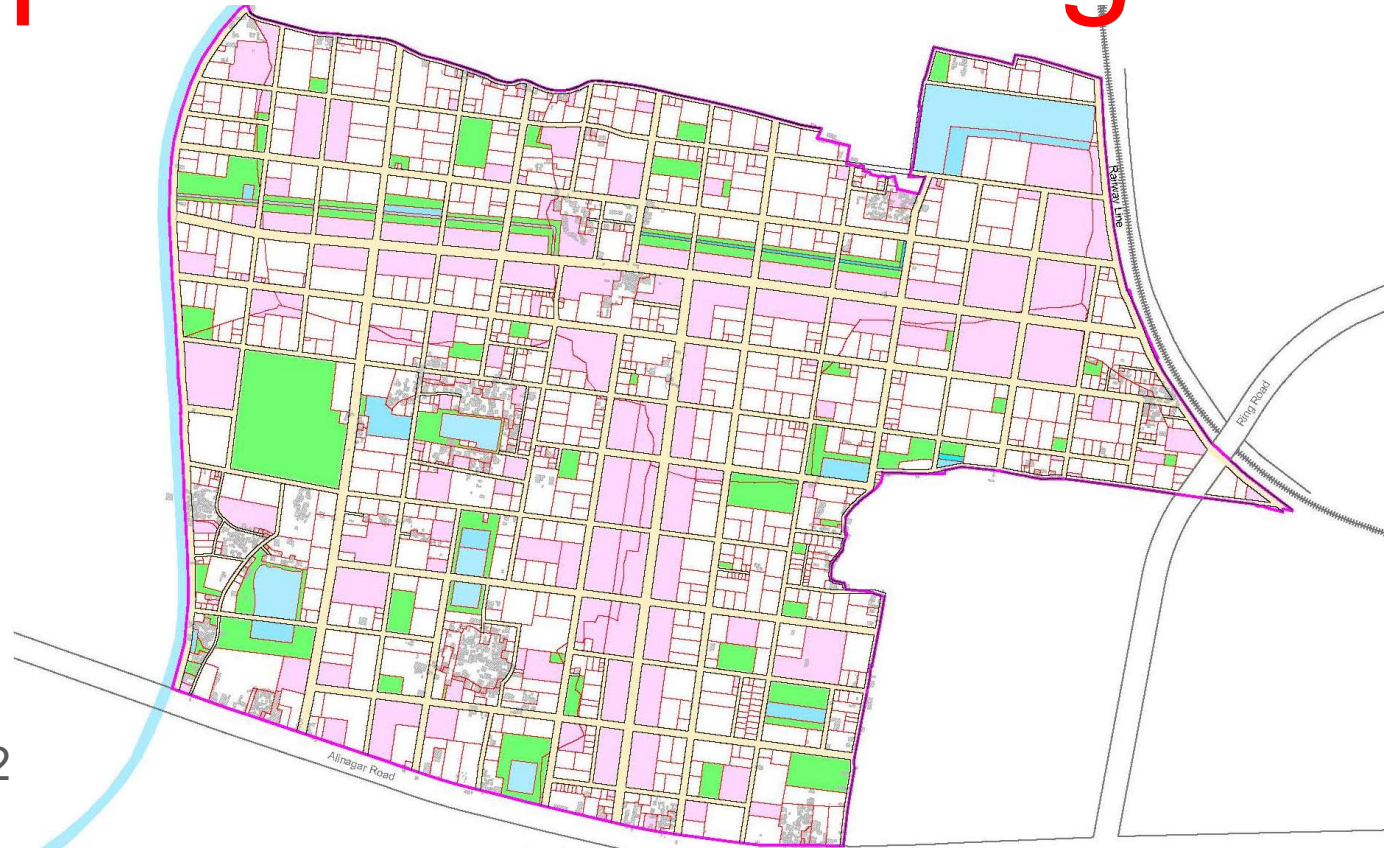


Alampur Town Planning Scheme



24 September 2022

National Conclave on Urban Planning, Indira Gandhi Pratisthan, Lucknow

Miss Shirley Ballaney and Mr Manoj Kumar

Varanasi Development Authority

Contents

- A Introduction
- B TPS in a simplified manner
- C Special policies
- D Salient features
- E Development goals
- F Population estimates, design norms and design principles
- G Scheme summary and features

A

Introduction

1. AMRUT Sub Scheme by MoHUA

- An **Area Based Development** approach to address the lack of infrastructure and services in the brownfield and greenfield areas in Indian cities.
- The Local area Plan (LAP) and Town Planning Scheme (TPS) are two microlevel planning and implementation mechanisms identified to achieve this.
- Varanasi is one of the selected cities and VDA is the implementing agency for implementing the Pilots
- Alampur TPS is being prepared as a PILOT to understand the local issues

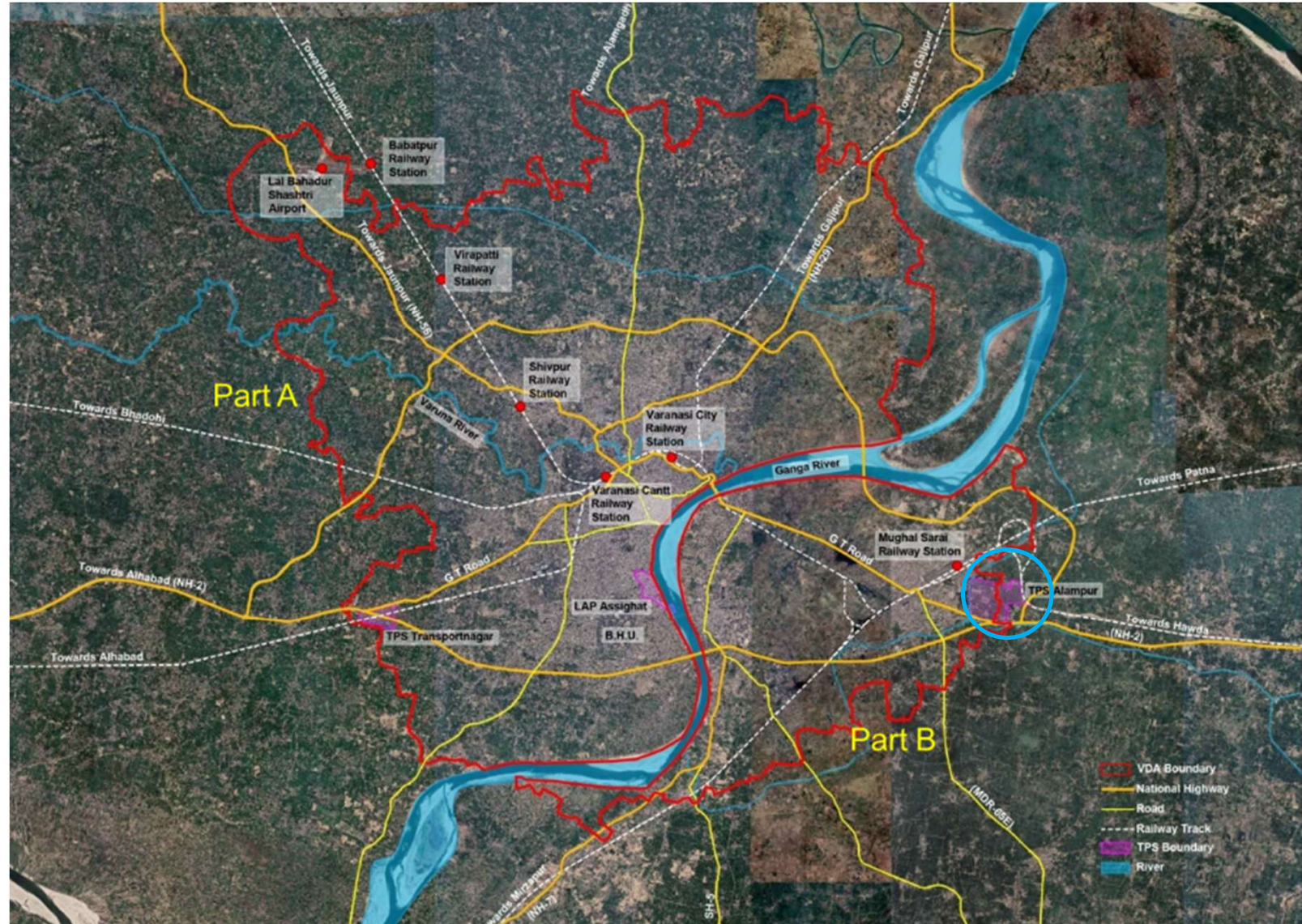


Pilot on Formulation of
**LOCAL AREA PLAN (LAP) &
TOWN PLANNING SCHEME (TPS)**
For Selected Cities

July 2019

2. Location in Varanasi

- East entry, along the GT Road, NH 2 and Outer Ring Road
- Would be a potential development hot spot given its location
- Was identified after a few possible locations as largely open and its location



2. Location in Varanasi

Out of a total of 6 potential sites, 3 are being undertaken

1 Alampur TPS
(366 ha)

2 Transport Nagar TPS
(160 ha)

3 Assighat LAP
(213 ha)

A total of 739 ha is being planned



3. Need for TPS



Varanasi continues to expand, new growth in the periphery is haphazard and un-serviced

3. Need for TPS

The outcomes of the present way of PLANNING are:

Master Plan roads take long to realize on ground

- Master Plan roads need to be acquired, which is expensive and time consuming.
- Development occurs and the right of way most likely to gets encroached.

Lack of Secondary Street network and Hierarchy

- Beyond the Master Plan roads, a second level of roads that creates smaller blocks is not created.
- The secondary road network is an outcome of layouts that get developed.
- The resultant road network is discontinuous, not straight resulting in an efficient traffic flow & infrastructure.

Lack of Amenities and Open Spaces

- No provision for 'reserving' land in the Master Plan for amenities, result of zoning and regulations.
- Open spaces' are 'reserved' and VDA has to acquire these areas and develop them.
- Further open spaces are usually mandatory for large layouts.
- As a result of this system there is no predictability of provision of health and education amenities.
- Smaller developments will never have access to common greens – gardens and playfields.

3. Need for TPS

The outcomes of the present way of PLANNING are:

Lack of Infrastructure in Time / Prior to Development

- Implementation of Master Plan in un developed areas or new areas opened up for developed is usually delayed and roads and infrastructure are rarely provided before development commences.

Non Integration of settlements for future renewal / redevelopment of areas

- Existing settlements get engulfed in the process of development and continue to remain un developed pockets as the city expands without provision of services.

An opportunity has arisen in the form of the AMRUT Sub Scheme by MoHUA and a pilot TPS / land pooling scheme is being carried out.

It can be used to address the above deficiencies in the process of development and result in a better planned environments which are more liveable and resilient against disasters and pandemics.

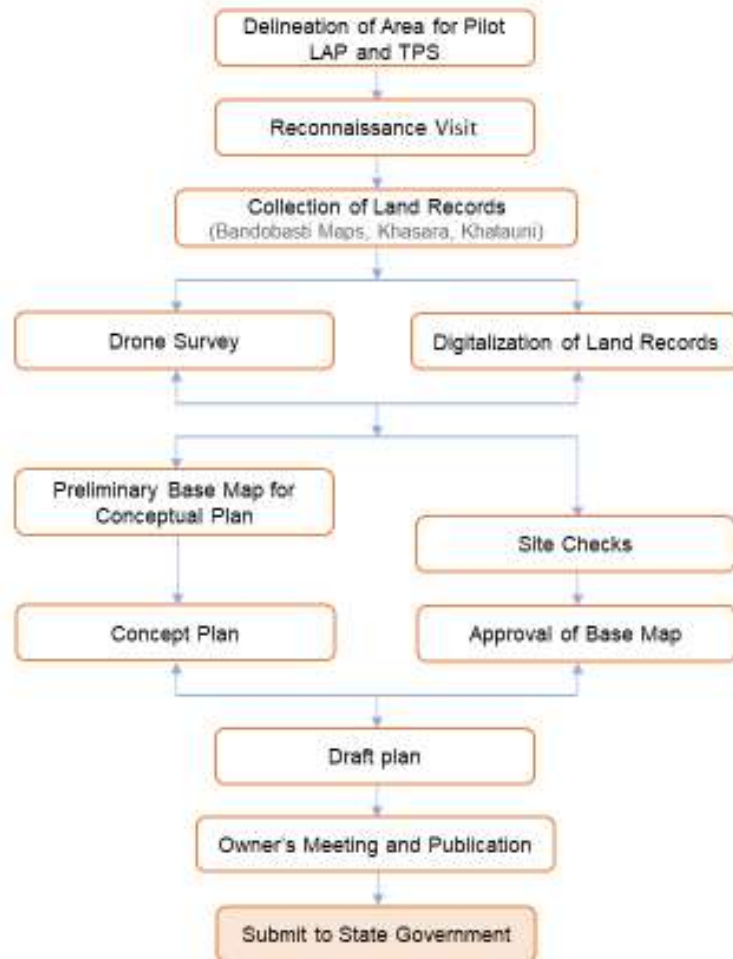
4. Objectives of TPS

The objectives of the PILOT TPS is to reinvigorate the TPS mechanism with principles of smart and sustainable design and planning to create:

- Planned and systematic transformation of the area that preserves the environmental features.
- Provide adequate land for social amenities and physical infrastructure such as water supply, sewerage and storm water networks, etc.
- An inclusive model of development to accommodate all classes of people.

5. Methodology

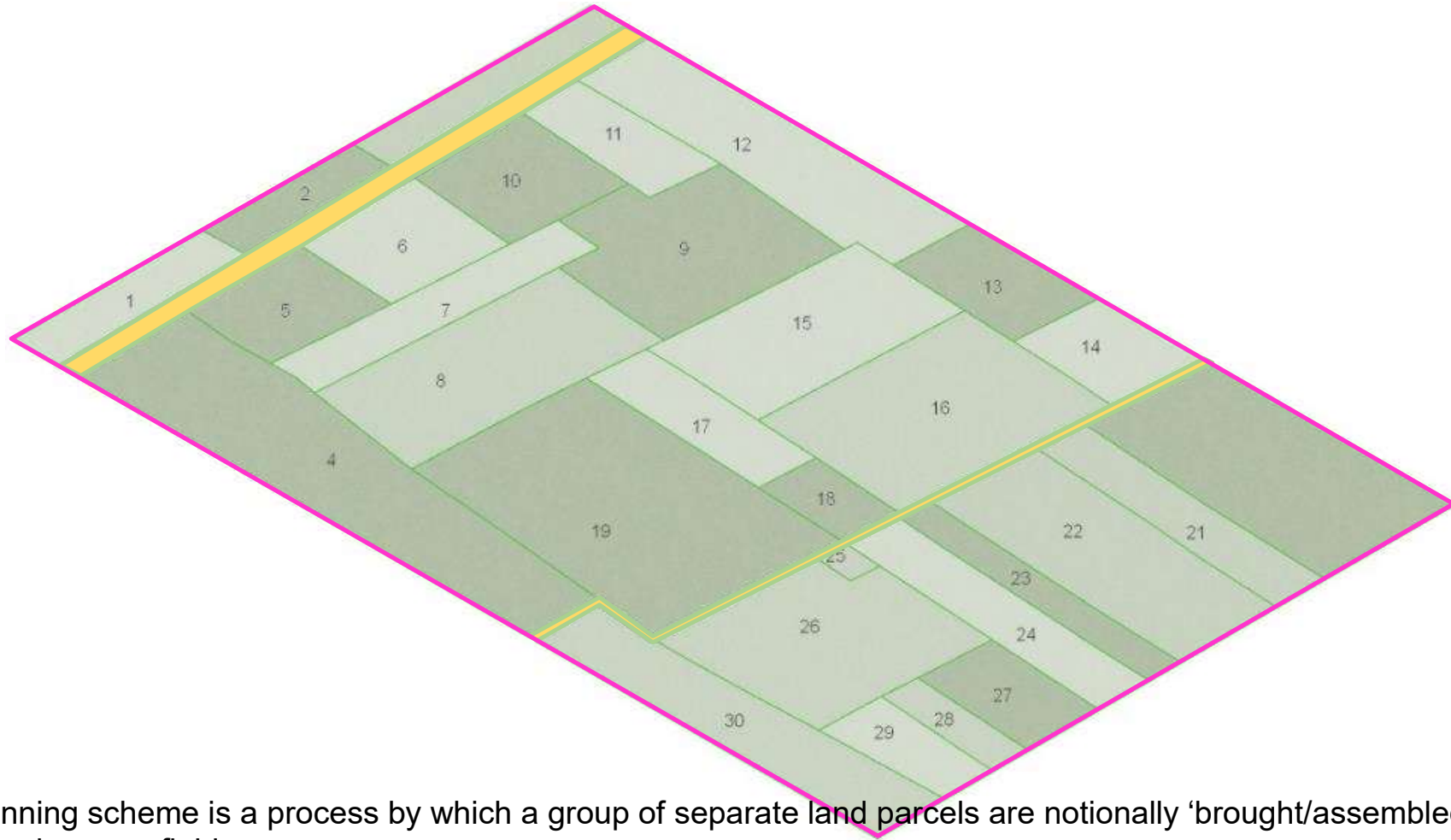
Approach and Methodology Flow Chart



B

TPS in a simplified manner

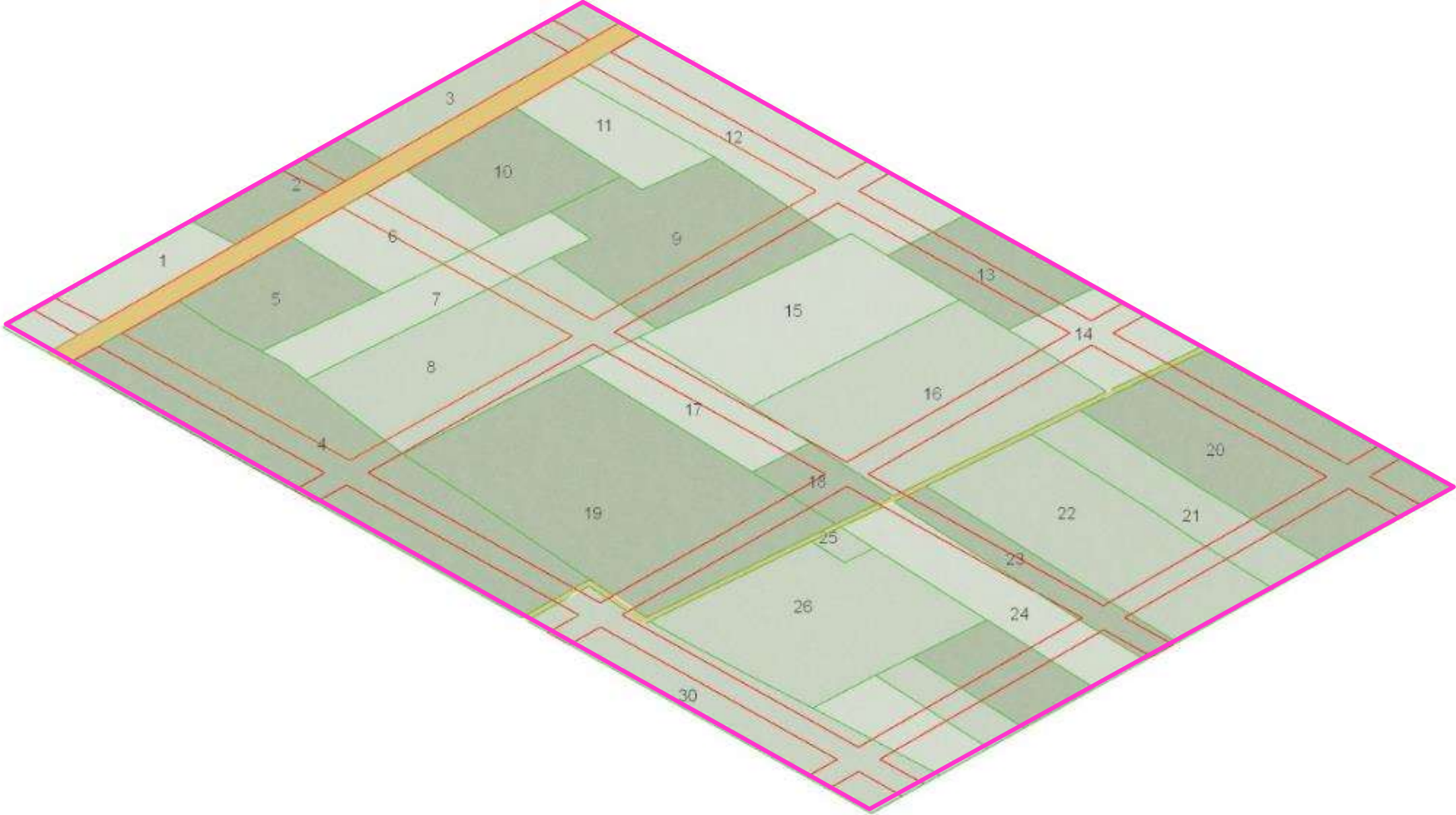
Lands are 'Assembled together' for Planning



A town planning scheme is a process by which a group of separate land parcels are notionally 'brought/assembled' together, largely done in green field areas.

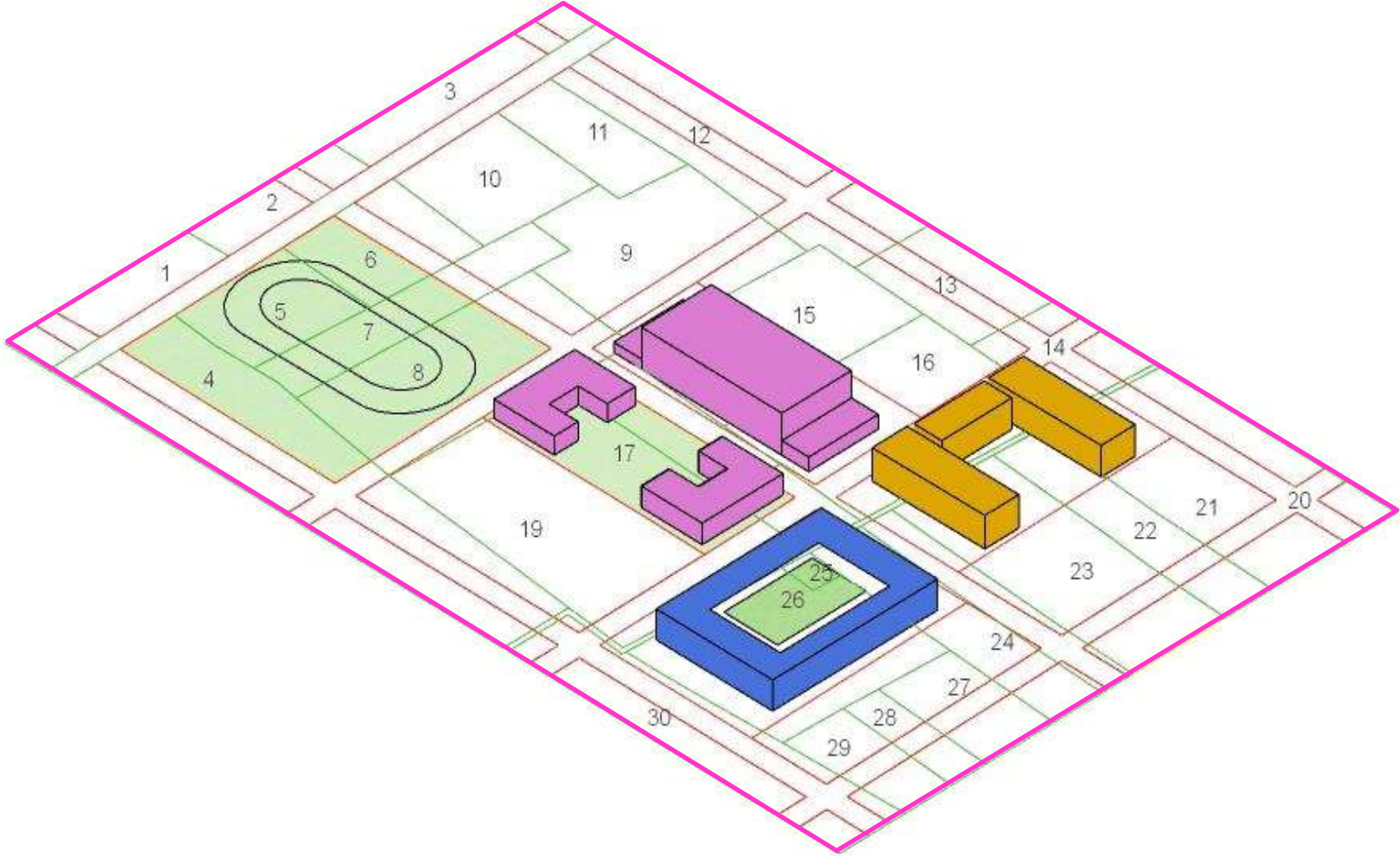
Ownership remains with them / only for planning / they can do their current activities.

Plan is prepared – All plots get Road Access



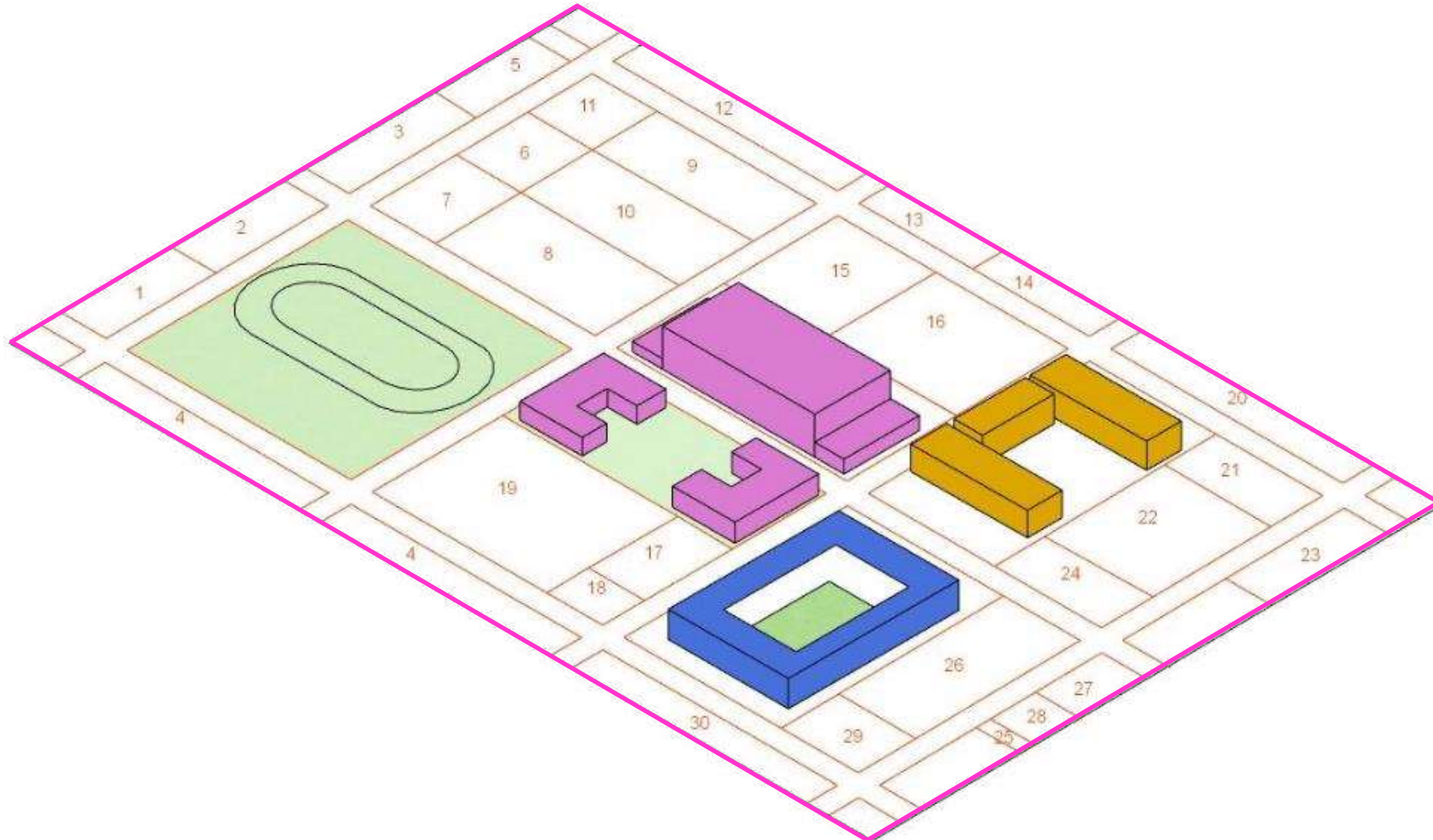
A planned layout is prepared for the entire area in way that every land parcel gets road access.

