



shaping the way cities move

Area Parking Plan for Dasarahalli Zone Volume 1

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**Directorate of Urban Land Transport,
Urban Development Department,
Government of Karnataka**

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1 Introduction to Area Parking Plan

1.1 Background

Bengaluru city has seen unprecedented growth in population and consequently in the number of vehicles registered in the city. The data published by the Department of Transportation, Government of Karnataka reveals that the number of registered vehicles in the city has crossed 94 lakhs (9.4 million) as of May 2020 and the compound annual growth rate (CAGR) of vehicle registrations is over 10% per annum.

The roads in Bengaluru are already congested with typical average speed on major roads during peak hours being around 15 km/h and average public bus transport speed being around 10 km/h. Various initiatives like introduction of metro rail, construction of flyovers, etc. have not resulted in perceivable changes in alleviating congestion on the roads of Bengaluru. There is a need to moderate vehicle usage while concurrently developing sustainable transport infrastructure to be able to cope with the mobility challenges in the city. Globally, parking regulation has been identified as a crucial intervention to optimize the use of road space as well as a tool to discourage use of private modes of transport.

Currently, parking is largely unregulated across Bengaluru. On-street parking is rampant as it is not chargeable in most places and is increasingly causing issues of safety for other road users and reduced carrying capacity of roads. The few locations where parking is charged, are managed by unorganized sector, and do not have standard parking charges through-out the city. Locations where parking happens today are not clearly marked as parking bays and there is no signage put up. The civic agency and other public and private entities have built off-street parking infrastructure (multi-level parking lots) in few locations, but the approach has not been successful as on-street parking remains unregulated and free. Above issues, coupled with lack of adoption of technology makes management and enforcement of parking an uphill task.

In this regard Directorate of Urban Land Transport has prepared Parking Policy 2.0 for Bengaluru which was approved by the Government of Karnataka. Area level parking plans for all planning zones of BBMP are being prepared by DULT for implementation by BBMP.

This report presents the area parking plan for non-residential roads in Dasarahalli Zone prepared by DULT. BBMP shall be responsible for implementing it by undertaking on-site works and procuring services of a parking management agency to implement the plan and operate the same.

1.2 Parking Policy 2.0

1.2.1 Objectives of Parking Policy

Bengaluru, a fast-growing metropolis, has set its goal to move a major share of its population through mass transit systems like metro, suburban rail, and bus-based

systems. Currently more than 40% of the trips in the city are catered by public transport and CMP 2020 stipulates that 70% of all trips are required to be catered by mass transit/public transport by 2035 for the city to avoid gridlock. In this context, implementation of Area Parking Plans will be instrumental in achieving the broader mobility objectives of Bengaluru and the parking policy proposes to achieve the following objectives through implementation of Area Parking Plans in a phased manner:

Objective 1

Move from chaotic parking to well organized parking:

- Organize and manage on-street parking to ensure that parking does not impinge upon seamless vehicular and pedestrian circulation.
- Shift supply to off-street parking and minimize on-street parking supply to free up scarce street space for transit and NMT supportive uses.
- Free-up residential streets with regulated parking to allow these streets to transform into walkable & livable streets
- Inclusive planning of parking supply to support local business opportunities, facilitate people to access social infrastructure and recreational facilities.

Objective 2

Move from free parking to paid parking:

- Charge the user the cost of parking to largely transfer the cost of using a scarce resource from public at large to the beneficiary
- Unbundle parking charges and make users directly pay for their desired parking Convenience

Objective 3

Move from Government driven parking supply to market driven parking supply and management:

- Enable faster development of organized off-street parking supply and efficient management through means of private market forces.
- City needs to explore privately financed and market driven off-street parking regime, in addition to public funded, government created off-street parking regime.

Objective 4

Move from passive and weak enforcement of parking regulations to active management of parking demand:

-
- Urban local body to consider parking management as one of its key functions and deliver parking services in a systemic and efficient manner
 - Use of technology in enforcement and management of parking to better address concerns of manpower shortage, efficiency, and pilferage.
 - Support and increase the patronage of public transport by cross subsidizing transit and NMT infrastructure through parking revenue

Parking Policy 2.0 has therefore identified zonal level Area Parking Plans as the implementation tool for the parking regulations identified in the policy.

1.3 Scope of Work

Scope of work for preparation of Area Parking Plans for Dasarahalli Zone includes the following-

Identification of streets where on-street parking caters to more than 70% non-residential land use.

Assessment of current parking demand characteristics like type of vehicles parked extent of parking etc.

Assessment of site conditions for providing parking like carriageway widths, availability of footpaths, intensity of bus movement etc.

Allocation of regulated parking based on policy stipulations, demand characteristics, and site constraints

Detailed drawings of plans and street sections indicating mode-wise parking provision on road including location of signages

Stakeholder consultations with zonal task force and ward level stakeholders

2 Study Methodology

The following methodology has been adopted to arrive at on-street parking arrangement plans for each road in the zone.



Figure 1: Methodology of Area Parking Plan

2.1 Reconnaissance Survey

Reconnaissance survey was carried out on all the roads in the zone. The road with non-residential parking demand were selected to further study and carry out data collection. Residential roads and roads with no parking demand were not considered in the study

2.2 Data Collection

To understand the street character and parking demand, inventory surveys were carried out using the Arc GIS collector application. The platform was developed to facilitate the data collection which was coded and allowed for capturing of photographs of the survey location. Various attributes as per the survey requirements were provided in the application format to collect the information. The following figures shows the user interface of the application and the attributes provided for data collection:

Photographs captured for each road segment along with Data

OBJECTID	995	Landuse_RHS	
Status	New	Landmark_RHS	
Surveyor_Name	C_N	CW_RHS	open space
Road_Name	1st main Road	FP_RHS	3.5
Traffic_Movement	TwoWay	Shoulder_RHS	1
LandUse_LHS	Commercial	ParkingType_RHS	1.5
LanduseRemark_LHS	open space	Legality_RHS	Parallel
LandMark_LHS	open space	Authorised	Authorised
CW_LHS	3.5	Car_RHS	4
FP_LHS	2	Bike_RHS	12
Median	0	PBS_Cycle_RHS	3
Shoulder_LHS	0.75	Cycle_RHS	15
ParkingType_LHS	Parallel	LanduseRemarkRHS	Restaurant
Legality_LHS	Authorised	PrivateBus_RHS	0
Car_LHS	6	SchoolBus_RHS	1
Bike_LHS	40	RTC_RHS	
PBS_Cycle_LHS	0	Auto_RHS	8
Cycle_LHS	10	LCV_RHS	1
PrivateBus_LHS	0	HCV_RHS	1
SchoolBus_LHS	1	TractorTrailer_RHS	0
RTC_LHS	0	Ambulance_RHS	1
Auto_LHS	13	Others_Specify_RHS	-
LCV_LHS	0	TSS	No
HCV_LHS	0	DemandSurvey	
TractorTrailer_LHS	0	Remarks	
Ambulance_LHS	1	Shape_Length	217.110827176484
Others_Specify_LHS		date_	10/11/2021
			12:20:18 PM
		CreationDate	10/11/2021
			12:18:13 PM
		EditDate	10/11/2021
			12:18:13 PM

Figure 2: Attributes collected during the data collection phase

The following surveys were carried out using Arc collector GIS app on the identified road in reconnaissance survey to understand the existing parking characteristics:

2.2.1 Road Inventory survey

The road inventory was carried out for all the road with non-residential parking to capture the details of carriageway width, footpath width, one way/two-way traffic movement, divided/ undivided road, bus stop locations, auto stand locations, etc. this helps in understanding the street character and availability of capacity for parking provisioning.

2.2.2 Parking Inventory Survey

The parking inventory was carried out on road with non-residential parking demand to collect the data related to attributes like mode wise count of vehicles parked, parking pricings (if any), legality of the parking, capacity, and location of existing off-street parking locations etc.

2.2.3 Land Use Survey

The land use of the building blocks was captured for roads where parking inventory was planned. A broad classification of the land use was survey to understand the overall character of the street with respect to the parking demand.

2.3 Parking Allocation Plan

A parking allocation plan was prepared for streets with parking demand based on the understanding of the street character (including road inventory, traffic intensity, intensity of bus movement, etc.), design principles and data captured to regulate the on-street parking demand. This parking allocation plan is at a conceptual level and provides the information on location at which parking is proposed, number of proposed parking bays for each vehicle type like cycle, shared micro mobility services, two wheelers, four wheelers, parking for persons with disability, auto stand, and designating spaces for pick up and drop, and loading and unloading.

2.4 Stakeholders' Consultation

The parking policy 2.0 of Bengaluru prescribes constitution of a zonal task force under the respective Zonal Joint Commissioner, BBMP with representatives from Traffic Police and jurisdictional RTO for each zone to assist/monitor in preparation and implementation of Area Parking plans. In this regard parking plans have been discussed with all the stakeholders under the chairmanship of Joint commissioner of the zone followed by discussion of ward wise plans and site visits with respective ward engineers and traffic police officials. The agenda of the consultations was to seek feedback and inputs on the parking allocation plan prepared for the zone and to get the approval of the zonal task force on the prepared parking plans. The details of the consultations and consultation proceedings are attached in annexure 2.

