKE AND FACILITATE THE ESCAPE OR RESCUE OF PERSONS.



General arrangement of a sprinkler system

IN ADDITION CONSIDERATION MUST BE GIVEN TO EFFECTIVE EXTINGUISHING OF A FIRE. ACTIVE AND PASSIVE PRECAUTIONS MUST BE TAKEN TO SATISFY THESE REQUIREMENTS.
ACTIVE PRECAUTIONS ARE THOSE SYSTEMS THAT ARE AUTOMATICALLY DEPLOYED IN THE EVENT OF FIRE.
ACTIVE PRECAUTIONS INCLUDE SMOKE AND FIRE ALARM SYSTEMS, SPRINKLER SYSTEMS,

Spray characteristics of an umbrella sprinkler

Spray characteristics of a normal sprinkler

WATER SPRAY EXTINGUISHERS PLANT, CO2 EXTINGUISHING INSTALLATIONS, POWDER AND FOAM EXTINGUISHER PLANT. AND AUTOMATIC SMOKE AND HEAT VENTING SYSTEMS.

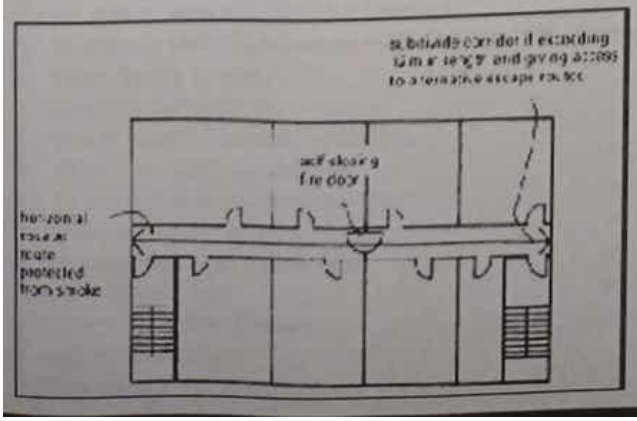
EXIT AND DOORWAYS : EXITS SHAL BE LOCATED SO THAT THE TRAVELL DISTANCE ON THE FLOOR SHALL NOT EXCEED 30M.
EXIT SHALL NOT BE LESS THAN 1000 MM IN WIDTH.
DOORWAYS SHALL NOT BE LES THAN 200 MM IN HEIGHT.
EXIT DOORWAYS SHALL OPEN OUTDOORS.
FIRE STAIRCASE : FIRE ESCAPE STAIRS HAVE STRAIGHT FLIGHT NOT LESS THAN 1250MM WIDTH.

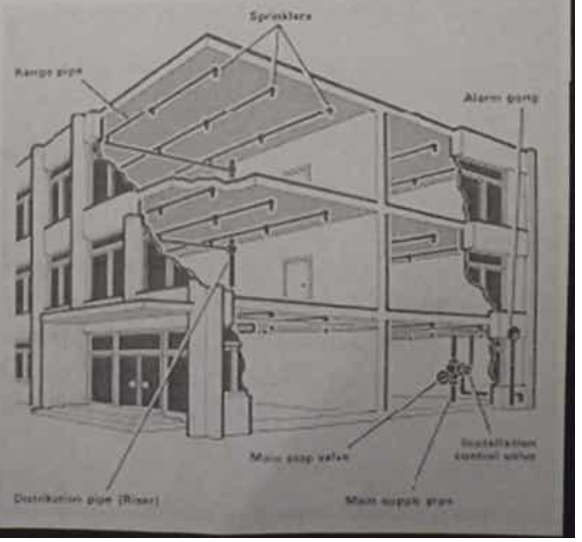
The no. of exits & escape routes required also depends on the maximum no. of people in the area under consideration. Below are typical requirements:-

500 people	2exits
1000	3
2000	4
4000	5
7000	6
11000	7
16000	8
16000+	8 plus one extra 500 persons

The minimum width of horizontal escape routes is also determined by the no. of people using them. Typical values are:

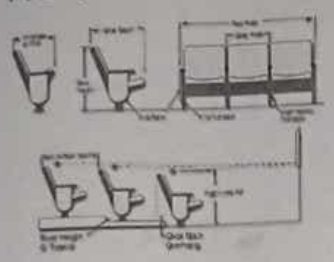
50 people	800mm
110	900mm
220	1100mm
220+	extra 5mm per person

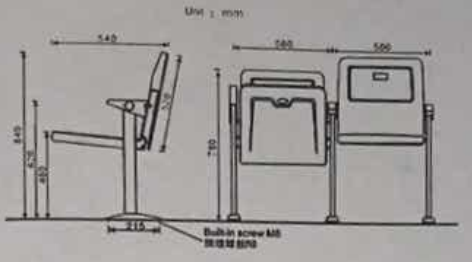


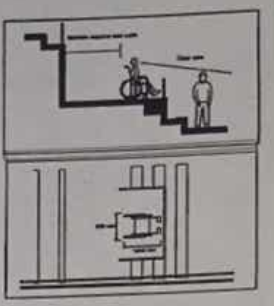


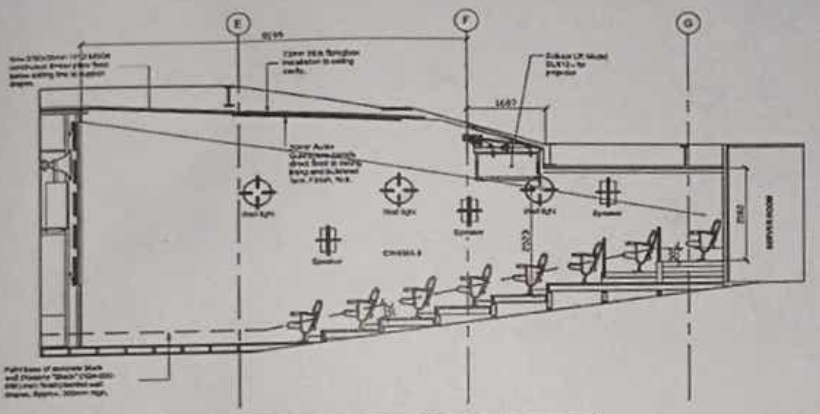
MULTIPLEX

DEPENDS ON THE FORMAT SELECTED . AURAL AND VISUAL LIMITATION
SIZE OF AUDITORIUM : AREA OF ATLEAST 0.5 S+QMT PER PERSON IS USE FOR SITTING SPECTATORS
LENGTH OF ROWS : MAX. OF 16 SEATS PER AISAL AND 25 SEATS PER AISALIS ALLOWED IF ONE SIDE IS EXIT DOOR (ONE MTR WIDE) IS PROVIDED PER 3-4 ROWS.
EXIT DOORS : 1 MTR WIDTH PER 150 PEOPLE.
THEATRES APROX 4-5 CU.MTR PER PERSON OF AIR VOLUME

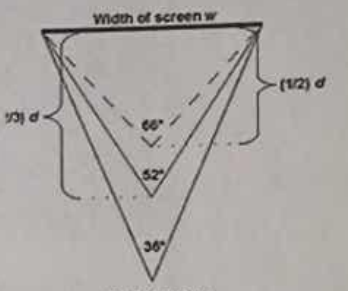




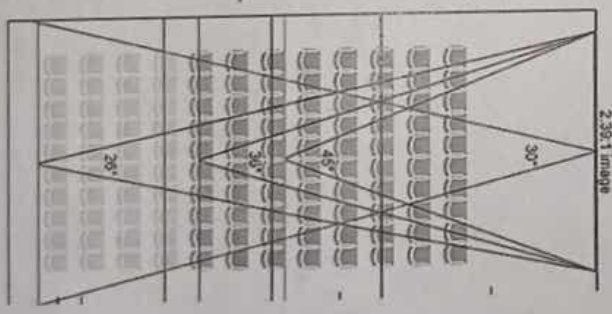


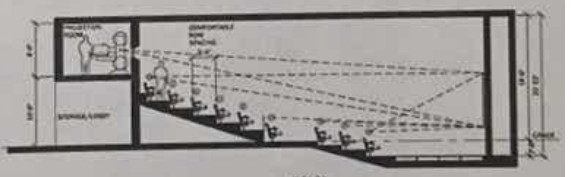


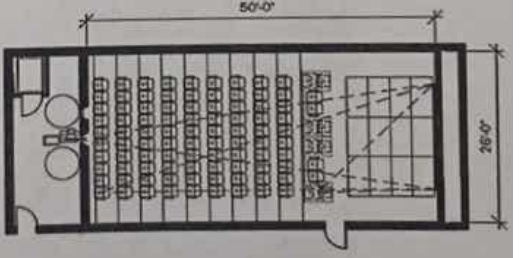
Horizontal viewing angles at halfway and two-thirds points

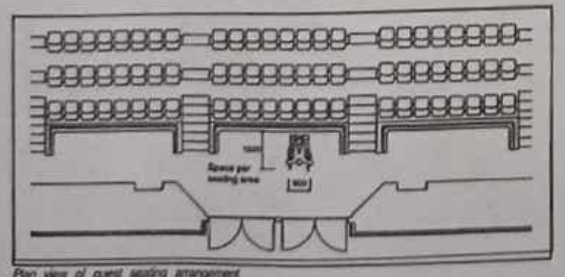


BACK ROW distance d

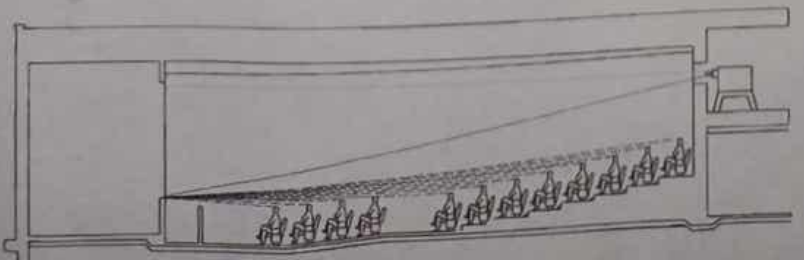


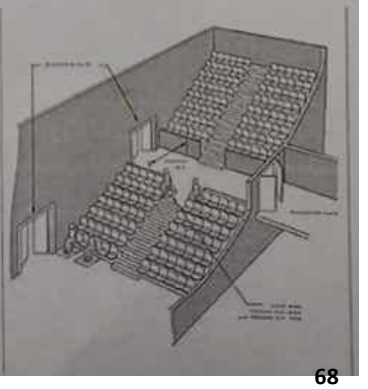




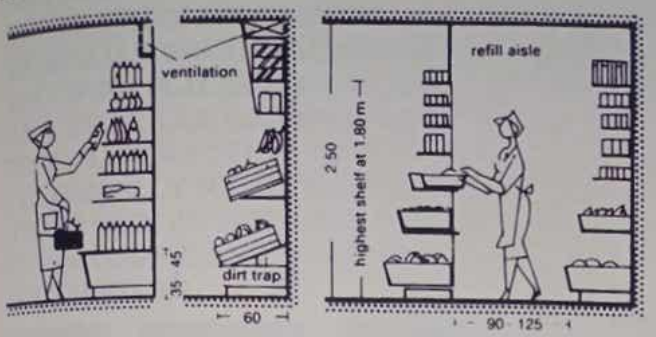


Plan view of guest seating arrangement





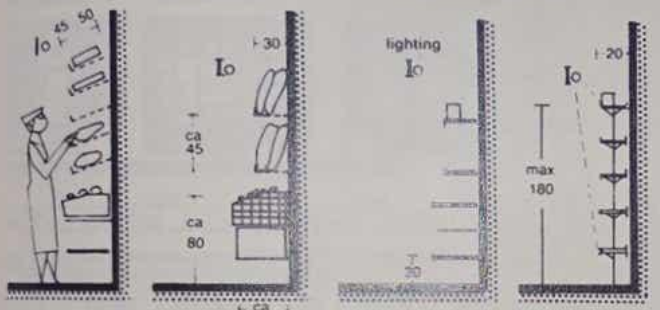
SHOPS



① Shelves for bottles

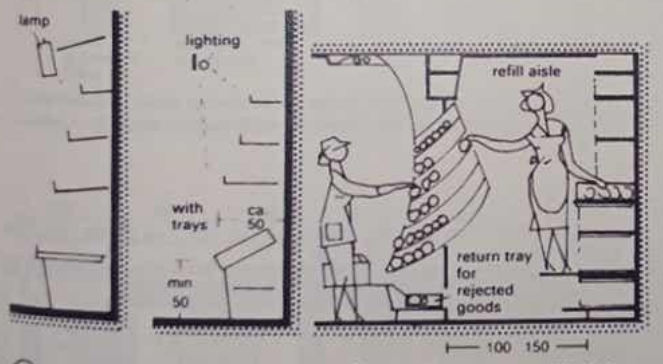
Shelves for fruit, vegetables and loose goods

② Partition allowing replacement of containers from refilling aisle



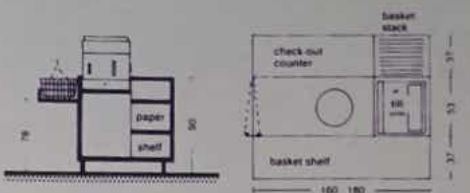
③ Bread display

④ Shelf display unit



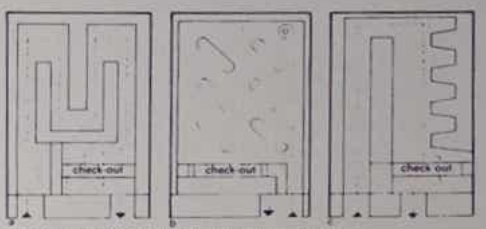
⑤ Self-service shelves

⑥ Shelf unit with refill aisle and return tray

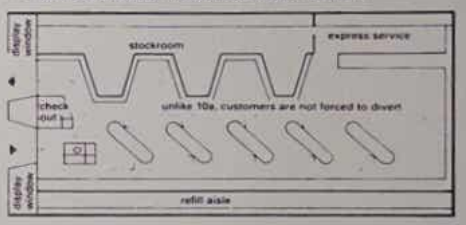


⑫ Section through small check-out position

⑬ Plan of a check-out position giving minimum dimensions



⑩ Circulation routes must account for corners (a and c, entrance and exit separate; b, together)

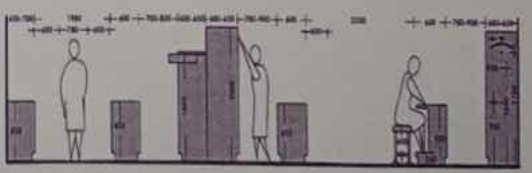


⑪ Good view of the whole shop from check-outs is essential for customer convenience and security

Shelf units in shops → ① – ⑥ from which customers pick their own goods should be no higher than 1.8m and no lower than 0.3m above floor level.

Attention must be paid to circulation routes in larger shops → ⑩ + ⑪. They should begin at the trolley/basket pick-up and end at the check-outs.

All shops require some provision for the handling of goods. These needs may vary from off-pavement deliveries for small units to the complex operations carried out by large retail businesses.

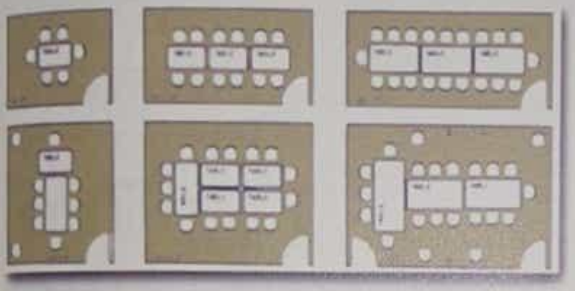


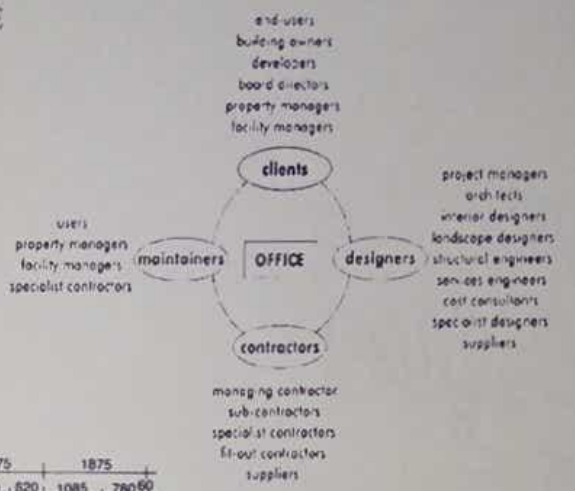
PLANNING FACTOR

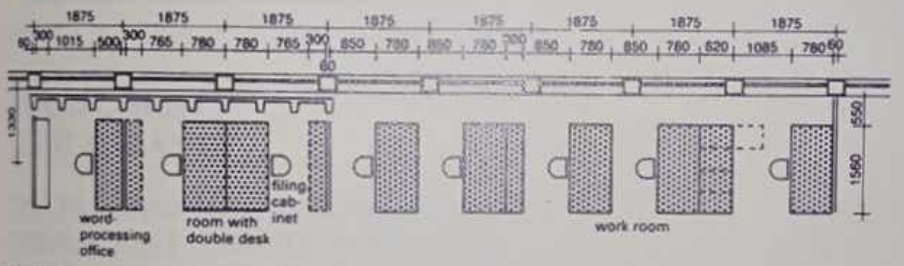
LOCATION AND TYPE OF PROVISION MUST BE RELATED (E.G. FOR SHOPPERS IN A RETAIL AREA, TOURISTS IN HISTORICAL SETTINGS, BUSINESS ENTERTAINMENT IN COMMERCIAL CENTRES,CASUAL PASSING TRADE IN THE HIGH STREET). PUBLIC ACCESS MUST LOOK INVITING AND BE SEPARATEFROM SERVICE ACCESS AND WASTE DISPOSAL.SIMILARLY, THE EXTERIOR APPEARANCE SHOULD COMMUNICATE CLEARLY, WITH SIGNS,LIGHTING AND MENU DISPLAYS, AND CONVEY ANIMAGE OF CLEANLINESS. FROM OUTSIDE,OUTSIDE PEOPLE SHOULD BE ABLE TO VIEW THE INTERIOR SEATING, STYLE AND FEATURES (E.G. THEME OR ETHNIC ORIGIN).EACH TYPE OF RESTAURANTNEEDS A DIFFERENT IDENTITY

OFFICE

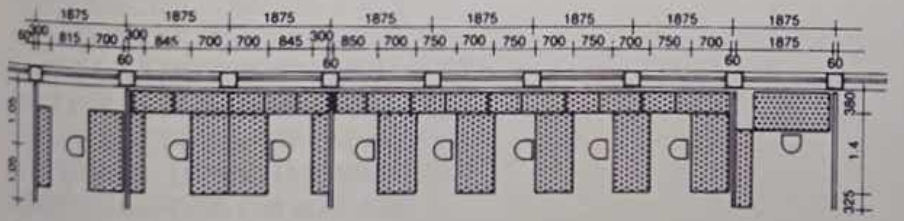
THE DESIGN OF OFFICE BUILDINGS IS CHANGING FAST. TECHNOLOGY, GLOBALISATION AND DEMOGRAPHICS ARE REVOLUTIONISING THE WAY WORKPLACES ARE USE. OFFICE BUILDINGS, ONCE SEEN PRIMARILY AS A SYMBOL OF CORPORATE POWER, MUST NOW BE ADAPTABLE OVER TIME, FLEXIBLE IN USE, EASY TO MAINTAIN, ACCESSIBLY LOCATED AND E COLOGICALLY SOUND. THEY MUST ALSO PROVIDE USERS WITH AN EFFECTIVE AND ENJOYABLE ENVIRONMENT, AND FINANCIERS WITH A SOLID RETURN.



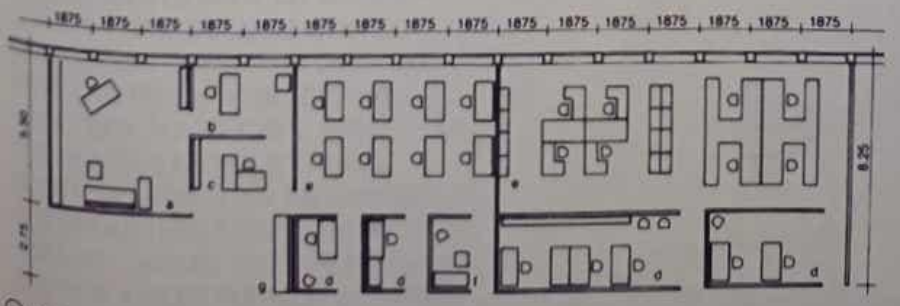




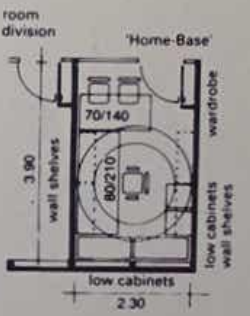
① **With standard desks (size 0.78 × 1.56 m), a division of 187.5 is suitable for a ribbed/slab-and-beam floor having a 62.5 grid module (Koenen floor) with normal formwork. Better for movable partitions**



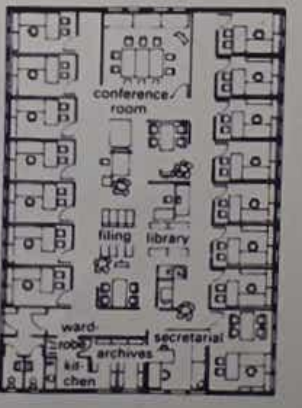
② **Modular desks (size 0.70 × 1.40 m, Velox system). By combining modular desks with Velox continuous table with filing units below windows instead of filing cabinets (→①), one grid module in every five was saved. Desk clearance of 75 cm is possible only when swivel chairs on casters are used.**



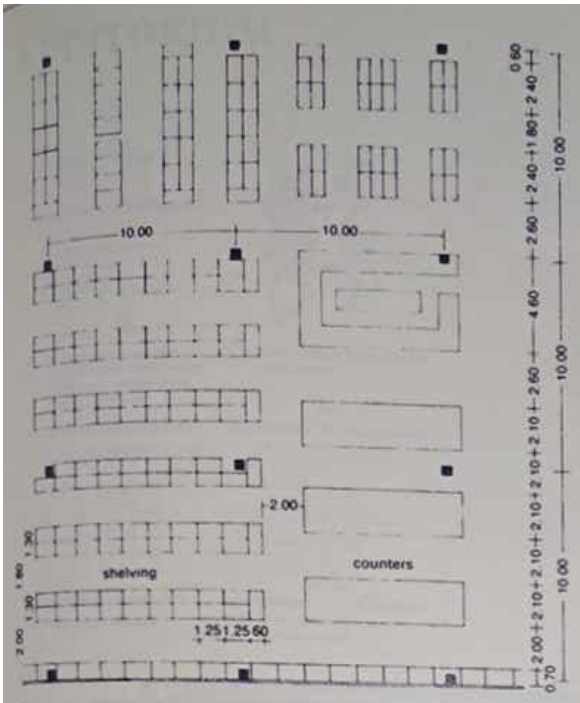
③ **Division of space using modular desks. Various office spaces in open-plan office system: a) manager, with small meeting or conference room; b) assistant or departmental head; c) secretary, receptionist; d) senior clerk dealing with public; e) work rooms (working groups)**



⑥ **Individual office within a combined office**



⑦ **Division of combined office, with outer individual offices and related common areas**



SUPERMARKETS

When designing retail outlets all national regulations (building and planning, fire, health and safety at work etc.) should be observed.

Basic dimensional guidelines give the minimum heights of spaces in shops and storage facilities as:

up to 400 m² retail floor space	3.00 m
over 400 m² retail floor space	3.30 m
over 1500 m² retail floor space	3.50 m

Ventilation ducts or other structures should not reduce the required clear room heights. If possible rooms up to 25 metres wide should be free of columns. The load-bearing capacity of floors should be designed to take additional loads such as light fittings, suspended ceilings, decoration, ducts, sprinkler systems etc. (approximately 20 kp/m²). In the shopping areas and store-rooms it should be 750–1000 kp/m², and 2000 kp/m² for ramps. The floors connecting sales areas, stores, and delivery ramps should be at the same level. Note that delivery ramps or platforms are 1.10–1.20 m above ground level.

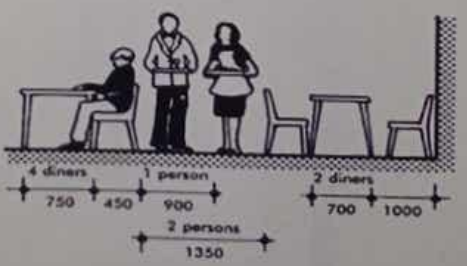
Shelf arrangements are developed from considerations of how best to lead customers past all the different ranges of goods. → ① + ②

FOOD COURTS/ RESTAURANTS

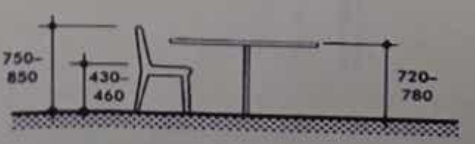
THE TRADITIONAL DIVISIONS BETWEEN FORMAL RESTAURANTS, SNACK BARS AND PUBS ARE NOW ALMOST IRRELEVANT AS MARKETING TRENDS DICTATE THAT MANY ESTABLISHMENTS ARE NOW GIVEN SPECIFIC THEMES AND CATER FOR A PARTICULAR SECTOR OF THE MARKET. AS WELL AS MOVES TOWARDS THEMED RESTAURANTS AND AN EXPANDED CHOICE OF CUISINES FROM AROUND THE WORLD, THERE HAS BEEN HUGE GROWTH IN FOOD COURTS AND COFFEE BARS, GENERALLY ALSO

DINNING AREA

RESTAURANTS SHOULD BE PLANNED SO THAT A VARIETY OF SEATING ARRANGEMENTSARE POSSIBLE (E.G. TABLES FOR TWO AND FOUR, WHICH CAN BE PLACED TOGETHER TO GIVE SIX, EIGHT AND TEN PLACES). BANQUETTE OR BOOTH SEATING CAN BE CONSIDERED BUT SHOULD BE SUPPLEMENTED BY NORMAL TABLES TO GIVE FLEXIBILITY. SERVICE AISLES SHOULD BE 900MM (MINIMUM) TO 1350MM WIDE IF USED BOTH BY WAITERS AND GUESTS



Aisle width



Chair and table heights

BIBLOGRAPHY:

1. https://www.researchgate.net/publication/276936256
2. Zinkal Varmora*, Chavi Jain** http://dx.doi.org/10.29322/IJSRP.12.04.2022.p12432
3. https://www.researchgate.net/publication/339720093
4. https://www.researchgate.net/publication/276936877
5. https://www.researchgate.net/publication/339771939_Review_of_Passive_Cooling_Methods_for_Buildings
6. https://businessscultureawards.com/business-culture-case-studies/winners- 2020-21/case-study-tata-consultancy-services/
7. https://youtu.be/Nda9vINOR88
8. https://ukdiss.com/examples/strategic-management-tata-consultancyservices.php

LITERATURE STUDY – 01 KOHINOOR SQUARE, MUMBAI, INDIA .

LOCATION:
DADAR, WEST MUMBAI
2009-15

ARCHITECT:
SSA ARCHITECTS, MUMBAI

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
SITE AREA = 4.6 ACRES (18615 SQ.M)
FAR = 3.75
GROUND COVERAGE = 39332 SQ.M

PROGRAM:
OFFICES
RESTAURANTS
COMMERCIAL
EXHIBITION HALL

PROJECT LOCATION:

FIG : SITE OF KOHINOOR SQUARE

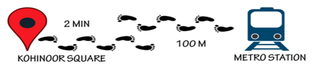
SITE CONDITION:
THE SITE IS STRATEGICALLY LOCATED ON THE JUNCTION OF LJ ROAD AND GOKHALE ROAD AT THE CENTRE OF SHIVAJI PARK.THE SITE IS THUS SURROUNDED BY SHIVAJI PARK ON EAST SIDE, D G RUPARELL COLLEGE ON WEST SIDE AND SOUTH SIDE COVERING THE PATIL WAADI AREAS.

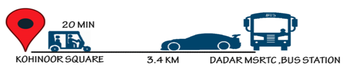
CLIMATE:
MUMBAI'S CLIMATE CAN BE BEST DESCRIBED AS MODERATELY HOT WITH HIGH LEVEL OF HUMIDITY. ITS COASTAL NATURE AND TROPICAL LOCATION ENSURES TEMPERATURES WON'T FLUCTUATE MUCH THROUGHOUT THE YEAR. THE MEAN AVG. TEMP. IS 27.2℃

PROJECT INTRODUCTION:
- IT IS A SEMI-TWIN MIXED USE SKYSCRAPER IN MUMBAI.
- THE MAIN SKYSCRAPER IS ABOUT 52 FLOORS 203 METRES AND THE RESIDENTIAL SKYSCRAPER IS ABOUT 35 FLOORS 142 METRES.
- THE FIRST FIVE FLOORS OF THE MAIN BUILDING IS USED FOR A HIGH-END SHOPPING MALL AND THE REMAINING 47 FLOORS OF THE MAIN BUILDING IS UTILIZED FOR A COMMERCIAL OFFICES AND FIVE STAR HOTEL.
- THE FIRST 13 FLOORS OF THE RESIDENTIAL BUILDING IS USED AS A PARKING GARAGE FOR BOTH THE BUILDINGS AND THE REMAINING 19 FLOORS IS RESIDENCES.

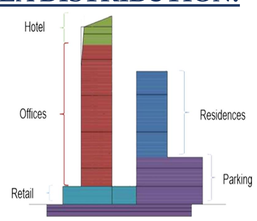
AERIAL VIEW OF KOHINOOR SQUARE:

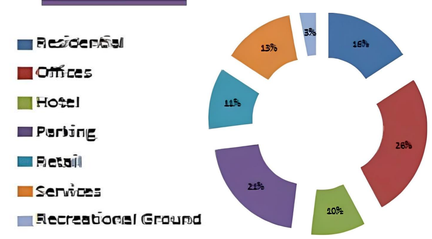
APPROACH:





AREA DISTRIBUTION:



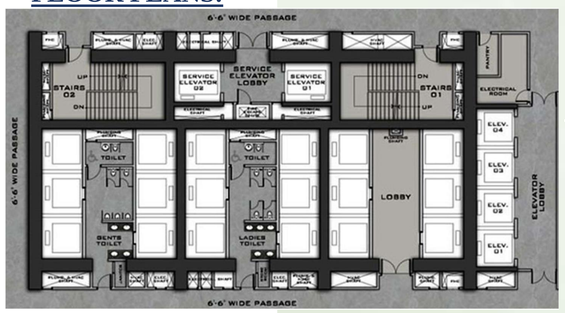


AREAS:

SPACES	AREAS(SQ.M)
RESIDENCES	
3BHK	222.96
3.5BHK	260.12
4BHK	306.58
OFFICES	
WORKING SPACES	50-256
MALE WASHROOM	30
FEMALE WASHROOM	30
PANTRY	4.8
REFUGE AREA	458.76
ELECTRICAL ROOM	1.25
AHU	2.49
SERVER ROOM	18.50
MACHINE ROOM	70.89
RETAIL	
RETAIL STORE	1150
FOOD COURT	1150
MALE WASHROOM	21
FEMALE WASHROOM	21
SHOPS	50-256
OTHERS	
ENERGY	236
TERRACE ON 3RD FLOOR PARKING	715.9
	3627.6

SITE ZONING:

FLOOR PLANS:



CORE BUILDING FLOOR PLAN

- 3 LOBBIES OF 6 LIFTS SERVING LEVELS 25TH TO 39TH
- SPACES BETWEEN THE LIFTS ARE USED
- THE CENTRAL CORE IS SURROUND- ED BY THE OFFICE SPACES
- THERE ARE SEGREGATED OFFICE SPACE FROM 6TH TO 14 FLOOR WITH TOILETS TO EACH OFFICE AND WITH COMMON TOILETS.
- 13 STORIES OF PARKING IN BELOW FLOORS. 132 RESIDENTIAL UNITS. 8 UNITS ON EACHFLOOR
- CENTRAL CORE: 3 LIFTS AND 1 SERVICE LIFT 2 STAIRS ARE ALSO PLACED IN THE CORE.

Fig 3.10716th Floor Plan(office)
http://www.kohinoorsquare.in/offices/floor-plan.html

Electric room – 77.5ft²
Server room – 199.13ft²
AHU room – 199.13ft²
Refuge area – 1291.66ft²

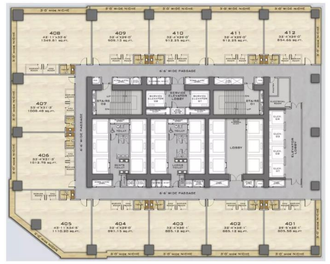


Fig 3.101 Typical Floor Plan(office)
http://www.kohinoorsquare.in/offices/floor-plan.html

401 – 805.58ft²
402 – 885.12ft²
403 – 805.58ft²
404 – 891.15ft²
405 – 1110.20ft²
406 – 1012.78ft²
407 – 1008.48ft²
408 – 1349.81ft²
409 – 909.13ft²
410 – 912.25ft²
411 – 912.25ft²
412 – 854.66ft²
Gents Toilet 322.91ft²
Ladies Toilet 322.91ft²
Pantry – 51.66ft²

COMMERCIAL BUILDING FLOOR PLAN

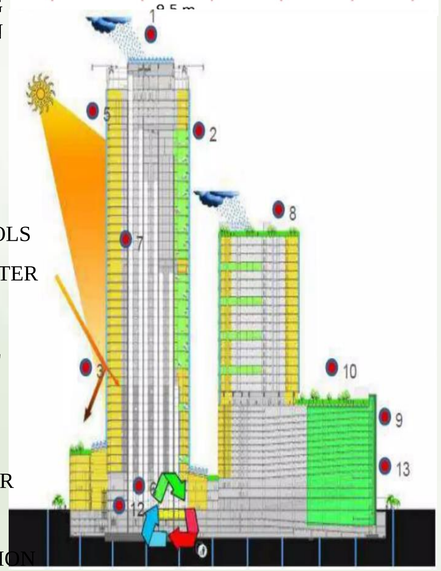
SKY GARDENS:
- 15 DOUBLE HEIGHT LANDSCAPED SKY GARDENS AND MORE THAN A DOZEN DOUBLE HEIGHT TERRACES, TO ACT AS TRANQUIL AND REFRESHING BREAKOUT ZONES.
- LOW FLOW FAUCETS, DUAL FLUSH TOILETS, GREY WATER SYSTEMS AND STORM WATER & RAINWATER MANAGEMENT SYSTEMS-ALL A PART OF OUR COMMITMENT TO THE ENVIRONMENT.

HIGH PERFORMANCE FACADES:
- THE FAÇADE CONSISTS OF FACETED UNITIZED ALUMINUM CURTAIN WALLS WITH PROVISIONS FOR HIGH PER-FORMANCE DOUBLE GLASS FAÇADES ON THE TOWER.
- DIAMOND EDGES OF THE BUILDING HAVING ALUMINUM FLASHING WITH LED LIGHTING ARE THE UNIQUE FEATURE AND MAKE IT COMPLICATED FAÇADE DESIGN.
- ALL THE GLASSES ARE ARTICULATED GLASSES & CAN SUSTAIN DESIGN WIND PRESSURE OF 4.5 TO 5.0 KPA.