Plan is prepared – Plots are created for Social Amenities



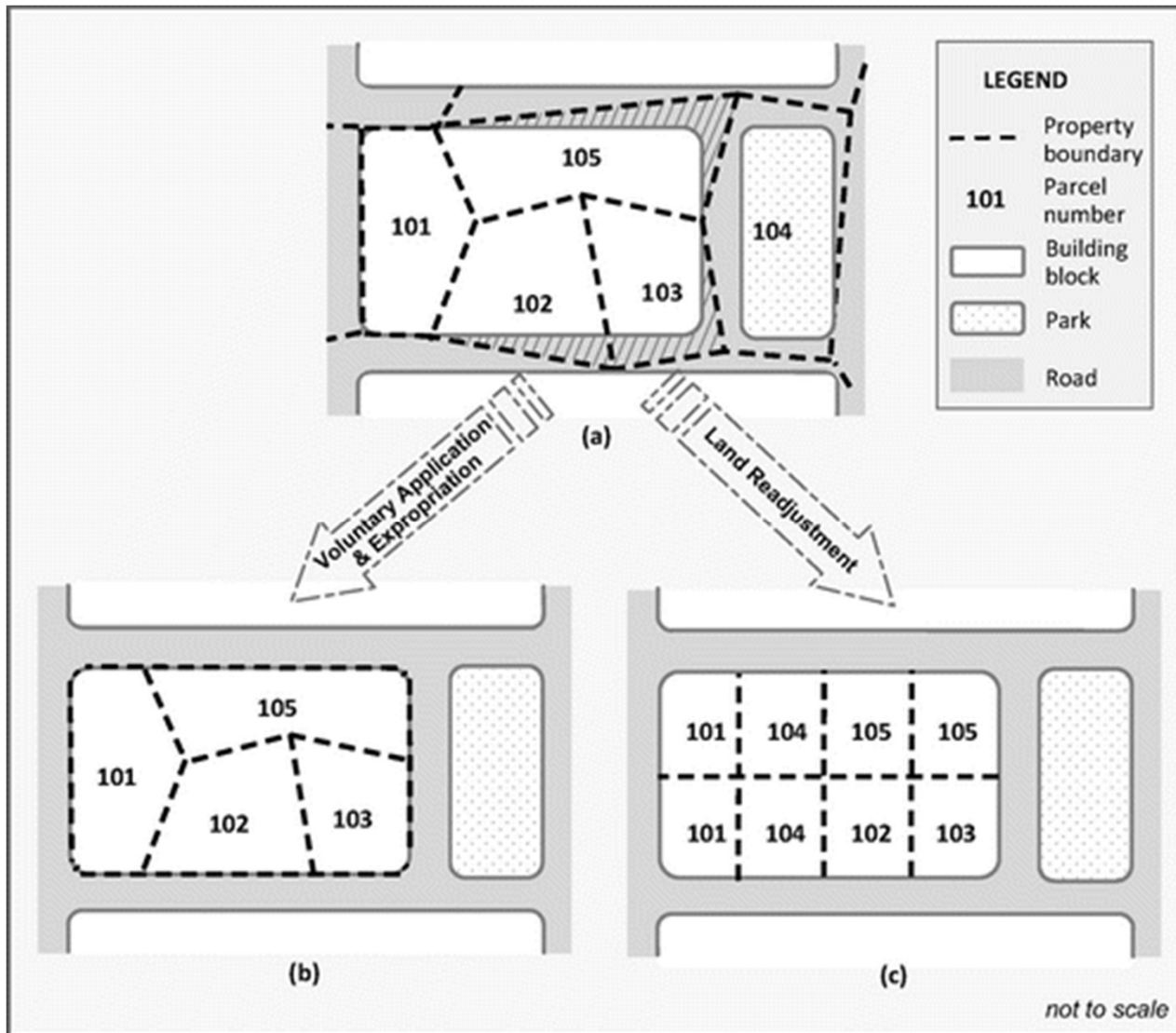
Some parcels are provided for social and physical infrastructure.

Land Plots are Reshaped and Readjusted



In this process, land parcels are readjusted and reshaped, made a little smaller & given regular shapes. Land owners contribute land to the scheme amenities in equal proportion.

Owners Contribute Land for Infrastructure and Amenities



In the Town Planning Scheme process, the owners retain a portion of their plot and contribute some land voluntarily to the scheme for roads and amenities.

(Chakbandi process)

Authorised development as per Master Plan and Bylaws requires contributing some land towards open space, amenities and LIG/EWS housing at plot level as an when development occurs.

Here land is contributed by all together in the same proportion at one time resulting in better use and efficient development.

Planning Authority in turn plans the area and provides all infrastructure services.

People are involved at All Stages of the Process



The plan is made involving the land owners / farmers – roads, plot locations and shapes, amenities location etcseveral rounds of consultation by Authority, Officials

Plan is Finalized, Approved by State, Implementation



Modified Draft TPS plan is sent to State Government for sanction.

The State Government may suggest some changes and then approve.

Area Develops in a Planned Way, Land Values Increase!



All land owners benefit from the increase in land values due to provision of infrastructure and planning.

Land Prices Increase Manifold benefitting the Farmers...



There is a manifold increase in land values of developed land over time..

C

Special polices

Range of Policies under Consideration

पृष्ठ 1/10

No law at the moment to carry out land readjustment / land pooling – Amendments are prepared based on GTPUDA, 1976

State Policy for Land Pooling

Untested as yet, so special policies are being framed to do the pilot under this program to **incentivize land owners to participate**

1. Zoning and Development Regulations
2. Land Appropriation and Betterment Charges
3. Treatment of Publicly owned Plots and Abadi Plots in the TPS
4. Joint Ownerships and Minimum Plot Size
5. Infrastructure Provision
6. Attributes of Final Plots

संशोधित "लैंड पूलिंग स्कीम-2020" (ड्राफ्ट)

1. पृष्ठ भूमि

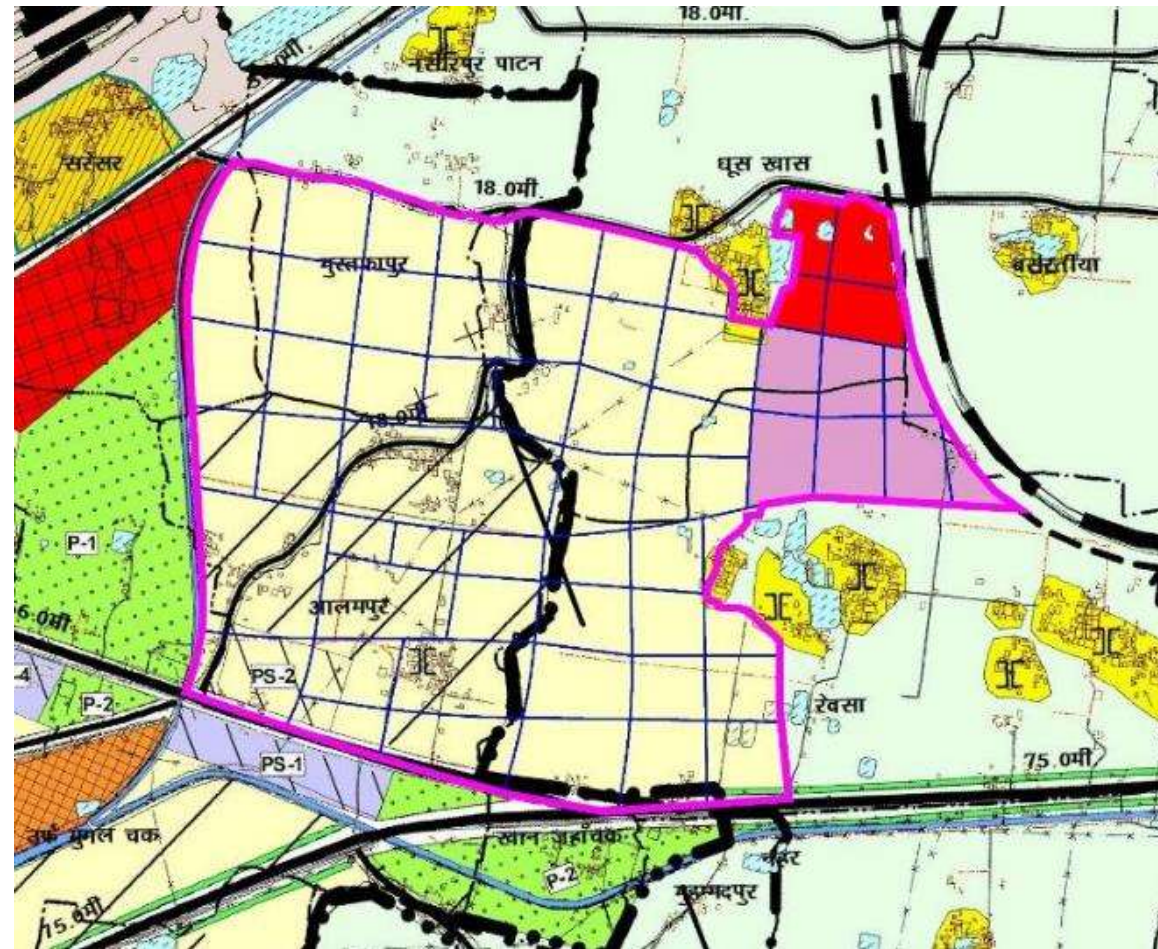
(1) शहरी क्षेत्रों में विभिन्न विकास एवं निर्माण कार्यों हेतु भूमि जहाँ एक ओर आवश्यक संसाधन है, वहीं दूसरी ओर यह एक गैर-नवीकरणीय(नॉन-रिप्लूएबल) संसाधन भी है। भूमि पर शहरीकरण के निरन्तर बढ़ रहे दबाव के दृष्टिगत सुनिश्चित नगरीय विकास हेतु समय पर एवं समुचित मात्रा में भूमि उपलब्ध होना आवश्यक है, परन्तु भूमि अधिग्रहण अधिनियम के अधीन भूमि का अर्जन न केवल जटिल एवं समयकारक है, बल्कि भूमि अर्जन के लिए एकमुस्त बहुत बड़ी धनराशि की भी आवश्यकता होती है। विकास प्राधिकरणों तथा आवास एवं विकास परिषद द्वारा अपने सीमित संसाधनों से अधिनियम के अधीन भूमि अर्जन अथवा किसानों से सीधे भूमि क्रय किया जाना कठिन होता जा रहा है। इसके अतिरिक्त इन अधिकरणों के पास लैंड बैंक के अभाव में आवासीय योजनाओं हेतु समय से भूमि उपलब्ध न होने के कारण मांग के सापेक्ष आवास की आपूर्ति सुनिश्चित नहीं हो पा रही है, जिसके परिणामस्वरूप भूमि के अनाधिकृत विकास की प्रवृत्ति को बढ़ावा मिलता है। 'लैंड पूलिंग स्कीम' सुनिश्चित शहरी विकास हेतु एक व्यवहारिक पद्धति है, जिसके अधीन शासकीय अधिकरणों द्वारा भूमि को क्रय अथवा अर्जित किए बिना मू-स्वामियों से उनकी सहमति एवं स्वेच्छा से भूमि का विकास सुनिश्चित किया जा सकता है और उन्हें विकास की प्रक्रिया में भागीदार बनाया जा सकता है।

(2) उल्लेखनीय है कि राज्य शहरी आवास एवं पर्यावास नीति के अधीन मू-स्वामियों/किसानों से उनकी सहमति एवं भागीदारी के आधार पर भूमि को पूलिंग कर विकास योजनाएं क्रियान्वित किए जाने की रणनीति निर्धारित है। तत्काल में शासन द्वारा उ.प्र. नगर नियोजन एवं विकास अधिनियम, 1973 की धारा-41 (1) के अधीन उ.प्र. आवास एवं विकास परिषद तथा विकास प्राधिकरणों के माध्यम से पायलट प्रोजेक्ट के रूप में लैंड पूलिंग स्कीम के क्रियान्वयन हेतु शासनादेश संख्या-239/8-3-19-152 दिनांक/17, दिनांक 20.2.2019 द्वारा नीति निर्गत की गयी है। उक्त नीति के अधीन आवास एवं विकास परिषद द्वारा लखनऊ में 166 एकड़ भूमि पर लैंड पूलिंग स्कीम का क्रियान्वयन प्रक्रिया में है। परन्तु आवास एवं विकास परिषद को छोड़कर अन्य किसी भी विकास प्राधिकरण ने अभी तक इस योजना का संचालन प्रारम्भ नहीं हो सका है, जिसका मुख्य कारण यह है कि मू-स्वामी स्वेच्छा से लैंड पूलिंग स्कीम में सहभागिता करने में रुचि नहीं ले रहे हैं। अतएव इस नीति को व्यवहारिक एवं मू-स्वामियों के लिए आकर्षक बनाने हेतु इसमें कतिपय संशोधनों की आवश्यकता अनुभव की गयी है, जिसके दृष्टिगत विद्यमान नीति को अवकमित करते हुए संशोधित नीति निम्नवत् निर्धारित किये जाने का प्रस्ताव है:-

1. Zoning and Development Regulations

Proposed Zoning Provisions

- Entire will be converted into developable use zones.
- PS2 zone will be lifted from plots and health facility will be provided through the process of TPS
- Wholesale / ware housing / market zone will be lifted and part of it will be provided in the land appropriated as a part of the TPS.
- Service and small industry zone will be lifted and part of it will be provided in the land appropriated as a part of the TPS.
- A special 'residential/mixed use zone' will be created for the entire area permitting a number of uses.



1. Zoning and Development Regulations

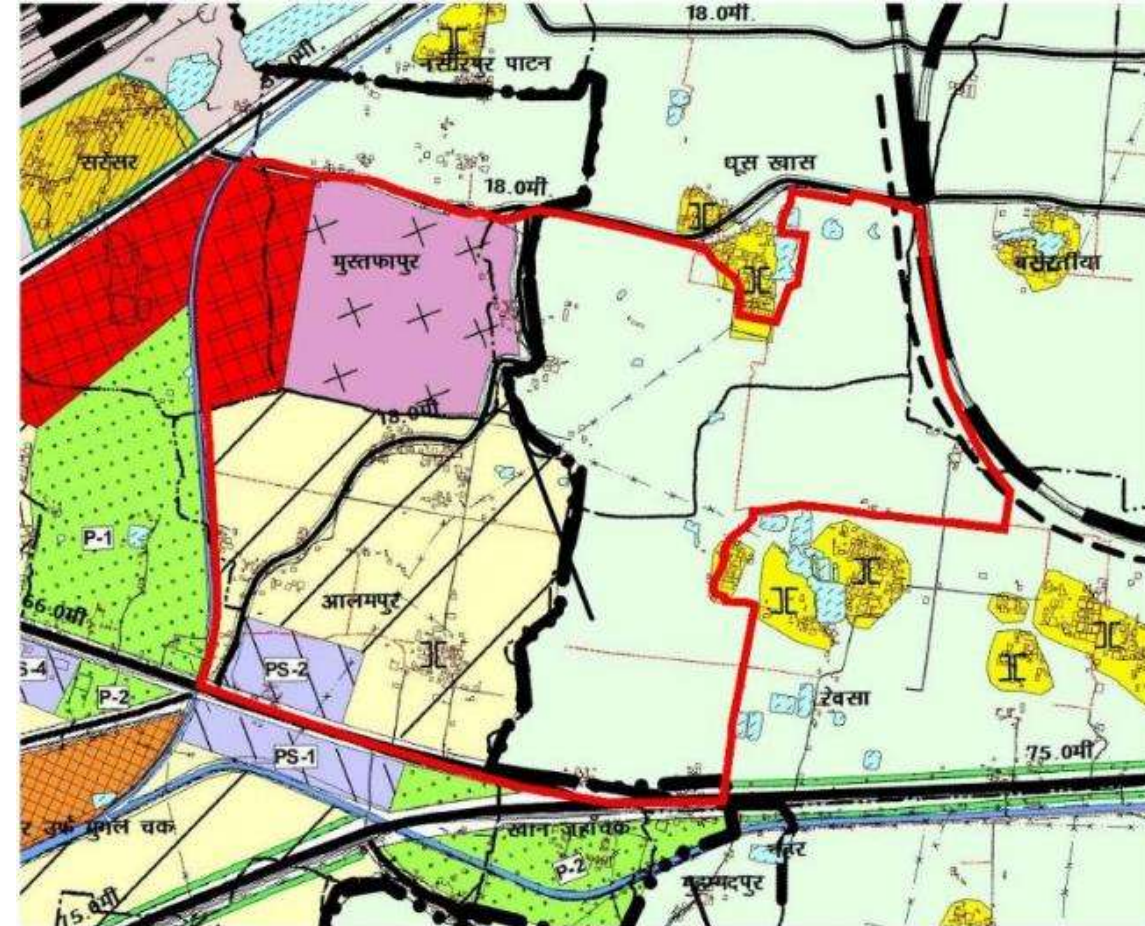
Existing Open Space Provisions

Plot Level

- All plots 3000 and above sq m in area have to leave 15% of plot area as open space in residential layouts and 10% of plot area as open space in non residential layouts.
- In zonal plans 5% of the total area is reserved as open space / green space.

Reservations in Master Plan

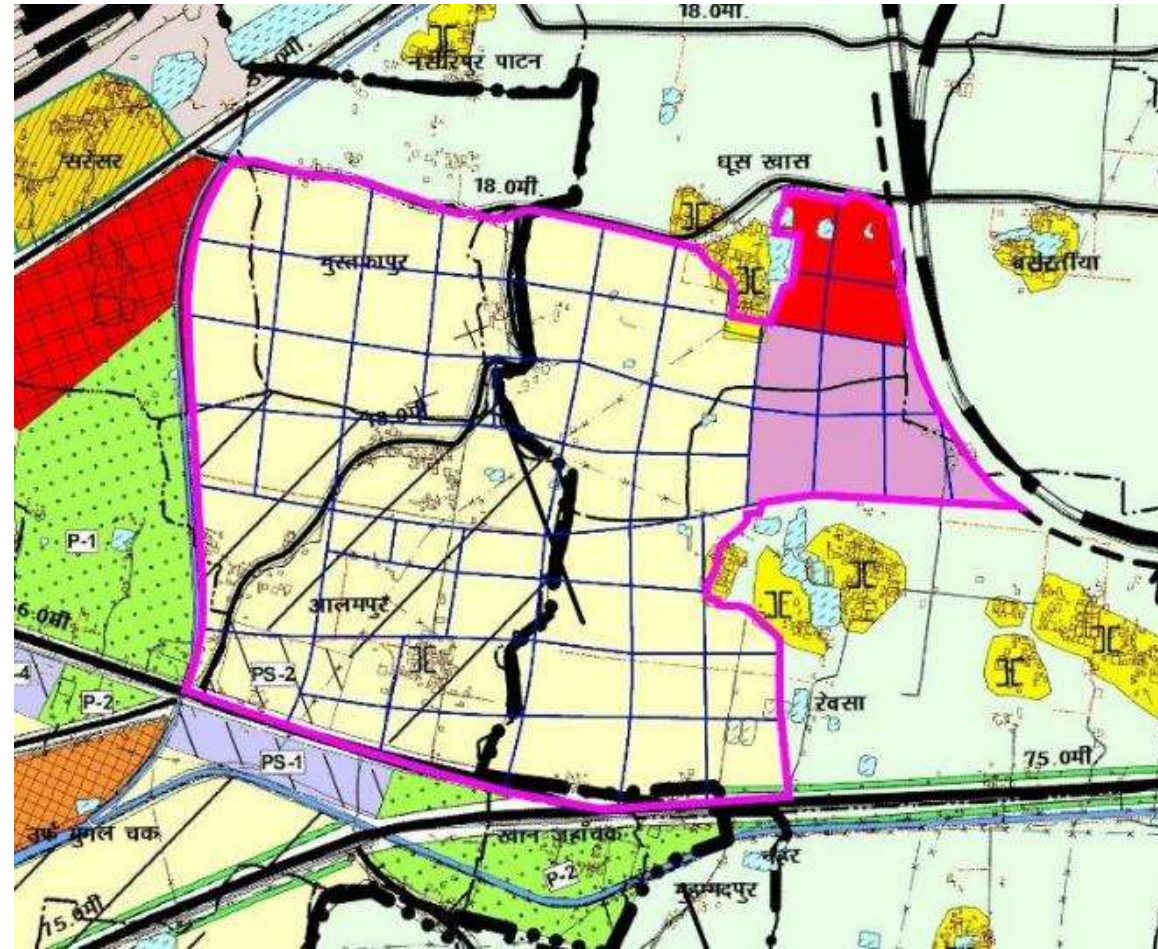
- P1 Area level park
- P2 parks and multipurpose open spaces
- P3 Sport ground / Stadium
- P4 Green belt



1. Zoning and Development Regulations

Proposed Open Space Provisions

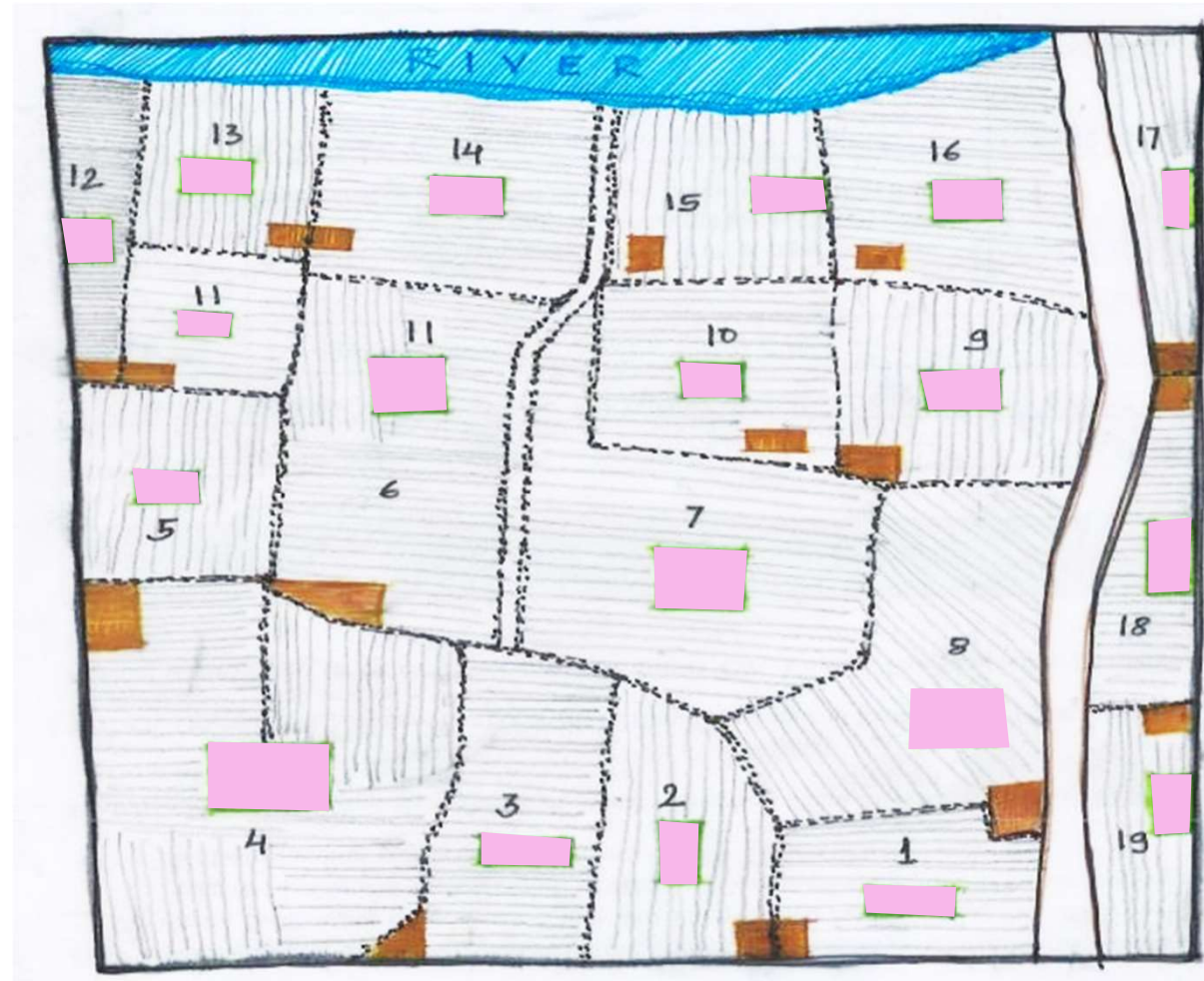
- 10% Open space of the total TPS area will be provided in the TPS layout for all in the form of neighbourhood parks and large parks.
- Full Final Plot will be available for development, no requirement for open space.
- All open space will be in the public domain, accessible to all residents of the area.
- Simplifies layout preparation and area calculations.
- Consolidated greens can be provided – for example, linear green along the canal and a network of open spaces.



