CITY LEVEL PROJECTS

# MOHAMMADPUR URBAN VILLAGE
## and adjoining slums

Rama Krishna Puram Ward Number 167

## Delhi Urban Art Commission

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# 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*

**Raj Rewal**
Chairman, DUAC

January 2014

# Contents

## Summary

The Master Plan of Delhi 2021 has introduced the concept of redevelopment of unplanned areas like villages, unauthorized colonies and JJ Clusters by providing incentivized schemes giving additional FAR.

This study is being conducted to know the past and present status of an urban village so that redevelopment can be planned to make these areas liveable to the modern standards of health, hygeine and safety.

Design proposals have also been given based on the context.

## 1.1 Location



Location of Mohammadpur Village on Delhi Map
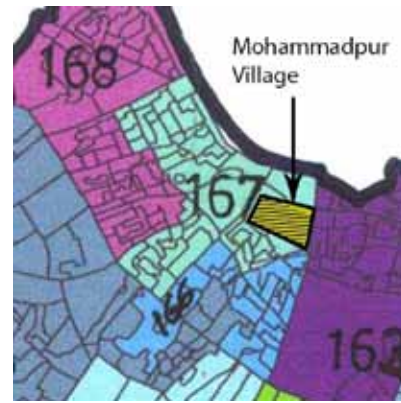


**R.K.Puram Ward167**
Mohammadpur is an urban village located to the south of Bhikaji Cama Place in the R.K.Puram Ward no 167 of MCD It comes in Zone F-5 in the Zonal Development Plan.

**ZDP Zone F-5**
The Zonal Development Plan has marked it as a residential area with mixed-land use.
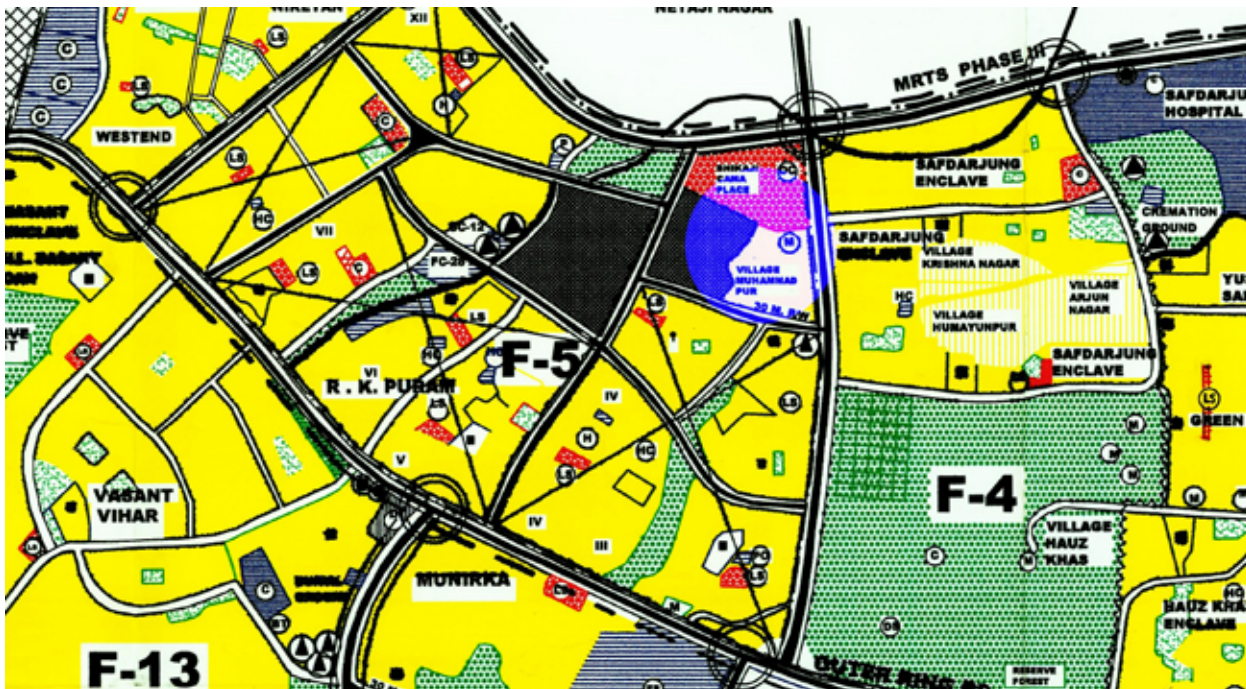
## 1.2 History



About 325 years ago, a few farmers living in nearby Munirka village settled on the vacant land near Teen Burji Mosque, as they wanted to live close to their agricultural land in the vicinity.

This was the beginning of the village of Mohammadpur. With the acquisition of their land for urbanization, their village was given Lal Dora status.



**Location**
The main connectivity is from Africa Avenue. Lot of buses pass through it. On the north the Ring Road is at a walking distance. A metro station Is also coming up near Bhikaji Cama Place in phase 3 (Mukundpur-Shiv Vihar line). This makes it very well-connected with public transport.

## 1.3 Connectivity

Due to its prime location in South Delhi and the development of a District Centre next to it, the village has become a very prime piece of real estate.

The profile of people living here has also changed entirely. The village is completely urbanized and the growth in economy and rising rentals have made the property owners financially very strong.

A lot of small offices have rented the space here and it also provides cheap residential accommodation, mainly for the service class because of its proximity to very good and expensive colonies like Safdarjung Enclave. The infrastructure of these colonies is shared by it.
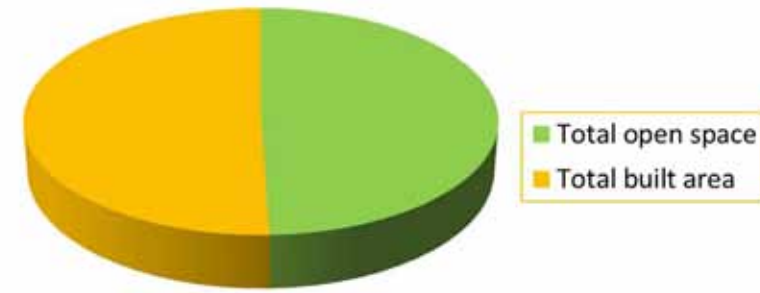
It is also very close to some very big hospitals and schools.



Africa Avenue



Plan showing vehicular roads

## 1.4 Built Mass and Population Data



Open to Built ratio

- Total open space
- Total built area

- Total area of the village is around 1,15,000 sq m. which is around **30 acres**.
- Roughly calculated, the covered area is approximately 58,000 sq m, hence the **ground cover is 51%**.
- By rough calculations and assuming four floors the existing **FAR is around 2.0**.



- The number of the voters in the area = 8,000
- Therefore, the permanent population = 8,000 + 4000 = 12,000 people.

(source : the representative of the local MLA)

- The number of residents = **45,000**.
- So around **74%** of people are living in rented accommodation.

Existing Volumetric View Showing Four-Storeyed Structures



Population

- Floating population
- Resident population
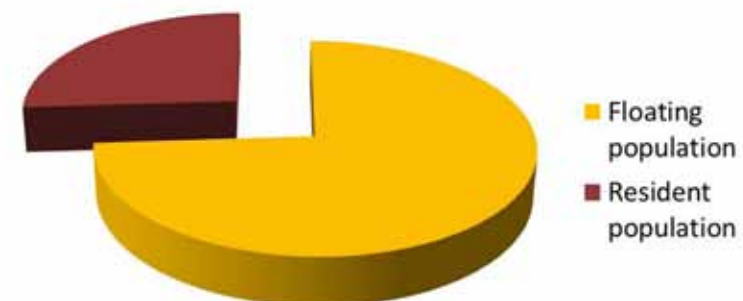
- There are around **400 families** who have been living here for generations and own substantial land.

(Source :Village Pradhan)

- Population density = 3,900 persons/ha

Population Breakup

## 1.5 Existing Facilities





Park



A small monument in INTACH List





The Teen Burji Mosque (maintained by ASI)

- The village has a sewage system.
- All the streets are paved and well drained.
- All the open areas have street lighting.
- All the houses have electricity and water connections.
- All the parks have benches and trees in the periphery.
- Though they lack grass, the locals prefer them that way as they feel that grass will prevent them from holding functions.
- A Barat Ghar has been provided by DDA.
- The village is maintained by MCD.



