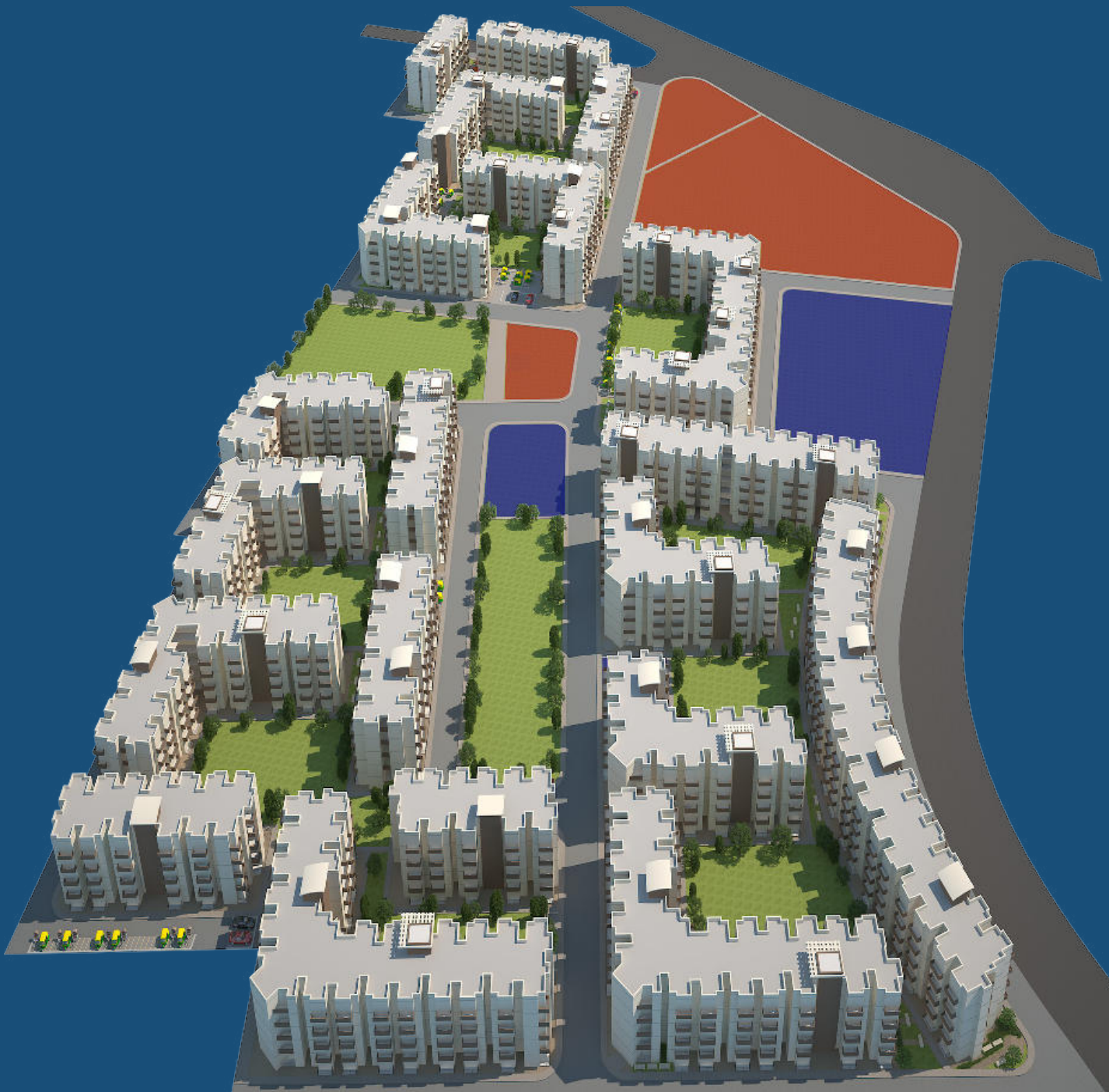




CITY LEVEL PROJECTS

PATPARGANJ

Slum Redevelopment Scheme, Ward Number 220





(An ISO 9001 : 2008 Certified Organisation)

Delhi Urban Art Commission

Prof. Dr. P.S.N. Rao

Chairman

Sonali Bhagwati

Member

Samir Mathur

Member

Sonali Rastogi

Member

Durga Shanker Mishra

Member & Addl. Secretary, Ministry of Urban Development

Vinod Kumar

Secretary

DUAC Staff

Rajeev Kumar Gaur, Raghvendra Singh, Amit Mukherji, V. K. Tyagi, Uma Bhati, Nishi Sachdeva, Manju Anjali, Siddharth Sagar, Indu Rawat, Nihal Chand

Senior Consultant

Dr. Aruna Ramani Grover

Satish Khanna

Consultants

Sulabh Goel

Nikhil Pandey (3D Visualizer)

DELHI URBAN ART COMMISSION with gratitude duly acknowledges the valuable contributions of the following in making this report:

Raj Rewal	Former Chairman, DUAC
Satish Khanna	Former Member, DUAC
Eric P. Mall	Former Member, DUAC
D. Diptivilasa	Former Member DUAC & Addl. Secretary, Ministry of Urban Development

Organisations/Others

Ministry of Urban Development, Government of India
Delhi Development Authority
Government of National Capital Territory of Delhi
North Delhi Municipal Corporation
East Delhi Municipal Corporation
South Delhi Municipal Corporation
New Delhi Municipal Council
Geospatial Delhi Limited
Delhi Metro Rail Corporation
Delhi Urban Shelter Improvement Board
BSES Rajdhani Power Limited
BSES Yamuna Power Limited
RWA

Preface



The city of Delhi, capital of this vast land of diversities, is a city laden with layers of history, a place where civilizations have lived, prospered and perished over centuries. The modern city today, built over and around a rich tapestry of heritage, presents an opportunity at every turn, to allow for co-existence of the past, present and the future. In order to understand this multidimensional urban spectrum and attempt to plan the future, various city level studies have been initiated by the DUAC. I hope that these studies will help the planners of modern day Delhi to carefully articulate urban space, structure, form and environment and sensitively address future requirements.

I convey my thanks to all the Consultants and Members of the Commission who have tirelessly worked on this research project to bring out this document. I also take this opportunity to place on record my sincere appreciation of the efforts of Secretary and other staff of DUAC for providing the necessary administrative support to make this happen.

I fondly hope that the authorities of the local, state and national government take these studies seriously and implement, in right earnest, the suggestions given herein.

March, 2015

Sd/-
Prof. Dr. P.S.N. Rao
Chairman, DUAC

Contents

1	Slum Context	6
1.1	Location, Connectivity and Land Use	7
1.2	MPD 2021 Requirements	8
1.3	Patparganj Slum	9
1.4	Existing Condition/Situations	10
2	Design Proposals	12
2.1	Site Restructuring	12
2.2	Development Details	13
2.3	Design Intent Option 1	14
2.3.1	Layout Concept	14
2.3.2	Cluster Concept	14
2.3.3	Residential Unit Concept	14
2.4	Design	15
2.4.1	Details for Pocket A	15
2.4.2	Design Proposal Pocket A	16
2.4.3	Design Calculation-Pocket A	16
2.4.4	Cluster Design	17
2.4.5	Details	18
2.5	Design Intent Option 2	19
2.5.1	Layout Concept	19
2.5.2	Cluster Concept	19
2.5.3	Residential Unit Concept	19
2.6	Design	20
2.6.1	Details for Pocket D	20
2.6.2	Design Proposal Pocket D	21
2.6.3	Design Calculation-Pocket D	21
2.6.4	Cluster Design	22
2.6.5	Details	23
2.7	Comparison	24
3	Future Direction and Recommendations	24
3.1	On Design Intent	24
3.2	Outcome	24
3.3	Recommendations	24

Summary

As per the Shelter Policy of MPD 2021, 50-55% of the 24 lakh additional dwelling units to be provided in the plan period would be for the Urban Poor and economically weaker sections in the form of houses of two rooms or less. In the existing slum settlements, the threefold strategy of relocation from areas required for public purpose, in-situ up-gradation and the interim measure of upgradation to minimum standards is to be followed.

Objective In keeping with the above framework the Delhi Urban Art Commission has undertaken alternative site specific housing design options for slums in Patparganj which falls under the Municipal Ward No. 220.

Design Intent The intent was to explore options which accommodate the owners as well as rented population within the limits of the site geometry and size.

Outcome Explorations have resulted in alternative design options for in-situ rehabilitation of the slum population in Patparganj.