1. Zoning and Development Regulations

Existing Affordable Housing

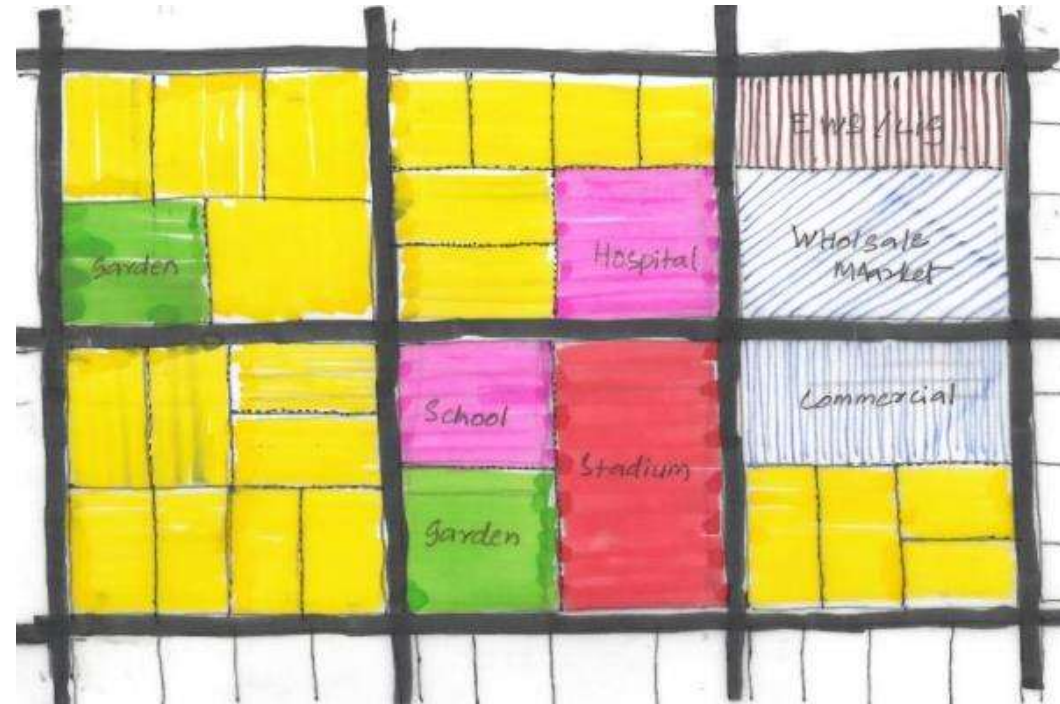
- Layouts / group housing have to provide units worth 10% of proposed built space as EWS and 10% of proposed built space as LIG.
- These are taken over by VDA / Public Authorities at construction cost.
- Provision and location of EWS / LIG is very sporadic, scattered in small numbers all over as it is dependent on layout sizes / populations and hence unpredictable for future use. They can be in the same plot or within 5 km radius.
- Alternatively, the developers / owners can pay the 'shelter fee' of the land required to build the required units.



1. Zoning and Development Regulations

Proposed Affordable Housing

- No plot/development will be required to make provision for EWS / LIG / Affordable Housing. 5% area of the total TPS area will be provided EWS / LIG / Affordable Housing by VDA.
- Full Final Plot will be available for development without having to make any provision for EWS/LIG in the TPS.
- Owner / Developer is free from the hassle of building these and transferring to VDA or getting into the complicated calculation of Shelter Fee
- Adequate EWS / LIG units will be provided in common locations which will be consolidated and meaningful / useful. These may be used to site some of the very small land holdings (below the minimum permissible size for development)



2. Land Appropriation and Betterment Charges

- It is proposed to appropriate 50% of the land from each vacant private / public plot.
- Same amount of land is proposed to be appropriated from all use zones proposed in the current Master Plan for the area – residential; wholesale / ware housing / market zone; PS 2; service and small industry and agriculture.
- For all plots where 50% of the land is appropriated, no betterment charges will be levied. Some betterment is considered in case of locational advantage to ensure equity.
- In case where plots have more than 50% built up and it is not possible to appropriate 50% or less than 50% land, then in that case betterment charges and / or price of less appropriate land will be recovered at a predetermined rate. This can be the original value + infrastructure development charges.
- No compensation will be paid for the 50% of the land appropriated as no betterment is being levied.
- From the 50% of the land appropriated
 - about 19 to 20% land will be allocated towards provision of roads/streets;
 - 10% of the land will be towards provision of open space;
 - 5 to 6% land will be towards amenities & facilities;
 - 5% land will be towards LIG and EWS housing and
 - 10% land will be with VDA to finance the provision of infrastructure and site development.
- All costs are proposed to be met with by land generated for the Authority.

3. Treatment of Public Plots and Abadi Plots

1. Abadi – lands under village settlement
2. Public Lands – lands owned by various public agencies / departments
3. Public Amenities – lands owned by various public agencies / department and under amenities / utilities
4. Water bodies – lands under natural drains and ponds

3. Treatment of Public Plots and Abadi Plots

1 Abadi – lands under village settlement

Full abadi plots – the entire plot is under abadi.

Fully built up, then it is left as is, only the shape / edges may be modified and road access given to facilitate infrastructure provision.

In case it is a vacant plot, then it may be located abutting a built up Abadi plot to meet the area needs and or expansion needs.

In case where the site area is more than the record area it is deducted or other abadi plots which are not built / vacant are brought next to built up plots to adjust the area of the built up plot.



3. Treatment of Public Plots and Abadi Plots

2. Public Plots – lands under public ownership

Full Plots – entire plot is classified as Banjar, Navin Parti, Parti Zadid, Bhita, Koat, Gaddha, Khad ka ghadda.

If the plots are open they is consolidated with other such plots, the area is combined and a final plot is allocated in a good location and or next to a TPS appropriation.

If the plot is built up then it is given in the same location. In case the plot is more than 50% built up, an open plot of the same category is combined with it to meet the area needs.



3. Treatment of Public Plots and Abadi Plots

2. Public Plots – lands under public ownership

Sub divisions – there are plots where Banjar, Navin Parti, Parti Zadid, Bhita, Koat, Gaddha, Khad ka ghadda is a sub division along with say private / abadi / public land sub division such as banjar, navin parti etc or in some cases even a talab.

The talab portions are separated while giving FPs.

For other, if the plot is vacant the undivided shares of publicly owned lands are removed and consolidated to give FP in a better location and or along with TPS appropriations.

If the plot is built up, in that case it is not possible to separate the sub divisions and a combined FP is allocated. While calculating the area of such FPs the appropriate deduction policy is applied.



3. Treatment of Public Plots and Abadi Plots

2. Water bodies

These are lands under waterbodies of various types – Nali, Nahar, Pokhri, Talab, Bandh and Dhus Minor. No deduction is proposed in these plots.

The large and major water bodies (talabs) are retained as is, with 0% deduction.

Most of them are encroached and the complete area is given.

Edges are shaped owing the access TPS roads & account for encroachments.

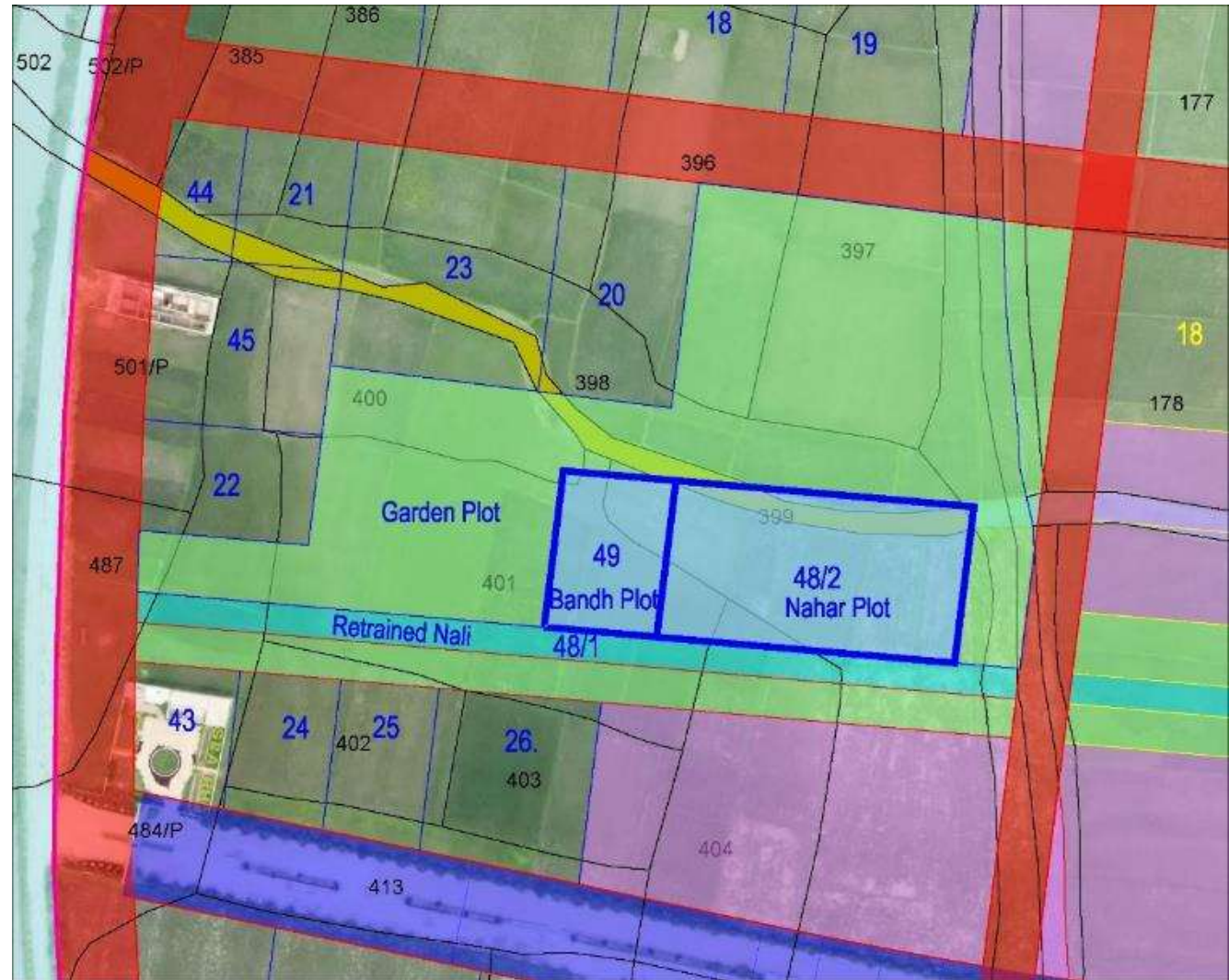
All talabs are surrounded by public greens.

The major drain is realigned along with a public greens on both sides to prevent encroachments and expand the public greens.

Minor drains are not continued as the TPS is provided with a storm water system. However, the FPs are provided adjacent to the waterbodies to expand the talabs.

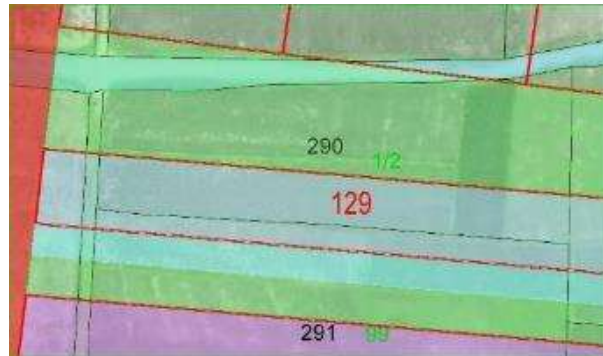


3. Treatment of Public Plots and Abadi Plots



4. Multiple Ownerships, Joint Ownerships, Sub Divisions and Minimum Plot Size

K No.	Owner Name	Khatauni No.	Area (ha)	Area (sqm)	OP Number	Area (sqm)	FP Number	FP Area (sqm)	Deducted Area (sqm)	Deduction (%)	Remarks
Mustufapur Village											
158	Ambika / Kanaiya Parsa	00002	0.2380	2380	1/1						
290	Ambika / Kanaiya Parsa	00002	0.2630	2630	1/2						
	Total 158+290		0.5010	5010		5010	1	2505	2505	50	Combined FP for 2 OPs is given on better OP location. FP partly over OP along 18 m and 9 m TPS road.



Owner/s having **multiple plots** in the same village with exactly the same ownerships on Khasra and Khatauni will be amalgamated – one Final Plot or more will be allocated in one location depending on the layout of the TPS, whether there is built up in the plot, area etc.

4. Multiple Ownerships, Joint Ownerships, Sub Divisions and Minimum Plot Size

K No.	Owner Name	Khatauni No.	Area (ha)	Area (sqm)	OP Number	Area (sqm)	FP Number	FP Area (sqm)	Deducted Area (sqm)	Deduction (%)	Remarks
Mustufapur Village											
173	Radhesham / Ramsurat Rama / Ramsurat Shyama prasad / Ramsurat Narad / Babban Garad / Babban Mithun / Babban	00103	0.1940	1940	14	1940	14	970	970	50	FP over OP along 18 m TPS road.

Plots with Joint Private Owners

- Most plots have multiple owners but their shares are not specified in Khasra and Khatauni.
- Multiple owners get combined Final Plot with shares as per Original Plot.
- If after the Draft Scheme is sanctioned and the land owners can get their sub divisions done, they can be incorporated in the Preliminary Scheme.
- If the sub divisions are smaller than 100 sq m (FP) then the policy of small plots will become applicable and the Preliminary will be modified accordingly.

4. Multiple Ownerships, Joint Ownerships, Sub Divisions and Minimum Plot Size

Plots with Sub Divisions (all Private)

- Some Plots that have been sub divided in records but not in the village bandobasti maps.
- In this case the entire Khasra 150 will be treated as one Original Plot and all sub division owners will have shares in Final Plot as per their areas.
- This is how such plots will be treated for the plans shown in the Owners Meeting.

K No.	Owner Name	Khatauni No.	Area (ha)	Area (sqm)	OP Number	Area (sqm)	FP Number	FP Area (sqm)	Deducted Area (sqm)	Deduction (%)	Remarks
Mustufapur Village											
325K	Bharath / Javahir Dasarath / Javahir Jagdish / Javahir Muniv / Patiyar Sacchidanand / Patiyar Laxmi devi / Patiyar	00073	0.0240	240							
325KH	Shivmurat / Labba Shivvarat / Labba Bachanu / Mukhan Viswanath / Dhura Vittan / Dhura Jittan / Dhura Lallan / Dhura Kedar / Shivmangal Ramdas urf Bacchan / Chhedi Vulli / Magaru Shivnath / Dakhu Chhavinath / Dakhu Mangaru / Sukhi Girdhari / Sharada Ramdhari / Sharada	00166	0.0610	610							
	Total 325		0.0850	850	120	850	120	425	425	50	Combined FP for all undivided sub divisions. FP is slightly shifted as the OP is in the interior. FP along 9 m TPS road.

4. Multiple Ownerships, Joint Ownerships, Sub Divisions and Minimum Plot Size



Plots with Sub Divisions (all Private)

- In the Owners' meeting if the land owners can indicate their shares on map and supported by internal agreement between them, then they can be considered for allotting separate Final Plots.
- In case such a sub division falls below the minimum plot size criteria of 200 sq m then it will be dealt as per policy for small plots.

4. Multiple Ownerships, Joint Ownerships, Sub Divisions and Minimum Plot Size

No.	Original Plot Size (sq m)	Type of Benefit	Remarks
1	Below 35 sq m	Cash Compensation at the determined rate	Compensation will be distributed equally to all the owners listed in the Khasra OR in proportion to the shares if indicated
2	35 sq m and below 41 sq m	1 EWS unit and Cash Compensation at the determined rate for 6 sq m	Unit will be given in the name of all the owners listed in the Khasra Compensation will be distributed equally to all the owners listed in the Khasra OR in proportion to the shares if indicated
3	41 and above	LIG / EWS units in multiples of their unit sizes And Cash compensations for the surplus area	Unit will be given in the name of all the owners listed in the Khasra Compensation will be distributed equally to all the owners listed in the Khasra OR in proportion to the shares if indicated

Minimum Plot Size

- A minimum Final Plot size of 100 sqm will be acceptable in the TPS. For this the minimum size of original plot will 200 sqm as 50% land deduction policy is proposed.
- Deduction policy of 50% will be applied.
- If the plot owner has another plot, area will be merged with it. If not then this policy will be applied.
- Even if the plot has built up, it is not allocated.

4. Multiple Ownerships, Joint Ownerships, Sub Divisions and Minimum Plot Size

Village Name	No.	Area Sq m	Built-up @ 50%
Revsa	30	2299	1150
Alampur	27	2180	1090
Alinagar	5	640	320
Saresar	3	120	60
Mustufapur	7	640	320
Dhuskhas	11	1100	550
Basratiya	0	0	0
Total	83	6979	3490

5. Physical Infrastructure and Amenities Provision

1. Each Final Plot will have access to
 - Public road with storm water network, footpaths, infrastructure ducts, landscape, street lights, street furniture, on street parking bays, bus stands etc
 - Water supply connection and water supply
 - Sewerage connection and treatment facilities
 - Storm water network and treatment facilities
 - Electrification mains
2. At a neighbourhood / area level the following amenities will be provided:
 - Open spaces – parks, gardens, sports grounds
 - Cycle tracks along streets and in open spaces
 - Rainwater harvesting infrastructure in open spaces especially along water bodies
 - Land for educational facilities
 - Land for health facilities
 - Land for any other public purpose
3. Land for EWS housing and informal markets / vendors

6. Attributes of Final Plots

- Final plots are allocated in the same village. In case of village of Basratiya as land has been acquired under the freight corridor and the Ring Road and remaining shape is very odd making it impossible to allocate FPs in a proper manner. In this case a few FPs have been shifted to the village Dhuskhas.
- All Final Plots (FPs) returned to the owner will have regular shapes – either a square or a rectangular plot (in the ratio range of 1:1.5 to 1:2). There are some exceptions, but in such cases the width of the plot is quite large.
- All FPs will be given TPS road access. In some cases where certain cases where some private plots are abutting or within Abadi plots and already possess access. Here the existing access is retained.
- The Final Plot will be located on the or in a portion of the Original Plot in most cases. In case it becomes imperative to shift it, it will be located in a better location / given locational advantage.

D

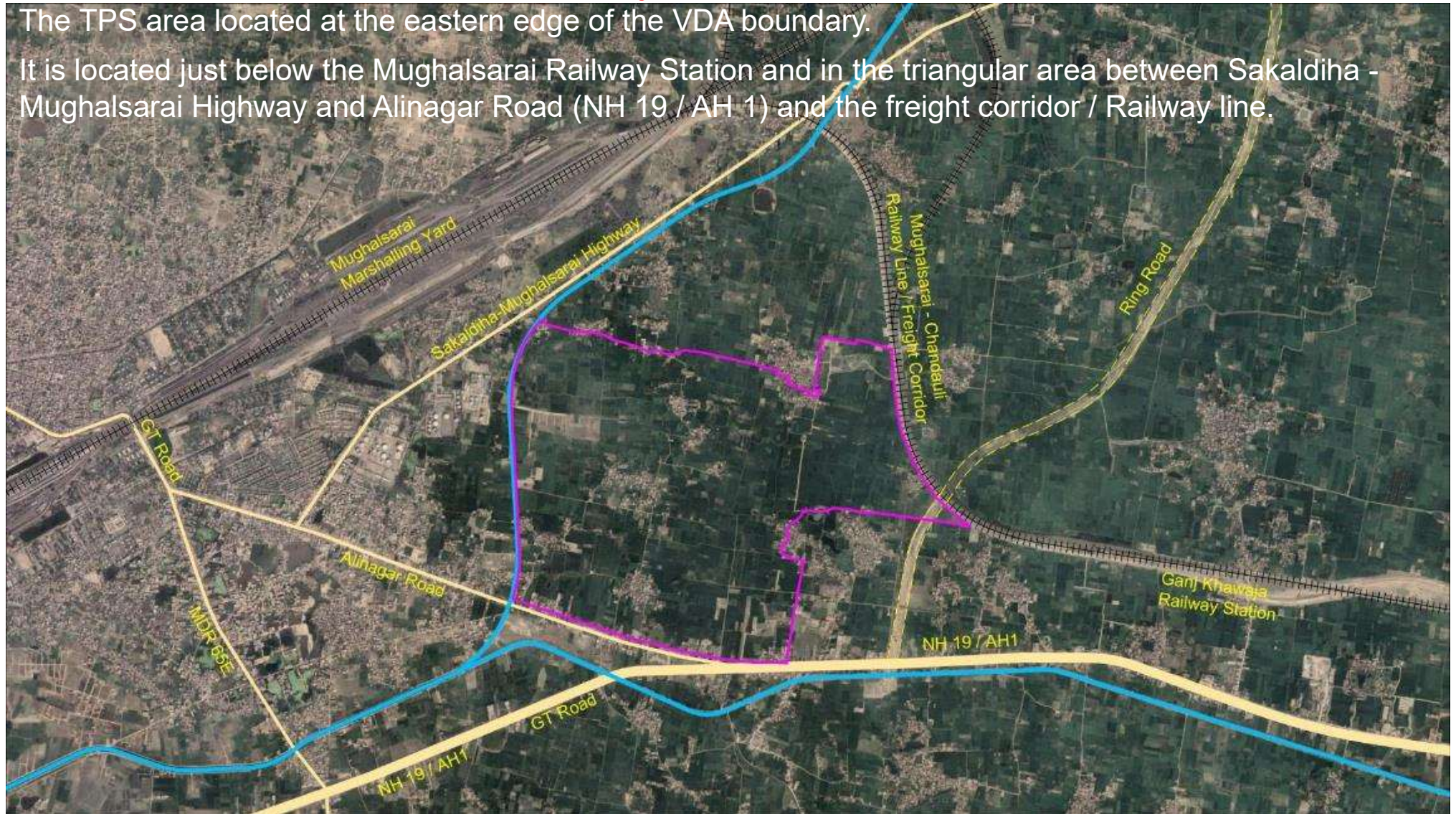
Salient features

1. Location and Connectivity
2. Boundary and Area
3. Topography and Waterbodies
4. Land Ownership Pattern
5. Private Land Parcels
6. Existing Land Use
7. Development Permission and Approved Layouts
8. Existing Structure Details
9. Details of Land Acquired

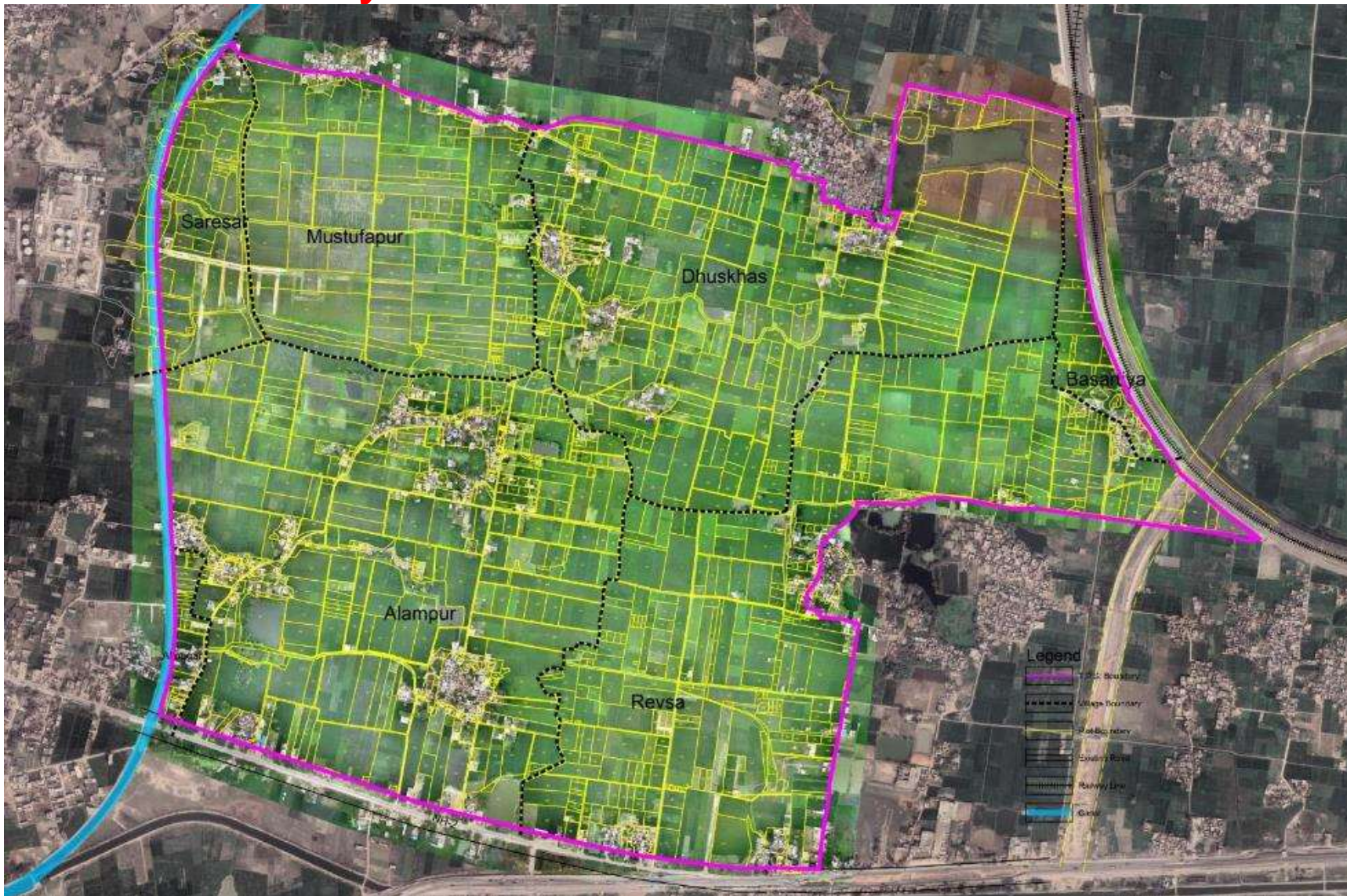
1 Location and Connectivity

The TPS area located at the eastern edge of the VDA boundary.

It is located just below the Mughalsarai Railway Station and in the triangular area between Sakaldiha - Mughalsarai Highway and Alinagar Road (NH 19 / AH 1) and the freight corridor / Railway line.



