

INZEMAAM

INTEGRATING A DISASSOCIATED SETTLEMENT WITH THE CITY PROPER :
CASE APPLICATION AT SIBTAINABAD, GARDENREACH, KOLKATA

A URBAN DESIGN THESIS REPORT

SUBMITTED IN PARTIAL FULFILLMENT FOR THE DEGREE OF POST GRADUATION OF

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JADAVPUR UNIVERSITY , KOLKATA

SUPERVISED BY

ASSISTANT PROFESSOR SANGHAMITRA SARKAR

ASSISTANT PROFESSOR TANMOY DATTA

SUBMITTED BY

ATIF AHMED KHAN

ROLL NUMBER : 002110202007

REGISTRATION NO : 160014 OF 2021-2022

STUDENT OF FINAL YEAR, M.ARCH (URBAN DESIGN)

DEPARTMENT OF ARCHITECTURE

JADAVPUR UNIVERSITY

KOLKATA 700032

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INZEMAAM : TO INTEGRATE

A URBAN DESIGN THESIS REPORT ON

INTEGRATING A DISASSOCIATED SETTLEMENT WITH THE CITY PROPER :

CASE APPLICATION AT SIBTAINABAD, GARDENREACH, KOLKATA

DEDICATED TO MY PARENTS AND MY SIBLINGS

HAARIS,SHAMAEEL AND FALAK

AND A FEW PEOPLE WHO STAYED....

THANK YOU.

ACKNOWLEDGEMENT

Rabbi zidni 'ilma. "Lord! Increase me in knowledge."- The holy Quran
And I thank the Almighty to help me persevere with utmost honour in this phase of life.

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Thank You !

PREFACE

The heritage of the princely city of Calcutta and places around is so rich in culture and historical facts, that should be cherished and should be celebrated by finding and researching more about the places.

Many places has many unknown historical backgrounds taht is not known to many people or the history has merged so deep inside the human community settling there that it has becme their daily life.

The Garden Reach area , aka Sibtainabad was once the settlement and flag barrier of Nawab Wajid Ali Shah. He set his mini Lukhnow and imbibed the ambience with its culture,cuisine,architecture and grandeur

With time the area has become a disassoiated settlement with an immense potential in generating revenue, and an area of historical importance of our heritage city.

The word Inzemaam means to integrate and proximize.

The project aims to integrate the disassociated settlements with the City Proper.

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CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1. INTRODUCING KEY WORDS

INTEGRATING A DISASSOCIATED SETTLEMENT WITH THE CITY PROPER : CASE APPLICATION AT SIBTAINABAD, GARDENREACH, KOLKATA



FIG: 01

Integrating

It means to join things so that they become one thing or work together and to join in and become a part of a group or community



FIG: 03

Settlement

All places which have municipality, corporation, cantonment board or notified town area committee and have a minimum population of 5000 person. A dense human settlement is defined as having high population density and an infrastructure that it relies upon.

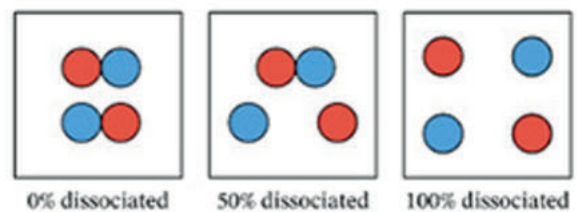


FIG: 02

Disassociated

It means to disconnect or separate or to split off and act as an independent part in the mental sense of words, the segregation can be mental, physical or economical.



FIG: 04

City Proper

A City Proper is the geographical area contained within a city limit. The term Proper is not exclusive of cities it can describe the geographical area within the boundaries of any given locality.

"Dissociation can be an indirect result of the progressive abandonment of areas of high concentration of migrants by local residents.

Over time, an improvement in individual economic conditions can enable migrants to overcome constraints keeping them confined in areas of deprivation, making segregation quite a dynamic phenomenon."

- Urban European Commission

Dissassociated settlements

Reasons for Dissassociation

structural housing shortage

Spiralling property prices

Risk of exclusion in cities

Migrants choose to settle close to same ethnic group,

forced to live in deprived areas

Spatial dispersion and socio-economic assimilation



FIG: 05 MIGRATION

FACTORS LINKED TO DISSASSOCIATION

- Increased cash influx due to a stronghold market
- Lack of educational development
- Low socio-economic strata building up
- Imposition of a notorious identity
- Ghetto and slums thus boom out of various regional communities , with a marginalised area

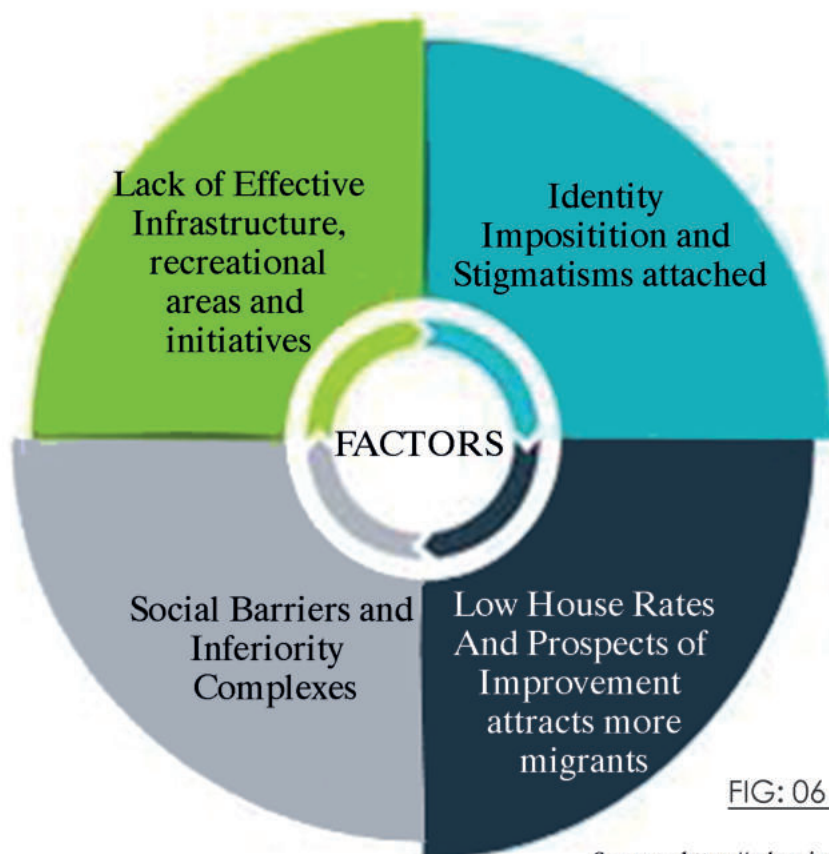


FIG: 06 FACTORS LINKED TO DISSASSOCIATION

“ The city and its public spaces can only be built in the form of streets, squares, and quarters of familiar dimensions and character ”

A city can only be reconstructed in the form of urban quarters. A large or small city can only be reorganized as a large or a small number of urban quarters; as a federation of autonomous quarters.

Each quarter must have its own center, periphery and limit.

Each quarter must be A CITY WITHIN A CITY.

The quarter must integrate all daily functions of urban life (dwelling, working, leisure) within a territory dimensioned on the basis of the comfort of a walking person; not exceeding 35 hectares (80 acres) in surface and 15,000 inhabitants.

however complex the urban geography and topography. The city must be articulated into public and domestic spaces, monuments and urban fabric, classical architecture and vernacular buildings, squares and streets, and in that hierarchy.



1 Central Business District

2 Recreational Areas

3 Residential Areas

4 Industrial Areas

5 Shopping and Retail Areas

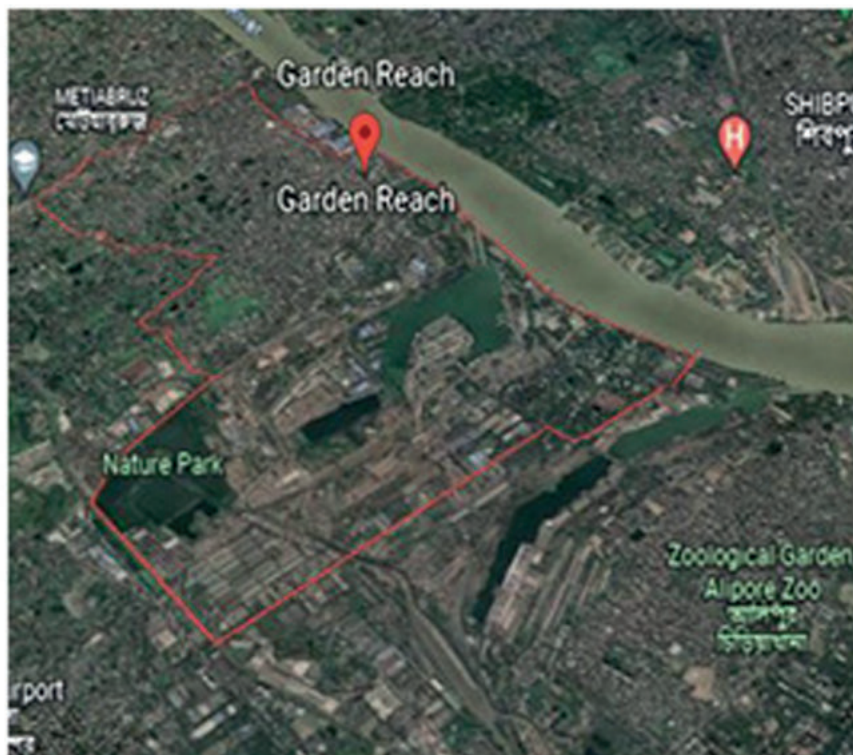
ZONES IN A CITY

FIG: 07 ZONING IN A CITY



1.1.2. GARDEN REACH : A BRIEF HISTORY

Garden Reach, Kolkata



Garden Reach is a neighbourhood of Kolkata city in West Bengal, India. It is situated in the south-western part of Kolkata near the bank of the Hooghly River.[5] It is located to the north-east of Maheshtala, the west of Kidderpore and the north of Taratala and Behala. Localities within Garden Reach include Metiabruz, BNR Colony, Bartala, Bandhabartala, Badartala and Rajabagan.

The area was developed by British to stay aloof from the Humid climate of Kolkata and to overlook the surinam gaht now owned by the Port trust of India.

Later on 13th May 1956 Nawab Wajid Ali Shah the 5th king of Oudh, who after ousted by the East India Company, made Garden Reach his Refuge.

FIG: 08 LOCATION



Source : The British Library

FIG: 09 EARLIER PICTURE OF GARDEN REACH



Source : The British Library

FIG: 10 EARLIER PICTURE OF GARDEN REACH

Nawab Wajid Ali Shah tried to carve out a miniature Lucknow in the Metiabruz. In his exile at Metiabruz recreation of Kaisarbagh Baradari were made.

The king spent a lavish life out of his income of 12 Lakhs per annum and a second Lucknow arose.

The Sibtainabad Imambara stands at the middle of Metiabruz.

The cloth market Tukra Patti serves under the Sibtainabad Wakf Estate and provides for the financial backdrop of the crumbling estate.

The place has a social character rather than a Religious one.

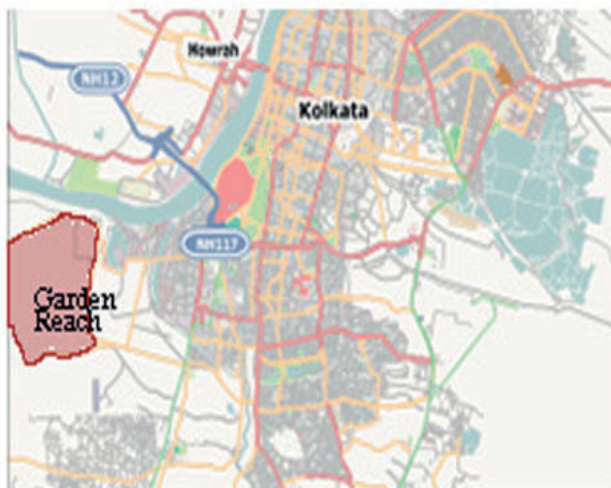


FIG: 11 POSITION OF GARDEN REACH



Source : Author

FIG: 12 EARLIER PICTURE OF GARDEN REACH

1.2 RELEVANCE AND JUSTIFICATION

The topic aims to explore urban migration and growth stages of a particular area.

"The free and harmonious growth of an urban civilization cannot be accomplished except by the right and judicious geographical distribution of its cities and communities, which have to be autonomous and finite"

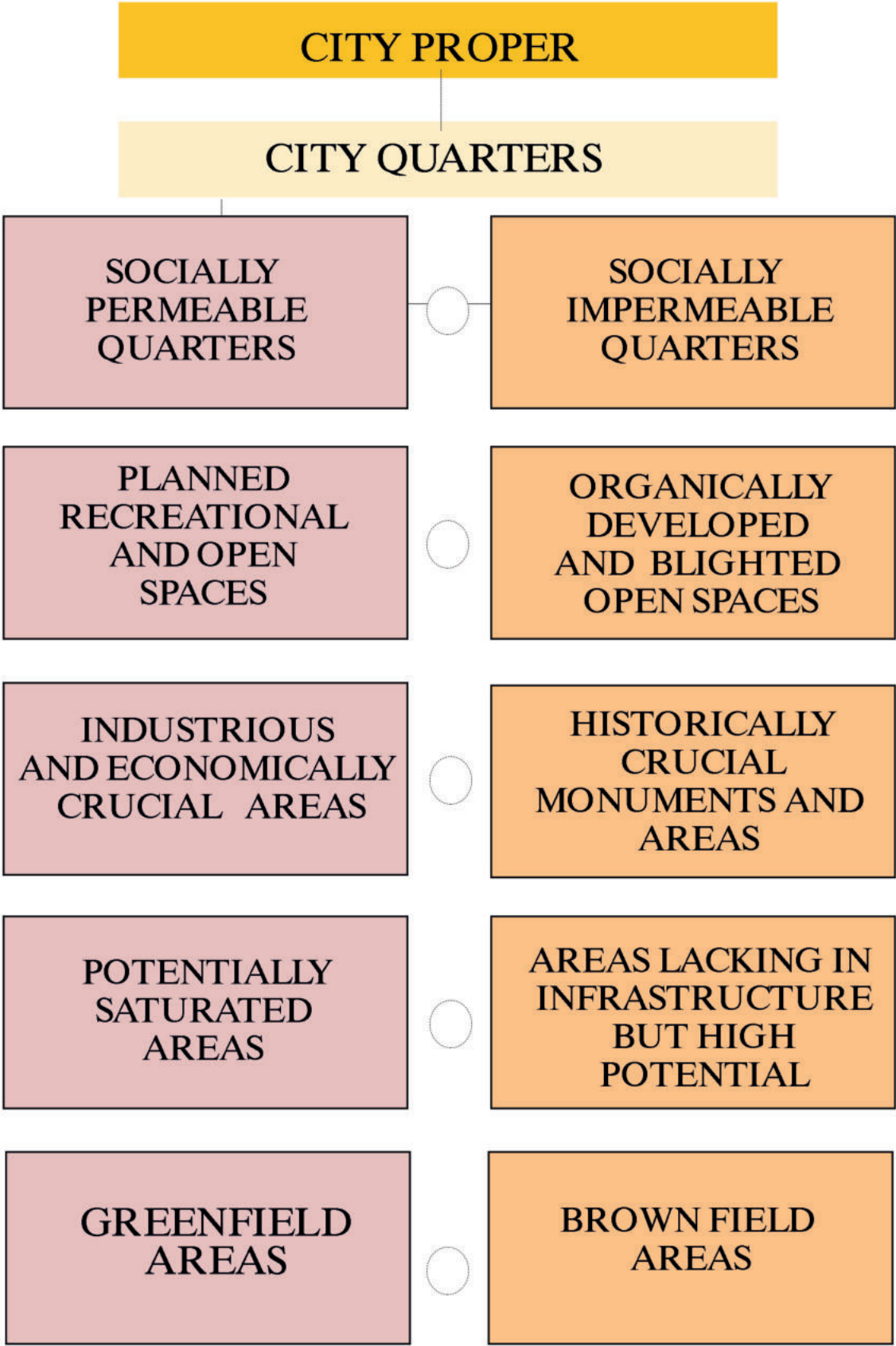
-Thomas Hobbes
The Structure of Urban Culture

- The topic implores the historical significance of an area
- The topic explores the need for a holistic environment which was otherwise absent and fulfill the barriers of social interactions to a great extend
- The topic explores the need to improve the permeability of the magnets for development in the area



FIG: 13 ILLUSTRATION OF THE PROPOSAL

1.2 RELEVANCE AND JUSTIFICATION



1.3. PARAMETERS FOR STUDY

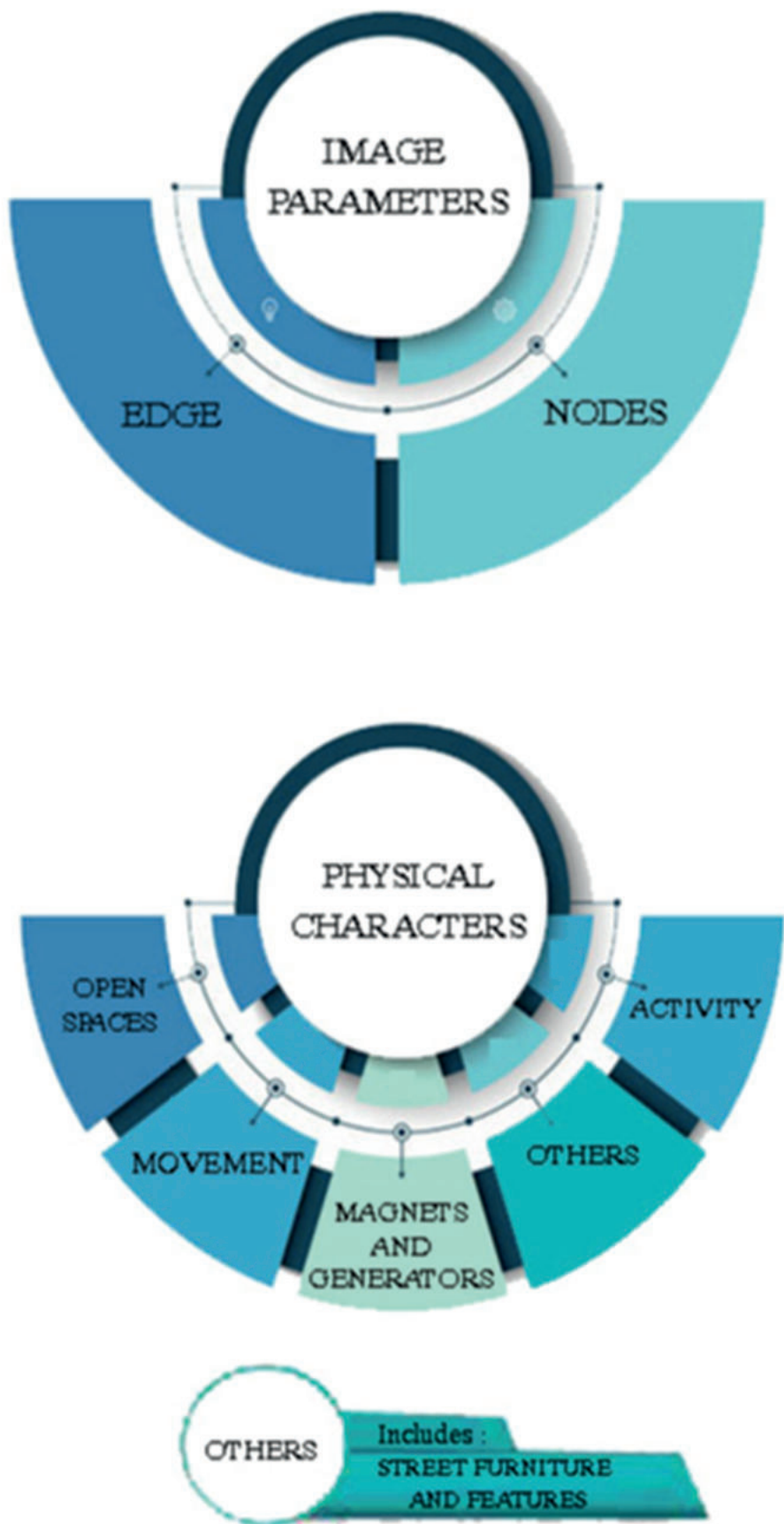


FIG: 14 PARAMETERS

1.4. AIM



To integrate a dissassociated settlement with the city proper and reanimate its magnets to enhance its overall opex as well as enhancing its accessibilty.

1.5. OBJECTIVES

- To adopt strategies of urban regeneration to attenuate the heritage value of an area.
- To develop a strategic framework to reconnect the area with the other quarters.
- To identify and encounter the permeability issues in the area.
- To reanimate the cloth market.
- To understand the growth pattern of the ghetto communities in the area and their dependence on the river bank.
- Provide a solution to control the rapid unorganized development.

1.6. METHODOLOGY

1. Selection of a project based on an issue closely related to any Indian Metropolitan city.
2. A comprehensive survey and literature study to understand the background of the project.
3. Identification of an intervention area.
4. Establishment of an Aim and objectives, along with the scope of work and methodology to be followed
5. Study of similar Case Examples, to understand the diversity of problems and the solutions.
6. Survey of all the Quantitative and Qualitative data collected from the survey of the area and analysing them
7. Setting out a framework and a set of guidelines for the intervention area and reanimated design for the site and similar such areas.

1.7. SCOPE OF WORK & BLIMITATIONS

- 1** Decay of historical structures, encroachment of port area, disfigured land use
- 2** Traffic mismanagement, low permeability, pedestrian movement gruesome
- 3** Lack of any tourist magnet, unsupervised market expansion, social miscreants occupy abandoned port and factories



FIG: 15

Increasing Permeability

Reconnecting the main city with a densely populated lowly developed sequestered locality.