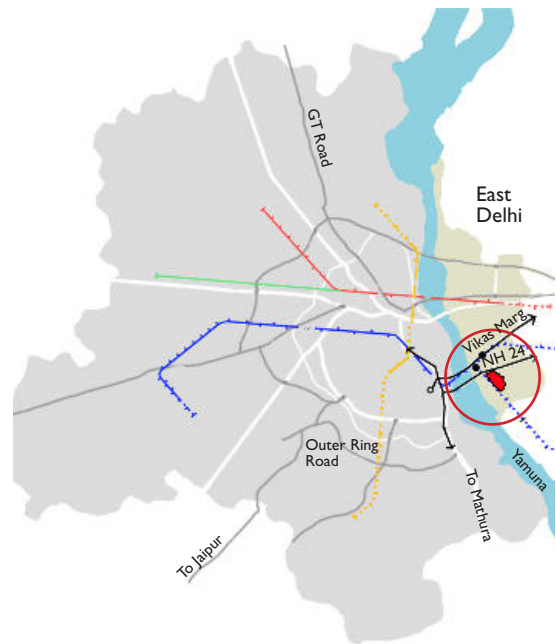
It has also resulted in establishing some insight into the inter-relationships of governing norms of FAR, density, ground coverage and setback norms.

For Economically Weaker Section Housing, the Master Plan of Delhi 2021 and the National Building Code of India 2005 recommend a small unit size. This size is in keeping with affordability of the beneficiary in the first instance and their financial capacity to retain it subsequently.

With this income group it is the failure of the latter which pushes the head of the family to sell the house as a commodity in the market at every potential financial crunch. Lack of financial security forces a family of 5-6 to live in a small shelter unit with a carpet area of 25 sq m.

This miniscule unit with four or five independent, internal spaces, i.e. 1-2 rooms, kitchen, bathroom and balcony providing direct light and ventilation, implies a rather intricate spatial organization which has many interstitial open to sky spaces.

Similarly when a family of 5-6, sometimes across 3 generations, is forced to live in 25 sq m of indoor area, the space immediately outside the unit becomes very valuable, reinforced by the requirements of the social family structure. This calls for careful crafting of the built and the open along with apportioning of common spaces around the unit.



Delhi Key Map



Area of Study and Ward Boundaries

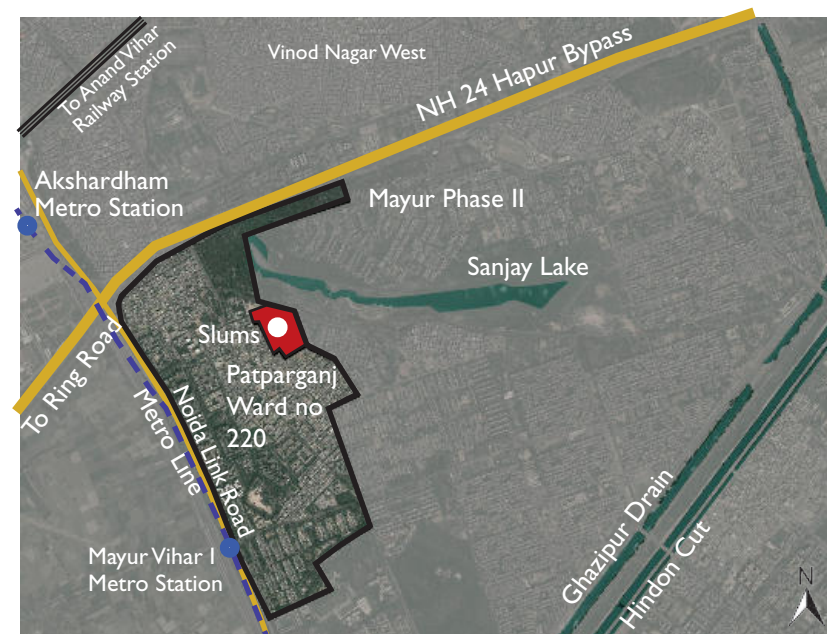
1.1 Location, Connectivity and Land Use

Patparganj slums are located in Municipal Ward Boundary Number 220 and is surrounded by DDA flats of Mayur Vihar Phase II to the east, the Yamuna riverfront to the west and Vinod Nagar in the north.

The area is connected to the rest of the city through NH 24 and Noida Link Road. The other form of mass rapid transit system connecting the area is Delhi Metro, which is at a walkable distance. Landmarks in the vicinity are Commonwealth Village and Akshardham Temple.

The land use is predominantly residential. The site is surrounded by an unauthorized area, planned housing and an urban village.

Schools, healthcare facilities and the largest recreational facility of East Delhi, 'Sanjay Lake', are at a walkable distance.



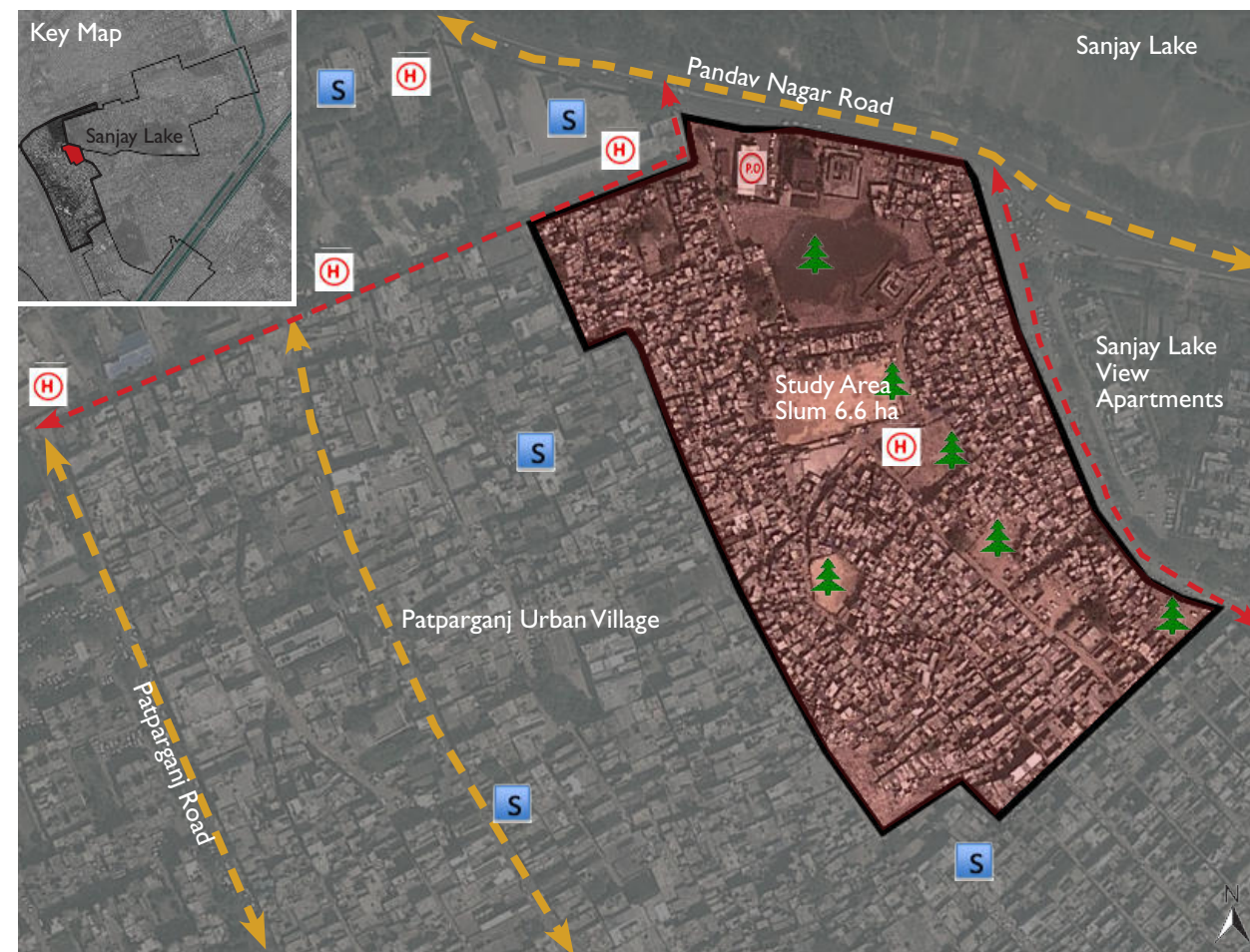
Local Transport and Road Network

Legend

- Area of Intervention
- Metro
- Major Roads
- Northern Railway
- City Drains/ Water Bodies