2 Boundary and Area

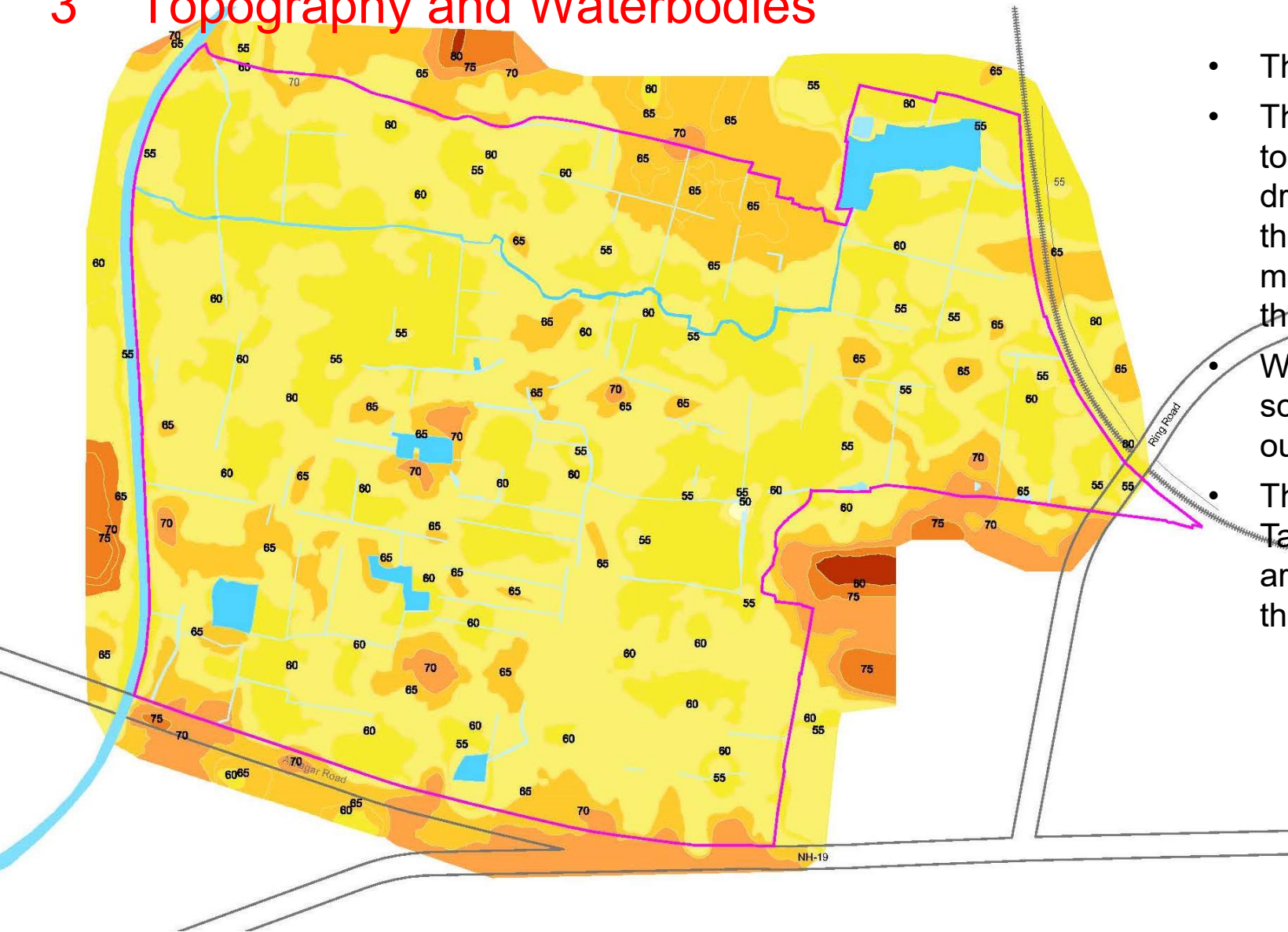


- Area – 366.33 Ha
- Parts of 7 villages.
- The boundary delineation is based on strong natural and built features.
- West – canal
- South – Highways
- North - existing village road
- East - partly by the Railway line & existing village road.

2 Boundary and Area

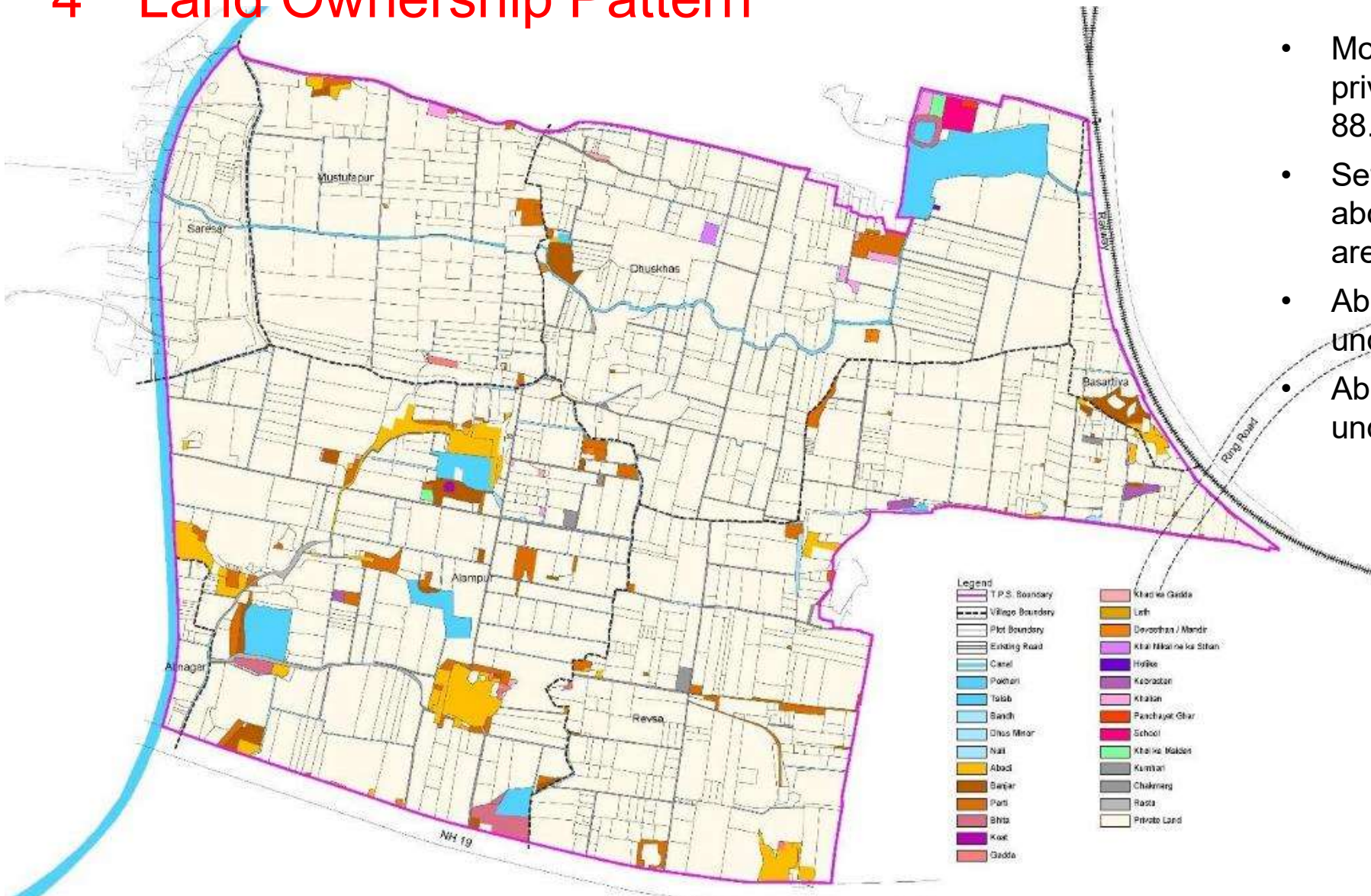
No.	Village	District/ Janpath	No. of Plots	Area (Ha)	No. of Owners	Status
1	Revsa	Chandauli	513	92.353	1108	Part Village
2	Alampur	Chandauli	497	104.529	1589	Part Village
3	Alinagar	Chandauli	26	2.095	76	Part Village
4	Saresarar	Chandauli	124	15.138	846	Part Village
5	Mustafapur	Chandauli	197	48.855	751	Part Village
6	Dhukhas	Chandauli	417	91.137	359	Part Village
7	Barsatia	Chandauli	46	7.345	115	Part Village
	Total TPS Area as per Records		1819	361.453	4844	
	Total TPS Area as per Boundary measured		1819	366.328		

3 Topography and Waterbodies



- The overall area is quite flat.
- The slope of water is from west to east as evident for the long drain that runs almost through the center of the TPS area and merges into a large Talab at the north east corner.
- Water then drains out of the scheme area through an outflow channel.
- There are about 5 natural Talabs / ponds / lakes in the area that are significant from the drainage perspective

4 Land Ownership Pattern



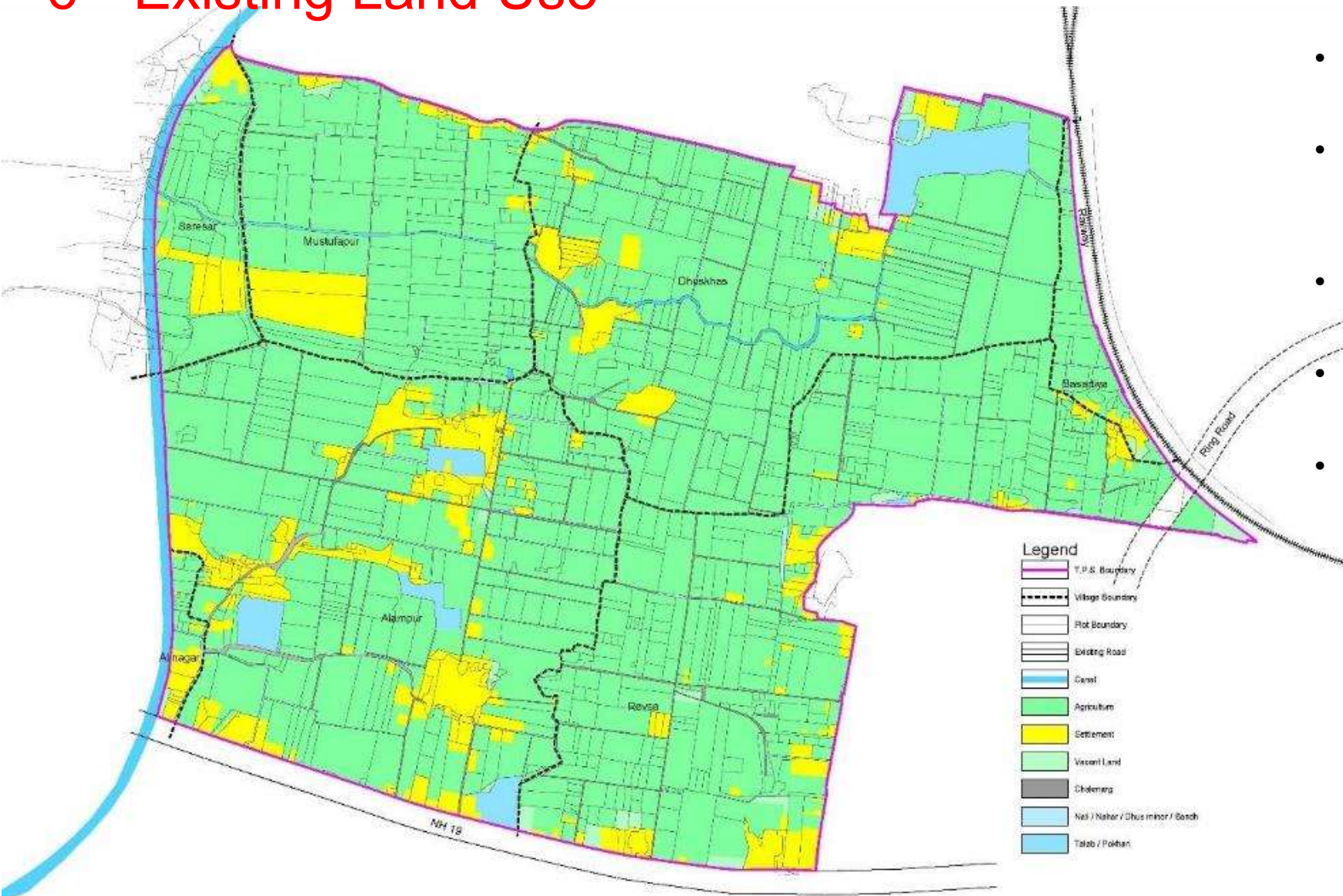
- Most of the land is privately owned – 88.56%.
- Settlements constitute about 1.91% of the total area.
- About 5% of the land is under public ownership.
- About 4% of the land is under waterbodies.

5 Private Land Parcels

Plot Size Range (sq m)	Interval (sq m)	No. of Plots	Area (Ha)	Area (Sqm)	Avg plot Size (Sqm)	No. of owners	Avg Owner / Plot	Avg Holding per person
0 to 190	190	108	0.9516	9516	88.11	490	4.54	19.42
200 to 300	100	104	2.292	22920	220.38	363	3.49	63.14
310 to 400	90	72	2.569	25690	356.81	303	4.21	84.79
410 to 510	100	62	2.6945	26945	434.60	220	3.55	122.48
520 to 610	90	59	3.2793	32793	555.81	195	3.31	168.17
630 to 710	80	64	3.7873	37873	591.77	255	3.98	148.52
720 to 810	90	52	3.98	39800	765.38	139	2.67	286.33
850 to 1010	160	85	7.743	77430	910.94	274	3.22	282.59
1050 to 2020	970	274	39.5169	395169	1442.22	801	2.92	493.34
2060 to 3930	1870	265	74.6134	746134	2815.60	808	3.05	923.43
3950 to 29670	25720	245	178.6634	1786634	7292.38	1007	4.11	1774.21
Total		1390	320.0904	3200904	2302.81	4855	3.49	659.30

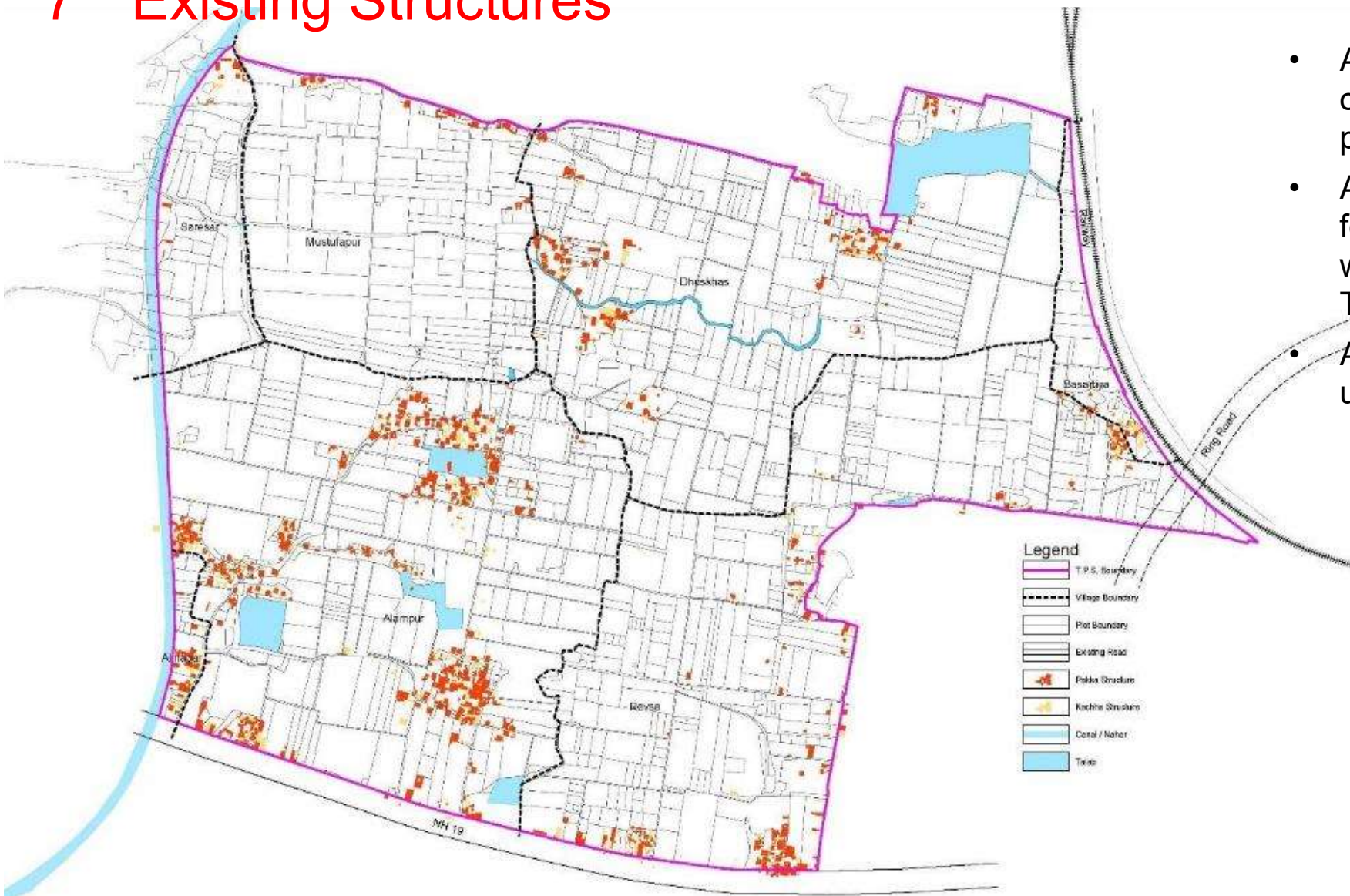
- Total private plots – 1390 (sub divisions)
- Size ranges: 10 sqm to 29760 sqm
- Total number of plot sizes / unique values are: 360.
- Plot size ranges are made based on the number of plots in that range in case of larger plots and plot size intervals in case of smaller plots / plots upto 810 sq m.
- Small plots that are less than 200 sq m are 108 with an area of 9516 sq m.

6 Existing Land Use



- 81% of the land is under agriculture
- 11% is under settlements / built structures.
- Total area under roads is only 3.4%
- Area under waterbodies is 4.3%
- Others – vacant, minor drains and ring road

7 Existing Structures



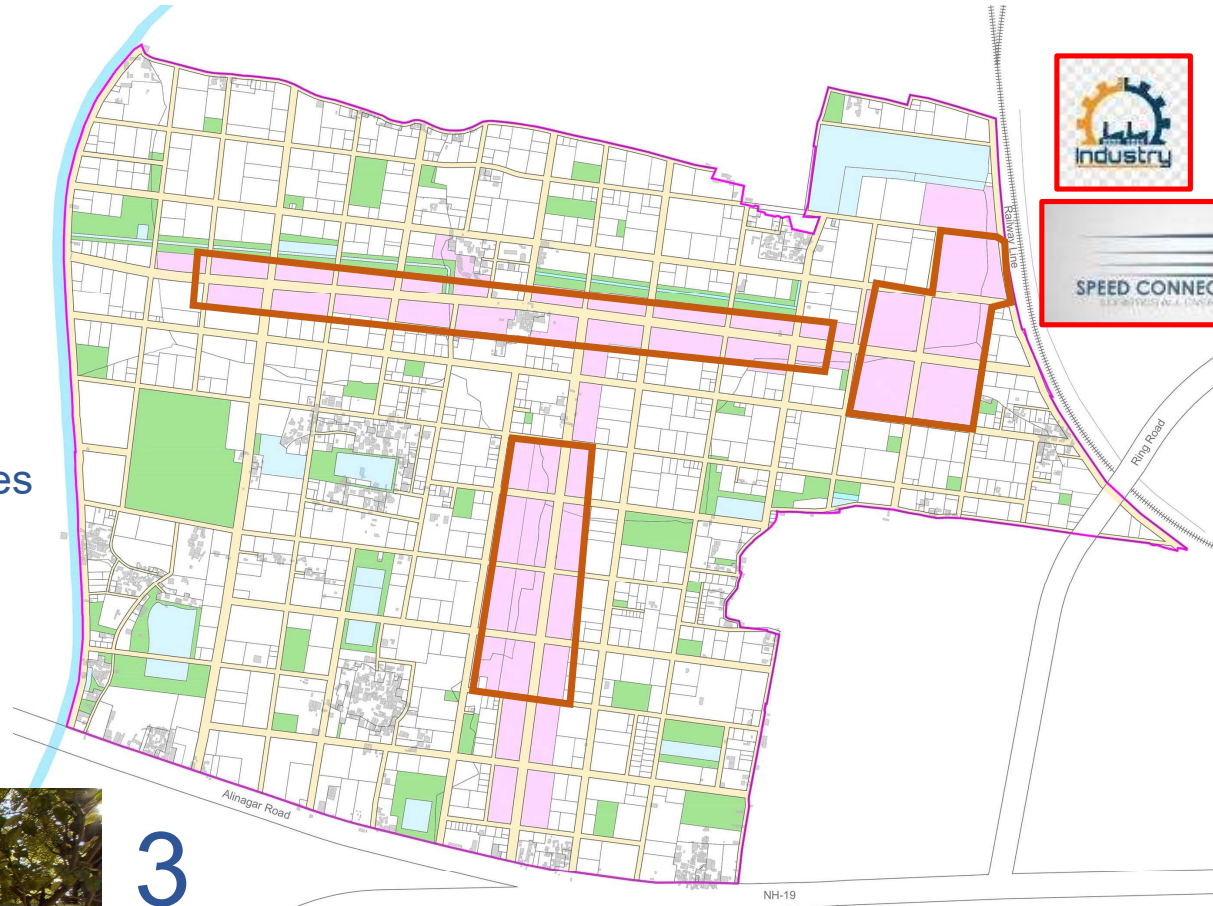
- About 2289 structures of which 75% are pucca.
- Area on ground / footprint is about 10 ha, which is about 2.73% of TPS area
- Almost all are unauthorised.

E

Development goals

2

Well preserved and enhanced water bodies and natural drainage system



1

Hubs / clusters to encourage economic developments / jobs

3

Inclusive residential neighbourhoods



F

**Population Estimates, Design Norms and
Design Principles**

1 Population Estimation

- Population estimation is usually done for a larger planning area usually at the time of preparing a Master Plan or a Development Plan.
- Though difficult to estimate population for a portion of a city, some estimation would need to be done to plan for:
 - 1) Social amenities
 - 2) Cost the physical infrastructure.
- The population estimate for the TPS area is done using two methods
 - 1) Based on the Density Norms prescribed in the Byelaws of VDA for Group Housing
 - 2) Based on the Gross Density of Developable Zones in the Master Plan for Mughalsarai
- Projections are done for computation of amenities and physical infrastructure.
- Estimates are broad brush, the objective being to be factor costs to an extent
- Adopted Population for the TPS Area
 - 1) **70,000** for computing social infrastructure
 - 2) **1,00,000** for designing physical infrastructure

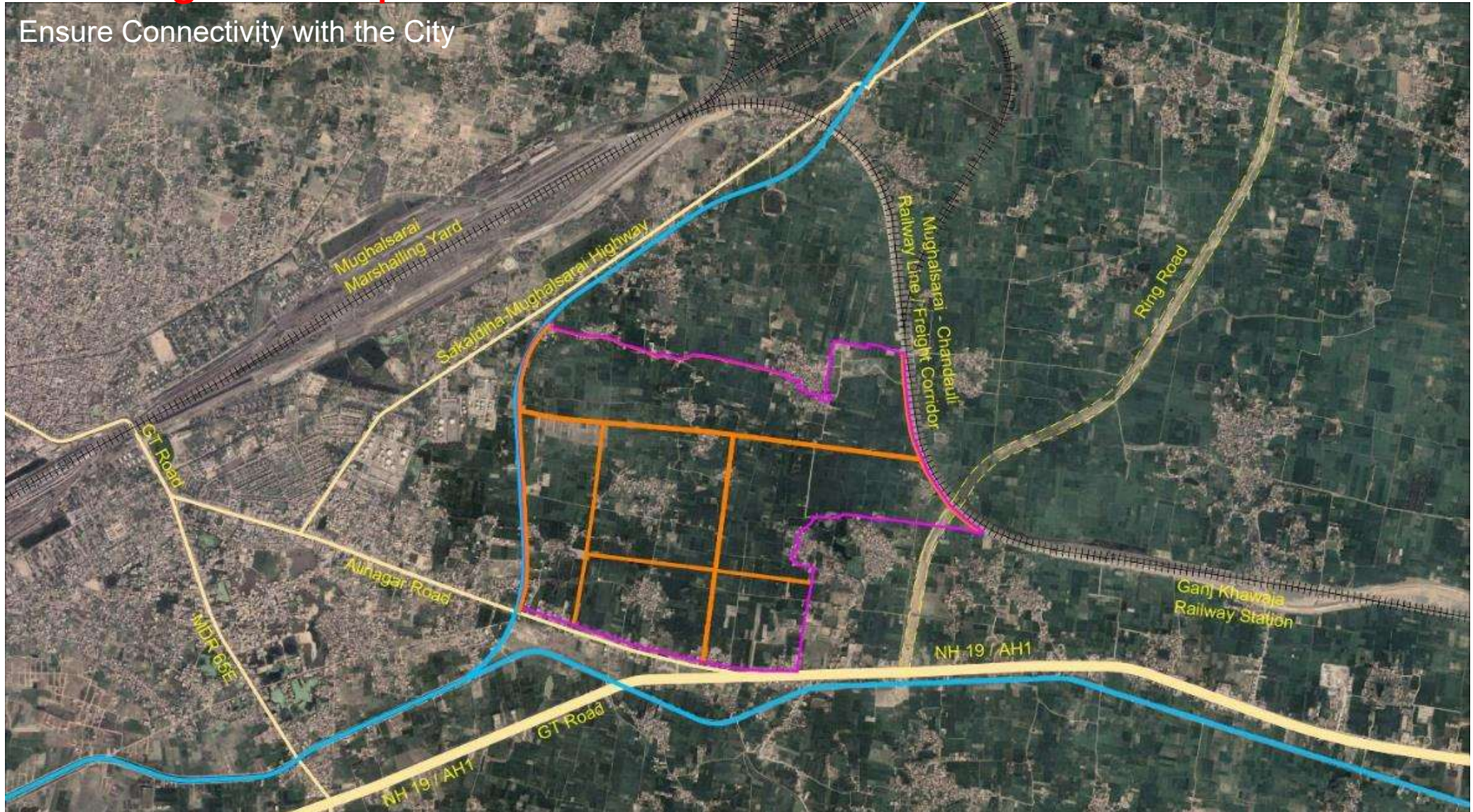
2 Adopted Norms and Standards for Provision of Amenities

Based on the VDA Bylaws

No.	Amenity	Population / Unit	Area (sq m)
1	Nursery School	2500	500
2	Primary School	5000	1000
3	Junior High School	7500	2000
4	Inter College	10000	4000
5	Degree College	100000	5000
6	Anganwadi	5000	250
7	Heath Centre	15000	800
8	Children welfare & maternity home	45000	2000
9	General Hospital (100 bed)	100000	20000
10	Sub Post Office	10000	100
11	Telephone Exchange	100000	100
12	Police Station (w Staff accommodation)	50000	4000
13	Police Both	15000	1500
14	E-Convenience Centre	15000	50
15	Others - Barat Ghars, Clubs		