STRUCTURE SYSTEM:
- THE STRUCTURE COMPRISES A CONCRETE CORE AND POST-TENSIONED CONCRETE SLAB AND SPANDREL BEAMS. THE AVERAGE CENTRE TO CENTRE DISTANCE BETWEEN COLUMNS IS **9.5 M**. THE COLUMN IS OF **1.8 X 1.8 M**.
- THE TUBE SYSTEM CONCEPT IS BASED ON THE IDEA THAT A BUILDING CAN BE DESIGNED TO RESIST LATERAL LOADS. THIS ASSEMBLY OF COLUMNS AND BEAMS FORMS A RIGID FRAME THAT AMOUNTS TO A DENSE AND STRONG STRUC-TURAL WALL ALONG THE EXTERIOR OF THE BUILDING.

FOUNDATION:
THE COMBINED PILE RAFT FOUNDATION SYSTEM IS USED. IT IS A GEOTECHNICAL COMPOSITE CON-STRUCTION THAT COMBINES THE BEARING EFFECT OF BOTH FOUNDATION ELEMENTS RAFT AND PILES.

SUSTAINABLE FEATURE:
1.RAIN WATER COLLECTION
2.SKY GARDENS
3. HIGH PERFORMANCE FAÇADE
4.HIGH EFFICIENCY VENTILATION SYSTEM
5.DAYLIGHT HARVESTING AND DUMMING CONTROLS
6. BLACK AND GREY WATER REUSE
7.ENVOIRNMENTALLY PREFERABLE MATERIAL
8.GREEN ROOF
9.ENERGY CENTRE
10.NATIVE ADAPTED LANDSCAPE
11.ON SITE WASTE WATER TREATMENT
12.RECYCLEABLE SORTING AND COLLECTION
13.NATURAL VANTILATION



CYBER TOWN , NOIDA

ADHYA SHADEJA
1190101002
B.ARCH 5TH YEAR
B.B.D.U. , LKO

LITERATURE STUDY – 02 SELECT CITY WALK, SOUTH DELHI, INDIA .

LOCATION:
SAKET DISTRICT , NEW DELHI, INDIA

ARCHITECT:
TEVATIA CHAUHAN

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
TOTAL SITE AREA- 62800 SQ M (15.5 ACRE)
BUILT UP AREA - 15884 SQ M
GROUND COVERAGE- 9686.86 SQ M
FAR < 1
HEIGHT OF STRUCTURE - 38.7M
OPEN SPACES - 8093.71
PERCENTILE OF ROADS- (7598 SQ MI) 18%

PROGRAM:
RETAIL PODIUM
CINEMAS
OFFICE BUILDINGS
SERVICE APARTMENTS
PLAZA AND LANDSCAPE

PROJECT LOCATION:

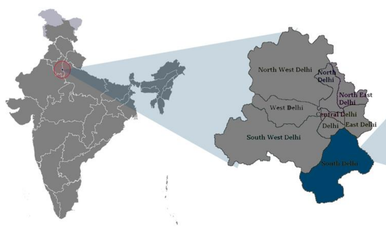


FIG :INDIA MAP

FIG : DELHI MAP SHOWING SAKET DISTRICT

FIG : SATELITE IMAGE OF SELECT CITY WALK

SITE CONDITION:
THE SITE IS STRATEGICALLY LOCATED ON THE MAIN ARTERY CONNECTED TO MAIN SAKET ROAD, SUB ROADS CONNECTED ADJACENT TO SITE ACTS AS PEDESTRAIN ACESS TO THE SITE, SERVICE ENTRY FROM LEFT SIDE OF THE BUILDING TOWARDS BASEMENT.

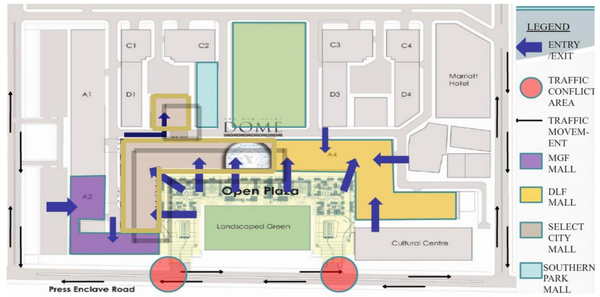
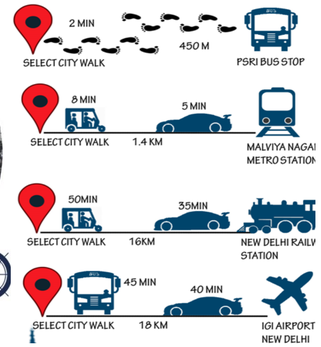


FIG :KEY PLAN

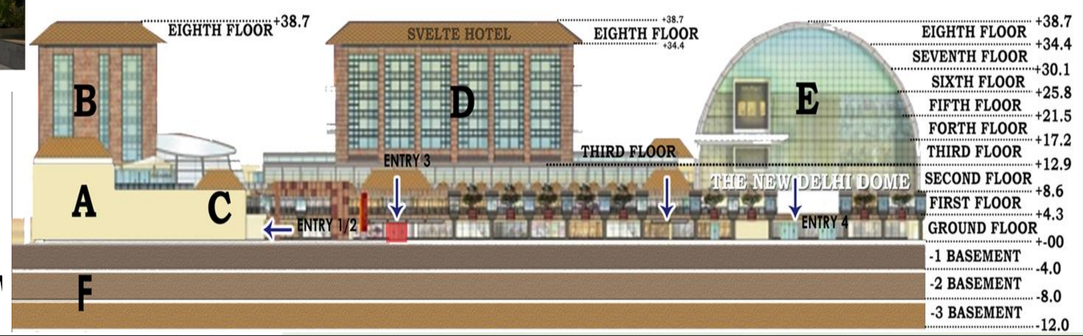
BUILDING PROGRAM:
- 3 FLOORS OF SHOPPING AREA
- 2 SEPARATE 5-STOREY BLOCKS CONTAINING I. OFFICE SPACE II. SERVICED APARTMENTS
- OUTDOOR OPEN-AIR PLAZA, APPROX. 1 LAKH SQ. FT.
- WATER BODIES & FOUNTAINS
- AN AMPHITHEATRE
- SIX SCREEN PVR CINEMAS

APPROACH:



SELECT CITYWALK VIEW

LVL



SITE FEATURES:

FIG :SITE ORIENTATION

SITE ORIENTATION AND WIND DIRECTION:
- REGULAR IN SHAPE: RECTANGULAR
- MAJOR ROAD: NORTHEAST-SOUTH WEST
- ORIENTED
- MINOR ROAD: NE-SW ORIENTED
- SITE AXIS ORIENTED TO MAJOR ROAD, NORTH DIRECTION WELCOMING/ SOUTH DIRECTION BLOCKED EAST AND WEST-MINOR ROAD AXIS

SITE CIRCULATION:
- EXTERNAL ROAD: 30 M MAIN ROAD, MINOR INTER- NAL ROAD: 20 M WIDE, PERIFERAL STREET: 8M WIDE.
- PASSAGE RUNNING ON ONE SIDE OF L-SHAPE BUILDING, IS 2.5M WIDE.

SITE PLANNING CONSIDERATIONS:
- ENTRANCE: 2,EXIT: 2, BUILDING ENTRANCE:4LANDSCAPE: INFRONT OF SELECT CITYURBAN SPACES: ROADS, STREETS, TRANSITION ZONE,
- LANDSCAPE ACTS AS ECOLOGICAL EQUILIBRIUM TO THE SITE PUBLIC INTERCONNECTIVE SPACES OUTSIDE CAN BE USED FOR EMERGENCY EXIT GATHERINGS.
- ATTRACTIVE SPACE CRATE FOR OUTDOOR SEATING IN THE PLAZA

VEGETATION (FLORA AND FAUNA)
- SHRUB COVER, TROPICAL TREES (>10M)
- SHADING TO THE FACADES ARE DONE BY TROPICAL TREE SHRUBS ARE PLANTED ON THE PERIFARY OF THE BLOCK.

SITE SERVICES:
- FIRE SAFETY SERVICES, LOADING UNLOADING ON PERIFARY, ELECTRICAL UNDERGROUND, DRAINAGE CONNECTED TO MAIN SEWER LINE.
- HYDRANT HOSEREEL ARE PLACED 15 M APART AS PER FIRE AND SAFETY PURPOSE, UNDER- GROUND ELECTRICAL SYSTEM IS DONE CONNEC- TION TRANSFROMER AT SERVICE ZONE.

SECURITY CHECKPOINTS:
- AT MAIN ENTRANCE-INTELLEGENT CAR SCANNERS SERVICE CHECK POST, 2 PARKING CHECKPOST

FIG :WELCOMING ENTRANCE


FIG : BUDHA STATUE A SYMBOL OF PEACE


FIG : SKYWAY CONNECTING PVR

FIG :SELECT CITY VIEW


FIG : ATTRACTIVE SEATING AT PLAZA

LEGENDS:

A SHOPPING COMPLEX
B OFFICE BUILDING
C SHOPPING COMPLEX
D SVELTE HOTEL
E RESTAURANT AND GYM
F BASEMENT SERVICES

CYBER TOWN , NOIDA

ADHYA SHADEJA
1190101002
B.ARCH 5TH YEAR
B.B.D.U. , LKO

LITERATURE STUDY – 02 SELECT CITY WALK, SOUTH DELHI, INDIA .

THE PLAZA-SAANSKRITI:

- SELECT CITYWALK ALSO HAS AN OUTDOOR OPEN PLAZA SAAN- SKRITI, APPROX 1 LAKH SQ. FT OF OUTDOOR LANDSCAPED AREA WITH RICH PLANTS, TREES, WATER BODIES, AMPHITHEATURE AND SPECIALISED LIGHTING GIVING DELHI A RICH URBAN OUTDOOR SPACE COMPARABLE TO THE BEST IN THE WORLD.
- SEVERAL COUNTRIES PROJECTED AND PRESENTED CULTURAL PROGRAMMES AND PROMOTED THEIR DESTINATIONS AT SAAN- SKRITI.
- FAMOUS ARTIST PERFORMED AT THE AMPHITHEATRE OF SELECT CITY WALK.

THE COMMON DESIGN CONCERN WAS THEREFORE THE INTEGRATION OF BOTH PODIUMS WITH THE ADJOINING PARK. ITS LANDSCAPE WAS THUS ADAPTED TO VISUALLY AND PHYSICALLY CONNECT WITH THE PARK WHICH FUNCTIONED AS A COMMON.

- THE FORMWORK OF ITS BASEMENT SLAB WAS PART- EXECUTED, PRIOR TO THE INVOLVEMENT OF DC.
- THIS STEUCTURE FORMED THE BASICS OF THE LANDSCAPE AND ITS ORGANIZATION.

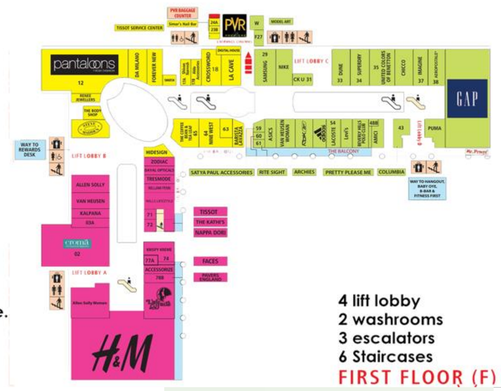
PLAZA FEATURES:

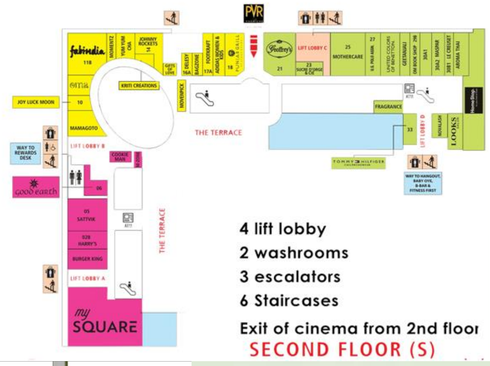
- LANDSCAPED PLAZA OF 8992 SQ. METERS.
- AN OAT, WITH A CAPACITY OF 200+ PEOPLE.
- 5 STAIRCASES LEADING TO BASEMENT.
- STATUES & SCULPTURES WERE PLACED ALL AROUND THE LANDSCAPING
- .FLOORING: MARBLE, GRANITE SLABS, VITRIFIED TILES

ELEVATION FROM THE LARGE GREEN SPILLOVER AREA

ELEVATION FROM BEHIND THE SANSKIRTI PALAZA

BUILDING BLOCK: PLANS





PLANNING CONCEPT:

THE PLAN IS DIVIDED INTO 4 CATEGORIZATION-

- A-FAMILY AND TRADITION SPACE
- B-CELEBRATION (CENTRE-SAGE)
- C-HIGH-VOLTAGE (YOUTH)
- D-OPEN PLAZA/ LANDSCAPED AREA (GROUND FLOOR)

BUT THE ACTUAL PLANNING IS DIFFERENT FROM CONCEPT PLANNING.

FLOOR AREA STATEMENT:

- **BASEMENT** =41578.5 (3L VLS) +6075 (3LS VLS)=47653.5 SQ. M
- **GROUND FLOOR** =9622.345+1756.46 (MULTIPLEX)=1137.81 SQM
- **FIRST FLOOR** = 10803.323+2012.72 (MULTIPLEX) = 12816.043 SQ. M
- **SECOND FLOOR**=6568,06 SQ. M
- **THIRD FLOOR** = 2921.226 SQ.M
- **FOURTH FLOOR**=2776.216 SQM
- **FIFTH FLOOR**=2467.621SQ.M
- **SIXTH FLOOR** = 2268.241 SQ.M
- **SEVENTH FLOOR** = 1948.80 SQ. M
- **FOYER LEVEL AREA IN MULTIPLEX** = 825.29 S.QM
- **TOTAL WITHOUT BASEMENTS** = 43970.307 S.QM
- **TOTAL WITH BASEMENTS** = 91623.807 SQ. M

SPECIFICATIONS AND MATERIAL:

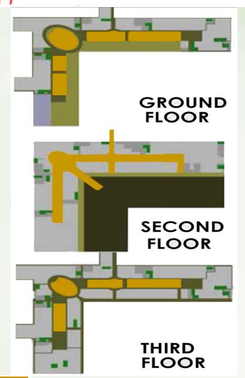
1. **TYPE OF CONSTRUCTION:** RCC FRAME STRUCTURE
2. **EXTERNAL FINISH CLADDING:** GRANITE, TEXTURE PAINT
3. **INTERNAL WALL FINISHES:** PLASTER WITH DESIRED PAINT FINISH, CEAMIC TILES FOR THE TOILET.
4. **FLOORING:** MARBLE, GRANITE SLABS, VITRIFIED TILES.
5. **DOORS:** SHUTTERS OF PLY WITH TM FRAMES AND FIRE PROOF DOOR WHEREVER REQUIRED.
6. **WINDOW:** ALUMINIUM SECTION
7. **ELECTRIFICATION:** PROVISION FOR ELECTRIC OUTLETS

CIRCULATION:

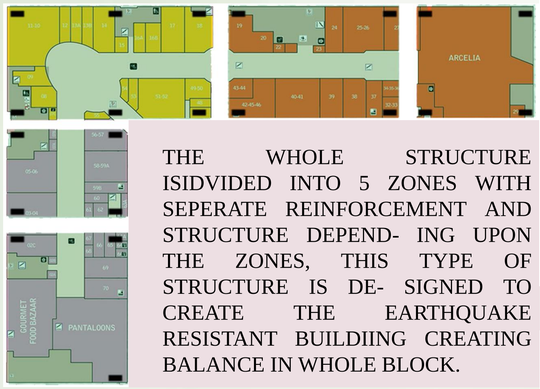
ENTRANCES

- THERE WERE 2 MAIN ENTRANCES TO THE MALL
- ONE FROM THE FRONT & 2ND FROM THE REAR SIDE.
- ON THE FRONT SIDE, 4 MAIN ENTRIES WERE PRESENT.
- PASSAGE RUNNING ON ONE SIDE OF L-SHAPE BUILDING, IS

1. 2.5M WIDE
2. DISTANCE BETWEEN COLUMNS-6M
3. COLUMN SIZE-600X450



STRUCTURAL ANALYSIS:



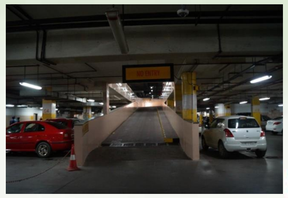
THE WHOLE STRUCTURE ISIDVIDED INTO 5 ZONES WITH SEPERATE REINFORCEMENT AND STRUCTURE DEPEND- ING UPON THE ZONES, THIS TYPE OF STRUCTURE IS DE- SIGNED TO CREATE THE EARTHQUAKE RESISTANT BUILDIING CREATING BALANCE IN WHOLE BLOCK.

GARBAGE AREA:

- THE WASTE FROM RESTAURANTS WAS COLLECTED IN BASEMENT THROUGH SHAFT
- THERE WERE 3 SEPARATE AREAS, WHICH WERE DIVIDING THE WASTE INTO DIFFERENT CATEGORIES.
- COMPOSTING AREA, SEGREGATION AREA & SEGREGATED WASTE FOR RECYCLING AREA
- AFTER SEPARATION, WASTE IS DISPOSE OF THROUGH GARBAGE TRUCKS.

BASEMENT:

- 1176 CARS CAN BE PARKED IN 3 DIFFERENT FLOORS OF BASEMENT AT ONE TIME.
- BASEMENT 1-OFFICES, PARKING FOR 327 CARS, 161 TWO WHEELERS LOADING & UNLOADING AREA, GARBAGE DISPOSAL AREA
- BASEMENT 2-PARKING 550 CARS, 100 TWO WHEELERS
- BASEMENT 3- PARKING 299 CARS, 310 TWO WHEELERS
- BASEMENT HEIGHT-3.5M
- GRID 6X6M
- BASEMENTS-41578.5 SQM (3L VLS)

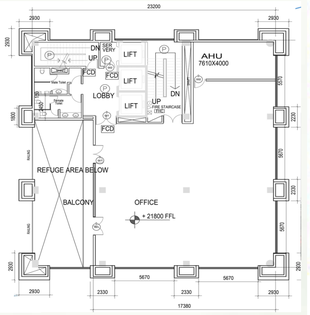


BASEMENT SERVICES:

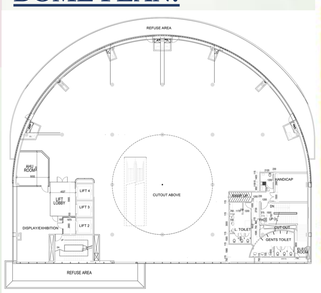
IT INCLUDES

A. FIRE FIGHTING EQUIPMENT'S
B. EMERGENCY EXITS
C. LOADING & UNLOADING AREA
D. GARBAGE COLLECTION AREA

OFFICE SPACE PLAN:



DOME PLAN:



TYPICAL 4 TO 6 FLOOR PLAN

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CASE STUDY – 01 SUPERTECH SUPERNOVA, NOIDA, INDIA .

LOCATION:
SECTOR 94, AMRAPALI MARG,NOIDA

ARCHITECT:
BENOY ARCHITECT

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
SITE AREA = more than17ACRES
FAR = 4
NO.OF TOWERS= 5+ RETAIL SHOPS
OPEN AREA = 70%
NO.OF FLOOR= 80
NO.OF UNITS= 5708
CONSTRUCTION STATUS= ON GOING
BUILD UP AREA= 50, 00,000 SQ. FT.

PROGRAM:
- OBSERVATORY DECK
- EXCLUSIVE CLUB-HOUSE
- AUTOMATED ELEVATOR
- FINE DINING, LEISURE, AND ENTERTAINMENT OPTIONS
- LUXURY SHOPPING MALL
- 5-STAR HOTELS.

PROJECT LOCATION:

SITE APPROACH:

SITE CONDITION:
THE PROJECT IS STRATEGICALLY LOCATED NEAR MAJOR ROADWAYS, INCLUDING THE NOIDA-GREATER NOIDA EXPRESSWAY, YAMUNA EXPRESSWAY, AND THE UPCOMING NOIDA-GREATER NOIDA METRO LINK EXPRESSWAY. THESE ROADWAYS PROVIDE SEAMLESS CONNECTIVITY TO OTHER PARTS OF DELHI-NCR REGION, INCLUDING DELHI, NOIDA, GREATER NOIDA, AND GHAZIABAD.

Floor Plans

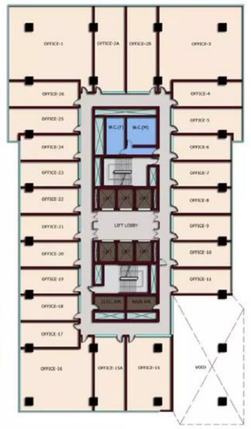


Fig 3.57Astralis Ground Floor
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/1.jpg

Fig 3.58Astralis Floor with Void - 6,11,16,21 floors
https://www.smcrealty.com/supertech-supernova-

Fig 3.59Astralis Upper Large Floor - 25,26 floors
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/3.jpg

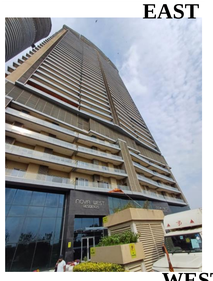
Fig 3.60Astralis Floors with Terrace - 5,10,15th,20 floors
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/4.jpg

Fig 3.61
https://www.smcrealty.com/supertech-supernova-noida/images/Astralis/5.jpg

CONCEPT AND AMENITIES OF SUPERNOVA:

THE UNDERTAKING WILL AND EXTRAVAGANCE RETAIL BRANDS, OFFICE, SERVICE APARTMENTS, AND EXTRAVAGANCE APARTMENTS. ABOVE ALL, THIS UNDERTAKING HIGHLIGHTS 2 LAVISH INNS, PREMIUM FIVE STUNNING PINNACLES ALL MIXING FOREFRONT DESIGN WITH CUSTOMARY VAASTU STANDARDS. EVENTUALLY, THESE FIVE MONSTER STRUCTURES ARE NAMED AUSTRALIS, NOVA EAST, AND NOVA WEST, SPIRA, AND SOVEREIGN PINNACLE. SUPERNOVA HAS TWO FUNDAMENTAL TOWERS NOVA EAST AND NOVA WEST ARE PRIVATE APARTMENTS. CERTAINLY, IT OFFERS 2BHK AND 3 BHK OUTFITTED CONDOS VARIATIONS WITH SIZES 1330 SQ. FT AND 2040 SQ. FT

EAST



WEST

ASTRALIS (COMMERCIAL):

- GROUND+28 FLOOR.
- FROM GROUND TO 2ND I.E DOUBLE HEIGHT ENTRANCE LOBBY
- .3RD FLOOR IS A WAITING FLOOR
- .4TH FLOOR IS CLUB
- .FROM 5TH TO 23RD ARE LOCKABLE SPACES.
- 25TH IS SERVICE FLOOR.
- 24TH, 26TH, 27TH, 28TH ARE VIRTUAL SPACES.

Abbreviation	Area(sq.m)	Abbreviation	Area(sq.m)
Office 1	190	Office 12	43.5
Office 2	78.5	Office 12A	43.5
Office 2A	78.5	Office 14	143
Office 3	190	Office 15	68.5
Office 4	50	Office 15A	68.5
Office 5	54	Office 16	143
Office 6	45.5	Office 17	43.5
Office 7	43.5	Office 18	43.5
Office 8	43.5	Office 19	43.5
Office 9	43.5	Office 20	43.5
Office 10	43.5	Office 21	43.5
Office 11	43.5	Office 22	43.5
Office 23	43.5	Office 25	54
Office 24	45.5	Office 26	50

Male washroom – 23sq.m.
Female washroom – 20sq.m.
Electric room – 12sq.m.
Lift lobby – 55sq.m.
Corridors – 2m wide.
Terrace 1 – 104sq.m.

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CASE STUDY – 02 INDIA GLYCOL OFFICE, NOIDA, INDIA .

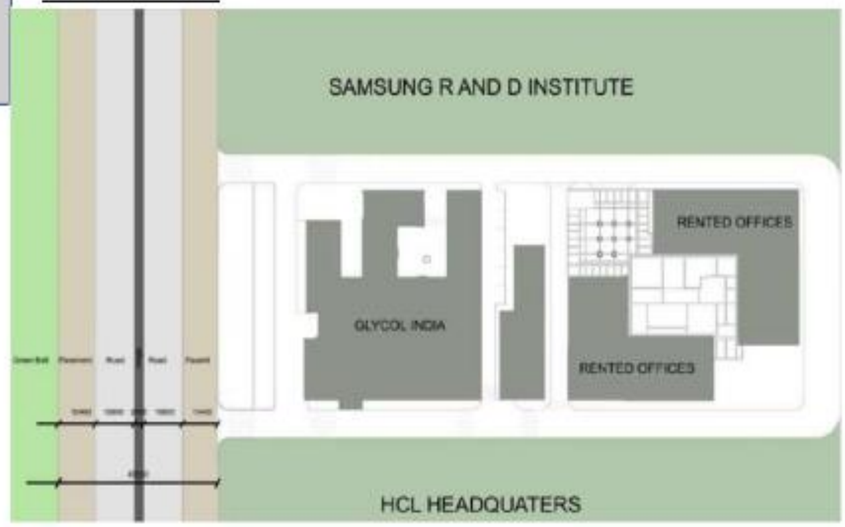
PROJECT DETAIL

Project Type : Office Building
Location : Sector 126, Noida
Architect : Morphogenesis
Client : India Glycol
Site Area : 2,15,280 Sq. Ft. (20,200 Sq. Mt.)
Built-Up Area : 391,700 Sq. Ft. (36,390 Sq. Mt)
F.A.R. : 1.5
Employees : 250
Energy-responsive design, a workplace catering requirements of the IT, Development of building techniques with modern materials.

LIVE CASE STUDY - 2

INDIA GLYCOL OFFICE

SITE PLAN



Site of 200m x 100m has front, rear and side setbacks of 22m, 12m and 9m respectively with basement parking of total 400 ECU. Width of main entry/exits is 7.5m and vehicular roads are of
7.2m.

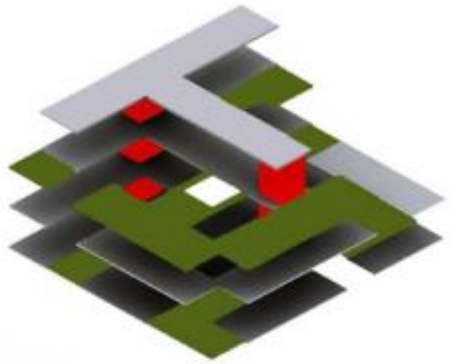
ACCESS AND APPROACH

India Glycol is located in sector 126 of Noida (Delhi NCR region). The site is well connected to Delhi and greater Noida by Noida expressway. The map shown above shows the access and approach of site and its distance from the airport, railway station and the bus stand.

Climatic Zone : Composite
Avg. Temperature (High) : 31.2°C
Avg. Temperature (Low) : 18.8°C
Avg. Precipitation : 715 mm
Nearest Metro Station-
Botanical Garden (8.6km)

FORM EVOLUTION

Conceived as a solid perimeter scheme with a more fluid interior, the morphology blurs the interface between the inside and outside. The site surroundings and context along with an optimum enclosed square volume enabled a built form with minimum exposed surface area. The built form configured of 8m wide office bays optimizes the natural day lighting and helps to define the programmatic requirements of the office.



VOLUMETRIC CONFIGURATION

The design's conceptual strength comes from the spatial organization which cre overlaps between the exterior and the interior and between the various programmatic requirements, hence creating a vibrant and creative work environment.

ZONING PLANS →

Ground Floor Plan

- Reception
- Corridor
- Office Spaces
- Conference rooms
- Service core
- Washrooms

First Floor Plan

- Corridor
- Office
- Service core
- Washroom

Second Floor Plan

- Corridor
- Office
- Service core
- Washroom
- Terrace Garden

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CASE STUDY – 02 INDIA GLYCOL OFFICE, NOIDA, INDIA .

RECEPTION

Area – 70 sqm

KEY PLAN FOR SECTIONS

VERTICAL CIRCULATION

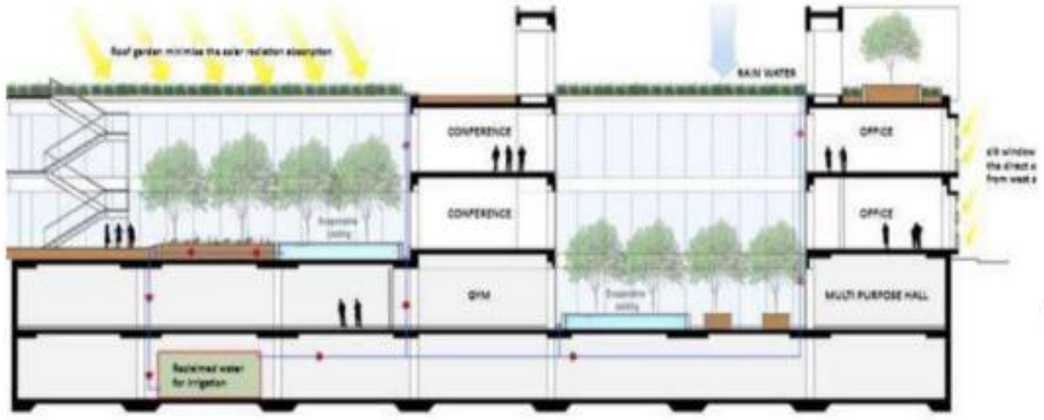
• A stacking system is used to generate a variety of open spaces; courtyards, verandahs, terraces, green roofs etc. that help to structure the office spaces.
• A central spine traversing the built volume serves as the common activity zone, with other departments branching out.
• The design's conceptual strength comes from the spatial organization which creates overlaps between the exterior and the interior and between the various programmatic requirements, hence creating a vibrant and creative work environment.

PASSIVE SOLAR/SHADING AND INSULATION

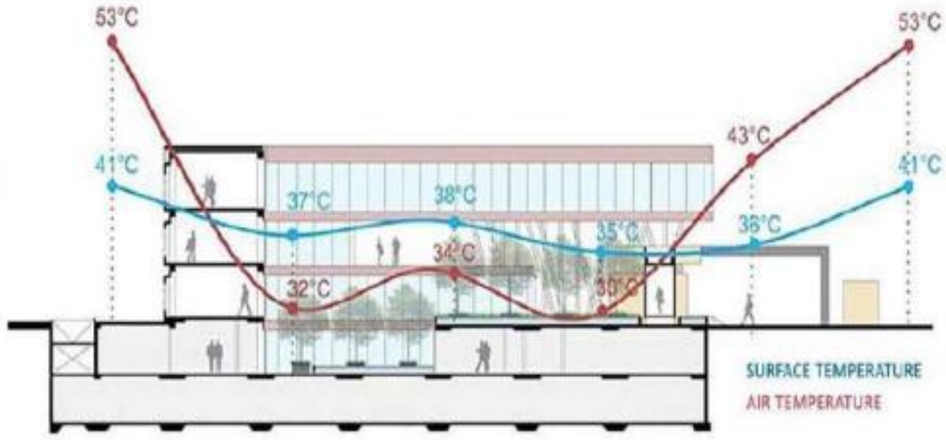
• Shaded Outer façade with air cavity construction, very small slit windows on the outside.
• courtyards with microclimate controls (shading and mist gardens, water bodies and plantations) all aid in reducing the solar ingress.
• Green Roofs and terrace gardens also provide a high level of thermal insulation.

SERVICES

AHU Room Area - 17 Sqm / Room
Pantry Area - 4 Sqm / Room
Staircase
- Width 1500 mm
- Tread 300 mm
- Riser 150 mm
Lifts Area – 4 Sqm / Lift Room
No. Of Washrooms
- Male 04
- Female 03



(a) Section A



(b) Section B

GREEN FEATURES

Program, Form Optimization, Morphology, and Orientation

• Energy Consciousness dictates the internal spatial and programmatic composition through a series of open and semi-open spaces.
• Instead of an overlay of an environmental layer, Passive design techniques are employed throughout the scheme.
• The site surroundings and context along with an optimum enclosed square volume enabled a built form with minimum exposed surface area.
• Solar exclusion is achieved by means of a solid external perimeter with minimum fenestration, which only permits diffused daylight into the office environs.

COURTYARDS AND TERRACES

CASE STUDY – 02 INDIA GLYCOL OFFICE, NOIDA, INDIA .

NO.	TITLE	ACC. TO CPWD/NBC 2005	GLYCOL INDIA
1.	**WORK STATION**	**(sqm)**	
	EMPLOYEES-WORKSPACE	9.29	2.2
	MANAGER'S OFFICE	9.29	11.8
	SENIOR MANAGER'S OFFICE	18.58	20
	DIRECTORS OFFICE(WITH 4 PERSON MEETING TABLE)	23.22	37
	4 PERSON MEETING ROOM	9.29	10.5
	8 PERSON MEETING ROOM	11.61	24
	BOARD ROOM	20.43	24
	30 PERSON/CONFERENCE ROOM	22-44	150FOR100
	PANTRY	9.29	4.2X2
	1 SERVER RACK SERVER ROOM	3.72	NIL
	4SERVER RACK SERVER ROOM	11.5	NIL
	VISITOR'S LOUNGE	<44	39
	RECEPTIONIST	11	14.5
	CANTEEN	0.09/PERSON	2.1/PERSON
2.	**CIRCULATIONS**		
	LIFT NO.		2
	LIFT WELL		4.07sqm/lift
	LIFT DOOR WIDTH	0.9m	1
	LOBBY IN FRONT OF ELEVATOR		
	ELEVATOR ON ONE SIDE	1.8m	2.23m
	ELEVATOR ON TWO SIDE	3.1m	NIL
	CORRIDORS		
	SUBSTANTIAL TRAFFIC	1.6m	2.6m
	MODERATE TRAFFIC	1.2m	2.2m
	SECONDARY TRAFFIC	1m	1.5m
	STAIRCASE STANDARDS		
	MINI. WIDTH	>=1.2 m	1.5m
	MINI. TREAD	30cm	30cm
	HEIGTH OF RISER	<=15 cm	15cm
	HAND RAIL HEIGHT	>=90cm	90cm
3.	**FIRE SAFETY**		
	MAIN ENTRANCE WIDTH	>6m	7.5
	TURNING RADIUS	9m	9m

NO.	TITLE	ACC. TO CPWD/NBC 2005	GLYCOL INDIA
4.	**HEIGHT STANDARDS**	**(sqm)**	
	FLOOR TO FLOOR HEIGHT	3.6m	3.6m
	MINI. CLEARANCE HEIGHT	2.43m	2.43m
5.	**WET AREA REQUIREMENTS**		
	AREA OF TOI/LAT-HANDICAPPED	3.5sqm	NIL
	AREA OF TOI/LAT-COMMAN MAN	1.5sqm	2.2sqm
6.	**CORRIDORS**		
	CORRIDOR (ACCESS TO STREETS)	Y/N	Y
	OBSTRUCTION FREE	Y/N	Y
	CLEARLY VISIBLE EXIT ROUTES	Y/N	Y
	FIRE EXIT WIDTH	>1m	1m
	NO. OF EXITS	min.2 staircas	2
	EXTERNAL STAIRCASE CONNECTED TO THE GROUND LVL	Y/N	Y
7.	**EXTERNAL STAIRCASE**		
	WIDTH	>1250mm	1500mm
	TREAD	>250mm	300mm
	RISER	<190mm	150mm
	NO. OF RISERS PER FLIGHT	<=15	12
8.	**PARKING**		
	MIN. AREA FOR VEHICLE		
	CARS	13.75sqm	13.75
	TWO WHEELERS	3sqm	3
	CYCLE	1.5sqm	NIL
9.	**METHODS OF VENTILATION**		
	NATURAL SUPPLY &NATURAL EXHAUST OF AIR	Y/N	
	NATURAL SUPPLY & MECH. EXHAUST OF AIR	Y/N	
	MECH. SUPPLY & NATURAL EXHAUST OF AIR	Y/N	
	MECH. SUPPLY & MECH EXHAUST OF AIR	Y/N	Y

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CASE STUDY – 03 CYBER CITY, GURUGRAM, INDIA .

