

ARCHITECTURAL  
PORTFOLIO

2013-2018



Sunaina Chauhan

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It will take 2 minutes ,do read this.

I am a young and determinant architect who is looking forward to accept this responsibility by taking care of the environment and build something which is more efficient,natural and productive.After working in a commercial and academic set up of the profession,I have realized that it is ours and only our sole responsibility to acknowledge the client with sustainable solutions to have a better and healthy place to live in.I am looking forward to take humanitarian architecture as a way to give back to the community in future, hence I am eager to learn and practice on this philosphy.  
 If your firm works on the same philosophy, give me a chance to follow up my dream.

## Interest Areas

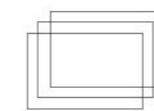
NATURAL BUILDING



SUSTAINABLE ARCHITECTURE



PROBLEM SOLVING



ARCHITECTURAL DESIGNING



SOCIAL WORK



URBAN DESIGN



URBAN ISSUES



### Education

**Under graduate Degree (Bachelor of Architecture)**  
 2013-18 (present)

University School of Architecture & Planning  
 G.G.S.I.P.U.,Dwarka,Delhi

**Senior secondary**  
 Sachdeva Public School ,Rohini, Delhi

XII 94.4%

X 9.4 CGPA

### Language

English ,Hindi

### Work experience

**June ,2017- April 2018** Educational Training AND studio Sarvpriya Vihar,Delhi

**June ,2017- ongoing** Architecture & Interior Designing (Freelancing)

**2017 (present)** Volunteer with an ngo Harajeevan

### E.C.

**Jan,2016** Participated in HUDCO trophy for Annual NASA

**Nov ,2015** Top 60 in ANDC Trophy as part of Annual NASA Convention held in Surat,Gujarat

**July,2014** Attended archade foundation study tour in varanasi

### Skills & interests

Autodesk **Autocad**,  
 Adobe **Photoshop**,  
 Autodesk **Revit**,  
**Lumion** ,  
**Sketch up**,  
**Vray** rendering,  
 Ecotect(basic)  
**MS** office

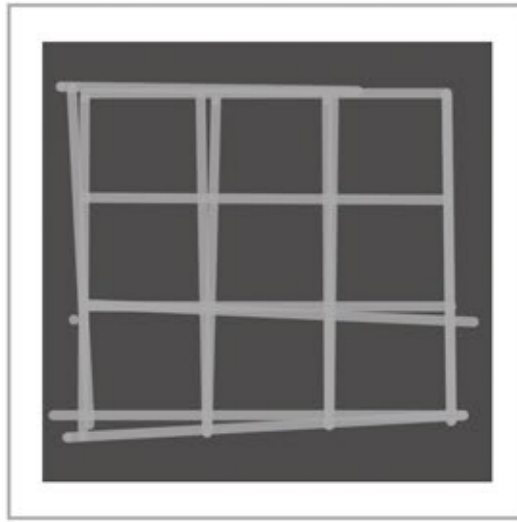
Sketching  
 Modelling  
 Drafting

Travelling  
 Reading  
 Music  
 Researching  
 Dance  
 BadminTon



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# 01 GYMKHANA CLUB

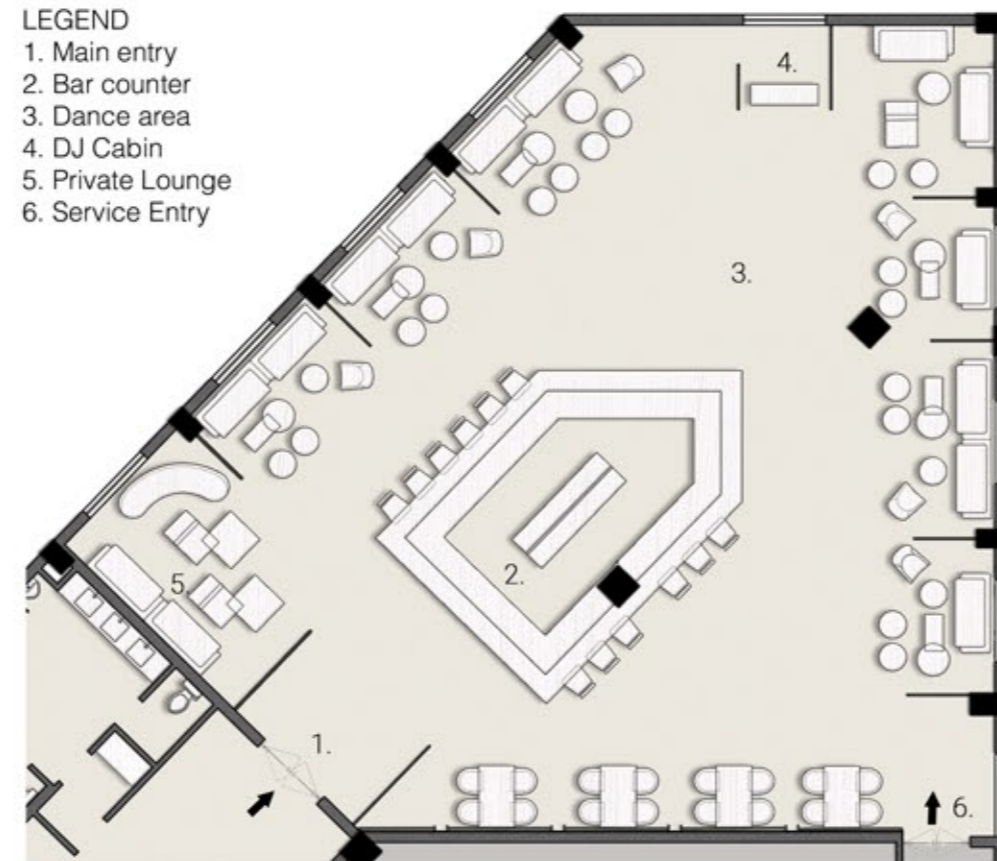
KANPUR, UTTAR PRADESH  
Interior design

The Clubhouse is a part of the NRI city complex in Kanpur. The client wanted a unique contemporary style for all the areas. Hence the idea was to create every space with unique yet similar design style. The challenge in this project were the weird angles of the building which imposed a hinderence in incorporating the angles into the design and avoid dead spaces.

## Bar area

## Key areas

- bar counter The counter is placed in the centre keeping in mind the pentagonal shape of the area. Hence the shape is also complementing the overall space.
- private lounge Peripheral seating are designed with various kind of furniture layouts, with heavy furniture to have a choice in kind of seating.
- dj cabin DJ cabin is placed in front of the dancing area
- dancing area Loose area around the bar counter is left for dancing area



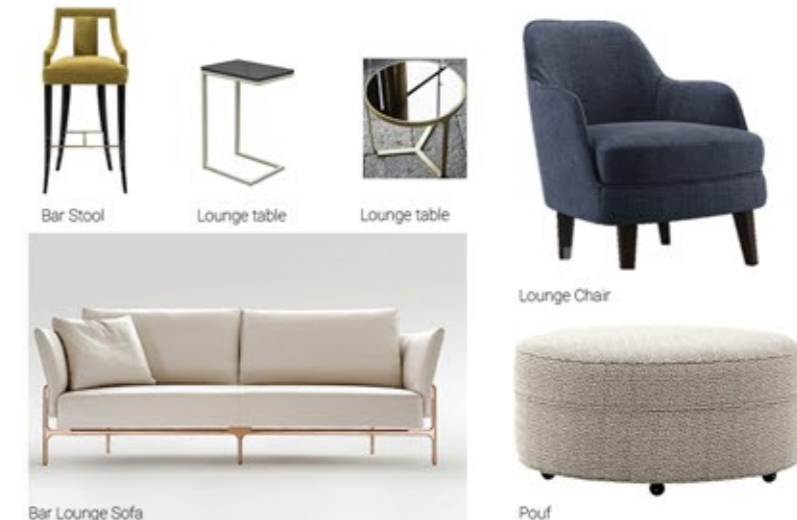
TEAM : AKSHAYA VENKATESHAWARAN , SUNAINA

3D VISUALISER : JOLLY BEDI

## MOODBOARD



## COLOUR PALETTE



**FURNITURE SCHEME**  
Different sets of furniture are aligned together to form different sets of areas, hence providing the user with multiple options and ambience.