Pedestrianisation of Wajid Ali Shah Tomb corridor Garden Reach Road.

Traffic management and effective solution provision.

Eliminate Bottle Neck points.

Effective Regeneration and adaptive Reuse

Rehabilitisation of dy-funct jute mills along river Hoogly at Garden Reach.

Regeneration of age old Cloth Market

Regeneration of adjoining areas.

Regeneration of dy-funct gahts along river Hoogly at Garden Reach.

Promoting Tourist Influx

A heritage conservation cum interpretation center to promote tourism in the area.

Uplifting the identity of the area.

Develop a Heritage walk to Wajid Ali Shah Tomp complex.

Propose Infra stucture development guidelines

CHAPTER 2

LITERATURE STUDY

2.0. LITERATURE STUDY

2.1. THEORIES

2.1.1. DEFINITIONS

GENTRIFICATION

- Gentrification is the process of changing the character of a neighborhood through the influx of more affluent residents and businesses.
- Gentrification often increases the economic value of a neighborhood
- Gentrification often shifts a neighborhood's racial or ethnic composition and average household income by developing new housing and businesses



Impacts of Gentrification

FIG: 16

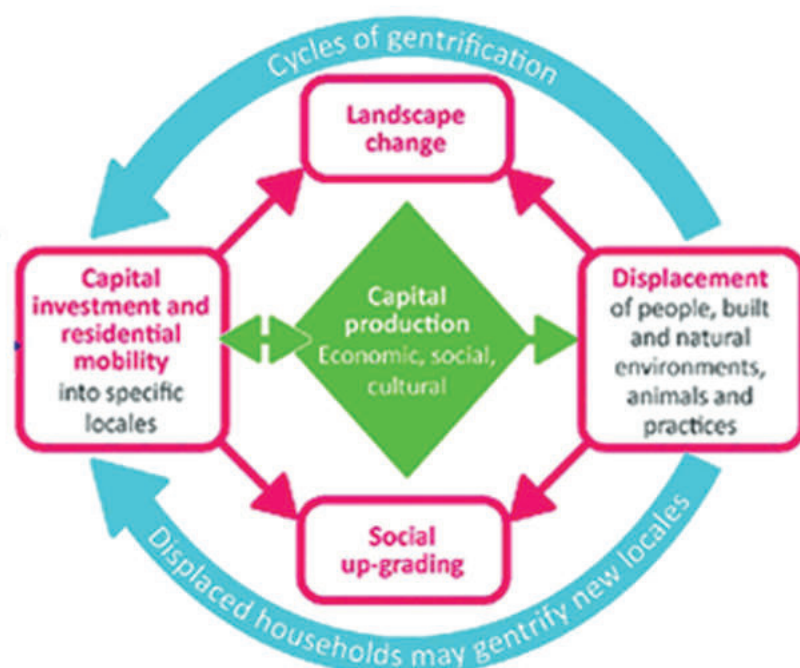
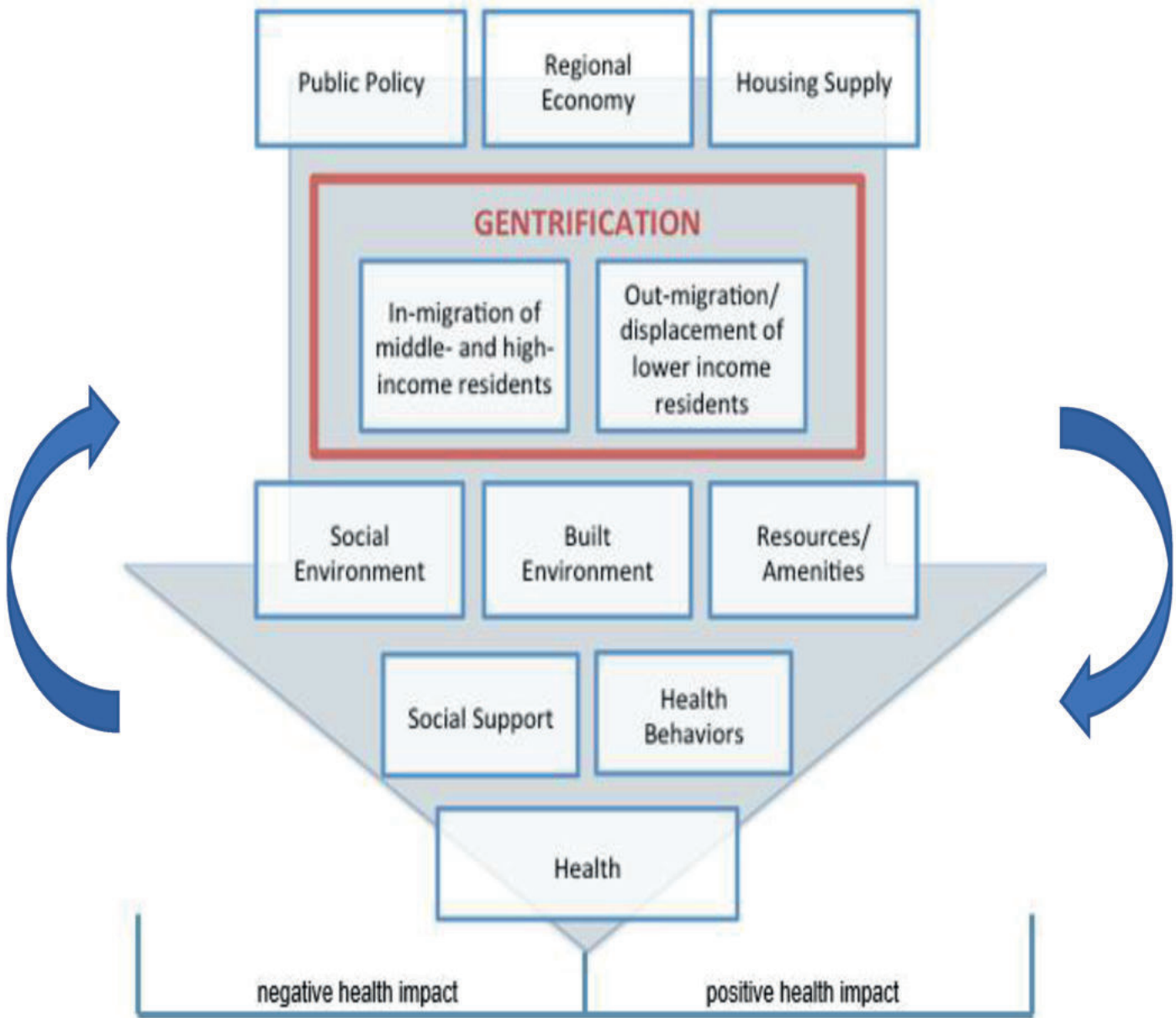


FIG: 17

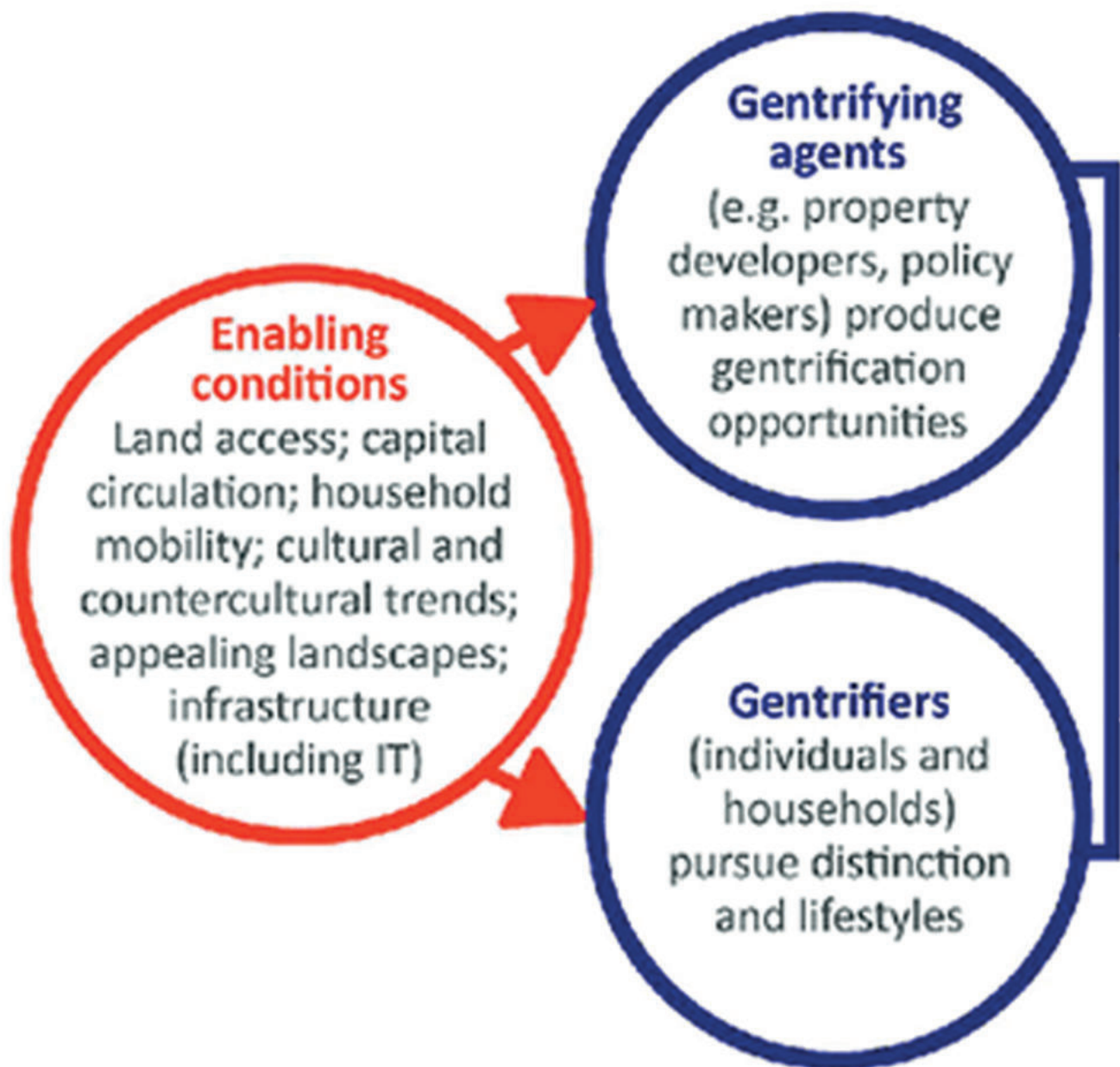
The process of gentrification



Factors co-related to gentrification

FIG: 18

Source : Gentrification and Displacement in
San Francisco Bay Area:
A Comparison of Measurement Approaches



Drivers of gentrification

FIG: 19

Neighborhood Revitalisation and Gentrification



FIG: 20

- Neighborhood Revitalization (NR) is a collaborative approach to improve the quality of life for all residents in a neighborhood.
- Focus areas include: beautification, community, housing, health and safety.
- Economic benefits remain the primary goal of revitalization initiatives. These benefits include direct impacts, such as increases in property values and affordable housing units, and indirect impacts, such as increasing access to jobs through associated transit improvements
- **Revitalisation** is a **positive** approach to fighting systemic inequality and moving towards an anti-racist society. **Gentrification** has **displaced** countless **communities** of color and restricted their access to important opportunities and resources.

Neighborhood Revitalisation and Gentrification

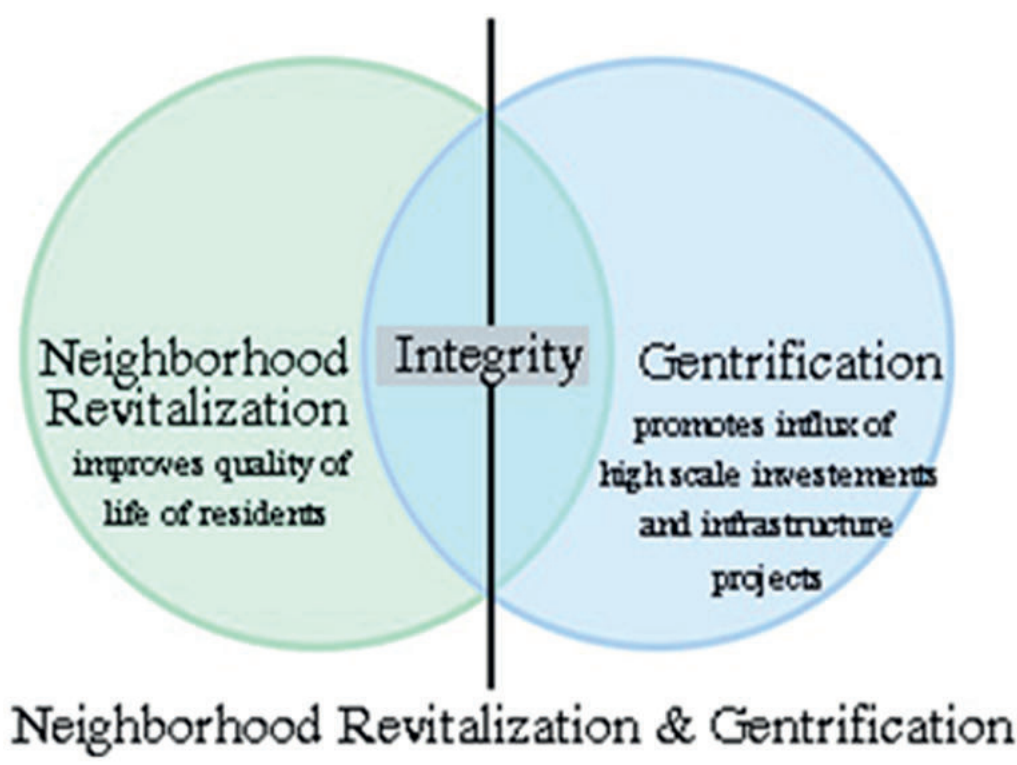


FIG: 21

2.2 HISTORY AND DEVELOPMENT



High scale Urban Migration due to increased opportunities



Persons of Color



Households with children in poverty



People 25 and older without a Bachelor's Degree



Renters



People making at or below 80% Median Family Income

FIG: 22 The reasons for modifications in the thumb rule of Gentrification
viz. birth of Neighborhood Revitalisation

2.2. HISTORY AND DEVELOPMENT

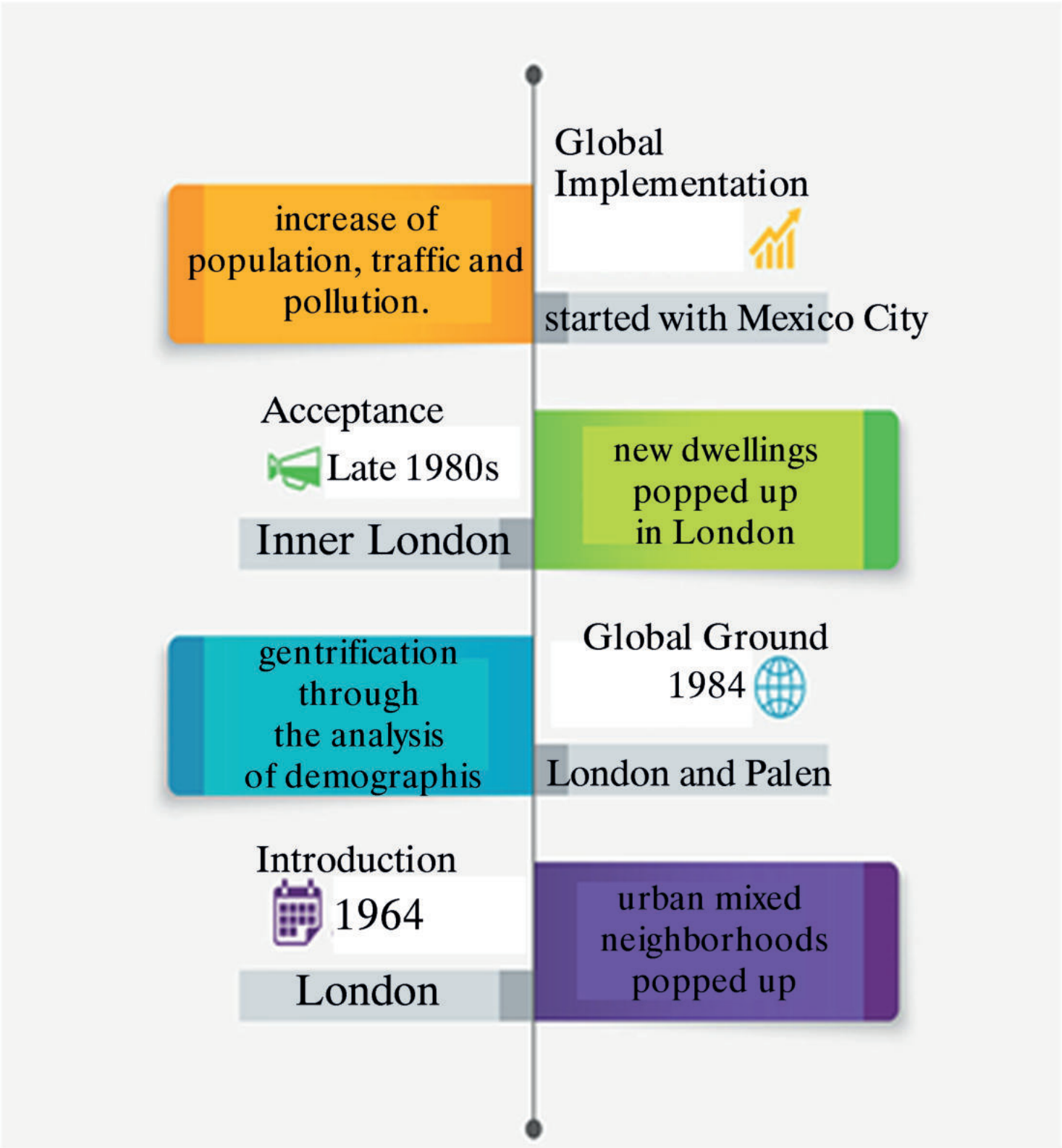


FIG: 23 Growth and Development of Neighborhood Revitalisation in the west

2.3. EXISTING CONCEPTS

Neighborhood Revitalisation and Gentrification

Timeline of Existing Concepts in the West

Mexico City

The manifestation of spatial arrangements where luxury areas coexist alongside slums.

Canada

Efforts of business improvement associations targeted the ethnic communities.

France

A "social mix"; both low and high-income residents in the same neighborhoods.

South Africa

shifting of low income areas to middle-class values by gentrification

Italy

In Milan, gentrification changed the look of some semi-central neighborhoods.

Poland

The re-purposing buildings in industrial quarters.

Russia

Central Moscow rapidly gentrified following the change to market development strategies .

United States

There have been three chronological waves of gentrification in the U.S. starting from the 1960s.

2.0. LITERATURE STUDY

2.4 Inferemces

Traditional models of development focus on an economic base and urban revitalization .

More recent approaches call for a stronger focus on local needs.

As cities and neighborhoods are being gentrified thoroughly to meet middle-class taste and boost economic

growth, urban land resources are being treated in ways to increase business potential, leaving little room for the development of urban street life.

Among rows of concrete and steel constructions, nowadays, urbanites are struggling to find a place to sit, rest, and play during leisure time.

A core driver of gentrification has been the strong and growing demand for central city living by more affluent households .

Neighborhoods impacted by gentrification have been shaped historically ,facilitated substandard living conditions, and generated socially chaotic and segregated housing patterns.

These neighborhoods' lower property values, location in the urban core near good jobs and transit, and historical and cultural character are all factors that are making them more attractive to newcomers and susceptible to redevelopment.

CHAPTER 3

CASE EXAMPLES

3.0. CASE EXAMPLE STUDY

3.1. SELECTION OF CASE EXAMPLES

Criteria for selecting the case examples with respect to the site :

01. Similar Texture and Pattern
02. Development by engaging natural setting
03. Local level interventions aimed at people.
04. Enhancing public amenities.
05. Creating a sense of place.
06. Retaining Urban character
07. Improving visual aesthetics.



map showing
case study locations



map showing cities
with Influence of
Islamic, Shia'ite and
Nawabi Culture
studied as case examples

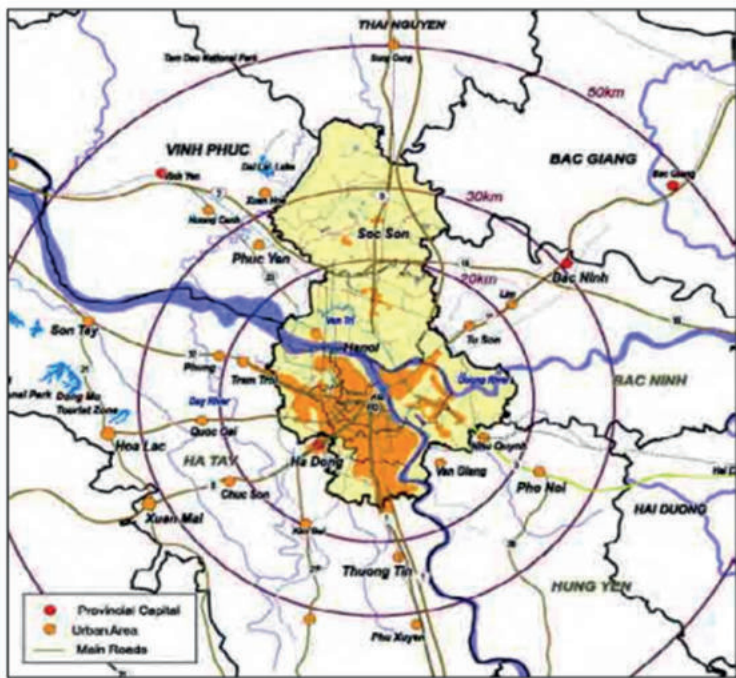


3.2. CASE EXAMPLE : 1 COMPREHENSIVE URBAN DEVELOPMENT PROGRAMME IN HANOI

3.2.1. LOCATION & DESCRIPTION

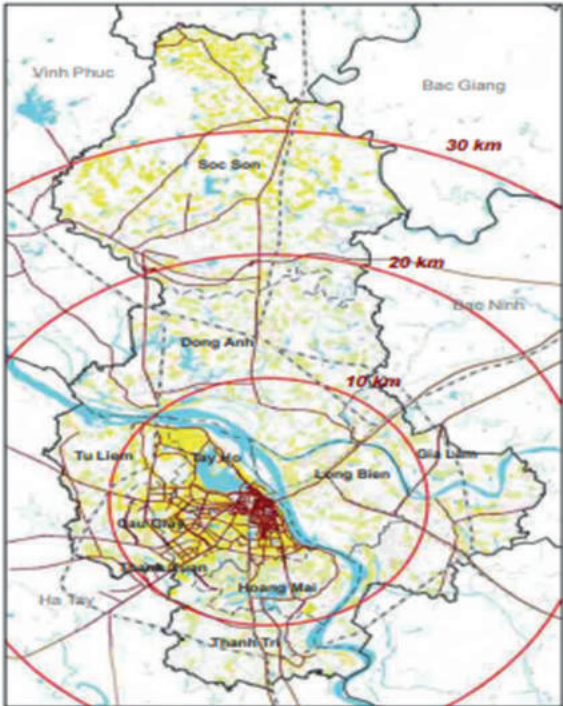
The Comprehensive Urban Development Programme in Hanoi is a significant initiative that aimed to improve the quality of life for Hanoi's residents by creating a more sustainable and livable urban environment.