LOCATION:
SOUTH DELHI, PHASE 3,
GURUGRAM, INDIA

ARCHITECT:
HAFEEZ CONTRACTOR

TYPOLOGY:
MIXED USE COMMERCIAL

SITE DETAILS:
TOTAL SITE AREA- 26.2 ACRES
CYBER HUB AREA-9.1 ACRE
FAR -3.75
BUILTUP AREA -400136 M²
GROUND COVERAGE -39332M²

PROGRAM:
OFFICES
RESTAURANTS
RETAIL
EXHIBITION HALL
MEDIA ROOM
AMPHITHEATURE

PROJECT LOCATION:

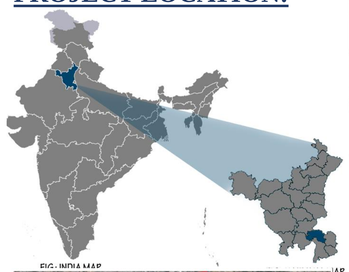
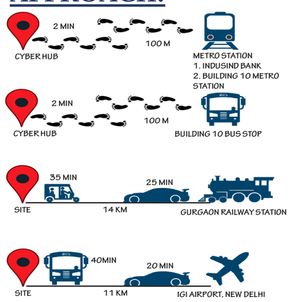


FIG: INDIA MAP

FIG : SATELITE IMAGE OF CYBER HUB

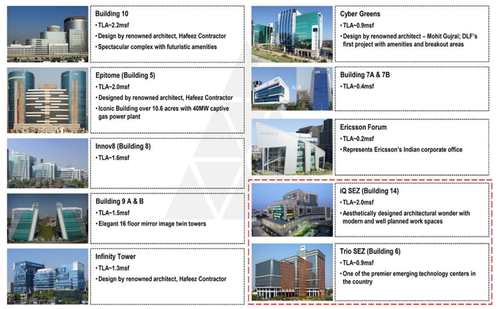
APPROACH:



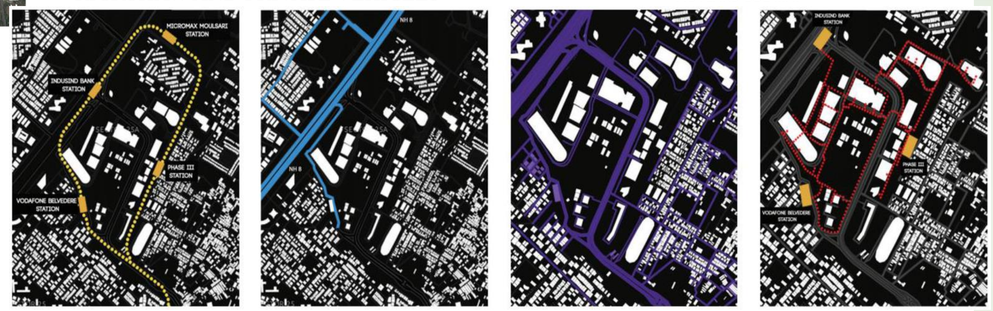
SITE CONDITION:
THE SITE IS STRATEGICALLY LOCATED ON THE MAIN ARTERY CONNECTING GURUGRAM TO DELHI, NH8, UDYOG VIHAR, A DENSELY POPULATED INDUSTRIAL AREA LIES ON THE OPPOSITE SIDE OF THE HIGHWAY. THE SITE IS TO SURROUNDED BY COMMERCIAL AND RESIDENTIAL. CYBER HUB IS LOCATED AT A PRIME CORNER OF CYBER CITY.

CLIMATE:
HUMID SUB-TROPICAL

AVERAGE TEMPERATURE RANGE FROM 19-32 DEGREE DEPEND- ING ON THE WEATHER SUMMER ARE HOT, WINTERS ARE QUITE COLD, WITHMOST AMOUNT OF RAIN DURING MONSOONS

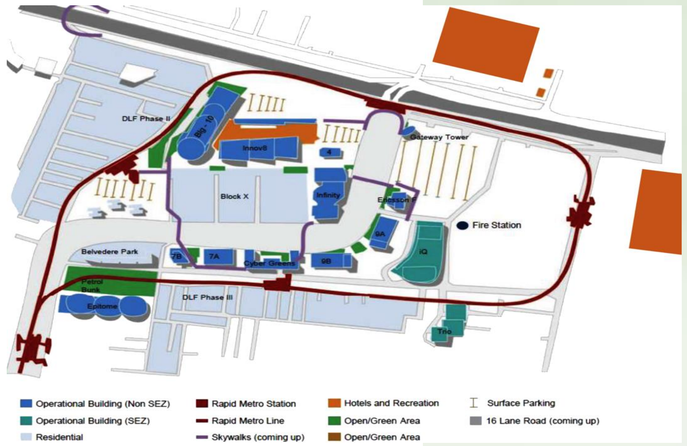


CONNECTIVITY AND ACCESS:
- RAPID METRO RUNS AROUND THE CYBER CITY AND CONNECTS TO THE YELLOW LINE METRO AT SHIKANDERPUR METRO STATION.
- MULTIPLE ENTRIES ARE AVAILABLE INTO THE SITE FROM THE STATIONS ON THIS PRIVATISED LINE.
- FREE SHUTTLE SERVICE AND AUTO-RICKSHAWS SERVE AS LAST MILE CONNECTIVITY FOR THE VICINITY.
- ACCESS BY PUBLIC BUS SERVICE IS INADEQUATE IN COMPARISION TO METRO, RICKSHAW AND PRIVATE VEHICLES



.FIG: MOVEMENT SYSTEM LEFT TO RIGHT: RAPID METRO, BUS, PRIVATE VEHICLE AND PEDESTRAIN MOVEMENT

SITE ZONING:



LANDUSE :
HIGH, MEDIUM AND LOW DENSITY INDUSTRIAL, RESIDEN- TIAL AND PUBLIC AND SEMIPUBLIC USES ESTABLISHED WITHOUT CLEAR DEFINITION OR RELEVENT SCALES BE-TWEEN INDIVIDUAL BUILDINGS. BUILDINGS CONTAIN A VERTICAL MIX OF USES, OFTEN WITH OFFICE ON THE GROUND LEVEL WITH CAR PARKING OCCUPYING THE REST OF THE PLINTH. THIS REDUCES THE PUBLIC PRESENCE AND PASSIVE SURVEILLANCE ON THE STREET. VERY FEW AREAS OF GREEN SPACES PRESENT IN PRECINCT, THUS FORMING NO HIERARCHY IN GREEN.

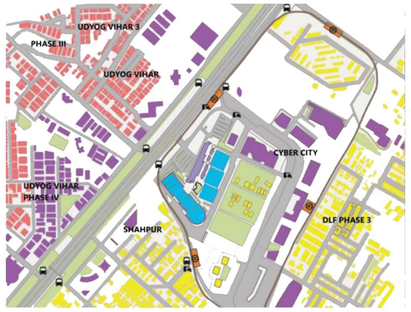


FIG : LAND USE MAP

BUILDING PROGRAM:
THE MAIN COMPONENT OF THIS CORPORATE PARK ARE 2,71,400 SQ. M OF OFFICES OF TOP IT AND FORTUNE 500 COMPANIES.CYBER HUB ALLOWS VARIED EXPERIENCE TO USERS THROUGH 1,36,150 SQ. M OF CONGREGATION AND CIRCULATION SPACES BESIDES COMMERCIAL ACTIVITY OF 9770 SQ. M. RETAIL OPPORTUNITIESEXHIBIT AREA THAT OFFERS SPACES FOR DESIGN AND DISPLAY OF PRODUCTSAMPHITHEATURE WITH DIGITAL SOUND AND PROJECTION SYSTEM, AIR SCREENS AND WEATHER-PROOF SOUND SYSTEM.OPEN TERRACES FOR SOCIALIZING.THESE ARE SUPPORTED BY 2670 SQ. M OF SERVICES AND 14360 SQ. M OF SURFACE PARKING, BESIDE GENEROUSLY PROVIDED BASEMENTS.

FIG : FIGURE GROUND MAP

SECURITY CHECKPOINT:

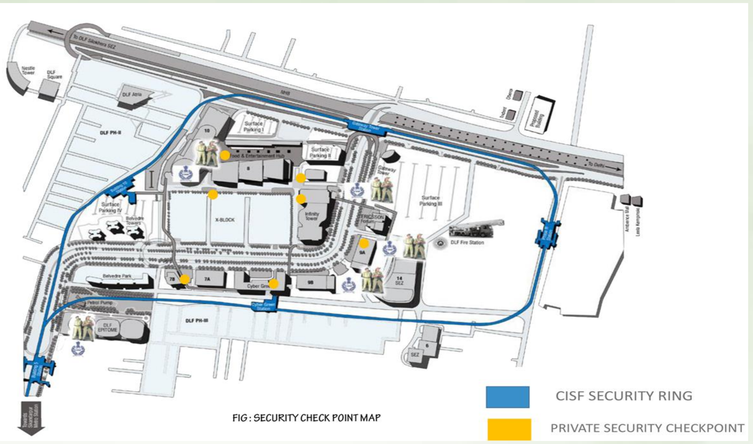
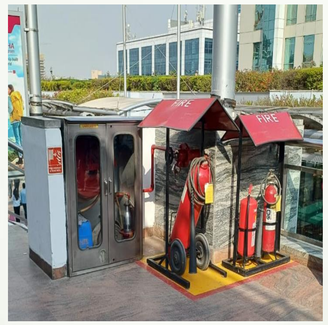
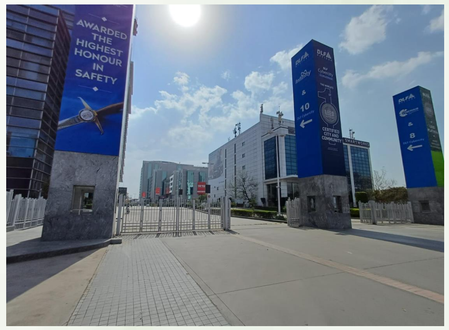
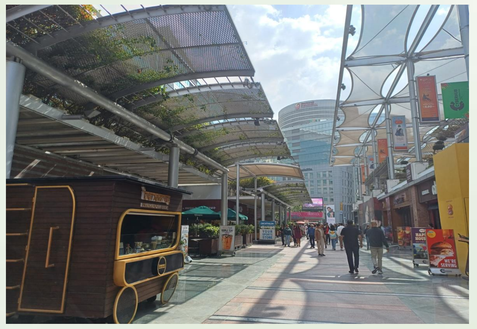
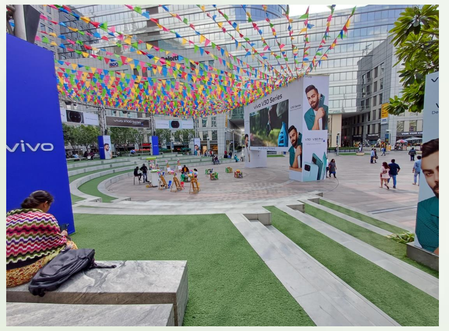


FIG : SECURITY CHECK POINT MAP









CYBER TOWN , NOIDA

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CASE STUDY – 03 CYBER CITY, GURUGRAM, INDIA .

BUILDING 8 & AND BUILDING 10

SITE AREA -106590 SQ. MT
AREA BUILT ON GROUND: 36.9%
PERMISSIBLE GROUND COVERAGE: 40%
FOT IT SECTOR

BUILTUP AREAS

BUILDING & BUILTUP AREA = 162787 SQM
BUILDING 10 BUILTUP AREA 224910.8 SQ.M
CYBER HUB 12438 SQ. M
TOTAL BUILTUP AREA=4001363 SQM
FAR ACHEIVED=3.75

LAND USE

OFFICE SPACE: 271388.56 SQM
CONGREGATION & CIRCULATION :136144.34 SQ. M
SHOPS: 9768 SQ. M
SERVICES: 2670 SQ. M
SURFACE PARKING: 14360 SQ. M

FOOT FALL

WEEDAY= 35%
WEEKEND 65%

PARKING

BUILDING 8

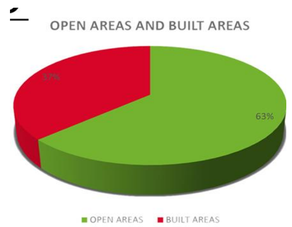
LOWER GROUND: 750 CARS
BASEMENT 1:800 CARS
BASEMENT 2:850 CARS
BASEMENT 3:900 CARS
TOTAL PARKING ACHEIVED: 3300 CARS
TOTAL PARKING REQUIRED @2ECS/100SQ. MI.E. 3256 CARS

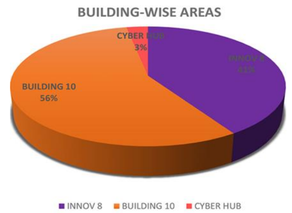
CYBER HUB

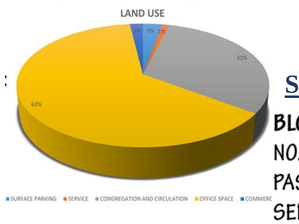
SURFACE PARKING 1: 250 CARS
SURFACE PARKING 2: 250 CARS
TOTAL PARKING ACHEIVED: 500 CARS
TOTAL PARKING REQUIRED @ 2ECS/100 SQ. M I.E. 498 CARS

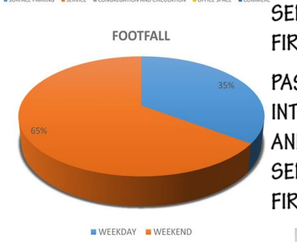
BUILDING 10

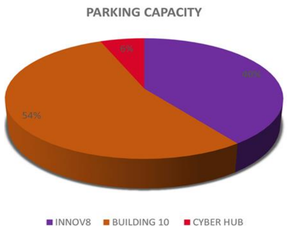
LOWER GROUND: 1020 CARS
BASEMENT 1:1100 CARS
BASEMENT 2:1150 CARS
BASEMENT 3:1230 CARS
TOTAL PARKING ACHEIVED: 4500 CARS
TOTAL PARKING REQUIRED @ 2ECS/100SQ. MI.E. 4498 CARS

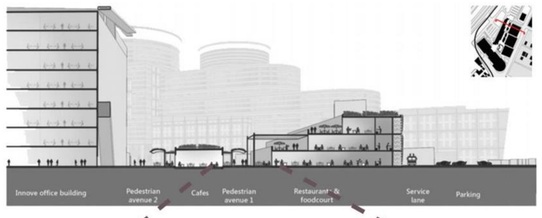












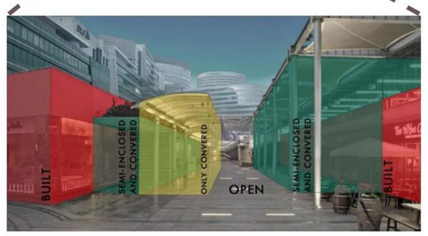


FIG : SECTION THROUGH MAIN STREET OF CYBERHUB

SERVICE LIFT:

BLOCK A	BLOCK B	BLOCK C
NO. OF LIFT - 9 LIFTS	NO. OF LIFT - 14 LIFTS	NO. OF LIFT - 16 LIFTS
PASSENGER- 6 LIFT	PASSENGER- 12 LIFT	PASSENGER- 12 LIFT
SERVICE- 2 LIFT	SERVICE- 2 LIFT	SERVICE- 2 LIFT
FIRE LIFT- 1 LIFT	FIRE LIFT- 2 LIFT	FIRE LIFT- 2 LIFT

PASSENGER LIFT IS OF CAPACITY OF 21 PERSONS, 1600 KG
INTERNAL DIMMENSION OF CAR IS 1800 X 1700 MM OF SOME LIFT AND 2000 X 1550 OF SOME LIFT.
SERVICE LIFT AND FIRE IS OF CAPACITY OF 24 PERSONS
FIRE LIFT STOPS ON EVERY FLOOR.

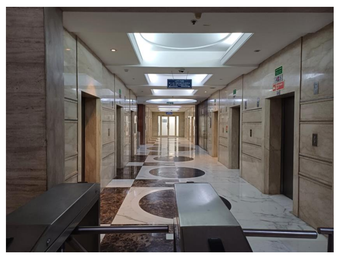
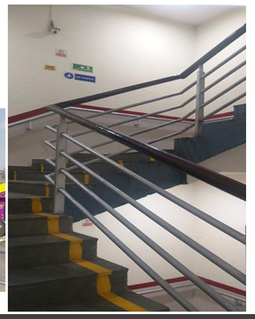


FIG : ENTRANCE, ESCLATOR AND STAIR

FIRE STAIRCASE:

BLOCK A	BLOCK B	BLOCK C
NO. OF STAIRCASE- 4 CORE	NO. OF STAIRCASE- 5 CORE	NO. OF STAIRCASE- 3 CORE

STAIRS DETAIL
RISER 150 MM
TRADE 300 MM
WIDTH 2000MM



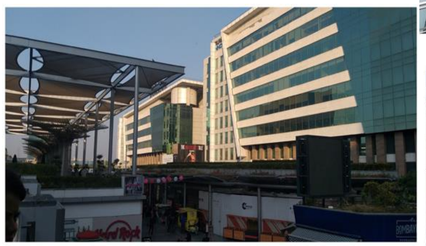


FIG : TENSILE SHADE AT ROOF

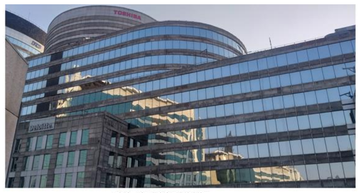
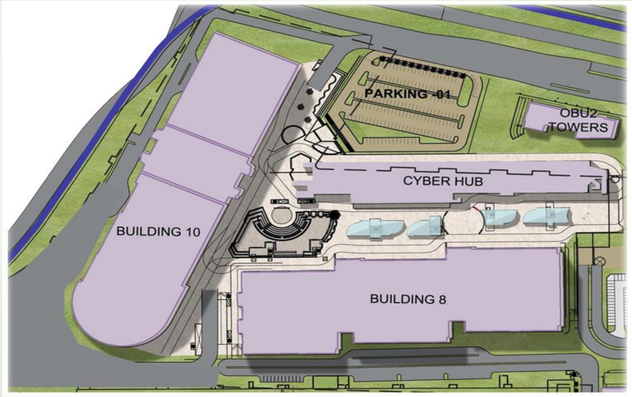


FIG : GLASS FACADE

BUILDING 8

- WORLD CLASS DEVELOPMENT LOCATED JUST OFF THE NATIONAL HIGHWAY-8 IN DLF CYBER CITY GURGAON.
- DLF INNOV8 IS SPREAD ACROSS AN AREA OF APPROX 1.4 MILLION SQ. FT.
- IT IS DIVIDED INTO 3 BLOCKS (8A, 8B & 8C), WITH A RANGE OF 4-9 FLOORS.
- CONFORMING TO MODERN WORK ENVIRONMENT, FACILITIES LIKE FOOD COURT, ATM AND RETAIL OUTLETS, FORMS AN INTEGRAL PART OF THE COMPLEX.
- THE DESIGN INCORPORATES LARGE EFFICIENT FLOOR PLATES, WIDE COLUMN SPAN AND HIGH FLOOR TO FLOOR CLEARANCE, FOR OPTIMAL SPACE UTILIZATION.
- THE BUILDING STRUCTURE IS DESIGNED TO SEISMIC ZONE V SPECIFICATIONS FOR GREATER EARTHQUAKE RESISTANCE AND IS STRUCTURALLY NFPA COMPLIANT.



AREA DETAILS

THE TOTAL IT WORKSPACE CONSTITUTES 3 BLOCKS (8A, 8B & 8C) COMPRISES OF RETAIL AND OFFICE SPACE. HAVING TOTAL BUILT UP AREA OF 18841193.5 SQ. M

BUILDING 8 DETAIL

BLOCK	FLOOR	AREA
A	G+5	29111 SQ. M
B	G+8	45662 SQ. M
C	G+15	77381 SQ. M

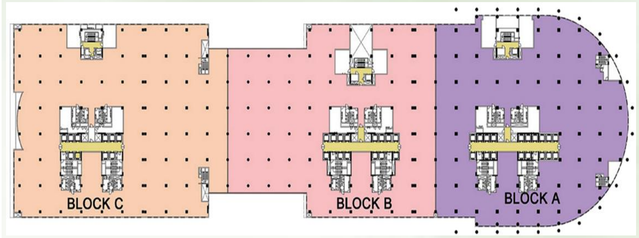
RETAIL AREA- 10802 SQ. M
RETAIL GROUND FLOOR 5945.2 SQ. M
RETAIL FIRST FLOOR 4857.39 SQ. M

BUILDING 10

- AN INTEGRATED TECHNOLOGY PARK OFFERING MODERN WORKSPACE TO IT/ITES COMPANIES. OFFERING A WORLDCLASS CONTEMPORARY STRUCTURE, BLDG. 10 IS A SPECTACULAR COMPLEX COMPRISING OF A PLETHORA OF FUTURISTIC AMENITIES, WHICH TOGETHER PROVIDE AN INTERACTIVE ENVIRONMENT REQUIRED FOR NEW AGE IT PROFESSIONALS.
- IT IS DIVIDED INTO 3 BLOCKS (10A, 10B & 10C), WITH A RANGE OF 5-20 FLOORS.

PLAN

- BLOCK A CONSIST OF 3 BASEMENT AND 6 FLOOR.
- BLOCK B CONSIST OF 3 BASEMENT AND 15 FLOOR.
- BLOCK C CONSIST OF 3 BASEMENT AND 21 FLOOR
- EFFICIENT FLOOR PLATES-WIDE COLUMN TO COLUMN SPACES.
- TYPICAL FLOOR PLATE SIZE: 40-65000 SQ FT-SCALABLE TO 16000 SFT OVER BLOCKS



AREA DETAILS

AREA DETAILS THE TOTAL IT WORKSPACE CONSTITUTES 3 BLOCKS (10A, 10B, 10C) COMPRISES OF RETAIL AND OFFICE HAVING TOTAL BUILTUP AREA OF 224910.8 SQ. M

BUILDING 10 DETAIL

BLOCK	FLOOR	AREA
A	3B+G+5F	35528.6 SQ M
B	3B+G+14F	65567.5 SQ M
C	3B+G+20F	110839 SQ M

BLOCK A RETAIL UPPER GROUND 5588.5 SQ. M
BLOCK B RETAIL UPPER GROUND 2908 SQ. M
BLOCK C RETAIL UPPER GROUND 4717.2 SQ. M

SERVICE LIFT:

BLOCK A	BLOCK B	BLOCK C
NO. OF LIFT - 13 LIFTS	NO. OF LIFT - 14 LIFTS	NO. OF LIFT - 19 LIFTS
PASSENGER- 9 LIFT	PASSENGER- 10 LIFT	PASSENGER- 15 LIFT
SERVICE- 2 LIFT	SERVICE- 2 LIFT	SERVICE- 2 LIFT
FIRE LIFT- 2 LIFT	FIRE LIFT- 2 LIFT	FIRE LIFT- 2 LIFT

PASSENGER LIFT IS OF CAPACITY OF 21 PERSONS, 1600 KG
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FIRE STAIRCASE:

BLOCK A	BLOCK B	BLOCK C
NO. OF STAIRCASE- 5 CORE	NO. OF STAIRCASE- 3CORE	NO. OF STAIRCASE- 5 CORE

CYBER TOWN , NOIDA

ADHYA SHADEJA
1190101002
B.ARCH 5TH YEAR
B.B.D.U. , LKO

INTRODUCTION

BIOCLIMATIC CYBER HUB:

CYBER IS A WORD MEANING "RELATING TO OR CHARACTERISTIC OF THE CULTURE OF COMPUTERS, INFORMATION TECHNOLOGY, AND VIRTUAL REALITY." A CYBER HUB IS A PLACE WHERE PEOPLE FROM CYBER WORLD CAN COME, WORK, PLAY AND LIVE. THE PLACE WILL CONSIST OF A RESEARCH AND DEVELOPMENT SPACE, TRAINING CENTERS, LABS, GAMING CENTERS, FOOD HUBS AND VARIOUS INDOOR AND OUTDOOR RECREATIONAL SPACES.

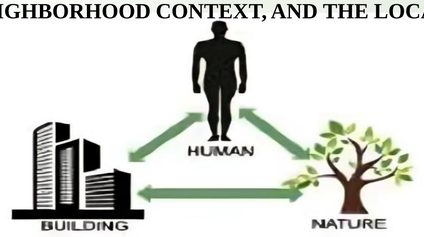
THE SKIN, LUNGS, EYES ARE DESIGNED FOR THINGS WHICH ARE NATURAL; NATURAL LIGHT, FRESH AIR, NATURAL ATMOSPHERE, WHICH IS CLEAN AND PURE.

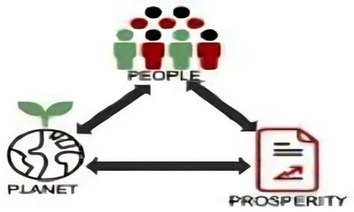
THE PEOPLE LIVING HERE USUALY SPEND MOST OF THE TIME IN FRONT OF COMPUTER SCREENS SUROUNDED BY ELECTRONIC WAVES, IN A CONFINED SPACE EATING JUNK. ALL THIS HAS A BAD EFFECT ON THE PHYSICAL AND MENTAL HEALTH OF THE PEOPLE. HENCE, TO PROVIDE A SPACE WHICH MAY HELP CATER THE WELL BEING OF THE PEOPLE, BIOCLIMATIC ARCHITECTURE NEEDS TO BE FOLLOWED.

BIOCLIMATIC ARCHITECTURE:

BUILDING DESIGNS THAT TAKE INTO ACCOUNT CLIMATE AND ENVIRONMENTAL CONDITIONS TO HELP ACHIEVE OPTIMAL THERMAL COMFORT IN A LOW CARBON EMISSION BUILDING IS ESSENTIALLY BIOCLIMATIC ARCHITECTURE.

BIOCLIMATIC ARCHITECTURE OFFERS AN EXCITING OPPORTUNITY TO ACHIEVE ENVIRONMENTAL, SOCIAL, AND ECONOMIC BENEFITS. MUCH REMAINS TO BE UNDERSTOOD ABOUT ENERGY, ENVIRONMENTAL, AND LIFE-CYCLE PROCESSES. THE CONCEPT OF PASSIVE BLOCLIMATIC ARCHITECTURE DESERVES A DEEPER EXPLANATION. THE HYPOTHESIS IS THAT THIS AFFILIATION LEADS TO POSITIVE RESPONSES IN TERMS OF HUMAN PERFORMANCE AND HEALTH AND EVEN EMOTIONAL STATES (AL-MUSAND 2004). **BIOCLIMATIC ARCHITECTURE COMBINES THE INTERESTS OF SUSTAINABILITY, ENVIRONMENTAL CONSCIOUSNESS, GREEN, NATURAL, AND ORGANIC APPROACHES TO EVOLVE A DESIGN SOLUTION FROM THESE REQUIREMENTS AND FROM THE CHARACTERISTICS= OF THE SITE, ITS NEIGHBORHOOD CONTEXT, AND THE LOCAL MICROCLIMATE AND TOPOGRAPHY.**





WHY BIOCLIMATIC ARCHITECTURE?

WITH THE INCREASE IN POPULATION, THE DEPLETION OF NON-RENEWABLE RESOURCES IS RAPIDLY INCREAING, CAUSING A GLOBAL ENVIRONMENT CHANGE WHICH IS NOT GOOD FOR THE HUMAN SURVIVAL. FOSSIL FUEL COMBUSTION, GREEN HOUSE GASES, DEFORESTATION, MINING, CREATION OF URBAN HEAT ISLAND, ETC., ARE SOME OF THE CAUSES LEADING TO GLOBAL CLIMATIC CHANGE.

RESPONSE TO THE HUMAN SENSES TO PROVIDE COMFORT

VISUAL COMFORT
Visual comfort is the ability to allow occupants to see clearly for carrying out their daily domestic/official tasks.

THERMAL COMFORT
Thermal comfort is the ability to keep occupants cool in the summers and warm in the winters.

OLFACTORY COMFORT
Olfactory comfort is the ability of the occupants to detect the odour in the air.

AUDITORY COMFORT
Auditory comfort is the ability to allow occupants to respond to the sound in the surrounding

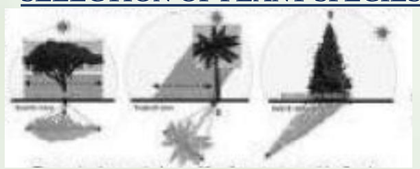
The comfort can be provided NATURALLY By using sun-light, natural winds, evaporation, trees, etc. While saving energy.

ARTIFICIALLY
By using electric lighting, aces, etc. Involving large-scale energy generation leading to pollution and green-house gas emissions.

LOCAL CONDITIONS
Since local conditions vary from place to place, it give us lots of flexibility in designing local buildings.

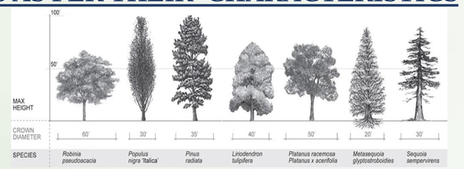
GLOBAL CONDITIONS
Which cater to "international" requirements which may drastically vary from our local conditions, and may require a lot of energy to provide/recreate.

SELECTION OF PLANT SPECIES AS PER THEIR CHARACTERISTICS



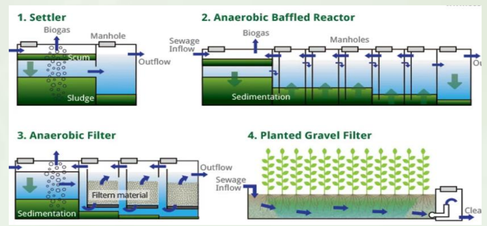
Trees shade morphology with reference to world climate

Tress form with reference to Earth climate

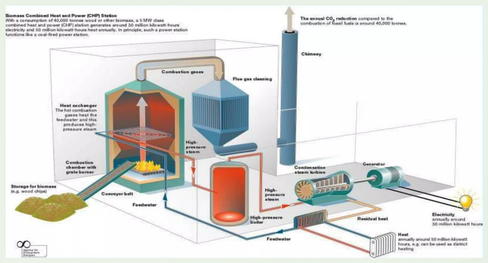


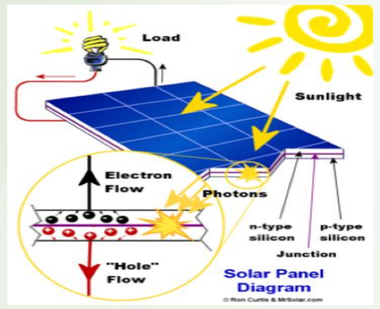
APART FROM THE RIGHT POSITIONING OF THE PLANTS, IT IS NECESSARY TO CHOOSE THE RIGHT TYPE OF PLANT FOR THE SPECIFIC USE. FOR EXAMPLE PEEPAL AND NEEM ARE EVERGREEN AND CAN BE USED FOR PROVIDING SHADE AND PURIFYING THE AIR. CHOOSING LOCAL PLANS TO REDUCE WATER LOAD ON LANDSCAPE.

ACTIVE DESIGN TECHINIQUES



WATER PURIFICATION BY PLANTS





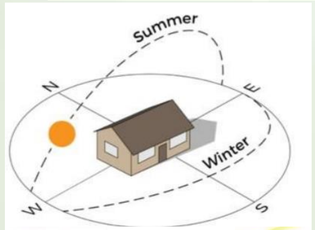
SOLAR PANELS

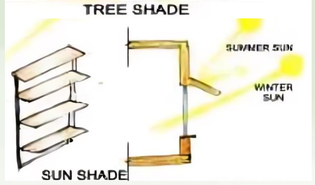
By the means of non conventional energy resources we can produce energy in mass quantity by using the easily available resources.

Photovoltaic panels channelise solar energy. The windmills use wind energy to produce electricity.

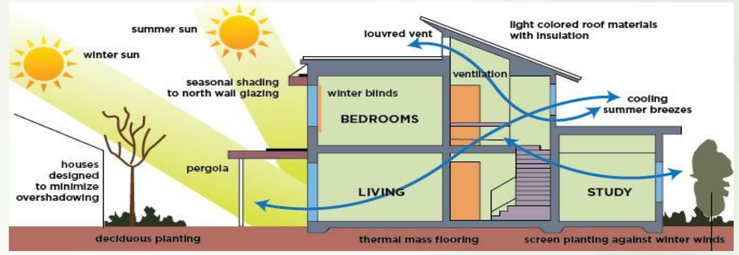
However the active design techniques are used majorly in large scale projects as the installation cost is high.

PASSIVE DESIGN TECHINIQUES



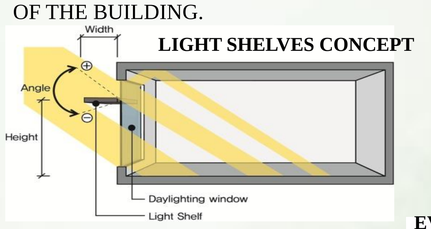


PASSIVE DESIGN TECHNIQUES ARE THE MOST IMPORTANT ASPECT OF BIOCLIMATIC ARCHITECTURE AS THEY PROVIDE A COMFORTABLE LIVING ENVIRONMENT WITHOUT DAMAGING NATURE AND IS COST EFFECTIVE.BUILDING ORIENTATION WITH RESPECT TO THE SUN MOVEMENT AND THE WIND DIRECTION THROUGHOUT THE YEAR IS THE MOST IMPORTANT ASPECT OF PASIVE DESIGN.USE OF LOCAL BUILDING MATERIAL ALSO PLAYS A VITAL ROLE IN AN ENERGY EFFICIENT DESIGN.THE TYPE OF TREES USED AND THEIR PLACEMENT IS ALSO IMPORTANT. THE DECIDUOUS TREES PROVIDE SHADE DURING SUMMER AND SHED THEIR LEAVES IN WINTER LETTING IN THE SUNLIGHT, THEREBY PROVIDING THERMAL COMFORT.