TEAM : AKSHAYA VENKATESHAWARAN , SUNAINA

3D VISUALISER : JOLLY BEDI

### KIDS AREA

The brief required to create a combined play area with areas for different age groups. Hence the room was divided into different sections and activities were planned according to it. Basic wooden panels and wooden flooring were used for walls & floor. Vibrant colours were added to the loose elements and wall seaters, hence balancing the colours in the space and giving it a subtle yet vibrant look.



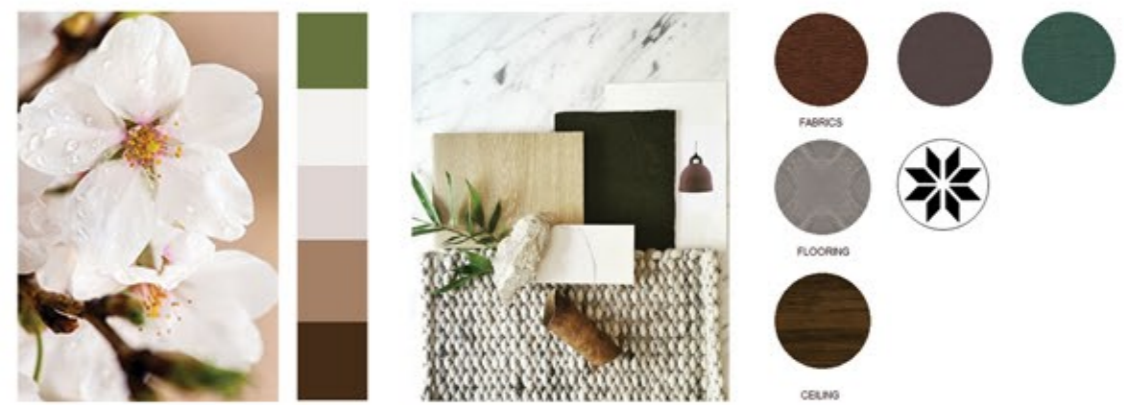
### SKY LOUNGE

The lounge is designed with wooden ceiling having artificial skylights, which further can change the colour of the lights according to the outside environment. The idea was to create an artificial natural environment, hence the colour scheme was also designed according to natural colours. Subway tiles, Metal jaali counters are used to give an industrial look to the whole area.



TEAM : AKSHAYA VENKATESHAWARAN , SUNAINA

3D VISUALISER : JOLLY BEDI





# 03

## VILLA 70-71

NOIDA, UTTAR PRADESH  
GFC DRAWINGS

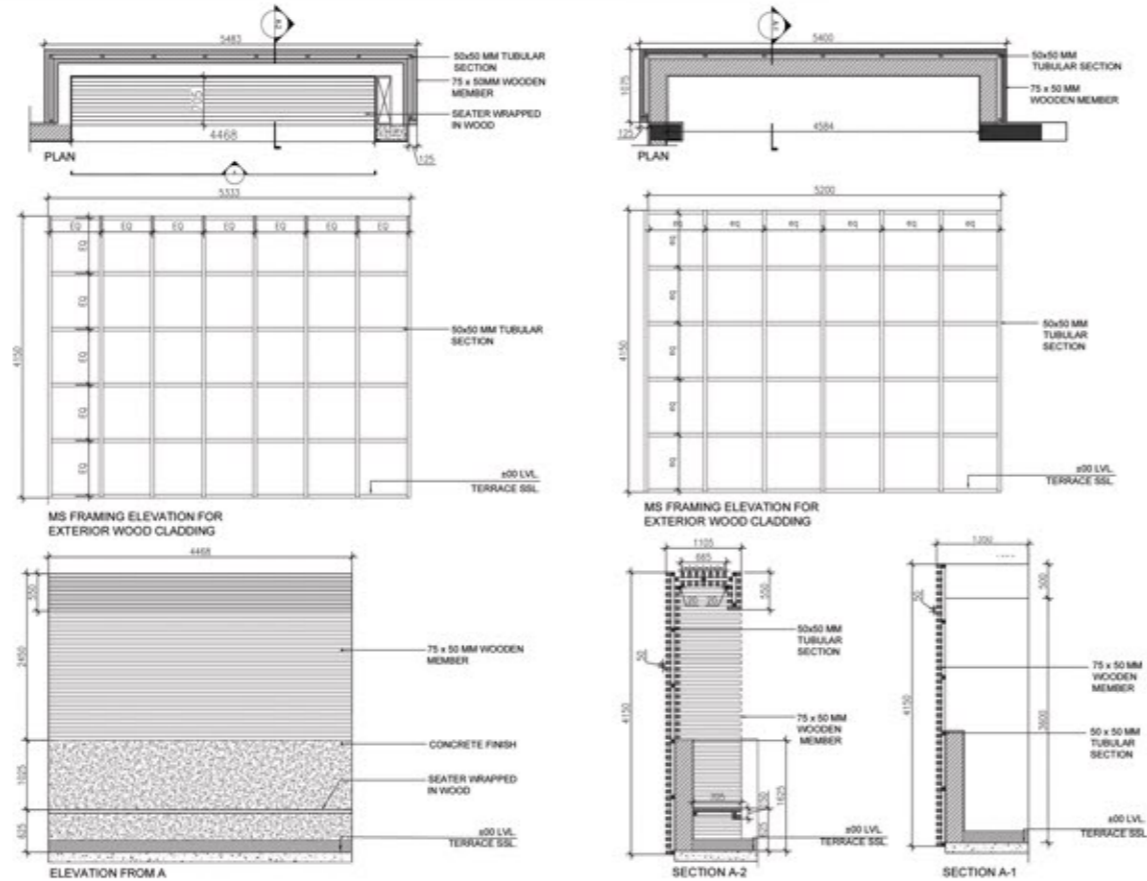
Located in the urban setting of a residential sector, the site is opportunely positioned at an intersection of two roads. The terrace is designed with pool and an adjacent deck area along with some seating areas