Source : The Comprehensive Urban Development Programme in Hanoi Capital City (HAIDEP)



Ha Noi Metropolitan Area

FIG: 24



Ha Noi city level map along Red River

FIG: 25

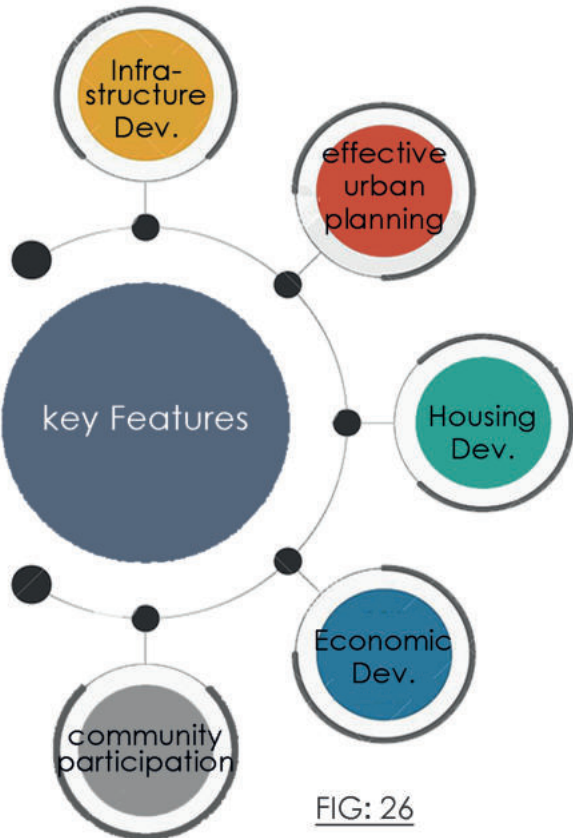
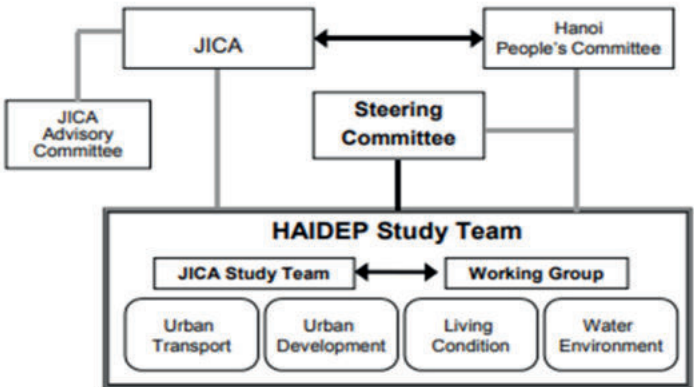


FIG: 26



Stakeholders and focus of the Programme

FIG: 27

3.2.2. SURVEY AND ANALYSIS

IMAGE PARAMETER : NODES



FIG: 28 : NODES

- focal points for transportation and commerce.
- Hanoi is situated on the banks of the Red River, and several bridges connect the two sides of the city.
- These bridges serve as important nodes, facilitating transportation and commerce between different parts of the city.
- Traffic circles are common in Hanoi and serve as important nodes for traffic flow.

IMAGE PARAMETER : EDGES



FIG: 29 EDGES



FIG: 30 EDGES

- vibrant street culture
- economic opportunity for small business
- socialising and resting space
- some areas have a safe and convenient space for cyclists.
- adapted as pedestrian walkways.



FIG: 30 EDGES

Physical Characters : Open Spaces



FIG: 31 OPEN SPACES

- Trees, plants, and other forms of greenery are often planted along the edges of streets and sidewalks,
- These help to mitigate air pollution and providing shade.

Physical characteristics : Activity



FIG: 32 ACTIVITY

- Open spaces are an important aspect of urban design in Hanoi, providing residents and visitors with access to green areas and recreational opportunities
- The squares serve as gathering places for political gatherings and squares

Physical characteristics : Movement



FIG: 33 MOVEMENT

- Traffic flow in Hanoi can be congested, particularly during rush hour or on major roads. This can impact the speed and efficiency of travel, as well as the safety of pedestrians and cyclists.
- Pedestrian infrastructure in Hanoi includes sidewalks, crosswalks, and footbridges
- Cultural norms in Hanoi also influence movement along roads and streets.

Physical characteristics : Magnets and Generators



FIG: 34

- The Old Quarter with narrow streets and alleyways is lined with shops and vendors.
- Vincom Center and Trang Tien Plaza, which offer a range of international and local brands, as well as restaurants and entertainment.
- Hanoi offers a mix of traditional and modern commercial attraction points that cater to a variety of interests and tastes.

Physical characteristics : Others viz. Street furniture and Features



FIG: 35

- The streets in Hanoi have a grid-like pattern with many small alleys branching off them.
- not well-maintained, and pedestrians may have to navigate obstacles

3.2.3. CONCLUSION

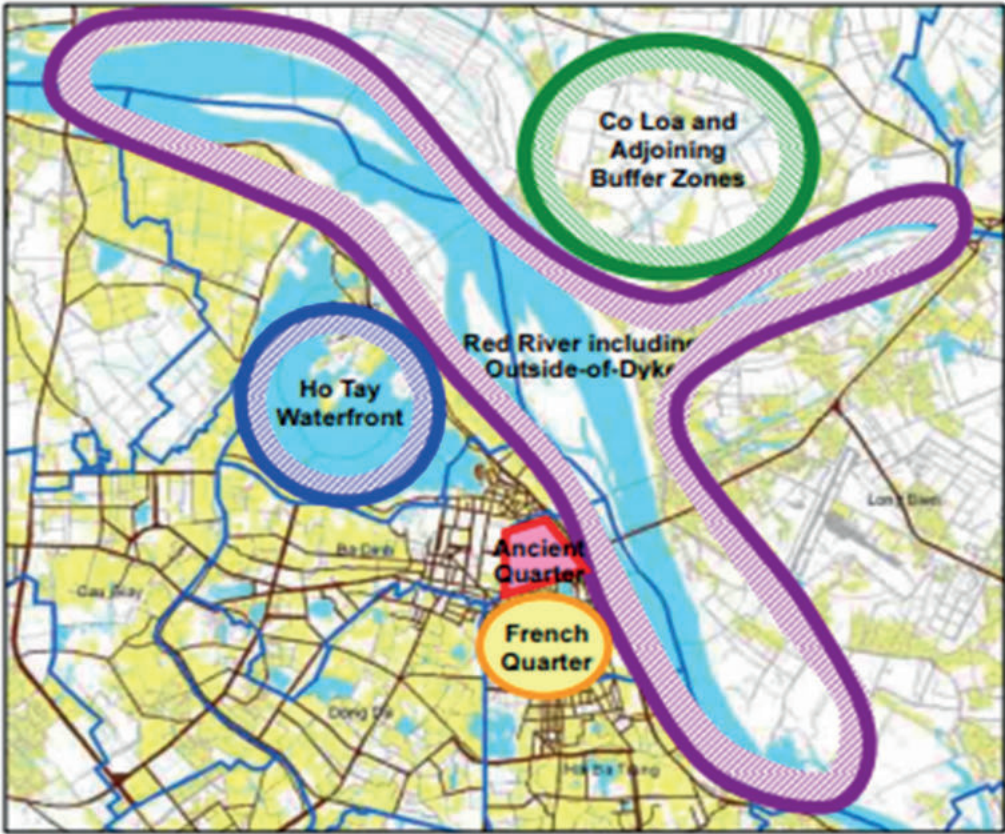


FIG: 36 Zones of Development : Ha Noi

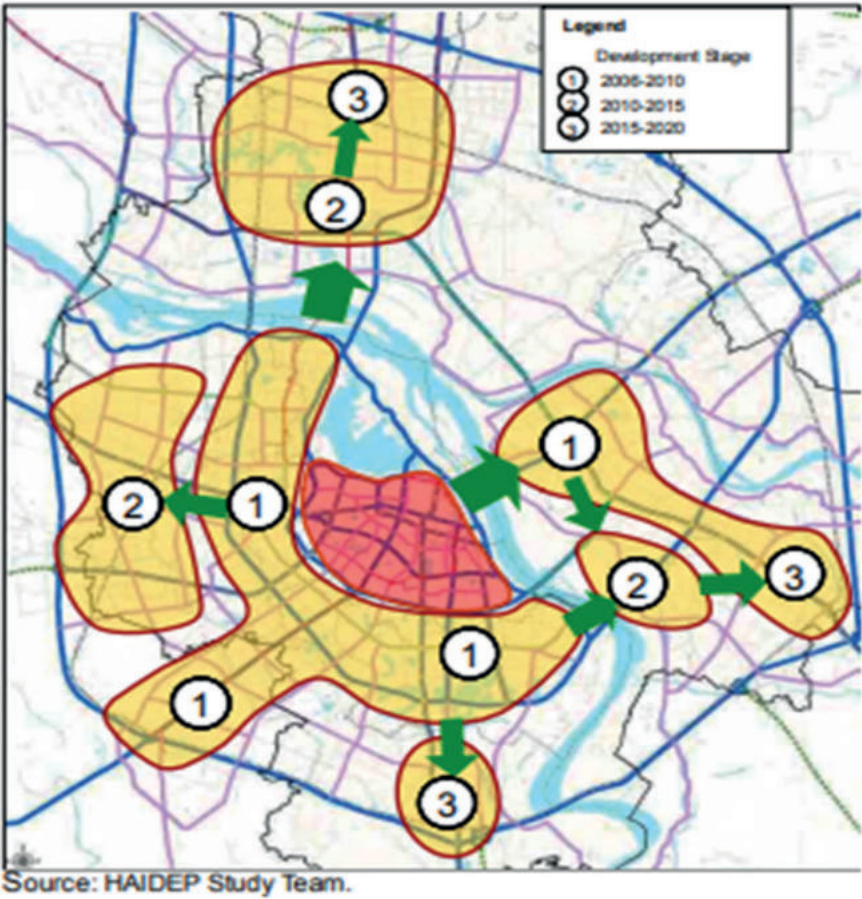


FIG: 37 Phases of development in Ha Noi

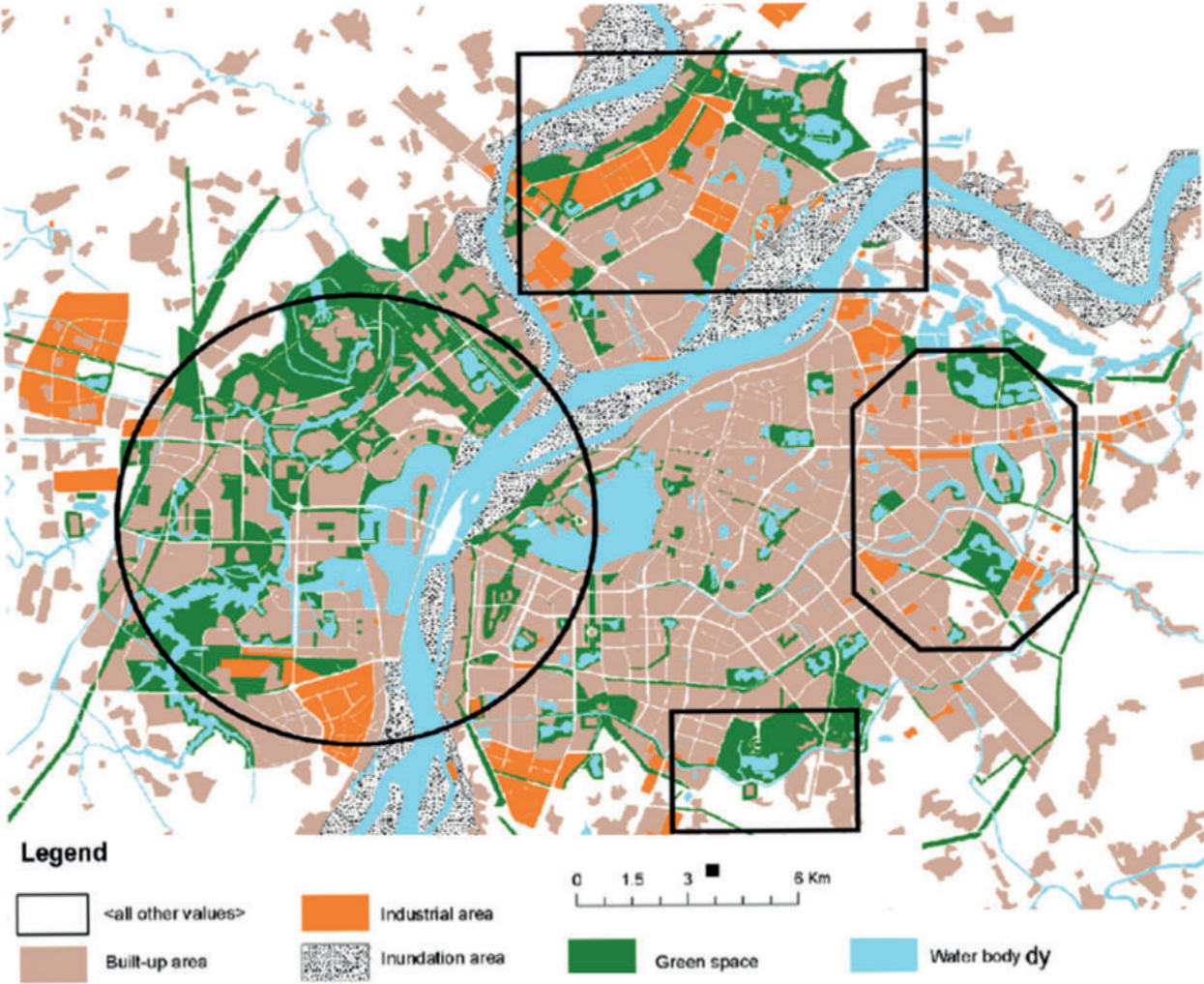


FIG: 38

Urban Core



FIG: 39



Traffic congestion will further worsen with car increase



Living conditions will further deteriorate.



Risks from disasters will increase.



Traffic accidents will increase.



The natural environment will become even more degraded.



Illegal settlements will further expand.

Source: HAIDEP Study Team



Traditional values will either disappear or be overshadowed by modern aesthetics.



Economic growth will slow down and inequalities will widen.

FIG: 40

3.3. CASE EXAMPLE : 2 ÇANKAYA HEALTHY CITIES PROJECT EAST ISTANBUL, TURKEY

3.3.1. LOCATION & DESCRIPTION

- The Çankaya Healthy Cities Project is a comprehensive initiative that aims to create healthier and more sustainable living environments in Çankaya, a district in Eastern Turkey. The project is designed to address a range of issues related to public health, including air and water quality, transportation, urban design, and community engagement.



FIG: 41

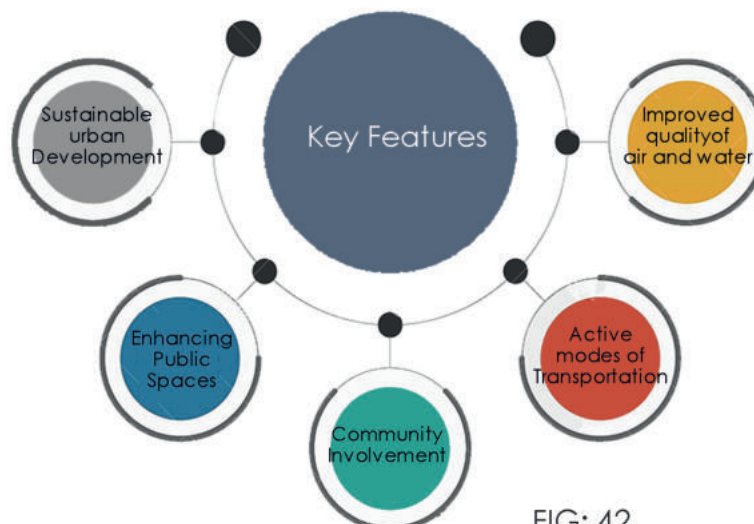


FIG: 42

3.3.2. SURVEY AND ANALYSIS

Image Parameter : Edge



FIG: 43

- The Çankaya Healthy Cities Project is a comprehensive initiative that aims to create healthier and more sustainable living environments in Çankaya, a district in Eastern Turkey. The project is designed to address a range of issues related to public health, including air and water quality, transportation, urban design, and community engagement.



FIG: 44

Image Parameter : Nodes



FIG: 45

- East Istanbul is a densely populated area with significant traffic congestion.
- There are several key traffic nodes in East Istanbul, which are areas where traffic flows converge .
- Nodes experience high levels of congestion.
- Efforts are being made to improve transportation infrastructure and reduce traffic congestion

Physical Characters : Open Spaces and activity

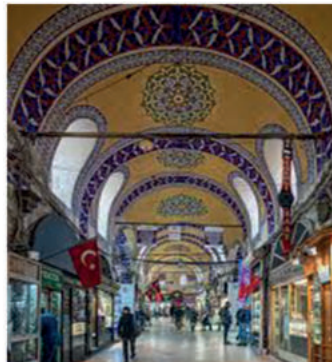


FIG: 46

- The creation of parks and green spaces has been a priority in East Istanbul. New parks have been developed, and existing ones regenerated provide more opportunities for outdoor recreation and relaxation.
- Sidewalks in East Istanbul provide a space for people to gather and socialize
- dynamic and multifunctional space that plays an important role in the city's social and economic life.

Physical Characters : Movement



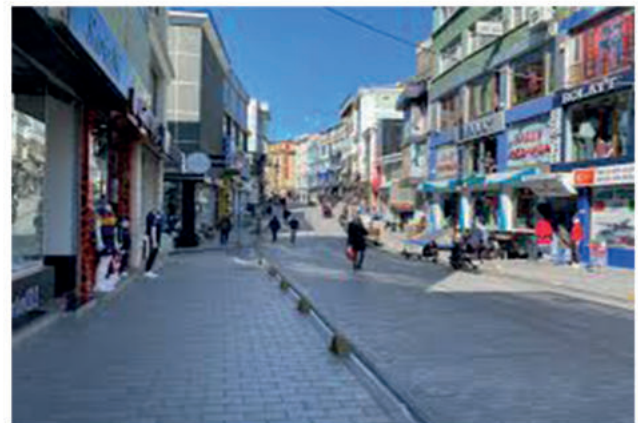
FIG: 47

- Public transportation is a vital part of movement in East Istanbul with the metro, buses, and ferries providing access to different parts of the city
- Private transportation options such as cars and motorcycles are popular in East Istanbul but congestion occurs at peak hours.
- efforts are made to improve pedestrian and cycling infrastructure.
- creation of wider sidewalks, bike lanes, and pedestrian crossings.

Physical Characters : Magnets and Generators



FIG: 48



- East Istanbul is a vibrant and bustling urban area with many commercial hubs and landmarks.
- Uskudar: It is a historic neighborhood of Istanbul, with landmarks with Palaces, Mosques and markets.
- Kadikoy Fish Market is a historic market in East Istanbul, selling fresh fish and seafood
- the magnets strongly emphasis on community engagement .

Physical Characters : Features and street furniture



FIG: 49

- There are many benches scattered throughout the city, especially in parks and along the waterfront.
- trash cans on almost every street corner.
- bus stops are a common sight
- public toilets scattered throughout the city
- Drinking fountains are a common feature in Istanbul's parks and public squares.
- Istanbul has many information kiosks scattered throughout the city.
- Istanbul has many newsstands that sell newspapers, magazines, and snacks.
- there are still public telephones scattered in the city.

3.3.3. CONCLUSION

- The redevelopment of Karaköy Harbor in Istanbul has been a significant project in recent years, with the aim of revitalizing the area and improving its functionality.
- The key features to sum up are as follows :
- The project also includes the restoration of several historic buildings and the creation of new public spaces,
- The new waterfront promenade, stretches for 1.2 km along the Bosphorus, offers stunning views of the city and provides a pleasant space for walking, jogging, and cycling.
- the project contributed to the revitalization of the area and has become a popular destination for tourists and locals



FIG: 50



FIG: 51



FIG: 52

The neighborhood revitalisation of Karaköy

3.4. CASE EXAMPLE : 3 CHANDNI CHOWK REDEVELOPMENT PROJECT, NEW DELHI

3.4.1. LOCATION & DESCRIPTION

Chandni Chowk is one of the oldest and busiest markets in Delhi, India, with a rich historical and cultural significance.