2.5 Detailed Drawing

Based on the inputs and feedback from Zonal task force, the Area Parking Plans for the zone have been appropriately finalized. The roads where parking has been finalized were surveyed to develop a base drawing depicting existing site conditions including identification of above ground utilities, cross rads, vehicular access ramps, trees, etc.

The base drawings were utilized to stipulate the parking bays for pick-up/ drop-off bays, and loading/ unloading bays on the street as per the standard dimensions required for parking and detailed in Chapter 3. Signage is key the for dissemination of information regarding the regulations governing the usage of the parking bays like the type of vehicles that can park, parking charges applicable etc. Proposed locations of appropriate signage related to parking have been indicated in the detailed drawings.

3 Design Principles

3.1 Parking Principles

3.1.1 Principles for Parking Allocation

The principles considered for the allocation of on-street parking are given below:

- a. Parking has not been provided for up to 50 meters and 25 meters on each arm of major and minor junctions respectively, to avoid potential inconvenience to the pedestrians crossing at junctions or vehicles turning at junctions.
- b. Provision of on-street parking is prohibited within 250m of a Multi-Level Parking complex and metro stations to encourage people to use such facilities instead of parking on street.
- c. Roads with the high movement of traffic have been rationalized for provisioning of parking. Parking has been avoided on roads with high intensity of traffic movement or with high frequency of bus movement.
- d. Parking on the roads has been provided only after earmarking a width of 2 m for footpaths on either side of the road.
- e. As a part of Area Parking Plans, parking has been provisioned for all types of vehicles which includes cycles, SMMS, loading/unloading bays for trucks, autorickshaw stands, disabled parking and private vehicles.
- f. Parking bays are allocated based on the mode-wise demand captured from parking demand survey and street inventory survey.
- g. Parking bays for differently abled persons on each road are allocated closer to footpath ramps, elevators, or access to establishments.
- h. It is ensured that parking for cycles and SMMS is provided at every 250 to 300 m to facilitate last mile connectivity to public transport and short commute in the area where feasible.

3.1.2 Principles of Parking bays design

The following are the design standards adopted for bays allocated for different kind of vehicles based on the relevant standards and studies

- Parking bays two-wheelers/ motor bikes (L*B) = 2.0 X 1.0 meters
- Parking bays for four-wheelers/ cars/ jeeps (L*B) = 5.5 X 2.5 meters
- Parking bays for Persons with Disabilities using two-wheelers (L*B) = 2.0 X 2.0 meters

- Parking bays for Auto rickshaw (L*B) = 3.0 X 2.0 meters
- Parking bays for Cycle and SMMS parking (L*B) = 2.0 X 10 meters
- Parking bays for Pick up & Drop Off – (L*B) = 11.0 X 2.5 meters (Equivalent to two car Bays)
- Parking bays for LCV (L*B) = 5.5 X 2.5 meters
- Parking bays for HCV (L*B) = 11 X 2.5 meters

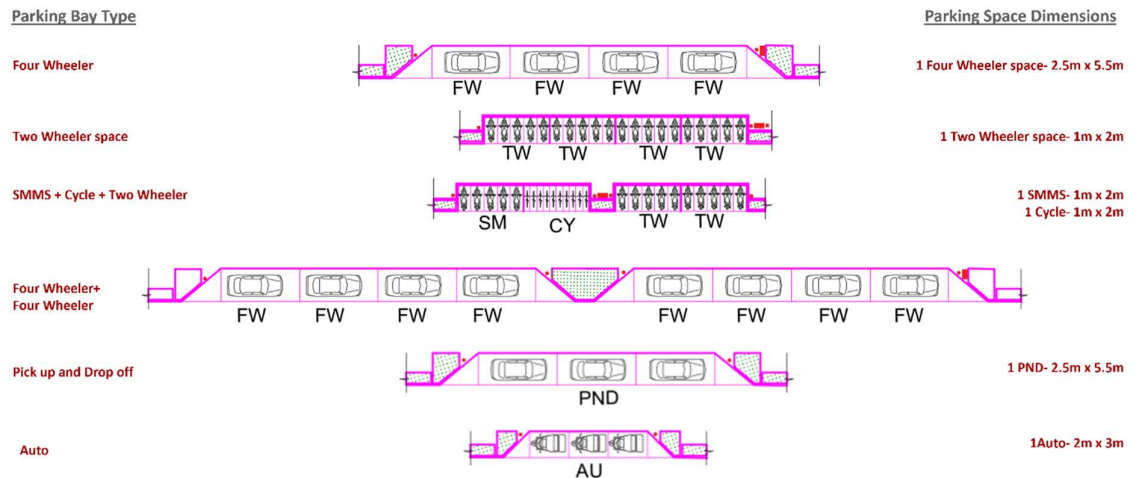


Figure 3: Typical arrangement of parking bays

3.2 Parking Signage

For implementing the parking policies, signage forms an important component of the parking system for communicating to road users regarding various parking regulations applicable at any given parking lot like type of vehicles allowed to park, maximum allowed duration for loading/unloading, parking fee structure etc. In this context, a parking signage manual has been developed which will be shared in due course.

The tentative signage plan is also included in the designs provided. Based on the manual guidelines the respective signage plan must be taken up for implementation.

4 Study Area

4.1 Zonal Details

Dasarahalli Zone has 08 wards covering 29.7 sq.km area and with a total population of approximately 4.45 lakh (as per 2011 census). The population density of the Dasarahalli Zone comes to about 15,971 persons/sq.km. The zone consists of ward 12 (Shettihalli), ward 13 (Mallasandra), ward 14 (Bagalkunte), ward 15 (T. dasarahalli), ward 39 (Chokkasandra), ward 41 (Peenya industrial area), ward 70 (Rajagopal nagar), ward 71(Hegganahalli).

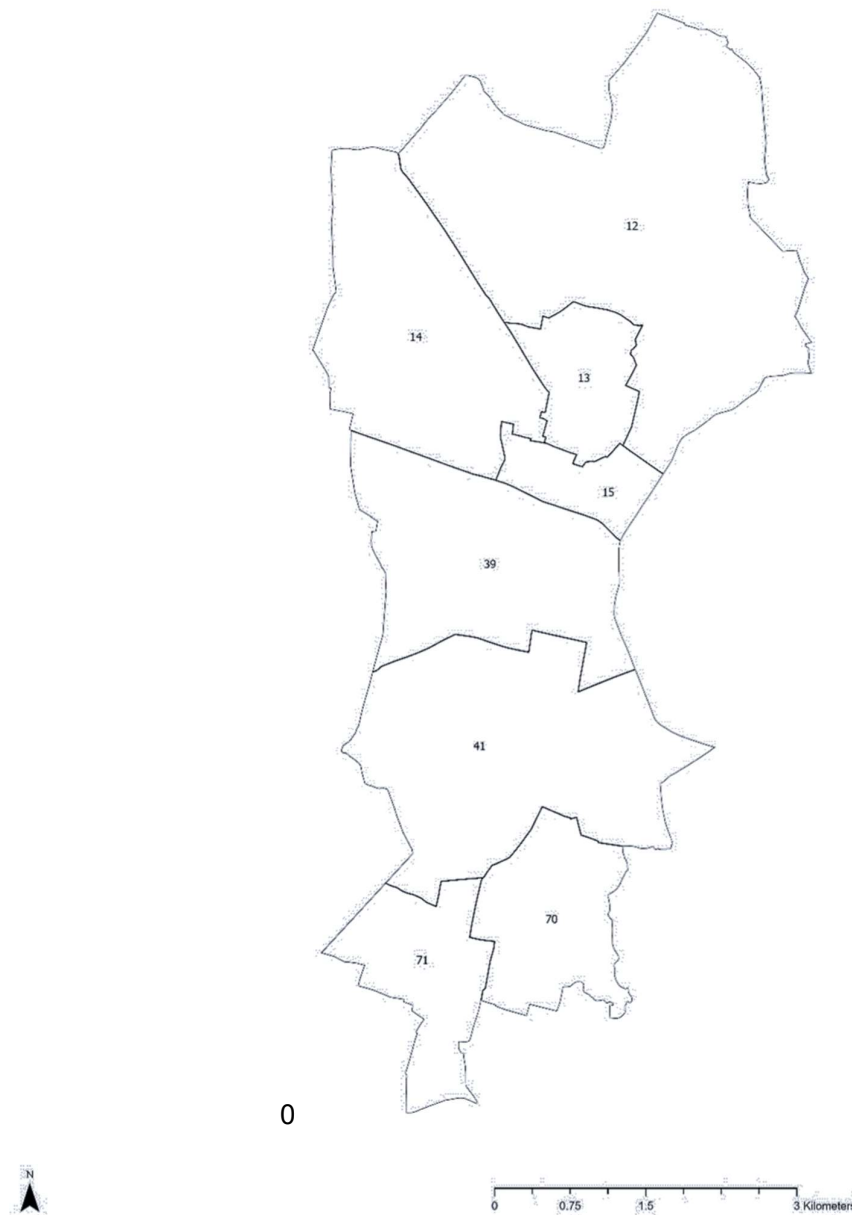


Figure 4: Zonal Map of Dasarahalli Zone

Some of the major roads with traffic movement and intense commercial activity are Tumkur road, Hessarghatta road, pipeline road, Jalahalli cross road, etc. The major transport hubs are Chikkabanawara railway station, Nagasandra metro station and dasarahalli metro station. Two suburban stations namely Mydarahalli station and shettyhalli stations are proposed in the area.