Legend

- S Schools
- H Dispensary
- Parks and Playgrounds
- Post Office



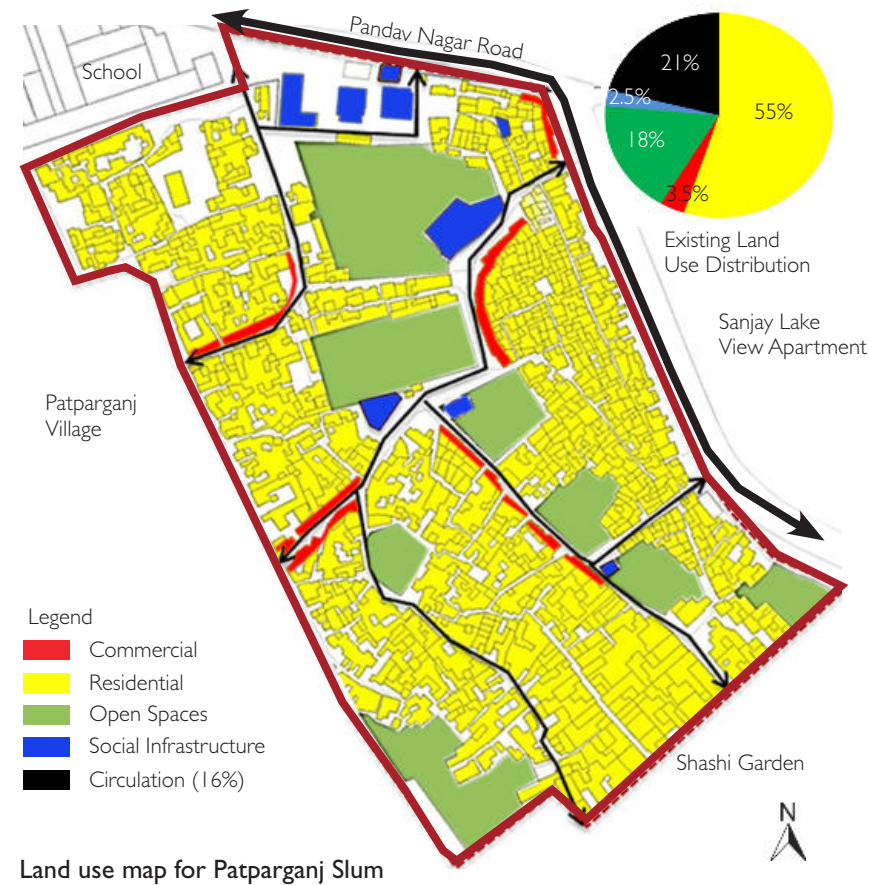
Landmarks and land use in the vicinity

1.2 MPD 2021 Requirements

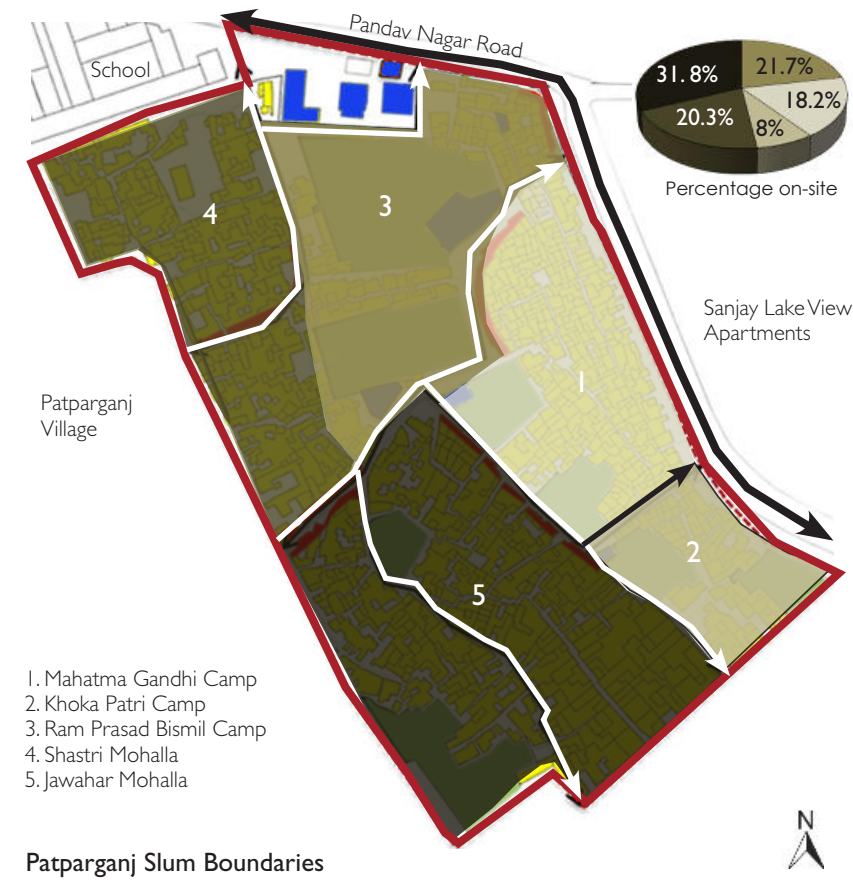
With the Master Plan of Delhi 2021 specifying a density of 900 dwelling units per hectare for this income group in keeping with the high costs of urban land in the city, the human footprint is enhanced manifold in an EWS housing area.

Existing Demographics

Ownership	= DDA
Status	= Slum
Total Site Area	= 6.6 ha
Open Area	= 1.18 ha
Total Slum Area	= 5.34 ha
Ground Coverage	= 46.3%
Existing FAR	= 1.13
Owner Population	= 10505
Rented Population	= 10000
Gross Population	= 20505
Existing DUs	= 4556
Popu. Density/ha	= 683
PPL/DUs	= 5
Avg. Unit Size	= 9-12 sq m



1.3 Patparganj Slum



Patparganj slum is a cluster of five camps.

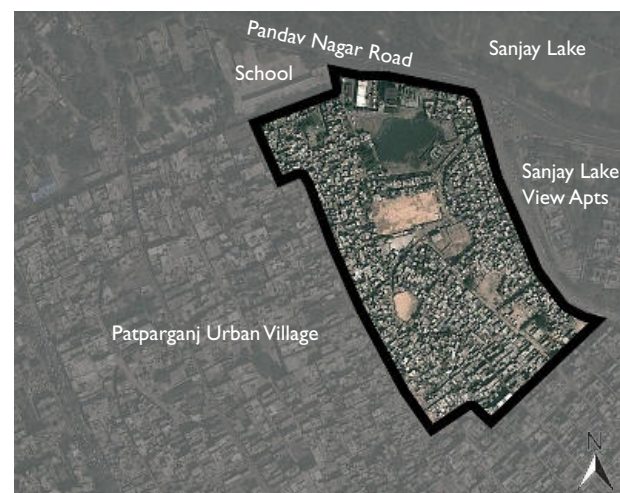
In 1988 the two camps of Shastri and Jawahar Mohalla were established on this site. Over the decades they have widened the lanes and built a larger number of pucca houses

In 1990 the other camps came into existence when people were evacuated from the site of the Mother Dairy plant at Patparganj.

The population comprises many generations of migrants from Uttar Pradesh and Bihar.



Jawahar Mohalla



Key Map

Socio-economic Characteristics

- The men living in the slums are labourers, drivers, rickshaw-pullers, office peons, petty shopkeepers, and rehrwalas.
- Many women are working as maids and labourers.
- The average household income is Rs. 8000–10,000/-
- There are primary, secondary and senior secondary schools run by the MCD in the vicinity.



Social infrastructure in the area



Mixed use in the area



Mahatma Gandhi Camp



Khoka Patri Camp



Ram Prasad Bismil Camp

Existing Housing Typology

- The average size of dwelling units is 9–20 sq m.
- The rented population mostly lives on upper level.
- Single Men – In Dormitories
- Small Family (3-4) – In one-room units
- Extended Family (5-6) – In two-room unit

Plot Sizes (sq m)	No. of Units (%)
Less than 7	20
7-15	35
15-25	26
25-35	14
<35	5