The newly-built houses have very good construction and are being rented out to IT companies.



The village chaupal (renovated by INTACH)

## 1.6 Land Use





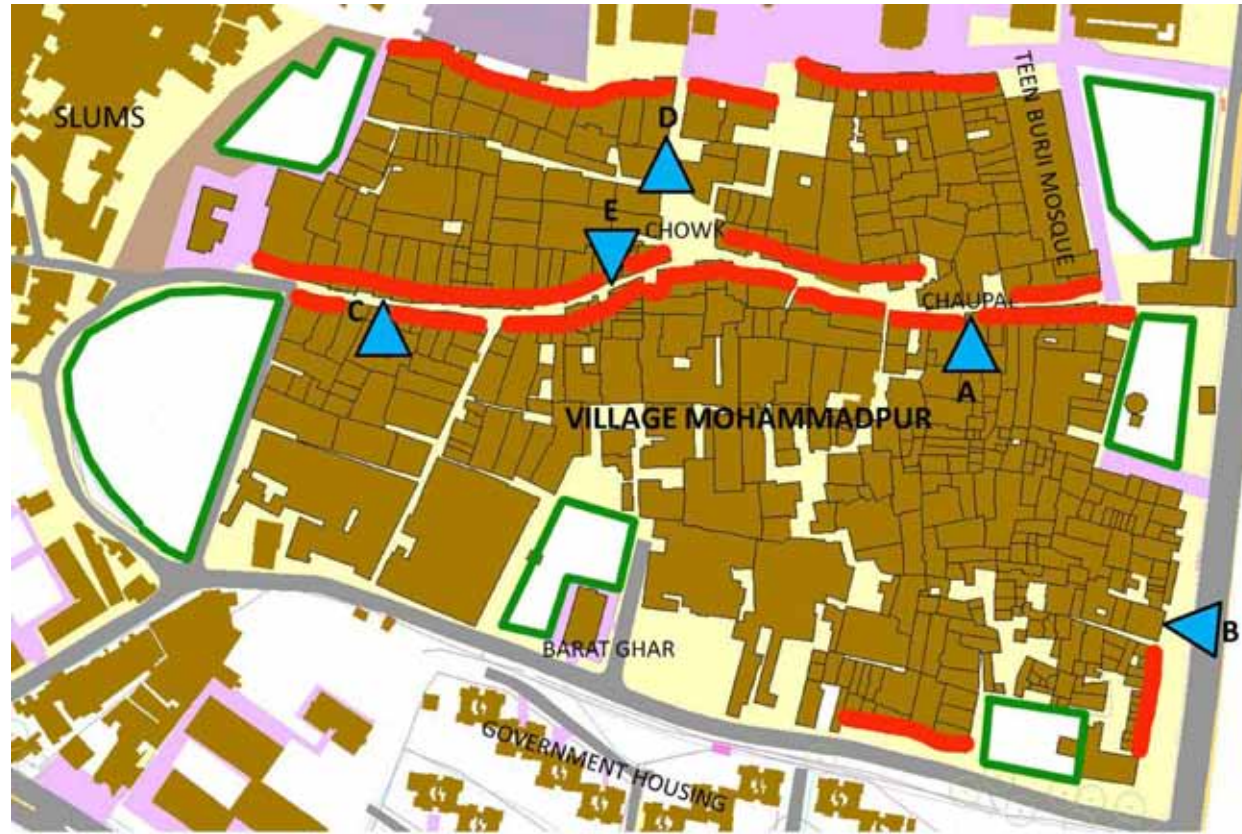The houses are well built and have been given to IT firms on rent

All the streets have mixed land use with mainly convenience shops, barbers, photostat shops etc.

On the edge opposite August Kranti Bhawan, lots of small offices have been rented out.

The edge opposite Africa Avenue has mainly automobile repair shops.

Some transporters have rented small shops and, in the absence of any regulation, park all their commercial vehicles wherever space is available, even in two of the parks.

A street used for commercial purpose
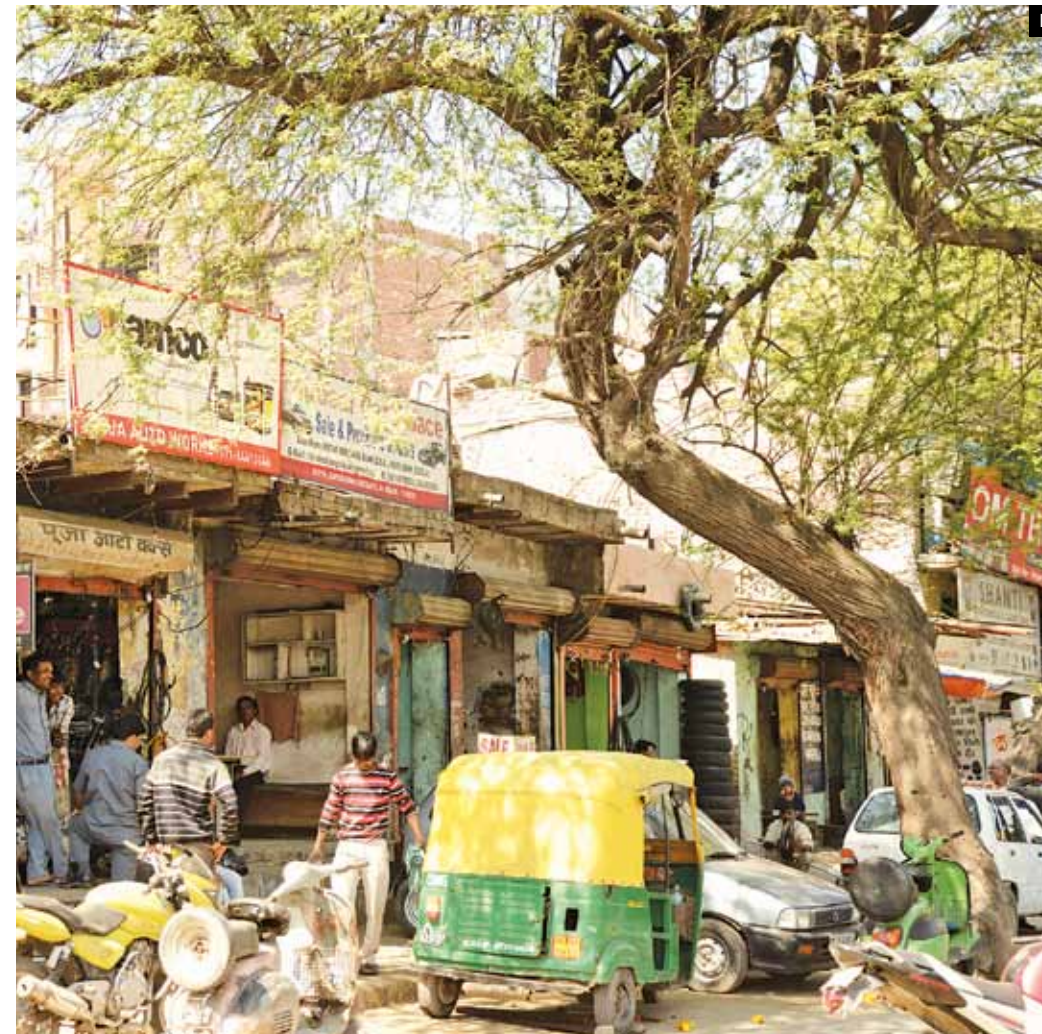


The automobile repair shops on the Africa Avenue edge.