The major attraction points in the one are Peenya industrial area, Saptagiri college, Dasarahalli vegetable market, etc.

Few of the neighborhood areas in the zone are Chikasandra, chikkabanawara, shettihalli, M.E.I. layout, Kirloskar layout, Mallasandra, Bagalgunte, Melagaoanahalli layout, Hegganahalli, Rajeshwari nagar, gopal nagar etc.

Following table shows salient features of the zone:

Table 1 Salient Features of Dasarahalli Zone

Features	Potentials/Limitations
Narrow and organic road structure	<ul style="list-style-type: none"> • Many of the through traffic road abutting commercials with parking demand cannot be facilitated with on-street parking.
Developing area/ Large proportion of Vacant Land (~30%)	<ul style="list-style-type: none"> • Opportunity to facilitate off-street parking • Shift of on-street parking to off-street parking facilities
Schools, Colleges	<ul style="list-style-type: none"> • Captive users for walking, PBS and SMMS around schools and colleges.
Hospitals	<ul style="list-style-type: none"> • Hospitals with small building footprint lacks parking facilities
Two metro stations & Two Railway station planned for Suburban railway station	<ul style="list-style-type: none"> • Shift from private transport to public transport, hence reduction in on-street parking • Opportunity to enhance active mobility for the influence area of the stations
Industrial Area (17.7%)	<ul style="list-style-type: none"> • Few industrial areas organically developed leading to warehouses and industries to set up along narrow streets and residential areas. (No footpath, Conflict of pedestrian, freight vehicle and passenger vehicle)
Lakes	<ul style="list-style-type: none"> • Inaccessible • Potential to develop area around few lakes as public space and connecting through recreational cycling routes

4.2 Road with Parking allocation – Zone Level

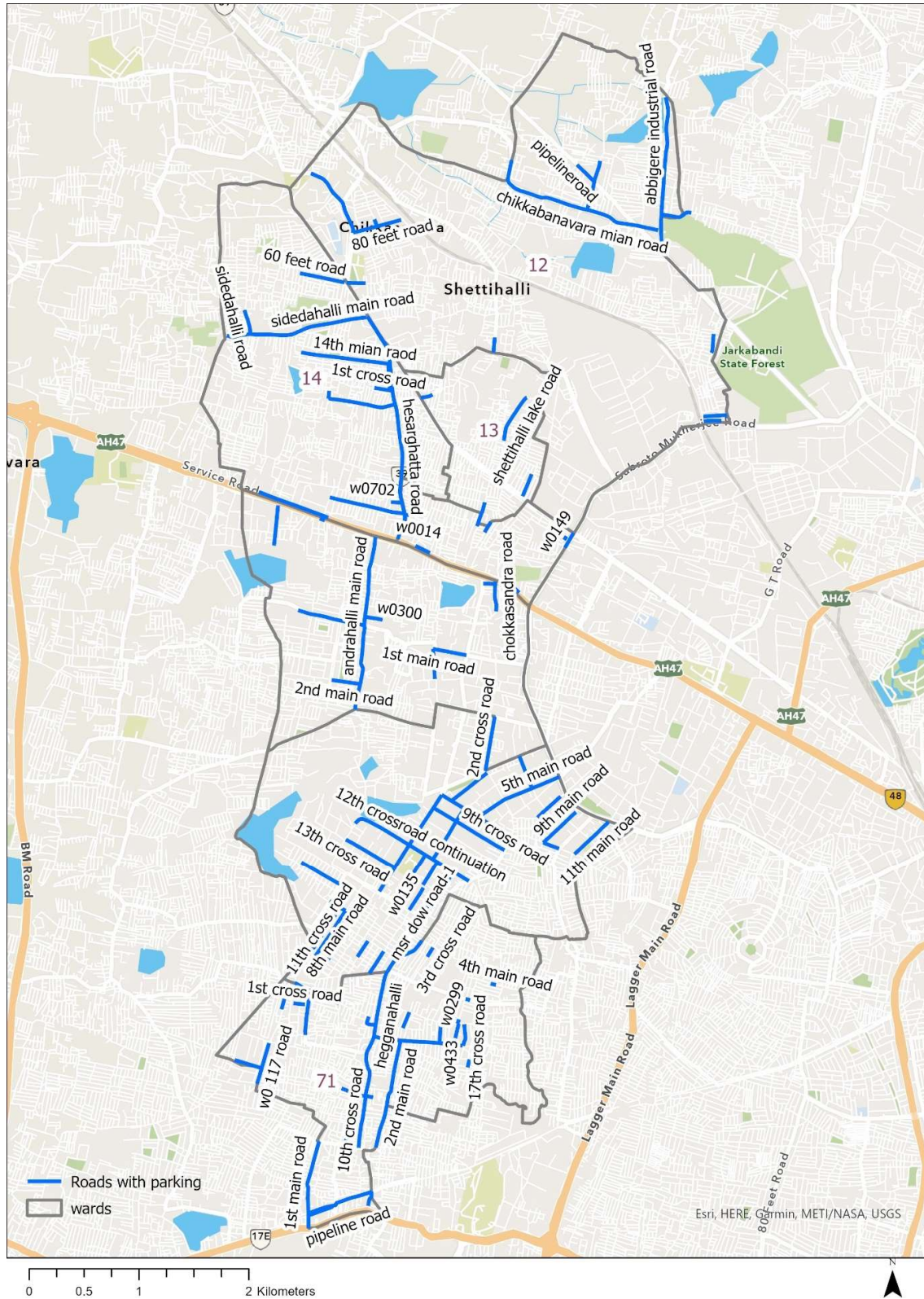


Figure 5 Road with Parking allocation – Zone Level

4.2.1 Number of proposed parking spaces (mode wise) for each road at ward level

Ward No	Road Name	CYCLE	SMM S	TWO-WHEELER	PWD	CAR	AUTO	PICK-UP/DROP-OFF	LCV	HCV	LOADING/UNLOADING
12	Abbigere Industrial road	10	0	25	0	0	0	1	0	0	0
	80 feet road	10	10	77	4	10	7	0	0	0	0
	Dr. Sarvapalli radhakrishna road	5	0	10	0	0	4	1	0	0	0
	Chikkabanavara main road	30	20	74	3	0	0	2	0	0	0
	Pipeline road	0	0	0	0	0	0	1	0	0	0
	Abbigere village road	5	0	10	0	0	0		0	0	0
	Chikkabanavara Railway station road	0	0	0	0	0	0	1	0	0	0
	Kammagondana halli main road	0	0	18	1	0	0		0	0	0
	Hanumanthe gowder main road	0	0	0	0	0	0	1	0	0	0
	GANGAMMAGUDI POLICE STATION ROAD	10	5	13	2	7	0		0	0	0
	Parallel to Subroto mukherjee road	10	0	0	0	0	3		0	0	0
	Abbigere main road	0	0	10	0	2	0		0	0	0
	1st Main Road (1213-1214)	0	0	10	0	0	0		0	0	0
13	4th cross road	0	0	0	0	0	0	2	0	0	0
	Jain temple road	0	0	13	1	0	0		0	0	0
	Mallasandra main road	0	0	0	0	0	0	1	0	0	1
	Shettihalli lake road	10	0	13	1	0	0		0	1	1
	Pipeline road	10	5	143	5	3	0		0	0	0
14	MS Ramiah main road	0	0	28	1	0	0		0	0	0
	Bagalgunte main road	0	0	28	1	0	0	1	0	0	0
	Sidedahalli main road	0	0	15	0	0	0		0	0	0
	14th main road	10	5	72	3	6	0	3	0	0	0
	60 feet road	10	0	41	3	5	0		0	0	0
	Sidedahalli road	0	0	0	0	0	0	1	0	0	0
	1st main road	10	5	44	3	4	0		0	0	0
	Hesarghatte road	10	5	97	6	8	0		0	0	0
	1st Cross Road (1451-1452)	0	0	54	3	4	0		0	0	0
	3rd CROSS ROAD (1405-1406)	0	0	8	1	0	0		0	0	0
Nelamagala-Majestic Service Road-1 (1417-1418)	0	0	0	0	0	3		0	0	0	