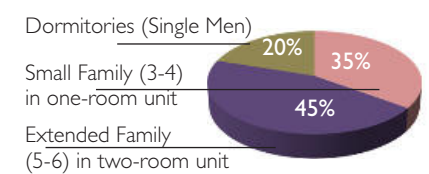
Single Family



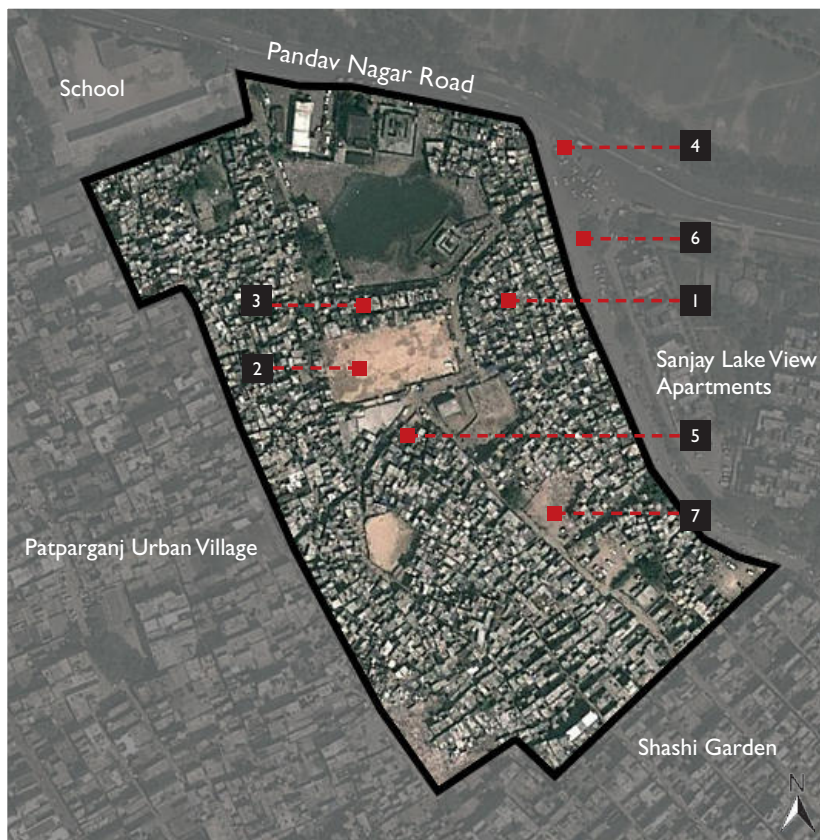
Dormitories



Extended



1.4 Existing Condition/Situations



Existing Area Layout for Patparganj Slums

Dwelling Unit (DUs) Typology

DU typologies were found, with several floors reflecting the changing family needs of increasing numbers. In some cases, additional floors have been added to be rented out to enhance the family income.



Different DU typology existing in the area

Parking & Accessibility

On-road parking for scooters and cycle-rickshaws encroach upon the pedestrian walking areas and ROWs. Connectivity by public transport also is an issue with people walking to the main road for travelling.



Approach road to the site



DU typology according to needs



Encroached ROWs

Services

The camp has inadequate basic amenities like toilets, proper sewerage and other facilities. Moreover, lack of proper maintenance is a major concern.



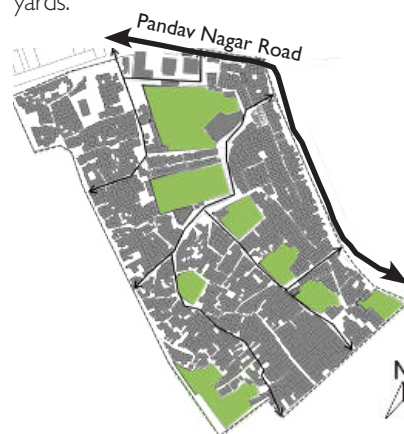
Inadequate services



Poorly maintained parks and playgrounds

Open Spaces

There are 8 open spaces of varying sizes in the settlement with a gross area of 1.18 ha. To prevent encroachment the Delhi Development Authority has enclosed these spaces by 1.5 m high boundary walls. Depending upon size and location, these open spaces are used as playgrounds, spaces for civil and religious events, parking and dumping yards.



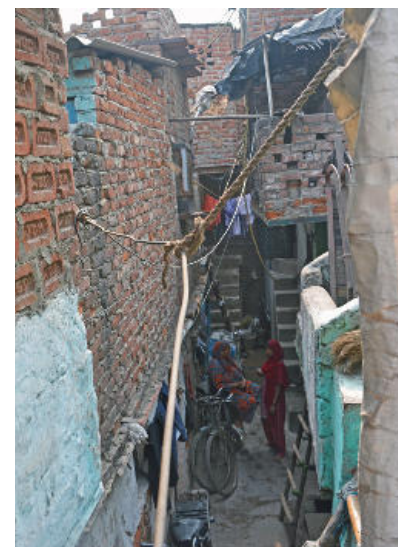
Area Map Showing Open Spaces



Open Spaces are used as dumping grounds

Structure

Mixed varieties of built conditions were observed as per site conditions depending upon the needs. Though the construction has been restricted within a boundary wall by local bodies, a temporary extension could be seen on all the sides of the site. Ladders are used to climb to the upper floors due to lack of space for constructing a common staircase, which could have been shared by a group of dwelling units.



Built Conditions

A maximum of G+2 structures with several issues which need to be taken care of. The average street widths vary from 0.75 m to 1 m.



Roofing

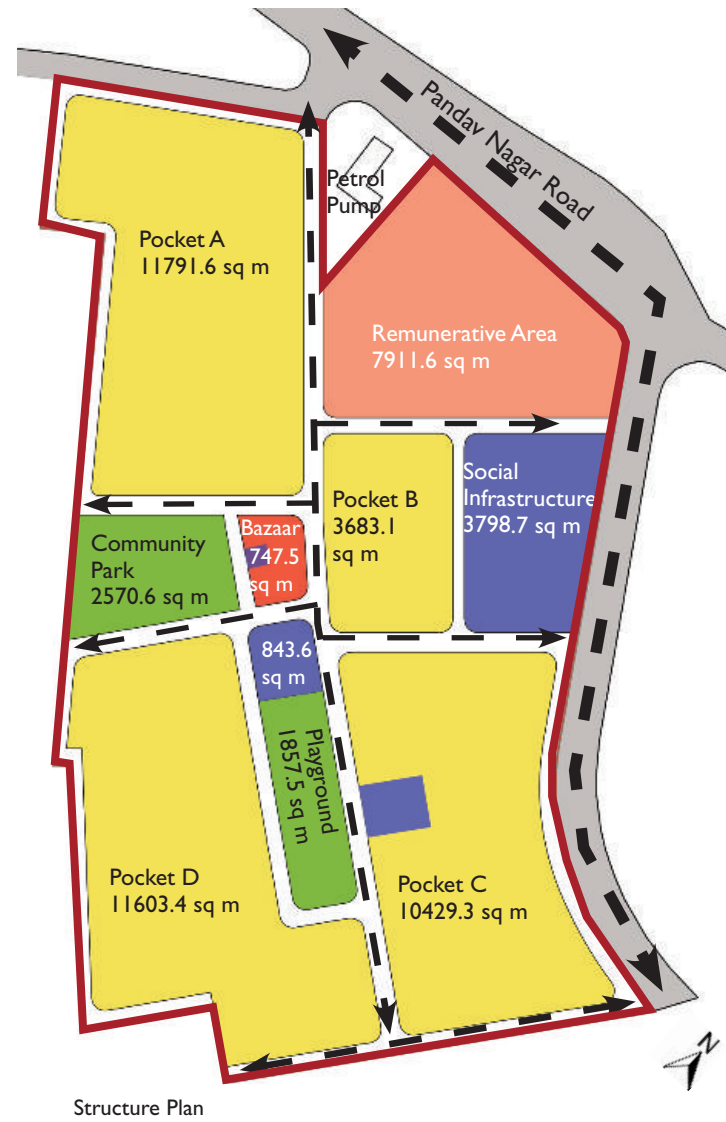
Aluminium/asbestos sheets for single-storeys and G. I. sections with local red sandstone slabs for G+1 structures respectively, were the types of roofing conditions which were spotted in the residential dwelling units. Use of RCC slabs were also seen for some newly constructed buildings (temple shelters).



2.1 Site Restructuring

Site Statistics

1	Site Area	6.6 ha
2	Parks & Playgrounds	0.44 ha
3	Gross Area Available	5.08 ha
4	Total number of DUs	2101
5	Population to be accommodated	10505



Legend

- Commercial (1.1%)
- Residential (56.8%)
- Open Spaces (6.8%)
- Social Infrastructure (7%)
- Remunerative Area (12%)
- Proposed Circulation (16.3%)
- Existing Road

As per MPD 2021

Redevelopment Schemes for Slum/EWS/JJ Clusters/In-Situ Development should follow certain guidelines as stated below:

- Minimum plot size 2000 sq m (facing 9 m Road)
- Density Norm Slum/EWS = 900 DUs/ha+ 15% variation
- DU Size = 25- 30 sq m
- Maximum FAR = 400
- Mixed Use = 10% of FAR

Land use distribution of site

By retaining the existing community spaces and recognizing the surrounding road network, the proposed land use distribution has taken into account the meaningful relationship of order of internal spaces and site periphery. Remunerative area and social infrastructure has been located along the main road on a prime piece of land in order to make the scheme feasible. The greens have been strategically located centrally, keeping in mind the accessibility issues for people coming in from nearby areas for weekly markets along with a large common green which can be used by neighbouring areas

- A. Social Infrastructure (7%): already includes a mosque and a temple. Proposal includes two Primary Schools, two dispensaries and a banquet hall
- B. Parks and Playgrounds (6.8%): includes common playground and space for Rehri Bazaar.
- C. EWS Housing (56.8%): includes all typologies of EWS housing with tot lots and community service areas with parking spaces
- D. Remunerative Area (12%): which can be given to builder as incentive for construction of EWS and site development.