The main streets have convenience shops



Convenience shops along the main streets

## 1.7 Courtyards
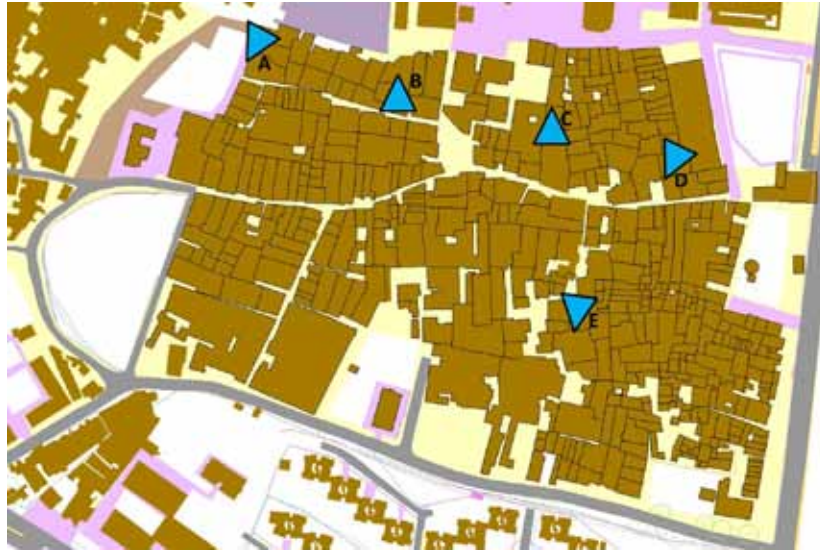




Two-wheeler parking is everywhere





The houses are built around courtyards. The opening to the streets is through a narrow passage. The courtyard acts as a semi-public space and is a very useful area throughout the day.

The narrow entrance from the street gives privacy as well as access to a number of a houses. The courtyard gives the feeling of cluster and also provides an open space for very small houses.



The gully from street to courtyard in some old houses



A baithak near the entry to the courtyard

## 1.8 Streets
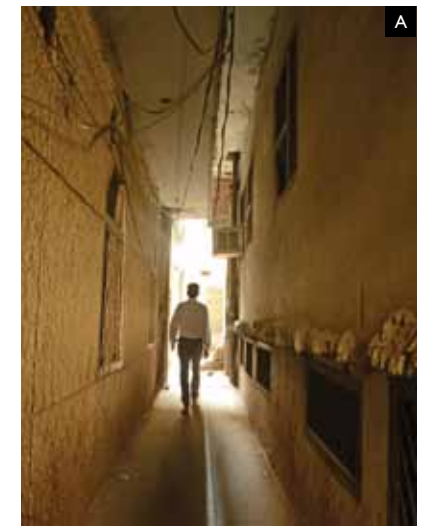
A gap between two buildings



Every available space has been used for motorbike parking.



The gap between two buildings is too narrow and unsafe

- The streets are narrow, ranging from 4ft to 8ft.
- Due to projections on the upper floors, daylight is severely restricted.
- Some of them are very dark.



Some of the streets have insufficient drainage.

## 1.9 Parking Situation


The park is used for the illegal parking of commercial vehicles
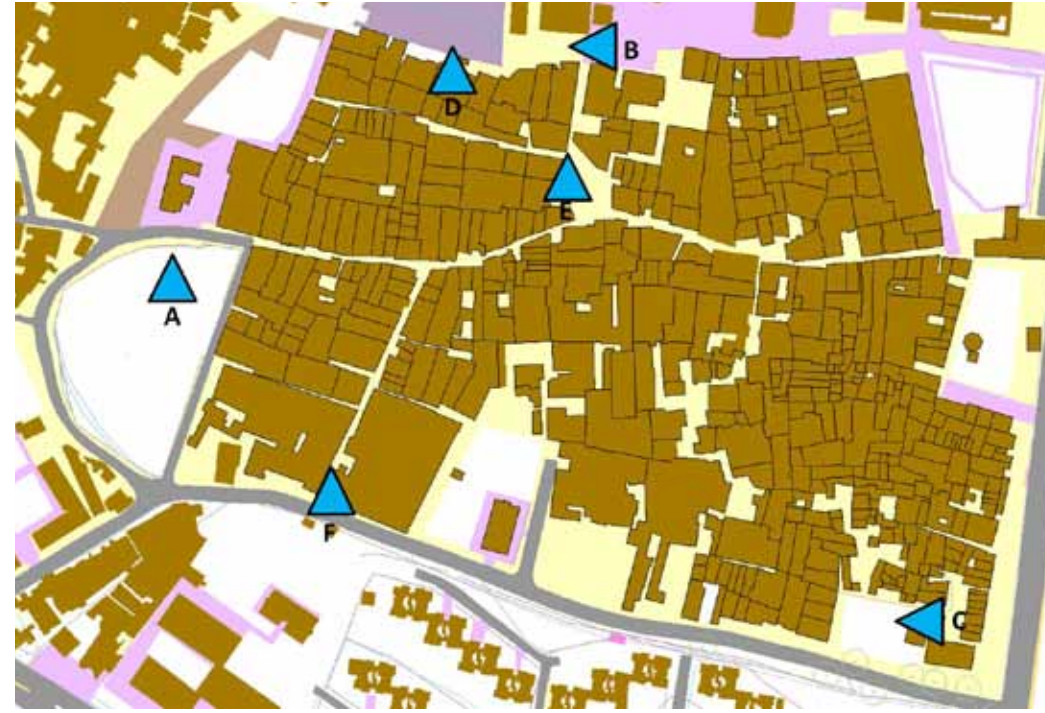



Any available space is lost to parking.


The junction between Bhikaji Cama Place and Mohammadpur


Parking on both sides of the road near the Teen Burji Mosque.


The dead-end towards Bhikaji Cama Place is occupied by motorbike parking.


Parking along the wall in a street.

Due to narrow streets the cars cannot enter the village streets.

Hence the parking happens on the peripheral roads.

Inside the village, bikes are very popular and parked in every nook and corner available Two of the parks have been converted into illegal parking areas.

## 2.1 Proposals for Immediate Improvement

1  Organizing the village chowk.

2  Organizing the existing parking situation.

3  Organizing the existing streets.

4  Organizing the existing entrance from Africa Avenue

5  Organizing the existing parks.



### Immediate Concerns
- Narrow Lanes
- Overhead Electric Wires.
- Some Dilapidated Structures.
- No Signage for Lanes .
- No Street Furniture.
- Haphazard Parking of Bikes all over.
- Paving and Drainage of Streets Need Improvement.



The electric poles and the maze of electrical wires need to be urgently removed and new technologies should be adopted keeping in mind safety and aesthetics.

**There is a need to bring the area under regulation to curb the illegal constructions and make future constructions safe and also to improve the common areas.**

## 2.2 Organizing Parking



**Illegal parking in a park**
This was a park which was encroached upon for parking.

Africa Avenue

■ Vehicular road and parking

■ Pedestrian path

■ Proposed parking pockets

- Parking is already happening on all the vehicular roads shown in blue. Effort should be made to keep parking only on one side of the road.
- The park that has been encroached upon for parking can be a good **site for underground parking**. This area can be kept green on the ground so that a park is not lost to parking.
- The parking of commercial vehicles should be regulated and allowed only in underground parking.
- Small pockets of surface parking can be given for two-wheelers (shown in **orange**) so that the streets can remain vehicle free.

## 2.3 Organizing the Village Chowk
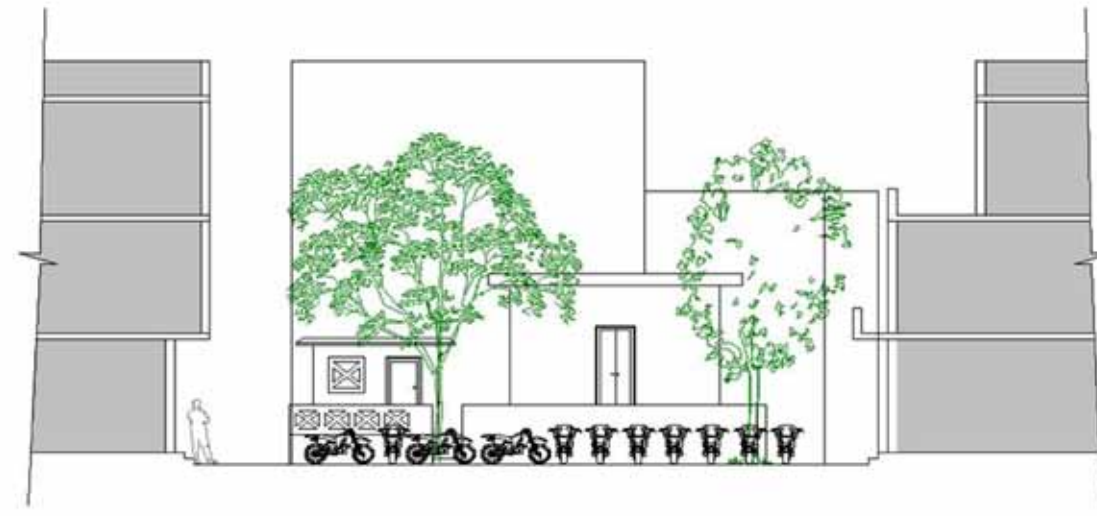




Section through the Chowk
(Existing)



The Chowk (Existing)

The village chowk originally had a well and a temple.