	Nelamagala-Majestic Service Road-2 (1419-1420)	0	0	0	0	0	0	7	0	0	2
	W0702 (1411-1412)	0	0	0	0	0	0	1	0	0	0
15	2nd main road	0	0	0	0	0	0	1	0	0	0
	Nelamangala Majestic Service Road-3(1505-1506)	0	0	20	0	0	0		0	0	0
	Nelamangala Majestic Service Road-4(1517-1518)	0	0	20	0	0	0		0	0	0
	Subroto Mukherji Road(1521-1522)-	0	0	0	0	0	0	1	0	0	1
	W0014	0	0	10	0	0	0		0	0	0
	W0149	0	0	10	0	0	0		0	0	0
39	Andrahalli main road	0	0	28	0	0	7		0	0	0
	2nd Cross Road (3909-3010)	0	0	18	1	0	0		0	0	0
	1st Main Road (3905-3906),(3907-3908)	0	0	64	3	4	5		0	0	0
	2nd Main Road (3913-3914)	0	0	10	0	0	0		0	0	0
	Chokkasandra Road (3903-3904)	0	0	0	0	0	0	1	0	0	0
	Nagasandra Main Road	0	0	54	3	4	0		4	0	0
	Vinayaka Nagar Main Street	10	0	54	3	4	0		0	0	0
	W0300	0	10	0	18	1	0		0	0	0
	W0433	0	0	9	0	0	0		0	0	0
	Nelamangala - Majestic Service Road-5 (3931-3932)	0	0	0	0	0	7		0	0	0
41	5th main road	20	10	180	10	0	0	0	0	0	0
	9th cross road	0	0	0	0	0	0		0	16	0
	14th cross road	10	5	90	5	20	0		0	0	0
	11th main road	0	0	0	0	0	0		3	5	0
	9th main road	0	0	0	0	8	0		0	0	0
	4th main road	0	0	0	0	0	0		12	0	0
	7TH MAIN ROAD (1017-1018)	0	0	0	0	0	7		0	4	0
	7th Main Road (1039-1040)-01	0	0	16	2	0	0		0	0	0
	13th Cross Road (1003-1004)	0	0	18	1	12	0		0	0	0
	12Th Cross Road (1005-1006)	0	0	20	0	6	0		4	0	0
	W0131 (1007-1008)	0	0	76	2	0	0		0	0	0
	W0135 (1009-1010)	0	0	46	2	0	0		0	0	0
	W0143(1011-1012)	10	0	0	0	10	0		0	0	0

	1st Cross Road - Peenya 3rd Phase (1015-1016)	0	0	36	2	0	0		0	0	0
	8th Cross Road (1021-1022)	0	0	18	1	7	0		0	0	0
	3rd Main Road (1023-1024)	10	10	36	2	10	0		0	0	0
	W0180 Road (1027-1028)	0	0	10	2	0	0		0	0	0
	12th Cross Road Continuation (1033-1034)	0	0	0	0	0	0		8	0	0
	MSR Dow Road-1 (1035-1036)	0	0	66	2	0	0		0	0	0
	MSR Dow Road-2 (1037-1038)	10	10	46	2	0	0		0	0	0
	8th Main Road (1041-1042)	0	0	0	0	0	0		0	0	4
	Peenya 2nd stage Bustop (1043-1044)	10	10	0	0	0	0		0	0	0
	6th Main Road (1045-1046)	10	0	18	1	4	0		0	0	0
	2nd Main 2nd Phase Road (1047-1048)	0	0	0	0	0	0		0	0	2
	2nd A Main Road (1051-1052)	5	5	28	1	6	0		0	0	0
	3rd main 2nd phase Road (1049-1050)	0	0	10	0	0	0		0	0	0
70	3rd cross road	0	0	0	0	0	0	1	0	0	1
	4th main road	0	0	0	0	0	0	2	0	0	0
	16th cross road	0	0	18	1	0	0		0	0	0
	17th cross road	0	0	15	0	0	0		0	0	0
	Hegganahalli andralli main road	0	0	18	1	0	0		0	0	0
	Hegganahalli Srigandhanagar main road	0	0	13	1	2	0		0	0	0
	Hegganahalli andralli main road	0	0	10	1	0	0		0	0	0
	rajgopalanagar main road	0	0	13	1	0	0		0	0	0
	W0457	0	0	13	1	0	0		0	0	0
	W0473	0	0	10	0	0	0		0	0	0
71	1st main road	0	0	0	0	0	0		0	0	1
	Hegganahalli road	30	15	46	2	0	0		0	0	1
	10th cross road	0	0	0	0	0	0	2	0	0	0
	Sushruti school road	0	0	8	1	0	0	1	0	0	0
	W0054 road	0	0	15	0	0	0		0	0	0
	Andarahalli main road	0	0	0	0	0	0	1	0	0	0
	1st main road	0	0	13	1	0	0		0	0	0
	2nd Main Road	0	0	0	0	0	4		0	0	0
2nd main road(2)(7140-7141)	0	0	66	2	0	0		0	0	3	

Andarahalli main road (7187-7188)	0	0	36	2	0	0		0	0	0
Hegganahalli main road(7101-7102)	0	0	13	1	0	0		0	0	0
Hegganahalli main road(7103-7104)	0	0	18	1	2	0		0	0	0
Hoyasala park road	0	0	13	1	4	0		0	0	0
Pipeline road-1(7107-7108)	0	0	18	1	0	0	1	0	0	2
Pipeline road -2(7109-7113)	0	0	62	4	8	0	2	0	2	0
Muthuraya swamy road	0	0	18	1	0	0		0	0	0
W0117	10	5	38	1	3	0		0	0	0
1st cross road (7183-7184)	0	0	18	1	0	0		0	0	0
3rd main road (7144-7145)	0	0	10	0	0	0		0	0	0
1st MAIN ROAD (SANJEEVININAG AR 1st STAGE)	0	0	13	1	0	0		0	0	0
8th main road	0	0	10	0	0	0		0	0	0
Total	275	135	2339	127	16 4	47	36	31	28	19

4.3 Other Proposals

4.3.1 Cycling network

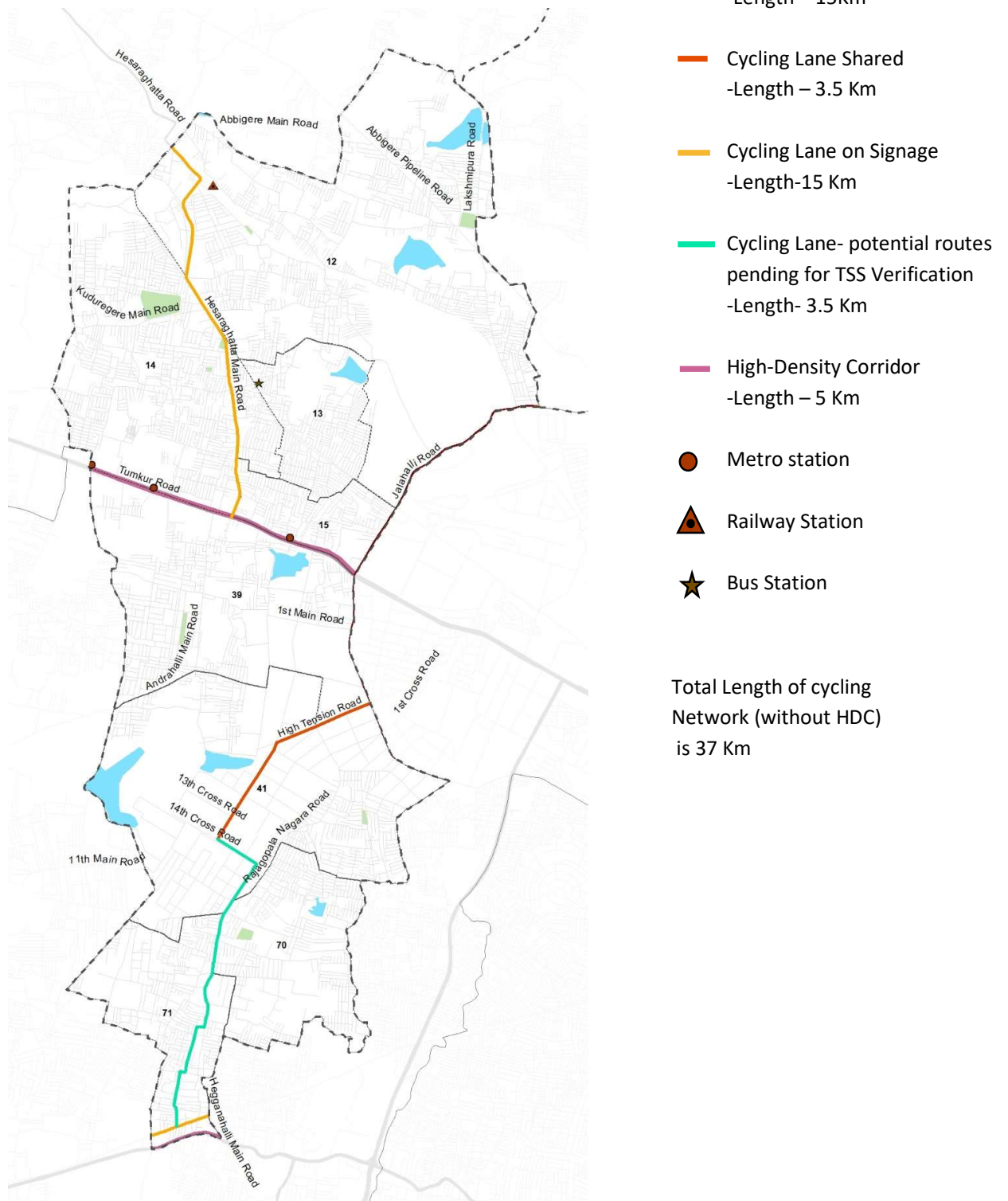


Figure 6 Proposed cycling network for Dasarahalli Zone

4.3.2 Industrial Area

Ward 41, Peenya Industrial area is about 40 sq. kms. housing about 5000 small-scale industries and a few large and medium-scale industries. This industrial complex has a variety of small-scale industries engaged in the production, maintenance, and service in the various disciplines of mechanical, electrical, electronics, automobile, civil, packaging, garments, lubricants, consumer items, pharmaceuticals, machine tools and cross sections of other industrial activities. There are quite a good number of export-oriented industries also in this complex. Similarly, few areas of wards 39, 70 and 71 are industrial pockets.