2.2 Development Details

Shelter Unit

The Shelter Policy of Master Plan of Delhi 2021 stipulates the need to carefully calibrate the equation between Floor Area Ratio (FAR) and density for optimum land utilization. It has been observed that in the first two Master Plan periods, housing areas have not fully delivered the envisaged FAR, leading to underutilization of infrastructure. In general the stipulated FAR for housing is 200, but MPD 2021 also recommends enhancement of FAR by 50% in sites located in the vicinity of Metro corridors and significant road corridors. Due to the small unit size in the case of EWS housing, meeting the target FAR is usually a challenge albeit the higher permissible ground coverage. This is in keeping with the felt need that EWS housing must be low-rise, i.e. 2 to 3 floors, as the connection with the ground is crucial due to the small-unit size. This leads to the question of how to have higher FAR which ensures optimization of the value of urban land and creates habitable high-rise living for the EWS community.

Plot Details

1	Permissible Density	900 dwelling units per hectare; with plot sizes of 5.34 hectares this converts to 4806 dwelling units at Patparganj Slums
2	Permissible FAR	Maximum of 400 wherever necessary although the norm of 200 as per residential group housing shall prevail
3	Shelter size	25 – 30 sq m
4	Ground Coverage	Is subject to local conditions with the stipulation that setback shall be maintained.
5	Parking Norm	0.25 ECS per 100 sq m of total built-up area.

Shelter Details

1	Heights	
1.1	Building height	Maximum of 15 m for low-rise development with staircase; lifts to be provided for buildings beyond 15 m
1.2	Habitable room	Minimum of 2.6 m
1.3	Kitchen	Minimum of 2.6 m
1.4	Bath/WC or combined	Minimum of 2.1 m
1.5	Corridor	Minimum of 2.1 m
1.6	Staircase	Minimum of 2.1 m
2	Room Size	
2.1	Habitable room	A minimum of 12.5 sq m in a one-room shelter unit Where there are 2 rooms, the first room shall be a minimum of 9.5 sq m (minimum side 2.5 m) and the second a minimum of 6.5 sq m (minimum side 2.1 m)
2.2	Kitchen	Minimum area of 3.3 sq m with minimum side of 1.5 m
2.3	Water closet	Minimum area of 0.9 sq m with minimum side of 0.9 m
2.4	Bath	Minimum area of 1.2 sq m with minimum side of 1.0 m
2.5	Combined bath and WC	Minimum area of 1.8 sq m with minimum side of 1.0 m
2.6	Balcony	Minimum of 0.9 m width to a maximum of 1.2 m width and not to overhang above roads
3.0	Staircase	
3.1	Flight Width	Minimum of 0.9 m for 3 storeys and above
3.2	Riser	Maximum of 200 mm
3.3	Tread	Minimum of 250 mm

2.3 Design Intent Option 1

2.3.1 Layout Concept

The layout concept takes into account the existing social fabric and connections that residents have created over decades of living.

It generates a hierarchy of areas comprising public, semi-public, semi-private and private spaces within the site layouts and residential units, creating secure spaces and a feeling of ownership.

Spaces have been designed so as to encourage outdoor activities like walking, cycling, and social activities among all age groups.

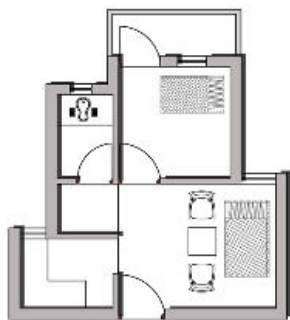
Commercial and institutional buildings will be located at road edges and junctions to create quiet and safe residential pockets, with access to parking.



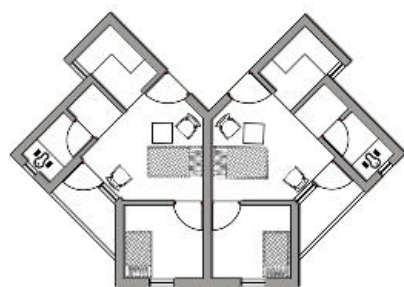
2.3.2 Cluster Concept

Residential units are organized around a courtyard which provides natural light, ventilation and safety. This produces a healthy internal environment.

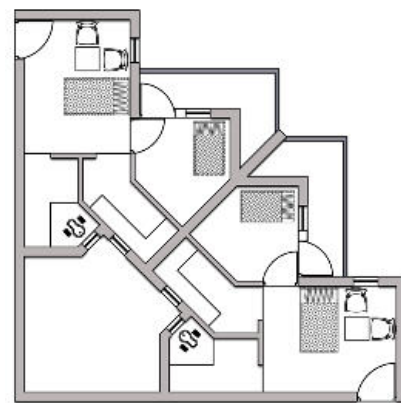
The EWS units designed are modular and can be adapted according to site variations, with building heights of G+4. As vehicular movement will be restricted to the periphery, with access only during emergencies, the distances between buildings inside the cluster will vary between 5-7 m.



Unit -A



Unit -B



Unit -C



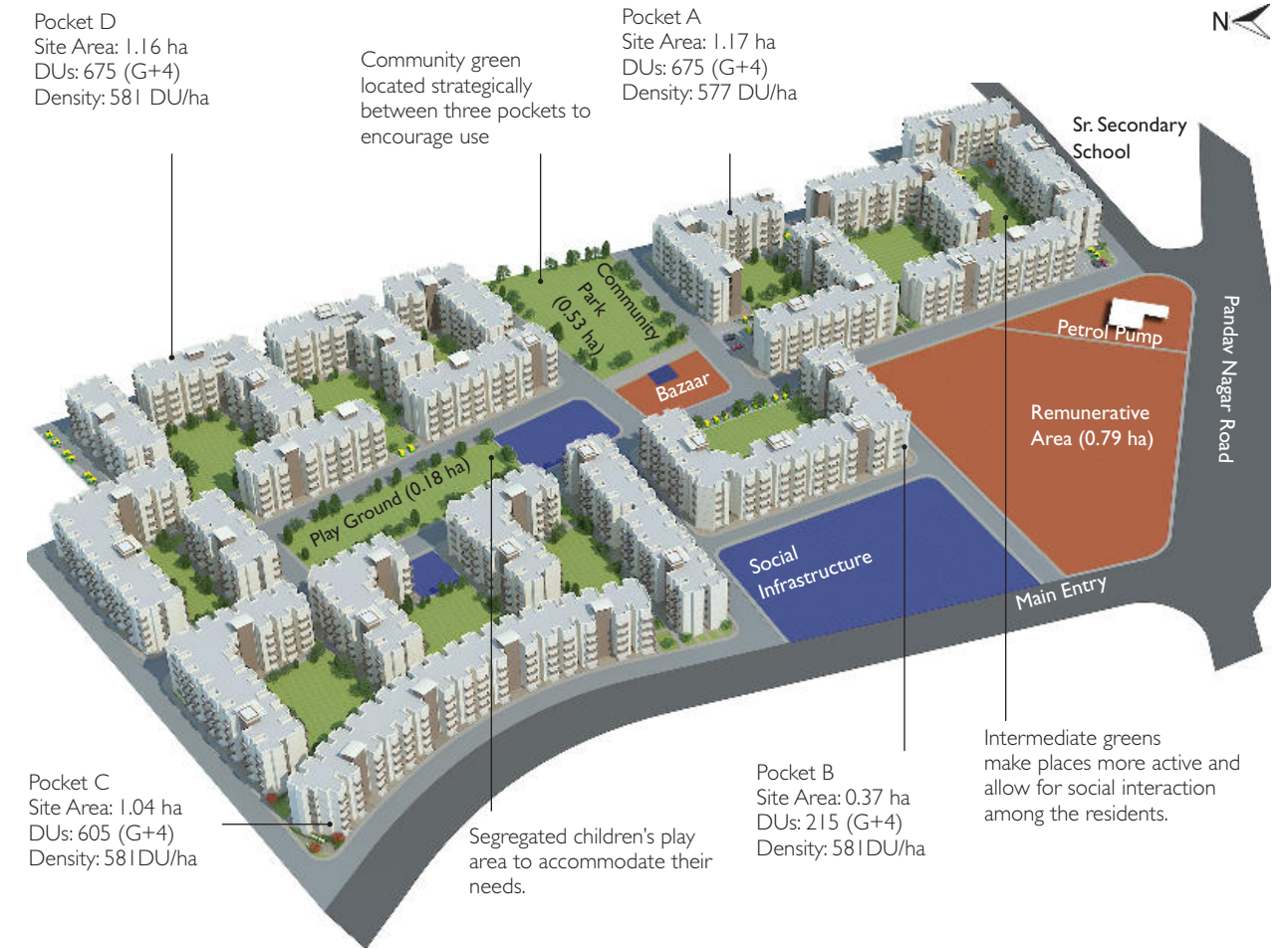
Distribution of Dwelling Units

2.3.3 Residential Unit Concept

There are openings provided in all rooms to facilitate maximum amount of natural light and ventilation. The door has been positioned to maximize the full potential of the 27.5-29 sq m carpet area provided by the scheme as the placement of doors and windows is crucial when designing small spaces.