3 Design Principles

Ensure Connectivity with the City



3 Design Principles

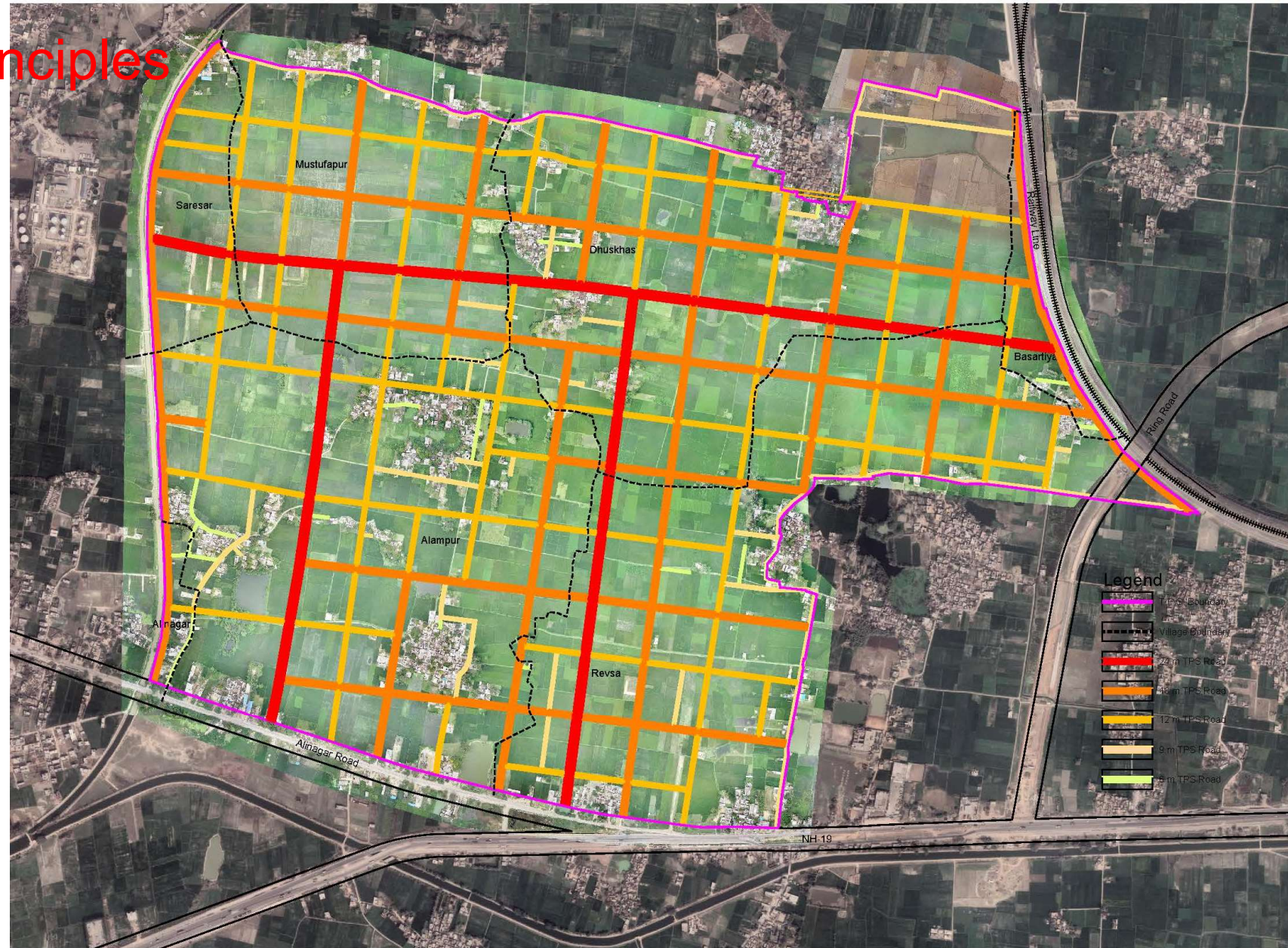
Define a Functional Hierarchy of Roads and Grid Network Pattern

Built on existing pattern

Permits a better traffic distribution and alternative routes

Efficient provision of infrastructure

Logical distribution of FSI and zone definition



3 Design Principles

Place Final Plots (FP) over Original Plots (OP) as much as Possible

Valuation is simpler

Also easier to communicate to land owners

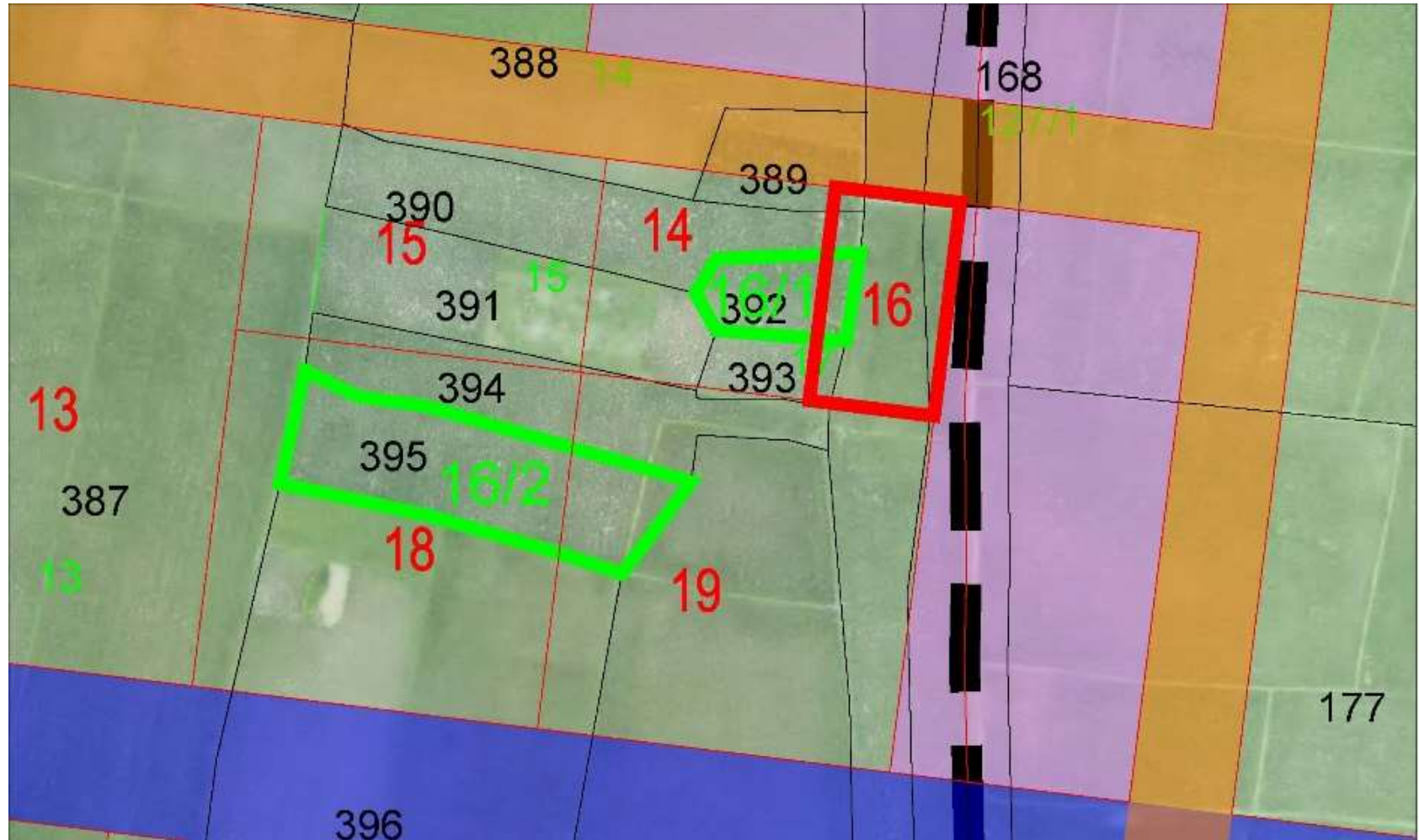


3 Design Principles

Consolidate
Original Plots to
give Combined
Final Plot/s

Larger final plots

Small plots – below
200 sq m were
reduced as far as
possible



3 Design Principles

Regularize the Shape of Final Plots

In a proportion that makes it more buildable



3 Design Principles

Ensure Access to Every Final Plot



3 Design Principles

Reduce the Plot Shape anomalies due to Village Boundaries

Public land appropriations are used to manage this!

In future one gets seamless development

The odd village boundaries get erased!

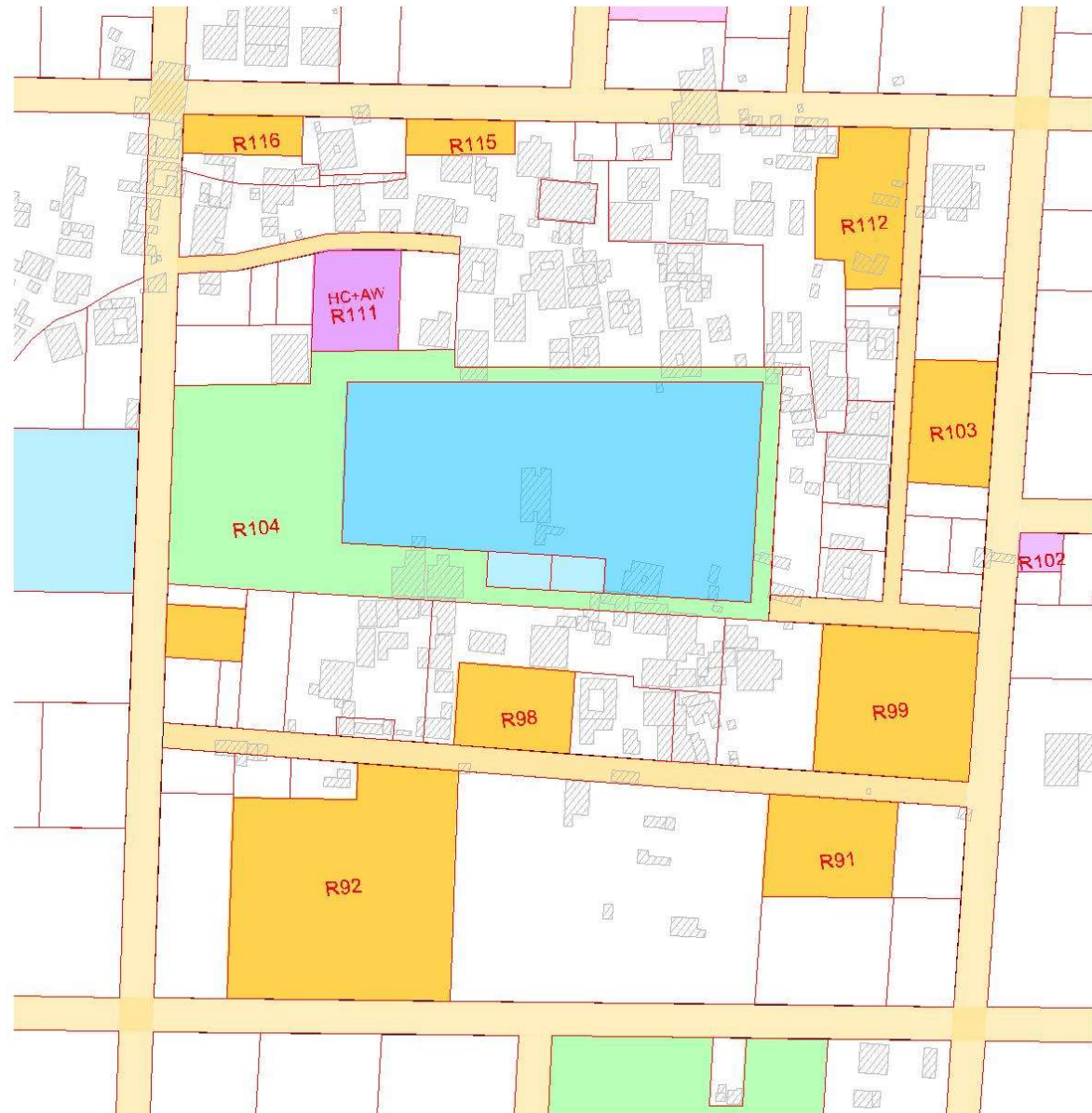


3 Design Principles

Integrate Abadis

Built up accommodated

EWS plots and some amenity plots nearby which will promote future redevelopment



3 Design Principles

Create Walkable Blocks with access to amenities

This going forward enables the area to absorb public transit, accommodate higher densities and not require an LAP in future!