During surveys and consultations with Peenya Industries Association, BBMP and BTP, it was highlighted that, there is a requirement for loading and unloading areas/bays for transferring the raw material and products for these industrial areas.

The Area Parking Plans taken up by DULT, understand that most of the loading/unloading activity for industries takes place on every street of the industrial area. However, loading unloading of goods and materials takes place inside the premises of a few industries which have space for the same in their premises.

Hence, to provide opportunity to efficiently carry out the economic activities, it is suggested to provide loading unloading bays at every 200 meters on all industrial roads. However, the Parking plans presented here are exclusive of these provisioning.

4.4 Detailed Designs Road wise

5 Annexure – Ward Details

Ward 12 – Shettihalli Ward

- Area: 8.97 sq.km
- Population density: 3156 per/sq.km
- Arterial roads: Hesaraghatta Road, Jalahalli Main road, Shettihalli road.
- Sub arterial: Chikkabanavara Main Road, Chikkasandra Main Road, Junjappa Temple Road.
- Major landmark Chikkabanawara station, Shettihalli station, Sapthagiri College Of Engineering, Sri Krishna Institute Of Technology, Sapthagiri Hospital, RR Institute Of Management Studies, UPHC.

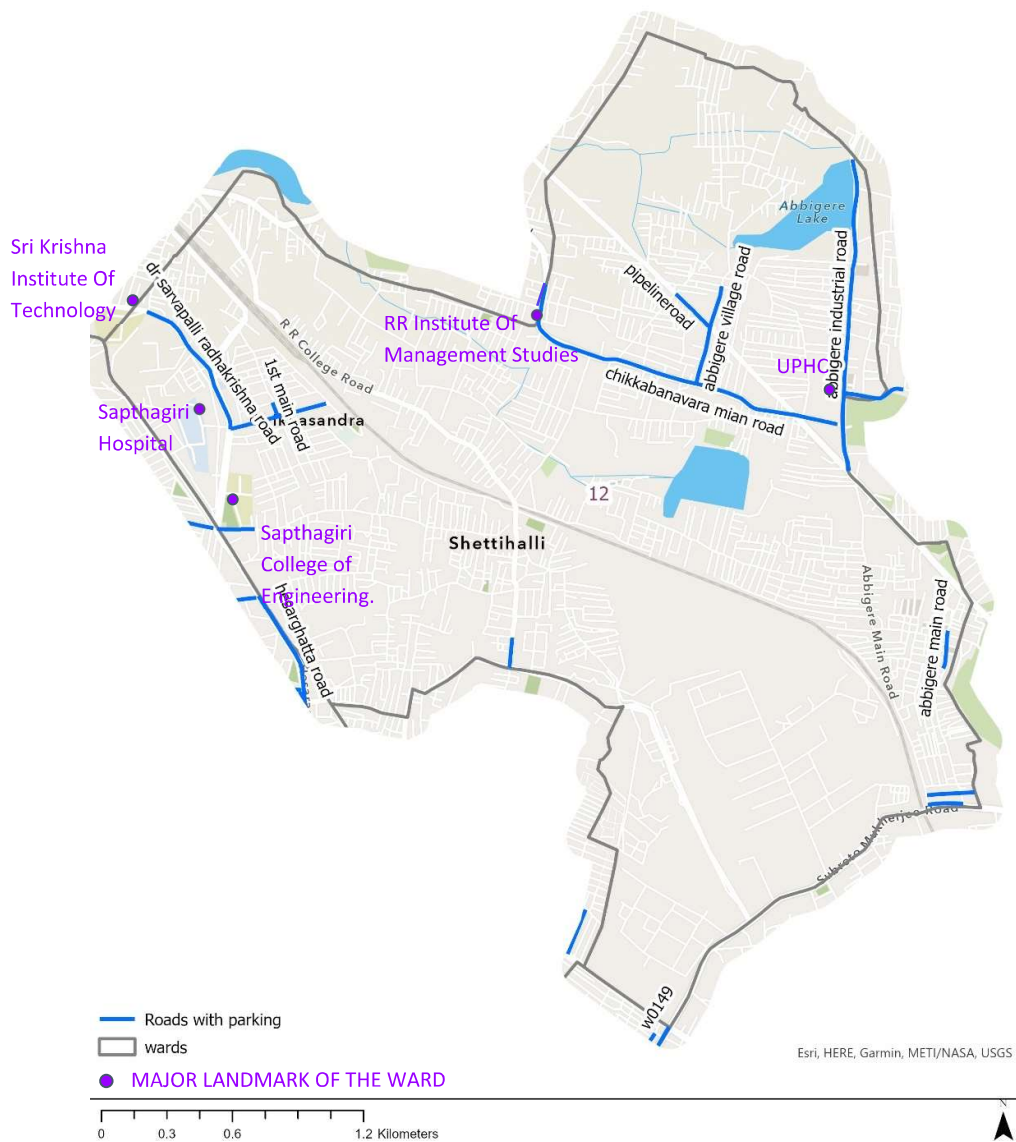


Figure 7: Map showing roads attraction points and proposed parking for Shettihalli ward

Ward 13 – Mallasandra Ward

- Area: 1.31 sq km
- Population density: 20041per/sqkm
- Sub arterial: Mallasandra Main Road
- Collector roads: Pipeline road, 1st main road, S Ramesh road.
- Major landmarks-UPHC, Govt. Primary school, Kuvempu Educational society, Sri Ayyappa Educatioal center and Composite college.