But now the well has been covered and the sorroundings have become a parking lot for motorbikes.

The chowk can be reorganized by removing the defunct well, improving the structure of the temple, removing the motorbike parking and paving it more aesthetically.



Plan of the Chowk (Existing)



Proposed Redevelopment of the Village Chowk:

## 2.4 Organizing Streets



Existing View
View of one of the existing streets



Proposed view of one of the existing streets
The street can be improved by taking care of drainage, good paving, removing the clutter from elevations and adding pleasing street furniture.

## 2.5 Organizing Entry to the Village



Existing View
The entry to the village from Africa Avenue in not defined.



Proposed View
The entry can be freed of clutter and a gateway can be provided to highlight the entrance.

## 2.6 Organizing Parks



Existing View
The parks are poorly maintained but are used a lot by the residents.



Proposed View
The parks can be nicely maintained with proper street furniture, swings, gazebos etc

**Redevelopment has been proposed on a flexible model and not on the rigid specifications of the Master Plan for the area.**

## Redevelopment Proposal

Urban pattern in **organically grown settlements** has proved to be more **humane, inclusive of social and economic diversity and has a vastly reduced carbon footprint**, as compared to the pattern preferred by official urban planners and the elite.

Here, the attempt is to keep this pattern intact as much as is possible.

The redevelopment should not mimic the lifestyle and standard set by the elite but only to provide modern standards of health, safety **and hygiene**.

An Urban Village is very densely built with private ownership.

Redevelopment can only be successful if the residents get together, which is not very easy.

A lot of **flexibility** is required as it will not be possible to convince all the people at the same time.

Making a **rigid plan** and trying to achieve it will be impossible.

Only a guideline can be provided and when a new proposal comes in, it has to be analyzed independently and provision for open spaces and parking has to be met keeping the overall vision in mind.

The Urban Village was given a special status of **Lal Dora** and was not assessed for land revenue to compensate for forcibly bringing them into an urban setup by acquiring their agricultural land.

They are not required to get the plan approval for any new construction.

Presently many urban villages like Mohammadpur have undergone complete urbanization.

They are providing **low-cost shelter** for employment centres for migrant skilled and unskilled labour and service population.

They enjoy good access to public transport, education and health services in the adjacent development area.

The village is very well connected to public transport.

Africa Avenue has many bus routes.

The Metro station of Phase-3 at Bhikaji Cama Place will provide the much needed Metro connectivity.

Due to this a **reduced standard of parking** should be adopted and the illegal parking of commercial vehicles should be regulated.

The open spaces should be carved out and used for parks, and for **decentralised methods of waste management and for non-conventional energy sources**.

While making the strategies for redevelopment the attempt should be **not to accelerate 'upmarket' development as is seen in Hauz Khas Village**.

This is an area which makes the city opportunities and facilities available to lower income groups and should continue to do so, as the lower income and higher income groups have a symbiotic relationship.

The parameters followed in a regulated area cannot and should not be followed here.

The bye-laws should encourage **small houses**.

**The streets should be pedestrianized and parking should be at a distance from the house to discourage higher income groups from investing here.**

## Street Widening Proposal

- Mohammadpur Village and all other urban villages have a problem of **narrow lanes**.
- The need is to make byelaws specially to improve the area.
- It seems to be very difficult to convince the residents to leave the front area open/free to widen the streets.
- An **incentive scheme** can be proposed that will persuade all future constructions to build extra FAR in lieu of the space left for street widening.
- Though it is a slow process, eventually it will help.
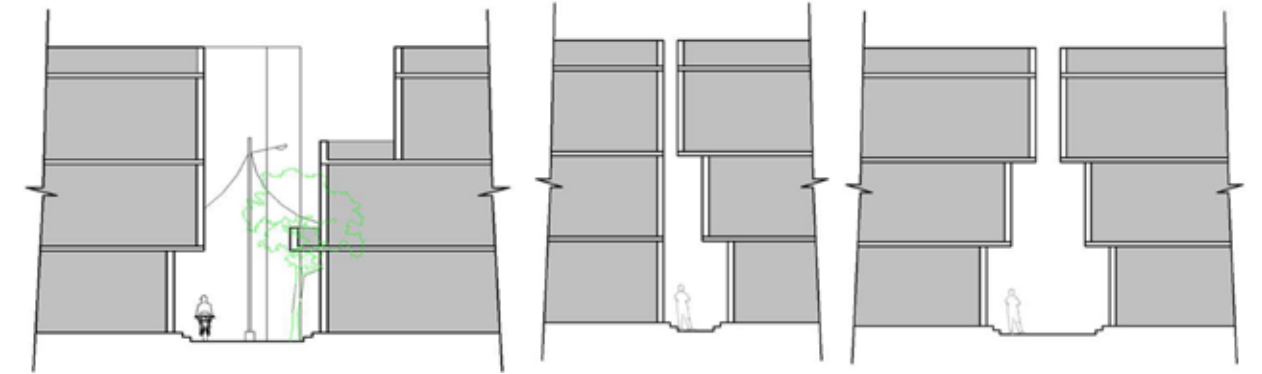


Typical Sections of Existing Streets

- The streets are narrow on ground and become narrower above due to projections. This drastically reduces light and ventilation.
- There is a need to formulate bye-laws so that such projections are not allowed in future constructions.



