



CITY LEVEL PROJECTS

EAST OF KAILASH and KALKAJI

Site Specific Design for Ward Number 194
and Ward Number 196





Delhi Urban Art Commission

Raj Rewal

Chairman

Satish Khanna
Sonali Bhagwati
Eric P.Mall
D. Diptivilasa
Vinod Kumar

Member
Member
Member
Member & Addl. Secretary, Ministry of Urban Development
Secretary

DUAC Staff

Rajeev Kumar Gaur, Raghvendra Singh, Amit Mukherji, V. K.Tyagi, Siddharth Sagar, Neelam Bhagat, Manju Anjali, Indu Rawat, Nihal Chand

Senior Consultant

Prof. Kavas Kapadia

Consultants

Sulabh Goel
Sumedha Jain

Acknowledgements

It is said that for an artist to join establishment is a kiss of death. I was fully aware of this aphorism when the Minister of Urban Development, Mr. Kamal Nath, asked me to be the Chairman of the Delhi Urban Art Commission. I had three conditions before accepting the assignment and one of these was that DUAC should be allowed to carry out site specific studies for improving slums and unauthorized colonies. Subsequently, the Minister along with the then Lieutenant Governor of Delhi, Mr. Tejendra Khanna, and Secretary, Ministry of Urban Development, Dr. Sudhir Krishna, approved the proposal to carry out three dimensional studies for improving slums and unauthorized colonies. I am grateful for their support.

I would like to thank other members of the Commission, Eric P.Mall, Satish Khanna, Sonali Bhagwati and D. Diptivilasa for helping to make success of problematic urban design exercises and charting new paths.

I take this opportunity to thank senior consultants, architects, urbanists and planners as well as younger colleagues who have been working full time. DUAC Secretary, Vinod Kumar, and other permanent staff have enthusiastically supported us and guided us through government procedures. Many thanks to all of them.

Raj Rewal

Chairman

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Delhi Metro Rail Corporation

Delhi Urban Shelter Improvement Board

BSES Rajdhani Power Limited

BSES Yamuna Power Limited

RWA's and Area Councillors

Preface

Half of Delhi lives in ramshackle slums and shabby unauthorized colonies. This state of affairs is a serious blot on the face of the city which has great historical monuments and aspires to be a world class city. The centre of New Delhi is lined with leafy trees and can boast of superb example of contemporary architecture but its growth under exploding population has disintegrated into shanty towns.

My first memory of Delhi is that of a child going in a tonga from the railway station to our government quarter in New Delhi around a square which became our home for several years. The squares were built near Birla temple and when my father was promoted in the government hierarchy, he was offered an independent house with a larger area but my mother refused to move as she had developed kinship with families around the square. This was my first lesson in neighbourhood "mohalla" as an urban phenomenon.

In fact the word 'urb' in Latin stands for neighbourhood space. It was a period when Connaught Place was the leisurely centre for social, shopping and cultural activities and the Old Delhi was lively and still gracious, dominated by Jama Masjid and Red Fort. Delhi's monuments like Humayun's Tomb, Qutab Minar and Lodhi Garden were favourite places for picnics.

Seventy years have passed since the tonga ride, Delhi has dramatically changed as the population of Delhi has exploded from under a million before partition in 1947 to about twenty million today.

As a Professor in the School of Planning and Architecture in Delhi, I had ample scope of studying typology of Indian cities which helped me to design Asian Games Village in my mid-career around 1980 as a series of clusters (mohalla neighbourhood) woven around pedestrian pathways, segregated from road networks. This was a low rise high density housing built within the framework of 150 FAR (FSI 1.5).

Delhi has changed even more drastically during the last thirty years since the Asian Games Village was built, but the idea of a city as a series of sympathetic, humane interconnected neighbourhood building blocks interspersed with social, cultural and educational facilities has remained embedded in my mind.

Delhi Urban Art Commission was established to preserve, develop and maintain the aesthetic quality of urban and environmental design within Delhi. During the last 40 years of its existence, DUAC has not received any three dimensional exercises which visualizes neighbourhoods, wards etc. The emphasis has often been only appraising individual

buildings and complexes submitted through local municipal agencies. After taking over the direction of DUAC in 2011, members of the Commission arranged meetings with wide spectrum of advisors and formulated principles on which a building can be automatically and speedily approved and decided to take over the job of visualization and three dimensional planning for various aspects of the site specific designs which need to be urgently developed if Delhi has to maintain standard as a world capital city.

A large part of Delhi lives in unauthorized colonies and slums and even the Master Plan of Delhi had suggested a detailed design proposal to augment the Master Plan based on ground realities.

In order to fulfil the requirements of neighbourhoods, wards, the DUAC has undertaken a few pilot projects which can be eventually developed in a manner that the local municipal agencies can implement them. In order to carry out these studies, DUAC developed in its own office a core group of architects and urban planners. This was done on the basis of DUAC mandate that "the Commission may suo motu promote and secure the development, re-development of which no proposals in that behalf have been received from any local body".

The studies involve the visual tools for ground studies combined with extra assistance of Google images. It is hoped that the proposals and their conclusions would be evolved to such an extent that a process can be worked out with the resident welfare associations to make meaningful designs for the neighbourhood upgradation for the different kind of wards.

The DUAC's site specific designs are the seeds which can grow and it is hoped that economic principles would be evolved to implement the meaningful neighbourhood upgradation for the different kind of slums and wards. India cannot remain shabby and ramshackle forever and solutions have to be found for shanty towns.



Raj Rewal
Chairman, DUAC

January 2014

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Summary

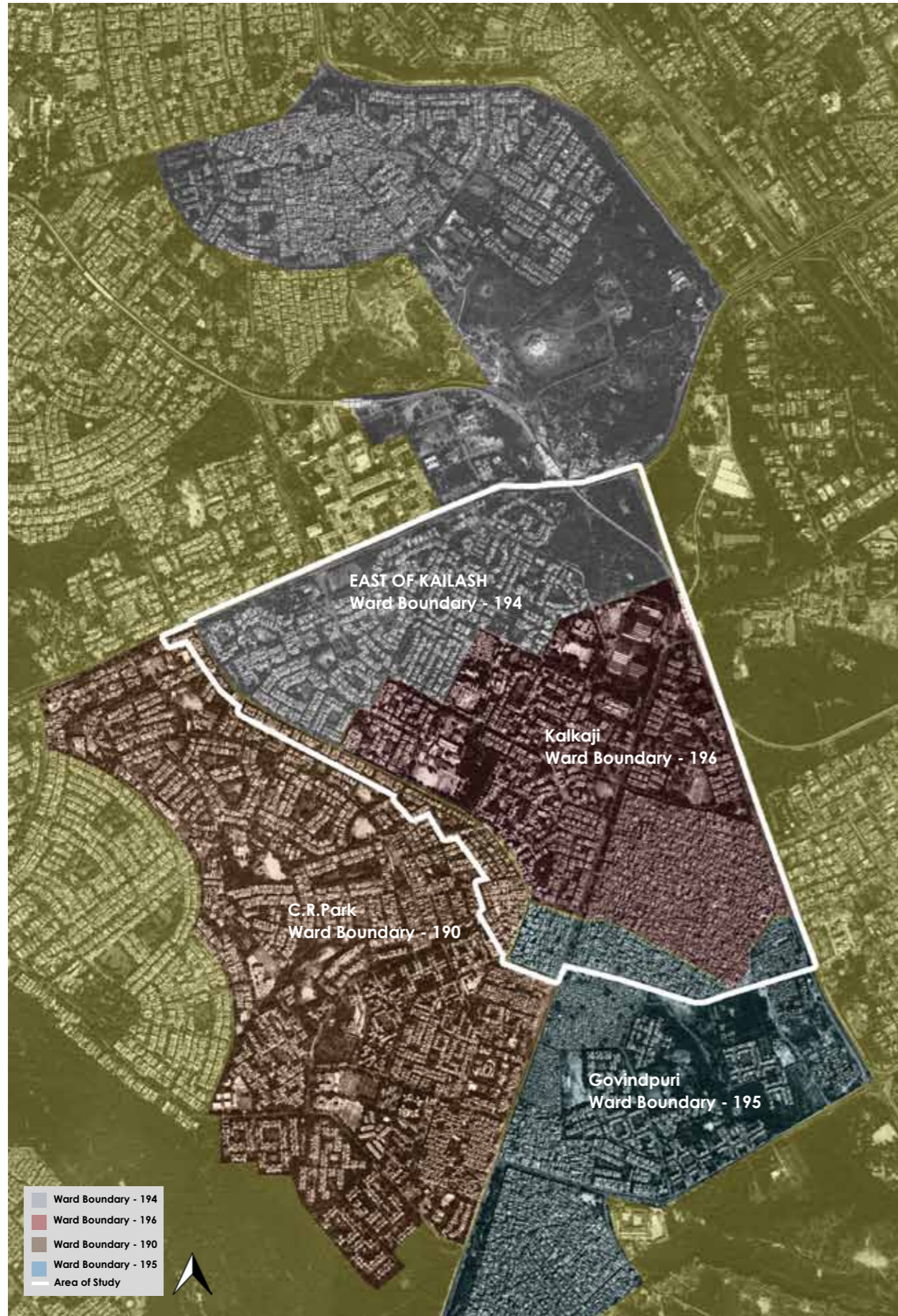
Master Plan Delhi 2021, has introduced the concept of Local Area Planning with a view on decentralizing urban governance and developing a framework for participatory planning & control. The process could command the views of people of the locality and the elected ward councilors directly. The change so observed will reflect need based, locally generated-monitored growth of the area, i.e the ward.

Objective: With the above mindset, the Delhi Urban Art Commission envisages undertaking area specific ward design under the ambit of Local Area Planning in order to present easily understandable planning policies and proposals which can apply to the specific area. The following report analyzes East of Kailash & Kalkaji (municipal ward Nos 194 & 196), in an effort to come up with solutions for the area, which witnesses typical chaos due to the advent of a mix of conditions akin to rest of Delhi/NCR. These are an extremely high volume of vehicles on road causing ROWs to shrink and wide rampant horizontal growth largely in violation of the development guidelines promoted across various sections of Master Plan Delhi 2021 to sustain increasing population & socioeconomic growth of the city.

Methodology: The Kalkaji area, ranges from planned urban area to regularized unauthorized colonies & slums within its limit. The report presents a comprehensive overview of the urban fabric in terms of land uses, space activities, work centres and mixed use street areas. In addition, urban transport study includes identifying road functions, transport networks etc. The efforts also include qualitative & quantitative analysis of urban graphics, social infrastructure along with mapping of the demographic profile of the people residing in the area. Area specific issues have been addressed based upon the comparison of the current situation on the site to that mentioned as per Master Plan Delhi-2021 & Zonal Plan for the area.

Approach: To bring about the changes in the area by proposing minimal yet meaningful interventions by selective & specific development of land along intensively developed zones, with series of phase-wise design solutions besides identifying policy control. The approach thus requires planning through a development based on urban design principles involving built form, space use & people. The proposals also identify the stakeholders involved and the people affected to provide for their vision for the area.

1.1 Area Context



Wards under study and Area of the study

1.2 Area Location

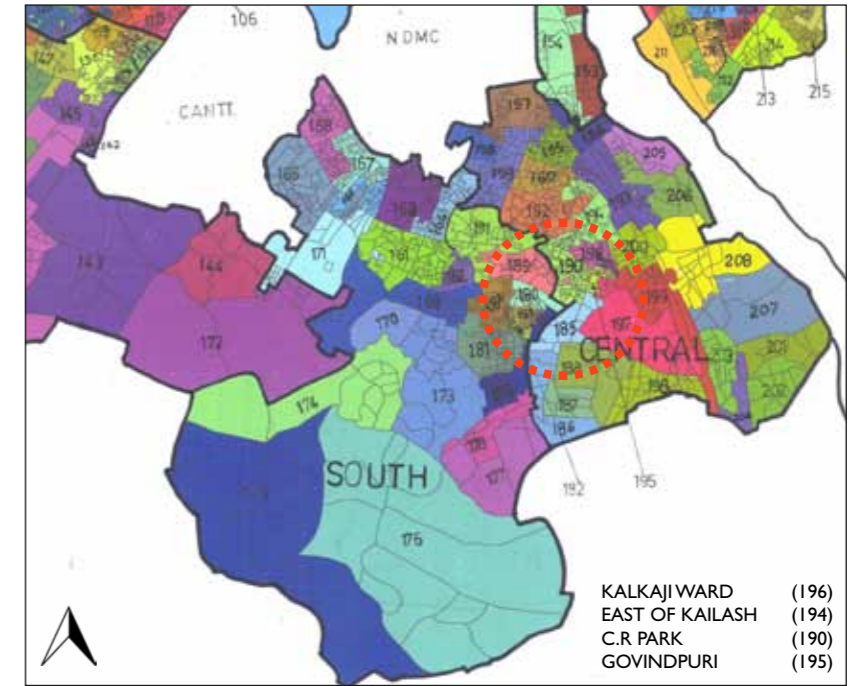
The study area stretches over 646 ha between Okhla and Nehru Place. The study area is well connected and, therefore, has in close proximity all the necessary amenities and facilities like schools, markets and other daily requirements. The major landmarks in the area includes Lotus Temple, Nehru Place and Deshbandhu College.

As per the MPD 2021 and the Zonal Plan, the area lies under Zone F and sub-zone F-9. The predominant land use of the area of study is residential but over time Kalkaji has grown as a major retail destination. The study area also has the wholesale market of Govindpuri.

Due to the growth of commercial use in the area, it is experiencing acute traffic management issues. The report intends to explore various aspects of the traffic as well as the commercial function of the ward.

Delhi, for the purpose of administration is divided into:

- 12 Planning Zones
- 3 Municipal Corporations of Delhi (North, South and East)
- 272 wards.



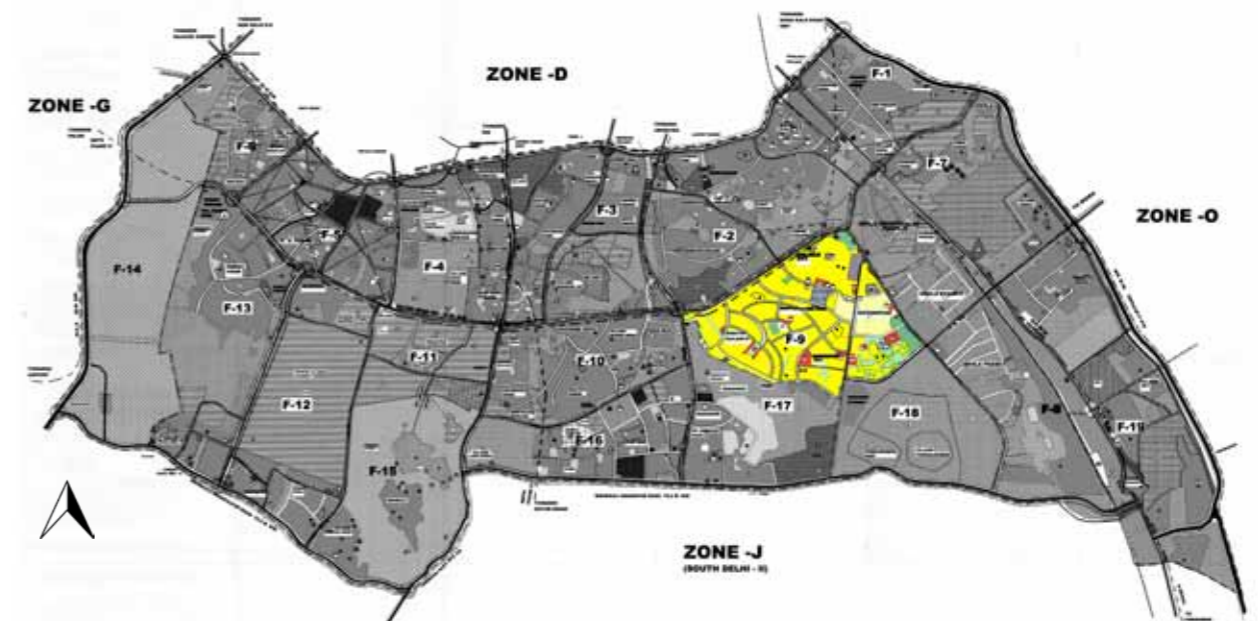
Ward 196 (Kalkaji), 194 (East of Kailash) and the surrounding wards