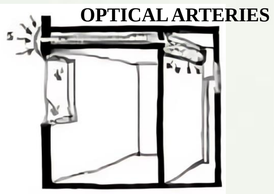


TREES AND SUNSHADES PROVIDE SHADE TO THE BUILDINGS AGAINST THE HARSH SUN THEREBY REDUCING THE HEAT GAIN OF THE STRUCTURES. ON THE OTHER HAND SHELVES ALLOW THE MAXIMUM SUNLIGHT TO ENTER THE ROOM. OPTICAL ARTERIES IS THE CONCET USED TO PROVIDE SUNLIGHT IN THE INTERIORS OF THE BUILDING.

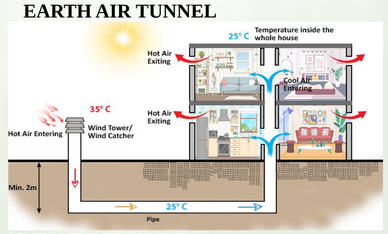
LIGHT SHELVES CONCEPT



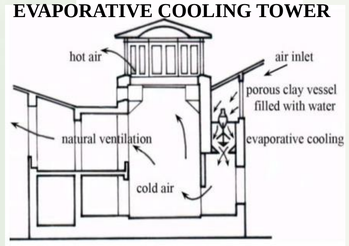
OPTICAL ARTERIES

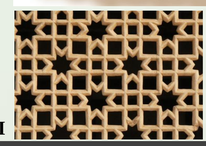


EARTH AIR TUNNEL



EVAPORATIVE COOLING TOWER





Various techniques are used to bring cool and fresh air into the interiors of the structure. The traditional jaalis cool the air as it passes through the holes. The earth air tunnel heats the air in winter and cools it in summer. The cooling tower uses the method of evaporative cooling to cool the air.

JAALI

CONCEPT SHEET

CYBER TOWN , NOIDA

ADHYA SHADEJA
1190101002
B.ARCH 5TH YEAR
B.B.D.U. , LKO

INTRODUCTION

CONCEPT SHEET

GREEN BUILDING

A BUILDING IS GREEN WHEN IT HELPS REDUCE THE NEGATIVE FOOTPRINT IT LEAVES ON THE NATURAL ENVIRONMENT AND ON THE HEALTH OF ITS INHABITANTS.

GREEN BUILDING DESIGN INCLUDES:-

- BUILDING FOR ENERGY EFFICIENCY
- INCLUDING THE USE OF RENEWABLE ENERGY SOURCES SUCH AS WIND, WATER, OR SOLAR
- CREATING A HEALTHY INDOOR ENVIRONMENT
- IMPLEMENTING NATURAL SYSTEMS VENTILIATION USING CONSTRUCTION MATERIALS THAT MINIMIZE THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN THE HOME.

THE USE OF MATERIALS AND RESOURCES THAT ARE SUSTAINABLE, HAVE LOW EMBODIED ENERGY, AND PRODUCE A MINIMAL ENVIRONMENTAL IMPACT ARE KEY ELEMENTS IN GREEN CONSTRUCTION, AS IS THE EFFICIENT USE OF WATER BY APPLIANCES, FAUCETS AND SHOWER HEADS, THE RECYCLING OF GREY WATER, AND THE REUSE OF RAIN WATER FOR LANDSCAPING AND OTHER NON-POTABLE PURPOSES.

SUSTAINABLE BUILDINGS

REDUCE THE IMPACT IN LEAVES ON THE ENVIRONMENT THROUGH ITS TETEL LIFECYCLE, INCLUDING CONSTRUCTION & DEMOLITION.

KEY FEATURES:

- USE OF SUSTAINABLE RESOURCES HAVING **LOW EMBODIED ENERGY**
- CAN **BE RECYCLED** AT THE END OF THEIR
- USE OF **ENERGY-SAVING APPLIANCES** (LOW CARBON EMISSIONS).

CHOICE OF LAND IS ALSO IMPORTANT IN WHICH CONSTRUCTION WILL LEAD TO:

- LEAST POSSIBLE LAND DEGRADATION AND DEFORESTATION
- HEALTHY LANDSCAPING
- PREVENTING EROSION

ZERO ENERGY BUILDING

GENERATE AS MUCH ENERGY AS THEY CONSUME OVER A PERIOD.

USE **ACTIVE** AND **PASSIVE** MEASURES TO GENERATE ENERGY. MEET THEIR ENERGY NEEDS THROUGH **RENEWABLE SOURCES** OF ENERGY INSTALLED ON SITE.

SOURCES:

- SOLAR ENERGY
- WIND ENERGY
- HYBRID GENERATION TECHNIQUES.

THESE BUILDINGS ARE:

- **SELF-SUFFICIENT** (PRODUCES THE ENERGY IT REQUIRES ANNUALLY.)
- ABLE TO **GENERATE THE ENERGY** IT USES.
- THE **NET AMOUNT OFENERGY** USED BY THE BUILDING IS **ZERO** DURING ITS OPERATION ANNUALLY.

BIOCLIMATIC BUILDING

TAKES ADVANTAGE OF THE CLIMATE THROUGH THE RIGH APPLICATION OF DESIGN ELEMENTS AND BUILDING TECHNOLOGY.

- IT CONTROLS HEAT TRANSFER
- PROMOTES ENERGY SAVING
- ENSURES **COMFORTABLE CONDITIONS**.

THIS CAN BE DONE BY **UNDERSTANDING THE LOCAL CLIMATIC FEATURES** AND THE APPLICATION OF PASSIVE STRATEGIES.

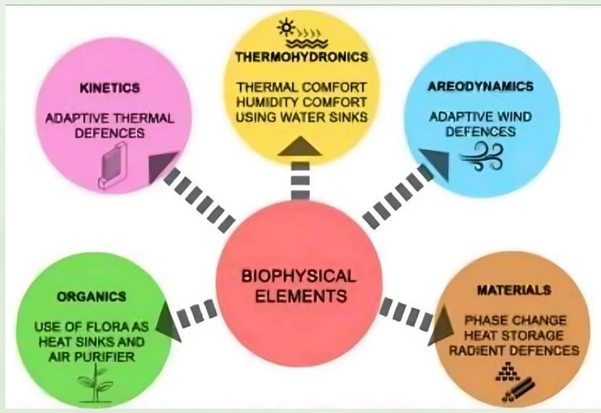
THE KEY ELEMENTS:

- **PASSIVE SYSTEMS**(DEPENDENT ON E.G. SUN, AIN WIND, VEGETATION, WATER, SOIL, SKY)
- IT CREATS AN OPTIMUM INDOOR MICROCLIMATE ALTOGETHER.

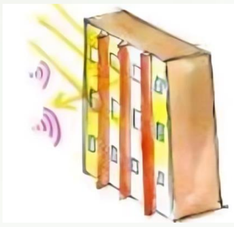
IT REFERS TO THE DESIGN OF BUILDINGS AND SPACES (INTERIOR-EXTERIOR-OUTDOOR) BASED ON

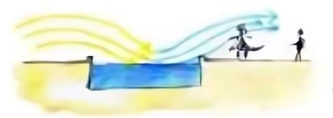
- **LOCAL CLIMATE** (PROVIDS THERMAL AND VISUA COMFORT).
- MAKING **USE OF SOLAR ENERGY** AND OTHER ENVIRONMENTAL SOURCES.

IT INVOLVES DESIGN WHICH **FOSTERS THE ENVIRONMENT AND NATURAL RESOURCES** GENERATING BUILDINGS THAT RESOLVE ENERGY REQUIREMENTS WITHOUT INDUCING ENVIRONMENTA WRECKAGE.



BIOCLIMATIC DESIGN REFOCUSES ON PROVIDING HIGH QUALITY PASSIVE DESIGN OF BUILDINGS THROUGH NEW TECHNOLOGIES IN THE BUILDING ENVELOPE AND IN ITS FORM AND FABRIC. PIONEERING WORK BY YEANG HAS DEFINED A NUMBER OF PASSIVE ELEMENTS USING A RANGE OF BIOPHYSICAL ELEMENTS.





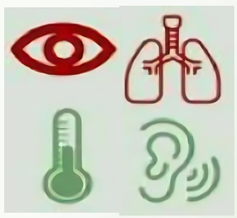
THE **LOUVERS** REDUCE THE SOUND AND HEAT ENTERING THE BUILDING.

THE **WATER BODY** ABSORBS THE HEAT AND COOLS THE AIR.

HOW TO PROVIDE COMFORT

VISUAL COMFORT

1. VISUAL AXIS
2. ORIENTATION OF THE BUILDING
3. OPEN COURTYARDS
4. VIEW OF GREEN
5. MUTUAL SHADING
6. JALI TO LET IN DIFFUSED LIGHT
7. SIZE OF THE OPENING
8. SLITS IN ROOF
9. REFLECTORS CREATING POINT OF INTEREST (THINGS TO BE VIEWED)
10. LIGHT SLEEVES
11. LOUVERS
12. GLARE FREE GLASS
13. FANLIGHT
14. OPTICAL ARTERIES



THERMAL COMFORT

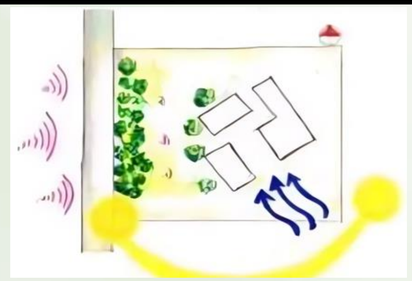
1. ORIENTATION OF THE BUILDING
2. COURTYARD TO LET IN AIR
3. CREATING HIGH LOW-PRESSURE POINTS AND
4. WIND TOWER
5. EARTH AIR TUNNEL
6. WATER BODY
7. PLACEMENT OF TREES
8. SOLAR CHIMNEY
9. DOUBLE WALL FACADE
10. JALI TO LET IN LIGHT AND AIR BUT NOT HEAT
11. SIZE OF OPENING
12. CREATING PUNCHERS, STAGGERING AND MUTUAL SHADING OF BUILDING
13. SUNSHADES
14. CHILLER BEAM
15. LOUVERS
16. CANOPY
17. SHAFT, VENTILATORS
18. TERRACE GARDEN
19. GREEN WALL
20. SOLAR PANEL
21. HVAC SYSTEM

OLFACTORY COMFORT

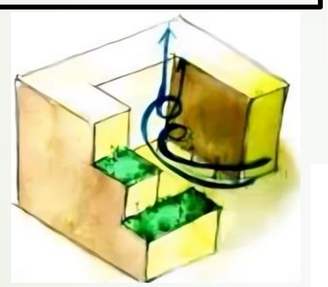
1. REDUCTION OF CARBON DIOXIDE EMISSION
2. PLANTATION OF TREES WHICH PROVIDE MORE OXYGEN SUCH AS NEEM PEPAL AND OTHER LARGE FOLIAGE TREES IN THE EXTERIORS.
3. CREATING GREEN WALLS IN THE INTERIORS.
4. POTS WITH MONEY PLANT, SNAKE PLANT, MOTHER IN LAW TONGUE PLANT AND PALM IN THE INTERIOR TO PROVIDE MORE OXYGEN.
5. PROVIDING GREEN TERRACES ON DIFFERENT FLOOR.
6. CARBON DIOXIDE AND OTHER TOXICS ABSORBING MATERIAL
7. FLOWERING PLANTS FOR AROMA LETTING IN FRESH AIR SMELL OF TREES AND NATURE.
8. PURIFYING AIR THROUGH FILTERS.
9. PROVIDING PROPPER VENTILATION IN THE TOILETS.

AUDITORY COMFORT

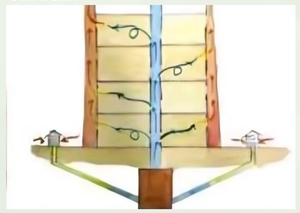
1. ORIENTATION OF THE BUILDING
2. PLACEMENT OF THE BUILDING
3. SPACING BETWEEN THE ROAD AND THE BUILDING
4. PLACEMENT OF TREES AS A BUFFER TO THE NOISE 30 M WIDE AND 15 M HIGH BELT OF TREES CAN REDUCE UP TO 10 DECIBEL OF NOISE
5. SEGREGATION OF SPACES PUBLIC SEMIPUBLIC PRIVATE
6. SEPARATING THE RETAIL FOOD AND OTHER PUBLIC ACTIVITY ZONE FROM THE OFFICE AND THE SERVICE APARTMENTS
7. DOUBLE WALL FACADE
8. STAGGERING IN BLOCK
9. LOUVRE TO BREAK SOUND
10. GREEN WALL IN THE EXTERIOR AND INTERIOR TO ABSORB SOUND
11. PROVIDING GREEN TERRACES
12. MATERIAL OF THE BUILDING
13. PROVIDING SOUNDPROOFING MATERIALS IN THE BUILDING

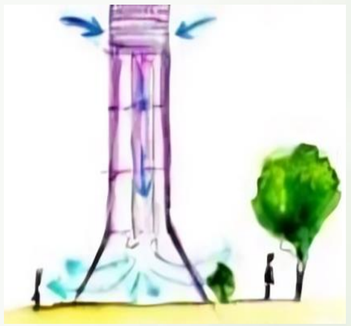


IN DESIGNING A GOOD BUILDING IS **THE ORIENTATION AND PLACEMENT OF THE BUILDING BLOCKS** AS PER THE SUN DIRECTION, WIND MOVEMENT AND OTHER CLIMATIC CONDITIONS IS IMPORTANT. THE PLANTING A BUFFER OF TREES, PROVIDING THICK BOUNDARY WALL AND PLACEMENT OF BLOCKS AWAY FROM HIGHWAY OR THE SOURCES OF NOISE REDUCES THE SOUND REACHING THE BUILDING. PLANTING DECIDUOUS TREES IN THE SOUTHWEST DIRECTION, COOLS THE AIR AND PROVIDES SHADE DURING SUMMER, IT SHEDS LEAVES AND LET THE SUNLIGHT AND HEAT ENTER THE BUILDING DURING WINTER.



COURTYARDS ALLOW PROPER AIR CIRCULATION WITHIN THE SPACE IT LETS LIGHT INTO THE INTERIOR SPACES. THE STEPS ALLOW MORE LIGHT, ACTS AS RECREATION SPACE. THE TERRACE GARDEN, HELPS REDUCING THE TEMPERATURE OF THE SPACE.





THE **WIND TOWER** CATCHES THE AMBIENT AIR COOLS AND CLEANS IT AND TRANSFERS IT TO THE OPEN SPACES AND ALSO THE INTERIORS OF THE BUILDING.

THE **CANOPY** PROVIDES SHADE FROM THE SUN THE PHOTOVOLTAIC PANELS ABSORBS THE SUNLIGHT AND THE INVERTED CANOPY ACTS AS A SOURCE OF RAINWATER HARVESTING.

THE **EARTH AIR TUNNEL** TAKES THE PURIFIED AMBIENT AIR THROUGH A LONG TUNNEL ABOUT 4 METERS UNDERGROUND WHERE THE AIR REACHES THE ANNUAL MEAN TEMPERATURE OF THE PLACE IT IS THEN DEHUMIDIFIED IF REQUIRED AND IS THEN SUPPLIED.

CYBER TOWN , NOIDA

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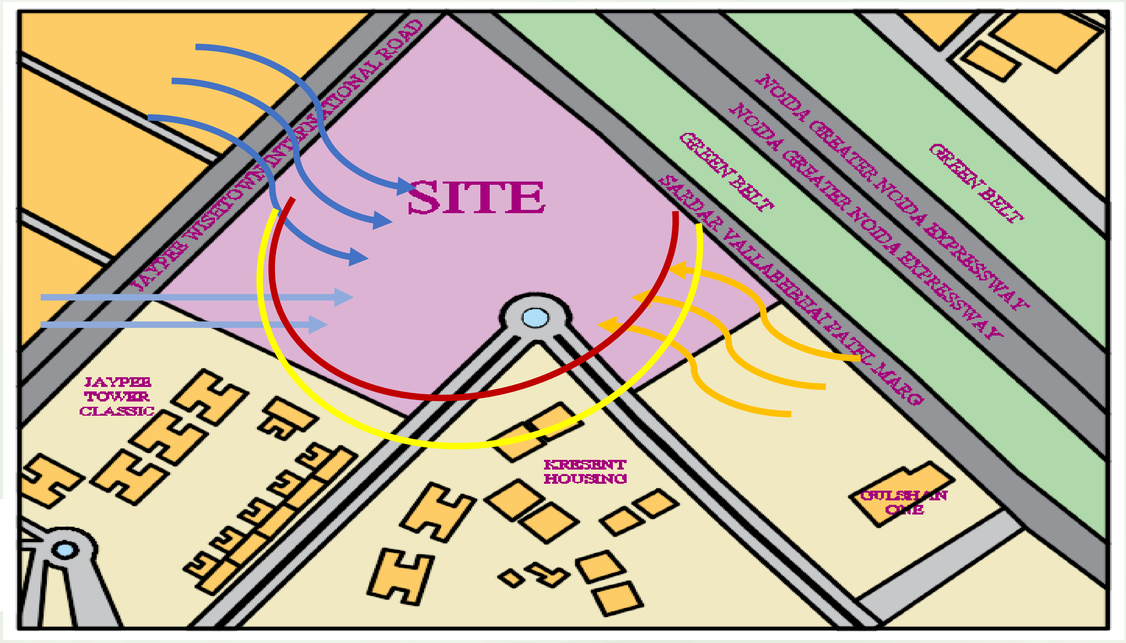


WESTERN DISTURBANCE

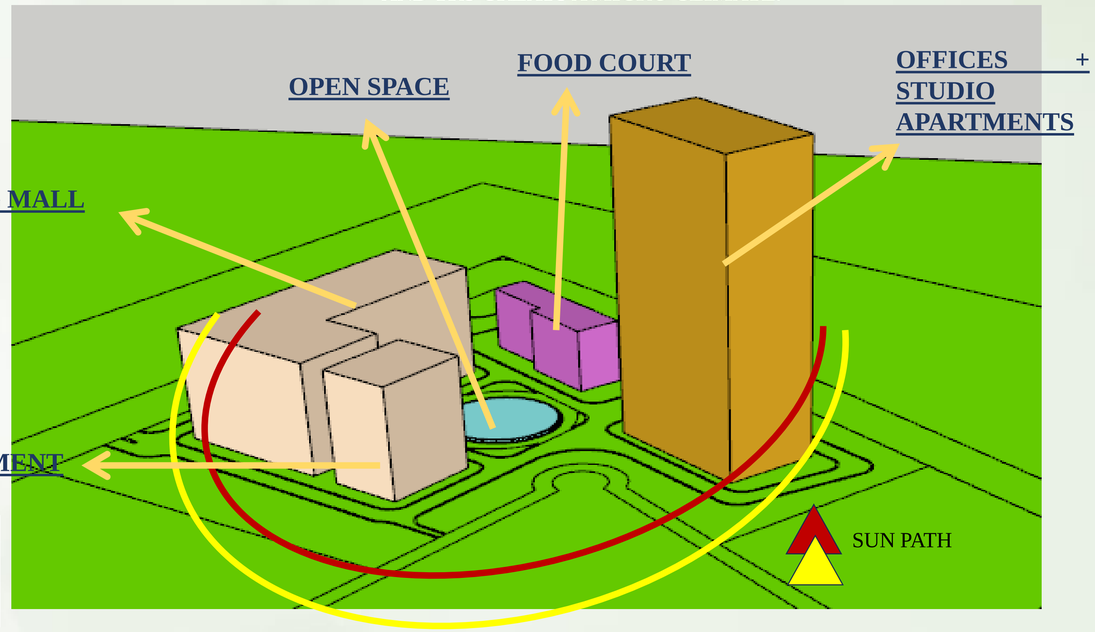
SOUTH EAST WIND (THE MONSOON WINDS)

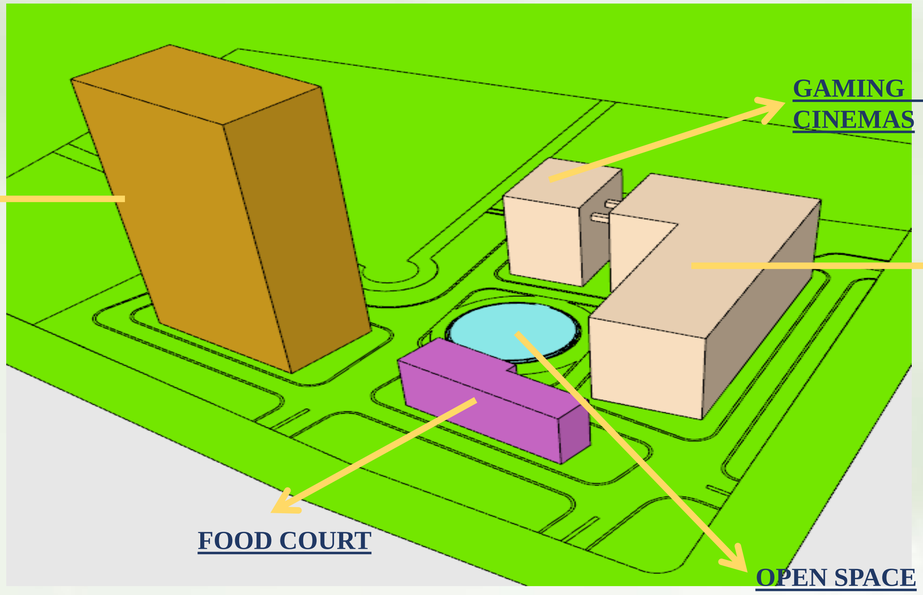
NORTH WEST WINDS (PREVALING WINDS)

SUN PATH

THE BUILDING ARE PLACED ALONG THE VISUAL FLOW AND ORIENT KEEPING IN MIND THE SUN PATH, WIND DIRECTION AND CLIMATICAL FACTORS

LARGE OPEN GREEN SPACES AND PLAZAS ARE PRESENT BETWEEN THE BUILDINGS PROVIDING A SPACE FOR INTRACTION AND PUBLIC GATHERING. THEY ALSO ACT AS EXHIBITION SPACE AND THE PRESENCE OF WATER BODY AND TRS CREATS A MICRO CLIMATE.





STANDARD AREA FOR OFFICES

NO.	TITLE	ACC. TO CPWD/NBC 2005
1.	**WORK STATION**	**(sqm)**
	EMPLOYEES-WORKSPACE	9.29
	MANAGER'S OFFICE	9.29
	SENIOR MANAGER'S OFFICE	18.58
	DIRECTORS OFFICE(WITH 4 PERSON MEETING TABLE)	23.22
	4 PERSON MEETING ROOM	9.29
	8 PERSON MEETING ROOM	11.61
	BOARD ROOM	20.43
	30 PERSON/CONFERENCE ROOM	22-44
	PANTRY	9.29
	1 SERVER RACK SERVER ROOM	3.72
	4SERVER RACK SERVER ROOM	11.5
	VISITOR'S LOUNGE	<44
	RECEPTIONIST	11
	CANTEEN	0.09/PERSON
2.	**CIRCULATIONS**	
	LIFT NO.	
	LIFT WELL	
	LIFT DOOR WIDTH	0.9m
	LOBBY IN FRONT OF ELEVATOR	
	ELEVATOR ON ONE SIDE	1.8m
	ELEVATOR ON TWO SIDE	3.1m
	CORRIDORS	
	SUBSTANTIAL TRAFFIC	1.6m
	MODERATE TRAFFIC	1.2m
	SECONDARY TRAFFIC	1m
	STAIRCASE STANDARDS	
	MINI. WIDTH	>=1.2 m
	MINI. TREAD	30cm
	HEIGTH OF RISER	<=15 cm
	HAND RAIL HEIGHT	>=90cm
3.	**FIRE SAFETY**	
	MAIN ENTRANCE WIDTH	>6m
	TURNING RADIUS	9m

NO.	TITLE	ACC. TO CPWD/NBC 2005
4.	**HEIGHT STANDARDS**	**(sqm)**
	FLOOR TO FLOOR HEIGHT	3.6m
	MINI. CLEARANCE HEIGHT	2.43m
5.	**WET AREA REQUIREMENTS**	
	AREA OF TOI/LAT-HANDICAPPED	3.5sqm
	AREA OF TOI/LAT-COMMAN MAN	1.5sqm
6.	**CORRIDORS**	
	CORRIDOR (ACCESS TO STREETS)	Y/N
	OBSTRUCTION FREE	Y/N
	CLEARLY VISIBLE EXIT ROUTES	Y/N
	FIRE EXIT WIDTH	>1m
	NO. OF EXITS	min.2 staircase
	EXTERNAL STAIRCASE	
	CONNECTED TO THE GROUND LVL	Y/N
7.	**EXTERNAL STAIRCASE**	
	WIDTH	>1250mm
	TREAD	>250mm
	RISER	<190mm
	NO. OF RISERS PER FLIGHT	<=15
8.	**PARKING**	
	MIN. AREA FOR VEHICLE	
	CARS	13.75sqm
	TWO WHEELERS	3sqm
	CYCLE	1.5sqm
9.	**METHODS OF VENTILATION**	
	NATURAL SUPPLY &NATURAL EXHAUST OF AIR	Y/N
	NATURAL SUPPLY & MECH. EXHAUST OF AIR	Y/N
	MECH. SUPPLY & NATURAL EXHAUST OF AIR	Y/N
	MECH. SUPPLY & MECH EXHAUST OF AIR	Y/N

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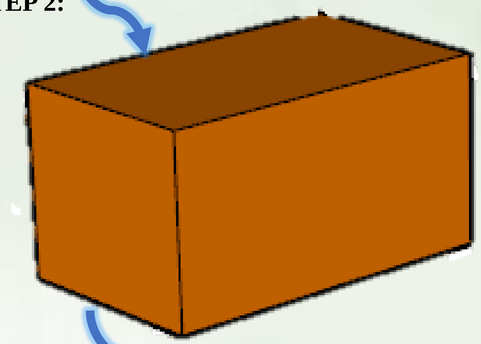
FORM EVOLUTION

CONCEPT SHEET

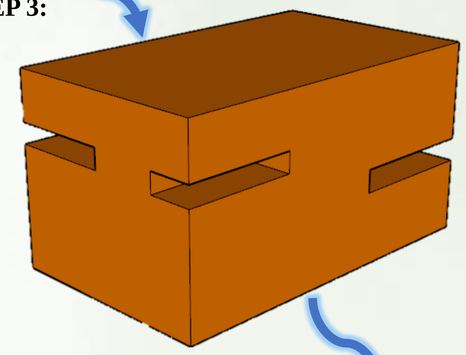
OFFICE BUILDING – CORPORATE OFFICE & STUDIO APARTMENTS

STEP 1:

STEP 2:



STEP 3:



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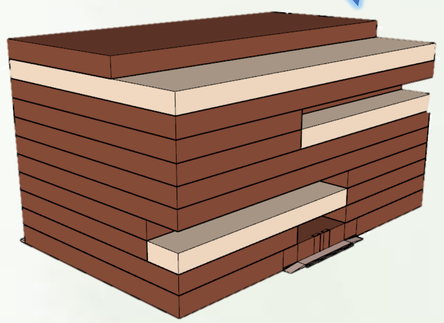
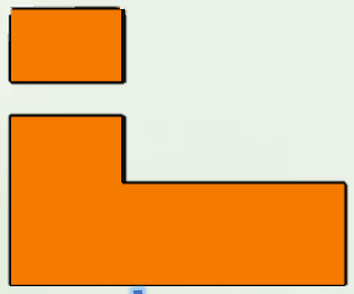
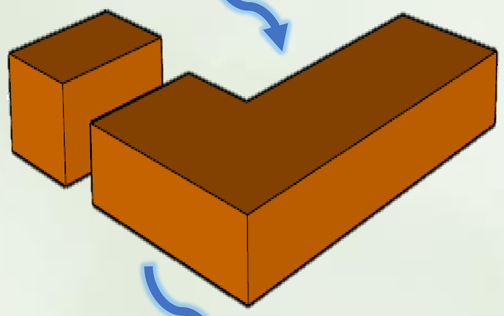


SHOPPING MALL – RETAIL SHOPS & THEATRE

STEP 1:



STEP 2:



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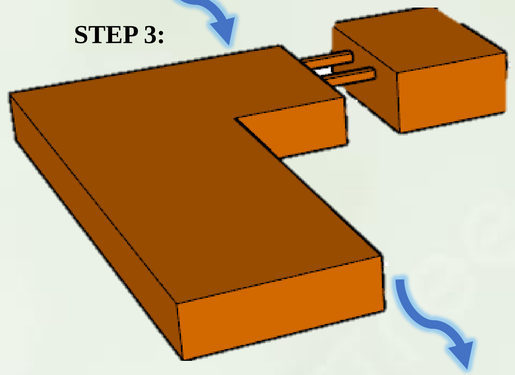

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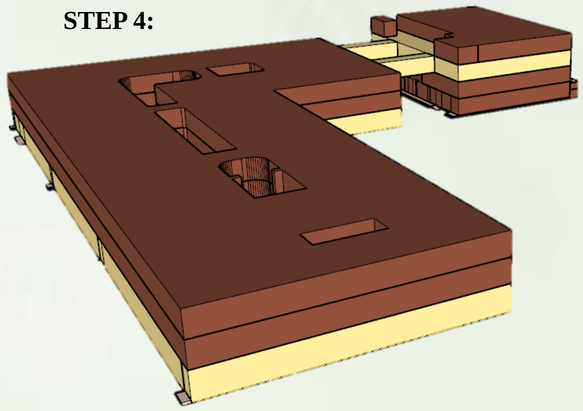
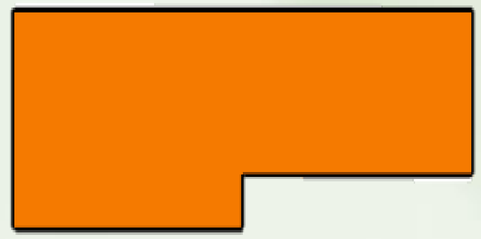


FOOD COURT – RESTAURANTS & BAR

STEP 1:



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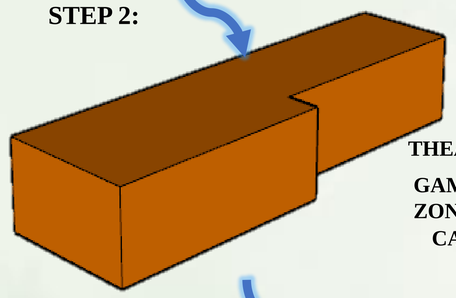

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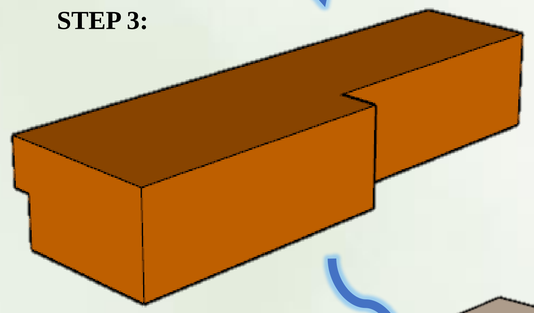

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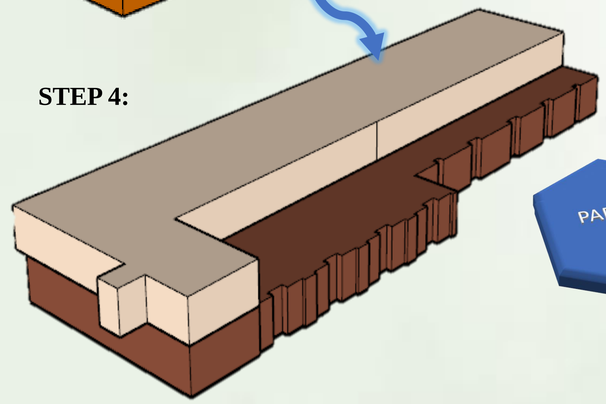
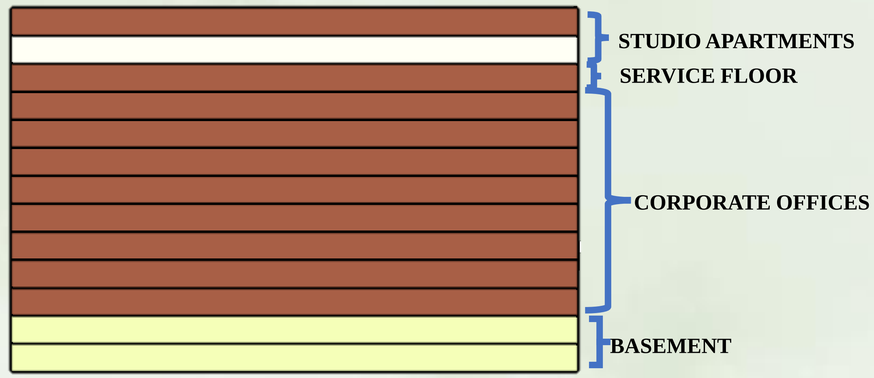
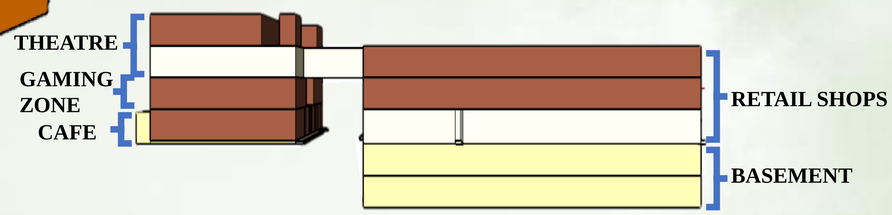
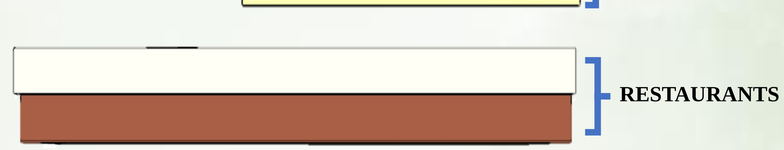


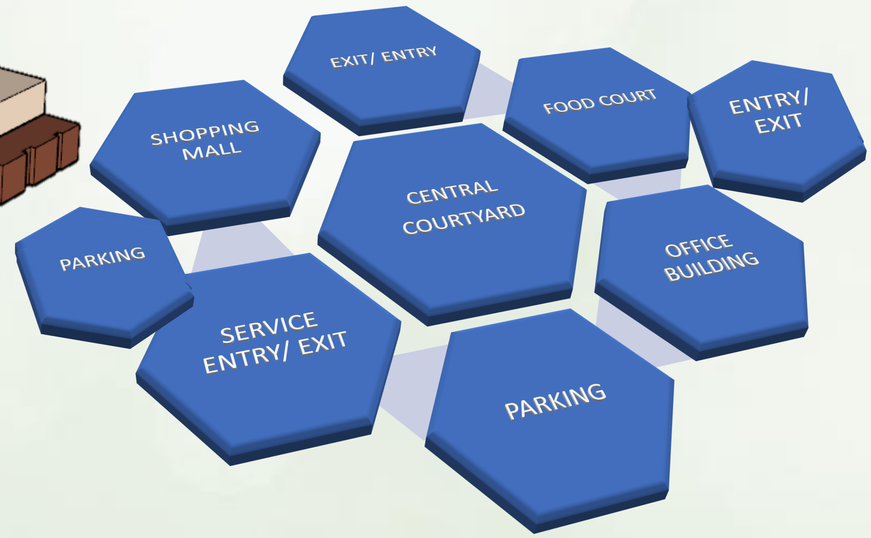
VERTICAL STACKING







SITE CIRCULATION :