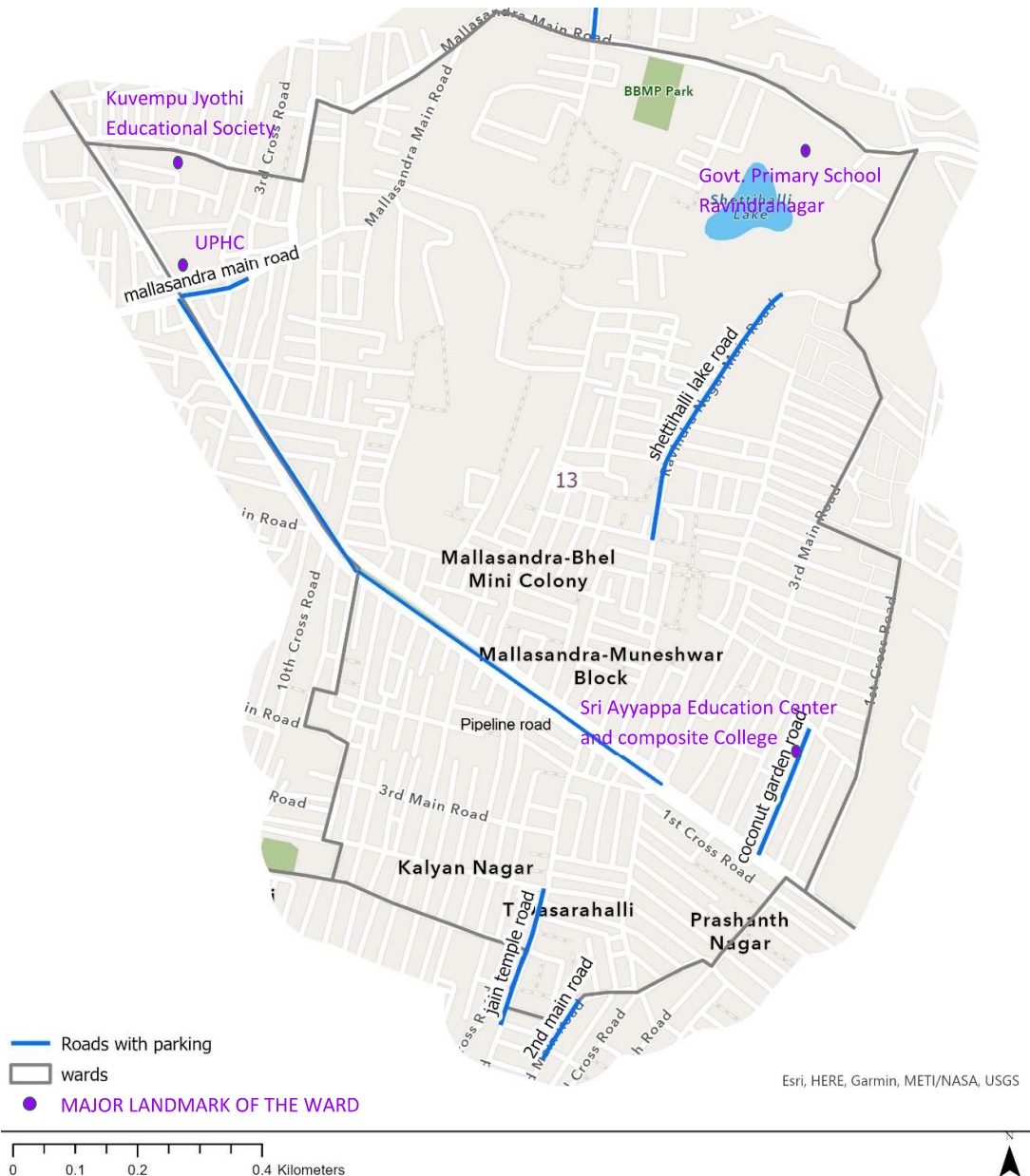


Figure 8: Map showing major roads and attraction points of Mallasandra ward

Ward 14 – Bagalgunte Ward

- Area: 4.43 sq km
- Population density: 6390 per/sqkm
- Arterial roads: Tumkur Road, Hesaraghatta Road.
- Sub arterial: Gudadahalli Road,
- Major landmarks- Nagasandra Metro Station, Government Primary School, Triveni Group Of Institutions, M R Hospital

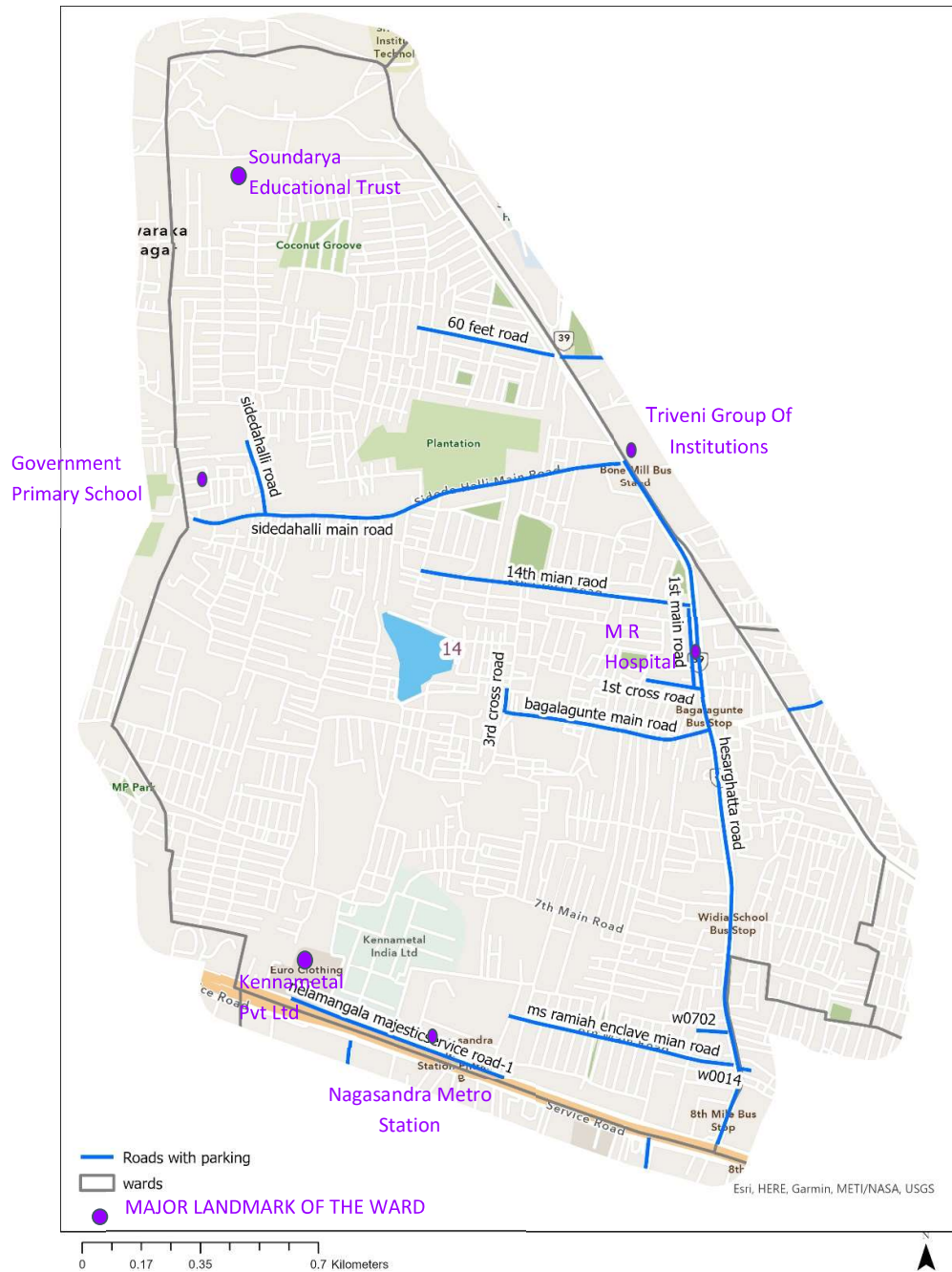


Figure 9: Map showing roads attraction points and proposed parking for Bagalgunte ward

Ward 15 – T. Dasarahalli Ward

- Area: 0.88 sq km
- Population density: 29603 per/sqkm
- Arterial roads: Tumkur Road, Hesaraghatta Road.
- Sub arterial: S. M. Road.
- Major landmarks : T-Dasarahalli Metro Station, Raghavendra People Tree Hospital, M S College, Rockline Mall.

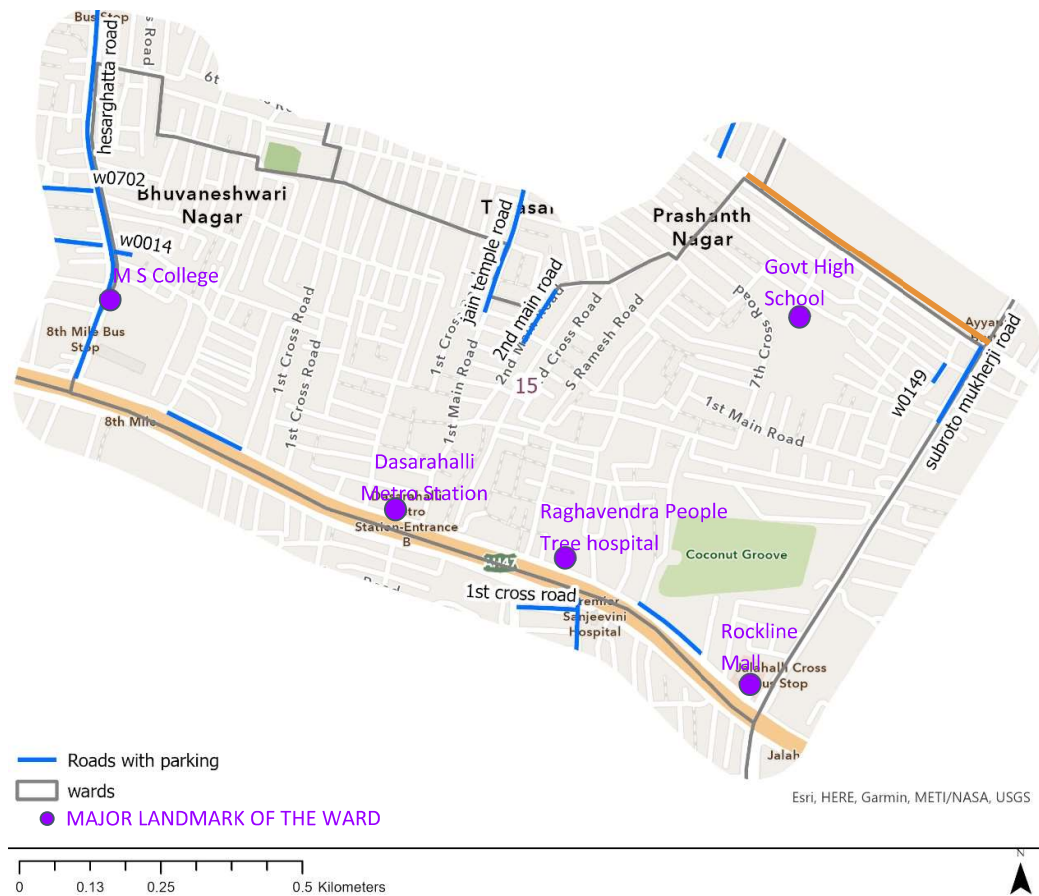


Figure 10: Map showing roads attraction points and proposed parking for T. Dasarahalli ward

Ward 39 – Chokkasandra Ward

- Area: 4 sq km
- Population density: 7530 per/sqkm
- Arterial roads: Tumkur Road, Ring Road, 80 Feet Road, Handrahalli Road, Hegganahalli Road.
- Sub arterial: Peenya Industrial Area Road.
- Major landmarks: Government Primary School, St Pauls PU College, Premier Sanjeevini Hospital, Vishal Mega Mart.