Terrace barbeque view      Terrace seating



Pool deck view      Exterior View



Pool deck



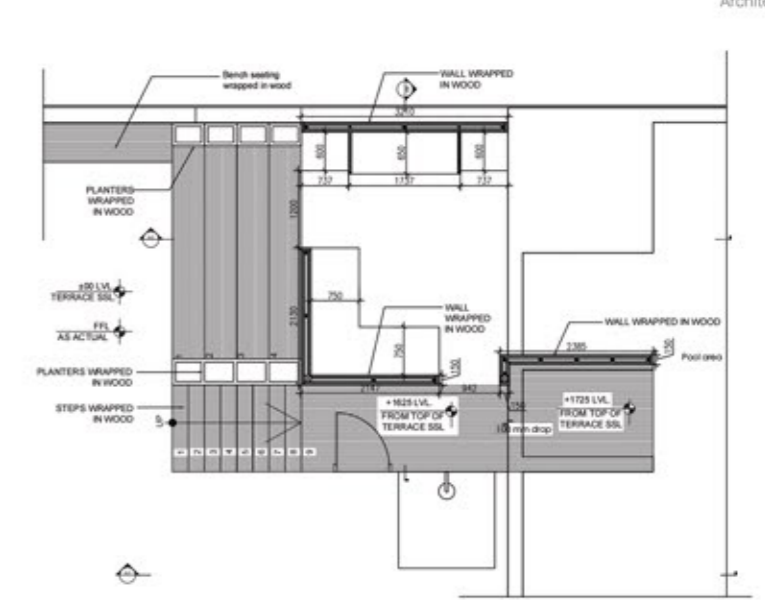
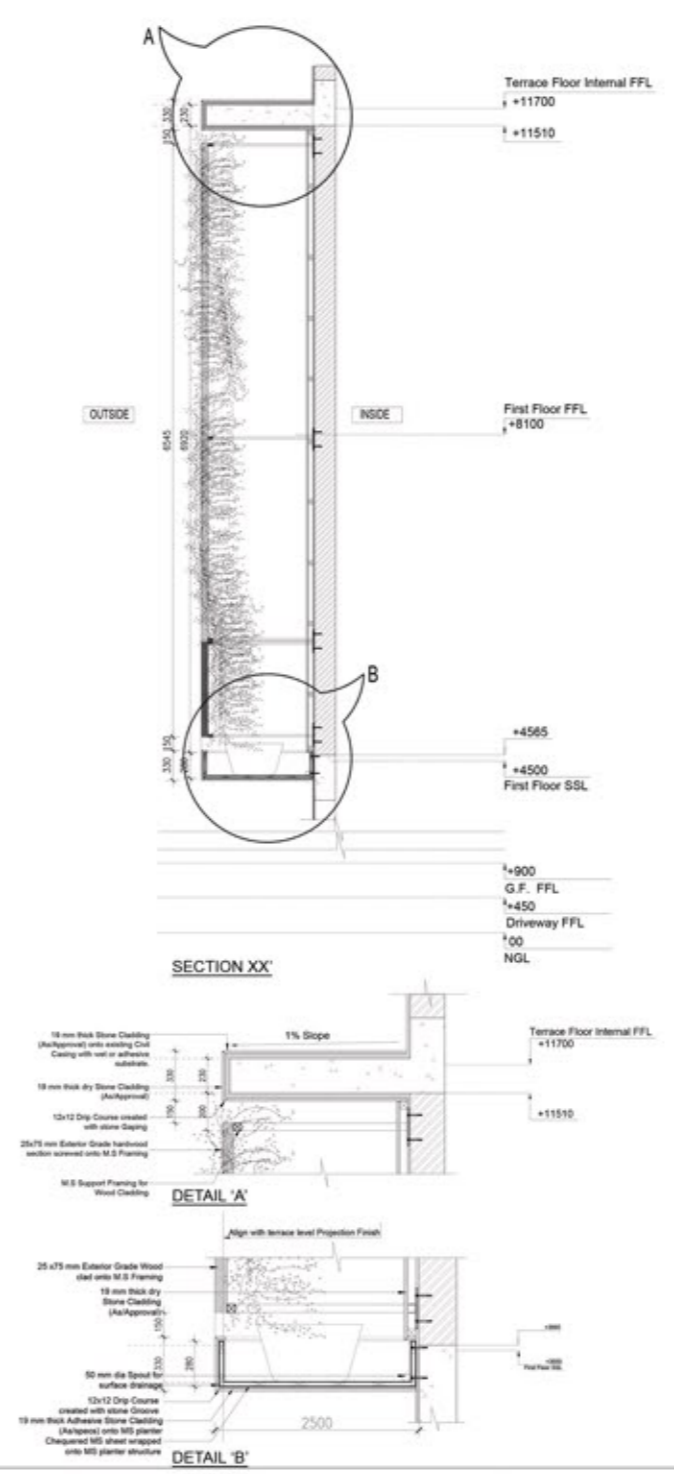
Terrace seating



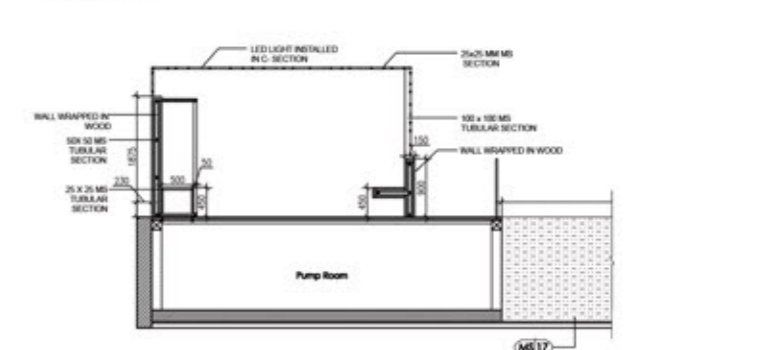
Pool deck framewok



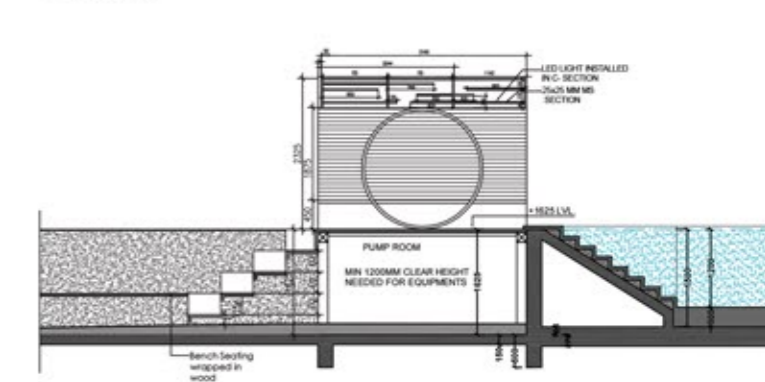
Facade planter



DECK PLAN



SECTION A-3



SECTION - A-2



RE - SURRECT-AN URBAN CULTURAL TRANSECT

# 03 RE-ACT

THESIS PROJECT  
8th Semester

*I think the kind of landscape that you grew up in, it lives with you. I don't think it's true of people who've grown up in cities so much; you may love a building, but I don't think that you can love it in the way that you love a tree or a river or the colour of the earth; it's a different kind of love.*

Arundhati Roy

## DELHI - THE CHANGE IN FLOW

- 1. Yamuna part of indus river sytem.
- 2. Delhi triangle between ridge area and the river
- 3. Stream network emerges as drainage channels between ridge and river.
- 4. Settlement emerges around the natural source.
- 5. Expansion done on new lands, examination of new areas for development.
- 6. Role of natural respuce changed- River as city water supply
- 7. Water stream component of drainage sytem within the city.
- 8. Significant loss in flood plains and open spaces
- 9. The natural resource -outside planning process of contemporary Delhi.
- 10. Emergence of fragments within the city. Lack of hierarchial order.
- 11. Approach to bring city close to river through sequential development.
- 12. Public realm reduced to movemnt corridors.

## RESURRECT

The river is dead, so dead that a person just 600 m away from the river would not know, about it. So there is an immediate need to resurrect the river, and gives its glory back to it.

## TRANSECT URBAN ∞ CULTURAL

An urban development with a cultural essence is a solution to the long lost-cause, and would help in adding a sufficient amount of population required to make a place routinely active and healthy for a safe environment.

### ISSUES

- Disconnected Waterfront**: Water's edge that has not been fully embraced. Riverfront poorly connected in terms of pedestrian links, functions, views and vistas. Waterfront itself could be much more vibrant and interesting. Waterfront's potential has been underutilized.
- Weak Public Life Pattern**: The site is well connected, yet there is a fragile pattern of urban life with few informal recreational activities taking place. Most of the activities taking place are considered necessary activities, such as offices and commercial operations.
- Minimal Open Space Identity**: The public space network is unclear, since the site lacks interesting, inviting and varied public spaces. The public space hierarchy is unclear - where is the heart of the city? Where are the places for physical activities and play?
- Unbalanced Traffic System**: The site has Ring Road running on the EAST. These highways create barriers and limit access to the site. Not only has the area around the site, but in general the city too, has become 'car centric'.
- Institutional and Office Focused Area**: Overall, the site is dominated by offices and institutions. The lack of diversity and mix in functions has a number of side effects. There are generally fewer attractions and unique experiences in each area leading to a lack of mixed user groups.