The redevelopment of Chandni Chowk has been a major project in recent years, aimed at improving the area's infrastructure, preserving its heritage, and enhancing the shopping and tourism experience.



aerial view



view showing axis

FIG: 53

3.4.2. SCHEMATIC LAYOUTS AND KEY FEATURES

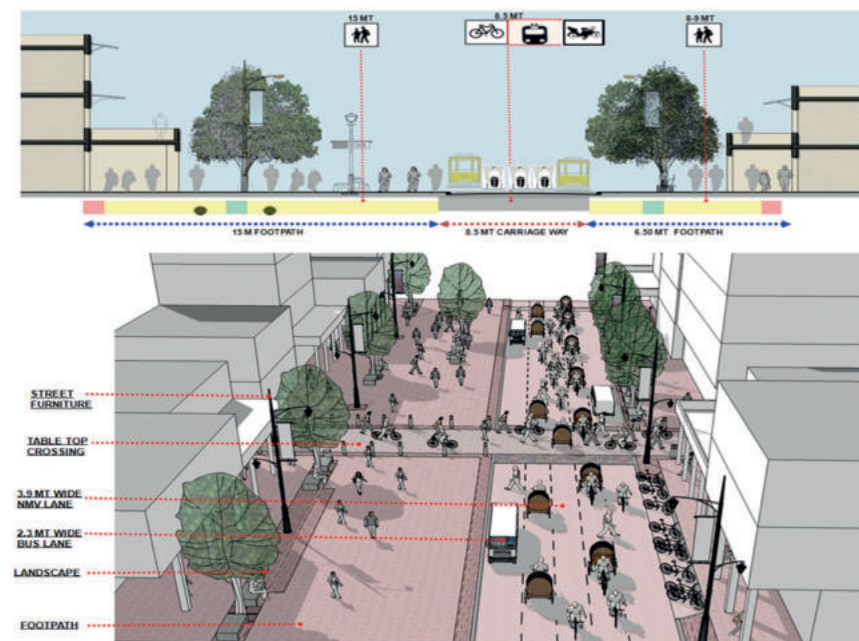
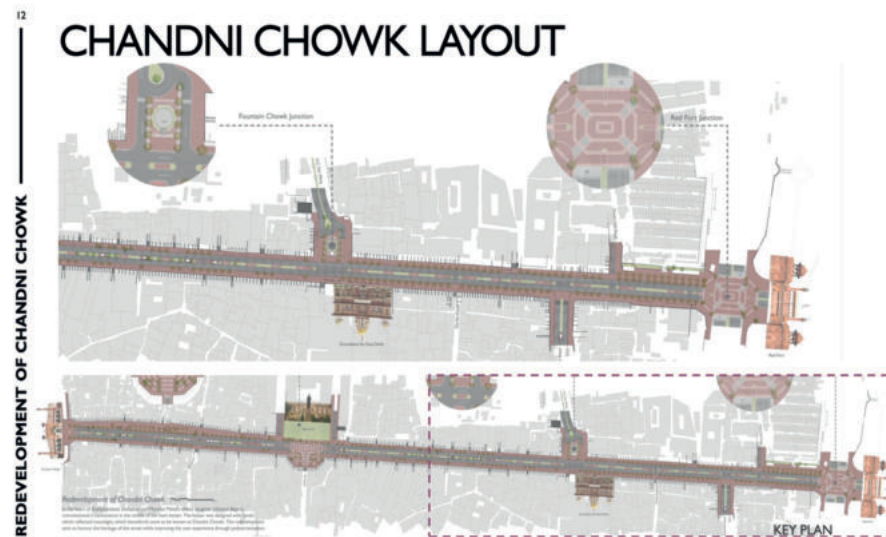
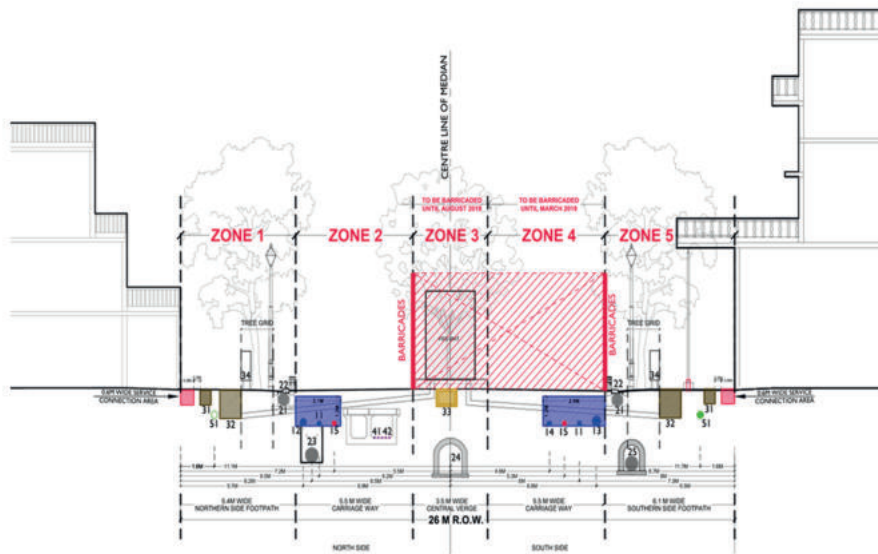


FIG: 54

- transform Chandni Chowk into a pedestrian-friendly, safe, and clean market that preserves its architectural and cultural heritage.
- reconstruction of the street and the improvement of its drainage system, as well as the installation of Street furniture.
- restoration of several heritage buildings, such as the Town Hall, the Sunehri Masjid, and the Fatehpuri Mosque, and the creation of new public spaces, such as a plaza and a park.
- better connectivity and infrastructure, such as public toilets, parking facilities, and pedestrian pathways.

3.4.3. SURVEY AND ANALYSIS

Image parameter - Edge



FIG: 55

- Pedestrianisation of the market
- wider sidewalks and pedestrian pathways.
- the project includes the creation of new green spaces
- relief from the congestion of the market.

Image Parameter : Node



FIG: 56



the major nodes include: Red fort intersection, Jama Masjid Chowk , Gurudwara Shish Ganj , Chandni chowk Metro , Khari Baoli Chowk, Parathe Waali Gali, Dariba Kalan, Kinari Bazaar

- the nodes are lined with the bustle of narrow lanes, vibrant atmosphere, a variety of shops and food

Physical Characteristics : Movement



FIG: 57

- Movement in Chandni Chowk can be described as chaotic, lively, and diverse.
- There is a constant buzz of activity as shoppers, vendors, and tourists jostle for space and navigate through the crowded streets.
- NMV form the backbone of the internal transit system within the revamped zone.

Physical Characteristics : Open Spaces



FIG: 58

- The project includes the creation of new green spaces such as parks and plazas, providing relief from the heat and congestion of the market.

Physical Characteristics : Magnets and Generators



FIG: 59

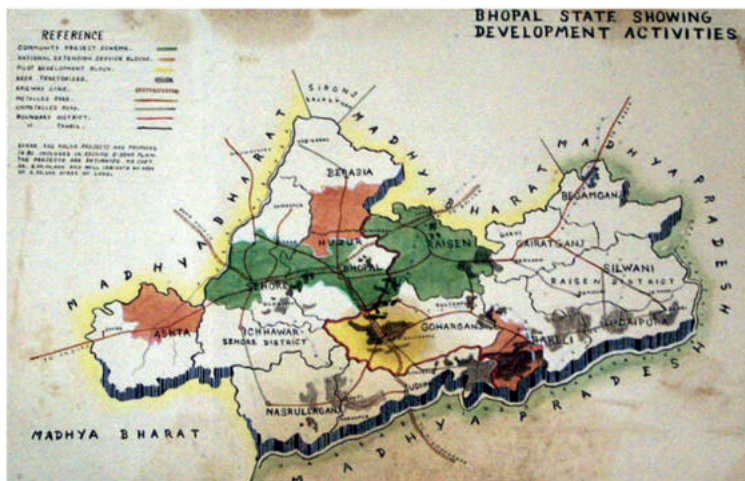
Physical Characteristics : Street furniture and Features



FIG:60

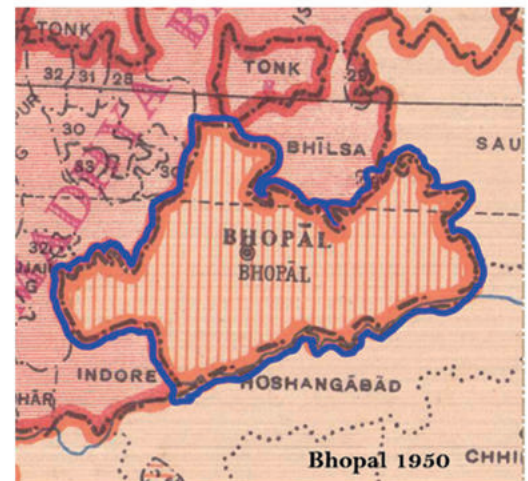
- The project includes the installation of new streetlights, creating a safer and more inviting environment.
- installation of street furniture such as benches and waste bins.
- installation of new signage and wayfinding systems.
- installation of public toilets and parking facilities .
- preservation of heritage while enhancing the shopping and tourism experience

3.5. CASE EXAMPLE : 4 : BHOPAL



Map showing the princely state of Bhopal

FIG:61



Bhopal in 1950

FIG:62

- The Old city of Bhopal is famous for its Mughal style architecture with intricately designed monuments like Taj-Ul-Masajid, Shaukat Mahal, and Sadar Manzil

The New Bhopal has modern architecture like the Manav Sangrahalaya Museum, Birla Mandir, and Habibganj Railway Station



- the city has a rich history and culture of Shia Islam.
- Bhopal is home to several beautiful Shia mosques like the Jama Masjid, Taj-ul-Masjid, and Moti Masjid, which showcase the beautiful Islamic architecture.
- Bhopal has several Imambadas, which are places of mourning and reflection for the Shia community.
- Bhopal's Shia culture is an essential part of the city's fabric and reflects the harmonious coexistence of diverse communities.

3.6. CASE EXAMPLE : 5 : LUCKNOW



Map showing the princely state of Oudh

FIG:63

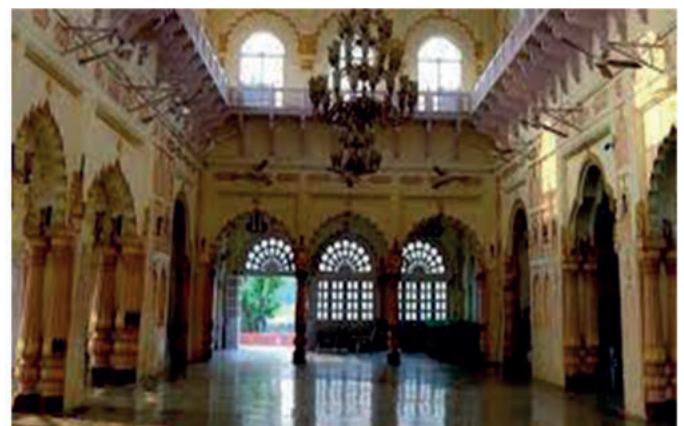
- Wajid Ali Shah was a great patron of art and architecture and built several monuments, including the famous Bara Imambara, Chhota Imambara, and Rumi Darwaza, his taste has a unique blend of Mughal, Rajput, and Gothic styles.



FIG:64



- and the similarity between the exterior design of the Safed Baradari and the Shahi Mosque in Garden reach



- Similarity between the Safed Baradari in Lucknow and the Shahi Imambara at Sibtainabad, Kolkata

FIG:65

3.7. CASE EXAMPLE : 6 : SIDHPUR : A MODERN AMULGAMATION



FIG:66

- The architecture of the Bohra Vadi in Sidhpur is influenced by Islamic, Hindu, and Jain architecture.
- The use of local materials such as wood, stone, and brick is prominent, and the buildings are energy-efficient and climate-responsive.
- The houses and buildings are typically built around a central courtyard, which provides privacy and is often used for social gatherings and religious ceremonies.

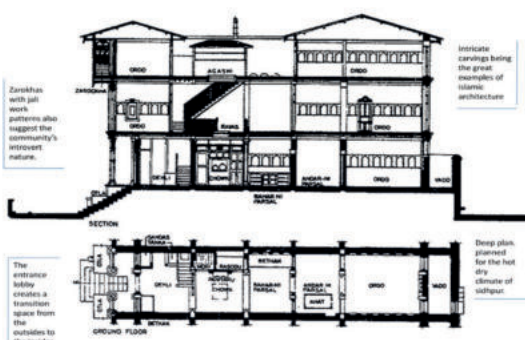


FIG:67

3.8. CASE EXAMPLE : 7 : LAHORE : CONSERVATION OF WALLED CITY



Aerial View of Androon-e-Lahore



FIG:68

KEY FEATURES OF THE PROJECT :

- The importance of maintenance and repair which are less costly in human, social, and economic terms than decay, social blight, and renewal.
- The economic, cultural, and social benefits of conservation in retaining the familiar patterns of land ownership, social patterns of behavior, and the historic associations with their cultural roots as expressed through the heritage.



Before and Afters of the implementation

FIG:69



The Wazir Khan Mosque

FIG:70

3.9. INFERENCES FROM CASE EXAMPLE STUDIES

Parameters	Ha Noi, Veitnam	East Istanbul, Turkey	Chandni Chowk, India
Edge	Edges are seats of multifunctional activities increasing the robustness of the area.	Pedestrian friendly and robust edges lined with street vendors.	Dedicated pedestrian ways connecting all along the major public areas. With organized modules for edge robustness.
Nodes	Nodes act as business points and thoroughfare movement. Two bridge nodes have all the pressure to regulate traffic.	Efforts are being taken to reduce congestion at the nodes.	Nodes are not quite spacious Representing organized chaos adding to the robustness.
Movement	Movement is highly congested impacting the efficiency. Sidewalks are encroached and restrict movement.	Classifications of roads according to the movement requirements.	Various design guidelines have been formulated to control the haphazard movement throughout the zone.
Magnets and Generators	Mix of traditional and modern points catering to variety of interests.	Major magnets are well connected through the roads.	Major magnets are well connected through NMV routes. Dedicated ways to connect the important magnets.

3.9. INFERENCES FROM CASE EXAMPLE STUDIES

Parameters	Ha Noi, Veitnam	East Istanbul, Turkey	Chandni Chowk, India
Activity	The activity is chaotic and overlapping. Most activity takes place in public squares which are high recreational zones.	Regular road intersections & building blocks help to generate effective activity zones in between spaces.	Interconnections between the open spaces through pedestrian walkways, passes make it a vibrant public realm. Promoting various activity zones.
Open spaces	These dissipate the pollution and provide escape from the highly dense urban fabric.	The creation of open spaces is the key aspect of the project.	The open space is highly limited but those around this area are designated for public activities.
Street furniture	No measure has been taken to implement the installation of street furniture.	Measurements have been taken to design some integrated street furniture to enhance public realm.	Measurements have been taken to design some integrated street furniture to enhance the beauty of the public realm.

CHAPTER 4

CASE APPLICATION

4.0 CASE APPLICATION

4.1. INTRODUCTION TO SITE

Location Map

source :Assessment of Environmental Water Security of an Asian Deltaic Megacity and Its Peri-Urban Wetland Areas

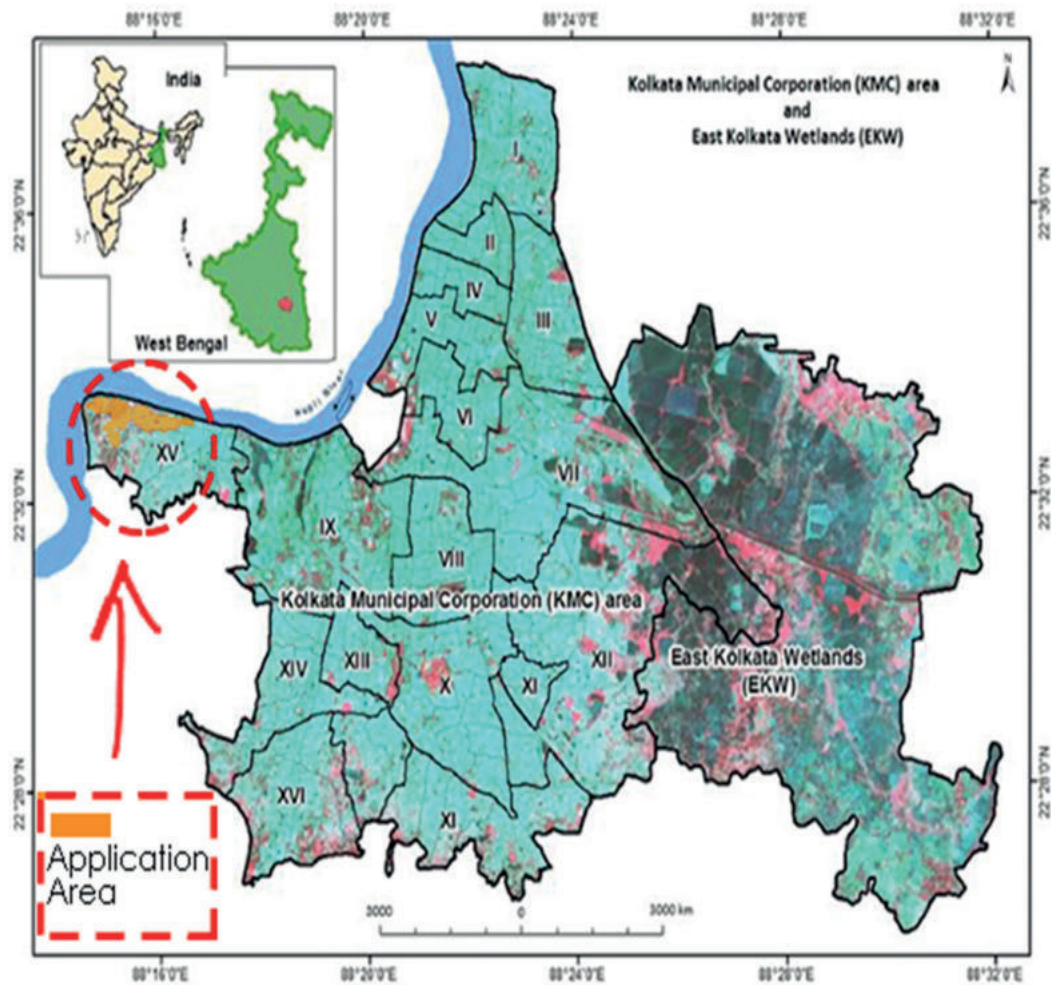


FIG:71

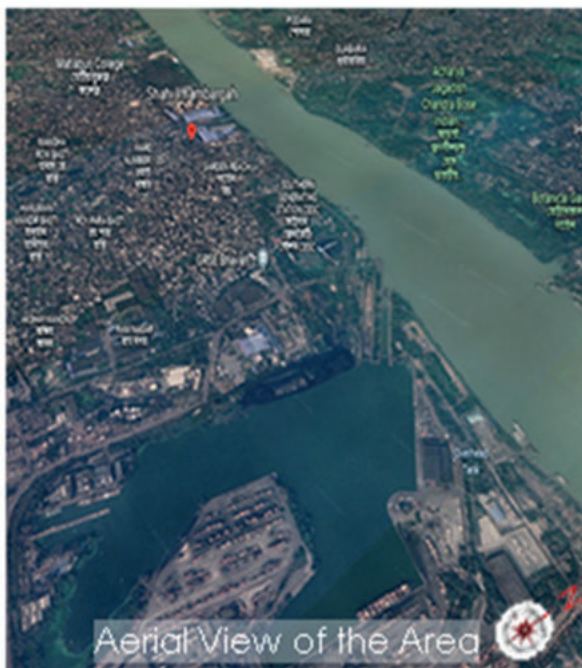


FIG:72

Garden Reach is a neighbourhood of the city of Kolkata in West Bengal, India.

It is situated in the south-western part of Kolkata near the bank of the Hooghly river.

It is located to the north-east of Maheshtala, the west of Kidderpore the north of Taratala and Behala.