Govindpuri Metro Station

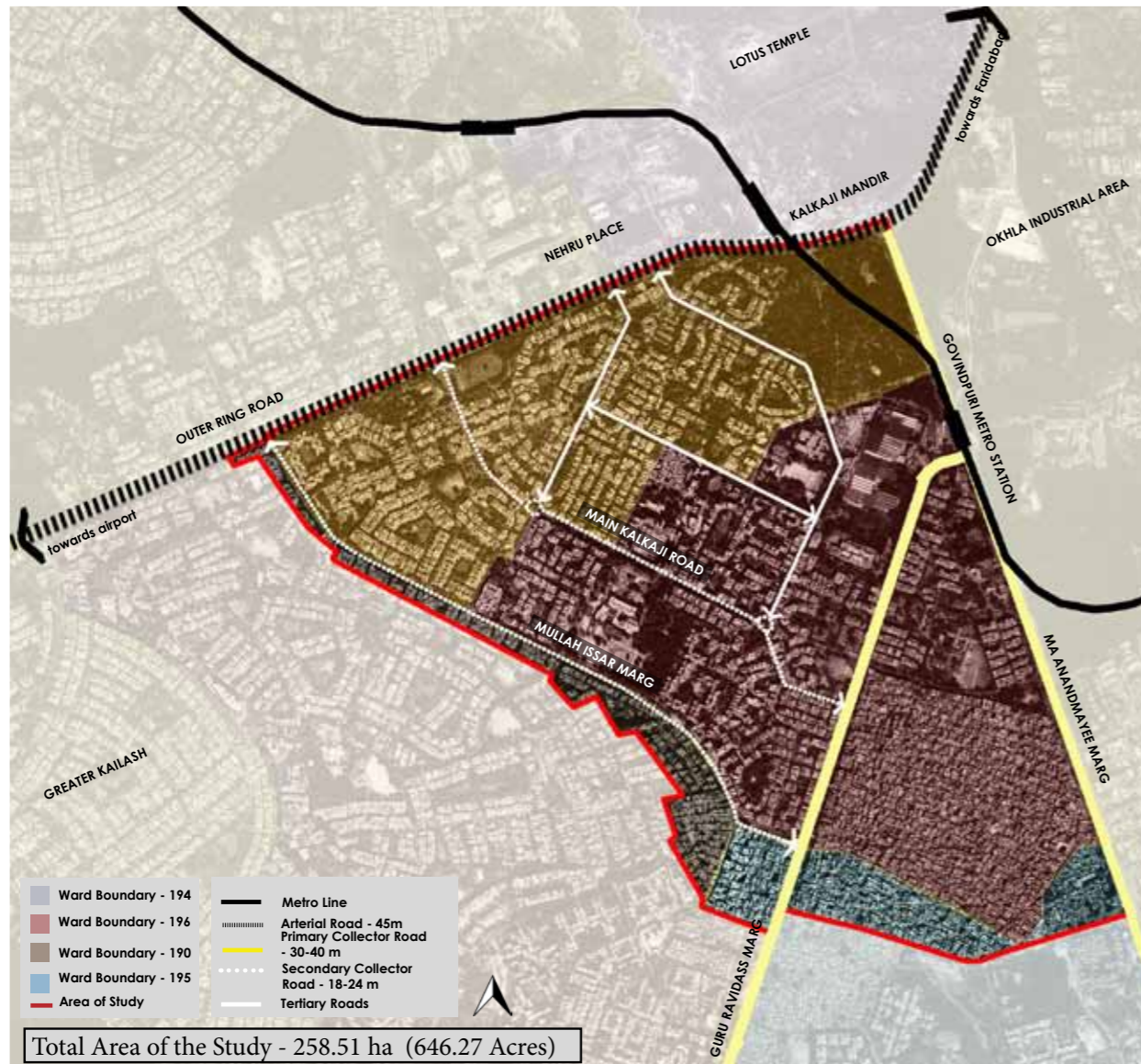


View of Nehru Place from Main Kalkaji Road



Zonal Map of Zone-F – Delhi, Highlighted Subzone F-9

1.3 Connectivity



Area of study for the project

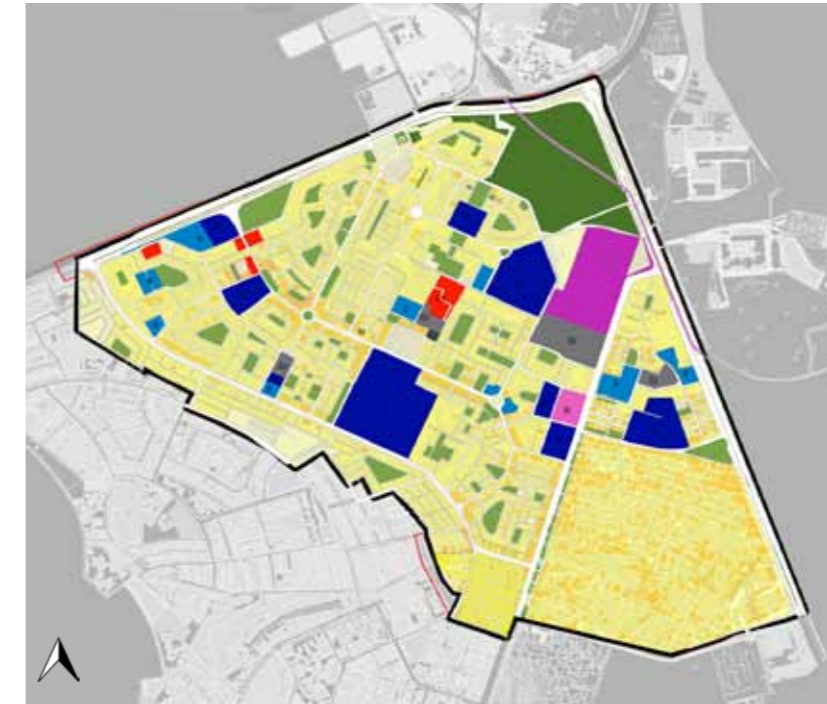
Area of study under different wards

Ward	Area (ha)	Area (Acres)
East of Kailash	91.44	225.96
Kalkaji	110	275
Govindpuri	40.80	102
C.R. Park	16.27	40.67

The transport associated issues in various colonies

	Kalkaji / East of Kailash	Giri Nagar
Public Transport	One-way loop on the main Kalkaji market road creates congestion	No public bus route exists for the area.
Inter-Modal Connectivity and Parking for Para Transit Systems	Gramin Sewa Service plies on Main Kalkaji Road along with public transport. Many residential colonies remain disconnected from any form of para transit systems. The connectivity to the Metro does not exist due to absence of para transit.	
Parking	Excessive on-street parking happens along the Main Kalkaji Road and the roads leading to the colonies in two rows.	

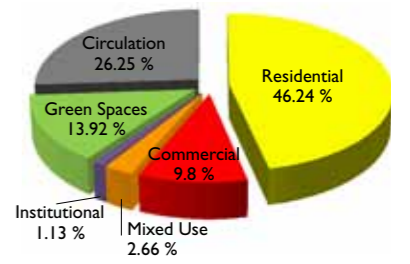
1.4 Land Use and Transport Conditions



Legend for Land Use map

- Residential: 46.24 %
- Commercial: 9.8 %
- Mixed Use: 2.66 %
- Institutional: 1.13 %
- Green Spaces: 13.92 %
- Circulation: 26.25 %

Population: 1.12 Lakhs
 Gross Density 283 PPHA
 Avg. Open Space 0.49 sq m / Person



Land use Division of the site

Land use Map of Area of Study, Source: GIS, Site Survey

WARD Kalkaji-196 & East of Kailash-194

Population (2013)	1.12 lakh	
Gross Density (Persons/ha)	283	
Area Breakup	Residential Area (186.96 ha) 72.3 %	Institutional (32.58 ha) 12.6 %

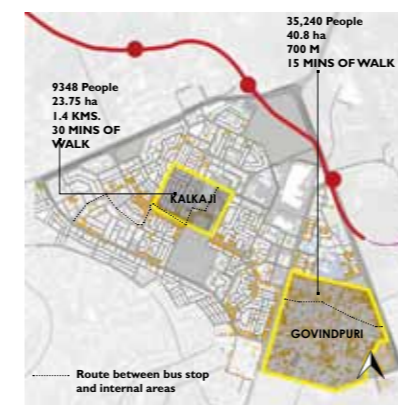
Connectivity

The area is bounded by two roads, the **Outer Ring Road** on the eastern side and **Ma Anandmayee Marg** on the western edge.

Guru Ravidass Marg is another city level road between Kalkaji and Govindpuri in the area. The three roads together connect the area to other parts of the city.

Mullah Issar Marg and Main Kalkaji Road are the mixed use roads in the area that connect the Outer Ring Road and Guru Ravidass Marg.

The area is well connected by roads. The markets lie in close proximity to the Govindpuri Metro Station



Residential Pockets in area disconnected from public transport

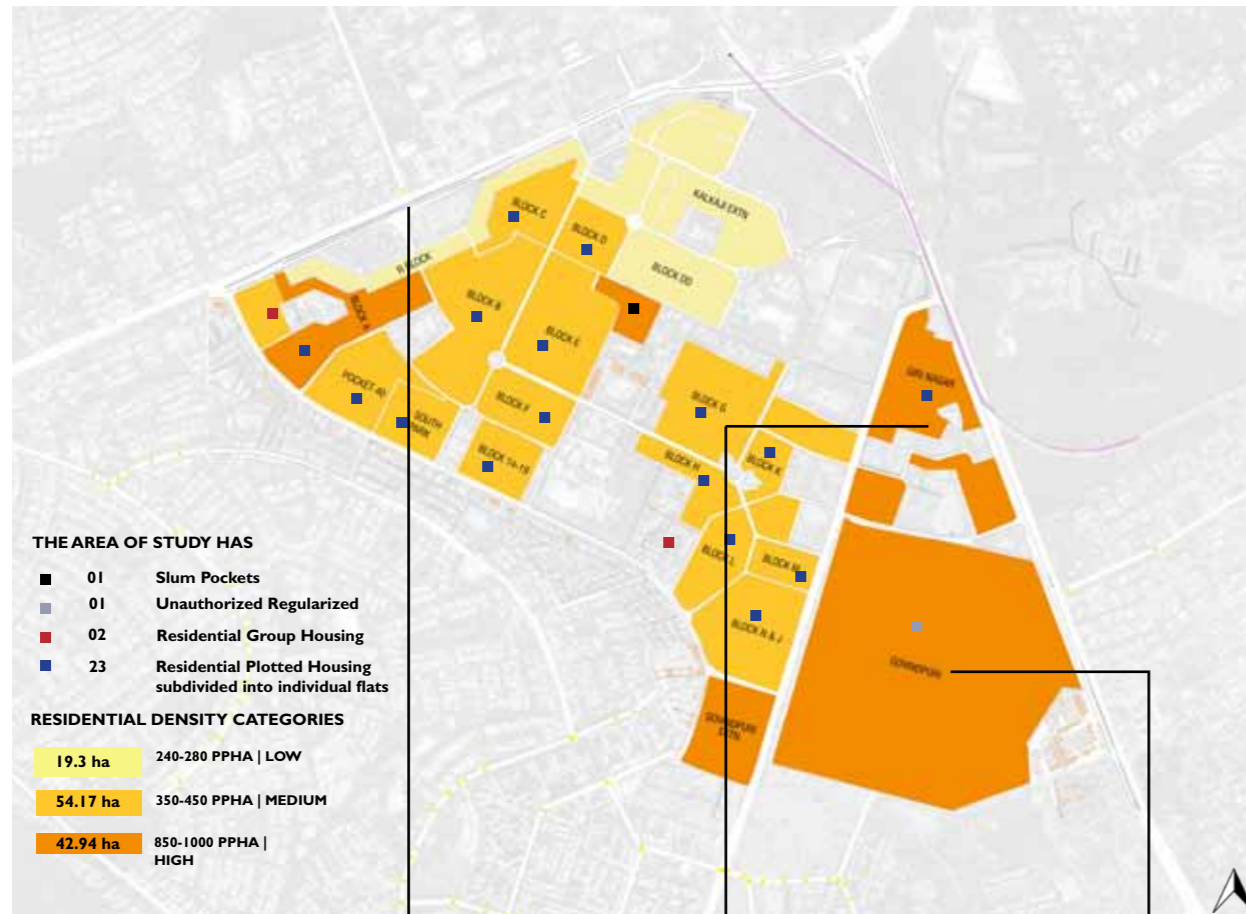


Transport situation on site

The transport associated issues in various colonies in the area of study

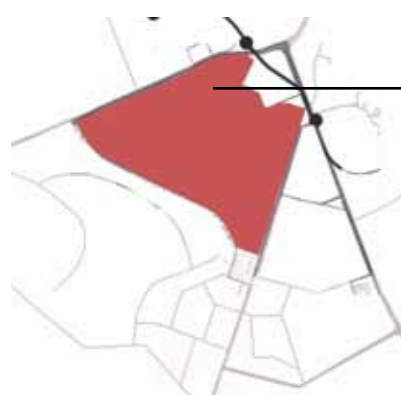
	Govindpuri	Sudhar Camp
Public Transport	The area is served well by the public transport available on the Guru Ravidass Marg .	The residents have to walk to either the Metro station or the bus stops on Outer Ring Road/C R Park to reach other parts of the city.
Inter-Modal Connectivity and Parking for Para Transit Systems	Gramin Sewa Service plies on Guru Ravidass Marg along with public transport. The connectivity to the Metro does not exist due to absence of para transit from Govindpuri	Complete absence of para transit systems
Parking	Parking happens on the main road due to insufficient space within the area	-

1.5 Residential Character



Density classification of the area of study

Total Area of Kalkaji	110 ha
Density of the Area	376 PPHA
Percentage of incidental Open Spaces	21.50 %
Percentage of built up space	79.50 %



Kalkaji

Kalkaji area is purely residential with the main Kalkaji Road being a notified commercial street.

Majority of activities observed ranges from retail shops to small offices which get accommodated till G+1 level.

The tenancy of the area is shared between owners (80 %) and renters (20 %).



Giri Nagar

The tenancy of the area is shared between owners (40 %) and renters (60 %). The heights of the flats go up to four floors to accommodate the renting population.

Giri Nagar with three camps has about 150 jhuggis each with G+1 structures and a population of about 3,000, occupying an area of 0.48 ha.

Total Area of Govindpuri/du's	40.84 ha/8000
Density of the Area	900 ppha
Percentage of incidental Open Spaces	15 %
Percentage of built up space	85 %

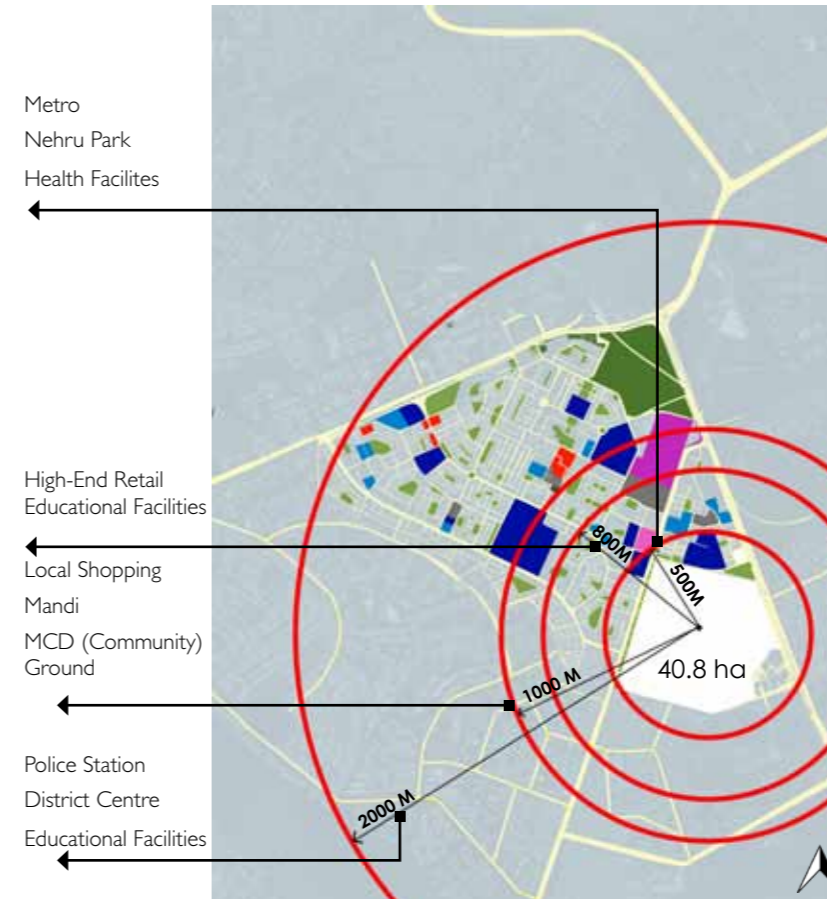


Govindpuri

The area is essentially residential.

Mixed use is in the form of intensive wholesale trade, household industries, workshops and small kirana stores inside Govindpuri.

The narrow lanes of 4 m-4.5 m are unsuitable for vehicle movement with no social, institutional and recreational facilities within.



Map showing various facilities within the 2-km-radius of Govindpuri

Kalkaji, was a planned residential colony which presently has transformed into a heavy mixed use zone. The mixed use has evolved on the edges of Main Kalkaji Road with encroachment of setback up to +3 m on the plot.

The residential area in the wards can be divided into following categories

- Planned Colonies
- Unauthorized Regularized Colonies
- Slums



Urban Built Form, Govindpuri



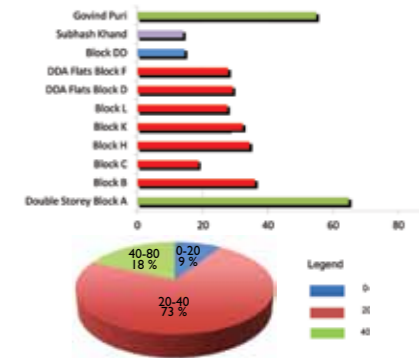
Residential Character, Giri Nagar



Slum Pockets (Camps), Giri Nagar



Residential Character, Kalkaji



Comparison of Du's/ha for various residential colonies

Sub Colony	Total Area ha	DU/ha	Persons /ha	Avg plot size (Sq m)
DDA Flats Block D	3.47	26	249	120
DDA Flats Block F	3.23	25	261	140
Block DD	7.94	14	272	150
Block B	5.59	27	361	125
Block C	5.46	21	360	120
Block H	2.48	33	438	110
Block K	4.45	29	335	120
Block L	2.98	25	373	135
Subhash Khand	2.8	24	324	90
Govindpuri	40.8	54	900	90
Double Storey Block A	9.1	65	879	100

Comparison of Du's/ha for various residential colonies

Planned Colonies

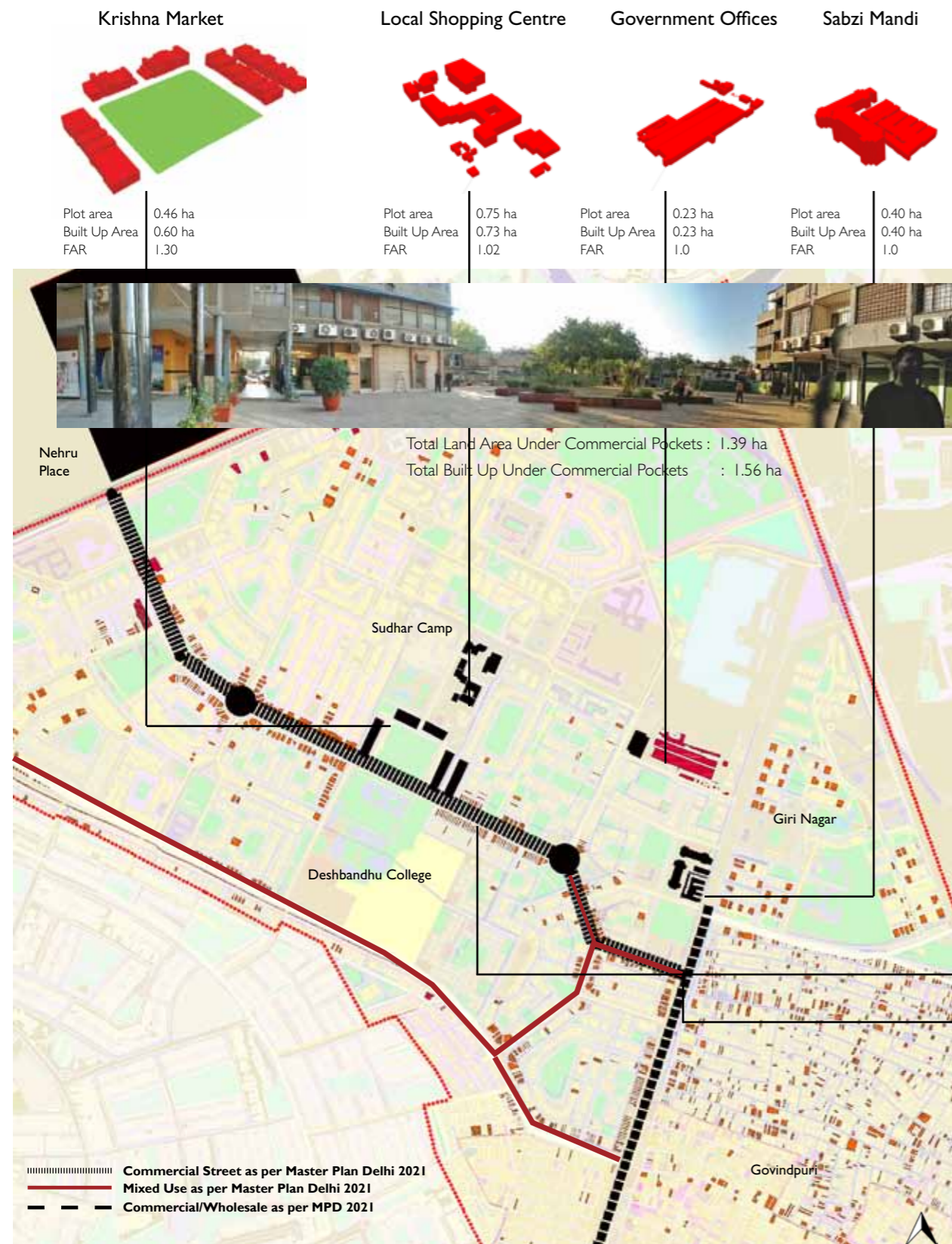
Kalkaji area has varying plot sizes ranging from 90 sq m to 180 sq m. These colonies can be broadly classified within two types of densities: Block DD, which has lesser density per ha with bigger plot sizes, and colonies like Block B or C having densities between 350-550 persons per ha, with plot sizes between 90 sq m to 125 sq m. Overall the edges of the colonies have more mixed use than the interior areas and encroachments on setbacks can be seen in most of the plots. Open spaces in these colonies ranges between 10-12 %

Unauthorized Regularized Colonies / Slums

Govindpuri with G+3 structures, has plot sizes between 50-100 sq m with buildings built back to back resulting in poor ventilation. The area is characterized by narrow lanes and encroachments. The study area also has a few slums. The Sudhar Camp in Kalkaji has G+1 structures with pucca structures on ground and temporary arrangements over them.