PROPOSED FLOORS
EXISTING FLOORS
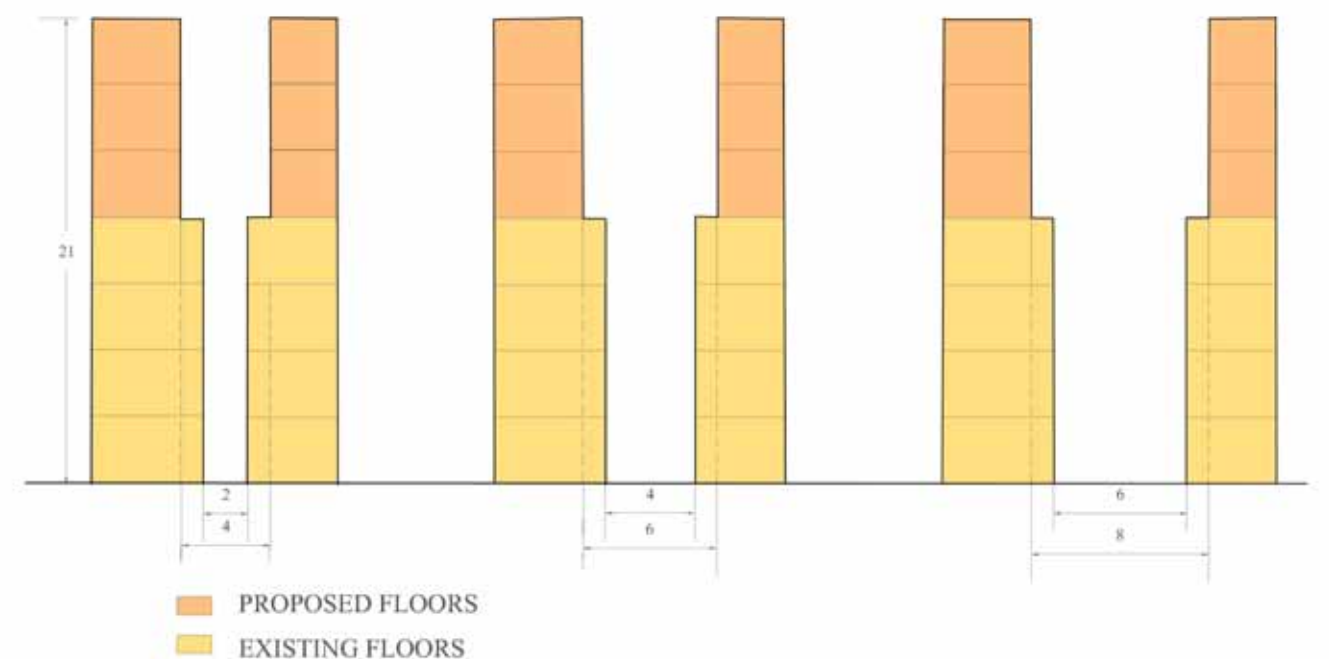
Incentive of edxtra FAR can be given for taking some frontage for widening the streets.
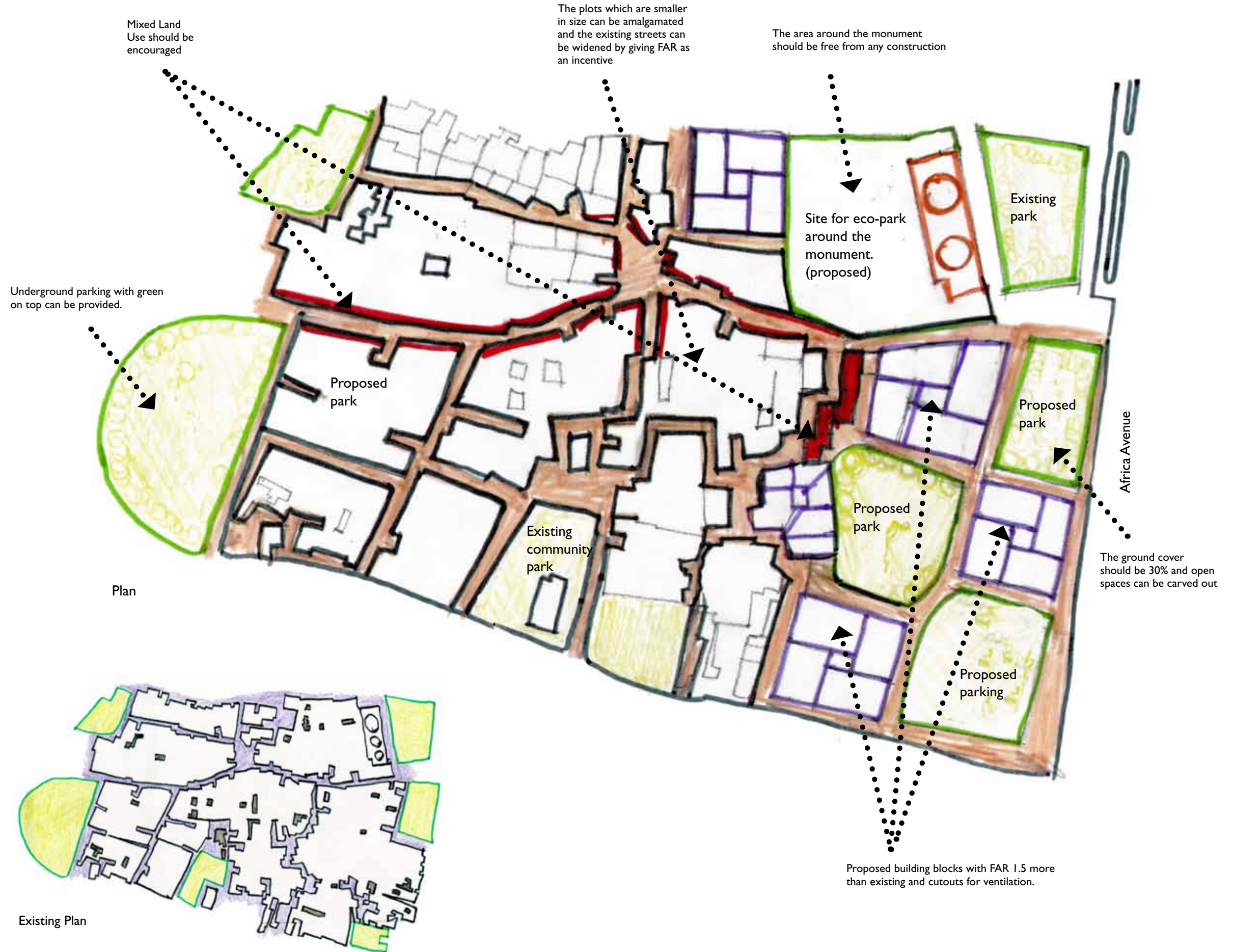
# Plot Amalgamation

The need is to devise a new **set of bye-laws** tailormade for the urban village.

1. Plot amalgamation should be allowed even for just two plots.
2. The FAR and incentives can be calculated proportionately.
3. Mixed-land use should be encouraged.
4. Street widening should be mandatory.
5. Small cutouts (courtyards) will be needed for ventilation. The size of these can be smaller than in regular bye-laws.
6. Open spaces can be carved out somewhere for parks and common parking.
7. The attempt should be made to keep the insides strictly pedestrian and only vehicles for essential services should be allowed.
8. An elevation control can be imposed which will give it an urban design element.
9. Aesthetically designed street furniture can be added.
10. A separate maintenance agency should be employed for upkeep and to prevent encroachment in open areas.
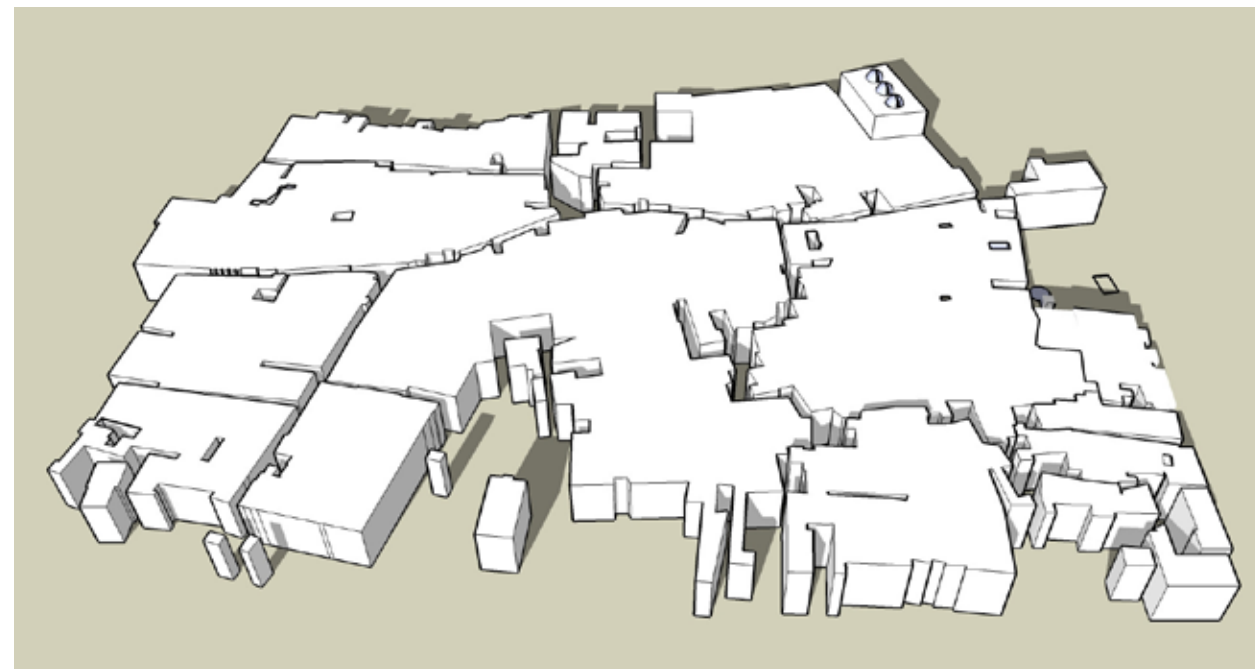
## Proposal - 1

Mixed Land Use should be encouraged

The plots which are smaller in size can be amalgamated and the existing streets can be widened by giving FAR as an incentive

The area around the monument should be free from any construction

Site for eco-park around the monument. (proposed)

Existing park

Underground parking with green on top can be provided.