CYBER TOWN , NOIDA

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1190101002
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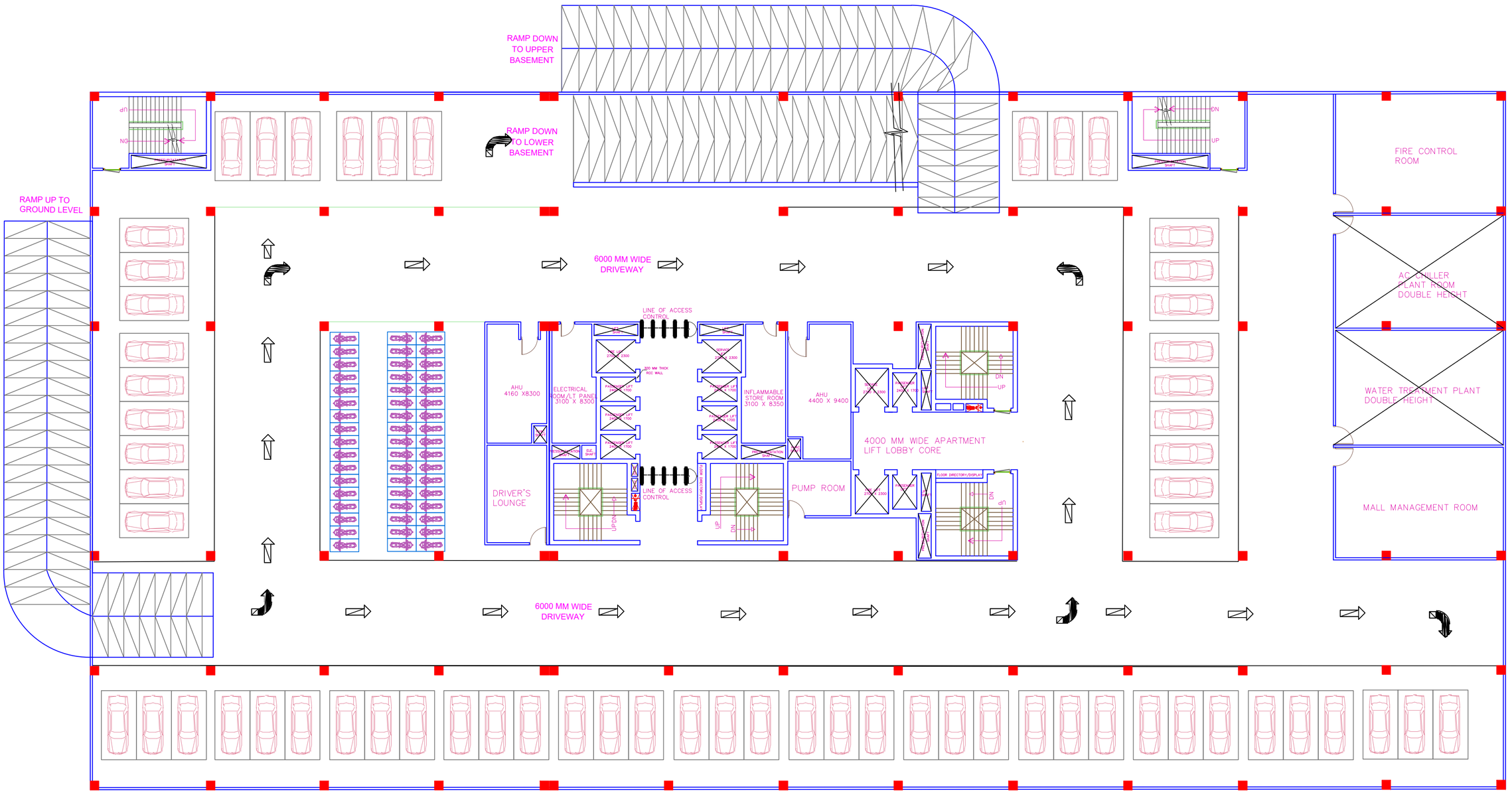
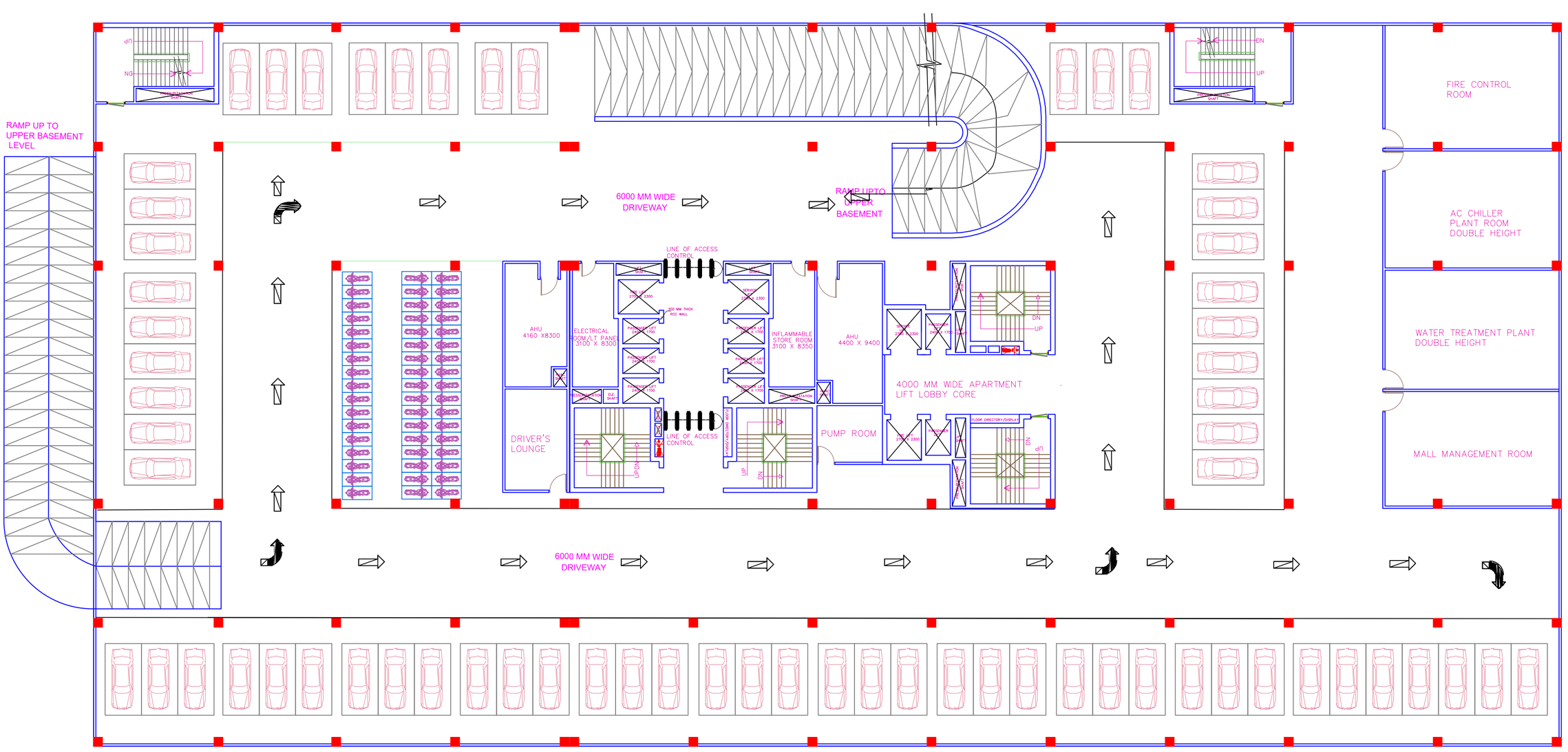


UPPER BASEMENT PLAN



LOWER BASEMENT PLAN

CYBER TOWN, ***NOIDA SEC-129***

SHEET TITLE : OFFICE- BASEMENT PLAN

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

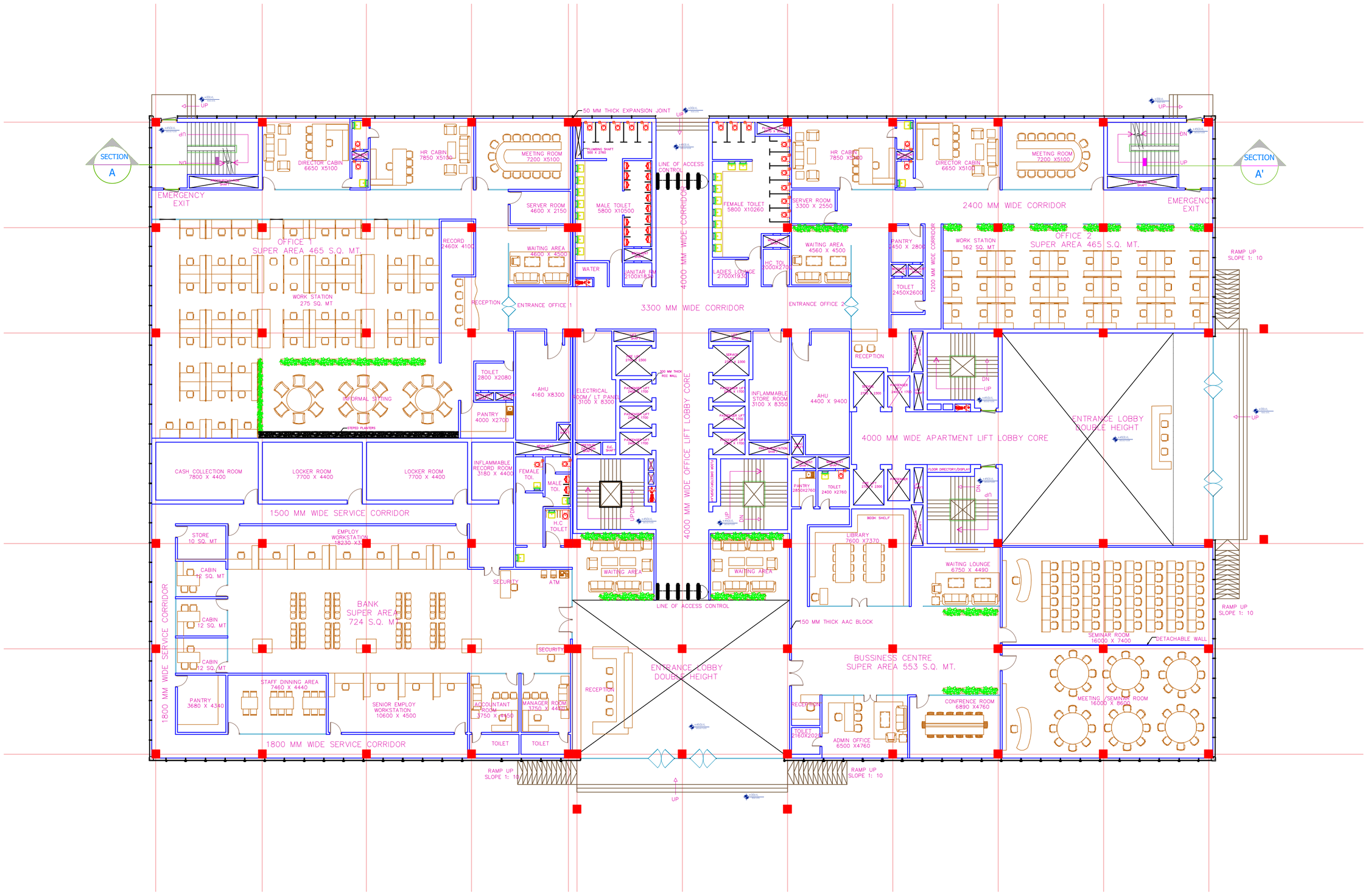
SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

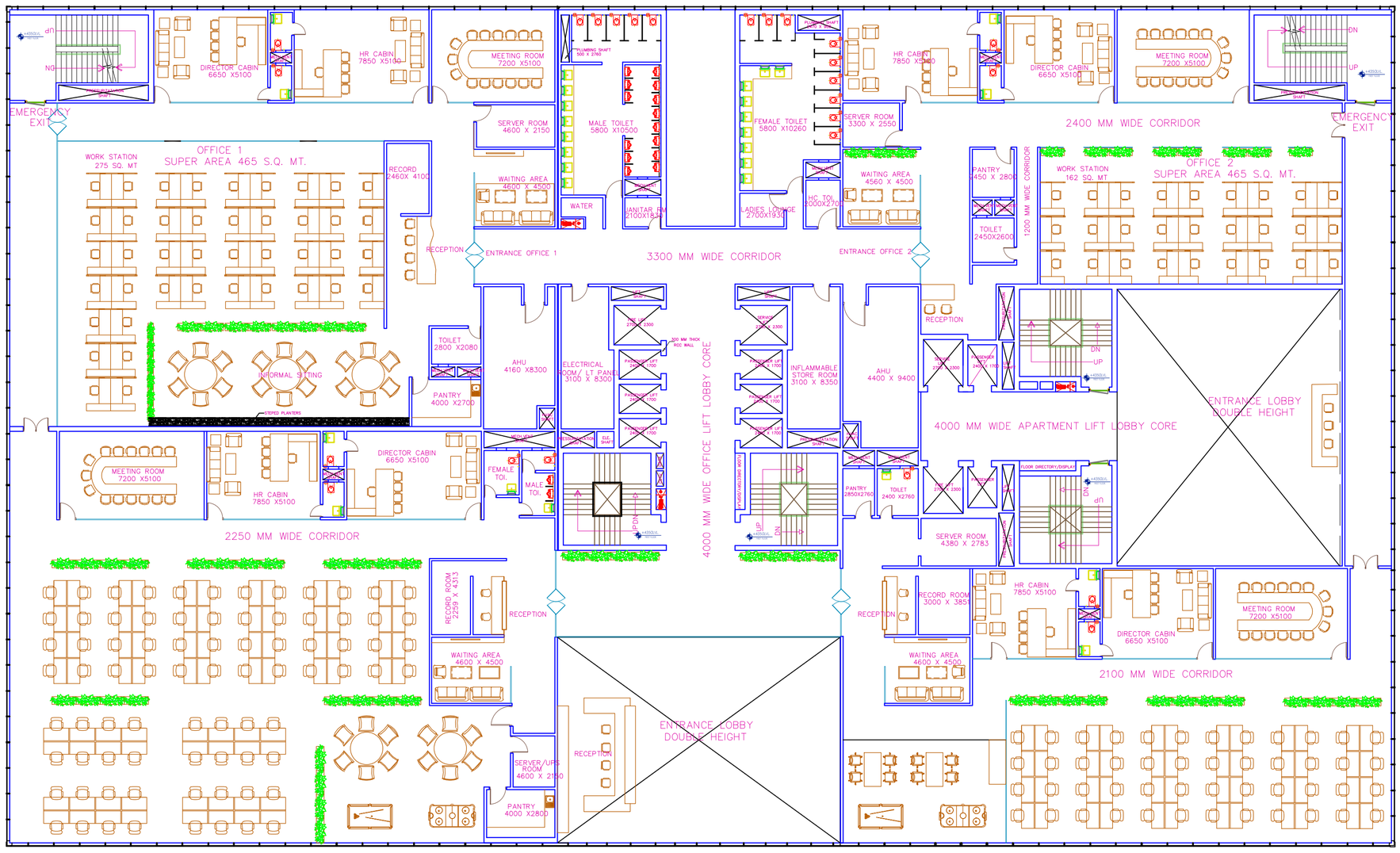
ROLL NO. : 1190101002

COLLEGE : SAP, BBD UNIVERSITY, LKO

NOTE : ALL DIMENSIONS ARE IN MM



GROUND FLOOR PLAN



FIRST FLOOR PLAN

CYBER TOWN, ***NOIDA SEC-129***

SHEET TITLE : OFFICE BUILDING - FLOOR PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA

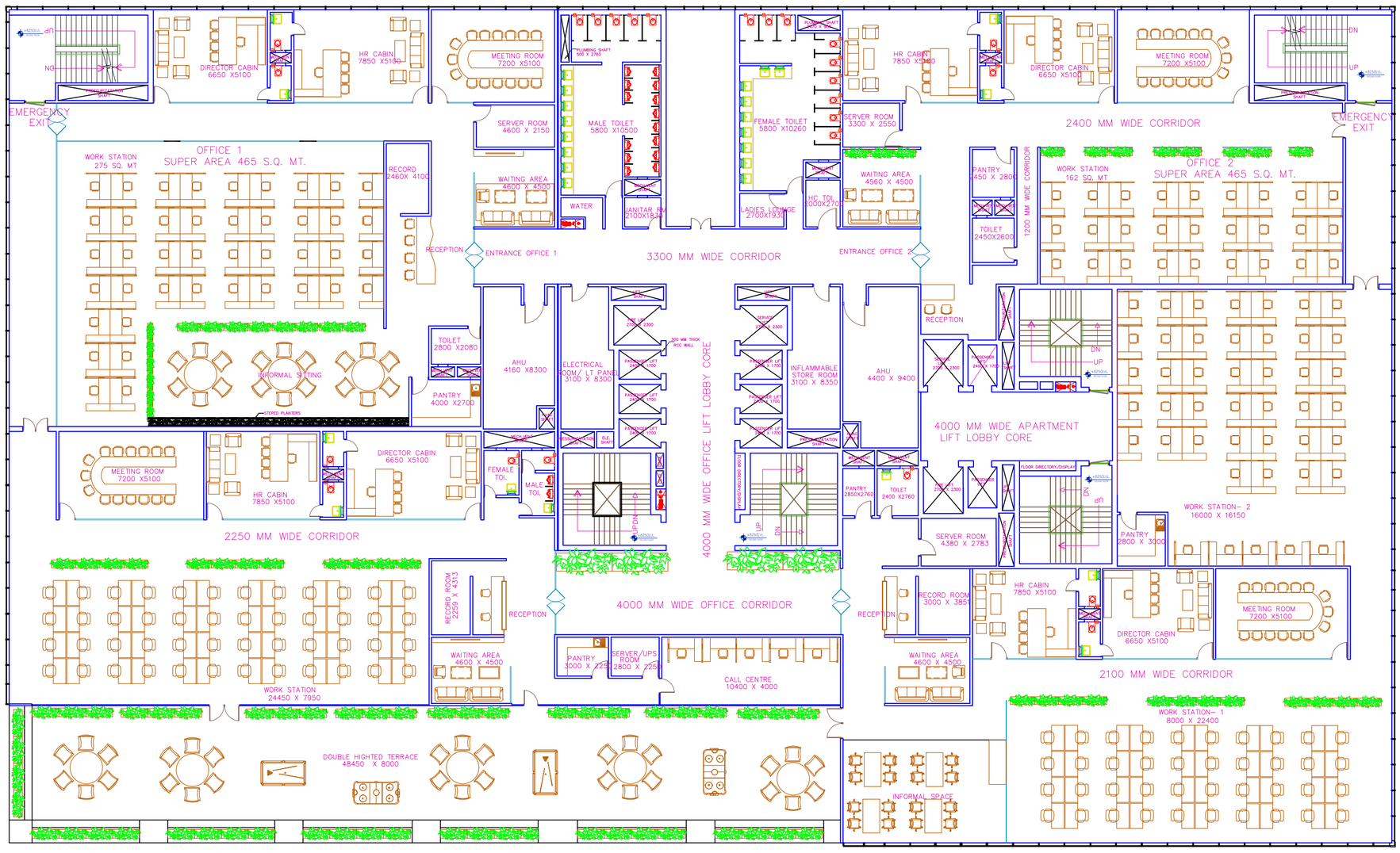
BRANCH : B.ARCH 5TH YR. (10TH SEM)

ROLL NO. : 1190101002

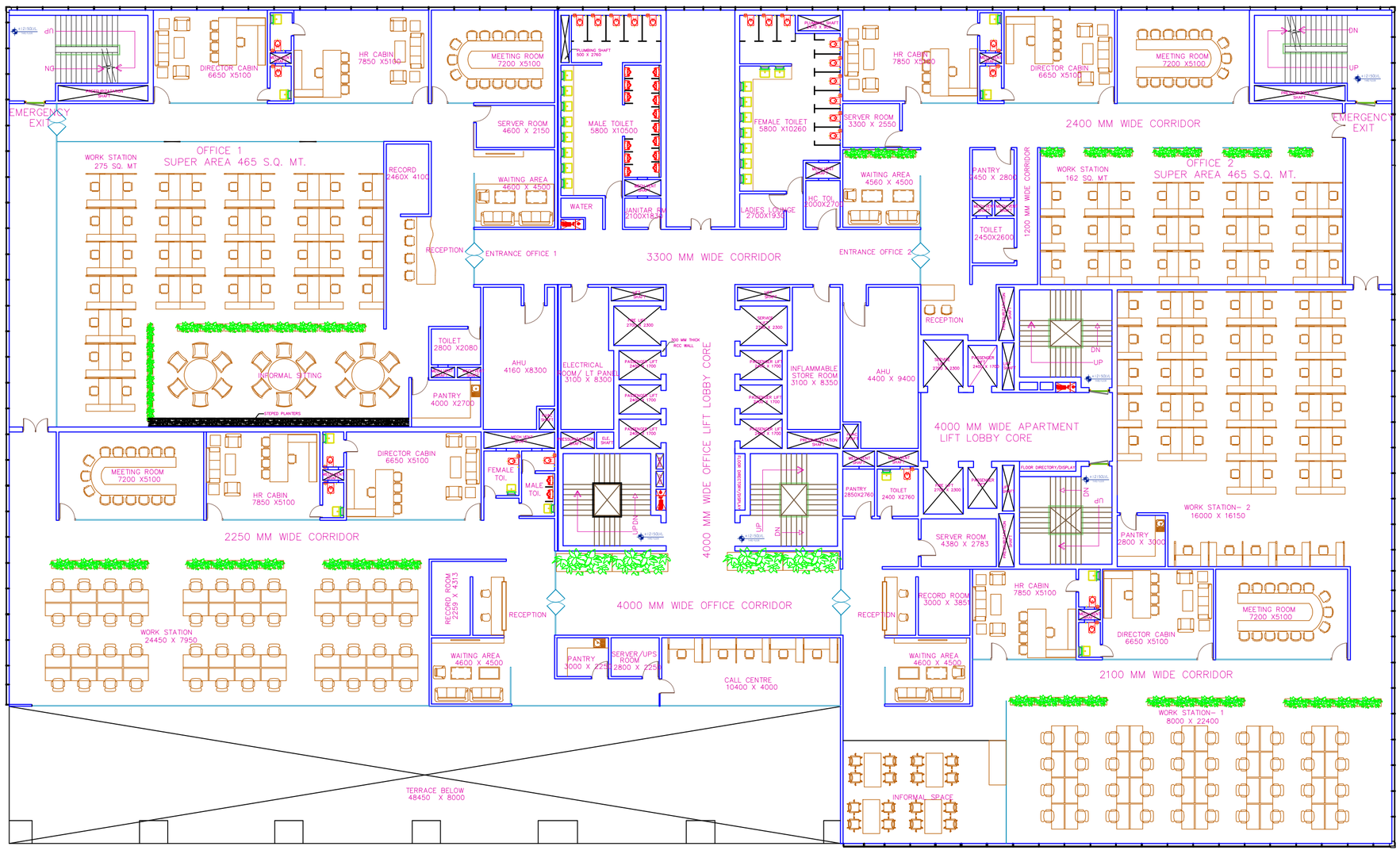
COLLEGE : SAP, BBD UNIVERSITY, LKO

NOTE : ALL DIMENSIONS ARE IN MM

S W E N



SECOND FLOOR PLAN



THIRD FLOOR PLAN

CYBER TOWN, NOIDA SEC-129

SHEET TITLE : OFFICE BUILDING - FLOOR PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

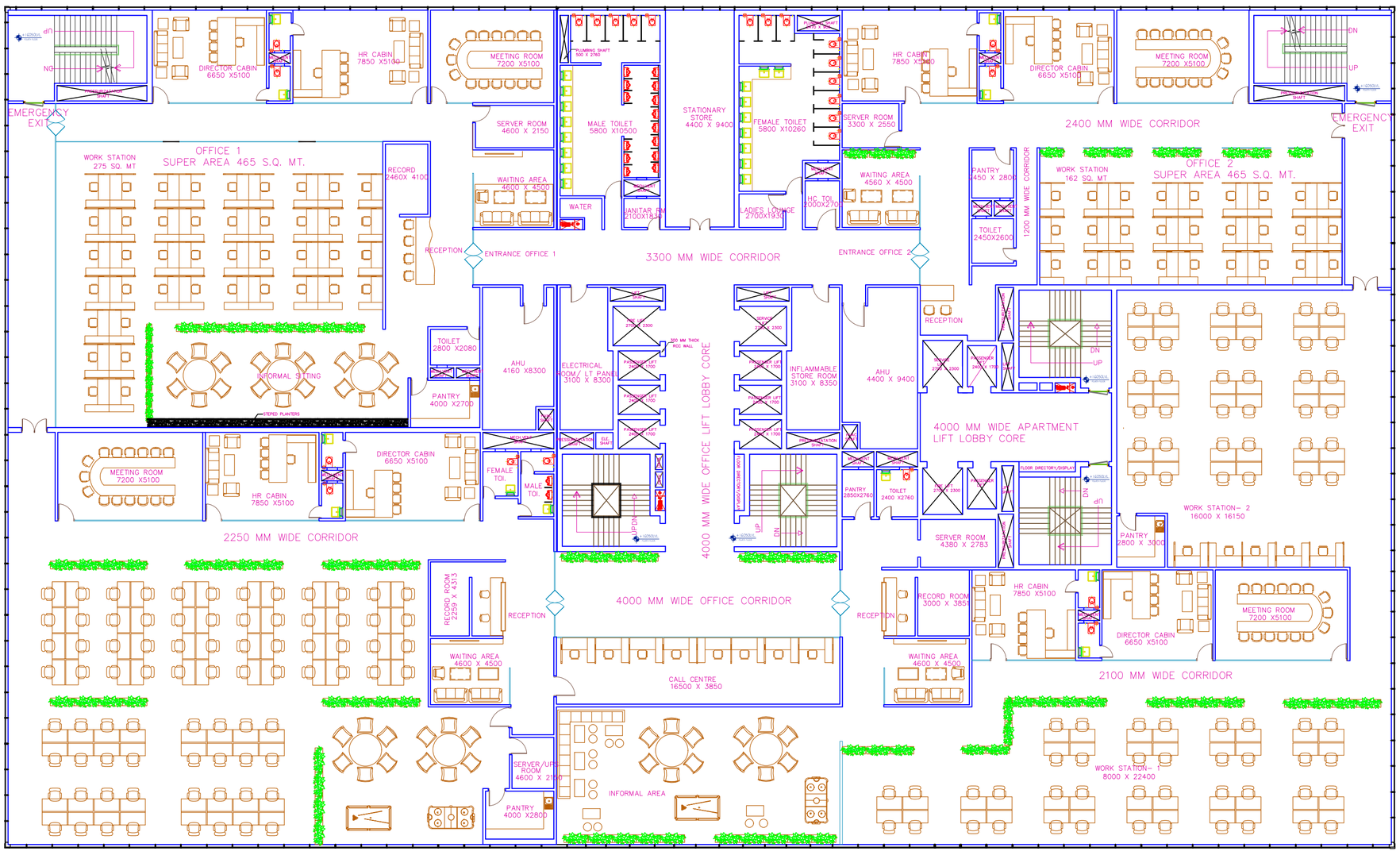
SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

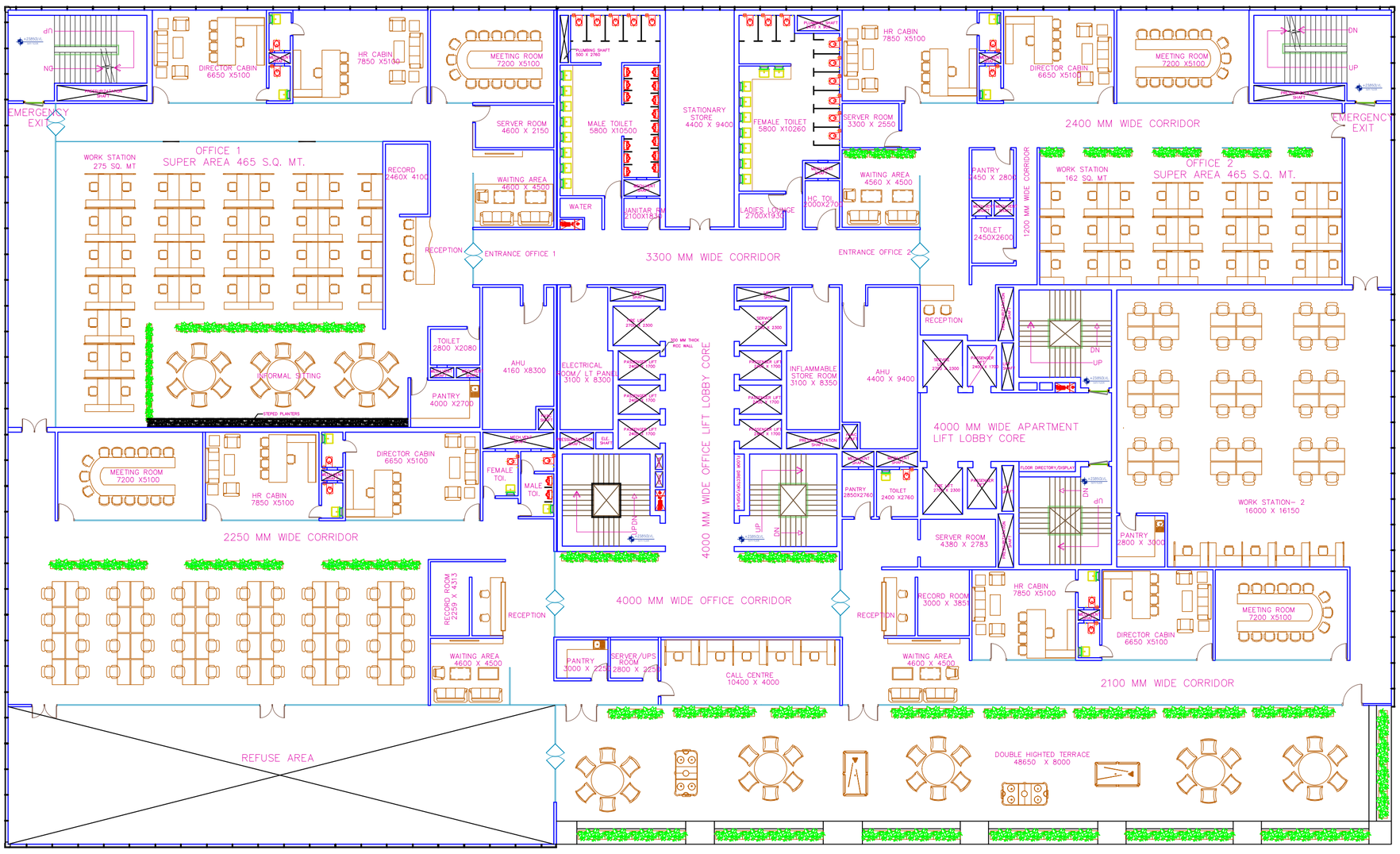
ROLL NO. : 1190101002

COLLEGE : SAP, BBD UNIVERSITY, LKO

NOTE : ALL DIMENSIONS ARE IN MM



4,5,FLOOR PLAN



6 FLOOR PLAN

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : OFFICE BUILDING - FLOOR PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

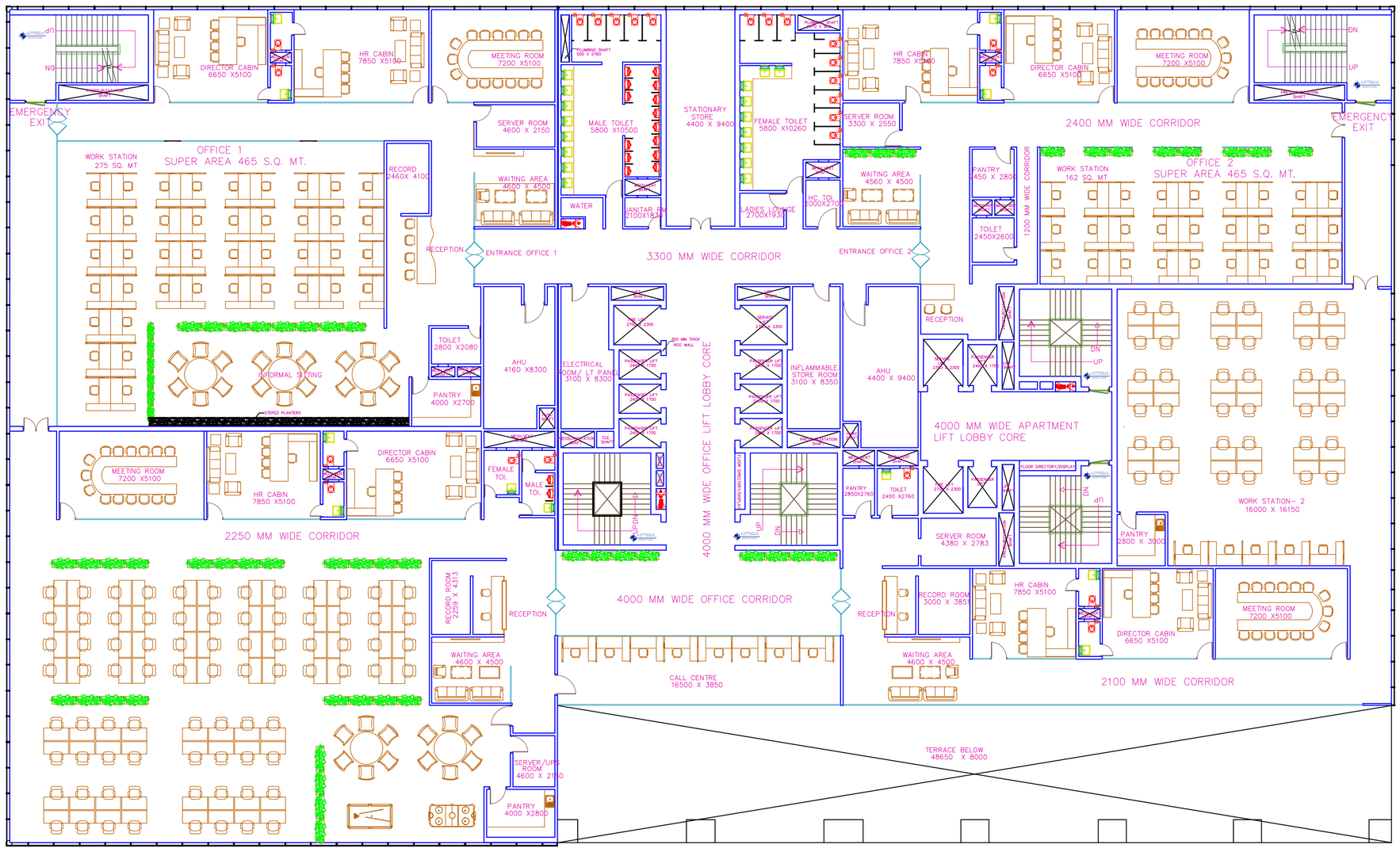
SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