Figure 11: Map showing roads attraction points and proposed parking for Chokkasandra ward

Ward 41 – Peenya Industrial Area ward

- Area: 5.59 sq km
- Population density: 4914 per/sqkm
- Arterial roads: Ring Road (Kanteerava Studio Road), Hegganahalli Main Road, Laggere Main Road, 80 Feet Road.
- Sub arterial: Peenya Industrial Road, Tigalara Main Road.
- Major landmarks- Bata India, Post office, KIADB Complex, Kempe Gowda BBMP High School

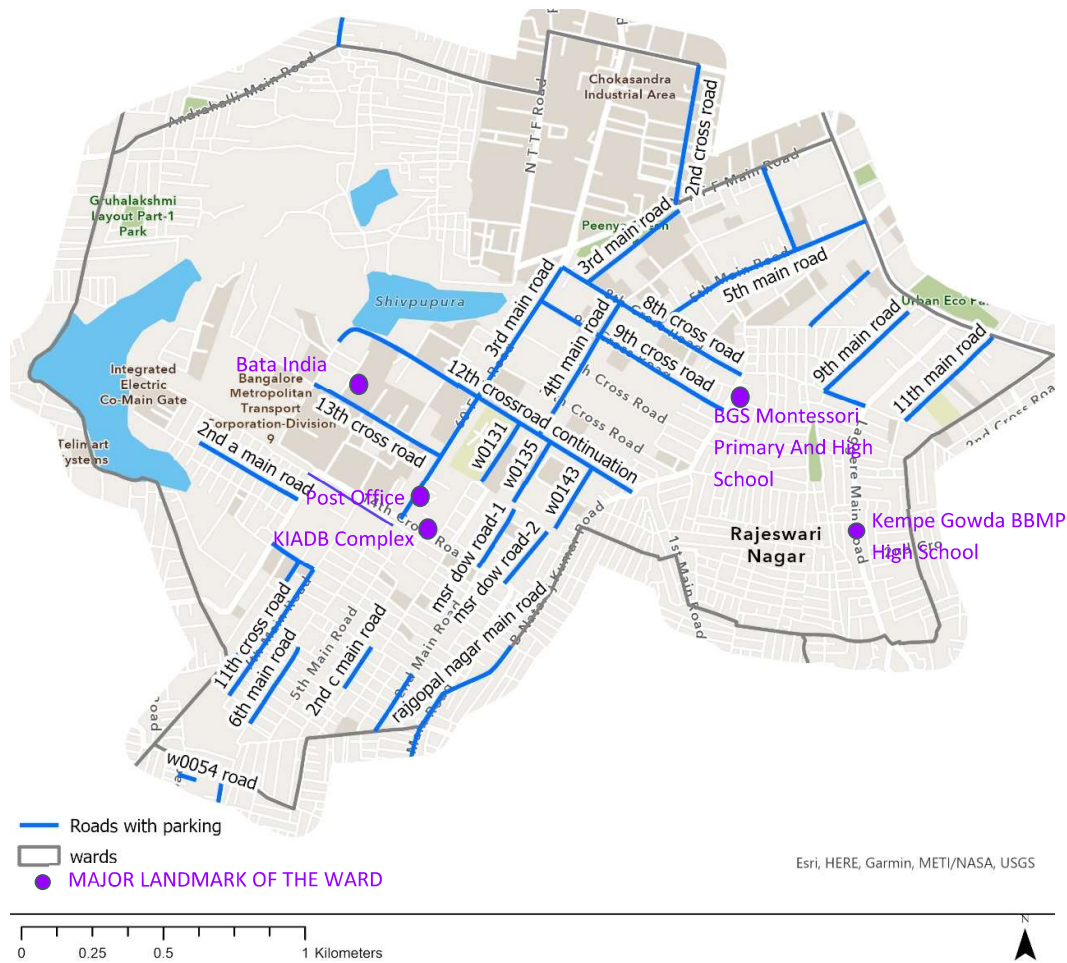


Figure 12: Map showing roads attraction points and proposed parking for Peenya Industrial Area ward

Ward 70 – Rajagopala Nagar ward

- Area: 2.18 sq km
- Population density: 13121 per/sqkm
- Arterial roads: Hegganahalli main road
- Sub arterial: -Vidhyamanya nagara -hegganahalli Main Road, Srignadha Main road
- Collector roads: 1st Main road, Ramaiah water tank road.
- Major landmarks- Doddanna Industrial Area, K.T.G. College and Hostel, Guru Markandeshwara Temple

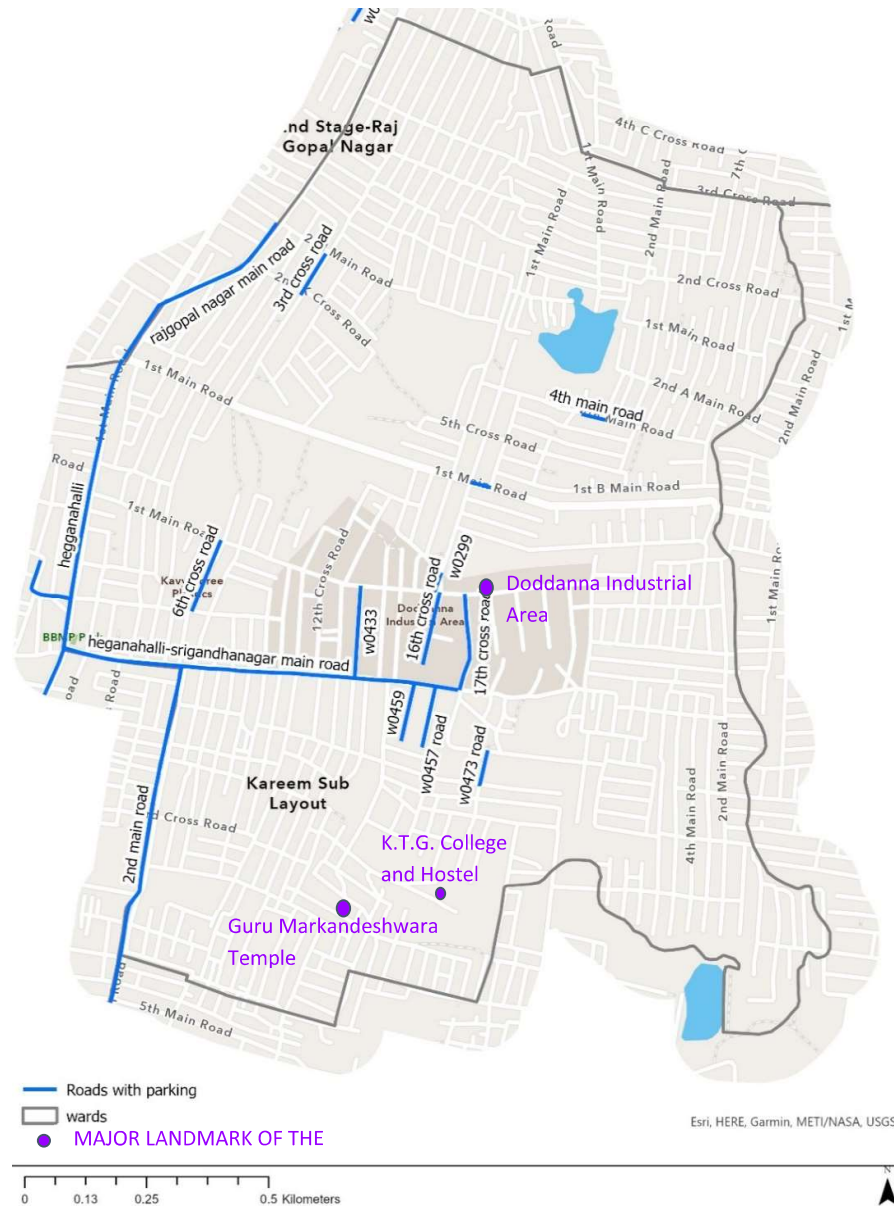


Figure 13: Map showing roads attraction points and proposed parking for Rajagopala Nagar ward

Ward 71 – Hegganahalli ward

- Area: 1.96 sq km
- Population density: 15760 per/sqkm
- Arterial roads: Magadi road, Hegganahalli main road.
- Sub arterial: Andrahalli Main road.
- Collector streets: 40 feet main road, pipeline road, 1st main road.
- Major landmarks- Shusruthi group of Institutions, Hegganahalli PHC, Govt. school, Arunodaya PU college



Figure 14: Map showing roads attraction points and proposed parking for Hegganahalli ward

6 Annexure 2 - Stake-holder meeting

Proceedings of the meeting held with stakeholders under chairmanship of Joint commissioner, Dasarahalli Zone on 23.02.2022.

Proceedings of the meeting regarding Area Parking Plan held under the Chairmanship of Joint Commissioner, BBMP Dasarahalli on 23rd February 2022, 11:30 AM at the BBMP Zonal Office, Bagalkunte, Bangalore.