1.6 Commercial Character

The Planned Commercial Areas



Commercial Typologies in the area of study

The Kalkaji colonies have evolved into a high intensive mixed use since the 1960s. The fabric has evolved as a result of amalgamation of the commercial and residential components. While some stretches remains as a mix of residential and commercial, others have a complete commercial edge. The commercial activities have now slowly started appearing within the residential colonies as well as along the tertiary roads.

The wards have different types of commercial typologies:

- Planned Commercial Areas
- Mixed Use Market
- Wholesale Market
- Informal Commercial Activities

Combination of medium and high intensity of retail activity can be seen on the Main Kalkaji Road. 'A' block has a higher retail activity and density compare to other blocks. Commercial activity has slowly started to appear along the side

lanes. Spill over of informal activities over the pedestrian walkway and on the road result in obstruction and chaos for the shoppers and pedestrians.

Sudhar Camp has small convenience shops which cater to the basic requirements of the area. The area is mainly residential and has some mixed-use activity on the ground floor. The edges of the area has a high intensity of informal activities in the form of extensive hawking.

Encroachment upon the pedestrian walkway and open space buffer on the edge makes the spaces unusable. Mixed use is in form of intensive wholesale trade, household industries, workshops and retail.



The mixed use growth on the lanes of Kalkaji



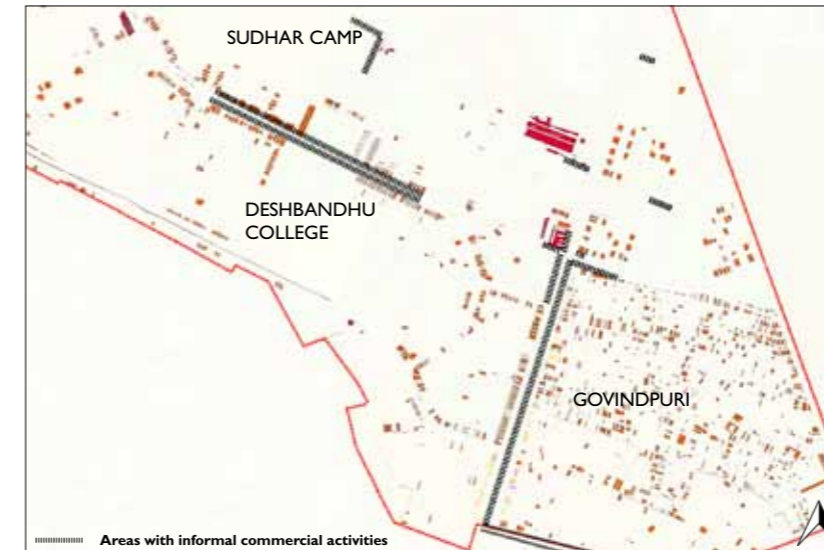
The mixed use on the edge of Sudhar Camp



The mixed use in lanes of Govindpuri



The mixed use on Kalkaji Main Road

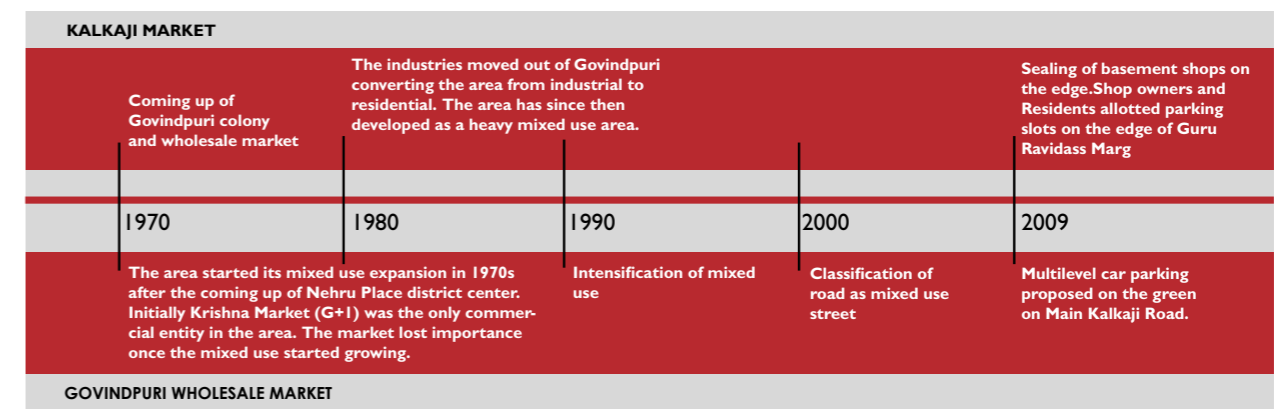


The Concentration of Informal Commercial Activities



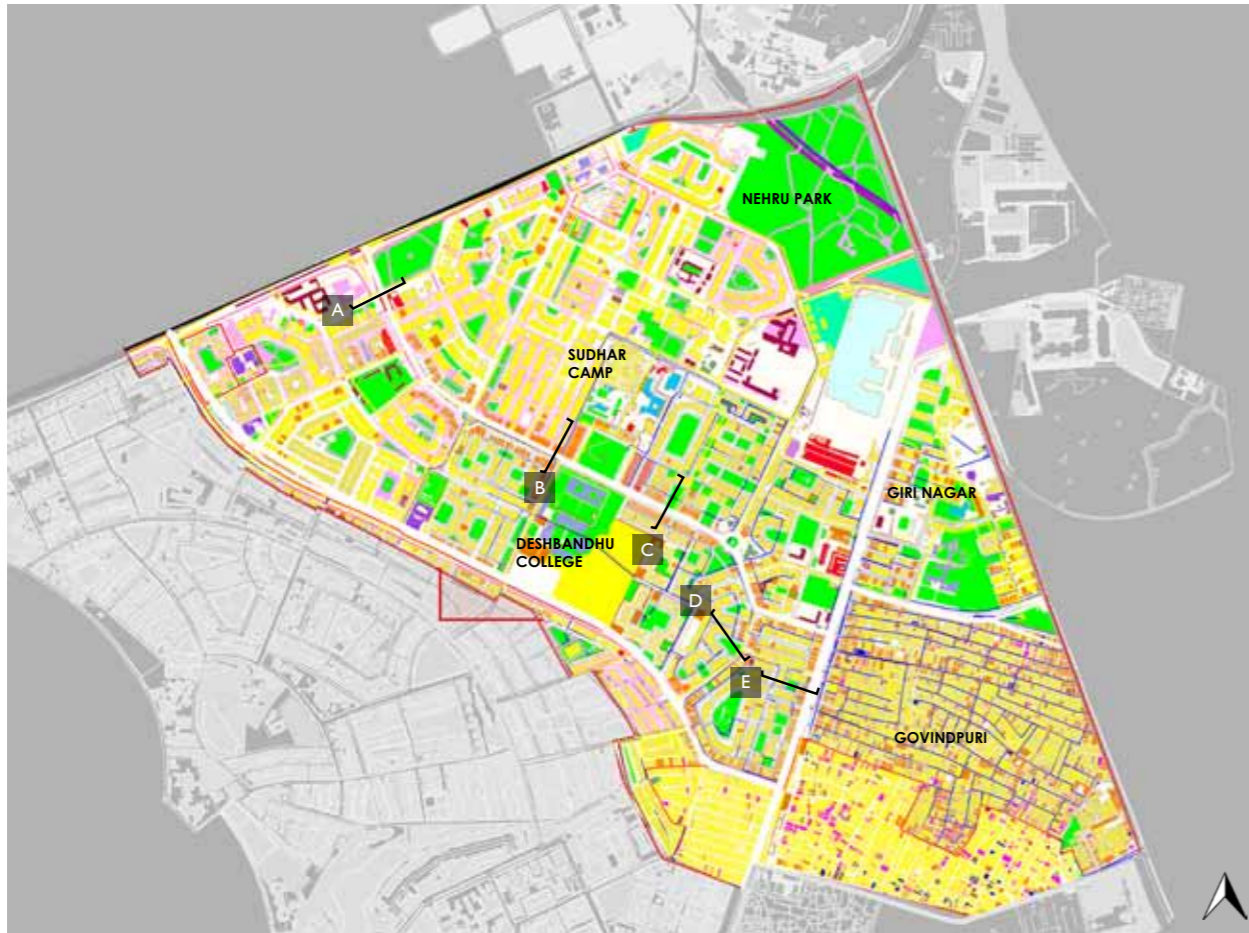
The Mixed Use and Commercial Streets

Govindpuri Market

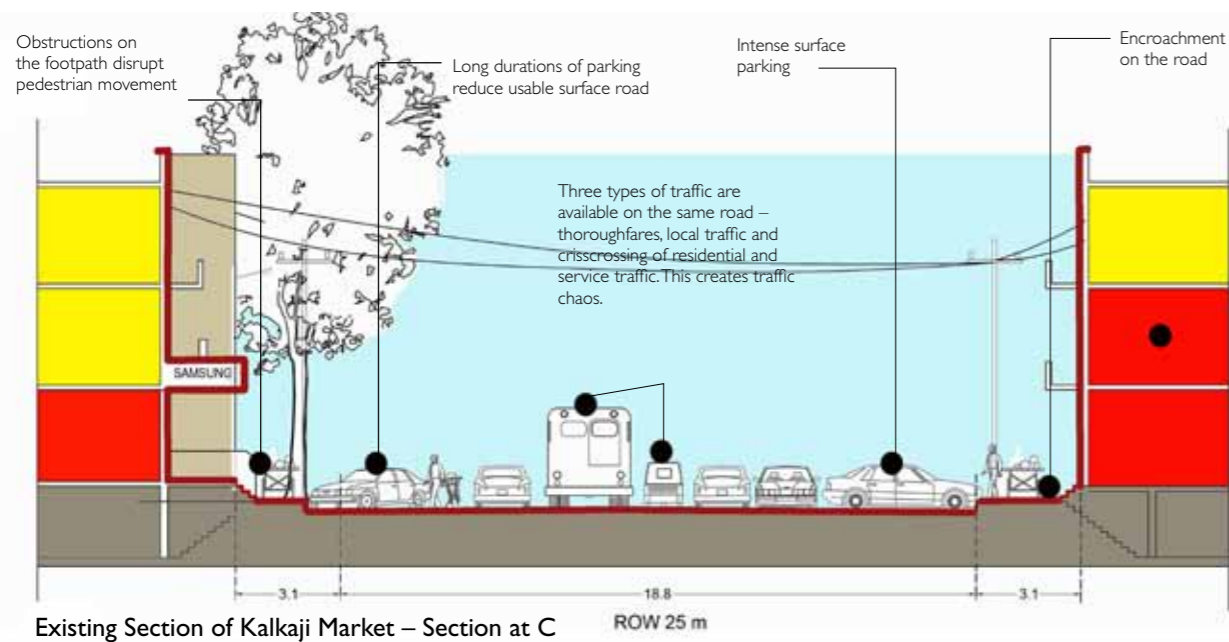


Time line of the evolution of Kalkaji and Govindpuri Market

Kalkaji and Govindpuri Markets



Key Map: Existing Building Use



Existing Section of Kalkaji Market – Section at C

Kalkaji Main Road



Existing Condition for Kalkaji Market: Section at A

Heavy servicing due to presence of the service market causes traffic congestion. Parking on both sides reduces ROW. A reduced ROW of 15 m at entry to market creates a bottleneck condition.



Existing Condition for Kalkaji Market – Section at D



Existing Condition for Kalkaji Market: Section at B

Two lanes of parking on both sides and mixing of traffic on road leads to congestion. Pedestrian movement on footpath is hindered by encroachments.

- Kalkaji Road has a combination of medium and high intensity of mixed use.
- The stretch between Outer Ring Road and Block K has retail at ground floor and office/institutional activities on the upper floor.
- Functions on top floor attract long-term car parking which causes chaos due to parking on street edges.
- Mixing of crossover and thoroughfare traffic on the Main Kalkaji Road causes over crowding. Areas near Deshbandhu College are lively for 24 hours.
- The road stretch lacks services like sufficient public toilets, dustbins, amenities for pedestrians and organized hawking zones.

Guru Ravidass Marg, Govindpuri

The market consists of a wholesale garment and paper industry.

The unorganized road edge with informal units, hawkers, locked green pockets.

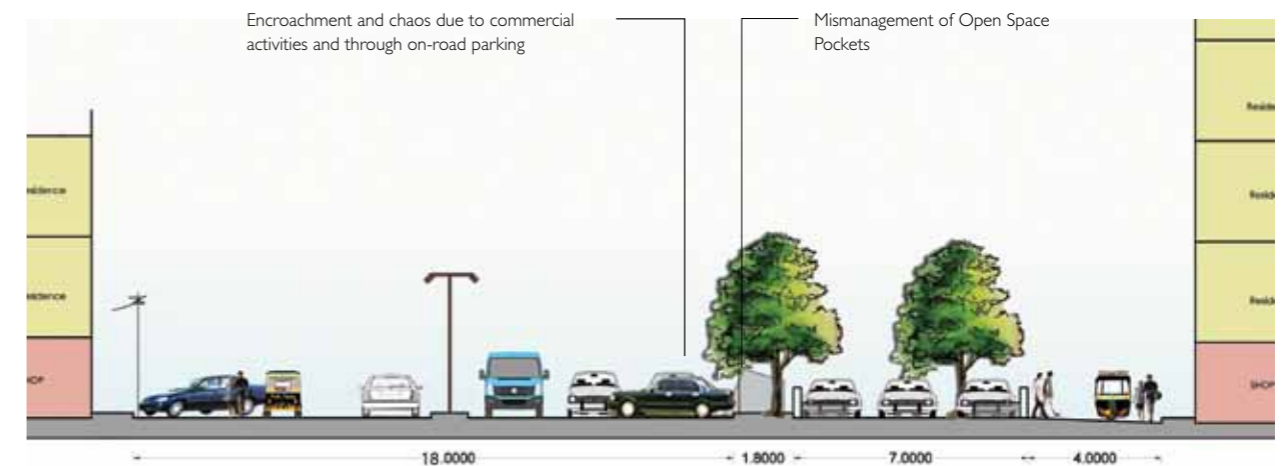
Narrow entrances to the service lane and encroachments create a bottleneck situation

Total number of shops in the area	350
Coverage area of the commercial activity	3.28
Shopping catchment	NCR

Existing condition for Kalkaji Market

Total number of shops in the area	250
Coverage area of the commercial activity	3.35
Shopping catchment	NCR, Sadar Bazaar

Existing condition for Govindpuri Market



Existing Section of Govindpuri Market: Section at E

1.7 Open Spaces and Parks

Most residential colonies have park pockets within themselves for evening activities. The area also has a city level district park (Nehru Park).

The distribution of green pockets is unbalanced between localities.

The existing green parks double up as multipurpose grounds in many cases. Divided into two – one generally for children play areas and the other for social activities.

The institutional greens account for approx. 8 % of the ward area, mainly in the form of fields and playgrounds.

Percentage of open spaces in the existing wards in the area of study

East of Kailash ward

Institutional Green	3.12 ha	3.28 %
Public Green	0.11 ha	0.11 %
Locked Green	7.53 ha	7.90 %
Regional Park	11.62 ha	12.20 %

Kalkaji Ward

Institutional Green	4.72 ha	4.20 %
Public Green	1.25 ha	1.13 %
Locked Green	5.36 ha	5.00 %

Giri Nagar

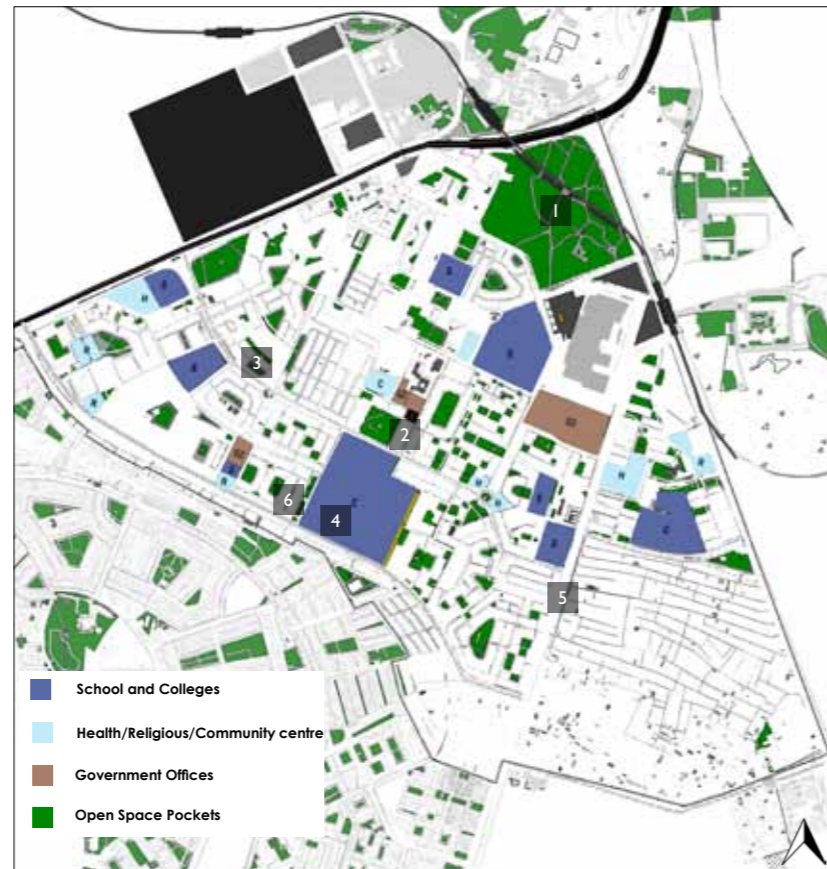
Institutional Green	2.01 ha	
Public Green	0.97 ha	1.13 %
Locked Green	0.22 ha	4.80 %

Govindpuri

Institutional Green	1.38 ha	11.80 %
Public Green	1.57 ha	13.40 %

Social Infrastructure

Schools	7
Primary Health Centre	7
Colleges	2
Police Station	1
Hospital	1
Post Office	2
Local Convenience Centre	1
Business District Centre	1
Electric Substation	5
Community Centre	1
Baraat Ghar	1
Welfare Centre for Women	1
Vocational Training Centre	1
Fire Station	1



Open Spaces and Social Infrastructure



Nehru Park



DDA land beside Malaria Dept.