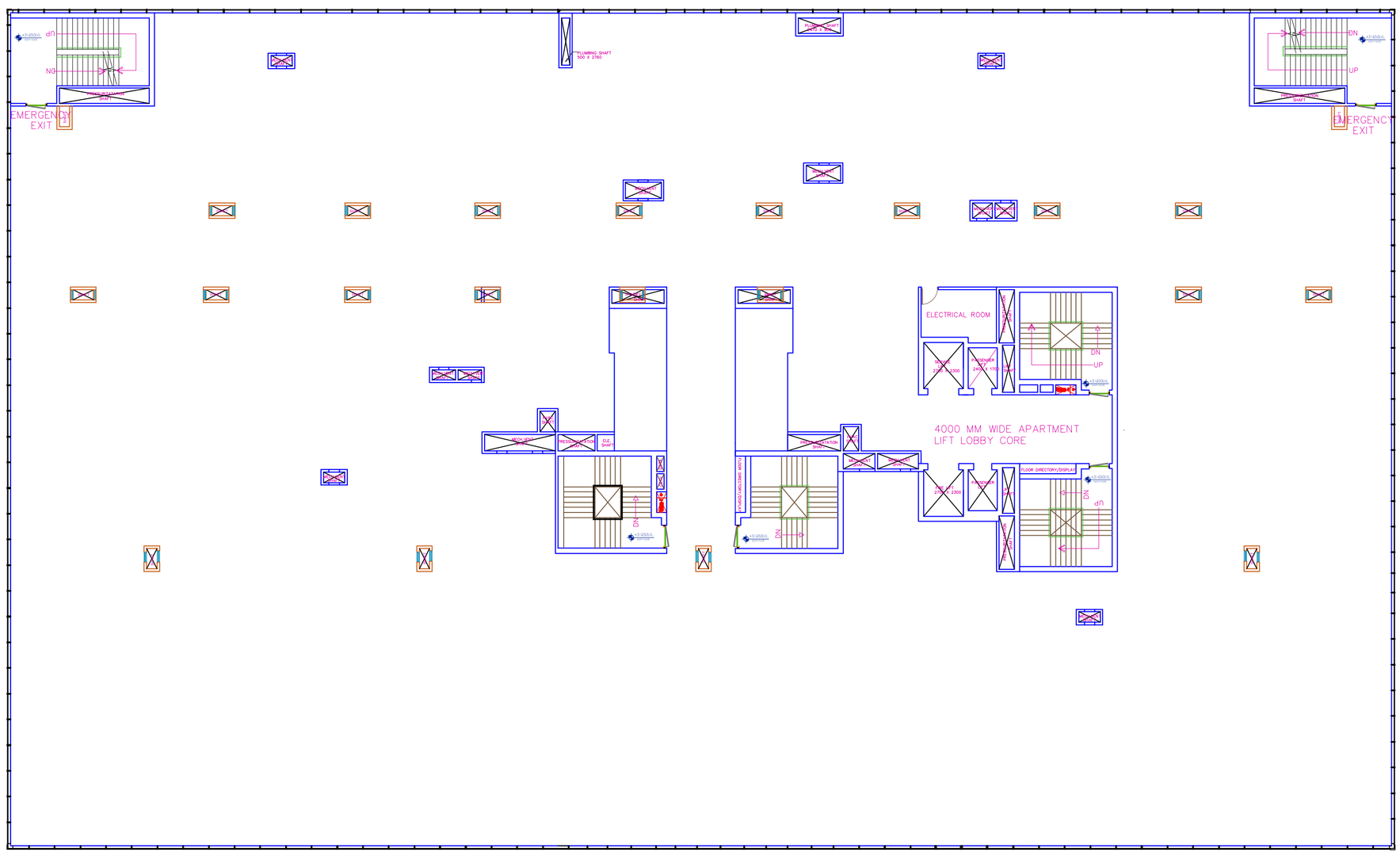
ROLL NO. : 1190101002

COLLEGE : SAP, BBD UNIVERSITY, LKO

NOTE : ALL DIMENSIONS ARE IN MM



7 FLOOR PLAN



SERVICE FLOOR PLAN

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : OFFICE BUILDING - FLOOR PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

ROLL NO. : 1190101002

COLLEGE : SAP, BBD UNIVERSITY, LKO

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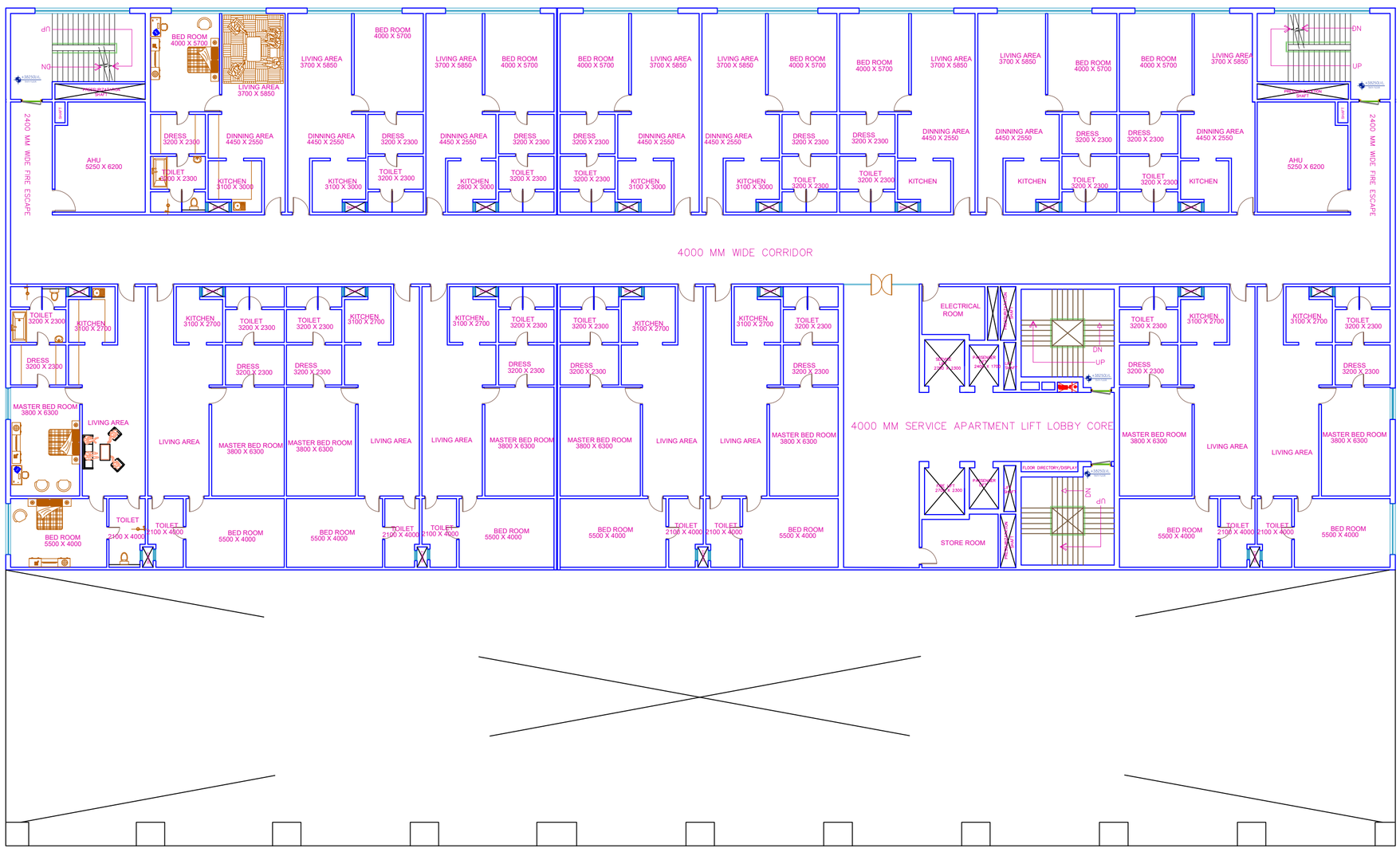
S W E N

9 TH FLOOR PLAN



10 TH FLOOR PLAN

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : OFFICE BUILDING - FLOOR PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

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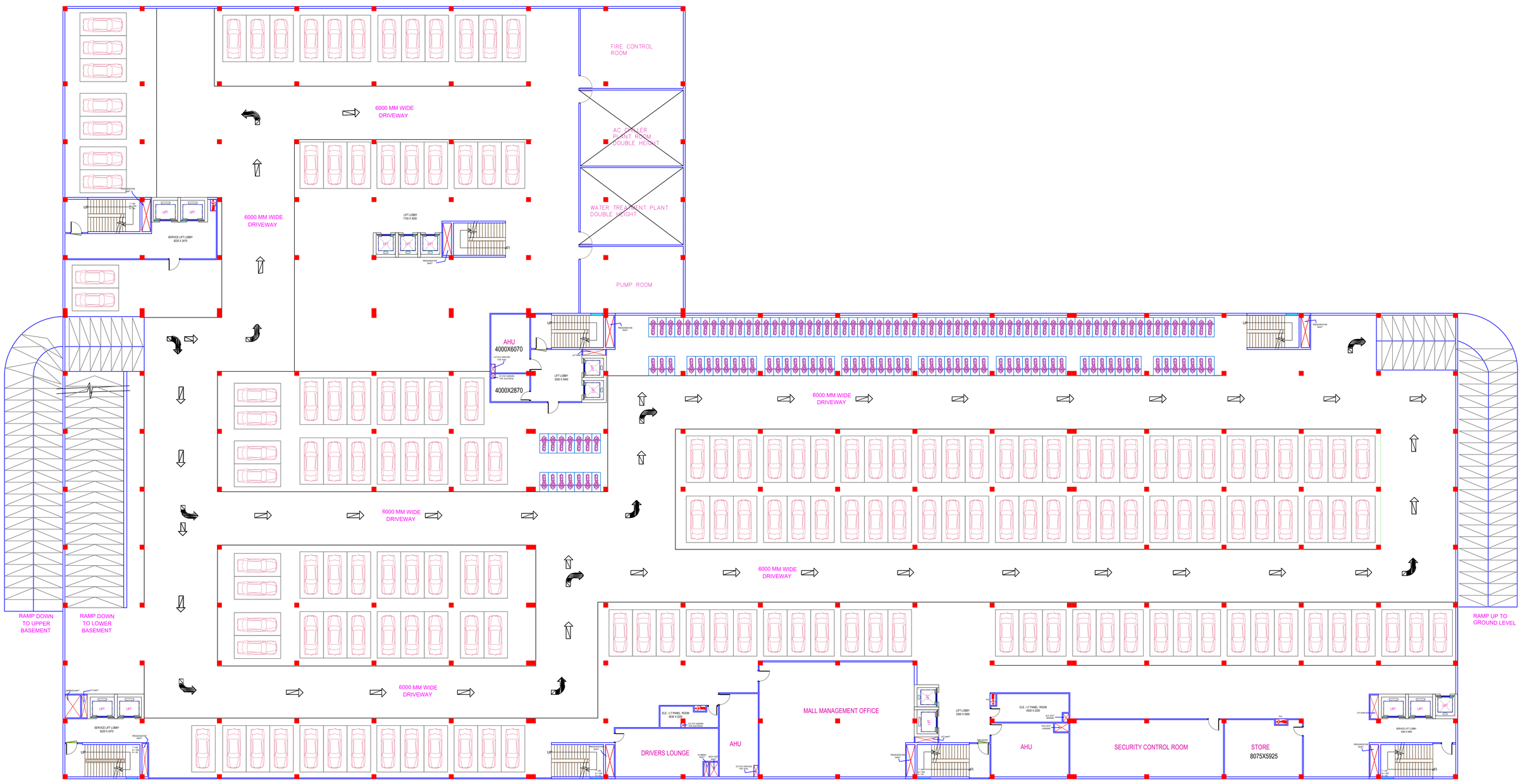
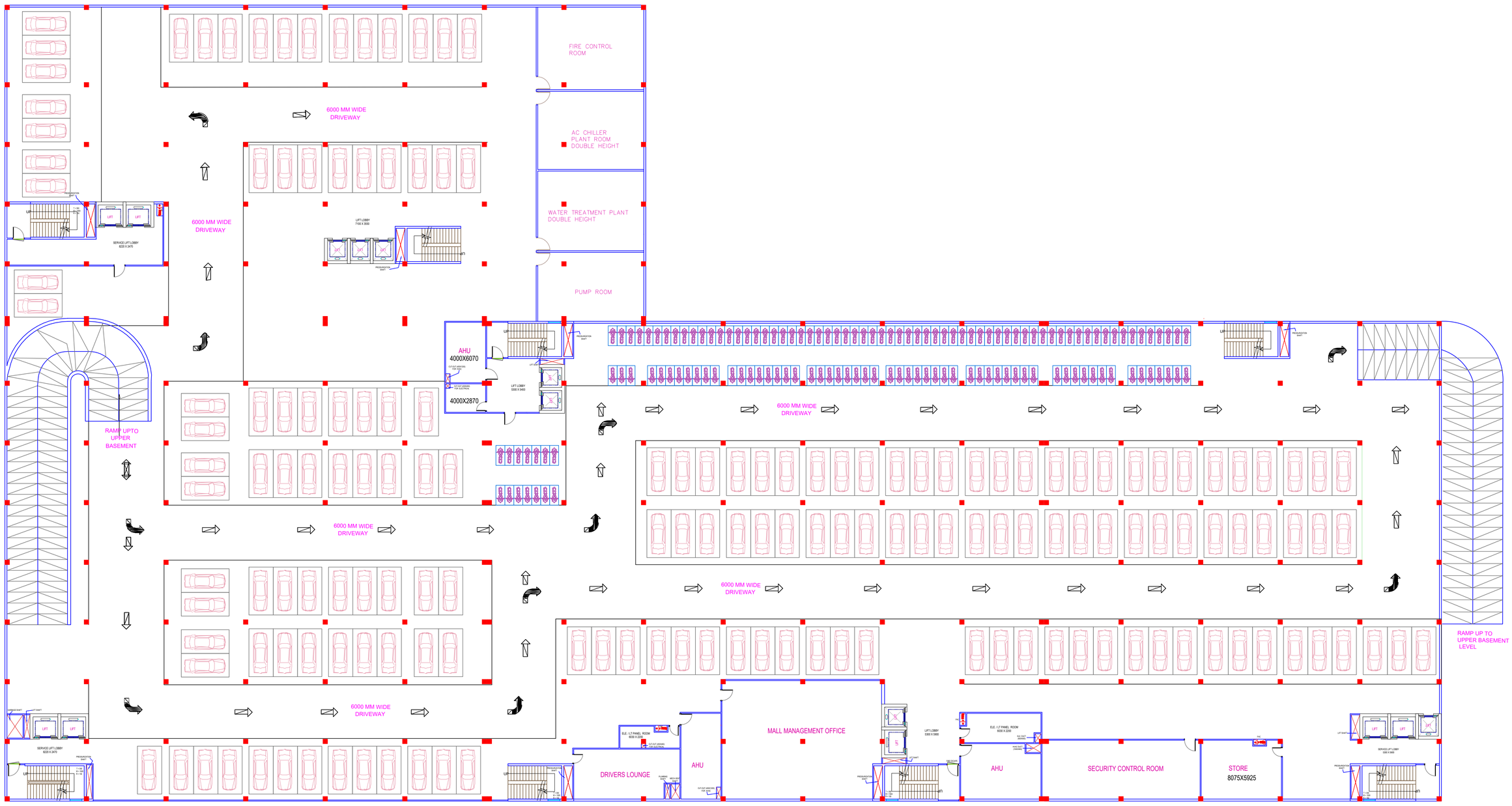


UPPER BASEMENT PLAN



LOWER BASEMENT PLAN

CYBER TOWN, ***NOIDA SEC-129***

SHEET TITLE : SHOPPING MALL - BASEMENT PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

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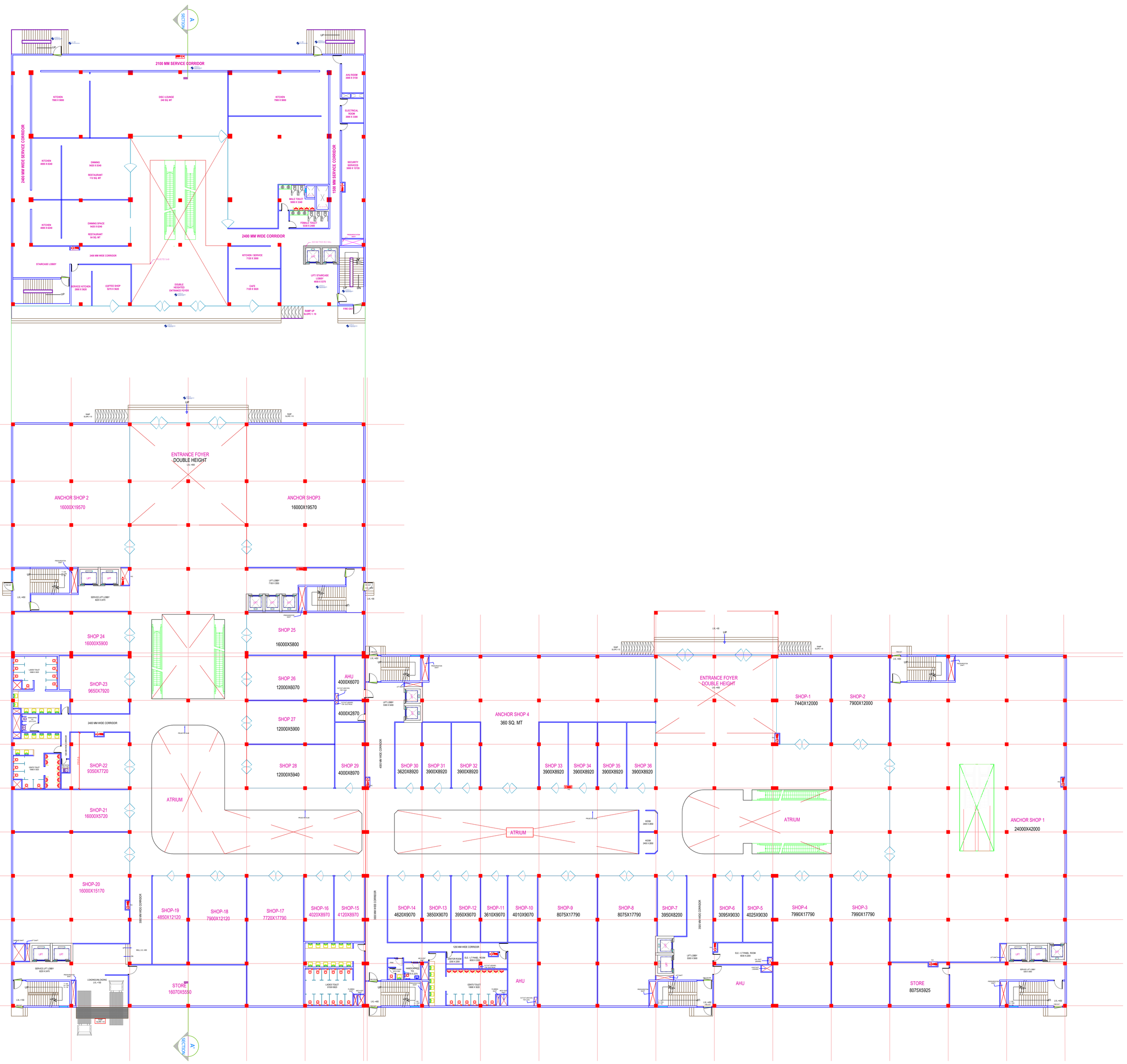

GROUND FLOOR PLAN

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : SHOPPING MALL - FLOOR PLANS

SCALE : 1:200

SUBJECT : ARCHITECTURAL THEIS

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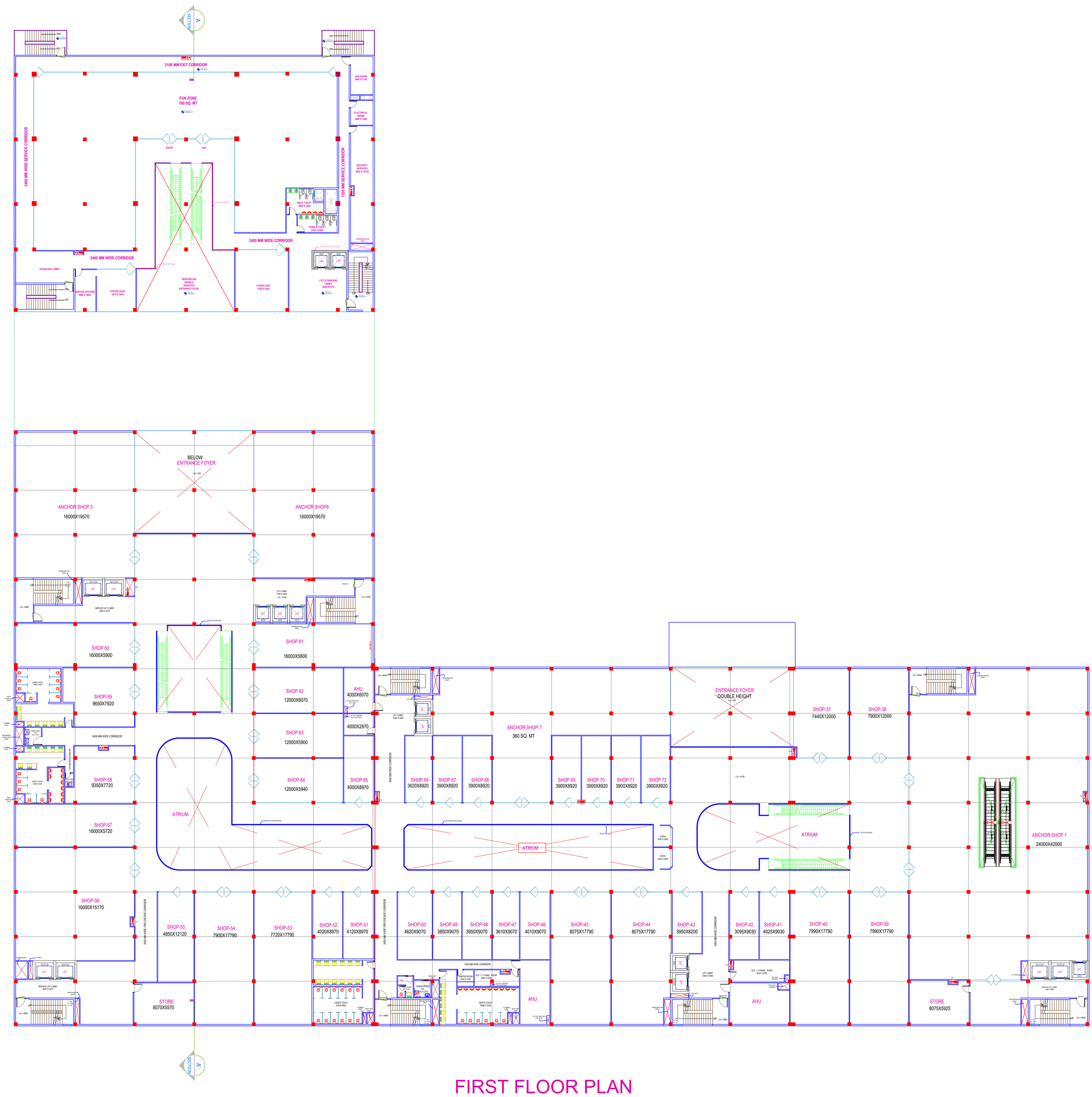
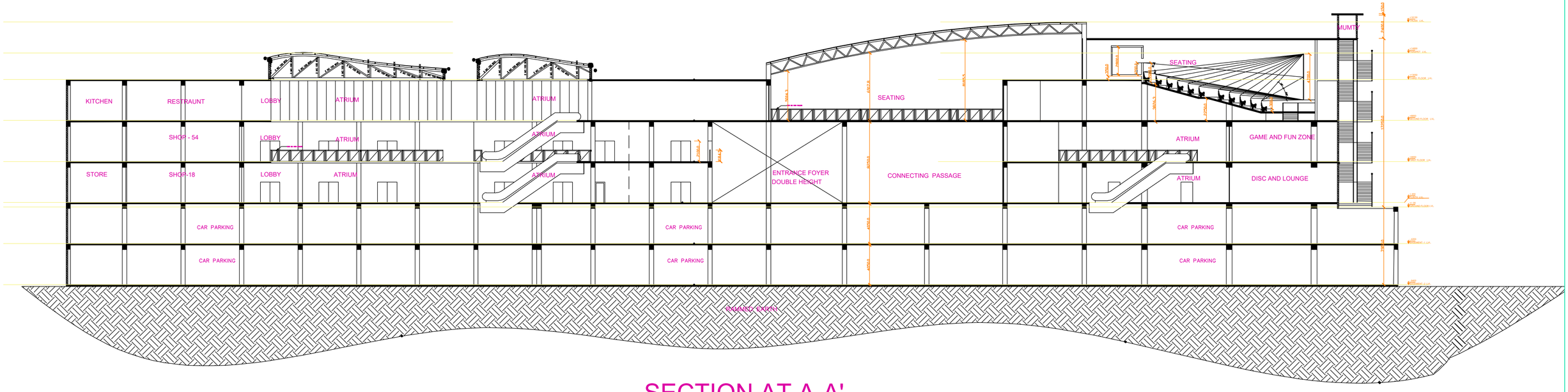


FIRST FLOOR PLAN



SECTION AT A-A'

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : SHOPPING MALL - FLOOR PLANS

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WHAT IS THE CYBER HUB?

CYBER IS A WORD MEANING "RELATING TO OR CHARACTERISTIC OF THE CULTURE OF COMPUTERS, INFORMATION TECHNOLOGY, AND VIRTUAL REALITY." A CYBER HUB IS A PLACE WHERE PEOPLE FROM CYBER WORLD CAN COME, WORK, PLAY AND LIVE. THE PLACE WILL CONSIST OF A RESEARCH AND DEVELOPMENT SPACE, TRAINING CENTERS, LABS, GAMING CENTERS, FOOD HUBS AND VARIOUS INDOOR AND OUTDOOR RECREATIONAL SPACES. THE SKIN, LUNGS, EYES ARE DESIGNED FOR THINGS WHICH ARE NATURAL; NATURAL LIGHT, FRESH AIR, NATURAL ATMOSPHERE, WHICH IS CLEAN AND PURE.

CYBER HUB IS A BUSTLING COMMERCIAL AND ENTERTAINMENT COMPLEX LOCATED IN GURUGRAM, INDIA. POSITIONED IN THE CYBER CITY AREA, IT OFFERS MODERN OFFICE SPACES, A DIVERSE RANGE OF RETAIL OUTLETS, AND A VIBRANT CULINARY SCENE WITH NUMEROUS RESTAURANTS AND CAFES CATERING TO VARIOUS TASTES. KNOWN FOR ITS LIVELY ATMOSPHERE, CYBER HUB SERVES AS A SOCIAL HUB WHERE BUSINESSES THRIVE, AND PEOPLE GATHER FOR WORK, SHOPPING, AND ENTERTAINMENT.

THE COMPLEX HOUSES MODEM OFFICE SPACES, MAKING IT A HUB FOR BUSINESSES, ESPECIALLY THOSE IN THE TECHNOLOGY AND CORPORATE SECTORS. MANY MULTINATIONAL COMPANIES AND STARTUPS HAVE THEIR OFFICES IN THIS AREA. CYBER HUB FEATURES A WIDE RANGE OF RETAIL OUTLETS, INCLUDING SHOPS, BOUTIQUES, AND STORES OFFERING VARIOUS PRODUCTS AND SERVICES. IT CATERS TO THE NEEDS OF BOTH OFFICE-GOERS AND VISITORS SEEKING SHOPPING OPPORTUNITIES. ONE OF THE MAJOR ATTRACTIONS OF CYBER HUB IS ITS DIVERSE AND EXTENSIVE ARRAY OF RESTAURANTS AND CAFES. THE BUILDINGS IN CYBER HUB ARE CHARACTERIZED BY MODERN ARCHITECTURE AND CONTEMPORARY DESIGN. THE AREA IS WELL-PLANNED AND AESTHETICALLY PLEASING.

BACKGROUND AND HISTORY:

THE CONCEPT OF CYBER HUBS EMERGED AS THE IMPORTANCE OF CYBERSECURITY GREW EXPONENTIALLY IN THE DIGITAL AGE. WITH THE INCREASING FREQUENCY AND SOPHISTICATION OF CYBER THREATS, GOVERNMENTS, BUSINESSES, AND ORGANIZATIONS RECOGNIZED THE NEED TO POOL RESOURCES AND EXPERTISE TO EFFECTIVELY COMBAT CYBERCRIME AND SAFEGUARD DIGITAL INFRASTRUCTURE. THE HISTORY OF CYBER HUBS CAN BE TRACED BACK TO THE EARLY DAYS OF THE INTERNET WHEN THE FIRST CYBERSECURITY RESEARCH CENTERS AND COLLABORATION PLATFORMS WERE ESTABLISHED. OVER TIME, AS CYBER THREATS EVOLVED AND BECAME MORE COMPLEX, THE NEED FOR DEDICATED CYBER HUBS BECAME MORE APPARENT. GOVERNMENTS AND PRIVATE SECTOR ENTITIES BEGAN INVESTING IN THESE HUBS TO PROMOTE INNOVATION, EDUCATION, AND COLLABORATION IN CYBERSECURITY.

NEED FOR THE STUDY:

THE STUDY OF CYBER HUB IS ESSENTIAL FOR GAINING INSIGHTS INTO URBAN PLANNING, ECONOMIC IMPACT, CULTURAL DYNAMICS, AND BUSINESS ENVIRONMENTS.

ANALYZING CYBER HUB PROVIDES VALUABLE INFORMATION ON THE INTEGRATION OF BUSINESSES, THE IMPACT ON TOURISM AND HOSPITALITY, AND THE INTERPLAY BETWEEN INFRASTRUCTURE, CONNECTIVITY, AND CONSUMER BEHAVIOR. UNDERSTANDING SUCH HUBS CONTRIBUTES TO BROADER DISCUSSIONS ON URBAN SUSTAINABILITY, ECONOMIC
DEVELOPMENT, AND THE EVOLVING NATURE OF CONTEMPORARY URBAN SPACES.

AIM OF THE STUDY:

THE AIM OF STUDYING CYBER HUB IS TO GAIN COMPREHENSIVE INSIGHTS INTO THE MULTIFACETED ASPECTS OF MODERN URBANDEVELOPMENT AND COMMERCIAL COMPLEXES. THIS INCLUDES UNDERSTANDING THE ECONOMIC IMPACT ON LOCAL AND REGIONALE CONOMIES, ASSESSING THE SOCIAL AND CULTURAL DYNAMICS,ANALYZING THE BUSINESS ENVIRONMENT, AND EXAMINING THE INFLUENCE OF ARCHITECTURE AND DESIGN TRENDS.

SITE AREA: 18.4 ACRE= 74462.16 Square millimeters

LOCATION: NOIDA SECTOR 129 IS A MIXED USE DEVELOPMENT ZONE AS PERTHE NOIDA MASTER PLAN 2031. THE SECTOR LIES ON THE SIX LANE NOIDA GREATER NOIDA EXPRESSWAY, ONE OF THE PRIME DEVELOPMENT CORRIDORS IN THE COUNTRY AND IS UNIQUE IN ITS SUPERBLY ACCESSIBLE & FUNCTIONAL CONNECTIVITY OPTIONS.

NEAREST STATIONS:

- NEAREST POST OFFFICE IS 4.8KMS. AWAY (SECTOR 110)
- NEAREST POLICE STATION IS 2.4KMS. AWAY. (SECTOR 135)
- NEAREST FIRE STATION IS 2.4KMS. AWAY. (SECTOR 135)
- NEAREST METRO STATION IS THE NOIDA SECTOR 143 WHICH IS 4.6 KMS AWAY.
- NEAREST PETROL PUMP IS 0.9KM AWAY

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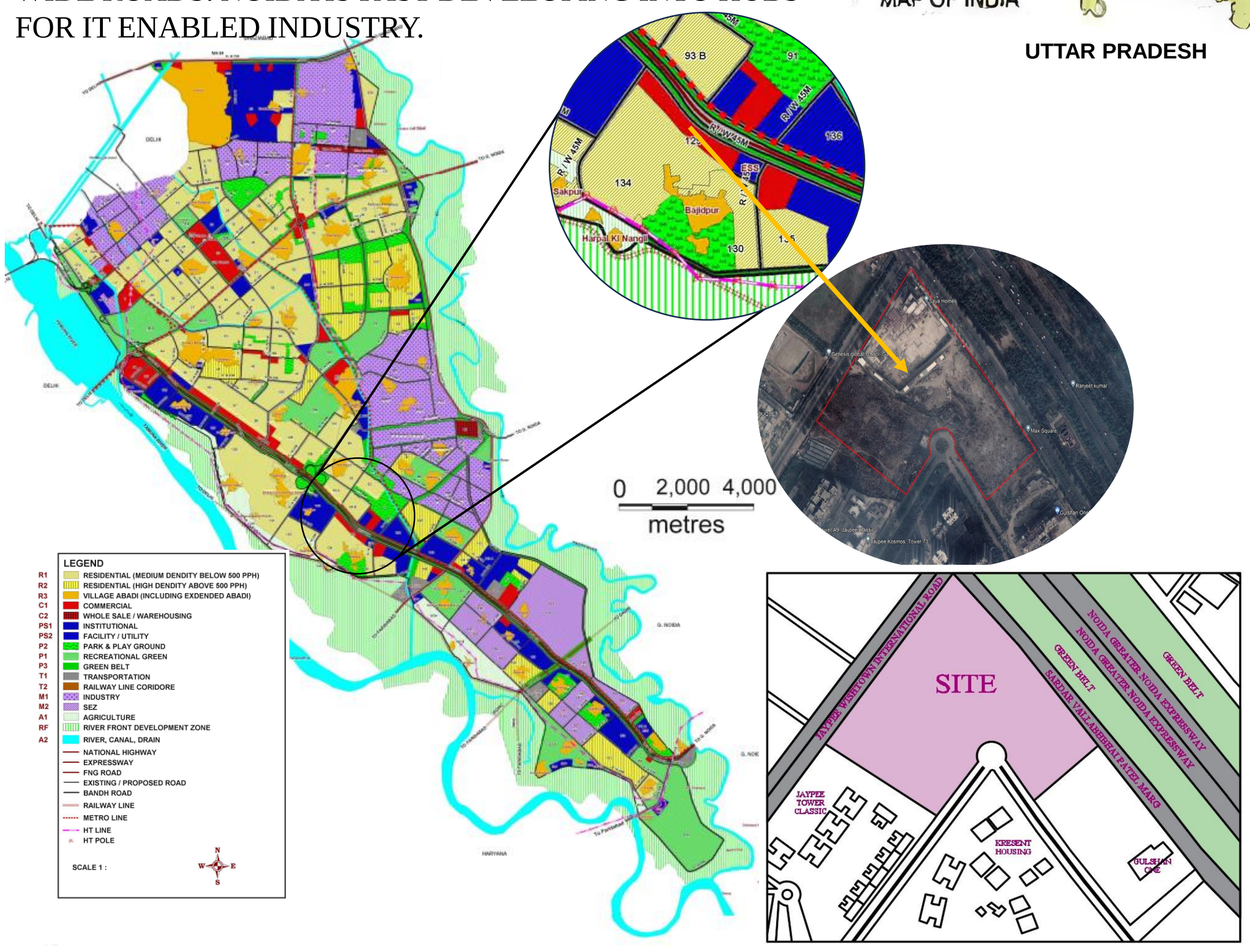
ABOUT THE CITY

NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY COMES UNDER THE GOVERNMENT OF UTTAR PRADESH AND LIES IN THE GAUTAM BUDDHA NAGAR DISTRICT. NOIDA IS A HIGHLY INTEGRATED TOWNSHIP, OFFERING FACILITIES FOR ALL ACTIVITIES: INDUSTRIAL, COMMERCIAL AND RESIDENTIAL. IT FALLS UNDER THE NATIONAL CAPITAL REGION BEING A PART OF DELHI. THE MASTER PLAN ENVISAGES SYSTEMATIC DEVELOPMENT TO ENHANCE THE QUALITY OF INDUSTRIAL AS WELL AS SOCIAL LIFE. IT HAS EMERGED AS A FAVOURITE SPOT FOR THE INDUSTRIALISTS, PROFESSIONALS AND ENTREPRENEURS. PLANNED ON A GRID IRON CONCEPT, NOIDA BOASTS OF AN UNPARALLELED INFRASTRUCTURE WITH CLEAN AND WIDE ROADS. NOIDA IS FAST DEVELOPING INTO HUBS FOR IT ENABLED INDUSTRY.