2.4 Design

The plan has been worked out on a module which has large central greens, commercial use along main roads and the vehicles at the periphery. Population to be accommodated-10500.



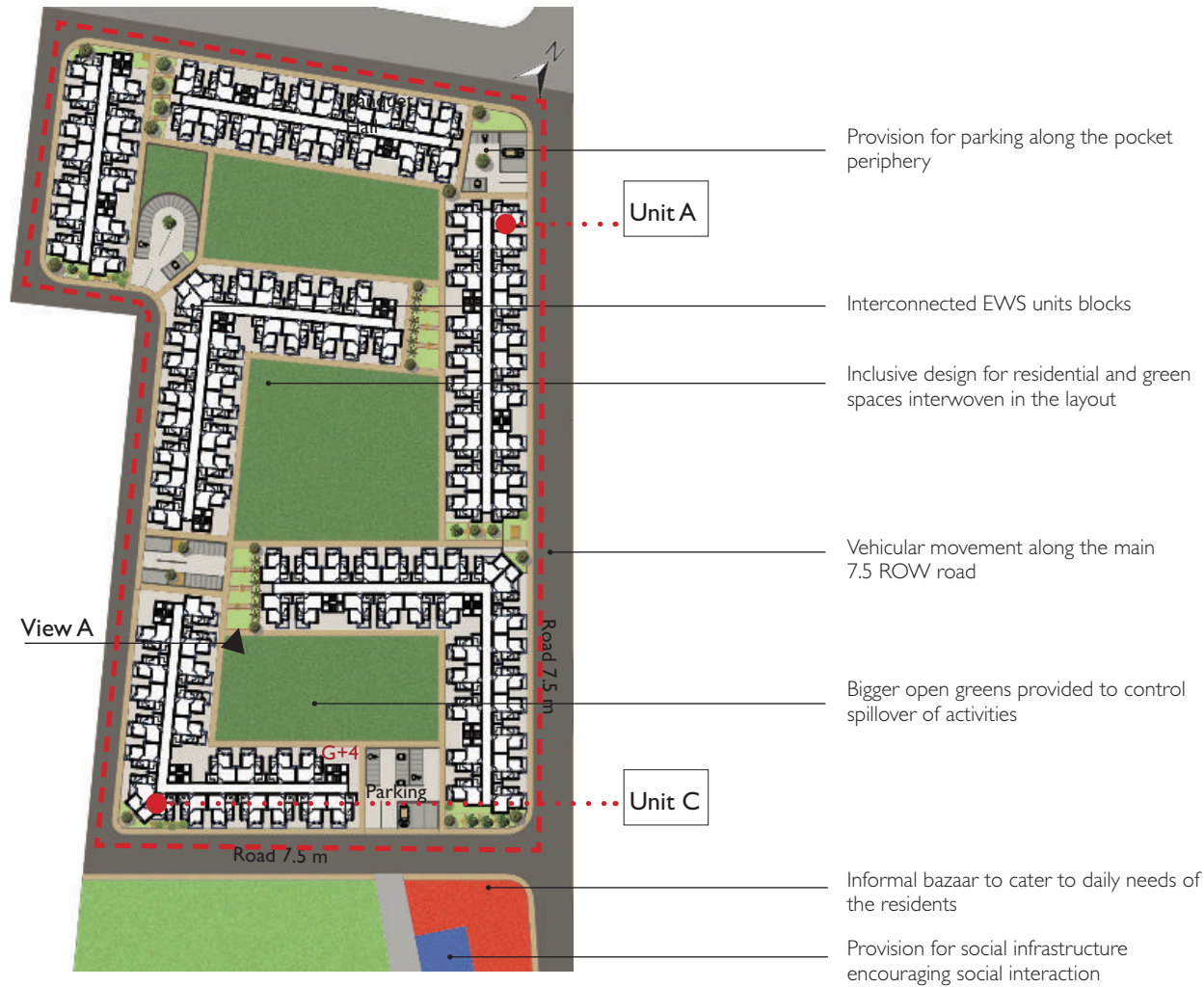
2.4.1 Details for Pocket A



Key Plan

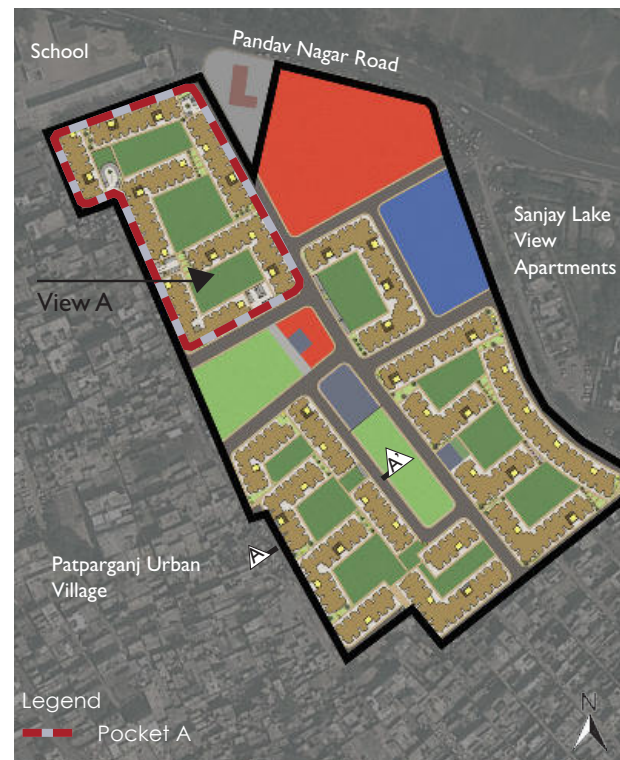
Total Site Area	1.17 ha
Ground Coverage	41.5%
FAR	2.07
Density	577 DUs
Type of Units	G+4
No of DUs on Ground Floor	135
Total no. of DUs	675
Parking	8 ECS + 70 two-wheelers

2.4.2 Design Proposal Pocket A



Ground Floor Layout for Pocket A

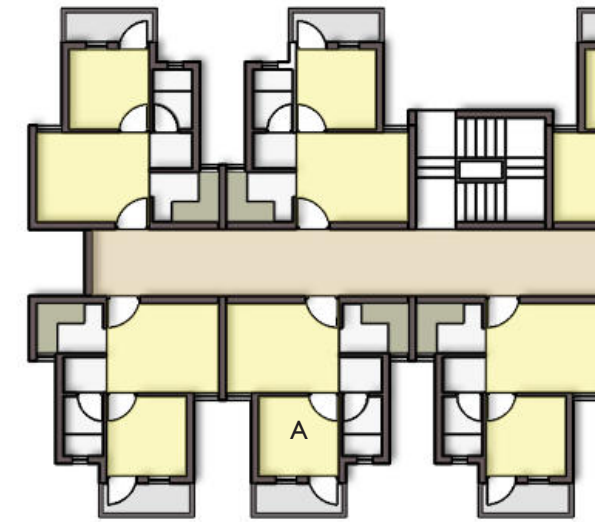
2.4.3 Design Calculation-Pocket A



Key Plan

Total Site Area	1.17 ha	
Ground Coverage	41.5%	
Proposed Built-up on Floors	Covered Area (ha)	DUs
Ground Floor	0.415	135
First Floor	0.415	135
Second Floor	0.415	135
Third Floor	0.415	135
Total Built-up area	2.07	
FAR	2.07	

2.4.4 Cluster Design



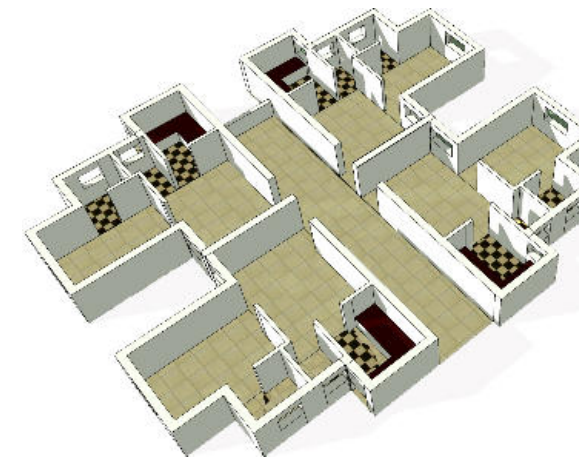
Plan of Type A

Unit A - 36 sq m
 Ground + Four Floors
 Rooms - 2, Kitchen, Toilet
 Gross area - 36 sq m
 Carpet area - 27.5 sq m