Proposed park

Proposed park

Proposed park

Africa Avenue

Existing community park

Proposed park

Proposed parking

The ground cover should be 30% and open spaces can be carved out

Plan

Proposed building blocks with FAR 1.5 more than existing and cutouts for ventilation.

Existing Plan

Volumetric View

Eco-Park

Existing blocks as the redevelopment will not happen in one stage

Parking



The new blocks can be seven-storeyed so that open spaces can be carved out.

Existing Volumetric View

## Proposal - 2



Plan

This alternative plan shows a different combination. Realistically everybody will not agree to redevelop at the same time, so a frozen master plan cannot be made, but as and when people get together, commercially viable schemes in public-private partnership can be floated.

The plots along the August Kranti Bhavan can also be developed on commercial lines with basement parking.

The plots abutting the government housing in the south can also be developed commercially in a public-private parternership scheme.



Commercial Development Along The Road

Underground Parking
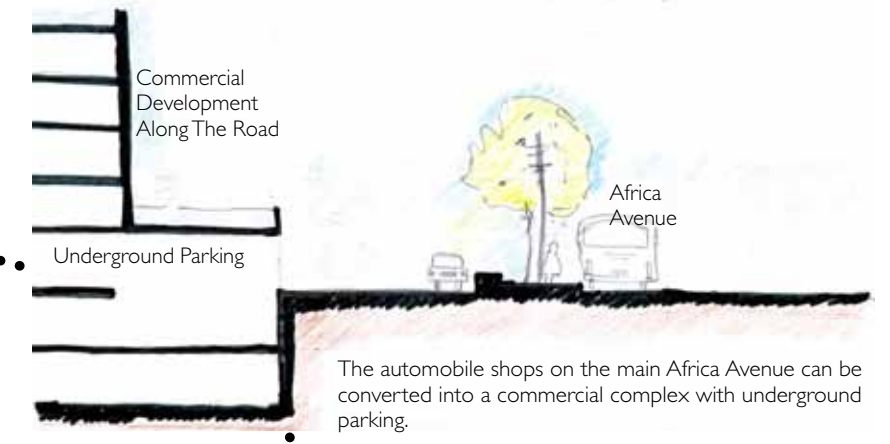
Africa Avenue

The automobile shops on the main Africa Avenue can be converted into a commercial complex with underground parking.



A | A detail of plot amalgamation.

A | Detail plan of existing area.

B | Volumetric view of the above area.

C | Plots combined with street widening and a cutout added.

D | Volumetric view with added height.
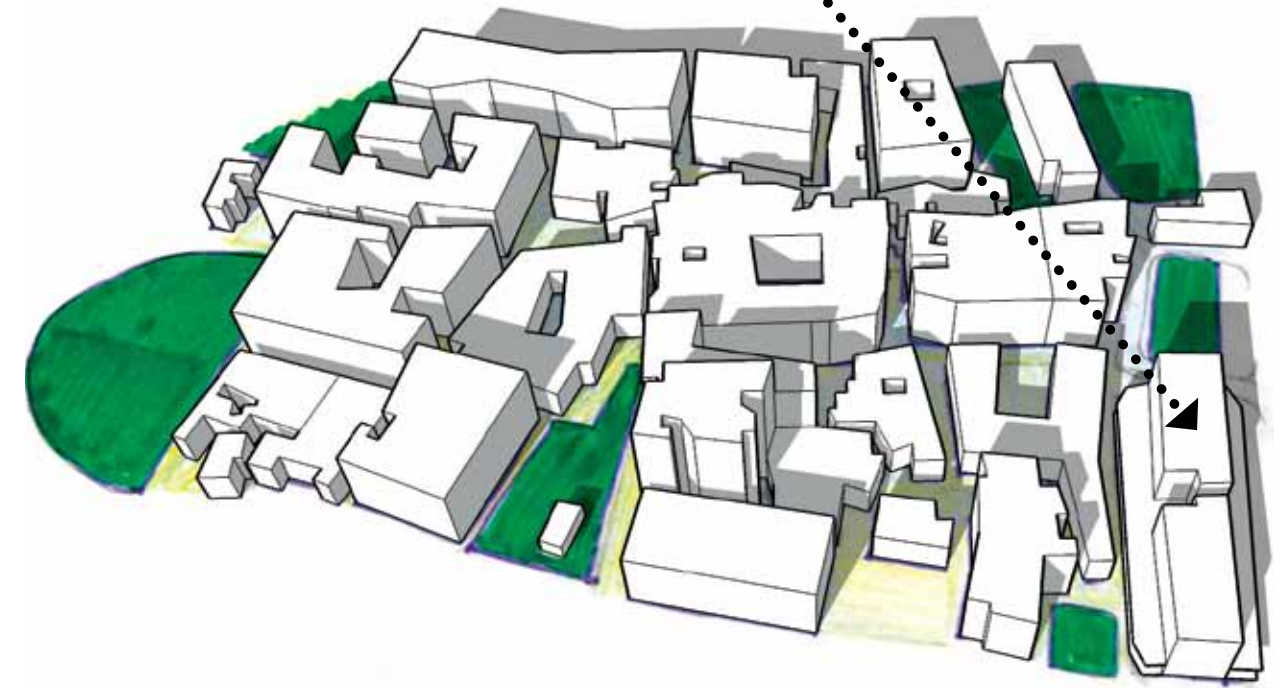


Volumetric View

**Study has been conducted of the adjoining Mohammadpur slum pocket and in-situ redevelopment has been proposed.**

On the west of Mohammadpur Village is a **cluster of slums** . These slums have existed for the last **40 years**.

According to DUSIB they are:
1. Azad Basti          100 Jhuggis
2. Kumhar Basti        100 Jhuggis
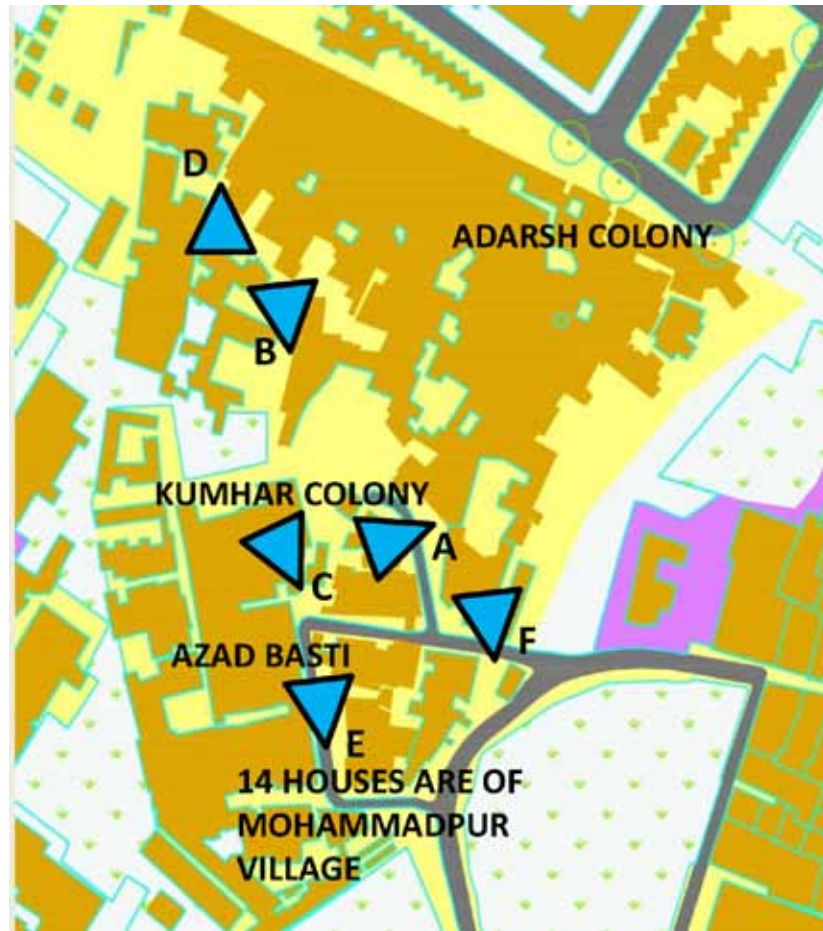3. Adarsh Colony       324 Jhuggis

The area of land is **21,800 sq m** which is **2.1ha** or around **5.5 acres**. According to DUSIB there are around **550** dwelling units.