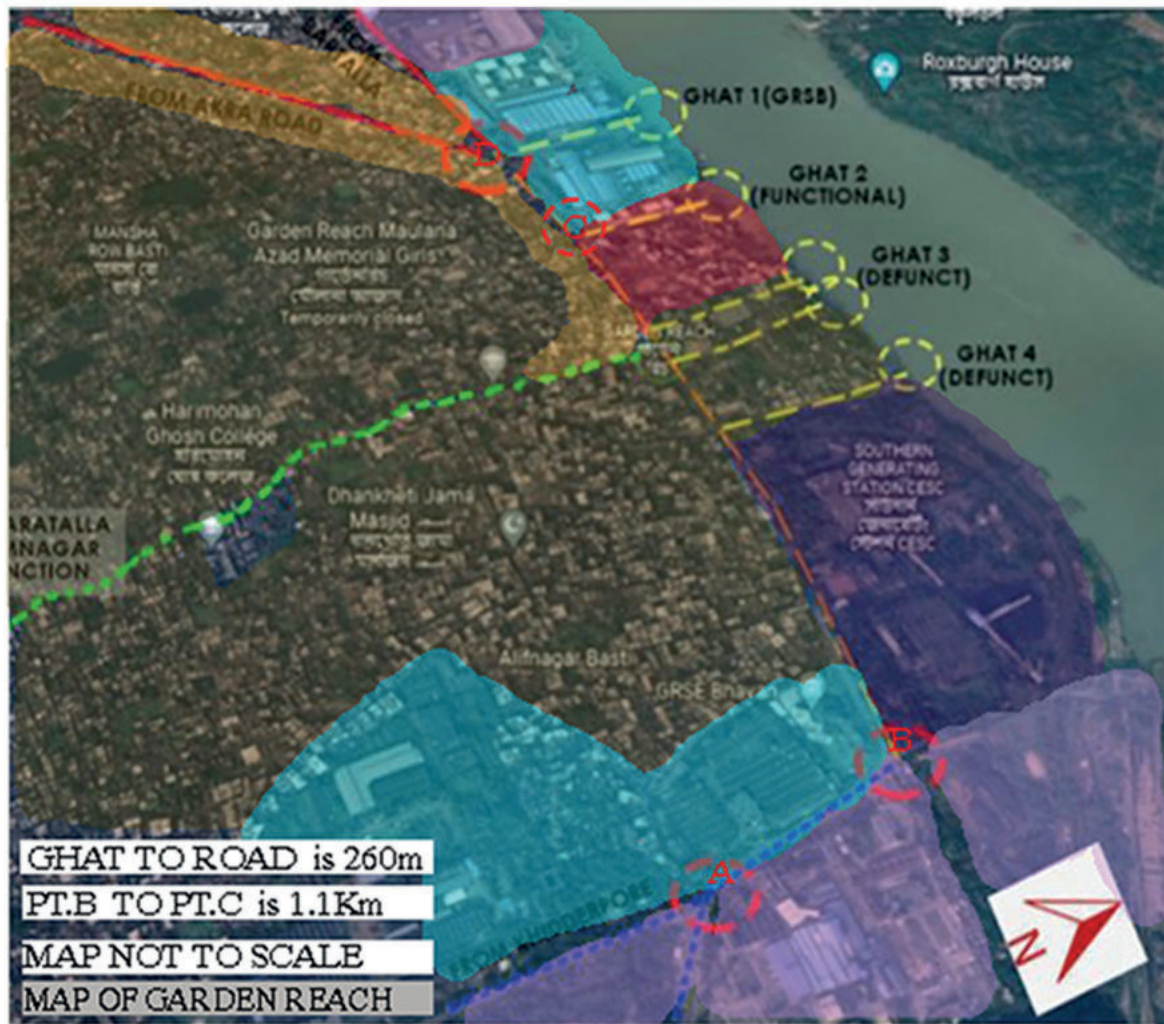
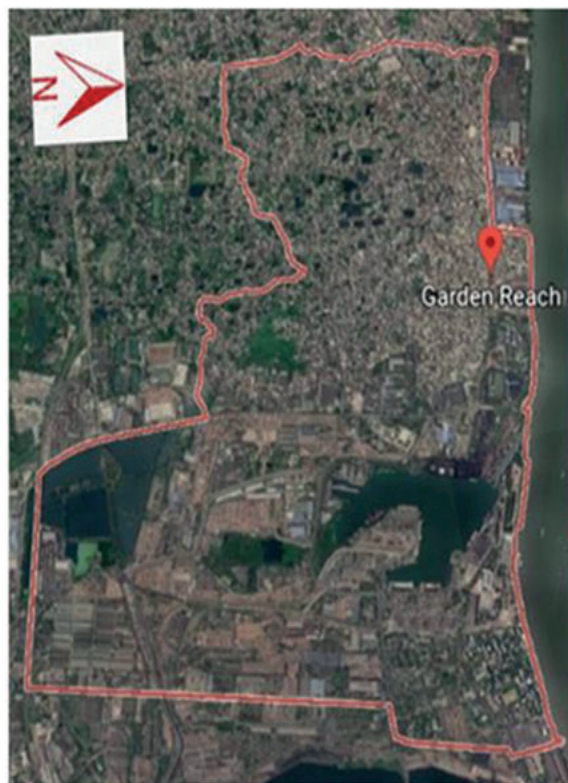


FIG:73



Delineation Map

FIG:74



COLOR LEGENDS

Brown	High Density Residential
Red	Commercial Area
Purple	Industrial Area
Lilac	Warehouse Area
Blue	Government Institutes



Nodes

— —	Arterial roads
— —	Feeder roads
— —	Local Streets

Major Road : Garden Reach Road

Feeder Roads : Paharpur Road
Akra Road
Ramnagar Lane

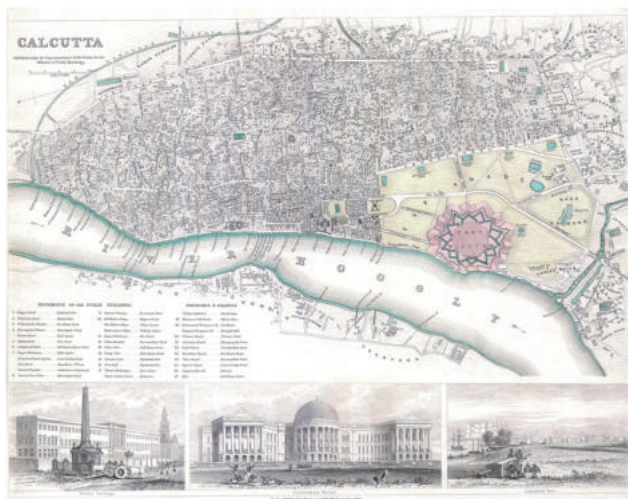
Evolution of the area



- Calcutta in 1757 was a key center of trade and commerce, as well as an important site of colonial power in India



- Calcutta in 1800s was a mix of Indian and European styles. The city had several prominent buildings, including the Fort William, St. John's Church, and the Governor's House



- Calcutta in 1842 was a rapidly expanding city, known for its commerce and cultural richness under British colonial rule.



- Calcutta in 1850s was a major center of British colonial power in India, with a thriving economy, significant cultural diversity, and a rapidly growing population.

FIG:75



- European Kolkata (the Park Street and dighi Area)
- Residential settlements of Sutanuti, Gobindopur and Chitpur
- The Burrabazar Area
- The trade market along the Ghats
- Tipu Sultan's exiled family in Tollygunge
- The Garden Reach Area had exiled Nawab Wajid Ali Shah
- Park Circus also had exiled notables.
- The only Direction of growth was South and East.

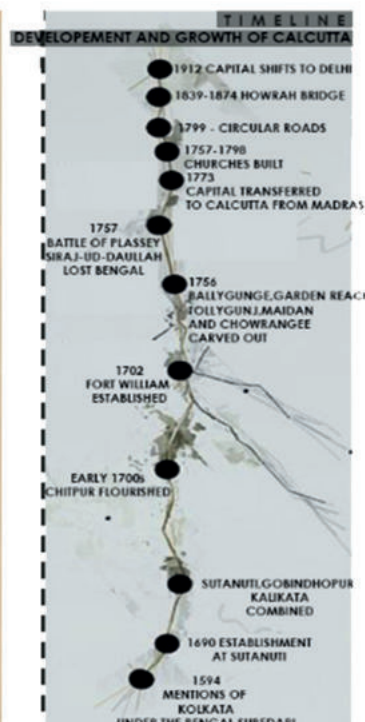
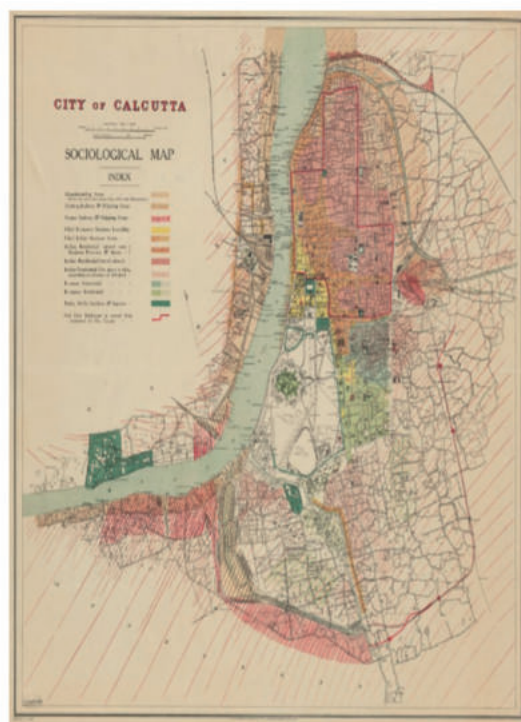


FIG:76

4.2. AREA LEVEL STUDY

4.2.1. SELECTION OF AREA



FIG:77

Justification :

- Garden Reach is a congested residential area is also located beside the Hoogly at the western stretch of the City of Kolkata. The commercial potential pulls crowd from entire city as well as the suburbs.
- Selection of area has been done depending upon mostly the state of decay open spaces ,heritage buildings ,the degenerative structure of the cloth market and the vanishing green cover due to the boom of residential zones.

Site Photographs



FIG:78

4.2.2. DELINIATION

Total area : 87.96 acres



The Delineation of the site is as follows:

FIG:79

Residential area	Mixed use	Commercial Area
Industrial Area	Port and allied services	

The site can be described as a major residential land fabric oriented commercial hub with lack of connectivity from the various areas :
 Southern Side : from Taratalla because of narrow roads with road widths decreasing upto 4.5 meters

Northern side : the only mode of transit is waterways the frequency of which is non reliable and has decreased considerably after the pandemic.

Eastern side : The area leading to Santoshpur and Budge Budge has very narrow roads and the condition of transit is further hampered by bifurcations and industrial trucks.

Western side : The road condition to Khidirpore is highly prone to accidents due to lack of signals.

4.2.3. SURVEY

Open Spaces

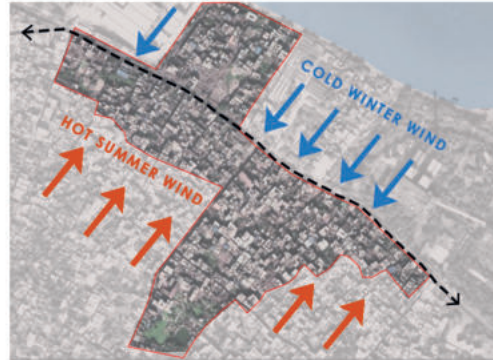


FIG:80

Open spaces :

9.3% of total area

Includes : ponds and protected areas

Transit Map of Garden Reach

FIG:82



FIG:81

Observations :

- The delineated area is majorly stretched along the east west direction with extension at south west in two stretches.
- Roads are not shaded, uncomfortable during the harsh summer.

Conclusion

More shaded zones in public spaces should be created to maximize the outdoor activities during the summer

- Evaporative cooling process can be utilized in public spaces for the protections against loo(hot winds).
- open areas to be regenrated to promote recreational activities.



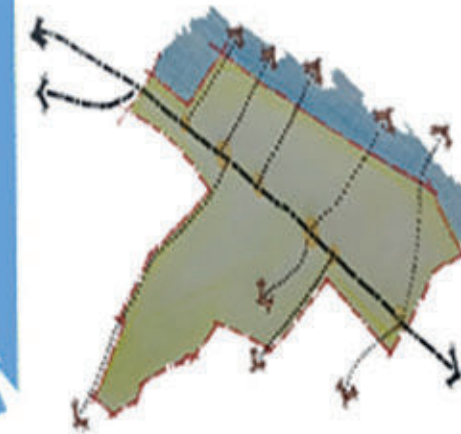
No shaded Area



EXISTING SITE : KEY PLAN



EXISTING LANDUSE AND ROADWAYS



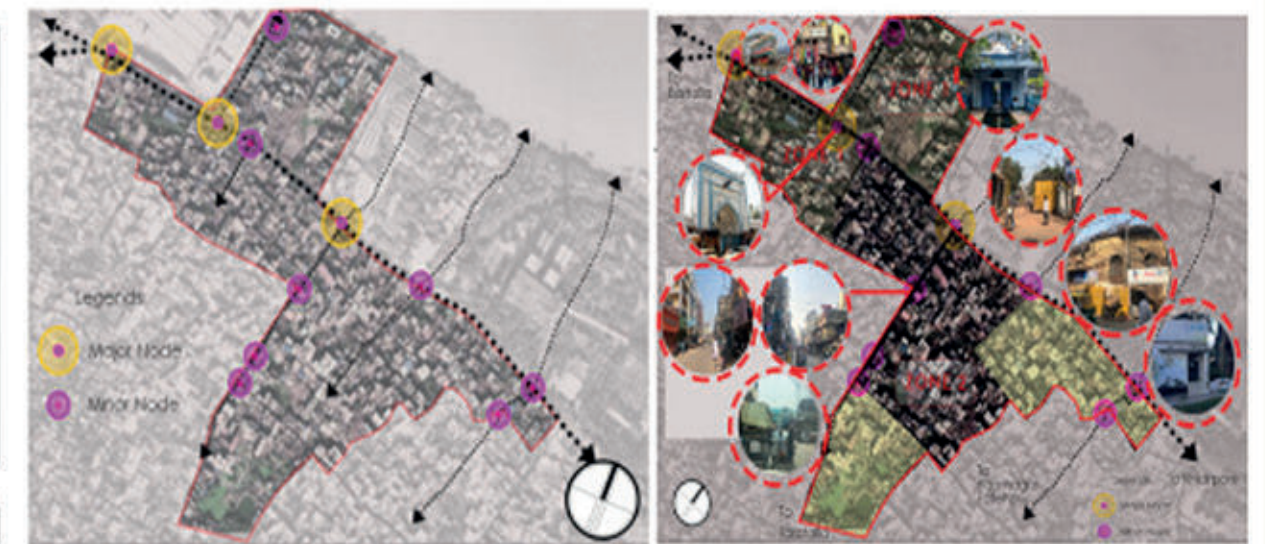
EXISTING MOVEMENT AND TRANSIT MAP



EXISTING TREE COVER

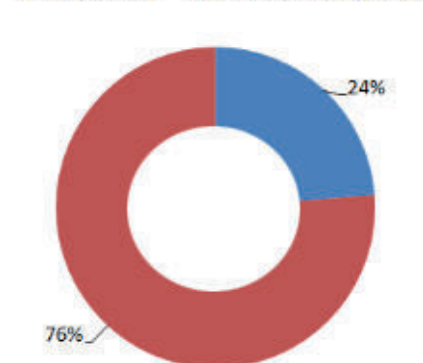


EXISTING BUILT FABRIC IN CONCERN



EXISTING NODES AND MAGNETS

EXISTING TREE COVER



LAND USE PERCENTAGE

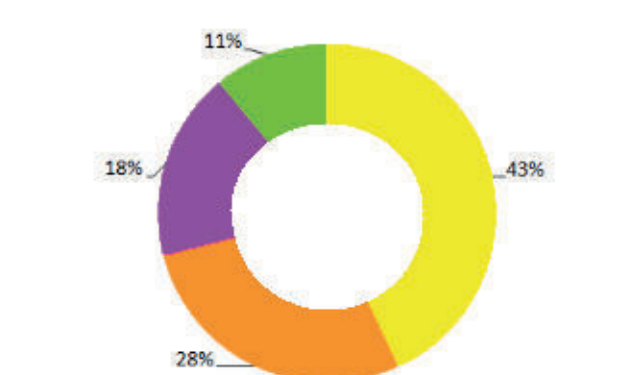
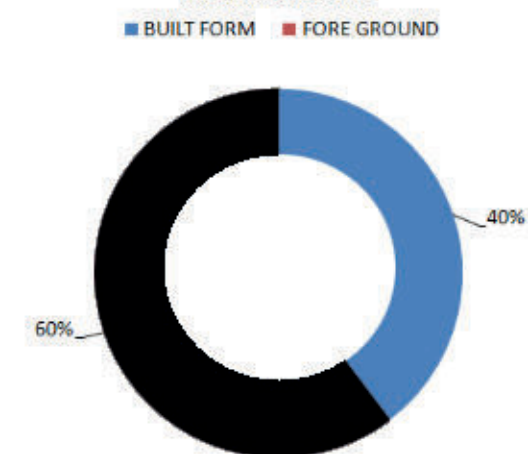
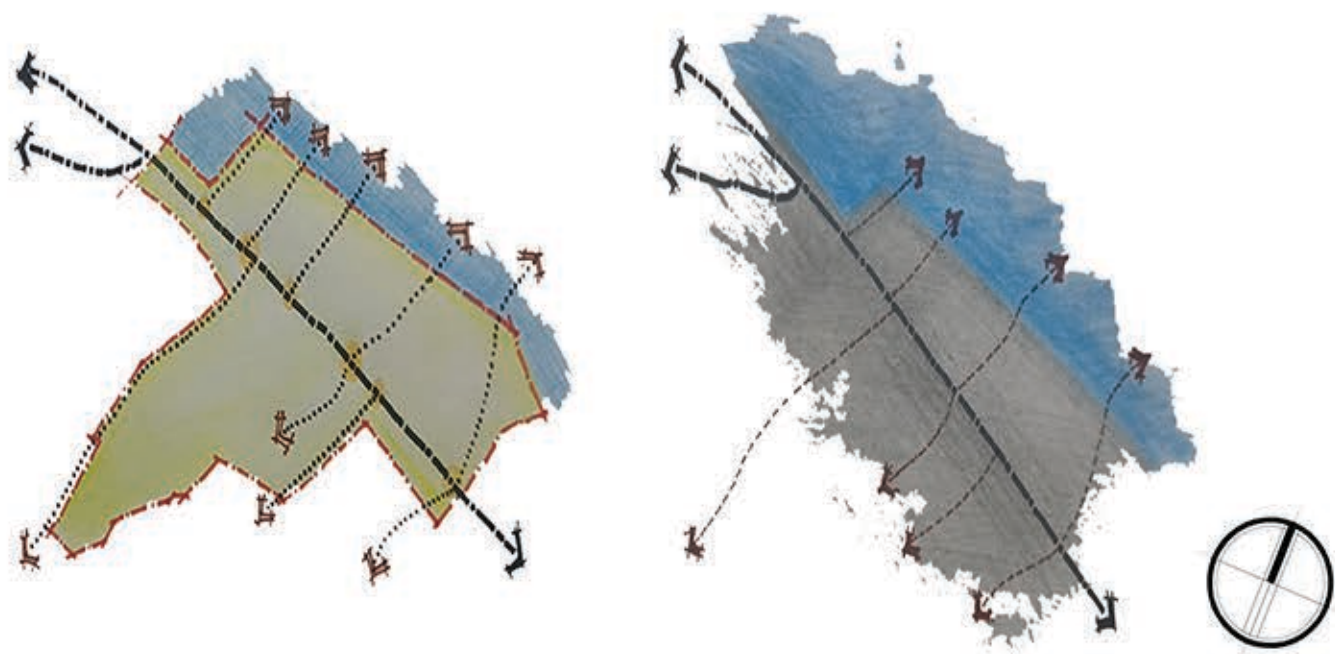


FIGURE GROUND





Schematic representation of Movement along the roads



Observations:

- The delineated area is majorly stretched along the east west direction with extension at south west in two stretches
- Garden Reach Ferry Ghat is a significant transportation node in Garden Reach.
- the busy traffic nodes and movements in the area reflect its significance.

Conclusions :

- There is a need of Hierarchy of roads to be implemented
- There is a need to maximize pedestrian walkways
- road width doesn't have sufficient space for informal activities along the road
- People can be seen walking on the sidewalks and crossing the roads at various intersections.
- there is a lot of movement related to the transportation of goods and raw materials

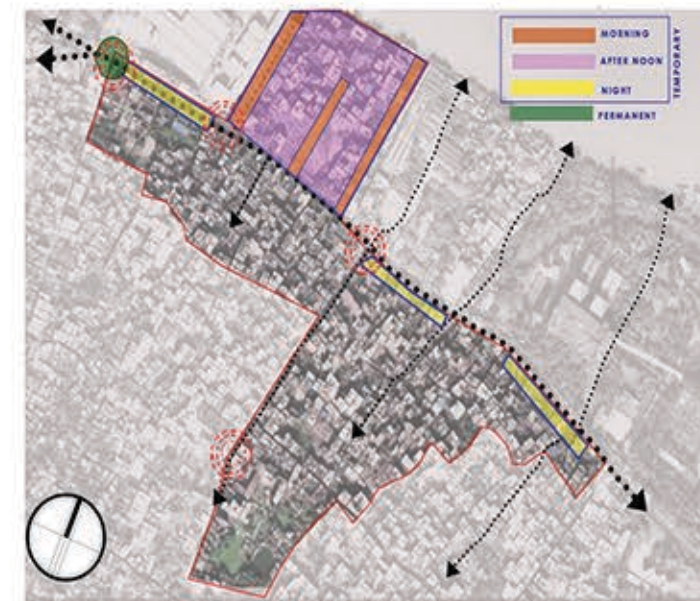


LEVELS OF PERMEABILITY
AT VARIOUS BOTTLE NECK POINTS OF
GARDEN REACH AND MATIABRUZ

URBAN GRAIN REFINES

PERMEABILITY DECREASES
TRAFFIC MOTION DECREASES

Magnets ,Generators and Activity



Observation :

- The activity is predominantly seen as an extension effect of the magnets.
- Mixed and organised shift in activity seen on a daily basis.
- The transition time however on Wednesdays and Saturdays is chaotic due to absence of an emergency corridor.

Conclusions :

- Magnets are to be well connected & accessible.
- Magnets & Generators which are close to each other should be connected by pedestrian walkways to establish a Public Realm.
- This area has a strong potential to be developed as a commercial district Kolkata due to its strategic location.
- Intervention required in creation of more public spaces to cater to the demands of public usage.

Daily activity flow along the Magnets Wednesdays and Saturdays

During Islamic festivities

Street Furniture and Signage

FIG:86



Observation :

- Absence of effective signage and Street furniture even along the ghats. lack of proper signalling leads to accidents at various points.