Plan of Type B

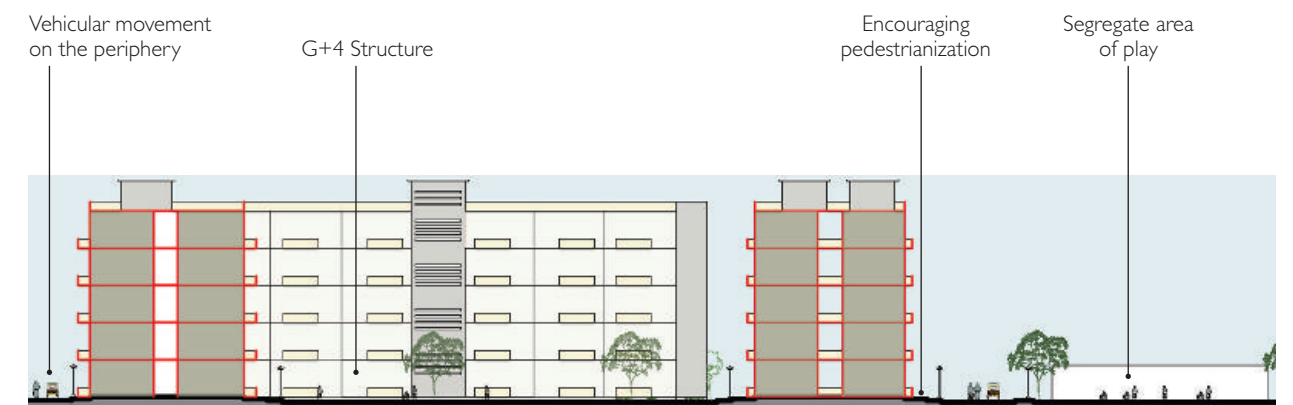
Unit A,B,C - 35 sq m
 Located in five storey block
 Rooms: 2 - Kitchen, Toilet, Balcony
 Gross area - 35 sq m
 Carpet area - 27.5/27/27 sq m



Module Unit Type A

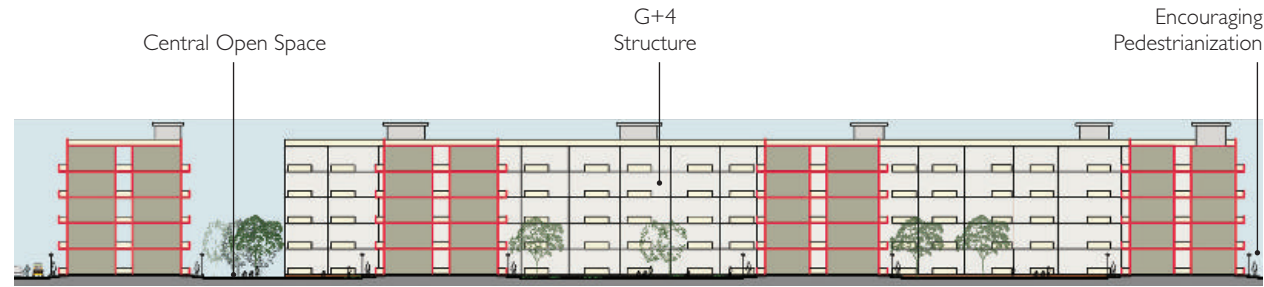


View A



Section AA': Showing skyline and road space utilization

2.4.5 Details



Section AA': Showing Skyline



View B



Key Plan

Salient Features:

- a. Provision of basic amenities in the form of dedicated spaces for community use and playgrounds.
- b. Accommodation of all the inhabitants within the area.
- c. Providing better living conditions and an aesthetic quality for the redeveloped EWS housing.

View B

2.5 Design Intent Option 2

2.5.1 Layout Concept

In an attempt to accommodate rented and owner population, a mix of low to high-rise blocks are being proposed.

Apart from retaining the existing social infrastructure, the layout accommodates functions like an informal bazaar to cater to local needs.

It also generates a hierarchy of areas comprising public, semi-public, semi-private and private spaces within the site layouts and residential units, creating a secured space and a feeling of ownership.

Spaces have been designed so as to encourage outdoor activities, like walking, cycling, and social activities among all age groups.

Commercial and institutional buildings will be located at road edges and junctions to create quiet and safe residential pockets, with access to parking for residential pockets.

2.5.2 Cluster Concept

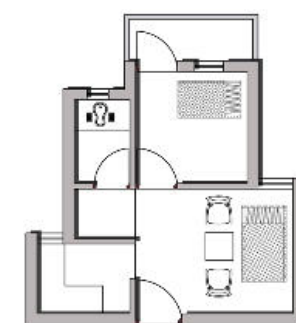
The EWS units designed are modular and can be adapted according to site variations, with building heights of G+4, S+9 and S+11. As vehicular traffic will be restricted to the periphery, with access only during emergencies, the distance inside the cluster will vary between 8-11 m. The roof space will be utilized to allow homemakers/house-owners to engage in activities that can be a source of income.



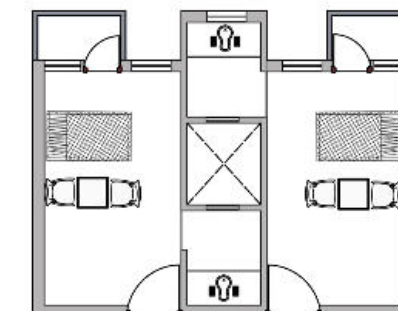
Distribution of Dwelling Units

2.5.3 Residential Unit Concept

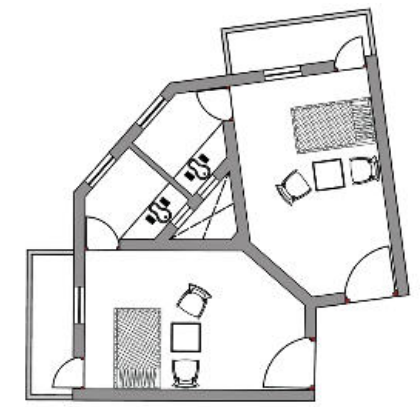
With the intent of accommodating the owner and rental population, the units are classified as two-room and single units respectively. To facilitate maximum amount of natural light and ventilation, openings are provided in all rooms. The unit size varies from 27.5–29 sq m carpet area.



Unit -A



Unit -B



Unit -C

2.6 Design

The plan has been worked out on a module that is self-sufficient, self-contained, and provides for the daily needs of the residents. Population to be accommodated-16855.



Site layout

2.6.1 Details for Pocket D



Key Plan

Total Site Area	1.16 ha
Ground Coverage	33.7%
FAR	3.1
Density	850 DUs
Type of Units	G+4/S+9/S+11
No. of DUs on Ground Floor	118
Total no. of DUs	1024
Parking	2 ECS + 60 two-wheelers

2.6.2 Design Proposal Pocket D



Ground Floor Layout for Pocket D

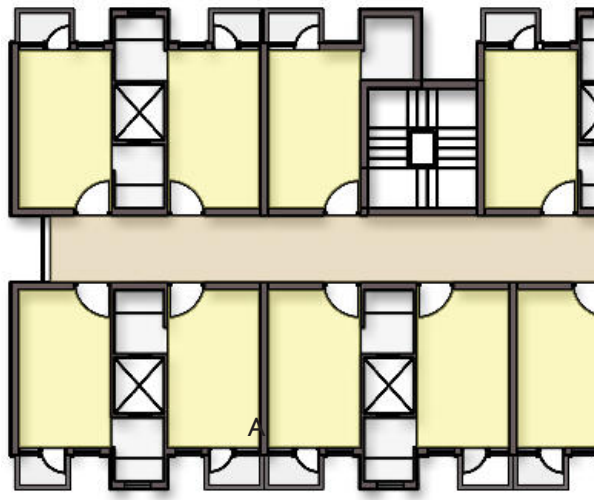
2.6.3 Design Calculation-Pocket D



Key Plan

Total Site Area	1.16 ha	
Ground Coverage	33.7%	
Proposed Built-up on Floors	Covered Area (ha)	DUs
Ground Floor	0.39	118
First Floor	0.46	150
Second Floor	0.46	150
Third Floor	0.46	150
Fourth Floor	0.46	150
Fifth Floor	0.24	54
Sixth Floor	0.24	54
Seventh Floor	0.24	54
Eighth Floor	0.24	54
Ninth Floor	0.24	54
Tenth/Eleventh Floor	0.09	18
Total Built-up area	3.6	
FAR	3.1	