Park on Main Kalkaji Road



Field at Deshbandhu College

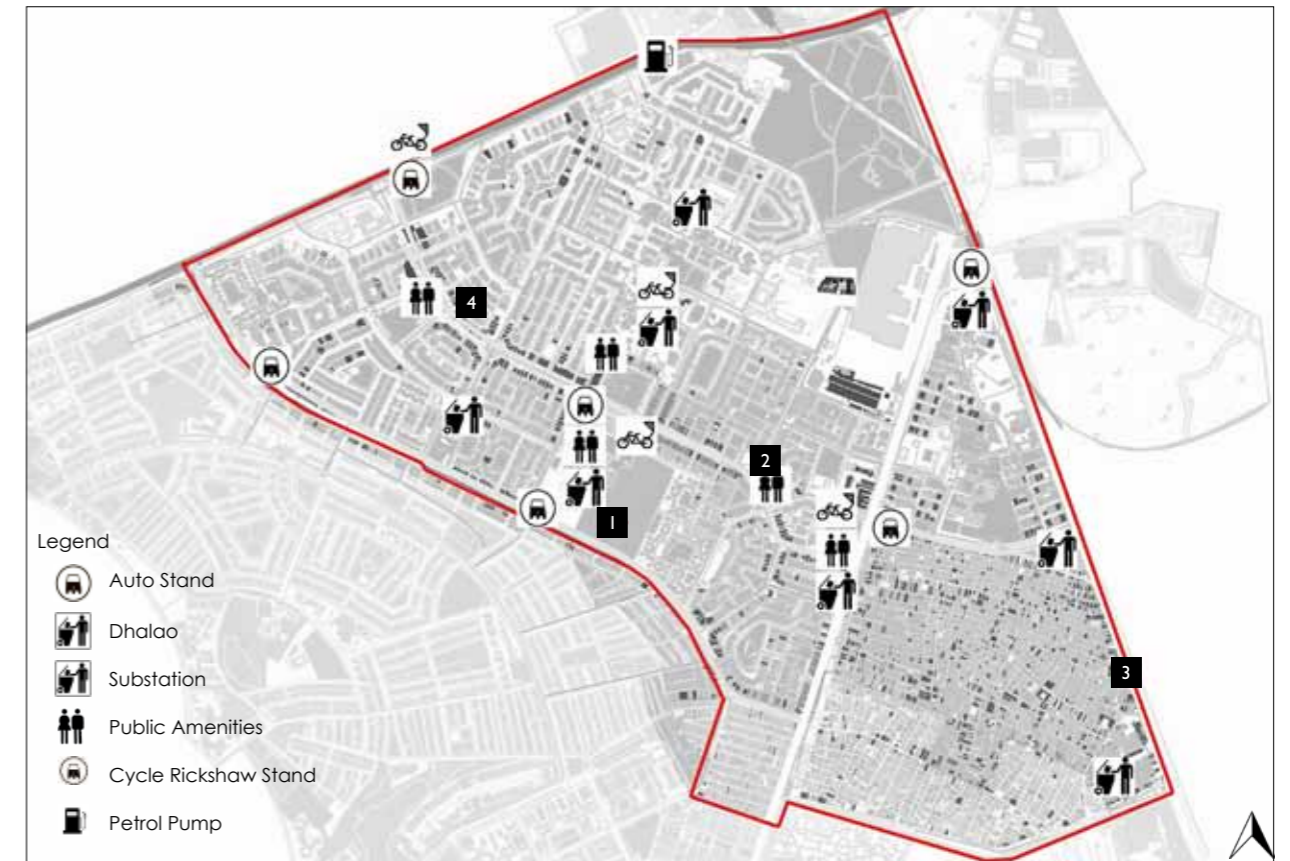


Locked Pockets on Govindpuri Road



Parks within gated residential colonies

1.8 Social Infrastructure and Utilities



Utilities present in the study area

	Kalkaji / East of Kailash	Giri Nagar	Govindpuri	Sudhar Camp
Educational Facilities	The area has sufficient number of government schools. They serve all levels of social strata.	Catered by schools in Kalkaji and C.R. Park	Catered by schools in Kalkaji and C.R. Park	Sponsored education facility caters to the area in terms of primary & vocational education.
Healthcare	The area lacks hospitals with beds. The nearest ones are at AIIMS and Okhla. The area is sufficiently served by local dispensaries and CGHS clinics.	Local Community Centre has dispensary which caters to the residents	Private clinics serve the area. No government healthcare facilities	Uses facilities in Kalkaji
Community Facilities	Two community centres are present.	No community facilities exist for the areas		No community facilities exist within the area

Educational Facilities, Healthcare and Community facilities in various residential colonies in the area



Deshbandhu College



ESI Hospital



Edge of Ma Anadmai Marg and Govindpuri



Usage of parks by residents on the site

Utilities available under different wards in the area of study

East of Kailash

Auto/Cycle Rickshaw Stand	3
Dhalao	5
Public Amenities	1

Kalkaji Ward

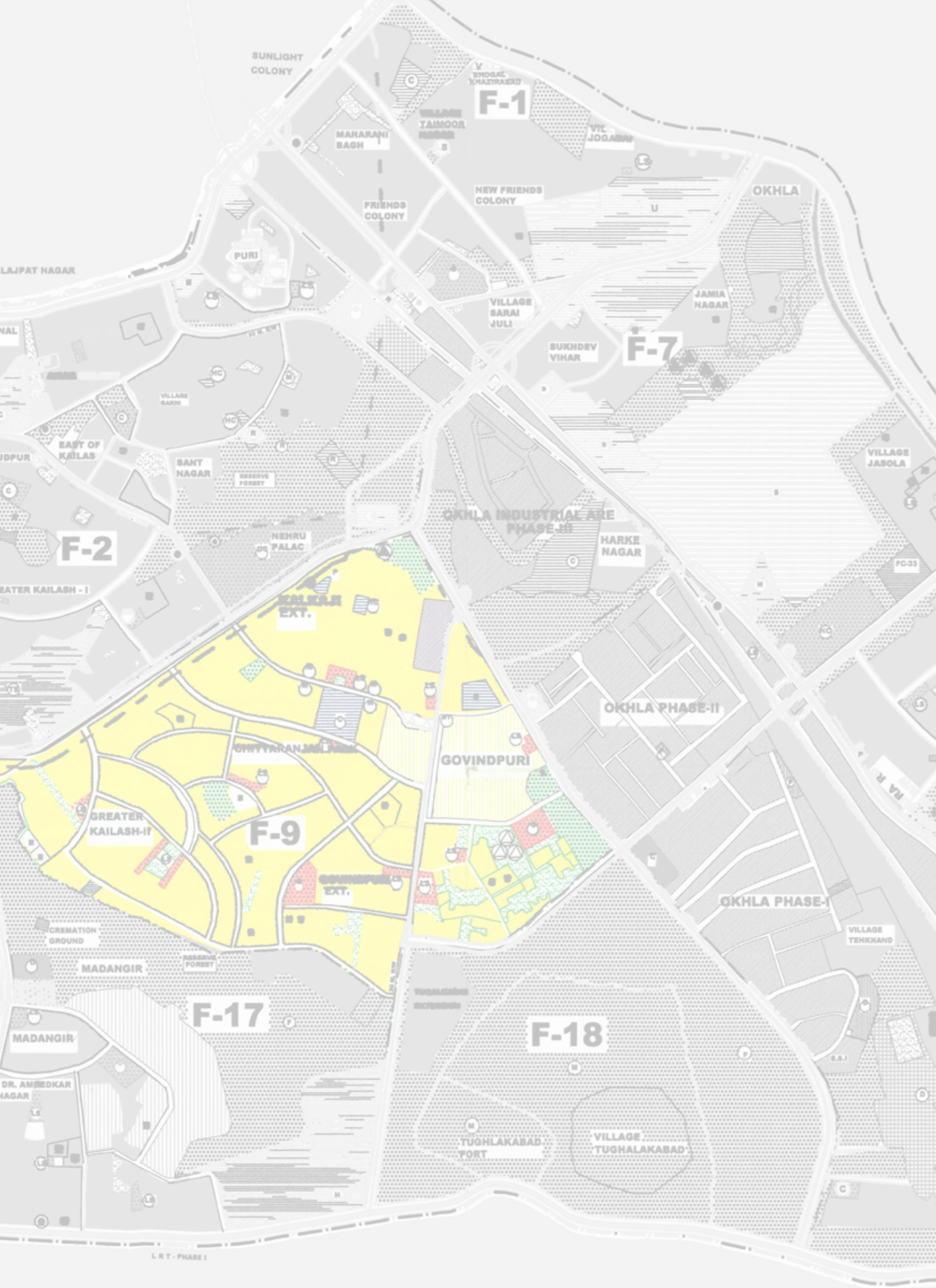
Auto/Cycle Rickshaw Stand	2
Dhalao	1
Substation	1
Public Amenities	5

Giri Nagar

Auto/Cycle Rickshaw Stand	2
Dhalao	1
Substation	1

Govindpuri Ward

Dhalao	1
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Important Points of Master Plan

Land Use

MPD 2021 demarcates the predominant land use of the wards under study as **Residential**, along with demarcating the Main Kalkaji Road as commercial street.

Redevelopment of Pockets

To accommodate the growing population density and needs, the Master Plan suggests redevelopment of **Institutional, Health & Education** facilities with increased FAR.

Plot Amalgamation

To encourage the growth impulse for regeneration of the target development areas, the Master Plan permits pooling of land for an area of minimum 3000 sq m, and the possible incentives and modalities include granting permission at scheme level.

2.1 Mixed Use as Stated in Master Plan 2021



Map showing mixed use concentration. Source: GIS

What is Mixed Use?

- Mixed use as per definition in Master Plan has provision for **Non Residential Activity in Residential Areas**.
- Permissible only on ground floor up to a **Maximum of Ground Floor Coverage**, depending upon the category of colony.
- Under mixed use policy **Common Parking Areas** have to be earmarked on notified mixed use

streets which can cater to the additional load of traffic and parking.

- If no parking space is available, **Land/ Plot on the said street may be made available by Traders Association or Acquired for Construction**, preferably, a multilevel parking.

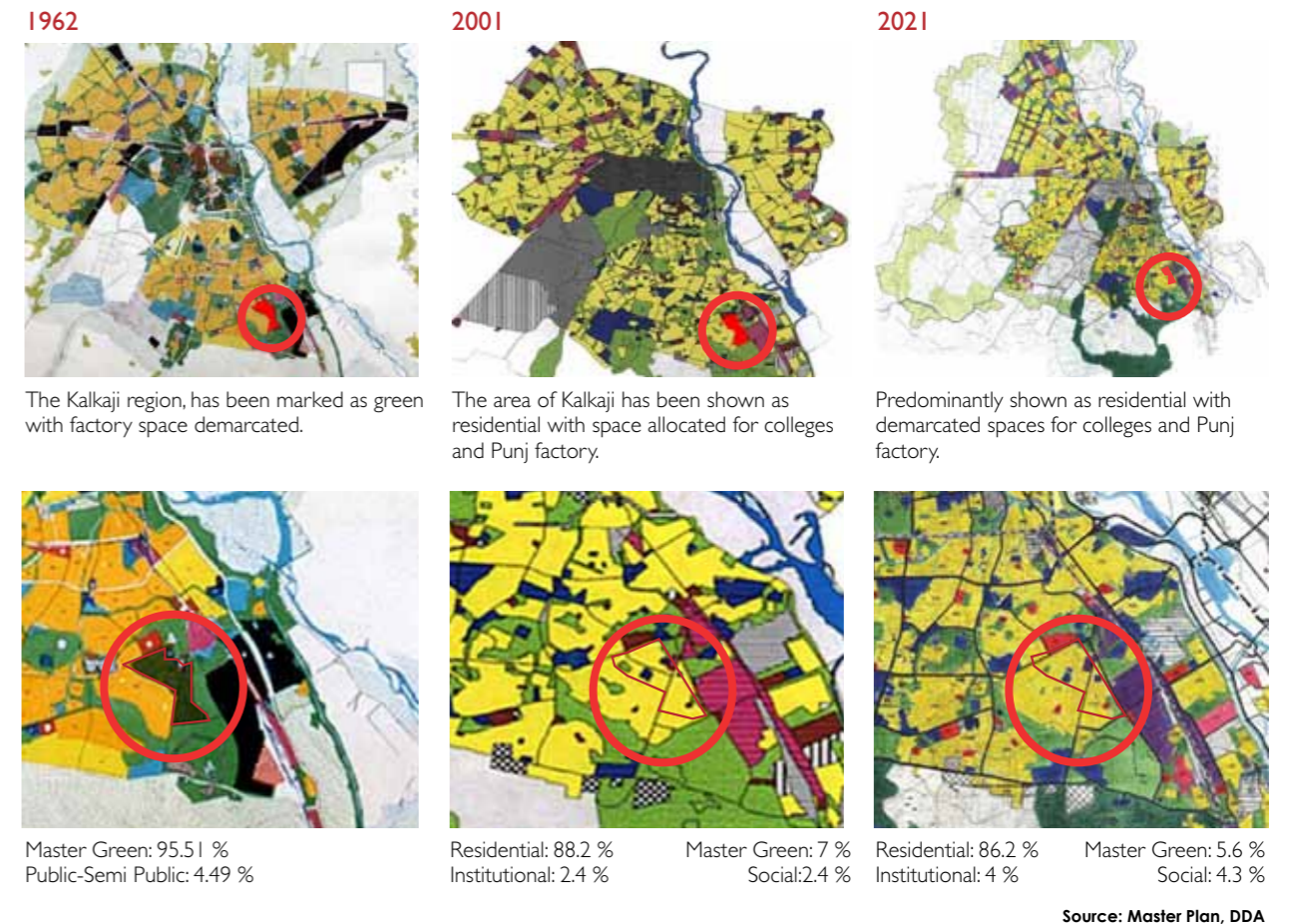
For colony category C & D, 18 m ROW is permissible with retail activity on ground floor and minimum plot size of 200 sq m. Other kinds of activities permitted are: professional activities, nursing homes, gyms & clinics depending upon the need.

2.6 %
area under mixed use

In MPD, the main road of Kalkaji is notified as mixed use with a ROW of 18 m. The road section currently varies from 18-24 m.

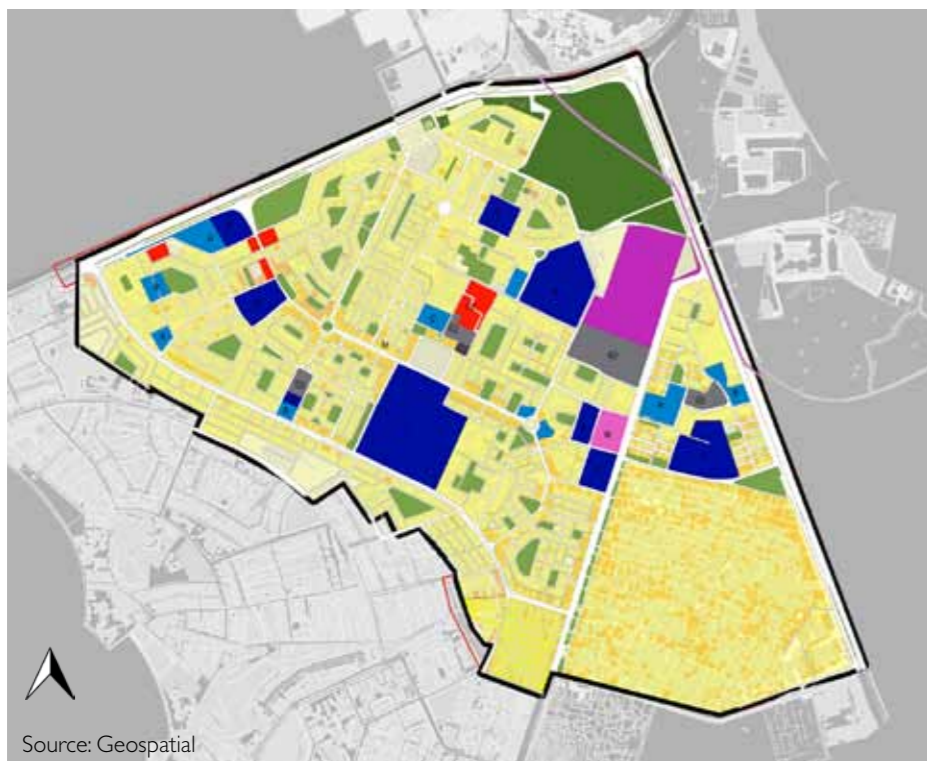
2.2 Master Plan Comparisons

Growth of Area as Indicated by Different Master Plans



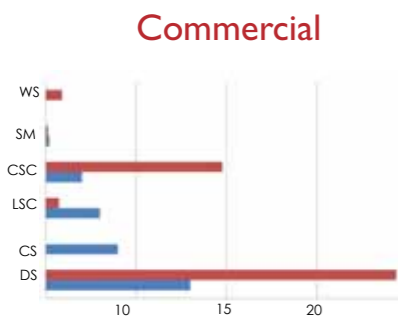
Other Relevant Clauses

The District Centre		Transport	
MPD 2021	On Site	MPD 2021	On Site
District centres can have a sociocultural & a service apartment component.	In commercial hierarchy, the area lacks community centre & sociocultural facilities.	a. Need for intermodal transport system. b. Allows for restructuring the arterial road to allow for segregation of public & non-motorized transport.	Absence of non-motorized vehicle & pedestrian pathway affects connectivity to the area & Metro.
Service Market		Informal Sector	
10 % of unutilized area of local & community shopping should be converted into service market.	The present component of market at site is comparable to the Master Plan.	a. Policy for existing areas of informal sector shall have public amenities & solid-waste disposal. b. Identification of hawking and no hawking zones.	The informal units concentration is higher near unorganized patches than organized.
Local & Community Shopping Centre		Parking	
a. Caters to daily needs of the population. b. The existing commercial centres may be re-developed if need be with enhanced FAR for optimum utilization.	a. The present shopping component is 3.28 ha against 0.3 ha. b. No. of shops in Kalkaji street = 350 Mixed use= 5.58 ha. Commercial= 3.28 ha	a. Multi-level/ on-street parking should be formulated in the areas of concentration of business commercial activity. b. Graded parking fee structure should be evolved as a measure of managing parking demand and encouraging use of public transport. c. Along major commercial roads, feasibility of sharing spaces, like DTC depo and public parking, needs to be explored.	Presently, on-street parking happens along the areas which have commercial activity, i.e. Main Kalkaji Road & Guru Ravidass Road.
Hospitals		Existing Health Facilities	
Provisions for enhanced FAR existing facilities.	The area has no hospital with bedding facilities		



Source: Geospatial

Land use of the study area



	Community Centre	LSC	CSC
Condition on Site		0.73	9.78
MPD	4	3	2

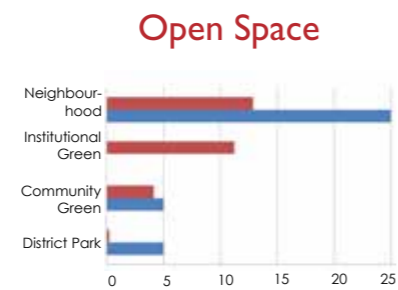
Condition on Site = 30.95 ha
Master Plan requirements = 17.2 ha

The area of convenience shopping existing on site exceeds Master Plan numbers by 7 %

The Kalkaji Market is a city level function rather than the local area function that the MPD prescribes it to be.