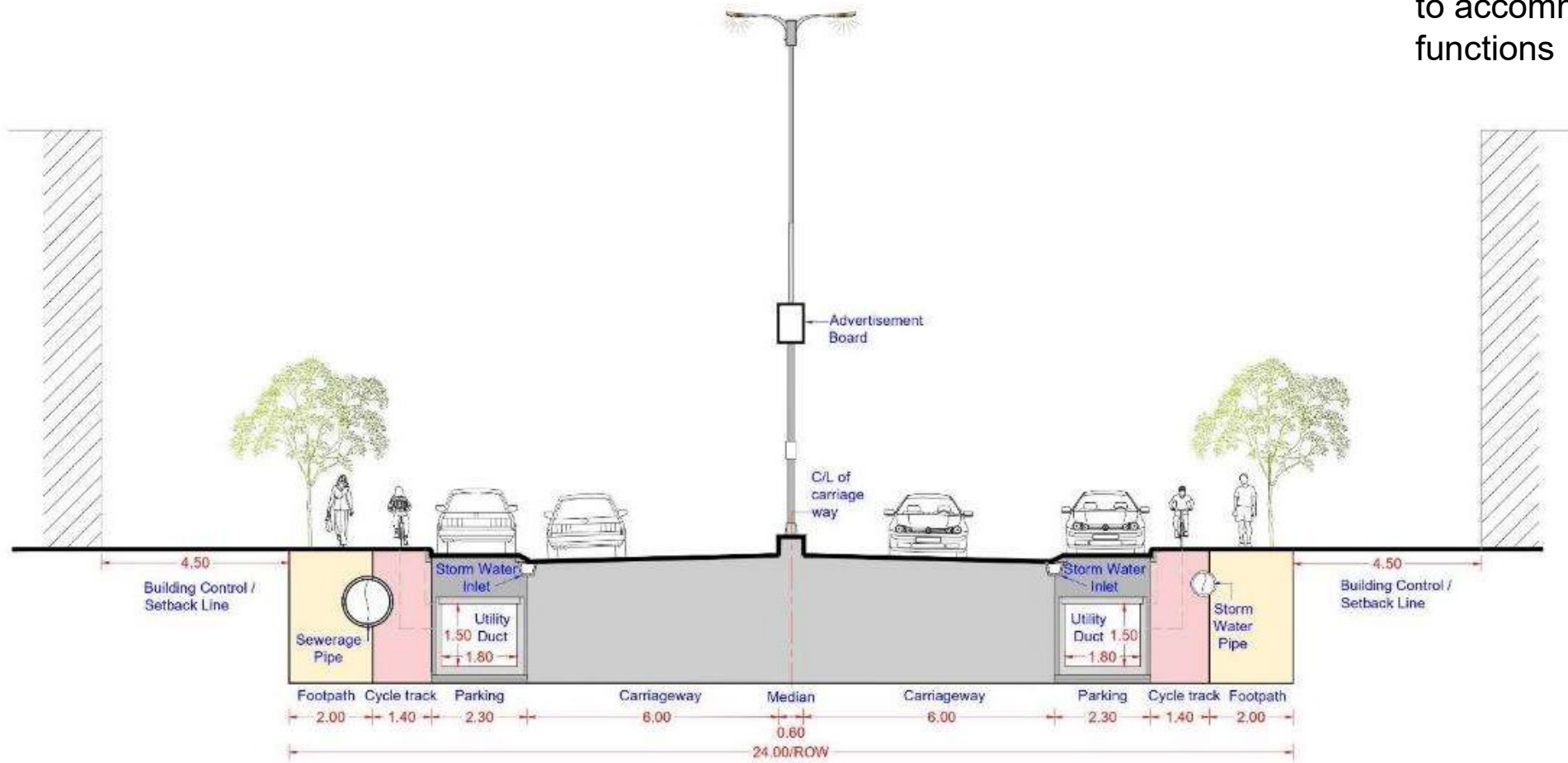


3 Design Principles

Complete Street design

Entire right of way is designed for each street to accommodate all functions

24 m ROW Street

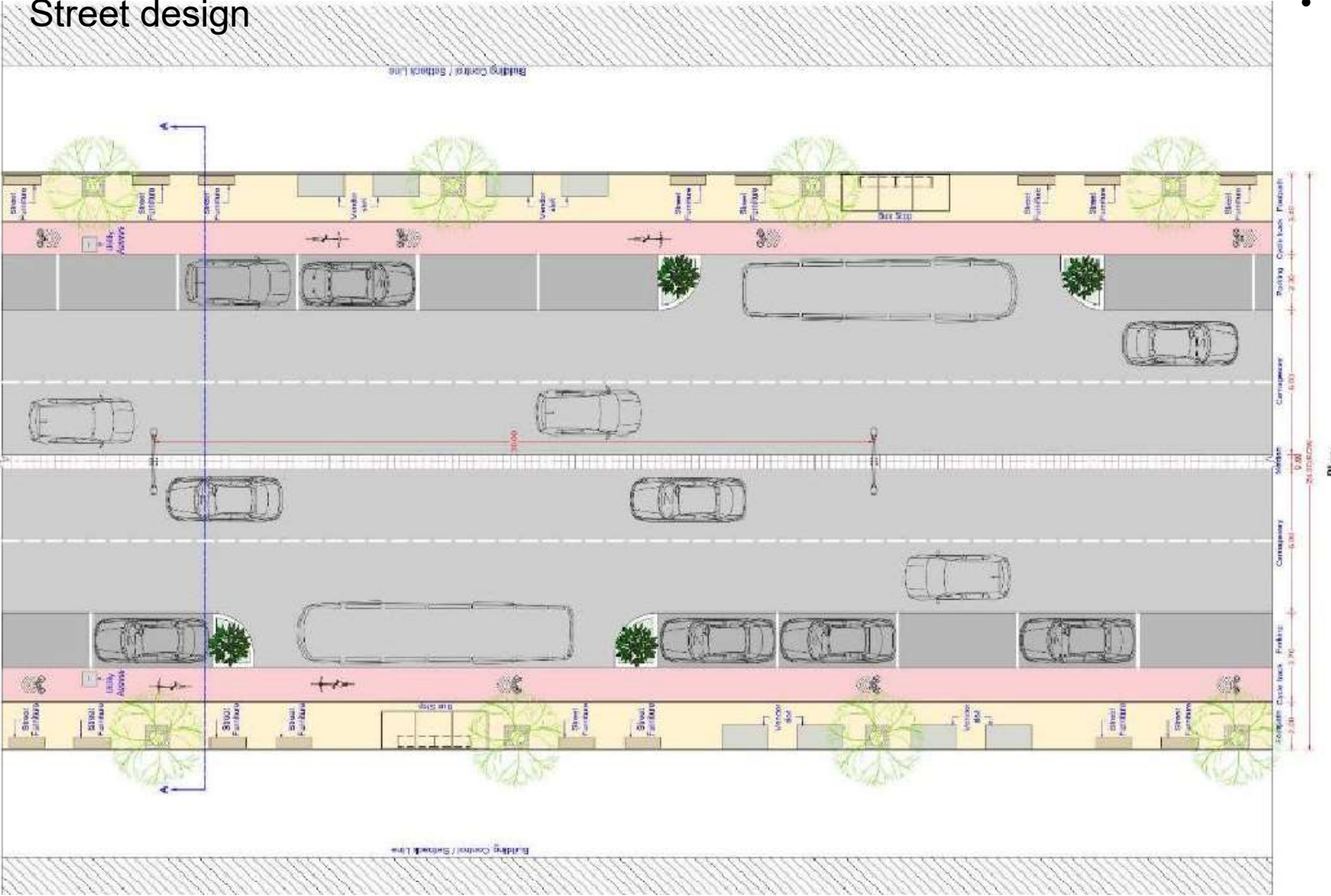


Section A-A

3 Design Principles

Street design

- Section, plan and features



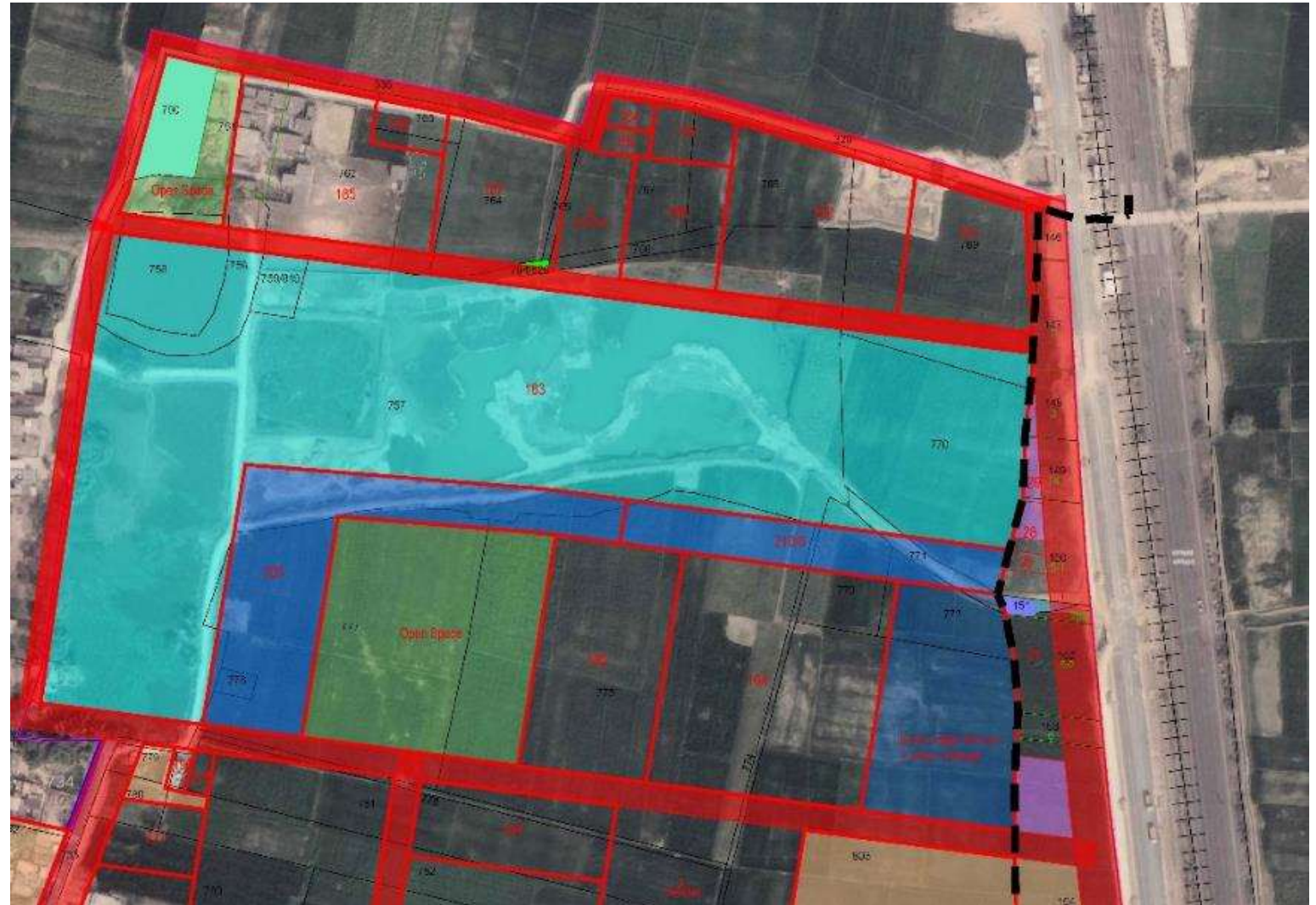
3 Design Principles

Water bodies

Preserved

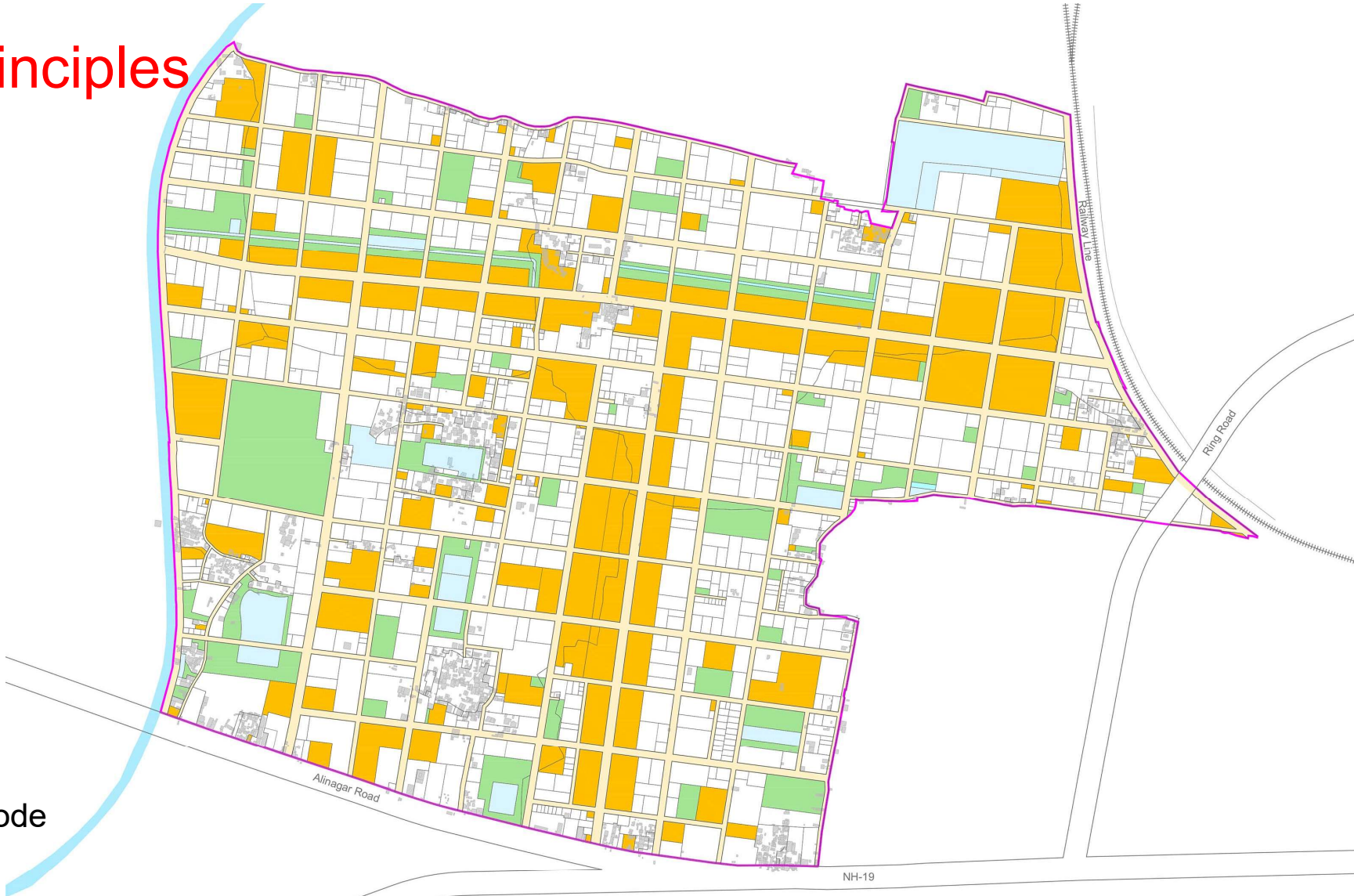
Greens located abutting them

Small nali plots combined and placed abutting



3 Design Principles

Consolidating
Public Purpose
plots

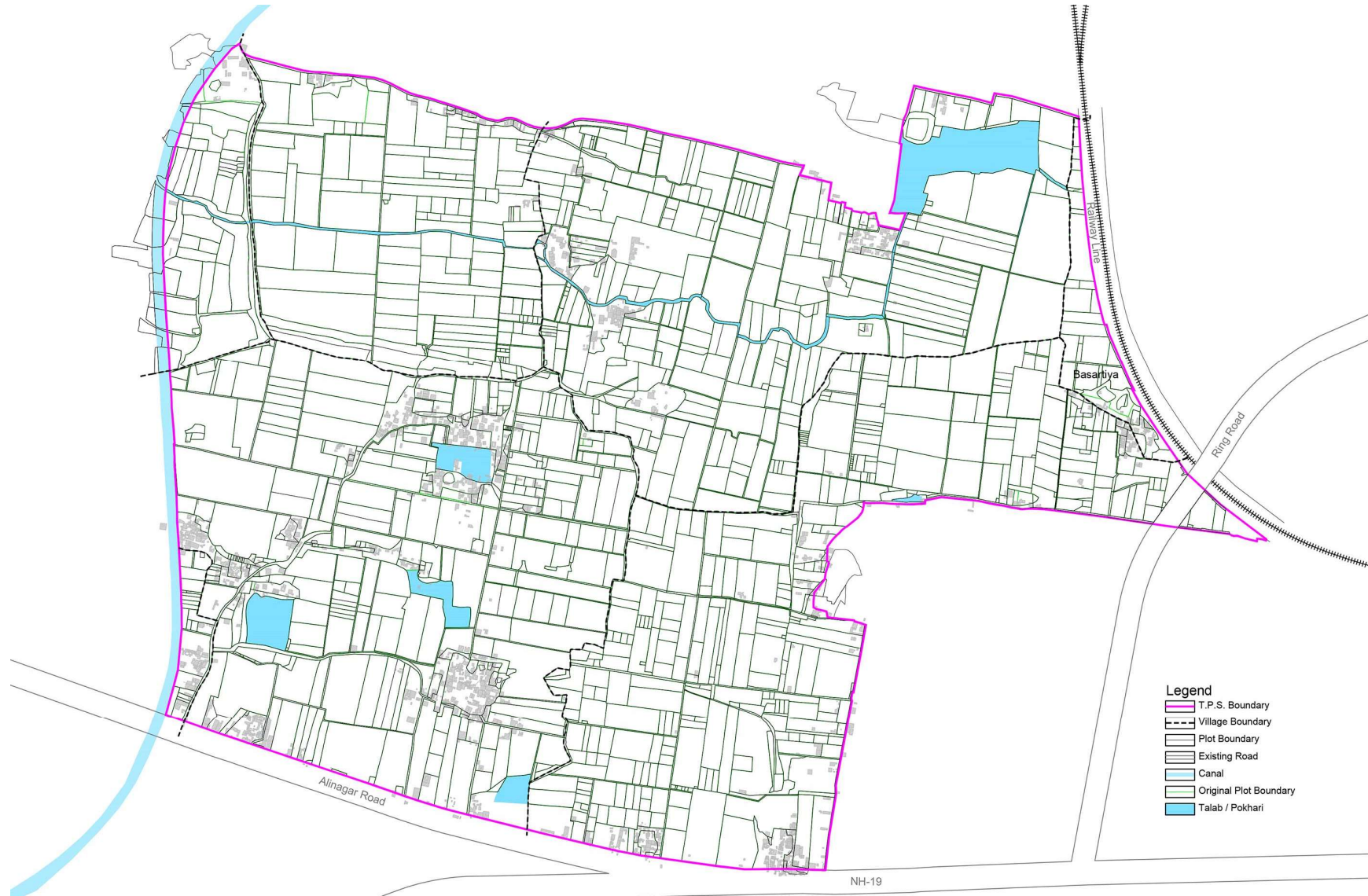


12 ha large economic node
8 ha large green

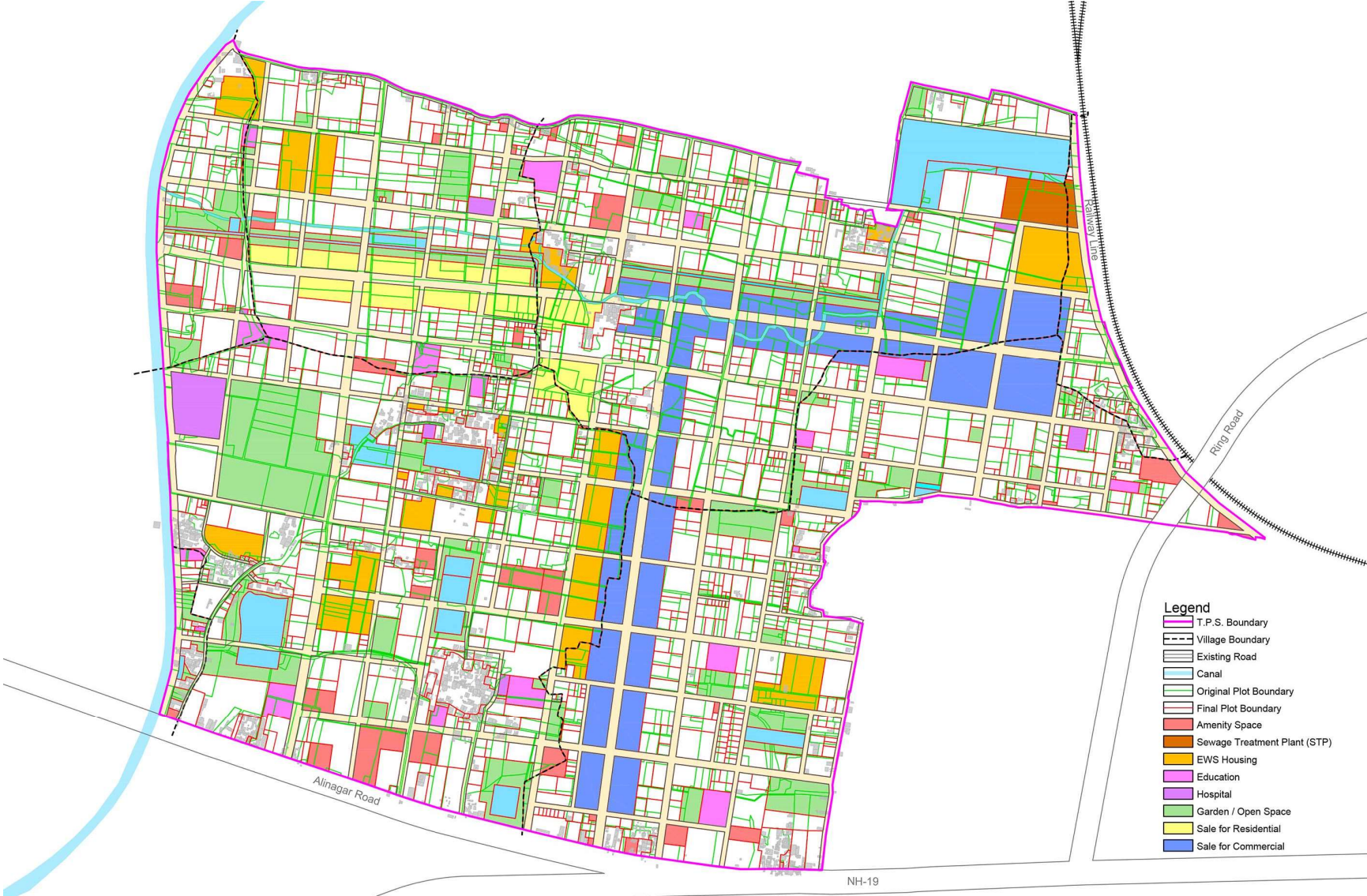
G

Scheme Summary and Features

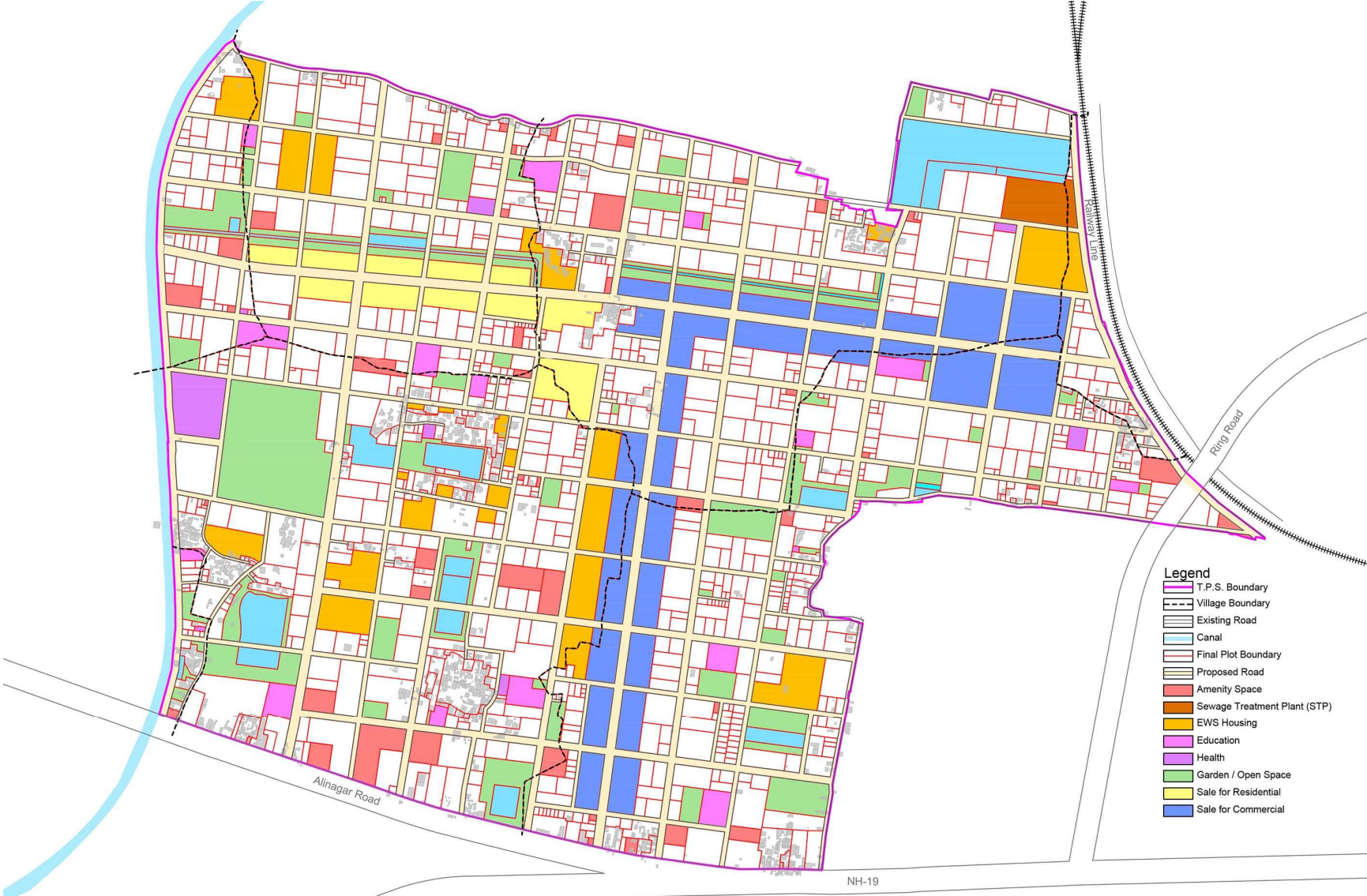
Original Plot Plan



Original Plot – Final Plot Plan



Final Plot Plan



Scheme Statements - % Deduction Table

Draft Town Planning Scheme - Alampur Revsa - Alampur - Alinagar - Saesar - Mustufapur - Dhushkas - Basratiya

Table 4: Area and Percentage Deduction Table

K No.	Owner Name	Class	Khatauni No.	Area (ha)	Area (sqm)	Area Finalized (sqm)	OP Number	Area (sqm)	FP Number	Area (sqm)	Deducted Area (sqm)	Deduction (%)	Remarks
1	2	3	4		5	6	7	8	9	10	11	12	13
Revsa Village													
1	Chetaram, Kamla, Kailash, Suresh / Aasan	1-K	00090	0.3880	3880	3880	1/1						
540	Chetaram, Kamla, Kailash, Suresh / Aasan	1-K	00090	0.7770	7770	7770	1/2						
	Total 1+540			1.1650	11650	11650		11650	1	5825	5825	50	FP partly over OP along 18 m and 12 m TPS road. Combined FP for two OPs is given on the largest OP location of Khasra 540.
2	Lalji v Lalchandra / Sitaram Tahir / Basir Smt. Lalati Devi / Kashiprasad	1-K	00437	0.4090	4090	4090	2	4090	2	2045	2045	50	FP is shifted as the OP is under 12 m TPS road. FP along 18 m and 12 m TPS road.
3	Hardev / Bhikkham	1-K	00556	0.1920	1920	1920	3	1920	3	960	960	50	FP is shifted as the OP is under 12 m TPS road. FP along 18 m TPS road.
4	Joshree / Sukalu	1-K	00124	0.3010	3010	3010	4	3010	4	1505	1505	50	FP is slightly shifted as the OP is in the interior. FP along 6 m TPS road.
5	Chhotu / Ghura Mukkukumar / Ghura	1-K	00101	0.2390	2390	2390	5/1						
192	Chhotu / Ghura Mukkukumar / Ghura	1-K	00101	0.2630	2630	2630	5/2						
	Total 5+192			0.5020	5020	5020		5020	5	2510	2510	50	FP over OP along 12 m TPS road. Combined FP for two OPs is given on the largest OP location of Khasra 192.
7	Ramdhani, Shiv dhani / Dura	1-K	00367	0.2350	2350	2350	6/1						
191	Ramdhani, Shiv dhani / Dura	1-K	00367	0.2390	2390	2390	6/2						
	Total 7+191			0.4740	4740	4740		4740	6	2370	2370	50	FP over OP along 12 m TPS road. Combined FP for two OPs is given on the largest OP location of Khasra 191.
8	Muhammad Rasool / Shesh Bechu Sahabuddin Rekddin / Shesh Ahamed	1-K	00272	1.1210	11210	11210	7	11210	7	5605	5605	50	FP over OP along 18 m and 12 m TPS road.

Scheme Statements – Land Valuation & Redistribution

Draft Town Planning Scheme - Alampur Revsa - Alampur - Alinagar - Saesar - Mustufapur - Dhuskhas - Basratiya

Table 5: Land Valuation and Distribution Statement

K No.	Owner Name	Class	Khatauni No.	Area Finalized (sqm)	Original Plot				Final Plot								Contribution (+) Compensation under Section 80 Column 9(b) Minus Column 6(b)	Increment Column 10(a) Minus Column 9(a)	Contribution 50 % of Column 12	Addition to (+) or deduction from (-) contribution to be made under other section	net demand from (+) or by (-) owner being the addition of 11,13,14	Remarks	
					OP Number	Area (sqm)	OP Rate	Value in Rupees		FP Number	Area (sqm)	Semi Final Rate	FP Rate	Value in Rupees									
								Without Reference to value of Structures	Inclusive of Structures					Undeveloped		Developed							
														Without Reference to value of Structures	Inclusive of Structures	Without Reference to value of Structures							Inclusive of Structures
6(a)	6(b)	7	8		9(a)	9(b)	10(a)	10(b)	11	12	13	14	15	16									
Revsa Village																							
1	Chetaram, Kamla, Kailash, Suresh / Aasan	1-K	00090	3880	1/1																		
540	Chetaram, Kamla, Kailash, Suresh / Aasan	1-K	00090	7770	1/2																		
	Total 1+540			11650		11650	260	3029000	3029000	1	5825	260	7700	1514500	1514500	44852500	44852500	-1514500	43338000	21669000	20154500		
2	Lalji v Lalchandra / Sitaram Tahir / Basir Smt. Lalati Devi / Kashiprasad	1-K	00437	4090	2	4090	260	1063400	1063400	2	2045	260	7680	531700	531700	15705600	15705600	-531700	15173900	7586950	7055250		
3	Hardev / Bhikkham	1-K	00556	1920	3	1920	260	499200	499200	3	960	260	7680	249600	249600	7372800	7372800	-249600	7123200	3561600	3312000		
4	Joshree / Sukalu	1-K	00124	3010	4	3010	260	782600	782600	4	1505	260	7700	391300	391300	11588500	11588500	-391300	11197200	5598600	5207300		
5	Chhotu / Ghura Mukkukumar / Ghura	1-K	00101	2390	5/1																		
192	Chhotu / Ghura Mukkukumar / Ghura	1-K	00101	2630	5/2																		
	Total 5+192			5020		5020	260	1305200	1305200	5	2510	260	7680	652600	652600	19276800	19276800	-652600	18624200	9312100	8659500		
7	Ramdhani, Shiv dhani / Dura	1-K	00367	2350	6/1																		
191	Ramdhani, Shiv dhani / Dura	1-K	00367	2390	6/2																		
	Total 7+191			4740		4740	440	2085600	2085600	6	2370	440	8035	1042800	1042800	19042950	19042950	-1042800	18000150	9000075	7957275		
8	Muhammad Rasool / Shesh Bechu Sahabuddin Rekddin / Shesh Ahamed Jamaluddin / Shesh Ahmed	1-K	00272	11210	7	11210	440	4932400	4932400	7	5605	440	8060	2466200	2466200	45176300	45176300	-2466200	42710100	21355050	18888850		
9	Wanshi, Mushi / Sukhdev Ramsi, Munvasi / Sukhdev Sagayan, Bhagayan, Polhavan / Sukhanandan	1-K	00489	770	8	770	260	200200	200200	8	385	260	7680	100100	100100	2956800	2956800	-100100	2856700	1428350	1328250		

Summary Area Statement before TPS

No.	Particulars	Area (Ha)	Area(sqm)	% to Total Scheme Area
1	Total Private Plot OP Area	319.06	3190638	87.10
2	Existing Abadi	6.85	68523	1.87
3	Public Lands	9.51	95137	2.60
4	Public Amenity Lands	2.78	27790	0.76
5	Water Bodies	15.29	152923	4.17
6	Existing Rasta, Chakmarg, Addl	12.06	120632	3.29
7	Existing Ring Road	0.77	7735	0.21
	Total Scheme Area	366.34	3663378	100.00

Notes:

1. Public lands includes - Parti, Banjar, Khaihan, Bhita, Gadda, Khad Ka Gadda, Khal nikalne ka sthan, Khadla, Koat, Kumhari, Lath
2. Public amenity lands includes - Khel ka maida, Holika, School, Panchayat ghar, Mandirs, devasthans, kabrasthans
3. Water Bodies includes - Talabs, Pokhari, Nahar, Nali, Bandh and Dhus Minor
4. Addl - there is an additional area of 44243 sq m which is included in the chakmarg

Summary Area Statement after TPS

No.	Particulars	Area (Ha)	Area (sqm)	% to Total Scheme Area
1	Total Private Plots FP Area	159.34	1593355	43.49
2	Proposed Abadi	6.85	68523	1.87
3	Public Lands	4.70	47049	1.28
4	Public Amenity Lands	2.08	20761	0.57
5	Total area under allotted for Open Space, Amenity, EWS & Sale (residential & commercial)	107.79	1077942	29.42
6	Water Bodies	15.29	152923	4.17
7	Area under Scheme Roads	69.51	695090	18.97
8	Existing Ring Road	0.77	7735	0.21
	Total Scheme Area	366.34	3663378	100.00

Summary Details of Appropriated Plots

No.	Particulars	Area (Ha)	Area (sqm)	% to Total Scheme Area
1	Open Space	32.86	328553	8.97
2	Amenity – Education	6.24	62365	1.70
3	Amenity – Health	3.05	30478	0.83
4	Amenity – Others, includes STP	11.46	114556	3.13
5	Sale – Residential	8.78	87779	2.40
6	Sale – Commercial	28.25	282477	7.71
7	EWS Housing	17.17	171734	4.69
	Total	107.79	1077942	29.42

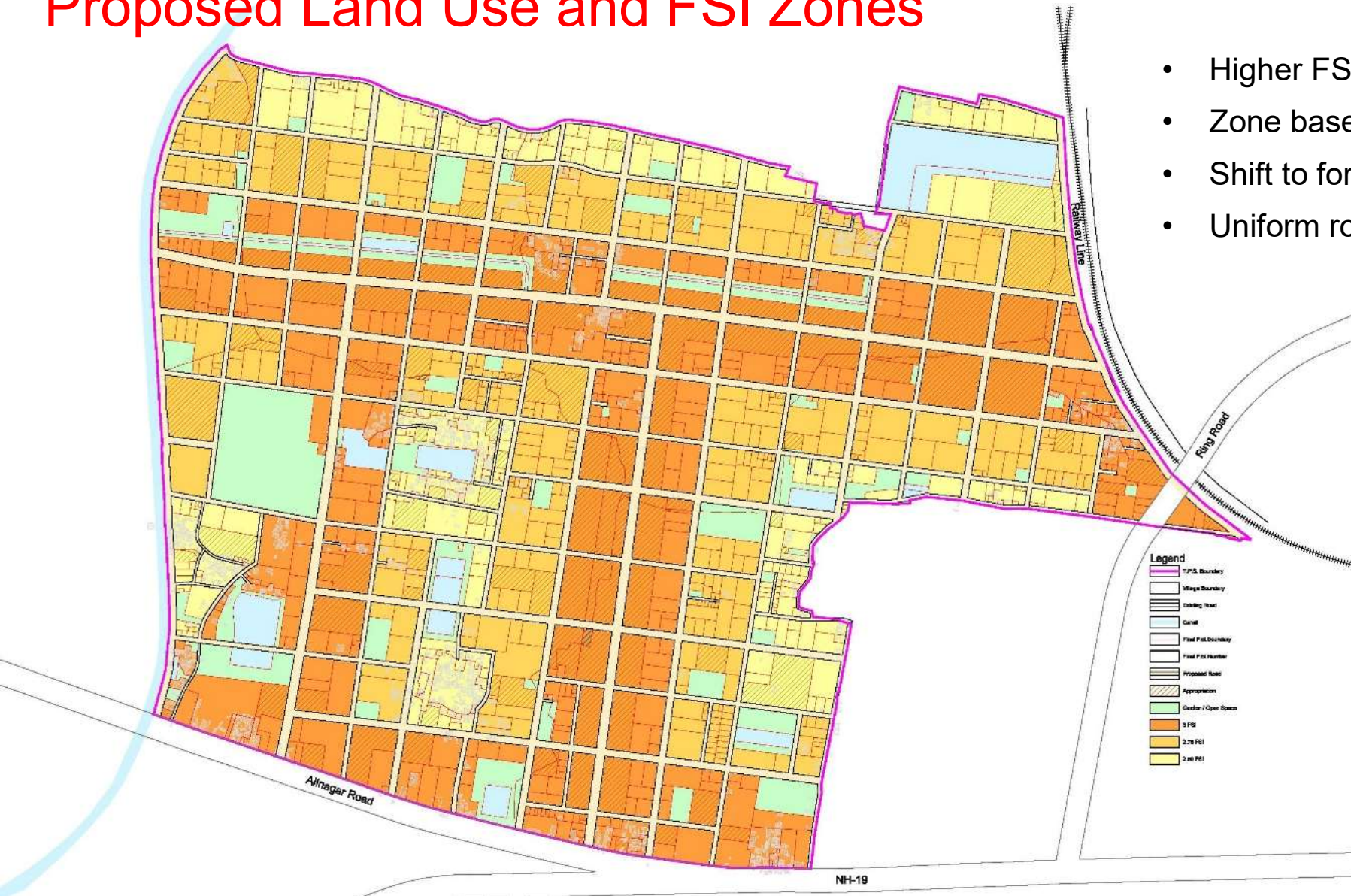
- Land allocated for amenities at this point is 5.66%
- Land allocated for EWS is 4.69 %.
- Land for Open space is 9%. Water bodies would be additional.
- Land for Authority is about 10%

Summary Details of Appropriated Plots

No.	No. of Plots	Type of Appropriation	%	Area (sq m)
1	1	Degree College	0.14	5001
2	10	Junior High School+ Inter College	1.18	43262
3	10	Nursery School + Primary School	0.38	14102
4	1	General Hospital	0.53	19363
5	2	Child Welfare + Maternity Health Center	0.15	5432
6	4	Health Center + Aanganwadi	0.12	4463
7	2	Hospital / Anganwadi	0.02	655
8	2	Anganwaadi	0.02	565
9	28	EWS	4.69	171734
10	89	Garden / Open space	8.97	328553
11	55	Amenity Space (not allocated)	2.60	95178
12	2	STP	0.53	19378
13	40	Sale for Commercial	7.71	282477
14	15	Sale for Residence	2.40	87779
Total	261		29.42	1077942
		Total TPS Area		3663378

Proposed Land Use and FSI Zones

- Higher FSI along higher roads
- Zone based FSI
- Shift to form based codes
- Uniform road setbacks



Proposed Land Use and FSI Zones

No	Use and FSI Zone	Area (Ha)	Area (sq m)	Maximum Built Up Possible (sq m)	% to Total Scheme Area
1	Mixed Use 1 FSI 3	122.23	1222317	3666951	33.37
2	Mixed Use 1 FSI 2.75	81.86	818561	2251043	22.34
3	Mixed Use 1 FSI 2.5	44.59	445934	1114835	12.17
4	Roads	69.51	695090		18.97
5	Water Bodies	15.29	152923		4.17
6	Greens	32.86	328553		8.97
Total		366.34	3663378	7032829	100.00

- Block based FSI Zones – 3, 2.75 and 2.5
- FSI of 2.5 is free or matter of right. Additional FSI of 0.25 and 0.5 will chargeable if consumed.