### AIM

My project intends to provide a vision, a positive urbanity for city and the river, which will create a new image for revitalization of the area. It will engage people with activity, beauty, nature and scenic views of the Yamuna River and historical monuments like Purana Qila and Red Fort. I would like to design a model which will aim to provide a more sustainable and attractive forms of development with balanced mix of uses

### HISTORICAL BACKGROUND

**EARLIER SETTLEMENT PATTERN**  
For obvious reasons, great cities have often cropped up around rivers. And over time, the connection evolves beyond practicality, so that the river does not remain simply a source of water, but becomes an INTEGRAL PART OF THE CITY'S PULSE AND MEMORY. In the case of Delhi and Yamuna, the relationship between the two was imbued with faith and continued to flourish till the time of the Mughals — for whom the Yamuna was a source of pride, as indicated by the glorious monuments they built on its banks at Delhi and Agra.

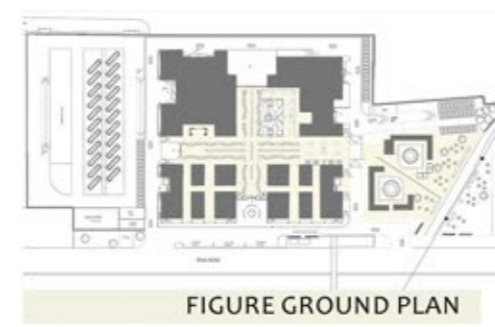
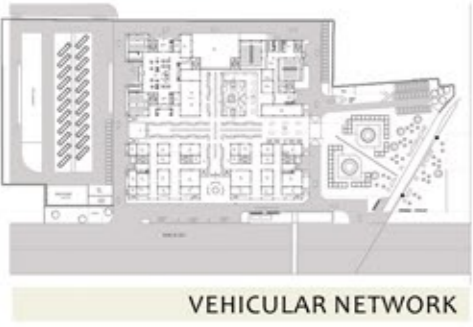
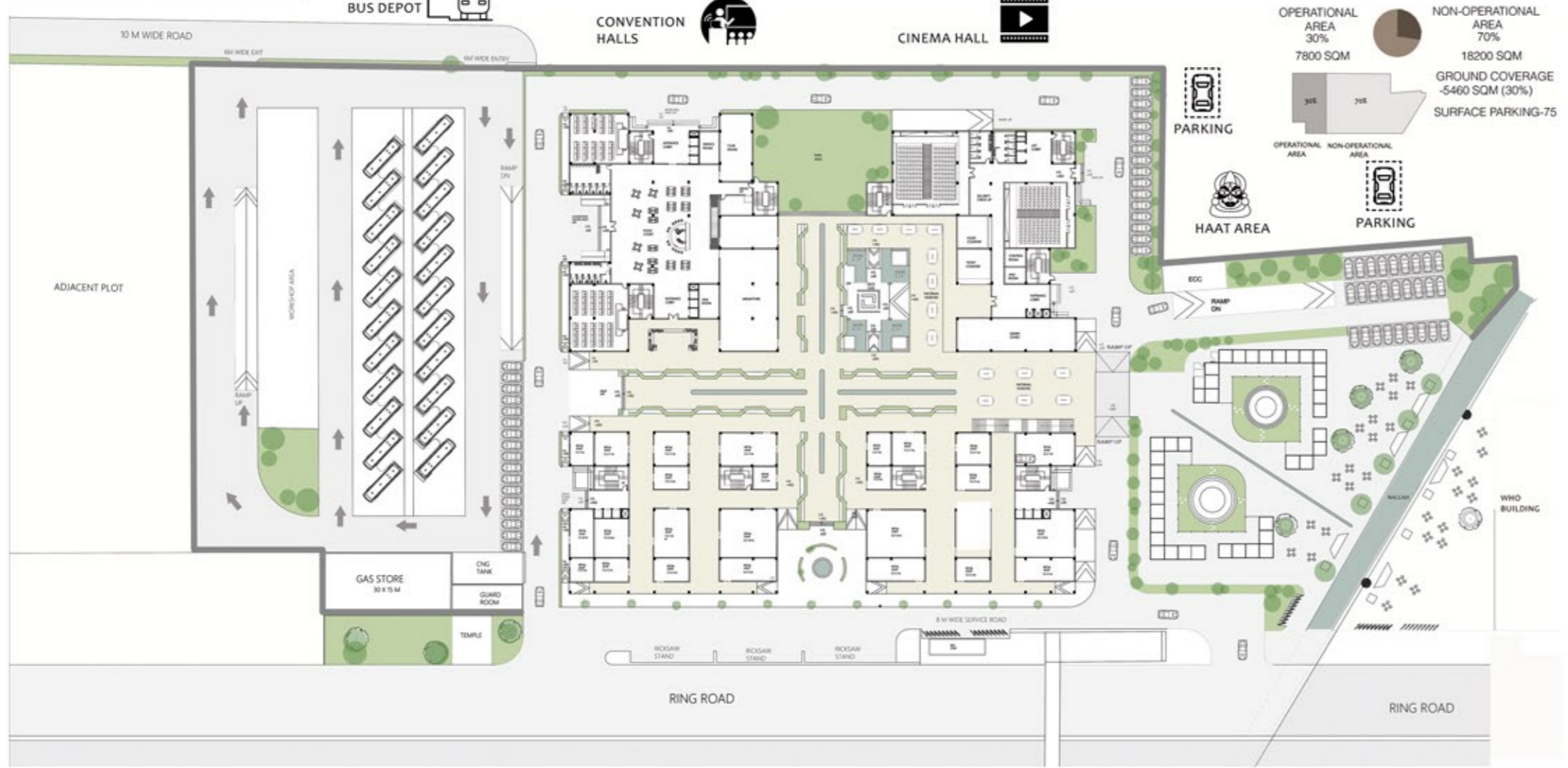
**SHIFT IN SETTLEMENT WITH SHIFT IN RIVER**  
Building a footprint study of the East and West Bank along the river for the site precinct shows that the East Bank is more densely populated than the West Bank.

**Public Spaces**  
**River Edge**  
**Housing Typologies**

**Population in millions of ncr regions**

S.No	name	comm	publ	office	other	rail	total
1.	GHAZIABAD	66	6	26	2		100
2.	NOIDA	78	14	10			100
3.	FARIDABAD	72	2	20		2	4
4.	GURGAON	60	16	24			100
5.	BHAHADURGARH	32	4	52		6	6

**DIVISION OF PLOT**

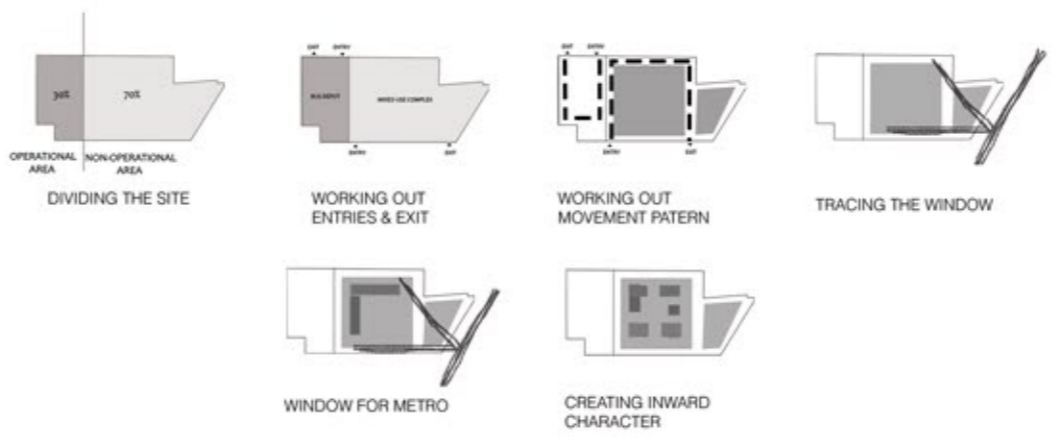


**GROUND FLOOR PLANNING**

The site is first divided according to the circulation of the two component of the sites i.e. bus depot and mixed use complex. bus depot is designed with angular bays, angled at 45 includes following sections :