The area contains an extra added component of wholesale market (0.9 %).

There is absence of a community centre.



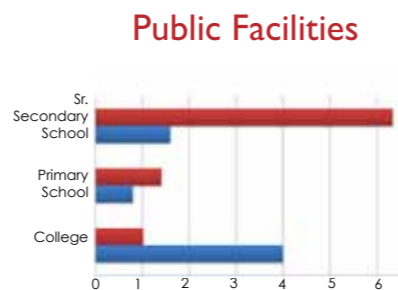
	District Park	Community	Institutional	Neighbourhood
Condition on site	0.23	4.13	11.23	12.88
MPD	5	5	-	25

Condition on Site = 28.47 ha
Master Plan requirements = 35 ha

The shortage of open spaces in the area is as indicated below:

- 4.77 % in district green
- 0.87 % in community green
- 12.12 % in neighborhood level greens.

The institutions on the site have open spaces that lie unused after college working timings.



	College	Primary School	Sr. Secondary School
Condition on Site	1.02	1.41	6.34
MPD	4	0.8	1.6

Condition on Site = 8.77 ha
Master Plan requirements = 6.4 ha

The area under study has sufficient schools in comparison to standards prescribed by MPD (an excess of 0.61 % on site).

The land for college institutions is however, lesser than what has been prescribed for the area in the MPD.

The area has no facilities for hospitals with beds. Dispensaries and clinics are, however, sufficient in the area.

2.3 Zonal Plan Comparisons

	Zonal Plan	Existing Land Use	
			Zonal Plan The green marked is partially residential Area Analysis Residential: 4.9 ha Green: 9.9 ha
			Existing Plan Nehru Park is completely green Area Analysis Green: 1.5 ha
			Zonal Plan The area for local shopping has been marked as residential. Area Analysis Area demarcated Residential: 2.6 ha
			Existing Plan Present usage is community and commercial space Area Analysis Area demarcated commercial & institutional: 2.6 ha
			Zonal Plan The indicated pocket has been marked as residential. Area Analysis Area demarcated residential: 4.0 ha
			Existing Plan Present use consists of park and school. Area Analysis Area under use: 4.0 ha
			Zonal Plan The area shown has been classified as residential. Area Analysis Area demarcated Residential: 0.9 ha
			Existing Plan The land use has been converted to religious and government functions. Area Analysis Area under use 0.9 ha
			Zonal Plan The predominant land use marked has been residential. Area Analysis Area demarcated residential: 3.0 ha
			Existing Plan The functional usage is social infrastructure. Area Analysis Area demarcated for infrastructure use 3.0 ha
			Zonal Plan The land use of space shows clear usage. Area Analysis Area demarcated: 4.7 ha
			Existing Plan The greens and the local shopping centre spaces have encroached upon. Area Analysis Area demarcated: 4.7 ha
			Zonal Plan Zonal plan demarcates the region as park. Area Analysis Area demarcated park: 1.3 ha
			Existing Plan The land use indicates it as school. Area Analysis Area demarcated for school: 1.3 ha

Inferences

Many facilities like the community centre near Sudhar Camp MCD school on the Main Kalkaji Road, have been accommodated by conversion of land use from residential to institution / commercial. The local shopping centre in areas of Govindpuri, and Jawahar Camp have been encroached upon.

2.4 Issues



No inter-modal connectivity and absence of public transport in certain areas of the ward.



Physical form doesn't allow for proper light and ventilation.



Lack of hospitals with beds.



Kalkaji Commercial Stretch



High-Intensity informal activities



Commercial activity in Govindpuri Area

Public Transport

- Giri Nagar and Sudhar Camp have no dedicated public bus routes.
- No inter-modal connectivity from Metro to critical destinations like markets and Govindpuri
- Para transit networks do not cover all the stretches like the stretch between Giri Nagar and Kalkaji Metro and inner residential colonies of Kalkaji

Residential

- Govindpuri is a regularized unauthorized colony with 2.6 FAR.
- The existing physical form makes it difficult to service Govindpuri.
- Large scale illegal construction has left houses in a dilapidated condition with heavy encroachments.
- The houses have no proper light and ventilation.



Gender insensitive placement of basic amenities.



Encroached buffer along Govindpuri Road



Underutilized institutional playgrounds

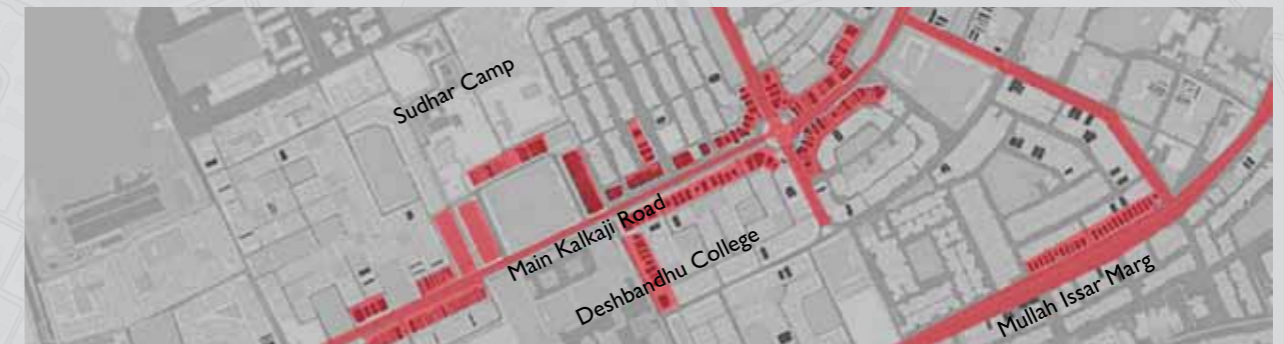


Parking

- No organized parking systems especially for the markets. Road space is used to accommodate parking and this creates chaos.

Social Infrastructure

- Absence of hospitals with bed facilities within the ward and dependence on Kalkaji for educational facilities by the residents of Govindpuri and Giri Nagar.
- Inadequate facilities like Community Halls, Baraat Ghar and other cultural typologies.



Kalkaji Markets

- No organized space for parking by different user groups, for the excess of 700 cars parked everyday on the main road along with the mixing of different traffic modes.
- No consideration for facilities and walkability for pedestrians and hawkers.
- Some clauses on mixed use under Master Plan need to be reconsidered for example functions permitted like institutes and gyms are high intensity, and attract more parking.

Govindpuri Markets

- Haphazard/ unorganized spread of mixed-use market on Guru Ravidass Marg has the following impacts:
 - Heavy encroachments
 - Increase in traffic congestion
 - Shortage of basic amenities

Parks and Playground

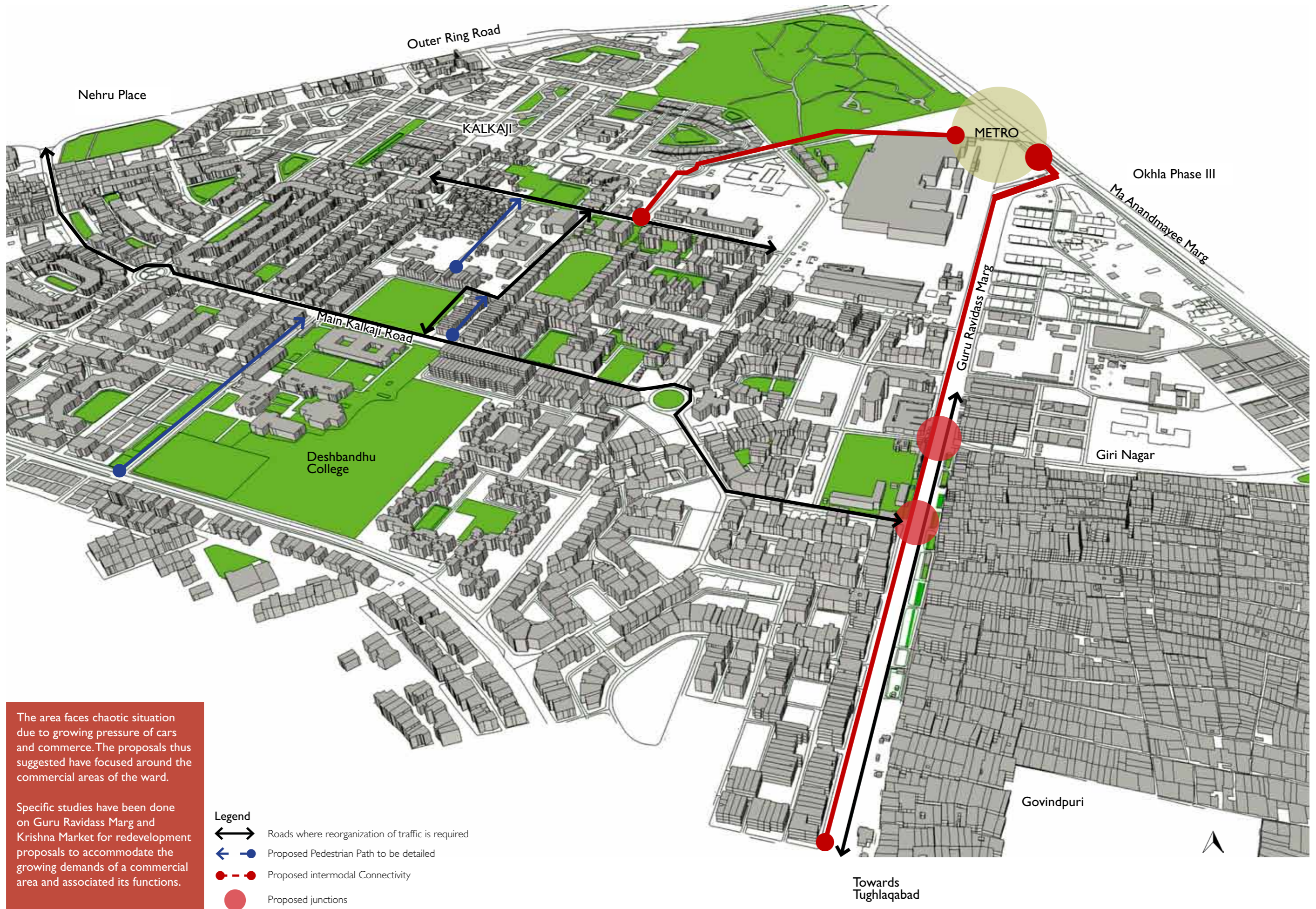
- Unbalanced distribution of neighborhood and community parks in areas like Kalkaji & Govindpuri which has no open spaces within.
- The uneven green buffer distribution along the Govindpuri edge causes congestion; otherwise this has the potential to be used as a continuous walking zone. The green areas are fenced and are thus not integrated with the surroundings.



Utilities

- The area has no water harvesting systems in place.
- The absence of public toilets and water points especially near the markets.
- The public amenities present in the area are not gender sensitive.
- Unorganized auto and rickshaw stands create chaos to the existing circulation network.

3.1 Structure Plan

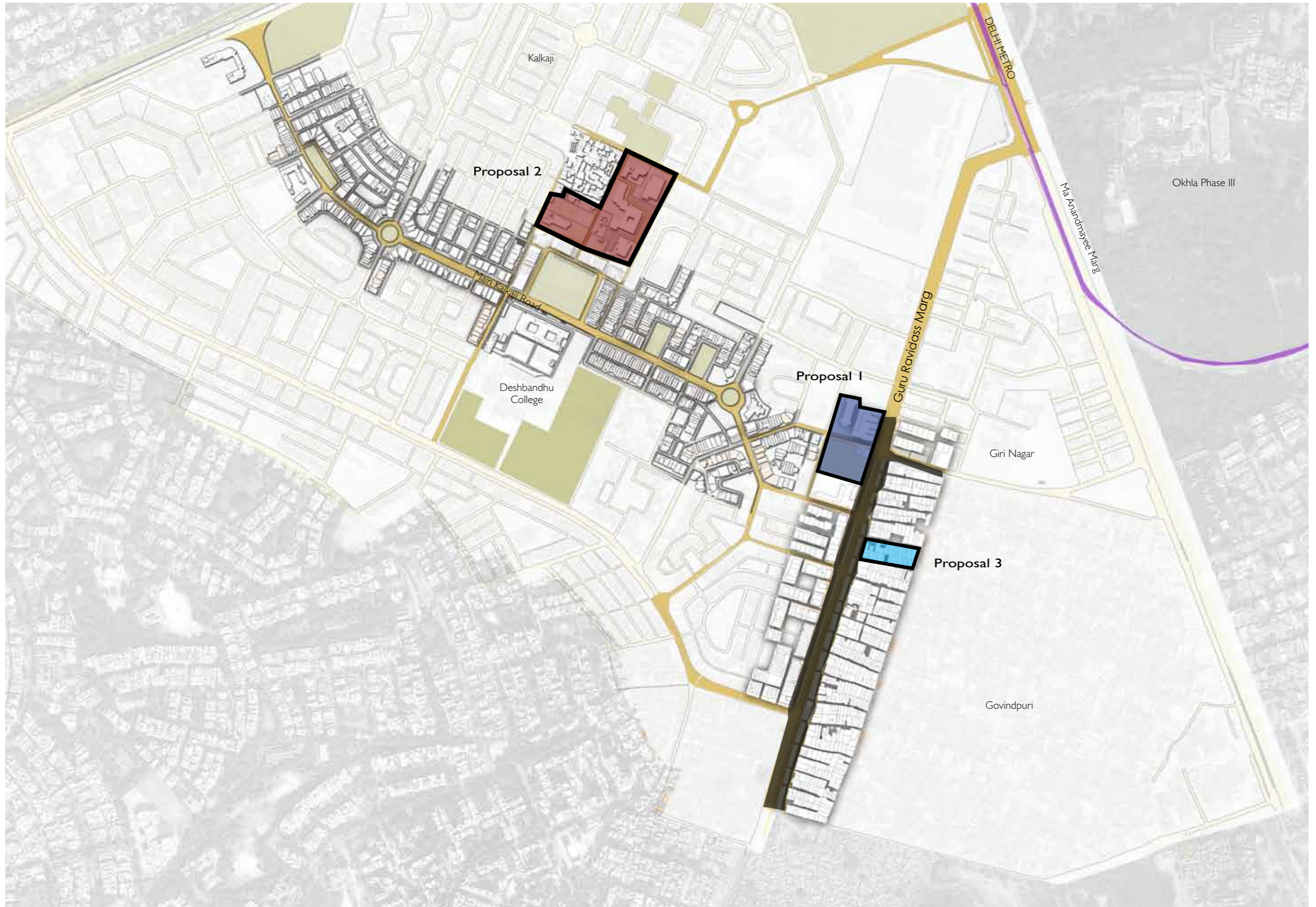


The area faces chaotic situation due to growing pressure of cars and commerce. The proposals thus suggested have focused around the commercial areas of the ward.

Specific studies have been done on Guru Ravidass Marg and Krishna Market for redevelopment proposals to accommodate the growing demands of a commercial area and associated its functions.

- Legend**
- ↔** Roads where reorganization of traffic is required
- ← ●** Proposed Pedestrian Path to be detailed
- - - ●** Proposed intermodal Connectivity
- Proposed junctions

3.2 Suggested Proposals



3.3 Proposal 1: Reorganization of Guru Ravidass Marg

3.3.1 Street Character – Guru Ravidass Marg



Service lane gives character to the area



Commercial edge as seen from the road



Edge of one of the galis with mixed use



Service lane provides for a walking zone

1. Character of the Market

The wholesale edge also acts as shopping (with grocery stores and hawkers) for the residents and traders of Govindpuri. The market has thus got a multi-use character attached to it.

2. Cars and Transport

The uncontrolled and unorganized growth of cars, inhabitants and users of the site are generating chaotic situations on the edge.



Existing Massing for Govindpuri

3. Edge Description

The boundary does create an edge that prevents dilution of the shopping experience and defines a zone for the largescale wholesale activities on the edge. Govindpuri with its densely-built environment that is so characteristic of unauthorised colonies in Delhi, is defined by a boundary comprising discontinuous fragmented green pockets. The pockets are used as parking sites by Govindpuri residents. The edge has a good count of trees



Key Map showing Govindpuri Profile



The Hanuman Mandir provides a 'destination' for the users of the site. Though an encroachment, it is still a significant place on the edge of Govindpuri.

Issues of Guru Ravidass Marg



The existing unmaintained entry to the service lane



The edge of the Govindpuri is average G+2 with defragmented urban facade.



The mixed use nature in Govindpuri



The buffer being use for parking



Existing Massing for Govindpuri

Parking & Transport

The edge confusion reflects the growing pressure of cars due to the rapid growth of commercial activity which has created problems of parking

Services

The entire edge lacks basic services like signages and amenities like toilets and dustbins, which makes the space difficult to use.

Underutilized Open Space Edge

The open space pockets on the edge remain underutilized.

Pedestrianization

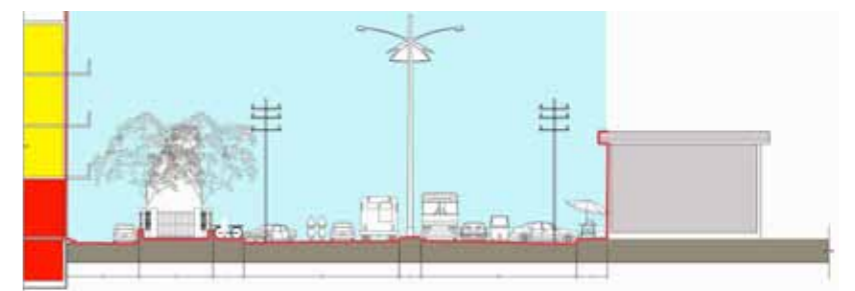
The present chaos takes away from the user the experience of walking at ease while shopping. In the present context, Govindpuri edge is dominantly commercial. However there is a small mix of residential convenience shopping slowly emerging too. The trend though encouraging is creating chaos. Govindpuri market edge does not have the clarity of structure. Absence of the arrival and activity pause spaces result in absence of a sequence to the space.