Small Plots

No.	Village	Plot Nos	Area Finalized (sqm)	BUA Awarded (sqm)	LIG Unit Area	EWS Unit Area	Residual Area for Compensation	Compensation (Rs)
1	Revsa	26	1859	930	328	280	322	413440
2	Alampur	27	2180	1090	451	245	394	741120
3	Aiinagar	5	640	320	123	175	22	47680
4	Saresar	3	120	60	0	0	60	128000
5	Mustafapur	7	640	320	123	140	57	109440
6	Dhuskhas	11	1100	550	287	105	158	276160
	TOTAL	79	6539	3270	1312	945	1013	1715840
	UNITS				32	27		

- Compensation is calculated at 4 times the original plot value

Infrastructure Provision

- Here the following infrastructure is considered at scheme level
 - Roads
 - Water supply
 - Sewerage system
 - Storm water system
 - Development of open spaces (partial)
 - Electrification
 - Housing units for small plots not allocated final plots
- Land compensation for 50% land appropriated is not considered as no betterment charges are proposed.
- Some betterment is considered in case of locational advantage
- All costs are proposed to be met with by land generated for the Authority which is pegged at 10% of scheme area.

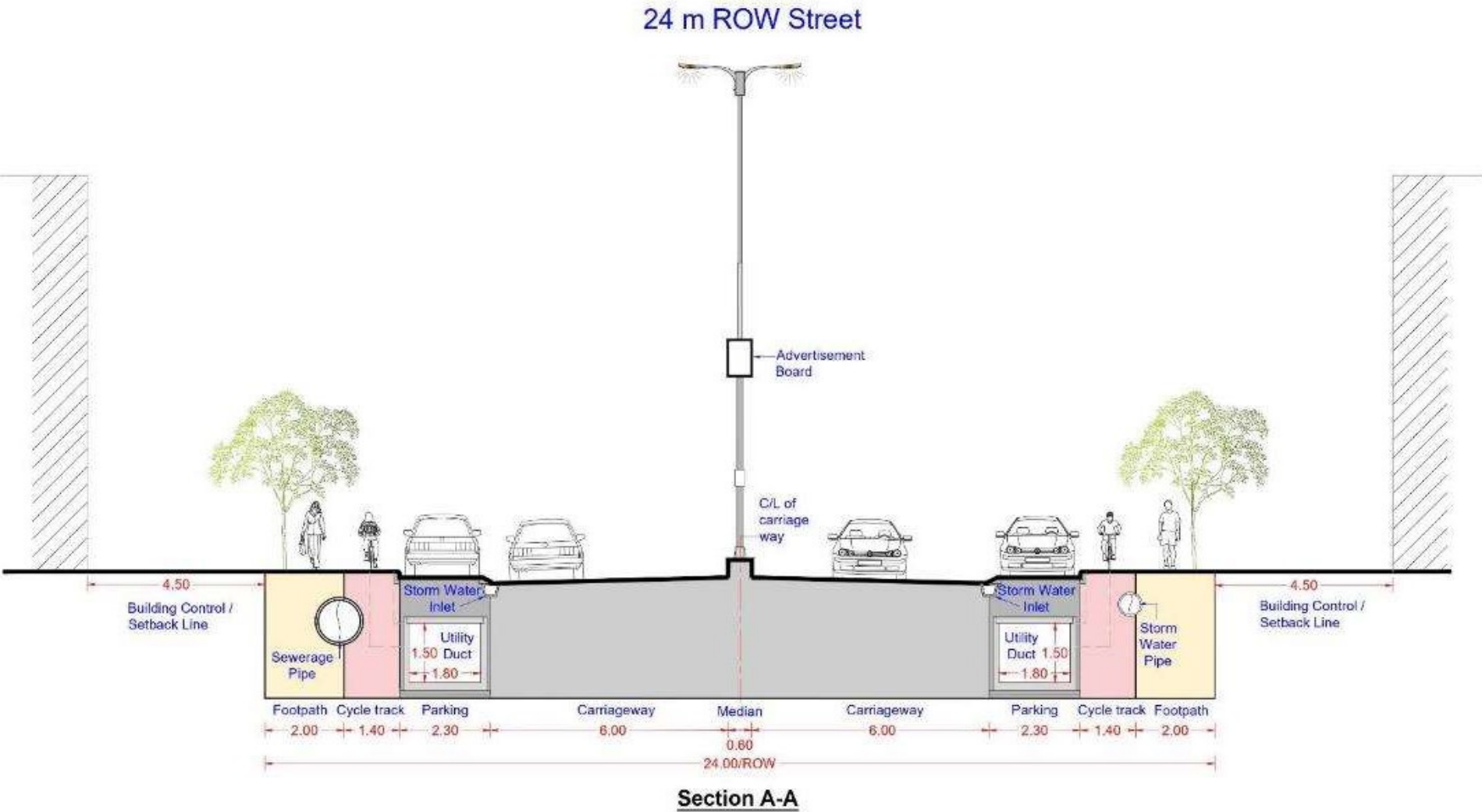
Roads



- Network based on a grid that is not rigid but accommodates features, builds on existing alignments and plot grain.
- Approx - 19%
- Grid advantages – better for traffic and infrastructure design
- 24 m, 18 m, 12 m, 9 m

Roads, 24 m

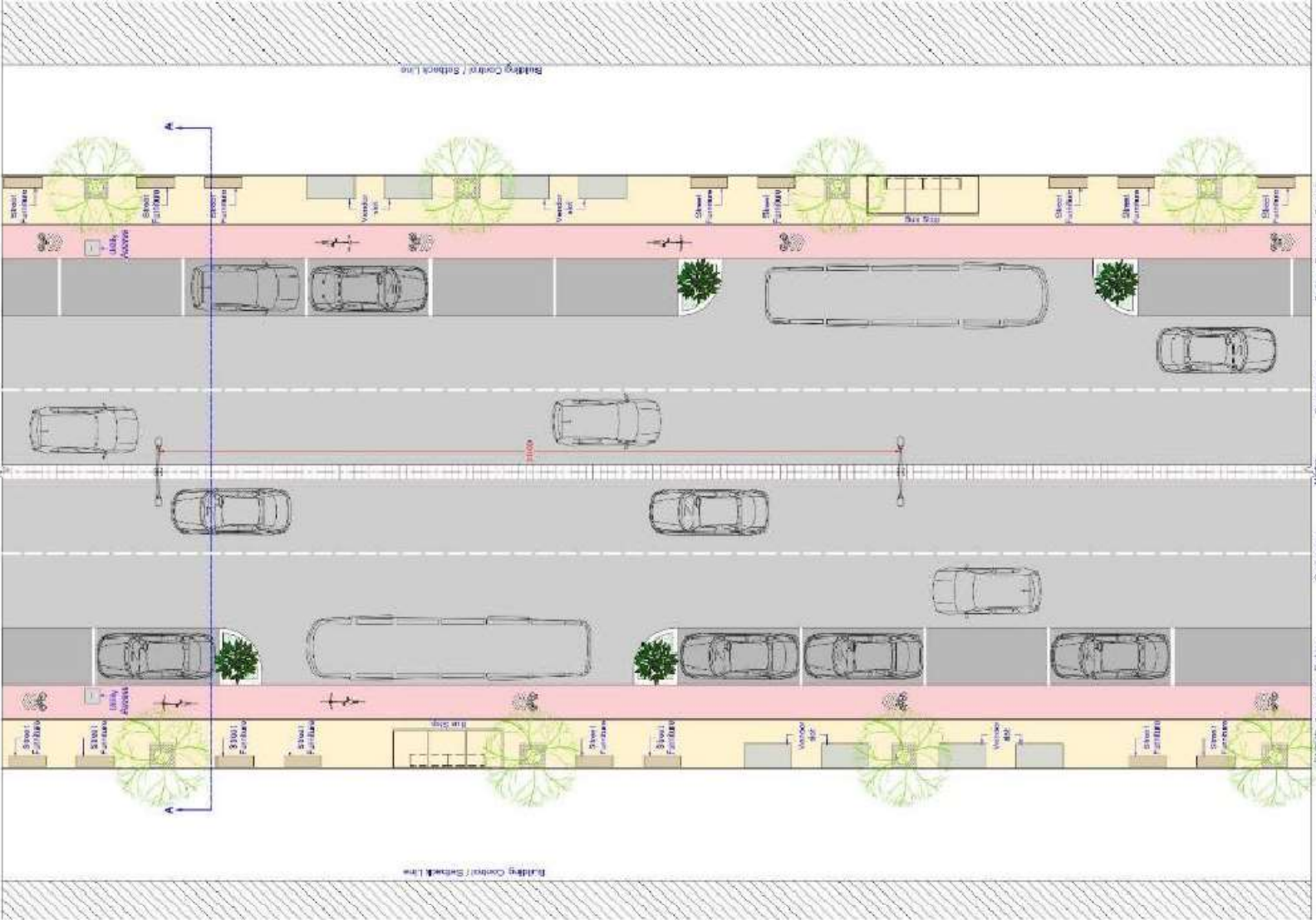
Section, plan and features



Section A-A

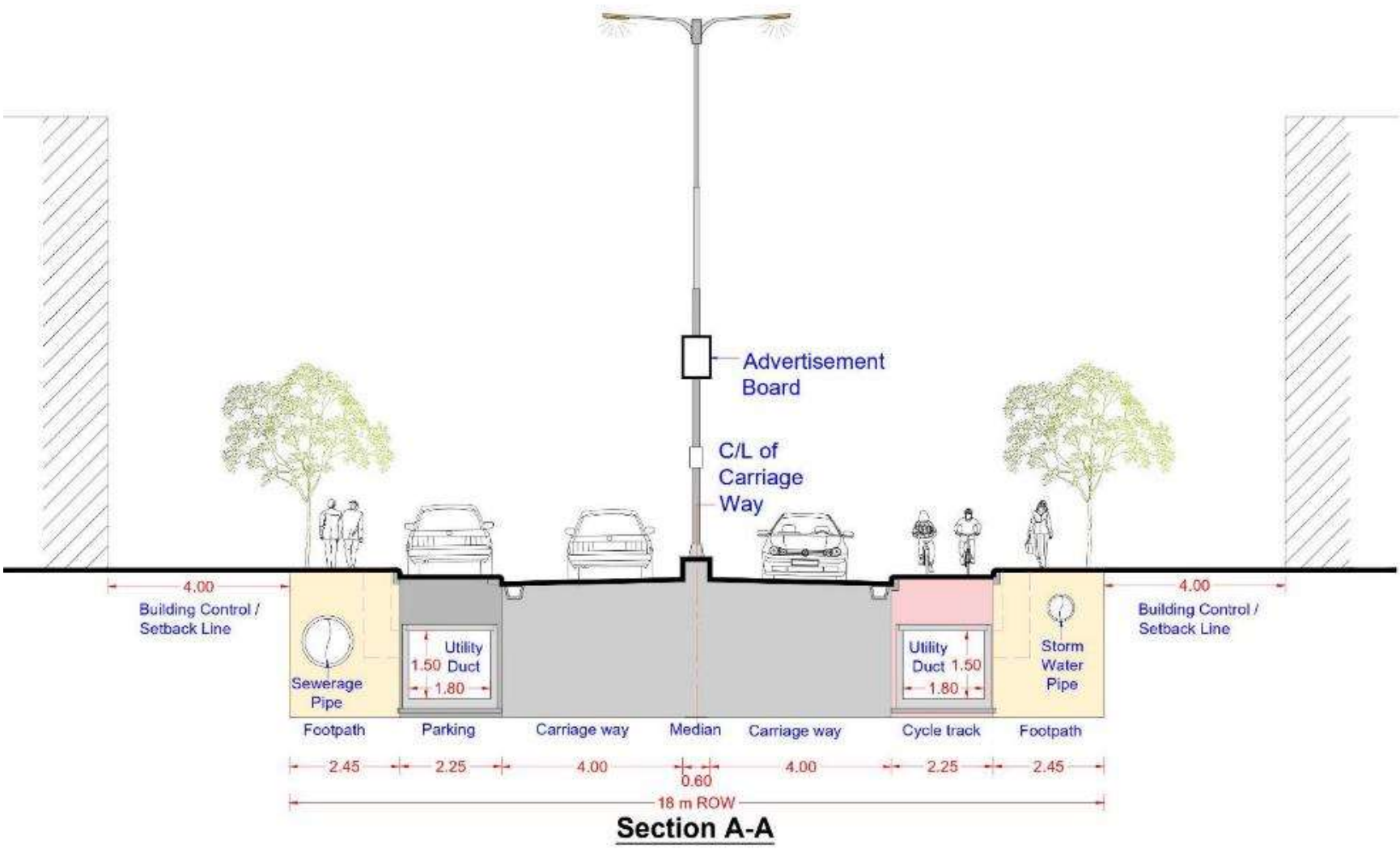
Roads, 24 m

- Section, plan and features

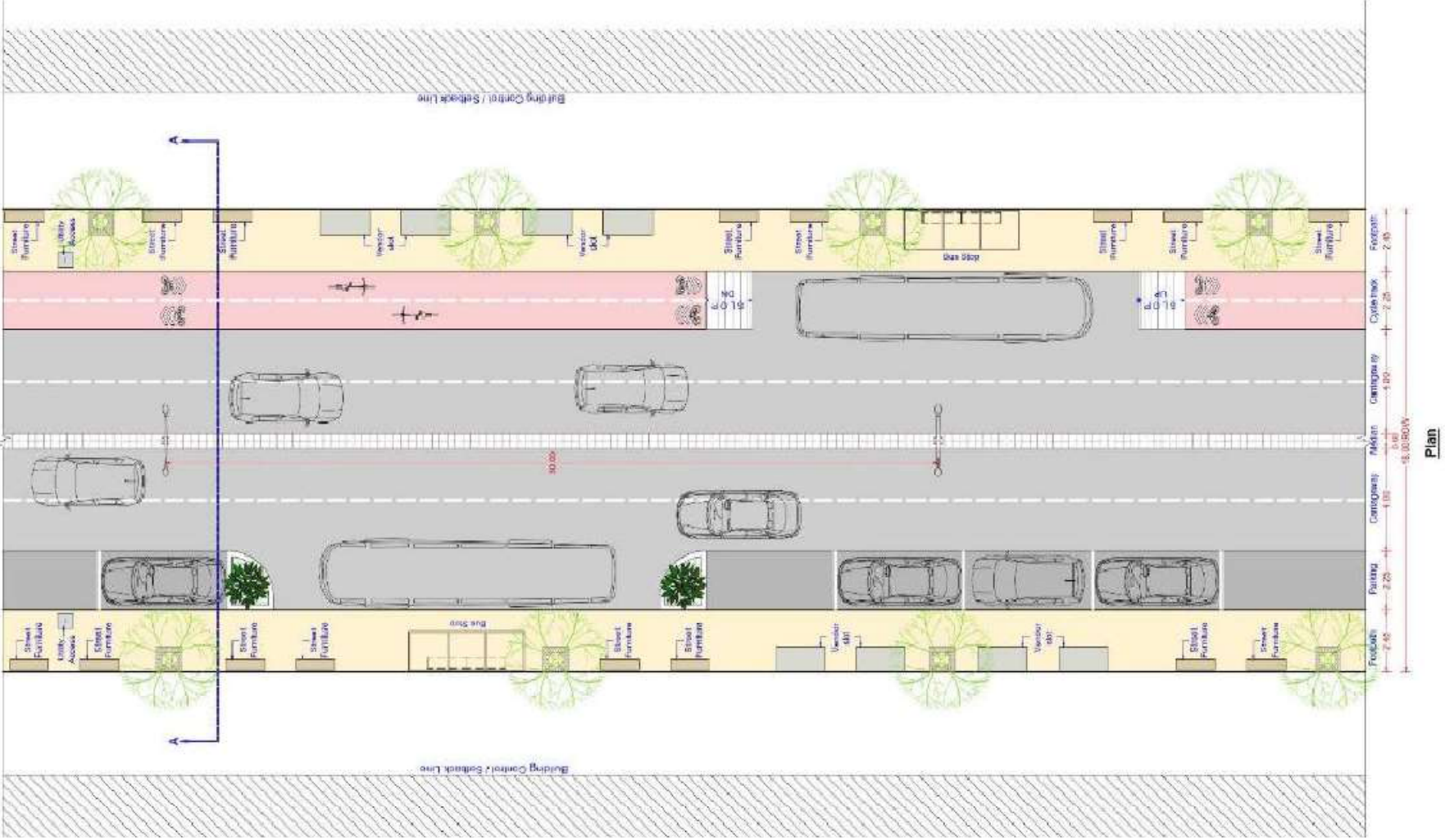


Roads, 18 m

18 m ROW Street



Roads, 18 m

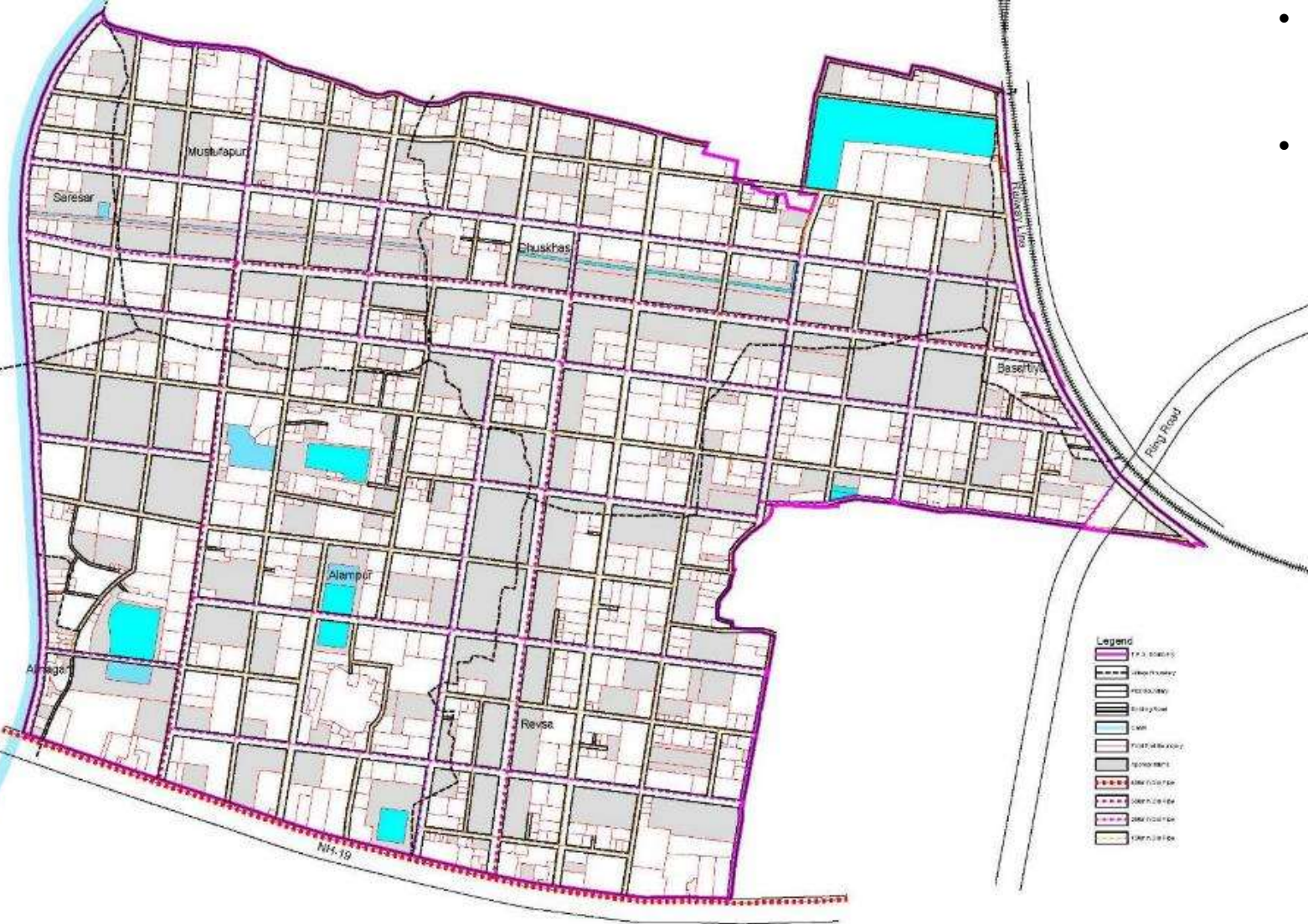


Roads – Costs

- 383 Cr
- Costs based on Nasik Smart City TPS

A Cement Concrete Roads							
No.	ROW (m)	Length (m)	ROW Description	Area (sq m)	Rate (Rs / sq m)	Total Cost (Rs)	Rs. In Cr.
4	18	19012	Central verge, central light pole @ 30 m c/c, 2 Lanes (4 m each), parking lane on one side, cycle track on one side, foot path on both sides Utility ducts, storm water pipe, sewerage pipe Bus stop, Steet Furniture, Sign Board, Tree Plantation	3,42,216	5,580	1,90,95,65,280	190.96
5	24	3754	Central verge, central light pole @ 30 m c/c, 4 Lanes (3 m each), parking lane on both sides, cycle track on both sides, foot path on both sides Utility ducts, storm water pipe, sewerage pipe Bus stop, Steet Furniture, Sign Board, Tree Plantation	90,096	5,580	50,27,35,680	50.27
				Subtotal (A)		2,41,23,00,960	241.23
B Bituminous Roads							
No.	ROW (m)	Length (m)	ROW Description	Area (sq m)	Rate (Rs / sq m)	Total Cost (Rs)	Rs. In Cr.
1	6	1552	Alternate side light pole @ 15 m c/c, 1 Lane (4 m), foot path on both sides Storm water pipe, sewerage pipe Sign Board	9,312	4,580	4,26,48,960	4.26
2	9	7230	Alternate side light pole @ 15 m c/c, 1 Lane (5.5 m), foot path on both sides Storm water pipe, sewerage pipe Sign Board, Tree Plantation	65,070	4,580	29,80,20,600	29.80
3	12	17473	Central verge, central light pole @ 30 m c/c, 2 Lanes (3.75 m each), foot path on both sides Utility ducts, storm water pipe, sewerage pipe Steet Furniture, Sign Board, Tree Plantation	2,09,676	4,580	96,03,16,080	96.03
				Subtotal (B)		1,30,09,85,640	130.10
C Bridges and Culverts							
No.	Width (m)	Length (m)	Description	Area (sq m)	Rate (Rs / sq m)	Total Cost (Rs)	Rs. In Cr.
1	18	10	18 mt Road	180	72,000	1,29,60,000	1.30
2	12	10	12 mt Road	120	72,000	86,40,000	0.86
3	12	10	12 mt Road	120	72,000	86,40,000	0.86
4	18	10	18 mt Road	180	72,000	1,29,60,000	1.30
5	12	10	12 mt Road	120	72,000	86,40,000	0.86
6	18	10	18 mt Road	180	72,000	1,29,60,000	1.30
7	12	10	12 mt Road	120	72,000	86,40,000	0.86
8	18	10	18 mt Road	180	72,000	1,29,60,000	1.30
9	12	10	12 mt Road	120	72,000	86,40,000	0.86
10	18	18	18 mt Road	324	72,000	2,33,28,000	2.33
				Subtotal (D)		11,83,68,000	11.84
Total (A + B + C)						3,83,16,54,600	383.17

Water Supply Network



- Water main is assumed on the NH, treated water will be supplied
- Internal network, ESR costs

Water Supply Network – Costs

- About 42 cr

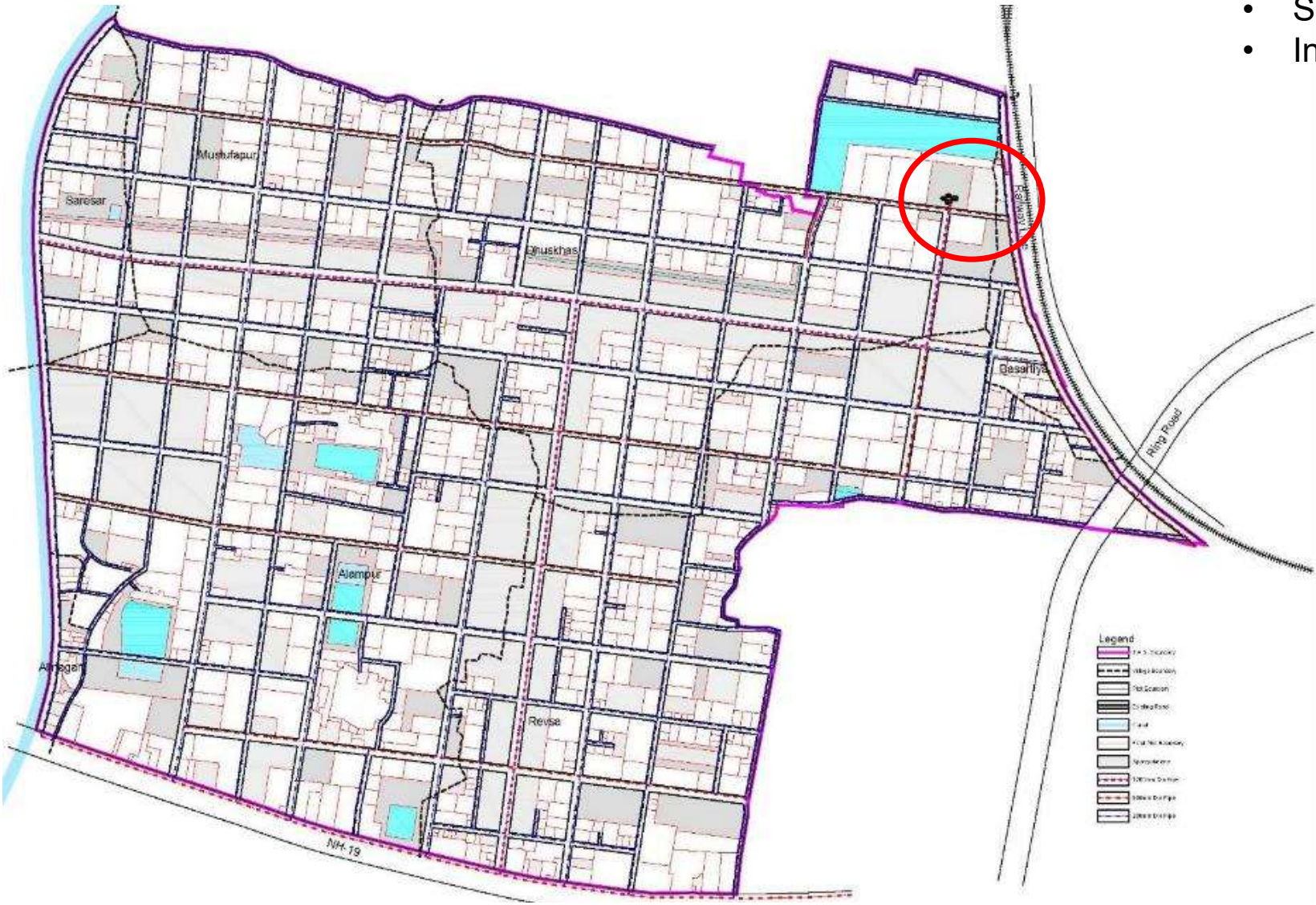
Draft Town Planning Scheme - Alampur

Revsa - Alampur - Alinagar - Saresar - Mustufapur - Dhushkas - Basratiya

Table 7B: Cost for Water Supply Network

Draft Town Planning Scheme - Alampur							
Revsa - Alampur - Alinagar - Saresar - Mustufapur - Dhushkas - Basratiya							
Table 7B: Cost for Water Supply Network							
A Water Supply Network							
No.	Length of Distribution Network (m)	Pipe Dia Size (mm)	Material	Cost / m	Total Cost (Rs)	Total Cost (Rs Cr)	
1	28592	150	DI	5,140	14,69,62,880	14.70	
2	16664	250	DI	5,480	9,13,18,720	9.13	
3	4591	500	DI	5,750	2,63,98,250	2.64	
SubTotal (A)					26,46,79,850	26.47	
B ESR							
No.	ESR Capacity	No. of ESR	Cost per ESR		Total Cost (Rs)	Total Cost (Rs Cr)	
1	3 MLD	6	2,60,00,000		15,60,00,000	15.60	
Sub Total (B)					15,60,00,000	15.60	
Total (A+B)					42,06,79,850	42.07	
Note:	1. Costs based on Nasik Smart City TPS						
	2. Population 100000, water demand at 150 LPCD = 15 MLD						
	3. Water main is assumed along the NH, treated water will be supplied						