SITE BRIEF:

THE SITE IS LOCATED ON THE MIXED ZONE (RESIDENTIAL + COMMERCIAL) OF "SECTOR 129" NOIDA, UTTAR PRADESH, INDIA.
IT IS A CORNER PLOT HAVING NORTH- WEST FACING RESIDENTIAL AREAS (UNITECH GOLF AND COUNTRY CLUB), SOUTH-EAST AND SOUTH-WEST FACING COMMERCIAL AREAS, AND SOUTH FACING INSTITUTIONAL AREAS.

LOCATION:

LOCATED IN THE STATE OF UTTAR PRADESH AT THE FRINGES OF DELHI, THE NATIONAL CAPITAL. LOCATED AT THE DOOR STEP OF DELHI, NOIDA IS ONLY 14 KMS. AWAY FROM CONNAUGHT PLACE.
THE 550 MS. LONG, EIGHT LANE NOIDA TOLL BRIDGE ACROSS YAMUNA CONNECTING MAHA RANIBAGH IN DELHI TO NOIDA HAS FURTHER REDUCED THE DISTANCE, TIME AND COST OF COMMUTING TO AND FRO DELHI - NOIDA.

SITE DETAILS & BYELAWS:-

- SITE AREA –18.4 acre (74462.16 SQ.M)
- PERMISSIBLE GROUND COVERAGE – 30% = 22334SQ
- PERMISSIBLE F.A.R – 3
- HEIGHT RESTRICTION – NO
- SET BACK = FRONT – 0
- ALL OTHER SIDES – 0
- EQUIVALENT CAR SPACE- 2ECS PER 100 SQM
- SARDAR ROAD -30M WIDE
- INETRNATIONAL ROAD-35M WIDE

GREATER NOIDA EXPRESSWAY

APPROACH:

- THE SITE IS CORNER PLOT (SECTOR 129) AND LIES ON 30M WIDE SERVICE ROAD RUNNING PARALLEL TO NOIDA EXPRESSWAY.
- THE SITE HAS 3 CONNECTED ROADS

INDIRA GANDHI INTERNATIONAL AIRPORT . . . . . **24.8 km**

GOLF COURSE, METRO STATION **3.1km**

NEW DELHI , RAILWAY STATION . . . . . **21 km**

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SITE FEATURES AND ITS SURROUNDINGS

PROXIMATE AMENITIES:

- MEDICAL FACILITIES
- MARKETS
- INSTITUTIONS
- POLICE BOOTH
- TEMPLES
- BANKS

ADJACENT TO EXPRESSWAY:

- RESIDENTIAL SECTORS NEARBY
- GREEN BELT ALONG THE EXPRESSWAY
- HOSPITAL IN CLOSE PROXIMITY
- METRO LINE
- EMPLOYE FRIENDLY ZONE
- NO COMMUNITY CENTRE NEARBY

SERVICES

ELECTRICITY LINES

HIGH TENSION CABLES CARRYING 33 KV RUNNING ALONG SOUTH – WEST SIDES OF THE SITE. ELECTRICITY IS SUPPLIED BY STATE ELECTRICITY BOARD. STREET LIGHTS PROVIDED IN THE DIVIDERS.

TELEPHONE LINES

- TELEPHONE LINES RUNNING ALONG THE SITE IN THE FRONT WATER SUPPLY
- PROVIDED AN OVERHEAD TANK 300 M AWAY FROM THE SITE .
- SUBMERSIBLE WATER.

SEWER LINES

- THE MAIN SEWER LINES CONSTRUCTED ALONG THE SOUTH – WEST SIDE OF THE SITE.
- DISTANCE BETWEEN MANHOLES IS 30 M.

LANDMARKS:

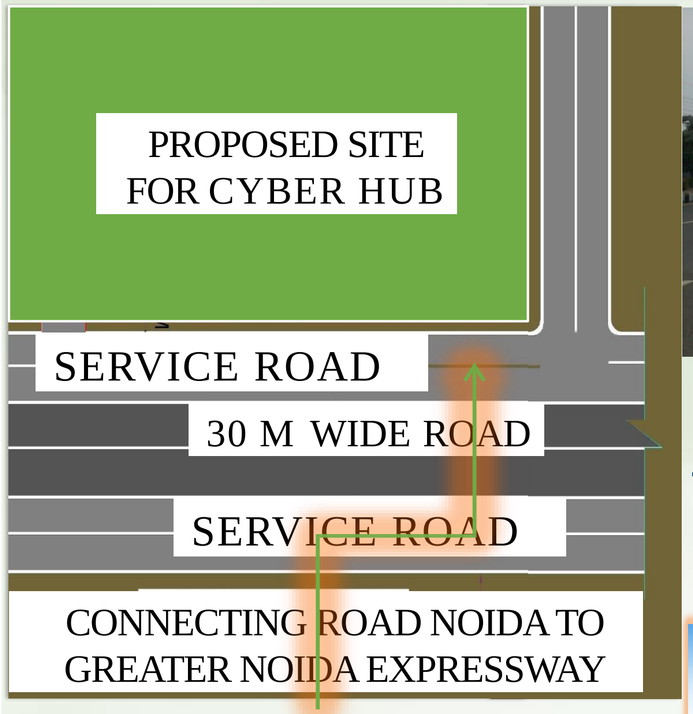
SECTOR 137 METRO STATION (1.7KM)

JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY (2.6KMS)

JAYPEE HOSPITAL (1.9KM)

GLOBAL MALL (0.8 KM)

SANDAL SUITES (1.8 KM)

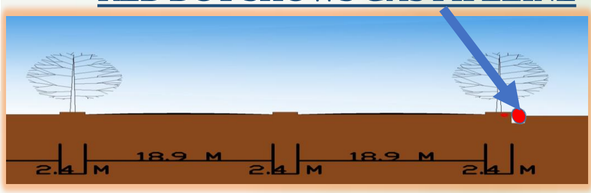


ELECTRIC LINES, TRANSFORMER

GAS SUPPLY

- PROVIDED A HIGH PRESSURE GAS PIPELINE - 18” DADRI-DESU PIPELINE BY GAIL (INDIA)LIMITED.

RED DOT SHOWS GAS PIPELINE



SEWER LINE

UTILITIES

DRAINAGE

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TRAFFIC ANALYSIS

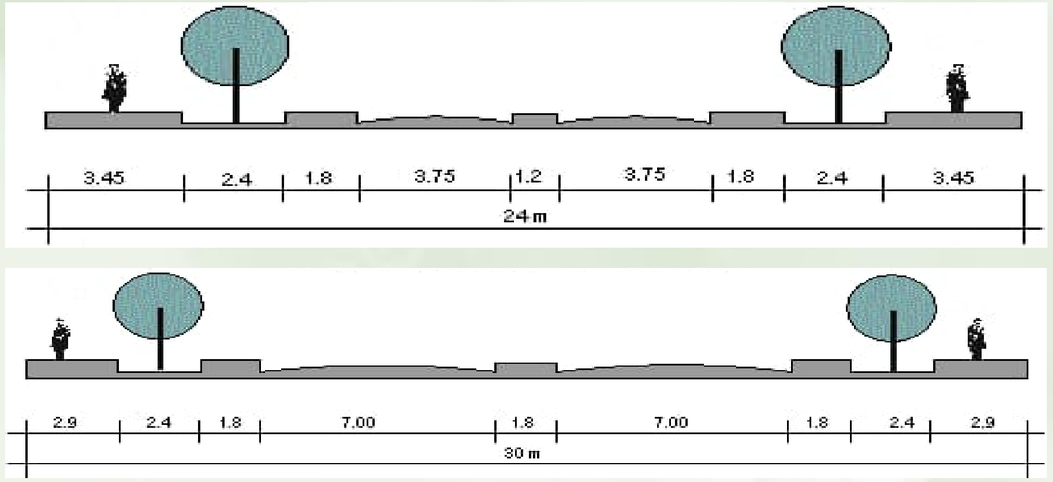
THE DESTINATION OF TRAFFIC IS FROM NEW DELHI ON THE NORTH – WEST DIRECTION AND GREATER NOIDA ON THE SOUTH – EAST DIRECTION.

- AVERAGE VOLUME OF THE TRAFFIC ON THE 30M. WIDE ROAD PER HOUR ARE AS FOLLOWS –
- FOUR WHEELERS – 89 NOS./HR.
- TWO WHEELERS – 118 NOS./HR.
- TRUCKS – 42 NOS./HR.

TOPOGRAPHY

- FLAT LAND WITH NO CONTOURS PRESENT ON THE SITE.
- THE SITE LEVEL IS - 0.40 M FROM ROAD LEVEL.

ROAD SECTION:



SWOT ANALYSIS

STRENGTH

- NOIDA IS A BOOMING COMMERCIAL HUB IN THE NCR REGION..
- SITE IS LOCATED ON A PRIME LOCATION IN NOIDA.
- SITE IS ADJACENT TO THE NOIDA GREATER NOIDA EXPRESSWAY WHICH MAKES THE CONNECTIVITY EASIER.
- IT IS WELL CONNECTED TO PUBLIC TRANSPORT.
- A METRA LINE IS PROPOSED ADJACENT TO THE SITE.

WEAKNESS

- SURROUNDING WILL BE NOISY DUE TO THE PRESENCE OF THE EXPRESSWAY.
- THE PROPOSED METRO WILL ALSO ADD TO THE NOISE POLLUTION.
- THE CLIMATIC CONTITIONS OF THE PLACE MAY AT TIMES BECOME LIFE THREATNING.

OPPORTUNITY

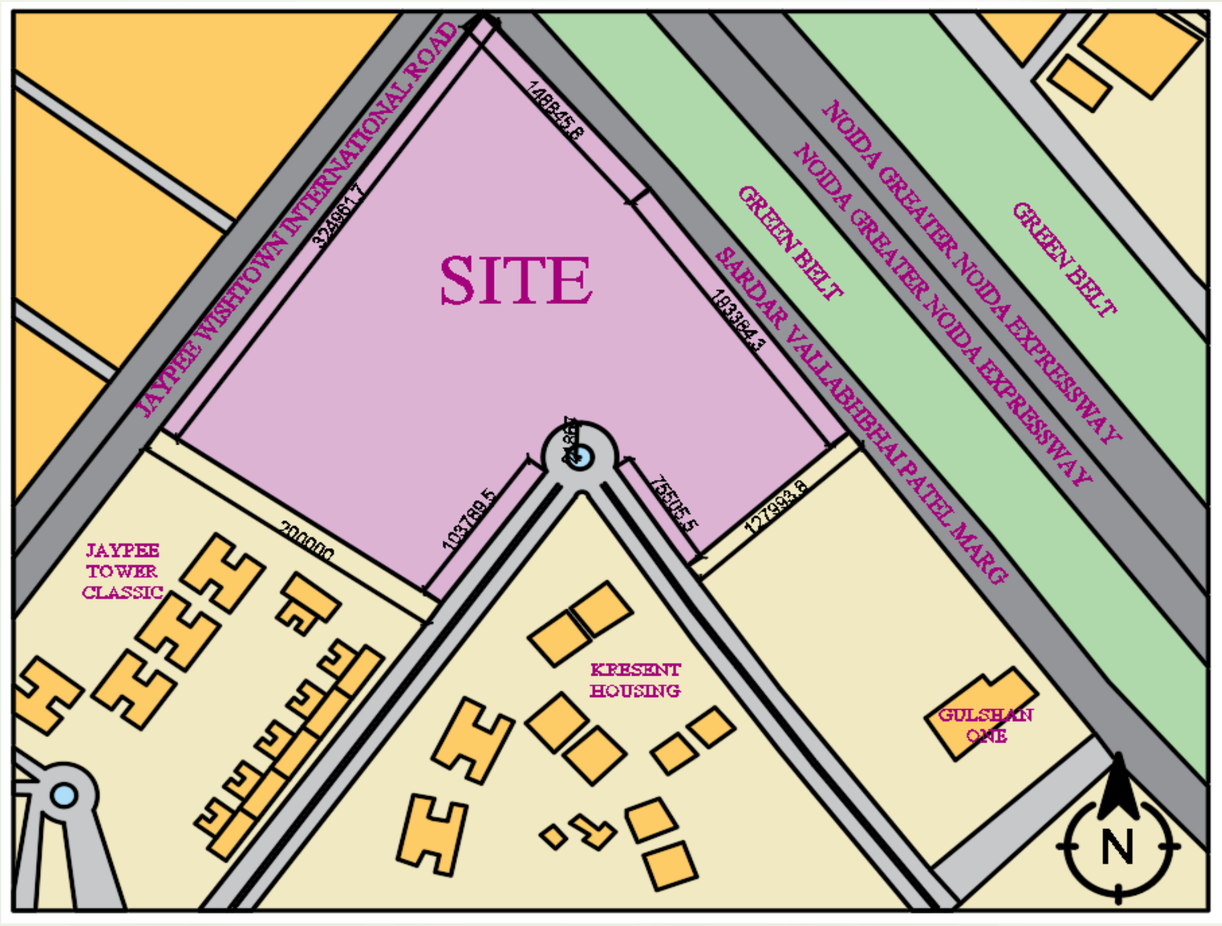
- SITE IS A PROPOSED COMMERCIAL LAND AS PER THE NOIDA MASTER PLAN 2031
- PRESENCE OF MORE THAN 100 INSTITUTIONS INCREASES THE POTENTIAL OF THESITE.
- HIGH RISED RESIDENTIAL APPARTMENT IN THE VICINITY. PRESENSE OF NO SIMILAR PROJECT IN THE VICINITY

.

THREATS

- THE PROJECT MAY ADD TO THE TRAFFIC OF THE CITY.
- THERE WILL BE SECURITY ISSUES BECAUSE OF THE EXPRESSWAY.
- THE NEARBY RESIDENCES ARE CURRENTLY ABANDONED

SITE DIMENSIONS:



SERVICES PROVIDED BY GOVERNMENT ARE

WATER SUPPY	DRAINGE SYSTEM	ELECTRICITY
•OVERHEAD TANK	- PRESENT ON THE MAIN ROAD	- POLES ARE USE ONLY FOR ROAD LIGHT
•UNDERGROUND WATER LEVEL IS 15M FROM GROUND LEVEL	- SEWAGE PIPE LINES ARE AVAILABLE	- UNDERGROUND ELECTRIC WIRE

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CLIMATE

THE CLIMATE OF THE DISTRICT IS SUB-HUMID AND CHARACTERIZED BY HOT SUMMER AND BRACING COLD SEASON I.E. COMPOSITE. AFTER FEBRUARY THERE IS CONTINUOUS INCREASE IN TEMPERATURE TILL MAY WHICH IS GENERALLY THE HOTTEST MONTH. THE DISTRICT EXPERIENCES THE HOTTEST WEATHER IN THE MONTH OF JUNE WITH AVERAGE MEAN TEMPERATURE OF 32.85°C FOLLOWED BY MAY WITH 31.9°C. THE COLDEST MONTH IS JANUARY WITH AVERAGE MEAN TEMPERATURE OF 14.2°C FOLLOWED BY DECEMBER WITH 15.4°C.

WIND

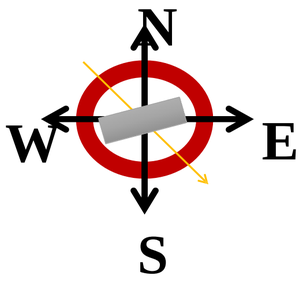
THE PREDOMINANT AVERAGE HOURLY WIND DIRECTION IN NOIDA VARIES THROUGHOUT THE YEAR. THE WIND IS MOST OFTEN FROM THE EAST FOR 1.5 MONTHS, FROM JULY 12 TO AUGUST 29, WITH A PEAK PERCENTAGE OF 41% ON JULY 30

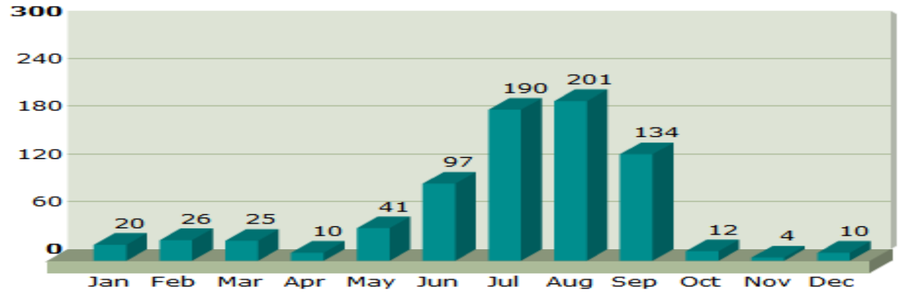
SOIL TYPE

THE SOIL RANGES FROM PURE SAND TO STIFF CLAYS AND INCLUDING ALL COMBINATION OF THE TWO EXTREME LITHO UNITS. THE PURE SAND IS CALLED BHUR AND CLAY IS CALLED MATIAR. THE MIXTURE OF SAND AND CLAY IN EQUAL PROPORTION FORMS DUMAT OR LOAM, A GOOD AGRICULTURE SOIL. SEVERAL SUBCATEGORIES OF DUMAT ARE POSSIBLE DEPENDING UPON THE CONTENTS OF CLAY AND SAND. THE BAD LAND PATCHES (KALLOR) WHICH ARE INGESTED WITH REH AT PLACES DO NOT SUPPORT ANY VEGETATION GROWTH. ALLUVIAL SOILS OCCURRING IN FLOOD PLAIN OF RIVERS IS CALLED KEMP WHICH YIELD GOOD CROPS. KANKARS INVARIABLY ASSOCIATED WITH CLAY AND AT TIMES RETARDS GROUND WATER MOVEMENT.

RAINFALL

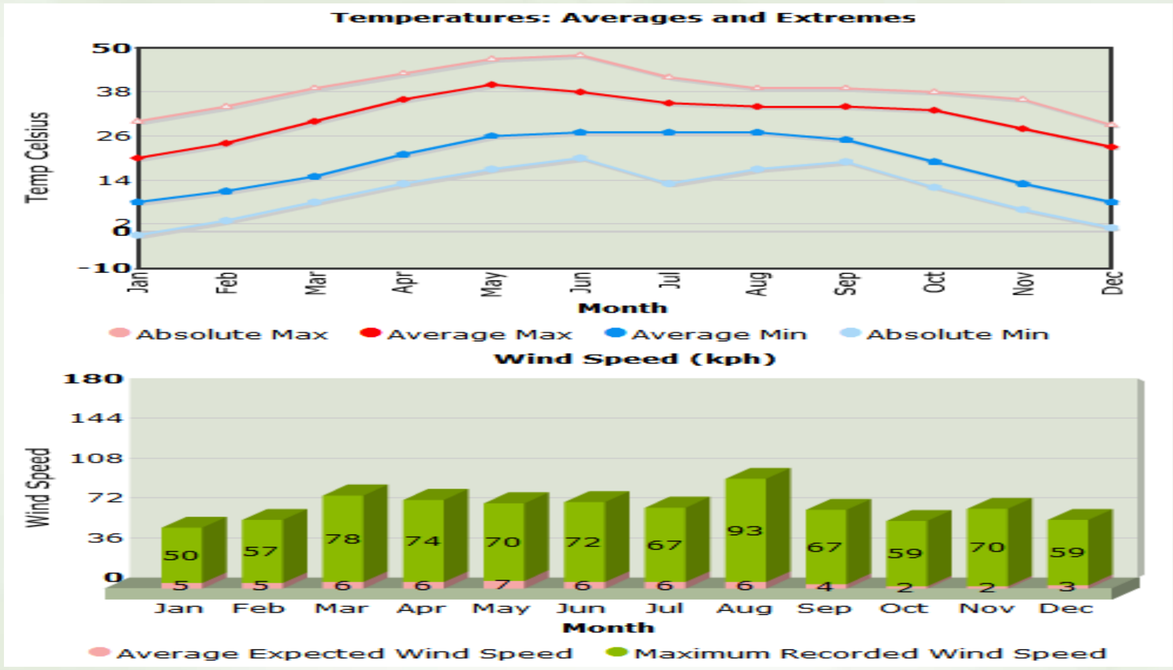
- MONSOON RAINS ARE INTENSE AND LITTLE OR NO RAIN IN DRY PERIODS.
- MAX. HOURLY RAINFALL : 25-38 MM/HR.
- MAX MONTHLY RAINFALL : 200-250 M M / M
- ANNUAL RAINFALL : 500-1300 MM/YR





TEMPERATURE

HENCE THE TEMPERATURE VARIATES FROM 5° - 48°C. THE CHART BELOW PLOTS THE AVERAGE HIGH AND LOW TEMPERATURE FOR EACH MONTH OF THE YEAR. IT ALSO SHOWS THE MAXIMUM AND MINIMUM RECORDED TEMPERATURES.



SOLAR RADIATION

SOLAR RADIATION'S ARE PLEASING DURING THE WINTER SEASON AND HENCE GOVERN THE OUTDOOR ACTIVITIES. BUT DURING SUMMERS THEY ARE ALMOST UNBEARABLE. IT IS DIRECT AND VERY STRONG DURING THE DAY.

NATURAL VEGETATION

GULMOHAR, NEEM, PEEPAL AND AMALTAS
MIXED VEGETATION WITH SCATTERED SHRUBS AND SMALL SCALDED TREES

DELONIX REGIA (GULMOHAR)

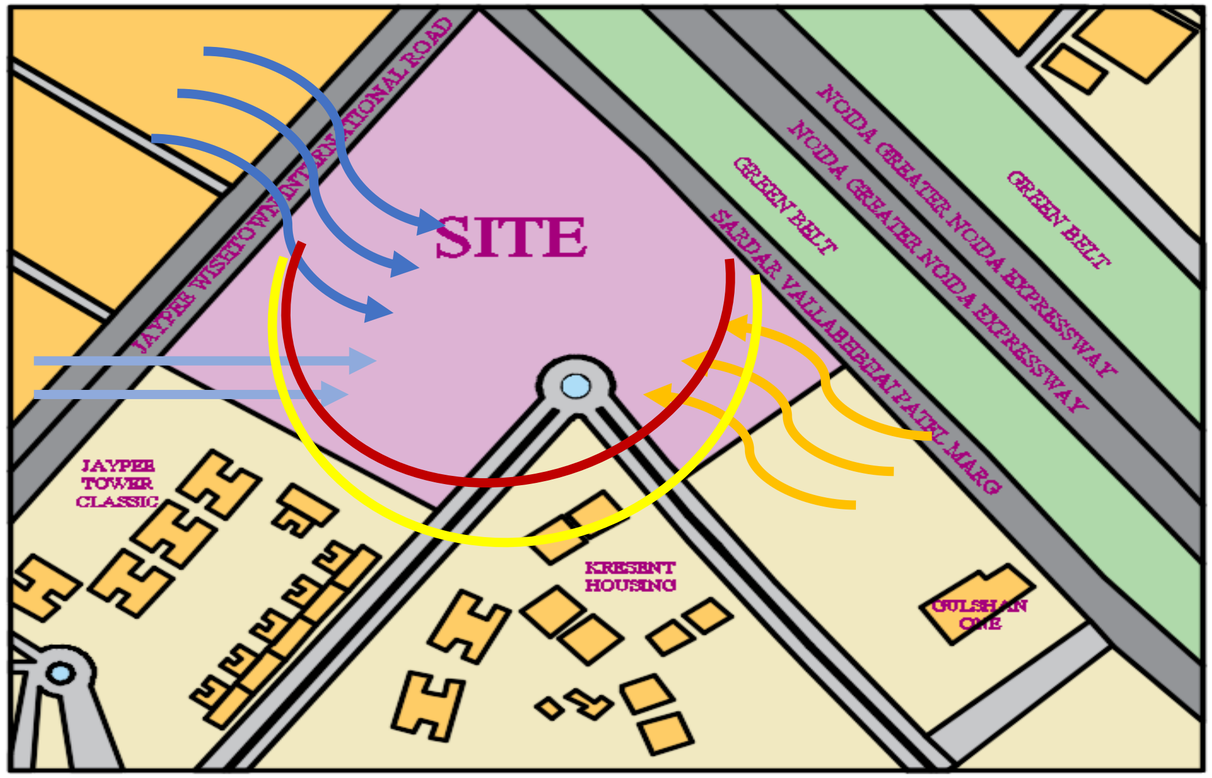
AZADIRACHTA INDICA (NEEM)

FICUS RELIGIOSA (PEEPAL)

CASSIA FISTULA (AMALTAS)

SITE ORIENTATION AND SUN PATH

- THE SITE IS ORIENTED IN SOUTH-WEST DIRECTION WITH LONGER SIDE FACINNG EXPRESS WAY.



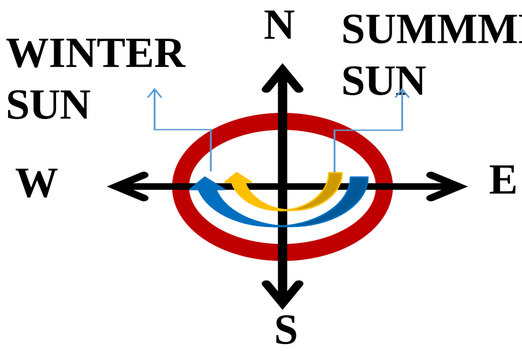
WESTERN DISTURBANCE

SOUTH EAST WIND (THE MONSOON WINDS)

NORTH WEST WINDS (PREVALING WINDS)

SUN PATH

SUNPATH DIAGRAM



WIND DIRECTION

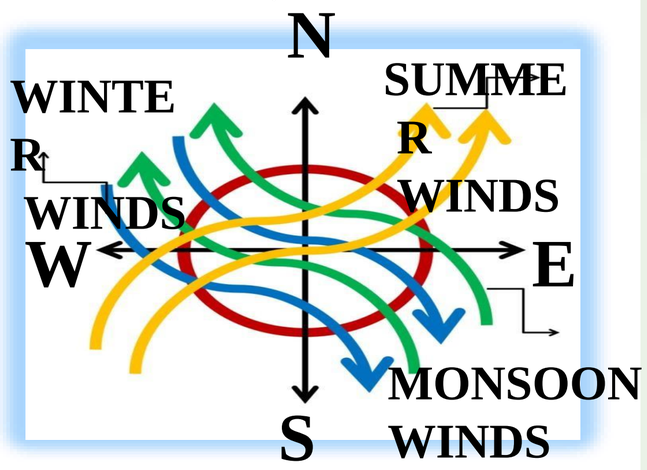


IMAGE 1

IMAGE 4

IMAGE 2

IMAGE 5

IMAGE 3

IMAGE 6

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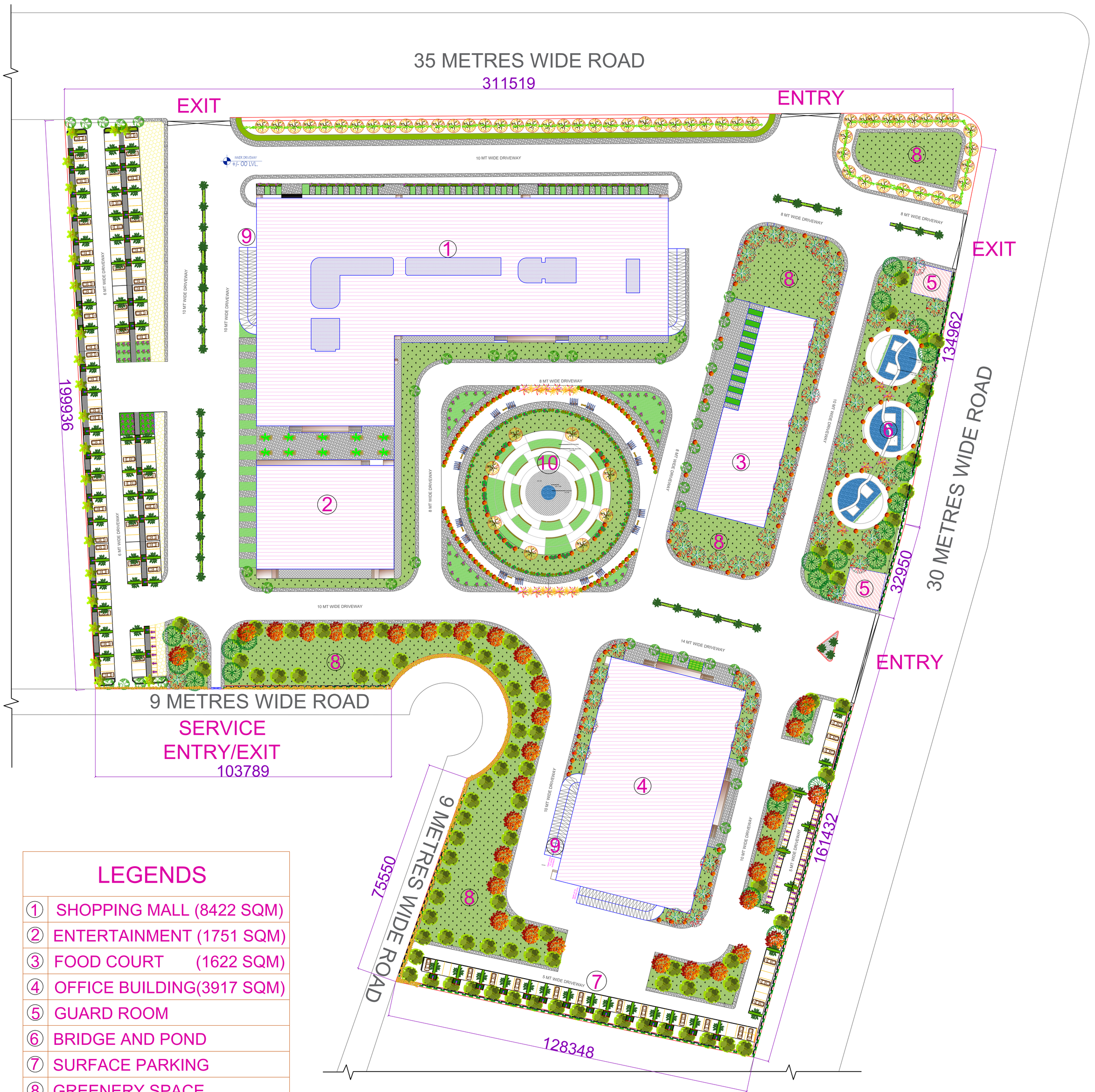


LEGENDS

①	SHOPPING MALL (8422 SQM)
②	ENTERTAINMENT (1751 SQM)
③	FOOD COURT (1622 SQM)
④	OFFICE BUILDING(3917 SQM)
⑤	GUARD ROOM
⑥	BRIDGE AND POND
⑦	SURFACE PARKING
⑧	GREENERY SPACE
⑨	RAMP TOWARDS BASEMENT
⑩	CENTRAL COURTYARD

CYBER TOWN, ***NOIDA SEC-129***

SHEET TITLE : SITE PLAN

SCALE : 1:500

SUBJECT : ARCHITECTURAL THEIS

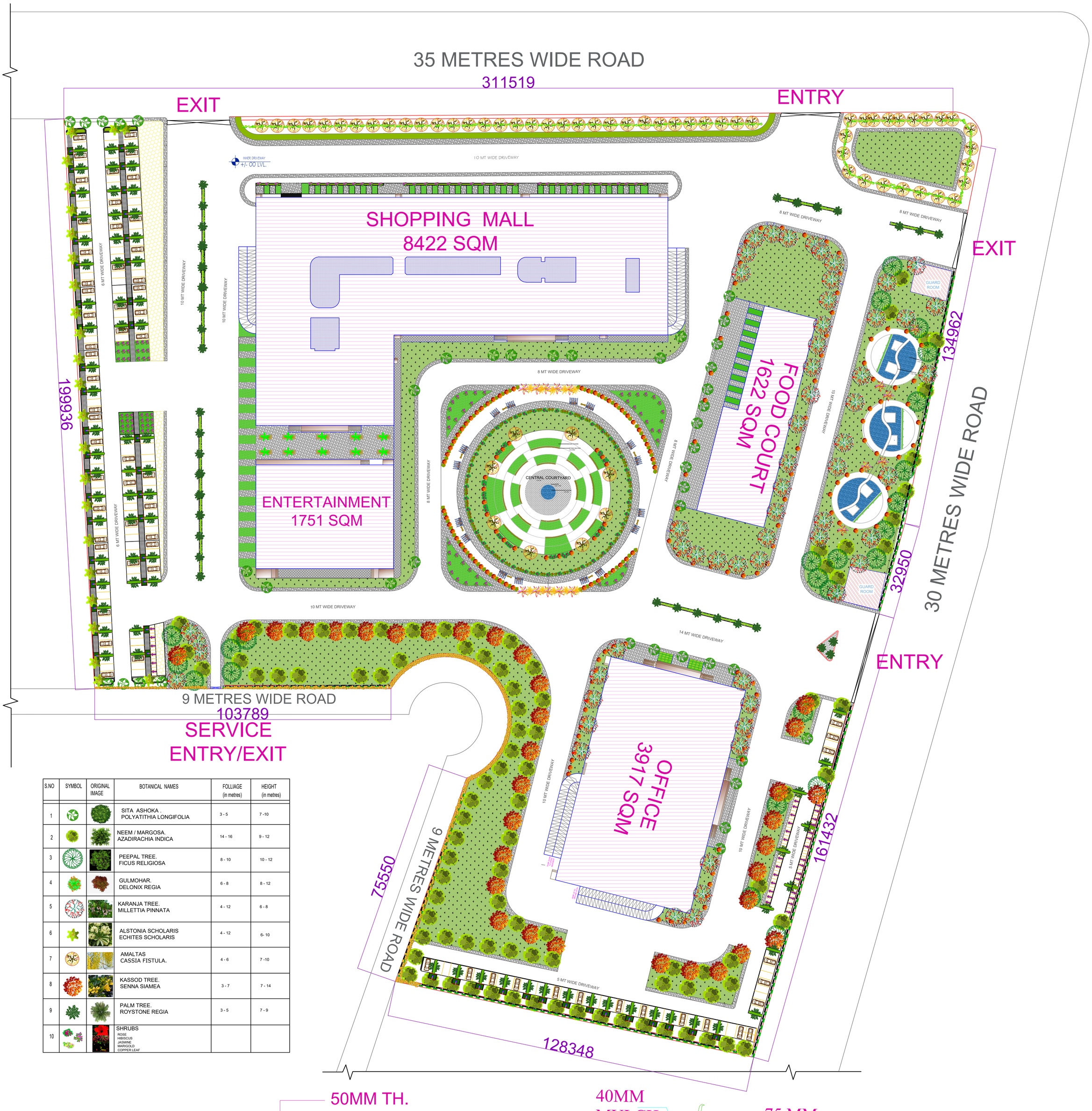
SUBMITTED BY : ADHYA SHADEJA

BRANCH : B.ARCH 5TH YR. (10TH SEM)