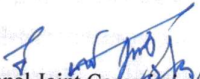
List of Attendees:

1. Mr. Jagdish K, K.A.S, Joint Commissioner, BBMP Dasarahalli
2. Mr. B. Gopal Naik, Chief Engineer, BBMP Dasarahalli
3. Mr. K. S. Indrus, Executive Engineer, BBMP
4. Mr. Sanjeevaiah, PSI, Traffic police Peenya police station, Traffic Police
5. Mr. Manjunath, ASI, Peenya, Traffic Police
6. Mr. K. R. Murthy, ASI, Bagalkunte Police Station, Traffic Police
7. Mr. J. Venkatesulu, Asst., RTO
8. Mr. Janardhan, AEE BBMP, Shettihalli (Ward 12)
9. Mr. Prabhu K., AEE BBMP, Peenya Industrial Area (ward 41)
10. Mr. B. R. Ranganatha, AEE BBMP, Dasarahalli (ward 15)
11. Mr. M. Nagashetty, AEE BBMP, Rajagopal nagar and Hegganahalli (Ward 70 & 71)
12. Mr. Krishna Murthy, AE BBMP, Shettihalli (Ward 12)
13. Mr. Rudramuni R. T., AE BBMP, Malasandra (Ward 13)
14. Ms. Archana S. P., AE BBMP, Chokkasandra (Ward 39)
15. Ms. Alleesha H. M., AE BBMP, Rajagopal Nagar (Ward 70)
16. Mr. Jayant Kumar, AE BBMP, Hegganahalli (Ward 71)
17. Mr. Shamanth Kuchangi, Technical Head, DULT
18. Ms. Richa Pandey, Sr. Transport Planner, DULT
19. Ms. Shalini Choudhary, Asst. Transport Planner, DULT

1. The Joint Commissioner, Dasarahalli Zone, BBMP welcomed the attendees to the meeting and requested the Directorate of Urban Land Transport [DULT] to present the context of the meeting and brief on the parking plan prepared for the Dasarahalli Zone, BBMP.
2. The Technical Head, DULT provided a brief on the parking policy 2.0 approved by the Government of Karnataka (GoK) and mentioned that DULT has been directed to prepare Area Parking Plan for each zone of BBMP in line with the directives of Parking Policy 2.0. It was mentioned that the policy prescribes that a committee be constituted under the Zonal Joint Commissioner, BBMP with representatives from Traffic Police and jurisdictional RTO for each zone to assist/monitor in preparation and implementation of Area Parking Plan for the respective BBMP zones. It was also informed that the agenda

of the meeting is to seek feedback/inputs on the draft parking allocation plan prepared by DULT, so that the plans can be detailed out for implementation after incorporating feedback from Zonal Task Force.

3. Sr. Transport Planner, DULT made a presentation of ward-wise parking allocation plan. It was explained that the existing parking details (parking locations and number of parking by type of vehicles) were captured through a detailed survey and explained the proposed parking allocation on each of the commercial roads. It was explained that the proposed parking allocation plan includes the parking spaces for cycles, SMMS, two-wheelers, four-wheelers, LCV/HCV, loading/ un-loading areas and pick-up/drop-off locations, which has been allocated based on the directives of the parking policy.
4. The Police Sub-Inspector, mentioned that Pipeline road has high traffic in peak hours and suggested for a joint site visit.
5. The Joint Commissioner, Dasarahalli, mentioned that the plans prepared by DULT are very elaborate and have been prepared in a very methodological manner and provided the following directions:
 - i. The plan should be verified by the concerned ward engineers and the jurisdictional traffic police for each ward and provide necessary inputs including identification of potential locations for off-street parking facility.
 - ii. Joint site visits can also be conducted with traffic police and ward engineers of respective zones to verify the proposed parking plans.
 - iii. Proposal for the Peenya Industrial Area (ward number 41) should be discussed with the Peenya Industries Association to get their feedback as well.
 - iv. Mr. K.S. Rehman, Executive Engineer, was nominated as the nodal point of contact to facilitate ward level consultations
6. The Joint Commissioner mentioned that a following up meeting will be convened after ward wise consultations are completed and ended the meeting with a vote of thanks.


Zonal Joint Commissioner
Dasarahalli Zone,
Bruhath Bengaluru Mahanagara Palike

Proceedings of the meeting held with stakeholders under chairmanship of Joint commissioner, Dasarahalli zone on 07.06.2022.

Proceedings of the meeting to finalize Area Parking Plan under the Chairmanship of Joint Commissioner, BBMP Dasarahalli Zone on 07th June 2022 at 02:00 PM at the BBMP Zonal Office, Dasarahalli, Bangalore.

List of Attendees

1. Mr. Jagadeesh K H, Joint Commissioner, BBMP Dasarahalli Zone
2. Mr. P Vishwanath, Chief Engineer, BBMP Dasarahalli Zone
3. Mr. K T Venkatesh, Executive Engineer, BBMP, Dasarahalli Zone
4. Mr. Janardhan Thimmaiah, AEE, ward no. 12 & 13, Dasarahalli Zone
5. Mr. B R Ranganath, AEE, ward no. 14 & 15, Dasarahalli Zone
6. Mr. Prabhu K, AEE, ward no. 39&41, Dasarahalli Zone
7. Mr. Nagesh Murthy, AEE, ward no. 70 & 71, Dasarahalli Zone
8. Ms. Archana S P, AE, ward no. 39, Dasarahalli Zone
9. Mr. Jayanth K, AE, ward no 71, Dasarahalli Zone,
10. Mr. Shamanth Kuchangi, Technical Head, DULT
11. Ms. Richa Pandey, Sr. Transport Planner, DULT
12. Ms. Shalini Choudhary, Asst. Transport Planner, DULT


1. The Joint Commissioner, Dasarahalli Zone, BBMP welcomed the attendees to the meeting and requested the Directorate of Urban Land Transport [DULT] to present the details of the ward-level consultations carried out with the stakeholders on the parking allocation plans prepared for the Dasarahalli zone of BBMP.
2. The DULT officials informed that the consultations with relevant ward engineers of BBMP, Traffic Police officials and officials of Peenya Industrial Association were completed in all the 8 wards of Dasarahalli zone and site visits were also carried out with the stakeholders as necessary. It was informed that:
 - A total of 72 non-residential roads were reviewed by the stakeholders. Out of the 72 roads, comments for revision were received for 10 roads and for the remaining 62 the stakeholders agreed with the DULT proposed plan.
 - DULT had further reviewed the 10 roads and incorporated necessary corrections in the parking allocation plans for those roads.
3. The DULT officials presented ward-wise parking allocation plans showcasing the input provided by the stakeholders and the modifications agreed in the revised parking allocation plan (annexed to this proceedings).
4. The Joint Commissioner, Dasarahalli Zone, BBMP informed that although traffic police have asked to remove the parking along the pipeline road (in ward 13), there will be some

2/1

requirement for parking as the pipeline road has many commercial shops. He recommended that some parking may be provided in small pockets by interspersing parking bays between street vending spaces towards the park side.

5. As all the stakeholders agreed with the revised parking allocation plan, the Joint Commissioner, Dasarahalli Zone, BBMP directed DULT to finalize the parking allocation plan incorporating the above comment and proceed with the preparation detailed designs.

6. The meeting concluded with a vote of thanks.


 Joint Commissioner
 Dasarahalli Zone, BBMP
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 ದಾಸರಹಳ್ಳಿ ವಲಯ
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Annexure

Ward 12 - Shettihalli

Parking roads	Comments/ recommendations	DULT Actions	Zonal Task Force Recommendation
80 feet road	No Comments	Parking retained	Concurred.
Accha Dr. Sarvapalli Radhakrishn road	No Comments	Parking retained	Concurred.
Chikka banawara main road	No Comments	Parking retained (in pockets)	Concurred.
Abbigere main road	No Comments	Parking retained (in pockets)	Concurred.
Hessaraghatta main road	No Comments	Auto stand, pick up/drop off provided	Concurred.
Laxmipura main road	No Comments	Parking retained (in pockets)	Concurred.

Annexure 3 – Typical Signage

Following is the typical signage for various modes as coded in detailed drawings. A detailed Parking Signage Manual has been prepared by DULT which shall be shared subsequently.



FOUR WHEELER PARKING
P1



TWO WHEELER PARKING
P2



PARKING (PWD)
P3



PICK-UP AND DROP-OFF
P4



SCHOOL BUS
PICK-UP AND DROP-OFF
P5



LOADING/
UNLOADING ZONE
P6



AUTO STAND
P7



SMMS PARKING
P8



TRIN TRIN HUB
P9



shaping the way cities move

Directorate of Urban Land Transport,
Urban Development Department,
Govt. of Karnataka

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DULT Facebook Page: www.facebook.com/directorateofurbanlandtransport

DULT Twitter handle: @DULTBangalore (<https://twitter.com/DULTBangalore>)

DULT LinkedIn handle: <https://in.linkedin.com/company/directorate-of-urban-land-transport>

DULT Instagram handle: <https://www.instagram.com/dultbangalore>

Cycle Day Facebook Page: www.facebook.com/blrcycleday

Open Streets-Bengaluru Blog: www.openstreetsbengaluru.wordpress.com

Skype: dultbangalore