2.6.4 Cluster Design



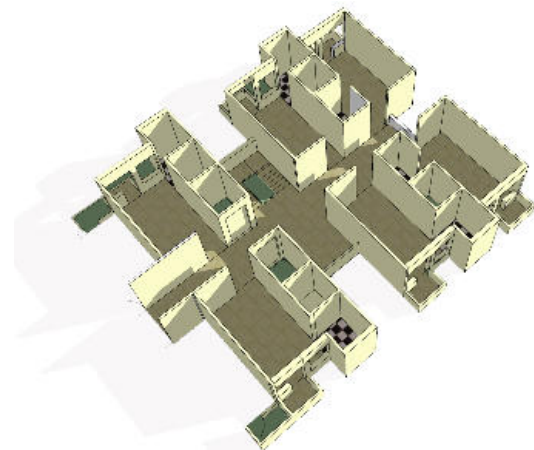
Plan of Type A

Unit A: 25 sq m
Ground + Four Floors
Rooms: 1, Kitchen, Toilet
Gross area: 25 sq m
Carpet area: 21.5 sq m



Plan of Type B

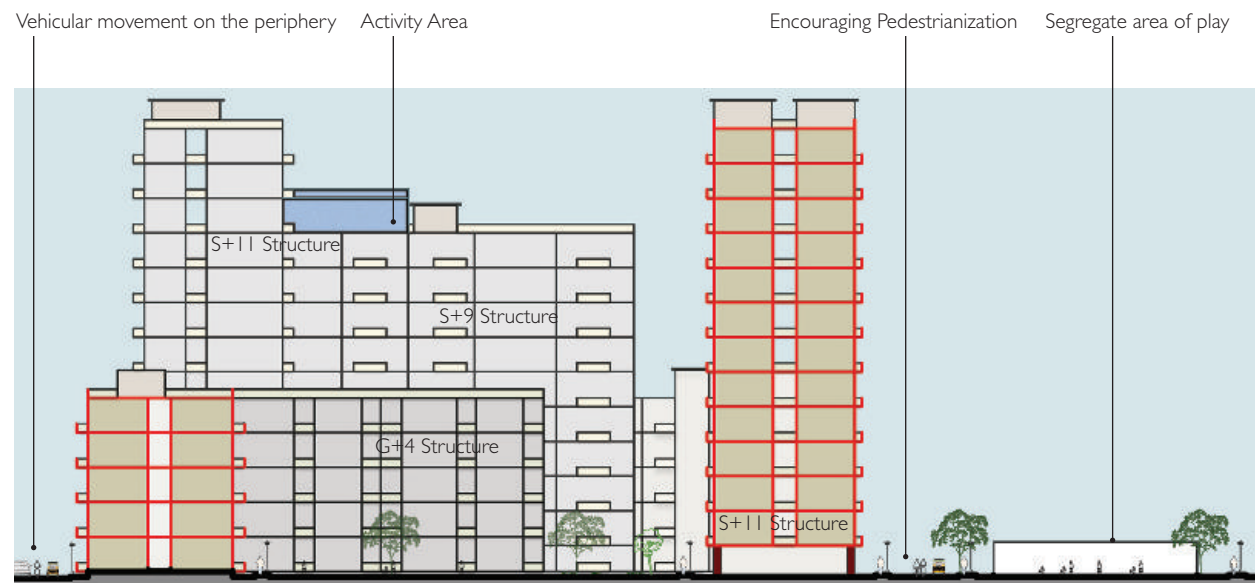
Unit A,B,C: 38 sq m
Located: S+9/12 storey block
Rooms: 2, Kitchen, Toilet, Balcony
Gross area: 38 sq m
Carpet area: 27.5/27/27 sq m



Module Unit Type A

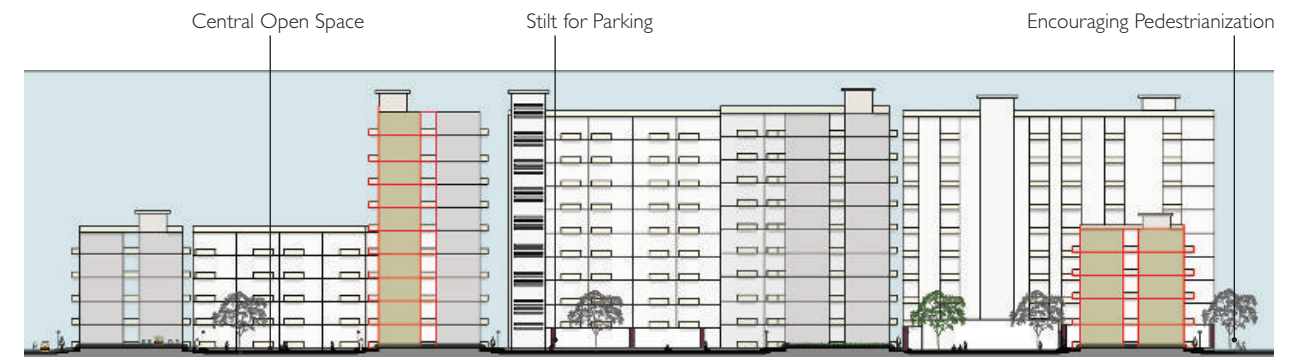


View A: Showing surrounding urbanscape



Section AA': Showing skyline and road space utilization

2.6.5 Details



Section BB': Showing Skyline



View B



Key Plan

Salient Features:

- a. Provision of basic amenities in the form of dedicated spaces for community use and playgrounds.
- b. Introduction of activity rooms which caters to housewives who want to work, as well as for other social activities.
- c. Providing better living conditions and aesthetic quality for the redeveloped EWS housing.



View C: Showing the varying skyline and space distribution

2.7 Comparison

S. No.	Parameters	Existing	Option I	Option II
1	Residential Mass Distribution	 	 	
2	Density	690 DUs/ha	580 DUs/ha	885 DUs/ha
3	Ground Coverage	61%	41%	37%
4	FAR	1.13	200	300
5.	Land use Distribution	 Legend: Commercial (Red), Residential (Yellow), Open Spaces (Green), Social Infrastructure (Blue), Circulation (Black)	 Legend: Commercial (Red), Residential (Yellow), Open Spaces (Green), Social Infrastructure (Blue), Circulation (Black), Remunerative Area (Brown)	 Legend: Commercial (Red), Residential (Yellow), Open Spaces (Green), Social Infrastructure (Blue), Circulation (Black), Remunerative Area (Brown)



(An ISO 9001 : 2008 Certified Organisation)

Delhi Urban Art Commission

The Delhi Urban Art Commission was set up by an Act of Parliament in 1973 to “advise the Government of India in the matter of preserving, developing and maintaining the aesthetic quality of urban and environmental design within Delhi and to provide advice and guidance to any local body in respect of any project of building operations or engineering operations or any development proposal which affects or is like to affect the skyline or the aesthetic quality of the surroundings or any public amenity provided therein”.

3.1 On Design Intent

Since the size of the site is reasonably large, it made it easier to explore the possibility of apportionment of land for remunerative purpose. Taking into account the social and commercial requirements of the existing population, it was possible to allocate 0.8 ha of land for it. From the onset, it was recognized that to achieve the maximum permissible FAR of 400 with units of 25 to 30 sq m was not a mathematical possibility. However, the high rental population on the site opened the possibility of two alternatives explorations:

- To house the owner population in only two-room units.
- To house the owner population in two-room units and the rental population in single-room units.

3.2 Outcome

This led to two satisfactory design solutions. In the first option, a total FAR of 200 was achieved by accommodating an average of 2901 PPHA. The density being reasonable and the unit design being compact, the resultant scheme has five-storey walk-up apartments. A low-rise layout with satisfactory open spaces and social infrastructure emerged.

In the second option, the attempt was made to accommodate all rental as well as owner population. In this option the average density of 4426 PPHA was achieved with a FAR of 300. However, with a careful mix of low-rise (5 storey), medium-rise (stilt + 9 storey) and high-rise (stilt + 11 storey) blocks it was still possible to create satisfactory open spaces for community use.

3.3 Recommendations

- As the relationship between 400 FAR and 900 dwelling units per hectare with a unit size of 25 to 30 sq m is a mathematical paradox, there is a need to cut back on the FAR. Alternately this FAR, if sustainable from the point of view of available physical infrastructure in the precinct and neighbourhood, could be transferred to the remunerative component.
- The setback provision on small plots needs to be re-examined as it precludes the creation of satisfactory community open spaces by scattering precious open land as peripheral ribbons. This is particularly important since the lack of restriction on ground coverage allows for multiple explorations in the realm of low and medium-rise development.



(An ISO 9001 : 2008 Certified Organisation)

निकाशो नगरं शान्तिं
fnYyh uxj dyk vk;ksx

Delhi Urban Art Commission

Tel: 24619593, 24618607, 24690821, 24636191, Fax: 24648970

Email: duac74@gmail.com Website: www.duac.org