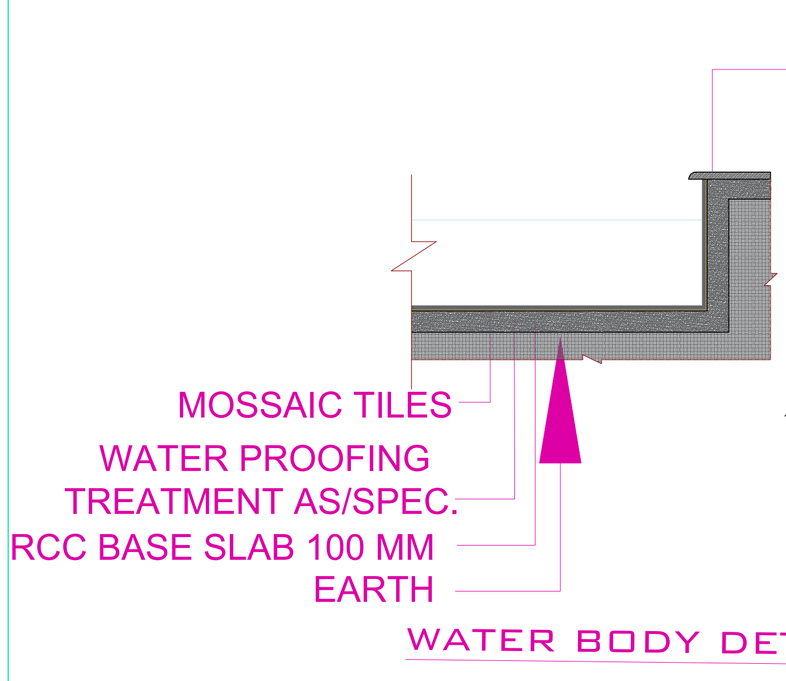
ROLL NO. : 1190101002

COLLEGE : SAP, BBD UNIVERSITY, LKO

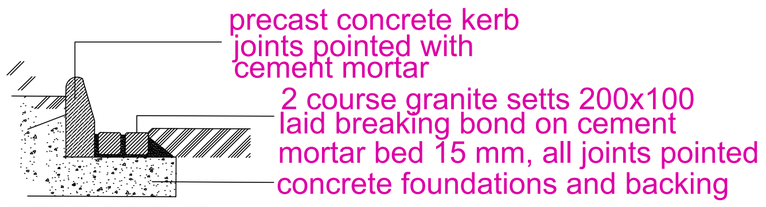
NOTE : ALL DIMENSIONS ARE IN MM



S.NO	SYMBOL	ORIGINAL IMAGE	BOTANICAL NAMES	FOLLIAGE (in metres)	HEIGHT (in metres)
1			SITA ASHOKA . POLYATITHIA LONGIFOLIA	3 - 5	7 -10
2			NEEM / MARGOSA. AZADIRACHIA INDICA	14 - 16	9 - 12
3			PEEPAL TREE. FICUS RELIGIOSA	8 - 10	10 - 12
4			GULMOHAR. DELONIX REGIA	6 - 8	8 - 12
5			KARANJA TREE. MILLETTIA PINNATA	4 - 12	6 - 8
6			ALSTONIA SCHOLARIS ECHITES SCHOLARIS	4 - 12	6- 10
7			AMALTAS CASSIA FISTULA.	4 - 6	7 -10
8			KASSOD TREE. SENNA SIAMEA	3 - 7	7 - 14
9			PALM TREE. ROYSTONE REGIA	3 - 5	7 - 9
10			SHRUBS ROSE HIBISCUS JASMINE MARIGOLD COPPER LEAF		

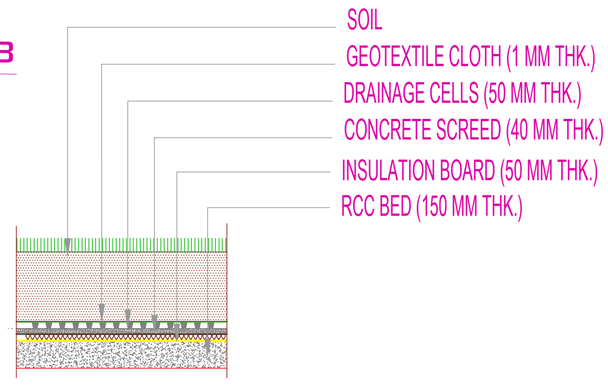


WATER BODY DETAIL



KERB DETAIL

DETAIL OF SHRUB PLANTATION



TERRACE GARDEN DETAIL

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : ELECTIVE- 01 LANDSCAPE DESIGN

SCALE : 1:500

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA

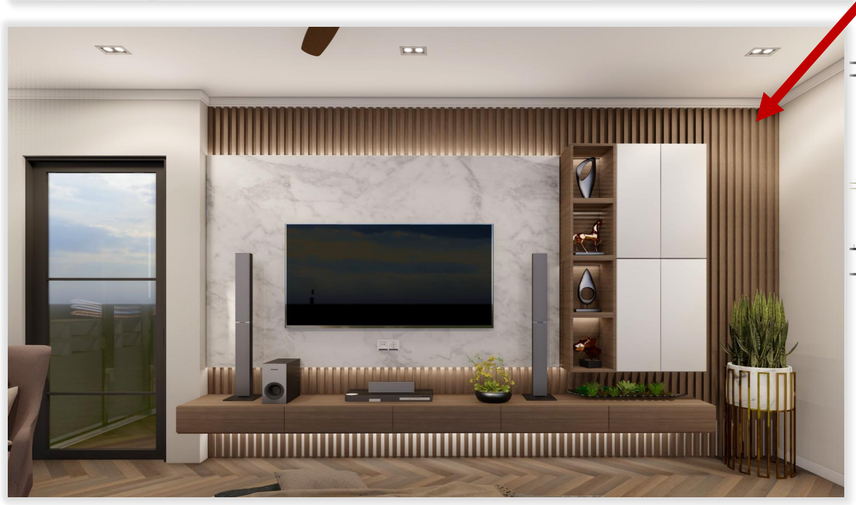
BRANCH : B.ARCH 5TH YR. (10TH SEM)

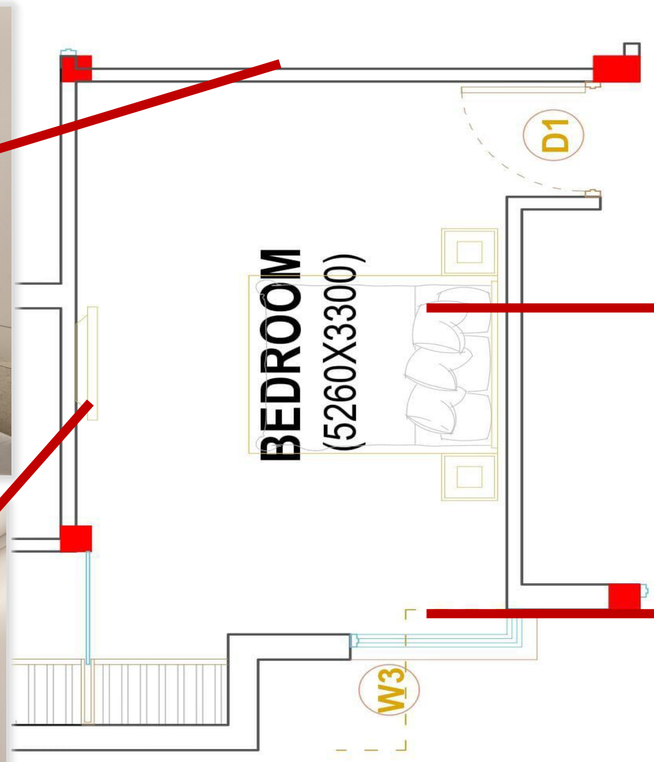
ROLL NO. : 1190101002

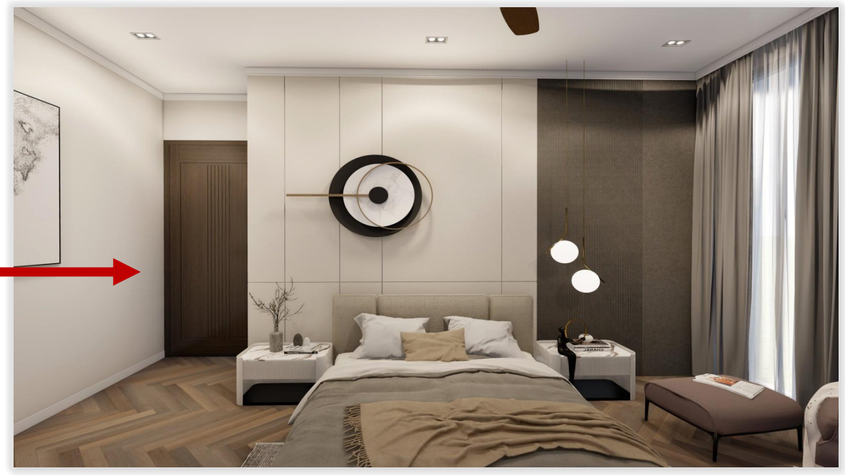
COLLEGE : SAP, BBD UNIVERSITY, LKO

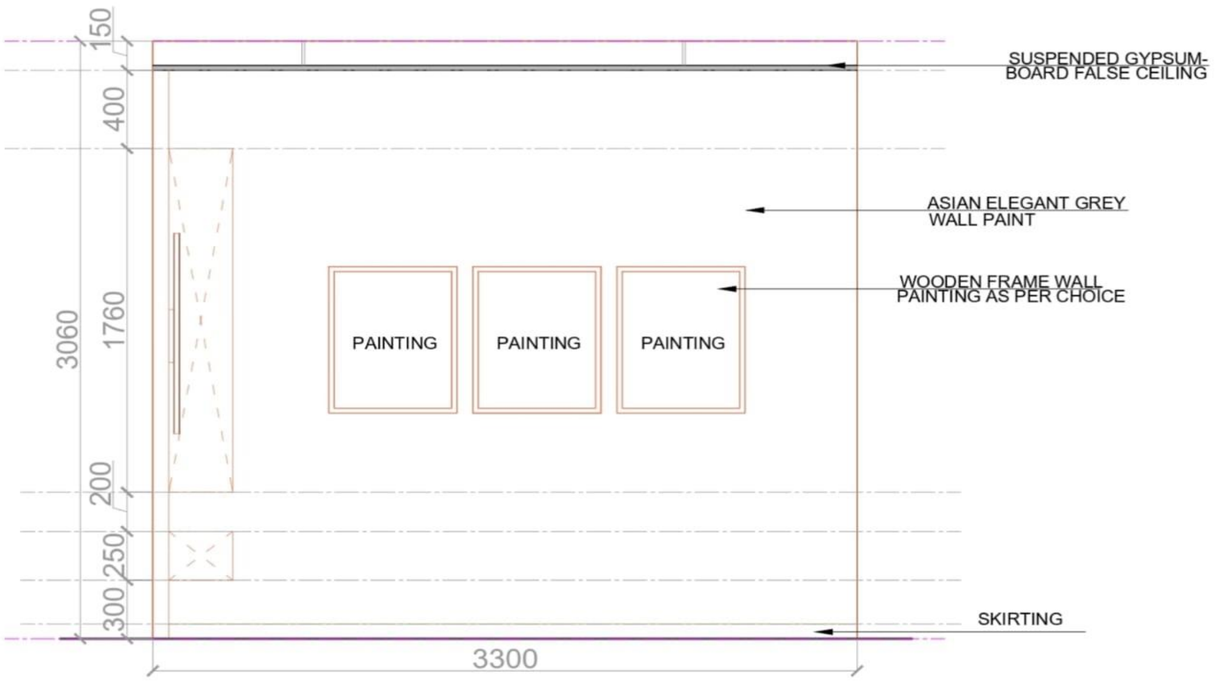
NOTE : ALL DIMENSIONS ARE IN MM

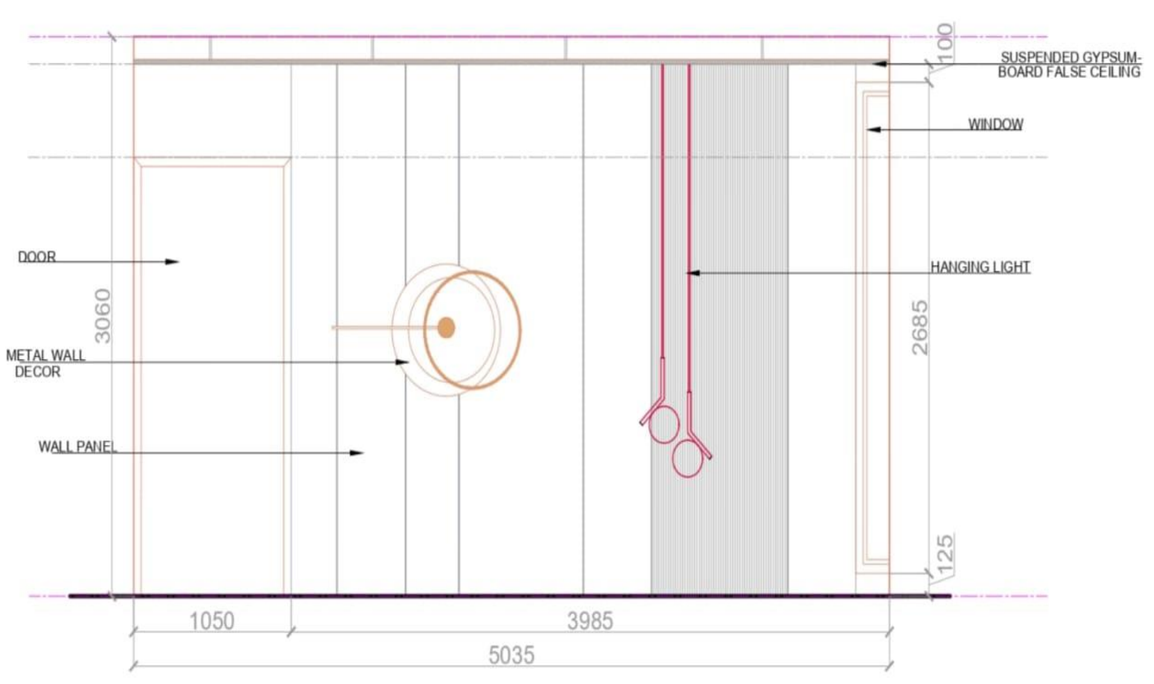
MASTER BEDROOM

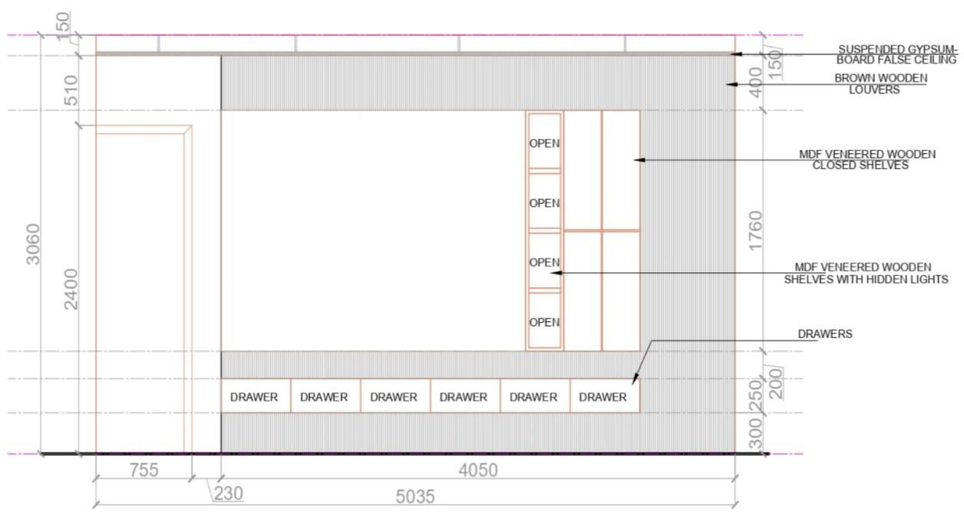


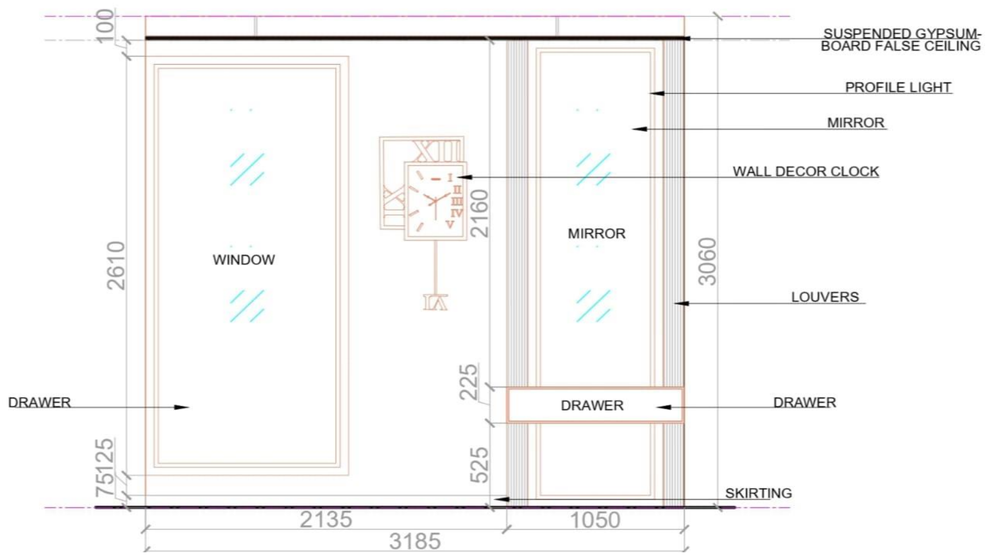




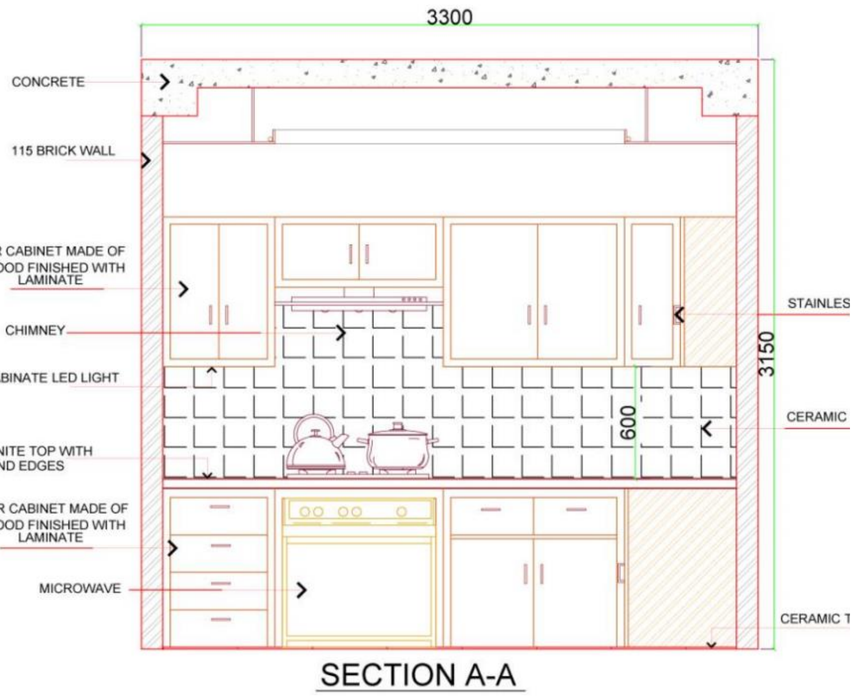




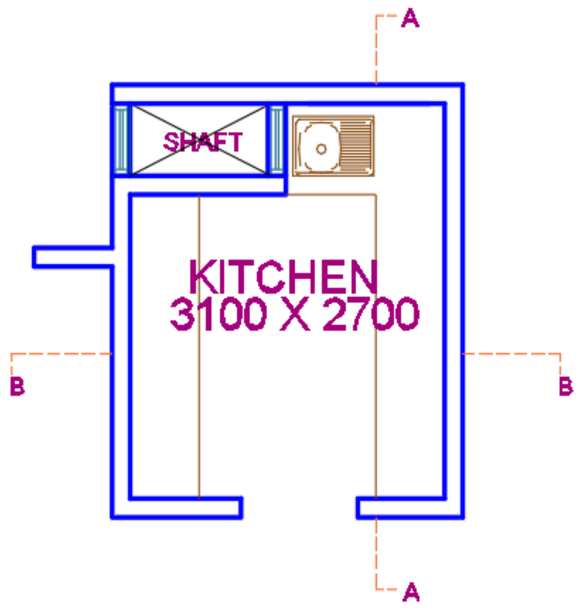


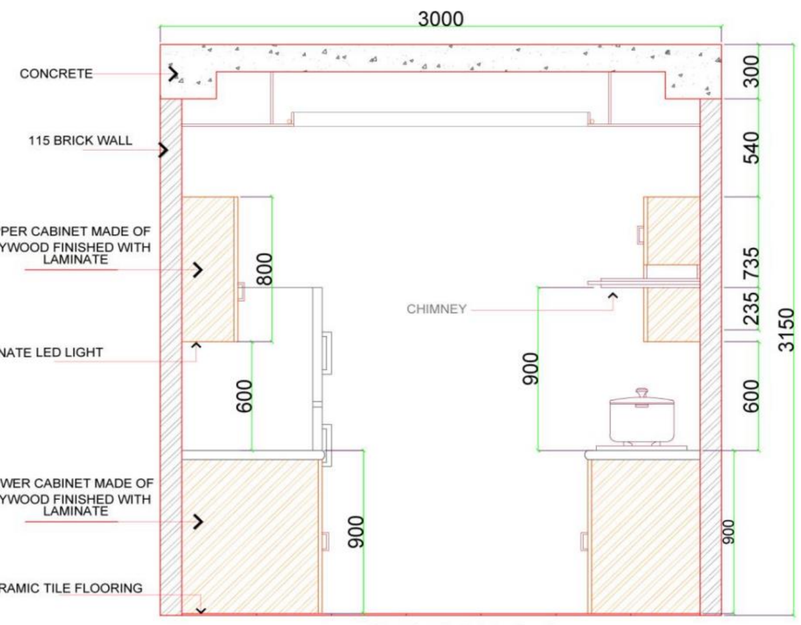


KITCHEN



SECTION A-A





SECTION C-C

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : ELECTIVE-02 INTERIORS

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA

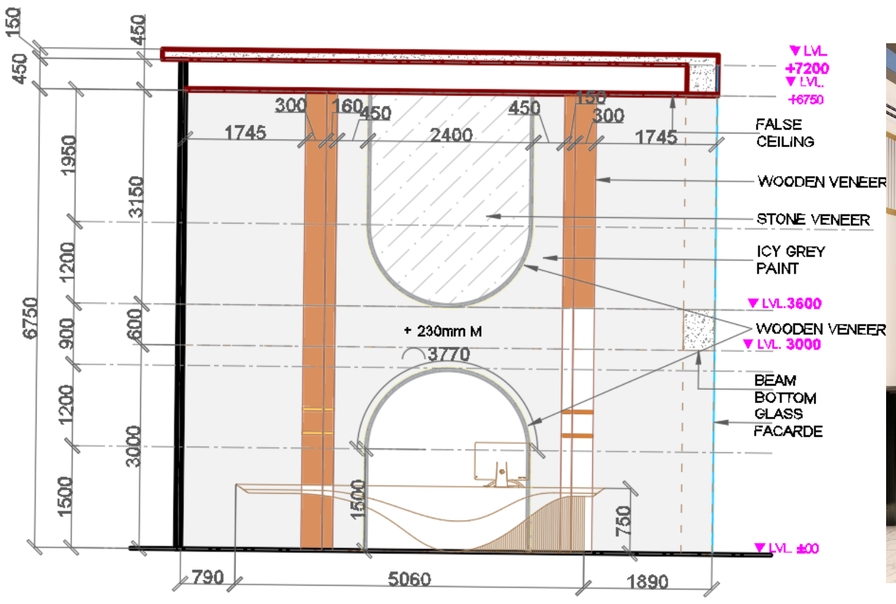
BRANCH : B.ARCH 5TH YR. (10TH SEM)

ROLL NO. : 1190101002

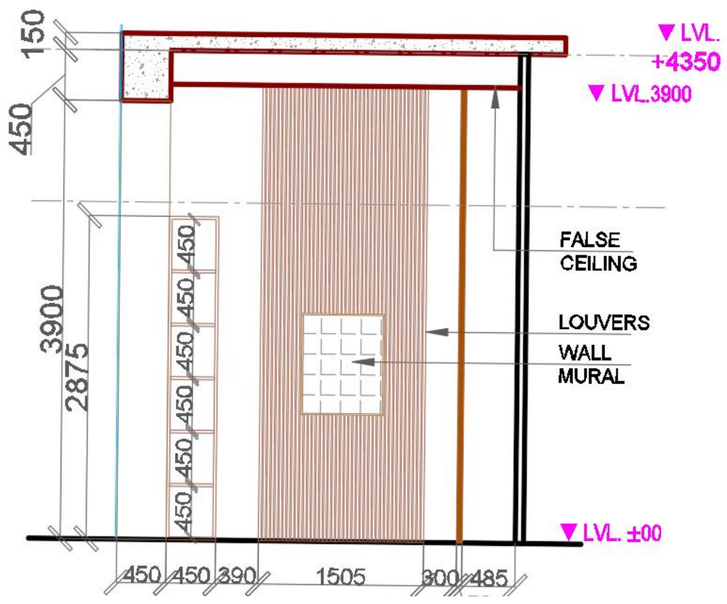
COLLEGE : SAP, BBD UNIVERSITY, LKO

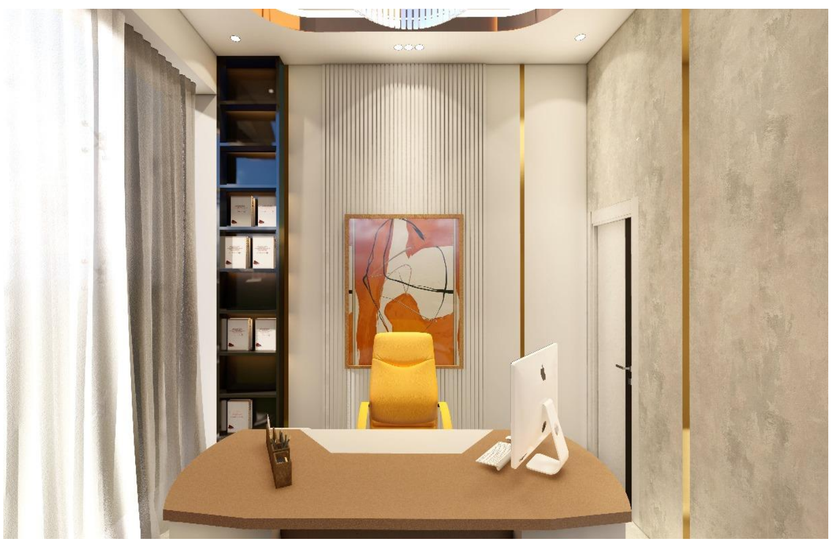
NOTE : ALL DIMENSIONS ARE IN MM

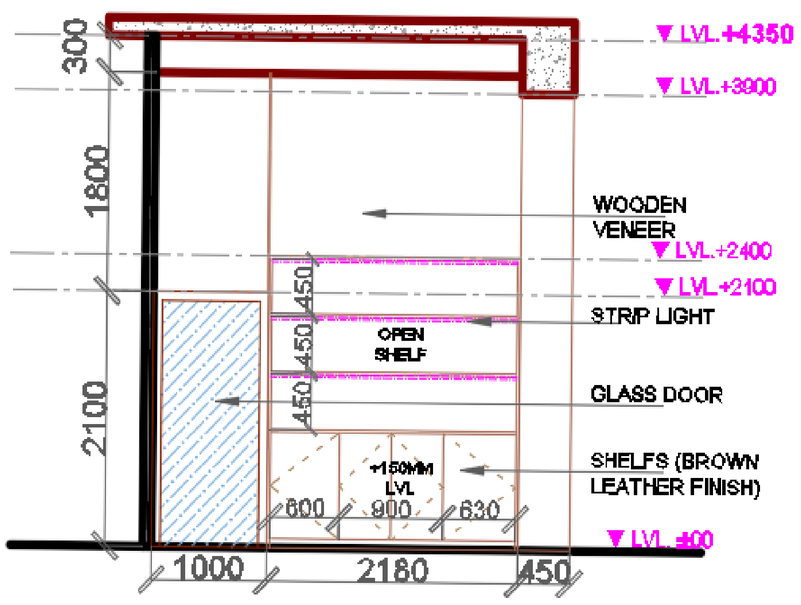
OFFICE RECEPTION AREA



DIRECTOR'S CABIN







OFFICE WORKSTATION

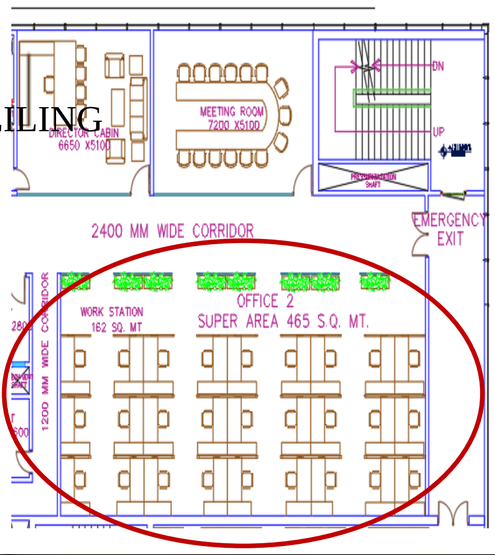
DOWN LIGHTS

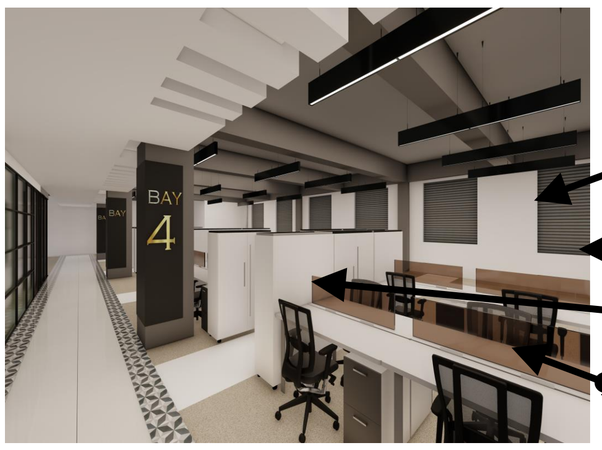
INDUSTRIAL CEILING

FALSE CEILING
-300 MM LVL.
AFTER BEAM
BOTTOM

MOSAIC TILES

KAJARIA TILES
600X600 MM



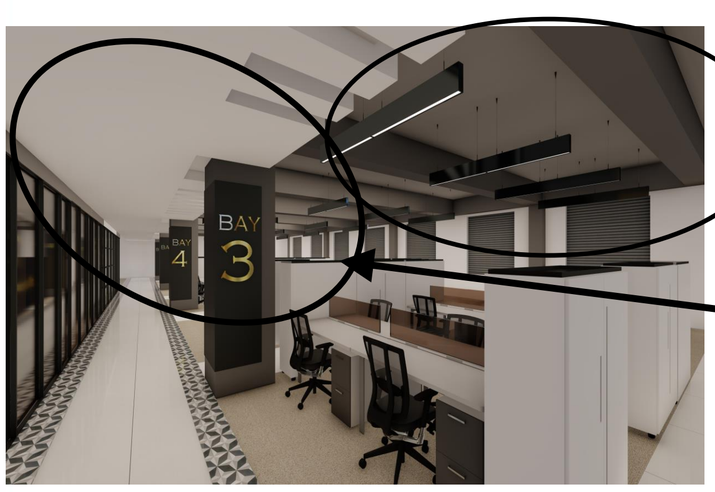


ICY GREY PAINT

ROLLING CURTAINS

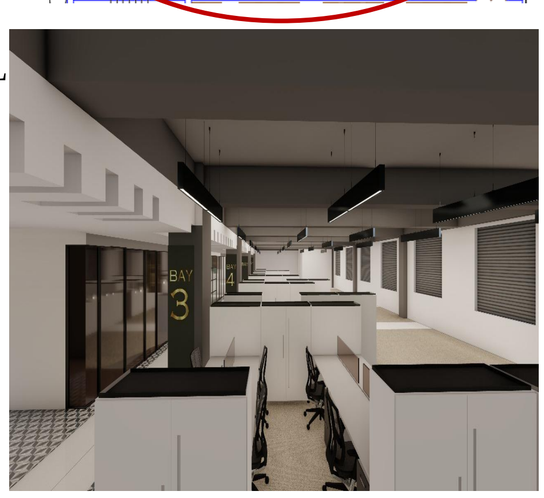
STORAGE UNIT

WORKING DESK0
900X600X750MM



INDUSTRIAL CEILING

GYPSUM BOARD FALSE CEILING



BEAM
- 600 MM LVL.

FALSE CEILING
- 1100 MM LVL.

AGLAONEMA PLANTS

CYBER TOWN, *NOIDA SEC-129*

SHEET TITLE : ELECTIVE-02 INTERIORS

SUBJECT : ARCHITECTURAL THEIS

SUBMITTED BY : ADHYA SHADEJA
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S W E N