- Workshop sheds
- Cng filling station
- Bus wash
- Bus parking

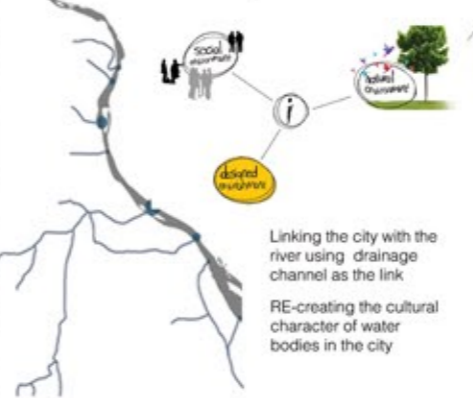
**FORM EVOLUTION**



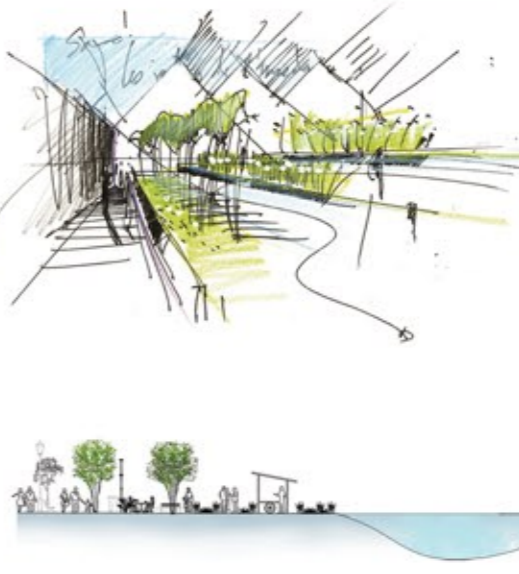
**THE PROPOSAL**



The resultant design propositions propose a series of site-specific speculations, re-establishing the Yamuna River as a geographical center, vital to the existence of the citizens of New Delhi. The objective of the PROJECT is to open up the relationship of this site to the Yamuna River, and re-orient the focus of the urban settlement towards the river. More significantly, this THESIS PROJECT will address the critical issue of how to create a vision of the flood plain of the Yamuna, presently ignored as a potential urban recreational core for the city.



**REDEFINING THE NALLAH EDGE**



Nallah edge as an connecting edge to the river and reviving the historical prominence of the site and the river. The drain could be used as an active space for the community and provide a platform for various community activity and events. It will act as a dynamic forum within which a multitude of different events, activities, and gatherings occur at any given time of day, day of the week, or season of the year.





# 05

## Delhi firse

RAJOURI GARDEN, DELHI  
URBAN DESIGN

**फिर से दिल्ली DELHI AGAIN**  
 CLASS 4TH A 2016 URBAN DESIGN STUDIO USAP GGSIPU  
 कक्षा 4 वें 2016 राहरी बिज़ाइन स्टूडियो यूएसएपी जीजीआईपीयू

**आर्किटेक्चर**  
 मानव की दुनिया में बहने है, अक्सर अती के शिलालेक प्रतिस्पर्धा करने की प्रियत करत है आर्किटेक्चर बहने और नये, हुके और छाया, गर्म और ठंडा, ऊपर और मध्य और नीचे, बाहर और अंदर, मास और सतह, आंदोलन और स्थिरता, घुसटार और अर्थवि, सिंग और नेट आदि जैसे धारणाओं से संबंधित है।

**नगर अभिकल्पन**  
 आर्किटेक्चर का एक नजिरा प्रदान है, और वह एक सार्वजनिक के साथ एक सहर के वास्तविक और काल्पनिक, उसके वास्तविक - अवलोकन और उसके विभिन्न और शेर, उसके सैलन और जगह के साथ उसके विचारों पर कब्जा करने का प्रयास करता है।

**धाँहे 'आम' सहर या 'स्मार्ट' सहर**  
 दिल्ली सहर, भारत के सबसे बड़े परदेसल सहरों में से एक है, जिसके साथ ही भारत के साथ सहरों के साथ, हमेशा नये चुनौतियों का सामना करने के लिए बहने चुनौतियों से परा रहता है और जगह सार्वजनिकों से परा अपने सबसे सारल के लिए नये सहर करने के लिए, आर्किटेक्चर और नगर अभिकल्पन को अलग करता है।

**कृष कर विचारों जगह राहरी गार्डन और बाबा सारल सिंह राहरी गार्डन**  
 WR/SS/RR  
 WR/SS/RR

The URBAN DESIGN studio started with the study and analysis of the issues that affected the area. Our site for the study was RAJOURI GARDEN which stands as one of the major districts of West delhi.

**LAND USE PLAN**

**BUILDING AGES**

**SETTLEMENT PATTERN**

**BUILDING HEIGHTS**

**TRAFFIC ANALYSIS**

**DISTRICT CENTRES IN DELHI**

**CONCLUSION**

We concluded that despite of the infrastructure such as road widths, public transport and connectivity, the place lacks in celebrated spaces. Hence the idea behind the project will be to create urban spaces which promotes pedestrian movements, more cultural activities and a mix of uses to get round the clock activities.

**PLOT DIVISIONS**

EXISTING ROAD PATTERN

THE STUDY OF EXISTING MOVEMENT PATTERN REFLECTS THE NATURE OF ITS USERS AND FACILITATES IN DECISION MAKING.

PROPOSED ROAD NETWORK

THE ROAD NETWORK PROPOSED FOR THE SITE AND BEST SUITED FOR THE EXISTING CONDITION.

BUILDING TO THE EDGE

THE AREA WERE BUILDING THE BUILT BLOCK WITHOUT ANY SETBACKS TO THE EDGE OF PLOT LINE PROMOTING THE EYES ON STREET CONCEPT.

DIVIDING THE PLOTS

TO UNDER PLOT LINES ARE MARKED AS PER TAKING IN CONSIDERATION THE DESIRED CONCEPTS, PLOT SIZE REQUIREMENT OF BUILT MASS.

**VISION**

EXPERIENCE  
 RELAXATION  
 MOBILITY  
 IDENTITY  
 RECREATION  
 COMMUNITY

CREATE DENSE NETWORKS OF STREETS AND PATHS FOR NON-MOTORIZED TRANSIT  
 ACTIVELY ENCOURAGE GREATER DENSITY AROUND MAJOR TRANSIT HUBS.  
 INCREASE MOBILITY BY REGULATING PARKING AND ROAD USE  
 DEVELOP NEIGHBORHOODS THAT PROMOTE WALKING.  
 BUILD EXTENSIVE, HIGH QUALITY TRANSIT.  
 MAKE CONNECTIONS BETWEEN MODES.  
 PRIORITIZE BICYCLE NETWORKS THAT OFFER PROTECTED LANES.  
 ZONE FOR MIXED-USE NEIGHBORHOODS.

CONNECT. TRANSIT. MIX. WALK. SHIFT. CYCLE. COMPACT. DENSIFY.

# 8 PRINCIPALS

**PLOT A,B,C - MIXED USE COMPLEX**

The built block to be made such that it should face both the front and rear side of the site. The site to have 2 way frontages minimum of 25% of building facade to face both rear and front site and maximum 10% on either sides that are left.