Parking on the edge of Guru Ravidass Marg

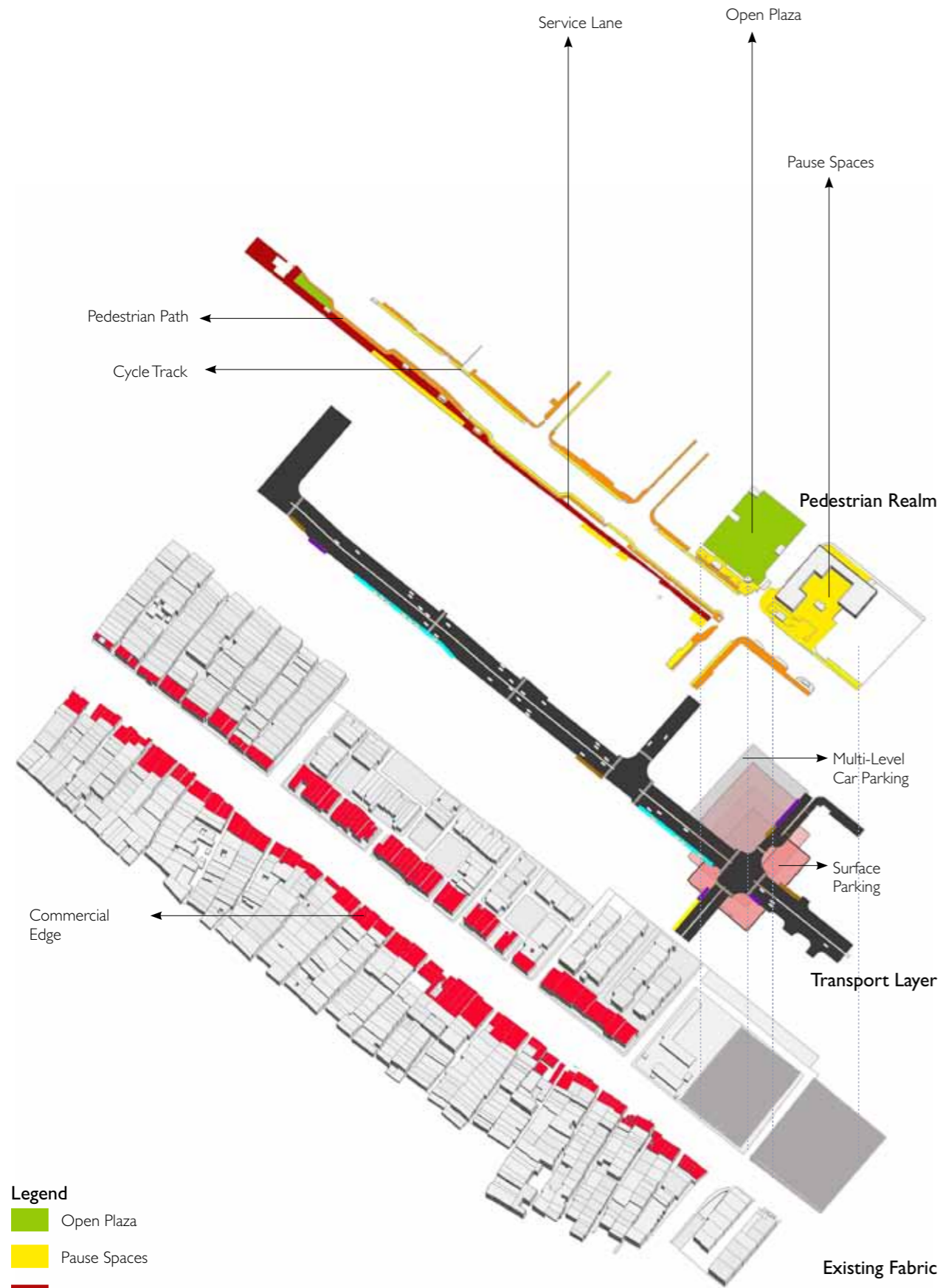


The hawker overspill near the MCD ground.



The typical section at Guru Ravidass Road (sec AA')

Addressing the Issues



- Legend**
- Open Plaza
 - Pause Spaces
 - Service Lane
 - Pedestrian Path
 - Cycle Track
 - Multilevel Car Parking
 - Existing Commercial Edge

Sections and Strategies

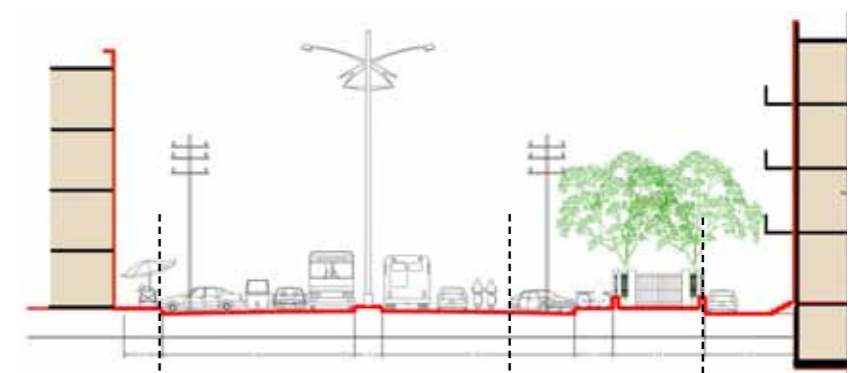
Services and Open spaces
The MCD ground has been retained as a green space on the surface for community gathering and other activities. Services like lighting, signages, service cores and dustbins have been provided for on the edge.

Pedestrianization
Creating a continuous pedestrian space by creating plazas at spaces used for convenience shopping like the Hanuman Temple, near a group of kirana stores at the beginning of the street and service cores. The plazas act as the pause zones and accommodate overspill of activities and give the edge a clarity of space

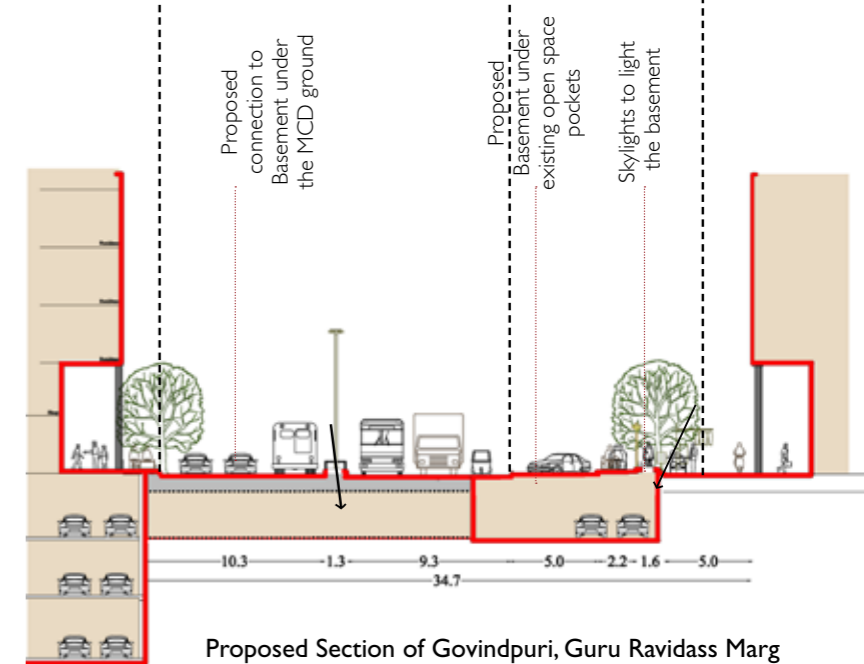
Organizing Parking and Transport
The parking on site are of two types – long-term parking belonging to owners and short-time parking. The proposal suggests an MLCP, surface parking, auto and rickshaw stands and clear mixed lane traffic for organizing the traffic.

Sections
The sections on the right show the basic reorganization of Guru Ravidass Marg.

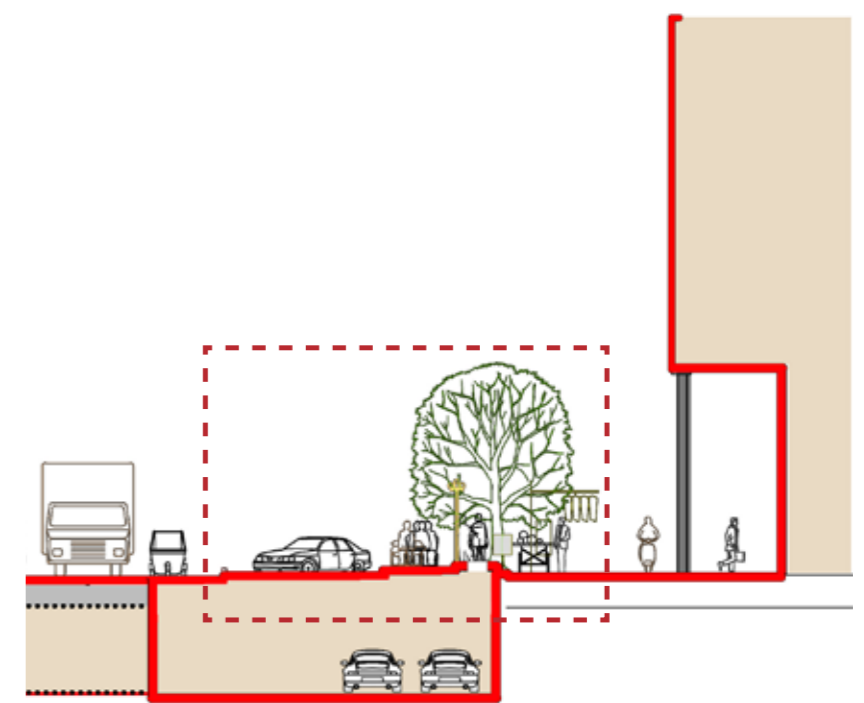
The surface parking has been reorganized and the green pocket zones redesigned to provide for a combination of pedestrian realm, multiutility zone consisting of trees on the edges, dedicated spaces for informal activities, provision for gender sensitive placement of public amenities and a segregated cycling track. Sufficient lighting and signages have been proposed along the service lane.



Existing Section of Govindpuri, Guru Ravidass Marg



Proposed Section of Govindpuri, Guru Ravidass Marg



The Multipurpose Edge

Multipurpose Streetscaping



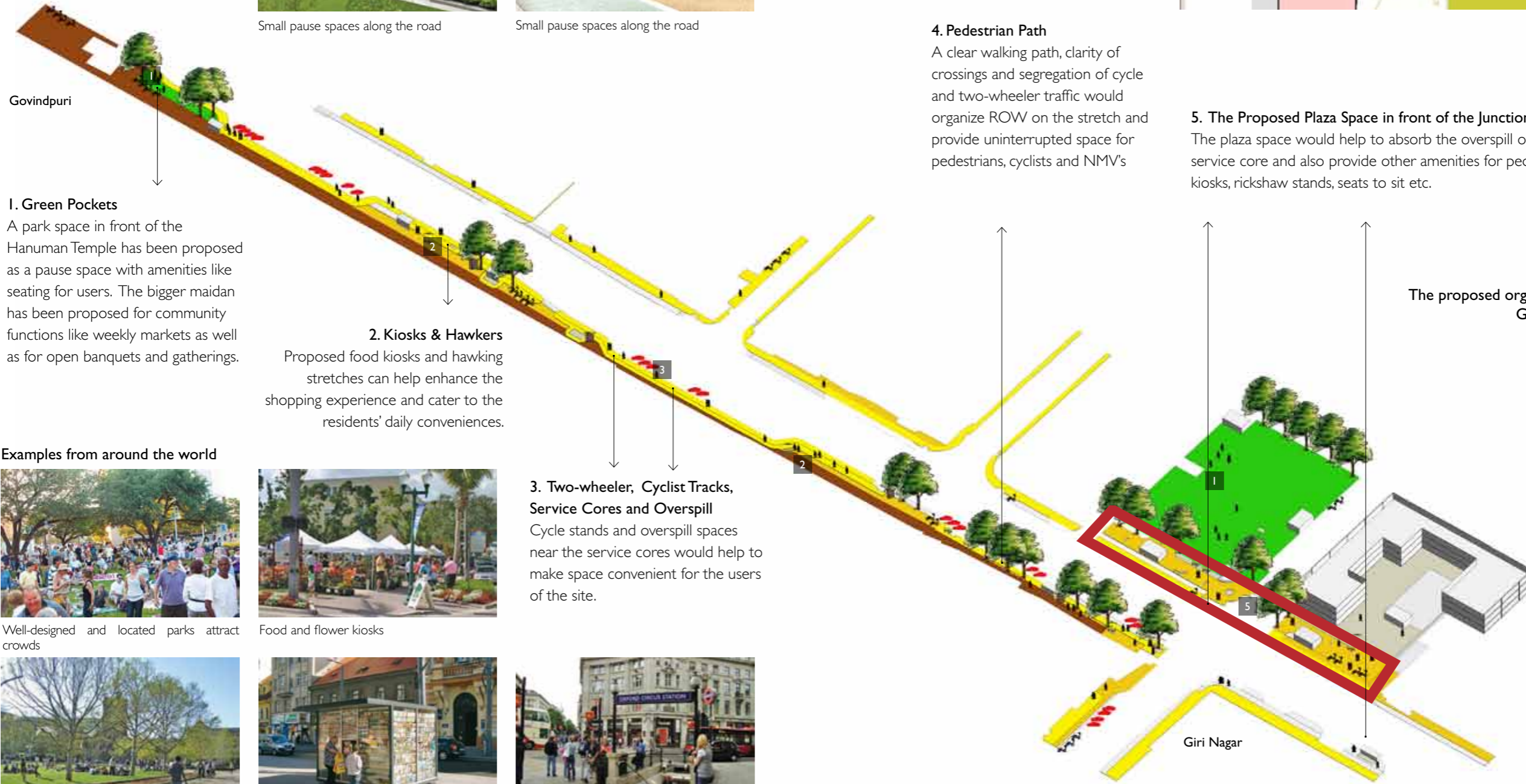
Small pause spaces along the road



Small pause spaces along the road



Plaza



Govindpuri

Giri Nagar

The proposed organized edge of the Guru Ravidass Marg

1. Green Pockets

A park space in front of the Hanuman Temple has been proposed as a pause space with amenities like seating for users. The bigger maidan has been proposed for community functions like weekly markets as well as for open banquets and gatherings.

2. Kiosks & Hawkers

Proposed food kiosks and hawking stretches can help enhance the shopping experience and cater to the residents' daily conveniences.

3. Two-wheeler, Cyclist Tracks, Service Cores and Overspill

Cycle stands and overspill spaces near the service cores would help to make space convenient for the users of the site.

4. Pedestrian Path

A clear walking path, clarity of crossings and segregation of cycle and two-wheeler traffic would organize ROW on the stretch and provide uninterrupted space for pedestrians, cyclists and NMV's

5. The Proposed Plaza Space in front of the Junction

The plaza space would help to absorb the overspill of people from the service core and also provide other amenities for pedestrians like the kiosks, rickshaw stands, seats to sit etc.

Examples from around the world



Well-designed and located parks attract crowds



Food and flower kiosks



Landscaped pause spaces along a road



Hawking zones along path of movement



Overspill of activity around service core



Landscaped pause spaces along a road



Hawking zones along path of movement



Cycle stands



Designated walking paths

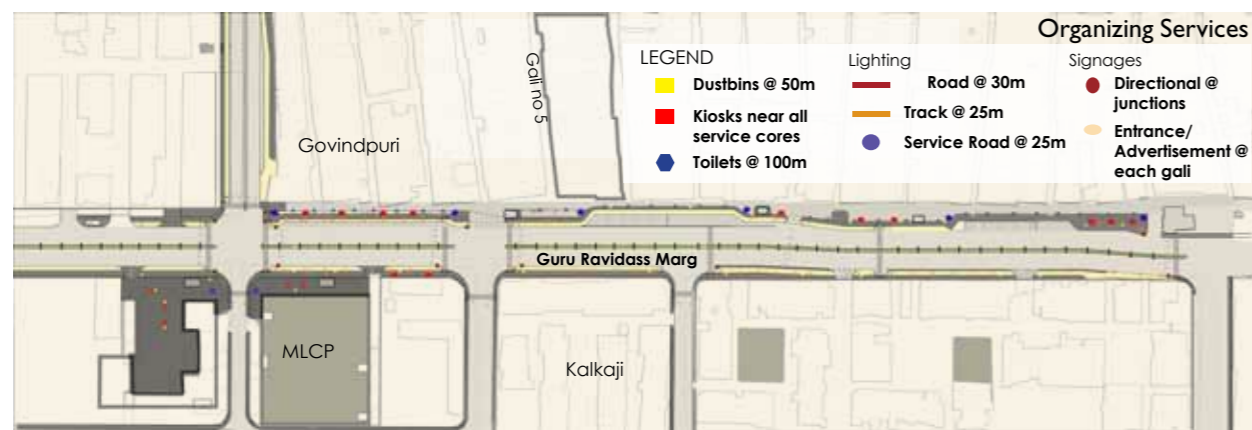
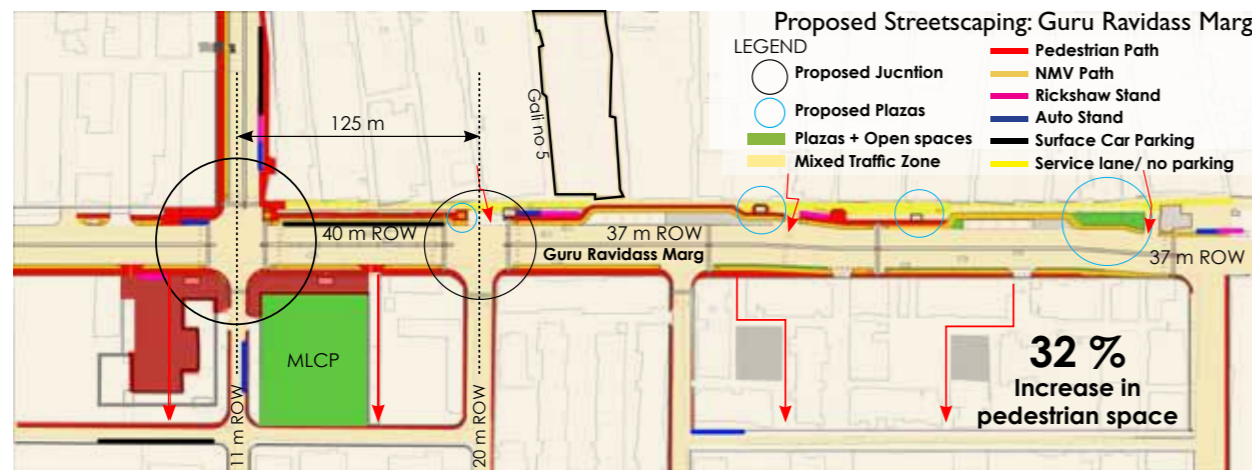
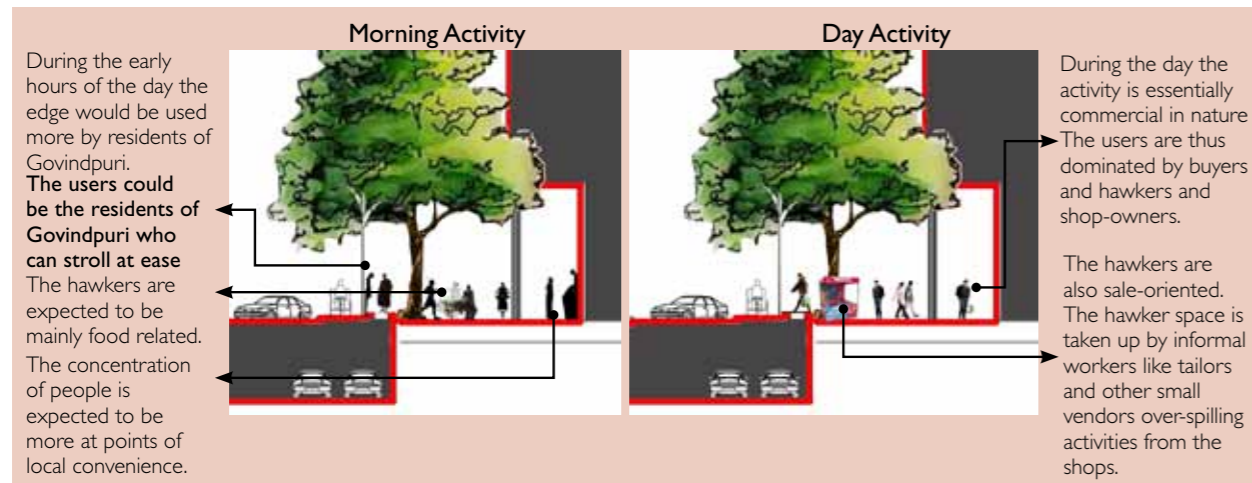


Designated pedestrian crossings



Designated cycle track

Organising the Traffic and Services



Organising Pedestrian Realm

1. Service Lane + Plaza
An arrival plaza will help define the entry to Govindpuri street. With signages and seatings the arrival plaza can act as a transitional zone to the market spaces.