Presently, the ground cover is more than 50% and rooms have been constructed up to as high as 4 storeys.
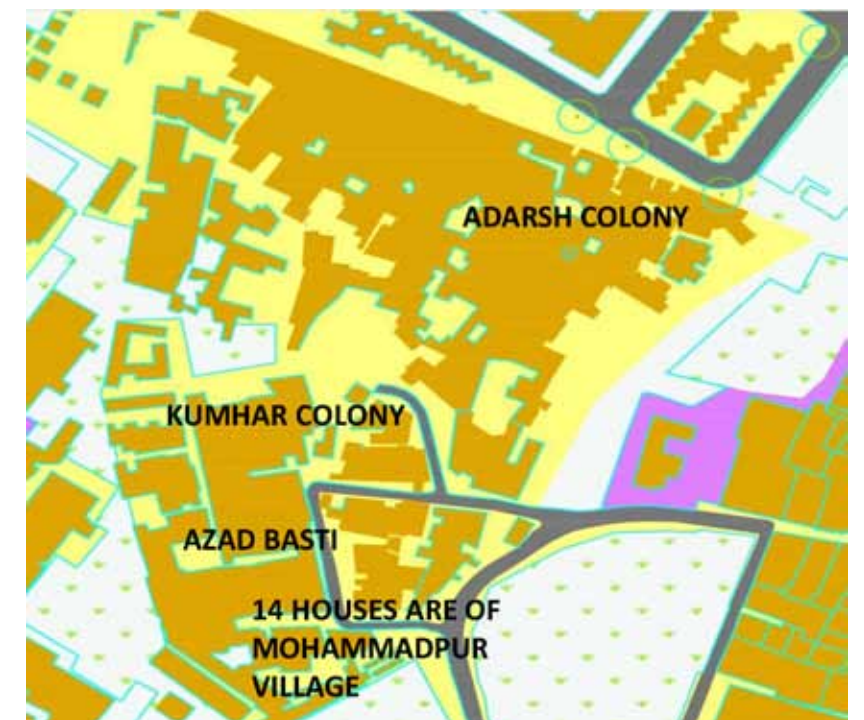
## 4.1 Existing Plan of Slum Area




A


B


C


D


E

Images of Mohammadpur slums


F

### Profile of Residents:

- The original residents were poor and service providers. Since the last 10-15 years their economic conditions have improved considerably as their income has incresed several folds due to rentals.
- Since one-room accomodation is avaliable for a rent of Rs. 4,000-5,000 they are rented mainly by the educated service class. Thus the people are relatively well-off, literate and aware.
- The original residents who have lived here for 40 years have also improved their lifestyles considerably and use the infrastructure of the surrounding good colonies.
- Only 10% of the people are below poverty line and not deserving to live in the slums.

### Present Status

- Four-storeyed structures have been built on plots ranging from 360-1,500 sq. ft.
- Every house has it's own toilet
- Water supply is through motrized borewells.
- Sewage system is through open drains which have been covered in some parts.

### Redevelopment:

- This area can be redeveloped in-situ. The residents are keen to have ownership of plots to get a permanent status. They are willing to invest more in constructing good quality houses.
- The plots can be reorganized in a planned way with proper drainge and sewage facilities. The provision for proper access to fire-tenders should be provided.

### Facilities Provided

- A common toilet block, is rarely used by the residents as they have their own toilets.
- Common water taps are also rarely used since the residents have piped water supply till the uppermost storey.
- A municipal school, which is not very popular with the residents as they are affluent enough to afford good private schools.
- A child welfare centre is provided and used well.
- The health facalities are non-existent, but due to many big hospitals nearby, they are not missed either.

## 4.2 In-Situ Design Proposal

The **in-situ** redevelopment can be done by building five-storeyd walk-up apartments.

Mixed-land use can be permitted with certain community facilities.

There is a 6-m-wide road for vehicles and inside is completely pedestrianized.

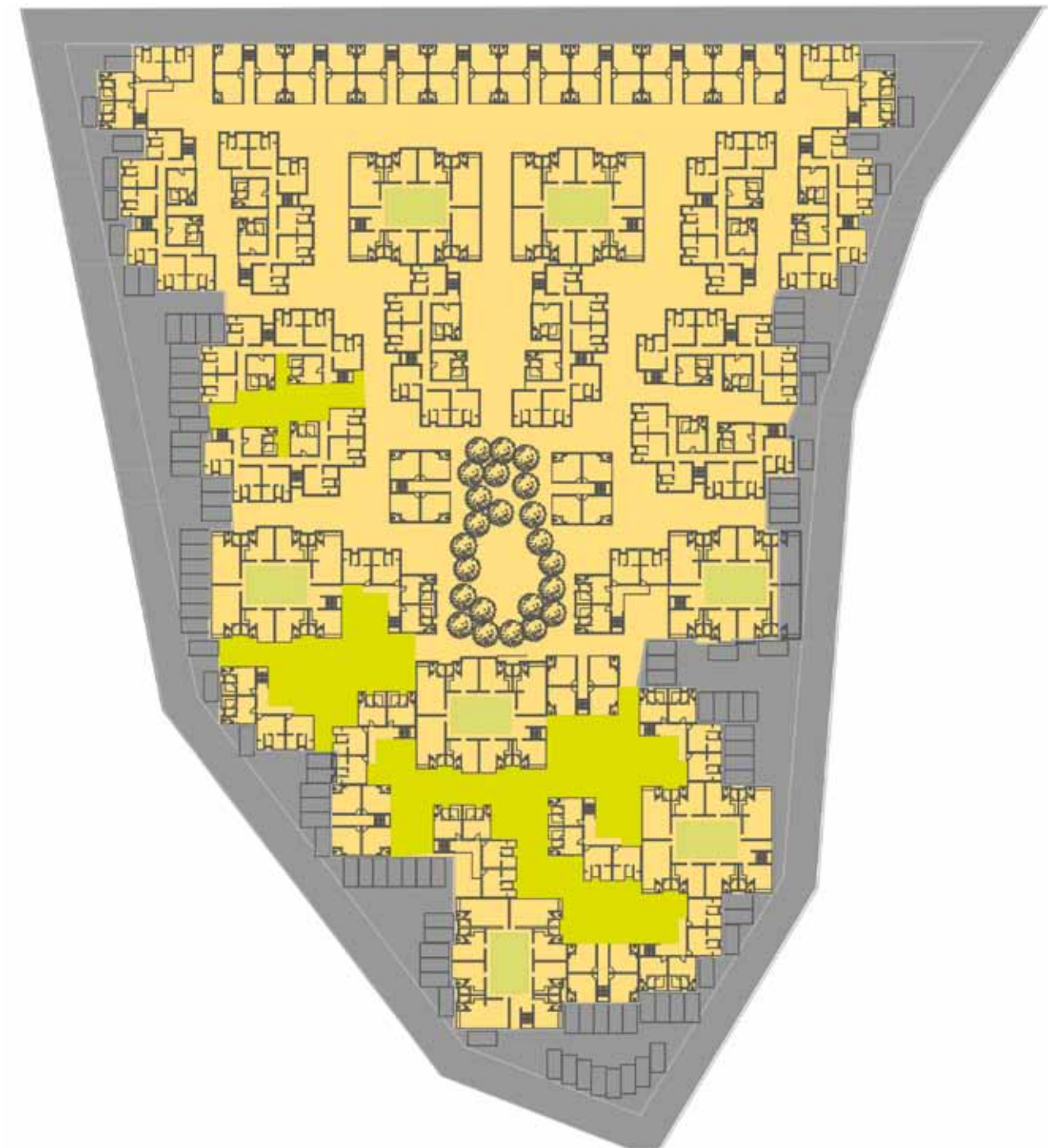Pockets of surface parking have been provided on the periphery.
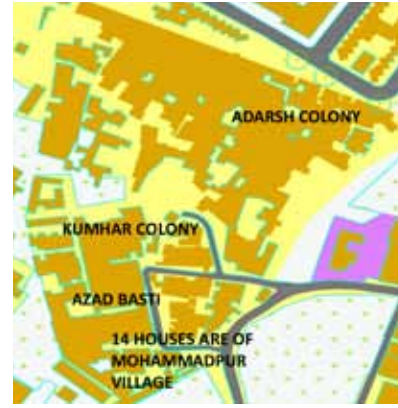


Existing Plan of Slums



Existing Volumetric View.