**PLOT D RESIDENTIAL BLOCK**

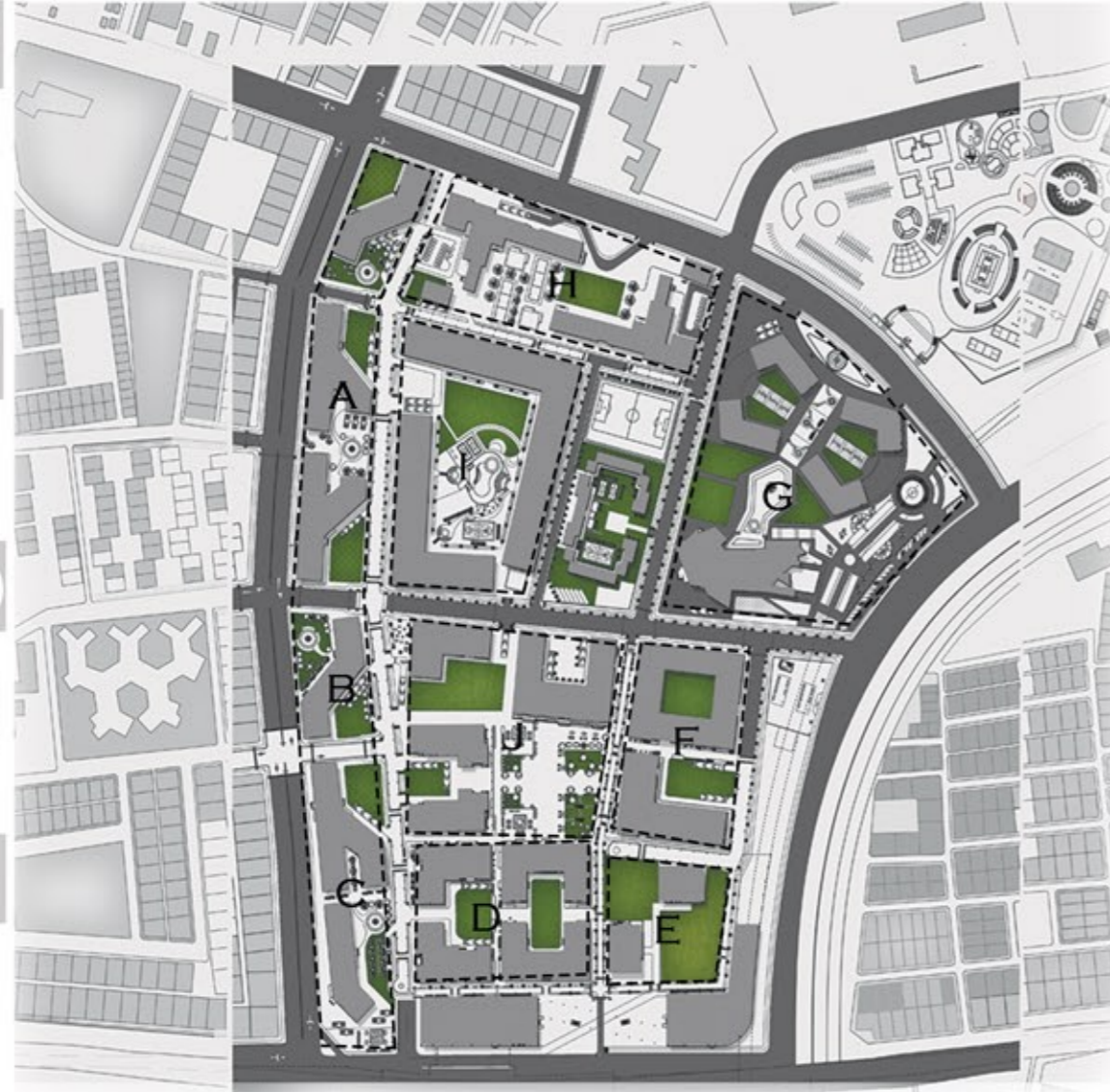
Surface area of the facade facing south-west should be maximized so as to receive more area for solar paneling.

**PLOT E MULTIMODAL COMPLEX**

Both the metro stations are to be linked not only with a mere connection but through activities. The site adjacent to upcoming metro station should act as recreational space for both the metro station.

**PLOT F MIXED USE COMPLEX**

The buildings should be designed on the periphery of the site to create a central green public space for the users.



**PLOT J MIXED USE COMPLEX**

Each set of buildings have their own recreational spaces which should open into another community space of larger scale. The larger community space should be located such that it should be accessible to all (preferably at the centre) and facing the major pedestrian road.

**PLOT I HOUSING BLOCK**

The buildings should be designed on the periphery of the site to create a central green public space for the users.

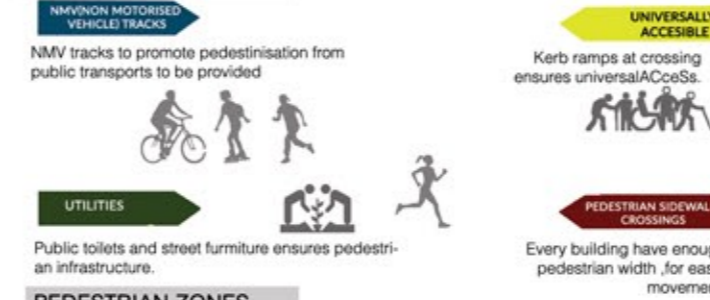
**PLOT H HOSPITAL BLOCK**

A multi speciality hospital along mehta chowk, adopting the nature of the neighbouring plots.

**PLOT G CULTURAL CENTRE**

Large city level cultural space to be provided. Also the site should have a institutional complex adjacent to road no. 28. The cultural centre and institutional complex should have a common space for recreational activities.

**STREET INTERVENTIONS**



**PEDESTRIAN ZONES**

The Pedestrian Zone is the primary component of every street in a city. It is not only a zone to ensure smooth, comfortable, conflict free movement of pedestrians and public transport users, but also an area which shapes social interactions, safety and quality of life of people in a city.

**STREET GUIDELINES:**

1. Minimum NMT zone 3m at each side of road.
2. Creating "eyes on the street" - by removing setbacks and boundary walls and building to the edge of the street ROW. This would allow people from inside to look out on to the pavement, thus discouraging misbehavior, shady corners, peeing, etc.)
3. Commercial facades to have minimum 30% transparency.
4. E-rickshaw and cycle drop off at every 500 m.

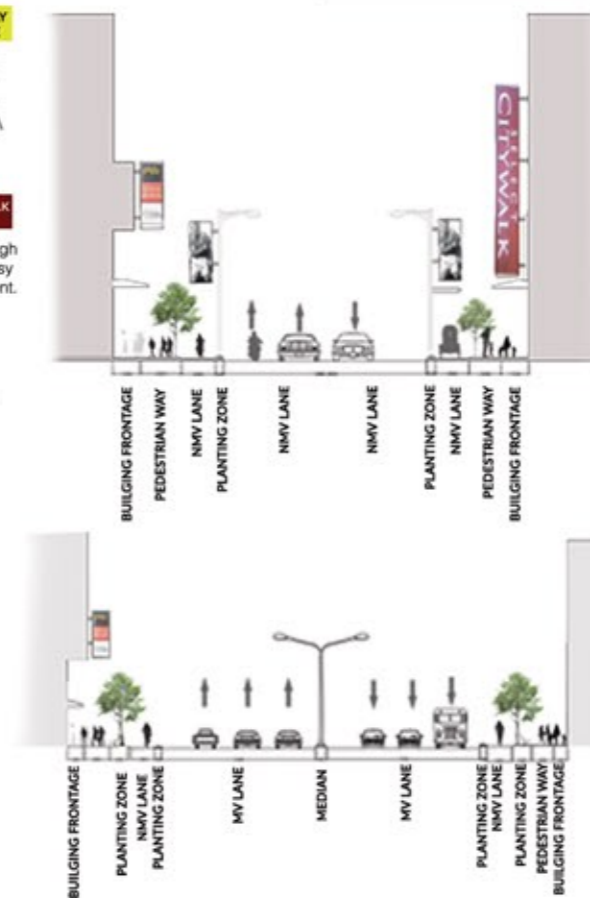
**ELEVATION CONTROL GUIDELINES :**

First two floors of each built block accept residential building to have minimum 50% glass façade.