Sewerage Network



- STP at top right corner
- Internal network, ESR costs

Sewerage Network – Costs

Draft Town Planning Scheme - Alampur

Revsa - Alampur - Alinagar - Saresar - Mustufapur - Dhuskhas - Basratiya

- About 89 cr

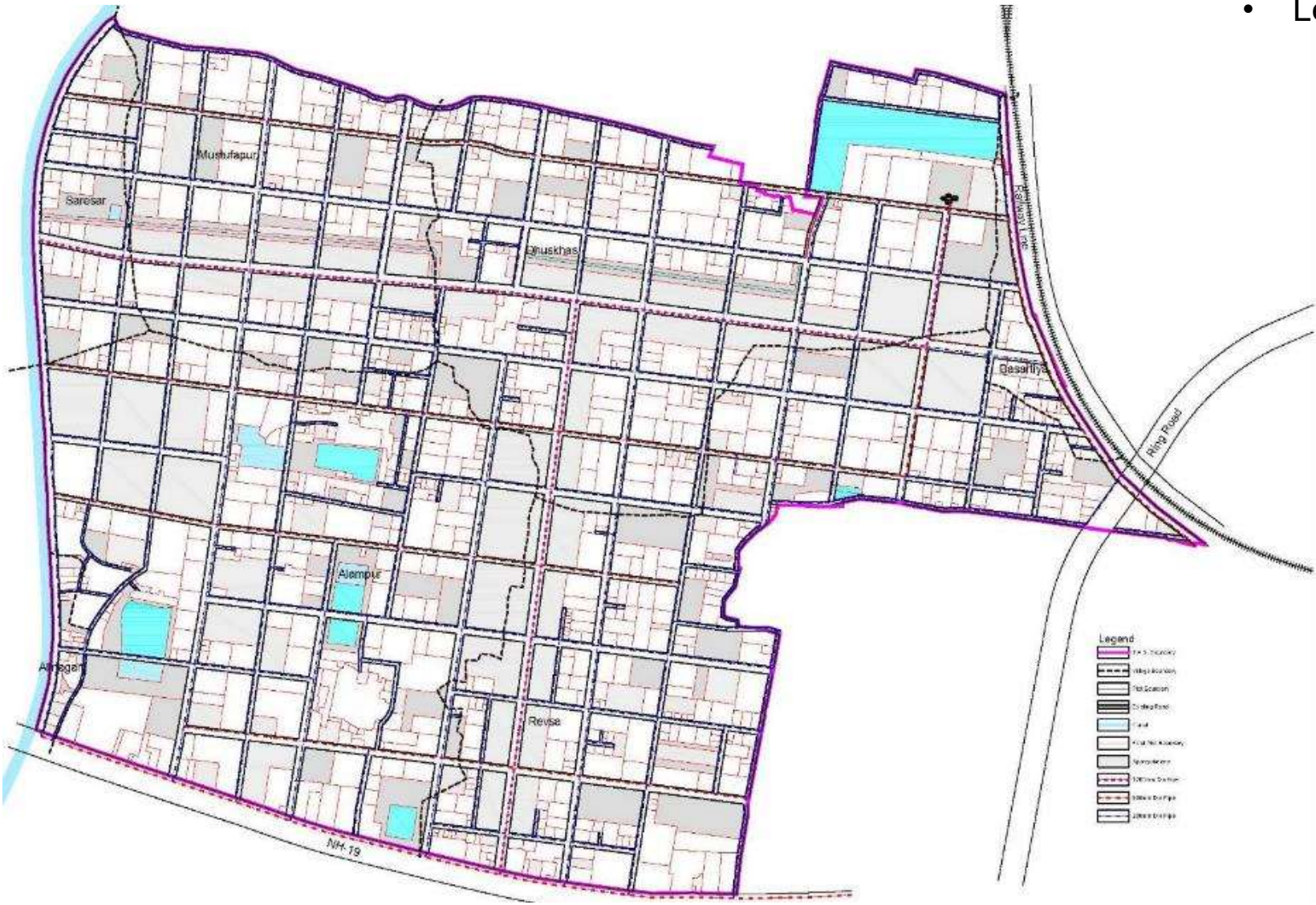
Table 7C: Cost for Sewerage Network

A Sewerage Network							
No.	Length of Distribution Network (m)	Pipe Size (mm)	Material	Cost / rm	Total Cost (Rs)	Total Cost (Rs Cr)	
1	37362	200	RCC NP3	12,792	47,79,34,704	47.79	
2	10457	600	RCC NP3	15,400	16,10,37,800	16.10	
3	3910	1,200	RCC NP3	17,233	6,73,81,030	6.74	
SubTotal (A)					70,63,53,534	70.64	
B Waste Water Treatment Plant							
No.	STP Capacity MLD			Cost / ML	Total Cost (Rs)	Total Cost (Rs Cr)	
1	15			4000000	6,00,00,000	6.00	
C Manholes							
No.	Quantity @ 30 m c / c			Cost / ML	Total Cost (Rs)	Total Cost (Rs Cr)	
1	1724			70000	12,07,01,000	12.07	
Total (A+B+C)					88,70,54,534	88.71	

Note: 1. Cost of RCC Pipes derived from Nashik DSR
 2. Cost of manholes derived from Nashik DSR
 3. Distance between manholes 30 m

Storm Water Network

- Led into ponds/ STP



Storm Water Network – Costs

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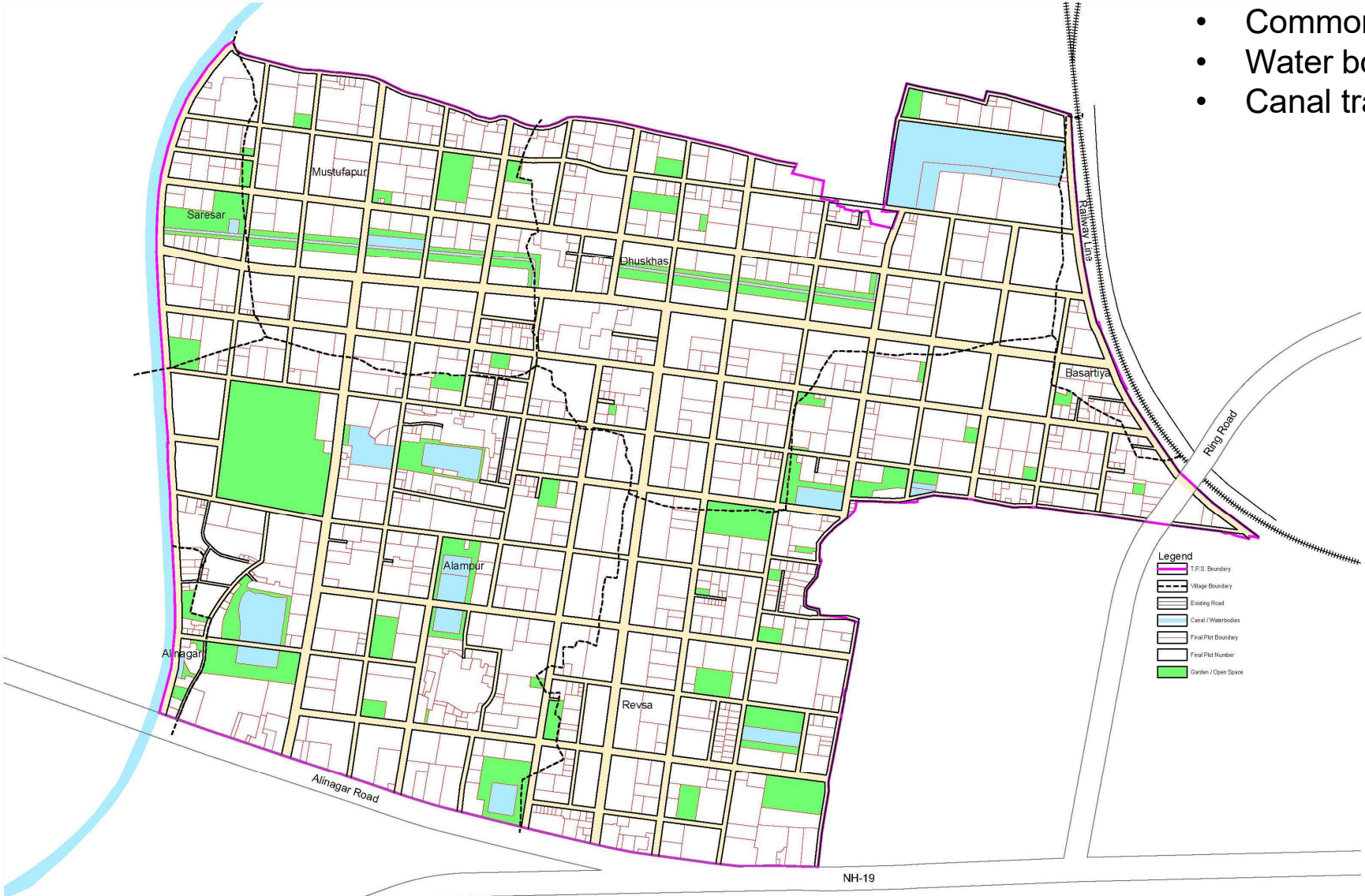
About 33 cr

Table 7D: Cost for Storm Water Network

No.	Particulars	Unit	Rate	Quantity	Total Cost (Rs)	Total Cost (Rs Cr)	
A	Storm Water Drains						
a	200 mm Diameter RCC Pipes	m	2,300	34952	8,03,89,600	8.04	
b	600 mm Diameter RCC Pipes	m	4,900	16709	8,18,74,100	8.19	
				Sub Total (A)	16,22,63,700	16.23	
B	Manholes						
a	Brick and RCC manholes	nos.	70,000	1750	12,25,21,000	12.25	
				Sub Total (B)	12,25,21,000	12.25	
C	Road Side Gullies						
a	RCC / Brick including connection	nos.	14,000	3501	4,90,08,400	4.90	
				Sub Total (C)	4,90,08,400	4.90	
Total (A+B+C)					33,37,93,100	33.38	
Notes	1	These are schematic cost estimates based on SOR by Maharashtra Jeevan Pradhikaran					
	2	Under ground network for storm water system.					
	3	RCC NP3 pipes are selected for the network.					
	4	The storm water drains are provided along the road network.					
	5	One manhole is provided at an interval of 30 m of drain pipe length.					
	6	One road side gully is provided every 25 meters of draing pipe / road length.					

Open Space Development

- Common parks
- Water bodies
- Canal training



Legend

	T.P.S. Boundary
	Village Boundary
	Existing Road
	Canal / Waterbodies
	Final Plot Boundary
	Final Plot Number
	Garden / Open Space

Open Space Development – Costs

About 35 cr

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Table 7E: Cost for Open Space and Water Body Development						
No.	Particulars	Unit	Rate	Quantity	Total Cost (Rs)	Total Cost (Rs Cr)
1	Development of Parks/Garden/Open Spaces	sq m	500	3,30,412	16,52,06,000	16.52
2	Talab Development	sq m	1500	1,16,471	17,47,06,500	0.00
3	Nala Training	sq m	1000	11,264	1,12,64,000	1.13
				Total	35,11,76,500	35.12
Note: 1. Costs based on Nashik Smart City TPS						

Built Space

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Table 7G: Cost for LIG/EWS Units and Residue Area Compensation

No.	Particulars	No of Units	Unit Area	Total Area	Cost of Construction / sqm	Total Cost (Rs)	Total Cost (Rs Cr)
1	LIG units each 41 sq m in area	32	41	1,312	25,000	3,28,00,000	3.28
2	EWS units	27	35	945	25,000	2,36,25,000	2.36
3	Residual Land Compensation			1,013		17,15,840	0.17
				Total		5,81,40,840	5.81

Electrification

- Based on Varanasi Electrical Department an area based norm is applied
- Cost is taken at Rs. 300 / sq m and computed for entire Scheme area
- This works out to Rs. 110 cr approximately

All Costs

Draft Town Planning Scheme - Alampur

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Table 7: Estimate for Cost of Works

No.	Name of Work	Total Cost (Rs)	Total Cost (Rs Cr)
a	Roads and Bridges and Culverts	3,83,26,96,980	383.27
b	Water Supply Network	42,06,79,850	42.07
c	Sewerage Network	88,70,54,534	88.71
d	Storm Water Network	33,37,93,100	33.38
e	Open Space and Waterbodies	35,11,76,500	35.12
f	Electrification	1,09,80,00,000	109.80
e	LIG/EWS Units and Residual Area Compensation	5,81,40,840	5.81
Sub Total	(A)	6,98,15,41,804
Add : Escalation of 10% For 2 Years	(B)	1,39,63,08,361
	(A) + (B)	8,37,78,50,165
Add : Contengencies 5%	(C)	41,88,92,508
Grand Total	(A) + (B) + (C)	8,79,67,42,673
		say	8,80,00,00,000

- 880 Cr are cost of Infrastructure works
- 25 cr can be considered as admin / legal costs
- Total = 905 Cr
- This works out to Rs. 2655 / sq m
- UP Land Pooling Policy assumes Rs 72 lakhs per acre which works out to Rs. 1779 sq m

Varanasi Scheme – Revenues

Value of Land

No	Type of Land	Area (sq m)	Base Rate (Rs / sqm)	Factor	Amount (Rs)	Amount (Rs Cr)
1	Sale for Residential	87779	20,000	1	1,75,55,80,000	175.56
2	Sale for Commercial	141238.5	20,000	2	5,64,95,40,000	564.95
3	Sale for Logistic Hub	141238.5	20,000	2	5,64,95,40,000	564.95
4	Sale for Health (Private)	15239	20,000	2	60,95,60,000	60.96
5	Sale for Health (Government)	15239	20,000	1	30,47,80,000	30.48
6	Sale for Education (Private)	31182.5	20,000	2	1,24,73,00,000	124.73
7	Sale for Education (Government)	31182.5	20,000	1	62,36,50,000	62.37
8	Sale for EWS	85867	20,000	0.5	85,86,70,000	85.87
9	Sale for LIG	85867	20,000	1	1,71,73,40,000	171.73
10	Sale for Other Amenities	95178	20,000	1	1,90,35,60,000	190.36
11	STP	19378	0	0		0.00
12	Garden/Open space	328553	0	0		0.00
	Total	1077942			20319520000	2031.95

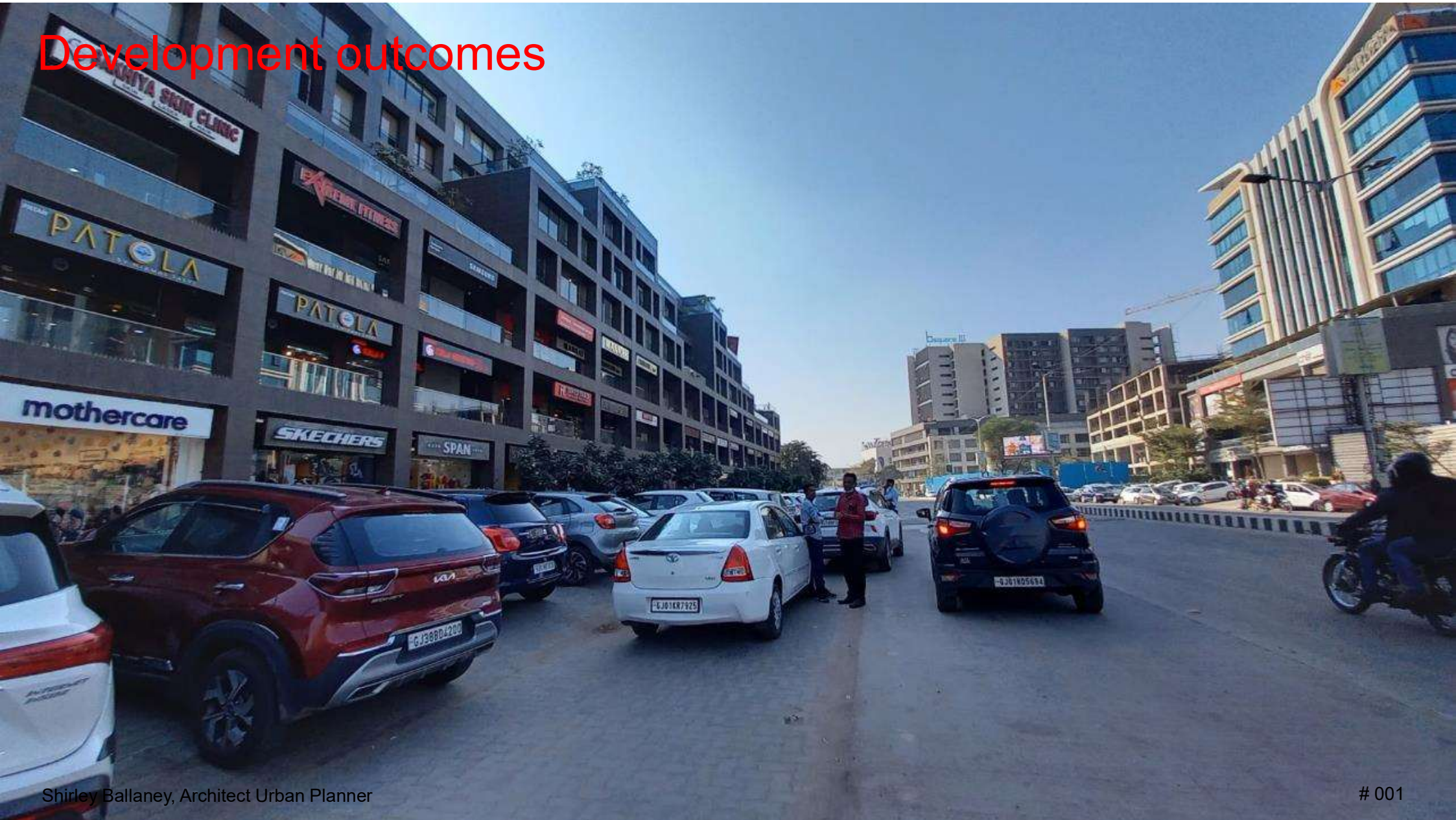
Development outcomes



Development outcomes



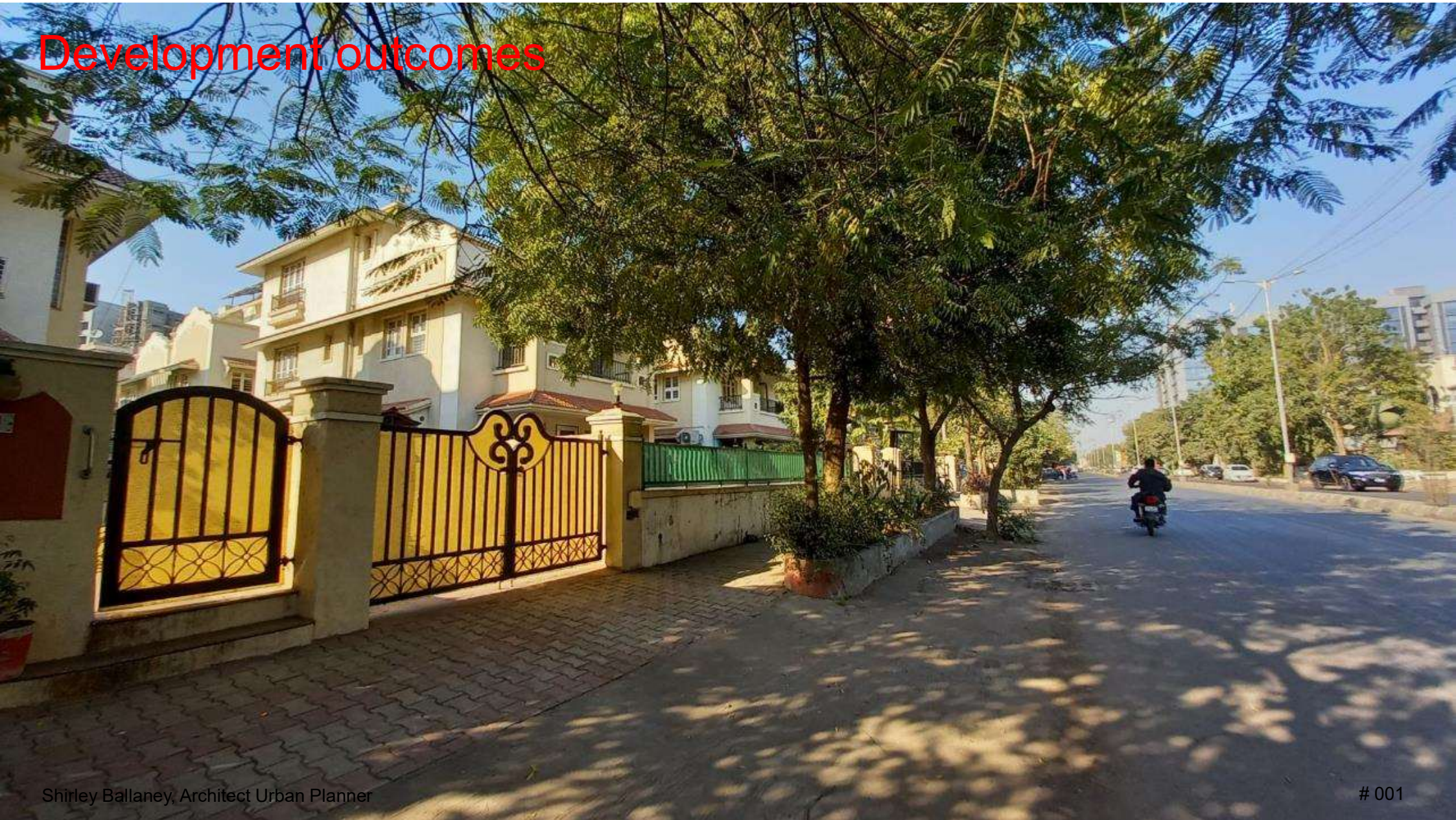
Development outcomes



Development outcomes



Development outcomes



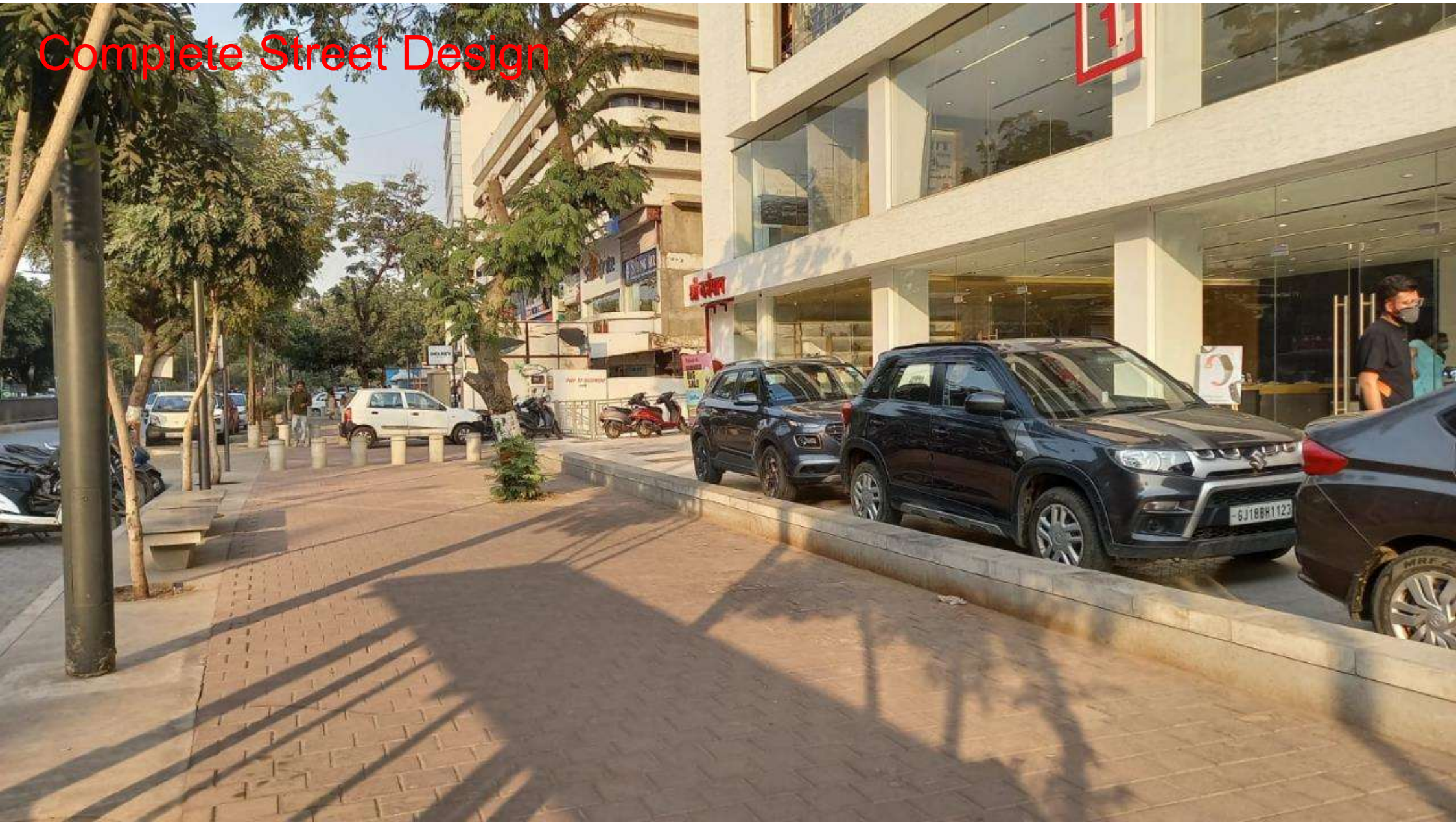
Inclusive...



Infrastructure is built over time....



Complete Street Design



Complete Street Design



Thank You

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