Lack of signalling issues create a lot of congestion at the bottle necks of Paharpur Road.

- many streets and public spaces in garden reach lack proper lighting, making them unsafe and prone to criminal activity.

Conclusions :

- Proper signalling and signage measures to be taken to reduce the severe traffic congestion, particularly during peak hours, which causes delays, pollution, and safety hazards for pedestrians and motorists.

The enormous open areas along the ghat lack any street furniture or even lighting

Edge

FIG:87



Observations :

- Dense residential edge differentiate the private & public zones in south as well as western sides
- Permeability to the area is very less through the edge along Garden Reach Road

Conclusion :

- the walls of GRSE, CESC and Asfahani Jute Mill act as a prominent edge for its elevation difference.

Nodes



Observations

- Nodes are not with adequate space depending upon the vehicular load.
- Lack of physical connections between both sides of the road creates congestion on the Node of Paharpur Road and Garden reach Road

Conclusions :

- Activities around the nodes should be regularized through design interventions
- Nodes must be designed with adequate space depending upon the vehicular load.
- Intervention required in creation of more public spaces to cater to the demands of public usage

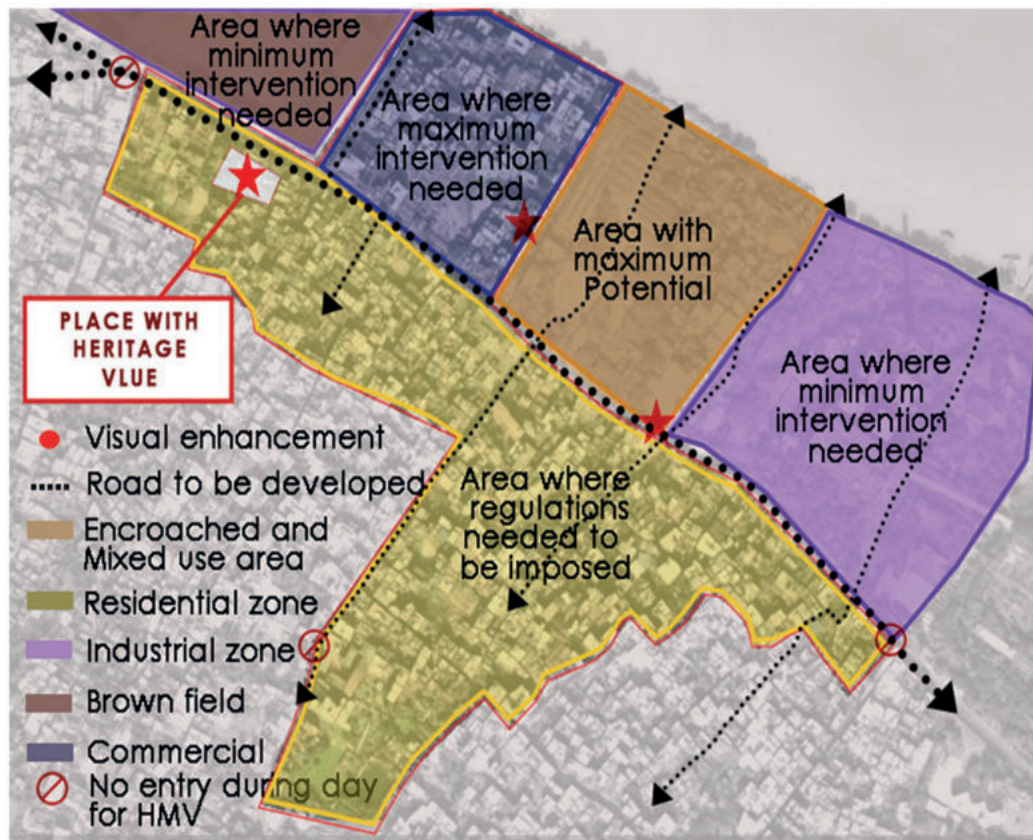
FIG:88

The nodes are congested due to overhauling structures.



FIG:89

4.2.4. PROPOSALS : AREA LEVEL

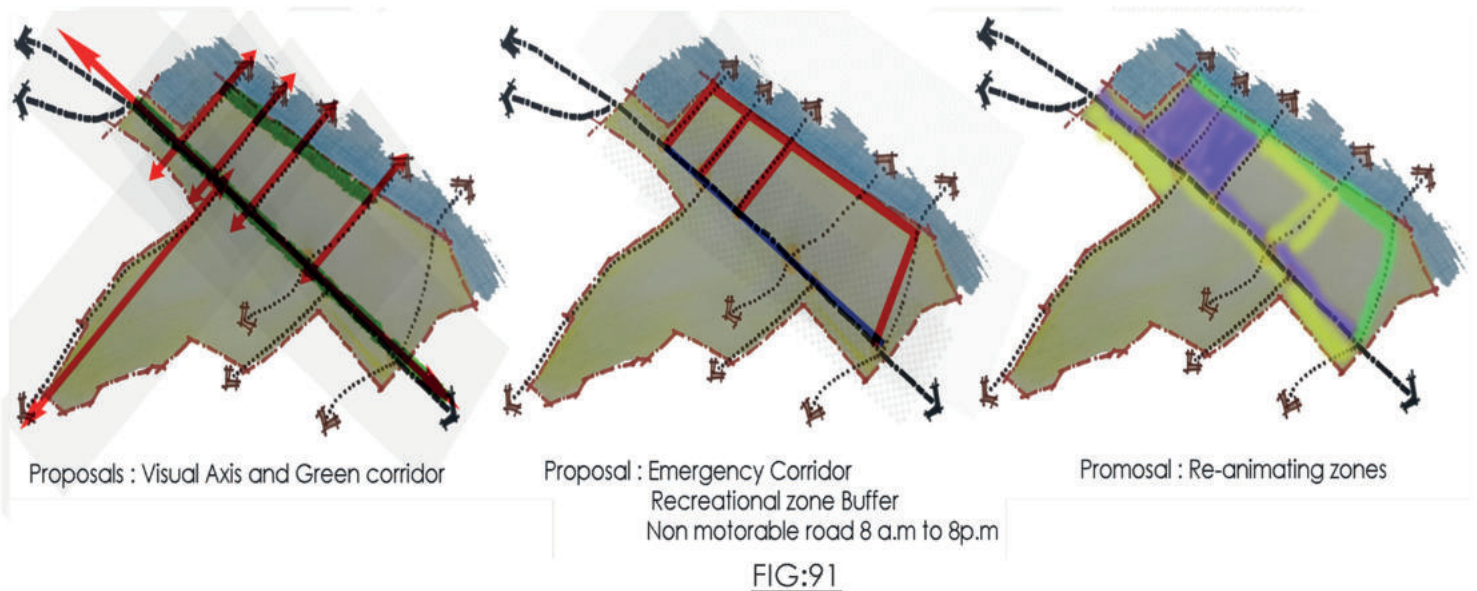


Categories of design potentials
and basic outlook of Proposals

Area Level Proposals are as follows :

- Preparation of a master plan along with the design Strategies surrounding the commercial output zone.
- Introducing a hierarchy of road networks there by maximising the note output and making the pedestrian pathways walkable.
- Proposing commercial and recreational districts along with creation of landmarks as per requirement.
- Upgrading the existing connectivity to residential areas
- Propose measurement to control the random elevation designs and regulations to formulate the control of random developments.
- Reinforcing the existing heritage And to stop further decay of tangible heritage.

4.2.5. DESIGN GUIDELINES : AREA LEVEL



Area Level Guidelines are as follows :

- To promote sustainable development: Garden Reach is a densely populated area, and any development should be done with sustainability in mind. This would include promoting green spaces.
- To preserve historic landmarks: Garden Reach has many historic landmarks, and any development should be done with an eye towards preserving these landmarks. This would include renovating historic buildings, creating heritage trails, and promoting tourism.
- To encourage mixed-use development: Garden Reach has a mix of residential, commercial, and industrial areas, and any development should aim to create a balanced and integrated community. This would include encouraging mixed-use development, such as commercial spaces on the ground floor of residential buildings.
- To focus on infrastructure development: This would include developing roads, public transport, water supply, and sewage systems. This will help to attract more investment and development to the area.
- To regenerate public activity zones and design adequate facilities like bus stops, parking, street furniture, vendor etc.
- To remove physical and visual barriers and improve the streetscape by restricting HMV during day time.
- To enhance the views and vistas and to create new vistas wherever possible and maintain uniform building character

4.2.4 PROPOSED STRATEGIES : AREA LEVEL ROAD WIDENING



EXISTING WIDTH 10 METRES



PROPOSED WIDENING OF WAJID ALI SHAH ROAD
PROPOSED WIDTH 18 METRES

IDENTIFICATION OF INTERVENTION STRUCTURES
■ INTERVENTION STRUCTURES ■ ADJOINING RESIDENTIAL ■ MIXED USE



EXISTING SECTION AT WAJID
ALI SHAH RD. 10 M WIDE



PROPOSED SECTION AT WAJID A.SHAH
ROAD 18 M WIDE

FIG:114

4.2.4 PROPOSED STRATEGIES : AREA LEVEL

ONE WAY TRAFFIC



EXISTING BUS ROUTE



ALTERNATIVE ONE WAY



MODIFIED ONE WAY -MUDIALI ROAD

FIG:114

4.2.4 PROPOSED STRATEGIES : AREA LEVEL

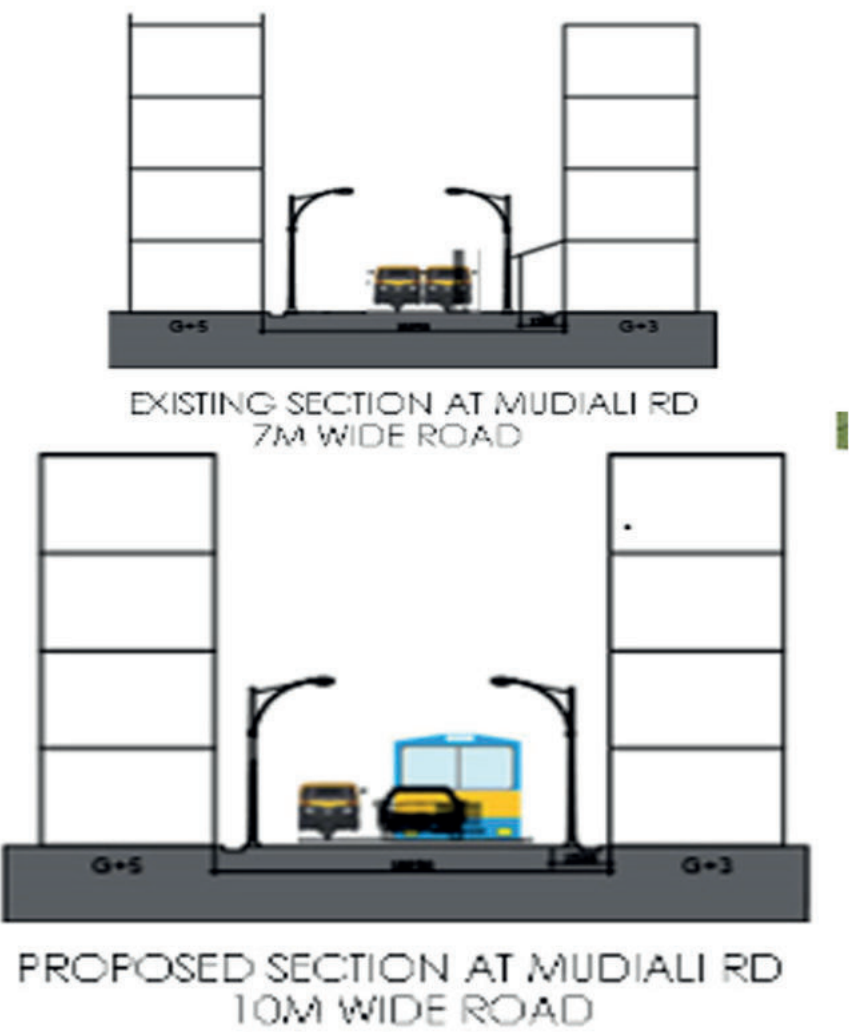


FIG:114

4.3. ZONAL LEVEL STUDY: Identification of intervention zones



FIG:92

Based on the study done it is established that the selected zones have the most potential to be developed as attractive public realm.

Zone 1 : Area along Garden Reach Road, Under the Sibtainabad Waqf Estate,

Zone 2: The Residential areas creating bottle necks, with vanishing greenery along Nawab Wajid Ali Shah Road(28.no) and Paharpur Road.

4.3.1. ZONE 1

4.3.1.1. DELINEATION



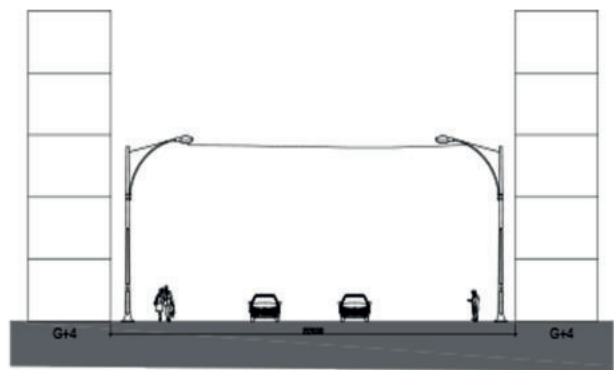
FIG:93

The river Hoogly acts as a strong boundary of the zone on the northern side.

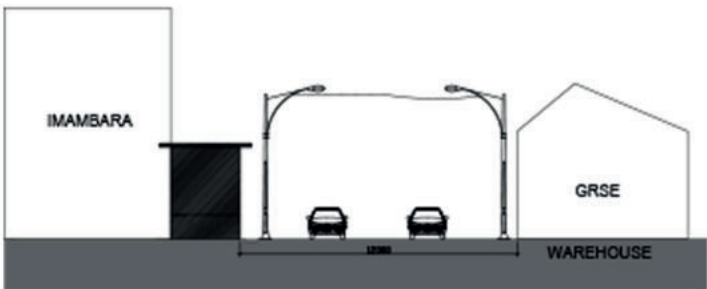
- The Western and Eastern sides are marked by by-lanes of Iron Gate and Bichalighat, which also is the boundary for the Tukra Patti market.

-The Southern side is marked by the lanes of Qasab Para Basti and Dewaan Bagan Lane.

4.3.1.2. SURVEY



Schematic section at 42 Bus Stand 22M wide road



Schematic section at Bichalighat More 12M wide road

G+4 Transportation Bus stand G+4

Heritage building Transportation Auto stand Industry

FIG:94

Nodes :

Observations :

- The nodes of The note of matiabruz police station and Bhichalighat are heavily crowded due to 42 bus stands and the auto stand attached to it.
- Additionally these notes become points where people from the ferry also get down and get her to get the transit mode of their choice.

Conclusion :

- The Bichalighat node is the node of maximum thoroughfare because of 5 modes of transit meeting at that point- the ferry, auto,taxi, bus and Rikshaw stand.
- additionally the node has various makeshift eateries which can be accomodated else where.



FIG:95

Edge



FIG:96

Observations :

- The edge along Garden Reach Road is occupied predominantly by fabric wholesale and retail vendors.
- additionally meat and household good shops also line the billateral intersecting edge of Iron Gate Road.
- The edge on the backward site of Devan Bagan and lined with heavily clustered by residential areas.
- The edge is very vibrant as it shows shifting in the trend of shops from time to time.
- the footpath is occupied by unathorisedtwo wheeler parking .

Conclusion :

- Dedicated areas for rotational shops to be provided.
- The footpath should be cleared for better visual permeability.
- parking areas to be created along the ghats so as to use the area in a better way.

Open spaces



FIG:97

Observations :

- The only space in this zone is along the ghats which too are at the brink of constant encroachment.
- The ghats are mostly utilised by merchants who deal with bamboo and kites.
- The other spaces available are used as dumping grounds for broken vehicles and non biodegradable waste.

Conclusion :

- The Ghats should be rejuvenated with specific areas allotted to the kite weavers.
- The skyline can be refined and made aesthetically pleasing.
- The Ghat can be used a major recreation zone.

Activity



FIG:98



Tukra Patti

Observation :

- Most of the crowd disperses as they reach the Police station as the road widens.
- the movement of activity is from east to west and ends calmly along Rameshwarpur-Police station Node.

Conclusion :

- There is a need for a definite skill based division of activity which will draw the crowd to the desired direction.

Legend

- Fabric Related
 - Cloth weaving
 - Cloth merchants
 - wholesaler
 - Retailer
- Lifestock, Grocery
- Furniture and Goods
- Kite Making
- Fruits-wholesale and retail.



FIG:99

Magnets and Generators



FIG:100

Observation :

- The Tukra Patti is the major magnet during the day and post midnight acts a generator.
- The Imambara and Shahi masjid draws crowd from neighbouring suburbs during Moharram.
- The bengali bazar acts as a genrator before sunrise and acts as a magnet during the thoroughfare of the day.

Conclusion :

- The magnets lack visual permeability hence loses the war in potentiality, there is an utter need to reanimate all 4 magnets to envision the area as a commercially and culturally tangible quarter.

4.3.1.3. GUIDELINES : ZONE 1

- Recreating the Garden Reach Ghats into proper recreational Zone. along with commercial and retail areas, to reinforce physical connections between the adjoining residential areas.
- Implementing hierarchy of roads and create separation as well as maximising the pedestrian walkway.
- Increasing the parking facilities and upgrading.
- Upgrading the existing functionality of the congested nodes.
- Cleaning the Bichalighat road to upgrade the scenic beauty.
- Attenuating the hertiage value of the existing structures and prevent further decay.



FIG:101

4.3.2. ZONE 2

4.3.2.1. DELINEATION



FIG:102

Description :

- The northern side is marked by Wajid Ali Shah Road which leads to Khidirpore as we move east.
- The East is marked by Ramnagar Lane-28. No Bus stop and the wide By-lane
- The Western flank is bordered by the Paharpur road which runs south to Taratalla Road
- The Southern Side is marked by the botten neck Lane of Ramnagar Lane which inconnects to Tarattla road - Ramnagar Intersection.
- The locality is a dense Residential zone with very les mixed use structures except for the ones opening into the road.
- The rampant construction spree has led to decrease in visible green cover.

4.3.2.2. SURVEY

Nodes :

Observations:

- The present nodes act as informal bus stops.
- The nodes are insufficient in adhering to the congestion.
- The nodes are hubs of layman activities and informal assembly.
- The pressure on these nodes increase due to weekly market.

Conclusions :

- Mobility & accessibility of Nodes should be defined & enhanced.
- Nodes must have equal priorities & comfort for all pedestrians as well as the vehicles.
- Activities around the nodes should be regularized through design interventions.
- Nodes must be designed with adequate space depending upon the vehicular load.

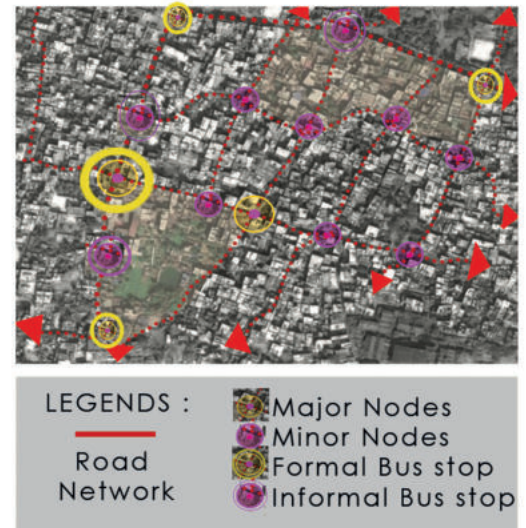
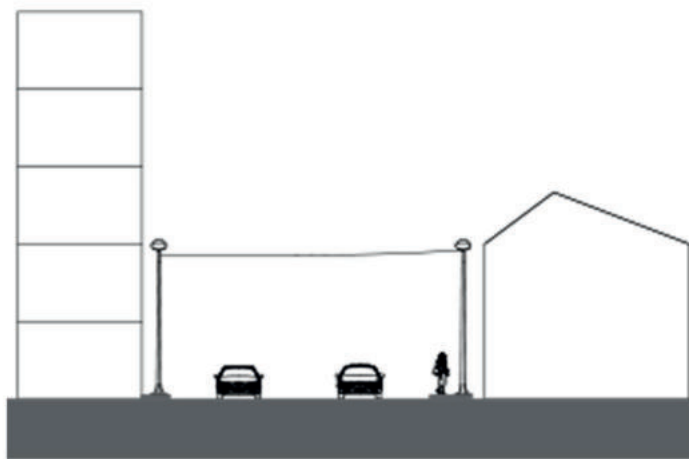
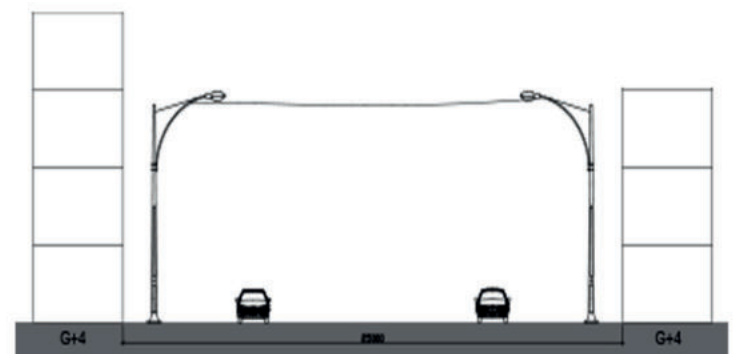


FIG:103



CESC Workshop Node
Road width- 8.3m



Paharpur Road
Road Width- 16.6m.