4. Service Lane + Plaza + Colonnade
The pedestrianized open space in front of the Hanuman Mandir would help to accommodate the overflow of people and act as a space for visitors to sit and relax.

Key Plan
MCD School
Kalkaji
Govind Puri
Guru Ravidass Marg
Gali no 5

Labels: Pedestrian Zone, NMV Lane, Multitility Zone

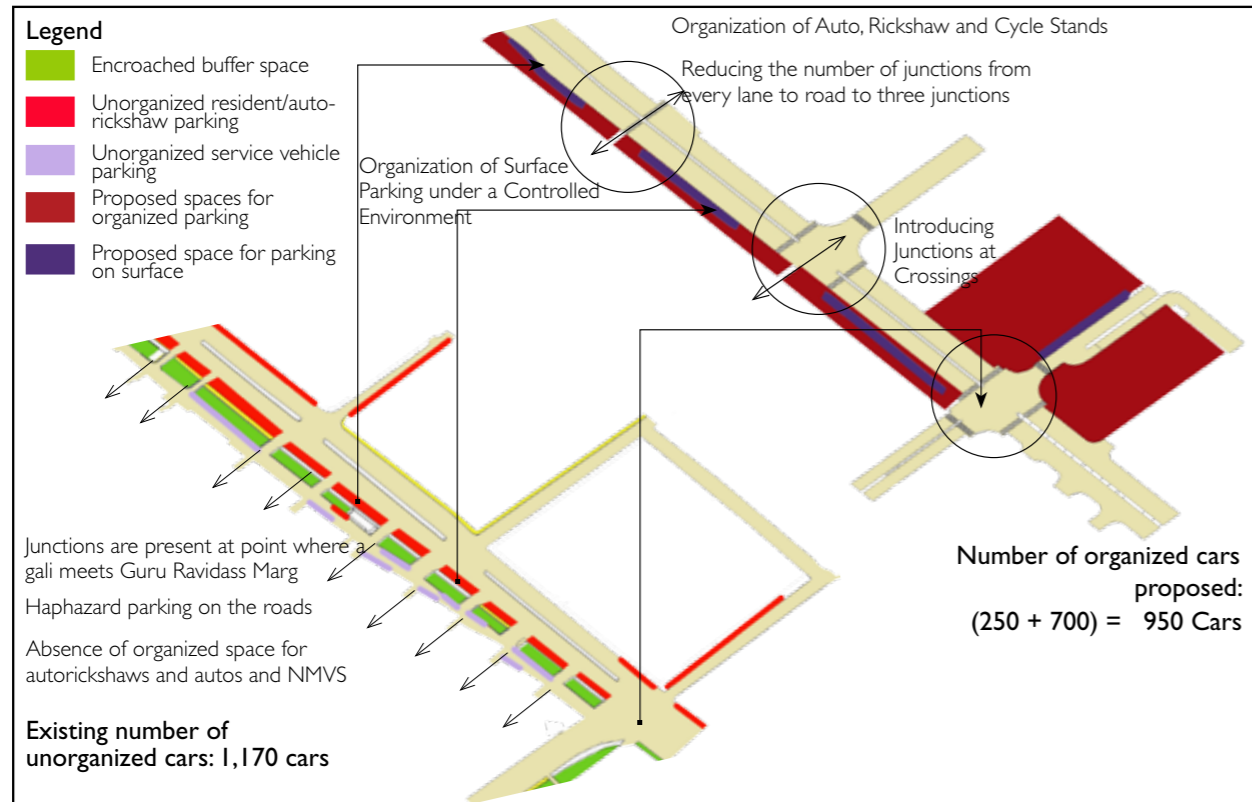
Basement

2. Service Lane + Hawkers + Green Belt

3. Service Lane + Service + Kiosk + Colonnade

Basement

Organizing Parking System



Strategies for reorganizing Guru Ravidass Marg



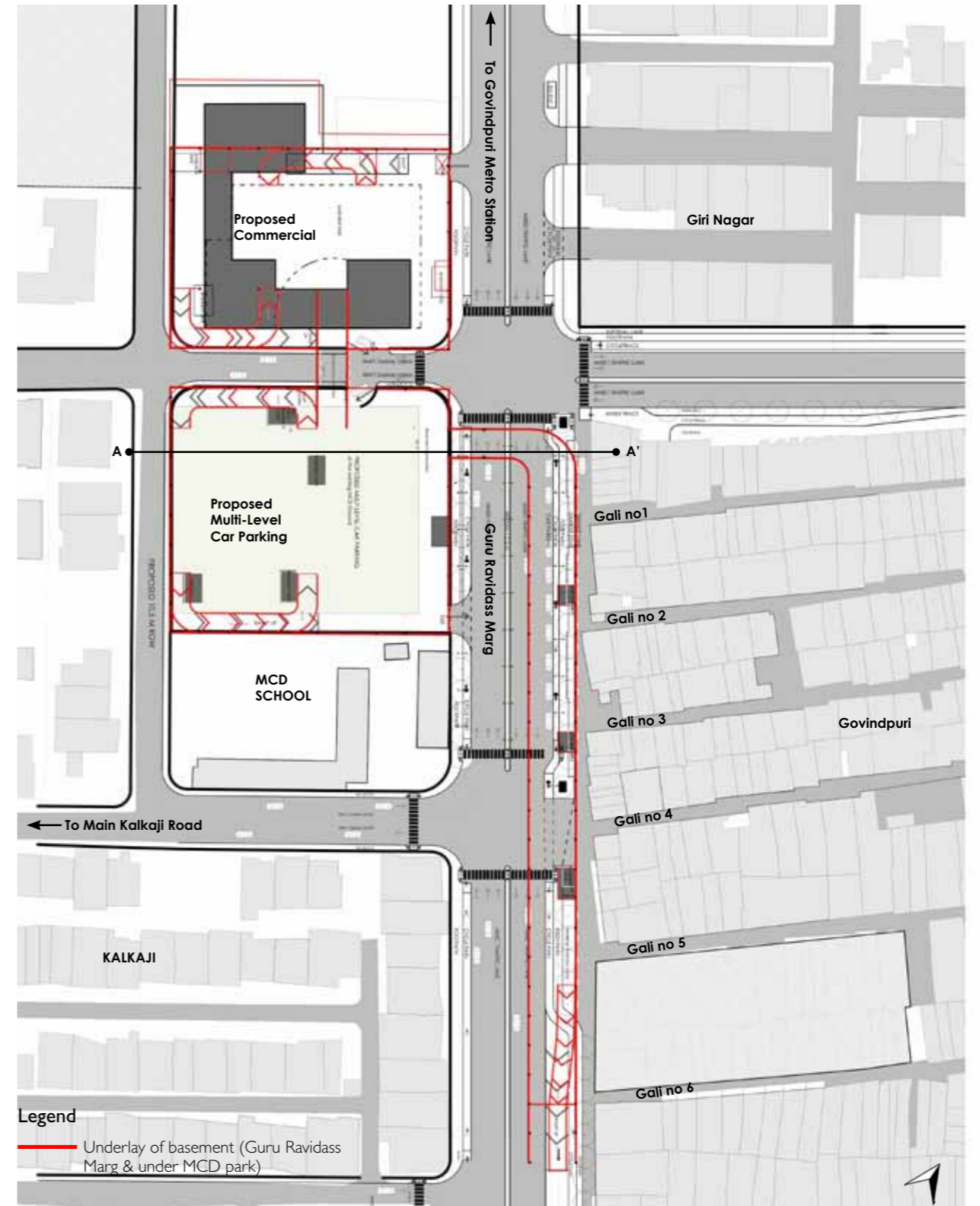
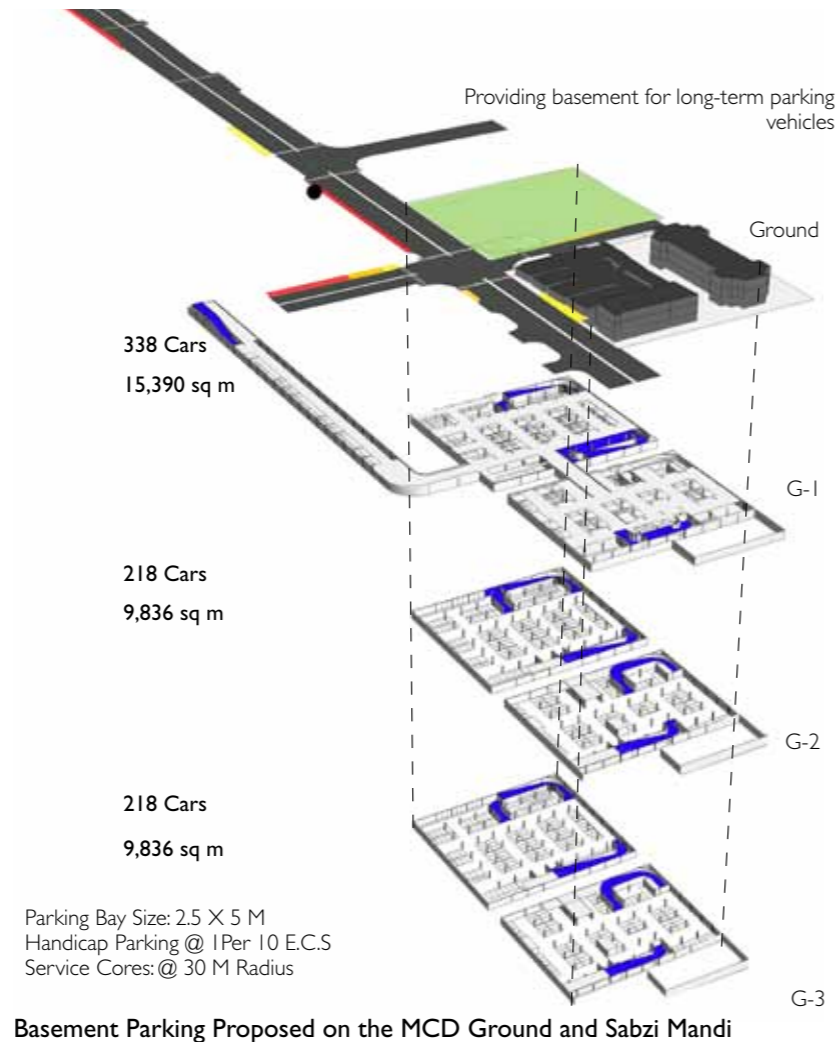
Entry to every individual gali form a local node through which vehicles merge with the on-going traffic and the unorganized parking happening on the main carriageway, leads to traffic mismanagement and chaos at the main junctions.



Unorganized autorickshaw parking along Guru Ravidass Marg, reduces the ROW of this primary collector road.



Unorganized autorickshaw parking at a junction



Plan Showing Proposed Reorganization of Guru Ravidass Marg



Intergaretd Proposal for Govindpuri



Existing Condition



Proposed Condition



Creating Pedestrian Realm



Existing Edge through a Service Lane in Govindpuri

3.3.2 Redevelopment of the Commercial Area and Sabzi Mandi



Existing Perspective of Mandi across a Junction



Proposed Edge Condition after Streetscaping



Proposed View through the Junction

3.4 Proposal 2: Restructuring Commercial Pockets

3.4.1 Existing Context

Local Shopping Centre

Post Office

DDA Office Complex

Community Centre

Malaria Department

DJB Department

Krishna Market

Existing land use of the study area

DJB Department

Krishna Market

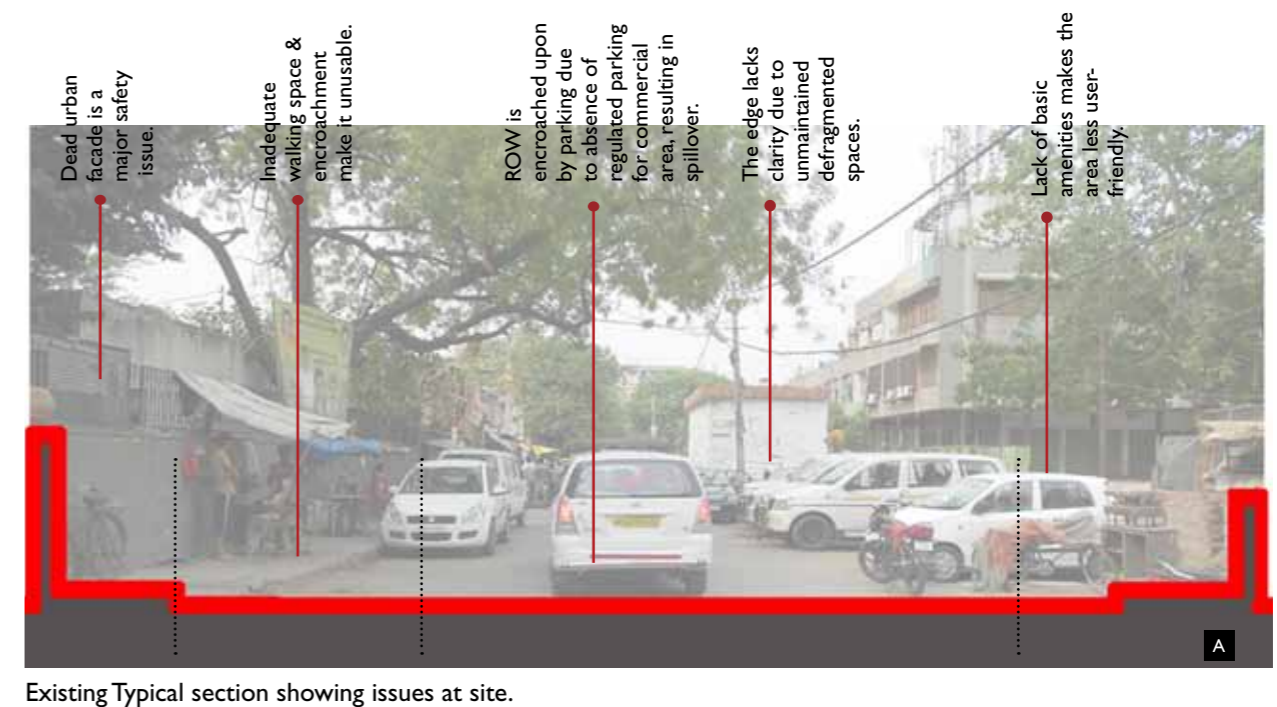
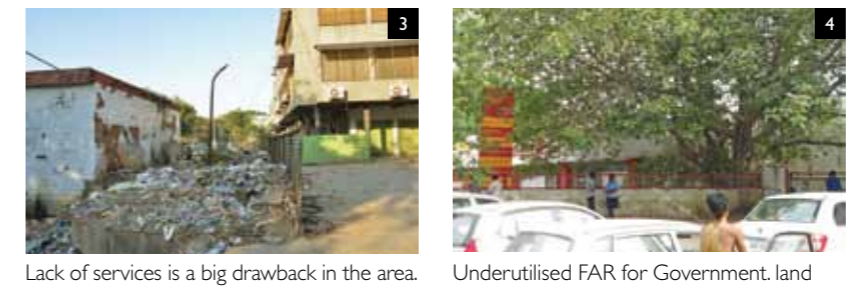
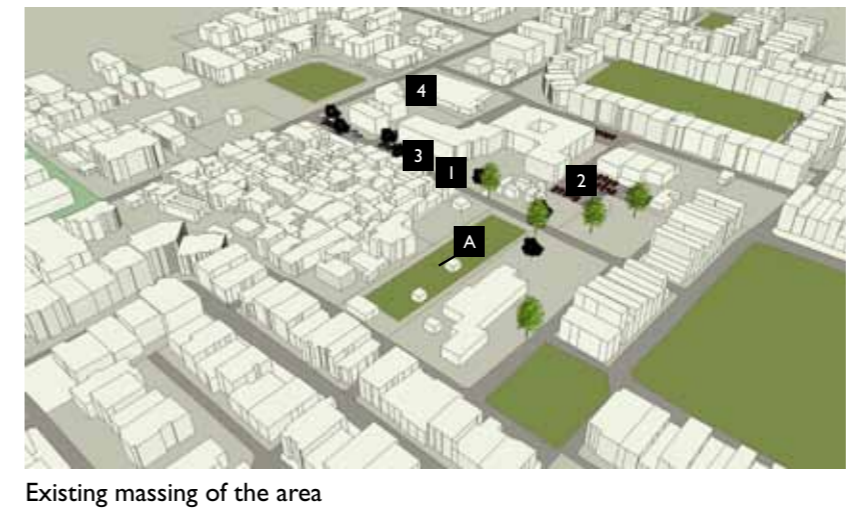
Key Map

2.25 ha
Area of Intervention

1.90 ha of Built Space

The existing built-up commercial centre can be redeveloped if need be with enhanced FAR.
Ground Coverage: 25 %
FAR: 125
Parking Standard: 3 ECS

3.4.2 Issues



FAR
The government-owned land has lesser built up & more ratio of incidental spaces which results in under-utilization of FAR as prescribed in Master Plan 2021.