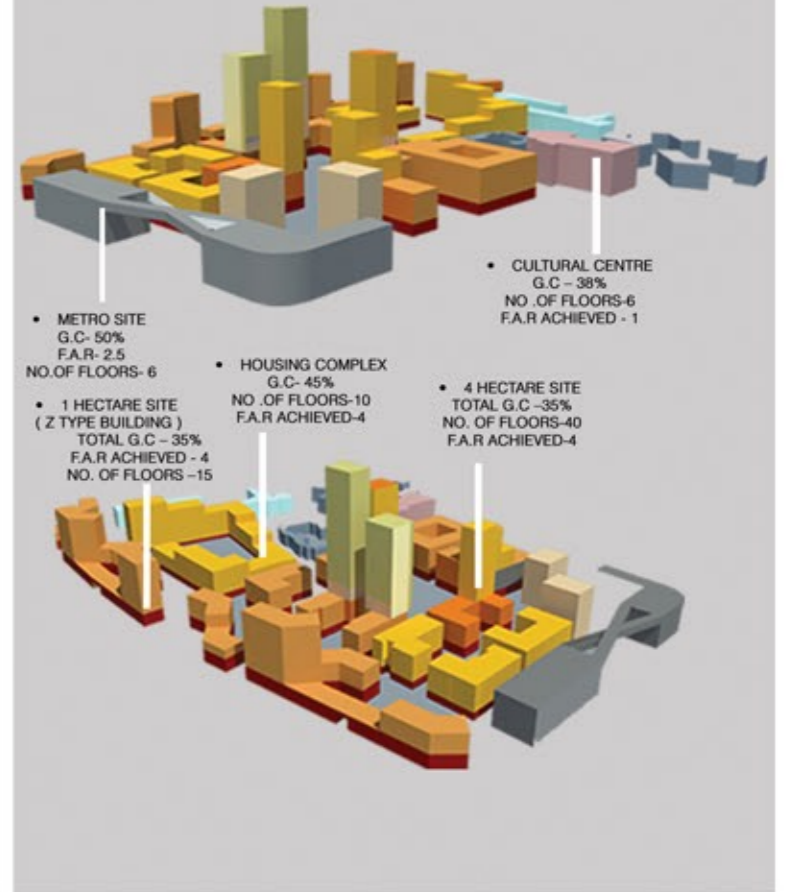
**BUILDING ELEVATION GUIDELINES**



**STREET SECTIONS**

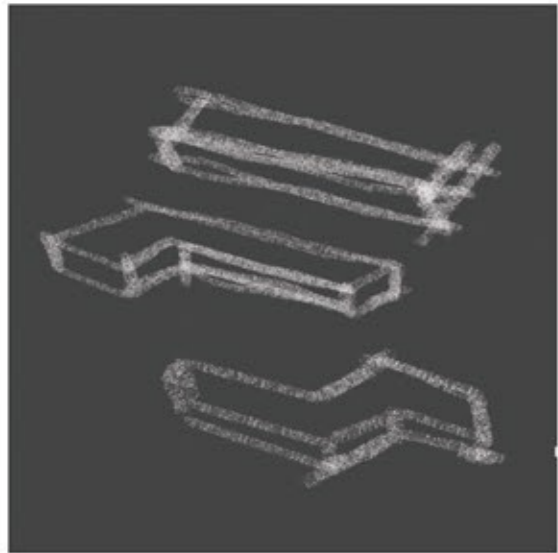


**BUILDING USES**



**DESIGN GUIDELINES**

1. The site has been distributed in site sizes varying from 1 hectare to 4 hectare.
2. Larger sites can further be divided into sites of smaller sizes
3. The road network has been designed in a way to have maximum pedestrianised streets free from motorised vehicular flow.
4. Maximum allowable ground coverage on sites smaller than 1 hectare is 55%. whereas sites with area larger than 1 hectare, maximum allowable ground coverage is 40%.
5. Maximum allowable f.a.r - 4.6. minimum two sides of building should face the access road.
7. 20% of site area to be covered under pedestrian movement
8. Minimum 30% of site area should be covered under public greens.
9. All the buildings to be mixed use buildings with multiple usage for full time working streets and safety.