Volumetric View of The Proposal

Ground Floor Plan

| Five-storeyed walk up apartments | | With 6 m setbacks Dwelling units on | | Parking norm adopted is 0.25 ECS per 100 sq.m of built-up area. |
|---|---|---|---|---|
| Plot area | = 21,863 sq. m | Ground floor | = 244 nos | Around 100 car parks area |
| Ground cover | = 9,350 sq. m | No of storeys | = 5 | needed which are provided in the |
| | = 40% | FAR | = 200 | periphery. |
| | | Total du's | = 1,220 | |
| | | Density | = 1,220/2.2 | |
| | | | = 554 units/ha | |

## Concept



- A unit size of **25 sq.m** has been taken. Each house will have W.C, bath and a single room.
- The **FAR** has been restricted to 200 and the building blocks are four-storeyed walk ups. **50% ground coverage** has been achieved with all internal roads at least **4m wide**.
- **Mixed-land use of** around **20%** along with community centres, health centres, children's home and other common facilities have been provided in separate types of blocks.
- Effort has been made to use **organic morphology** as studied in the **Village of Mohamadpur** as it is more human in scale and open spaces are spread across streets and courtyards, as they are more useful in day-to-day activities instead of parks.
- The entire development has been kept completely pedestrian with few pockets of parking in the periphery.
- Most of the blocks are designed in such a way that the ground floor can be converted into a shop as is the trend in these areas.
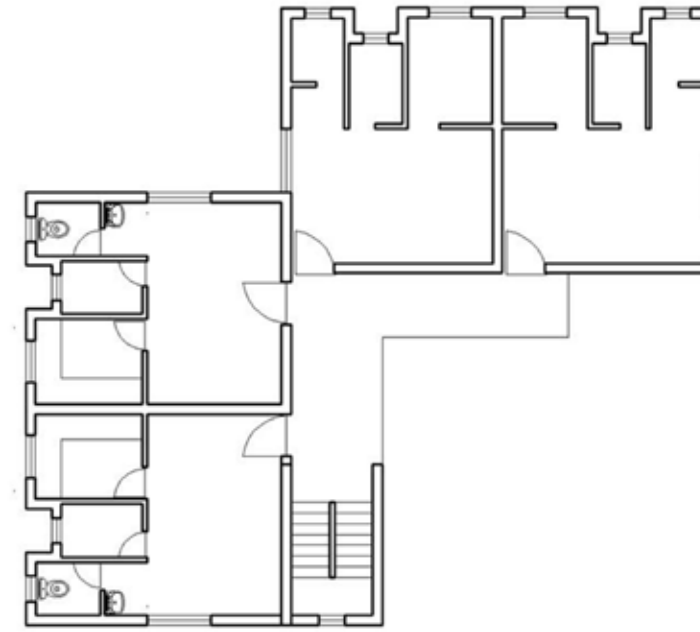
## Block- Detail Plans
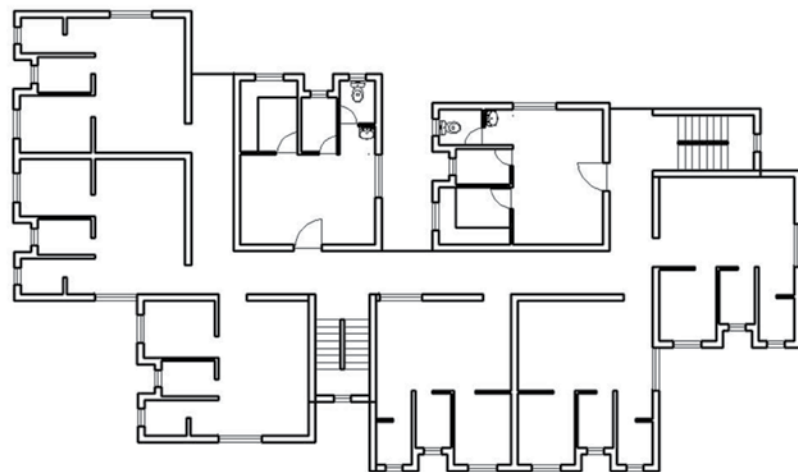


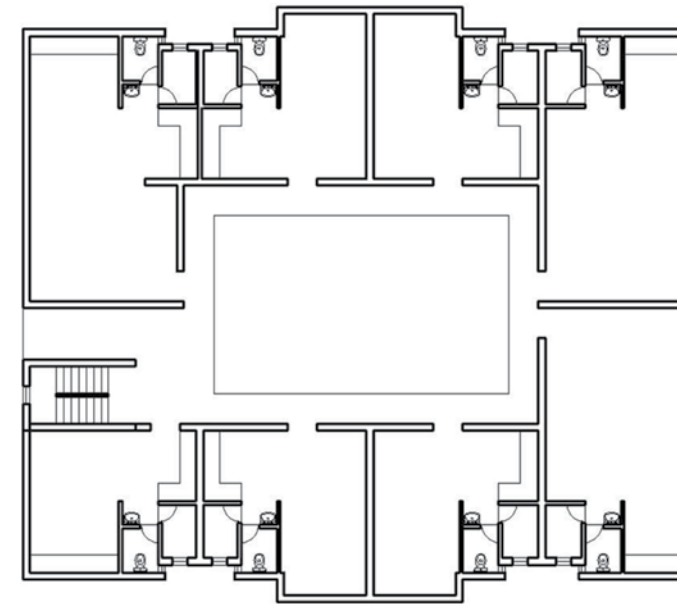The Size Of A Dwelling Unit Is **25 Sq.m** Each Unit Has A Bath, WC and a Kitchen.

TYPE 1:
Covered area on ground floor
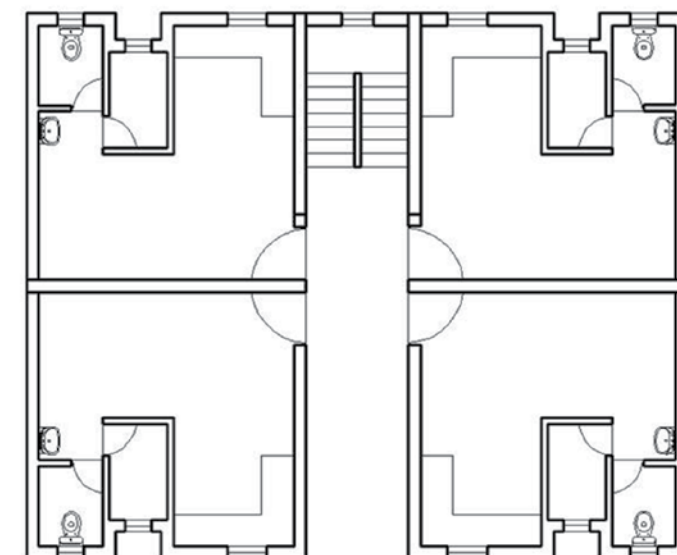= 350 sq.m

No of dwelling units on one floor
= 8 nos

TYPE 2:
Covered area on ground floor
=147 sq.m

No of dwelling units on one floor
= 4 nos



TYPE 3:
Covered area on ground floor
= 363 sq.m

No of dwelling units on one floor
= 8 nos



TYPE 4:
Covered area on ground floor
= 126 sq.m

No of dwelling units on one floor
= 4 nos
Can have shops on ground floor.