Parking & Transport
Mostly served by private vehicles due to absence of public transport in the area. The parking is haphazard in nature due to undemarcated spaces within the area.

Services
The pocket lacks basic services and amenities like toilets and dustbins, which makes the space difficult to use.

Open Spaces
The parks & playgrounds are non-existent and use of community greens is restricted.

Clarity in Urban Edge
The edges of the pocket are undefined & deeper setbacks in public buildings lead to dead spaces being created in the front. The structures lack in clarity resulting in breakage of sequence in the space.

3.4.3 Proposal

Parking

Provision of underground parking to take care of the site requirement and further integrate it with the proposed MLCP to manage parking issues plaguing the Kalkaji area.

FAR

Optimum use of land resources by reorganization of function which utilizes FAR as mentioned in Master Plan 2021.

Pedestrian Realm

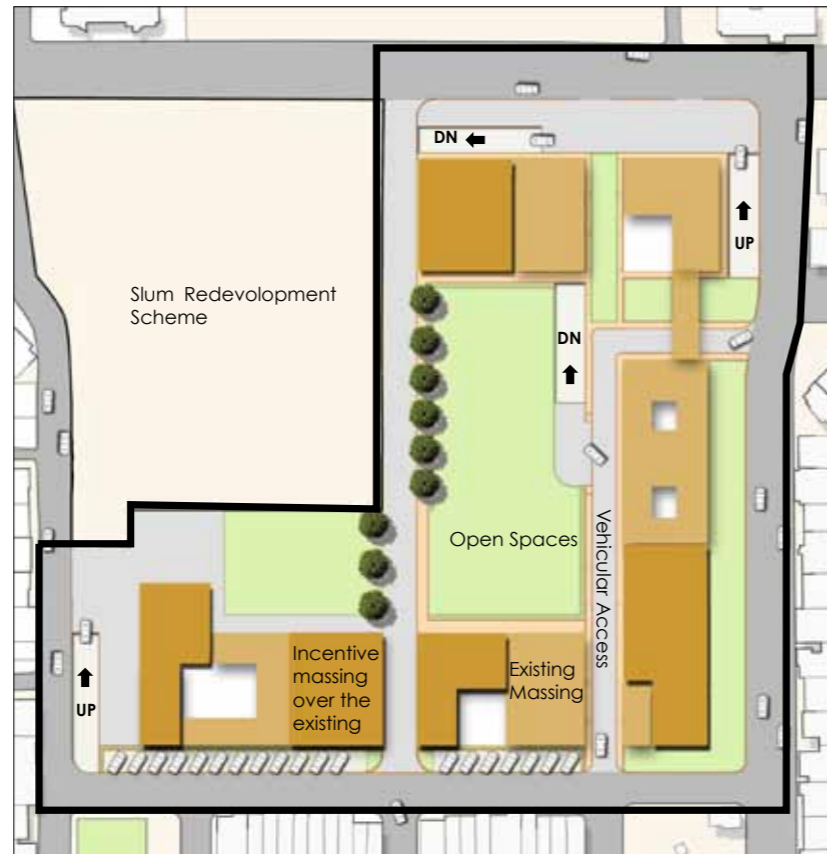
Provision of pedestrian only access and having been built to the edge creates a pedestrian friendly environment along with improving the edge.

Open Spaces

Carving out useable open spaces which can be functional at all times and an useful resource at community level and as well as realizing informal activities in order to optimize space use.

Clarity in Urban Edge

Creating a continuous edge with clarity of functions which remains vibrant throughout and hence enhances space quality along with social security



Proposed Condition

Statistical Analysis

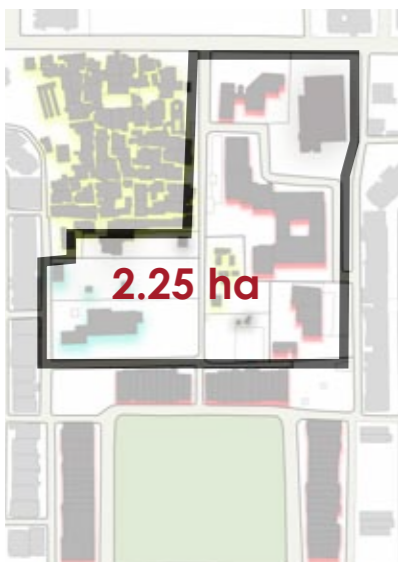
	Existing (sq m)	Proposed Condition I (sq m)	Proposed Condition II (sq m)
Site Area	22577	22577	22577
Total built up	19009	28221.25	37252.05
FAR	0.84	1.25	1.65
Extra built up generated	-	9212.25	18243.05
Ground Coverage	39.50 %	30 %	35 %

For the developers (FAR – 1.65)

Space Distribution (%)	Area Generated a1	Functional Built Up	Existing Area (sq m) a2	Proposed Condition II (sq m) a1 + a2
10	1824.30	Community	1187	3011.30
80	14594.44	Commercial	15867	30461.44
10	1824.30	Institutional	1955	3779.305
				37252.05

For the developers (FAR- 1.25)

Space Distribution (%)	Area Generated a1	Functional Built Up	Existing Area (sq m) a2	Proposed Condition II (sq m) a1 + a2
10	921.22	Community	1187	2108.22
80	7369.8	Commercial	15876	23236.8
10	921.22	Institutional	1955	2876.22
				28221.25



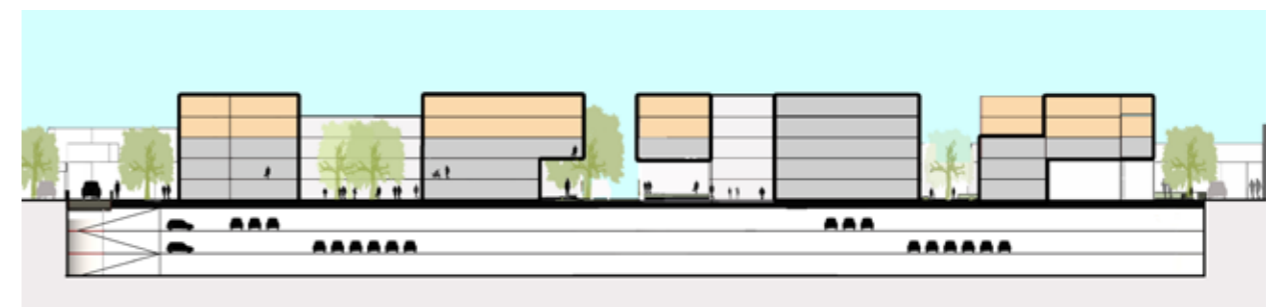
Key Map



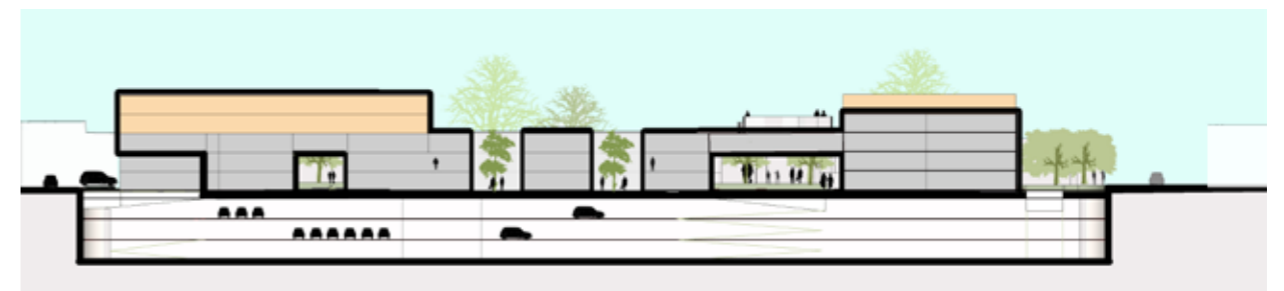
Proposed Massing

	Existing Site Condition (sq m)	Proposed Site Conditions (sq m)
Gross Built Up	19009	37252.05
Far	0.84	1.65
No. of Cars	On Surface Parking	@32 sqm/car-2100 CARS

Providing for an integrated space which serves a community at large, and creating functions which promote a round the clock vibrant environment suited for a commercial area along with the promotion of a pedestrian friendly environment.



Section AA'

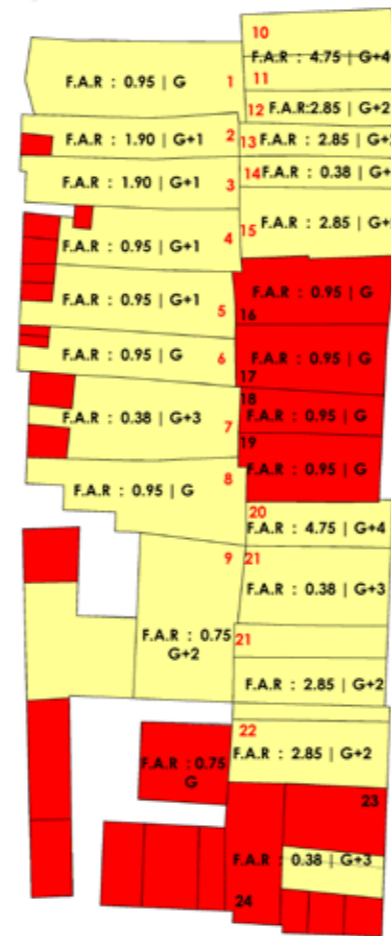


Section BB'

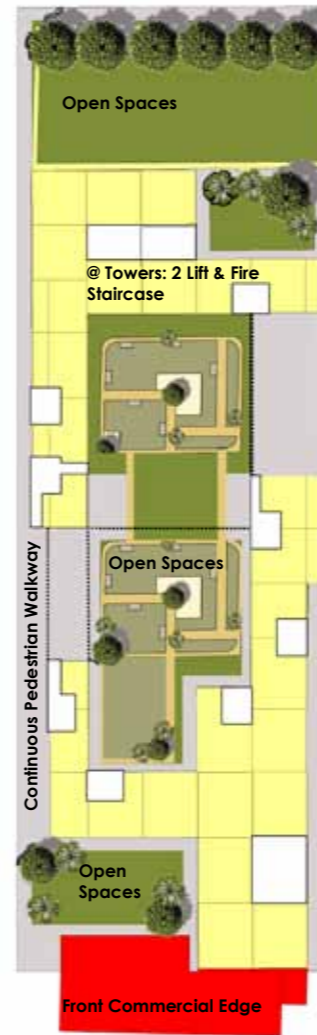
3.5 Proposal 3 – Plot Amalgamation

Plot no	Plot area (sq m)	Residential Built up (sq m)	Shop Area (sq m)	Total Built-up (sq m)	No of Owners
1	156	148.2	0	148.2	1
2	86	152.6	10.8	163.4	2
3	103	195.7	0	195.7	1
4	128	218.3	24.9	243.2	4
5	130	107.3	16.2	123.5	3
6	97	74.15	18	92.15	3
7	163	605.36	14.04	619.4	3
8	134	127.3	0	127.3	1
9	750	532	51.55	583.55	7
10	50	229.4	8.1	237.5	4
11	50	237.5	0	237.5	5
12	50	142.5	0	142.5	3
13	50	190	0	190	4
14	110	313.5	0	313.5	2
15	100	86.9	8.1	95	1
16	97	80.15	12	92.15	1
17	60	107.25	6.75	114	1
18	110	506.3	16.2	522.5	5
19	50	237.5	0	237.5	4
20	65	247	0	247	3
21	122	347.7	0	347.7	3
22	120	393.6	0	393.6	3
23	149	393.6	23.05	424.65	5
24	76	280.7	8.1	288.8	3
Total	2945	5690.91	225.79	5916.7	50

Individual plot data for a consolidated 3,000 sq m area for Gali. no 5 in Govindpuri



Existing building use of Gali no 5, Govindpuri



Incentive Scheme for the Proposal

Incentive		Net Area Generated (sq m) = Existing Built up + Incentive	
A	For the Residents		
	Additional area for plots < 90 sq m	15 %	2098.11
	Additional area for plots > 90 sq m	10 %	4253.1
TOTAL (T1)			6351.21
B	For the Developer		
	Additional residential area	70 %	2746.1
	Additional commercial area	30 %	1176.9
TOTAL (T2)			3923
NET AREA (T1 + T2 + 225.79)			10500

	Existing Site Conditions	Proposed Site Conditions
Total Site Area	3000 sq m	3000 sq m
Total Residential Built Up	5690.91 sq m	9097.31 sq m
Total Commercial Built Up	225 sq m	1402.69 sq m
Gross Built Up	5916.7 sq m	10500 sq m
FAR	2.1	3.5
Ground Coverage	95 %	50 %
PARKING		210

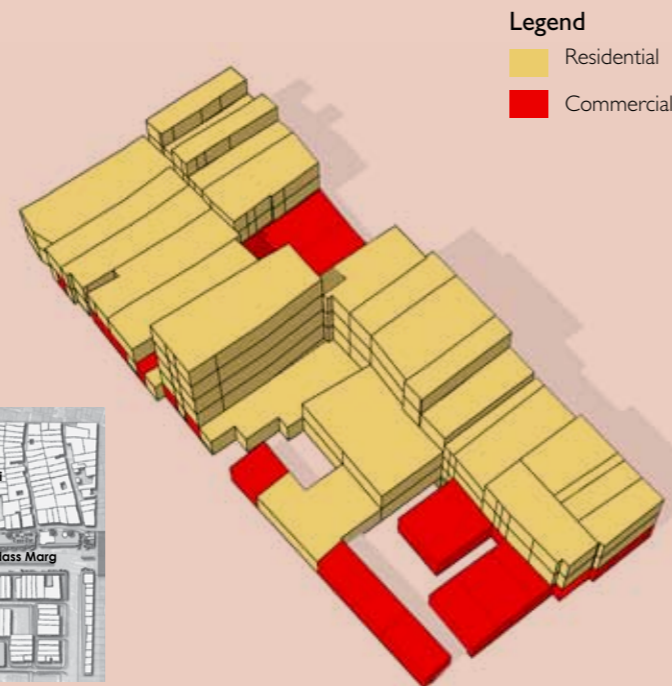
Reorganizing Urban Spaces

Through land pooling:

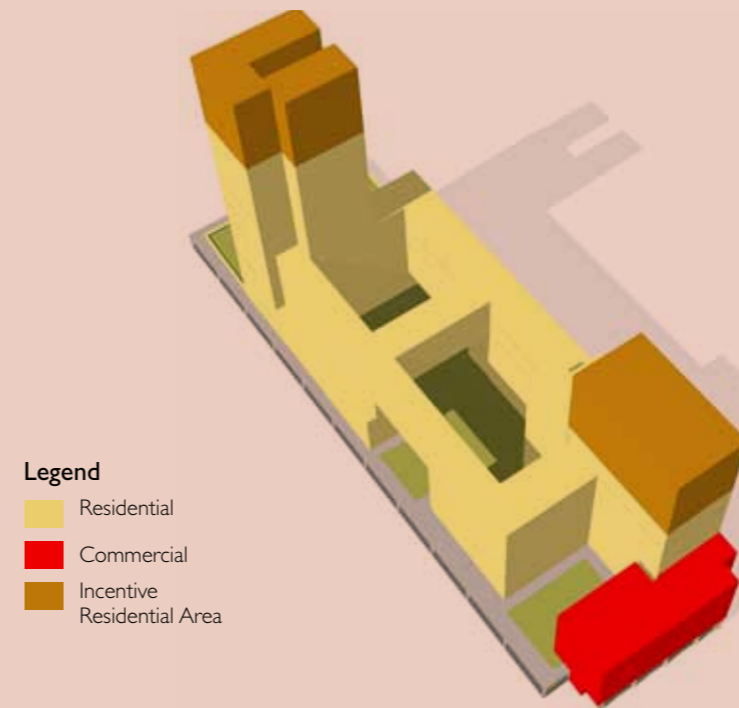
- A. Create space for community use by freeing up ground.
- B. Provision of all services like parking and drainage within plot premises to check encroachment on road and maintain seamless circulation along with skyline.



Key Map demarcating 3000 sq m of amalgamated plot area.



Existing volumetric massing for consolidated plot area.



Proposed volumetric massing for consolidated plot area.

Master Plan Guidelines on Plot Amalgamation

- Cluster block for a minimum area of 3000 sq m 30 % of the area need to allocated for common green/soft parking besides circulation areas and common facilities.
- To incentivize the redevelopment a maximum overall FAR of 50 % over and above the existing permissible FAR subject to maximum of 400 shall be permissible.
- The circulation pattern should include segregation of pedestrian and vehicular traffic, access of emergency vehicles to every block, provision of adequate parking etc.

Traffic and Parking

- Traffic Management: recommended along areas of intervention.
- Enhancing walkability on Guru Ravidass Marg specially along the service lanes.
- Re-routing public transport on Main Kalkaji Road–Guru Ravidass Marg for better connectivity.
- Interlink Gramin Seva Service with existing public transport and non-motorized modes for functional connectivity.

Pedestrinization

- Identifying continuous pedestrian links between Mullah Issar Road, Main Kalkaji Road and Govindpuri Metro Station.
- Reorganization of road structure along the Main Kalkaji Road and Guru Ravidass Marg to facilitate the pedestrian shopping activity.

Parking

- Identify parking sites to control haphazard congestion and encroachment of vehicular movement space.
 - Consider a Multilevel Car parking at Krishna Market
 - Intense use of DMRC land at the entrance of Kalkaji Market
 - Proposed site for reorganization of commercial space behind Krishna Market with enhanced FAR and reorganized traffic movement.
 - Proposed site for MCD community ground to be developed along with mandi and commercial market as multilevel car parking and commercial space.
 - Identification of space and provision for cycle and auto stands along Main Kalkaji Road and Guru Ravidass Marg.
 - Removing of encroachments along the main roads to optimize space utilization.

Services

- Provision of amenities like toilets/water points for hawkers and pedestrians on the Main Kalkaji Road and Guru Ravidass Marg.
- Waste management systems need to be put in place for proper upkeep of the area, through strategic placement of dhalaos and dustbins.

Parks and Playgrounds

- MCD ground (at Guru Ravidass Marg) to be proposed as a multifunctional space.
- Reorganization of open space pockets on Guru Ravidass Marg. Open the institutional green areas to local residents to be used as shared spaces.

Signages and Lighting

- The urban facade should be improved to lend an identity to the space through management of signage systems, i.e. directional signage, billboards and place signages.
- Appropriate lighting needs to be put in place to provide as per functional requirement of the spaces.

Enhancing of FAR to improve management of land

- Reorganization of mandi and commercial area will free up space to be used for the community.
- Reorganization of commercial pocket behind Krishna Market can provide for integrated commercial and institutional spaces with enhanced FAR for the area.