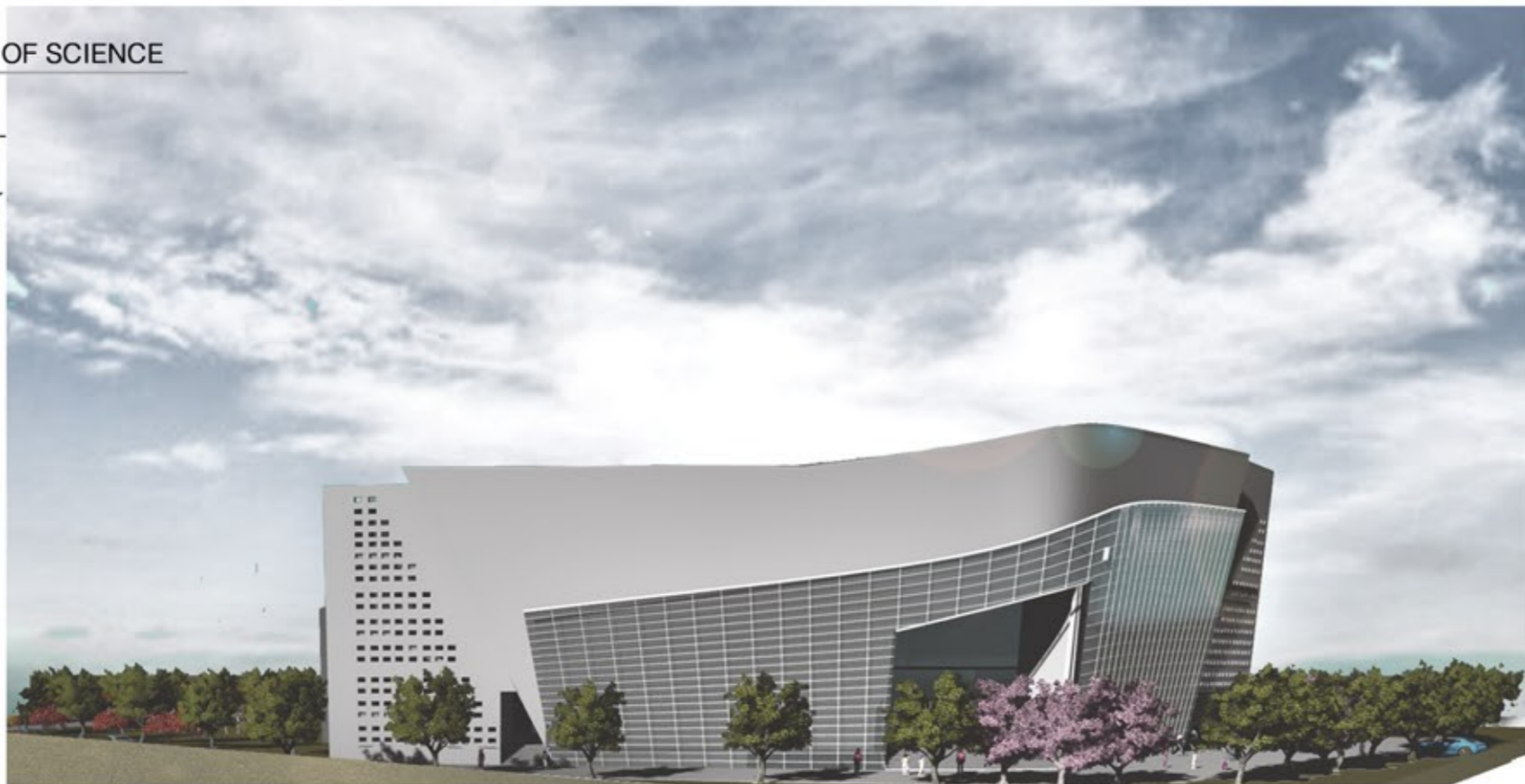


# 05 NATIONAL SCIENCE CENTRE

SURAJMAL VIHAR, DELHI  
ACADEMIC

## TRANSITIONAL NATURE OF SCIENCE

The project includes a combined complex for natural science park and the indoor science centre. The whole idea of the project is to give a balanced experience of indoor-outdoor experience. The circulation elements are designed to face outward and organised on the circumference, allowing an inward and outward connection. The building is designed with multiple faces to have a unique experience with the exterior environment.



### DESIGN SCHEME

- OPEN EXHIBITION
- CLOSED EXHIBITION
- PLANIARIUM
- AUDITORIUM
- CANTEEN
- FOYER
- ADMINISTRATION

**FORM EVOLUTION**  
Folding the walls inward on both the sides of the complex creates two public piazzas for formal and informal gathering.

**THE DESIGN**  
The building's shape take its form as a result of the buildings inner forces (i.e. the brief requirements and circulation demands). The science wing circulation elements are designed to face outward and organized on the circumference of the building, allowing movement to be visible from the piazza.

**DESIGNING THE STREETScape**  
A celebrated entrance is provided at the entrance of the planetarium so as to make the visitor feel as if he is entering into a new planet. The roof is inspired from mashrabiya window, which creates interesting patterns in sunlight and hence forth provides shade.



# 06

## Transformation in public spaces

RESEARCH PAPER -2016

### CONCLUSION

Three systems of settlements were studied- one of the earlier villages, second in an urban transforming village and third in a well-planned settlement. It is noticed that there are two ways of visualising a space- as an open landscape into which buildings have been introduced as three-dimensional objects or as a public space, that appears to be carved from a single block.

The activities perceived by people in various spaces in different context shows people have become self-involved, they talk less ,hence a more interactive community requires more accessible and welcoming public spaces, to impart knowledge and hence give a better community for future.

"The outside space is a place one can never occupy fully /completely for it is always other, different, at a distance where one is. One cannot be outside everything, always outside, to be outside something is always to be inside something else."(Grosz)



### HYPOTHESIS

The fabric of urban public spaces has changed over time ,is it necessary to study these changes and revert back to the previous methods and incorporate them in the current situations?

### RESEARCH QUESTIONS

- What are the various public spaces in a settlement?
- How does the spatial configuration in these spaces –in terms of scale and perception?
- What is the people's involvement in public spaces?
- What are the activities that people perceive in these spaces?

### ABSTRACT

The recent drastic change in technology, economy, culture and hence urban lifestyle have induced a completely different personality in people. People talk less, participate less and are more confined into their own lifestyle. Building /spaces are designed solely on functional basis and not with any social or culture purpose. The city is often projected as being in the process of getting restructured so as to better deal with a new world order in which our cities must somehow fit well.

Earlier there was more focus on public spaces, people were more social and interactive. The spatial configuration allowed an integrated society with better neighborhood. Privatization of spaces is killing the urban fabric. There is this trend of gated communities and emphasis on private spaces .In this evolving society it is very difficult to have regular real face to face meeting.

Urban open space - both magnitude and spatial arrangement - is critical to urban living. Democratic spaces -availability of open space, distribution and accessibility are a major concern for cities. Open spaces are a necessity and not a luxury. Rapid urban sprawl enhances the problem creating shortage of quality open spaces.Framing, fencing and dividing stands for the boundaries to demarcate the spaces on both sides. One reason for the secluded lifestyle could be the disrupted urban landscape which is not capable of creating a celebrated space. This research paper would try to describe the different situations of these public spaces in various contexts and try to analyze how these spaces affect the lifestyle of people and how they perceive them with particular reference to Chirag Delhi and Pushp Vihar as case studies.



Privatization of spaces is killing the urban fabric. There is this trend of gated communities and emphasis on private spaces.



There is a difference in the city fabric from earlier times.



The transition character of street from public to private

Type of settlement	Spatial configuration	People's involvement	Activities perceived by people	Conclusion
Earlier villages		People regularly used these spaces as their daily commons. Earlier development was somewhat related to these spaces. Earlier development was around these spaces, to create them as focal points of the village hence thinking of giving some character to the open spaces.	Village meetings, daily encounters, social activities, day to day activities. Tree - as a social space.	Such kind of settlement resulted in a healthy community with more sociality where community of the place.
Chirag Delhi - An urban village		People's involvement is decreasing day by day with the changing lifestyles but some portion of the village still retains the earlier character and hence is in a transforming stage. The chokk seems very congested with a narrow strip of one end, electricity wires hanging over the head, vehicles parked everywhere, hence the place rather than being a shopping point is used more for parking.	Commercial activities, playing cards, Daily encounters, parking.	A perfect example of a rural set urban setting, which has transformed into an urban setting in many terms but one can still find the rural character of the place. The significant missing behind the street is lost to function of movement. Usually, street is to demonstrate the boundary between inside and outside but these thresholds weaken this stigma of boundary and create a transitional space which is used for various purposes and creates an environment for safer and interactive street.
Pushp Vihar (sec-4)		Even being a planned settlement most of the activities taking place in it are un-planned. People involvement was very low as compared to the above two settlements. The main street leads to small streets to the housing block. These roads and streets are further interconnected by the boundary walls on various plots.	The centre junction of the road has some character with some vendors lined up on one side. Mother dairy booth located at the junction shows that the junction is usually visited by the people. Lack of any common public spaces forces people to sit on the pavement any under line.	Such kind of secluded community creates dark spaces which question the factor of safety in public spaces.

### INFERENCE

It is also noticed that with time people's presence have decreased in public spaces. Hence it is necessary to be a little sensitive towards the cultural and social aspects of place making and give better spaces and collaborative platforms to people.

In the race of creating world class cities we are leaving behind our legacy of inherited spatial arrangements that we have learned from earlier examples.

By the case studies also it is concluded ,that segregation of spaces by boundaries not only creates an unresponsive space but also generates certain serious issues in a city .People do want common platforms to interact ,but lack of these healthy spaces creates unnecessary chaos, which doesn't create a decent atmosphere. We are moving towards a planned development where space is designated and not designed for the purpose. Therefore we can surely learn from our ancestral examples, learn from them and to some extent apply them in our current designing systems and achieve what we all want to achieve, a more responsive, interactive and healthy society.

# MISCELLANEOUS



THE UPSIDE DOWN



CHAOS



LIFE & DEATH (WALL GRAFITTY)



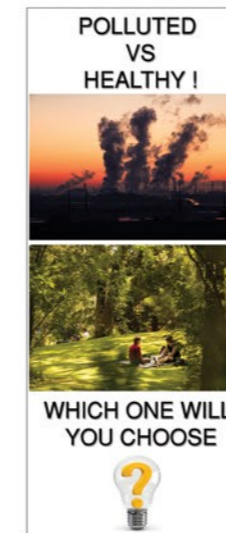
THROUGH THE WINDOW(VRAY RENDER)



THE WINDOW



CUBES



LIVE AND LET LIVE (POSTERS FOR HARA JEEVAN)



TEXTURES (VRAY RENDER)

THANK YOU

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