FIG:104



Out-bound Road to CESC



Paharpur Road

FIG:105

Edge

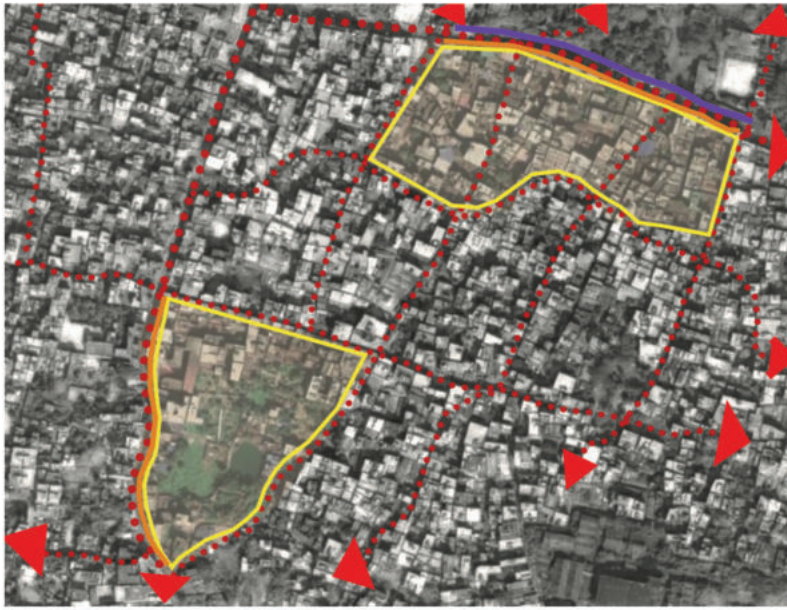


FIG:106

Observations :

- The edge along the lanes and roads are mixed use commercial shops with upper storeys dedicated to residential purposes.
- Footpath is absent and the vendors hop onto roads hampering traffic.

Conclusions :

- The edge should be refined with proper regulations on hawkers and shop owners.
- Unauthorised parking should be dealt with action.

Open spaces :

Observations :

- There is little to no open area in the part adjoining Paharpur Road
- There are parks along the part adjoining Wajid Ali Shah road.

Conclusions:

- Due to absence of Proper open Areas,There is lack of recreational activities and people chose roads to carry out their past times.
- Regulations for mandatory open spaces should be imposed.

Magnets and Generators :

Observations and Conclusions :

- The magnets in the zone are banks,mosques ,Imambara and CESC sub-station
- The weekly market is a generator where goods from Ramnagar are being sent to various locations.
- Most houses in Ramnagar are godowns primarily for fabric related business.



FIG:107



FIG:108

Movement and Activity :

Observations and Conclusions :

- Major potential public area on Paharpur Road should have better permeability.
 - Grade separation should be done for the roads, adequate space for pedestrian & light vehicles are important.
 - Adequate bus stop bay, parking area should be intervened whether reqd.
 - Strategical location to be designed for the informal vendors.
- More activities should be incorporated by design intervention to make the space more lively for public use.



FIG:109

Street Furniture and Signage :

Observation;

- There is lack of these urban features in the zone.
- And in some areas there are no street lights, such areas are prone to blight.
- there is no signalling system along fatehpur, which leads to a daily congestion .

Conclusion:

- Proper signaling system can reduce the congestion by signalling vehicles of impending traffic and vehicles ahead.
- The steep turns and nodes would function better with proper signalling lighting system.
- There is need for street furniture in the municipal park and people sit on walls.



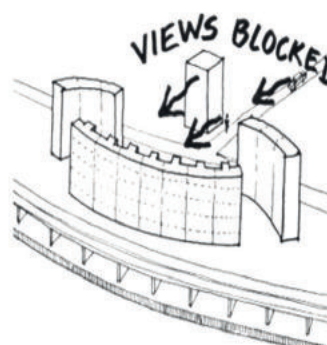
Fatehpur Node



Non- functioning
lamp post

4.3.2.3. GUIDELINES FOR ZONE 2

- To Revitalise the truck parking facility at Ramnagar - Taratalla- Wajid Ali Shah Road Xing
- To modify the road network system along Paharpur Road so as to provide better accessibility,safety and comfort.
- To vehicularly connect adjoining residential areas in the zone .
- To introduce wider road networking system and implement road heirarchy wherever required.
- To install proper signage ,signalling systems and lighting facilities wherever required
- To coherently implement building by-laws to facalitate psitive active and movement.
- To widen the nodes so as to facilitate the traffic surge and movement especially on weekends and weekly markets.
- To reactivate dormant routes and connect them via emergency corridors during seasonal traffic surge.



Proposals : Zone II

Source : Contemporary works in Urban design
Cities : Sydney and Paris



FIG:110

4.4. SITE LEVEL STUDY

Identification of Intervention site: Delineation and Description.



Site A The site is predominantly a commercial area with places of historical value attached to it. It lies at the intersection of Bichalighat node

Brief Outline of the Site sub-division



4.4.1. SURVEY

Edge and Nodes

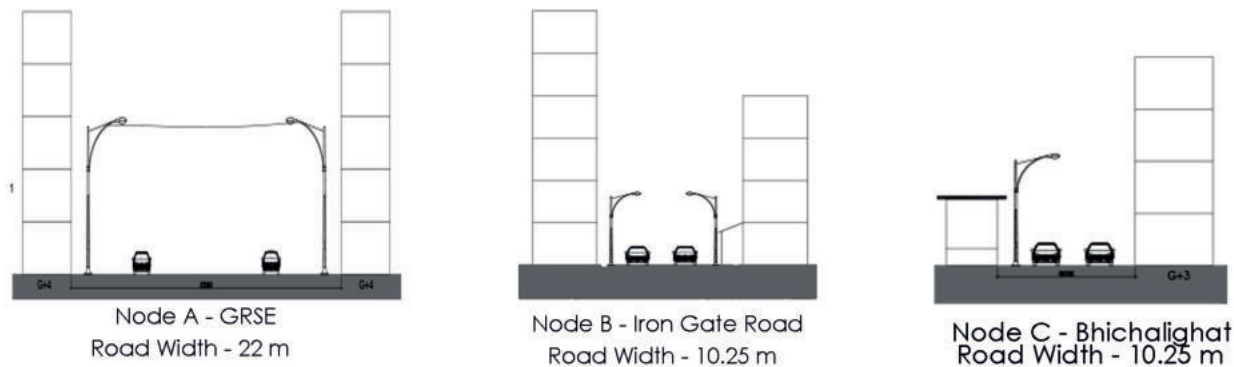


FIG:113

Conclusions :

- Connection between residential & public area has to be established to get more people to the activity area.
- Edge are quite defined, permeability is missing.
- Restricted and unorganized movement about the node.
- This area has a strong potential to be developed as a vibrant commercial realm of Kolkata due to its strategic location
- More activities should be incorporated by design intervention to make the space more lively for public use.

Magnets and Generators

- Major magnets are on vehicular road, connections to the subsidiary roads are not proactive.
- Spill over for this magnets are directed on the road, irregular movements generated which causes congestions.
- Seasonal and weekly activities are very congested
- No direct connection of the Ghat to Garden Reach Road apart from Bichalighat.

Movement and Activity

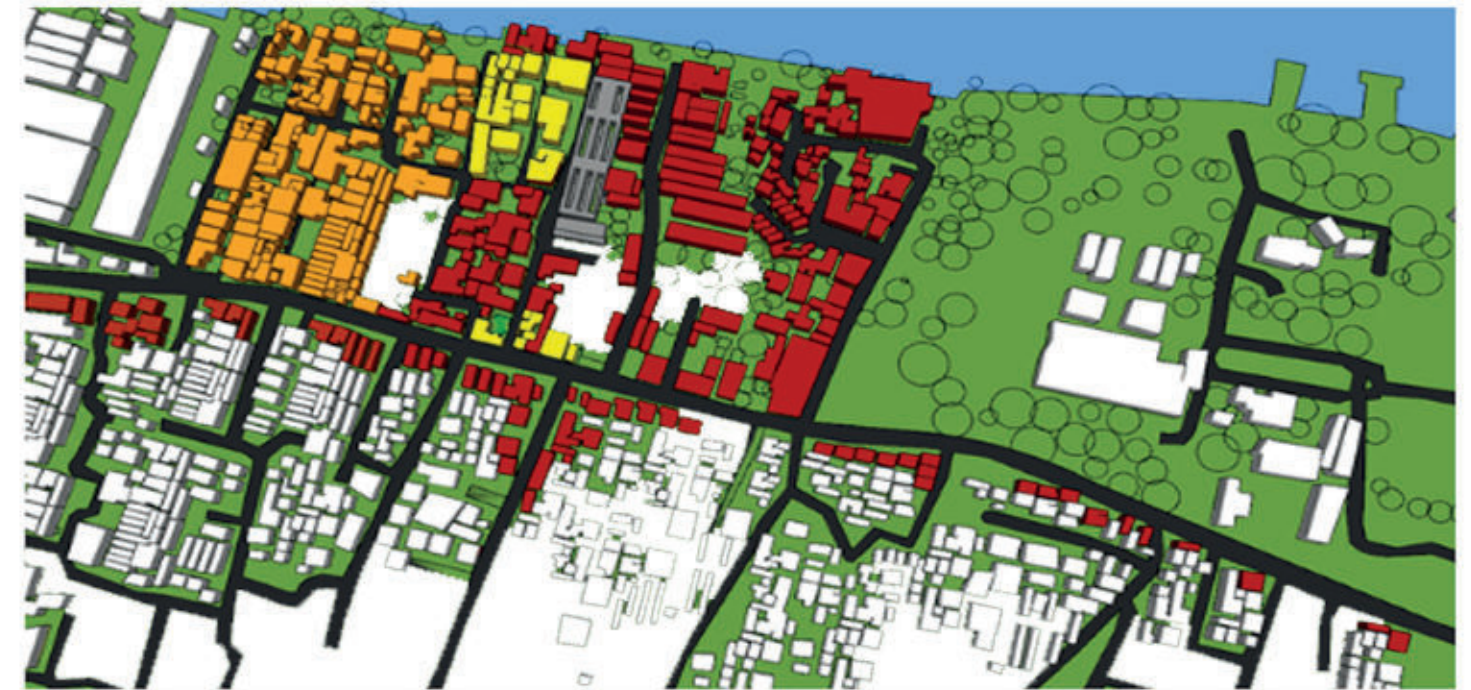
- Major roads are almost linear, vistas must be enhanced by the design measurements.
- More activities should be incorporated by design intervention to make the space more lively for public use.
- Roads leading away from the site lead to a dense fabric residential area which is not even cyclable.

Street furniture,Architectural Features

- lack of investment in public infrastructure, resulting in a lack of street furniture like benches, litter bins, street lights, and other amenities.
- the streets are narrow, making it difficult to install street furniture without compromising pedestrian movement

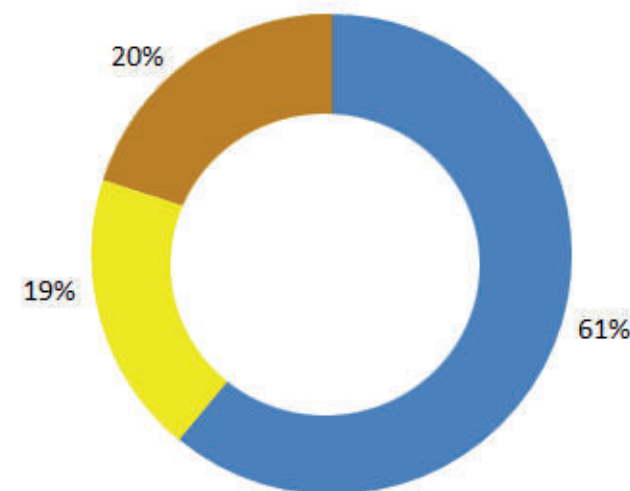
Open spaces

- Open spaces are irregular in shape due to unorganized development.
- Most of the open spaces are not even properly accessed due to its locations.
- Public open spaces are comparatively centrally located.
- Public open spaces are random in shape, size, activities

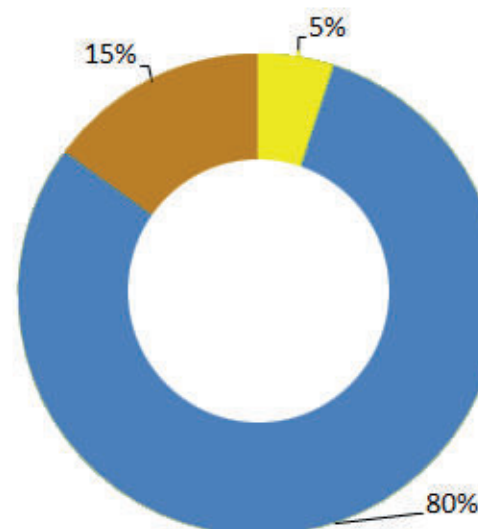


■ INTERVENTION STRUCTURES ■ ADJOINING RESIDENTIAL ■ MIXED USE

Design guidelines : Site A



PART A OF SITE (LEFT)



PART B OF SITE (RIGHT)

1. Focus on infrastructure development: The government should focus on developing the infrastructure in Garden Reach, including roads, public transport, water supply, and sewage systems. This will help to attract more investment and development to the area.
2. Promote sustainable development: Garden Reach is a densely populated area, and any development should be done with sustainability in mind. This could include promoting green spaces, encouraging the use of renewable energy sources, and reducing carbon emissions.
3. Preserve historic landmarks: Garden Reach has many historic landmarks, and any development should be done with an eye towards preserving these landmarks. This could include renovating historic buildings, creating heritage trails, and promoting tourism.
4. Encourage mixed-use development: Garden Reach has a mix of residential, commercial, and industrial areas, and any development should aim to create a balanced and integrated community. This could include encouraging mixed-use development, such as commercial spaces on the ground floor of residential buildings.
5. Improve public spaces: Garden Reach has many public spaces, including parks, playgrounds, and community centers. These spaces should be improved and maintained to encourage community engagement and social cohesion.
6. Ensure affordable housing: Housing affordability is a major issue in Garden Reach, and any development should aim to provide affordable housing for low-income families. This could include promoting public-private partnerships, creating incentives for developers to build affordable housing, and providing subsidies for low-income families.

4.4.2. PROPOSED STRATEGIES

SPACE



SIBTAINABAD MARKET- RE-ANIMATION



BICHALIGHAT- REGENERATION

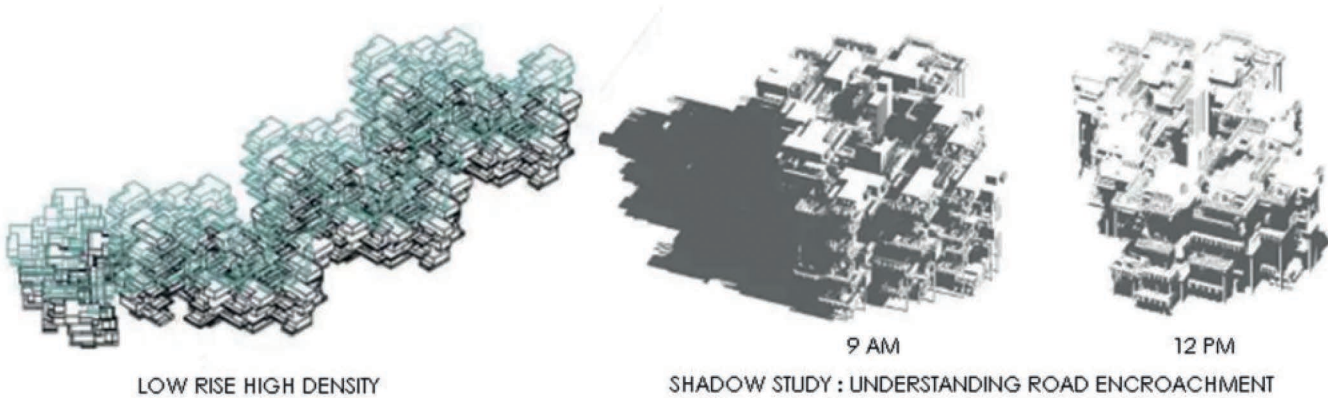


FIG:115

source of study : urban design lab

4.4.2. PROPOSED STRATEGIES STRENGTHENING LINKAGES

UNDERSTANDING BUILT FORMS NEAR GHAT

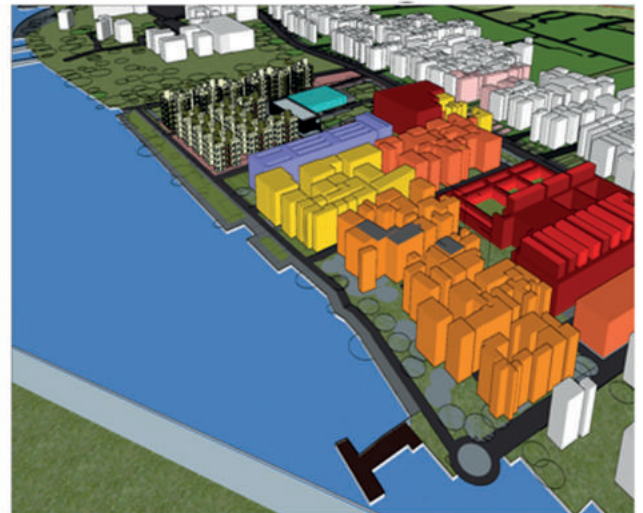
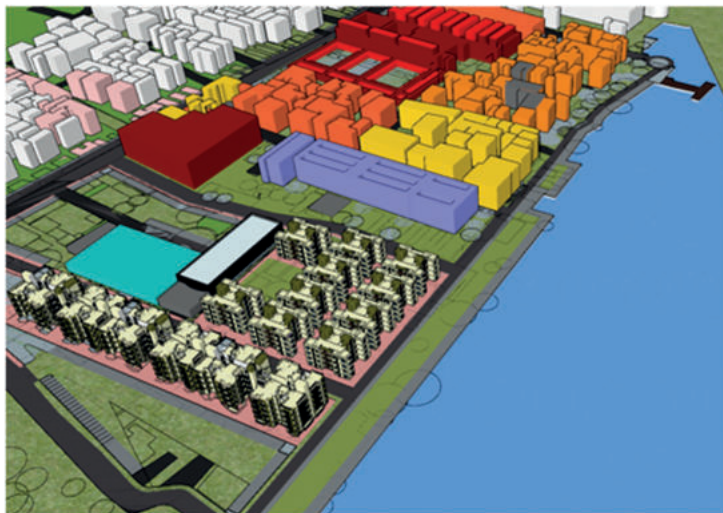
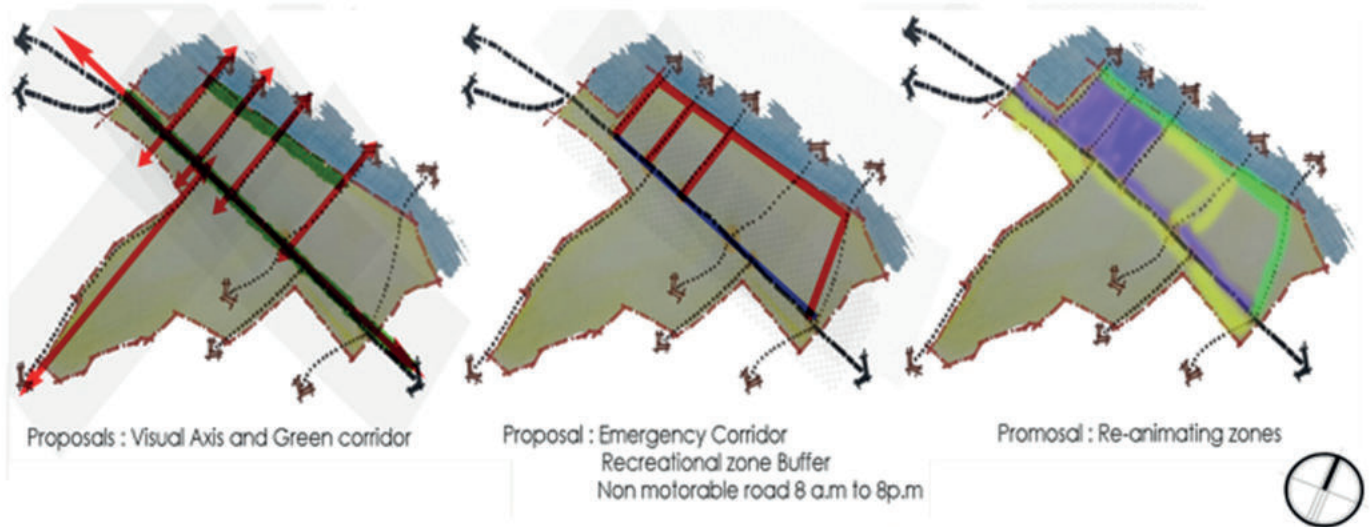
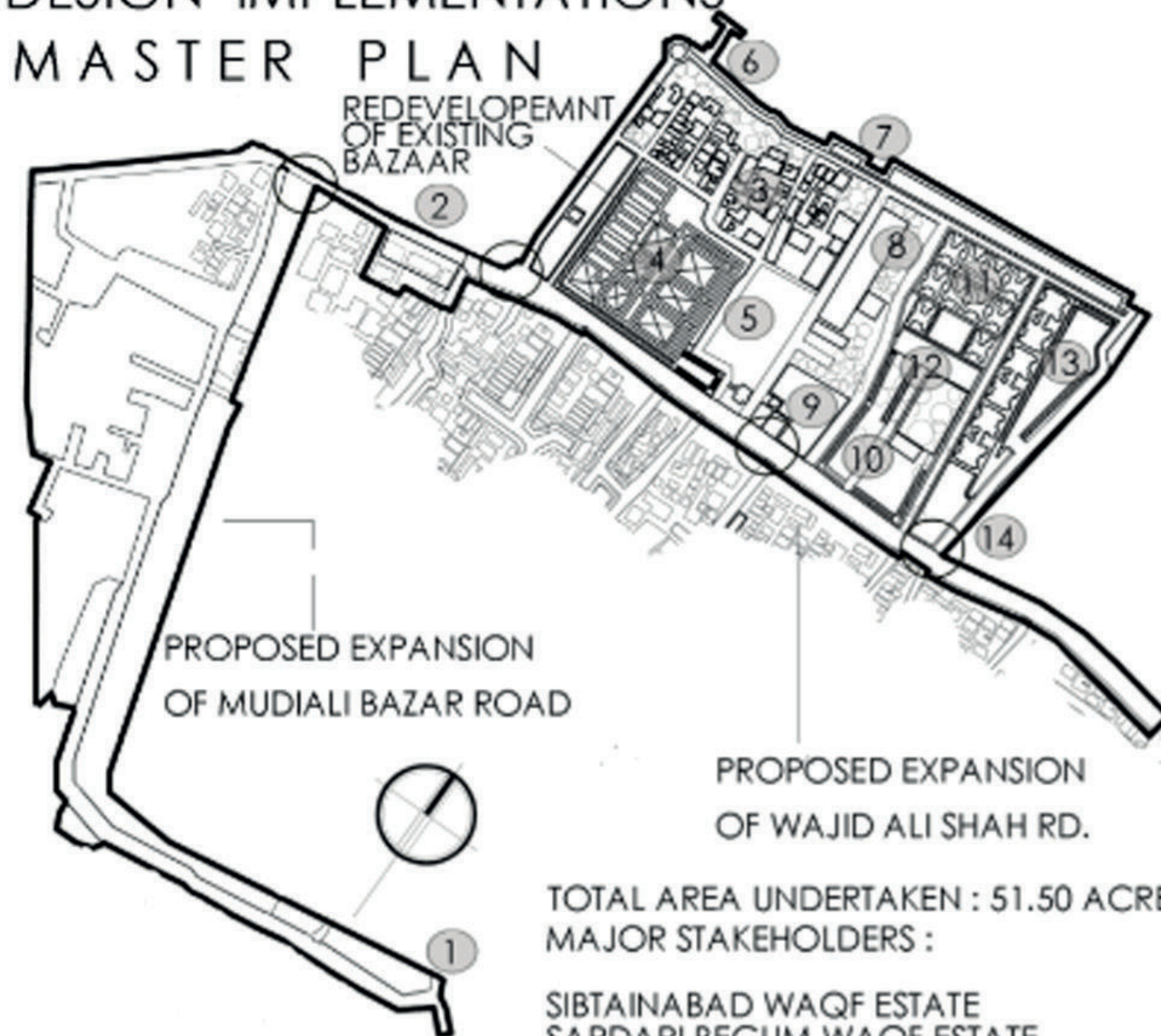


FIG:116

CHAPTER 5

DESIGN IMPLEMENTATIONS

DESIGN IMPLEMENTATIONS MASTER PLAN



LEGENDS

1. ONE WAY PLAZA-PROPOSED
2. SIBTAINABAD IMAMBARA
3. EXISTING RETAINED PART
4. SITE - 1
5. WAQF ESTATE GROUND-RETAINED
6. BICHALIGHAT FERRY HALT
7. GHAT FRONT-PROPOSED
8. JUTE MILL RETAINED AND MODIFIED
9. SHAHI MASJID COMPLEX RETAINED
10. SULTAN KHANA COMPLEX
11. PROPOSED SITE FOR APJ SCHOOL
12. SITE 2
13. FUTURE EXPANSION
14. PROPOSED ENTRY PLAZA

- MAJOR PUBLIC NODE
— VISUAL AXIS
— STRENGTHENING EXISTING LINKAGE

PROPOSED EXPANSION
OF MUDIALI BAZAR ROAD

PROPOSED EXPANSION
OF WAJID ALI SHAH RD.

TOTAL AREA UNDERTAKEN : 51.50 ACRES
MAJOR STAKEHOLDERS :

SIBTAINABAD WAQF ESTATE
SARDARI BEGUM WAQF ESTATE
SHIA WAQF BOARD
KOLKATA PORT TRUST
PRIVATE OWNERSHIP
STATUS QUO AREAS OF ASFANI JUTE MILL
(LEASE FROM WAQF BOARD)

THE FUTURE EXPANSION ZONE
IS LEFT OUT FOR HEALTH SECTOR

THE GROUND FLOOR OF THE
STRUCTURES PROPOSED ALONG THE
GHAT WILL HAVE RESTAURANTS AT
GROUND FLOOR LEVEL
PROMOTING INFLUX AND
ECONOMIC OPEX.

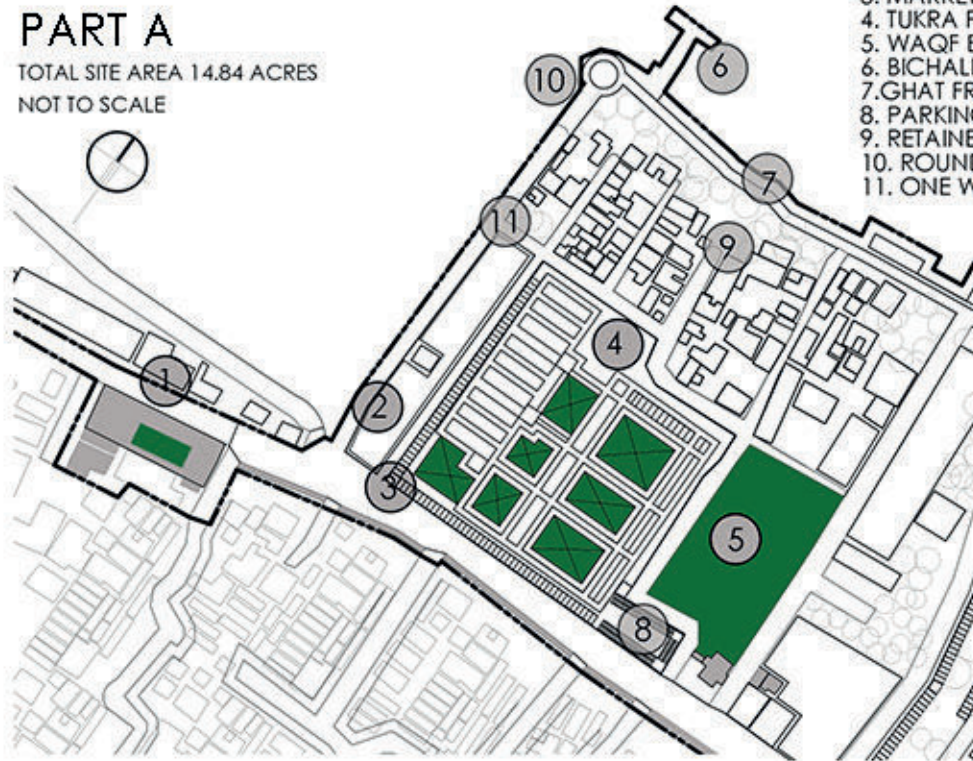
PROPOSED 5.5M STRIP OF
PATHWAY ALONG THE GHAT
WITH A 2M STRIP OF GREENERY
AND 7.5M WIDE ONE WAY
ROAD.

Design Implementations

SITE A

PART A

TOTAL SITE AREA 14.84 ACRES
NOT TO SCALE



LEGENDS

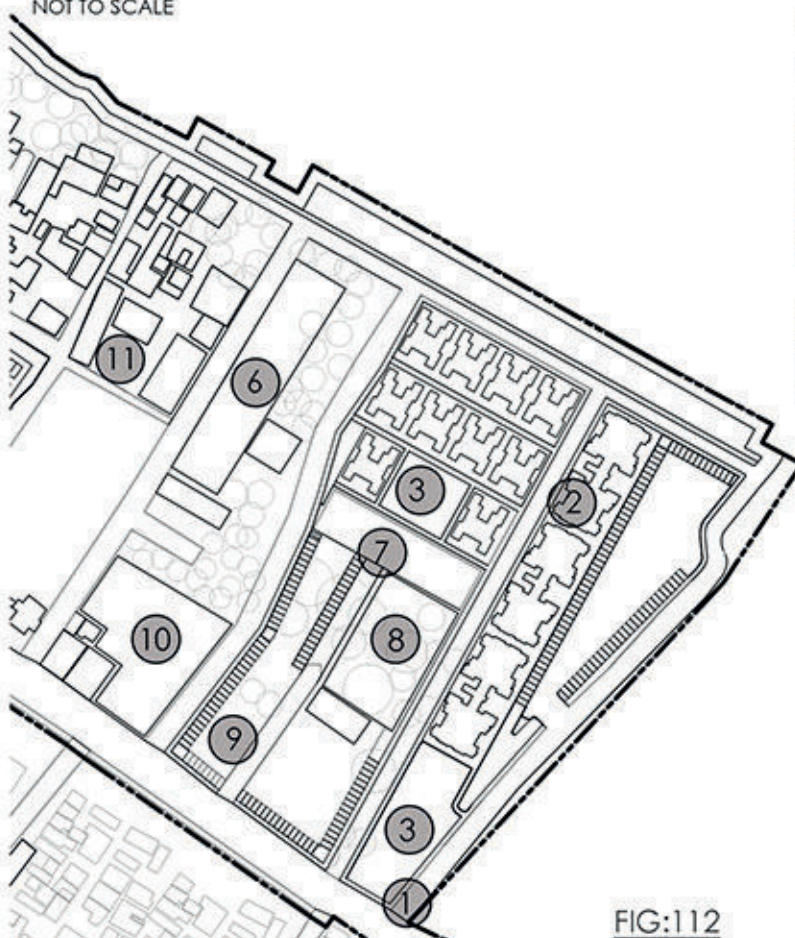
1. SIBTAINABAD IMAMBARA COMPLEX -RESTORED
2. RESIDENTIAL CUM COMMERCIAL COMPLEX
3. MARKET COMPLEX PLAZA
4. TUKRA PATTI AND BANGALI BAZAR -REDESIGNED
5. WAQF ESTATE GROUND - RETAINED
6. BICHALIGHAT FERRY HALT
7. GHAT FRONT-PROPOSED 5.5 M WIDE
8. PARKING COMPLEX
9. RETAINED RESIDENTIAL AREA
10. ROUND ABOUT SCULPTURE
11. ONE WAY VEHICULAR ROAD

FIG:111



PART B

TOTAL SITE AREA 14.21 ACRES
NOT TO SCALE

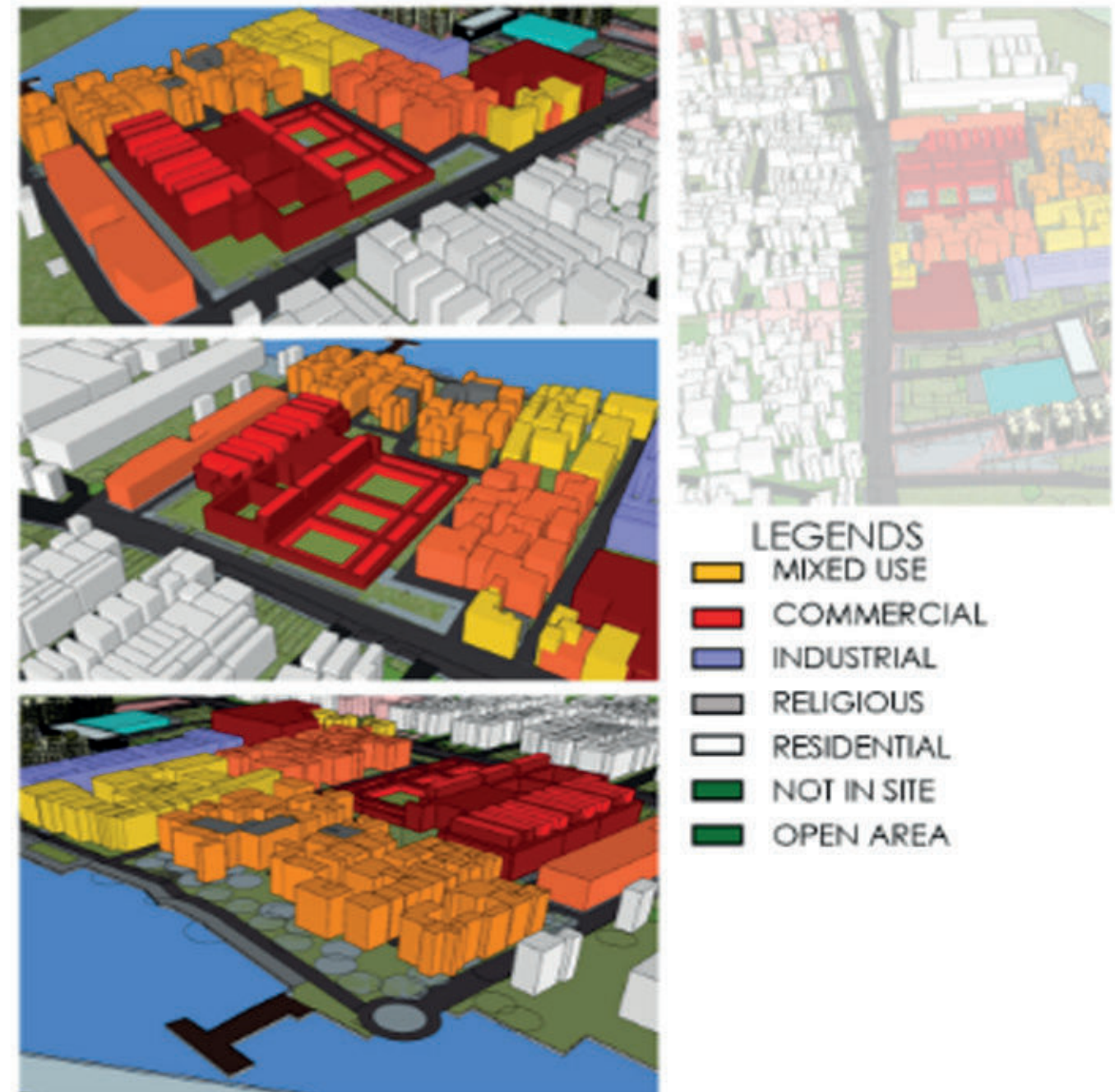


LEGENDS

1. ENTRY FOR VEHICLES ENROUTE TOWARDS GHAT
2. PARKING BLOCK
3. AREA FOR HEALTH FACILITY UNIT
4. MIG HOUSING - 56 UNITS
5. LIG HOUSING - 140 UNITS
6. REUSE OF DYFUNCT JUTE MILL WAREHOUSE
7. PROPOSED SCHOOL BLOCK FOR DEMOLISHED SCHOOL
8. INTERPRETATION CENTRE, MUSUEM AND PALACE .
9. PARKING BLOCK
10. COMMERCIAL COMPLEX
11. EXISTING RETAINED RESIDENTIAL ZONE

DEMOLISHED UNITS - 48 ALONG GHAT
16 ALONG MUDIALI ROAD
17 ALONG WAJID ALI SHAH ROAD

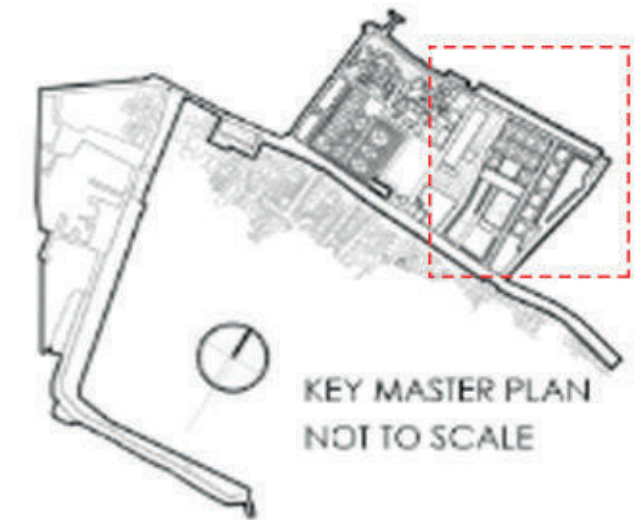
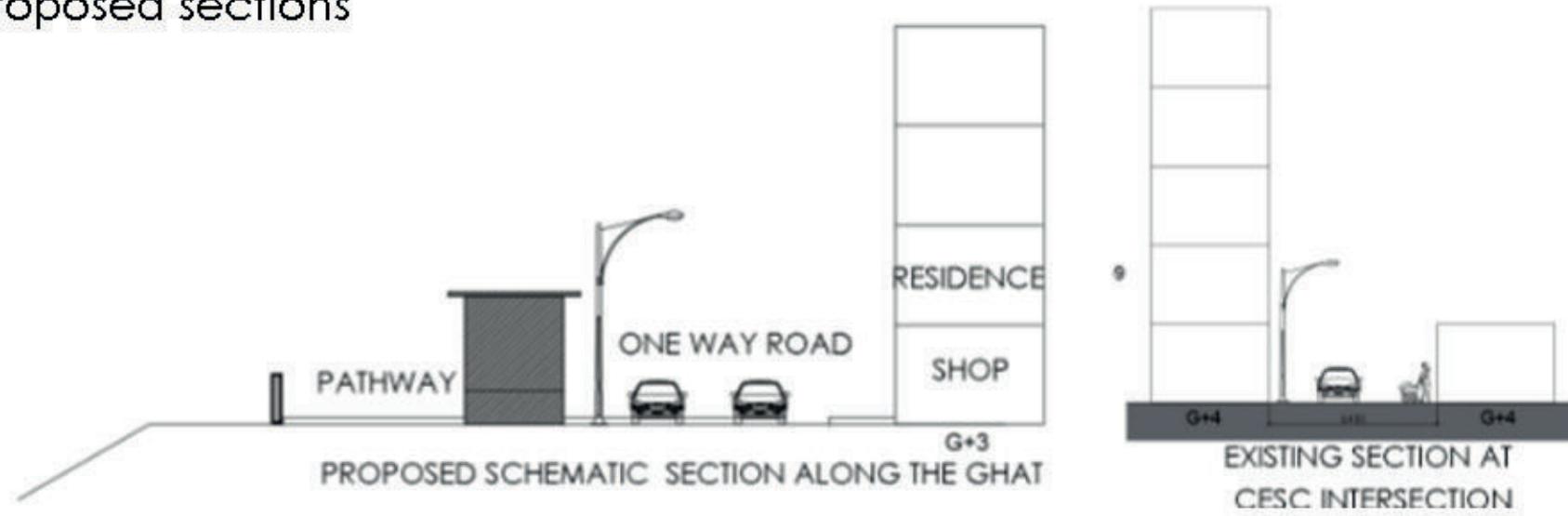
FIG:112



- #### LEGENDS
- MIXED USE
 - COMMERCIAL
 - INDUSTRIAL
 - RELIGIOUS
 - RESIDENTIAL
 - NOT IN SITE
 - OPEN AREA

SCHEMATIC BLOCK MODEL VIEWS

Proposed sections



CONCEPT

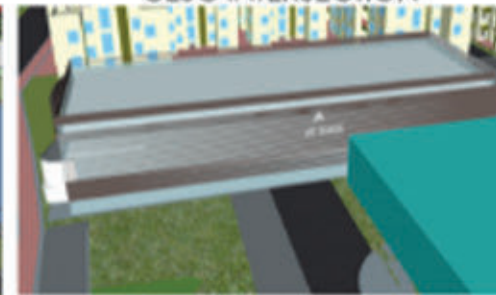


REPRESENTATION OF VIEW ALONG THE GHAT

PROPOSED SCHEMATIC SECTION ALONG THE GHAT



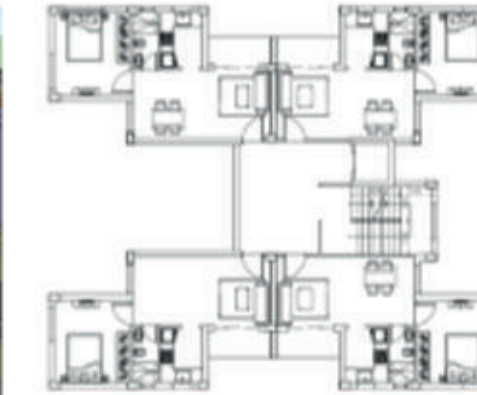
EXISTING SECTION AT CESC INTERSECTION



PROPOSED SCHOOL AND CURATION BLOCK



CONCEPTUAL SECTION OF VIEW AONG THE GHAT



LIG UNIT PLAN
1 UNIT = 400 SQ.FT
TOTAL 140 UNITS



EXISTING LAND OCCUPANCY AND SKYLINE
ALONG THE GHAT



CONCEPTUAL SECTION OF VIEW AONG THE GHAT



PROPOSED 7.5 M SECTION
ALONG PRINCE.BJAH ROAD



PROPOSED GHAT LAYOUT

Conclusions

- Thus, explores some of the aspects of how to integrate a disassociated settlement like Garden Reach into the city proper
- The various reasons for the disassociation viz :
 1. Lack of effective infrastructure
 2. Identity Imposition
 3. Social Barriers
 4. Lack of sense of acceptance
- These ghettoised communities prefer to stay within themselves , their activities pertain to this area perhaps due to the fear of social acceptance or due to the background of the area where they belong to
- The road networks were'nt maintained by the port trust hence reducing public access and curbing further investments
- The land adjoining the workshop and water front has been encroached by developers thus further restricting infrastructure development
- In spite of a booming cloth market in the area and a flourishing ferry system the area lies mostly in ado.
- Over the years due to lack of development activities ,uncontrolled migration rate and low socio-economic strata building up- imposed a notorious identity to the area
- Methods that can be adopted for propagation of work :
 1. Placemaking
 2. landmark establishment
 3. Reconnecting river with city
 4. De-alienating the zone
 5. Funnelling of application area

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